

2022 DEFENSE
WHITE PAPER

Message from the Minister of National Defense

The core mission of the ROK Armed Forces remains the same for more than seven decades: to protect our nation from all threats. However, the ROK Armed Forces have today reached a critical turning point where they must embrace radical innovation in order to effectively respond to the rapidly changing security environment.

The security environment has become more complex and severe with the inclusion of non-traditional threats, as well as endless “competition” and proliferation of gray zone conflicts. The intensifying strategic competition between the U.S. and China and the war in Ukraine have given rise to a more fluid international order. Amidst growing arms race amongst major powers, strategic engagement by the international community towards the Indo-Pacific region is on the rise as well. Against such an international backdrop, North Korea is continuously strengthening its nuclear and missile capabilities, while relentlessly carrying out strategic and tactical provocations.

Meanwhile, non-traditional security threats, such as natural disasters, terrorism, and new types of infectious diseases, have grown in prominence. Competition to gain advantage in the new domains including space, cyberspace, and the electromagnetic spectrum is also gaining pace. Advances in cutting-edge technologies is serving as a key catalyst for the shift in defense paradigm.

Domestically, despite the declining military manpower and growing difficulties in securing an adequate defense budget, the public expectation towards the Armed Forces continues to rise. To overcome challenges presented by such a security environment, the ROK Armed Forces are striving to make most of “opportunity factors” by selecting and focusing on those that are most closely aligned with our strategic priorities.

First, we are maintaining **“an all-around defense posture”** to counter complex security threats in a way that is both “comprehensive and proactive.” Under the firm belief that sustainable peace cannot be founded on the goodwill of the other side and can only be achieved through an superiority of overwhelming force, we will further bolster the nation’s military readiness posture so that our Armed Forces are able to respond to evolving North Korean threats effectively and in a timely manner.

Second, to build **“elite forces harnessing advanced technologies,”** armed with competitive military capabilities, the Ministry of National Defense is pressing ahead with the **“Defense Innovation 4.0”** initiative. Our goal is to formulate forward-looking military strategies and operations concepts that are in line with the future security environment and develop AI-aided cutting-edge forces. To optimize our military in the face of the changing security landscape, we will upgrade its force structure and improve training and education, at the same time as creating a defense environment that is open to technology-enabled innovation by redesigning the defense R&D system and the system for the enhancement of combat power.



Third, under the goal of **“fostering the defense industry into a national strategic industry,”** we are providing active support to Korean defense firms to help boost their global competitiveness. By shaping an innovation-driven defense R&D environment and leading the government-wide initiative to promote and facilitate defense exports, we will nurture a virtuous cycle between the effort to build cutting-edge forces and growth in defense exports.

Fourth, we are shaping a favorable external environment for Korea’s national defense by forging a “strong tie with our ally.” We will seek a **“leap into a new phase in the ROK-U.S. Alliance”** with partners that share our values. We will participate in international peacekeeping operations and step-up efforts to protect our citizens abroad.

Fifth, as a military that respects its people, we are increasing our efforts towards **“defense management focused on safety, transparency and civil-military cooperation”**. While playing a leading role in the government’s efforts to better guarantee the safety of our citizens, we will redouble our efforts to ensure a positive development in the civil-military relationship through regulatory easing and enhanced transparency.

Finally, to **“foster a defense culture that can resonate with the future generation,”** we are making dramatic improvements in living standards and healthcare for military personnel, as well as strengthening the protection of their human rights, in a way that meets the Korean public’s expectations. Our goal is to create an environment in which members of our Armed Forces can serve with pride by providing proper recognition and compensation for their service and sacrifice.

In **Defense White Paper 2022**, the Ministry of National Defense describes in detail the efforts of the ROK Armed Forces to achieve peace through strength by building a **“robust defense”** and **“strong forces harnessing science and technology”** in a manner that is easy for the general public to understand. I hope that this publication will help broaden the understanding and appreciation of defense policy, while serving as the foundation for an active discussion on issues and challenges facing national defense. I ask our citizens for their continued support and interest in our Armed Forces.

February 2023

Lee Jong-sup
Minister of National Defense

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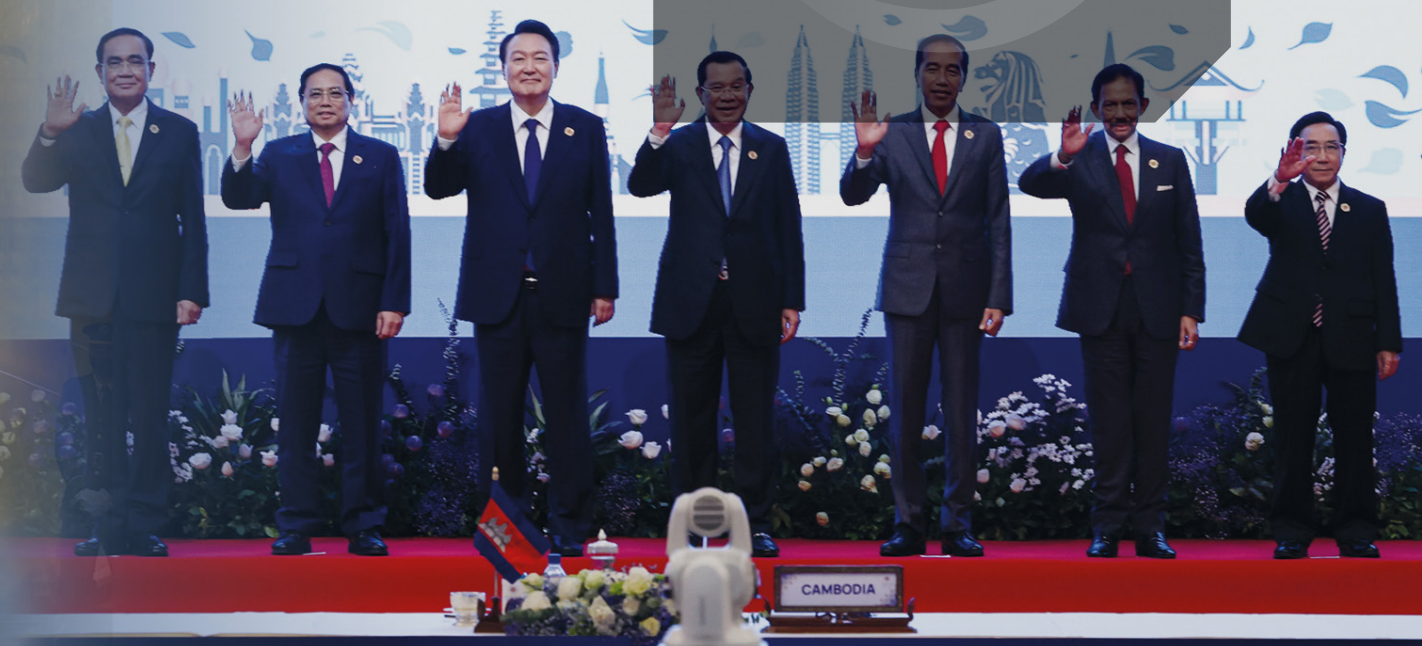
Chapter 1

Changes and Challenges in the Security Environment

Section 1. Global Security Environment

Section 2. Security Environment in the Indo-Pacific

Section 3. North Korean Situation and Military Threats



Global Security Environment

Recent developments such as intensified U.S.-China strategic competition and the war in Ukraine have heightened uncertainty in the global security environment. Regional security threats persist due to territorial disputes and conflicting national interests, while transnational security threats, such as infectious diseases, climate change, cyberattacks, and terrorism, continue to pose serious challenges that urgently require joint international responses.

1. Growing Security Uncertainty in the International Community

Uncertainty in our international security environment continues to increase due to rivalry and competition, such as the escalating strategic competition between the United States and the People's Republic of China, in addition to the war in Ukraine.

The U.S., in its 2022 National Security Strategy (NSS) and National Defense Strategy (NDS), named China “the only competitor” that is also its “most consequential strategic competitor,” and is redoubling its effort in all directions to keep China in check. Moreover, vowing to increase solidarity among democratic nations, the U.S. declared the Indo-Pacific region its top foreign policy priority, expressing its intentions to cooperate closely with regional allies such as the Republic of Korea, Japan, and the Commonwealth of Australia. Furthermore, the U.S. is building a cooperative partnership across the semiconductor supply chain in order to ensure the stability of semiconductor production and supply amongst its allies.

Meanwhile, China is using its rapidly growing economic and military power to strengthen its influence in the Taiwan Strait, in addition to the East and South China Seas. While keeping its existing policies such as the Belt and Road Initiative, China is expanding its geopolitical influence and maintain a firm stance that it will not hesitate to defend its “core interests.” Furthermore, China is expanding its international influence and promoting the growth of its national economy by forging closer ties with members of the Shanghai Cooperation Organization (SCO)¹⁾ including Russia, and bolstering pro-China sentiment abroad through economic support as well as expanded infrastructure investments in the Middle East, Africa and Central and South America.

The protracted war in Ukraine, which began with the Russian invasion in February 2022, has brought about much civilian casualties in addition to a severe global food and energy crisis.

As the U.S. and European countries respond to the Russian threat by rallying around the North Atlantic Treaty Organization (NATO), Russia, in turn, is bolstering its defense cooperation through the Collective Security Treaty Organization (CSTO)²⁾ and the SCO, resulting in increased tensions between the two blocs.

1)

A multilateral security cooperation organization established on June 15, 2001, between China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan to promote mutual cooperation and regional security

2)

A collective security treaty signed in 2002 between Russia and five former Soviet republics: Belarus, Armenia, Kazakhstan, Tajikistan, and Kyrgyzstan

2. Persistence of Regional Traditional Security Threats

Amidst growing uncertainty in the international community, regional security threats caused by issues such as territorial disputes and conflicting national interests continue to persist.

A renewed awareness of the strategic value of the Indo-Pacific has prompted European countries to increase their involvements in the region, with many establishing their own Indo-Pacific strategies.³⁾ Moreover, Russia's invasion of Ukraine is motivating European countries to strengthen and reorganize their militaries with NATO at the center. While emphasizing post-World War II norms and principles such as a rule-based international order, universal values, and the freedom of navigation, European nations are actively seeking cooperation with the Republic of Korea, Japan, Australia, India, and ASEAN countries.

Security threats continue to propagate within Southeast Asia and Southwest Asia. Tensions between India and Pakistan over the Kashmir region continue unabated, and regional unrest has been further stoked by the Myanmar military junta's state of emergency declaration in February 2021 and Taliban's return to power in Afghanistan in August 2021.

Against this backdrop, countries in the region are putting their own interests first as they attempt to grapple with the economic crisis and its impact on the daily lives of their citizens, while pursuing a pragmatic diplomacy amidst the U.S.-China strategic competition.

In the Middle East, although talks have resumed on restoring the Joint Comprehensive Plan of Action (JCPOA)⁴⁾, a nuclear deal between Iran and the five permanent members of the UN Security Council and Germany, little progress has been made. The progressive decrease in U.S. involvement in the Middle East, growing influence of China and Russia, continuous unrest in Yemen and Syria, and economic crisis resulting from the protracted COVID-19 pandemic have stoked insecurity in the region; moreover, existing competing and cooperative relationships between the region's religious sects and countries also appear to be going through a rearrangement as well.

In Africa, geopolitical instability continues due to civil wars and terrorist attacks by violent extremist groups against the backdrop of the prolonged COVID-19 pandemic, power struggle between political factions, stunted economic growth, and ethnic conflicts. In particular, whereas the Ethiopia-Tigray peace agreement in November 2022 brought an end to the Tigray War, which began in November 2020 and experienced repeated ceasefires and resumptions of conflict, bloody conflicts, including attacks by violent armed extremist groups are persisting in Mali, Burkina Faso, and other areas of the Sahel Province. Piracy continues off the Gulf of Guinea, even though the activity has recently tapered off to some extent.

3)

France (May 2019), Germany (September 2020), Netherlands (January 2020), United Kingdom (March 2021), European Union (September 2021), Czech Republic (September 2022)

4)

An accord reached in Vienna, on July 14, 2015, by Iran and P5+1 (U.S., China, Russia, UK, France, Germany), lifting sanctions on Iran in exchange for agreeing to curb its nuclear program.

3. Rise of Non-Traditional Security Threats and Coordinated Effort by the International Community

In addition to traditional threats, such as political and military conflicts, the security landscape today is marked by the rise of non-traditional security threats including infectious diseases, climate change, cyberattacks, and terrorism. The outbreak of the COVID-19 virus in late 2019 has since then evolved into a protracted pandemic, tipping the world into an

unprecedented economic and social crisis. Meanwhile, climate change, resulting in rising sea levels, changes in topographic features, and extreme weather events, is having a variety of adverse impacts on human societies and is also negatively affecting military operations. Fiji and other low-lying island nations in the Pacific Ocean view climate change as an existential threat to their national security and are actively deploying military assets in response. Cyber threats, such as attacks on cryptocurrency markets by North Korea, as well as distribution of ransomware and DDoS (distributed denial of service) attacks by international hacker groups are also incurring increasingly disruptive effects on society.

With the understanding that such non-traditional security threats cannot be resolved by the efforts of any one country or select regions, the international community is strengthening mutual cooperation and cross-border coordination.

During the G20, ASEAN+3, and APEC (Asia-Pacific Economic Cooperation) summits held in November 2022, countries from across the international community agreed to make joint efforts with international organizations to tackle climate change, response against infectious disease such as COVID-19 and stabilize the food and energy markets. The 27th Conference of the Parties of the UNFCCC (COP27), convened during the same month, ended with a joint final declaration containing measures for immediate, quick, and sustainable reductions in greenhouse gas emissions.

During its summit in June 2022, NATO adopted a New Strategic Concept, in which it identified cyber threats as a key challenge to its core security interests. In November of the same year, the ADMM-Plus (ASEAN Defense Ministers Meeting Plus) Experts' Working Group on Cyber Security conducted its first cybersecurity table-top exercise to develop a coordinated response to cyber threats. In addition, the international community is continuously cooperating to counter cyber threats through platforms such as the Conference on Cyberspace, the UN Group of Governmental Experts (GGE), and the Seoul Defense Dialogue (SDD) Cyber Working Group.

Members of the international community are also holding discussions on coordination measures for disaster relief and recovery support through multilateral consultative groups such as the ASEAN Regional Forum (ARF), the Regional Humanitarian Assistance and Disaster Relief Coordination Center (RHCC), and UNOCHA (United Nations Office for the Coordination of Humanitarian Affairs) Regional Consultative Group. In November 2022, during the ADMM-Plus Working Group on Humanitarian Assistance and Disaster Relief, member states discussed an upcoming table-top exercise (TTX) and field training exercise (FTX) on this topic, in addition to methods to coordinate responses to regional disasters.

Security Environment in the Indo-Pacific

The Indo-Pacific is emerging as a critical region in terms of global security, geopolitics, and economy. Strategic competition between the U.S. and China and regional arms race are resulting in a rise of complex security threats in the region. Taking note of the strategic importance of the Indo-Pacific region, major actors such as the U.S. and Europe have increased their involvement in the region, such as establishing their own Indo-Pacific strategies. The Republic of Korea government also unveiled its own Indo-Pacific Strategy to go beyond Northeast Asia and deepening strategic cooperation with key nations in the Indo-Pacific.

1. Growing Strategic Importance of the Indo-Pacific

The Indo-Pacific is rising as a critical region for global security, geopolitics, and economy. The Indo-Pacific region accounts for 65% of the global population, 62% of global GDP, 46% of world trade, and half of maritime transportation.⁵⁾ As home to major military powers and countries that are leaders in cutting-edge technologies such as the semiconductor industry, the Indo-Pacific is a highly dynamic region in terms of politics, economy, and technology. Moreover, the region has numerous shipping lanes of strategic importance, such as the sea lines of communication linking the Strait of Hormuz with the Indian Ocean, the Strait of Malacca and the South China Sea.

Recently, complex security challenges in the Indo-Pacific have significantly increased due to the strategic competition between the U.S. and China spreading into the political, economic, and military domains. North Korean development of nuclear and missile capabilities pose a serious threat to peace and stability beyond Northeast Asia and have become a security concern for the Indo-Pacific as a whole. Countries both in and outside of the Indo-Pacific have announced their own Indo-Pacific strategies and are actively seeking engagement on issues of national interest.

The U.S. has intensified efforts to maintain stability in the Indo-Pacific and gain initiative in the region. Washington has adopted several strategies for the Indo-Pacific including “The U.S. Strategic Framework for the Indo-Pacific” (SFIP), a National Security Council product adopted in 2018, and the White House’s Indo-Pacific Strategy, embedded in the strategic objective of a “free and open Indo-Pacific” (FOIP). Highlights of this strategy include advancing a free and open Indo-Pacific, building connections within and beyond the region, maintaining U.S. prosperity, bolstering security for allies and partner countries, and building resilience against transnational threats.

European countries, recognizing the strategic value of this region, are increasing their engagement; France announced its own Indo-Pacific strategy in 2019, followed by Germany and Netherlands in 2020, UK and EU in 2021, and Czech Republic in 2022. The EU, in particular, plans to expand its involvement in Indo-Pacific in a diversity of areas, ranging across economic, maritime, and security affairs, among others.

Japan, in its 2022 National Security Strategy (NSS), stated its decision to actively pursue

5)

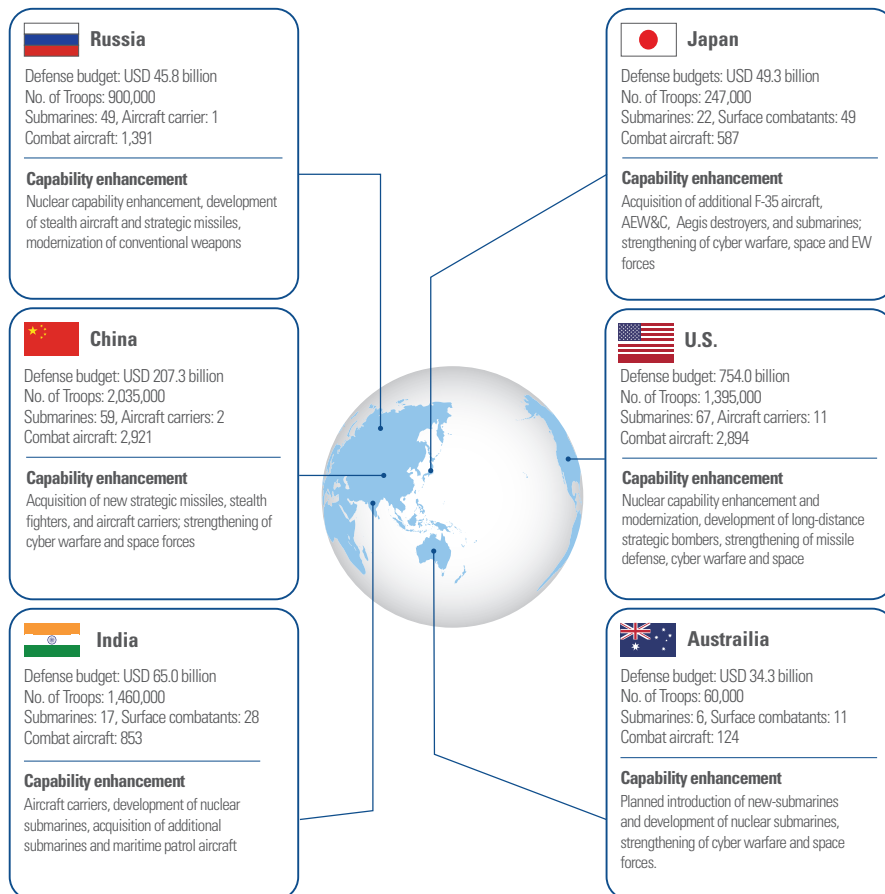
As of July 2020
Source: Journal of Economic
Structures

its vision for a “free and open Indo-Pacific,” through which it pledged to generate a stable and predictable international order and lead efforts to ensure peace, stability, and prosperity in the international community.

In 2019, ASEAN issued the ASEAN Outlook on the Indo-Pacific (AOIP), which underscored its role in guaranteeing stability in the region. Based on their core principles, including ASEAN centrality, inclusiveness, transparency, and a rules-based framework, ASEAN countries are increasing their cooperation with the Republic of Korea, the U.S., Japan, Russia, Australia, New Zealand, and India through the East Asia Summit (EAS) and the ADMM-Plus.

With the goal of strengthening strategic ties with countries in the Indo-Pacific region, the Republic of Korea government, in December 2022, announced its “Strategy for a Free, Peaceful, and Prosperous Indo-Pacific Region.” By strengthening cooperation with countries in Southeast Asia, South Asia, Oceania, and African states bordering the Indian Ocean, the Republic of Korea plans to broaden its foreign policy horizons beyond the Korean peninsula and Northeast Asia, building and consolidating strategic cooperation networks that are tailored to each region.

[Figure 1-1] Military Power of Major Indo-Pacific Countries



* Source: The Military Balance 2022 (International Institute for Strategic Studies, February 2022)

2. Military Trends in Key Indo-Pacific Countries

Whereas the U.S. retains strategic and military advantage in the Indo-Pacific, other countries including China, Russia, and Japan are building competitive militaries, especially in terms of naval and air capabilities. [Figure 1-1] compares the military strength of six regional powers demonstrating considerable ties with security on the Korean peninsula.

United States

The U.S., in its 2022 National Security Strategy (NSS) and National Defense Strategy (NDS), stressed its intention to maintain and strengthen deterrence against China, framing the country as its most consequential strategic competitor and a medium- to long-term challenge. Furthermore, the U.S. is partnering with its NATO allies to respond and strengthen deterrence against the Russian military threat.

In terms of military capabilities, the U.S. is developing its Joint Warfighting Concept (JWC) based on Joint All Domain Operations (JADO), with a use of cutting-edge technology such as AI, making efforts to systematize joint operational concept by incorporating new operational requirements. The goal is to enable distributed deployment of U.S. forces, while employing a modernized battlefield network in order to link the different branches' capabilities, including the Army's Multi-Domain Operations (MDO), the Air Forces' Agile Combat Employment (ACE), the Navy's Distributed Maritime Operations (DMO), and the Marine Corps' Expeditionary Advanced Base Operations (EABO). Moreover, the U.S. is modernizing its nuclear triad, namely, intercontinental ballistic missiles (ICBM), submarine-launched ballistic missiles (SLBM), and long-range strategic bombers, as well as maintaining efforts to build a multi-layered missile defense system. Furthermore, the U.S. is deploying key air and naval assets in the Indo-Pacific, including stealth aircraft such as F-22s and the F-35s, P-8 Poseidon maritime patrol and reconnaissance aircraft, Virginia-class nuclear submarines, aircraft carriers, and strategic bombers.

Meanwhile, the National Defense Authorization Act (NDAA) for FY '23 was signed into law, raising the defense budget by 857.9 billion USD, with an increase of 11.7% (89.7 billion USD). This increase in defense expenditures reflects U.S. prioritization of its strategic competition with China and Russia, in addition to intensified efforts to modernize its forces to secure U.S. superiority in the strategic competition with China and Russia. The number of active-duty personnel in the U.S. armed forces decreased by 31,096 from the previous year to 1,316,944, respectively reflecting a decrease in the active-duty members of the Army, the Marine Corps, and the Air Force by 33,000, 1,500, and 3,876, and an increase for the Navy and the Space Force by 7,080 and 200.

The 2023 NDAA explicitly states that the U.S. will maintain 28,500 troops in the Republic of Korea and provide extended deterrence using all U.S. military forces to bolster the ROK-U.S. Alliance and support the mutually held vision of a "peaceful and stable Korean peninsula." The NDAA, furthermore, states that in light of accelerating strategic competition with China, the U.S. will strengthen its relationships with allies and partners, establish the All Domain Operation Joint Force Headquarters, and conduct a Global Force Posture (GFP) review. In particular, the NDAA increases the budget for the Pacific Deterrence Initiative to 11.5 billion USD, with the objective of enhancing the readiness posture, capabilities, and

operational activities of U.S. forces in the Indo-Pacific.

The United States Congress approved the six priorities related to the modernization of the Army⁶⁾ and allocated 23.1 billion USD for the acquisition of helicopters, long-range strike munitions, and air defense weapons. 52 billion USD was allocated for Naval acquisition of 11 vessels and 77 aircraft, and 21.1 billion USD for Air Force acquisition of F-35 and EC-37B aircraft.

4.1 billion USD was allocated to Space Force acquisitions in terms of space threat response systems, the space launch program, the Defense Satellite Communications System, and special space activities, as well as 60 million USD Cyber Command operations and the construction of an Air Force cyber response system. Finally, 290 million USD was allocated for the development of a missile defense system against hypersonic missiles and the purchase of additional THAAD missiles.

The People's Republic of China

The PRC is undertaking a massive-scale defense reform to modernize and streamline its forces in pursuit of building military strength with global competitiveness. After Chinese President Xi Jinping pledged in 2015 to cut the number of PRC troops by 300,000, a Joint Operations Command Center was newly established and the People's Liberation Army (PLA) restructured into six branches (ground force, navy, air force, rocket force, strategic support force, joint logistics support force⁷⁾), with its seven military districts reorganized into five theater commands. Defense policy reform and institutional reform, furthermore, are currently in progress.

The PLA ground force's operational command system has been streamlined to meet strategic requirements for hastening the PLA's "transformation from a regional defense model to an all-domain operations model" by replacing armies, divisions, regiments, and battalions with armies, brigades, and battalions. The PLA is also enhancing its expeditionary operational capabilities by introducing wheeled self-propelled artillery and other light weapons systems, in addition to operationally deploying mid-sized helicopters.

China is modernizing its Navy, capable of both "Defending the coastal waters and protecting the national interest in the waters." To improve capabilities for far seas operations, the PLA is building large vessels such as aircraft carriers, cruisers, destroyers, strategic nuclear submarines and amphibious assault ships, while bolstering the PLA Navy Marine Corps air power for expeditious power projection.

The PLA Air Force is enhancing its early warning, air strike, and air defense capacities under the strategic goal of "integrated air and space capabilities, capability to attack and defend",⁸⁾ while making steady efforts to field airborne early warning and control systems and aerial refueling aircraft.

The PLA Rocket Force is improving its counter strike capacity and intermediate and long-range precision strike ability to attain its objective: "maintain both nuclear and conventional missile capabilities for all-domain deterrence." The Rocket Force is in the process of fielding next-generation medium- and long-range ballistic missiles and new types of intercontinental ballistic missiles, at the same time as working on the development of new weapons systems to counter the U.S. missile defense system, including a new type of medium-range ballistic

6)

U.S. Army's six material modernization priorities

- ① Long-range precision fires,
- ② Next-generation combat vehicles,
- ③ Future vertical lift,
- ④ Modernization of Army network,
- ⑤ Air and missile defense capabilities,
- ⑥ Soldier lethality (U.S. Department of the Army, "Total Army" vision, 2018)

7)

A branch directly reporting to the Central Military Commission (CMC), in charge of providing combat support for all armed forces as well as by theatre of operations.

8)

The goal is to digitalize and integrate air and space forces and build a modern air force that combines offensive and defensive capabilities.

missile (MRBM) that can be fitted with a hypersonic glide vehicle (HGV).

The Strategic Support Force is primarily responsible for aerospace and cyber warfare operations, intelligence gathering, and electronic and psychological warfare. For innovation and advancement in defense science and technology, the Strategic Support Force harnesses various private-sector technologies at the intersection of the military and civil domains, such as artificial intelligence (AI), unmanned aerial vehicles and systems, information technology, and network security, and is striving to achieve a greater degree of civil-military convergence through the acquisition of cutting-edge foreign technologies.

The Joint Logistics Support Force is carrying out the integration of rear-area logistics support capabilities and is improving its rapid transportation capacity to better support the operations and training of the overall forces of the People's Liberation Army. Meanwhile, to strengthen national defense mobilization capabilities, the Joint Logistics Support Force is constructing reserve capabilities that can serve as paramilitary units in emergency situations and at war times by focusing especially on increasing the size of forces available for mobilization and improving the mobilization process. The maritime militia, in particular, is considered to have the size and capacity necessary to carry out military operations, including reconnaissance, camouflage, diversionary, and logistics support operations.

China has recently increased its level of military activity. Even during the height of the COVID-19 pandemic, the PRC patrolled the South China Sea and carried out far seas exercises in the Pacific, while also undertaking a combined exercise with key partners, such as Pakistan, Thailand, and Cambodia. After China elevated its bilateral ties with Russia to a “comprehensive strategic partnership for the new era” in 2019, the two countries increased military cooperation as well as engaged in technological exchanges with each other. After the beginning of the war in Ukraine in 2022, although China officially proclaimed a “neutral” stance, it has since treaded a cautious diplomatic line, for example, by abstaining from voting on UN resolutions on denouncing Russian actions against Ukraine, and strengthening strategic coordination with Russia against the U.S. pressure.

In August 2022, the PRC conducted a joint military training and fired test missiles (during a training surrounding Taiwan), alarming Taiwan as well as other neighbors including Japan and intensifying security tensions in the region. In October 2022, during the 20th National Congress of the Chinese Communist Party (CCP), Beijing's Taiwan policy was elucidated into written form for the first time. Position statements such as “one country, two systems” and “resolute opposition to Taiwan's independence” were added to the Party Charter, as CCP leadership reiterated its hardline stance, saying that it would not hesitate to use force if necessary. The 20th Congress solidified a leadership structure centered around President Xi by reelecting him as its General Secretary for the third term; as such, it is expected that China's existing domestic and external policies will gain further momentum.

Russia

Following the oil boom in the 2000's, Russia has regained economic confidence and is striving to regain the international status of the former Soviet Union.

The Russian Army is currently attempting to modernize its forces mainly by improving the performance of existing weapons systems, rather than introducing new combat platforms. Its armored vehicles and artillery pieces are in the process of being replaced by enhanced

equipment with improved range and accuracy. In particular, Russia is deploying the Iskander-M, a short-range ballistic missile system which can be fitted with a tactical nuclear weapon, into combat.

Russia's Navy is fielding strategic nuclear submarines and efficiently enhancing its combat power through a next-generation Kilo-class submarine project and a project to improve its destroyers. The Russian Navy completed a test launch of a hypersonic missile in 2021 and is currently in the process of developing cutting-edge asymmetric strategic weapons, including supersonic cruise missiles that can be fitted with nuclear warheads and nuclear-powered unmanned underwater vehicles. The Russian Navy is also building its combined operational capabilities through regular combined exercises with the Chinese Navy, conducted since 2012.

The Russian Aerospace Forces are focusing their efforts on modernizing equipment and developing advanced aircraft. Fighter planes with stealth features have been deployed; moreover, a project to improve the performance of long-range strategic bombers is underway. The Aerospace Forces are strengthening their combined operations capabilities through regular combined air exercises with the Chinese Air Force.

Russia's Strategic Rocket Forces are retiring obsolete ICBMs by replacing them with next-generation ICBMs with enhanced capacities for countering ballistic missile defense systems, while undertaking a comprehensive military modernization project.

The Commonwealth of Independent States (CIS)⁹⁾ has traditionally been accorded high priority in Russian foreign policy, and as Russia sees stability in the CIS, particularly contiguous Central Asian states, as a key to its own national security, Moscow has made consistent efforts to ensure regional peace, while maintaining and solidifying its political and economic influence.

After the start of the war in Ukraine in February 2022, Russia intensified efforts to strengthen strategic ties to Central Asian countries, China, and India through multilateral consultative groups, such as the Collective Security Treaty Organization (CSTO), the Shanghai Cooperation Organisation (SCO), and the BRICS,¹⁰⁾ and increase the cohesion of the pro-Russian bloc.

Japan

Japan has officially abandoned its traditional “exclusively defense-oriented” policy¹¹⁾ under its Peace Constitution via constitutional reinterpretation in July 2014 and by amending the Guidelines for U.S.-Japan Defense Cooperation in April 2015. Japan also amended its defense-related laws in September of the same year¹²⁾ to legalize the exercise of the right of collective self-defense in situations that are deemed to pose an existential threat, even when no direct armed attack has taken place. In December 2022, Japan revised three security documents, including its National Security Strategy (NSS), National Defense Strategy, and Defense Force Development Plan. Evoking the need to bolster Japan's defense capabilities amid an increasingly unstable security environment, these documents elaborated a plan to increase Japan's defense budget to up to 2% of GDP by 2027, and officially declared for the first time that the country will possess “counterstrike capabilities” even as it continues to abide by the Peace Constitution and the basic principle of exclusive defense.

These three security documents laid out key goals and directions to guide Japanese effort

9)

A regional intergovernmental organization formed following the dissolution of the Soviet Union in 1991 by its former constituent republics, including Russia, Moldova, Belarus, Azerbaijan, Uzbekistan, Kazakhstan, Kirgizstan, and Tajikistan.

10)

Five emerging market economies including Brazil, Russia, India, China, and South Africa

11)

A passive defense stance in accordance with the Japanese Constitution in which defensive force is used only in the event of an attack and the extent of the use of defensive force is kept to the minimum necessary for self-defense.

12)

The Self-Defense Forces Act, the Ship Inspection Operations Act, and the International Peace Cooperation Act, the Armed Attack Situation Response Act, and the Important Impact Situation Act were amended, and the International Peace Cooperation Support Act was newly passed into law.

in fundamentally strengthening its defense capabilities, and additionally, set forth plans to strengthen its defense forces in seven areas,¹³⁾ including standoff defense capabilities.¹⁴⁾

The Japanese Self-Defense Forces (SDF), based on the above mentioned three security documents, plans to enhance the effectiveness of integrated ground/sea/air operations by setting up an Integrated Command and strengthen standoff defense capabilities by creating long-range guided missile units within the Ground SDF with supersonic glide bomb and hypersonic missiles to defend its islands. Under this plan, Japan will also add anti-air and electronic warfare units, in addition to multi-purpose unmanned aircraft units with intelligence collection and strike capability to improve cross-domain operational capabilities.

The Japan Maritime Self-Defense Force plans to improve the capabilities of its maritime patrol aircraft and submarine units to allow routine and continuous ISR (intelligence, surveillance, reconnaissance) operations and better defend Japan's surrounding maritime areas and sea routes. The Maritime SDF is also endeavoring to enhance its surface combat power by remodeling its "Izumo-class," into aircraft carriers and constructing additional Aegis destroyers. Moreover, its warships will be fitted with standoff missiles and a variety of UAVs (unmanned aerial vehicles), USVs (unmanned surface vehicles), and UUVs (unmanned underwater vehicles), designed for surface and underwater maritime superiority, in addition to minimizing the loss of life.

The Japan Air Self-Defense Force plans to improve its standoff missile capabilities to more effectively defend wide-areas, introduce UAVs capable of persistent gathering of intelligence in contested areas and create operational information units to strengthen intelligence capabilities required for operations. To guarantee stable use of the space domain, the Space Operations Squadron, established in 2020 was expanded to Space Operations Group in 2022. Furthermore, a space situational awareness (SSA) system was established to enhance intelligence gathering, communications, and positioning capabilities.¹⁵⁾

13)

- ① Acquiring standoff defense capabilities,
- ② building integrated air and missile defense (IAMD) capabilities,
- ③ developing unmanned asset defense capabilities,
- ④ enhancing cross-domain operations capabilities,
- ⑤ bolstering command and control functions,
- ⑥ strengthening maneuver and deployment capabilities and the ability to protect Japanese citizens,
- ⑦ Promoting continuity and strength

14)

Capacity to respond to enemy attacks from outside the threat range of enemy ships or combat craft

15)

The act of calculating a position or obtaining information about a location using satellites

16)

Including the Northeastern Indian Ocean, and maritime and land areas in Southeast Asia, Papua New Guinea and the Southwestern Pacific

Australia

Australia's government, in assessing the strategic competition between the U.S. and China unfolding in the Indo-Pacific as a serious security threat, is building up military forces at the same time as strengthening its alliance with the U.S. and more closely cooperating with friendly countries in the region, including Japan.

In its 2020 Defence Strategic Update, Australia stressed that strategic competition within the region represents the single biggest security threat since World War II, stating its intention to concentrate defense forces in the Australian national territory and adjacent areas.¹⁶⁾ The Australian government announced a plan to spend an additional 270 billion AUD (approximately 190 billion USD) over the next 10 years toward this goal, which corresponds to an increase of 40% compared to the budget reported in its 2016 Defense White Paper. Further, the Australian government is preparing a Defence Strategic Review for release in March 2023. This review will examine Australia's overall capability to respond to the dynamic regional security environment including its force structure and posture, readiness capabilities, as well as investment priorities.

Moreover, to create an advantageous strategic environment, Australia is continuously reinforcing the U.S.-Australia alliance, which constitutes the central axis of its national defense. In accordance with U.S. Force Posture Initiatives (USFPI), signed in 2011, some

2,000 U.S. Marines have been stationed at Darwin Port since 2012, following a rotational deployment cycle. In December 2022, a plan to increase the deployment of U.S. troops in Australia was announced through the “Force Posture Initiatives.” Australia is also actively leveraging the AUKUS agreement, a trilateral security pact signed with the UK and the U.S. in September 2021, to expand influence in the Indo-Pacific region. Under AUKUS, whereby the U.S. and the UK agree to assist Australia in acquiring nuclear-powered submarines, the three countries are also expected to cooperate in areas including AI, quantum technology, cyber security technology, as well as hypersonic weapons, hypersonic weapons defense systems, and electronic warfare capabilities.

Among its regional partners, Australia is increasing security cooperation particularly with Japan. In January 2022, the two countries signed the Australia-Japan Reciprocal Access Agreement (RAA), simplifying legal procedures for conducting bilateral exercises, which is the first time for Japan to enter into an agreement related to joint exercises with another country since its SOFA (Status of Forces Agreement) with the U.S. to authorize long-term stationing of U.S. troops in Japan. In October 2022, the Australia-Japan Joint Declaration on Security Cooperation, signed in 2007, was amended to add that Australia will consult with Japan regarding contingency response measures and that Australia will broaden trilateral cooperation with the U.S. and Japan.

India

India borders Pakistan in the west, China in the northeast, and Bangladesh in the east. The country has a tense relationship with Pakistan, with which it fought three wars over Kashmir.¹⁷⁾ There are also lingering tensions with China due to unresolved territorial disputes over formerly Indian-controlled areas that have been occupied by the latter since the Sino-Indian War of 1962,¹⁸⁾ despite efforts made for a peaceful settlement through talks between the defense ministers of the two countries.

India has shifted away from its past foreign policy of nonalignment and neutrality in favor of a more proactive and pragmatic external policy based on a fine balance between the U.S.-Japan bloc and the China-Russia bloc. With the objective of maintaining equilibrium of military power with neighboring countries, deterrence and developing defense capabilities that befit India’s growing international status as a rising power, India is actively acquiring new weapons system such as aircraft carriers, nuclear-powered submarines, ballistic missiles and missile defense systems. To end its exclusive reliance on imports, in January 2016, India established policy directions for indigenous weapons systems development and is supporting the growth of its domestic defense industry through import substitution, at the same time as reducing reliance on Russia, which has until recently been the source of nearly 70% of all its weapons imports, by diversifying its supply chain to include the Republic of Korea, the U.S., Israel, and France.

Moreover, India is conducting combined naval exercises with various countries in the region, including the Milan exercise and the Malabar exercise with the U.S. and Japan, as part of an effort to further its Indo-Pacific Oceans’ Initiatives on the front of maritime security.

17)

Ever since its partition in 1947, India has been locked in a territorial dispute with Pakistan over the Kashmir region (a mountainous area straddling India and Pakistan and bordering China).

18)

A territorial conflict between China and India over the Himalayan region that broke out in 1962. China, which won this war, re-annexed Tibet and a tacit agreement was reached to leave Nepal and Bhutan for India to manage.

North Korean Situation and Military Threats

After declaring the completion of state nuclear power in 2017, North Korea engaged in talks with the U.S. However, amid a prolonged deadlock that followed the failure of the Hanoi Summit in February 2019, North Korea announced the “frontal breakthrough” policy as its new strategic line in January 2020. Later, during the 8th Party Congress of the Workers’ Party convened in 2021, amid mounting international sanctions and the deepening COVID-19 induced economic crisis, the North Korean leadership presented a series of new strategic tasks in defense. In September, 2022, during the Supreme People’s Assembly, North Korea legislated the ‘Nuclear Arms policy Law’, as a solid declaration of its commitment against forfeiting nuclear capabilities. North Korea is focusing efforts on advancing its nuclear and missile capabilities, while seeking to enhance its operational posture by improving a select range of conventional forces.

1. Situation in North Korea

Internal Situation

After Kim Jong-un’s succession to power in 2011, North Korea has concentrated national resources on the advancement of its nuclear and missile capabilities. In 2017, after its 6th nuclear test and the launch of an ICBM and a variety of other ballistic missiles, North Korea declared the completion of its “State Nuclear Capability”. North Korea subsequently held talks with the U.S. in the hopes of easing its economic sanctions imposed by the international community. However, when the failure of the Hanoi Summit in February 2019 led to a prolonged stalemate in the U.S.-North Korean dialogue, it proposed a new strategic line, dubbed “frontal breakthrough,”¹⁹⁾ during the 5th Plenary Session of the 7th Central Committee of the Workers’ Party in late December, 2019, which focused on strengthening defense and economic capabilities while maintaining “Nuclear Deterrence Mobilization Posture”.

During the 8th Party Congress of the Workers’ Party, in January 2021, North Korea unveiled its “Five-year Plan to Develop Defense and Weapons Systems” to help achieve strategic national tasks in the defense domain for the advancement of nuclear and missile capabilities. In March 2022, North Korea fired ICBM-class missiles, essentially ceding the declaration made during the 3rd Plenary Session of the 7th Central Committee in April 2018, to discontinue nuclear tests and ICBM launches. On April 25, 2022, in an address during a military parade on the anniversary of the Korean People’s Revolutionary Army, Kim Jong-un stated that North Korea will develop its nuclear force as speedily as possible. This was followed by the legislation of its nuclear weapons policy during the Supreme People’s Assembly in September of the same year. In a policy speech, Kim reiterated his determination to upgrade North Korea’s nuclear and missile capabilities by pledging to make “qualitative and quantitative improvements to nuclear weapons” and expressing a firm stance against denuclearization. During the 6th Enlarged Plenary Session of the 8th Central Committee in December 2022, the North Korean leader declared the so-called “revolutionary strategy for the development of nuclear force and national defense,” presenting the mass

19)

During the 5th Plenary Session of the 7th Central Committee of the Workers’ Party (December 28-December 31, 2019), North Korea declared “frontal breakthrough” as its new policy stance for building military strength and achieving economic self-reliance and presented the slogan “Let us confront all challenges in our progress through a head-on breakthrough battle.”

production of tactical nuclear weapons against the Republic of Korea, based on an offensive nuclear strategy, as the key direction in the defense domain, and proposing the development of new types of ICBMs and military reconnaissance satellites as its core tasks.

Meanwhile, North Korea is endeavoring to solidify a party-centered regime. In May 2016, a Congress of the Workers' Party was held for the first time in 35 years to overhaul the organization and operation of the party. In January 2021, during the 8th Party Congress, where Kim Jong-un claimed the title "General Secretary of the Workers' Party," the party charter was amended to require the Congress of the Workers' Party to be held every five years.

Years of sanctions and the COVID-19 pandemic have ravaged the North Korean economy. Meanwhile, the hardship among North Korean people citizens was made worse by a series of natural disasters. During the 8th Congress of the Workers' Party in 2021, all the while maintaining the stance of "self-reliance," the North Korean leadership put forth a new "Five-year National Economic Development Plan," which updates the previous "Five-year National Economic Development Strategy." However, despite the massive-scale mobilization of manpower and on-site visits by senior officials, the plan has resulted in no measurable improvement in the North Korean economy due problems such as its structural issue. In December 2020, to prevent the flow of outside information and tighten the ideological control over its people, North Korea passed a new law called the "Reactionary Ideas and Culture Rejection Act." In January 2021, to tighten public discipline and increase internal control of the North Korean society, new party organs including the Rules and Inspection Bureau and the Justice Bureau were created. Efforts are also being made to promote social cohesion by holding military parades and other public events on important national holidays.

North Korea has long denied the existence of COVID-19 cases within its borders even as the pandemic swept most parts of the world from early 2020. However, in May 2022, its authorities officially admitted a case of COVID-19 for the first time. Since then, COVID-19 has been labeled as a "great disaster." All cities and provinces were placed under lockdown and massive numbers of civilian and military medical professionals were mobilized to stop its infection. Even though the war against COVID-19 was declared over and won in August, the emergency response system is still in place and vigilance is maintained against a new wave of infections.

Going forward, while remaining on alert for a new surge of COVID-19, North Korea is likely to focus its energy on overcoming the economic crisis facing the country, made particularly severe by the prolonged sanctions and pandemic, while seeking to consolidate its regime. All available manpower and resources are expected to be mobilized for this effort under the slogan of self-reliance. This will be coupled with efforts to ideologically arm its people and tighten internal control in order to achieve the level of social cohesion necessary to guarantee regime continuity. Citing the need to enhance its capability for self defense as pretext, North Korean leadership is also expected to push ahead with the project to bolster nuclear and missile capabilities, all the while endeavoring to complete the strategic defense tasks proposed during the 8th Party Congress.²⁰⁾

20)

The strategic tasks in the defense domain proposed during the 8th Party Congress in 2021 included five top priority strategic weapons tasks to strengthen nuclear and missile capabilities, namely,

- ① production of super-large hydrogen bombs,
- ② ability to destroy targets within a range of 15,000 km,
- ③ development of a hypersonic gliding flight warheads,
- ④ development of underwater and ground based solid-propellant ICBMs,
- ⑤ acquisition of nuclear submarines and underwater-launched strategic nuclear weapons.

North Korean Policy toward the Republic of Korea

North Korea's decision to send its athletes to the 2018 Winter Olympic Games in Pyeongchang provided an opening for the resumption of inter-Korean dialogue. In April 2018, an inter-Korean summit was held and the Panmunjom Declaration was adopted by the leaders of the two Koreas. In September of the same year, another summit was held, resulting in the adoption of the Pyongyang Joint Declaration of September 2018 (hereafter, the "Pyongyang Joint Declaration") and the Military Agreement on the Implementation of the Historic Panmunjom Declaration (hereafter, the "Comprehensive Military Agreement").

However, following the failure of the U.S.-North Korea summit in Hanoi of February 2019, North Korea ceased to make any and all mentions about the inter-Korean relationship in the decision statement from the Plenary Session of the Workers' Party, which was in lieu of the 2020 New Year's address, and have since maintained an attitude of indifference toward any dialogue nor exchange with the Republic of Korea. Since then, North Korea has no longer responded to the Republic of Korea government's suggestion for dialogue and cooperation. In June 2020, blasting the Republic of Korea for leaflets sent across the DMZ by civil activists, North Korea blew up the Joint Inter-Korean Liaison Office. In September, it brutally shot and killed a ROK citizen who drifted into North Korean waters in the West Sea and burned his body. North Korea is yet to respond to the demand by the Republic of Korea government to hold joint investigation over the killing of the ROK citizen. In 2021, during the 8th Congress of the Workers' Party, North Korea blamed the Republic of Korea for deteriorations in the inter-Korean relationship. In March 2021, in a statement issued in the name of Kim Yo-jong, the North mentioned the possibility of pulling out of the Comprehensive Military Agreement. Afterwards, North Korea continued to express its discontent to the Republic of Korea government by repeatedly cutting and restoring the Pyongyang-Seoul hotline depending on the status of the inter-Korean relationship.²¹⁾

21)

In July 2021 when the inter-Korean hotline, which had been cut for 13 months, was restored, North Korea stated that this will have a positive impact on the future of inter-Korean relationship and expressed the willingness to resume talks. However, in August, North Korea unilaterally severed the hotline again, demanding that the ROK-U.S. combine exercise be called off.

22)

"Vision 3000 ; Denuclearization, Openness" is an initiative proposed in 2006 by the ROK government to encourage the decision by the North to give up its nuclear program. The initiative is based on the notion that "denuclearization" of North Korea is a pre-requisite for coexistence, opening of the "North Korean economy and society" and increase in its per capita GDP is required for inter-Korean prosperity and that the basis to discuss unification will be established when North Korea attains "USD 3,000 in GDP per capita".

North Korea also lashed out at the Yoon administration that came into office in May 2022 for its defense policy, which included plans to strengthen the "ROK 3K Defense." In June 2022, during the 5th Enlarged Plenary Session of the 8th Central Committee, North Korea started to refer to its policy towards ROK as the "Fight Against Enemy." North Korea rejected the "Audacious Initiative," proposed by the Republic of Korea government in August 2022, through a statement by Kim Yo-jong, calling it a carbon copy of the "Vision 3000 ; Denuclearization, Openness."²²⁾ Later condemning the renewed U.S. commitment to extended deterrence over the ROK, North Korea ramped up military tensions by engaging in actions that were in defiance of both the Comprehensive Military Agreement and the Armistice Agreement, including firing a missile into a maritime buffer zone south of the NLL (Northern Limit Line) for the first time and flying multiple small unmanned aerial vehicles into the Republic of Korea. Furthermore, North Korea reconfirmed its principle towards ROK of "Head on Fight Against the Enemy" and labled the Republic of Korea as an "Unquestionable enemy" during the 6th Enlarged Plenary Session of the 8th Central Committee.

Moreover, in a statement issued in April 2022, Kim Yo-jong mentioned the "mobilization of nuclear combat force." Meanwhile, during a speech before the Supreme People's Assembly in September, Kim Jong-un announced a decision to "expand the operational

space for tactical nuclear weapons and diversify the means for their application.” In December, during a ceremony donating a 600mm super-sized multiple launch rocket system, the North Korean leader doubled down on his threats to use tactical nuclear weapons, and has continued to state how the entire Republic of Korea is within range and how its weapons can be fitted with tactical nuclear warheads.

Foreign Policy

In response to high-level international sanctions and human rights violation issues raised by the international community, North Korea is making efforts to create a more favorable external environment for itself by solidifying ties with socialist countries such as China and Russia under the banners of independence, peace, and friendship, its three principles in foreign policy.

Although North Korea tried to establish a new relationship with the U.S. through the historic bilateral summit in Singapore on June 2018, relationship between the two sides have been in a deadlock since the failure of the Hanoi summit in February 2019. In early 2020, Kim Jong-un declared the new “frontal breakthrough” strategy during the 5th Plenary Session of the 7th Central Committee. In 2021, during the 8th Congress of the Workers’ Party, the North Korean leader made clear that there will be no resumption of talks without concessions on the part of the U.S., citing the principle of “responding to power with power and goodwill with goodwill.”

Even after the new Biden administration came to power, North Korea continued to refuse offers for talk with the U.S. In March 2022, it broke its self-imposed missile moratorium by firing an ICBM-class missile. Meanwhile, the Adit number 3 of the Punggye-ri Test Site, destroyed in 2018 through a public demolition, was recently restored. In November, North Korea carried out another test launch of the Hwasong-17 ICBM in a belligerent display of force.

There has been no meaningful improvement in North Korea’s relationship with Japan in spite of the Stockholm Agreement,²³⁾ signed in May 2014 between the two sides. North Korea repeatedly refused suggestions by Japan for a summit, stating pre-requisites such as settlement of historical issues and shift in Japan’s policy towards North Korea. More recently, North Korea lambasted Japan for revising its defense strategy to give itself the so-called “Enemy Base Attack Capability.”

Sino-North Korean relations soured somewhat following China’s participation in international sanctions on North Korea after the 3rd nuclear test in 2013 and Xi Jinping’s decision to visit the Republic of Korea before North Korea in July 2014. However, their traditional friendly ties were later restored through the five successive bilateral summits that took place between 2018 and 2019. After January 2020, despite the border lockdown amid the COVID-19 pandemic, the two leaders continued to exchange letters and congratulatory telegrams to each other in an effort to maintain their friendship. In 2022, border freight railways resumed services as a sign of expanding exchange between the two sides. North Korea has expressed its support for the Chinese position on the Taiwan issue and is closely aligning itself with China on the global stage. North Korea has also maintained an amicable relationship with Russia. In March 2015, after the North Korea-Russia Joint Economic Commission in 2014, the two sides declared 2015 a “year of friendship” and adopted a joint

23)

At the director general-level talks held in Stockholm (May 26-May 28, 2014), North Korea pledged to cooperate with investigations into the fate of abducted Japanese citizens and Japan agreed to lift sanctions on North Korea (excluding sanctions imposed under the UN resolution).

resolution. In April 2019, Kim Jong-un held a summit with Russian President Putin.

In 2020, even under the COVID-19 induced restrictive environment, limiting in-person exchange, the North Korean and Russian leaders sent congratulatory messages to each other on major anniversaries. The two sides have also been strengthening their ties through a successive series of meetings between key officials. After the start of the war in Ukraine, North Korea has shown support for the Russian position that the fundamental cause of this war is the U.S. and the Western pursuit of hegemony.

2. North Korea's Military Strategy and Military Command Structure

Military Strategy

In 1962, North Korea adopted four military lines in accordance with its principle of “self-reliance in defense”²⁴⁾ and has since continued to build up its forces. In 2015, after Kim Jong-un’s succession to power, four new strategic lines to strengthen the KPA(Korean People’s Army) were announced, including “creating a politically and ideologically stronger KPA,” “creating a morally stronger KPA,” “developing the KPA into an army of sophisticated tactics,” and “strengthening the various branches of the KPA.” North Korea is exploring a military strategy focused on surprise attacks, combination warfare, blitzkriegs and is pursuing various strategies and tactics with based on its nuclear weapons strategy. While strengthening nuclear weapons and WMD (Weapons of Mass Destruction), missiles, long-range artillery, submarines, and asymmetric forces such as special warfare units and cyber and electronic warfare units, North Korea is also improving the performance of a select conventional weapons. Under the goal of advancing nuclear and missile capabilities, North Korea is continuing to conduct test launches. Meanwhile, a 6,800 strong cyber warfare personnel are carrying out R&D to develop new technologies to reinforce North Korean cyber forces.

The North Korean military is likely to attempt a surprise attack when the opportunity arises, primarily employing asymmetric forces, to create favorable conditions for itself, and seek a quick end to war. In January 2021, during the 8th Congress of the Workers’ Party, the North Korean leadership emphasized a unification strategy based on the use of force by adding “achieving a timely Korean unification through strong national defense capabilities” to the party charter. In September 2022, North Korea doubled down on its threats to use nuclear weapons by legislating its “nuclear weapons policy”, which contained concrete conditions for the use of nuclear weapons. Going forward, North Korea is expected to continuously adjust its military strategy according to the changing external and internal conditions such as the strategic environment and economic hardship.

Military Command Structure

Kim Jong-un, who concurrently holds the title of the Chairman of the State Affairs Commission, the Supreme Commander of the KPA and the Chairman of the Central Military Commission, wields full command and control over the North Korean military.

The State Affairs Commission, as the supreme policy decision-making agency in North Korea, carries out decision-making activities on key policies such as the national defense

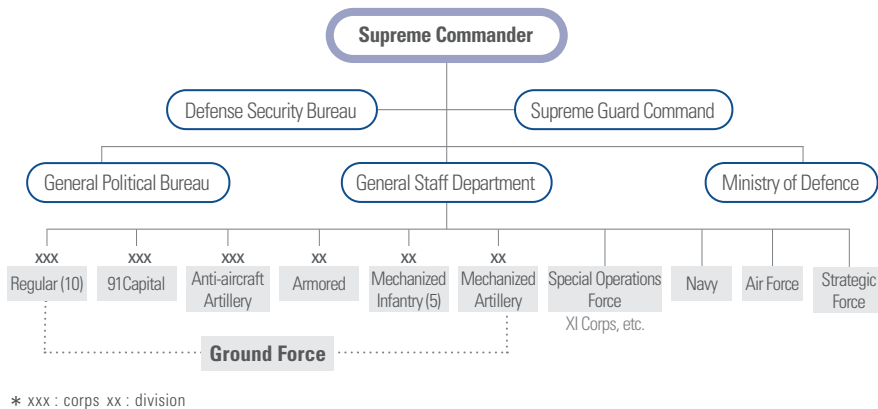
24)

Article 60 of the Constitution of North Korea states: “The State shall implement the line of self-reliant defense, whose basic principle is to arm the entire people, fortify the entire country train the entire military into cadres and modernize the entire military on the basis of equipping the military and people both politically and ideologically.”

force build up project. The General Political Bureau under the Supreme Leader supervises party organs within the military and is responsible for matters related to political ideology. The General Staff Department has command over military operations. A unified command system is in place to control all five branches including the Ground Force, Special Operations Force, the Naval Force, the Air Force, and the Strategic Force. The Ministry of Defence represents the armed forces abroad and has authority over military administration including military diplomacy, logistics, and budget. The Defense Security Bureau is responsible for the internal surveillance and control of the armed forces and the investigation of military crimes. The Supreme Guard Command provides security to the North Korean leader and his family, guards and manages their residences as well as suppressing any coups attempt against the regime. The Central Military Commission deliberates and decides on measures to advance the Workers' Party's military line and policy, in accordance with the party charter and provide party guidance to the overall national defense projects.

[Figure 1-2] shows the military command structure of North Korea:

[Figure 1-2] Military Command Structure of North Korea



3. Military Capabilities

Ground Force

The Korean People's Army Ground Force consists of 10 regular forward and rear-deployed corps, 91 Capital Defense Corps, 1 Anti-Aircraft Artillery Corps, 1 Armored Division, 5 Mechanized Infantry Divisions, and 1 Mechanized Artillery Division, which are under the command of the General Staff Department.²⁵⁾ Furthermore, it also includes the Road Construction Corps under Ministry of Defence and Engineering Corps under the General Political Bureau.

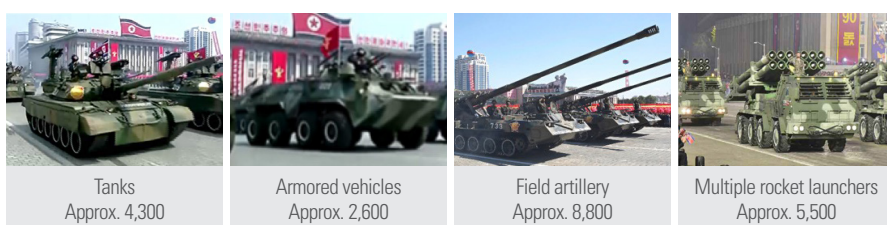
North Korea maintains a readiness posture capable of carrying out a surprise attack at any given time by positioning 70% of its Ground Force south of the Pyongyang-Wonsan line. The forward-deployed 170mm self-propelled guns and 240mm Multiple Rocket Launchers (MRLs), for instance, provide North Korea with the capability for a large-scale and concentrated surprise fire targeted at the Greater Seoul Metropolitan Area. North Korea is bolstering its fires capability centered around recent development of a precision-guided

²⁵⁾

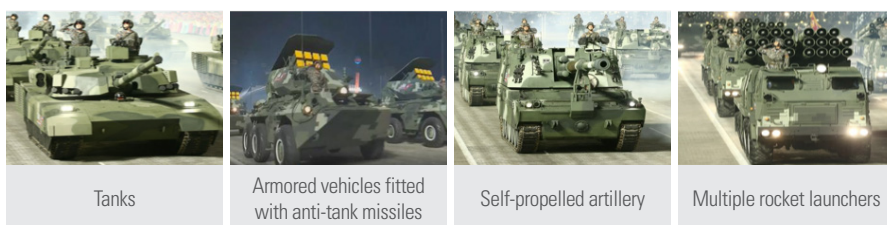
The Mechanized Artillery Division was created by consolidating a Mechanized Infantry Division and an Artillery Division.

300mm multiple rocket launcher with an extended range²⁶⁾ and a 600mm-class short-range ballistic missile that North Korea claims as a super-sized multiple rocket launcher²⁷⁾ that are capable of striking any parts of the Korean peninsula. The armored and mechanized units have more than 6,900 tanks and armored vehicles. New-generation tanks with enhanced maneuverability and survivability as well as variety of armored vehicles fitted with anti-tank missiles and mobile guns have been recently developed to replace some of the ageing platforms. Major equipment of the KPA Ground Force and new equipment that have recently been identified are shown in [Figure 1-3] and [Figure 1-4] below:

[Figure 1-3] Major Ground Force Equipment of the Korean People's Army



[Figure 1-4] New Equipment Spotted during the Military Parade on the 90th Anniversary of the Korean People's Army (April 25, 2022)



26)

It was test-launched several times since 2012 and was publicly shown for the first time in October 2015, during a military parade on the Workers' Party's 70th anniversary. During the military parade on the 75th anniversary of the Workers' Party in October 2020, an updated version of this equipment was unveiled.

27)

After its test-launch in August 2019, this missile was referred to as the "super-sized multiple rocket launcher." It was first showcased during the military parade on the 75th anniversary of the Workers' Party in October 2020.

28)

The XI Corps, naval and air sniper brigades, and special operations battalions have been classified as the Special Operations Force; separate command has not been established, Commander unknown

29)

A strategic special warfare unit, also known as the "Storm Corps."

Special Operations Force

To elevate the status of special operations units, North Korea categorized them into a separate branch of its armed forces naming them "Special Operations Force."²⁸⁾ There are various different types of special operations units, including the XI Corps,²⁹⁾ the Special Operations Battalion, light infantry divisions, brigades and sniper brigades of the forward-deployed corps, Navy and Air Force sniper brigades, and light infantry regiments of forward-deployed divisions. An estimated 200,000 personnel are assigned to special operations units. In wartime, special operations units are expected to infiltrate the ROK from both front and rear lines, using a variety of means, including underground tunnels, submarines, air-cushion vehicles, fast landing craft, AN-2 aircraft, or helicopters, to carry out operations such as the destruction of critical military installations, assassination of key personnel, and disturbance in the rear area.. They are conducting infiltration exercises by air, sea, and land as well as strike exercises using models of strategic ROK facilities, while continually reinforcing its forces as seen through the modernization of armaments. [Figure 1-5] provides highlights of select activities of North Korean special operations units:

[Figure 1-5] Activities of North Korean Special Operations Force



Naval Force

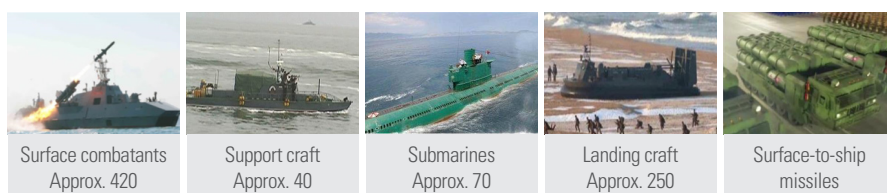
The Korean People's Army Naval Force (KPANF) is comprised of 2 fleet commands for the East and West Coast Fleets, 13 squadrons, and 2 naval sniper brigades that are under the North Korean Naval Command. With 60% of its forces positioned south of the Pyongyang-Wonsan line, the North Korean Naval Force possesses the capability to carry out a surprise attack anytime.

However, its capacity for deep-sea operations is limited because its force is primarily consisted of small, high-speed vessels. Surface forces consist of 470 vessels, including guided-missile attack craft, torpedo boats, small-sized patrol vessels, and fire support boats. As most of the vessels are small high-speed craft, surface operations are generally conducted in tandem with ground operations to assist the advance of ground forces or defense of coastal waters. More recently, the North Korean Navy has been building and deploying new ships to replace some of its aging vessels, while also improving the long-range attack capabilities of their vessels by fitting them with a new type of anti-ship missiles.³⁰⁾

North Korea's submarine forces consist of 70 vessels, including Romeo-class submarines and midget submarines. In wartime, submarine forces will carry out missions such as blocking maritime routes, laying mines, attacking surface vessels and assisting infiltration of its special operations forces. In recent years, the KPANF has retrofitted SLBMs (submarine-launched ballistic missiles) into their Romeo-class submarines in a continuing effort to improve its forces.

North Korea's landing forces consist of approximately 250 vessels, including air cushion vehicles and fast landing craft. These forces, mainly made up of small-sized high-speed vessels, are expected to land special operations forces in the rear areas to destroy military and strategic facilities as well as secure key beachheads under the escort of surface forces. North Korea's coastal defense forces deploy large numbers of coastal artillery and surface-to-ship missiles along the eastern and western coastlines to attack approaching surface vessels and provide defense against amphibious operations. North Korea is continuously improving the performance and range of its surface-to-ship missiles³¹⁾. Major vessels and surface-to-ship missiles owned by the North Korean Navy are listed in [Figure 1-6]:

[Figure 1-6] Naval Vessels and Surface-to-Ship Missiles of the North Korean Navy



30)

On February 6, 2015, North Korea conducted a public test-launch of this missile, which has an estimated range of close to 100km, in a sea near Wonsan.

31)

During a celebration event on the 70th anniversary of the regime (September 9, 2018), North Korea unveiled a new surface-to-ship missile. During the 75th Workers' Party anniversary event, surface-to-ship missiles mounted on an updated TEL (transporter erector launcher) with four additional launcher tubes (4→8 tubes) were put on display. The estimated range of the new surface-to-ship missile is about 200km.

Air Force

North Korea's Air Force³²⁾ consists of five air divisions, a tactical transportation brigade, two air force sniper brigades, and air defense unit under the Air Force Command.

Its forces are deployed by dividing North Korea into four regions. The Air Force has 1,570 total aircraft. About 40% of its some 810 combat aircraft are deployed in areas south of the Pyongyang-Wonsan line, the Korean People's Army Air Force (KPAAF) is at all times prepared to launch a surprise attack on the Republic of Korea and possesses the ability to support air infiltrations by special operations forces, using AN-2 aircraft or helicopters.

Furthermore, North Korea is making steady efforts to enhance the efficiency of its air force and modernize the fleet by retiring obsolete trainers, producing and deploying additional AN-2 and other light aircraft, as well as developing a variety of unmanned aircraft with reconnaissance and attack capabilities. Because introduction of new combat aircraft is limited, North Korea is attempting to fill this gap by bolstering its air defense capability through development and deployment of new surface to air missiles. An integrated air defense system, made up of aircraft, surface-to-air missiles, anti-aircraft artillery, and radar units is in place with the Air Force Command at the center. The SA-2³³⁾ and SA-5³⁴⁾ surface-to-air missiles are deployed in forward positions. SA-2 and SA-3³⁵⁾ surface-to-air missiles coupled with a concentrated ring of anti-aircraft artillery form a multi-layered air defense networkin and around Pyongyang. Moreover, North Korea is believed to be developing and using a variety of electronic jamming devices, including GPS jammers, for air defense. A large number of GCI and EW radar bases are dispersed throughout North Korea, giving its military the ability to detect targets across the Korean peninsula.

To increase the accuracy of its air defense radars and reduce operational response time, an automated air defense command and control system has been put into place. Some examples of aircraft and surface-to-air missiles operated by the North Korean Air Force are shown in [Figure 1-7] below:

32)

The Air and Anti-Air Command was renamed the Air Force Command (April 2022)

33)

A guided missile system with a maximum range of 56km for the interception of medium-to-high altitude targets (SA-2: Surface to Air-2)

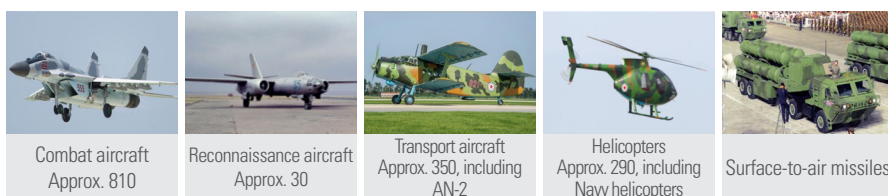
34)

A guided missile system with a range up to 250km for the interception of high-altitude targets, developed to complement SA-2 (SA-5: Surface to Air-5)

35)

A guided missile system with a maximum range of 25km for the interception of medium-distance, low-to-medium altitude targets (SA-3: Surface to Air-3)

[Figure 1-7] Aircraft and Ground-to-Air Missile of the North Korean Air Force



Strategic Force

North Korea has an independent command for its Strategic Force, which consists of 13 missile brigades, including the Scud, Rodong, and Musudan Missile Brigades. In recent years, it is estimated that North Korea is developing new ICBMs and a range of solid propelled ballistic missiles with operational advantages and enhanced accuracy that are better at evading interception.

In order to buttress its strategic attack capabilities, North Korea is continuously developing nuclear weapons, ballistic missiles, as well as chemical and biological weapons. Nuclear material for its nuclear weapons program have been produced in Yongbyon and other

nuclear facilities since the 1980s. Until very recently, North Korea has been known to possess about 70kg of plutonium, obtained from reprocessing its fuel rods and a substantial amount of highly enriched uranium (HEU) from its uranium enrichment program. Moreover, judging from the six successive tests carried out between October 2006 and September 2017, North Korea's ability to produce miniaturized nuclear warheads appears to have reached a significant level.

Although North Korea conducted a public demolition of the three tunnels at the Punggye-ri test site on May 24, 2018, they restored the Adit number 3 in 2022. The ROK Armed Forces have stepped up surveillance in the face of an increased likelihood of another nuclear test by North Korea to further develop its nuclear capability.

North Korea has operationally deployed liquid propellant ballistic missiles, including Scud, Rodong, and Musudan, which gives them the ability to carry out a direct strike in the Korean peninsula as well as against other neighboring countries. North Korea, which started developing ballistic missiles in the 1970's, operationally deployed the 300km-range Scud-B and the 500km-range Scud-C by the mid-1980s and Rodong missiles with a range of 1,300km by the late 1990s. Afterwards, they also operationally deployed the Scud-ER with an extended range. In 2007, North Korea operationally deployed Musudan missiles with a range of over 3,000km without a test launch, which subsequently failed its performance test in 2016.

Since 2012, North Korea has been conducting research to develop new types of liquid and solid propellant ballistic missiles. It test-launched the Hwasong-12, a new liquid propellant ballistic missile with an intermediate range, based on the Baekdusan Engine, developed in 2016, over Japan three times since 2017, at a normal angle. In 2017, it fired two ICBMs, Hwasong-14 and Hwasong-15, both capable of reaching anywhere in the U.S. mainland. Starting in February 2022, North Korea made several attempts at launching the Hwasong-17, over the East Sea at a lofted angle. All ICBM tests by North Korea were lofted-angle launches. Although this successfully demonstrated that the range of the missiles are sufficient to threaten the U.S. mainland, whether North Korea possesses all critical components of an ICBM, including perfecting the re-entry technology needs further confirmation as the missiles were not launched in a normal trajectory. North Korea is also in the process of developing a new type of missile it describes as a "hypersonic missile," which was test-launched three times since 2021.

Since 2019, North Korea is continuously test-firing solid propelled ballistic missiles which have significant operational advantages over the liquid fuel ones. North Korea has also developed a variety of short-range ballistic missiles based on its indigenously produced Iskander-style TBM, whose reliability it claims has been proven, including ones similar to ATACMS, ones with a heavier payload and ones with shorter distance. Meanwhile, to diversify methods of launch, North Korea is experimenting with different types of launch platforms, including wheeled and tracked TELs, as well as trains and submarines. North Korea also recently announced that it delivered a short-range ballistic missile, which it claims to be a super-sized multiple rocket launcher (600mm), to the military in December 2022. This missile was test-fired several times since 2019. North Korea has developed various types of solid propelled ballistic missiles over a short period of time and is expected to use them to replace the ageing Scud and Rodong missiles of the Strategic Force.

Moreover, North Korea conducted a large-scale combustion test of a solid fuel rocket engine in December 2022, at the Seohae Satellite Launch Site at Dongchang-ri in Pyeonganbuk-do, which could be a preparatory step toward developing solid propellant IRBMs (intermediate range ballistic missiles)³⁶⁾ and ICBMs.

Concerning submarine-launched ballistic missiles (SLBMs), although North Korea has test-fired Pukguksung-family missiles and submarine-launched tactical guided missiles (a North Korean derivative of the Iskander), a SLBM-capable submarine appears to be still in the development stage.

Meanwhile, after officially announcing the possibility of a preemptive use of nuclear weapons by legislating its “nuclear weapons policy” on September 8, 2022, North Korea launched a series of ballistic missiles, which, according to the North, can be fitted with tactical nuclear warheads, over the East and West Seas. On November 2, 2022, North Korea intentionally fired a missile so that it landed in international waters 26km south of the NLL, in direct violation of the CMA.

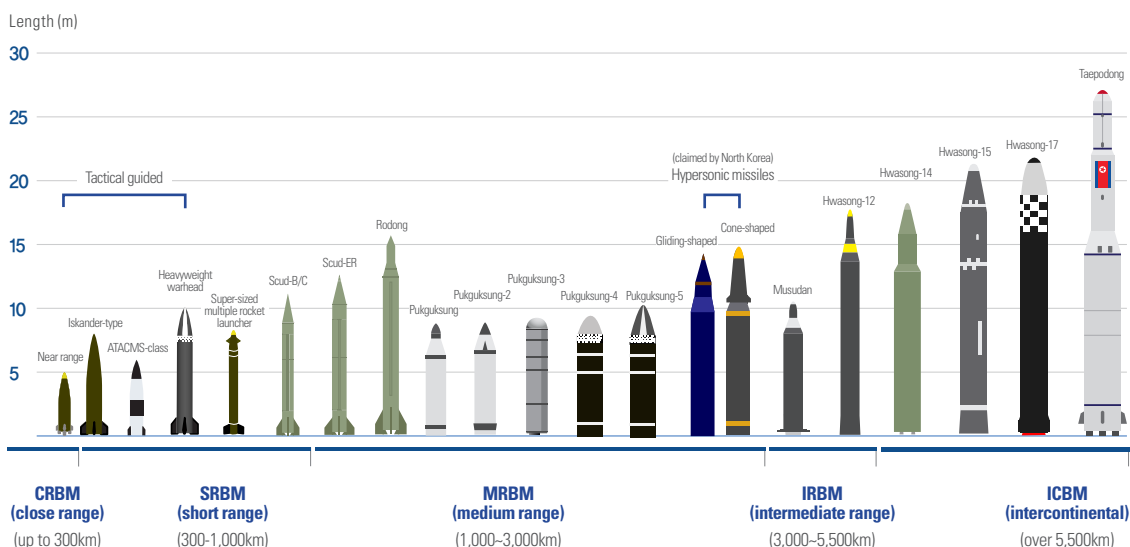
Furthermore, North Korea, which has been developing cruise missiles, focused on surface-to-ship missiles, since the early 2000s, is now using the technology acquired through this process to pressing ahead with the development of long-range surface to surface cruise missiles. If North Korea successfully completes its development of long-range surface-to-surface cruise missiles, this will increase the missile threat faced by the Republic of Korea.

It is expected that North Korea will continue to develop and test launch its missiles in accordance with the plan to enhance its nuclear weapons systems and defense capabilities. North Korea is likely to focus its effort on completing the strategic weapons development tasks proposed during the 8th Party Congress.

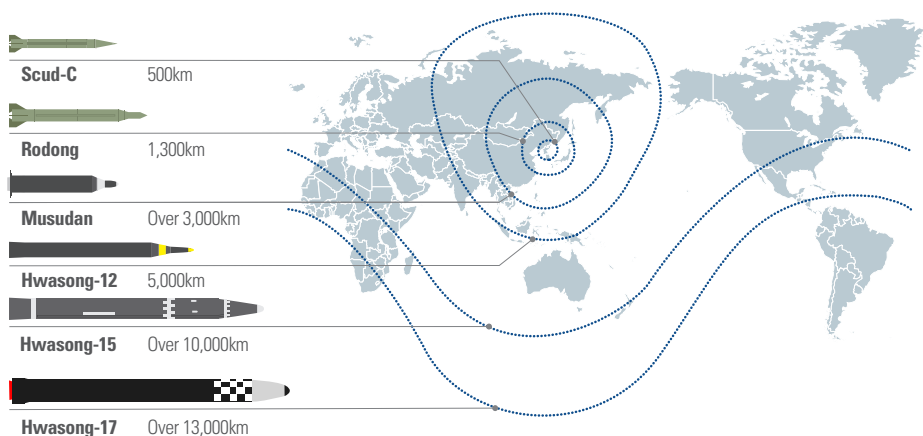
The types of ballistic missiles currently owned or under development by North Korea and their ranges are as shown in [Figure 1-8] and [Figure 1-9]:

36)
Intermediate range ballistic
missile

[Figure 1-8] Ballistic Missiles of North Korea



[Figure 1-9] Ranges of North Korean Ballistic Missiles



North Korea began producing chemical weapons during the 1980s. It is believed to currently own approximately 2,500-5,000 tons of chemical weapons. It is also believed to possess the ability to independently cultivate and produce biological weapons, including anthrax, smallpox, and the bubonic plague.

Reserve Forces and War Sustainment Capabilities

North Korea's reserve forces consist of the Gyododae, a reserve military training unit subject to combat mobilization, the workplace and region based Worker-Peasant Red Guards, the Red Youth Guards, a military organization of students in high school and paramilitary units. The size of the reserve forces, made up of men and women between 14 and 60 years of age, is an estimated 7.62 million, representing nearly 30% of total population. Gyododae, which receives training comparable to that of the regular armed forces, numbers around 620,000 personnel and is believed to be capable of quickly supplementing the combat power of regular forces during contingencies. The types and strength of North Korean reserves forces are listed in [Figure 1-10] below:

[Figure 1-10] Reserve Forces of North Korea

Type	Strength	Description
Total	7.62 million	
Gyododae (Reserve Military Training Unit)	620,000	Mobilization reserve forces (men of ages 17-50, unmarried women of ages 17-30)
Worker-Peasant Red Guards	5.72 million	Regional reserve forces (men of ages 17-60, women of ages 17-30, not enlisted in the Gyododae)
Red Youth Guards	940,000	Military organization of high school students (boys and girls of ages 14-16)
Paramilitary units	340,000	Supreme Guard Command, Ministry of Social Security, etc.

North Korea is believed to have a stockpile of reserve material sufficient for one to three months in the event of a war. There are approximately 300 munition factories in North

Korea, including 100 civilian factories that can be quickly converted to produce munitions in wartime. Munitions production and storage facilities are fortified in underground facilities to ensure their wartime survivability. Except for combat aircraft, North Korea is believed to have the capability to domestically produce major weapons system and munitions. However, it is expected that North Korea will be limited from continuously expanding its munitions industry as the prolonged international sanctions worsen the energy crisis and shortage of raw materials. North Korea's war sustainment capability will not only be affected by the military environment, but wide-range of factors including politics, economy, society and social infrastructure.

튼튼한 국

2022 전



Chapter 2

National Security Strategy and Defense Strategy

Section 1. National Security Strategy

Section 2. National Defense Strategy

국방 과학기술 강군

전반기 전군 주요지휘관 회의

2022. 7. 6.(수) 계룡대



튼튼한 국방 과학기술 강군

2022 전반기 전군 주요지휘관 회의

National Security Strategy

The Yoon administration has set out a national vision for a “global pivotal state contributing to freedom, peace, and prosperity” and established a new national security strategy to support this vision. The government of the Republic of Korea will strive to normalize inter-Korean relations and achieve peace on the Korean peninsula on the foundation of robust security, while promoting prosperity in the international community through a pragmatic foreign policy that is embedded in universal values.

1. National Vision and National Security Objectives

The Yoon administration has articulated a new vision for a “global pivotal state contributing to freedom, peace, and prosperity” which both reflects the Republic of Korea’s mission as a nation and encapsulates the fundamental values and aspirations of its people. Under this vision, the administration has proposed three national security objectives.

Safeguarding ROK Sovereignty,

Territorial Integrity and

Ensuring the Safety of the Korean People

The basic goal of national security is to defend the nation and protect its people from any group that poses a threat. While firmly responding to North Korean provocations,

the ROK government is to place utmost effort to safeguard the nation’s sovereignty, territorial integrity, as well as the lives and property of its people from complex security threats, including asymmetrical threats posed by nuclear/WMDs, conventional threats, potential threats we may face in the future and non-traditional threats such as natural disasters and infectious diseases.

Achieving Peace on the Korean Peninsula and Laying the Groundwork for Future Unification

The government will endeavor to achieve sustainable peace on the Korean peninsula and lay the

groundwork for future unification of the two Koreas. In order to peacefully resolve the North Korean nuclear issue, it will closely work with friendly nations and international organizations to induce change in North Korea’s attitude and pursue a principled and consistent denuclearization policy. The government will seek to normalize and promote the stable development of inter-Korean relations and lead the national effort to lay groundworks for a unified future by consolidating the will and capacity from within and abroad.

Establishing the Framework for Prosperity in East Asia and Expanding Korea’s Global Role

Republic of Korea’s growing economic power and global standing have led to increasing domestic and international

expectations for it to play a greater role in achieving peace and prosperity in the world. The ROK government will defend and promote universal values of freedom, democracy, and

human rights through the ROK-U.S. Alliance, linchpin of peace and prosperity in the Korean peninsula and its surrounding region. In tandem, Republic of Korea will expand cooperation based on democratic values and mutual interests in East Asia, while actively contributing to resolving challenges facing the world, including new security threats, and participating in international development efforts as a responsible member of the global community.

2. Tenets of the National Security Strategy

The government's tenets of the national security strategy consists of five key elements: "Pursuit of a pragmatic and value-based foreign policy that puts national interests first," "achieving robust security through strong defense capabilities," "establishing principled inter-Korean relations based on reciprocity," "actively defending economic security interests," and "proactively responding to new security threats."

A Pragmatic and Value-based Foreign Policy that Puts National Interests First

The ROK government will cooperate with its key partners based on common values and mutual interests and create a favorable environment for peace and prosperity in the Korean peninsula through this process. Moreover, in order to play a larger role as a global pivotal state, the government will broaden its foreign policy horizons by conducting region-and nation-specific cooperation programs that promote shared prosperity and increase its involvement in international affairs and contribution to the global agenda.

Achieving Robust Security through Strong Defense Capabilities

Strong defense capabilities are essential for the survival of the ROK as a nation as well as a fundamental pre-condition for peace on the Korean peninsula. Through the Defense Innovation 4.0 initiative that harnesses advanced Fourth Industrial Revolution technologies, the government will build powerful armed forces capable of meeting future defense requirements. Meanwhile, based on the ironclad ROK-U.S. Alliance, the ROK military will maintain an all-around defense posture to deter and decisively respond to North Korean provocations. Moreover, ROK 3K Defense, which will fend off advancing North Korean nuclear and WMD threats with overwhelming force will be refined and implemented in an expeditious manner, at the same time as improving the combat readiness of troops through realistic training and ideological armament to clearly identify the enemy they face.

Inter-Korean Relations Based on Principles and Reciprocity

In its efforts toward normalization of inter-Korean relations, the government of the Republic of Korea will combine openness to dialogue and a principled approach with pragmatism and flexibility. Jointly with the international community, it will carry out an audacious initiative for the complete denuclearization of North Korea and sustainable peace and prosperity in the Korean peninsula. Moreover, continuous efforts will

be made for the improvement of human rights and humanitarian conditions in North Korea and progress on issues derived from the division of two Koreas, such as the unification of divided families. At the same time, the government will strive with the citizens and the international community to establish a denuclearized, peaceful, and prosperous Korean Peninsula.

**Actively Defending Economic
Security Interests**

In partnership with the private sector, the government will construct a multi-layered economic security response system to defend ROK's interests in areas related to supply chain, critical technologies and energy. Republic of Korea will work with leading nations around the world to take the initiative in establishing international rules and protocols. Furthermore, ROK will also take an active part in international economic cooperative bodies to shape the agenda and contribute solutions to issues of common interest.

**Proactively Responding to
Emerging Security Threats**

To respond to non-traditional security challenges, the government will operate a crisis prevention system, make special efforts to set up an early warning mechanism and build a public-private collaboration system. In areas requiring transnational responses, such as climate change and infectious diseases, ROK government will continue to closely cooperate with the international community.

National Defense Strategy

To prepare against a rapidly changing strategic environment, the Ministry of National Defense establishes and implements a medium and long-term defense strategy that is aligned with the government's national security strategy and national defense goals. The national defense strategy sets forth general strategic and policy directions as well as specific strategic objectives that represent top priorities for our military. To support the implementation of the national defense strategy, the Ministry of National Defense also identifies critical focus areas to direct short-term efforts.

1. National Defense Objectives

The objectives of national defense are to “defend the nation from external military threats, attacks and invasions”, “support the peaceful unification of the two Koreas”, and “contribute to regional stability and world peace”.

Defending the Nation from External Military Threats and Invasions

In addition to preparing against existing military threats and possible invasion by North Korea, the ROK Armed Forces must safeguard the nation's sovereignty and territorial integrity from all actors that threatening its national interests and protect the lives and property of the Korean people from non-traditional threats such as natural disasters and infectious diseases.

North Korea, which possess a large scale conventional force, is advancing its WMD technology, including nuclear weapons and missiles while engaging in frequent cyberattacks and armed provocations. North Korea's recent legislation of its nuclear weapons policy, which hints at the possibility of a preemptive use of nuclear weapons, has increased the severity of North Korean threats to our security. Recently, North Korea also fired a missile in the East Sea, for the first time into an area lying south of the NLL. Meanwhile, the Charter of the Workers' Party was amended in 2021 to explicitly state the goal of unifying the entire Korean peninsula under Communist rule. During the Plenary Session of the Central Committee, held in December 2022, the North Korean leadership declared Republic of Korea as an “Unquestionable enemy.” North Korea's refusal to abandon its nuclear program and relentless military threats make both its regime and military an enemy of the Republic of Korea.

Support for Peaceful Unification

The ROK Armed Forces will contribute to the peaceful unification of the two Koreas by preventing war on the Korean peninsula through a strong military force and conditional upon progress being made on North Korean denuclearization, take gradual steps to lower inter-Korean military tensions and build trust.

Contribution to Regional Stability and World Peace

The ROK Armed Forces will strengthen the ROK-U.S. Alliance, at the same as forging a relationship of trust with neighboring countries in the military domain, and actively participate in international peacekeeping operations and global exchanges in the defense field to contribute to regional stability and world peace.

2. National Defense Strategy

In order to effectively respond to the rapidly changing external and domestic defense environment, characterized by an increasingly fluid international order, decline in population available for conscription and rapid technological advances, defense strategies need to be developed with a medium and long-term horizon in mind. The Ministry of National Defense will identify defense strategy objectives which are medium and long-term priorities to support the government's national security strategy and national defense goals and concentrate its resources and efforts in achieving them.

Defense Strategy Objectives

Based on the core values of the National Security Strategy and the National Defense Objectives set by the government, such as the defense of territorial integrity, guaranteeing national security, peaceful Korean unification, and world peace, four strategic defense goals have been selected, including “integrated, proactive defense,” “innovation and capability building,” “alliance and partnership,” and “safety and co-prosperity.”

[Figure 2-1] Defense Strategy Objectives



① Establishing a defense posture capable of delivering both integrated and proactive response to complex security threats

Amid the intensifying U.S.-China strategic competition, North Korea's advancing nuclear and WMD capabilities, and the rise of non-traditional threats such as climate change and terrorism, the security environment is increasingly redefined by simultaneous and complex threats that is becoming more diverse. In order to effectively respond to such complex security threats, all elements of national defense must be integrated organically and capabilities throughout all domain including ground, sea, space, cyber space, and electromagnetic spectrum need to be interconnected. Furthermore, Republic of Korea needs to bolster its defense capabilities through partnership and alignment with countries that share our value. Moreover, using integrated capabilities, active effort must be made to shape a favorable environment before a security crisis occurs. In the event of a crisis, an environment which allows rapid decision-making and a proactive self-defensive response can minimize casualties and quickly lead to a decisive and favorable end to hostilities. In order to achieve an integrated and proactive defense, the Ministry of National Defense will build an all-around defense posture.

② Developing a strong, technology driven force with capabilities to gain asymmetric advantages through selection and focus

Slowing global economic growth, declining size of productive populations, and worsening government fiscal conditions are expected to present a significant challenge to securing a sufficient level of defense budgets. In order to overcome this challenge, available resources must be allocated more efficiently, through a selection and focus-based approach. Meanwhile, through an accelerated integration of cutting-edge technologies, the armed forces must be realigned into a smaller and fiscally responsible, yet highly capable, efficient and professional entity. To counter asymmetric threats, including nuclear and missile threats from North Korea, overwhelming response capabilities must be built by bolstering the strength and posture of the ROK 3K Defense and increasing operational capacities in new domains such as cyber, electromagnetic, and space, while accelerating the development of a hybrid manned-unmanned combat system and bolstering the capability to respond against UAS.

③ Elevating the ROK-U.S. Alliance to a global comprehensive strategic alliance, expanding and strengthening the global defense cooperation network

The ROK-U.S. Alliance has been the linchpin of peace and stability in the Korean peninsula as well as Northeast Asia for the past seven decades. In recent years, however, there has been a sharp increase in security uncertainty, caused by the geopolitical competition within the region in diplomatic, security, economic, and technological domains, as well as concerning issues related to common values and international rules and norms. Arms race between major countries and advances in North Korea's nuclear and WMD capabilities are also major factors that need to be taken into account. Such a development has raised the need to further strengthen the ROK-U.S. Alliance by elevating it to a global comprehensive strategic alliance. Meanwhile, in keeping with ROK's enhanced international standing and in consistency with the government's external strategy to play the role of a global pivotal state, the Ministry of National Defense will expand its defense cooperation network with allies and partners in

wide-ranging areas, including defense exports, joint disaster response, the protection of sea lanes, personnel exchange and more.

④ Defense management prioritizing safety of the Korean people, citizen's trust and civil-military relations

Amid growing societal demand for a higher degree of transparency and rationality in defense management, the ROK public's expectations about the role of the military have also increased, making the civil-military relationship more important than ever. Protecting the citizens of the Republic of Korea, from non-traditional security threats, including natural disasters, terrorism, and infectious diseases, is an important role of the military, which it must continuously strive to better perform. In the ROK where universal conscription system is in place and most people have friends and family members serving in the military, there is keen public interest in military culture. To continue to enjoy the trust and support of the ROK public, the military must keep improving the service environment to meet the standards expected of them. Moreover, to build a positive and cooperative civil-military relationship, when implementing and pursuing defense policies, efforts must be made to seek the understanding of the public and earn the support of local communities.

Defense Policy Focuses

The Ministry of National Defense has selected “robust national defense, strong forces harnessing science and technology” as its short-term policy goal. A “robust national defense” means a military response posture that is capable of deterring enemy provocations based on the ROK-U.S. combined defense posture and firmly responding to provocations, using the full independent capabilities of the ROK Armed Forces and those of the ROK-U.S. Alliance. “Strong forces harnessing science and technology” are competitive forces with AI and robotic-augmented capabilities, achieved through the integration of Fourth Industrial Revolution technologies for defense applications in a timely manner. The six key points to achieve the national defense objectives are as follows:

① Establish an all-around defense posture and expand response capabilities

While maintaining a strong military posture against North Korean threats based on the ROK-U.S. combined defense posture, the ROK Armed Forces have also built an all-around defense posture to account for potential security threats. To decisively deter and respond to advancing North Korean nuclear and military threats, the response capabilities of our Armed Forces will be dramatically upgraded. The training and education of troops will be improved by placing emphasis on realistic training with emphasis on combat missions. The intangible readiness posture of troops will also be reinforced through education and ideological armament to clearly identify the enemy they face.

② Developing a powerful modern military based on advanced science and technology through Defense Innovation 4.0

The accelerated pace of technological advances and declining military manpower have caused a paradigm shift in the future of warfare. To keep abreast with the fast-changing defense environment, the Ministry of National Defense has undertaken Defense Innovation

4.0, an novel initiative to integrate Fourth Industrial Revolution technologies across all areas of national defense. The goal is to fundamentally transform our forces through technology-driven innovation to reinvent them as competitive cutting-edge military forces.

③ A leap forward in the ROK-U.S. Alliance and deeper and broader defense cooperation

In order to more effectively respond to North Korean nuclear and missile threats and other potential security threats, the ROK-U.S. Alliance, the linchpin of Korea's national defense, will be promoted to a new and higher level of partnership. Amid a stable management of alliance issues, its cohesion will be strengthened and the credibility of the U.S. extended deterrence commitment reinforced through more frequent regular and ad-hoc consultations and increased policy coordination between the two countries' defense authorities. In tandem, defense cooperation with Korea's allies will be deepened and expanded to protect national interests and contribute to the establishment of peace in the region.

④ Safe and transparent civil-military cooperative defense management

To keep pace with evolving requirements of society and align with the expectations of the ROK public, the Ministry of National Defense will strive to achieve a higher standard of safety and transparency and promote civil-military cooperation and partnership in defense management. The military healthcare system will be improved to better meet the needs of the service members and a comprehensive safety management system will be put into place. Meanwhile, by ensuring the fairness of the military justice system and through a rational and efficient allocation of the defense budget, we will enhance the transparency of defense management. To protect and respect the rights of Korean people, the ministry will ease regulation where possible and as much as possible.

⑤ Development of a military culture that meets the needs of the future generation

The Ministry of National Defense will create a service environment that is better attuned to today's society by dramatically enhancing the standard of living for members of the armed forces and strengthening the human rights protection system within the military. Moreover, we will ensure that the sacrifices of personnel killed in combat or on duty are suitably recognized and honored and duly compensated to create an environment in which members of our Armed Forces can serve with pride.

⑥ Fostering the defense industry into a national strategic industry

The Ministry of National Defense will provide active support for the improvement of the global competitiveness of the Republic of Korea's defense industry so that it will not only lead the way for the development of a strong, technology-intensive armed forces, but also propel the growth of the national economy. To help strengthen the technological competitiveness of the defense industry, the ministry will create a progressive and ambitious R&D environment, while also establishing mechanisms and processes to support defense exports. A positive feedback loop between efforts to build cutting-edge forces and defense exports will help this industry emerge as a new strategic industry that contribute to the nation's defense capabilities, at the same time as driving the sustainable growth of its economy.



Chapter 3

Establish an All-around Defense Posture and Expand Response Capabilities

Section 1. Maintaining a Robust Military Readiness Posture

Section 2. Acquiring ROK 3K Defense Capabilities

Section 3. Reinforcing the Capabilities to Respond to Comprehensive Security Threats

Section 4. Establishing a United Defense Posture composed of Civil–Government–Military–Police–Fire Department

Section 5. Education and Training Focused on Combat Missions and Reinforcing Esprit de Corps

Section 6. Military Assurance for Establishing Peace on the Korean Peninsula



Maintaining a Robust Military Readiness Posture

Based on the steadfast ROK-U.S. Alliance, the ROK Armed Forces are maintaining a robust combined defense posture that is capable of responding to local provocations as well as all-out war from North Korea. The ROK Armed Forces have already established surveillance and early warning posture as well as military readiness posture to counter North Korea local provocation and is developing a crisis management system to effectively respond to provocations. ROK Armed Forces are bolstering their wartime operational capabilities by continuously developing the combined ROK-U.S. OPLAN and strengthening combined exercise and training.

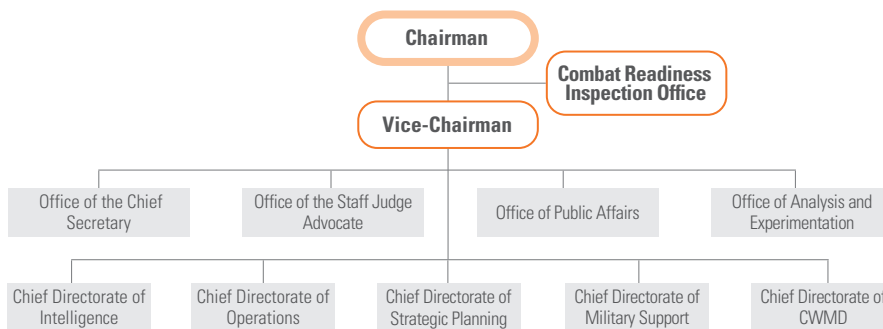
1. Military Organization and Forces

Organization of the Joint Chiefs of Staff

The Joint Chiefs of Staff (JCS) assists the Minister of National Defense with respect to operational command authority and, on order from the Minister, conducts joint and combined operations by operationally commanding and supervising combat-ready operational units in each service¹⁾; commanding and supervising joint units²⁾. In addition, other duties of the JCS include civil-government-military-police-fire department integrated defense operations and tasks associated with martial law.

The JCS was initially set up as a non-permanent organization within the MND³⁾ until it was officially established in 1963 under its current name. It is composed of Chairman, Vice-Chairman, five offices, and five chief directorates. Chart 3-1 below shows the organizational structure of the JCS.

[Figure 3-1] Key Organization of the Joint Chiefs of Staff



1)

The Chairman of the JCS is invested with the authority to command the combat operation units of each service (Combined Manual 0 Basic Military Doctrines, August 2022).

2)

Formation of units to carry out joint operations

3)

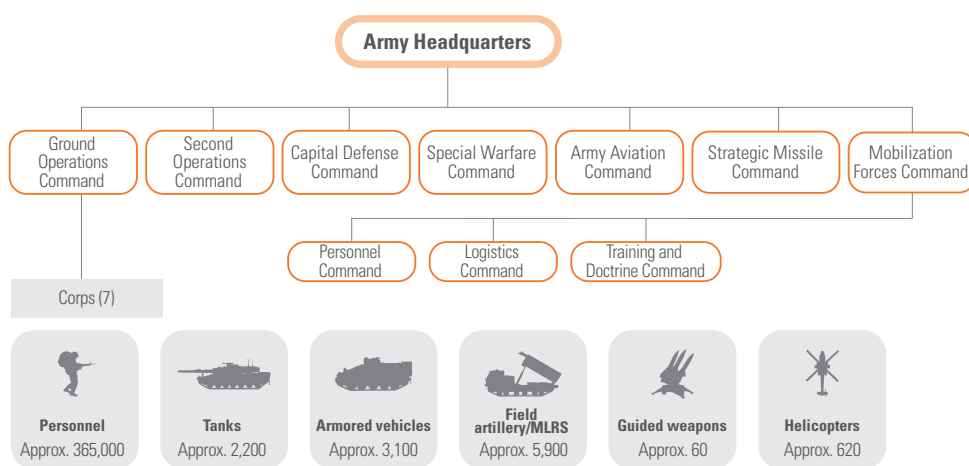
- Combined Chiefs of Staff Council in 1948.
- Joint Chiefs of Staff Council in 1954.
- Combined Chiefs of Staff Bureau in 1961.

The ROK Armed Forces plan to establish the Strategic Command to respond to North Korea's advancing nuclear and missile threats. On January 2023, the JCS reorganized the CWMD Center into the Chief Directorate of CWMD, which will be utilized to create a Strategic Command optimized for ROK's strategic environment.

The JCS is reinforcing the theater operational command system across the full spectrum of battle space, including space and cyber domain, and its operational execution capabilities based on the concept of joint operations. Furthermore, the ROK Armed Forces will strengthen the ROK-led warfighting capabilities by systematically developing formations and military capabilities that are optimized to achieve joint effects in future battlefields.

Army The ROK Army consists of the Army Headquarters, two Operations Commands, Capital Defense Command, Special Warfare Command, Army Aviation Command, Strategic Missile Command, Mobilization Forces Command, and other support units. Chart 3-2 below shows the key organizations and assets of the ROK Army.

[Figure 3-2] Key Organizations and Assets of the ROK Army



* Tanks, armored vehicles, and field artillery/MLRS include Marine Corps assets

* Aviation Operations Command → Aviation Command⁴⁾ (02.12.2021), Missile Command → Strategic Missile Command⁵⁾ (01.04.2022)



ROK Armed Forces
promotional
video



Army promotional
video

4)
Renamed as the Army Aviation Operations Command to ensure uniformity in the names of units that perform operations in specific fields, such as the Naval Submarine Command.

5)
The Army Missile Command, which previously performed limited missions, was reorganized into a unit that performs strategic and operational missions in order to strengthen strategic deterrence and response capabilities. Following termination of the Revised Missile Guideline, which placed restrictions on the range and payload of ballistic missiles, the Command was transformed to suit its elevated status and role.

Ground Operations Command integrates all operational elements within its area of operations to conduct diverse ground operations. The Second Operations Command's mission is to maintain stability and war sustainability of the joint rear area through civil-government-military-police-fire department integrated defense operations. The Capital Defense Command protects key facilities and urban infrastructure of Seoul to ensure that the city maintains its functions as the capital.

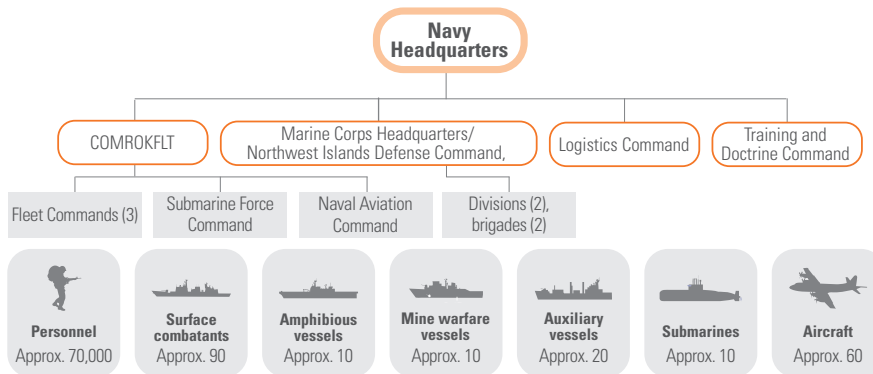
The Special Warfare Command is responsible for special operations in wartime and also carries out peacetime support operations, while the Army Aviation Command is in charge of aviation operations. Strategic Missile Command performs strategic and operational target strike missions. Mobilization Forces Command ensures the combat readiness of the Army's mobilization divisions and mobilization support groups. Other commands are responsible for personnel and logistics support as well as education and training.

While efficiently utilizing its existing forces to the fullest extent, the ROK Army is restructuring its units to ensure that they can conduct operations based on rapid decisions in order to realize the concept of future joint operations, and is steadily acquiring maneuver

and strike capabilities, such as K2 battle tanks, Korean utility helicopters (KUH), and multiple launch rocket system (MLRS). In particular, the Army will develop the troop and force structure in connection with Army TIGER 4.0 (Army Transformative Innovation of Ground Forces Enhanced by Industry 4.0 Technology) based on MUM-T combat systems, drone-bot combat systems utilizing ISR, attack, and EW drones⁶⁾, and integration of the warrior platform.

Navy Navy consists of the Navy Headquarters, ROK Fleet (COMROKFLT), Marine Corps Headquarters, Northwest Islands Defense Command, and other support units. Chart 3-3 below shows the key organizations and assets of the ROK Navy.

[Figure 3-3] Key Organizations and Assets of the ROK Navy



* Includes around 29,000 troops of the Marine Corps.

* Air Wing → Naval Aviation Command (15.07.2022)

COMROKFLT has command authority over naval operations as a whole and orchestrates anti-surface⁷⁾, anti-submarine⁸⁾, mine and countermine⁹⁾, and amphibious operations. Fleet Commands defend their assigned areas by deploying surface combatants such as destroyers, frigates, patrol vessels, and patrol killer mediums (PKMs). Submarine Command executes submarine operations, while the Naval Aviation Command performs maritime aviation operations using its aviation assets. Marine Corps Headquarters executes amphibious operations and defense operations in its assigned areas and strategic islands, and also operates a Quick Maneuver Force. Northwest Islands Defense Command is responsible for security and defense of the northwest islands. Other commands are responsible for providing logistics support as well as education and training programs.

Navy operates multidimensional forces-composed of next-generation submarines, destroyers, frigates and patrol killer mediums, Aegis destroyers, maritime patrol aircraft, and helicopters-in an integrated manner to rapidly and effectively respond to various types of surface, sub-surface, and airborne threats. Marine Corps will further develop its capability to carry out a diverse range of missions including multidimensional and high-speed amphibious operations, multi-purpose rapid response operations, and the defense of strategic islands.



Navy promotional video



Marine Corps promotional video

6) A new concept of combat system that performs optimal operations by integrating an AI-based C4I system linked in real time with all the sensors of each of the systems that perform ISR, attack, and support functions. It is one of the MUM-T combat systems used in aerial and ground combat.

7) Operations aimed at securing and maintaining maritime control and destroying or neutralizing the enemy's surface forces using surface combatants, submarines, and aircraft.

8) Operations to destroy or neutralize the enemy's submarines in order to defend freedom of navigation in the maritime zone.

9) Operations aimed at interdicting or neutralizing the enemy's naval forces with the use of mines, or denying the enemy's use of mines

Air Force

Air Force consists of Air Force Headquarters, Air Force Operations Command, and other operational and support units. Chart 3-4 below shows the key organizations and assets of the ROK Air Force.

[Figure 3-4] Key Organizations and Assets of the ROK Air Force



Air Force promotional video

* Air Defense Artillery Command → Air Defense Missile Command¹⁰⁾ (01.04.2022)

10)

The MDC was renamed to suit its upgraded status and role in projecting greater power by introducing advanced weapons systems, such as the recent additional deployment of early warning radars for ballistic missiles following its reorganization into a Korean missile defense operation unit that defends the country's entire airspace from enemy air threats in multiple layers at different altitudes via multiple interceptor systems.

11)

Operations aimed at neutralizing or destroying the enemy's aerospace forces and anti-air systems to secure air superiority (CA: Counter Air).

12)

Operations aimed at preventing an enemy from increasing or reinforcing its forces, and at restricting its forces' mobility before their military capabilities can be used, by stopping, disrupting, delaying, or destroying them (AI: Air Interdiction).

13)

Operations to support the attack, counterattacks, or defense operations of friendly ground forces by targeting enemy forces in close proximity (CAS: Close Air Support).

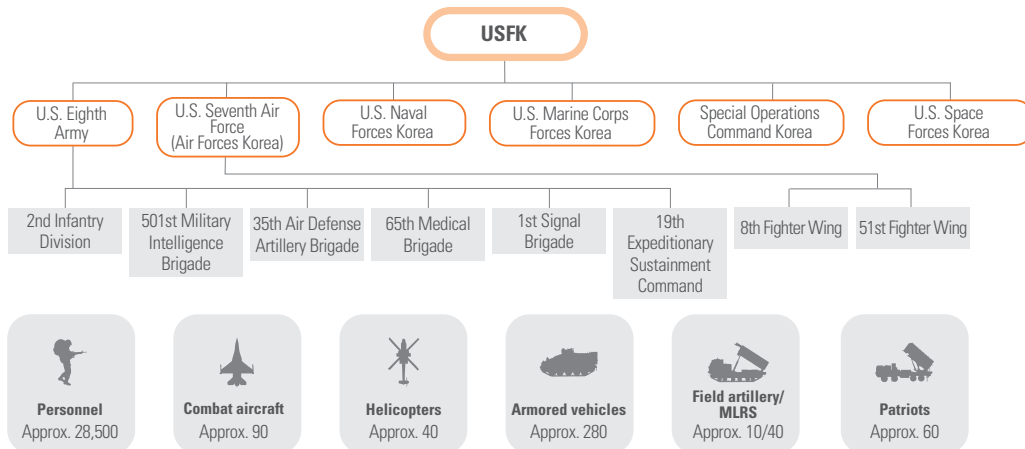
Air Force Operations Command controls overall air operations and conducts counter-air (CA) operations¹¹⁾, air interdiction (AI) operations¹²⁾, and close air support (CAS) operations¹³⁾, as well as operations to effectively counter nuclear, missile, and long-range artillery threats. Air Combat Command executes assigned combat missions under the control of the Air Force Operations Command and ensures that all combat mission aircraft exercise their full combat power. Air Mobility and Reconnaissance Command is responsible for air mobility and aerial refueling, surveillance and reconnaissance, early warning and air control, special missions, and search-and-rescue (SAR) missions, and ensures that the air mobility forces exert their combat power. Air Defense Missile Command carries out complex, wide-area, and multi-layered missile defense and regional air defense missions through the strategic and operational surveillance of air threats, while Air Defense Control Command is responsible for air control, aerial surveillance, aircraft identification, and air operation support within the Korean peninsula theater. Air Force aims to achieve overwhelming air superiority by continuing to acquire highly advanced fighter jets, expand its air surveillance and reconnaissance capabilities by introducing Medium-Altitude Unmanned Aerial Vehicles (MUAV), and deploy complex, wide-area, and multi-layered missile defense systems.

United States Forces Korea and Augmentees

The United States Forces Korea (USFK) consists of the U.S. Eighth Army, U.S. Seventh Air Force (Air Forces Korea), U.S. Naval Forces Korea, U.S. Marine Corps Forces Korea, Special Operations Command Korea, and U.S. Space Forces Korea. The USFK commander concurrently serves as the commander of the UN Command and the commander of the ROK-U.S. Combined Forces Command. Chart 3-5 below shows the key organizations and assets of the USFK.

The U.S. Augmentation Forces that can be deployed to the Korean Peninsula during crisis to support the defense of the ROK consist of 690,000 troops, 160 vessels, and 2,000 aircraft

[Figure 3-5] Key Organizations and Assets of the USFK



from the Army, Navy, Air Force, and Marine Corps. Depending on how a crisis develops, these forces can be deployed incrementally according to two different modes, the Flexible Deterrence Option (FDO)¹⁴⁾ and the Time Phased Force Deployment Data (TPFDD),¹⁵⁾ pursuant to Article 2 of the Mutual Defense Treaty between the ROK and the U.S. When a crisis occurs on the Korean Peninsula, the FDO, which aims to deter war and mitigate the crisis, is executed to deploy the designated forces. Should the war begin, combat and support units will be reinforced in accordance with the TPFDD to ensure the execution of the ROK-U.S. combined OPLAN, and war materials will be provided through Army Prepositioned Stocks (APS).¹⁶⁾

To maintain the steadfast combined defense posture to defend the Republic of Korea, the ROK Armed Forces will engage in close consultation with the U.S. on developing plans for the deployment of the U.S. Augmentation Forces.

2. Maintaining Readiness Posture against Local Provocations

Establishing Surveillance and Early Warning Posture

Based on close coordination between the ROK and the U.S., the ROK Armed Forces are maintaining a constant combined intelligence surveillance posture and warning dissemination system to deter and respond to complex security threats. Furthermore, in addition to the ROK-U.S. combined intelligence assets, the ROK Armed Forces collect and analyze intelligence gathered from relevant agencies at home and abroad, then leverages them for operational uses. ROK Armed Forces are also striving to bolster indigenous surveillance capabilities by acquiring assets such as military reconnaissance satellite, microsatellite system, and mid altitude ISR UAVs.

Improving AI-based Alert Systems

Although the ROK Armed Forces have carried out monitoring operations and installed fencing

14)

A series of political, economic, diplomatic, and military options that are part of the CFC Crisis Action Standard Operating Procedures that have to be promptly executed to deter war.

15)

Force deployment list and data of the U.S. augmentation forces for execution of the ROK-U.S. combined OPLAN.

16)

Equipment and materials stored and managed in advance in a conflict area or in nearby areas to enable the U.S. Army to quickly deploy and carry out missions when entering a conflict area as soon as the need arises.

at GOPs (General Outposts), coastlines and riverbanks to prepare against enemy infiltration, defection from North Korea and unauthorized crossing of the MDL to enter into North Korea occurred in 2004 and 2005. In response, the 5th Army Division conducted a pilot test of the scientific monitoring system from 2006 to 2009, and as its effectiveness in improving the monitoring capability and reducing the number of security personnel was confirmed, the system was installed across all GOPs by 2016.

Thereafter, the ROK Armed Forces carried out a pilot project to install cameras equipped with the latest technology and AI image analysis technology in order to increase the efficiency of monitoring operation, by replacing surveillance and detection equipment that reached the end of its life cycle and relieving the workload of monitoring personnel caused by frequent false alarms. Once the results of the pilot project have been confirmed, all GOPs will be replaced with an AI-based boundary system by 2026. Moreover, a demonstration project for an AI convergence coastline monitoring system that integrates and processes surveillance system data has been implemented in cooperation with the Ministry of Science and ICT since 2020 to strengthen monitoring operation capabilities in coastal areas, and there are plans to introduce the system to all coastal surveillance forces by 2026. In the future, the ROK Armed Forces will continue to improve AI-based surveillance and vigilance operational capabilities in conjunction with the latest advances in science and technology.

Establishing Readiness Posture against Local Provocations in Land, Air, and Sea

Since the signing of the Armistice Agreement in 1953, North Korea has carried out provocations in land, air and sea in violation of the Armistice Agreement and the Non-Aggression Treaty between the ROK and North Korea and recently perpetrated armed provocations in violation of the Comprehensive Military Agreement. As such, the ROK Armed Forces are maintaining a robust military readiness posture on the basis of close coordination between the ROK and the U.S. in order to deter North Korea's provocations and provide prompt and stern response in case of provocations.

Furthermore, the ROK Armed Forces maintain surveillance and an immediate response posture that covers the entire Korean peninsula so as to firmly defend the ROK territory including its land, waters, and airspace over the East Sea, West Sea, and South Sea, including the northwest islands, Marado, Ulleungdo, and Dokdo.

In particular, the Northern Limit Line (NLL) is a de-facto boundary that the ROK Armed Forces have firmly preserved to date. The ROK Armed Forces will continue to firmly uphold the principle of compliance with the NLL and resolutely respond to any provocation against it. Moreover, the ROK Armed Forces remain strongly committed and are maintaining a readiness posture to safeguard Dokdo, a ROK sovereign territory in terms of history, geography and international law. To respond effectively to the changing operational environment, the ROK Armed Forces will optimize their surveillance, decision-making, and strike systems in land, sea, and air and continue to strengthen its critical capabilities.

**Maintaining Readiness Posture against
Other Types of Provocations**

The ROK Armed Forces have been reinforcing the integrated civil-government-military-police-fire department defense posture in preparation for terrorist and cyber-attacks against key national infrastructures and public facilities in the capital and rear areas.

To complete the posture for executing integrated defense operations led by the heads of local government, a civil-government-military-police-fire department information sharing system has been built and is now being operated. The ROK Armed Forces are reinforcing the posture of integrated readiness by developing operational plans and response manuals for each type of provocation, as well as conducting integrated defense trainings and exercises, such as the Ulchi Exercise as well as Hwarang and Chungmu Training.

To swiftly respond to diverse terrorist threats, special units dedicated to counter-terrorism operations against diverse types of terror threats have been designated, and the concept of the integrated operation of anti-terrorism operation forces centered around regional military commanders has been developed. In addition, the ROK Armed Forces have increased the number of specialized personnel of the anti-terrorism operation force, strengthened its special equipment, and reinforced its ability to carry out anti-terrorism operation missions through regular civil-government-military-police-fire department-integrated training exercises.

Meanwhile, considering the impact of cyber-threats on national security, the ROK Armed Forces actively participate in the operation of a government-led National Cyber Threat Intelligence System that can promptly share information on cyber-threats amongst civil, government, and military bodies, and are strengthening cyber security capabilities by developing cyber professionals and training on cyber-attack response.

Developing Crisis Management System

The ROK Armed Forces have firmly established the ROK Armed Forces-led crisis management system and the ROK-U.S. combined crisis management system to respond effectively to various provocations and threats from North Korea. The National Defense Crisis Management Directive was revised in November 2022 to strengthen coordination with the Guidance for National Crisis Management and to specify missions to enable the MND and subordinate forces and agencies to respond systematically during a crisis. At the same time, the ROK Armed Forces continue to improve the crisis management system to respond firmly to any provocations from North Korea, such as reinforcing the combined crisis management exercises and developing the ROK-U.S. combined crisis management system.

[Figure 3-6] Area of Responsibility of the ROK Armed Forces



* Source: National Geographic Information Institute.

3. Maintaining Readiness Posture for All-out War

Enhancing the Capability to Execute Wartime Operations

To improve their ability to carry out wartime operations, the ROK Armed Forces continue to refine the ROK-U.S. bilateral OPLAN and validate and supplement them through annual ROK-U.S. theater-level combined exercises.

At the 53rd ROK-U.S. Security Consultative Meeting (SCM) held in 2021, the ROK Ministry of National Defense and the U.S. Department of Defense agreed on new Strategic Planning Guidance (SPG) to develop the OPLAN. The new SPG reflects the various changes in the strategic environment, since the ROK and the U.S. agreed on the SPG in 2010, such as changes in the form of North Korea's threats, structural reform of the ROK Armed Forces and changes to the future combined command structure with continuation of the Combined Forces Command. Based on the new SPG, JCS prepared the Strategic Planning Directive (SPD), which was approved the ROK and the U.S. Chairman of the Joint Chiefs of Staff in March 2022. The ROK and the U.S. military authorities are developing a combined operational plan based on the agreed SPG and SPD to prepare for full-scale war provoked by North Korea.

Furthermore, the ROK and the U.S. are conducting exercise and FTX to verify the OPLAN's effectiveness and improve the service member's ability to execute combined operations in wartime. Starting with the combined exercises held in the second half of 2022, the ROK Armed Forces changed the name of the exercise from Combined Command Post Training (CCPT) to Ulchi Freedom Shield (UFS), thus inheriting the tradition of the ROK-U.S. Alliance, restoring a theater-level combined training system, and demonstrating a strong ROK-U.S. Alliance internally and externally.

In addition, integrated government and military exercises are conducted to improve the government-wide ability to execute all-out war. Likewise, the ROK Armed Forces are improving their ability to conduct wartime operations by developing OPLANs as well as combined exercises and training in preparation for an all-out war, with the aim of achieving a decisive victory in all domain including ground, sea, air, space, and cyber to end the war with "minimal damage within the shortest possible time."

Reinforcing War Sustainability

The term "war sustainability" refers to the nation's ability to wage war and achieve the objectives of a war, and to the continuous maintenance of the nation's potential and military operational capability at the required level and time. The ROK Armed Forces acquire and maintain the necessary capacity to conduct a war in terms of equipment, ammunition, fuel, and military forces based on wartime requirements and current capabilities.

In the field of equipment, core maintenance capabilities and environments are being improved through Condition Based Maintenance Plus (CBM+),¹⁷⁾ which applies the core technologies of Industry 4.0, smart factory,¹⁸⁾ and remote maintenance support systems¹⁹⁾ to guarantee high equipment utilization rate.

Furthermore, the ROK Armed Forces implement economic and effective military support by applying Performance Based Logistics (PBL)²⁰⁾ support utilizing RAM-C (Reliability,

17)

Maintenance procedures or the capability to perform system maintenance according to need based on real-time analysis of conditions of weapon systems using data obtained from sensors or measuring instruments built into weapon systems and to determine the optimal maintenance time by diagnosing and predicting defects in advance via the integrated application of data, processors, technology, and knowledge-based capabilities.

18)

Construction of a digital maintenance environment to monitor and control the maintenance processes for each system and to share information by applying Industry 4.0 technology, such as the IoT and big data, to maintenance sites in order to overcome the limitations and difficulties of managing labor-intensive maintenance processes and maximize maintenance efficiency.

19)

A system designed to detect abnormal/early signs of equipment malfunctions and defects in real time in order to ensure rapid recovery support and conducts preventive inspections of ships and remote ground forces (radar bases and anti-aircraft batteries) and quickly provide technical information via information and communication networks.

20)

A system whereby long-term contracts are signed with logistics support companies to ensure stable utilization rates of major military supplies. The respective service presents performance measurement indicators such as the target utilization rate, while the contractors provide part or all of the military support requirement and are paid according to their performance.

Availability, Maintainability, Cost.²¹⁾

With regards to ammunition, the ROK Armed Forces establish and implement policies related to storage management, performance maintenance, and explosives disposal support in order to strengthen independent ammunition support capabilities in preparation for wartime OPCON transition.

For POL, the ROK Armed Forces have secured sufficient supplies for wartime through stockpiling, the amassing of defense reserves, and industrial mobilization in collaboration with the relevant ministries. In particular, considering the increase in ground operations as well as maritime and air joint operations, fuel for the operational mobility of equipment, including ships and aircraft, has been secured and supplied promptly to ensure that there are no restrictions on operations.

On transportation, the ROK Armed Forces have established and implemented various policies to expand war and peacetime transportation support capabilities, such as standardizing cargoes, securing high-mobility and multi-functional medium-size transport vehicles, implementing a real-time location tracking system for transportation assets, and integrated use of civil, government, and military means of transport, in order to build an integrated transportation support system.

For personnel, the ROK Armed Forces have established and implemented various policies, along with position-specific personnel acquisition and supplementation plans covering military, civilian and technical personnel, as well as workers, in order to secure and support troops promptly and efficiently and thereby guarantee current and future operations and maintain the optimum combat capability.

Regarding medical services, the ROK Armed Forces have introduced additional mobile medical deployment facilities to the medical corps in each division in order to provide full medical support to wartime operations forces. Moreover, new paramedics are deployed mainly to combat companies, and additional MEDEVAC helicopters and ambulances are gradually introduced to quickly treat and transport patients.

For mobilization, the effectiveness of the wartime readiness plans is validated, and implementation procedures are mastered through annual training exercises in each region. Additionally, preparations are made to mobilize planned resources quickly in case of need through the National Defense Force Mobilization and Development Conference²²⁾ (force mobilization), the Defense Mobilization Resource Survey²³⁾, and the confirmation of resources subject to focused management²⁴⁾ (i.e. material mobilization).

For engineering, the ROK Armed Forces have established and implemented sustainability assessment measures, such as the application of criteria for evaluating each facility and understanding recovery status, to demonstrate the sustainability of national infrastructures (institutions, power, transportation, airports, harbors, water reservoirs, underground communal zones, etc.) that have a direct impact on military operations and the wartime emergency recovery objectives (facilities subject to restoration by the Corps of Engineers, command facilities, port mooring facilities, airfields, POW camps, emergency runways, etc.).

In the future, the ROK Armed Forces will reestablish the definition of war sustainability and its individual elements, which are currently limited to the existing military domain, by expanding them to the fields of politics, economy, society, and diplomacy, and will play

21)

An engineering analysis technique that provides an alternative to minimizing life cycle costs while meeting RAM goals.

22)

A meeting in which each service and the Military Manpower Administration participate to develop a system related to the requirements and designations for troop mobilization.

23)

A survey of the production capacity and human resource management of designated companies is held around May of each year to identify the status of personnel and materials required for the defense sector in the event of an emergency.

24)

Personnel, materials, and businesses that are required and designated for mobilization by organizations, such as military units or local governments, during wartime are called "resources subject to priority management", and are subject to regular joint inspections by the civil, government, and military authorities throughout the year.

a leading role in establishing a government-level system for analyzing and evaluating the national war sustainability based on this expanded definition.

These efforts will contribute to expanding the war sustainment capabilities of the ROK Armed Forces and to establish optimized defense strategies in line with the ongoing changes in modern warfare.

Reinforcing the MND's Role during Wartime

In December 2021, the Ministry of National Defense revised the “Defense War Execution Guidance” and the “Regulations on National Defense Command Operation” in order to specify the wartime missions and tasks of the JCS, units directly under the MND and associated agencies. In particular, it has redefined the MND’s role in wartime by specifying the three major wartime functions (advising the conduct of war, execution of war and support to the war effort) of the National Defense Command Headquarters, reviewed the list of decisions to be taken at each stage of war to enable it to carry out its duties effectively during wartime and familiarize the wartime execution procedures during government and combined exercises.

Acquiring ROK 3K Defense Capabilities

The MND is expanding capabilities and posture of the ROK 3K Defense²⁵⁾, which consists of Kill Chain, Korea Air and Missile Defense (KAMD), and Korea Massive Punishment and Retaliation (KMPPR), in order to respond to North Korea's increasingly advanced nuclear and missile threats and significantly strengthen the military's ability and readiness to attack, defend, and retaliate. By early acquisition of key assets of ROK 3K Defense, ROK Armed Forces are striving to strengthen response capabilities against North Korea's nuclear and missile threat and establish a balanced immediate response posture that include operational concept and development plan.

1. Securing Capabilities to Execute the Right of Self-defense with Kill Chain

Kill Chain is an offensive system that swiftly and precisely detects key targets such as nuclear and missile related command, launch and support system and mobile Transporter Erector Launchers (TEL), then eliminate them prior to launch, if there are clear indicators of their intended use. This system supports realizing the concept of 'deterrence by denial'²⁶⁾.

To this end, the ROK military will strengthen its posture to proactively detect and disrupt before launch and procure ISR and high-precision strike capabilities that can achieve swift and accurate effects against fixed and mobile targets throughout North Korea.



Kill Chain

²⁵⁾

Collectively refers to the ROK Armed Forces' independent capabilities and readiness for deterring and responding to North Korea's nuclear and missile weapons. It is comprised of Kill Chain (offense), KAMD (defense) for deterrence by denial, and KMPPR (punishment and retaliation) for deterrence by punishment.

²⁶⁾

A concept designed to convince the enemy that loss and risks far outweigh the benefits of aggression by acquiring the capabilities to deny adversary's specific strategic goal, thus discouraging the enemy from committing an attack.

Developing Powerful Military Response

Concept and Plan for Self-Defense

right to self-defense, when there are clear signs of nuclear and missile use by North Korea. In particular, the MND will respond and deter North Korea's nuclear and missile threats by refining the operational execution system that swiftly disrupts and destroys their nuclear and missile systems before and after launch in conjunction with the Alliance's Comprehensive Counter-Missile Strategy

Reinforcing Surveillance and

Reconnaissance Capabilities

Ability to early identify signs of nuclear and missile use is paramount to deterring and effectively responding to North Korea's growing nuclear and missile threats. As such, the ROK Armed Forces continue to develop its capabilities to collect imagery, SIGINT

The MND is developing a strong military response concept and plan, enabling the ROK Armed Forces to respond sternly under

and integrating the information including through expanding surveillance, reconnaissance as well as space assets in order to gain the capacity to constantly monitor North Korea's key targets and nuclear missile threats.

First, the ROK Armed Forces use High-Altitude Unmanned Aerial Vehicles (HUAV) to obtain imagery on North Korea's key targets, while it's pursuing to field military reconnaissance satellites, Medium-Altitude Unmanned Aerial Vehicles (MUAV), and microsatellite systems to gain imagery on key targets across North Korea at all times. Furthermore, the military is using ground, sea and air-based SIGINT gathering platforms to detect indications of imminent North Korea missile launches, and is carrying out programs to enhance the existing SIGINT gathering platforms, such as Phase II of the Baekdu System Capability Enhancement Program to further detect SIGINT on North Korea at an earlier stage.

Second, the ROK Armed Forces are currently developing an all-source imagery convergence system using advanced technology such as AI to consolidate and analyze diverse imagery obtained through satellites and aerial reconnaissance assets quickly and accurately, and to support real-time decision-making by the leadership. Going forward, the ROK Armed Forces will continue reinforcing intelligence, surveillance, and reconnaissance (ISR) assets using advanced technology to effectively deter and respond to North Korea's increasingly advanced nuclear missile threats.

Enhancing High-Precision Disruption²⁷⁾ and Destruction²⁸⁾ Capabilities

As North Korea strives to operate TELs and diversify its launch platforms to increase the survivability and concealment of its

missile forces, the ROK Armed Forces are responding by expanding their high-power, high-yield, high-precision disruption and destruction capabilities, and by diversifying the strike platforms across ground, sea, and air and strengthening their strike capabilities against fixed and mobile targets. Strike capabilities will be strengthened with tactical surface-to-surface guidance weapons and high-yield missiles against fixed targets, while precision strike capabilities against mobile targets will be reinforced by bolstering the fleet of fifth-generation fighter jets and securing long-range air-to-surface missiles. In addition, ROK military will enhance the ability to detect and strike North Korean submarines by employing maritime patrol aircraft and submarines.

Following the advances in science and technology, the ROK Armed Forces continue to acquire weapons systems equipped with new technology. In addition to kinetic strike capability, the ROK Armed Forces will secure capabilities in the space, cyber, and electromagnetic spectrum domains in order to disrupt and destroy North Korea's nuclear and missile threat before and after launch by strengthening non-kinetic means, such as black-out bombs, electromagnetic pulse bombs, and EW aircraft.

27)

The concept of striking stationary infrastructures, such as ground facilities that support missile operations, in order to impede North Korea's missile activities by reducing the threats (size, concentration, timeliness, accuracy, etc.).

28)

The concept of directly striking ballistic missiles and their TELs to eliminate North Korean missile activities that pose a direct threat to the ROK.

2. Building a Complex, Multi-layered Missile Defense System

Korea Air and Missile Defense (KAMD) refers to a complex, multi-layered defense system²⁹⁾ that can early detect and intercept various types of missiles launched at the ROK and disseminate warnings to minimize damages. Collectively with Kill Chain, it realizes the concept of deterrence by denial. To this end, the ROK Armed Forces will expand the concept of missile defense from the existing vertical (altitude) dimension to the horizontal (distance) dimension to strengthen readiness. From a capability standpoint, the military will continue to pursue early missile detection, multi-layered engagement capabilities and invest in research and development on forward-leaning weapon system based on cutting edge technology.



Korea Air and Missile Defense (KAMD)

Developing the Concept of Complex, Multi-layered Defense

North Korea is developing irregularly maneuvering missiles capable of gliding and aerodynamic flight that exhibit a different flight trajectory to that of traditional ballistic missiles, and is expected to employ tactics designed to complicate the ROK missile defense system by firing multiple types of missiles at the same time. To respond effectively to North Korea's tactics, the ROK military will increase the probability of kill by expanding the existing vertical defense concept to the horizontal level and sequentially intercept missile from a distance. Moreover, it will develop a complex defense operation system in the metropolitan area in preparation for a mix of missile and long-range artillery attacks, and improve operational efficiency by effectively integrating (networking) the indigenously developed ground-based upper- and lower-tier defense radar systems. Furthermore, the ROK Armed Forces will continue to strengthen their defense capabilities and readiness to protect the lives and assets of the Korean people and minimize damages that can occur from nuclear missile explosions and EMP (Electro-Magnetic Pulse) damage.

Reinforcing Ground, Sea, and Space Based Early Missile Detection Capabilities

It is vital to strengthen the ROK military's early missile detection capability in order to respond effectively to North Korea's advanced nuclear and missile threat. As such, the ROK Armed Forces are reinforcing early ballistic missile detection capabilities across the Korean Peninsula by deploying more ballistic missile early warning radars and Aegis ships with improved detection range and capability. Furthermore, ROK Armed Forces will promptly detect missiles flying at low altitudes and initiate the development and fielding of a space based early warning satellite system capable of identifying launch points to improve the responsiveness of offensive operations. In parallel with the efforts to acquire all-weather early missile detection

²⁹⁾

"Multi-layered defense" refers to a defense system that can engage enemy missiles at least twice with multiple defense systems at different altitudes. The complex multi-layered defense system is a combination of a multi-layered defense system against ballistic missiles and a defense system against long-range artillery

capabilities, KTM0-Cell³⁰⁾ will be modernized for an improved C2 capability and seamlessly employ sensors and defense systems.

Expanding Missile Defense Systems

The ROK Armed Forces are gradually building a complex, multi-layered defense system to defend all regions of the Republic of Korea. To this end, the military is bolstering lower-tier defense system by upgrading the current PATRIOT system, increasing the inventory of interceptors and fielding homegrown missile interceptor—Cheongung-II. Furthermore, to acquire the ability to intercept at terminal phase, imperative to ensure the safety of the people, the ROK military will establish terminal phase upper and lower-tier defense system by fielding and improving L-SAM.

In particular, the ROK Armed Forces plan to early deploy Low Altitude Missile Defense system (LAMD), a ROK indigenous system that is similar to that of the “Iron Dome”, and build complex, multi-layered defense system in order to secure the ability to respond simultaneously to the mixed firings of North Korea’s missiles and MRLs. While strengthening its independent complex, multi-layered defense capabilities by establishing a missile defense system developed with domestic technology. Under the ROK-U.S. combined defense system, the ROK military will continue to develop the alliance’s response capabilities by strengthening interoperability with the USFK missile defense system. Furthermore, through continuous technological development, ROK military plans to promote research and development of technologically advanced weapons systems such as high-power laser interception weapon systems.



Cheongung-II (Medium-Surface-to-Air Missile)

3. Reinforcing Overwhelming Massive Punishment and Retaliation Capabilities

Korea Massive Punishment and Retaliation (KMPR) refers to a system designed to punish and retaliate against the enemy’s war leadership and core facilities using the ROK Armed Forces’ overwhelming strategic strike capabilities, such as high-yield and high-precision striking capability, in case North Korea uses nuclear or WMD. This supports implementing the concept of “deterrence by punishment³¹⁾”.

To this end, the ROK Armed Forces will utilize their strategic capabilities to strengthen the deterrent posture against North Korea’s use of nuclear weapons, while increasing its high-

30)

KTM0-cell (Korea Theater Missile Operation Cell) receives and processes the enemy ballistic missile trajectory data gathered by the detection system and executes engagement control of the interceptor system.

31)

A defense concept based on the threat of retaliation with the aim of preventing the adversary from acting by forcing it to recognize that the cost will outweigh the anticipated benefit.

power, high-precision strike capability against North Korea's war leadership and core facilities.

Refining Deterrence Concept against North Korea's Nuclear Use

The ROK Armed Forces are strengthening and increasing its overwhelming strike capabilities, to include extending the range of its missiles, enhancing lethality, and enabling mass firing to deter North Korea from using its nuclear capability and, should deterrence fail, retaliate and punish them. The ROK military is strengthening its deterrence posture by exerting strategic capabilities consisting of high-yield ballistic missiles and covert infiltration and strike assets such as the F-35A stealth aircraft and submarines.



KMPR



F-35A Elephant Walk³²⁾

Expanding Long-range, High-yield, and High-precision Strike Capabilities

The ROK Armed Forces are demonstrating robust deterrence by developing powerful missiles with longer range and greater accuracy. that provide operational efficiency and flexibility. An overwhelming strike capability, including mass firing, is being pursued with plans to acquire land, air and sea-based high-yield missiles capable of striking all regions of North Korea. Furthermore, the military will enhance its destructive capacity in order to enable the destruction of tunnels and buildings, and continue to secure precision strike capabilities against key targets.



Hyunmu Surface-to-Surface Ballistic Missile

Reinforcing Special Warfare and Covert Infiltration Capabilities

It is essential to reinforce infiltration capabilities with guaranteed survivability and to enhance state-of-the-art forces in order to execute the mission of eliminating the North Korean war leadership in case of North Korea's use of nuclear weapons. To this end, the ROK Armed Forces will improve the performance of the transport aircraft used in Special Forces operations (C-130H) to enable rapid infiltration into contested areas, and field Special Operations Heavy-Lift Helicopters.

³²⁾

Training in which large number of military aircraft line up on the flight line in dense formation at short intervals to practice maximum sortie generation

Furthermore, ROK military will continue to expand the all-weather infiltration and strike capabilities of special warfare units by reinforcing special mission brigade capabilities to secure robust special operation capabilities.

4. Creation of Strategic Command for Deterrence and Response to North Korea's Nuclear and Missile Threats

Integrated Operation of Strategic Capabilities

The MND plans to establish the Strategic Command in order to respond effectively to North Korea's increasingly advanced nuclear and missile threats and lead the development of the related forces. Strategic Command will deter North Korea's nuclear and missile threats and lead systematic development of the related capabilities by integrating its high-precision, high-yield strike capabilities and multi-domain capabilities encompassing space, cyber, and the electromagnetic spectrum. To this end, it will gradually implement and operate missile and cyber forces as well as space and electromagnetic spectrum forces, and other forces required for strategic deterrence and response in specified events.

Promoting Phased Establishment

The MND aims to gradually establish the Strategic Command based on jointness. In Phase 1, JCS's CWMD Center has been enlarged into the Chief Directorate of CWMD as of January 2023. In Phase 2, Strategic Command will be activated after drafting its OPLAN, establishing command and control infrastructure and evaluating and verifying its operational capabilities. After its stand up, Strategic Command will continue to evolve to reflect the ongoing threats and changes in the strategic landscape of North Korea and the capabilities of the ROK Armed Forces.

Reinforcing the Capabilities to Respond to Comprehensive Security Threats

To protect the life and safety of their citizens, the ROK Armed Forces are building a comprehensive system for responding to the comprehensive security threats including cyber-attacks, terrorism, disasters, and chemical, biological and radiological attacks, which are beyond the scope of conventional security threats. Defense cyber-security capabilities are being strengthened by establishing defense cyber security policies and plans for the foundation of the response system that consider the increasingly intelligent and advanced nature of cyber threats and the rapid development of cyber technology. To prevent acts of terrorism and respond quickly and effectively against terrorist threats, the ROK Armed Forces are continuously developing their capability to carry out counter-terrorism operations by reinforcing the organization, personnel, equipment, and supplies of the counter-terrorism operation units. They are also developing a government-wide readiness and strengthening cooperation with the U.S. and the international community in a bid to strengthen their capacity to respond to chemical, biological and radiological threats and national disasters.

1. Development of the Capability against Cyber Threats

Development of the National Defense Cyber Policy and Mission Execution System

In October 2019, the MND published the “National Defense Cyber Security Policy” to set the cyber security vision and goals and proposed medium-to-long term development goals and plans. The National Defense Cyber Security Policy sets goals of creating, protecting and maintaining cyberspace with accurate, safe, and effective measures, securing our activities in cyberspace, and countering that of the enemy. It also contains plans for developing a defense cybersecurity mission execution system, professionalizing and nurturing professional cyber security personnel, improving the capability to respond to cyber-attacks, and strengthening international cooperation in defense cybersecurity.

In February 2019, the Armed Forces Cyber Command was reorganized into the Cyber Operations Command and designated as a joint force to strengthen the cyber operations posture, and the Cyber Protection Center of each military branch was reorganized into the Cyber Operation Center and reinforced with manpower suitable for executing cyber operations.

In 2021, the Cyber Operation Command was reorganized to play a leading role in various fields such as operations, planning, research and development, project management, as well as education and training as the highest echelon in cyber operations, based on an evaluation of their performance so far and identification of challenges to be overcome.

Going forward, the ROK Armed Forces will continue specializing and refining the defense cyber security mission execution systems and cyber security personnel, while further developing the cyber warfare mission execution system.

Development of Cyber Experts and Education/Training Programs

The field of cyber operations is an area in which operational capability is greatly influenced by the expertise of the personnel, when compared to other theaters of war. The MND is developing a comprehensive personnel management system that links acquisition, education/training, positioning, and promotion to enhance the expertise of cyber personnel.

First, to secure the professional capabilities of cyber workforce whose main tasks include establishing cyber policy and doctrine, conducting R&D on countermeasure technologies, and detecting cyber threats, cyber-professional positions have been designated each year since 2019 in order to recruit cyber professionals with guaranteed priority. Meanwhile, the “National Defense Personnel Management Directive” was revised in 2022, to establish the criteria for selecting and categorizing cyber professionals.

Furthermore, in line with the addition of “Cyber” specialty to the military occupational specialty system in November 2019 and the “Cyber Positions” to the positions list in March 2020, the ROK Armed Forces are organizing and developing an education and training program and providing specialized training courses that match the type of cyber operation and job competencies of the trainees. Each military branch conducts basic cyber education on preventive activities through means such as education in schools, and the Defense Counterintelligence Command conducts fundamental cybersecurity education across the all military branches. The Cyber Operations Command provides specialized cyber education consisting of educational courses of each field and level of services, while the top-level training for elite cyber talents is outsourced to external agencies. An advanced military course was created at the ROK Army Information and Communication School in 2020 to cultivate the expertise of cyber officers.

In particular, a new system was established in 2022 to nurture information security experts, including the creation of an education and evaluation course run by the military that enables the participants to acquire a national certificate for information security engineer.

In 2021, a virtual cyber warfare environment was set up as a defense cyber training field in order to conduct realistic offensive and defensive training and evaluation, and the pilot training was successfully carried out. Actual offensive and defensive cyber combat training has been provided since 2022.

Furthermore, in November 2022, the White Hat Contest, a hacking defense competition and conference, was held to raise awareness of the importance of national cyber security and strengthen the nation’s cyber security capabilities by identifying personnel with outstanding skills. The competition was held based on actual cyber-attack cases, thus contributing to expanding the participants’ experience and strengthening their cyber capabilities. Total of 653 people from 302 teams participated in the contest, making it the largest hacking defense competition in Korea.

For 2023, the MND plans to establish a comprehensive development plan for cyber defense personnel to train elite cyber personnel, review previous education and training systems, and develop practical education and training programs using the defense cyber training field to enable the personnel to demonstrate their capabilities in various cyber operations.

Expanding and Advancing Cyber Warfare Capabilities

The ROK Armed Forces are expanding their cyber capability to respond effectively to ever-changing cyber threats and continuously improving it into an

integrated, automated, and intelligent force.

The Military has also established basic protection systems required for each protection target including networks, servers, PCs, software, data, weapon systems, drones, and digital devices, and operates advanced cryptographic systems to strictly protect crucial military information. In 2018, it established the Incident Response & Intelligence System, which collects, analyses, and distributes cybersecurity information gathered from variety of sources, followed in 2019 by the Cyber Information Management System-Enterprise Vulnerability Management, which comprehensively manages actions to be taken for the identified vulnerabilities, and the Military Enterprise Security Management System, which integrates monitored information from each military branches and analyzes it using big data technology. In 2020, it advanced the Military Virus Prevention System and implemented the Network Cyber Threat Indications Analysis System.

In 2021, the ROK Armed Forces developed the Cyber Command and Control(C2) System to synthesize and visualize diverse information necessary for cyber operations to enable commanders to make decisions quickly and control the situation, and also developed the Education and Training System to support simulated cyber training under various cyber crisis scenarios. They also aim to expand the scope of integrated cyber security monitoring by establishing a real-time threat detection system for the smart fighter wing IoT (Internet of Things) environment in 2022.

In the future, in line with the rapidly changing cyber environment, the ROK Armed Forces will continue to research operational concepts required for the cyber warfare environment of the future and the technical elements necessary for conducting cyber operations, and will further strengthen their cyber security with the expedited securing of future cyber warfare response capabilities through R&D investment and timely execution of its follow-up force deployment projects.

Strengthening International Cyber Security Cooperation

Hostilities in cyberspace, where the whole world is connected, are transnational threats that no single state can resolve by itself, which makes trust and cooperation

between the states essential in order to respond to and resolve them in an effective manner.

The ROK Armed Forces are strengthening international cooperation in the field of cyber security through various bilateral and multilateral consultation channels, and are particularly proactive in exchanges with the United States. Since 2014, the ROK MND and the U.S. DOD have been running the ROK-U.S. Cyber Cooperation Working Group (CCWG), sharing cyber threat information and discussing ways to cooperate and exchange in terms of technology, personnel, and organizations. At the 7th ROK-U.S. CCWG meeting held in May 2022, the two countries agreed to expand and strengthen their cooperation throughout the entire cyber field, including policy, operations, training, and education. Consequently, in August 2022, the Korea Cyber Operations Command and the U.S. Cyber Command signed an MOU for close cooperation in cyber operations and exchanges of cyber threat information

along with education & training in cyber operations.

Furthermore, the ROK is expanding its participation in international cyber training, including the very first participation in Cyber Flag 23-1, a cyber military exercise hosted by the U.S. Cyber Command in October 2022.

In addition, signing of the Korea-Poland Cyber Cooperation Agreement in 2020 has laid the foundation for bilateral cooperation, while the Korea-Colombia Cyber Security Workshop held in 2021 provided both parties with an opportunity to share defense cyber policies and strategies.

Efforts are also being made to promote multilateral cooperation. First, the MND has been operating the Cyber Working Group (CWG) within the Seoul Defense Dialogue (SDD), an annual multilateral security consultation body held annually at the vice minister level. Each year, around twenty to thirty countries participate in the CWG to share information on the status of cyber threats, introduce their respective cybersecurity policies and systems, and engage in the active exchanges.



Special Session on Cyber Security as part of the 2022 Seoul Defense Dialogue (September 2022)

While the meetings were held online in the form of a video conference from 2020 to 2021 due to the COVID-19 pandemic, the September 2022 meeting was held offline in the largest scale up to this point, involving 180 government officials and private experts from 45 countries.

Since 2018, the ROK has participated in the Experts' Working Group on Cyber Security held at the ASEAN Defense Ministers Meeting (ADMM-Plus), which invites ten ASEAN countries and eight other countries, including Korea and the United States to share cyber defense policies and conduct realistic training to strengthen their crisis management capabilities in the event of a cyber threat.

In particular, the ROK is leading the development of cybersecurity and international collaboration in the Asia-Pacific region by co-chairing the Experts' Working Group on Cyber Security with Malaysia for four years from 2021 to 2024.

At the 9th Experts' Working Group on Cyber Security meeting held in November 2022, the first cyber international training program in a joint response with the member states to counter cyber threats including hacking, was successfully held remotely.



ADMM-Plus Experts' Working Group on Cyber Security (2022)

The ROK Armed Forces are also participating in foreign cybersecurity agencies' cyber-attack response training programs to acquire advanced technologies and expand the basis for cooperation. The ROK Cyber Operation Command and each branch of the Armed Forces

participated in the International Cyber Training (CYBERNET) hosted by the Dutch Defense Cyber Command for the first time, winning the Runner-up Prize in 2021 and the Championship in 2022, proving that the ROK Armed Forces boast world-class cyber operation capabilities.

In April 2022, the ROK Armed Forces participated for the first time in Locked Shields, a multinational civil-government-military cyber training presided by NATO.

In November of the same year, ROK Forces were invited to and observed the Cyber Coalition, the world's largest cyber training conducted for military purposes, as part of its efforts to pursue international cyber cooperation.



ROK Armed Forces Representatives at CYBERNET 2022
(May 2022)

2. Establishing a Response System to Prevent and Counter Domestic and Overseas Terrorism

Development of Counter-Terrorism Policies, Schemes, and Systems

The ROK Armed Forces are complementing their anti-terrorism preparation plans and manuals to respond to the growing threat of terrorism in an effective manner. The 2021 revision of the Counter-Terrorism Preparedness Plan (2021) designated additional anti-terrorism operation units and adjusted the areas of responsibility for each unit in order to enable rapid initial action and response to potential simultaneous terrorist acts across the country. The ROK Military also improved the counter-terrorism response system by supplementing the “Working Manual for a Military Response to Terrorism Crises” in order to establish new criteria for promptly determining and responding to suspected acts of terrorism.

Furthermore, there are plans to revise the Ministry of National Defense Directive on Counter-terrorism Activities to establish a system for objectively evaluating the anti-terrorism preparedness of both anti-terrorism operation units and anti-chemical, biological and radiological terrorism operation units.

Reinforcement of Anti-Terrorism Operation Capability

The ROK Armed Forces laid the foundations for nationwide rapid deployment and response against terrorist attack by designating additional counter-terrorism units to each metropolitan cities and provinces. Previously, counter-terrorism units were concentrated in the Greater Seoul Metropolitan Area and western parts of the country.

The Roadmap for the Comprehensive Development of Counter-Terrorism Equipment and Supplies is supplemented annually to ensure that aging equipment and materials are replaced or reinforced on a continuous basis in order to guarantee the conditions required for anti-terrorism operation units to carry out their missions.

Furthermore, the counter-terrorism units regularly conduct comprehensive exercises with related organizations such as the National Counter Terrorism Center, National Police Agency, Korea Coast Guard and National Fire Agency, and operate joint civil, government, military, police and fire department drills at the local level in conjunction with the Hwarang Training of each municipality. Efforts are also being made to strengthen the ability to carry out anti-terrorism operations by conducting additional air deployment training, maritime anti-piracy training, and port anti-terrorism training in 2022.

Establishment of Comprehensive Countermeasures against Drone Terrorism

As shown by recent overseas cases, terrorism is an effective means for achieving political and military objectives, and drones

are now being widely utilized as a new means to conduct terror. In particular, as seen in cases such as the drone attacks against the UAE's International Airport and petroleum facilities and on Saudi Arabia's petroleum facilities, as well as the unauthorized drone flights over the ROK Hanbit and Gori Nuclear Power Plants, terrorist acts involving the use of drones against major national facilities have emerged as a real threat in Korea and abroad.

Accordingly, the ROK government is establishing a comprehensive, government-wide plan to respond to drone terrorism led by the National Counter Terrorism Center. The ROK Armed Forces are providing their anti-aircraft detection assets to support the protection of major national infrastructures from the threat of drone terrorism, and conduct R&D aimed at securing anti-drone capabilities including anti-drone laser weapons system, jointly with the Agency for Defense Development. In addition, the Integrated Defense Guidelines and the Working Manual for a Military Response to Terrorism Crises were supplemented in 2021 to improve the response procedures against drone terrorism threats and are now in being applied.

Development of Domestic and Foreign Counter-Terrorism Cooperation Systems

The threat of domestic and foreign terrorism is increasing as acts of indirect support for terrorism, such as the financing of terrorist

groups by extremists, have occurred domestically, while anti-Asian sentiment has spread abroad since the outbreak of COVID-19, exposing overseas citizens to racially-motivated hate crimes.

To prepare against such threats, the ROK Armed Forces are maintaining a system to share information with the relevant agencies, such as the National Counter Terrorism Center, National Intelligence Service, Ministry of Foreign Affairs, and National Police Agency, as well as strengthening cooperation with civil, government, military, police and fire departments to enable integrated operations.

Having signed International Terrorism Information Sharing Agreements with the major allied countries, the Armed Forces are also sharing anti-terrorism information with other nations to properly respond to the international terrorist threats. In 2022, Korea hosted a Working Group meeting on the prevention of terrorism with the UN Global Office of Counter-Terrorism (UNOCT), and made efforts to strengthen international cooperation and collaboration against terrorism by resuming joint counter-terrorism exercises with Indonesia, which had been suspended due to the spread of COVID-19.

3. Reinforcement of the ROK's Capability to Respond to CBR Threats

Developing the CBR Response System

The ROK Armed Forces seek countermeasures to respond to non-traditional security threats including North Korea's CBR threats, along with other CBR-related terrorist activities, accidents, and infections. As the ROK and the U.S. have built a close combined defense system, they use combined intelligence assets to monitor North Korea's CBR trends continuously and maintain a state of military readiness in order to detect early indication of an attack and neutralize it in case of contingency. Moreover, CBR and medical units are organized to establish CBR surveillance, reconnaissance, decontamination, and treatment systems, and protection capabilities are being improved by securing protective equipment and supplies, such as gas masks, antidotes, and therapeutics, and by building CBR facilities. In particular, the ROK Armed Forces are deploying new CBR equipment, such as K5 gas masks and the CBR Reconnaissance Vehicle-II, and applying cutting-edge technology to reinforce their CBR protection and detection/identification capabilities.

Meanwhile, the ROK Armed Forces are operating a special task force against CBR terror attacks and a rapid CBR response team to respond quickly to CBR incidents and terrorist activities, while continuously developing response systems in cooperation with the CBRN Defense Command, JCS, ROK-U.S. Combined Forces Command, Operations Command and other relevant organizations. Moreover, the ROK Armed Forces maintain a close cooperative system with the relevant agencies to prepare for CBR threats, CBR incidents, terrorism, and outbreaks of infectious diseases, while establishing a joint government-wide response strategy. In particular, in situations such as the COVID-19 pandemic, outbreaks of African Swine Fever (ASF), and hazardous chemical spills, the ROK Armed Forces will deploy the available military assets including CBR units in the field to protect life and property of its citizen and support expedited recovery from the damage. In November 2022, the CBRN Defense Command established the CBRN Special Mission Group to respond systematically to various types of CBR terror attacks and incidents. In October 2020, the CBRN Defense Research Institute was accredited as the agency responsible for handling clinical and environmental samples on behalf of the Organization for the Prohibition of Chemical Weapons (OPCW), making it possible to provide internationally credible information via rapid and precise analysis in the event of a chemical weapons attack on the Korean Peninsula.

To improve the government-wide capability to respond to CBR attacks, the ROK Armed Forces conduct annual integrated civil-government-military-police and fire department training in connection with the National Comprehensive Anti-Terrorism Exercise and the Disaster Response Safety Korea Training. Furthermore, to enhance the nation's combined response capabilities, they actively participate in



Support for Response to COVID-19

the bioterrorism crisis response exercises organized by the Korea Disease Control and Prevention Agency and the National Joint Exercise for Radiation Disaster Prevention organized by the Nuclear Safety and Security Commission.

Strengthening International Cooperation

Since 1997, the ROK MND and the U.S. DoD have been holding director general-level annual consultative Counter Proliferation Working Group (CPWG) whose objective is to prevent the spread of weapons of mass destruction (WMD) and develop joint response capabilities. In 2017, the CPWG was renamed as the “ROK-U.S. Countering Weapons of Mass Destruction Committee”

(CWMDC), and its policy consultation functions are being gradually strengthened. To address these threats and enhance the ROK Armed Forces’ response capabilities, the ROK-U.S. CWMDC held in July 2022 assessed North Korea’s



CWMDC Meeting (July 2022)

WMD threat and agreed to strengthen cooperation by reinforcing the development of education and training programs, expand ROK-U.S. combined training, and increasing cooperation in areas such as joint research on chemical and biological weapons disposal technology.

In 2017, both the ROK and the U.S. expanded the scope of the ROK-U.S. Biological Defense Exercise - initiated in 2011 with the purpose of improving the joint response capability to biological threats - to include the CBR domain, and renamed it the “ROK-U.S. CBRN Response Exercise”. This exercise, in which both the ROK and the U.S. government agencies participate, is held to evaluate the CBR crisis response system to prepare against possible mass damages to the Korean peninsula, and to discuss the cooperative response system between the relevant agencies, such as the joint national response plans. Moreover, in September 2022, the MND held the first CBR cooperation meeting with the NATO ACDC Arms Control, Disarmament and WMD Nonproliferation Center in order to expand international collaboration on CBR. Through this meeting, the two organizations agreed to confirm and continue developing practical CBR cooperation in various fields such as education, training, and research. In November 2022, the MND conducted the first tabletop exercise involving rapid cooperation with the OPCW in preparation against a possible chemical weapons attack. This training presented a valuable opportunity to build human networks, master investigation procedures, and seek technical cooperation, and the two organizations formed a solid consensus on the necessity to expand the training.



ROK-NATO CBRN Cooperation Meeting (September 2022)

Furthermore, the results of the exercise were presented to all member nations at the 27th General Meeting of the Parties to the Chemical Weapons Convention (CWC) held in November 2022, thereby contributing to raising the ROK's status in the field of chemical weapons prohibition.

Going forward, the ROK Armed Forces will continue strengthening their capability to respond to non-traditional security threats, including CBR attacks, chemical spills, and large-scale infectious diseases, while thoroughly maintaining the military readiness posture against North Korea's CBR threats.

4. Reinforcing Disaster Response Capabilities

Development of the Disaster Management System

In March 2021, the MND thoroughly revised the Defense Disaster Management Directive by reflecting the amendments of the Framework Act on the Management of Disasters and Safety along with the reorganization of the roles and duties for emergency rescue support agencies. In January 2021, the Common Manual for Defense Disaster Response was created to respond effectively to a disaster in the early stage. This manual established the basis for the operation of the National Defense Rapid Support Team and laid the foundations for providing rapid and combined support for large-scale disasters by integrating those disaster response units that operate similar missions and transferring the command authority from each service to the JCS.

In addition, the MND established the “Improvement Plan for the Ministry of National Defense Manual to Respond to Disasters in Entirety” in September 2021, setting the mid- to long-term direction for its improvement. The plan presented instructions on the preparation of the manual for the MND, each service Headquarters, and the Marine Corps Command as well as their subordinate units, and established an overall management and operation system, including annual revision and regular inspection of the manual. In August 2022, the MND launched the Crisis Management Manual Operation Council, composed of three civilian experts and sixteen personnel relevant to the manual, in order to gain momentum for improvement by deriving and discussing development plans for the manuals.

The MND has been developing the national defense-combined disaster management information system since 2021 and plans to complete it by 2023. Upon its completion, it will be possible to share information closely with the relevant agencies including the Ministry of Interior and Safety, the Korea Meteorological Administration, the Korea Forest Service, and the National Fire Agency in the event of a national disaster, thus enabling timely decision-making and a rapid response at the disaster site.

The demand for responsibility and expertise is growing, as the government officials responsible for disaster and safety management must complete specialized training under the Framework Act on the Management of Disasters and Safety within six months to one year of their appointment. As a result, the ROK Military designated the Army Integrated Logistics School and the Air Force Aviation Safety Agency as specialized educational institutions to conduct systematic and substantial disaster training, with 158 people trained in 2021 and 283 in 2022.

The ROK Armed Forces participate in the Disaster Response Safety Korea Training,

which is conducted every year across the government. In 2021 and 2022, the military's disaster response capabilities were strengthened and their cooperation system with the relevant organizations was assessed by conducting Disaster Response Safety Korea Training based on a scenario of fires as well as structural failures and collapses in densely populated multi-use facilities.



2022 Disaster Response Safety Korea Training (January 2022)

Moreover, each unit of ROK Armed Forces conducts regular disaster preparedness drills, taking into consideration the season and the type of disaster. There are variety of types of disasters and accidents, including: forest fires caused by climate change, fires and collapse of densely populated multi-use facilities, food poisoning, radioactive disasters, infectious diseases, and terrorist activities. Even during the COVID-19 pandemic, the ROK Armed Forces conducted drills to respond to the following: multi-use facility fires and typhoons in 2020; COVID-19, forest fires, large-scale fires at densely populated multi-use facilities, large-scale water pollution, hazardous chemical spills, and aircraft accidents in 2021; and earthquakes, fires, and forest fires in 2022. In particular, in 2022, field training was resumed to verify the disaster response capabilities by conducting realistic training. The ROK Armed Forces are fulfilling their mission of protecting the life and property of its citizens with the highest priority by maintaining a constant state of readiness against not only military threats but also disasters, which are non-traditional security threats.

Supporting National Disaster Recovery

When a national disaster occurs, the ROK Armed Forces strive to protect the life and property of its citizens by committing itself to the frontline of disaster. After the situation is resolved, the ROK military continues its best effort to restore damages at the disaster site so that its citizens may quickly return to their daily lives.

In the Republic of Korea, significant number of lives and properties are lost by natural disasters such as heavy rain, typhoons, and heavy snow³³⁾. The ROK Armed Forces deployed 75,126 service members and 4,645 pieces of equipment, such as dump trucks and excavators, to support the recovery of areas affected by torrential rain and Typhoon Hinnamnor in August and September 2022 respectively. In Pohang, where sudden damages occurred by Typhoon Hinnamnor, the Marine Corps sent Korean Amphibious Assault Vehicle (KAAV) and Inflatable Boat Small (IBS) to rescue twenty-seven people, while deep-sea divers rescued two people trapped in the underground parking lot of an apartment complex.

In addition, the ROK Armed Forces actively supported the government-wide response to COVID-19 by mobilizing all available human and material resources. From January 2020 to the end of 2022, a combined total of about 1.7 million medical and administrative personnel were deployed. Military hospitals such as the Armed Forces Capital Hospital became hospitals dedicated to infectious disease while the Korea Defense Language Institute was converted into a residential treatment center, playing a pivotal role in protecting the lives and property of its citizens.



Support for the recovery of damages caused by Typhoon Hinnamnor

33)

Annual average loss of lives (typhoon, heavy rain): 18.3 people/ Average annual property damages: KRW 441.9 billion (2020 Annual Report on Disasters, 2019-2020, Ministry of the Interior and Safety, December 23, 2021)

[Figure 3-7] Status of Disaster Response and Damage Recovery Support in the Past Five Years

Year	Support Details	No. of People	No. of Equipment (Units)
2018	Total	2,699,121	171,486
	Subtotal	44,560	9,832
	Forest fires	8,970	186
	Drought, torrential rain, and typhoon damages	16,125	8,168
	Search and rescue of missing people	1,165	219
	Control of foot-and-mouth disease and avian influenza (AI)	10,452	1,246
	Heavy snow and earthquake damage	7,848	13
2019	Subtotal	204,988	11,484
	Wildfires and fires	22,242	526
	Heatwave/drought, typhoon/heavy rain, and heavy snowfall	64,745	2,319
	Search and rescue of missing people	4,208	748 (military watch dog 15)
	Preventing the spread of AI/African Swine Fever (ASF)	108,985	7,490
	Railroad and freight union strike-related support	3,900	-
	Marine pollution, Incheon red water, etc.	908	401
2020	Subtotal	674,452	48,405
	Wildfires and fires	1,984	89
	Heatwave/drought, typhoon/heavy rain, and heavy snowfall	128,699	17,063
	Search and rescue of missing people	5,604	778
	Preventing the spread of AI/ASF	60,161	6,108
	Chemical accidents, busy farming season, etc.	478,004	24,367
2021	Subtotal	1,111,888	61,108
	Wildfires and fires	1,031	122
	Heatwave/drought, typhoon/heavy rain, and heavy snowfall	5,672	131
	Search and rescue of missing people	5,932	367
	Preventing the spread of AI/ASF	201,685	17,047
	COVID-19	869,120	43,439
	Chemical accidents, busy farming season, etc.	28,448	2
2022	Subtotal	663,233	40,657
	Wildfires and fires	23,265	1,139
	Heatwave/drought, typhoon/heavy rain, and heavy snowfall	74,469	4,639
	Search and rescue of missing people	2,856	343
	Preventing the spread of AI/ASF	153,431	28,430
	COVID-19	405,961	5,897
	Chemical accidents, busy farming season, etc.	2,833	-
	Collective strike by the Freight Transport Union	418	209



Damage Recovery and Rescue Activities after Typhoon Hinnamnor (September 2022)



Extinction of Forest Fires in the Gangwon/ East Sea Region (March 2022)

Furthermore, the ROK Armed Forces provided military disinfection vehicles and carried out search and capture of animals to prevent the spread of infectious diseases such as ASF and AI among livestock, and contributed to the rescue operation of buried miners by dispatching experts and equipment from the drilling battalion during a mining accident in Bonghwa-gun, Gyeongbuk in October 2022.

Over the past five years, the ROK Armed Forces mobilized 2.69 million service members and 171,000 pieces of equipment for disaster relief and damage recovery activities. Table 3-7 above shows the types of support provided in detail. The ROK Armed Forces will continue to take the lead role in protecting the lives and property of its citizens by putting every effort required to support disaster-stricken places where a helping hand is desperately needed.

Emergency Relief and Disaster Response Abroad

Due to rapid climate change and the increasing scale of disasters, it is becoming difficult to recover from disasters with only the efforts of countries affected by such disasters. As such, the need for a joint response from the international community is becoming increasingly urgent from a humanitarian perspective. Humanitarian aid and disaster relief for overseas disasters are provided by the Public-Private Joint Council Overseas Emergency Relief, which is composed of representatives from government ministries such as the Ministry of Foreign Affairs, the Ministry of National Defense, and the Ministry of Economy and Finance, as well as those from civil organizations, in accordance with the Overseas Emergency Relief Act. The MND supports the transportation of emergency relief, rescue personnel, supplies and provisions; and starting from May 2010, the MND formed the military transport support system to dispatch overseas emergency relief teams using military cargo aircraft within 48 hours of an emergency to fifteen Asian countries.

To overcome the global health crisis caused by COVID-19, the ROK Air Force's C-130 crew members completed their mission of transporting 400,000 KF94 protective masks to Timor-Leste where there are no direct commercial flights from Korea, and to the Philippines, in July 2020, despite the challenging conditions including the possibility of becoming infected with COVID-19.

At the 16th ASEAN Defense Ministers Meeting (ADMM Plus) held in 2021, the participants shared the military activities and roles of the ADMM-Plus member nations working together for disaster relief, and solidified their cooperation.

Furthermore, as a result of discussions during the 7th Regional Consultative Group annual meeting, the ROK Armed Forces cooperated with the local private sector and the military on matters necessary to ensure that the overseas emergency relief mission of their military cargo aircraft could be carried out smoothly, including the unloading of cargo, the residence for aircrew and the securing of means of transportation. The ROK is expected to play a more significant role in joint disaster response in the Asia-Pacific region through these efforts.

In June 2021, the MND established the Overseas Incident Response Manual for Korean Military Aircraft in preparation for potential accidents while ROK military cargo aircraft are carrying out emergency relief missions for overseas disasters. The main contents include the rapid dissemination of information of the situation, establish and operate a cooperation/response system, procedures for strengthening initial response and recovery systems in the event of an incident, the tasks and roles of the relevant agencies as well as response procedures and measures.

Moreover, the MND published the “Guide Book for Civil-Military Cooperation in Overseas Emergency Relief Missions” to help mission personnel understand both the disaster response system of the affected country and the global military cooperation system when supporting military cargo aircraft in the event of an overseas disaster, and encouraged crew members to use it during their mission. The guidebook consists of an overview of disaster response and the disaster response systems for each of the five disaster-vulnerable countries in the Asia-Pacific region, including Bangladesh and Indonesia. The MND plans to publish a Korean version in line with the biennial revision of the book.

Due to the impact of COVID-19, the training for the Korea Disaster Relief Team (KDRT) was conducted in a form of online domestic joint simulated exercise in October 2021. In 2022, however, the MND provided a tanker aircraft to support an in-person lodging training event, strengthening the emergency relief team’s capability to respond to disasters overseas.



Simulation Training for Overseas Emergency Relief in 2022
(December 2022)

5. Government-wide COVID-19 Response and Support

Medical Support

The MND provided proactive support in the form of human and medical resources to the government-wide effort to control the spread of COVID-19 and treat patients. Starting with the Armed Forces Capital Hospital in January 2020, a number of military hospitals including the Armed Forces Goyang, Daegu, Daejeon, and Pocheon Hospitals were designated as hospitals dedicated to infectious disease, providing up to 597 beds, while the Korea Defense Language Institute was designated as a residential treatment center in December 2020, providing 285 wards. As a result, the military

hospitals and residential treatment center treated 13,000 COVID patients as of 2022, contributing to resolving the national shortage of beds.

Furthermore, since January 2020, a combined total of about 160,000 military doctors and nurses were dispatched to hospitals dedicated to infectious diseases, residential treatment centers and screening clinics. In March 2022, 181 newly commissioned military doctors were dispatched to public health hospitals, tertiary hospitals, and emergency response control center at the National Medical Center, which suffered shortage of medical personnel, to provide dedicated support to treat COVID-19 patients.

Military medical personnel have also been deployed to nationwide vaccination centers and nursing hospitals to quickly and safely complete the COVID-19 vaccination programs, which began in February 2021. In June 2021, a navy vessel was deployed to inoculate 680 island residents who lacked access to medical facilities due to their remote locations. This was the first time in the world that a navy vessel was used to support a vaccination drive; such actions by the navy was selected as the “best practice for government innovation” by the MND and cited as an excellent case of innovation by the Korea Disease Control and Prevention Agency in 2021.



Maritime Inoculation Support Using Navy Ships in Island Areas

Administrative Support

The ROK government implemented comprehensive measures to prevent and control COVID-19 represented by the 3T strategy (i.e. [Test] Test/Confirmation, [Trace] Investigation/Tracking, and [Treat] Quarantine/Treatment), social distancing, and nationwide vaccination drive. To effectively pursue such endeavor, there was a dire requirement for administrative personnel to implement the necessary measures. As a result, the MND began deploying eighty-one administrative support personnel at eight airports and thirteen ports' quarantine stations across the country in January 2020; and, by 2022, a combined total of around 1.19 million Armed Forces personnel had been deployed at airport/port quarantine stations, screening clinics, temporary screening stations, residential treatment centers, vaccination centers, epidemiological investigation and quarantine/disinfection activities in a drive to provide on-scene support across the country. In particular, as the number of confirmed cases spiked due to the spread of the Omicron variant in January 2022, the epidemic control authorities requested an additional 1,000 personnel for 17 local governments across the country, and the MND duly provided the much-needed personnel to overcome the national crisis.



Public Service Staff Guiding a Citizen at a Temporary Screening Inspection Center

Vaccine Transportation and Vigilance Support

Recognizing the need for a nationwide vaccination drive to quickly to overcome the COVID-19 crisis and return to normal daily life, the ROK government established a government-wide vaccine transportation organization, while the MND organized the preparation team for establishing Vaccine Transportation Support Headquarters in January 2021, as well as establishing a vaccine transportation support plan. Based on the plan, the COVID-19 Vaccine Transportation Center was officially established in February 2021 under the Korea Disease Control and Prevention Agency's COVID-19 Vaccination Response Group. The MND played a leading role in establishing and operating the Vaccine Transportation Center by appointing a lieutenant-general of the Army to head the organization as the Director of Vaccine Transportation Center and dispatching MND personnel to the center to support its effort.

The COVID-19 Vaccine Transportation Center established a ground, air, and sea transportation model based on vaccine sourcing (overseas purchase or domestic production) and conducted 9 simulated training to ensure that the vaccines are distributed as planned. Since February 2021, the Vaccine Transportation Center has safely transported approximately 120 million doses of the vaccine from large-scale warehouses (Icheon, Pyeongtaek, and Ochang) to 282 vaccination centers and 17,000 contracted medical institutions across the country; to support this effort, the MND provided around 29,000 vehicles, 77,000 personnel, as well as military aircraft and vessels. As a result, the total distance traveled by the vaccine transportation convoy reached approximately 8.6 million kilometers, equivalent to 214 laps around the globe, which showcase the dedicated effort by the MND to support a safe and timely vaccination drive throughout the nation.

Moreover, the Vaccine Transportation Center operated an on-site control room and conducted frequent checks of vaccine status to promptly identify and respond to instances such as vaccine transport container failures, vaccine production/storage facility leaks, power loss, and freezer abnormalities, thereby preventing the unnecessary disposal of 190,000 doses of vaccine and contributing to a combined saving to the amount of KRW 4.2 billion.



Air Transportation of Vaccines

Establishing a United Defense Posture composed of Civil–Government–Military–Police–Fire Department

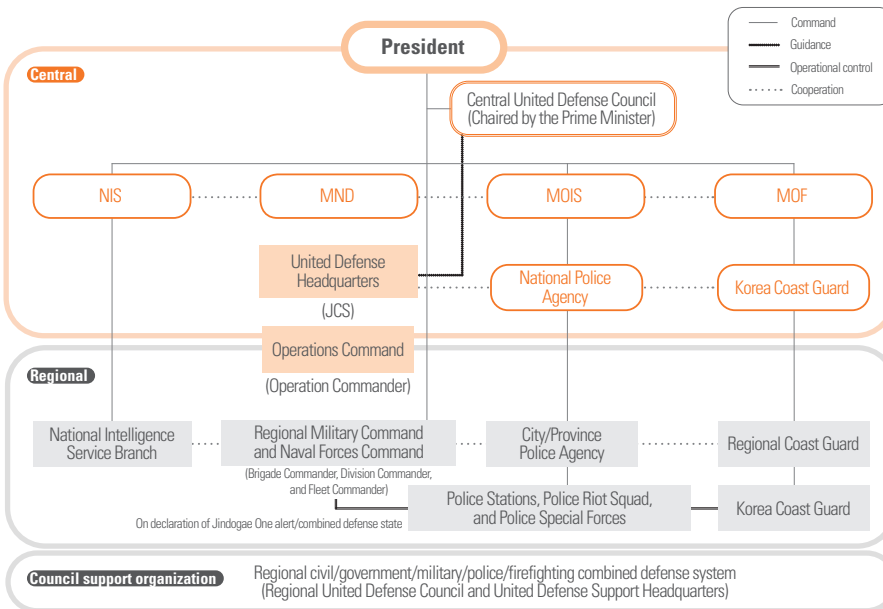
The ROK government is building a mutual consultation system to specify the roles and duties of civil, government, military, police, and fire departments, organize command relationships led by regional (maritime) military and police chiefs within the jurisdiction and formulation of forces, when a united defense incident is declared. Furthermore, it has developed an integrated government-wide response system and united defense operation execution system by expanding the information-sharing system centered around the united control center of local governments.

1. Operation of the United Defense Organizations

United Defense Organizations

The ROK government operates a number of integrated defense organizations including the Central and Regional United Defense Councils, United Defense Headquarters, and United Defense Support Headquarters to foster national defense elements and establish a united defense posture. Chart 3-8 below shows the command and cooperation relationship with relevant agencies.

[Figure 3-8] United Defense Command and Coordination Relationship³⁴⁾



34)

Revision of the Guidelines on Detailed United Defense Implementation (Article 36), which designate the Operations Commander to command and control united defense operations by controlling regional military and naval commanders within the scope delegated by the Head of the United Defense Headquarters (Nov. 30, 2021).

35)

According to Article 4 of the United Defense Act, the Central United Defense Council is chaired by the Prime Minister, and is composed of the Cabinet Ministers such as Minister of Strategy and Finance, the Minister of Office for Government Policy Coordination, Minister of Patriots and Veterans Affairs, the Minister of Government Legislation, the Minister of Food and Drug Safety, the Director of National Intelligence Service, and the Head of the United Defense Headquarters (Chairman of the JCS) and others determined by presidential decree.

Central United Defense Council³⁵⁾

As the highest decision-making body on united defense under the Prime Minister, the Central United Defense Council deliberates and votes on united defense policies, the issuance of

guidelines for united defense operations and training, the declaration and cancelation of united defense incidents, coordination with government ministries and relevant agencies on matters pertaining united defense as well as deliberating and passing expenses incurred in the mobilization of national defense elements for united defense operations.

United Defense Headquarters

As an organization that manages work related to united defense, the Chairman of the JCS serves as the head of the United Defense Headquarters and performs such works as the establishment and coordination of united defense policies, confirmation and supervision of the united defense readiness posture, comprehensive analysis of united defense operations and establishment of follow-up measures, establishment of guidelines and plans for united defense operations and training, and coordination and control of their implementation as well as coordination and consultation with relevant agencies on matters pertaining united defense. The United Defense Headquarters shall establish the United Defense Working Committee in order to efficiently promote cooperation within the Government in relation to united defense and perform other tasks related to united defense.

Regional United Defense Councils

Regional United Defense Councils are to be established in special metropolitan city, metropolitan cities, provinces (do), cities (si), and counties (gun, gu), and metropolitan and regional mayors, governors, county and district chiefs shall serve as the council chair. Each council deliberates and votes on declaration or cancellation of Class II or III incidents, measures for supporting united defense operations and exercises; designation or cancellation of an area vulnerable to the enemy's infiltration or stealth activities, and measures for the efficient development and operation of national defense elements.

United Defense Support Headquarters

United Defense Support HQs are to be established in metropolitan cities, provinces (do), cities (si), counties (gun, gu), and districts (eup, myeon, dong) to oversee such affairs as the establishment and implementation of a plan for supporting united defense operations and exercise, installation and operation of a united defense situation room, development and support of national defense elements, establishment of the resident reporting system in vulnerable areas in united defense, provision of support for mobilization work related to united defense operations, and the implementation of matters deliberated and voted upon by the Regional United Defense Council.

2. Development of a United Defense Operation Execution System Centered arounds Heads of Local Governments

As the security domain expands to include not only military threats but also non-traditional security threats such as terrorism, infectious diseases, disasters, and safety accidents, the ROK government is working to develop a united defense operation execution system that

integrates and manages all elements of national defense to protect people's lives and property from complex security threats.

Reinforcing United Defense Capabilities

The United Defense Headquarters evaluates the nations' state of military readiness and the united defense posture for military threats, new terrorist threats based on the use of drones, infectious diseases such as COVID-19, cyber threats, and non-traditional security threats such as natural and social disasters, and prepares and implements countermeasures at the government level in collaboration with government departments and other related agencies.

Efforts are being made to establish conditions for a timely integrated response by implementing comprehensive countermeasures to drone terrorism and expanding the nation's drone terrorism response capabilities at the government level, as well as establishing and operating an information-sharing system between national defense elements. In addition, the new Operational Rules of the United Defense Headquarters, published in December 2021, aim to develop an efficient and systematic work performance system between the United Defense Headquarters and government ministries and other related organizations. In the future, the ROK Armed Forces will continue to strengthen their united defense capabilities by enhancing civil, government, and military cooperation in contact areas, developing military and police operation execution systems linked to police reorganization, and reinforcing the organizations and equipment required for each element of national defense.

Improving the Performance of United Defense Exercises

To guarantee public safety from the diverse complex security threats that may occur in war and peacetime, the United Defense Headquarters has divided the seventeen metropolitan and autonomous cities and provinces nationwide into eleven zones and conducted comprehensive exercises in the rear area (Hwarang Training),³⁶⁾ and has formed an integrated government evaluation team composed of experts in the relevant areas to diagnose, supplement, and develop the united defense operation system in each zone. As a result, the nation's ability to carry out united defense operations has been greatly enhanced - primarily by improving the deliberation and decision-making procedures for declaring Class II or III incidents, operating the United Defense Support Headquarters in a realistic manner, improving the civil air defense warning system, and developing an integrated response system for CBR surveillance.

In the future, the ROK Armed Forces will strengthen the civil and air defense warning and evacuation exercises for residents for practical united defense training, and will also further consolidate the united defense strategy centered on local government leaders by expanding the use of evacuation training for members of the public who live near facilities where mass damages are likely to occur, such as chemical and gas facilities.

36)

An exercise was conducted in four zones (Daegu/Gyeongbuk, Gwangju/Jeonnam, Incheon/Gyeonggi, and Gyeongnam) in 2021, and again in five zones (Busan/Ulsan, Gangwon, Jeonbuk, Chungbuk, and Jeju) in 2022. Notably, in 2022, the exercise was expanded to pre-COVID-19 state.

3. Establishment and Expansion of the United Defense Information Sharing System

The ROK Armed Forces operate the combined defense information sharing system to ensure a timely integrated on-site response by civil, government, military, police, fire department, and national defense elements, by sharing in real time the videos of the integrated control center, which cover the Police 112 service, disaster CCTV, and the local government social safety net, in the event of enemy infiltrations or provocations, terrorist acts, and disasters.

Sharing of Information by the Local Government's Integrated Control Center

The control functions of CCTVs installed around the country to ensure the safety of residents and prevent crime. In addition to conducting counter-terrorism and counter-infiltration operations on a regional basis, the ROK Armed Forces are building a video information sharing system between the integrated control centers and relevant regional forces to share real-time information with local troops in the event of a disaster situation and to improve the efficiency of rapid initial action and united defense operations.

In 2022, 137 integrated control centers, i.e. one more than the previous year, out of 245 were completed, and 108 centers will be constructed in connection with the Smart City platform³⁷⁾ in cities and provinces nationwide in phases from 2023 to 2025.

The ROK government is operating an integrated control center that can jointly respond to various emergency situations by integrating



CCTV Integrated Control Center

37)

A support system for smart city safety service realized through various information connections such as 112, 119, and the disaster situation call system

38)

A service that provides marine traffic information to ships via a maritime wireless communication network based on information and communication technology in order to scientifically manage marine traffic at the Ministry of Oceans and Fisheries (implemented on January 30, 2021).

* It provides real-time electronic nautical charts, assistance for preventing collisions and grounding, safe route support (navigation), automatic entry/departure reports, and emergency rescue requests.

Sea Navigation (e-Nav) Information Sharing

The Ministry of Oceans and Fisheries, the Ministry of National Defense and the National Intelligence Service have developed an integrated marine safety and security platform based on the sea navigation (e-Nav) service³⁸⁾, which provides maritime navigational traffic information. This system has improved the tracking and management of ships (targets) during coast guard operations; and, in the event of a security incident, it enables coordinated operations by sharing the same common operating picture with relevant agencies including the Korea Coast Guard. The MND is collaborating with the Ministry of Oceans and Fisheries and the National Intelligence Service on improving the functions of the integrated marine safety and security platform and connecting it to the military coastal monitoring system as well.

The Ministry of Oceans and Fisheries, the Ministry of National Defense and the

Education and Training Focused on Combat Missions and Reinforcing Esprit de Corps

The ROK Armed Forces are operating a variety of education programs aimed at fostering competent officers and NCOs as well as creative military experts who can operate in future warfare and battlefield environments. To achieve the objective of national defense education and training, namely, “to nurture strong combatants and combat units that can fight and defeat enemies,” the ROK Armed Forces are developing a scientific school education system that incorporates new technologies such as AI, innovating practical troop training, instilling service members with a sound perspective on the country and the enemy, and fostering a strong military spirit based on education designed to reinforce the esprit de corps.

1. Establishment of a Scientific Training System

The ROK Armed Forces are expanding a scientific training system incorporating cutting-edge science and technology to respond to changes in future warfare and overcome current limitations in education and training, such as the decrease in military manpower resource and mandatory service period for conscript service members, and increasing civil-military discord due to urbanization. Notably, regarding the scientific training programs developed in connection with Defense Innovation 4.0, the main focus is on expanding the introduction of MILES (Multiple Integrated Laser Engagement System), which enables two-way maneuver training, building a virtual simulated training system for tactics and skills training and mastering the use of equipment, establishing a scientific training complex for the collection and use of data for actual maneuvers and “live fire” training, and establishing an education and training management system to analyze and manage all training courses through digital database.

Advanced Training System

MILES (Multiple Integrated Laser Engagement System) allows troops to master tactics and skills in an environment similar to a real battlefield through bidirectional engagement. The ROK Armed Forces first distributed MILES for platoon-level training in 1998, introduced equipment capable of training at the company level in 2014, and began deploying the new platoon-level MILES in 2019. The ROK Navy and Air Force will also increase the distribution of the new platoon-class MILES for base defense training, while MILES for artillery training are being distributed since 2020. Furthermore, R&D on MILES for armored and mechanized units are currently in progress.

A virtual simulation training system that allows troops to master equipment functions and conduct tactical training in a virtual environment has been introduced, centered on simulators for operation procedures for ships, aircraft, and tanks.

In addition, armored and mechanized units facing limitations on conducting FTX, will be supplied with additional tactical training equipment, and there are plans to establish a

changes in the battlefield environment and minimize damages to locals living near the training range, thereby contributing to mutual prosperity between the military and civil sectors.

2. Improvement of the School Education System

In order to build an elite force equipped with military expertise, the MND and each branch of the Armed Forces are developing the school education system that includes training that shapes conscripted civilians into service members and refresher training aimed at providing the specialized knowledge and skills necessary to perform tasks by class, rank, and position, and cultivating the ability to perform tasks. The ROK Armed Forces are reorienting the educational methods from lecture-oriented education centered on instructors to self-directed participatory education, such as discussions and debates, and practical education centered on the trainees. The curriculum is being developed to consider changes in the defense environment, such as Industry 4.0, the introduction of cutting-edge weapons systems, the development of military doctrine, and the increase of civilian employees. Furthermore, the education environment is being transformed into a smart education system (smart campus, etc.) that incorporates the latest IT technologies, such as 5G, VR (Virtual Reality), AR (Augmented Reality), and digital twin,³⁹⁾ invigorating online/offline mixed education and remote education to respond to the increase in demand for non-face-to-face education due to the COVID-19 pandemic. In particular, efforts are being made to improve the educational system for military academies in order to foster elite officers and to expand the Reserve Non-commissioned Officer's Training Corps (RNTC) to acquire and nurture excellent NCOs. The ROK Armed Forces are also focusing on enhancing the cutting-edge science and technology education provided on refresher training courses linked to Defense Innovation 4.0, improving the joint and combined operations training system, and promoting remote education for national defense. [Chart 3-9] shows the current status of military school education.

[Figure 3-9] Curriculum Status of Combined Educational Institutes of Each Service

As December 2021 Unit: Course

Type	Total	Army	Navy	Air Force	Marine corps	Joint Force
Training	50	27	8	8	6	1
Refresher training	2,455	866	963	475	28	123

Improving the Educational System of the Military Academies

The MND is strengthening participatory education, including discussion and presentation classes led by cadets, and carrying out projects to create a self-directed learning environment in an attempt to cultivate cadets' creativity and problem-solving skills, and is also conducting tailored education/training focusing on the end users, such as reorganizing the curriculum with the focus on combat missions in order to reflect field demands. In addition, to foster active academic exchanges with excellent civilian

The MND is strengthening participatory education, including discussion and presentation classes led by cadets, and carrying out projects to

39)

A technology that creates a twin object that is identical to the object in the real world in a virtual space and verifies it through various simulated tests.

universities, the Enforcement Decree of the Act on the Establishment of the Korea Armed Forces Academy was amended in August 2022 to provide a basis for dispatching cadets to civilian universities for training.

Furthermore, the MND has newly established a Department of Artificial Intelligence in academies related to AI and big data, expanded the basic liberal arts courses, and created additional integrated majors to strengthen the cutting-edge science and technology education, while designating the Korean War History, North Korean Studies, and Military Strategy as compulsory subjects in order to shape the cadets' perspective on the country and the enemy. The MND conducts joint education centered on experience in the field for 2-3 weeks every year for first- to third-year cadets of the ROK Armed Forces' academies to enhance their understanding of jointness and joint operations.

First-year cadets receive education designed to deepen their understanding of ground operations and the Army, including field trips to mechanized army units and the Warrior Platform experiences. Meanwhile, to improve the understanding of the Navy, second-year cadets receive opportunities to board training ships and landing ships and visit major islands (Ulleungdo, Dokdo, Gageocho, and others) as well as countries surrounding the Korean Peninsula, and are subject to training voyage in which they experience various maritime exercises and daily life on board naval ships. Third-year cadets receive education designed to deepen their understanding of the Air Force, including tours of Air Force Wings, flight environment adaptation training, and flight aptitude training experiences. Since 2019, the joint education program for the cadets of the military academies has been expanded to include the Armed Forces Nursing Academy, while separate joint education sessions are conducted for fourth-year cadets at the Korea Army Academy in Yeong-Cheon.



Joint Training for Cadets

Operation of the Reserve Non-commissioned Officer's Training Corps (RNTC)

showed promising results. The plan for the formal operation and expansion of the RNTC program was finalized in 2019, and the Navy and Air Force began their official operation in January 2020, followed by the Army and the Marine Corps in April 2020. The RNTC program was expanded in 2021, with the selection of 4 additional junior colleges (3 for the Army and 1 for the Navy); today, there are RNTC programs at 10 junior colleges across the

Pilot operation of the RNTC, which was launched in 2015 at six junior colleges to secure and nurture talented NCOs,

[Figure 3-10] Status of Appointment of RNTC

As of December 2021, Unit: People

Category	Total	Graduating Class of 1 (2017)	Graduating Class of 2 (2018)	Graduating Class of 3 (2019)	Graduating Class of 4 (2020)	Graduating Class of 5 (2021)	Graduating Class of 6 (2022)
Appointed Non-Commissioned Officers	992	143	173	169	156	170	181

nation. Each service plans to expand the program gradually by considering the status of non-commissioned officer staffing. Chart 3-10 above shows the current status of appointment of the Non-commissioned Officer Training Corps.

Improving the Educational System for Civilian Employees

As part of Defense Innovation 4.0, the MND is upgrading the military civilian education system as the quotas and roles of military civilians have been expanded following changes to the unit and force structure of the military. Plans for the integrated training of new civilian employees and future leadership courses for civilian employees were specified at a policy meeting held in 2019, while the refresher training for grade 6 workers and below was reviewed and reinforced with a focus on cultivating the competency and knowledge required for each rank.

Since 2021, the National Defense University is undergoing a pilot run for integrated training of new civilian employees, which was conducted by each service up to this point. In preparation for the increase in the number of civilian employees serving as department heads, a mid-level course designed to cultivate the skills and leadership of military civilian leaders was established by selecting competent outstanding talents from employees at grade 4 and 5.

Establishing the Joint and Combined Operation Training System

The ROK Armed Forces have set up a rank-specific education system to train officers as military specialists equipped with the expertise required to carry out joint and combined operations in preparation for future warfare and the transition of wartime operational control. Joint education has been expanded for cadets in the officer training course, and new basic and introductory courses related to joint education have been added to the curriculum for officer candidates, including ROTC and OCSs. Meanwhile, the refresher training course for company grade officers added a course dealing with basic concepts related to the organization of other services and the conduct of joint and combined operations. Notably, in 2020, the joint advanced course (short-term, remote) was designed and piloted to provide specialized joint and combined operation training to more officers, which was previously only offered to selected officers from among majors and lieutenant-colonels, and based on the pilot results, the short-term and remote courses will be integrated and provided as mandatory courses from 2023.

Furthermore, the joint and combined policy managers course is available for colonels who work in policy departments and joint units. Additionally, the MND is expanding education to ensure joint and combined operation capabilities for all officer ranks, from junior officers to general and flag officers, such as expanding the course subjects related to joint and combined operations in the high-level policy decision-makers course for officers promoted to the rank of brigadier-general.



Joint and Combined Policy Manager Course

Activating Online Defense Education

The ROK Armed Forces are expanding its online education programs in order to minimize personal shortage at field units caused by call-up, and to provide timely education to larger number of trainees. Those enrolled in call-up education programs can prepare for their classes in advance by taking online lectures prior to entering each educational institution, and can freely choose the courses offered by each educational institution at a time and place of their choosing. In 2017, the Military-Massive Open Online Course (M-MOOC)⁴⁰⁾ system was established to allow all service members to complete the necessary education online at their workplace. Currently, some 41 organizations, including the Joint Forces Military University, the Korea Armed Forces Nursing Academy, the Defence Agency for Spiritual & Mental Force Enhancement, and the ROK Army Infantry School, provide 95 integrated defense-related M-MOOCs. We expect that the need and effectiveness of online education courses will considerably increase in the near future.

3. Reinforcing Practical Unit Training

The ROK Armed Forces are strengthening practical unit training to address the changing educational and training environments, including changes in the security environment, the reduction of compulsory service period, ongoing urbanization, and increasing civil-military conflicts. In particular, the ROK Armed Forces are striving to offer opportunities for practical training involving real maneuver to many personnel as possible by creating scientific education and training conditions utilizing cutting-edge Industry 4.0 science and technology, expanding domestic and international combined training to improve the ability of each services to perform joint and combined operations, and organizing joint units that integrate the Army, Navy and Air Force.

Key Trainings for Army, Navy, Air Force and Marine Corps

In order to provide practical training centered on the battlefield, the ROK Army is strengthening individual and unit training, expanding scientific education and training, and conducting various combined exercises.

As part of an effort to strengthen individual combat power, the foundation of the Army's combat power as a whole, soldiers' ability to overcome battlefield situations is cultivated through physical training focused on combat missions. Also, the best-performing 300 elite combat soldiers are selected and rewarded individually and by teams once a year to create an atmosphere in which combat experts are appreciated. Also, in order to implement education and training based on missions, the proficiency of each training task is evaluated based on the Mission-Essential Task List (METL),



Army KCTC brigade-level bilateral training

40)

A Web-based (online) course on military education open to everyone (open) with no limit on the number of trainees (massive).



Combined Scientific Trainings (KCTC)

which is used to select the tasks that a given unit must perform.

Scientific education and training using cutting-edge science and technology are also being strengthened to overcome various obstacles, such as reduction of compulsory service periods, extreme weather conditions, and civil complaints.

The training offered by the KCTC (Korea Combat Training Center) was converted in to a brigade-level bidirectional training to enable more units to participate⁴¹⁾, and the MILES system was distributed to more field units, making it possible for them to carry out small unit bidirectional combat training at garrisons or at arbitrary locations.

Furthermore, the Army's ability to overcome diverse contingencies is being improved by enabling firing, piloting, and tactical simulations training in a virtual battlefield environment using simulators. The combat command capability and integrated combat power management capability of commanders and staff are also being improved through the Battle Command Training Program (BCTP) using computer simulation.

The Army is also carrying out a variety of combined exercises such as ROK-U.S. special operations, irregular warfare, combined arms training, air assault and high-altitude low opening exercises in order to improve the ability to execute combined operations procedures and enhance interoperability. In particular, combined small-unit scientific training is carried out at the Vandal Training Center owned by the U.S. 8th Army as well as combined small-unit training at the National Training Center in continental U.S. The number of combined KCTC training has also been increased from twice to four times a year. [Chart 3-11] shows the current status of the Army's combined training for the past three years.

[Figure 3-11] Status of ROK Army Combined Training in the Past 3 Years

As of December 2022, Unit: Times

Type	Total	Within Korea			Outside Korea		
		Subtotal	ROK-U.S. combined training	Multilateral training	Subtotal	ROK-U.S. combined training	Multilateral training
2020	30	29	29	-	1	1	-
2021	66	64	64	-	2	2	-
2022	66	63	62	1	3	3	-

The ROK Navy conducts practical cooperative⁴²⁾ and combined exercises that reflect the battlefield environment in each maritime area in the East, West and South Seas, and aims to improve operational performance by holding ROK-U.S. and multilateral combined exercises. Moreover, the Navy conducts midshipman cruise annually to develop cadets' ability to perform their duties and promote the national interest.

Cooperative and combined exercises involve ground, maritime and air forces, and consist of exercises suited to various types of operations, such as anti-ship, anti-submarine, and air defense operations. Typical cooperative and combined exercises include maritime maneuver, northwest islands defense, joint response against local provocation at the Northern Limit Line (NLL), joint amphibious landing, and East Sea territory defense. These exercises are held to confirm, among other things, the performance of precision-guided weapons, and to maximize operational capabilities through live-fire exercises.

⁴¹⁾

8 units in 2021 → 14 units in 2022

⁴²⁾

Two or more units without a command relationship cooperating with each other to achieve a specific common goal.

In addition to expanding the scope of ROK-U.S. combined exercises to establish a combined defense posture and strengthen the ROK-U.S. Alliance, the ROK is expanding multilateral combined exercises to promote humanitarian aid and military cooperation. The ROK-U.S. combined exercises include ROK-U.S. maritime opportunity exercises, combined theater anti-submarine exercises, and mine/rescue/special warfare exercises, all of which aim to improve operational capabilities and enhance interoperability.



RIMPAC Exercise

Combined multilateral exercises include the Cobra Gold, West Pacific mine countermeasure training, Rim of the Pacific Exercise (RIMPAC), multilateral rescue training (KOMODO),⁴³⁾ and Search and Rescue Exercise (SAREX) with neighboring countries such as Japan and Russia. In addition, the combined opportunity training with neighboring countries and partner nations such as Australia, Canada, and New Zealand is recently being expanded. [Chart 3-12] shows the status of the Navy's combined training for the past three years.

[Figure 3-12] Status of ROK Navy Combined Training in the Past 3 Years

As of December 2022, Unit: Times

Type	Total	Within Korea			Outside Korea		
		Subtotal	ROK-U.S. Combined Training	Multilateral training	Subtotal	ROK-U.S. Combined Training	Multilateral training
2020	88	75	70	5	13	5	8
2021	104	87	78	9	17	10	7
2022	116	94	81	13	22	7	15



Naval RIMPAC exercise



ROK-U.S. Air Force Transporter erector launcher strike training and combined attack formation flight.

Midshipman cruise⁴⁴⁾ is conducted annually for about 100 to 140 days, alternating between four routes. The cruise enhances the nation's prestige by making visits to key figures, providing support for defense industry exports, and organizing consolation activities for Korean War veterans and overseas Koreans.

The ROK Air Force conducts independent and joint exercises as well as number of combined exercises both within Korean and abroad of various sizes to establish military readiness posture and improve its capability to lead air operations.

The Air Force carries out independent trainings such as large-scale air campaign training (Soaring Eagle), strike package training, air-to-air and air-to-ground live fire exercise as well as, DCA and ISR training. Air Force also carries out joint training such as joint air defense, AI, counter-fire, CAS, air seas joint training in the Northwest and large-scale maritime search and rescue training.

Combined trainings conducted within Korea include the Korea Flying Training to improve the capability to execute large scale combined air operations, along with combined air training (Vigilant Storm) combined special operations training (Teak Knife) and combined Combat Search And Rescue Training Event (CSAR-TE). Since 2019, two new exercises,

43) KOMODO is an island in the Lesser Sunda Islands of Indonesia.

44) Ocean sailing training for fourth-year cadets at the Naval Academy.

the mid-sized Combined Forces Exercise (CFE) and the Buddy Wing B Exercise, a small-scale training exercise involving ROK and U.S. fighter squadrons, were established to expand combined training opportunities.

The ROK Air Force also regularly participates in overseas combined training events, such as the multinational combined theater-level air training (Red Flag-Alaska), humanitarian aid and disaster relief training with countries in the Pacific Rim region (Cope North), as well as combined wartime damage recovery training (Silver Flag) to improve wartime damage recovery capabilities. Since 2018, the ROK Air Force began participating in advanced airborne tactical training in the United States to improve its ability to perform special operations, such as infiltration and airdrop tactics. It also participated in Operation Christmas Drop for the first time in 2021. By participating in such exercise, ROK Air Force seeks to enhance its capability to execute combined operations, secure interoperability, and promote tactical exchanges with various countries. Chart 3-13 below shows the status of Air Force combined exercises training for the past three years.



Humanitarian Aid and Disaster Relief Cooperation Training (Cope North)

[Figure 3-13] Status of ROK Air Force Combined Training for the Past 3 Years

As of December 2022, Unit: Times

Type	Total	Within Korea			Outside Korea		
		Subtotal	ROK-U.S. combined training	Multilateral training	Subtotal	ROK-U.S. combined training	Multilateral training
2020	25	20	19	1	5	1	4
2021	45	43	43	-	2	-	2
2022	56	50	49	1	6	1	5

In addition, the ROK Air Force conducts scientific training using simulators, Air Combat Maneuvering Instrumentation (GPS-ACMI), and the Electronic Warfare Training System (EWTS), when live training is limited. ROK Air Force also aims to improve its space situational awareness and combined space operations capability by participating in Global Sentinel, designed to reinforce cooperation on multilateral space management.

The Marine Corps conducts amphibious landing exercises twice a year or more to improve its ability to execute forcible entry operations and maintain the highest level of operational readiness posture through Quick Maneuver Force training, joint and combined training, and tactical training for each echelon.

The Marine Corps conducts Ssangyong and Hoguk training at the brigade level or higher in order to enhance its ability to execute combined joint forcible entry operations and conducts Quick Maneuver Force training to improve its ability to perform defensive and stabilization

operations as well as non-military operations in the Northwest Islands. In addition, it carries out Northwest Islands reinforcement training and field trainings at Ulleungdo and Jeju-do.

For combined trainings, the ROK-U.S. Marine Corps tactical echelon combined exercise (KMEP: Korea Marine Exercise Program)⁴⁵⁾ is carried out regularly throughout the year to improve the capabilities of each branch to conduct combined operations. The Corps also participates in overseas combined exercises such as the Cobra Gold, Khaan Quest, and Pacific Rim Exercise (RIMPAC). Also, the Marine Corps participated in Talisman Saber Exercise in Australia and the Kamandag Exercise in the Philippines, and it plans to expand its multilateral overseas combined training such as its participation of combined arms military training exercises with the U.S. beginning in 2023. [Chart 3-14] below shows the status of the Marine Corps' combined training in the past three years.

The Marine Corps conducts tactical trainings by each echelon to ensure the integrity of operational execution and its ability to lead and manage independent battlefields. The Marine Corps also carries out tactical training linked to specialized airborne training, amphibious assault training, and guerrilla training specific to each unit; reinforces practical combat training by conducting bidirectional training using high-tech equipment; and conducts regular amphibious ship loading exercise and amphibious landing operation passage exercises at the battalion or lower level echelons.

[Figure 3-14] Status of ROK Marine Corps Combined Training in the Past 3 Years

As of December 2022, Unit: Times

Type	Total	Within Korea			Outside Korea		
		Subtotal	ROK-U.S. combined training	Multilateral training	Subtotal	ROK-U.S. combined training	Multilateral training
2020	20	17	17	-	3	-	3
2021	18	16	16	-	2	-	2
2022	18	14	14	-	4	-	4

Joint Exercise and Training

The ROK Armed Forces are strengthening joint exercises and trainings to improve its ability to perform joint operations in preparation against the rapidly changing security environment.

The Taegeuk Exercise, a ROK unilateral command post exercise (CPX) in which battle staff from the operations command or higher echelons participate, uses a computer simulation model to implement wartime transition procedures, such as declaring an united defense incident and elevating the defense readiness posture following a local provocation.

The Hoguk Exercise is an annual field maneuvers exercise led by the ROK JCS to cultivate the ROK Armed Forces' joint operation capabilities, integrated combat force operation, and operational support capability. Based on an integrated shaping of the situation, the exercise is designed to reinforce the jointness of each service and operations commands, and maximize the response capabilities and force management with all functions integrated.

The Hwarang Exercise is a comprehensive training managed by the United Defense Headquarters, in which all operational elements of the civil, government, military, police

45)

A combined training for the ROK-U.S. Marine Corps, conducted in the ROK to develop combined operational capability and interoperability in a systematic manner.

and fire department sectors participate. The exercise is focused on mastering the execution and support procedures of the united defense operation plans linked to both peacetime and wartime, reinforcing an united defense posture centered around local government heads, and raising security awareness and spreading consensus among local residents. In particular, as proactive responses are required at the united defense level to counter the increasing number of non-traditional security threats such as natural disasters and terrorist attacks, the principal aim of the Hwarang Exercise is to inspect the practical response architecture of all national defense elements and to foster integrated response capabilities.

Combined Exercise and Training

While maintaining military readiness posture based on the current combined defense architecture, the ROK and the U.S. are conducting combined exercises and training with an emphasis on combat readiness posture and improving combined operation execution as well as operation sustainment capability in an effort to enhance the warfighting capability of the combined forces.

From the second half of 2022, as a result of the ROK and the U.S. consultation, the allies are conducting the Freedom Shield (FS) and Ulchi Freedom Shield (UFS) Exercises once each in the first and second half of the year, which replaced the Combined Command Post Training (CCPT). In particular, the name change continues the tradition of the ROK-U.S. Alliance and reestablished the theater-level combined exercise architecture. Also, the UFS Exercise, from 2022 onwards, will integrate annual military and government exercises, which would substantially improve the capability to execute all-out war. Also, the FS Exercise creates computer-simulated battlefield conditions in order to inspect the combined defense posture, and enhances proficiency in war execution procedures by linking it with FTX.

Meanwhile, since the second half of 2022, the ROK and the U.S. are improving their combined operation execution capabilities by focusing on combined FTX, such as the Combined Counter WMD training and Buddy Wing in conjunction with the UFS Exercises. In the first half of 2023, the scale and scope of the combined FTX will be expanded by elevating the Ssangyong Exercise, from the brigade level and lower of the past to the division level, expanding the combined KCTC Exercise from the platoon/company level to the battalion level, and elevating more than twenty training events, such as the ROK-U.S. Maritime Counter Special Operation Force (MCSOF) Exercise, to the level equivalent to that of the Foal Eagle Exercise in the past. Furthermore, a large-scale combined joint fires demonstration will be pursued marking the 70th anniversary of the ROK-U.S. Alliance and the 75th anniversary of Armed Forces Day.



ROK-U.S. Combined Exercise

4. Training Facilities Conflict Management

System Maintenance

With growing calls for protection of basic rights such as property and environmental rights, and encroachment near training ranges caused by urbanization causing complaints on training noise and dust as well as restrictions on development, conflict management with local communities has become increasingly important.

The MND discussed measures for managing conflicts concerning training areas at a policy meeting held in April 2019, in order to systematically manage conflicts related to training complexes and enacted the Directive on Training Facilities Conflict Management in June 2019. Also, the ministry designated a dedicated desk for each service, and increased the number of personnel responsible for conflict management (20 civilian employees). In particular, in the case of the Army, which has the largest number of training ranges, a dedicated team is organized at the corps level to respond to conflicts related to training grounds. Moreover, in the case of each service's key training complexes,⁴⁶⁾ the Conflict Management Committee works to resolve any conflicts by managing the tasks.

Furthermore, the MND enacted the Military Airfields And Military Firing Range Noise Prevention And Compensation Act in December 2019 through which the ministry provides compensation when damages are confirmed by official investigation that noise damage has occurred around gunnery ranges. Compensations are being made based on a survey completed in 2021 (Phase 1, 2020 to 2021) on gunnery range noise damage which assessed the impact of noise on the surrounding communities living near the 49 gunnery ranges. Additional surveys were completed on 16 shooting ranges in 2022 (Phases 1 and 2, 2021 to 2022). The December 2022 Central Noise Countermeasures Review Committee announced the noise countermeasure areas.

Conflict Management

for USFK Training Facilities

The MND manages training facilities conflicts to ensure optimal training conditions for the USFK while minimizing disturbances and damages to the local residents. In particular, in the case of the Yeongpyeong Live-fire Complex used for live-fire gunnery trainings of key U.S. Eighth Army weapons system such as tanks, armored vehicles, and mortars, live-fires gunnery was temporarily suspended due to a ricochet accident in 2018. Thanks to safety measures such as installing protective walls to prevent ricochet accidents as well as the Yeongpyeong Live-fire Complex Conflict Management Council's efforts to identify and promote projects for residents and regional development⁴⁸⁾ in Pocheon City,⁴⁷⁾ it is now possible to conduct live-fire training for tanks, artillery, and armored vehicles. However, Apache helicopter live-fire gunnery are still restricted.

The U.S. Eighth Army's Apache helicopter live-fire gunnery were temporarily conducted at the Pohang Suseong Gunnery Range from 2019 until the beginning of 2020 due to restrictions on shooting at the Yeongpyeong Live-fire Complex.⁴⁹⁾ However, gunnery at the Suseong Gunnery Range had to be halted as well due to opposition from local residents in mid-2020, and since then the MND has been working to mitigate the conflict by taking various measures, such as measuring the noise and compensating local residents in the

46)

Pocheon Yeongpyeong Rodriguez Live-fire Complex, Pohang Suseong Gunnery Range, Yangpyeong Training Complex, and Gapyeong Gunnery Range, Pocheon Seungjin Nightmare Training Range, Cheorwon Artillery Training Range, Paju Mugonri Training Range, Hwacheon Artillery Training Range, Boryeong Daechon Gunnery Range, Boryeong Uncheon Gunnery Range, and Sangju Nakdong Gunnery Range.

47)

The Yeongpyeong Rodriguez Live-fire Complex Conflict Management Council (Chairman: Vice Minister of National Defense, Members: Officials from the Ministry of National Defense, Office for Government Policy Coordination, Ministry of Public Administration and Security, Gyeonggi Province, Pocheon City, Citizens Countermeasures Committee, etc.) held a total of six meetings in June 2018, January 2019, July 2019, July 2020, April 2021, and February 2022.

48)

Eight out of twenty-eight projects have been completed, and seventeen are in progress. (The initial nineteen projects continue to be improved and developed.)

49)

The Pohang Suseong Gunnery Range was found to be the most optimal location for Apache helicopter live-fire gunnery trainings by the 2019 ROK-U.S. Joint Inspection for National Training Range.

vicinity of training areas in Suseong and Yeongpyeong ranges, along with partial diversion of shooting trainings to the Seungjin Training Range in Pocheon.

The MND plans to create stable conditions for Apache helicopter live-fire gunnery training of the ROK and the U.S. Armed Forces by devising a mutually beneficial plan with the local community, such as building regular communication channels with local communities near the training areas, pursuing projects to improve the living conditions of residents, and disperse planned annual shooting exercises to various training ranges.

5. Strengthening the Esprit de corps

Education to Establish

Mental Readiness

The ROK Armed Forces run systematic spiritual and mental force education courses with a sound perspective on their nation, the enemy, and military spirit. In particular, special education materials designed to foster an accurate perspective on the enemy are distributed and used intensively since June 2022 to ensure that service members recognize that “the North Korean regime and the North Korean military, threatening the lives of our citizens and our national security with nuclear weapons and missiles, are our enemies.”

The “Basic Textbook on Spiritual and Mental Force Education” (published every five years), which is the standard material used in spiritual and mental force education for service members, will be revised and republished in 2023 by dedicated TF management, review by experts and public hearings.

The ROK Armed Forces spiritual and mental force education is categorized into separate courses for new recruits, schools, and units. The course for new recruits focuses on fostering an elite force armed with robust military spirit, and spiritual and mental force education is considered on every aspect of training with the aim of “arming soldiers first with the military spirit and teaching them master combat techniques second”; the officer and NCO courses in schools focus on presentations, discussions, and practical training aimed at improving the skills required as mental strength instructors; the course for units are given repetitively on a daily, weekly, and semi-annual basis, led by the commander of each unit. In particular, the weekly spiritual and mental force education program and method were reorganized in November 2022. While maintaining the “Kanggun (Strong Military)

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Special Education Materials for Establishing Firm Perspective on the Enemy



“On That Day, the Military Story,” a Video Education Material on Current Affairs and Security

Vitamin”⁵⁰⁾ program centered on basic textbooks, the previous culture-oriented “TV Special Knowledge IN”⁵¹⁾ was revamped to “On That Day, the Military Story”⁵²⁾ following a format preferred by Millennials and Gen Z to further strengthen service members’ perspective on the enemy and the military spirit.

In addition, in order to reflect the voices of service members in the field, findings produced by military monitoring personnel were reflected in educational materials. Education aimed at building up the military spirit, such as field trips to historical battle sites and contents production on the military spirit using combat films, is also being reinforced to raise service members’ patriotic mindset and the will to fight.

Communication and Compathy Education Using New Technology

Innovative improvements are made in the teaching and learning paradigm by incorporating Industry 4.0 technologies into spiritual and mental force

education to maximize the outcomes. The introduction of experiential and self-directed education that incorporates new technologies, such as AI, VR, and metaverse, goes beyond conventional classroom-based education centered on lectures and discussions, increasing the degree of immersion and effectiveness of education aimed at Millennials and Gen Z service members. In particular, an initial version of the mobile-based AI spiritual and mental force education platform,⁵³⁾ was developed in 2021 to provide customized learning tailored to each level and establish a scientific evaluation system. The platform began its pilot service with field units since January 2022. Moreover, service members are acquiring a strong military spirit through mission-oriented educational and VR contents as well as through digital education centers⁵⁴⁾ that allow trainees to gain an indirect experience of battlefield situations.

50)

A 10-minute video lecture for weekly mental force education produced by experts on the concept of the nation, adversaries, and military mentality, focusing on the essential tasks covered in the Basic Textbook for Mental Force Education.

51)

Video lectures by instructors specializing in humanities, sports, and personal development.

52)

Storytelling video material on current security matters, such as the Yeonpyeong-do Shelling.

53)

The mental force education platform utilizes Industry 4.0 technologies such as digital teaching aids, AI chatbots, and AI humans to create customized learning for Millennials and Gen Z service members and to store, analyze, evaluate, and innovate learning results.

54)

Education centers offering trainees the opportunity to experience various types of realistic contents, such as VR and 3D for trainee-led education. Starting with 10 centers installed by 2021, 12 new centers will be built every year, reaching a total of 68 centers by 2026.

Strengthening the Functions of the Defense Agency for Spiritual and Mental Force Enhancement

The Defense Agency for Spiritual and Mental Force Enhancement operates various programs designed to strengthen the mental force of service members, such as refresher education for troop

information and education officers and noncommissioned officers, military spirit leader courses for all service members and civilian employees, and recruits’ mental strength training instructor’s course. The agency also produces tailored mental force education contents that reflect the applicability for field units and preferences of service members. Also, it pursues research and seminars aimed at developing mental force policies and institutions as well as publishing academic journals.

The MND is increasing the number of instructors and specialized personnel responsible for creating learning materials, contents and policy research (institutions) to enable the agency to perform its role and mission as the military’s sole mental force education and specialized research institute. Moreover, various efforts are being made to strengthen the agency’s functions and roles, such as constructing an independent building to improve the education and research conditions.

**Construction of the North Korean Military
Provocation Room at the War Memorial of Korea**

In 2022, the MND established a permanent exhibition room in the War Memorial of Korea to provide

accurate information on cases and threats of North Korean provocations against the ROK since the Korean War and to raise awareness of security issues among service members and the general public. The exhibition room show cases of North Korea's military provocations and threats by period and type, and offer an experience zone featuring video materials related to North Korea's nuclear tests. Furthermore, the ministry plans to enhance the public understanding and consensus on the importance of peace and national security by running education and experience programs for the general public.

Military Assurance for Establishing Peace on the Korean Peninsula

The ROK government has proposed the “Audacious Initiative for Denuclearization, Peace, and Prosperity on the Korean Peninsula” to North Korea as a key measure for complete denuclearization and a virtuous cycle of confidence building between the two Koreas. The MND supports the government’s efforts based on the security policy of “peace through strength and deterrence.” The MND will gradually implement measures to ease military tensions and build trust between the two Koreas based on the principle of reciprocity in tandem with North Korea’s substantial progress with denuclearization in the future.

1. Easing Military Tensions and Confidence Building between the two Koreas

Easing Military Tension between the Two Koreas

To realize sustainable peace on the Korean Peninsula, it is essential that the two Korea’s establish a virtuous cycle based on the denuclearization of North Korea and the building of trust. With the denuclearization of North Korea as the top priority of ROK’s North Korean policy, the ROK government is striving to lead North Korea to substantive denuclearization and normalize inter-Korean relations. On August 15, 2022, President Yoon Suk Yeol proposed the “Audacious Initiative for a Denuclearization, Peace, and Prosperity on the Korean Peninsula” to North Korea and called for a speedy return to dialogue on the subject of denuclearization. The “Audacious Initiative” is a comprehensive approach - comprising economic, political, and military measures - to the complete denuclearization of North Korea and the establishment of a unified foundation for sustainable peace and prosperity.



Congratulatory Speech for National Liberation Day
(August 2022)

While maintaining a strong deterrence and response posture based on the ROK-U.S. combined defense system, the MND is preparing military measures designed to ease military tensions between the two Koreas in the event that North Korea responds to the ROK government’s “Audacious Initiative.”

Confidence Building between the Two Koreas

Confidence building between the two Koreas has proved to be extremely difficult due to North Korea’s repeated violations of the inter-Korean agreement and military provocations. In 2018, the two Koreas agreed to implement various measures for preventing accidental military conflicts and to build trust based on the Comprehensive

Military Agreement (CMA). However, North Korea has yet to properly implement confidence building measures, such as establishing and operating a Joint Inter-Korean Military Committee or agreeing to the joint excavation of the remains of service members. Furthermore, the North has repeatedly violated the measures for ceasing mutual acts of hostilities provided under the CMA by firing artillery rounds within the maritime buffer zone, launching missiles across the NLL, and flying small UAVs into the Republic of Korea.

Since the 8th Party Congress held in January 2021, North Korea has focused on advancing its nuclear and missile capabilities, launching ballistic missiles - including new ICBMs - more frequently than ever in 2022. Furthermore, it has rejected any dialogue while escalating military tensions, such as legislating the Nuclear Force Policy in September 2022 and declaring that it will not give up nuclear weapons at the 6th Plenary Session of the 8th Party Central Committee held in December of the same year.

The ROK government is pursuing a consistent policy on North Korea according to sound, rational principles in an effort to fundamentally resolve the North Korean nuclear issue and achieve lasting peace on the Korean Peninsula. Meanwhile, the MND provides military support for the government's policy on North Korea based on the consistent principle of ensuring peace on the Korean Peninsula through strong deterrence against North Korea. Although no armed provocation by North Korea will be tolerated, and any such provocation will be met with a resolute response, efforts to ease military tensions, such as preventing accidental military clashes between the two Koreas, will nonetheless be carried out.

Furthermore, the MND will gradually promote measures aimed at establishing military trust between the two Koreas based on reciprocity, provided, however, that North Korea implements practical denuclearization measures in response to the ROK's "Audacious Initiative". First, the MND will seek to ease military tensions between the two Koreas by implementing the Audacious Initiative in the military field, and then extend it to include military confidence building measures which will take place in lock step with the progress on denuclearization of North Korea.

Excavating the Remains of Fallen Soldiers in the DMZ

The ROK government is maintaining its efforts to recover the remains of fallen service members in order to commemorate

those who made the ultimate sacrifice to the country and to continue on their legacy in a responsible manner. September 2021, the ROK Armed Forces have been excavating the remains of ROK service members in the White Horse Hill area of the Demilitarized Zone (DMZ) since September 2021, excavating the remains of 67 service members and 15,670 mementos by 2022. Among the remains, 40 are presumed to be the remains of ROK service members, and the identities of 4 were confirmed, allowing them to return to their family after 70 years. The recovery of remains in the DMZ has a symbolic meaning not only with regards to patriotism and humanitarianism, but also in terms of easing military tensions between the two Koreas. As such, the MND will press on with the planned recovery of the remains of fallen service members in the White Horse Hill area with consideration to military stability and other surrounding conditions.

2. Military Assurance of Inter-Korean Exchange and Cooperation

Military Assurance of Inter-Korean Passage

Direct traffic between the two Koreas has mainly been done via land routes, although some movement took place through the air and sea routes. Although inter-Korean traffic has largely been carried out on roads and railways in the Joint Administrative Areas in Transportation Corridors East and West, they have been repeatedly suspended and resumed depending on vicissitudes of inter-Korean relations. Rail traffic has been suspended since December 2008, while road traffic has been suspended since the end of January 2020. Since the implementation of May 24 Measures⁵⁵⁾ in 2010, in principle, Sea-route traffic was banned as well, prohibiting North Korean ships from operating in ROK waters.

The MND has prepared military assurance and support measures necessary for inter-Korean passage in preparation for normalization of inter-Korean relations and the resumption of direct traffic between the two Koreas in the future. If such traffic is resumed, discussions will be held with the United Nations Command and the North Korean military authorities to militarily guarantee inter-Korean passage and to provide security and escort for inter-Korean passage in the DMZ. If passage through air and sea routes are necessary, various measures to guarantee safe passage, such as monitoring, surveillance, and maintaining military readiness posture will be taken.

Operating Inter-Korean Military Communication Lines

The ROK Armed Forces operate military communication lines in the Joint Administrative Areas in Transportation Corridors East and West as channels of communication between the military authorities of the two Koreas. In September 2002, the two Koreas agreed to establish communication lines between their respective military situation rooms, and additional military communication lines were installed in Transportation Corridor West on September 24, 2002, and Transportation Corridor East on December 5, 2003. The ROK government has endeavored to ensure that the military communication lines between the two Koreas operate normally.

Despite such effort by the ROK government, North Korea has repeatedly and unilaterally cut off the military communication lines for its own political purposes. On February 11, 2016, it cut off the military communication lines in Transportation Corridor West under the pretext of closing the Kaesong Industrial Complex. It also cut off the military communication lines on June 9, 2020, and again on August 10, 2021. However, the inter-Korean military communication line was restored on October 4, 2021, and is now operating normally, with calls being made twice a day through the military communication lines in Transportation Corridors East and West.

The military authorities of the two Koreas agreed to operate the “international maritime communication network” from July 1, 2018 as means to prevent accidental clashes in the West Sea and to exchange information on illegal fishing vessels from third-parties on a daily basis from November 2 of the same year. However, on June 9, 2020, North Korea unilaterally suspended communication over the “international maritime communication network” and daily exchanges of information on illegal fishing vessels from third parties

55)

The ROK government announced its North Korean policy in response to the sinking of the “ROKS Cheonan” by North Korean on May 24, 2010. The main topics include the prohibition of North Korean ships in ROK waters, the suspension of inter-Korean trade (excluding the Kaesung Industrial Complex), the prohibition of visits by ROK citizens to North Korea, the prohibition of new investments in North Korea, and the suspension of support projects for North Korea.

under the pretext of deteriorating inter-Korean relations. On October 4, 2021, the inter-Korea communication lines were restored as well as communication through the “international maritime communication network” and exchanges of information on illegal fishing vessels from third parties with regular communication taking place on a daily basis.

It is essential to maintain the inter-Korean military communication lines in order to prevent accidental clashes between the two Koreas, ease military tensions, and facilitate future inter-Korean cooperation projects. As such, these lines of communication must not be blocked by either side for political purposes. The MND will continue its efforts to promote mutual cooperation between the two Koreas to ensure normal and stable operation of the inter-Korea military communication lines.

3. Development of the Arms Control Policy

Denuclearization of North Korea and Establishment of a Peace System

While promoting denuclearization and the establishment of a peace system based on consistent principles and policy, the ROK government has proposed a predictable road map for denuclearization in close coordination with the U.S., and has also proposed negotiations for the denuclearization of North Korea based on the principle of reciprocity as a national agenda. To that end, the MND is strengthening its deterrence and response strategy against North Korea’s continuous nuclear and missile provocations, and is considering various forms of military support for achieving a sustainable, lasting peace on the Korean Peninsula based on the complete denuclearization of North Korea, which the government is pursuing. The ROK government will maintain its arms control policy to reduce or eliminate military tensions and threats between the two Koreas in conjunction with substantial denuclearization measures by North Korea and monitoring effort over its military threat.

Arms Control Policy and Institutional Development

The MND is developing arms control policies based on confidence-building between the two Koreas, while constantly monitoring the denuclearization of North Korea and its military threats, and is seeking ways to improve those policies by taking into account the changed internal and external security environment, in order to ensure feasible arms control on the Korean Peninsula. At the same time, the MND is identifying arms control issues and preparing detailed plans for implementing arms control in conjunction with the government’s “Audacious Initiative” and is operating an arms control expert network for discussions on the use of various forms of arms control measures.

Furthermore, since 1991, the MND has developed policies and systems related to arms control, published the Arms Control Policy⁵⁶⁾ to provide the basic directions and guidelines for the implementation of arms control, and worked to strengthen its arms control policy development capabilities by holding annual arms control seminars in order to gather the opinions of internal and external security experts and reflect them in policies related to arms control.

56)

This is a planning document concerning the direction of defense policy. It was presented in the National Security Strategy Guidelines and the National Defense Strategy, and is drafted from the perspective of arms control. It will be revised to reflect the changes in the security situation on the Korean Peninsula and surrounding areas and published in 2023.

In the coming years, the MND will maintain a firm defense posture, manage the military situation in a stable manner, and pursue arms control policies based on the principle of strict reciprocity.

International Cooperation on Arms Control

The MND continues to promote international arms control by strengthening its cooperation with partner nations and international organizations with the aim of establishing a peace regime on the Korean Peninsula. At the annual Seoul Defense Dialogue (SDD) held since 2012, sessions related to arms control have been facilitated on each occasion to introduce the ROK government's arms control policy and secure international understanding and support for the security situation on the Korean Peninsula.

The MND also contributes to international peace and stability by actively participating in major international disarmament and nonproliferation agreements, such as the Nuclear Nonproliferation Treaty (NPT), the Chemical Weapons Convention (CWC), and the Convention on Certain Conventional Weapons (CCW), thereby enhancing the transparency and credibility of its approach to arms control.

In particular, the first nonproliferation meeting held between the Ministry of National Defense and NATO in September 2022 identified mutual development tasks, including an assessment of the WMD threat, exchanges of information, and cooperation on education and training. At

the same time, the first chemical weapons tabletop exercise⁵⁷⁾ was conducted with the OPCW in order to discuss cooperation procedures in preparation for CBR and terrorist attacks and discuss future tasks for cooperation.



ROK-OPCW Tabletop Exercise (September 2022)

4. Development of the POW Policy

Confirmation, Reunion, and Repatriation of POWs

In 2006, the MND enacted the Act on the Repatriation and Treatment of Republic of Korea Armed Forces Prisoners of War following the return of the late First Lieutenant Cho, Chang-ho in 1994 and prepared government-wide measures for the repatriation of POWs. Also, through inter-Korean dialogue, the ROK government repeatedly urged North Korea to confirm the fate of POWs and repatriate them, stressing that this is the foremost issue that needs to be addressed for the reconciliation of the two sides and humanitarian concerns. However, North Korea has consistently denied the existence of POWs ever since the signing of the Armistice Agreement, making it difficult to fundamentally resolve this issue.

Between 1994 and 2010, 80 POWs have returned to the Republic of Korea after escaping from North Korea on their own. Since 2011, however, there has been no cases of POWs

57)

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returning to the Republic of Korea due to their old age and enhanced surveillance by North Korean authorities to prevent their escape. As of December 2022, fourteen repatriated POWs are still alive in the ROK.

[Figure 3-15] Status of Repatriated POWs

As of December 2021 Unit: People

Year	1994	1997	1998	1999	2000	2001	2002	2003	2004
POWs	1	1	4	2	9	6	6	5	14
Year	2005	2006	2007	2008	2009	2010	2011~2022	Total	
POWs	11	7	4	6	3	1	-	80	

The MND is making efforts to ensure that ROK POWs and their families who have escaped to a third country can be safely repatriated to ROK. If it is confirmed that a POW and his or her family have escaped from North Korea, the government-wide POW task force is formed to ensure their personal safety as overseas ROK nationals and carry out missions to repatriate them to ROK as soon as possible. In 2015, the Act on the Repatriation and Treatment of Republic of Korea Armed Forces Prisoners of War was amended to allow the ROK government to support the repatriation of the remains of fallen POWs.

Meanwhile, the ROK government chose to discuss the issue of POWs and their separated families at the inter-Korean Red Cross Talks and the Inter-Korean Ministerial-level Talks held after the Summit in June 2000. In particular, “consultation and resolution of the matter of confirming the life or death and the address of those who went missing during the War” was specified for the first time in the agreement of the 4th Inter-Korean Red Cross Talks in September 2002, and it was agreed to discuss and resolve the issue as a part of the wider issue of separated families at the 7th Inter-Korean Red Cross Talks held in February 2006. The 20th Inter-Korean Ministerial Talks in March 2007 and the 8th Inter-Korean Red Cross Talks in April 2007 reaffirmed this principle. Up to now, 56 POWs have been confirmed to be alive through family reunions, and eighteen of them have met their families. The ROK government is continuously working to resolve the POW issue by including POWs within the scope of separated families in the 3rd Basic Plan for the Promotion of Inter-Korean Exchanges between Separated Families in December 2019.

In the future, the MND will continue striving to resolve fundamental issues such as confirming the existence of, and repatriating, POWs through inter-Korean talks, and will also strengthen cooperation with third countries and the relevant ministries to ensure the safe repatriation of POWs and their families in the event that they escape from North Korea.

Increasing the Resettlement Support for Returned POWs

The MND supports repatriated POWs to settle down and spend their lives in their homeland in an early and stable manner as prescribed in the Act on the Repatriation and

Treatment of Republic of Korea Armed Forces Prisoners of War. The returning families of POWs who died in North Korea are also registered as POW families at the place of detention and are eligible to receive separate benefits in addition to treatment and support as North Korean defectors.

Furthermore, since 2012, private sector companies with expertise have been selected to carry out settlement support projects in order to resolve the various difficulties arising from the resettlement process of returned POWs, including home visits and psychological and legal consultations. In addition, returned POWs are invited to events such as Armed Forces Day, and receive funeral support upon their passing away.

The MND will continue to improve its policies for stable resettlement of repatriated POWs into the Republic of Korea and cooperate with associated agencies to continue the government-wide efforts on this issue.



Chapter 4

Defense Innovation 4.0: Developing a Powerful Modern Military Based on Advanced Science and Technology

Section 1. Base Plan for Defense Innovation 4.0

Section 2. Phased Transition to an AI-based MUM-T
Combat System

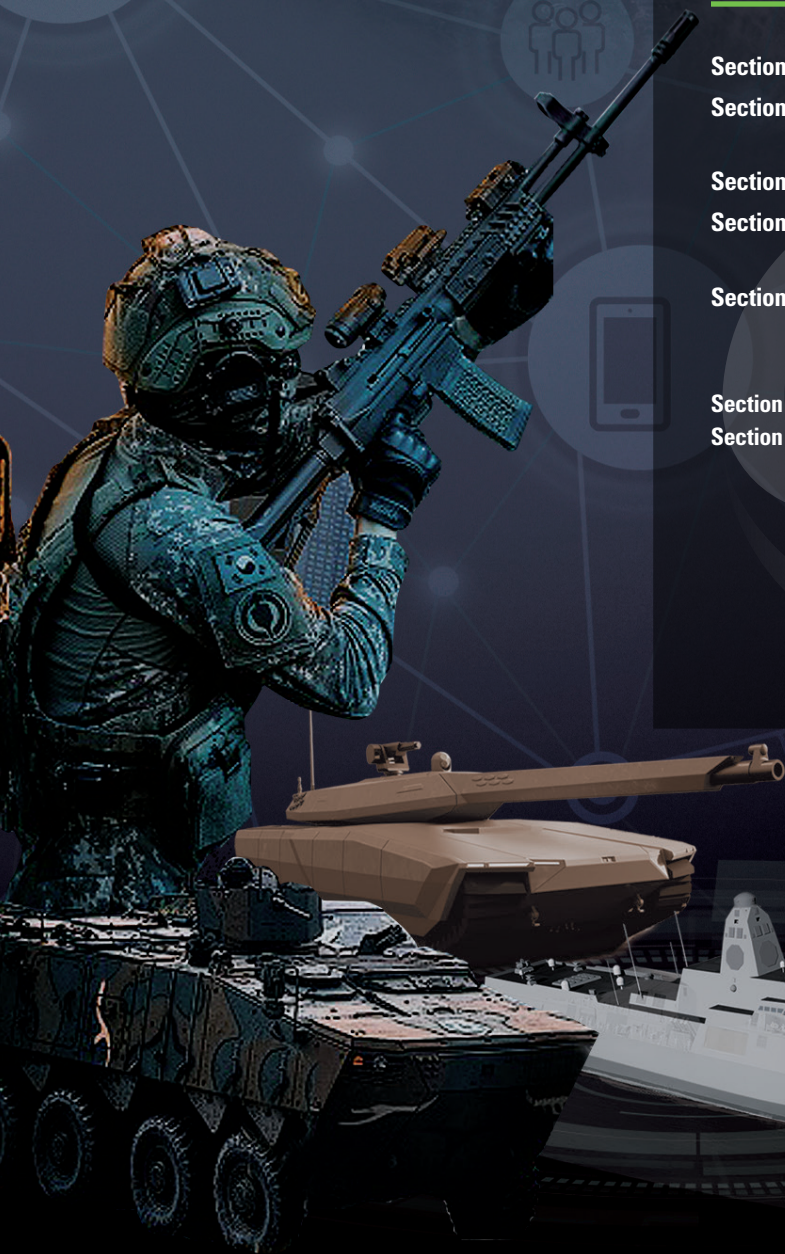
Section 3. Defense AI and Digital Transformation

Section 4. Development of Spacepower Based on
Jointness

Section 5. Reorganization of the Military Structure
Based on Advanced Science and
Technology

Section 6. Development of Elite Reserve Forces

Section 7. Fostering the Defense Industry into a
National Strategic Industry



Base Plan for Defense Innovation 4.0

In the future, our national defense will face a radically different and far more challenging environment, due to the rapid progress of science and technology represented by the Fourth Industrial Revolution, the realization and progress of North Korea's nuclear and missile threats, and a sharp decrease in military manpower resource due to the second demographic cliff. To preemptively prepare for such changes in the future defense environment, the MND has established the Master Plan for Defense Innovation 4.0. Defense Innovation 4.0 consists of five focus areas and sixteen tasks aimed at transforming the ROK Armed Forces into a strong military based on innovations in AI science and technology, by actively utilizing the ROK's strengths in the field of science and technology of the Fourth Industrial Revolution.

1. Results of Defense Reform 2.0

The Defense Reform program initiated in 2006, which was based on the premise that the threat from North Korea would gradually diminish, set the goal of reducing the size of the standing military to 500,000 by 2020, and promoted the concept of the "Elite Military Force" in every area of defense, including the military structure, defense management, the barracks culture, and defense acquisitions. In particular, Defense Reform 2.0, which began in 2017, focused on realizing and succeeding the agendas of Defense Reform 06~20. As a result, the number of troops was reduced to 500,000, the service period was shortened, many units were disbanded, and the prison system was abolished by 2022. However, as the threats from North Korea grew in intensity and sophistication, there has been criticism to the effect that such reform efforts were primarily external in nature, such as excessively reducing the number of units and troops before capability enhancement reducing the number of general officers, reinforcing civil control, and allowing conscripted servicemembers to use their cellphones on base, and that the reform tasks were short-sighted and failed to apply advanced science and technology, instead promoting reforms from the current point of view.

Military Structure

As it was agreed that the current ROK-U.S. Combined Forces Command system would be maintained, a review was conducted on the distribution and organization of functions between ROK JCS and the future Combined Forces Command in regards to wartime OPCON transition. The size of the standing military was reduced to 500,000 by 2022, percentage of officers and NOCs were adjusted upwards from 31.6% in 2017 to 40.1% in 2022, and the defense staffing structure was reorganized, including an increase in the number of civilian personnel. In particular, ROK Army reduced the number of standing troops by 118,000, from 483,000 in 2017 to 365,000 by 2022, reduced the number of army corps from 8 to 6, and the number of divisions from 39 to 34. In the wake of these troop reductions, the reorganization of military units and the reinforcement of capability are expected to be completed in the late 2020s.

Defense Management

The reforms undertaken in the area of defense management included the creation of more civilian positions at the Director General and Director level at the MND, expanding the number of Executive Agencies, shortening the service period of conscripted service members by 90 days, increasing the ratio of female service members and promoting a more transparent management of national defense including the establishment of a civilian integrity ombudsman and a mothers' group dedicated to monitoring the food and clothing of service members.

Barracks Culture

The reforms of the barracks culture included improvements in military affairs and service conditions, such as the establishment of the Truth-Finding Committee for Deaths in the military, increased wages for conscripted service members, permission to leave base and use mobile phones after duty hours on weekdays, and increase of medial subsidy for service members who choose to receive treatment at private medial institutions. Meanwhile, these reforms also exposed heavy workload of junior officers and NCOs and the relative negligence of their welfare as well as relaxation of military discipline.

Defense Industry

Regulatory reforms including the establishment of the Defense Acquisition Program Council in 2019 and the introduction of a rapid acquisition pilot program have been pursued; however, the scope of such reform remains limited and fielding a weapons system continues to be a complicated and time-consuming process.

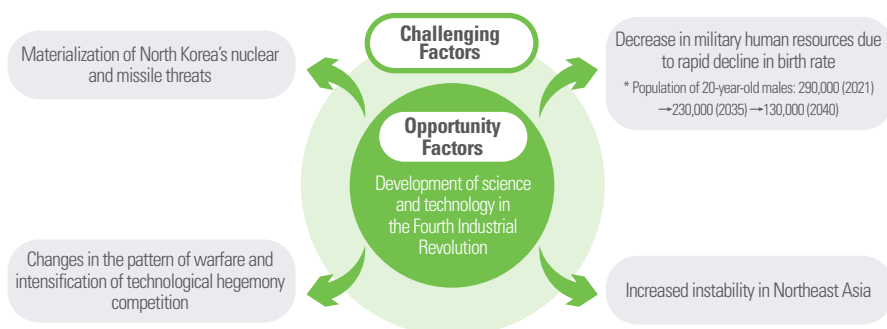
2. Implementation Plan for Defense Innovation 4.0

Necessity

As shown in [Figure 4-1] below, the ROK is expected to face a challenging defense environment characterized by increasing instability around the world and Northeast Asia, intensification of North Korea's nuclear and missile threats, changes in warfare and intensification of the competition for technological hegemony due to the rapid development of science and technology, and a shortage of military manpower resource due to the second demographic cliff.

As an alternative means to overcome this challenging security environment, the ROK must utilize its strengths in science and technology as an opportunity. In particular, the country's

[Figure 4-1] Future Defense Environment Factors



active utilization of rapid developments in science and technology resulting from the Fourth Industrial Revolution, to foster a strong military with a competitive advantage over the enemy will enable it to prepare for future battlefield environments preemptively, reduce the number of troops and further realize the principle of respect for human life.

Concept of Defense Innovation 4.0

Defense Innovation 4.0 aims to foster a robust Armed Forces by exploiting the advanced science and technology developments of Industry 4.0, such as AI, autonomous vehicles, and robots. It aims to respond to North Korea's nuclear and missile threats by introducing Industry 4.0 innovations to military strategic/operational concepts, advanced core forces, advanced military structures, education/training programs, defense R&D, and capability enhancement.

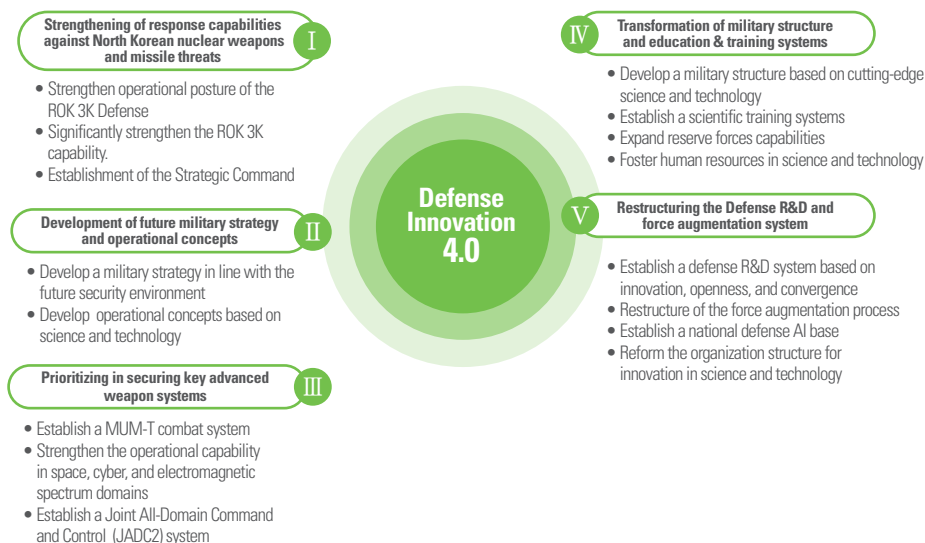
In "Defense Innovation 4.0", the number "4.0" carries the symbolic meaning of creating a new national defense based on the advanced science and technology of the Fourth Industrial Revolution, as well as being the fourth plan to pursue groundbreaking changes in national defense since the founding of the ROK Armed Forces: (1980s) research on the developmental direction of the country's long-term defense posture → (1990s) five-year defense development plan → (2000s) defense reform → (2020s) defense innovation.

Focus and Tasks of Defense Innovation 4.0

[Figure 4-2] shows the five focus areas and sixteen tasks included in the Master Plan for Defense Innovation 4.0. Each task is further divided into detailed tasks and will be executed according to the implementation plan. The main contents of each focus area are as follows.

First, the ROK 3K capability to respond to North Korean nuclear and missile threats will be strengthened by a significant degree. To this end, the ROK Armed Forces will secure reconnaissance and surveillance capabilities throughout North Korea, establish kinetic and non-kinetic strike capabilities and complex multi-layer missile defense systems, and secure

[Figure 4-2] Focus Areas and Tasks of Defense Innovation 4.0



overwhelming mass punishment and retaliation capabilities. Moreover, the ROK Armed Forces will unify the command structure for major strategic assets and establish a strategic command that can take initiative for a systematic capability enhancement.

Second, the ROK Armed Forces will take the lead in developing military strategies and operational concepts. To this end, the ROK Armed Forces will develop military strategies by reevaluating the strategic environment, including the North Korean threat, unconventional threats, and the advent of increasingly advanced science and technology. In addition, the future joint operation concept will be developed to generate cross-domain synergy based on MUM-T combat systems that incorporate the advanced science and technology of the Fourth Industrial Revolution, providing the future direction for securing new concepts of weapon systems and changing the overall military structure.

Third, actively acquire advanced MUM-T combat systems such as AI-based autonomous vehicles and robots. The ROK Armed Forces will develop MUM-T combat systems into remote-controlled, semi-autonomous, and autonomous systems with consideration of the technological development of weapon systems in all fields including ground, sea, air, space, cyber, and the electromagnetic spectrum, and will establish the foundations, such as frequency, airspace control, interoperability, and security systems, for their implementation. Moreover, the ROK Armed Forces will establish an AI-based Joint All-Domain Command and Control system to equip themselves with faster surveillance, decision, and strike capacity than the enemy by hyper-connecting and hyper-fusing the expanded battlefield area with various weapons systems. These efforts will maximize the ROK Armed Forces' ability to carry out combat missions and minimize the loss of life.

Fourth, the military structure as well as education and training will be innovated to meet the demands of future warfare. The ROK Armed Forces will develop the command structure to lead the future allied defense and integrated operations in all areas, while the unit structure will be developed into a format that can efficiently operate AI-based MUM-T combat systems. For the military capability structure, priority will be to secure advanced core power while achieving an appropriate balance of high-low capabilities. Regarding the troop structure, the size of the standing forces will be reformed by comprehensively considering future available military manpower resources and capability requirements. For education and training, a virtual simulation training system and scientific training complex will be established in phases to provide training on tactics, techniques and equipment functions. For the reserve forces, a reserve military unit structure and a scientific training system that matches the future battlefield environment will be designed. Furthermore, the requirements for science and technology experts will be specified in connection with the expansion of the scope of application of science and technology, and the related development and management system and institution will be improved based on this.

Fifth, the defense R&D and acquisition system will be redesigned. The ROK Armed Forces will reorganize defense R&D into an open military, industry, academia and research system to enable the rapid application of advanced science and technology developed by the private sector to national defense and to strengthen each service's R&D capabilities. In addition, the military capability enhancement process will be redefined, such as creating a new fast track acquisition process, improving the flexibility of the evaluation system, and strengthening

the military capability enhancement policy of the MND in order to establish an acquisition system in line with the pace of scientific and technological developments. At the same time, the ROK Armed Forces will establish the legal and institutional foundation for utilizing AI in defense, build a high-performance AI infrastructure for the construction, management and utilization of defense data based on high-speed and hyper-connected networks, and establish a defense AI center that will lead AI development in the defense sector.

Implementation Strategy for Defense Innovation 4.0

A consistent strategy is necessary to complete Defense Innovation 4.0 in a systematic and practical manner. As such, the MND has adopted three implementation strategies:

Selection and Concentration, Realization and Experience, and Communication and Empathy.

- 1) Selection and Concentration: Among the core areas related to advanced science and technology, tasks in areas requiring fundamental change must be carefully selected and strongly implemented.
- 2) Realization and experience: Defense Innovation 4.0 must be materialized into a feasible plan and supported by budgetary and institutional support in order to bring about tangible changes in the field beyond mere policy planning. To this end, the short- and mid-term tasks to be carried out within ten years should be evaluated and verified using scientific means based on data, such as pilot unit operation and combat experiments, along with the establishment of specific action plans. For long-term tasks requiring more than ten years to complete, the concepts and policy directions should be presented, and efforts should be made to continuously update them to ensure they become reality.
- 3) Communication and empathy: Active internal and external communication will be pursued in order to generate public support and form a consensus on Defense Innovation 4.0.

Expected Benefits of Defense Innovation 4.0

Defense Innovation 4.0 will transform the ROK Armed Forces into an AI science and technology military force with a competitive advantage over the enemy. The expected benefits of Defense Innovation 4.0 can be divided into the defense and national levels. First, the ability to respond to threats will be dramatically reinforced in terms of the level of defense. The ROK's deterrence and response capabilities against North Korean nuclear and missile threats and all-around threats will be improved by acquiring the ROK 3K capability, Joint All-Domain Command and Control system, and future game changers. Second, a military structure that significantly improves operational performance by utilizing MUM-T combat systems will resolve the anticipated shortage of military manpower resources in the future. Third, operational efficiency will be maximized, and wartime human casualties reduced, by deploying an AI-based unmanned and robotic combat system designed to improve combat capabilities and realize a low-cost and high efficiency defense system.

At the national level, the fostering of defense science and technology experts will enhance the skills, manpower, and capabilities of the private sector in connection with the Fourth Industrial Revolution and meet the requirements of domestic industries. Furthermore, defense science and technology combined with advanced science and technology will be a new growth engine for national development, including increased defense exports.

Phased Transition to an AI-based MUM-T Combat System

To implement Defense Innovation 4.0, the MND is promoting the transition from a troop-centered manned system to an AI-based MUM-T Combat System. To this end, the ROK Armed Forces will lay the foundation for strengthening jointness and ensuring stable operation between manned and unmanned systems, and will deploy them in phases by operating, verifying, and evaluating pilot units for each service according to the 2022 Development Plan for Unmanned Systems of National Defense. At the same time, a public-private-military cooperation system will be established with the aim of quickly incorporating advanced technologies from the private sector into the defense sector, thereby contributing to the development of national science and technology.

1. Background

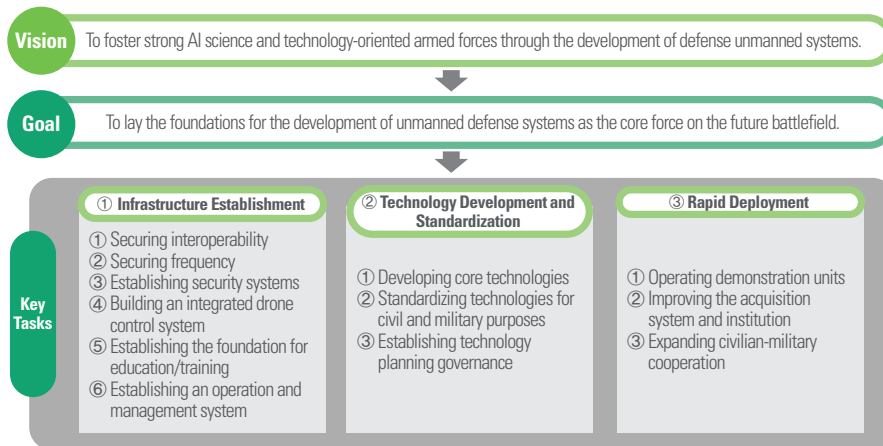
The technology of the Fourth Industrial Revolution is drastically changing the pattern of warfare and the development of weapons systems. Drones are widely being used, and the importance of the space and cyber domains is growing. Developing and operating such advanced weapons require the establishment of the necessary infrastructure, such as frequency, security, and airspace control, and the development as well as standardization of related technologies.

In deploying such weapon systems, it is necessary to divide them into three stages: remote control, semi-autonomous, and autonomous, according to the prevailing trends of technological development.

2. Establishment of the Mid- to Long-Term Development Plan for Unmanned Systems of National Defense

In December 2022, the MND announced the Development Plan for Unmanned Systems of National Defense, which aims to lay the foundation for the development of unmanned defense systems that will serve as a core capability in future battlefields. The plan covers twelve key tasks in the following three areas: infrastructure establishment, development and standardization of technologies, and rapid deployment.

[Figure 4-3] Vision and Tasks of the Development Plan for Unmanned Systems of National Defense

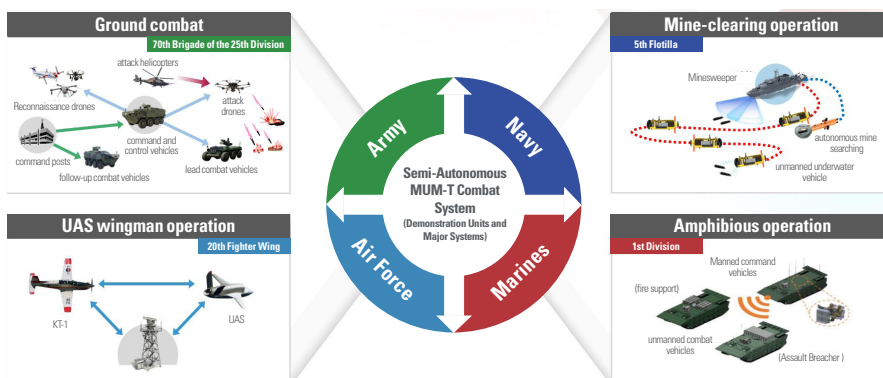


3. Operating Demonstration Units and Laying the Foundation for Unmanned Systems

Operation of Demonstration Units¹⁾

The MND will build the MUM-T Combat System in three phases: remote control, semi-autonomous, and autonomous, after taking into consideration prevailing and future trends in technological development, such as AI. First, in July 2022 the MND designated a demonstration unit for each group in order to secure an efficient transition from a remote-controlled to a semi-autonomous system. Thus, the 70th Brigade (Tiger Brigade of the ROK Army) of the 25th Division will test ground operation using autonomous combat vehicles and reconnaissance and attack drones; the 5th Flotilla of the ROK Navy will test a combined mine clearance operation by linking the minesweeper with an autonomous mine searching unmanned underwater vehicle; the 20th Fighter Wing of the Air Force will fly UAS wingman; and the 1st Division of the Marine Corps will pilot MUM-T amphibious assault vehicles and multi-purpose autonomous vehicles. The ROK Armed Forces plan to expand the operational performance of these demonstration units in phases after evaluating and improving them.

[Figure 4-4] Demonstration Units and Leading Systems of Each Service



1)

The leading units of each service will prioritize the adoption and operation of optimized weapons systems and troop structures with the goal of securing an efficient transition to a MUM-T Combat System and promoting the proliferation of applied units through combat tests and test evaluations.

Building the Unmanned Defense System Infrastructure

The MND is building the infrastructure required to develop and operate unmanned defense systems. First, it sets the direction for standardization according to the Research for National Defense Informatization Standard Measures. It then selects and develops the standard core technologies to be applied to the unmanned systems that will be introduced in the future. Second, in preparation for the projected increase in the use of unmanned systems, the ROK Armed Forces are securing dedicated frequencies and developing frequency utilization technologies. Third, the ROK Armed Forces announced the National Defense Standard in September 2022, with the focus on the technology required to ensure safe and effective communication between unmanned defense systems, and they will develop a pre-security certification system²⁾ for the prompt introduction of commercial products. Fourth, the ROK Armed Forces will establish an integrated drone control system to guarantee safe and efficient drone operations for each branch of the armed forces and contribute to future joint battlefield operations.

4. Establishment of a Public-Private-Military Cooperation System

The MND is making concerted efforts to swiftly introduce advanced science and technology, including qualified civilian drones and robots, and lay the foundations for shared growth between the civilian sector and the military.

First, the MND plans to cooperate with the Ministry of Trade, Industry and Energy to establish civil-military drone/robot demonstration test sites at idle military training grounds and open them to the private sector. These test sites are expected to verify whether the commercial drones and robots can be used for military application introduce them to the armed services, and contribute to developing related national industries.

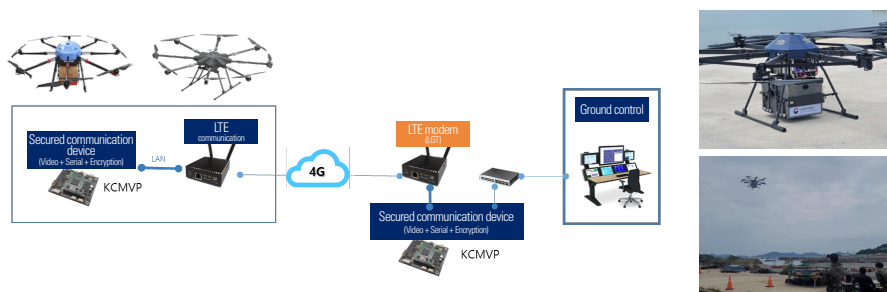
Second, the ROK Armed Forces provide test beds for the drone and robot demonstration projects of other ministries. The MND designated the 31st Infantry Division of the Army as a test bed for the Ministry of Trade, Industry and Energy's 10kg drone delivery demonstration project and conducted the demonstration project from January to December 2022. Meanwhile, the Ministry of Land, Infrastructure and Transport (MOLIT) designated the Army Air Operations Command as a test bed for the K-Drone System Demonstration Project and the launch of Korean Urban Air Mobility (K-UAM), and the demonstration project was carried out from May to November 2022.

Third, the MND is building a collaborative system with other ministries for the future

[Figure 4-5] Status of Drone Delivery and K-Drone System Demonstration Projects

2)

Pre-security certification system for commercial products: A simplified security certification system that only checks for forgeries or alterations when introducing commercial products that have been certified in advance according to military security requirements.



development of the aviation industry. For example, it signed a business agreement with MOLIT in July 2022 for the rapid application of advanced technologies -such as drones and urban air mobility- to the military, and contributed to the demonstration and development of civilian technology.



MOU for Urban Mobility and Drone System Development
between the Ministry of National Defense and the Ministry of
Land, Infrastructure and Transport

Defense AI and Digital Transformation

The MND is applying advanced science and technology to every field of defense while promoting AI and digital transformation in the fields of defense intelligence and informatization to achieve the goal of nurturing ROK Armed Forces with advanced science and technology capabilities. Accordingly, the MND will gradually establish a defense AI development model in consideration of current level of technology, while developing an intelligent and advanced military force system in preparation for the future battlefields based on the advanced information and communication technology (ICT) including AI, big data, and cloud. Furthermore, it will accelerate the digital transformation of the defense domain by building a high-performance AI infrastructure and training experts in AI and SW.

1. Establishment of the Defense AI Center and Defense AI Introduction Initiative

Establishment of the Defense AI Introduction Initiative

AI is a major game changer in the defense sector that is rapidly emerging to support or replace battlefield combatants. Accordingly, leading nations worldwide

are focusing their capabilities on the development of autonomous weapons systems with AI technology to gain a strategic advantage in the future battlefields. The MND is currently focusing on establishing the institutional foundation to accelerate digital transformation and to apply AI across all defense fields by planning to launch a robust initiative to oversee such developments. Accordingly, in July 2022, the MND built a defense AI development model in consideration of the current level of AI technology, and will gradually apply AI technology to the ROK military forces accordingly. Phase 1 is the “remote-control” mode, which is applying AI technology to surveillance and reconnaissance systems, including the development of AI-based multi-source video fusion systems and GOP/coastal surveillance systems. Phase 2 is the “semi-autonomous” mode, which is applying AI technology to MUM-T combat systems, such as autonomous combat vehicles and surface boats. Phase 3 is the “autonomous” mode, which involves the full-scale adoption of defense AI by implementing “intelligent command and decision support systems” and “hyperconnected combat systems” and applying them to the command and control(C2) systems.

Establishment of the Defense AI Center

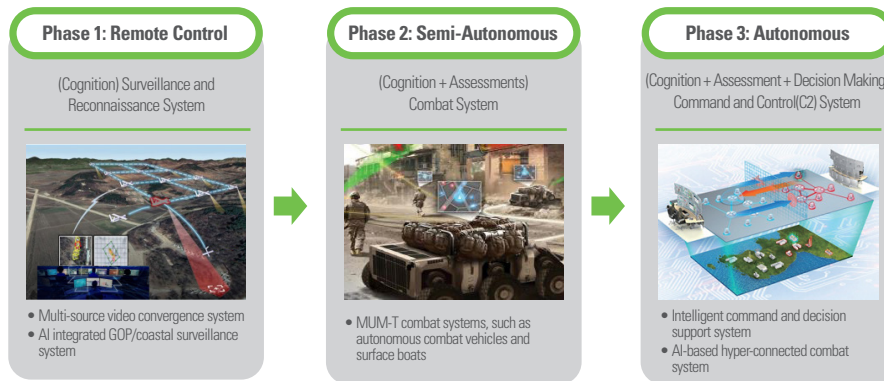
The MND plans to establish the Defense AI Center to assume responsibility for integrating

diverse efforts to apply AI technology to the military. The Center will effectively integrate and link the many AI-related tasks distributed across each branch of the military, the Defense Acquisition Program Administration, and the Defense Research Institute, while playing a pivotal role in the application and development of AI in all fields of defense, such as MUM-T combat systems based on AI technology, and intelligent command decision support systems.

Also, the ROK Armed Forces will create favorable conditions to ensure the construction, distribution, and utilization of defense data, primarily by establishing a cooperative system for the data collection management, standardization of data, and improving security systems across the military.

In October 2022, the Defense AI Center Implementation Team was organized under the MND to establish the Defense AI Center. This team plans to lay the groundwork for the establishment of the Defense AI Center by building a system that can effectively integrate the defense AI tasks being pursued by each service, the Defense Acquisition Program Administration, and the Korea Institute for Defense Analysis, while planning AI requirements that can be applied to all areas of defense and reflecting them in the budget.

[Figure 4-6] 3-Phase Defense AI Development Model



2. Establishment, Management, and Utilization of High-Quality Defense Data

Establishment and Management of High-Quality Defense Data

The term “defense data” refers to all information and data produced or acquired and managed by the MND, respective services, and other related agencies in the course of performing their duties, ranging from images, signals gathered from radar and ISR platforms to various reports and statistical data related to policy and current issues. It is of paramount importance to secure and systematically manage defense data in order to apply AI and big data technologies to each field of defense. Accordingly, the MND enacted the “Directives on Activation of Defense Data Management and Utilization” in December 2021 to lay the institutional foundation for managing the generation, collection, registration and disposal of data, and for promoting its utilization by data provision, standardization, and quality control. In particular, the directive stipulates the appointment of a Data Officer to carry out data management tasks at each agency (unit) and the creation of the Defense Data Management Committee chaired by the Vice Minister of National Defense (Chief Data Officer (CDO)) to coordinate and control the data management work across all military services.

Based on this initiative, the MND has established the Long-term Defense Data Establishment Roadmap to proactively build data on medical and logistics, coastal surveillance, radar signals and more to promote data programs for AI learning and big data analysis. At the same time, the MND plans to greatly enhance the utilization of data by preparing and applying standards and quality criteria for all data generated in the areas of national defense.

Digital Platform Government in National Defense

The term “digital platform government” refers to a form of government by which citizens, businesses and the government work together to solve social problems and create new values on the digital platform, where all data are connected. It is a new model for nationwide governance whereby the government ceases to be the sole service provider and collaborates with the private sector to become a partner for innovation.

Accordingly, the MND is also working to create a “digital platform government” ecosystem for civil, government, and military collaboration in the defense sector to incorporate innovative technologies developed by the private sector, as a part of its effort to construct infrastructures for integrating defense data distributed to various agencies and departments as well as opening of administrative services. In the area of services for soldiers and citizens, the MND plans to provide one-stop mobile services through a single digital platform, which are currently provided at individual websites for each agencies and departments. Consequently, service members and citizens will be able to receive essential public services from their pre-enlistment to post-discharge-including welfare, administration, enlistment, and mobilization services-altogether on a digital platform that integrates defense data and services.

The MND is also preparing to shift to data-driven decision-making in defense management, such as statistical analysis, rather than relying on experience and intuition. The MND will promote data-driven decision-making through big data analysis in various fields including human resources and military affairs, and to automate simple and repetitive administrative tasks using AI technology.

3. Building High-Performance AI Infrastructure based on High-Speed and Hyper-Connected Networks

Laying the Foundations for a High-Speed, Hyper-Connected Network

An intelligent wired/wireless hyper-connected network is required to effectively apply advanced ICT of the Fourth Industrial Revolution to the defense sector, such as the AI and augmented/virtual reality (AR/VR), and to ensure stable data acquisition and distribution.

The project to construct the next-generation M-BcN³⁾ (Military Broadband convergence Network) and advance the military broadband convergence network is being implemented with the Build Transfer Lease (BTL) project⁴⁾, and the construction is scheduled for its completion by 2024.

Upon completion of the next-generation M-BcN, the data transmission capacity of each echelon will be increased by 5 to 60 times, enabling the stable distribution of the ever-growing volume of future data, and provide redundancy of major systems and optical cable routes to significantly enhance survivability and prevent interruptions of user services. Furthermore, the intelligent integrated network management system will offer efficient user-centered service support by real-time network status checkups, integration the management of various equipment and faster monitoring and response to the communication failures and disasters.

Advanced technology has recently emerged as a key factor in the competition for hegemony

3)

A high-speed, large-capacity military optical communication network that accommodates all types of military information systems during wartime and peacetime.

4)

A method of building social infrastructures with private capital (Build) while the ownership is transferred to the government (Transfer) and civil sector manages & operates the infrastructure, and government pays the lease and operating expenses of such facility (Lease).

between countries, and the importance of the latest network technologies, such as 5G, in securing strategic technological advantages is becoming increasingly significant. In the defense sector, demand for various mobile-based services such as AI, drones, robots, intelligent CCTVs, autonomous systems, AR/VR, and wearable devices has increased, as such, it is necessary to introduce 5G, which enables ultra-high speed, hyper-connectivity, and ultra-low latency networking. Accordingly, the MND has established a strategy for the systematic and stable introduction of 5G technology and has formed a consensus on the sharing of technical information and the application of 5G to national defense through public-private cooperation.

For the mobile network infrastructure to be applied to the defense sector, the ROK Armed Forces plan to introduce commercial 5G and 5G-specialized networks⁵⁾ systematically, considering the characteristics of each military service and unit. Currently, technologies specialized for the defense sector, such as mobile terminal security and 5G national defense encryption technology, are under development to lay the foundation for the stable introduction of commercial 5G by 2025, which will be applied to the defense sector following the demonstration and experimental projects. In addition, the Ministry of Science and ICT is preparing a detailed plan for 5G advancement for the defense sector, which includes pioneering application projects for 5G+ convergence into public services in order to create a 5G specialized network infrastructure.

Construction of a High-Performance AI Infrastructure

The MND plans to build an intelligent defense platform that can train AI models with large amounts of defense data and support the development of various defense AI services. The plan is to provide large-capacity, cloud-based data storage, hardware equipment such as high-performance computers, and software for data analysis and AI learning, which are essential for learning and developing defense AI, to apply AI models efficiently and quickly across all areas of national defense. In addition, AI models will be installed in surveillance and reconnaissance systems, MUM-T combat systems, and command and control systems, while the related systems and AI infrastructure will be upgraded to enable the AI models mounted on each system to continuously learn data and improve their performance.

Furthermore, the computer systems at the Defense Integrated Data Center (DIDC)⁶⁾ will be converted to cloud-based intelligent defense information systems to efficiently operate AI and process big data, which require large-scale data processing. In addition, the ROK Armed Forces will establish policies, such as developing a civil-government partnership model, in order to apply and utilize private-sector cloud to the ROK military.

4. Reinforcement of Defense Digital Capabilities through Training Experts in AI and SW

Training Experts in AI and SW

The Ministry of National Defense, together with the Ministry of Science and ICT (MSIT), is implementing various policies aimed at nurturing talent to lead the application of AI in the military and raising the national digital reserve workforce in order to strengthen the military with science and technology. In August 2021, the two ministries collaborated on drafting “AI and SW Capability-

5)

A customized 5G network that is provided to a specific space via a dedicated frequency rather than via the existing commercial 5G network.

6)

An operating agency that integrates and protects the computer systems of each services and various defense agencies.

Building Plan for All Service Members” in a bid to raise 1,000 military AI professionals and 50,000 individuals with talent in such field by 2026. As a part of this initiative, an AI-specialized curriculum for military missions was established in May 2022 in collaboration with private AI graduate schools and is currently providing intensive training to active duty officers and NCOs. In addition, efforts are being made to cultivate the military's digital literacy by providing digital (AI/SW) literacy education for all service members.



Vision Proclamation Ceremony (July 2022)

In July 2022, with the Minister of National Defense and the Minister of Science and ICT's attendance, a Vision Proclamation Ceremony was held to announce the importance of AI and SW capability-building projects to military personnel and their vision to train 1,000 military AI leaders and 50,000 reserve personnel for the digital industry by 2026. Key officers and officials from the MND, each branch of the Armed Forces, the MSIT, ICT innovation enterprises, and AI Graduate Schools attended the ceremony to provide service members with the experience of various technologies and career counseling in the new digital technology field.

Creating an Environment to Prepare and Educate Reserve Personnel for the Digital Industry

Since 2022, the MND, in collaboration with the MSIT, has provided customized online AI/SW training with

interactive feedback from professional mentors to assist conscripted service members with their personal development during their obligatory terms of service, leading them to e opportunities for employment and starting their own businesses in the digital field after discharge. Service members who complete their training receive support on obtaining civilian certifications, while service members who scored excellent grades are offered mentoring opportunities with private entrepreneurs. With this initiative, the ROK Armed Forces support the discharged service members to develop themselves to become reserve workforce in the digital industry.

In addition, a project to designate an educational demonstration unit each year and build a digital training center is included in a plan to create a digital education boom for conscripted service members. The training center is equipped with the latest ICT equipment and runs team-level discussion forums. Starting with six units in in 2022, Army 5th Corps and the 6th Division, the Navy 7th Flotilla, Air Force 7th Group, the Marine Corps Command and the Information and Communications Battalion of the ROK Defense Communication Command, this project will be expanded on a continuous basis until 2026. In addition, the effectiveness of the digital education programs will be maximized by continuously providing opportunities for service members with digital capabilities to compete in the Defense AI Competition and other similar events.



AI/SW capacity-building project for military personnel

Development of Spacepower Based on Jointness

Recognizing that space is a critical domain with significant national security implications, the ROK Armed Forces are developing spacepower to support joint military operations, contribute to national space development and respond effectively to space hazards and threats. Furthermore, the ROK Armed Forces will establish a system of space assets equipped with advanced science and technology, and simultaneously create an ecosystem for defense space development by deepening ROK-U.S. collaboration, expanding international cooperation and strengthening civil and military cooperation.

1. Creating a Favorable Environment for the Development of Spacepower

Establishing a Policy Foundation

In 2018, the MND participated in the preparation of the “3rd Space Development Promotion Plan” (Ministry of Science and ICT), which presented the mid- to long-term policy goals and basic directions for national space development and established the basis for developing military reconnaissance satellites and space surveillance systems. In 2019, the MND revised its “National Defense Spacepower Development Basic Plan”, to reflect the evolving space security environment. The revised plan lay the foundation for the systematic development of spacepower by presenting four key areas, establishing policy foundation, developing organization, expanding spacepower and increasing cooperation at home and abroad as well as presenting detailed tasks for each of the four areas according to the mid-to long-term defense spacepower development goals. Hosted by the Minister of National Defense and attended by senior military officials such as the Chairman of Joint Chiefs of Staff, Service Chiefs, Vice Minister of National Defense and Minister of Defense Acquisition Program Administration, a meeting was held on November 2021 to assess the progress in spacepower development up to this point. Senior military officials discussed the direction of developing spacepower based on jointness and establishing space operational execution system, and affirmed measures to activate the space industry as well as development plans for future defense related space technology through leveraging defense space programs. In 2023, the MND plans to publish Defense Space Strategy, which outlines the development goals of spacepower based on jointness, along with national defense space policies and strategies for the coming years.

The MND is also continuously amending the related laws and systems whenever necessary and developing space policies, strategies, and doctrines. In May 2021, the Enforcement Decree of the Defense Acquisition Program Act was amended to categorize space weapons systems separately from other weapon systems to facilitate their fielding process through a tailored approach. Additionally, in November 2021, JCS established a joint military space strategy rooted in jointness, and it will formulate execution concept as well as command and control architecture for joint space operations based on this strategy.

Organizational Development

Under the 2021 amendment to the Space Development Promotion Act, the National Space Council was reorganized to prepare conditions for promoting the efficient defense space development. Chairmanship of the

National Space Council was upgraded from the Minister of Science and ICT to the Prime Minister, while its membership was elevated from Vice Minister level officials to Minister level officials. This reform enabled the Council to establish a comprehensive national space policy covering such fields as security, diplomacy, science and technology as well as industries, and to serve as a hub providing oversight and coordination amongst government ministries. Furthermore, Chairmanship of Defense Space Development Committee was elevated from Vice Minister to Minister in order to strengthen ties with the national space development system and enhance the driving force for developing space power based on the principle of jointness.



4th Defense Space Development Committee (December 2022)

In addition, a new Security Space Development Committee has been formed under the National Space Council to cover space development issues where there is a need to maintain confidentiality for national security purposes and to enable the efficient development of space in conjunction with national space development. The Committee is co-chaired by the Vice Ministers of National Defense and equivalent counterpart at the National Intelligence Service. A guideline for the efficient operation of the Security and Space Development Committee has been established and the security space development implementation plan that specifically incorporates the security space development plan are to be established every year starting from 2023.

Development in Personnel and Organization

The MND established a space policy course for action officers at the Korea National Defense University in 2021, while the Air Force expanded the eligibility of its practical space training course to include members of all services rather than just the members of the Air Force, and increased the duration of the training period from three days to two weeks. Also, in 2022, the Korea National Defense University established a new Master's program in space policy, and it now plans to train military officers of all services on space policy and strategy starting the first semester of 2023. In addition, efforts are being made to train space experts by providing those planning to work in the space field with opportunities to obtain master's and doctoral degrees at domestic and foreign universities.

At the same time, MND, JCS, and each military service have formed and expanded dedicated organizations to promote space policy development, while reflecting the characteristics of each service. Thus, in 2021, the MND reinforced the functions and personnel of the Missile and Space Policy Division; the Army reorganized its space-related departments into the Space, Science and Technology Policy Division and the Space Command and Communications Power Division; and the Air Force reorganized the Space Development Division into the Space Center directly under the Chief of Staff. In 2022, the Military Space Branch was newly formed in the JCS to promote the development of national defense space power based on the principle of jointness; the Navy organized and reinforced the concept of "space operations" within the Battle System and Space Policy Development Division, while the Air Force reinforced its organization

by expanding the existing Space Operations Unit into the Space Operations Squadron.

Applying Advanced Science and Technology

The MND is promoting the development of space capabilities based on advanced science and technology in order to strengthen operational capabilities in this new domain. To this end, in 2022, the MND prepared strategies and operational concepts for effectively securing and operating advanced systems and reviewed the requirements for improving the existing laws and regulations to develop and secure the necessary military capabilities based on cutting-edge science and technology, such as AI. In addition, it continues to cooperate with the relevant ministries on the joint use of civil and military technology to keep pace with the rapid development of advanced science and technology. It has also laid the foundations for the development of space technology by publishing the “Assessment of the Current Status of the National Space Industry” and the “Study on National Defense Space Development Policy and Strategy” produced by a specialist research institute in the space field.

Expansion of Space Assets

To support joint military operations, the ROK Armed Forces are building defense spacepower in four areas in a step-by-step manner: Space Intelligence support, Space Domain Awareness, Space Control, and Space Combat Power Projection.

“Space Intelligence Support” consists of surveillance, reconnaissance, and communication support activities for joint operations. The ROK Armed Forces recognize the importance of space intelligence support from the military perspective and is currently strengthening surveillance, reconnaissance, and satellite communication capabilities accordingly. The Armed Forces is developing military reconnaissance satellites and microsatellite systems in order to increase surveillance and reconnaissance systems to acquire strategic targets on the ground, as well as actively participating in national satellite development projects.

[Figure 4-7] Building the Satellite Strength of the ROK Armed Forces



In particular, the ROK Armed Forces successfully launched ANASIS II, the first military communication satellite in July 2020, making ROK the tenth country in the world to have its own dedicated military communication satellite. To expand space-based communication relay capabilities that can overcome the geographical limitations of ground and maritime communication systems, the ROK Armed Forces have initiated the military satellite communication system-II⁷⁾ and the naval operation satellite communication system-II projects and leased commercial communication satellites in addition to military satellite communication systems.

Second, “Space Domain Awareness” is the activity of identifying risks and threats in space. As

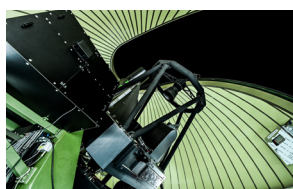
7)

ANASIS II has been launched successfully, and ground terminals have been deployed.

the use of space increases around the world, the complexity of the space domain has increased accordingly, along with an increasing number of space threats. As such, it is essential to determine which activities are taking place in the space domain in order to ensure a safe, stable and sustainable use of space. The ROK Armed Forces took the first step toward securing Space Domain Awareness capabilities by deploying the Electro-Optical Satellite Surveillance system in January 2022.

Electro-Optical Satellite Surveillance system monitors the intelligence activities of satellites passing over the Korean Peninsula and performs information gathering missions in which it detects and tracks space objects. Air Force Space Operations Squadron protects the country's major space assets by using the Electro-Optical Satellite Surveillance system to analyze the orbit and imagery of satellites and space objects operating around the Korean Peninsula. In the future, the ROK Armed Forces will gradually expand the space weather forecast and warning systems, acquire Laser Tracking System and Space Surveillance Radar system to further advance the military's independent domain awareness capabilities.

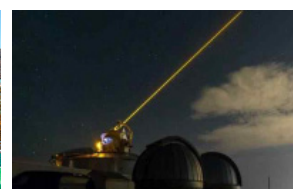
[Figure 4-8] Building the Military's Space Domain Awareness



Electro-Optical Satellite Surveillance System (Search)



Electro-Optical Satellite Surveillance System (Identification)



High-Power Laser Satellite Tracking System

Third, “Space Control” is acquiring capabilities that can respond against hostile threats. Lastly, “Space Power Projection” is acquiring various launch platforms. The ROK Armed Forces plan to acquire these capabilities over the mid- to long-term based on the available level of technology and budget.

2. Expanding ROK-U.S. & International Cooperation

Strengthening ROK-U.S. Cooperation

As an alliance, the ROK and the U.S. are developing various forms of cooperation in the space domain. In particular, the two countries hold Space Cooperation Working Group (SCWG) annually, share Space Situational Awareness (SSA)⁸⁾ information to jointly respond to space threats, and improve their capabilities to carry out space operations through joint space exercises and personnel exchanges.

Since the ROK and the U.S. signed the Agreement on the ROK-U.S. SCWG at the 44th ROK-U.S. Security Consultative Meeting (SCM) in 2012, the working group has convened eighteen times as of 2022. The SCWG meetings have produced fruitful outcomes, such as providing updates on respective defense space policies, fostering space professionals and conducting personnel exchanges, cooperating Space Situational Awareness, and participating in Global Sentinel exercise. In 2021, the two sides conducted ‘ROK-U.S. Space Policy Joint Study’, which portrays the vision and objectives of the allied space cooperation, and simultaneously explored ways to strengthen space capabilities, the

8)

The concept of collecting and analyzing data and information from ground and space systems in preparation for space hazards, such as re-entry and collision of objects in space, and of providing information, such as warnings, to users.

outcome of the Joint Study was agreed during the ROK-U.S. SCWG on April 2022.

“ROK-U.S. Space Policy Joint Study”, the first official document between the Ministry of National Defense and Department of Defense charting the path forward for space policy development, includes specific tasks aimed at strengthening space response capabilities at the alliance level in preparation for growing space security threats. As an alliance in the space domain, the ROK and the U.S. have decided to maintain their cooperation, such as exchanging information to form a shared perception of the space domain, holding exercises and training for space personnel, and improving interoperability in order to enhance their ability to perform joint space operations, thus achieving the strategic value of space cooperation while strengthening their joint space capabilities. Through the routinely held SCWG, the MND will closely review the progress and proactively pursue the implementation in support of realizing the ROK-U.S. Space Policy Joint Study into actionable policy. Furthermore, in October 2022, the ROK became the first Asian country to join the U.S. pledge not to conduct ‘destructive Direct Ascent Anti-Satellites (DA-ASAT) tests’ further solidifying ROK-U.S. cooperation in space. The two countries will reinforce the comprehensive space capabilities of the alliance by effectively responding to threats in the space domain.

Deepening and Expanding International Space Cooperation

The ROK Armed Forces continue to promote defense space cooperation with the United States and space powers such as France and

India to respond proactively to growing space security threats and strengthen national defense and space capabilities.

The ROK agreed to strengthen space cooperation at the 2018 summit with France, and formed a shared understanding on developing of defense space cooperation between the two countries and expanding exchanges in the field during the 2021 Defense Strategy Dialogue. Then, during the Director General-level meeting on defense space held in March 2022, the two sides agreed to pursue ROK participating in space exercise organized by the French Space Command and to promote personnel exchanges.

At a bilateral summit meeting with India held in 2019, ROK made an agreement with India, its Special Strategic Partner, to expand cooperation in the space sector, while at a meeting between their respective defense ministers held in March 2021, the two countries agreed to activate space cooperation in the context of defense. In addition, the two countries will sign an Implementation Agreement on promoting defense space cooperation in 2023 and continue their cooperation, focusing on Space Domain Awareness and defense space technology.

Since 2017, the ROK Armed Forces have been participating in “Global Sentinel” annually, an international Space Situational Awareness exercise organized by the U.S. Space Command, to strengthen the ability to respond to space risks and threats with international partners such as the United States, the United Kingdom, Canada, France, and Germany. This exercise enables the ROK



International Space Situational Awareness Exercise
(Global Sentinel)

Armed Forces to ensure space stability and improve their ability to carry out joint space operations by mastering joint cooperative response procedures during simulated situations such as satellite collisions and re-entry, ballistic missile launches, and attacks on satellite.

Furthermore, the ROK Armed Forces have contributed to forming international norms for the peaceful use of space. Against this backdrop, the inaugural space security session of the Seoul Defense Dialogue (SDD), a vice minister-level multilateral security forum, was held in 2021. Known as the Space Security Working Group, the forum was held in 2022 and more than 150 attendees from 37 countries including the United Kingdom participated, expanding the scope of its activities. Meanwhile, Space Security Working Group was also joined by space experts from various countries, and the theme was “Space Security for Sustainable Space Activities,” emphasizing the necessity of international cooperation on the peaceful use of space through presentations and lively discussions chaired by leading experts such as the Deputy Director of the United Nations Institute for Disarmament Research and the Director of the European Office of the RAND Institute.

In the future, the MND will continue carrying out various activities, such as participating in the Combined Space Operation Initiative (CSpO Initiative)⁹⁾ to contribute to the international community’s efforts to guarantee the peaceful use of space.



The 1st Space Security Working Group (September 2022)

3. Strengthening Civilian-Military Space Cooperation and Establishing the Response System to Space Risks and Threats

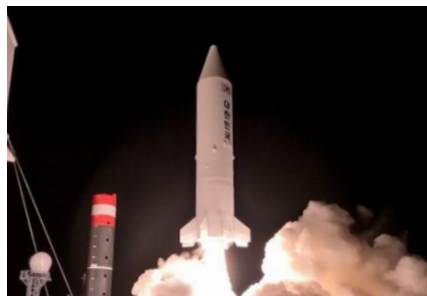
Strengthening Civilian-Military Cooperation

the ROK a defense spacepower, and since then it has gradually expanded cooperation between the private and military sectors on space technology in order to strengthen the nation’s space development capabilities and develop its space industry.

In particular, the Agency for Defense Development will transfer its solid-fueled launch vehicle technology to the private sector in a bid to establish favorable conditions for using Korean launch vehicles when projecting space power, including military satellites.

Private companies, academia, research institutes, and the Agency for Defense Development

In 2021, the Defense Acquisition Program Administration established the Master Plan for the Development of the Defense Space Program with the aim of making



Test Launch of a Solid-propelled Space Launch Vehicle (December 2022)

9)

Since its launch in 2014 by the US, the UK, Australia, and Canada as an effort to coordinate perceptions of the space domain, New Zealand (2015), Germany (2019) and France (2020) have also joined the CSpO Initiative.

are cooperating to strengthen civil-military space technologies to meet the defense technology challenges of the future and core technology tasks in the space sector. In the future, the MND will lead the development of space technology in the private sector by actively raising the requirements for developing technologies, such as satellites and launch vehicles, in the defense sector, as well as planning efficient civil and military cooperation on space technology development and continuing to create the conditions required to revitalize the private space industry and secure competitiveness.

Establishing Response System for Space Hazards and¹⁰⁾ Threats¹¹⁾

Since 2019, as part of the space disaster response and safety training in Korea, they have taken part in joint civil-military cooperative response procedures, such as situation notice, situation assessment meetings, warning issuance, post-accident management, and the response to crashes and collisions between objects in space, and have maintained close cooperative ties with the related organizations. Based on such practice, the ROK Armed Forces have maintained a national-level response posture to risk in space by closely cooperating with the relevant institutions, such as the Korea Astronomy and Space Science Institute, in carrying out a civil-military combined response to situations such as the crashes of Tiangong 1 and 2 in 2018 and 2019, Chang Zheng 2B in 2021, and the Angara Rocket, Chang Zheng 5B, and a NASA satellite in 2022.

The ROK Armed Forces have also held joint civil-public-military Combined Space Situational Awareness Cooperation Working Council meetings since 2017, according to the Agreement on Cooperation on Space Situational Awareness.¹²⁾ Under this agreement they have continued to cooperate on space situational awareness, such as space surveillance and satellite operations, with major private, public and military institutions, while working to develop an efficient space situational awareness system at the national level by establishing procedures for the sharing of space monitoring data, in conjunction with the deployment of the Air Force's electro-optical satellite monitoring system in 2022.

Furthermore, discussions are being held on an ongoing basis with the related organizations with the aim of establishing measures to utilize the national space assets and experts at the related government agencies, such as the Korea Aerospace Research Institute and the Korea Astronomy and Space Science Institute; associated regulations are to be revised in 2023. The ROK Armed Forces plan to develop a wartime operation system within the National Satellite Integrated Operation Center, which was established in 2022, and to amend the Wartime Mobilization of Resources Act to mobilize civilian space assets such as observation satellites and space monitoring systems.

The ROK Armed Forces are participating in the whole-of-government space hazard response system to prepare for space hazard situations.



Test Launch of Solid Propellant Space Launch Vehicle

10)

Situations in which space activities and the viability of space assets are hindered by natural or random circumstances, such as deteriorating space weather or collisions and crashes of space objects.

11)

Situations that hinder the space activities or the viability of the space assets of other countries due to hostile intentions, such as GPS/communication satellite disturbances, cyberattacks, and (non-) physical attacks against satellites.

12)

The ROK Air Force, Korea Meteorological Service, Korea Aerospace Research Institute, Korea Astronomy and Space Science Institute, KAIST, and KTSat signed an agreement on cooperation in the field of space situational awareness (July 2015).

Reorganization of the Military Structure Based on Advanced Science and Technology

The MND is developing new operational concepts and reorganizing the military structure to preemptively prepare for changes in the defense environment, such as the spread of MUM-T combat systems, expansion of space, cyber, and electromagnetic spectrum domains and a sharp decline in military manpower resource. The future military structure will be reorganized in phases through verifications based on combat tests and the operation of demonstration units.

1. Development of the Command Structure

The command structure will undergo a gradual change and evolution considering future changes in the battlefield environment as well as adjustments in the size of the standing forces. The ROK JCS, will comprehensively consider additional functional requirements to counter North Korea's nuclear, WMD and unmanned aerial vehicles, the transition of wartime operational control, creating cross domain synergy in all areas, and assisting the command authority. The headquarters of each service will pursue the reorganization plan considering organizational efficiency, and the need to reinforce requirement planning capabilities for advanced weapons systems.

2 Unit Structure Development

The unit structure will be developed to apply new operational concepts and operate MUM-T combat systems in order to respond effectively against North Korea's nuclear and missile threats and prepare for new combat environments of the future. Such development will be subject to verification through pilot unit operation and combat tests, and gradually applied to other units.

First, the unit structure will be redeveloped to strengthen the ROK 3K capabilities. The ROK Strategic Command will be established to respond effectively against the materializing and advancing nuclear and missile threats posed by North Korea, the respective organizations and forces to respond to this threat in each service will also be bolstered in conjunction.

Second, each service will develop its future unit structure and conduct a pilot demonstration. To that end, the Army designated the Army TIGER Brigade, the Navy selected an unmanned surface ship, submarine, and aircraft squadron, the Marine Corps chose an unmanned amphibious assault battalion, while the Air Force elected a MUM-T fighter aircraft unit as their respective pilot units.

Third, units for space, cyber, and electromagnetic domain will be established and reinforced. Structure of these units will be developed in conjunction with the relevant operational concepts developed by the JCS.

Fourth, the unit structures will be developed as required to transform the manned surveillance systems into a MUM-T surveillance system.

3. Reorganization of Forces Structure

The MND reduced the number of standing troops to 500,000 by 2022 considering the projected status of available military manpower resources, the reorganization of unit structures, and developing plans. The defense workforce structure is being reorganized to secure professional cadres¹³⁾ capable of operating AI MUM-T combat systems based on advanced science and technology in order to prevent a gap in combat capability despite the reduction of standing forces and to increase the number of professional civilian workers with the required expertise. With the expansion and introduction of advanced weapon systems, the role of professional cadres with operational capability and specialized skills is becoming more important, in particular with regards to operations and combat. The MND plans to increase the ratio of such professional cadres among the standing forces to 40.5% by 2027 with emphasis on combat units that operate weapons systems.

Measures are being taken to maintain constant combat readiness posture, focusing on combat and operational sustainment units. Forces that form current operational and counter-terrorism units that perform 24-hour missions, such as GOP, coastal guard, aerial surveillance and reconnaissance, and initial response mission are being reinforced. In 2021, manning at surveillance operation units were increased to strengthen imagery surveillance capabilities. In 2022, manning for logistic units were increase to enhance operational sustainment capabilities. There are plans to continue improving the mission conditions for units that are require to maintain constant standby and readiness posture.

In order to utilize skilled professional cadres in the long term to support an all-around defense posture, the personnel structure is being reorganized with a pot-shaped quota structure that reduces the number of entry-level professional cadres and increases the number of professional cadres of intermediate rank¹⁴⁾ to maintain continuity. Accordingly, the proportion of professional cadres of intermediate rank among the standing forces increased from 13% in 2017 to 16.8% in 2021 and 18.3% in 2022, and is expected to increase to 19.8% by 2027. The increase in the number of intermediate-rank professional cadres led to a rise in opportunities to select long-term service members, thus establishing the basis to secure and maintain professional cadres in a stable manner in the face of a declining youth population. With training experience and expertise accumulated due to the rise in the number of officers in long-term service, the capabilities to operate advanced weapons systems, including those that compose the ROK 3K, will be enhanced.

The ROK Armed Forces are expanding the use of civilian workforce¹⁵⁾ to overcome the shortage of military resources and introduce civilian technology. Meanwhile, combat units are being reinforced by expanding the use of civilian personnel in non-combat areas, such as education, administration, supply, and maintenance, allowing active duty personnel serving in such non-combat positions to transition to combat units.

Civilian military employees focus on positions that require continuity and expertise, such as budget, supply, and maintenance, while growing number of civilian workers are being hired into areas where it is more efficient for the private sector to perform, such as facility management, cooking, and language studies. As a result, the proportion of civilian personnel rose from 4.7% of the total defense workforce in 2017 to 11.0% in 2022, and it is expected to increase further to 11.3% in 2023. Civilian military employees will become an essential element of defense personnel as the scope of their work expands to include operational support, new domain technology, while excluding

13)

Professional cadres include commissioned officers, warrant officers, and non-commissioned officers.

14)

Intermediate ranks include majors and lieutenant colonels for commissioned officers, while non-commissioned officers include sergeants first class and master sergeants.

15)

Civilian personnel include civilian military employee and civilian workers.

tasks related to combat duties which are directly carried out by active duty service members.

The General Officer Quota Adjustment Plan, was established in 2018 in conjunction to the reduction in size of the standing force and the disbandment or reduction of certain units. The plan aims to reduce the number of general officers from 436 by the end of 2017 to 360 by 2022. The quota was reduced to 375 by the end of 2021 through integration and improvements in the efficiency of each general officer position and by reorganizing the unit structure and converting positions in non-combat areas - such as education and personnel administration – to civilian positions. In 2022, the number of general officer was re-adjusted to 370 in view of the need to strengthen the ability to respond against crises in a rapidly changing security situation, such as the North Korean nuclear and missile threats, bolster the ROK 3K Defense, and gain momentum for Defense Innovation 4.0.

4. Capability Enhancements

Basic Direction for Capability Enhancements

The MND is reinforcing the ROK Armed Forces' capacity to develop advanced science and technology for overwhelming response against North Korea's increasingly advanced nuclear and other WMD threats and to conduct integrated operations effectively in all fields.

First, the ROK 3K Defense, which consists of the Kill Chain, Korea Air and Missile Defense (KAMD), and Korea Massive Punishment and Retaliation (KMPR), will be fully equipped to respond against the rapidly changing and advancing North Korea's nuclear and WMD threats. Second, the ROK Armed Forces will enhance their MUM-T combat systems in phases based on advanced science and technology, such as AI, unmanned systems, and robots, in order to respond to the issue of declining manpower resources and maximize survivability, while effectively responding to future changes in warfare and the battlefield environment. Third, the force structure will be reinforced based on the "High-Low Mix" concept by effectively combining advanced weapons systems (high level) with existing weapons systems (low level) in order to embody the concept of future joint operations and thereby meet the challenges posed by the future security environment and maximize the efficiency of the force structure.

In terms of each battlefield function, battlefield reconnaissance forces will gradually acquire military reconnaissance satellites, multi-purpose satellites, medium- to high-altitude ISR UAVs and multi-source imagery convergence systems in order to reinforce surveillance capabilities on the Korean Peninsula. The ROK Armed Forces will secure unmanned aerial reconnaissance vehicles, thermal imaging equipment (TOD-III), and Multi-Function Observation Device (MFOD) to improve visibility and day/night surveillance capabilities.

In the area of command and control as well as communication, the ROK Armed Forces will enhance the performance of C4I¹⁶⁾ systems for joint and individual services to ensure theater and joint command and control capabilities, and establish a C4I system under the battalion level in order to share the battlefield situation down to the smallest tactical echelon. In addition, the ROK Armed Forces will establish Military Satellite Communication System III and the low-orbit satellite communication system in order to develop high-speed, large-capacity information distribution capabilities, and improve the performance of joint tactical data links, air-to-ground communication

16)

C4I refers to Command, Control, Communication, Computer, and Intelligence, a tactical command automation system.

radio, and Link-16 in order to enhance interoperability between joint and combined operations.

In terms of ground forces, in preparation against North Korea's nuclear, missile and long-range artillery threats, the ROK Armed Forces will strengthen their ability to carry out high-power, super-precision surface-to-surface missile strikes and counter-fire operations in an expeditious manner, and reinforce armored, mechanized, and aviation forces to carry out high-speed, deep-maneuver warfare. In addition, ground and air maneuverability will be enhanced to improve rapid response and decisive operation capabilities, and establish MUM-T combat systems to ensure the survivability of combatants.

In the field of maritime and amphibious forces, the ROK Navy's destroyers (KDX-III), frigates (FFX), submarines (KSS-III), maritime patrol aircraft-II, maritime operation helicopters, and KAAV-II will maintain maritime superiority around the Korean Peninsula, prepare against potential threats from North Korea, and expand its capacity to protect Korea's maritime rights and interests.

For air power, the ROK Air Force will gradually secure next-generation fighters (F-X Batch II), Korean fighter aircraft (KF-21) F-15K performance improvement, large transport aircraft, and all-weather precision-guided munitions in order to establish covert infiltration and long-range precision strike capabilities, enabling a proactive deterrence and response against all airborne threats.

In the field of forces protection, the ROK Armed Forces will deploy complex, multi-layered defense capabilities, such as ballistic missile and air defense capabilities, long-range artillery interception capabilities, gradually improve electromagnetic pulse (EMP) and CBRN defense capabilities and reinforce the protection capabilities of individuals, facilities, and equipment to ensure survival in the early stages of a war.

Major Capability Enhancement Projects in 2021

Of the 52.84 trillion KRW committed to defense expenditure in 2021, capability

enhancement amounted to 16.99trillion KRW, an increase of 1.9% over the previous year (2020).

[Figure 4-9] Major Capability Enhancement Projects in 2021

Weapons systems for each battlefield function	Description	New projects initiated in 2022
Battlefield awareness / command and control	<ul style="list-style-type: none"> • Medium altitude unmanned reconnaissance aerial vehicle (R&D) • Corps level unmanned reconnaissance aerial vehicle II (R&D) • Performance improvements for the KTMO Cell (R&D) 	<ul style="list-style-type: none"> • Unmanned ground surveillance sensor (R&D) • Coastal Surveillance Radar II (R&D) • MCRC performance improvements • Radio communication device for combatants
Ground force power	<ul style="list-style-type: none"> • Wheeled armored vehicle • 230mm multiple rocket launcher system • K-2 Tank 	<ul style="list-style-type: none"> • Performance improvement for K200 series armored vehicles • 12.7 mm sniper rifle • Light Machine Gun II
Maritime force power	<ul style="list-style-type: none"> • Gwanggaeto III, Batch II • Jangbogo III, Batch I • Maritime Patrol Aircraft II 	<ul style="list-style-type: none"> • CIWS II • Acoustic sensors for long range detection. • Maritime operation satellite communication system
Air force power	<ul style="list-style-type: none"> • TA-50, Block II • Anti-Jamming GPS • Korean Fighter Aircraft (R&D) 	<ul style="list-style-type: none"> • KUH-1 flight simulator (R&D) • Changgong model performance improvements (R&D)
Protection force power	<ul style="list-style-type: none"> • Air defense command and control warning system • 30 mm wheeled anti-aircraft gun • L-SAM (R&D) 	<ul style="list-style-type: none"> • Mine Detector II • Wide area denial munition (R&D) • Infrared shielding smoke tube

Major Projects to Improve Military Force in 2022

Of the 54.61 trillion KRW committed to defense expenditure in 2022, capability enhancement amounted to 16.69 trillion KRW, a decrease of 1.8% from the previous year (2021).

[Figure 4-10] Major Projects to Improve Military Force in 2022

Weapons systems for each battlefield function	Description	New projects initiated in 2022
Battlefield awareness / command and control	<ul style="list-style-type: none"> Multi-source imagery convergence system (R&D) Space weather forecast and warning system Performance improvement for the KTMO Cell center (R&D) 	<ul style="list-style-type: none"> Ship Electronic Warfare System-II (R&D) Combined maritime tactical data link (Link-22)
Mobility / firepower	<ul style="list-style-type: none"> K-2 Tanks Performance improvements for the K9 self-propelled artillery Performance improvements for the K1E1 tanks 	<ul style="list-style-type: none"> Tactical Bridge II, Block I (R&D) Counter Battery Radar III (R&D) Wheeled command post vehicle
Maritime force power	<ul style="list-style-type: none"> Korean destroyer (KDDX) Ulsan-Class frigate, Batches II and III Jangbogo III, Batch II 	<ul style="list-style-type: none"> Performance improvements for the first Amphibious Ship Transport Helicopter Minesweeper II
Air force power	<ul style="list-style-type: none"> Korean Fighter Aircrafts (R&D) Aerial tanker Performance improvements for F-15K 	<ul style="list-style-type: none"> 2nd procurement of Heavy Transport Aircrafts Performance improvements for F-35A Performance improvements for C-130H
Protective force power	<ul style="list-style-type: none"> L-SAM (R&D) Laser Anti-air Weapons Block I (R&D) 	<ul style="list-style-type: none"> Long-range artillery interception system (R&D) Second phase of the Patriot missile system performance improvement project

2023-2027 Plans for Capability Enhancement

To prepare against all-around security threats facing Korea and respond against North Korea's nuclear and other WMD threats, the MND plans to invest 107.4 trillion KRW between 2023 and 2027 to expand critical capabilities of the ROK 3K Defense and reorganizing the military structure with focus on cutting-edge technology. The MND is preemptively responding to non-traditional threats such as cyber-attack, terrorism, as well as natural disasters, and continues to secure capabilities required to defend national interests, such as maintaining international peace and protecting Korean overseas citizens. The ministry is also expanding its investments in defense R&D and revitalizing the domestic defense industry with the aim of applying advanced science and technology to the armed forces.

To respond against North Korea's nuclear, WMD and missile threats, the advanced long range surveillance and reconnaissance capabilities will be established by deploying military reconnaissance satellites, ISR UAVs and multi-source imagery convergence systems. It will also improve and develop the intelligent command and control system's ability to integrate and disseminate acquired information and link it with the real-time strike system by securing the Military Satellite Communication System II, along with the Tactical Information and Communication System (TICN), and the Joint Firepower Operation System (JFOS-K). Moreover, the MND will deploy F-X II fighter jets, Jangbogo-III submarines and guided munitions to reinforce covert long-range precision strike capabilities, and also establish the Korea Air and Missile Defense System capable of complex, multi-layered defense against ballistic

missile attacks, based on the development of long-range surface-to-air missiles, performance improvements for medium-range surface-to-air missiles and the Patriot systems, and ship based long-range surface-to-air missiles.

In terms of ground forces for military restructuring centered on advanced military assets, the range of surveillance and strike systems will be expanded by securing unmanned ISR UAVs for each echelon, division-level counter battery radars, 230mm multiple rocket launchers, and KTSSM-II. The fielding of Light Tactical Vehicle II and wheeled command post vehicles will maximize combatants' chances of survival as well as their maneuverability and combat capabilities, while reducing the number of required personnel.

The maritime and amphibious forces include Korean destroyers, Jangbogo-III submarines, unmanned surface and underwater vehicles, ship-to-air and ship-to-ground guided missiles, Amphibious Assault Vehicles II, and amphibious helicopters, which are deployed to maintain maritime superiority around the Korean Peninsula, protect the nation's maritime rights and interests, and attain division-level high-speed multi-dimensional amphibious landing operation capability.

Improved air assets such as the F-X II, the newly improved F-15K fighter jets, and airborne early warning and control (AEW&C) systems will be deployed to secure air superiority and obtain covert infiltration and precision strike capabilities within the shortest possible time, while the introduction of electronic warfare aircraft will secure non-kinetic destruction capability to neutralize integrated air defense networks and wireless command and control systems. To actively prepare for non-conventional threats such as space, cyberattacks, terrorism, and natural disasters, the ROK Armed Forces will deploy space weather forecasting and warning systems, laser air defense weapons, and Submarine Rescue ship-II to lay the foundations for effective control of the space domain, expand capabilities to rapidly respond against terrorist attacks, and improve the transportation and rescue capabilities in the event of a disaster.

The MND will also expand investment in the defense R&D sector and contribute to promoting the defense industry and economic revitalization by investing heavily in eight strategic defense technologies and various other cutting-edge technologies related to ultra-speed, high-power, high-precision strike as well as MUM-T combat operations.

Development of Elite Reserve Forces

The MND aims to improve military combat capabilities while reorganizing military units in order to prepare against rapid decline in military manpower resource due to changes in population structure. To support this goal, the MND is striving to enhance the combat capability of the reserve force by reinforcing the mobilization units, introducing and expanding the part-time reserve force system as well as improving the reserve force training program by incorporating advanced technologies.

1. Improving Combat Capability of Mobilization-Oriented Units¹⁷⁾

Reinforcement of Mobilization-oriented Units

The MND is developing elite reserve forces to secure its deterrence capabilities and strengthen the country's ability to sustain war even amidst an environment of rapidly declining military manpower reserve. To this end, mobilization-oriented units, which were given lower priority when compared to standing divisions, are being systematically reinforced according to annual plans by dividing development areas into weapons (equipment), materiel, and personnel.

In the field of weapons, a need to reinforce the combat power of mobilization divisions in areas such as personal firearms and mortars has been identified and reflected in defense planning documents¹⁸⁾. In the field of material, a plan has been established to secure essential combat materiel for mobilization-oriented units, such as bulletproof helmets, to ensure personnel survivability and combat maneuverability, and efforts are being made to secure all necessary supplies and replace obsolete supplies by 2024. Moreover, in the personnel field, specific plans have been established to reinforce maintenance personnel and, in particular, part-time reserve forces are being actively utilized to ensure that mobilization-oriented units can maintain a high level of combat power. The MND will continue to reinforce the capabilities of mobilization-oriented forces in each field.

17)

The term "mobilization-oriented units" refers to the Mobilization Division, the Mobilization Supplementary Battalion, and the Army Mobilization Resources Escort Group, which are primarily composed of reserve forces and are subordinate units of the Mobilization Force Command.

18)

The Joint Military Strategy (JMS) and the Joint Strategic Objective Plan (JSOP).

19)

Results of the analysis by the Army Analysis and Evaluation Team (September 2018 - January 2019): combat preparation time was reduced by 16 hours (75 → 59 hours), while combat power was increased by 13%.

Introduction and Expansion of the Part-time Reserve Force System

The MND operates a part-time reserve force to prepare for decline in combat power due to reduction in active-duty personnel and to establish a high level of readiness

for mobilization. Part time reserve force refers to members of the reserve who apply and are selected to fill key positions in the reserve force. Part time reservists are recalled for up to 180 days, in addition to the compulsory training of two nights and three days, to carry out their missions.

The MND organizes and trains reserve forces selected under the part-time reserve force system in peacetime and mobilizes them in the same positions in wartime to enable them to perform their duties immediately.

This system originated from the part-time service system for reserve officers introduced by the Republic of Korea Army in 2014. According to analysis conducted by the Army Analysis and Evaluation Team,¹⁹⁾ operating part-time reserve forces brought about positive effects, such as shortening combat preparation time and improving combat power. Moreover, with the average annual reapplication rate of 58%, it has been evaluated that reservists were highly satisfied with the ability to continue their service to the nation by employing the skills they accumulated during their military

service in parallel with their current occupation.

Despite such positive effects, there were certain limitations in that it is considerably difficult to acquire the knowhow that is usually obtained during long-term service within a short period of mobilization and training amounting to fewer than 30 days of training per year, as such, it was difficult to employ these reservists to positions that requiring high levels of expertise such as operating combat equipment and management of materiel. Accordingly, the MND amended the Military Service Act and the Reserve Forces Act in 2021, renamed the Reserve Forces system as the “Part-time Reserve Force System”, and established legal bases for expanding the mobilization and training period to a maximum of 180 days per year.

As of December 2022, there are 3,804 part-time reservists in the entirety of the Republic of Korea Armed Forces, a significant increase compared to 79 in 2014, when the system was first introduced.²⁰⁾ Starting in 2021, this system was expanded to all branches of the military including the Air Force, Navy, and Marine Corps. In 2022, a long-term part-time reserve force system, in which reservists are mobilized and trained for around 180 days per year, was piloted with approximately 50 individuals.

In the future, the ROK Armed Forces will continue to analyze the results of operating part-time reserve forces and identify opportunities for improvement with the aim of establishing the part-time reserve force system by 2024, determine the appropriate size of long- and short-term part-time reserve forces, and prepare plans to expand the system in phases.

Increasing the Number of Scientific Reserve Force Training Centers

The Ministry of National Defense is integrating the 208 reserve force training grounds scattered across the country into 40 scientific reserve force training centers

in order to manage the training sites more effectively and efficiently, while improving reserve forces’ ability to perform missions through practical training. The first scientific training system was introduced and tested at the Geumgok Reserve Forces Training Center in 2014, test results showed that the new training methods were highly efficient and that reservists expressed high satisfaction, leading to an increase in the number of scientific reserve force training centers nationwide to 17 by 2022.

Each scientific reserve force training center consists of five facilities, including a security training center, an urban combat training ground, a field tactical training center, an indoor shooting range, and a video-simulated shooting range. Reservists can effectively take zeroing and recorded shooting sessions, squad combat shooting sessions, and participate in squad team training with engagement training equipment. Furthermore, the squad team



Virtual Reality Video Simulation Shooting Range

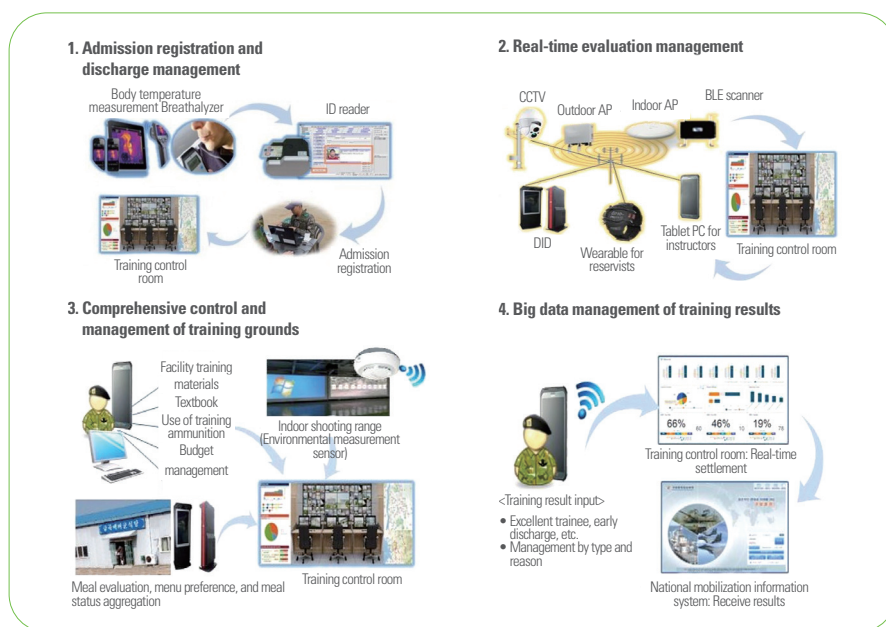
20)
Number of personnel mobilized per year:
2014/2015: 79
2016: 169
2017: 269
2018: 585
2019: 1,023
2020: 1,769
2021: 3,011
2022: 3,754 short-term and 50 long-term reserve personnel

training environment will allow reservists to undergo training in an environment similar to that of actual combat, including a chance to experience weapons noise and shoulder recoil.

In particular, a video simulation field using virtual reality (VR) technology was introduced at the Seocho Scientific Reserve Force Training Center in 2020, and will be expanded gradually from now on.

Moreover, a smart training management system for the reserve force has been established by applying ICT-based mobile and wireless internet technology. This system converts the entire training process, including admission registration and discharge, real-time evaluation, and comprehensive control and management of the training center into data that can be verified real time via mobile devices. Smartwatches are provided to reservists upon entering the scientific reserve training center so that they may check their progress in real time, such as the number of people on standby for each training course and whether they have passed the training objectives for each stage, from admission to training, evaluation, and discharge. This system is expected to provide benefits such as minimizing wait time for reservist training and improve training effectiveness, as well as reducing administrative costs by managing training results in the form of a database.

[Figure 4-11] Smart Reserve Force Training Management System



Revitalization of Digital Administrative Services for Reserve Forces

In keeping with the spread of contact-free culture due to the COVID-19 pandemic and the rapidly changing digital environment, the MND is

expanding digital administration services to enhance convenience for members of the reserve forces.

In August 2021, the authentication process for logging onto the reserve forces website was simplified by adding private certificates in addition to the mobile phone identity authentication and public certificates. By doing so, the identity authentication process for accessing the reserve



Mobile delivery of call-up notice for reserve forces education/training

forces website was streamlined, thereby improving access to training information, enhancing convenience for service users, and reducing costs associated with the identity verification process.

In addition, an electronic document delivery system was established in December 2021 to notify reservists of their recall notice for reserve force training via smartphone. This system allows reservists to check their recall notice securely and efficiently without worrying about losing the notice or exposing their personal information. The adoption of this system was beneficial for the respective units as well as they could reduce the administrative cost associated with printing the paper notices and sending them out through postal delivery. In the future, the MND will continue to develop digital administration services by improving the reservists' website and mobile call-up notice delivery service system, to enable members of the reserve forces to use these services more conveniently and efficiently.

Increasing Benefits for Reservists

The MND is improving the reservist system to ensure effective training by providing appropriate compensation to boost the moral of reservists and increase their participation in training activities. Compensation for reservist training was raised substantially from 10,000 KRW in 2017 to 62,000 KRW in 2022. Improvements will be made to ensure that compensation is also paid for regional reserve training, for which compensation was provided only for incidental expenses such as transportation and lunch.

Moreover, during the COVID-19 pandemic, efforts were made to maintain the health of reservists and their ability to carry out missions effectively, even under challenging conditions, via flexible employment of trainings. No in person training was conducted from 2020 to 2021 when the COVID-19 pandemic was at its height, while only a reduced form of reserve training resumed in June 2022, after the government relaxed its guidelines and restrictions regarding the epidemic. The existing two-night, three-day training period was changed to one day of in person training and one day of remote education, and the number of participants in the in person training program was limited to an appropriate scale in view of social distancing conditions. In addition, individual reservists were subjected to rapid antigen tests before entering the training center to prevent viral infections, and thorough preparations were made, such as periodically disinfecting training grounds and personal equipment, and installing partitions in cafeterias.

In the future, the MND will respond to new infectious disease situations and review training methods accordingly in order to maintain reservist capabilities.

2. Readiness for Mobilization

Development of the National Defense Mobilization System

The MND is developing the national defense mobilization system on a continuous basis, such as filing mobilization requirements, establishing execution plans for mobilizing troops and wartime workers, establishing operational plans for technical personnel and physical resources, and streamlining the operation of the national defense mobilization information system, so that all human and material resources available

in times of war or emergency may be mobilized to support military operations in an effective and timely manner. In the field of troop mobilization, measures have been prepared to organize reserve forces on the scale required for the military to deploy them effectively in the event of war, major incident or emergency; measures have also been made to expand the mobilization pool to minimize problems caused by the ongoing decrease in military manpower resource. To this end, the ROK Armed Forces are collaborating with the Military Manpower Administration to explore more efficient human resource management methods, such as concentrating the mobilization of qualified personnel to key combat units in the early stages of conflict.

In addition, in the field of materiel mobilization, the ROK Armed Forces are collaborating with eleven resource management agencies (ministries), including the Ministry of Public Administration and Security, to ensure that appropriate materiel and equipment, as required for wartime, are mobilized throughout the entire process, which includes verification of requirements, deliberations, survey of resource, and designations. For items that are restricted from mobilization, the MND has designated ‘substitute items’ or ‘similar items’.

Management of Reserve Resources

Reserve forces are organized and managed to prepare for war, major incidents and equivalent national emergencies. Reserve forces carry out missions for regional defense and disasters in peacetime and serve as supplementary source of manpower for creating and expanding active units and loss of personnel during wartime. Based on the Reserve Forces Act and the Military Personnel Management Act, officers and NCOs are designated as reservists up to retirement age for their respective ranks, while conscripted service members are designated as reservists up to eight years after discharge.

The number of reservists in 2022 stood at 2,730,000, with 6,000 female reservists and special forces reserves assigned to the volunteer reserve forces²¹⁾. 2,995 regional reserve military units have been set up in administrative districts and 796 workplace reserve military units in workplaces, these units are managed by each delegated military unit²²⁾.

21)

Personnel selected among ROK citizens over 18 years of age who apply for the reserve forces, as prescribed in Article 3 of the Reserve Forces Act.

22)

Military units entrusted with the authority of the Minister of National Defense regarding the management and operation of reserve forces, as prescribed in Paragraph 1, Article 14 of the Reserve Forces Act and Paragraph 1, Article 28 (1) of the Enforcement Decree of the same Act.

Fostering the Defense Industry into a National Strategic Industry

The Ministry of National Defense and the Defense Acquisition Program Administration are improving the defense acquisition system by simplifying the acquisition procedures in a bid to facilitate the prompt application of rapidly changing advanced science and technology to weapons systems. The MND and the DAPA are increasing investment in defense R&D and strengthening cooperation between military, industrial, academic and research organizations in order to apply innovative technologies to the field of defense, which may change the paradigm of future battlefields. Furthermore, they have expanded various types of support to foster the defense industry as a national strategic industry, as well as establishing the legal basis for strengthening its competitiveness. As such, the MND and the DAPA are striving to consolidate Republic of Korea as a global leader in this field by achieving quantitative growth in defense industry exports and qualitative improvements, such as diversifying the list of products and customer base.

1. Advancing Defense R&D Innovation

Improving the Defense R&D System

The MND and the DAPA are seeking innovative means of improving the defense R&D system to prepare for the unpredictable nature of future battlefields and strengthen national competitiveness.

They are currently striving to secure advanced defense science and technology, shifting from a “fast-follower” strategy focused on developing weapons system technologies needed by the military to a “first-mover” strategy of acquiring advanced defense science and technology. The principal goal of the leading defense R&D strategy is to create a challenge-driven defense R&D environment in which future innovative technologies can be developed by adding technology-push method to the demand-pull type R&D, even in cases where the requirements for weapons systems are undecided or unplanned.

In March 2020, the MND and the DAPA enacted the Defense Science and Technology Innovation Promotion Act with the aim of promoting groundbreaking system improvements in defense R&D. This Act has established the basis for “Future-leading Defense Technology R&D” whereby new technology requirements can be created by conducting R&D with a challenging spirit even when the requirements for weapons systems have yet to be determined. Furthermore, a system that can promote defense research and development according to an “agreement” method rather than under a “contract” between the government and research institutes was introduced to ease the financial burden on companies and enable flexible project management. In addition, the scope of applying the “Recognition of Conscientious Performance” system, which was previously applied only to core technology development projects led by industry, academia, and research institutes, was expanded so that it can be applied to all defense R&D projects pursued under respective agreements.

By reducing the penalty imposed on research and development projects that fail to produce satisfactory results, despite diligent effort by the participants, due to issues such as technical

limitations, “Recognition of Conscientious Performance” aims to establish an environment where innovative R&D can be carried out without fear of failure.

In April 2021, the MND and the DAPA enacted the Enforcement Decree and the Enforcement Rules specifying the details delegated by the Defense Science and Technology Innovation Promotion Act. Since then, the DAPA has revised the Intellectual Property Management Guidelines, Public Notice on the Methods of Calculation and Collection and the Procedures for the Collection of Defense Science and Technology Fees, and the Defense Technology Research and Development Business Processing Guidelines related to the Defense Science and Technology Innovation Promotion Act, in order to lay the institutional foundation for enhancing the nation’s defense science and technology capabilities.

In 2023, the MND will focus on developing innovative and breakthrough technologies by vitalizing research on future-breakthrough defense technologies, and will prepare the Base Plan for Defense Science and Technology Innovation 2023-2037 according to a five-year cycle in order to present the mid- to long-term development goals and directions for defense science and technology as well as provide the basic guidelines for future defense technology development projects.

In the future, the MND and the DAPA will continue to focus their policy capabilities on introducing advanced science and technologies, characterized by openness and convergence, to the defense sector in an efficient and timely manner. To that end, they plan to expand the scope of the defense science and technology beyond weapons system to include capability development and formulate R&D strategies by strengthening the linkage amongst weapons system, force support system and information systems. Furthermore, the plan will introduce the Loonshots Project²³⁾ from 2023 onwards, which consists in identifying and developing innovative ideas and technologies through private sector competition, to respond to the challenges posed by the future battlefield environment. This project will also apply the superior technical capabilities of the private sector to national defense while facilitating the development of breakthrough technologies that exceed pre-existing boundaries for potential use in future battlefields. Furthermore, the MND will continue to introduce new private-sector technologies into the defense sector and create an transparent defense R&D environment, by identifying tasks with high defense utilization among national R&D outcomes in the private sector and executing follow-up research.

Expansion of Strategic Investment in Defense R&D

In the future, along with changes in the paradigm of war, battlefields will become multi-layered and diversified, even extending into outer space.

As competition for technological hegemony intensifies, leading nations are accelerating the development of advanced technologies and strengthening policies for protecting technologies associated with their national security strategy.

The MND and the DAPA have increased defense R&D expenditure significantly in a bid to secure the capability to indigenously develop advanced weapons systems. The 2023 defense R&D budget amounted to approximately 5.08 trillion won (KRW), representing an average annual increase of 12% compared to the 2.9 trillion won (KRW) spent in 2018. Defense R&D currently accounts for 8.8% of defense spending, although the figure will be increased to 10% in the long term.

In the future, military power based on advanced science and technology will be the overriding

23)

This concept is mentioned in Safi Bahcall’s book Loonshots and refers to an innovative idea or project that changes the rules of war, medicine, or business, which is generally considered to be impossible.

factor that determines victory or defeat in war. Accordingly, in the field of “game changer” technologies that will change the future battlefield, such as space, artificial intelligence, quantum, and energy, the MND is making efforts to secure original technologies early on based on the principles of selection and concentration. In particular, preemptive effort is being made to develop strategic parts entailing high costs and long-term investment, such as the domestic development of core components necessary for next-generation reconnaissance, communication satellites, and technological advances. In the future, the MND and the DAPA plan to invest heavily in strategic research and development such as artificial intelligence, MUM-T, quantum physics, space, and energy and focus their efforts on R&D aimed at securing super gap technologies that can provide ROK with technological edge over its competitors.

Strengthening the Link between Technology Development and Defense Requirements

The MND and the Defense Acquisition Program Administration are pursuing defense R&D in close cooperation with

the military and are working to support the military’s future strategic and tactical development and the creation of new concepts of weapons systems.

First, the participation of the respective armed forces in the major decision-making process, from the defense R&D planning stage to the selection of tasks, is being expanded. In particular, the participation of each service is guaranteed not only in the core technology development projects required for weapons systems, but also in carrying out challenging development projects for future defense technologies that are not based on weapons system requirements. Furthermore, the link between technology developments and weapon system requirements has been strengthened so that the military can use the results of research and development by matching defense R&D agencies with the relevant departments within the military.

Next, efforts will be made to strengthen the military’s R&D capabilities by improving the organization and personnel of each service responsible for handling R&D. The plan is to implement various measures aimed at establishing favorable conditions that allow each service to actively conduct R&D, such as establishing systematic utilization and personnel management plans through specifying the organizational structure and direction for securing personnel of each service based on the results of a diagnosis of research and development phenomena in each service, and conducting pilot civilian-military convergence R&D projects.

Strengthening the Civil, Government and Military Cooperation System

The MND and the DAPA are working to concentrate civil, government and military capabilities on fostering Armed Forces with

strong foundation in AI science and technology based on the National Defense Science and Technology Innovation Promotion Act enacted in March 2020.

Participation and expansion of civilian experts play an important role in introducing rapidly developing advanced science and technology into the military in an effective and timely manner.

Accordingly, in April 2021, the Korea Research Institute for Defense Technology Planning and Advancement under the Defense Agency for Technology and Quality established a permanent advisory system related to defense R&D by forming a Defense Technology Innovation Council composed of civilian experts. In this Council, experts from government-sponsored research

institutes, universities and defense industries actively participate in identifying projects and planning research in cutting-edge new technology fields such as AI, virtual reality, advanced materials, and new sources of energy. In the future, the Council will continue to increase its pool of civilian experts, while extending the scope of its functions to include technology evaluation, performance dissemination, and defense industry support.

Furthermore, since 2019, the MND and the DAPA have been promoting R&D in cooperation with the Ministry of Science and ICT, in order to secure core defense technologies by exploring and utilizing R&D results from the private sector. In the future, they will plan tasks in consideration of military applications and further strengthen civil, government and military collaboration to jointly apply the R&D results to weapons systems.

2 Reinforcing Defense Industry Competitiveness

Establishing Foundations for Leapfrogging Growth of the Defense Industry

Since declaring the policy to foster the defense industry to bolster the nation's capability to pursue self-reliant national defense in the 1970s, Republic of Korea has today become a leading nation capable of indigenously developing and exporting cutting-edge weapon systems. The development of the defense industry is not only directly linked to the strengthening of the nation's defense capabilities, but also has economic merit in terms of import substitution, job creation, as well as development of associated science and technology.

To create a new growth engine by fostering advanced defense industries, the MND began process of selecting 100 innovative defense enterprises in May 2022, and has carried out defense venture incubation projects providing total package support to qualified defense enterprises and new small and medium-sized ventures since July of the same year. In November 2022, it established a strategy for fostering companies specializing in defense and space to create an ecosystem for the domestic space industry, and also created an advanced defense department dedicated to training professional personnel. It also engaged in on-site communication with defense industries to listen to their difficulties, and introduced key policies aimed at improving business conditions in the defense sector.

Meanwhile, the MND established the Defense Technology Innovation Fund in September 2022, in a drive to increase private sector investment in the defense industry, and has maintained the financial support systems designed to ease the barriers to obtaining business loans for small and medium-sized ventures, provided emergency business stabilization funds, and strengthened practical loan support. It has also established a customized strategy for selecting crucial items for economic security in the defense sector and stabilizing supply and demand in order to respond proactively to instability in the global supply chain.

The support measures designed to promote the entry of qualified small and medium-sized ventures to the defense sector and to expand their growth potential are also being strengthened, and, as a part of this policy, the Defense Innovation Cluster project to construct a regional defense industry ecosystem is being carried out. The Gyeongnam/Changwon Defense Innovation Cluster, established in April 2021, achieved significant results, such as supporting the establishment of

five start-ups in the region and contracts worth of 21.2 billion won (KRW). In July 2022, in a bid to create an innovative growth ecosystem for the drone industry and lead the future market, Daejeon Metropolitan City was newly designated as a defense innovation cluster specializing in drone technology, and there are now plans to expand this project by gradually designating other regions to foster region-specific advanced defense industries by 2026, and to establish them as the foothold for promoting the defense industry into a national strategic industry.

**Strengthening Government-wide Cooperation
to Foster the Defense Industry**

It is essential to pursue and promote defense exports by broadly considering not only the potential economic

benefits but also the prevailing diplomatic and security situation, political stability, and the need to provide economic support. Recently, customers are requesting industrial cooperation and financial support when negotiating contracts. Therefore, it is necessary to prepare comprehensive support measures at the government level in order to vitalize defense industry exports.

Accordingly, the MND has formed the Defense Industry Development Council to discuss government-level support measures to foster the defense industry and boost defense exports. Created in 2011, the Council was reorganized according to the Defense Industry Development and Support Act, and held regular meetings on a semiannual basis. Co-chaired by the Minister of National Defense and the Minister of Trade, Industry and Energy, its members include the Minister of Defense Acquisition Program Administration and the Deputy Ministers of the relevant ministries, including the Ministry of Trade, Industry and Energy, the Ministry of Planning and Finance, the Ministry of Science and ICT, and the Ministry of Foreign Affairs. The MND will continue its efforts to improve the global competitiveness of the Korean defense industry by increasing the scope of participation to the Ministry of SMEs and Startups, the National Intelligence Service, the Korea Defense Industry Association, and each military service within the Defense Industry Development Council so as to better identify the interests of purchasing countries in advance and strengthen the cooperation system between the ministries and organizations concerned.

**Establishment of a Rational and Efficient System
of Decision Making and Collaboration**

The MND and the DAPA have formed the Defense Acquisition Program Council to resolve issues arising from

project implementation promptly and efficiently. The Defense Acquisition Program Council is a consultative body co-chaired by the Vice Minister of National Defense and the Minister of Defense Acquisition Program Administration, in which all relevant organizations including the JCS, each military service, the Agency for Defense Development, and the Defense Agency for Technology and Quality participate. The MND has tasked the Council with the rapid deployment of major weapons systems and the improvement of acquisition systems, and will continue to strengthen communication and collaboration with the relevant agencies to establish an efficient business execution system.

Improvement of the Weapons System Acquisition Process based upon Speed and Efficiency

The MND and the DAPA aim to improve the speed and efficiency of the weapons system acquisition procedure

in order to quickly respond to the rapidly changing security environment and apply Industry 4.0 technology to weapons systems. First, in 2020, they initiated the Rapid Demonstration Acquisition Project, which allows the military to promptly procure suitable weapons systems that incorporate advanced civilian technology after operating them on a trial basis, and then expanded the system to include R&D projects in addition to the existing procurement project from 2021 onward.

Furthermore, the defense acquisition process has been made more efficient by simplifying the requirement verification procedure and the prior research procedure. The required verification period was reduced from 6 to 4 months, the scope of the verification target was raised from KRW 100 billion or more to KRW 200 billion or more, and the number of prior research analysis items was reduced from 32 to 14 to ease the rigidity of the existing acquisition system and shorten the administrative period. In addition, during the development of the system, portion of the mass-production volume was produced to perform field operation tests (FT), significantly shortening the preparation period for mass production, which took two years or more after development was complete. In the future, the ROK will continue to eliminate unnecessary administrative procedures and integrate redundant tasks to streamline the weapons acquisition process to field advanced technology in a timely manner.

Strengthening the Professional Capabilities of Defense Acquisition Personnel

In 2021, the MND and the DAPA established the Defense Acquisition Program Training Institute, a professional institute in the acquisition field, to train defense professionals and key talents of the Fourth

Industrial Revolution and the new era of space in the defense domain. The Defense Acquisition Program Training Institute has established a systematic education system for all defense projects, ranging from requirements, fielding, operation and maintenance, from the perspective of the total life cycle of the weapons systems. The curriculum encompasses all areas including training and instruction related to defense industry policies, such as the fostering of the defense industry, the promotion of defense exports and the protection of technologies, the provision of education courses on future advanced technologies such as AI, space, and robots based on rapidly changing technological and industrial trends, as well as fundamental education in the field of weapons system acquisition.

Since its establishment, the Institute has developed a training course designed to enable personnel to diagnose and analyze problems and situations and present solutions in the project sites, and will further develop it from 2023 by adding practical job training and strengthening the comprehensive educational support for participants in civil, government, and military projects.

In addition, it plans to expand the sharing of academic resources through joint workshops and faculty exchanges with leading domestic and international educational institutions, such as the U.S. Defense Acquisition University (DAU), in order to advance expertise in acquisition.

Furthermore, the relevant laws and regulations are being revised to improve the professional qualification process for defense acquisition managers organized by the Defense Acquisition Program Training Institute, and policy support is being prepared to ensure that professionals

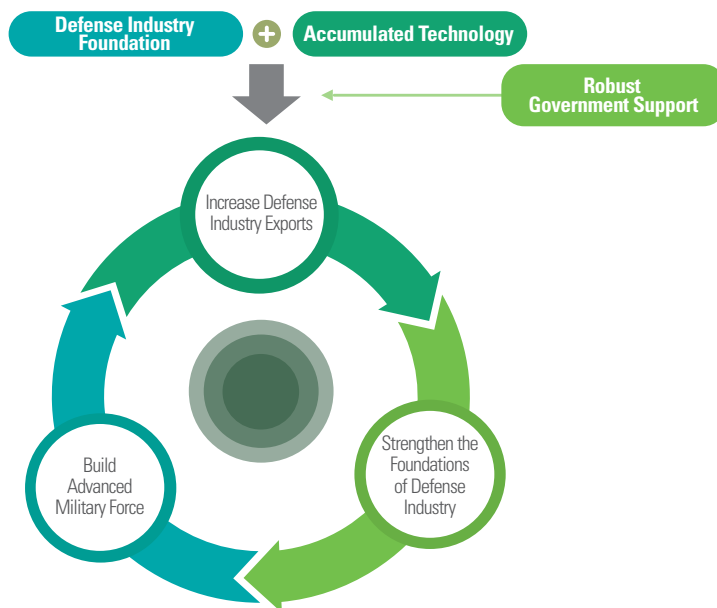
who have obtained qualifications and certifications can demonstrate their capabilities in the relevant industrial fields.

3. Revitalization of Defense Exports

Because it is difficult for the Republic of Korea to maintain and develop the foundations of its defense industry based on domestic demand alone, defense exports are essential to maintain the defense industry infrastructure. In addition, when defense exports increase, the defense industry is revitalized; not only does it contribute to economic revitalization by creating high-quality jobs, but it also reduces the cost of acquiring, operating and maintaining weapons systems due to the economies of scale achieved by mass production, as well as enabling timely military support. For this reason, the ROK government, including the MND, is paying close attention and making every effort to establish high-level channels for cooperation, operate a defense export support system, establish a multi-ministry defense export support mechanism, and promote the excellence of ROK weapons systems.

Further efforts to increase defense exports by applying the government's firm support policy, on the back of the most significant defense export performance in the country's history in 2022, will help to strengthen the foundations of the ROK defense industry, which will in turn create a solid foundation for the construction of advanced military force as well as establishing a virtuous cycle of advanced military force construction and defense exports that drive additional defense exports.

[Figure 4-12] Strategy for Building a Virtuous Cycle between High-tech Military Force Construction and Defense Exports



Strengthening Export Competitiveness through Government Support

Because defense cooperation is closely related to security, politics and diplomacy with partner countries and is based on trust between nations, government-level support is critical. Accordingly, the MND and the DAPA have signed MOUs for defense industry cooperation with key partners such as Australia and the UAE, and have established and operated continuous cooperative channels, such as the Joint Committee on Defense Acquisition, to promote defense exports.

In addition, high-level meetings such as the Korea-Poland Defense Ministerial Meeting in May 2022 are held frequently to discuss ways of promoting defense cooperation.

Despite the global COVID-19 pandemic that began in late 2019, international exhibitions such as the Seoul International Aerospace and Defense Industry Exhibition (Seoul ADEX), Korea Defense Industry Exhibition (DX-Korea), and International Maritime Defense Industry Exhibition (MADEX) were successfully held under strict social distancing, providing a venue for international defense cooperation and promoting the excellence of our weapons systems. In particular, 188 companies from 40 countries participated in DX-Korea 2022, which led to orders of more than USD 82 million and developed K-Defense's sales diplomacy by exhibiting twenty-one types of military and commercial export equipment, including K2 tanks. The venue also showcased the excellence of Korea's weapons systems, including a mobile firepower demonstration utilizing a MUM-T combat system.

To improve the global competitiveness of ROK companies, the government continues to operate customized export support programs, such as remodeling and developing weapons systems for export and supporting overseas market development. From 2019 to 2022, the export technical fees payable to the government were temporarily exempted, and the measures for alleviating the financial burden on companies, such as the reduction of royalties, are under continuous review. Also, since 2020, the ROK Armed Forces implemented the Military Demonstration Operational System for Exports of Weapons Systems to improve the credibility of products made by the ROK defense industry by having the ROK military pilot run weapons systems developed for export purposes. In 2021, the MND conducted a pilot run of the Redback Infantry Fighting Vehicle for export to Australia, in the future this will be expand to include not only weapons systems but also weapon support systems, and the scope of pilot operations will be expanded to provide continuous support to strengthen the export competitiveness of the ROK defense industry.



2022 Korea Defense Industry Exhibition

Diversification of Defense Industry Export Methods

Up to this point, the majority of defense exports have been made up of finished weapons systems. However, with the ongoing development of the domestic defense industry, the number of export target countries has increased and the requirements of each target country have diversified, and exports now include advanced weapons systems such as the FA-50 and



DX KOREA 2022

the Cheongung (M-SAM)-II. As a result, there is a growing need to establish various export methods by including joint R&D, local production, and industrial cooperation in defense export negotiations.

To this end, the MND and the DAPA are researching export strategies customized for each country and business in order to identify the interests of diverse countries in advance, and are proactively building a cooperative system under a business agreement signed with the Korea Atomic Energy Research Institute in July 2022 to jointly promote exports in the defense and nuclear power plant field. Furthermore, through consultation is being made with the Ministry of Trade, Industry and Energy on defense and civilian industry export packages to link major defense export projects with the private sector; furthermore, effort is being made to provide urgently required financial support to potential customers through close cooperation with the Export-Import Bank of Korea. In the future, the MND will seek to establish mutual trust and cooperation with purchasing countries by preparing a defense cooperation package that includes follow-up military support, such as education, training, and maintenance, so as to minimize the problems that may arise after delivery of such weapons system.

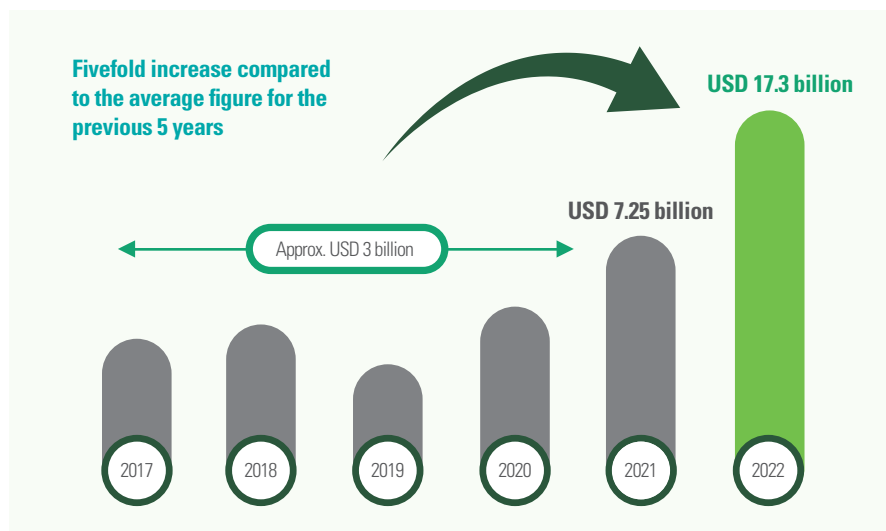
Expansion of Defense Industry Exports

As a result of the government effort to vitalize defense exports, export orders, which amounted to about USD 3 billion in 2010, increased significantly to USD 7.25 billion in 2021 and again to USD 17.3 billion in 2022, a fivefold increase over the average figure for the previous five years, creating 130,000 jobs and generating KRW 46 trillion in terms of effect on production inducement. Meanwhile, the export destinations have expanded to include Asia, the Middle East, North America, Europe, Oceania, and Africa, and the range of products is also expanding from firearms and ammunition to major weapon systems for army, navy, and air forces, as well as advanced weapons systems such as guided munitions.

Notably, the ROK exported the Cheongung-II, an advanced complex weapons system combining high-precision guided missiles, multi-function radars, launchers and engagement control stations, to the UAE for the first time in 2022; furthermore, a large number of the ROK military's leading weapons systems, including K2 tanks, K9 self-propelled howitzers, FA-50, and Chunmoo Multiple Rocket Launchers were exported to Poland. In addition, various cooperative projects were carried out, showcasing the excellence and advanced technology of the ROK weapons systems internally and externally.

In the future, the ROK government will continue to make concerted efforts to become the fourth largest defense industry exporter after the U.S., Russia, and France in the global defense industry market by fostering a technology-innovative defense industry with a global competitive advantage and maintaining growth in defense export through a market entry strategy tailored to the characteristics of each client country.

[Figure 4-13] Defense Export Orders by Year



Deepening and Expanding ROK-U.S. Defense Industry Cooperation

lasted from 1950 to 1990, was weapons being unilaterally introduced to Republic of Korea from the U.S. From 1990 to the present, this relationship developed into the second generation, when greater cooperation on the supply of parts was achieved through offset trade. In the future, the ROK and the U.S. will move forward to a third-generation phase of defense industry cooperation in which the two countries jointly carry out everything from early-stage R&D to production and marketing.

The capabilities of the ROK's defense industry have grown significantly to the point that it now actively exports weapons systems to the global market, having advanced far beyond meeting the needs of its domestic requirement. The Republic of Korea is the world's eighth largest arms exporter, accounting for 2.8% of the global export market share from 2017 to 2021,²⁴⁾ and ranks ninth in the world in terms of defense science and technology.²⁵⁾ Based on these technological developments, the ROK and the U.S. agreed to strengthen their partnership in the supply chain, joint development, and manufacturing in the defense industry through the ROK-U.S. Leaders' Joint Statement issued in May 2022, in order to pave the way for further expansion. Meanwhile, the MND plans to expand the opportunities for ROK companies to participate in the U.S. global supply chain and jointly develop advanced technologies by signing the ROK-U.S. Reciprocal Defense Procurement (RDP Agreement). The two countries will work together to construct the ROK-U.S. Defense Science and Technology Center with the aim of establishing a future-oriented partnership that enhances the efficiency and timeliness of technical cooperation. In the future, the MND and the DAPA will strive to transform the ROK-U.S. Alliance from the current military and security alliance into a comprehensive security and technology-oriented alliance.

24)

SIPRI (Stockholm International Peace Research Institute), 2022 SIPRI Arms Transfers Database.

25)

Defence Science and Technology Laboratory, 2021 Defense Science and Technology Level Survey.





Chapter 5

A Leap Forward in the ROK-U.S. Alliance and Deeper and Broader Defense Cooperation

- Section 1.** Developing the ROK-U.S. Alliance into a Global Comprehensive Strategic Alliance
- Section 2.** Strengthening the Alliance's Deterrence and Response Capabilities against North Korean Nuclear and Missile Threats
- Section 3.** Establishing a Robust ROK-U.S. Combined Defense Posture
- Section 4.** Conditions-based Wartime OPCON Transition
- Section 5.** Deeper and Broader Defense Cooperation and Exchange
- Section 6.** Participation in International Peacekeeping Operations and Protection of Overseas Citizens

Developing the ROK-U.S. Alliance into a Global Comprehensive Strategic Alliance

As a defense partnership founded on the shared values of human rights and democracy, the ROK-U.S. Alliance has been the bedrock of peace, security, and prosperity for the Korean peninsula, as well as the region, for the past seven decades. Today, in the face of increasingly diverse and complex challenges to global security, the ROK and the U.S. are steadily deepening and broadening their bilateral alliance for more effective joint response to threats. The two countries are expanding the scope of alliance cooperation beyond the Korean peninsula to Indo-Pacific and other regions around the globe. Going forward, bilateral defense cooperation will be further intensified in domains including space, cyberspace, and defense technology, and industry. Moreover, in light of grave security concerns presented by advancing North Korean nuclear and missile threats, the credibility of the U.S. extended deterrence will be enhanced and the two countries will closely coordinate with each other to bolster the combined defense posture. Meanwhile, based on the ironclad ROK-U.S. Alliance, the ROK will also seek to strengthen ROK-U.S.-Japan trilateral security cooperation.

1. Deeper and Broader ROK-U.S. Alliance Cooperation

Resting on the pillars of common values of freedom, democracy, human rights, and the rule of law and founded on mutual trust, the ROK-U.S. Alliance has been the linchpin of peace, stability, and prosperity on the Korean Peninsula and the region for more than 70 years. Its contribution during this period has not been limited to the domain of defense. The Alliance has also played a crucial role for the political, economic, social, and cultural development of the Republic of Korea. More recently, a new vision for the future of the ROK-U.S. Alliance has been unveiled during the bilateral summit held in May 2022. To more effectively respond to the rapidly evolving strategic environment and growing challenges to global security, the leaders of the two countries agreed to develop the bilateral alliance into a “global comprehensive strategic alliance.” Under this new vision, the scope of the ROK-U.S. Alliance will expand to a global level, while the level of cooperation deepens in domains including space, cyberspace, defense science and technology, and defense industry.

Expanding Global Cooperation

Carrying on the momentum from the bilateral summit and successive rounds of ministerial-level talks, the two countries’ defense leaders agreed during the 54th Security Consultative Meeting (SCM), that the ROK-U.S. Alliance must play a key role in promoting security, stability, and prosperity in the Indo-Pacific and decided to continuously expand defense and security cooperation in the region as well as at a global level. It was further agreed that as the ROK established its Indo-Pacific Strategy areas of convergence in national interest between the two countries will be expanded and methods of cooperation in these areas will be continuously explored.



54th ROK-U.S.
Security
Consultative
Meeting (SCM)

Meanwhile, in November 2022, during a presentation of the ROK Indo-Pacific Strategy at the ASEAN-Republic of Korea Summit, President Yoon announced the vision of promoting freedom, peace, and prosperity in the region and vowed to increase cooperation with regional partners based on the principles of inclusiveness, trust, and reciprocity.

In December, the Yoon administration issued the “Strategy for a Free, Peaceful, and Prosperous Indo-Pacific Region” based on this vision. Nine core lines of effort were proposed as part of this strategy, of which three were related to defense, including fostering a regional order based on international rules and norms in Indo-Pacific, strengthening cooperation against nuclear proliferation and terrorism, and increasing comprehensive security cooperation, in a clear demonstration of the administration’s commitment to contributing to the security of the region. The Ministry of National Defense will concretize implementation tasks for defense sector based on the ROK Indo-Pacific Strategy by the end of the first half of 2023.

The Ministry of National Defense plans to engage in wide-ranging efforts to expand defense cooperation with ASEAN countries based on the Korea-ASEAN Solidarity Initiative (KASI)¹⁾, recently announced by the government. As part of these efforts, strategies will be customized to meet defense cooperation demands in various areas that exist among ASEAN countries. Support will be provided to strengthen their maritime security capabilities to help them better respond to security challenges facing the region. Given that the Biden administration’s “Indo-Pacific Strategy” lays out a strong emphasis on cooperation with ASEAN countries, increasing defense cooperation with these countries can be a good way for the ROK to coordinate its Indo-Pacific Strategy with the U.S. The ROK and the U.S. will enhance interoperability through joint participation in multinational exercises involving ASEAN countries and improve joint response capabilities against transnational, non-traditional threats through minilateral cooperation with them.

The Ministry of National Defense takes part in the efforts of allies and partners to combine multilateral resources to assist Ukraine by providing humanitarian aid in conflict zones, in the form of humanitarian assistance such as emergency medical supply and food.

Going forward, it will explore ways for the ROK and the U.S. to cooperate with the Pacific Island Countries in the defense domain to respond to non-traditional security threats, while also seeking to increase cooperation with European countries. The Ministry of National Defense will strive to effectively support the government’s vision for a “global pivotal state,” playing a larger role on the international stage and making greater contributions to the global community, in defense-related areas.

Increasing Cooperation in Diverse Areas

The ROK and the U.S. are expanding the scope of bilateral cooperation beyond the traditional domains of defense and security to other diverse areas, including space and cyberspace. In addition to cooperation carried out through existing defense technology consultative bodies such as DTICC (Defense Technological & Industrial Cooperation Committee)²⁾, the two countries have decided to put efforts in various other fields, ranging from space and quantum technology to AI and autonomous technology.

Meanwhile, to enhance the Alliance’s comprehensive capabilities, it was further decided

1) The ROK government’s presentation on its ASEAN policy during the 23rd ASEAN-Republic of Korea Summit (November 11, 2022):

1. Promotion of a rule-based international order, contribution to peace and prosperity in the region;
2. Pursuit of shared prosperity and growth;
3. Strengthening joint response to regional and international challenges.

2) A subcommittee of the SCM that meets annually to discuss ROK-U.S. cooperation in defense industry and technology.

that the two countries will continuously expand cooperation in space and cyber domains.

Based on the accomplishments of the Space Cooperation Working Group (SCWG) and the Joint Space Policy Research Agreement³⁾, the two countries will explore ways of strengthening cooperation in broad-ranging areas related to space technology. Moreover, to ensure a safe and sustainable space environment, the ROK and the U.S. are bolstering the alliance's space capabilities, for instance, by setting up a space situation awareness (SSA) information sharing system, at the same time as increasing the size and scope of combined exercises and training and through more frequent exchanges for the development of skilled manpower.

In the cyber domain, the ROK and the U.S. will ramp up cooperation to respond to a wide spectrum of cyber threats, including state sponsored cyberattacks. In May 2022, the Cyber Cooperation Working Group (CCWG) was held to discuss growing cyber security threats. The two allies are increasing cooperation for a combined response to cyber threats by conducting bilateral cyber exercises and training events and closely communicating and coordinating with each other on issues in diverse areas of cyber security.

Close Policy Coordination between Defense Authorities

Amid a rapidly evolving security environment, the ROK and the U.S. defense authorities have deepened the regular high-level security consultative mechanisms⁴⁾ and are in close collaboration through continuous policy discussions. Since the recent summit in May 2022, the two countries' defense chiefs held two successive talks in May and July, generating new momentum for alliance cooperation. Later, during the 54th Security Consultative Meeting (SCM) convened in November 2022, the U.S.' unwavering commitment to guaranteeing the security of the Korean peninsula was reaffirmed and a range of measures to reinforce the combined defense posture were discussed. An important outcome of this meeting was the creation of a policy framework to improve the credibility of U.S. extended deterrence to effectively deter and strongly respond to North Korean nuclear and missile threats. To enhance the credibility of U.S. extended deterrence, the ROK and the U.S. have increased the frequency and intensity of deployment of strategic assets such as aircraft carriers, nuclear-powered submarines, and strategic bombers. Moreover, in deploying U.S. strategic assets in and around the Korean peninsula, the two sides agreed to deploy them in a timely and coordinated manner. The ROK and the U.S. plan to identify additional measures that may be required to counter North Korean threats to further strengthen the alliance's deterrence and response posture.

The ROK and the U.S. defense officials repeatedly expressed their strong support for the ROK government's "Audacious Initiative" and stressed the importance of the united efforts of the international community to promote peace on the Korean peninsula by reminding the fact that 2023 marks the 70th anniversary of the Armistice Agreement of the Korean War. They also agreed that in order to ease military tensions on the Korean peninsula and build trust, the two Koreas need to make an effort to comply with the Armistice Agreement and other existing agreements.

3)

About the accomplishments of the 54th SCM SCWG and the details of the agreement on joint space policy research, see pp 123-124 herein.

4)

Including SCM, MCM (Military Committee Meeting), and KIDD (Korea-U.S. Integrated Defense Dialogue).

Development of ROK-U.S.-Japan Security Cooperation

As part of the continuing effort to deter and respond to advancing North Korean nuclear and missile threats, the Ministry of National Defense is making

progress on trilateral security cooperation with the U.S. and Japan. Based on the enduring ROK-U.S. Alliance, the ROK government pursued high-level ROK-U.S.-Japan policy consultations, information sharing, trilateral exercises, and personnel exchanges.

2022 showed meaningful developments in ROK-U.S.-Japan trilateral exercises in response to the ongoing North Korean provocations. In September 2022, ROK-U.S.-Japan Anti-Submarine Warfare (ASW) exercise, suspended since 2017, was resumed and held in the international waters of the East Sea to improve the capability to respond against North Korean submarine-launched ballistic missile (SLBM). In October, 2022, a ROK-U.S.-Japan maritime missile defense exercise⁵⁾ was carried out for the first time in the international waters of the East Sea, in response to North Korea's intermediate range ballistic missile (IRBM) launch, to showcase the firm trilateral response posture.

In 2022, following the Shangri-La Dialogue in Singapore, the ROK-U.S.-Japan defense ministerial talks was also resumed after a hiatus of nearly two and a half years since 2019. The ROK-U.S.-Japan Defense Trilateral Talks (DTT)⁶⁾, suspended after 2020, is also set to resume sometime during the first half of 2023. During the trilateral summit in November 2022, an agreement was reached to share North Korean missile warning data in real time. The three countries will closely work together to iron out the details of the information sharing mechanism.

Going forward, to increase the deterrence effect against North Korean nuclear and missile threats and enhance response capabilities in the event of a provocation, ROK, U.S., and Japan will continue defensive exercises such as ASW, maritime missile defense, and missile warning exercises. In addition, exercises that were discontinued since 2018, including search and rescue, anti-piracy, and maritime interdiction, will be resumed and expanded. However, any increase in security cooperation between the ROK and Japan will be pursued in phases based on the improvement of relations between the two countries and in full consideration of the ROK public sentiment.

2. Guaranteeing Stable Stationing Conditions for USFK

Relocation of USFK Bases

The relocation of U.S. military bases is a major government project aimed at promoting a balanced development of national territory and guaranteeing stable stationing conditions for USFK troops. Under this project, U.S. military bases that are currently scattered across the ROK will be relocated to two principal hubs in Pyeongtaek and Daegu, which will strengthen the ROK-U.S. Alliance and prevent armed conflicts on the Korean peninsula.

The construction of new bases began in November 2007. Since then, the Ministry of National Defense has been pursuing relocation of USFK units as new bases become ready. In 2022, the relocation of key command facilities and headquarters of the Combined Forces Command was completed. Despite numerous challenges, including those posed by

5)

An exercise combining missile warning exercise and ballistic missile detection and tracking exercise (Pacific Dragon) to familiarize procedures for detecting, tracking, and intercepting North Korean ballistic missiles.

6)

Deputy Minister level meeting among the ROK, the U.S., and Japan.

the COVID-19 pandemic, the project was successfully carried out thanks to the efficient coordination between the ROK and the U.S. defense authorities through bilateral consultative mechanisms and active management of the construction process.

Under this project, the tracts of land in Seoul and other urban areas that have been returned to civilian use are being developed into parks or for other suitable purposes. The efficient use of these properties has contributed to local development, economic growth, and created large number of jobs. The project has had a tremendously positive economic impact, particularly on the domestic construction industry, by providing contract opportunities to local companies and increasing the use of domestically-produced construction materials.

When the relocation of USFK bases comes to full completion, this is expected to significantly improve stationing conditions for U.S. troops, providing them with a better environment to carry out their mission of preventing armed conflict on the Korean peninsula and contributing to peace and stability in Northeast Asia and around the world.

USFK Defense Cost-Sharing

To guarantee stable stationing conditions for U.S. troops in the ROK and sustain a robust combined defense posture, the ROK government shares the cost incidental to stationing USFK. The ROK contribution to the maintenance of the U.S. armed forces in its territory constitutes an exception to Article 5 of the ROK-U.S. Status of Forces Agreement (SOFA)⁷⁾, which states that the U.S. bears all associated expenditures. However, since 1991, in accordance with the Special Measures Agreement (SMA)^{8), 9)}, the ROK Government has contributed financially toward the upkeep of U.S. troops.

The defense contribution is composed of three components, labor cost sharing, Republic of Korea-funded construction, and logistics cost sharing. According to the procedures agreed upon under the SMA, the total amount of defense contribution by the ROK is determined annually through negotiations with the U.S. and by allocating funds to each of the three expenditure categories as appropriate. The total amount of contribution is decided in close consultation between the two countries and is set to a level that is deemed fair and reasonable based on the contribution of U.S. troops to the defense of the Korean peninsula and in consideration of requirements necessary to provide suitable conditions for their stationing, the ROK government's cost-sharing capabilities, and the security situation.

The 11th Special Measures Agreement and associated implementation rules were finalized through nine rounds of official meetings, starting in September 2019. The two countries' defense authorities also consulted and coordinated with each other via diplomatic channels. The 11th Special Measures Agreement, ratified in September 2021, is valid for six years until 2025. The ROK and the U.S. agreed to raise the total Korean defense contribution to KRW 1.0389 trillion for 2020 and KRW 1.1833 trillion for 2021 and increase the amount for the subsequent four years between 2022 and 2025 by the previous year's rate of change in the ROK defense budget. Meanwhile, noting that Korean employees of USFK were for the first time put on unpaid leave in 2020 while the negotiations for the 11th SMA were underway, a clause was added to state that in the absence of an agreement, salaries and wages may be paid in amounts equivalent to the previous year's amounts so that the employment and livelihood of Korean workers are not unduly affected by SMA negotiations.

7)

Article 5 of the SOFA states the following:

- Paragraph 1: The U.S. will bear all expenditures incident to the maintenance of the U.S. armed forces in the ROK without cost to the ROK.
- Paragraph 2: The ROK will furnish all facilities and areas of the U.S. without cost to the U.S.

8)

The full title of this agreement is "Agreement between the United States of America and the Republic of Korea concerning special measures relating to article V of the Agreement under article IV of the Mutual Defense Treaty between the Republic of Korea and the United States of America, regarding facilities and areas and the status of United States Armed Forces in the Republic of Korea."

9)

Prior to 1991, the U.S. not only bore the full cost of the maintenance of U.S. troops in Korea, pursuant to Article 5 of the SOFA, but also covered the cost of constructing facilities, which should have been normally borne by the ROK, in consideration of the fiscal conditions of the ROK government. However, worsening U.S. fiscal conditions and the growing size of the ROK economy led to the signing of the SMA in 1991, under which the ROK government agrees to cover a portion of the cost of maintaining U.S. troops.

Most of the defense contribution paid by the ROK government is returned to the ROK economy by creating new jobs, stimulating domestic demand, and promoting the growth of the local economy. The full amount of contribution toward wages and compensation is used to pay salaries to Korean workers employed by USFK, while 88% of contribution toward military construction costs, excluding design and inspection costs, and the full amount of contribution toward logistics support costs are provided in-kind (facilities, equipment, services, etc.) through Korean firms.

[Figure 5-1] Defense Contribution by Year

unit: hundreds of millions of USD

SMA	1st & 2nd					3rd			4th			5th		
Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Amount	1.5	1.8	2.2	2.6	3.0	3.3	3.6	3.9	3.3	3.9	4.4	4.7	5.5	6.2

unit: hundreds of millions of USD

SMA	6th		7th		8th					9th				
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Amount	6,804	6,804	7,255	7,415	7,600	7,904	8,125	8,361	8,695	9,200	9,320	9,441	9,507	9,602
SMA	10th		11th											
Year	2019		2020		2021		2022		2023		2024		2025	
Amount	10,389		10,389		11,833		12,472		Amounts calculated by applying the prior year's rate of increase in the Korean defense budget					

*During the 6th SMA, it was decided that all contributions will henceforth be made in Korean won.

The ROK-U.S. SMA has undergone numerous changes over the past 30 years. The governments of the two countries have made sustained efforts to improve the defense cost-sharing system to bring it in line with ROK's maturing democracy and civil society. The ROK government has a greater say over the way its defense contribution is spent than in the past and is allowed to make adjustments to the list of military construction projects proposed by the U.S. or limit additional projects. This change has measurably increased transparency and accountability in the cost-sharing process. Meanwhile, steps have been taken to prevent the future occurrence of unpaid furloughs and the minimum portion of the defense contribution that goes to wages and compensation was set to a higher amount to protect the rights and interests of Koreans working for USFK and guarantee stable employment conditions for them.

In addition to the defense cost-sharing contribution, the ROK government also provides other types of direct and indirect support¹⁰⁾ to USFK in various areas. The level and details of direct and indirect support have varied over time depending on the security environment. For example, the ROK government funds projects to improve the environment in the surrounding areas of U.S. military bases and covers costs associated with the use of the U.S. communications line and combined C4I system, while continuously providing indirect support in the form of tax reduction and exemption. The ROK government will continue to maintain dialogue with the U.S. government to ensure that its defense contribution is fair, reasonable and acceptable for both sides.

10)

Direct and indirect support are defined as follows:

- Direct support: Types of support that directly entail government expenditures.
- Indirect support: Types of support that have the effect of reducing financial and resource requirements of U.S. forces stationed in the ROK without entailing government expenditures.

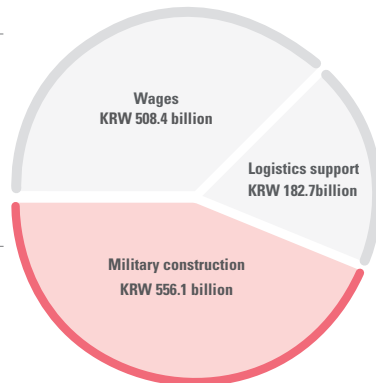
[Figure 5-2] Allocation of the Defense Contribution (2022)

40.8%

Salaries and wages of Korean workers employed by USFK (100% cash contribution)

44.6%

Construction of facilities for USFK, including barrack facilities (in-kind contribution except for project design and construction oversight costs)



14.6%

Services and materials including ammunitions storage, aircraft maintenance, and railway and ground transportation support (100% in-kind)

Efforts to Deepen ROK-U.S. Friendship

Amid the prolonged pandemic, starting in 2021, most programs and activities of ROK-U.S. friendship associations were shifted to small tours and visits. Nevertheless, these programs provided U.S. service members stationed in the ROK and their family members with a valuable opportunity to better understand and appreciate their host country, boosting their morale and helping them develop positive feelings about their service. In 2021-2022, an array of events were organized for U.S. service personnel and their families, including visits to the Korean Folk Village, the JSA (Joint Security Area), Dora Observatory, and Seoul ADEX (Aerospace and Defense Exhibition). By helping to cement the bond between those serving on the frontlines of the ROK-U.S. Alliance, these friendship events also helped bolster the strength of the Alliance itself.

In December 2021, in connection with the 53th Security Consultative Meeting, the Ministry of National Defense organized “ROK-U.S. Alliance Night,” which was attended by some 200 guests, including members of the two countries’ delegations, key government officials, service members of USFK and the ROK-U.S. Combined Forces Command, and KATUSA soldiers. During this event, former U.S. Congressman Charles Rangel was honored with the 9th Paik Sun-yup ROK-U.S. Alliance Award. The Paik Sun-yup ROK-U.S. Alliance Award¹¹⁾ was established in 2013 by the Ministry of National Defense to recognize the outstanding contributions of American citizens to the ROK-U.S. Alliance and the defense of the ROK. Retired General Walton Walker¹²⁾, Retired Colonel William Weber¹³⁾, Retired General James Van Fleet¹⁴⁾, Retired Major General John Singlaub¹⁵⁾, Retired General John Vessey¹⁶⁾, Retired General Mark Clark¹⁷⁾, Retired General John Tilelli¹⁸⁾, former U.S. Secretary of Defense James Mattis¹⁹⁾ are the past recipients of this award.



Paik Sun-yup ROK-U.S. Alliance Award (October 2022)

11)

This award was established in 2013, on the occasion of the 60th anniversary of the ROK-U.S. Alliance, to highlight its significance and importance by recognizing and honoring the achievements of U.S. citizens who have made an outstanding contribution to its development and enduring strength

12)

In the early days of the Korean War, General Walker ensured the success of the Incheon Landing Operation by defending the vital Nakdonggang line (winner of the 2013 award).

13)

Colonel Weber was Chair of the Korean War Veterans Memorial Foundation and was actively involved in the effort to preserve the memory of the Korean War (winner of the 2014 award)

14)

General Van Fleet fought in the Korean War as commander of the U.S. Eighth Army. After the war, he made continuous efforts to contribute to the advancement and development of Korea, among others by improving the training system of the ROK Armed Forces in post-war years (winner of the 2015 award)

15)

General Singlaub played a central role in containing the crisis on the Korean peninsula in the aftermath of the Panmunjeom axe murder incident and made a major contribution to the creation of the ROK-U.S. Combined Forces Command (winner of the 2016 award).

16)

General Vessey was the first Commander-in-Chief of the ROK-U.S. Combined Forces. As the commander of USFK, he played a decisive role in the establishment of the Combined Forces Command (winner of the 2017 award)

In 2022, the 10th Paik Sun-yup ROK-U.S. Alliance Award was given to U.S. Senator Dan Sullivan, co-chair of the Congressional Study Group on Korea²⁰⁾ and member of the Senate Committee on Armed Services, who led legislative efforts related to U.S. forces in the ROK.

During the Trump administration, when the issue of reducing U.S. troops in the ROK was brought up on the Senate floor, Senator Sullivan was one of the lawmakers who pushed for adding a clause requiring consultations with the legislature for any drawdown or withdrawal of U.S. troops in the ROK in the National Defense Authorization Act (NDAA). Senator Sullivan also proposed the resolution to dedicate a new Wall of Remembrance²¹⁾ to Korean War Veterans.

17)

General Clark served as the third Commander-in-Chief of the United Nations Command and negotiated and signed a military armistice between the United Nations Command and the North Korean Army (winner of the 2018 award).

18)

General Tilelli was the eighth Commander-in-Chief of the ROK-U.S. Combined Forces. He led the initiative of dedicating a "Wall of Remembrance" to Korean War veterans and contributed to ensuring the continuous strength of the ROK-U.S. Alliance (winner of the 2019 award).

19)

During his term as the 26th U.S. Secretary of Defense, James Mattis contributed to the defense of the Korean peninsula by stressing the importance of an unwavering security commitment to the ROK based on strong trust in the ROK-U.S. Alliance (winner of the 2020 award).

20)

A group on Korea policy within the U.S. Congress

21)

A new monument added to the Korean War Veterans Memorial in Washington D.C. on June 26, 2022, displaying the names of 43,808 soldiers who died during the war, including 36,634 U.S. service members and 7,174 Korean Augmentation Troops to the U.S. Army (KATUSA), arranged by unit, rank and alphabetical order.

Strengthening the Alliance's Deterrence and Response Capabilities against North Korean Nuclear and Missile Threats

To effectively deter and respond against advancing North Korean nuclear and missile threats, the ROK and the U.S. are enhancing the credibility of extended deterrence and developing strategies to respond to this threat. The ROK and the U.S. have made clear that any nuclear attack by North Korea would be met with an overwhelming and decisive response and are continuously strengthening coordination to deter and respond against the North Korean nuclear and missile threats.

1. Enhancing the Capability to Execute U.S. Extended Deterrence and Upgrading the Tailored Deterrence Strategy (TDS)

Enhancing the Credibility of U.S. Extended Deterrence

“Extended deterrence” refers to the U.S. policy of providing deterrence to its allies by operating the full range of its military capabilities, including nuclear, conventional, missile defense and advanced non-nuclear capabilities. Enhancing the capability to execute U.S. extended deterrence means improving the effectiveness and feasibility of the deployment and operation of military means provided by the U.S. to deter and respond against North Korean nuclear threats.

The U.S. commitment to provide its military capabilities to the ROK was first mentioned in the Mutual Defense Treaty between the United States and the Republic of Korea, signed in 1953. In 1978, during the 11th Security Consultative Meeting (SCM), the U.S. stated its commitment to provide a nuclear umbrella²²⁾ for the ROK. Until then, military capabilities provided by the U.S. were to deter against conventional threats from North Korea.

“Extended deterrence” was brought up for the first time in 2006, in the joint communiqué that followed the 38th SCM, which was convened right after North Korea’s first nuclear test.²³⁾ In 2009, the joint communiqué for the 41st SCM, which was held on the heels of the second nuclear test by North Korea, helped strengthen Alliance confidence in responding against North Korean threats by mentioning concrete means for providing extended deterrence.²⁴⁾ In 2022, in the face of advancing North Korean nuclear threats, the joint communiqué for the 54th SCM reaffirmed the unwavering U.S. commitment to “providing extended deterrence to the ROK utilizing the full range of U.S. defense capabilities, including nuclear, conventional, and missile defense

22)

Nuclear capabilities provided by a nuclear state for the protection of a non-nuclear ally in the event of an attack.

23)

“Secretary Rumsfeld offered assurances of firm U.S. commitment and immediate support to the ROK, including continuation of the extended deterrence offered by the U.S. nuclear umbrella, consistent with the Mutual Defense Treaty” (38th SCM Joint Communiqué)

24)

“Secretary Gates reaffirmed that U.S. commitment to provide extended deterrence for the ROK, using the full range of military capabilities, to include the U.S. nuclear umbrella, conventional strike, and missile defense capabilities” (41st SCM Joint Communiqué).



Joint Press Conference for the ROK-U.S. Summit (May 2022)

capabilities and advanced non-nuclear capabilities.’’²⁵⁾

This signifies that, while means of extended deterrence were limited to nuclear, conventional, and missile defense capabilities in the past, the U.S. will now leverage the full range of its military capabilities, including advanced, cutting-edge non-nuclear capabilities such as space, cyberspace and electromagnetic capabilities. The ROK and the U.S. operate a range of policy consultation mechanisms, including the Deterrence Strategy Committee (DSC) and the Extended Deterrence Strategy and Consultation Group (EDSCG) to enhance the effectiveness of extended deterrence. The DSC, which is a deputy-minister level consultative body between the two countries’ defense authorities, meets twice a year, once during the first half and once during the second half, at the same time as the Korea-U.S. Integrated Defense Dialogue (KIDD). The ROK and the U.S. maintain sustained dialogues, focusing on various ways to deter and respond against the North Korean nuclear and missile threats. The 13th DSC in August 2022 confirmed that the ROK-U.S. Tailored Deterrence Strategy (TDS) is being revised into an effective and robust document in responding against North Korean nuclear and WMD threats. It was also agreed during the meeting that the Counter Missile Working Group (CMWG) will be established in order to reinforce the alliance’s counter-missile capabilities and posture.

The EDSCG is a vice minister level consultative body jointly operated by the two countries’ diplomatic and defense authorities. By expanding the horizons of means of extended deterrence beyond the military (M) domain to diplomatic, information, and economic (DIE) domains,²⁶⁾ the EDSCG discusses ways to deter and respond against North Korean nuclear and missile threats. In particular, following the agreement in May 2022 by the ROK and the U.S. presidents to reactivate the consultative body, the 3rd EDSCG was convened in September 2022 after a pause of four years and eight months.²⁷⁾ During the meeting, both sides decided to further expand cooperation to enhance the capability to execute U.S. extended deterrence. Through a joint statement issued at the end of this meeting, they reaffirmed the further strengthened U.S. commitment to providing extended deterrence and agreed to deploy and operate U.S. strategic assets in the region in a timely and effective manner, and develop concrete ways to respond against all possible North Korean provocation scenarios. It was also agreed that the EDSCG will meet henceforth on a regular basis, once a year.

25)

“Advanced non-nuclear capabilities” refers to space and non-kinetic capabilities including cyberspace or electromagnetic capabilities.

26)

DIME: Diplomacy, information, military, economy.

27)

EDSCG, the vice minister-level meeting between the ROK and the U.S., has not been held since the second meeting in January 2018 (first meeting in December 2016).



3rd Extended Deterrence Strategy & Consultation Group
(September 2022)



54th Security Consultative Meeting (November 2022)

The 54th SCM in November 2022 marked an unprecedented step forward in the alliance’s efforts to increase the effectiveness of U.S. extended deterrence. In the face of both direct and indirect North Korean threats in 2022 against the ROK territory, including a series of ballistic missile launches, legislation of an offensive nuclear weapons policy, and preparation for its seventh nuclear test. The ROK and the U.S. issued the strongest warning yet against North Korean provocations through the joint communiqué.



ROK Minister of National Defense and U.S. Secretary of Defense Visiting Joint Base Andrews (November 2022)

The joint communiqué included unusually stern warnings such as “any nuclear attack against the United States and its allies, including the use of non-strategic nuclear weapons, is unacceptable and will result in the end of the Kim regime,” which was a first of its kind. Focusing on the possibility of nuclear weapons use by North Korea, the two sides agreed to build a policy framework to enhance the capability to execute extended deterrence by strengthening cooperation across multiple areas including information sharing, consultative mechanisms, and joint planning and execution. They also decided on a variety of concrete steps for its implementation, including the timely completion of the revision of the TDS and conducting the “DSC Table-top Exercise” (hereafter, the “DSC TTX”) annually. Moreover, both sides agreed to bolster the deterrence capabilities and posture against North Korean threats by increasing the frequency and intensity of U.S. strategic assets deployment and through close coordination on the scope, movement, deployment and training of strategic assets. Following the 54th SCM, the ROK Minister of National Defense and U.S. Secretary of Defense visited Joint Base Andrews to observe U.S. strategic assets’ capabilities and their operation, putting the ironclad alliance between the two nations on display for the world to see.

In October 2022, the U.S. released its Nuclear Posture Review (NPR).²⁸⁾ From the early stages of drafting the 2022 NPR, the ROK and the U.S. had close mutual consultations, through which both sides exchanged their views on messaging against North Korea and U.S. policy on its allies, and discussed the writing directions. In the 2022 NPR, the U.S. clearly states that “Any nuclear attack by North Korea against the United States or its allies and partners is unacceptable and will result in the end of that regime.” Also, while maintaining calculated ambiguity on the role of nuclear weapons, the U.S. reaffirmed the commitment to continue its nuclear modernization efforts to assure strong and credible extended deterrence for its allies. To this end, the U.S. announced it will continue pursuing ways to enhance extended deterrence that raises the visibility of U.S. strategic assets, such as strategic nuclear submarine port calls and the deployment of strategic bombers. Going forward, the two nations will continue to further their efforts to enhance the U.S. extended deterrence commitment and shore up the alliance’s deterrence and response capabilities through regular and systematic operation of bilateral consultative bodies.

²⁸⁾

As the fifth NPR, it contains President Biden’s guidance on nuclear policy, strategy, forces, and posture building.

Upgrading the ROK-U.S. Tailored Deterrence Strategy

In 2013, following the 45th SCM, the ROK and the U.S. established the Tailored Deterrence Strategy (TDS) to deter and respond against North Korean nuclear and other WMD threats, optimized for the situation on the Korean Peninsula as well as considering the characteristics of the regime's leadership and its nuclear and missile threats. The TDS is the highest-level strategic guidance by the ROK Minister of National Defense and U.S. Secretary of Defense on deterring and responding against North Korea's nuclear and other WMD threats. The document includes military and non-military responses that may be implemented by each phase of crisis, from North Korean threats of nuclear use to the actual use of nuclear weapons by North Korea.

The TDS is the first bilateral deterrence strategy the U.S. established with a non-NATO ally which contributed to deterring North Korean nuclear threats and developing the ROK and the U.S. posture and capabilities, and served the key role of demonstrating the U.S. extended deterrence commitment. The ROK and the U.S. are pursuing the revision of the TDS to comprehensively reflect changes in the environment on the Peninsula since 2013, including advanced North Korean nuclear threats and enhanced ROK and U.S. forces capabilities. Through the joint communiqué of the 54th SCM, the two nations agreed to pursue the revision of the TDS by the 55th SCM to be held in 2023 to prepare against various North Korean nuclear use scenarios.

To enhance the capability to implement the TDS guidelines, the ROK and the U.S. conduct the DSC TTX. In the face of the evolving nuclear strategy and capabilities of North Korea, the two countries pledged, in the joint communiqué of the 54th SCM, to regularize the DSC TTX to discuss military response measures involving North Korean nuclear use scenarios. The goal is to seek more effective response measures in line with changes in the North Korean nuclear strategy and its operation. The two countries are set to conduct the 8th DSC TTX in early 2023, at a nuclear-related facility in the U.S. Going forward, the two nations will explore ways to improve the capability to execute extended deterrence and continuously strengthen the Alliance's capabilities to provide effective ways to deter and respond against North Korea's nuclear use threats.



Combined maritime exercise in the East Sea by the ROK and U.S. Naval Forces



Redeployment of U.S. strategic bombers (B-1B) to the Korean Peninsula, ROK-U.S. combined air training

Deployment of U.S. Strategic Assets

U.S. strategic assets, among the military capabilities provided by the U.S., assure an effective deterrence and overwhelming response against external attacks and provocations. They include the U.S. nuclear triad²⁹⁾ and select conventional forces³⁰⁾ which assure strategic effects.

Strategic assets have been deploying to the Korean Peninsula during armistice and crisis, to showcase the strength of the ROK-U.S. Alliance and enhance the capability to execute U.S. extended deterrence. Strategic assets, including strategic bombers and aircraft carriers, were deployed during past periods of heightened tensions on the Korean Peninsula caused by North Korea's nuclear tests and ICBM launches.

The deployment of U.S. strategic assets to the Korean Peninsula was resumed in 2022, the first in about five years since the ROK-U.S. combined exercise in December 2017. In September 2022, amid the heightened nuclear threats caused by various North Korean

29)

Intercontinental ballistic missiles (ICBM), strategic bombers (B-2A, B-52H), strategic nuclear submarines (SSBN)

30)

Carrier strike groups, B-1B bombers, nuclear-powered cruise missile submarines (SSGN)



ROK-U.S. Combined Maritime Exercise (September 2022)



Vigilant Storm (November 2022)

ballistic missile launches and the legislation of an offensive nuclear weapons policy, ROK-U.S. combined maritime exercise as well as ROK-U.S.-Japan ASW exercise were conducted involving the Ronald Reagan Carrier Strike Group deployed over the East Sea.

Between late September and late November 2022, U.S. carrier strike group was deployed again to the Korean Peninsula in response to various North Korean missile provocations including intermediate-range ballistic missile launches. In November 2022, two B-1B strategic bombers were deployed to participate in Vigilant Storm, which is a ROK-U.S. combined flying training exercise. Through the deployment of U.S. strategic assets that is more timely and coordinated than in the past, the ROK and the U.S. demonstrated their resolute determination to firmly respond against any provocation or threat by North Korea. The two allies have also decided to increase the frequency and intensity of deployment of U.S. strategic assets.

2. Strengthening the Alliance's Counter-Missile Posture

Revamping the Alliance's Counter-Missile Strategy

The alliance's counter-missile capabilities and posture are continuously being developed based on the "Alliance Counter-Missile (4D) Strategy." The "ROK-U.S. Alliance Comprehensive Counter-missile Operational Concept and Principles" (4D Operational Concept)³¹⁾ was adopted in 2014, during the 46th SCM. The 47th SCM, which took place in 2015, approved the "Implementation Guidelines for the ROK-U.S. Alliance Comprehensive Counter-Missile Operational Concept and Principles" (4D Operational Concept Implementation Guidelines), which adds detailed implementation guidelines to the 4D Operational Concept. The 9th ROK-U.S. Deterrence Strategy Committee, convened in 2019, endorsed the "Strategy and Implementation Guidelines for Alliance Comprehensive Counter-Missile Operations (4D SIG)," including the "4D Operational Execution Concept"³²⁾ to implement the "4D Operational Concept" at an operational level.

Moving forward, the ROK Armed Forces will seek to make continuous improvements to the alliance's "4D Strategy" based on a comprehensive consideration of evolving North Korean missile threats and the latest policy focus of the two countries, as well as promote cooperation in wide-ranging areas, including decision-making and planning at the alliance level, training and exercises, and capability building.

31)

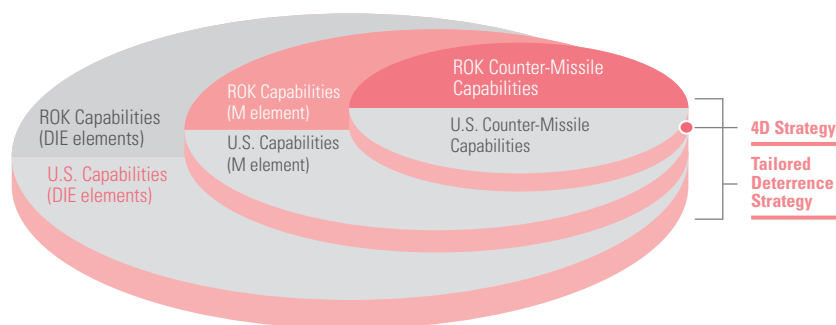
A counter-missile strategy of the alliance aimed at enhancing a full spectrum of capabilities in the 4D areas, including "detect," "disrupt," "destroy," and "defend." The details of the 4D concepts are as follows:

- Detect: Ability to support disruption, destruction, and defense, by employing intelligence, surveillance, and reconnaissance (ISR) assets
- Disrupt: Strikes against fixed infrastructures that support the North Korean missile operations
- Destroy: Direct strikes against North Korean ballistic missiles and transporter erector launchers (TEL)
- Defend: Interception of North Korean ballistic missiles directed at the ROK.

32)

The "4D Operational Execution Concept" is a step in ROK-U.S. combined operations to respond against North Korean ballistic missile threats, consisting of four areas including "detect," "decide," "defeat," and "defend."

[Figure 5-3] Tailored Deterrence Strategy and 4D Strategy



* DIE : Diplomacy, information, economy

* M : Military

Increasing ROK-U.S. Missile Cooperation

In addition to efforts to hone the “Alliance Counter-Missile (4D) Strategy,” the ROK and the U.S. are continuously broadening policy coordination to effectively deter and respond against the North Korean missile threats.

During the 21st KIDD in August 2022, the allies recognized the need for an expeditious and more precise Alliance response in the face of rapid changes in the North Korean missile threat both in terms of quantity as well as quality, and agreed to establish the Counter Missile Working Group (CMWG) as a mechanism to support such efforts. The CMWG will operate as a working group under the DSC to serve a platform for dynamic discussions on a variety of agendas for cooperation that are related to strengthening the alliance’s counter-missile capabilities and posture. The results of discussions by the CMWG will be reported to the KIDD and the SCM on a regular basis, and will lead to high-level coordination efforts to deter and respond against North Korean missile threats. In tandem, in order to support these policy efforts, the ROK and the U.S. have decided to carry out the Program Analysis Working Group for ROK-U.S. Missile Defense (PAWG), starting in October 2022. In this joint analysis, the ROK and the U.S. will conduct a precise analysis of threats presented by novel North Korean missiles and explore an optimal missile defense structure for the Korean Peninsula. The results of the PAWG are expected to provide an important basis for policy coordination between the ROK and the U.S. to further fine-tune the Alliance’s Counter-missile (4D) Strategy and bolster the combined counter-missile capabilities and posture. The ROK Armed Forces will continue to support and assist the alliance’s efforts to build effective deterrence and response capabilities and robust posture against North Korean missile threats in broad-ranging areas.

Establishing a Robust ROK-U.S. Combined Defense Posture

During the ROK-U.S. summit in May 2022, the leaders of the two countries agreed to resume talks on increasing the scope of combined exercises and trainings. Following the summit, the ROK and the U.S. military and defense authorities closely consulted with each other to change the name of the theater-level combined exercise to 'Ulchi Freedom Shield' (UFS), integrating the government military exercise (Ulchi Exercise) and the ROK-U.S. combined military exercise (Freedom Shield). Moreover, the combined field training exercise was conducted in parallel with combined exercise in second half of 2022 to enhance deterrence against North Korea and solidify the combined defense posture. The ROK and the U.S. are restoring combined exercises and training events, which have been downsized and reduced in frequency in recent years, to their previous level to strengthen and reinforce the ROK-U.S. Alliance and bolster the combined defense posture.

1. Improving the Theater-level Combined Exercise System

A New Name for the ROK-U.S. Combined Exercise

The ROK-U.S. combined exercise is a defensive exercise carried out biannually, in the first and second half of the year, to maintain a solid combined defense posture. The combined exercise is an important symbol of the ROK-U.S. Alliance and has played a crucial role in defending the Republic of Korea.

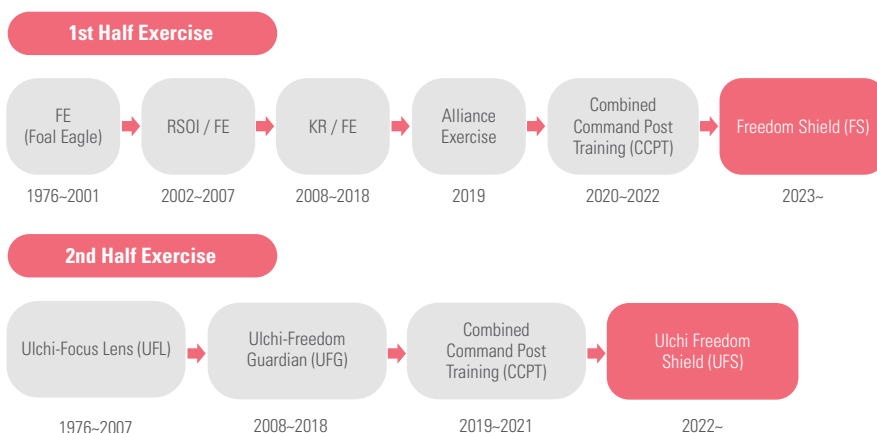
Since second half-year of 2019, the ROK-U.S. combined exercise has been designated as 'Combined Command Post Training' (CCPT). However, it has been suggested that this name, which is a literal reference to 'the act of training conducted by the Combined Battle Staff at the command post', is not suitable to represent a large-scale, theater-level combined exercise, carried out to deter North Korea and strengthen the combined defense posture. In order to better reflect the significance and purpose of this exercise and the guiding values of the ROK-U.S. Alliance, its name was changed to 'Ulchi Freedom Shield (UFS) Exercise.'

The name 'Ulchi Freedom Shield (UFS) Exercise,' in use Since second half-year of 2022, highlights the fact that the Ulchi Exercise, a ROK government exercise, and Freedom Shield, a theater-level ROK-U.S. combined exercise, are now carried out in an integrated manner. The word 'Freedom' refers to the ROK's strong will to protect the 'Freedom', which is the immutable value of the ROK-U.S. alliance, and 'Shield' implies the defensive nature of the exercise in pursuit of peace. Meanwhile, the name of the combined exercise in the first half of 2023 will be called the 'Freedom Shield (FS) Exercise.' Unlike the combined exercise in the second half, which is carried out in an integrated manner with the government-wide exercise, this will be conducted in conjunction with Command Post Exercise (CPX) and Field Training Exercise (FTX) at the military level.

Renaming the combined exercise marks a renewed resolve to further solidify the ROK-U.S. Alliance. While maintaining and preserving the Alliance's exercise tradition, the ROK and the

U.S. will restore the realistic, theater-level exercise system to further strengthen the combined defense posture.

[Figure 5-4] Name Changes of the ROK-U.S. Combined Exercise



Integration with the Government Exercise

The government exercise began in 1969 under the name, ‘Ulchi Exercise,’ with the goal of testing and improving the Chungmu Plan, the government’s wartime operations plan, and protecting the lives and property of Korean citizens. In subsequent decades, when the need to establish a total war posture arose amid the changing security environment, this exercise was integrated with the theater-level combined ROK-U.S. exercise and was carried out under the name ‘Ulchi-Focus Lens (UFL, 1976~2007) Exercise’ which was later updated to ‘Ulchi-Freedom Guardian (UFG, 2008~2018) Exercise’. Through this integration, the government exercise tested the government-wide total war and readiness posture against a full-scale war by realigning the Chungmu Plan under the larger framework of the ROK-U.S. combined defense system.

However, in 2019, the government exercise was separated from ROK-U.S. combined exercises and was conducted in parallel with the Taeguk Exercise, the unilateral exercise of the ROK Armed Forces, under the name ‘Ulchi Taeguk Exercise.’ This limited the proficiency of government-wide total war procedures related to supporting wartime combined operations. Moreover, as the government exercise during the Ulchi Taeguk Exercise was focused mainly on responding to disasters and non-military crises, it had limited effect on enhancing the wartime ability to execute total war through integration of the nation’s capability.

To address these issues, the ROK and the U.S. decided to reintegrate the government exercise into the combined exercise system from the second half of 2022 under the name ‘Ulchi Freedom Shield (UFS) Exercise’ and continue to do so every year for all exercises conducted in latter half of the year. The 2022 UFS Exercise, conducted in the wartime command bunker (B-1), notably deployed the war capabilities of all government agencies for the first time since 2017, for an intensive training on the total war system through a realistic



Visiting the Wartime Command Bunker (B-1, August 2022)

exercise that lasted for four days and three nights.

Meanwhile, to help simulate actual combat environments, a complex and realistic scenario, involving attacks on key industrial facilities, drone and cyber-attacks on civilian, public and military facilities, and the outbreak of infectious disease were used. The scenario took into consideration North Korea's advancing nuclear and missile capabilities and the growing diversity of its weapons systems and complex attack patterns to test the response system against evolving threats.

Moreover, to test the stability of rear areas and war sustainment capabilities, the exercise was coupled with a joint civilian-government-military field training exercise (FTX) for protection and recover operations under a scenario in which critical national infrastructures and industrial facilities, including harbors, airports, and semiconductor plants sustained damages.

The training on the government-wide crisis management protocol and combined operational support procedures under the new UFS Exercise provided an opportunity for the government and the military to enhance their total war capabilities against localized provocations as well as an all-out war. The ROK and the U.S. will continue to make improvements to the combined exercise and government exercise system to further solidify the Alliance and strengthen the combined defense posture.

2. Enhancing Combined Operational Capabilities

To enhance the war capabilities of the combined forces under the combined defense framework, the ROK and the U.S. are conducting combined exercises and training, focusing on improving combined operations and operational sustainment capabilities.

The scope of application of the Joint Training System (JTS), which is a theater exercise and training system, has been expanded to include the headquarters of all service branches, operations commands, and joint formations, in addition to a comprehensive exercise and training management system. A variety of war game models have also been developed for joint and combined exercises in a continuous effort to upgrade the combined exercise capabilities of our Armed Forces and increase the efficiency of exercises and training.

The Freedom Shield (FS) Exercise, newly begun in the second half of 2022, is a theater-level command post exercise, which tests the combined defense posture and trains troops

on the conduct of war under a computer-simulated battlefield environment. The goal of this exercise is to maintain a robust combined defense posture and improve the ROK Armed Forces' operational capabilities and their ability to lead combined exercises. Moreover, in an effort to meet the conditions necessary for the transition of wartime OPCON (operational control), the assessment of the future command structure will be conducted in parallel with the FS exercise.

The suspension of Foal Eagle (FE) after the last exercise in March 2019 has reduced the scale and frequency of ROK-U.S. combined exercises, hindering the effort to build theater operational capabilities and limiting the alliance's ability to display deterrence against North Korea. Starting in the second half of 2022, more field training events have been held to enhance combined operational capabilities. In 2023, the size and scope of combined field training exercises will be expanded to ensure the continued strength of the combined defense posture by increasing training on combined operations and interoperability. Field training exercises for regiments and larger formations (carrier strike groups, Ssang Yong combined amphibious exercise) will be resumed and large-scale exercises will be held during Spring-time.

Conditions-based Wartime OPCON³³⁾ Transition

While maintaining a steadfast combined defense posture against North Korea's threats, the ROK and the U.S. are pursuing the Conditions-based Wartime OPCON Transition in order to establish a new combined defense framework led by the ROK Armed Forces. With a clear understanding of the principle the ROK and the U.S. will push forward the transition of the wartime OPCON when the bilaterally agreed-upon conditions are met, the ROK military is systematically and stably pursuing for the wartime OPCON transition through measures such as the acquisition of key defense capabilities and regular readiness assessment.

1. Background and Progress

Since the return of armistice operational control (OPCON) to the ROK Armed Forces in December 1, 1994, a combined command structure has been in place in which operational control authority is retained by the Chairman of the ROK Joint Chiefs of Staff during peacetime, while it is exercised by the Commander of the Combined Forces Command in wartime, over the units of ROK and U.S. forces designated through the SCM and the Military Committee (MC),³⁴⁾ based on the orders of the two countries' heads of state.

During the ROK-U.S. summit held in September 2006, the leaders of the two countries agreed on the basic principles of the transfer of wartime operational control (hereafter, "wartime OPCON"). In June 2007, the Strategic Transition Plan (STP),³⁵⁾ a roadmap for the transfer of wartime OPCON from the Combined Forces Command to the ROK Joint Chiefs of Staff, was approved.

However, in light of new developments that occurred in the security situation since then, including the second nuclear test by North Korea in 2009 and the sinking of the ROKS Cheonan in 2010, during the bilateral summit in June 2010, the ROK and the U.S. leaders decided to postpone the date of OPCON transition from the initially planned April 17, 2012 to December 1, 2015. During the same year, the two countries' defense chiefs signed the Strategic Alliance 2015 (SA 2015),³⁶⁾ containing military measures necessary for the transition of OPCON along with a plan for the development of key alliance issues.

In April 2014, in consideration of the fact that North Korea's threats are becoming increasingly real and advanced, including its third nuclear test, the ROK and the U.S. decided to carry out the transition of wartime OPCON whenever the mutually agreed-upon conditions are met³⁷⁾ without setting a specific time frame. In November 2015, the two countries' defense chiefs signed the Conditions-based OPCON Transition Plan (COTP).

Three years later, in October 2018, the two allies agreed on the maintenance of the Combined Forces Command even after the wartime OPCON transition and a future command structure in which the duties of the Commander of the Combined Forces Command will be carried out by a four-star General/Admiral of the ROK Armed Forces and signed a revised COTP that reflected these changes.

During the bilateral summit in May 2022, the leaders the ROK and the U.S. reaffirmed

33)

Operational control (OPCON) refers to the authority to perform functions of command over designated forces in order to carry out specific operations within a limited time frame and space and is divided into peacetime and wartime OPCON.

34)

A consultative body between ROK and U.S. Joint Chief of Staff Chairmen.

35)

A strategic Alliance document setting out tasks to be completed before the transition of wartime OPCON and the timeline of their completion.

36)

A new document replacing the STP as a reference document for the transition of wartime OPCON.

37)

Conditions for the transition of wartime OPCON, agreed upon by the ROK and the U.S.:

- ① Military capabilities required to lead the combined defense
- ② Comprehensive Alliance response capabilities against North Korean nuclear and missile threats
- ③ Security environment on the Korean peninsula and in the region that is conducive to a stable transition of the wartime OPCON.

their commitment to the conditions-based transition of wartime OPCON. In close coordination with the U.S. side, the ROK Armed Forces are currently working on key tasks including acquiring capabilities required to lead the combined defense, developing the Alliance's comprehensive response capabilities against North Korean nuclear and missile threats, and the three-stage assessment of the mission execution capability of the Future Combined Forces Command³⁸⁾; steady and systematic progress is being made.

2. Steady Progress toward the Conditions-based Wartime OPCON Transition

Annexes and Appendices to the Conditions-based Wartime OPCON Transition Plan

After signing the Revised Conditions-based OPCON Transition Plan (COTP) during the 50th SCM in October 2018,

the ROK and the U.S. have made joint efforts to revise the Annexes and the Appendices to the COTP, which set forth general rules related to the pursuance of wartime OPCON transition.

The revision of the COTP Annexes and Appendices was completed in August 2022 through close collaboration and mutual consultation between the two countries. During the process of revising these documents, the list of all capabilities mentioned in the COTP, namely the critical military capabilities of the ROK Armed Forces and response capabilities against North Korean nuclear threats, was finalized and an objective and systematic framework for the transition of wartime OPCON was created by defining the method and criteria for assessing each type of capabilities.

Three Conditions of Wartime OPCON Transition

The Conditions-based OPCON Transition Plan (COTP) lists three conditions to be met for the transition of wartime OPCON.

The first condition is to acquire military capabilities required to lead the combined defense. To meet this condition, the ROK Armed Forces are working on the improvement of selected critical military capabilities and the theater operational capabilities of the Future Combined Forces Command. To strengthen combined defense capabilities, the U.S. is providing "Bridging Capabilities" and "Enduring Capabilities."

The second condition is to acquire comprehensive Alliance response capabilities against North Korean nuclear and missile threats. The ROK and the U.S. are jointly building 4D capabilities – "detect, decide, defeat, and defend."

The third and last condition is the security environment on the Korean peninsula and in the region that is conducive to a stable transition of the wartime OPCON. The intelligence authorities of the ROK and the U.S. conduct regular assessments of North Korea's nuclear, missile, and conventional capabilities, its intention, the stability of its regime, as well as the regional situation and environment, and factors of influence, through bilateral consultative bodies.

In accordance with the criteria and standards mutually agreed upon by the two countries, the ROK Armed Forces' progress toward meeting the three conditions is assessed annually based on detailed indicators under each category of capabilities. The results of the annual assessment

38)

Stage 1 -Initial operational capability (IOC) → stage 2 - Full operational capability (FOC) → stage 3 Full mission capability (FMC).

are reported to consultative bodies, jointly operated by the two countries' defense authorities, including the Military Committee Meeting (MCM) and the SCM.

Building Capabilities to Lead Combined Defense

The ROK and the U.S. share the view that strengthening the ROK forces' defense capabilities is the single-most important prerequisite for meeting the conditions for the transition of wartime OPCON. Following the official decision by the two countries' government to pursue the transition of wartime OPCON, the ROK Armed Forces have made steady efforts to acquire critical capabilities to lead combined defense and necessary response capabilities against North Korean nuclear and missile threats, such as Kill Chain and the Korea Air and Missile Defense (KAMD), in a timely manner.

The ground force of the ROK military has fielded world-class tanks and artillery, including K-2 tanks, K-9 self-propelled howitzers, as well as Chunmoo and have a substantial number of Apache attack helicopters at their disposal. The air force includes cutting-edge aviation forces, such as F-35A stealth fighters, Global Hawks, tanker aircraft, and airborne early warning and control systems, as well as high-performance fighter planes. The naval force has fielded Aegis destroyers, 3,000t-class submarines, LPHs, ship-to-surface, ship-to-ship and submarine-to-surface missiles. Moreover, in a continuing effort to expand response capabilities against North Korean nuclear and missile threats, a Patriot system and a ballistic missile early warning radar system have been fielded and the Cheongung System and Hyunmoo missiles have been indigenously developed.

The Ministry of National Defense has recently established the "Medium-term National Defense Plan 2023-2027," providing the roadmap for building, operating, and maintaining military capabilities for the next five years, and allocated KRW 107.4 trillion toward the improvement of defense capabilities in active support of the ROK Armed Forces' plan to acquire military capabilities in preparation for the transition of wartime OPCON.

With such efforts, during the 54th SCM in 2020, the two nations assessed that substantial progress have been made in meeting the conditions for the transition of wartime OPCON. Going forward, while maintaining a steadfast combined defense posture, the ROK and the U.S. will strive to make the combined defense system more forward-looking and mutually beneficial to the two countries through continuous efforts to advance the COTP.

Assessment of the Mission Execution Capability of the Future Combined Forces Command

The COTP sets out procedures for a three-stage assessment of the mission execution capability of the future Combined Forces Command, which will lead theater operations after the transition of wartime OPCON.

In August 2019, the ROK and the U.S. successfully completed the assessment of initial operational capability (IOC), which found that the future Combined Forces Command possesses the basic required capability. Thereafter, the allies focused on preparing conditions needed for the assessment of full operational capability (FOC), including practical requirements and rehearsals. In 2021, during the 53rd SCM, it was decided that an FOC assessment will be conducted in 2022.

In August 2022, the FOC assessment was carried out in conjunction with the Ulchi Freedom Shield (UFS) exercise, which was recently restored to a theater-level combined exercise, and the results confirmed that measurable progress has been made in the capacity to perform the wartime tasks of the Future Combined Forces Command, led by a four-star General/Admiral of the ROK Armed Forces.

The ROK and the U.S. will stably pursue the assessment of the Future Combined Forces Command in accordance with the respective procedures of each stage, including the second stage of FOC certification, during which the results from the FOC assessment will be considered together with the results of a bilateral evaluation of capabilities of the first and second conditions.

Deeper and Broader Defense Cooperation and Exchange

The ROK Armed Forces are making continuous efforts to strengthen military trust with regional neighbors, including Japan, China, and Russia, and expanding defense cooperation and exchange as part of a sustained commitment to ensure peace and stability on the Korean peninsula and across Northeast Asia. Meanwhile, in light of the growing strategic importance of the Indo-Pacific region, the ROK military is carrying out mutually-beneficial defense and defense industry cooperation projects with ASEAN and Oceanic countries, and India, which are tailored to specific needs of each country. While continuously increasing cooperation and exchange with traditional friendly nations such as European countries and Canada, the ROK is also seeking to diversify defense partnerships by engaging with countries in the Middle East and Central and South America.

1. Promoting Military Trust and Defense Cooperation and Exchange with Japan, China, and Russia

ROK-Japan Defense Exchange and Cooperation

As two neighbors that share common values, Japan is a close neighboring country that the ROK should cooperate to establish a forward-looking cooperative relationship that is mutually beneficial. The two countries' defense authorities have held regular ministerial talks since 1994. In 2009, during the 14th ROK-Japan Defense Minister Talks, the two sides signed a "Letter of Intent on Defense Exchanges," providing a framework for bilateral cooperation and exchange between them in the defense domain. In 2015, the ROK and Japanese defense chiefs met for bilateral talks and continued their dialogue during the Asia Security Summit and other multilateral meetings that followed. In November 2019, during the bilateral talks held on the sideline of the ASEAN Defense Ministers' Meeting-Plus, the ROK and Japan agreed to seek to develop defense exchange and cooperation between the two countries in a forward-looking direction.

However, the defense relationship between the two countries experienced difficulties, due to the distorted perception of history and claims of sovereignty over Dokdo by select Japanese political leaders, as well as the Japanese MPA incident.³⁹⁾ The export control measures against the ROK in July 2019 under the pretext of security concerns is a barrier to the future oriented development of defense relationship between the two countries.

Amidst such environment, the ROK government notified Japan of its decision to terminate the GSOMIA (General Security of Military Information Agreement). However, the ROK government suspended the termination in November 2019 and information sharing between the two countries' defense authorities resumed and is taking place normally since then. The ROK and Japanese defense authorities intend to continuously increase the scope of cooperation in the information domain, while striving to resolve the issues and improve relations between the two countries.

The Ministry of National Defense is aware of the importance of ROK-Japan and

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Japan claimed that the provocative behavior of a Japanese patrol plane, which flew dangerously close to an ROK Navy vessel, carrying out a rescue operation, was a normal flight and announced the completion of a unilateral investigation without confirming the facts, although the ROK made numerous accounts that the ROK vessel did not illuminate the aircraft with its tracking radar.

ROK-U.S.-Japan security cooperation in responding to North Korean nuclear and missile threats and has made steady working-level efforts.

As a result of these efforts, during the recent bilateral defense ministers' talks, held on the sideline of the Asia Security Summit in June 2022, the two sides reaffirmed their shared view that ROK-U.S.-Japan security cooperation is important in responding to security challenges posed by North Korean nuclear and missile threats. During the vice minister level defense talks at the Seoul Defense Dialogue in September 2022, the two sides vowed to make joint efforts to normalize the defense partnership between the ROK and Japan from a forward-looking perspective.

Moreover, in November 2022, the ROK Navy sent the logistics support ship Soyang to the international fleet review, hosted by the Japan Maritime Self-Defense Force, and attended the Western Pacific Naval Symposium (WPNS), an ancillary event organized in conjunction with the fleet review, cementing ties with the navies of countries the world over. These accomplishments are likely to serve as a stepping stone for further progress in defense cooperation and exchange between the ROK and Japan.

Moving forward, even as the Ministry of National Defense will firmly defend the ROK position on issues such as the Japanese distortion of history and territorial claim over Dokdo, it will continue to seek to develop a forward-looking relationship of cooperation with Japan concerning common security issues in an effort to ensure peace and stability on the Korean peninsula and in Northeast Asia.

ROK-China Defense Exchange and Cooperation

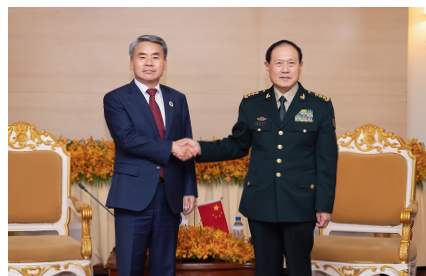
Diplomatic ties between the Republic of Korea and People's Republic of China were first established in 1992, as a "friendly and cooperative relationship."

Since then, the two countries have cooperated in wide-ranging areas including economic, social, and cultural domains. In 2008, the two countries' relationship was elevated from a "comprehensive cooperative partnership" to a "strategic cooperative partnership."

During the ROK-China summit convened in December 2017, the two heads of state vowed to expand the scope of cooperation between their two countries into areas including politics, diplomacy, and security as well as strengthen bilateral exchange at a comprehensive level. In December 2018, the defense authorities of ROK and China agreed on normalization of defense exchanges and cooperation. Since 2020, due to the outbreak of the COVID-19 pandemic, the two countries' defense officials have maintained communication and exchange through non face to face measures



ROK-U.S.-Japan Trilateral Ministerial Meeting (June 2022)



ROK-China Defense Ministers' Talks (April 2022)

including two telephone calls between the ROK and Chinese defense ministers.

In June 2022, at the Asia Security Summit in Singapore, the two countries' defense ministers held in-person talks for the first time in three years, during which they decided to open official hotlines between the ROK and Chinese navies and air forces to facilitate communications. On November 23, 2022, they sat down for another round of bilateral talks on the sideline of the ASEAN Defense Ministers' Meeting-Plus, reconfirmed their will to promote defense cooperation on various issues between the two countries, including exchanges between high-ranking military officials, the resumption of the strategic defense dialogue, exchanges between the armed forces, and the repatriation of the remains of Chinese service members.

Meanwhile, to reduce the risk of accidental clashes between ROK and Chinese forces in neighboring international sea and air space, the two countries' defense authorities maintain regular communication with each other, through various consultative channels. The ROK and Chinese operational forces share information using a hotline in an effort to prevent the escalation of tensions.

In 2022, which marks the 30th anniversary of diplomatic relations between the Republic of Korea and People's Republic of China, the two governments pledged to bring the relationship between their two countries to a new stage of development. As two key partners in the effort to achieve and maintain prosperity and peace in Indo-Pacific, the ROK and the PRC agreed to move toward a healthy and mature partnership of mutual respect and benefit, founded on international norms and rules, for the pursuit of common interests. In accordance with this vision, the ROK and the PRC defense authorities will join efforts to promote the stable development of the two countries' relations and contribute to peace and stability on the Korean peninsula and in the region by strengthening military trust through increased strategic communication and sustained cooperation and exchange.

ROK-Russia Defense Exchange and Cooperation

Russia is a key partner nation in the security of the Korean peninsula. To encourage Russia to play a constructive role in resolving Korean peninsula issues

including the North Korean nuclear issue, the ROK government has made consistent efforts, in recent years, to increase strategic communication and cooperation with the country as a "strategic cooperative partner." Bilateral summits were held in 2017, 2018, and 2019, in 2021, the two countries' foreign ministers have met as well. In the area of defense, cooperation and exchange with Russia have been expanded through variety of consultative mechanisms and communication channels, including the Republic of Korea-Russia Strategic Defense Dialogue, Joint Chiefs of Staff Chief Director level Meeting, Joint Military Committee, and consultative mechanisms at the level of individual branches of the armed forces. In March 2021, during the Russian Deputy Minister of Defense's visit to Korea, the ROK-Russia Agreement on Defense Cooperation was signed, providing a solid framework for cooperation between the two countries in the defense area. In November 2021, the two sides signed a Memorandum of Understanding Between the Ministry of National Defense of the Republic of Korea and the Ministry of Defense of the Russian Federation on the Installation and Operation of the Air Force to Air Force and Navy to Navy Direct Communication Channels to prevent accidental clashes, which was a project that has been in discussion since 2003.

However, defense cooperation and exchange with Russia have been tentatively put on hold since February 2022 with the Russian invasion of Ukraine. The government of the Republic of Korea has declared its support for the sovereignty and territorial integrity of Ukraine and has condemned the actions by Russia, calling it a direct violation of the Charter of the United Nations and international law. As a responsible member of the global community, the ROK government has promptly joined the international efforts to resolve the Ukraine crisis. Resenting ROK's position on the issue, Russia has included ROK in the list of "unfriendly states," which has limited the realistic prospects regarding defense cooperation and exchange between the two countries.

Recent events such as Russian warplanes entering the KADIZ (Korea Air Defense Identification Zone) and China and Russia carrying out combined maritime and air exercises have increased the risk of accidental clashes around the Korean peninsula. Therefore, there is a need to maintain communication with Russia in the defense domain.

Going forward, the Ministry of National Defense will foster a gradual and steady development in defense cooperation with Russia in accordance with the Agreement between the Government of the Republic of Korea and the Government of the Russian Federation on Defense Cooperation and by taking into consideration of the progress in the effort to build a rule-based international order as well as other relevant domestic and external conditions.

2. Expanding Cooperation with Key Regional Partners

Southeast Asia

The Ministry of National Defense has continuously expanded bilateral and multilateral cooperation with countries in Southeast Asia, aimed at enhancing joint response capabilities against threats to the security of Indo-Pacific, in a sustained effort to promote and ensure security in the region. In accordance with its "Strategy for a Free, Peaceful, and Prosperous Indo-Pacific," unveiled in December 2022, the ROK government will seek comprehensive strategic partnerships, focused on mutually beneficial and practical cooperation, with ASEAN countries, which it considers key partners in this strategy. This goal is also well reflected in the "Korea-ASEAN Solidarity Initiative" (KASI), a cooperation plan designed specifically for the ASEAN, recently released by the government. To help advance the government's vision articulated in its Indo-Pacific Strategy and the KASI, the Ministry of National Defense is carrying out a series of cooperation tasks in the defense domain that are tailored to the special needs of ASEAN countries.

ROK is actively engaging in defense and defense industry cooperation with **Indonesia** under a "special strategic partnership." The two countries are jointly developing next-generation combat aircraft (KF-21/IF-X: KF-21/Indonesian Fighter eXperimental), frequently consult with each other at high levels, and conduct combined anti-terrorism



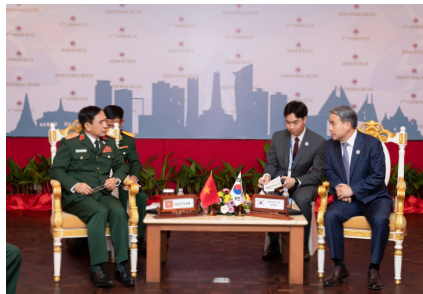
ROK-Indonesia Defense Ministers' Talks (January 2022)

training exercises. During the bilateral defense ministers' talks in April 2021, the two sides reached a common understanding on the need to strengthen defense cooperation between them and the Indonesian side confirmed their interest in participating in the next-generation combat aircraft development project by ROK. In August 2021 and October 2022, the two countries held the "2+2" working-level defense and foreign affairs talks, assessing the progress and discussing the way forward in combined exercises and maritime security and defense industry cooperation. Later in November 2022, the two countries defense ministers met for bilateral talks on the sideline of the ADMM-Plus (ASEAN Defense Ministers' Meeting-Plus) and agreed to develop defense cooperation between them in a forward-looking direction by continuing cooperation projects including the joint development of next-generation combat aircraft, expanding the scope of combined bilateral exercises, and strengthening multilateral cooperation between the ASEAN and the Republic of Korea.

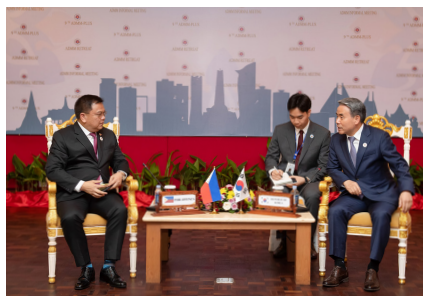
Vietnam is a key player in ROK-ASEAN cooperation as well as an important maritime security partner for Korea. Since diplomatic relations between the two countries were first established in 1992, they have cooperated in wide-ranging fields, including military education and training and high-level exchanges.

In 2022, the two countries exchanged their views on the security situation in the region during the annual vice minister-level meeting (September) and the ADMM-Plus (November) and pledged to increase high-level exchanges and boost defense industry cooperation between them. The two defense chiefs furthermore agreed on a series of measures to reinforce maritime security cooperation such as the Korean donation of retired navy ships and joint participation in multilateral combined exercises. In December 2022, on the occasion of the 30th anniversary of the two countries' diplomatic ties, their relationship was elevated to a "comprehensive strategic partnership," opening a new chapter in their cooperation, including in the defense area.

Philippines fought in the Korean War alongside the Allies and was the first ASEAN country to establish diplomatic relations with the Republic of Korea. In recent years, there has been a surge in the two countries' cooperation in the field of defense industry. In October 2021, on the sideline of the Seoul Aerospace and Defense Exhibition (ADEX 2021), the two countries' vice defense ministers sat down for a discussion on the bilateral cooperation agenda. This meeting, led to the signing of a purchase order for two corvettes from the ROK shipbuilder in December 2021. Meanwhile, the defense ministers' talks in June 2022, during which the two sides agreed to further strengthen defense



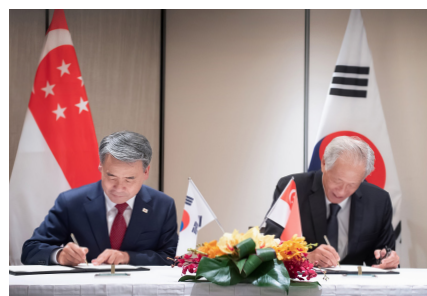
ROK-Vietnam Defense Ministers' Talks (January 2022)



ROK-Philippines Defense Ministers' Talks (January 2022)

industry cooperation between their two countries, resulted in the Philippine Navy's purchase of six offshore patrol vessels from ROK. The high-level exchanges between the two countries have also created a new momentum for defense cooperation as well. In October 2022, a vice minister-level defense cooperation committee was convened to explore ways of deepening defense cooperation between the two countries, including increasing the scope and frequency of combined exercises, boosting educational exchanges, and broadening defense industry cooperation. In November, the two countries' defense chiefs held bilateral talks during the 9th ADMM-Plus to discuss the latest accomplishments in their bilateral cooperation, including the ROK Navy's first-ever participation in KAMANDAG, the U.S.-Philippines combined exercise. The two officials agreed to further ramp up defense industry cooperation between the ROK and Philippines, particularly in shipbuilding and aircraft construction.

Singapore is a traditional friendly partner of the Republic of Korea, which shares with it the experience of accelerated economic growth and upholds the common values of freedom, prosperity, and peace. The ROK and Singapore have closely cooperated with each other to respond to non-traditional security threats such as cyberattacks and terrorism, which have recently emerged as serious challenges to the global community.



Amendment of the ROK-Singapore Defense MOU (June 2022)

In June 2022, the "Memorandum of Understanding on Defense Cooperation" was revised to expand the scope of cooperation to include non-traditional security threats. To increase cooperation in defense public relations, the two countries signed a new "Memorandum of Understanding on Cooperation in Defense Public Relations." In September 2022, during the bilateral talks held on the sideline of the Seoul Defense Dialogue, the two countries' vice defense ministers agreed to broaden cooperation in defense technology to promote the application of fast-evolving Fourth Industrial Revolution technologies in the defense field.

The ROK-**Malaysia** defense ministers' talks in April 2022 led to the long-anticipated signing of the "Memorandum of Understanding on Defense Cooperation" between the two countries. Malaysia is the latest addition in the list of ASEAN countries that have entered into a cooperation arrangement with the ROK, which has now signed an MOU or agreement with all ten members of ASEAN. This has given the the ROK a solid framework for defense cooperation in the region. Meanwhile, the ROK and Malaysia have been elected to serve as co-chairs for the Cyber Security Sub-committee of the ADMM-Plus for a four-year term between 2021 and 2024, which has provided them with a further opportunity to tighten cooperation between them, in the fight against transnational, non-traditional security threats.

Thailand is rapidly becoming a key partner of the ROK in the field of defense industry since its purchase of the T-50, the Korean jet trainer, in 2015. During the bilateral defense ministers' talks held in December 2021, the two countries discussed options for increasing mutually-beneficial defense industry cooperation between them regarding projects to enhance the performance of frigates and aircraft, while also agreeing to strengthen defense cooperation

in areas including military medicine and set up consultative mechanisms at the level of individual branches of the two countries' armed forces.

Cambodia is a key ASEAN diplomatic and trade partner of the ROK. Since the re-establishment of diplomatic relations between the ROK and Cambodia in 1997, the two countries have progressively expanded bilateral cooperation in the defense domain. In May 2022, the ROK Armed

Forces donated 26 pieces of logistics equipment of 17 types, including mobility equipment, to Cambodia, ramping up logistics cooperation between the two countries. In November 2022, the two countries defense ministers held bilateral talks on the sideline of the ADMM- Plus and signed the “ROK-Cambodia PKO Memorandum of Understanding.” An agreement was also reached during this meeting that the ROK will donate military engineering equipment to Cambodia to support its PKO activities. In 2023, an education program for the ROK officers will take place for the first time at Cambodia’s National Defense University, in a sign of deepening cooperation in the field of military education.

As the only landlocked member of the ASEAN, **Laos** serves as a geopolitical hub for the region. Efforts are currently ongoing to establish regular consultative processes for bilateral defense cooperation and increase military education exchanges between Laos and the Republic of Korea. The Lao People’s Armed Forces (LPAF) is in the process of setting up a Defense Attaché Office in the ROK, which is expected to give a new impetus to defense cooperation between the two countries.

ROK’s defense cooperation with **Brunei** is mediated primarily through multilateral security consultative meetings such as the ADMM-Plus. In 2021, the Ministry of National Defense worked with Brunei, which served as the ASEAN chair for the year to organize a ROK-ASEAN defense ministers’ meeting for the first time. For further progress in defense cooperation, the two countries are carrying out projects to create bilateral consultative mechanisms.

ROK’s cooperation with **Myanmar** has been centered on military education exchanges (commissioned educational programs). However, since the declaration of a state of emergency by the Myanmar military in February 2021, defense ministry-level cooperation and exchange with Myanmar has been suspended. As a responsible member of the global community, the government of the Republic of Korea is continuously cooperating with the international effort to put a stop to military violence in Myanmar and restore democracy in the country. The Ministry of National Defense is also actively participating in this effort.

The Ministry of National Defense will explore and identify additional ways of cooperating with ASEAN countries in diverse fields, in accordance with the ROK government’s Indo-Pacific Strategy and the KASI initiative.



ROK-Cambodia Engineering Equipment Donation Ceremony
(January 2022)

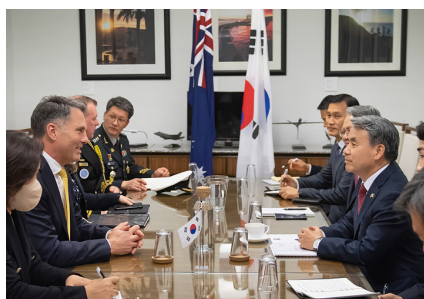
Oceania

Australia and New Zealand are two major countries in Oceania, which fought in the Korean War alongside the allies. They are traditional allies of

the Republic of Korea, closely involved in the surveillance of North Korean violations of the UN Security Council's resolutions as well as in the activities of the United Nations Command. In its "Strategy for a Free, Peaceful, and Prosperous Indo-Pacific," the government has stated the intention to strengthen strategic communication and cooperation with Oceanic states, saying that these countries share common values and interests with the ROK and holds similar stances to it on international issues. In line with the government's Oceania policy, the Ministry of National Defense is seeking to expand defense cooperation with Australia and New Zealand through regular consultative processes and combined exercises, into new and more diverse fields.

The ROK and **Australia** have regularly held Foreign and Defense Minister's talks through the "2+2" meeting, convened annually since July 2013. Regular consultative processes have been in place between the two countries, both at the levels of defense ministries and armed forces. In September 2021, the 5th Republic of Korea-Australia Foreign and Defense Ministers' 2+2 Meeting was held in Seoul to discuss the security situation in the Korean peninsula and the Indo-Pacific region and future directions for bilateral cooperation in the area of defense and security. This meeting led to the signing of the amended "Memorandum of Understanding Concerning Mutual Logistics Support and Cooperation between the Republic of Korea and Australia" and the "Terms of Reference for the Trilateral Framework for Cooperative Opportunities in Defense Research, Development, Testing and Evaluation Among ROK, Australia, and U.S." laying a solid foundation for defense industry and military logistics cooperation between the two countries. During the diesel exhaust fluid shortage in November 2021, the two countries' defense ministries actively cooperated with each other to allow the emergency airlifting of urea from Australia, using the transport aircraft of the ROK Air Force, to minimize strains in the domestic market.

In December 2021, marking the 60th anniversary of diplomatic ties between the Republic of Korea and Australia, the government opened a new chapter in the two countries' relationship by upgrading it to a "comprehensive strategic partnership." In addition to the bilateral combined exercise, Haedori-Wallaby, conducted since 2013 between the two countries' navies, the ROK and Australia have also strengthened multilateral exercise-based cooperation with the objective of enhancing interoperability. In July 2021, the ROK Navy participated in Exercise Talisman Sabre for the first time. In August 2022, the ROK Air Force made its first participation in Exercise Pitch Black. Meanwhile, in addition to the enhancement interoperability between the two countries' armed forces, a remarkable progress has also been made in terms of defense



ROK-Australia Defense Ministers' Talks (August 2022)



Visit to the K-9 Production Plant in Australia (August 2022)

industry cooperation. The “Memorandum of Understanding concerning Cooperation in the Field of Defense Industry and Defense Material” was signed during the bilateral summit in December 2021. The two countries also entered into an export contract for the K-9 self-propelled howitzer (close to KRW 1 trillion in value). In June 2022, the bilateral defense ministers’ talks, held during the 19th Asia Security Summit (Shangri-La



ROK-New Zealand Defense Ministers’ Talks (June 2022)

Dialogue), the Australian side invited the ROK defense minister to visit Australia to continue their discussions on defense and defense industry cooperation in further depth. Some 50 days later, in August 2022, the two countries’ defense ministers met again in Australia for bilateral talks. On the day after the talks, they visited the site slated for the construction of a K-9 production plant, while carrying out in-depth discussions on increasing combined exercises between the two countries’ militaries, expanding new types of security cooperation in areas including cyberspace and space, and deepening defense technology and industry cooperation.

The ROK and **New Zealand** actively communicate and coordinate with each other through regular consultative mechanisms, including the Defense Policy Talks, and also hold high-level talks on the sideline of multilateral meetings. In 2022, the 60th anniversary of the diplomatic relations between the two countries, bilateral vice minister-level defense talks (March, Seoul) and defense ministers’ talks (June, Singapore) were held back-to-back. These successive rounds of talks gave a new stimulus to exchanges between the two countries’ militaries, leading to the ROK-KIWI Bilateral Combined Exercise in October 2022 and Aotearoa, the New Zealand Navy’s logistics support ship, entering in the naval base in Busan. The Ministry of National Defense will continue to engage in high-level exchanges with Australia and New Zealand and broaden and increase the scope and frequency of combined exercises to improve interoperability with allies in the Oceanic region, while stepping up support for Korean defense firms to strengthen defense industry cooperation with the region.

Southwest Asia

In its “Strategy for a Free, Peaceful, and Prosperous Indo-Pacific, the ROK government identified countries in South Asia, as partners of critical importance, located in a strategic region where the Asian continent meets the Indian Ocean, stating the intention to increase engagement with this region. The government is currently broadening cooperation with Southwest Asian countries and is making particular efforts to more closely cooperate with India, with which the ROK is under a “special strategic partnership.” Meanwhile, using the momentum from the success of “Operation Miracle,” the government is also taking steps to tighten cooperation with Pakistan. Defense cooperation with Southwest Asian countries is focused on military education and training based on multi-level personnel exchanges, including high-level exchanges, peacekeeping operations (PKO), and cyber security threats and other non-traditional security threats.

India is a key partner nation of the Republic of Korea with which the government is continuously deepening cooperation to advance the common goal of achieving peace and

stability in the Indo-Pacific region. In March 2021, the ROK Minister of National Defense visited India to attend the opening ceremony for the Indo-Korean Friendship Park and the unveiling ceremony for a memorial in remembrance of the Indian contributions in the Korean War. India dispatched the largest contingent of medical personnel of all Allies during the Korean War. These friendship events have provided a new catalyst to further strengthen the relationship between the two countries.



Indo-Korean Friendship Park

During this visit, the ROK and Indian defense chiefs sat down for an in-depth discussion on cooperation projects that are currently in progress between the two countries, in areas including human exchange, space, cyberspace, and defense industry cooperation. The two sides have also discussed and coordinated on issues related to their ongoing cooperation projects during the Indian Chief of Army Staff's visit to Korea in December 2020, as well as during Seoul ADEX 2021 in October 2021, to which India sent a delegation. In February 2022, the ROK Navy participated for the first time in MILAN, the multilateral naval exercise hosted by India in a further step to increase maritime security cooperation between the two countries. The Republic of Korea and India will continue to cooperate in diverse fields to contribute to peace in the region.

Pakistan is a friend of the ROK that helped it during the Korean War by sending humanitarian aid. The ROK has repaid the kindness by providing humanitarian aid to Pakistan, in its turn, in times of natural disasters and crisis. Pakistan's assistance was also instrumental to the success of "Operation Miracle," a rescue operation carried out in August 2021 to evacuate Afghan special contributors and their families and fly them to the ROK. Based on the bond of trust formed through Operation Miracle, the two countries have recently increased cooperation between them in the defense area. During the vice minister-level talks, held in October 2022, a memorandum of understanding was signed on defense cooperation in broad-ranging fields including human exchange, education exchange, and cooperation in military medicine.

The Ministry of National Defense is also looking to expand defense cooperation with other Southwest Asian countries such as **Bangladesh, Nepal, Sri Lanka** in the form of personnel exchange at the working-level, education and training, and PKO cooperation.

To support the government's vision of "broadening the horizons of Korean diplomacy to Southwest Asia," the Ministry of National Defense will work to progressively push the boundaries of its defense diplomacy in this region and conduct cooperation in more diverse fields.

Central Asia

The Ministry of National Defense has conducted cooperation with countries in Central Asia, a key Eurasian region at the crossroads of Asia, Europe, and Africa, in a sustained manner. During the Seoul Defense Dialogue (SDD) 2018 and 2019, the ROK-Central Asia Plus Defense Vice-Ministerial Talks (2018) and the ROK-Central Asia Defense Vice-Ministerial Talks (2019) were successively held, discussing the security situation in the region and defense cooperation between ROK and regional states.

In 2019, ROK-Uzbekistan relations were elevated to a “special strategic partnership.” Since then, defense cooperation has actively taken place between the two countries in areas including military medicine and education. In January 2022, a defense policy working group was convened through VTC to exchange information about the security situation in the region and discuss key issues in defense cooperation such as military medicine exchanges and anti-terrorism combined training exercises. In June 2022, the two countries signed an MOU on field medicine cooperation and pledged to promote cooperation in military and field medicine between them.

Kazakhstan and the Republic of Korea are “strategic partners” that have consistently maintained a significant level of cooperation in the defense field. In August 2021, During Kazakh President Kassym-Jomart Tokayev’s visit to the ROK, the ROK and Kazakhstan leaders issued the “Joint Declaration on Cooperation in Defense and Veterans Affairs” and vowed to strengthen defense industry cooperation between their two countries. In September 2021, a program for ROK military officers was created at Kazakhstan’s National Defense University for the first time, providing an important turning point in the two countries’ expanding military education cooperation. In November 2022, an in-person Defense Policy Working Group was convened to exchange information related to the security situation in the region and discuss cooperation in areas including defense industry and PKO. In times ahead, the Ministry of National Defense will work to build a comprehensive framework for defense cooperation with Central Asian countries by creating regular consultative processes and seek diverse opportunities for cooperation and exchange.

Middle East As a major source of the world’s energy supply, the Middle East is a region of strategic value. The Ministry of National Defense continues to make significant efforts to boost defense and defense industry cooperation with countries in this region.

The relationship between the Republic of Korea and the **United Arab Emirates (UAE)**, which established diplomatic ties in 1980, has developed into a broad-based partnership, encompassing economic cooperation, trade, and cultural exchanges. Since the signing of the ROK-UAE Military Cooperation Agreement in 2006, the two countries have also cooperated on various defense-related issues. From January 2011, the Akh Unit has been dispatched to the UAE with approval from the National Assembly. The two countries’ defense ministers have regularly met and discussed issues of common interest through annual bilateral talks since 2011.

In March 2018, during the bilateral summit held in the UAE, the two leaders agreed to upgrade the relationship between their two countries from a “strategic partnership” to a “special strategic partnership” and further strengthen cooperation by establishing a 2+2 Foreign and Defense Minister’s consultative mechanism. The Foreign and Defense Vice-Ministerial (2+2) Meeting were held for the first time in October 2018. In February 2021, the two countries’ defense ministers convened in the UAE and pledged to more closely cooperate with each other on defense and defense industry-related issues. In January 2022, the ROK and the UAE signed the “Memorandum of Understanding on Medium and Long-term Cooperation in the Fields of Defense Industries and Technology” and discussed methods of cooperation to bolster the competitiveness of the two countries’ defense industry, including conducting joint research and development and increasing technological cooperation. In March 2022, the UAE defense

minister paid an official visit to the ROK and held talks with his Korean counterpart. The two defense chiefs positively assessed ROK-UAE cooperation in defense and defense industry, saying that it has developed in a mutually-beneficial direction, and resolved to make sustained efforts to further strengthen practical cooperation between the two countries. During the ROK-UAE Vice Defense Ministers' Steering Committee held in September 2022, the two sides agreed to expand cooperation in information-sharing, cyber space, and combined exercises and provide active support to the UAE Armed Forces for timely acquisition of operating capabilities for the Cheongung II (KM-SAM).

There has also been a major stride in defense cooperation between the Republic of Korea and **Egypt**. In August 2021, the ROK Minister of National Defense traveled to Egypt. After meeting with President Abdul Fatah al-Sisi, the ROK Minister of National Defense held bilateral talks with his Egyptian counterpart. The two sides pledged to broaden cooperation in the fields of defense and defense industry. In October 2021, the ROK Minister of National Defense also held bilateral talks with the Egyptian Minister of Military Production, on a visit to the ROK to attend Seoul ADEX, assessing the status of defense cooperation between the two countries and discussing measures to ramp up cooperation in defense and defense industry. The exports agreement for the K-9 self-propelled howitzer, concluded in February 2022, has given a particularly sizeable momentum to defense industry cooperation between the two partners.

Positive progress is being made with **Oman**. In September 2021, the ROK Minister of National Defense visited Oman for bilateral talks and conveyed the ROK's desire to expand cooperation in defense industry to his counterpart, while also asking for the Oman government's support and assistance to allow the Cheonghae Unit to safely carry out their operations. In October 2021, the ROK Minister of National Defense also held bilateral talks with Oman's Secretary General of Defense, visiting the ROK to attend Seoul ADEX, to discuss the future direction of defense cooperation.

ROK defense cooperation with **Saudi Arabia** has been focused mainly on high-level exchanges. In October 2021, the ROK Minister of National Defense sat down for bilateral talks with the Saudi Chairman of the General Staff, on a visit to Korea to participate in Seoul ADEX. The 2nd ROK-KSA Defense Cooperation Committee was also held on the sideline of this event, providing an opportunity to explore ways in which the two countries can cooperate in areas related to the defense industry and cement cooperative ties between them. In November 2022, Crown Prince and Prime Minister Mohammed Bin Salman visited the ROK and held a summit with President Yoon, during which they vowed to expand defense industry cooperation between the two countries.

To increase defense cooperation with **Qatar**, steps have recently been taken, including the establishment of the Defense Attaché Office in the Embassy of the State of Qatar to the Republic of Korea. Meanwhile, for the successful hosting of the 2022 FIFA World Cup by Qatar, the ROK Armed Forces dispatched its military police instructors to provide security and anti-terrorism training support.

The Ministry of National Defense will pay continuous attention to the security situation in the Middle East and changing power dynamics in the region and seek to develop defense and defense industry cooperation with countries in this region, including the UAE, Egypt, Saudi Arabia, through regularly military consultations, both at high and working levels.

Europe and Canada

European countries that are ROK's traditional friendly partners and have supported its efforts to denuclearize the Korean peninsula and bring peace prosperity to it constitute an important pillar of our defense diplomacy. In June 2022, President Yoon became the first Korean leader to participate in the NATO Summit. This was an opportunity for the ROK to reaffirm its solidarity with European nations that share its liberal democratic values, which also helped solidify the basis for security cooperation with the NATO to respond to emerging threats and other transnational threats. In its "Strategy for a Free, Peaceful, and Prosperous Indo-Pacific," the government recognized European countries as crucial partners for the success of ROK's Indo-Pacific Strategy and stressed the importance of actively cooperating with the European Union which shares our core values, at practical levels. The Ministry of National Defense has continuously sought to strengthen cooperation with European countries in the areas of defense and defense industry both through bilateral and mini-lateral consultative processes.

In July 2021, the defense ministers of ROK and **UK** held talks, comparing notes about their respective Indo-Pacific strategies and exchanging views about ways to expand bilateral defense cooperation between the two countries. In August 2021, HMS Queen Elizabeth and her Carrier Striker Group conducted a joint humanitarian aid and disaster relief exercise with the ROK Navy in waters off the ROK. Moreover, in order to implement the "Bilateral Framework for Closer Cooperation," adopted during the summit held in June 2022, in the defense domain, the ROK-UK Strategic Defense Dialogue, a vice minister level consultative process, was convened for the first time in July, 2022. The ROK and the UK have also agreed to regularly consult and coordinate with each other through consultative mechanisms between the defense ministries and armed forces of the two countries.

The ROK maintains strategic communication with **France** both through a regular deputy ministerial-level strategic defense dialogue and high-level talks during multilateral meetings such as the Asia Security Summit. In February 2022, the defense ministers of the two countries met for bilateral talks to exchange views on the security situation in the Korean peninsula and Europe. During the bilateral summit, held in 2018, the ROK and French leaders discussed concrete approaches to promote defense cooperation between the two countries and pledged to develop their relationship into a "comprehensive partnership" by increasing cooperation in new security domains, such as space, cyberspace, and AI.

Belgium is a traditional friendly partner of the Republic of Korea. Efforts are currently underway to open a new chapter in the two countries' friendship through active defense cooperation. In August 2022, the ROK Vice Minister of National Defense met with the Belgian Chief of Defense for a conversation, during which they exchanged views on the security situation of the Korean peninsula and ways of expanding defense cooperation between the two countries.

During the ROK-V4 (Visegrad Group) summit⁴⁰⁾ organized in November 2021, the ROK and the Visegrad Group agreed to explore pathways to deepen cooperation in the field of defense and defense industry. Meanwhile, the bilateral summits between the ROK leader and the leaders of the four member states of the Visegrad Group, Hungary, Czech, Slovakia, and Poland, led to discussions on concrete methods of cooperation in defense and defense industry-related areas.

Poland and the ROK are actively conducting bilateral exchanges in addition to multilateral consultations through the V4+Korea deputy defense ministers' talks. In September 2021, the

40)

A regional alliance of four Central European countries including Czech, Poland, Hungary, and Slovakia, named after Visegrad, the city where the group held its inaugural meeting in 1991.

two countries' vice defense ministers got together for a discussion on their respective security situations and options to strengthen defense cooperation in areas including cyber security, PKO, and military education as well as joint defense industry research and development. In May 2022, a ROK-Poland defense ministers' meeting was convened when the Polish defense minister visited Korea. The two defense chiefs exchanged views on the security situation in their respective regions and defense and defense industry cooperation between their two countries. Two of the highlights of this meeting were Poland's acquisition plan for large quantity of Korean-manufactured weapons systems and a new plan for research and development cooperation between the two countries.

Germany and the ROK convened for defense minister's talks in May 2021. During this meeting, they discussed topics including support measures for ASEAN countries and the guidelines for Germany's Indo-Pacific policy. In December 2021, the German frigate Bayern made a call at Korea as part of an effort to strengthen cooperation with partners in the Indo-Pacific region and friendship events were held between the two countries' navies, including the tour of each other's ships. In June 2022, the Minister of State of the German Federal Foreign Office paid an official visit to the ROK and met with the ROK Vice Minister of National Defense to discuss cooperation between the two countries on their Indo-Pacific strategies. This meeting has also provided confirmation that Germany supports the ROK government's effort to denuclearize North Korea and achieve peace on the Korean peninsula.

Sweden and the ROK regularly organize director general level defense policy meetings to discuss bilateral cooperation on defense issues. In October 2021, the Foreign Affairs and Security Deputy Minister of the Swedish Prime Minister's Office visited Korea and sat down with the ROK Vice Minister of National Defense for a discussion on deepening defense cooperation between the two countries. The two sides decided to closely coordinate on defense issues at the same time as actively communicating with each other to promote the development of multilateral cooperation.

Norway and the ROK regularly conduct high-level exchanges and are making joint efforts to increase cooperation in the area of defense industry. In February 2022, the two countries' defense chiefs met for bilateral talks in Norway, for the first time in nine years since the last ministerial talks in 2013. This was also the first time the ROK Minister of National Defense paid an official visit to Norway. The two ministers shared their assessments of the security situation in the Korean peninsula and Northern Europe and compared notes on the way forward in defense and defense industry cooperation between the two countries.

The ROK is also seeking to more closely cooperate with the **North Atlantic Treaty Organization (NATO)** both in traditional and emerging security fields. In April 2022, the Chairman of the NATO Military Committee visited the ROK and met with the ROK Minister of National Defense to exchange views on the Ukraine crisis and the security situation in the Korean peninsula.

Noting how the ROK has maintained close cooperation with NATO ever since it became its global partner, the two officials discussed the road ahead for ROK-NATO security cooperation. In June 2022, President Yoon attended the NATO Summit, this was the first time the President of the Republic of Korea attended a NATO Summit. After the NATO Summit, the ROK and the NATO are working on revising the document, which will pave the path for a more

comprehensive security partnership.

The ROK and **Canada**, its friendly partnering nation in North America have carried out defense exchanges in a sustained manner by regularly holding high-level talks on the sideline of multilateral meetings. To search and recover the remains of missing Canadian service members who fought in the Korean War, the two countries signed a “ROK-Canada Memorandum on Cooperation in the

Recovery of Missing Service Personnel” in June 2021. In June 2022, the ROK and Canadian defense ministers held bilateral talks in Singapore during which they shared the fact that the two countries were each designing an Indo-Pacific strategy and vowed to continue to cooperate with each other to achieve peace in the region.

Going forward, the Ministry of National Defense will keep up its efforts to strengthen cooperation in the fields of defense and defense industry with European partners and Canada that share our values to fulfill Korea’s role as a responsible member of the international community.



ROK-Canada Defense Ministers’ Talks (June 2022)

Central and South America

The ROK actively cooperates economically with countries in Central and South America. The government’s “Strategy for a Free, Peaceful, and Prosperous Indo-Pacific Region” describes Central and South America as a region with many traditional friendly nations and recognizes it as a key partner of the Republic of Korea. In the defense domain, the government is continuously exploring opportunities to cooperate with this region on diverse issues as part of an effort to broaden the horizons of defense diplomacy and build international support for the ROK’s defense policy.

In August 2021, **Colombia** and the Republic of Korea held a bilateral summit on the occasion of the 70th anniversary of the Colombian participation in the Korean War. During this summit, the two leaders signed the “Memorandum of Understanding on Cooperation Related to Missing Personnel During Korean War” to facilitate the timely repatriation of the remains of Colombian service members killed in the Korean War. Moreover, in October 2021, the two countries’ Vice Defense Ministers held bilateral talks on the sideline of the Seoul ADEX and discussed ways of bolstering cooperation in the areas of defense and defense industry. In January 2022, ROKS Suncheon, the second retired navy ship donated by the ROK after the donation of ROKS Gyeongju in 2016, arrived in **Peru**. This has forged a strong bond between the two countries, which are closely cooperating with each other on defense-related issues. The Ministry of National Defense plans to increase high-level military exchanges with partners in Central and South America to promote friendship and actively seek opportunities for cooperation in defense and defense industry.

Africa

Africa is a region of growing strategic importance. Its wealth of natural resources and young population makes Africa an economic partner with significant potential and strategic importance. In the “Strategy for a Free, Peaceful, and Prosperous Indo-Pacific,” the ROK government has provided an extended definition of the geographic scope of Indo-Pacific to include African nations bordering



ROK-Ghana High-level Talks (January 2022)

the Indian Ocean, stressing the importance of cooperating with these countries. In its effort to expand the horizons of ROK’s defense diplomacy, the Ministry of National Defense has increasingly engaged with African countries to promote cooperation in diverse defense-related fields, from high-level military and educational exchanges to defense industry cooperation.

In July 2021, the ROK Minister of National Defense had a phone conversation with his Ghanaian counterpart to discuss coordinated efforts to stop the spread of COVID-19 among the personnel of the Cheonghae Unit in operation in the Gulf of Guinea. In October 2021, vice minister level defense talks were held between the ROK and Côte d'Ivoire on the occasion of Seoul ADEX. In September 2022, the ROK Vice Minister of National Defense sat down with his South African, Ghanaian, and Ugandan counterparts, who were visiting Korea to attend the Seoul Defense Dialogue, for bilateral talks on defense and defense industry cooperation. In November 2022, the ROK Vice Minister of National Defense held talks with the Ghanaian defense minister on a visit to Korea to attend the Defense Industry Conference, organized by the Defense Acquisition Program Administration. During this discussion on the way forward in defense and defense industry cooperation between the two countries, the Korean side expressed gratitude to the Ghanaian side for the support and assistance provided by the Ghanaian government to the Cheonghae Unit.

Moving forward, the Ministry of National Defense will make sustained efforts to lay a strong groundwork for defense cooperation with countries in Africa and identify cooperation projects of mutual interest that can be jointly carried out with our African partners.

3. Strengthening Multilateral Security Cooperation

Rising security threats facing the global community, both traditional and non-traditional, have made multilateral cooperation more important than ever before. In 2020, as governments around the world responded to the outbreak of COVID-19, which rapidly evolved into a pandemic, it became apparent that a coordinated international response is the only viable solution to challenges of global proportions. To grapple with an increasingly unpredictable global security situation and continue to fulfill its role as a responsible member of the international community, the ROK is actively engaging in bilateral and multilateral cooperation with nations around the world.

Since 2012, the Ministry of National Defense has annually organized the Seoul Defense

Dialogue (SDD), a multilateral platform for global security dialogue, attended by vice minister-level defense officials and private-sector security experts from around the world. In December 2021, the ROK became the first Asian country to host the UN Peacekeeping Ministerial Conference, one of the highest-level UN consultative mechanisms. The “Seoul UN Peacekeeping Ministerial,” jointly organized by the Ministry of National Defense and the Ministry of Foreign Affairs, provided the global community with an opportunity to define a new roadmap for cooperation in international peacekeeping operations.

During this event, the Republic of Korea presented its six pledges to contribute to peacekeeping operations, including the operation of a “Smart Camp,” strengthening medical capabilities and capabilities to handle infectious diseases, supplying MD500 reconnaissance helicopters, sharing the experience of the ROK engineering forces, broadening women’s participation in peacekeeping operations, and sending more police officers to support PKO.

Major multilateral security consultative platforms in which the Ministry of National Defense participates are listed in [Figure 5-5]:

[Figure 5-5] Participation in Multilateral Security Dialogue Platforms

Track1 multilateral security dialogue ⁴¹⁾	Track1.5 multilateral security dialogue ⁴²⁾
<ul style="list-style-type: none"> • ASEAN Defence Ministers’ Meeting-Plus (ADMM-Plus) • ASEAN Regional Forum(ARF) • Tokyo Defense Forum(TDF) 	<ul style="list-style-type: none"> • Seoul Defense Dialogue (SDD) • Asia Security Summit (ASS) • Halifax International Security Forum (HISF) • Northeast Asia Cooperation Dialogue (NEACD) • Sherpa Meeting

Seoul Defense Dialogue (SDD)

The Seoul Defense Dialogue is a platform for dialogue and discussions on the security situation in the Korean peninsula and Asia-Pacific, as well as other global issues of common interest, organized by the Ministry of National Defense since 2012, to contribute to building international trust in the defense domain and promote multilateral cooperation. Bilateral and minilateral talks held on the sideline of the SDD provide countries with opportunities to form partnerships for defense cooperation and forge ties. In recent years, the platform has gained importance as a key high-level multilateral consultative mechanism for the region, due to the growing participation of members of the broader global community, including North America, Europe, the Middle East, and Africa, in addition to the Asia-Pacific.

In 2021, the 10th SDD on the theme of “Borderless Security Crises and Multilateral Responses” was attended by participants from 43 countries around the world. Despite the COVID-19 pandemic, the event was successfully carried out through a combination of video conferencing and small in-person conferences. The 10th SDD was noted for the first-ever participation of high-level defense and foreign affairs officials from all four countries that are key players in the security of the region, including the U.S., Japan, China, and Russia. The range of topics covered was also broadened to include new security fields such as climate change and space security, which helped enhance the relevance of the platform and the quality of the dialogue. The 2021 event was coupled with a special conversation to examine the



Seoul Defense Dialogue (SDD) 2022

41)

Multilateral platforms for security dialogue between governments to promote regional and global peace and stability.

※ ADMM-Plus (ASEAN Defense Minister’s Meeting-Plus), ARF (ASEAN Regional Forum), TDF (Tokyo Defense Forum)

42)

Multilateral platforms for dialogue on security issues of common interest between governments and private-sector organizations and experts to promote regional and global peace and stability.

※ SDD (Seoul Defense Dialogue), ASS (Asia Security Summit), HISF (Halifax International Security Forum), NEACD (Northeast Asia Cooperation Dialogue)

accomplishments of the SDD on its 10th anniversary and explore the path forward.

The 11th SDD in 2022 had as its theme “Complex Security Threats: Fostering International Solidarity.” This event, attended by high-level defense and security officials and private-sector security experts from 54 countries and 3 international organizations, gave rise to in-depth discussions on ensuring peace and stability in the Korean peninsula and Asia-Pacific amid a rapidly evolving security environment, redefined by back-to-back missile launches by North Korea and the war in Ukraine. One of the highlights of the 2022 SDD was the “Indo-Pacific Security Session,” aimed at kindling interest in the ROK government’s Indo-Pacific Strategy among domestic and external stakeholders, identifying common security challenges for the region, and gaining insights into the role expected of the ROK by countries in the region.

Meanwhile, the “SDD Cyber Working Group,” established in 2014 was followed up by a new working group on another type of non-traditional security threat, the “Space Security Working Group,” to further awaken interest in emerging threats among the regional partners and enhance the relevance and breadth of topics covered by it.



11th Seoul Defense Dialogue (September 2022)

Republic of Korea-ASEAN Defense Vice-Ministerial Meeting

The ROK-ASEAN Defense Vice-Ministerial Meeting was first held during the 2017 Seoul Defense Dialogue. Since then, it was convened annually in the ROK, except in 2020 during the early stage of the COVID-19 pandemic.

During the first meeting in 2017, ROK and the ASEAN recognized the need to cooperate with each other and reached a common ground on the direction of development in their cooperation. In 2018, the discussions were focused on the defense industry, reflecting the “New Southern Policy”. The Korean experience of defense industry development was shared and the two sides discussed ways of expanding mutually-beneficial defense industry cooperation. In 2019, which marked the 30th anniversary of official relations between the Republic of Korea and the ASEAN, the two sides carried out comprehensive discussions about areas in which they could further increase their defense cooperation. During the 2021 talks, conducted through video conferencing amid the spread of COVID-19, the two sides built further policy consensus. During the 2022 meeting, the “Implementation Plan for Republic of Korea-ASEAN Defense Cooperation,” adopted during the ADMM-Plus, was shared with the member states and discussions were held on maritime security, cyber security, military medicine, and other



2022 ROK-ASEAN Defense Vice-Ministerial Meeting
(September 2022)

areas in which ASEAN countries wish to cooperate with the ROK.

The ROK-ASEAN Defense Vice-Ministerial Meeting, convened five times so far, is fast becoming an authoritative consultative process for the region, serving as a platform for communication and policy exchange and providing new visions.

ASEAN Defense Ministers’ Meeting-Plus (ADMM-Plus)

The Ministry of National Defense participates every year in the ADMM-Plus, a defense dialogue platform for the ASEAN launched in 2010. During the 8th ADMM-Plus in 2021, the ROK Minister of National Defense called attention to the need to establish a global order based on international norms and rules and founded on universal human values and stressed the importance of digital cooperation in building mutual trust in the region.

Meanwhile, during the 9th ADMM-Plus, the first in-person meeting in three years, since the start of the pandemic, the Minister of National Defense presented the highlights of ROK’s Indo-Pacific Strategy, which was first discussed during the ROK-ASEAN summit (November 2022). The defense chief provided the details of the Korean vision to contribute to peace and stability in the region as a “global pivotal state” and the “Audacious Initiative” for the denuclearization of North Korea, building support from the regional partners.



9th ADMM-Plus (November 2022)

Asia Security Summit

Since 2004, the Ministry of National Defense has annually attended the Asia Security Summit, the largest multilateral consultative platform on security and defense in Asia-Pacific. In 2022, the Asia Security Summit was held for the 19th time in an in-person setting after a pause of three years since 2019 due to the pandemic. During the 2022 summit, the ROK Minister of National Defense delivered a presentation on the “Denuclearization of North Korea and Security in the Indo-Pacific Region.” Emphasizing the importance of peace on the Korean peninsula for the stability of the broader region, the Minister of National Defense asked for the support of the international community for his country’s



19th Asia Security Summit (June 2022)

efforts to deter North Korean nuclear and missile threats. In addition to ROK's policy towards North Korea, the Minister's presentation covered its new external policy and plan to become a global pivotal state. The audience showed a particularly keen interest in the ROK policy for security cooperation with the ASEAN, Europe and other countries outside the region.

43)

Diplomatic efforts to prevent the proliferation of WMD and their means of delivery and other types of armaments including conventional weapons.

44)

An international organization founded in 1957 to provide technological support to promote the peaceful use of nuclear energy and inhibit its use for military purpose (171 member countries).

45)

An export control regime to regulate the export of nuclear materials, technologies, and dual-use items. Unlike the Zangger Committee (ZC), which only controls exports to non-nuclear states that are party to the NPT (established in 1978, 48 member countries), the NSG regulates exports to all non-nuclear states, including those that are not party to the Non-Proliferation Treaty (NPT).

46)

A treaty prohibiting the development, production, and stockpiling of biological weapons, including biological agents and toxins (established in 1975, 183 signatory countries).

47)

A treaty prohibiting the development, production, stockpiling, use and transfer of chemical weapons, requiring its signatories to destroy 100% of the chemical weapons stockpiles within 10 years (established in 1997, 193 signatory countries).

48)

Act on the Prohibition of Chemical and Biological Weapons and the Control of the Manufacture, Export and Import, etc. of Specific Chemicals and Biological Agents (Chemical and Biological Weapons Prohibition Act), etc.

Other Multilateral Security

Consultative Mechanisms

The Ministry of National Defense also participate every year in the Sherpa Meeting, a security dialogue platform for Asia-Pacific, attended by high-level defense officials and security experts, as well as the ASEAN Regional Forum (ARF), the Tokyo Defense Forum (TDF), a director general level security consultative body, and the Xiangshan Forum in China. The Ministry of National Defense also attends the Northeast Asia Cooperation Dialogue (NEACD), a consultative platform for members of the Six-party Talks to explore solutions to build military trust and promote cooperation between countries in Northeast Asia. The Ministry of National Defense will continue to increase its involvement in multilateral security cooperation to share our government's position in guaranteeing peace and stability in the Korean peninsula and Northeast Asia and raise support for ROK's security policy.

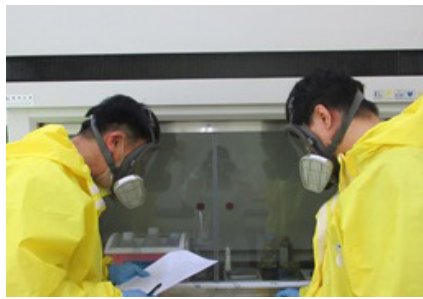
4. International Non-proliferation and Counter-proliferation Activities

International Non-proliferation Activities⁴³⁾

Following the end of the cold war, the international non-proliferation system has been steadily strengthened. To prevent the proliferation of weapons of mass-destruction (WMD) and their means of delivery, conventional weapons, and related materials and technologies, international organizations were set up to establish and enforce compliance with international treaties and export control regimes were put into place to restrict the transfer of related goods and equipment.

Ever since the Republic of Korea became a member of the United Nations in 1991, the Ministry of National Defense has actively participated in international non-proliferation mechanisms and activities, aimed at regulating nuclear weapons, chemical and biological weapons, missiles, and conventional weapons. Regarding nuclear weapons, as party to the Nuclear Non-proliferation Treaty (NPT), the ROK has faithfully abided by the Comprehensive Safeguards Agreement of the IAEA (International Atomic Energy Agency)⁴⁴⁾ and contributed to the prevention of the cross-border movement of nuclear materials and technologies that could be diverted to nuclear weaponry by exchanging information with countries that are members of the Nuclear Suppliers Group (NSG)⁴⁵⁾. To support the government's nuclear non-proliferation policy, the Ministry of National Defense closely cooperates with relevant agencies. Concerning chemical and biological weapons, the ROK became a signatory of the Biological Weapons Convention (BWC)⁴⁶⁾ in 1987 and the Chemical Weapons Convention (CWC)⁴⁷⁾ in 1997. A legal framework⁴⁸⁾ is furthermore in place to ensure the safety of chemical and biological agents. The Ministry of National Defense has its own safeguards in place against the misuse of chemical and biological agents and conducts regular inspections of military research facilities.

The ROK also participates in volunteer export control regimes to stop the proliferation of missiles, which are a means of delivery for WMD. It became a member of the Missile Technology Control Regime (MTCR)⁴⁹⁾ in 2001 and the Hague Code of Conduct against Ballistic Missile Proliferation (HCOC)⁵⁰⁾ in 2002 to join the international efforts to prevent the indiscriminate proliferation of missiles. The Ministry of National Defense dutifully complies with missile launch notification and annual reporting requirements to ensure a high degree of transparency in regards to missile-related equipment and technology transfer.



Regular Chemical Inspection by the Ministry of National Defense

Non-proliferation activities by the international community have recently expanded in scope to include conventional weapons. The member countries of the Wassenaar Arrangement (WA)⁵¹⁾ agree to its guidelines for controls on exports of conventional weapons, dual-use goods,⁵²⁾ and technologies and the list of items. Member governments implement these controls and share information on the transfer of conventional weapons on a voluntary basis. Since becoming a member of the Wassenaar Arrangement in 1996, the Ministry of National Defense has regularly notified its secretariat of the transfer of conventional weapons and has also actively participated in discussions related to revising the list of items to protect the ROK defense industry. The Arms Trade Treaty (ATT),⁵³⁾ which came into force in 2014, is the first legally binding standalone treaty on international trade in conventional weapons, which regulates the cross-border transfer of seven weapons categories, small arms, light weapons, ammunition and related parts. The ROK is one of the original signatories of this treaty, which was ratified in 2017. In the ROK, which is a signatory of all four major international export control regimes,⁵⁴⁾ its defense ministry closely coordinates with relevant government agencies when authorizing weapons exports to determine whether the destination country is in compliance with export control rules, as well as concerning related military issues.⁵⁵⁾

Moving forward, the ROK will continue to actively participate in the international non-proliferation efforts to contribute to the stability of the region and global peace and solidify the joint response framework to ensure the security of the Korean peninsula.

International Counter-proliferation

Activities⁵⁶⁾

traditional means such as export controls alone are not sufficient to prevent the proliferation of WMD and the need for more proactive counter-proliferation policies was brought to the fore.⁵⁷⁾

Since 2009, the Ministry of National Defense has participated in “Weapons of Mass Destruction Proliferation Security Initiative” (PSI) exercises⁵⁸⁾ for 12 times and has dispatched navy ships and search teams to assist with coordinated international response efforts. PSI exercises have provided the WMD Search Team of the ROK CBRN Defense Command, which has participated in them since 2017, with a valuable opportunity to develop search

In the aftermath of the 9/11 terrorist attack, amid the strengthening link between WMD and terrorism, the world came to the realization that

49)

A voluntary multilateral export control regime to control the proliferation of rockets and unmanned aerial vehicles capable of delivering WMD, and related equipment and technologies (established in 1987, 35 member countries).

50)

A non-binding legal instrument providing export control guidelines to limit the spread of ballistic missiles and prohibiting member countries from providing missile development-related assistance to state actors that may develop or acquire WMD (established in 2002, 143 signatory countries)

51)

An export control regime to limit the export of conventional weapons and dual-use items and technologies (established in 1996, 42 members countries)

52)

Goods that can be used for both civilian and military uses.

53)

A treaty aimed at preventing the illegal trade and diversion of conventional weapons, providing common standards for the control of the international trade of conventional weapons (established in 2014, 111 signatory countries).

54)

The four regimes are the Nuclear Suppliers Group (NSG), the Australia (AG), the Missile Technology Control Regime (MTCR), and the Wassenaar Arrangement (WA). Currently, 30 countries are party to all four of them (clean countries), including two Asian countries (Korea, Japan).

55)

The final authority to approve the acquisition of strategic military goods has been delegated to the Defense Acquisition Program Administration by the Ministry of National Defense.

56)

All efforts related to the reduction or elimination of WMD threats or the dissuasion of the enemy's use of WMD by a country to protect its territory and people.

57)

Unlike non-proliferation, which is focused on the prevention of the transfer of strategic goods before it occurs, counter-proliferation is aimed at physically blocking a transfer of resources (goods, funds) that is already in progress.

58)

A multilateral effort to stop the global spread of WMD, initiated by the U.S. in June 2003, consisting of information sharing between member states, the prohibition of the export of WMD and their means of delivery, as well as illegal weapons, and combined operations.

59)

The Logistics Cooperation Committee (LCC) is a subcommittee of the ROK-U.S. Security Consultative Meeting (SCM) and the highest-level consultative meeting that discusses ROK-U.S. logistics cooperation. The meeting is convened annually, alternating between the two countries.

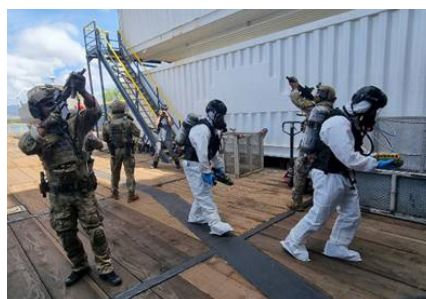
60)

A committee that meets annually in the ROK to discuss issues related to the wartime deployment of U.S. reinforcement troops based on Wartime Host Nation Support (WHNS) signed between the two countries in 1991.

capabilities for suspected chemical, biological, and radioactive materials. In 2010, 2012, and 2019, the PSI was hosted by the ROK; tabletop proliferation prevention and seizing exercises were carried out along with maritime interdiction and cargo search exercises.

Since 2014, the ROK, the U.S., Japan, Singapore, Australia, and New Zealand have taken turns to host PSI exercises. In 2022, the Ministry of National Defense, the ROK Joint Chiefs of Staff and the ROK CBRN Defense Command participated in the PSI exercises hosted by the U.S., further strengthening the WMD proliferation prevention capabilities of the ROK Armed Forces and enhancing the nation's status on the world stage.

The Ministry of National Defense intends to continuously expand its cooperation with the global efforts to stop the proliferation of WMD in close coordination with the international community and through active participation in counter-proliferation activities, including the Asia-Pacific Exercise Rotation (APER).



Proliferation Security Initiative Training Exercise

[Figure 5-6] Proliferation Security Initiative Exercises by APER Host Country

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
Country	U.S.	New Zealand	Singapore	Australia	Japan	ROK	N/A (COVID-19)	Singapore	U.S.

5. Strengthening International Military Logistics Cooperation

International Military Logistics Cooperation

The Ministry of National Defense is actively engaging in international military logistics cooperation to ensure that the ROK Armed Forces' logistics support capabilities are sufficient to allow them to flexibly respond to unforeseen threats during both wartime and peacetime. The ROK military is especially closely cooperating with the U.S. through bilateral meetings such as the Logistics Cooperation Committee (LCC)⁵⁹⁾ and the WHNS Combined Steering Committee (WCSC),⁶⁰⁾ as well as multilateral logistics conferences including the Pacific Area Senior Officer Logistics Seminar (PASOLS).⁶¹⁾ During the 54th Logistics Cooperation Committee convened in Washington DC in July 2022, the Republic of Korea presented its ammunition acquisition plan for ROK-U.S. combined operations. The two sides agreed to enhance the degree of integration between acquisition and management of ammunition and continue the discussions on Trans-Korea Pipeline (TKP).

During the 26th WHNS Combined Steering Committee in April 2019, the ROK and the U.S. discussed ways of improving wartime support plans in 12 crucial areas including engineering, maintenance, and supply, which are essential for a smooth deployment of U.S. reinforcement

troops. The two sides agreed to make active efforts to upgrade the wartime support plans and discussed the revision of the guidelines related to scheduling and planning. Although the WCSC has not convened in the last three years due to the pandemic, the two sides have maintained dialogue through working-level committees to address key challenges in wartime support operations and to sketch out future directions. The WCSC is set to meet according to the normal schedule from 2023. These efforts to strengthen logistics support cooperation between the ROK and the U.S. are expected to have a positive impact on the ROK Armed Forces' readiness posture and combat capabilities.

The Pacific Area Senior Officer Logistics Seminar is the highest-level multilateral consultative process in the area of military logistics. Attended by some 30 member countries including the U.S. and the UK, PASOLS is a platform for discussions on the enhancement of logistics support-related interoperability between countries, humanitarian aid/disaster relief, and other key military logistics issues. In September 2021, the ROK delegation delivered a presentation on big data trends in military logistics and shared the highlights of logistics innovation in the ROK Armed Forces, eliciting a favorable response from member countries in attendance. In September 2022, bilateral talks were held with eight countries including the U.S., discussing key logistics issues and laying the groundwork for further progress in international logistics cooperation.

The ROK military is also continuously cooperating with its Australian and New Zealand counterparts in areas related to ammunition support, logistics innovation, and military digitalization through regular consultative processes.

Mutual Logistics Support Agreements

Mutual Logistics Support Agreements (MLSA) are bilateral arrangements signed to ensure speedy and efficient support of logistics, goods, and services needed for military activities. According to the MLSA, logistics support is provided between two signatory countries within the limit of available resources, both during wartime and peacetime. Costs associated with the provision of goods and services are settled afterwards. As international logistics cooperation is based on Mutual Logistics Support Agreements, countries around the world are increasingly entering into new agreements or amending existing agreements to better suit their needs. The ROK military has entered into a Mutual Logistics Support Agreement with 17 countries so far. In recent years, despite challenges posed by the COVID-19 pandemic to international exchanges, continuous efforts have been made to expand the scope of mutual logistics support by, for instance, amending the MLSA with Australia in September 2021.

[Figure 5-7] Mutual Logistics Support Agreements

Mutual Logistics Support Agreements by Country (year)
U.S. (1988), Thailand (1991), New Zealand (2007), Türkiye (2008), Philippines (2009), Israel, Australia, Canada (2010), Indonesia, Singapore (2011), Cambodia, Spain, UK (2012), Mongolia (2013), Germany (2016), Vietnam (2018), France (2019)

61)

A multilateral meeting for countries in the Indo-Pacific region to share logistics information and experiences of managing logistics operations. Convened annually and hosted by one of the member nations on a rotational basis.

Donation of Logistics Equipment

The Ministry of National Defense regularly donates military equipment that is no longer in use by the ROK military to willing recipient countries. This has not only helped to promote defense and logistics cooperation and defense exports, but also positively contributed to infrastructure exports and diplomatic relations. Unlike in the past when the recipients were mainly Southeast Asian countries, retired military equipment is now also being donated to countries in South America and Africa. The range of donated equipment has also become more diverse to include ships, aircraft, mobility equipment, artillery equipment, and engineering equipment. The details of military equipment donated by the ROK Armed Forces are as follows [Figure 5-8]:

[Figure 5-8] Logistics Equipment Donations

Dates	Region	Items Donated
1993-1999	Asia	Ships, aircraft, vehicles, tactical gear and equipment, etc.
2000-2009	Asia, South America	Ships, aircraft, engineering equipment, mobile equipment, etc.
2010-present	Asia, South America, Africa, Oceania	Ships, engineering equipment, mobile equipment, firepower equipment, ammunition, etc.

To guarantee timely, efficient and coordinated logistics support in a fast-evolving and increasingly diverse security environment, the Ministry of National Defense will continuously seek to expand international cooperation. The Ministry of National Defense will actively participate in bilateral and multilateral logistics consultative processes to boost international awareness of the advancing capabilities of the ROK Armed Forces and strengthen logistics support partnerships.

Participation in International Peacekeeping Operations and Protection of Overseas Citizens

After overcoming the tragedies of the Korean War with the help from the United Nations and the international community, the ROK underwent a spectacular transformation to become a prosperous democratic nation with a vibrant economy. Once a recipient of international aid, the ROK is today a contributing member of the global community, actively participating in international peacekeeping operations. As of December 2022, nearly 1,000 ROK service members are stationed in various parts of the world to safeguard international peace. In times of natural disasters around the world, ROK military assets are actively put to use to protect its overseas citizens through timely and proactive intervention.

1. UN Peacekeeping Operations

Overview of UN Peacekeeping Operations

UN peacekeeping operations began in 1948 with the establishment of the UNTSO (United Nations Truce Supervision Organization) to monitor armistice agreements in the Middle East. Currently, 12 PKO missions⁶²⁾ are stationed in conflict zones in various parts of the world, carrying out duties including truce supervision, post conflict reconstruction assistance, and protection of civilians. In 1993, soon after becoming a member of the UN in 1991, the ROK dispatched engineering units to Somalia. Since then, a medical support team was sent to Western Sahara, an engineering unit to Angola, the Sangnoksu Unit to East Timor, and the Danbi Unit to Haiti. Even today, ROK service members are actively involved in peacekeeping activities in conflict zones around the world. As of December 2022, 577 ROK service members were on peacekeeping missions in five countries, including the Dongmyeong Unit in Lebanon (278), the Hanbit Unit in South Sudan (276), and dozens of individual peacekeepers elsewhere in the world. The details of the current ROK participation in UN peacekeeping operations are provided in [Figure 5-9]:

[Figure 5-9] Participation in UN Peacekeeping Operations

As of December 2022, unit: persons, total personnel: 577



62)

There are six active missions in Africa (Western Sahara, Central African Republic, Mali, Congo Democratic Republic, Abyei, South Sudan), three in the Middle East (Lebanon, Syria, Palestine), two in Europe (Kosovo, Cyprus), and one in Asia (India and Pakistan). Approximately 70,000 personnel from 120 countries are currently in service.

Dongmyeong Unit⁶³⁾ in UNIFIL

In 1978, in accordance with UN Security Council Resolutions 425 and 426, the United Nations Interim Force In Lebanon (UNIFIL) was established to monitor the armistice agreement in Lebanon and Israel. In 2006, when the situation in the region deteriorated following an armed clash between Israel and Hezbollah, resulting in more than 1,000 civilian casualties, the UN Security Council adopted resolution 1701, increasing the number of peacekeeping troops from 2,000 to 15,000, and called for the participation of member states.

In June 2007, the ROK government formed a 350-strong Lebanon Peacekeeping Mission (Dongmyeong Unit) and dispatched it to Tyre in southern Lebanon with approval from the National Assembly. The Dongmyeong Unit conducts reconnaissance and surveillance to prevent the smuggling of illegal weapons and militant groups in its area of operations in southern Lebanon. The unit also carries out a multipurpose civil-military operation called “Peace Wave” and humanitarian assistance activities. The Dongmyeong provides medical services to local communities, helps with the improvement of schools and public facilities and the operation of a plastic recycling plant, and participates in other various local projects contributing to the quality of life among local residents and creating jobs. The Dongmyeong Unit’s civil-military operation has been met with a positive response from local communities and is playing a big role in maintaining the stability of southern Lebanon.



ROK Peacekeepers on Patrol

[Figure 5-10] Activities of the Dongmyeong Unit

As of December 2022

63)

The name “Dongmyeong” means “bright light from the country in the east,” expressing hopes for peace and a better future.

64)

Force Commander Reserve

65)

Sector Mobile Reserve

66)

Coordinated Training Activities with LAF (Lebanese Armed Forces)

67)

Military Support to UNIFIL Security Plan

Operational Activities

- Operate fixed surveillance and combined observatory
- On-foot and vehicle (aerial) reconnaissance: unilateral operations or combined operations with the Lebanon Armed Forces and the UNIFIL Command
- Combined exercises: familiarization training with the UNIFILFCR⁶⁴⁾ and the SMR⁶⁵⁾
- Crew served weapons training (Steel Storm): a drill organized by the UNIFIL Forces Command, conducted twice every year
- COTAWL⁶⁶⁾: training aimed at building the capabilities of the Lebanese Armed Forces (LAF) and enhancing combined operations capabilities
- UN staff and family evacuation exercise (MSUSP⁶⁷⁾: an exercise to guarantee the safety of international and Lebanese UNIFIL staff in crisis situations

Civil-Military Cooperation and Humanitarian Assistance

- Taekwondo and Korean language classes, sewing and soap art workshops: offered within the immediate area of operations as well as in five villages in its surrounding areas in the form of travelling classes
- Medical and veterinary care for local communities: traveling clinic, telemedicine, delivery of medical supplies
- Friendship events: regular meetings with local leaders and military officials, participation in local events, host open house events on base, etc. Community improvement projects: installation of solar powered street lamps and water pumps, renovation and construction of schools and public facilities, etc.
- Humanitarian aid (goods donation): vehicles, administrative supplies, school supplies, COVID-19 supplies, etc. 10 Barracuda armored vehicles donated to the Lebanese Armed Forces.

In August 2020, after a large explosion near the Beirut Airport in Lebanon, which resulted in large numbers of casualties, the Dongmyeong delivered to the LAF Command an emergency supply of 6,000 relief packages, including face masks and basic necessities from the unit's own reserve, and 4,000 medical packages purchased locally. In November 2021, they donated 10 Barracuda armored vehicles to the LAF. By regularly conducting combined exercises, the Dongmyeong is helping to strengthen the LAF's capabilities. [Figure 5-10] lists the key activities of the Dongmyeong Unit.

Hanbit Unit⁶⁸⁾ in UNMISS

In 1955, soon after Sudan was freed from the Anglo-Egyptian rule, under a dual colonial government, the country became embroiled in a civil war, brought on by political and religious causes. Two successive peace agreements were signed to end the war, between the Sudanese government and separatists, which ultimately led to the recognition of independence of South Sudan in July 2011. On July 8 of the same year, the United Nations established the UNMISS (United Nations Mission In South Sudan) to support the nation-building process in the newly independent state, in accordance with UN Security Council Resolution 1996, and called on member states to support the mission by sending troops.

In September 2012, the ROK government formed an engineering unit named "South Sudan Reconstruction Support Group" (Hanbit Unit) and dispatched the ROKHMEC (Republic of Korea Horizontal Military Engineering Company), a 300-strong engineering company, to South Sudan⁶⁹⁾ on March 31, 2013, with approval from the National Assembly.

The Hanbit Unit is successfully carrying out postwar reconstruction assistance operations in the war-devastated areas of the Jonglei State of South Sudan, including Bor, Pibor, and Akobo, by constructing and repairing roads, air fields, and bridges and building curtain walls along the Nile. The unit also provides humanitarian assistance, protecting refugees and supplying drinking water. Meanwhile, to teach the locals skills needed to earn a livelihood, the troops operate a vocational school, offering six programs on subjects including agriculture, woodwork, and engineering.

Reconstruction assistance provided by the Hanbit Unit has also contributed to the easing of tensions between the tribes in South Sudan as the expanding infrastructure promotes exchanges between them. Its civilian-friendly peacekeeping operations have garnered praises from UN officials and local staff as a model to follow. In 2021, on the occasion of the 30th anniversary of the ROK joining the UN, the 14th contingent of Hanbit Unit donated to South Sudan ambulances, motorcycles and medical equipment including emergency kits and patient chairs. The contingent, which previously constructed an outpatient wing for the Bor Hospital, also set up negative pressure tents to help prevent the spread of COVID-19. These activities helped underscore the importance of missions carried out by the Hanbit as well as forge a positive perception about ROK's pandemic response



Construction of the Runway at the Bor Airport

68)

The name "Hanbit" means "great, bright light leading the world," which is a reference to the unit's work to assist the reconstruction of South Sudan and the humanitarian assistance provided by it.

69)

South Sudan is the seventh region to which ROK troops were deployed for UN peacekeeping operations after Somalia (1993-1994, reconstruction assistance), Western Sahara (1994-2006, medical assistance), Angola (1995-1996, reconstruction assistance), East Timor (1999-2003, security maintenance and border control), Lebanon (2007-, truce supervision), and Haiti (2010-2012, reconstruction assistance).

capabilities. Key activities of the Hanbit Unit are summarized in [Figure 5-11].

[Figure 5-11] Activities of the Hanbit Unit

As of December 2022

Reconstruction Assistance Operation	<ul style="list-style-type: none"> • Updating of the Bor Airport (runway widened) • Renovation of roads and water and sewer systems in Bor and its environs • 3 repair operations for the main supply route between Bor and Pibor (repair of a 195km section, cumulative total distance of 408km and updating of the water supply system) • 2 repair operations for the main supply route between Pibor and Akobo (repair of a 125km section, cumulative total distance of 161km and emergency repair assistance for flooded areas) • Construction of a bridge over the Lotilla River
Civil-Military Operations and Humanitarian Aid	<ul style="list-style-type: none"> • Renovation of the access roads to the X-ray room, operating rooms, and emergency room at the Bor Hospital • Renovation of Akobo Elementary School, donation of Red Murrum soil to the Pibor Airport • Operation of Hanbit Farm: 5 acres (6,300 pyeong), 14 varieties of crops • Hanbit Vocational School (Programs on 6 subjects including agriculture): 577 graduates, 14th academic year in 2022 • Education and training in Korea: 85 completed an agriculture technology program over 8 total sessions offered to date. • Community healthcare services: 21,900 patients served • UNMISS taekwondo and Korean classes • COVID-19 response: 20,000 masks and 10,000 test kits provided to the South Sudanese government
Protection of Refugees	<ul style="list-style-type: none"> • Repair of roads inside and outside refugee camps, assistance with draining water in flooded areas during rainy seasons • Repair and maintenance of refugee shelters, reinforcement of protective walls, construction of new guard posts (14)
Assistance with the Construction of UN Missions Facilities	<ul style="list-style-type: none"> • Renovation of the walls and the moat of the Bor base, new guard posts, maintenance of roads inside the base • Construction of UN staff apartments inside the Bor base (25 units) • Maintenance of the drainage system inside the base ahead of rainy seasons, construction of a drainage basin • Maintenance and reinforcement of protective walls, the exterior moat, and the patrol routes (1.8km) in the Pibor and Akobo independent operations bases

United Nations Military Observers and Staff Officers

Some 20 ROK service personnel, dispatched by the government, are stationed at UN missions in conflict zones, located in India and Pakistan, Lebanon, South Sudan and Western Sahara, as observers, supervising the truce, and staff officers. Observers are responsible for the surveillance of compliance with truce agreements, while also carrying out tasks such as reconnaissance, investigation, reporting, and mediation. Staff officers assist with the activities of the UN Commands, assigned to various staff offices, including personnel, information, operations, and logistics offices. To increase the contribution of the ROK forces to the international community, individual participation in peacekeeping operations has been continuously broadened. In 2022, ROK officers were dispatched to the Eastern Command of the UNMISS to serve in the capacities of Chiefs of Staff and observers.

2. Multinational Forces Peace Operations

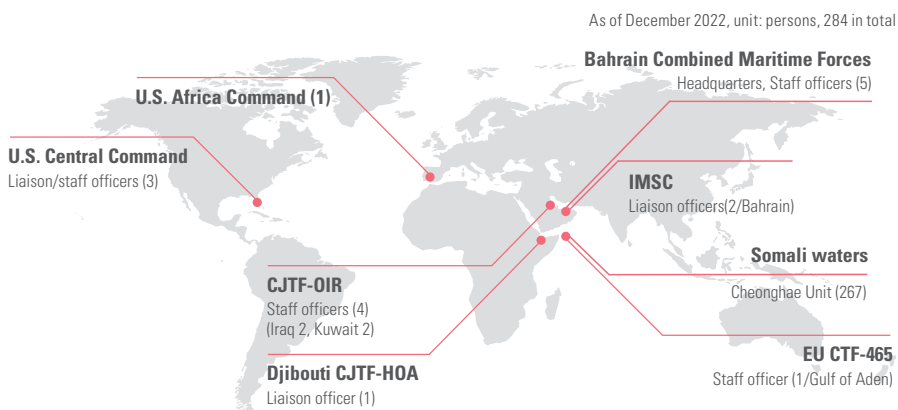
Multinational peace operations are peace operations carried out by multinational forces, formed either by states or regional organizations and based on grounds such as the UN Security Council resolution. Along with UN peacekeeping operations, multinational

peace operations play a key role in maintaining stability in conflict zones and post conflict reconstruction efforts. From 2001, the ROK government has deployed its military for multinational peace operations in various countries around the world, sending the Haeseong, Cheongma, Dongui, Dasan, and Ashena Units to Afghanistan and the Seohwa, Jema, Zaytun, and Daiman Units to Iraq.

The Ashena Unit, dispatched to Afghanistan in 2010 to restore stability and assist with reconstruction efforts, carried out convoy escort and reconnaissance operations nearly 1,800 times until June 2014. By ensuring the safety of local reconstruction teams, the Ashena Unit has made a remarkable contribution to the stability and postwar recovery of Afghanistan.

As of December 2022, 284 ROK service personnel are deployed for multinational peace operations in six countries, including 267 members of the Cheonghae Unit and 17 participating in individual capacities. Details of the ROK participation in multinational peace operations are provided in [Figure 5-12].

[Figure 5-12] ROK's Participation in Multilateral Forces' Peace Operations



70)

1. The Cheonghae Unit's area of operations is north of 11°S and west of 68°E.
2. Member states are urged to send military vessels and aircraft.
3. Military vessels and aircraft are allowed to employ all means permitted under international law to combat piracy.
4. The international community is urged to cooperate with Somalia's transition government to combat piracy.
5. Related countries and international organizations provide escort services so that food shipments sent by the World Food Programme (WFP) can be safely transported.

71)

In the Gulf of Aden, one ROK ship (Cheonghae Unit), two Japanese ships and two Japanese maritime patrol aircraft, two Chinese destroyers and a Chinese logistics support ship are deployed for anti-piracy and maritime security operations. Since 2010, ROK officers served as the CTF-151 Commander on six occasions.

Cheonghae Unit in Somalia

Amid the ongoing civil war in Somalia, piracy in the country's surrounding waters has increased sharply since 2004. To curb piracy in Somali waters, the UN Security Council adopted resolution 1838⁷⁰⁾ and called on member states to dispatch ships and aircraft. The sea area near the Gulf of Aden is a major transportation route for strategic goods, such as crude oil and liquid natural gas (LNG). The security of this sea area is of critical importance for the ROK as well. About 300 ROK ships travel through the area annually.⁷¹⁾ In March 2009, the ROK government dispatched the Cheonghae Unit to the Gulf of Aden with approval from the National Assembly.

The Cheonghae is a 260-strong unit, equipped with one destroyer, one helicopter, and three RIBs as of December 2022. The Cheonghae Unit escorts ROK and international vessels for safe navigation and protects Korean citizens by participating in maritime security operations by the Combined Maritime Forces and the EU.

In 2023, a ROK Admiral is set to assume command of CTF-151, the counter-piracy task force under the Combined Maritime Forces Command, further strengthening ROK

cooperation with the international community in ensuring maritime security. The Cheonghae Unit successfully carried out “Operation Dawn of Gulf of Aden” in January 2011, rescuing a ROK ship that was hijacked off Somalia and its crew. In August 2014, the Cheonghae Unit carried out “Operation Libya – Evacuation of Korean Citizens,” safely evacuating ROK and foreign nationals trapped in Libya to



Cheonghae Unit during an Operation

a neighboring country. In April 2015, the Cheonghae evacuated six Korean citizens from Yemen and a shipboard embassy was set up for the first time aboard ROKS Wang Geon to maintain contact with and protect ROK citizens who chose to stay behind. This operation set an example of effective coordination between the Ministry of Foreign Affairs and the military to protect overseas citizens. Thanks to these efforts, after reaching a peak in 2011, piracy off the Gulf of Aden has dropped sharply and has no longer been reported since 2020.

Since May 2019, there have been escalating tensions in the Middle East, including the area near the Strait of Hormuz. In January 2020, in order to protect the freedom of navigation for Korean citizens and vessels, the ROK government decided to temporarily extend the area of operations of the Cheonghae Unit from the Gulf of Aden to the Arabian and Persian Gulf, including the Gulf of Oman and the Strait of Hormuz. In February 2020, during one of its extended-area operations, the Cheonghae Unit rescued 10 sailors from an Iranian ship that had been adrift for about a week and provided them with food and fuel. The Strait of Hormuz is a strategically important sea area, which is the source of over 70% of the ROK crude oil imports and is transited through by the ROK ships 900 times annually. In the extended area of operations, the Cheonghae Unit carries out independent missions as well as joint missions with the IMSC (International Maritime Security Construct) when necessary to protect ROK nationals and ships. To facilitate collaboration, including information sharing, two liaison officers of the Cheonghae Unit are stationed at the IMSC.

The Cheonghae has also carried out operations to protect ROK nationals in Middle – Eastern and West African sea areas. In January 2021 when the ROK tanker, Hankuk Chemi, was seized and detained by Iran’s Islamic Revolutionary Guard, the unit was dispatched to the Strait of Hormuz to assist with their release. In June of the same year, when five ROK sailors were kidnapped by pirates near the Gulf of Guinea in West Africa, the Cheonghae was deployed to assist with their rescue. Key activities carried out by the Cheonghae Unit are detailed in [Figure 5-13].



The UDT of the Cheonghae Unit during an exercise on the Marine Day

[Figure 5-13] Major Activities of Cheonghae Unit

As of December 2022

Convoy		Safe Voyage Escort		Maritime Security Operations	Anti-Piracy Operations
ROK Vessels	Foreign Vessels	ROK Vessels	Foreign Vessels		
512	1,882	33,357	3,014	917 operations (1,646 days)	24 operations / 34 ships
Protection of Korean Nationals					
January 2011	Operation Dawn of Gulf of Aden (rescue of the freighter Samho Jewelry, hijacked by Somali pirates, and its entire crew of 21)				
March 2011	Evacuation of ROK citizens from Libya (37 ROK nationals evacuated to Malta and Greece)				
April 2011	Operation to rescue the crew of the Hanjin Tenjin (the entire crew, including 14 ROK and 6 Indonesian nationals, rescued)				
December 2012	Rescue of the crew of the MT Gemini (escort of four ROK crew members that were kidnapped and later released by the pirates)				
August 2014	Evacuation of ROK nationals from Libya (assistance with the evacuation of 18 ROK nationals and 86 foreign nationals to Malta)				
April 2015	Evacuation of ROK nationals from Yemen (assistance with the evacuation of 6 Korean and 6 foreign nationals to Oman)				
April 2018	Escort of ROK nationals kidnapped in Ghanaian waters (escort of 3 ROK nationals kidnapped by pirates to Ghana)				
August 2018	Assistance with the rescue of ROK citizens kidnapped by a Libyan armed militant group				
November 2019	Assistance with the rescue of 2 ROK sailors kidnapped in waters off Yemen				
January 2021	Assistance with the release of a ROK ship (Hankuk Chemi) detained by Iran				
June 2021	Assistance with the rescue of 5 ROK sailors kidnapped in waters off the Gulf of Guinea				
May 2022	Maintaining readiness posture following the report by an Iranian media outlet (Kayhan) on the possibility of blocking the passage of ROK ships through the Strait of Hormuz				

Multinational Forces Staff and Liaison Officers

Currently, there are 17 staff and coordinating officers dispatched by the ROK Armed Forces to multilateral forces, including the Combined Maritime Forces Command in Bahrain, the IMSC, the CJTF-HOA in Djibouti, and the CJTF-OIR (Combined Joint Task Force–Operation Inherent Resolve) in Kuwait. The officers, assigned to various staff offices of the Combined Maritime Forces, help with the planning of combined operations, provide support for the rotation of internationally-deployed ROK troops and operational continuity, and coordinate cooperation with allied forces. In August 2022, two additional staff officers were dispatched to the CJTF-OIR (Iraq), a multinational force formed to defeat ISIS operating within Iraq and Syria, in a continuing effort to increase participation in multinational peace operations.

3. Defense Cooperation and Exchange

The ROK Armed Forces are actively engaging in defense cooperation and exchange in non-combat areas, including education and training, humanitarian assistance, and disaster relief

and recovery, to fulfill its role as a responsible member of the international community. In November 2013, when the Philippines was severely hit by Typhoon Haiyan, the Araw Contingent was dispatched to assist with recovery efforts.

The Araw Contingent successfully completed its mission in Typhoon-damaged areas and left the Philippines in December 2014. In March 2014, the ROK Armed Forces joined multinational combined search efforts to locate the missing Malaysian passenger aircraft. Meanwhile to stop the spread of the Ebola virus, the ROK government sent the Korea Disaster Relief Team (KDRT) to Sierra Leone, one of the West African countries most seriously impacted by this virus. The team, composed of civilian medical workers and six military doctors and nine military nurses, provided care to local populations from December 2014 to March 2015.

Akh Unit⁷²⁾ in the UAE

In August 2010, to raise the quality of education and training provided to the UAE forces by benchmarking ROK practices, Abu Dhabi requested Seoul to dispatch a military instruction team. In January 2011, a 130-strong unit, named “UAE Military Training Cooperation Team” (Akh Unit) was formed and flown to the Al Ain region of the UAE with approval from the National Assembly. The size of the contingent was increased to 150 starting with Akh Unit #5. On September 28, 2016, the Akh Unit was relocated to Sweihan on the request of the UAE Joint Chiefs of Staff. The cost of relocation, including construction costs, amounted to KRW 32 billion, was paid by the UAE government in its entirety.



Akh Unit during a Combined Training

The mission of the Akh Unit is to provide education and training support to the UAE’s special warfare forces and conduct combine exercises, while also protecting ROK nationals in crisis situations. ROK troops are effectively contributing to the enhancement of the education and training system of the UAE forces and their operational capabilities for special warfare. The training cooperation with the UAE has also provided the ROK forces with an opportunity to improve their own special warfare capabilities through realistic training in the dry and hot climate of the Middle East, using the UAE forces’ cutting-edge equipment and facility. Akh Unit is conducting extensive training especially in areas in which restrictions are in place in the ROK, such as high-altitude jumps and night air drops and vessel inspection drills using civilian ships. In 2021, Akh Unit celebrated its 10th anniversary and continues to establish a new model for military diplomacy. Going forward, in addition to the existing focus on becoming better adapted to the desert environment of the Middle East and improving the UAE forces’ special operations capabilities, the Akh Unit will be playing a greater role in protecting ROK nationals living and working in the region and enhancing the nation’s status on the global stage. The Akh Unit, whose hard work and dedication have become the symbol of trust and cooperation between the ROK and the UAE, is widely considered a key contributor to the recent

⁷²⁾

The name “Akh,” means “brother” in Arabic and intends to express friendliness toward the people of UAE.

development of the two countries' relationship into a "special, strategic partnership." Today, the ROK and the UAE are actively cooperating and exchanging with each other in wide-ranging areas, including defense industry. The two countries have been sending army, navy, and air force delegations to each other to cooperate on issues related to mountain warfare training, cyber security and logistics, further solidifying military trust between them. Key activities of the Akh Unit are described in [Figure 5-14] below:

[Figure 5-14] Major Activities of Akh Unit

As of December 2022

Capacity building for UAE forces	<ul style="list-style-type: none"> • Contributing to the UAE's effort to build elite armed forces by helping to enhance their special operations capabilities • Improvement of the UAE's military education and training system
Capacity building for ROK forces	<ul style="list-style-type: none"> • Enhancing ROK forces' special operations capabilities through training using the UAE's cutting-edge facilities and aerial assets • Survival training under severe conditions (hot climate with temperatures above 50-degree Celsius, dry desert environment) • Long-range shooting practices, strategic, high-altitude jump training, mountain warfare training • Strategic training including building and ship inspection, seizing, and personnel rescue exercises
Defense cooperation and exchange	<ul style="list-style-type: none"> • Combined bilateral exercises, observation of ROK troop exercises by UAE troops • Education courses for UAE officers and non-commissioned officers in respective services of the ROK military and education courses for ROK servicemembers • Medical cooperation allowing UAE troops and their family members to receive consultations and treatment from Korean civilian healthcare institutions • Creation of a defense diplomacy hub for the Middle East on areas such as defense export

4. Strengthening the Framework for International Peacekeeping Operations

Hosting the UN Peacekeeping Ministerial and ROK Pledges

The UN Peacekeeping Ministerial is the largest as well as the highest-level UN consultative process in the area of global peace and security, discussing issues related to international peacekeeping operations. An important purpose of the Peacekeeping Ministerial is to encourage member states to more actively participate in peacekeeping efforts. The UN Peacekeeping Ministerial, which was first held in 2016, in the UK, met for the fourth time in December 2021, in Seoul, making the ROK the first Asian country to host the event.

During this event, the ROK government communicated an intention to play a leading role in equipping peacekeeping forces with technological and medical capabilities necessary to respond to current and future threats and announced the "Seoul Initiative," a concrete plan for building technological and medical capabilities for PKO. In his keynote speech, the Minister of National Defense presented six pledges as host in areas that are both ROK's areas of strength and areas in which the UN has existing needs, including technology, medicine, training, assets, women, and police. The 2021 Ministerial was an opportunity for member states to recognize the importance of sustaining peace based on a spirit of solidarity and cooperation, as well as the need to increase cooperation, strengthen the capabilities of PKO agents, and guarantee the safety of the peacekeeping process. Meanwhile, by successfully hosting the high-profile UN event, the ROK enhanced its international standing as an advanced nation capable of providing a future vision for peacekeeping operations. The

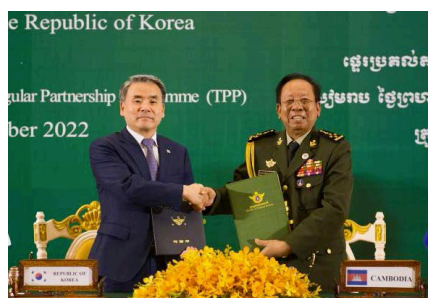
details of the six pledges made by the ROK during the Seoul Peacekeeping Ministerial are listed in [Figure 5-15].

[Figure 5-15] Six Pledges from the Seoul Peacekeeping Ministerial

Construction of Smart Camps	Propose a “Smart Camp” model, that incorporates state of the art ROK IT technologies to the on scene UN mission; a pilot project is being pursued at the Hanbit Unit in South Sudan
Donation of Helicopters	Transfer reconnaissance helicopters (500MD), the highest priority requirement of the UN to countries operating helicopter units within the UN Mission to Africa
Strengthening Medical Capabilities	Dispatch ROK military medical staff to UN medical training centers to support medical training
Training Support for Engineering Troops	Provide engineering equipment and training support to countries that are contributing troops to the UN mission; provide training on areas such as demining through bilateral cooperation
Capacity Building for Women Peacekeepers	Establish a program for UN female servicemembers in the International Peace Operations Center at ROK National Defense University and increase women participation in PKO
Capacity Building for Police Peacekeepers	Increase the size of ROK police officers sent on PKO missions and utilize the PKO Education Center at Korea National Police University to run special UN police education programs

The Ministry of National Defense has mapped out a plan for the implementation of the six pledges and are working with the UN headquarters and the Ministry of Foreign Affairs to finalize their details. “Smart Camp” is a project in an area in which ROK already has a significant lead over other countries. As the ROK competitiveness in related technologies is increasingly recognized, the Ministry of National Defense has been continuously invited to present on Smart Camp at various UN events, including the Partnership for Technology in Peacekeeping Symposium held in June 2022, in South Africa and the Capacity Building Workshop held in October 2022, in Uganda. As for the donation of the 500MD helicopters, this project was carried out through careful planning efforts by the ROK government and in cooperation with stakeholder countries. Before the delivery of the 16 helicopters to the UN Mission to Africa, site visits were made in July 2022, in the U.S. and recipient countries (Kenya, El Salvador) to ensure that they can be delivered as planned and used fulfill its mission.

Training support for engineering troops will also be provided in cooperation with the Cambodian government and the UN’s Triangular Partnership Programme (TPP). This



The ROK and Cambodia signs a PKO Memorandum of Understanding and an Agreement on the Transfer of Engineering Equipment (November 2022)



program is aimed at strengthening the capabilities of Cambodian engineering troops within the UN Mission. In November 2022, the ROK and Cambodian defense ministers signed an agreement on the transfer of engineering equipment. Both the donation of equipment and training are set to take place in 2023. All these activities mark a significant step forward in the ROK efforts to put its technologies and capabilities to the service of UN peacekeeping operations.

Co-Chairing the ADMM-Plus EWG on Peacekeeping Operations and EWG on Maritime Security

From 2014 to 2017, the Republic of Korea and Cambodia served as co-chair countries for the ADMM-Plus's Experts' Working Group (EWG) on Peacekeeping Operations.⁷³⁾ In September 2014 and September 2015, the EWG on Peacekeeping Operations was hosted in Seoul and led to discussions on concrete methods of cooperation. In September 2019, the ROK took part in the peacekeeping operations exercise, conducted in Borneo, Indonesia,⁷⁴⁾ which proved to be an excellent opportunity to showcase the ROK military's capabilities and leadership in international peacekeeping activities. Between 2017 and 2020, the ROK also co-chaired the ADMM-Plus EWG on Maritime Security with Singapore. In May 2019, the two countries organized the largest-ever maritime field training exercise,⁷⁵⁾ which was conducted in waters off the ROK and Singapore. Moreover, an international conference on maritime security was held to discuss security in international waters and ways to build trust, during which a presentation was held on the ROK military's maritime security capabilities and multilateral cooperation. These events helped shape a positive perception about the ROK leadership in global maritime security. In 2021 and 2022, the ADMM-Plus EWG on Peacekeeping Operations was conducted twice a year through VTC due to the ongoing COVID-19 pandemic. During these teleconferences, member states shared their experiences carrying out peacekeeping operation-related activities amid the pandemic and discussed concrete ways in which ASEAN countries can contribute to UN peacekeeping operations, including increasing women's participating in peacekeeping operations and building the capacities of women peacekeepers. They also established a detailed plan for the PKO exercise set to be conducted in Vietnam during the second half of 2023.

Signing of MOUs on Peacekeeping and Promoting Cooperation

As of December 2022, three countries have signed a memorandum of understanding on peacekeeping with the ROK Ministry of National Defense, which are UK, Vietnam, and Cambodia. The Ministry of National Defense is also poised to sign a memorandum of understanding on peacekeeping with Indonesia and Uruguay and is currently in the process of finalizing related details. The ROK and Vietnam are under a "strategic cooperative partnership" and signed the "ROK-Vietnam Memorandum of Understanding on Cooperation in International Peacekeeping Operations" in September 2015. In December 2015 and September 2018, the ROK military engineering specialists were sent to Vietnam to conduct education on force protection and survival skills necessary during crisis situations in peacekeeping operations. Since September 2016, 10 Vietnamese officers have attended the UN staff officer and observer programs at the International Peace

73)

There are six Experts' Working Groups under the ADMM-Plus, including

- EWG on Peacekeeping Operations,
- EWG on Counter-Terrorism,
- EWG on Maritime Security,
- EWG on Military Medicine,
- EWG on Disaster Relief and Humanitarian, and
- EWG on Humanitarian Demining. The EWGs are co-chaired by one of the 10 ASEAN countries, (Laos, Malaysia, Myanmar, Vietnam, Brunei, Singapore, Indonesia, Philippines, Cambodia, Thailand) and one of the eight plus countries (Republic of Korea, U.S., Japan, China, Russia, Australia, New Zealand, India).

74)

In this exercise held at the PKO Center in Bogor, Indonesia (September 14-September 20, 2019, 370 participants from 18 member states), a training team and 12 observers of the International Peace Supporting Standby Force participated in training exercises in six areas (sexual exploitation and abuse, landmine accidents, illegal search, child soldiering, security search, IED).

75)

18 Navy ships, 10 aircraft, and over 3,500 troops participated in this exercise (April 30-May 13, 2019).

Operations Center in Korea, learning essential peacekeeping skills, including observation and surveillance, inspection and verification, and negotiations and mediation.

Following the dispatch of UK engineering units to South Sudan in March 2017, the ROK and the UK signed the “ROK-UK Memorandum of Understanding on Cooperation in International Peacekeeping” in January 2018, which provided a formal framework for cooperation between the two countries in this area. The two countries are sharing related information as well as conducting educational exchanges. 5 UK officers have attended the UN staff officer program at the International Peace Operations Center.

Peacekeeping cooperation between the ROK and Cambodia was first discussed during the ADMM-Plus in November 2022, which led to the signing of a memorandum of understanding between the two countries. Because Cambodia has substantial experience in humanitarian demining and the ROK has advanced equipment, cooperation between the two countries will have a synergy effect and result in the development of a new model of peacekeeping. The ROK is also working toward entering into a memorandum of understanding with Indonesia and Uruguay. Indonesia, which has extensive experience in peacekeeping operations, could cooperate with the ROK in such areas as education, training and information exchange. Uruguay is another country with vast experience in peacekeeping operations that the ROK can learn from. Uruguay has a high PKO participation rate relative to the total size of its armed forces and large portion of its leadership have experience serving in PKO missions abroad.

Strengthening the Function of the International Peace Operations Center

The International Peace Operations Center is an educational institution dedicated to fostering future international peacekeepers, established in August 1995, within the Joint Forces Staff College. In 2015, in accordance with the Enforcement Decree of the Korea National Defense University Act,” the Ministry of National Defense placed it under the aegis of Korea National Defense University and strengthened its academic and research functions. Its name was also changed from “PKO Center” to its current name “International Peace Operations Center” at this time.

As the nation’s only PKO education institution, the Center is responsible for providing pre-deployment education to all troops deploying overseas. In a continuing effort to enhance the quality of its educational offerings, the Center actively engages in cooperation with the UN Department of Peace Operations (DPO), the Ministry of Foreign Affairs, PKO centers of other nations, the PKO Education Center of Korea National Police University, as well as other relevant domestic and foreign institutions. The Center conducts research on a broad spectrum of subjects, including the concept and principles of PKO, PKO policy, and conflict zones through programs such as the PKO Development Seminar. The International Peace Operations Center is also the publisher of a variety of academic journals, including “PKO Journal.” When troops return from PKO missions overseas, assessments and reports, detailing accomplishments and lessons learned, are prepared and distributed to relevant government agencies. In November 2013, the UN staff officer program offered by the International Peace Operations Center was awarded the “UN Certificate of Training Recognition” by countries participating in UN peacekeeping operations for the first time.

The program was subsequently recertified in November 2018 and again in November 2022. The International Peace Operations Center is currently seeking the certification of its UN observer program. [Figure 5-16] shows the current enrollment in academic programs offered by the International Peace Operations Center.

[Figure 5-16] Enrollment at the International Peace Operations Center

As of December 2022

Total	UN Peacekeeping Operations	Multinational Peace Operations	Defense Cooperation and Exchange	Other
1,891	1,079 in 8 programs	42 in 4 programs	150 in 1 program	620 in 8 programs

In recent years, the Center has progressively expanded its functions to better support research, education and training in the field of international peacekeeping. In November 2022, in cooperation with the UN's Integrated Training Service ITS (Integrated Training Service), it conducted a capacity building program for instructors of the UN Infantry Battalion, which was attended by peacekeepers from 14 countries.

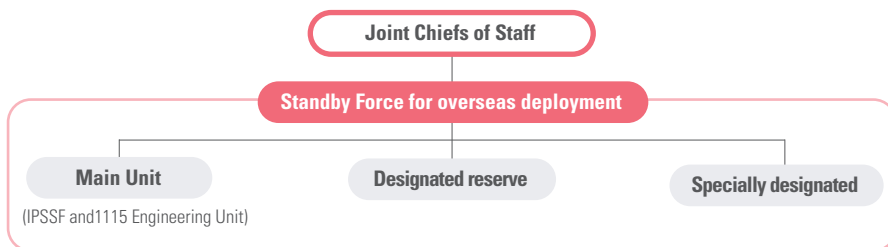
Meanwhile, in accordance with the pledge made during the 3rd Peacekeeping Ministerial in 2019, to host educational programs by UN agencies in the ROK for four years from 2020 to 2024, the Center is annually conducting a UN program related to peacekeeping education. Moreover, the Center is developing the curriculum for FMOC (Female Military Officers' Course), a capacity building program for women peacekeepers that the ROK has agreed to jointly conduct with UN between 2023 and 2027. The Center annually attends the Asia-Pacific PKO Centers Conference and the World Conference of PKO Centers and exchanges with PKO centers in 11 countries. Through activities such as instructor exchanges as well as education and training programs for foreign troops, the Center is broadening its global reach.

Operation of a Standby Force for Overseas Deployment

Since December 2009, the ROK Armed Forces have maintained a standing unit of 4,000 troops that is ready for deployment for international peacekeeping operations, within a month or two from the notice of deployment. The Standby Force is comprised of a dedicated deployment unit of 1,000 personnel, a designated reserve unit of 1,000 personnel and a specially designated unit of 2,000 personnel. The dedicated deployment unit is the first to prepare for deployment when the need for deployment arises. In July 2010, the International Peace Support Standby Force (IPSSF), or "Onnuri Unit"⁷⁶⁾ was established as a unit devoted solely to overseas deployment, which serves as the dedicated deployment unit. In December 2020, the size of the dedicated deployment unit was increased with the addition of the "1115 Engineering Group." The designated reserve unit is employed to relieve or reinforce currently-deployed troops. The specially designated units are functional units, created to meet a variety of other deployment needs. Upon a request for engineering or medical units from UN, a contingent formed by troops from designated units is dispatched. The composition and size of the standby force are shown in [Figure 5-17] and [Figure 5-18]:

⁷⁶⁾

"Onnuri," a composite word made up of a word meaning "all" or "whole" and a word meaning the "world," denotes the global nature of missions carried out by this unit.

[Figure 5-17] Composition of the Standby Force for Overseas Deployment

Specially designated unit: Engineering, medical, military police, unmanned aerial vehicle platoon (Marines), Navy and Air Force transportation units, helicopter units, etc.

[Figure 5-18] Size of the Standby Force for Overseas Deployment

December 2010-December 2022

Dongmyeong	Ashena	Akh	Hanbit	Total
8,437 (27 contingents)	1,745 (8 contingents)	2,399 (20 contingents)	4,336 (16 contingents)	16,917

5. Establishing a Response System for the Protection of Overseas Citizens

Protecting Overseas Citizens

In times of major crisis around the world, such as natural disasters and acts of terror the ROK Armed Forces take proactive measures to protect ROK nationals abroad, using military assets such as Navy ships and transport aircraft. In the past, the ROK Armed Forces focused on assisting the rescue and transfer of kidnapped ROK nationals as well as evacuation of ROK nationals when civil wars broke out in Libya and Yemen, in which the tasks were mainly carried out by the Cheonghae Unit dispatched to the Gulf of Aden. Today, however, the ROK military's role in ensuring the safety of ROK overseas citizens has been expanded significantly. Rescue teams and transport aircraft are now dispatched during the outbreak of infectious diseases, such as COVID-19, and natural disasters to more actively protect Koreans overseas. Recent major activities by the ROK military to protect its overseas citizens are provided in [Figure 5-19]:

Figure 5-19] Major Activities by the ROK Armed Forces to Protect Korean Overseas Citizens

As of December 2022

Dates	Description
October 2018	• Rescue and evacuation of 799 Koreans trapped in Saipan during Typhoon Yutu (Saipan→Guam) (one C-130 Air Force transport aircraft dispatched)
May 2019	• Sea Salvage and Rescue Unit (SSU) dispatched to Hungary after the sinking of the river cruiser Hableany, to assist with the search of missing people
February 2020	• Repatriation of six Koreans and a Japanese spouse quarantined onboard the Japanese cruise ship Diamond Princess (Tokyo→Gimpo) (one Air Force VCN-235 dispatched)
May 2020	• Repatriation of 60 Korean expatriates living in Africa (Addis Ababa, Ethiopia → Incheon) (Utilized the chartered flight to bring in Hanbit Unit #12 to South Sudan)
July 2020	• Assistance with the repatriation of 290 ROK workers from Iraq (two KC-330 tanker aircraft dispatched)

**A More Comprehensive Response System
for the Protection of Overseas Citizens**

The Ministry of National Defense is continuously improving the response system related to the mobilization of the

ROK Armed Forces' emergency rescue and relief operations capabilities and resources for the protection of Korean overseas citizens. In December 2022, the "Crisis Response Manual for the Protection of Overseas Citizens," containing the Ministry of National Defense's response procedures to disasters overseas, was comprehensively amended. This revision was aimed at enabling a speedy and proactive crisis response by setting out a detailed list of considerations and requirements for the deployment of military assets and concrete deployment procedures and clearly assigning related responsibilities and is expected to help make it easier for our Armed Forces to determine the scope and nature of support to provide and allow them to more quickly respond to a crisis situation.

In tandem, the Ministry of National Defense is building a government-wide cooperation system for the protection of Koreans overseas to facilitate inter-agency consultation and carry out joint crisis response exercises. In order to better guarantee the safety of Korean citizens in diverse crisis situations around the world, the Ministry of National Defense will continue to cooperate with all related entities such as the Ministry of Foreign Affairs, the Ministry of Oceans and Fisheries, and all services of the ROK Armed Forces to further improve and enhance the response system.



Chapter 6

Safe and Transparent Civil-Military Cooperative Defense Management

Section 1. Improving the Service Environment with
Emphasis on safety

Section 2. Transparent and Efficient Management of
National Defense

Section 3. Civil-Military Cooperation; together
with the people

Section 4. Securing an Adequate Defense Budget and
Rational Allocation of Budget Resources



Improving the Service Environment with Emphasis on safety

To ensure the health and safety of our service members, the ROK is building a military health system that is tailored to the specific needs of its armed forces. As part of this effort, the military opened the Armed Forces Trauma Center to address trauma cases and improved its medevac capability by establishing a centralized command and control mechanism and fielding additional medevac helicopters. In addition, the military is making efforts on various fronts to strengthen its safety management capability including but not limited to establishing a safety management mechanism and focusing on prevention centric approach to safety.

1. Military Health System that is Tailored to the Needs of its Armed Forces

Patient-centered

Environment Improvement

The MND is making a concerted effort to innovate the rigid, provider centric nature of the Military Health System to a patient centered one that is better equipped to meet

the healthcare demand of service members. Particular effort has been made to access to care by improving transportation to medical facilities, expanding office hours and simplifying entry procedures. Furthermore, measures are being taken to guarantee continuity of care to service members so that they may receive care for their symptoms, illness, or injuries even after they are separated from the military because we are committed to taking care of our service members even after their discharge.

Considering that the majority of service personnel are visiting the military healthcare facilities using outpatient shuttles or bus services provided at the Division level, the Ministry of National Defense will increase the total number of shuttles between military units and hospitals to 39 by 2025. The number of buses running at the Division level has already been increased to 26 in 2022 and will be further expand to 53 by 2025.

At the Armed Forces Capital Hospital and Daejeon Hospital, morning hours were extended to meet the surge of patients during this time period. Goyang and Chuncheon Hospitals increased the number of exam rooms for departments that are high in demand such as orthopedics and dentistry, so that the outpatient service members can timely receive the necessary care.

Entry procedures at military hospitals have also been simplified to make them more accessible to military families. Armed Forces Capital and Daejeon Hospitals have dedicated staff to serve as guides for visitors and except for restricted areas, they are freely open to accompanying family members so that they may enjoy access comparable to that of civilian hospitals. Furthermore, amenities for patients and their families at Daejeon, Daegu and Armed Forces Capital Hospitals have been improved with the addition of facilities such as a new visitor center, recreational areas and more; additional such improvements are scheduled for military hospitals through renovation and modernization projects.

Additionally, the MND modified its policy so that service members may continue to be treated at military hospitals for conditions they developed while in service. To take better care of our

service members, as of 2022, government covers pharmaceutical expenditure associated with continued treatment of discharged service members. Furthermore, policy regarding mental health have also been changed to make the government bear the cost for mental therapy from private providers for officers and NCOs, which have been paid by the individuals up to this point.

Broadening Access to Private Healthcare

To better address the diverse healthcare needs of service members and guarantee

their rights to select a provider of their choosing, the Ministry of National Defense is making continuous efforts to improve their access to private healthcare. Previously, in order to receive care from a private provider, service members needed to obtain a referral from a military physician as well as approval from their respective commanders. Today, the authorization process has been simplified so that the approval by the commanding officer is the only requirement needed for a service member to visit a private healthcare provider.

As of August 2021, a new subsidy for private healthcare is in effect, which allows the government to provide partial funding of medical expenses associated with receiving care from private healthcare providers in order to reduce financial burdens of service members.

The Ministry of National Defense will continue its efforts to ease access to private healthcare for service members to guarantee their rights to select a provider of their choosing and improve the overall quality of medical care they receive.

Improvement and Specialization of Military Healthcare Facilities

The Ministry of National Defense plans to renovate aging military healthcare facilities at the division level or below and military hospitals supporting

the forward corps, which serve as source of primary care for wounded service members, by 2025. The goal is to modernize 24 of the 72 division level medical facilities, of which 13 were already completed as of late 2022. The modernization project for the remaining facilities is currently underway for completion in 2025, the modernization process will be subject to their respective operating environments and be pursued through reconstruction, expansion and or renovation. Furthermore, the four military hospitals in Hongcheon, Gangneung, Yangju, and Chuncheon that support the forward corps will also be modernized in conjunction with the army reorganization plan.

Additionally, in order to efficiently employ the limited medical personnel, military hospitals are being reorganized per specialty areas such as surgery, mental health, outpatient services, and rehabilitation. As part of this effort, the level of care and the types of consultation offered are being readjusted throughout the 15 military hospitals. Moreover, cutting-edge technology will be introduced to military healthcare facilities, including medical image analysis by AI and mobile telemedicine.

Armed Forces Trauma Center

The Armed Forces Trauma Center opened its doors in April 2022, with the goal of acquiring indigenous

capability to treat trauma cases that are frequented within the military such as gunshot or blast injuries and to contribute to the national trauma care system. Specialized trauma care provided by the Armed Forces Trauma Center, currently reserved for service members, will

gradually extend in the future to members of Korea National Police, Firefighters, as well as civilian patients. Opening of the Trauma Center allows the implementation of a “one-stop emergency patient service”, a seamless process to handle emergency trauma patients through emergency on-scene care in conjunction with the Medical Control Center of the Armed Forces Medical Command, swift patient transfer using medevac helicopters (Medion) and specialized treatment at the Armed Forces Trauma Center.

Going forward, the military will increase cooperation with private hospitals and continue to develop specialized medical professionals, so that the new Trauma Center can effectively contribute to advances in the fields of trauma care and public health.



Operating Room for Trauma Patients



MEDEVAC Helicopter

Developing and Recruiting Highly-Skilled Military Medical Professionals

In order to acquire indigenous capability to treat specialty injuries that often occur within the military and to better meet the rising demand in areas such as trauma, surgery and psychiatry, the Ministry of National Defense has undertaken steps to strengthen the clinical expertise amongst its medical professionals. The number of military fellowship positions will increase from five to ten in 2023, with the aim of training skilled professionals in various specialties including trauma, infectious disease and PTSD. Moreover, to enhance the clinical expertise of nursing officers, tailored training sessions are conducted at the Armed Forces Capital Hospital as well as civilian hospitals in areas such as intensive care, emergency care, and surgery.

The Ministry of National Defense is also making a concerted effort to recruit medical professionals. In 2022, the Armed Forces Medical Command raised the pay grade of civilian nurses at military hospitals under its command and increased the number of authorized positions for nursing officers, laying the groundwork to expand the pool of qualified nurses for the military healthcare facilities. Through policy review and coordination with relevant government agencies, the MND will continue to seek ways to recruit talented medical professionals and improve their expertise.

[Figure 6-1] Military Hospitals

As of December 2022

Hospitals under Armed Forces Medical Command											
Capital	Daejeon	Yangju	Goyang	Pocheon	Chuncheon	Hongcheon	Gangneung	Hampyeong	Daegu	Guri	Seoul
Navy						Air Force					
Maritime Medical Center				Pohang		Air Force Aerospace Medical Center					

Emergency Patient Transport System

Swift transfer of patients is crucial in medical emergencies, especially in remote areas that are not equipped with sufficient medical staff and facilities. The Ministry of National Defense is striving to guarantee the “golden hour” by establishing and continuously improving the emergency patient transport system throughout its services.

In 2020, eight all weather medevac helicopters were fielded to actively support medical airlift, providing the capability to transfer patients in severe condition to the Armed Forces Capital Hospital within 90 minutes. Furthermore, paramedics are being assigned to company level echelons to provide timely on-site emergency care. In addition, a “mobile telemedicine system” is being operated in a trial basis in 32 units to allow real time sharing of patient information with the hospitals to allow accurate emergency treatment during the transfer process, this system is expected to expand to additional units in the future. By 2024, a Centralized Control System will be established and in operation within the Medical Control Center of the Armed Forces Medical Command, which serves as the control tower for medical emergencies throughout all services, for optimized management of medical emergencies. The establishment of such Centralized Control System will consolidate the pre-existing distributed management networks into a single unified reporting mechanism that is capable of executing real time command and control of medical emergencies.

Furthermore, under a government-wide medevac helicopter sharing agreement with the National Fire Agency, Ministry of Health and Welfare, Korea Coast Guard, National Police Agency, and Korea Forest Service, the Ministry of National Defense acquired the right to shared use of 3,469 publicly and privately-owned helipads across the country as well as medevac helicopters owned by the participating entities. In 2022, 19 medevac support missions were provided to the MND under this agreement to airlift service members. The Ministry of National Defense plans to further cooperate with relevant government agencies on issue of emergency patient transport by pursuing projects such as setting up a collaboration mechanism between the Medical Control Center of the Armed Forces Medical Command and the National Fire Agency.

Infectious Disease Response and Management System for the Armed Forces

During the height of the COVID-19 pandemic, the Ministry of National Defense assisted the nationwide effort by providing medical personnel such as physicians (160,000 personnel annually) and volunteering military hospitals to serve as dedicated centers for treating infectious disease. Within the armed forces, a strict testing and quarantine system was implemented to protect the health of service members and impact to their mission. As a result, COVID-19 cases within the military continues to remain low.

In addition, to mitigate the threat of other infectious diseases that present a high level of risk to service members, due to the communal living environment of the military, new enlistees are vaccinated against eight types of diseases, including influenza (seasonal flu) and tetanus. Current plan is to begin development of an infectious disease monitoring system in 2022 to enable accurate and rapid reporting as well as timely response of infectious disease outbreaks within the armed forces. The Ministry of National Defense is also striving to acquire vaccines and therapeutics to respond to crisis such as

chemical warfare environments and continuously train skilled professionals for vaccine administration.

2. Strengthening Safety Management Capabilities

Establishing a Comprehensive Safety Management System

Our service members carry out difficult and dangerous training and operations in diverse environments. The conscription-based force structure of the ROK military means that 35% of personnel are replaced with new conscripts every year. Such turnover of personnel translates into higher risk of accidents due to lack of experience, which is further compounded with growing complexity of the equipment they operate and aging of various facilities.

To mitigate the risk of accidents with the military, the Ministry of National Defense established the ROKAF Aviation Safety Agency in June 1995, followed by ROKA Combat Preparation Safety Agency in December 2018 and ROK Naval Safety Group in July 2019. In April 2020, the Safety Policy Team was formed within the Ministry of National Defense to supervise and coordinate policies related to the safety of the armed forces, thus creating a framework for the comprehensive management of safety issues for the overall military. Following the recent reorganization of the Ministry of National Defense, the Safety Policy Team has been integrated into the Disaster and Safety Management Division.

In July 2020, the Ministry of National Defense entered into an agreement with the Korea Occupational Safety and Health Agency (KOSHA), in which the latter will assist with the development of military safety experts through vocational training and lectures. Under this agreement, the Ministry of National Defense will also carry out joint research on the development of a defense safety management system with KOSHA and receive technical consultation and diagnosis on high-risk facilities. To strengthen the defense safety management system, the Ministry of National Defense will continuously expand the scope of its collaboration with the civilian sector, identify & develop new cooperative tasks, build organic capabilities to handle safety and raise awareness regarding health and safety across the armed forces.

In August 2020, the “National Defense Safety Innovation Plan” was drawn up to map out the path for a comprehensive and efficient safety policy for the military. Based on this plan, the base plan for medium and long-term defense safety policy as well as its procedural basis were established.

In December 2020, the “National Defense Safety Directives” was issued, providing a framework for safety management in the defense field. The key contents of this directive include the following: 1) Clearly define the concepts associated with national defense safety management, establish a criteria for classifying accidents based on their nature and strengthening accountability by designating respective departments that bear responsibility based on classification of the accidents. 2) Consolidate rules and procedures distributed across 26 different sets of directives, provide a comprehensive definition of responsibilities of each officers in matters related to accident prevention, workplace improvement and public

health, while specifically laying out the tasks of key officers and each services.

3) Provide the basis for key risk management system such as risk assessment and safety diagnosis to support the establishment of advanced safety management framework; define the procedure to respond to accidents in a timely, organized matter with emphasis on risk management and accident prevention. 4) Emphasize the importance of safety education and training, define the task of systemized management of defense safety information, disseminate cases of fair assessment of safety achievements and accidents. 5) Establish safety standards regarding weapons systems, military installations, and other special equipment and materials; define scope and mission regulation to safeguard safety of weapons system.

In accordance with the new National Defense Safety Directives, the Ministry of National Defense will implement a consistent safety policy, designed from a holistic perspective with emphasis on prevention and preparedness. In January 2021, “Base Plan for National Defense Safety Management 2021-2025” was established, setting out measures to reduce safety accidents without negatively affecting the combat capability of our military. This base plan serves as basis for drafting the annual defense safety management plan and establishing the safety objectives as well as the annual implementation strategy to continuously improve our safety management system.

In 2021, a study was conducted to develop standards for risk assessment and safety diagnosis that are appropriate for the defense domain. Based on the results of this survey a defense safety standard that reflects the unique environment of each service will be established. In February 2021, a National Defense Safety Management Information System project was initiated to design a system architecture that allows integrated management of safety accident data and improved utilization of accident cases from different services. The Ministry of National Defense will continue its campaign to raise awareness over safety and create a safe service environment that the public can trust by establishing a tailored education plan on safety and emphasizing routine safety inspections throughout the military.

Emphasis on Prevention

To reduce safety accidents without negatively affecting combat capabilities, the ROK military is making active efforts to ensure that its installations and facilities can withstand natural disasters and are safe for service members. Because significant amount of units are located in the mountainous areas and many of the facilities across the country are aging, current focus is on implementing practical, preventive measures that are tailored to the specific risk profile of individual sites and facilities. Amid increasing incidence of extreme weather events, such as heavy rainfall, typhoon, drought, and cold wave, the Ministry of National Defense is mitigating this risk by carrying out preventive construction work¹⁾ every year on sites that are determined to be prone to natural disaster.

Furthermore, to mitigate the health risk posed by growing heatwave days²⁾ on service members who often spend extended hours outdoors, the Ministry of National Defense has supplied items such as cooling vests, ice packs, first aid kits for heatstroke and cooler bag throughout the services. The MND plans to review the requirement of frontline units and expand the list of such preventive items to be supplied to service members.

1)

Status of preventive work
239 sites in 2020 (12.4B KRW)
253 sites in 2021 (16.0B KRW)
200 sites in 2022 (15.5B KRW)

2)

In 2021, the number of days with temperature exceeding 33°C was 8.1, which is 4.0 days more than that of the previous year (“Extreme Weather Event Report 2021,” Korea Meteorological Administration et al)

Transparent and Efficient Management of National Defense

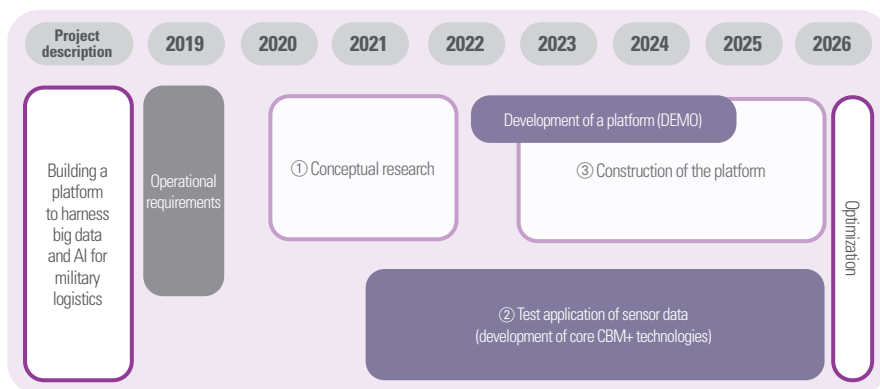
The MND is striving to earn the citizen's trust through transparent and efficient management of national defense; in order to do so, the MND is promoting innovation in logistics support based on cutting-edge technology and expanding communication with the public in formulating its policies. Moreover, reformation of the military unit structure and establishment of a smart manpower management system are underway to actively prepare for changes in the future defense environment such as decrease in number of service personnel.

1. Total Life Cycle Management System and Cutting-edge Technology-driven Logistics Innovation

Big Data and AI-based Military Logistics Innovation

In order to provide up-to-date logistics support that is in line with the changing defense environment and advance in weapons systems, the Ministry of National Defense is harnessing Fourth Industrial Revolution Technologies. Utilizing big data and AI platform to bring innovation to the military logistics system is currently being pursued. More and more recently-fielded weapons systems are electronic systems controlled by software, rather than mechanical equipment. Meanwhile, there is a growing need for military logistics data are for diagnostics as well as prediction. Moreover, sensor data used in new-generation aircraft, tracked vehicles, ships, and submarines are expected to have broader applications in the future, further increasing the importance of collecting, storing, managing, and analyzing real-time data³⁾ that are produced from such sensor networks.

[Figure 6-2] Roadmap for the Construction of a Big Data and AI Platform for Military Logistics



The military logistics innovation project is carried out in three successive phases, including conceptual research, test application of sensor data, and platform development. Conceptual research was conducted from October 2020 to December 2021, focused on the applicability

³⁾

For example, the army's wheeled armored vehicles are equipped with close to 300 sensors that are capable of generating data

of weapons system sensor data.⁴⁾ Based on the results of this research, it was decided that sensor data will be applied to new weapons systems and that for existing weapons systems that are already fielded, their performance will be enhanced, focusing particularly on electronic systems. Moreover, a condition-based maintenance concept was defined based on the level of technology required for the use of sensor data and the cost-effectiveness analysis. Target equipment was also selected for the purpose of developing logistics data standards and the test application of sensor data.

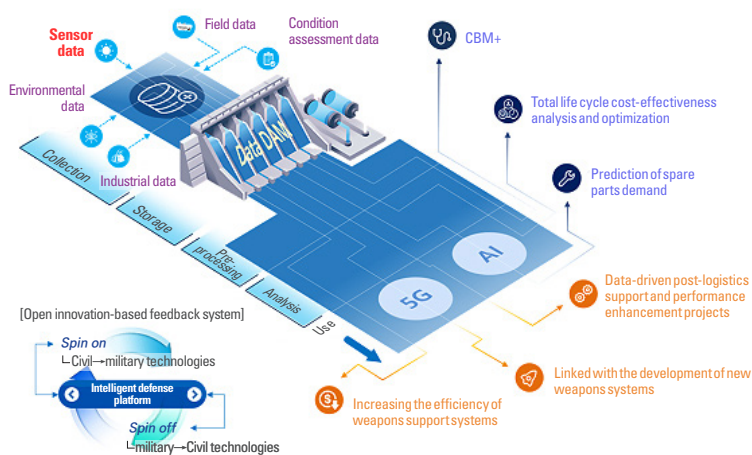
In order to reduce the chance of lapse of coverage per weapons system, test application of sensor data, which began in 2022, is utilizing various projects to develop technologies for application of sensor data, including the “Defense Test Project,” “Defense Big Data Leading Project,” and “Defense Core Technology Development Projects.” These projects are conducted in conjunction with a core technology development project to build a condition-based maintenance (CBM+) framework using sensor data.

Meanwhile, in March 2022, the platform development project was selected as a multi-agency project after it was recognized that a government-wide cooperation was necessary in order to research on the feedback mechanism between the civil and military sectors and optimize the efficiency of R&D investment, as well as ensure positive ripple effect on the overall industry. Based on the results of the conceptual research and the test application of sensor data, the Ministry of National Defense will begin the platform development project in 2023, jointly with the Ministry of Trade, Industry and Energy, the Ministry of Science and ICT, and other relevant agencies. Meanwhile, ahead of the start of the platform development project, a project to develop a demo system⁵⁾ for analyzing and testing the sensor data collected from the second phase (test application of sensor data) kicked off in December 2022.

The goal of the big data and AI platform project is to create a platform for the systemic management and use of vast quantities of data that are produced from weapons systems throughout their total life cycle.

To achieve this goal, the data collection process is automated as much as possible and the collected data are stored in a single system for comprehensive management. The data

[Figure 6-3] Expected Benefits of the Military Big Data AI Platform



4)
Creation of data sets by extracting, refining, linking, and aggregating data and intelligent data management

5)
A project (2022-2025) to construct a small-scale big data system before the development of a big data platform, covering 14 weapons systems, including surveillance, mobility, ship, aircraft, and force protection

analysis system will be developed in parallel with the logistics technology information system in an integrated manner.

Fostering the Development of the Civil-Military MRO Industry and Improving Spare Parts Management Policy

industry, the Ministry of National Defense is taking steps to foster the growth of the civil-military MRO⁶⁾ industry and innovate the military's spare parts management policy. These steps include improving the parts management system, creating a defense product certification framework, and strengthening cooperation between the civil and military sectors. To reduce redundant investments and allow the civil and military sectors to share facilities and equipment, the Ministry of National Defense is pursuing plans to establish the "Defense MRO Industry Incubation Center (provisional title)". The idea of such MRO industry incubation center was proposed in December 2021 by the Defense Science Board. The MND is continuing its effort to build support for the project and solicit cooperation from relevant government agencies and public institutions by hosting events such as the "Seminar on the Development of the Defense MRO Industry in March 2022". Once established, activities of the center will include developing MRO manpower for weapons systems and conducting research on technological innovation in the MRO field.

When the defense MRO industry reaches its next stage of development through cooperation between the civil, government, and military sectors, it is expected to enhance the operational performance of weapons systems, as well as create civilian jobs by boosting the technological competitiveness of the domestic MRO industry.

Enhancing the Efficiency of Total Life Cycle System Management

guarantee timely operational sustainment capability through comprehensive management of the performance, cost, related technologies and information throughout the life cycle of the equipment, from requirement planning to acquisition and operation (hereafter, "total life cycle system management"). Steady improvements have been made over the years to the total life cycle system management (TLCSM) process by, for example, laying the foundation necessary to strengthen the capacity to provide timely operational support.

In February 2021, "Total Life Cycle System Management Directive" was issued, providing a framework for total life cycle system management and clear guidelines on its key elements including operation and maintenance cost analysis, DMSMS (diminishing manufacturing

In order to ensure stable operation of weapons systems, enhance combat readiness posture, and contribute to the advancement of the national



Seminar on the Development of the Defense MRO Industry

The Ministry of National Defense is continuously striving to improve the efficiency and cost-effectiveness of defense management and

⁶⁾ MRO, which is an acronym standing for maintenance, repair, and overhaul, refers to the activity of repairing and maintaining an item, as well as parts, techniques, and manpower required for this activity.

sources and material shortages) management, RAM⁷⁾ management, and the life cycle sustainment plan (LCSP). The directive establish the regulatory basis for the TLCSM process and set forth detailed procedures.

In 2022, to guarantee stable utilization rate of weapons systems and address limitations in post-logistics support⁸⁾ from a TLCSM perspective, related processes were redesigned into data-driven processes. “Depot-level maintenance,” a maintenance concept in which weapons systems are restored to their original condition, was replaced by the new concept “original performance enhancement” in which the condition and performance of weapons systems are enhanced in such a way as to allow their continued operation and maintenance. Moreover, using RAM-C (reliability, availability, and maintainability-C),⁹⁾ an engineering analysis technique adopted in the U.S. and other defense industry powerhouses, efforts are being made to shift the focus in the defense acquisition strategy to performance-based logistics (PBL). In addition to being an essential requirement for the defense industry and defense exports, RAM-C is also beneficial for the military as it can reduce defense budgets and enhance the reliability of weapons systems.

7)

The acronym for reliability, availability, and maintainability. RAM is a key indicator in the improvement of the equipment utilization rate and the combat readiness posture and the reduction of life cycle cost. RAM takes place throughout the life cycle of a weapons system, from requirement planning to disposal.

8)

Logistics support services for the operation and maintenance of a weapons system, provided in a continuous manner after its development, acquisition, and fielding, including the supply of materials, facilities, manpower, operational resources, and technical data.

9)

An engineering analysis technique to identify alternatives that satisfy RAM goals at the lowest possible life cycle cost.

10)

A program aimed at facilitating the adoption of high-quality commercial technologies and products, in which civilian items are tried out to test their performance and quality and those that satisfy the requirements are acquired for military use.

11)

Products that were tested through the commercial product trial program and were determined to be suitable for military application (138 items in 2021 and 129 items in 2022).

12)

An initiative to provide public services and support technological innovation and innovative growth in the private sector using the purchasing power of the public sector.

Increasing Defense Acquisition of Commercial Products

To enhance the welfare of our troops and strengthen their combat capabilities, the Ministry of National Defense has increased acquisition of

highquality commercial products to repurpose them for military use.

Since the early 2000s, a growing portion of the supply needs of the armed forces have been met through commercial products that conform to military requirements under an initiative to diversify sourcing of defense acquisition. In 2015, amid the rapid advances in civilian technologies, a trial program¹⁰⁾ was created to test high-quality open market products.

The results of trials conducted under this program are announced through a product presentation, held twice annually, during the first and second halves of the year. From 2021 on, those products that were tested to be suitable for military use¹¹⁾ are registered with the “Commercial Defense Product Mall” at the website of the Public Procurement Service (“Nara Marketplace”) to facilitate the acquisition process. This has also helped manufacturers with marketing and distribution of their products as well as contributed to improving the quality of military supplies.

In September 2022, the Ministry of National Defense signed the “Memorandum of Understanding on Cooperation to Strengthen the Linkage between Innovative Procurement¹²⁾ and the Defense Acquisition of Commercial Items” with the Public Procurement Service, in which the two agencies agree to tighten their cooperation to improve the quality of military



Product Presentation Showcasing Quality Open-market Products (September 2022)



Commercial Defense Product Mall at the Nara Marketplace Portal of the Public Procurement Service



MOU between the Ministry of National Defense and the Public Procurement Service (September 2022)

supplies and support the sustainable growth of private-sector suppliers.

The Ministry of National Defense intends to make continuous efforts to raise the quality of military supplies, which is essential to improve the service environment and strengthen the combat readiness posture of our forces.

2. Open Management of Defense Affairs

Increased Communication with the Public

In order to earn the trust and support of the Korean public for defense policy and instill pride in our troops for their service to the country, the Ministry of National Defense is stepping up its public communication efforts on key policy issues, using diverse channels including media outlets, social media, and in-person communication. The Ministry of National Defense operates the “Public Relations Expert Group,”¹³⁾ an advisory panel composed of private sector specialists from all walks of life, to tap their expertise to improve its policy communication performance. “Online Supporters (M-Friends),”¹⁴⁾ composed of college students interested in national defense issues, create and post social media content on defense themes for two-way communication with the public.

The Ministry of National Defense makes active use of online platforms to expand the reach of its messages. It produces variety of accessible online contents to help the general public and service members gain a better understanding of defense policy issues. Series that deal with themes such as life in the barracks, training, and weapons systems, including “Pride,” “Gunvogue,” and “Real Military Debates” are posted on the Ministry of National Defense’s official website. Key defense-related events, such as the Armed Forces Day, the Seoul Defense Dialogue, Seoul ADEX, the 19th Asia Security Summit, or the 54th ROK-U.S. Security Consultative Meeting are advertised on a wide gamut of platforms, including news and online media. To elicit the public’s interest in policy debates, online content is created on related issues and post-event materials, including video footages, are also published online. Recent improvements in food service policy have been actively advertised through mass media. The Ministry of National Defense notably sponsored and participated in the production of the episode of the tvN reality show, *The Backpacker Chef*, on military food to showcase the enhanced culinary standard and the skills of military chefs. The “Golden Shovel Chef Award,” a cooking contest conducted jointly with the Ministry of Agriculture, Food and Rural Affairs and other government agencies to promote the development of military food services, was aired on *DocuOn*, an edutainment program by KBS. Military food service-related content have also been published on a variety of cooking YouTube channels.

Meanwhile, to showcase appreciation for troops serving on the frontline, despite challenges presented by the prolonged COVID-19 pandemic, campaigns were conducted to encourage the sharing of messages of gratitude and goodwill for soldiers.

The ROK Armed Forces have also participated in the efforts to send positive messages to the Korean public amid the pandemic. In 2021, music video of “Kkotgilman geokge haejulse (bed of roses),” a song on hopes of a timely return to a normal life, performed



2022 Military Photo
Book Project Our
Formidable Armed
Forces

13)

An advisory panel, made up of 30 experts from various fields, including smart innovation, culture, healthcare, media, and advertising, established in 2015 to develop innovative communication ideas for defense policy and tap their expertise to improve communication.

14)

An online student reporter group created to strengthen policy communication via social media platforms, using public-friendly and engaging content.



Military Photo Book Project Our Formidable Armed Forces

by Daybreak and the Army, Navy, Air Force, and Marine Corps bands, was produced and disseminated. “Protecting Your Everyday Life” campaign which highlights the fact that the military not only serves in the realm of national security but is defending the everyday lives of its citizens received the 2021 Korea Communication Award. In 2022, active-duty veterans of the first and second Battle of Yeonpyeong and descendants of ROK-U.S. service members who fought in the Korean War attended professional baseball games, throwing out a ceremonial first pitch. These events helped to keep the victorious battles at Yeonpyeong-do at the forefront of public memory and provided an opportunity to remember the sacrifices made by our service members to defend this country. A string of participatory events were organized on social media platforms in 2022 for two-way communication with the Korean public, including “We-Daehan Run”, a running challenge, and the “Armed Forces Day Taegeukgi Raising” campaign. Meanwhile, a photo book containing the images of troops is published annually to project the power and strength of the ROK Armed Forces to domestic and foreign audiences. In 2022, the photo book had a dual theme, “Our Formidable Armed Forces” and “The Strongest Alliance.” The photos were made available for viewing online and calendars featuring them were printed and distributed.

Meanwhile, to generate interest and support for national defense policy, series of public messaging videos were produced. Including “70 Years of Waiting,” a video on recovery of war remains in the Demilitarized Zone (DMZ). This video not only resonated with Korean public but also entered major advertising contests and received the “Korea Advertising Award” and the “Good Advertising Award.”

Moving forward, the Ministry of National Defense will invest further in policy communication to earn the Korean public’s confidence in our Armed Forces by publishing appealing, user-friendly content about issues of popular interest and ongoing improvements in living quarters for our service members.

Expanding Public Involvement in the Policy Formulation Process

The Ministry of National Defense pursuing innovation in governance through “communication and cooperation,” one of the administration’s

objective as well as its innovation strategy. To help spread a proactive approach to public administration and spur innovation across government organizations, the “Government Innovation and Proactive Public Administration Best Practice Contest” is held annually. For the selection of best practice cases, continuous efforts are made to increase the Korean



Public interest
advertising “70 Years
of Waiting”

public's input through measures such as online voting. To broaden public involvement in the campaign for proactive public administration, the Ministry of National Defense operates the "Proactive Public Administration Monitoring Group," a group made up of ordinary citizens, serving as a bridge between the MND and the general public.

Meanwhile, "Citizens' Group for Defense Information Disclosure," a group of citizen volunteers, annually formed to monitor defense information released by the Ministry of National Defense, is contributing to enhancing the quality of information disclosure. "Citizens' Group for Policy Design," another annually formed volunteer group, made up of members of the general public and professional service designers, carries out tasks to improve public services.

To increase the transparency and effectiveness of defense policy, the Ministry of National Defense also takes part in the "Open Policy" scheme, providing a summary and progress update of major policy agendas and name of participating government officials in a continuing effort to protect citizens' right to know and maintain broad communication with the Korean public.

**Civil Society and Government Cooperation
to Counter Corruption and
Ensure the Integrity of Public Services**

To achieve the highest ethical standards in defense administration and earn Korean people's confidence in the integrity of public services, the Ministry of National

Defense has increased public oversight and participation across all aspects of defense and military affairs. A stricter anti-corruption policy has been adopted and a variety of processes based on civil society-government partnership have been instituted to promote ethical conduct.

Corruption fighting mechanisms with direct public participation that are currently in place include the "Anti-corruption Ombudsman," a program in which independent private-sector experts take reports on corruption within the military, audit the military and issue recommendations for improvement, and "Public-Private Partnership Council for Corruption-free Military," a committee composed of defense institution officials, members of civic organizations, and people from broad walks of life, deliberating on measures to prevent corruption in the military. In December 2021, the Ministry of National Defense entered into an MOU with the Anti-Corruption and Civil Rights Commission for cooperation in combating corruption and protecting the rights and interests of members of the armed forces.

Furthermore, to help all servicemembers gain a better understanding of anti-corruption-related legal requirements and ensure compliance, information sessions about anti-corruption laws, including the Improper Solicitation and Graft Act and the Act on the Prevention of Conflict of Interest, are regularly conducted. This is coupled with other initiatives to spread corruption awareness and the message that integrity is a core value of a public servant, such as the "Anti-Corruption Newsletter" and the "Anti-Corruption Essay Contest." In tandem, an anonymous reporting system has been established to encourage whistleblowing and public interest disclosures and strict punitive measures are imposed on those who attempt to obstruct whistleblowing activities, public interest disclosures or fail to fulfill duties related to the protection of whistleblowers.

Thanks to these efforts, the integrity metrics of the Ministry of National Defense have improved year after year. In 2022, the Ministry of National Defense received grade 2, the second highest rating, in the annual integrity assessment of government agencies, conducted by the Anti-Corruption and Civil Rights Commission. The Ministry of National Defense also plans to establish measures to reward whistleblowers that contributed to the advancement of national defense. Going forward, the Ministry of National Defense will continue to uphold the transparency and integrity of defense administration through citizen auditor programs such as “Anti-Corruption Ombudsman” and the “Public-Private Partnership Council for Corruption-free Military,” as well as seeking out new and more effective ways to combat corruption.

3. Defense Regulatory Reform to Enhance Public Interest

Identifying and Developing New Tasks for Regulatory Reform

Every year, the Ministry of National Defense establishes an annual regulatory reform plan to introduce changes to defense-related regulations for the benefit and convenience of the Korean public, without jeopardizing national security or the safety of citizens. The current administration is pushing for a radical and broad-based regulatory reform, led by the civil society, to get rid of unnecessary restrictions on the freedom of individuals and businesses and help unleash the creativity of the private sector. The Ministry of National Defense has joined this effort and has set up the “Defense Regulatory Reform Taskforce¹⁵⁾ to identify and develop regulatory reform tasks in the defense domain.

In 2021, 16 regulatory reform tasks were carried out in areas related to fostering the growth of new industries, eliminating sources of inconvenience to the public, and alleviating burdens on businesses. To facilitate data sharing and convergence within the military and increase the openness of data, the “Defense Data Management Directive” was established, which provides the regulatory basis for activities to promote the development of new industries, including AI, big data, and cloud. Regulations regarding medical treatment was amended so that reservists injured during training can receive treatment from civilian medical institutions in addition to military hospitals. In addition, training notices for reservists, which used to be mailed or delivered in person, can now also be sent through text messaging for improved convenience. The scope of authorities delegated to local administrations have been expanded regarding development projects within military facility protection zones. Local administrations are now allowed to directly consult with the military unit with jurisdiction to shorten the approval process and avoid causing unnecessary aggravation for local communities. Regulatory burdens on firms have been eased as well by revising the tender assessment criteria so that no additional penalty points are applied against goods and services offered by suppliers that were previously penalized for bid rigging or other tender rule violations after the end of the period during which they were precluded from the tender process or their participation was restricted. Moreover, as a show of respect for those who served the country, a program was created to retroactively promote the rank of veterans who served 30 months or longer on active duty, but were discharged as a corporals due to the then promotion regulations to be promoted to sergeants.

15)

The Defense Regulatory Reform Taskforce was established in June 2022 to assist with the government’s regulatory reform agenda. The taskforce meets on a monthly basis to identify new reform tasks and develop plans for reform.

In 2022, 23 regulatory reform tasks were identified and carried out in areas related to spurring growth of new industries, minimizing burdens on companies, doing away with sources of inconvenience for the public and enhancing the service environment for troops. To foster the growth of new industries, the defense acquisition system was improved as well through measures such as speeding up the acquisition of cutting-edge technology-based weapons systems through the rapid acquisition program.¹⁶⁾ Security regulations on safety and security testing have also been revised in order to establish the kind of security standards necessary to introduce AI, unmanned systems, and cloud in the defense arena. The authorization process for defense technology export has been simplified to reduce regulatory burdens for firms by waiving certain procedures, such as deliberation by subcommittees, for technologies with low protection requirement and risk of leakage. Furthermore, in order to prevent price rigging on goods sold at PX stores by external vendors, a new program was put into place to monitor and manage product categories for which there is a high level of competition. The product selection process was also improved to quickly ban products that have been associated with price fixing or rigging behaviors. To reduce inconvenience for civilians accessing military bases and avoid unnecessary invasion of privacy, background checks are now conducted only for those handling classified information and those that routinely enter restricted zones.

A mobile app (Armed Forces “Youth Dream”) for the reservation of intercity bus tickets was developed for the convenience of servicemembers. Meanwhile, to simplify the recruitment process for both military and civilian staff, a big data-driven AI human resources management system (“Smart Human Resources Management System”)¹⁷⁾ was developed. In addition to recruitment, the system also provides career counseling and discharge-related support.

To ensure the quality of the regulatory regime, all proposals to institute new regulations or strengthen existing ones are reviewed by the Ministry of National Defense’s internal Regulatory Reform Committee¹⁸⁾ for relevance. Meanwhile, in a continuing effort to identify new ideas for regulatory reform in the defense field, a call for innovative ideas is launched periodically, inviting members of the Ministry of National Defense, the Joint Chiefs of Staff, and service personnel across all sections of the armed forces to contribute their suggestions. Out of the 34 ideas proposed through this scheme, 3 were nominated for awards. In addition to the 3 that received an award, 3 additional ideas were selected for inclusion in the short-term and medium-term regulatory reform plans.

The Ministry of National Defense will continuously explore and carry out new regulatory reform tasks that can make a positive difference in the lives of service members and the general public. The Ministry of National Defense will also broaden opportunities for public participation by conducting an online vote when selecting the case of best regulatory reform and step-up communication efforts on related accomplishments to increase public awareness.

Improvements in Ammunition

Storage Facility-related

Practices

as a military facility protection zone, however, results in various development restrictions within the designated area, including restrictions on the construction or expansion of new

To keep ammunition storage facilities at a safe distance from local communities, the Ministry of National Defense designates their surrounding areas as “military facility protection zones.” The designation



Armed Forces “Youth Dream” App, Express Bus mobile App

16)

A program in which cutting-edge technology-based commercial products are tried out before the requirement or acquisition decision is made either by purchasing a small sample or having a prototype developed for test purposes.

17)

This big data-driven AI system, designed to enable the integrated management of military human resources, across all areas of personnel management, including recruitment, education and training, and pre- and post-discharge support, is currently under development for completion in 2025.

18)

The committee was established in accordance with the “Directives on the Operation of Regulatory Affairs” (Ministry of National Defense directives) to define the scope of application of new administrative regulations and deliberate on their validity and relevance. The committee is composed of 6 to 15 internal members (Deputy Minister for Planning and Coordination, Director General for Legal Affairs, and heads of divisions with jurisdiction over regulatory issues on hand) and external members (legal and regulatory experts).

or existing buildings by local residents or roads by local administrations. The Ministry of National Defense is currently implementing measures to minimize inconvenience to local communities due to such restrictions.

Aboveground ammunition storage facilities, which account for 31% of all ammunition storage facilities across Korea and many of which are severely dilapidated, are progressively being replaced by more modern facilities such as igloo-style or underground bunkers. Underground ammunition storage bunkers, which are the most efficient in terms of land use, are currently the preferred solution. In tandem, through cooperation with the industry, academia, and research institutions, the safe distance from ammunition storage facilities will be re-determined by reflecting the geographic features of Korea to prevent unnecessarily large swathes of land from becoming barred from development.

4. Improving the Military Service Affairs

Special Management of Military Service Records of Public Figures

Starting in September 2017, military service records of public figures including government officials have been separately managed in accordance with Article 77-4 of the Military Service Act, which was amended in March 2017. This special recordkeeping applies to civil servants ranked at grade 4 or higher and their children, high income individuals and their children, athletes, and entertainment and media personalities. The status of compliance with military service requirement is regularly monitored for these individuals, from preliminary service enrollment until the completion of their active duty service. Between 2017 and August 2022, 19 cases of suspected military service evasion were identified in the monitored groups, including cases involving deliberate weight gain or wrist surgery to get medical exemption.

More recently, the vast majority of individuals in the monitored groups have either completed

[Figure 6-4] Changes made to the Enlistment Regulation to Address Inequality

/	Old rule	New rule
Postponement of enlistment date	<ul style="list-style-type: none"> Enlistment postponed for all prospective enlistees irrespective of age, if taking a civilian occupational licensing or certification exam Enlistment postponed until the end of May of the following year for all those enrolling in a graduate program irrespective of age 	<ul style="list-style-type: none"> Restrictions on the postponement of enlistment on the grounds of a licensing or certification exam for those aged 28 years and older (effective as of August 2018) Restrictions on the postponement of enlistment on the grounds of enrollment in a graduate program for those aged 28 years and older (effective as of January 2019)
Permission for short overseas trips	<ul style="list-style-type: none"> Overseas stay of up to 1 year per trip, maximum combined stay of 3 years for all trips 	<ul style="list-style-type: none"> Overseas stay of up to 6 months per trip, maximum combined stay of 2 years for all trips (effective as of May 2018) * Maximum limit of 5 trips removed (effective as of January 2022)
Physical examination grading system for military draft	<ul style="list-style-type: none"> Grade 4 for chronic ankle or wrist instability 	<ul style="list-style-type: none"> Grade 3 for chronic ankle or wrist instability (effective as of December 2021)

their military service or are in the process of completing it. Meanwhile, there have been cases in which some entertainers and athletes used loopholes in the enlistment rules to put off their military service. To address this type of deliberate avoidance of military service, regulations on

the postponement of enlistment were tightened for those aged 28 years and older.

Accomplishments from these efforts to ensure the fair application of military service requirements have been communicated to the Korean public through YouTube and social media platforms to reach broader audiences. Online educational campaigns, targeting people in the entertainment and media industries, are also actively conducted to encourage compliance with military service obligations and spread the awareness of related legal requirements.

Expanded Military Service Records Disclosure Requirements during Confirmation Hearings

The requirement for candidates to a public office to disclose their military service records was first introduced in 1999. Until recently, only candidates to a public office, for which a majority approval by the National Assembly is necessary for appointment or election,¹⁹⁾ were subject to military service records disclosure requirements. In recent years, however, the need to vet candidates to other public offices, such as the State Council, has been recognized. Effective as of May 2018, nominees to the State Council are also required to submit details of their military service records to the National Assembly and disclose them during the confirmation hearing, which is a major step forward for the Korean public's right to know. In October 2019, unit of assignment military occupational specialty was added to the list of disclosure items. The disclosure requirements were further expanded in October 2021 to include the service records of the spouse of a woman candidate to a public office if the spouse completed his military service while he was already married to the candidate.

Improvement of the Draft Physical Examination and the Pre-enlistment Fitness Test

The Military Manpower Administration has recently introduced the latest medical equipment to ensure the fairness and accuracy of the draft physical examination. To reduce the burden associated with the cost of the examination, arrangements were made so that low-income individuals and recipients of public assistance may receive the examination at their doctor's office at no cost. In 2022, to enhance the accuracy of the psychological evaluation, the existing three-stage test, including psychological evaluation and mental health evaluation, was expanded to include an extra stage of in-depth psychological evaluation towards the physiologically vulnerable demographic.

Moreover, the pre-enlistment fitness test, which used to be conducted after the enlistment by the unit of assignment, is now conducted before the enlistment by the Military Manpower Administration. This change eliminates the long wait period before a prospective enlistee who was declared unfit could be re-enlisted. In 2021, the Military Manpower Administration conducted the pre-enlistment fitness test on new enlistees of the seven divisions under the 2nd Operations Command. In July 2022, the test was also conducted on new enlistees of the six eastern divisions under the Ground Operations Command. The scope of the pre-enlistment test by the Military Manpower Administration is set to further expand going forward.

19)

An "appointment approval request" must be submitted to the National Assembly for the appointment of the Prime Minister, the Chairman of the Board of Audit and Inspection, the Chief Justice of the Supreme Court, and the Supreme Court Justices, while an "election approval request" is required for the appointment of Constitutional Court Justices (3) and the members of the National Election Commission (3).

Updating the Alternative Military Service²⁰⁾ System

Alternative military services were first introduced in 1973 with the goal of fostering the development of key national industries, enhancing the nation's international standing, and putting surplus military manpower to efficient use. However, there have been substantial changes in circumstances since then. The declining fertility rate in recent decades resulted in a sharp drop in military manpower, and ROK's international status has dramatically improved. Hence, it has been widely suggested that the alternative military service scheme must be updated to reflect the changing times. In November 2019, an action plan called "Tasks for the Improvement of the Alternative Military Service System" was established, led by the Office for Government Policy Coordination and through the joint efforts of the Ministry of National Defense, the Ministry of Education, the Ministry of Science and ICT, the Ministry of Culture, Sports and Tourism.

In accordance with "Tasks for the Improvement of the Alternative Military Service System," the sizes of research and skilled industrial personnel and "onboard ship reserve service" personnel have been gradually reduced. Moreover, PhD candidates assigned to research positions are now required to complete their degree by the end of their service period as part of an effort to ensure that substantive contributions are made by alternative service personnel. The assignment of research personnel with a master's degree to SMEs in the parts and materials industry and the equipment industry was increased and restrictions were imposed on their reassignment to large firms. The Ministry of National Defense will continue to explore new ways of enhancing the alternative military service system to bring it in line with the future defense environment, redefined by declining military manpower resources.

[Figure 6-5] Key Improvements in Alternative Military Services in Industrial Support-related Fields

Tasks		
1	Improved management of limited military manpower and greater fairness	<ul style="list-style-type: none"> • Reduction of personnel • Improvement of service requirements for PhD-candidate research personnel
2	Strategic use of human resources	<ul style="list-style-type: none"> • Increasing the number of industrial support personnel assigned to parts and materials firms and equipment manufacturers • Expanding the roles and responsibilities of government agencies with jurisdiction
3	Closer management of service performance, strengthening disciplinary action against underperforming or irresponsible service members	<ul style="list-style-type: none"> • Toughening of disciplinary rules and procedures against negligent or irresponsible behavior
4	Increased protection of the rights and interests of service personnel	<ul style="list-style-type: none"> • Introduction of a flexible service model for PhD-candidate research personnel • Creation of an online counseling system for onboard ship reserve service personnel that serve aboard international ships

20)

Including onboard ship reserve service, art and sports personnel service, public health service, draft physical examiner service, "public service advocacy" service, public quarantine veterinary service, research personnel service, and skilled industrial personnel service.

Assistance for Enlistees with Special Needs or Financial Hardships

Since 2019, the Military Manpower Administration has special procedures in place for people with chronic health conditions or experiencing financial hardship to assist them in meeting their military service requirements. Effective as of 2020, persons suffering hematologic malignancies no longer need to undergo the draft physical examination and are exempted from service based on document review.

From 2021, all costs related to medical diagnosis are paid by the government whether or not a prospective enlistee is exempted based on the results of the diagnosis. In 2022, 2,123 persons received financial aid toward the cost of a medical examination.

For prospective enlistees whose income is below a certain threshold, any additional tests required by the draft physical examiner to be conducted at civilian medical institutions are administered at no cost to them. Low-income enlistees are, moreover, awarded extra points when applying for a volunteer assignment and are given preferential consideration for assignment as skilled industrial personnel.

Honorable Families with Military Service Tradition

To create a social atmosphere in which those who serve in the military are valued and respected, a special program known as “Honorable Families with Military Service Tradition” was launched in 2004. Families that served on active duty for three generations (direct family members) are honored under this program. In 2013, families whose members served in the Korean Liberation Army were inducted into this program. In 2020, “National Independence Honorees” were also inducted into the program. In 2022, the program added 1,816 new families, the highest number since its launch in 2004. Selected families receive a certificate recognizing their service to the nation and an appreciation plaque, as well as discounts or waivers of fees for using various public and private facilities.

[Figure 6-6] Honorable Families with Military Service Tradition – Designation Statistics

As of December 2022, units: families, persons

/	Total	2004 ~2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Number of families	9,447	1,062	301	545	497	466	560	492	714	741	1,017	1,236	1,816
Number of veterans	47,650	4,857	1,444	2,642	2,520	2,490	2,932	2,670	3,779	3,820	5,222	6,289	8,985

5. Stable Supply of Supplementary Military Manpower and Efficient Management of Human Resources

Measures to Supplement Military Manpower

Amid the rapid decline in military manpower resources, the Ministry of National Defense has overhauled its human resources planning system to ensure a stable supply of supplementary personnel over a medium and long-term horizon.

The assignment of armed forces personnel to the Korean National Police, Coast Guard, and the fire department will discontinued after 2021 and be completely phased out by 2023. The number of personnel assigned to alternative service duties such as research or skilled industrial personnel will be progressively reduced by 1,200 annually between 2022 and 2026. The size of full-time reserve forces will also be reduced from 16,000 to 8,000 in 2023 by reassigning them to active duty. Meanwhile, to increase the number of enlistees



Honorable Families
with Military Service
Tradition project

that are assignable to active duty, the criteria for determining fitness for military service (BMI, vision), which were tightened in 2015 to reduce the backlog in draft processing, were restored to their previous, unmodified state so that the percentage of those determined to be fit for service can rise to the level seen in 2014. Efforts are also made to reorganize the manpower structure with emphasis on officers and NCOs. To increase the manpower pool for officer and NCOs the age ceiling for entering service was raised while the number of female service member was expanded as well. Going forward, in lined with the restructuring of forces planned as part of Defense Innovation 4.0, an appropriate size of the standing force will be re-determined and a comprehensive set of measures will be implemented to ensure the stable supply of manpower.

Improve Recruitment of Officers and NCOs

The shift in the force structure with emphasis on officers and NCOs, coupled with increased use of cutting-edge weapons systems, has magnified the need for capable professionals. While the size of the total standing force is reduced, the military is expanding the officer and NCO corps to fill positions requiring skills, experience, and expertise. However, amid the overall decline in military manpower, the demand to join the military as professionals have declined, making their recruitment increasingly difficult.

In order to secure high-quality manpower, the recruitment of long-term, permanent positions, which guarantee a stable career in the military, has been increased. The quota of first and second lieutenants and staff sergeants has been decreased, while the quota of mid-level officers and NCOs were increased. The goal is to reduce the number of new recruits to make room for career military officers and NCOs to serve for extended periods of time, thus to formulate a human resources policy focused on career military officers and long-term service personnel. The retirement age for officers was pushed back and a process for selecting newly assigned non-commissioned officers for long-term service was put into place. Continuous efforts are also being made to boost compensation and benefits for officers and NCOs.

In tandem, incentive payments are issued to recruit officers and NCOs who wish to serve for short periods of time and Meanwhile, to secure manpower to serve as officers and NCOs for a medium term, college students committing to an extended military service are awarded an extended service grant,²¹⁾ most often in amounts sufficient to cover full tuition costs for an undergraduate program. In the face of a growing shortage of military manpower, the ROK military will continue to seek out solutions to guarantee the stable supply of high-quality professional officers and NCOs for both medium and short-term service positions.

Development of Skilled Military Manpower

To proactively respond to future changes in the security environment, driven by Fourth Industrial Revolution technologies, and spur innovation in the defense field, the Ministry of National Defense conducts educational programs to develop skilled military manpower, including degree programs and study abroad programs.

Degree programs, aimed at fostering military professors, researchers, and policy experts, are taught at major higher education institutions in Korea and abroad. About 350 service

²¹⁾

A grant awarded to students currently enrolled in a four or two-year college on condition that they agree to serve in the military as an officer or a non-commissioned officer for an extended period that exceeds the compulsory service period.

members are selected annually to pursue a PhD or MA degree in cutting-edge technology fields, including AI, robotics, and aerospace engineering. Study abroad programs provide service members with an opportunity to deepen their military knowledge, learn new technologies, and improve their proficiency with weapons systems and combat skills. Study abroad programs are also designed to train regional experts. 350 service members are sent abroad annually to attend graduate programs at defense universities, command and general staff colleges, and MOS schools in 40 countries. In recent years, service members are sent to an increasingly diversified list of countries in regions including Southeast Asia, Eurasia, the Middle East, Latin America, and Africa, under the goal of training combined and joint operations specialists as well as building military diplomacy capabilities. Moving forward, continuous efforts will be made to strengthen research and development capabilities of skilled personnel and educational opportunities in AI and other cutting-edge fields will be further expanded by closely linking with the Defense Innovation 4.0 initiative.

6. Future-oriented Human Resources Management Model

Smart Human Resources Management System

In conjunction with personnel restructuring, currently underway to address challenges posed by declining military manpower, a project to build a “Smart Human Resources Management System” will begin in 2023 for completion in 2025. The new system will be designed to increase the efficiency of human resource management through innovative processes, such as tailored training of personnel to meet specific skills requirements, increased public services related to key areas of recruitment needs, and career counseling for service members expecting to be discharged. Although a computerized human resources management system (“Defense Personnel Information System”) already exists, this system lacks features to support the efficient use of accumulated data and requires manual intervention to view and analyze data. The new system will be an advanced system, harnessing the latest technologies including AI and big data, to enable smart management and use of accumulated personnel data. The “Smart Human Resources Management System” will make it possible to efficiently manage the life cycle of the service members and civilian employees and the data-driven decision-making process is expected to enhance fairness and confidence in personnel affairs.

After the research project to develop an “AI-powered human resources management concept” was undertaken by the Army in 2018, a detailed system design and a funding plan were completed over the subsequent three-year period. The “Defense Personnel Data Management Team” was later set up to gather input from the Ministry of National Defense and personnel departments of different services about requirements in areas including recruitment, education, training, assignment, pre- and post-discharge support, as well as promotion management platforms. In 2021, a budget of KRW 9.45 billion was secured to fund the project.

In 2022, an external system developer will be selected and after the required analysis and system design is completed, the development of key processes for human resources

management system will begin in 2023 and the system will be rolled out sometime during the second half of 2025. The timeline of the project is summarized in [Figure 6-7] below:

[Figure 6-7] Timeline of the Smart Human Resources Management System Project – Objectives and Tasks by Year

/	2023	2024	2025
Objectives	Analysis and design of functional requirements, systemic management of software development processes	Routinely conduct developmental tests and evaluation (DT&E), meet functional requirements based on user feedback	Optimize the system and ensure its stability through operational tests and evaluation (OT&E)
Key tasks	<ul style="list-style-type: none"> • Design the system, functions, and software standards • Operate a workshop for the development of required functionalities • Code software and test functional units • Define requirements, supervise design 	<ul style="list-style-type: none"> • Establish and operate a testing and evaluation team • Software integration test, developmental test and evaluation (DT&E) • Privacy impact assessment (PIA) • Install hardware and commercial software 	<ul style="list-style-type: none"> • Operational tests and evaluation (OT&E), supervision • Delivery inspection, conclusion of the project • Fielding, maintenance and repair/ system stabilization support

Enhancing the Personnel Management System by Field of Specialization

To prepare for future warfare and in anticipation of a structural shift in the military toward a technology-intensive model, the Ministry of National Defense has made extensive efforts to develop specialists in key areas. The personnel management system has been realigned to emphasize the development and use of “combined and joint operations specialists” and “cyber and technology specialists.” “Combined and joint operations specialists” are personnel trained to lead combined operations after the transition of OPCON. There are two ranks of combined and joint operations specialists according to the level of joint operations capabilities and English proficiency. To increase objectivity in the designation of a position as a specialist position, the vetting process has been strengthened. The required level of language proficiency, which was previously set at an arbitrarily high level was appropriately readjusted according to rank. Moreover, a wholesale review was conducted on positions that were previously designated as specialist positions to ascertain that they are positions that actually require specialized knowledge of combined and joint operations. Moreover, combined and joint operations specialist positions were filled through a rigorous selection process to ensure that only candidates with specialized knowledge and skills are assigned to them. As a result, the rate of assignment of skilled manpower to these positions has sharply increased. The personnel management system will be continuously updated and improved in a manner to promote the development and use of skilled manpower.

Concrete selection and classification criteria have also been established for cyber experts so that candidates with required knowledge and skills are assigned to the position. The recent designation of core cyber technology positions and related pilot programs provided an opportunity to put the capabilities of military cyber experts to use, as well as increased job satisfaction among them. Concerning cutting-edge technology specialists, the “development and use of technology specialists” was selected as one of the tasks under “Defense Innovation 4.0.” As part of this task, a comprehensive series of measures including organizational restructuring, increase in degree programs in related fields, and improvement of personnel management, will be implemented to enable a flexible response to the changing defense environment.

7. Master Plan for the Development of Civilian Military Workforce²²⁾

The recent drop in military manpower resources has resulted in the need to sharply increase the civilian workforce. As the ROK Armed Forces become increasingly technology-driven, there is also a growing demand for civilian workers specialized in fields such as aerospace engineering and AI. In September 2021, the Ministry of National Defense established the “Master Plan for the Development of Civilian Military Workforce” to proactively respond to these challenges and requirements and help boost the quality and competitiveness of the civilian employees.

The “Master Plan for the Development of Civilian Military Workforce” sets out tasks in five areas. In the area of organizational structure and personnel size, the roles and responsibilities of civilian workers and their areas of assignment are redefined. In the area of recruitment, tasks to improve the recruitment method and process are laid out. Improvements are also planned in the areas of employee welfare benefits and personnel management. Finally, in the area of education and training, the plan sets forth tasks for the creation of an education and training system offering instructions that are tailored to skills requirements specific to each job position.

Organizational Structure and Personnel Size

As the ROK is fast approaching a demographic cliff, which will cause a sharp decline in military manpower, active-duty positions in non-combat areas are progressively replaced by civilian positions. The overall number of civilian employees has steadily grown to meet the increasing manpower needs to support a technology focused military. This has led to several issues, including restrictions hindering the job performance of civilian workers assigned to certain posts that were previously active-duty positions, inequality of promotion opportunities due to the difference in personnel size between units, and job families that need to be downsized or consolidated as a result of technological advances.

To address these issues, positions whose duties cannot be wholly fulfilled by civilian employees were converted back to active duty positions and medium-rank positions were added to serve as the missing piece in the promotion path for civilian employees serving in units under the direct control of the Ministry of National Defense. Finally, the job structure in various units were overhauled and certain job families were consolidated as necessary by taking into consideration of the job size.

Efforts for the enhancement of the civilian personnel system by the Ministry of National Defense will continue into the future and new job categories will be added as required by technological advances and the evolving defense environment.

22)

Civilian military workers are special-service civil servants assigned to work for the military, carrying out technical tasks or research, providing education and training, or performing administrative duties.

[Figure 6-8] Tasks under the Master Plan for the Development of Civilian Military Workforce

/	Description
Organizational Structure and Personnel Size	<ul style="list-style-type: none"> • Redefine the roles and responsibilities of civilian employees and their areas of assignment • Change the personnel size and allocation, etc.
Recruitment	<ul style="list-style-type: none"> • Rational and flexible hiring process • Increase efficiency of recruitment • Recruitment from communities by linking with local schools, etc. • Shorten Job advertising duration in extraordinary circumstances such as the state of emergency
Employee welfare benefits	<ul style="list-style-type: none"> • Extending housing assistance to the civilian workforce • Access to medication through military healthcare institutions • Increase of allowances and benefits • More paid leave, increase in welfare facilities-related benefits, etc.
Personnel management	<ul style="list-style-type: none"> • Increase of extra promotion points awarded for accepting assignments in remote or contact areas • Improvement of personnel exchange between • Introduction of personality tests for civilian employees
Education and training	<ul style="list-style-type: none"> • Enhancement of the curriculum of the defense management program • Creation of a mid-level leadership program • Introduction of a continuous education program for civilian staff • Increase in educational opportunities including courses taught by outside institutions, etc.

Recruitment

Although the eligibility requirements for civilians to work for the military as well as the types of tasks for which they are hired are mostly the same across all branches of the armed forces, they are currently recruited separately by individual services. This is also the case for units under the direct control of the Ministry of National Defense, which also conduct their own recruitment. To address inefficiencies resulting from this practice, in terms of both cost and manpower, a trial phase of a consolidated recruitment process has recently been launched. Under this initiative, workers recruited for units under the direct control of the Ministry of National Defense for grade-6 or lower positions are selected through a consolidated process by the services. Changes were made to the rule requiring a job to be advertised for 20 days so that the duration can be shortened in certain extraordinary circumstances, including the state of emergency. Going forward, to improve the efficiency of recruitment, the application and review process will become fully electronic to eliminate the need for applicants to submit hard copies of supporting documents such as a diploma, license or certificate and for recruiters to sift through reams of paperwork. Moreover, a special recruitment program will be designed for remote, rural areas including islands to facilitate recruitment from communities by linking with local schools.

Employee Welfare Benefits

Even though civilian military workers are often assigned to contact areas or remote areas with poor housing conditions, no housing assistance has been available to them until now. To redress this situation, efforts are currently in progress to provide housing assistance to civilian employees stationed in distant corners of the country. Moreover, the exemption that allows active-duty personnel to receive medications from military medical institutions, even after the pharmaceutical reform that prohibits dispensing of drugs by doctors, does not apply to civilian military workers. An initiative is currently underway to amend the Pharmaceutical Affairs Act so that the exemption can also be extended to civilian personnel. Meanwhile, in an effort to improve the overall welfare of civilian employees, allowances and benefits

including reimbursements for expenses are being upwardly adjusted. Civilian personnel's access to military welfare facilities will also be broadened progressively.

Personnel Management

In order to incentivize civilian employees to accept assignments in remote locations or contact areas, extra promotion points awarded to those who take on assignments in these locations have been raised. A new rule was also introduced to give preferential consideration to transfer request by employees who have completed a service period of two to three years in these areas. Moreover, the scope of the personnel exchange program, which was previously limited to reciprocal changes of staff, has been broadened to reduce workplace complaints and increase job satisfaction. Meanwhile, as part of an effort to create a positive work environment and prevent accidents, personality tests are now administered for civilian employees to test their adaptability to the military workplace culture. In addition, equivalent military grades for civilian job positions, proposed by each of the services, will be reviewed in coming times, along with issues related to performance evaluation.

Education and Training

The Ministry of National Defense is undertaking measures to strengthen the capabilities of the civilian military workforce. A mid-level leadership program was created to improve the job skills of grade-4 and 5 civilian employees and the quota of civilian employees for military education abroad and capacity building education has been increased as well. Plans to designate mandatory courses for each job grade and introduce a “continuous education program” are also being examined. Finally, considering the fact that the size of civilian military personnel is expected to reach 47,000 in the long term, a plan is in the works to design and offer a common curriculum for civilian staff, consisting of basic subjects relevant to the performance of tasks and leadership training, in addition to job skills training provided by each respective service.

Civil-Military Cooperation; together with the people

The Ministry of National Defense is implementing measures to mitigate disturbance to civilians residing near military bases such as restrictions on development, noise and dust associated with training or operations, while pursuing a culture of coexistence by creating programs to stimulate the local economy. The MND is also striving to provide service members with skills to excel post-retirement with variety of military life cycle-based career programs, including personal growth opportunities and post-discharge career development and planning support.

1. Military Facilities that Coexist with the Local Community

Easing Restrictions in Military Facility Protection Zones

To protect the property rights of landowners within military facility protection zones and help revitalize the local economy, the Ministry of National Defense has progressively eased land use restrictions within these areas over the years. Particular efforts have been made to relax overly restrictive rules applying to frontline areas. In areas where zoning restrictions cannot be altogether removed, more and more decision-making power is being delegated to local administrations to simplify the approval process for construction projects for the greater convenience of landowners and developers.

[Figure 6-9] Repeal or Easing of Land Use Restrictions within Military Facility Protection Zones

unit: km²

Area Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Repeal	50	1.6	28	27	20	25	37	337	77	100.7	9.1
Eased	5.7	6.3	0.8	46.5	4.5	0.2	0	13.2	0.5	1.3	3.7

Recently, a wholesale review has begun to re-examine all military facility protection zones across the country. The goal is to reduce their footprint by repealing protections in all areas where zoning restrictions are not strictly necessary. The necessity of zoning protections will be re-evaluated in both contact and non-contact areas as well as all military bases including air bases in an active effort relax the current military facility protection scheme.

Moreover, to minimize the need for the designation of new military facility protection zones, the Ministry of National Defense will seek to amend the Protection of Military Bases and Installations Act to broaden the range of allowable activities within the existing protection zones.

The Ministry of National Defense will keep up its efforts to minimize the impact of military facility protection zones on host communities by introducing changes to laws and regulations, necessary to ease land use restrictions within these zones.

Compensating Local Residents for Military Airfield and Firing Range Noise

Previously, the only way for residents affected by noise from military operations or training exercises to receive compensation was to file a complaint in court. In November 2019, the Military Airfield and Firing Range Noise Prevention and Compensation Act (hereafter, the “Military Noise Compensation Act”), proposed by the Ministry of National Defense, was passed. Under the new law, residents in high noise areas can receive compensation by simply filing a claim with the Ministry of National Defense without having to go through the lengthy legal proceedings.

In accordance with the Military Noise Compensation Act, the Ministry of National Defense issues compensation to residents impacted by noise from military activities, on an annual basis. In 2022, 415,000 residents were awarded KRW117.7 billion in total compensation. To facilitate the compensation process, the Ministry of National Defense recently began a pilot operation of a noise monitoring system, measuring noise levels in areas surrounding military facilities.

The Ministry of National Defense intends to continuously increase public engagement and communication efforts on related issues by organizing information sessions for local administrations and residents as well as holding hearings at the National Assembly. A noise reduction and compensation plan (“Basic Noise Prevention and Compensation Plan”) will be established every five years to guide the effort to minimize the disruptive effects of military noise on local communities and provide a stable environment for military activities.

Relocating Military Air Base Under Just Process

In accordance with the Special Act on the Relocation of Military Air Bases and Support Therefor enacted in 2013, the Ministry of National Defense is currently pursuing relocations of Daegu, Suwon, and Gwangju Air Bases to new locations, for which there were relocation requests from the local governments.

In August 2020, Bian-myeon (Uiseong-gun) and Sobo-myeon (Gunwi-gun) were selected as the new site (relocation site) for Daegu Air Base. After a relocation petition was submitted by Daegu Metropolitan City in 2014, it took six years Daegu Air Base to find a new home. The process was long and arduous due to the clash of interests between communities. Nonetheless, thanks to the Ministry of National Defense’s persistent effort to communicate and cooperate with local administrations and residents, the conflict resolution processes are also significant. This project is also significant in that the new site were selected through a democratic decision-making process by conducting a “deliberative citizens’ opinion poll.” The planning stage of the construction of the new integrated air base has been completed, including the locations of the runway, key airport facilities and estimated project cost. An “Donation and Concession” plan (draft) has been submitted along with the MOA with Daegu Metropolitan City (draft) to the Ministry of Economy and Finance. Plans to support the development of community and welfare facilities in the surrounding areas of the new air base are also forming into shape.

Discussions are also actively underway with USFK about the relocation of U.S. military installations into the new air base. In October 2020, the Ad Hoc subcommittee for Relocation of U.S. Facilities and Areas within ROK Military Air Bases (MARSC) was formed under the SOFA Joint Committee, with Joint Working Groups (JWG) for Umbrella Agreement (UA),

Engineering Memorandum of Understanding (E-MOU), and Master Planning (MP) under it. The JWG is currently working on the UA, laying out the basic principles to abide by for the relocation of U.S. military facilities, related implementation procedures and the E-MOU on details of the process. The group is also discussing issues related to the Master Plan for U.S. facilities, including the arrangement of facilities at the new site, as well as project costs.

As for the relocation of the Gwangju Military Air Base, although an appropriate candidate site was identified within the Southern Jeolla Province through a selection process that began in February 2018, the project is at a standstill for the moment due to the objection from the local administration and residents of the host site region. In April 2021, on the suggestion from Gwangju Metropolitan City and the Southern Jeolla Province, the Office of the Prime Minister set up a consultative group, made up of relevant agencies. It was decided that relocation costs will first be calculated for each prospective site and then measures to support host communities will be developed based on the estimated costs. Accordingly, in October 2022, the Ministry of National Defense jointly calculated the relocation costs for each of the sites with Gwangju Metropolitan City and the Southern Jeolla Province. Support measures for the host communities will be designed next by the consultative group and candidate sites will be chosen among towns that respond favorably to the support measures proposed.

For the relocation of the Suwon Military Air Base, the Hwaong zone in Hwaseong-si was selected as a candidate site in February 2017. Since then, there have been ongoing tensions between the City of Suwon and Hwaseong. The Ministry of National Defense has decided to put the project on hold until a common ground can be reached amongst stakeholders through a joint dispute resolution committee with concerned local self-governments and roundtables with civic organizations. The Ministry of National Defense intends to carry out all its air base relocation projects in a fair and transparent manner through dialogue and persuasion.

Return of Private and Public Land Occupied without Authorization

In the past, during the process of establishing or reorganizing military bases, the military came to inadvertently occupy

some private and public land to which it did not have legal rights, caused by failure to perform a boundary survey, urgent operational requirement, or the inability to locate the landowner. To protect the property rights of Korean citizens, the Ministry of National Defense is identifying both private and public land that is occupied by the military without appropriately compensating the owners and redressing the situation under an ongoing project.

Parcels the military needs to continue using are purchased, while those that will be used only temporarily are leased. Meanwhile, parcels that are no longer used as a result of the relocation of a base or the redeployment of troops are returned to their owners after restoring them to their previous condition by removing all buildings and structures, remediating soil, and removing pollution and contaminants. Between 2019 and 2021, the military's land tenure was brought into compliance with property laws on 7.41 million square meters of land. In 2022, the budget allocated to this project was increased by 16% from 2021 and an additional 3.31 million square meters of land was purchased, leased, or returned to the owners.

Moreover, cases handled under this project are no longer limited to those that were brought to the attention of the Ministry of National Defense through civil petitions. In 2019, close to

15,000 landowners were notified of the fact that their property was occupied by the military in part or in whole without their permission or due process and was provided information about how to seek government compensation. Thanks to this proactive approach, the total compensation awarded, which previously averaged to KRW 1.5 billion annually, rose sharply to KRW 24.1 billion over the three-year period between 2019 and 2022, which is a great step forward in the protection of the property rights of citizens.

The Ministry of National Defense will progressively increase the budget for the program and expand its scope to bring all land that is unlawfully occupied by the military into legal compliance in a timely manner to thereby strengthen the Korean public's confidence in the armed forces.

Removal of Unused, Abandoned Structures

To do away with unnecessary sources of inconvenience for the public and make

military facilities a less intrusive presence for civilian communities, the Ministry of National Defense has been removing or renovating unused or abandoned structures and installations.

In late 2018, the Ministry of National Defense conducted a full inspection of all unused or abandoned facilities in and outside military bases to assess their operability. 9,120 facilities, identified through this inspection, were removed or demolished by 2021.

In 2022, a new round of inspection was conducted, this time, to identify facilities that could impede land use planning by local administrations and dilapidated structures that are disruptive to the surrounding landscape or could become crime-ridden area. 1,500 such buildings and structures, selected based on urgency and operability, were pulled down. The removal and demolition of unused or abandoned facilities will continue into 2023. The Ministry of National Defense intends to continue to earmark funding for related programs to create a safe and appealing environment for local communities.



Removal and Demolition of Unused or Abandoned Facilities (before and after)

Civilian-Military Cooperation in Contact Areas and Multi-function Towns

The Ministry of National Defense is restructuring the armed forces to transform the current manpower-intensive forces into a

technology-intensive force. As part of this restructuring process, many units of the armed forces have been consolidated, re-organized, redeployed or dissolved.

The downsizing of the armed forces is expected to have a particularly seismic impact

on communities in the contact areas of the Gangwon Province where troops account for a significant share of both the local economy and populations. In December 2019, in recognition of the fact that the contact area communities have long maintained a close relationship with the military and contributed to national security, the Ministry of National Defense entered into an MOU for cooperation and shared success with Gangwon Province and five Gangwon counties in the frontline areas (Goseong, Yanggu, Inje, Cheorwon, Hwacheon) that are severely impacted by the reduction of troops.

During 2022, a “Shared Success Conference” was convened six times, discussing practical challenges facing contact area residents and how the armed forces can be better integrated into local communities and work together to achieve shared success. The Ministry of National Defense will continue to maintain dialogue with these communities to build mutual trust, undertake measures to revitalize the local economy and improve conditions for troops stationed in these areas.

Moreover, facilities that are scattered across multiple sites will be consolidated in a few strategic locations, both to increase the efficiency of military activities and make room for multi-function civilian-military towns. The multi-function civilian-military town is a project to create infrastructure for mixed civilian and military use. These towns will consist of a military district where operations and training exercises are carried out and a mixed civilian-military district with residential facilities, amenities, and schools for service personnel, their families, and local residents. The mixed civilian-military district will be designed in a way to spur development and socioeconomic advancement of local communities.

23)

Soiled water generated from human activity or industrial processes, containing liquid or solid waste (Article 2 of the Sewerage Act)

24)

Water containing liquid or solid water contaminants that cannot be safely used without treatment (Article 2 of the Water Environment Conservation Act)

25)

Facilities that are liable to cause noticeable contamination of soil, requiring special management (Article 2 of the Soil Environment Conservation Act), including oil storage tanks of 20,000ℓ or larger capacity

26)

Aboveground pipelines are easier to maintain than underground pipelines and enable easy and rapid access to the site of accidents to repair damaged section and clean up oil spills

27)

Tray-shaped containment system for aboveground oil tanks

2. Environmentally Aware Military Management

Increasing and Improving Military Pollution Control Facilities

To prevent waste water²³⁾ and contaminated water²⁴⁾ from flowing into public waters, the Ministry of National Defense has set up water treatment plants across military facilities and conducts regular inspections to ensure that they are safe and in good working order. Sewer systems at some sites have been connected to municipal systems to make use of public wastewater treatment facilities in an active effort to preserve water quality.

Meanwhile, to preserve the soil environment, oil storage tanks in military bases, which fall into the category of “specific facilities subject to soil contamination control”²⁵⁾ under the Soil Environment Conservation Act, are managed with special care. The surrounding soil is regularly tested for contamination and sites with contaminated soil are remediated using appropriate procedures. Moreover, to eliminate the risk of soil contamination, caused by oil spill, underground oil pipelines were replaced by aboveground pipes²⁶⁾ and containment dikes²⁷⁾ were constructed for aboveground oil tanks. Under a project that ended in 2022, aboveground oil pipelines were constructed at 7,025 total sites and containment dikes were installed at 7,169 sites. Active maintenance is planned to address any degradation that may occur in the operating life of these facilities. Regular inspections of oil storages and wastewater treatment plants will be coupled with the frequent patrol of their surrounding

areas to prevent accidents in a continuing effort to strengthen the confidence of local communities in the management of military facilities by the armed forces.



Soil Remediation



Soil Contamination Prevention System (fuel tank containment dike)

Green Retrofitting of Military Facilities

To avoid the exposure of our troops to hazardous substances, the Ministry of National Defense is carrying out measures to mitigate asbestos in older buildings and minimize health risks at work sites.

In accordance with the Asbestos Safety Management Act, the Ministry of National Defense has appointed “building safety officers” in charge of managing the risk of asbestos exposure. Safety information sessions are regularly conducted and asbestos containing structures are encapsulated or sealed depending on the size of affected areas and based on the results of risk assessment. However, in 2019, in an effort to provide a more fundamental solution, all facilities were tested for asbestos and a plan was drawn up to demolish 12,494 buildings that tested positive. Over the subsequent four-year period (2019-2022), 9,428 of them (75.2%) were pulled down. The remaining 3,066 buildings are planned for rapid removal as well. In the interim, mitigation measures as required under the Asbestos Safety Management Act will be taken to contain the risk posed by these buildings.

Meanwhile, to protect the health of service personnel and create a pleasant work environment, service members carrying out maintenance or woodwork-related tasks are provided with personal protective gear and are made to undergo health checks at least once a year. Service members found to have health issues are hospitalized and work methods and staff size are readjusted at the concerned workplace. The work environment is examined once a year at 2,500 sites. At sites where air pollution indicators are above an unhealthy threshold, equipment such as ventilation and dust collection systems²⁸⁾ are improved to bring the air quality up to a compliant level. Every five years, a survey is conducted to assess the work environment and the status of health management at military facilities across the country and make improvement on issues identified.

Addition and Expansion of Ammunition Demilitarization Facilities

Ammunition demilitarization refers to the process of making ammunition unusable for military purposes by mutilating, destroying, altering, and scraping them. In the past, retired munitions were demilitarized by incinerating

²⁸⁾

A system for collecting and eliminating solid or liquid particles suspended in the air

or igniting them at outdoor sites, which frequently resulted in the contamination of soil and even caused wildfire. In order to remedy these issues, efforts are currently underway to expand demilitarization facilities that can dispose of waste ammunition in a more environmentally-friendly manner and expand the capacity of these facilities.



A Newly-constructed Ammunition Demilitarization Plant

The first ammunition demilitarization plant was constructed in 2012, in Yeong-dong, Northern Chungcheong Province. This plant included incinerators, elution, and disassembly facilities. In 2021, thermal incinerator afterburners and disassembly facilities for large-size ammunition were added, which are operating normally as of July 2022. Previously, these demilitarization facilities handled mostly small arms ammunition, but they now have the capacity to annually dispose of 1,200 tons of ammunition of 100 varieties including large-size ammunition and projectiles. Furthermore, they have equipment to filter harmful air pollutants produced during the incineration process and their emission concentration data are published in real time on the neon display boards operated by the Geumgang Environmental Office and myeon offices of surrounding towns. Wastewater generated from demilitarization facilities are treated and re-utilized, using internal purification and recycling systems. Furthermore, the byproduct of demilitarization, such as gunpowder, bullet shells, and lead are sold to generate additional income for the government treasury and maximize the efficiency of recycling. The military is currently working on a plan to further upgrade its ammunition demilitarization capacity. New submunition disassembly facility is being constructed to be able to dispose of submunitions within cluster munitions, as well plasma incinerators to dispose of flares and illuminating projectiles.

3. Supporting the Personal and Professional Growth of Service Members

More Personal and Professional Development Opportunities for Armed Service Personnel

To provide service members with professional development opportunities, the Ministry of National Defense has put into place a wide range of educational programs. First, service members who were enlisted while in college are guaranteed continuity of education through the distance learning course. They are also awarded academic credits for their service experience. Through the distance learning course, service members attend online classes conducted by universities they were enrolled with before enlistment to earn credits. In 2022, 176 universities including Seoul National University participated in this course. To encourage broad participation, 80% of tuitions for the online classes are supported by the Ministry of National Defense. Experiences gained through military service in a variety of fields are furthermore recognized as learning experiences and are awarded academic credits. This program first began in 2019 with twelve

universities including Gyeongin National University of Education. Today, the number of participating universities has increased to 76, including Seoul National University. Second, service members with an education level of high school or below and are currently preparing for self-taught higher education examinations²⁹⁾ or GED (General Equivalency Diploma) exams, are given an allowance for books and academic supplies and are provided tutors. Meanwhile, e-MU³⁰⁾ allows members of personnel who are graduates of specialized military vocational high school to attain an associate degree while serving in the military.

Third, to assist the attainment of national technical qualification certifications by service members, the Ministry of National Defense administers qualification examinations, on behalf of the Ministry of Employment Labor, twice a year for 83 types of certifications including the information processing industry technician certificate. Meanwhile, license exams for forklift and bulldozer operators are administered year-round. Close to 18,000 active-duty service members obtain national technical qualification certifications through this program every year. However, this number dropped sharply between 2020 and 2022 as most skills exams that require in-person tests were postponed or discontinued due to the COVID-19 pandemic. [Figure 6-10] below provides the details of educational support and the number of new certifications acquired per year.

[Figure 6-10] Educational Support and Attainment of National Technical Qualification Certifications by Year

As of December 2022, units: institutions, persons

/	2018	2019	2020	2021	2022
Universities offering distance learning course for armed service personnel	145	154	161	173	176
Universities awarding credits for military service experience	—	17	35	63	76
GED exam takers	258	117	89	102	66
Service members that obtained a new national technical qualification certification	19,530	17,920	8,914	6,224	11,178

*The skills test portion of national technical qualification certification exams was postponed (2nd half of 2020) or discontinued (1st half of 2021) due to COVID-19.

Since 2018, the Ministry of National Defense provides financial support for personal development activities by service members.³¹⁾ Up to KRW 120,000 per person is provided annually to subsidize the cost of language proficiency tests, professional certification exams, textbooks and other learning supplies. The Ministry of National Defense plans to continuously broaden the range of programs to support the personal growth of armed service members.

Business Startup Support Project

In order to prevent military service from causing discontinuity in the education or professional career of service members and promote a productive service environment, the Ministry of National Defense has implemented a comprehensive multi-stage business enterprise startup training program. During the first stage, focused on increasing service members' interest in business startup, communities are formed to allow those with shared entrepreneurial interests to come together and network and basic education is provided on relevant topics to help them gain a better understanding of key issues and spread entrepreneurial spirit. Service members are

29)

Self-taught individuals can receive a government-issued BA degree by successfully passing a four Qualifying Examinations (Liberal-Arts, Major-Basic, Major-Advanced, and Comprehensive)

30)

e-MU (Electronic-Military University) offers associate degree programs for enlisted and non-commissioned officers on extended service duty, who are graduates of specialized military vocational high schools. These programs are provided in cooperation with six higher learning institutions and consist of both online and in-person courses.

31)

During the pilot phase in 2018, the program had a total budget of KRW 100 million (KRW 50,000 per person, per calendar year, 50% of eligible costs borne by personnel). The program's budget increased to KRW 2 billion (KRW 50,000 per person, per calendar year, 50% of eligible costs borne by personnel) in 2019, KRW 8 billion in 2020 (KRW 100,000 per person, per calendar year, 20% of eligible costs borne by personnel), KRW 23.5 billion in 2021 (KRW 100,000 per person, per calendar year, 20% of eligible costs borne by personnel), and KRW 38.7 billion in 2022 (KRW 120,000 per person, per calendar year, 20% of eligible costs borne by personnel).

encouraged to create an entrepreneurship club with like-minded peers within their units. Startup instructors visit units with entrepreneurship clubs and conduct classes on foundational subjects. By learning about business areas of their interest and discussing startup ideas, service members are naturally brought to develop knowledge of key issues.



Defense Startup Competition (August 2022)

Second stage is designed to provide service members that are seriously considering an entrepreneurial career after leaving the military with more advanced knowledge about business startup. Mentors with expertise in the startup process visit units with an entrepreneurship club and offer professional consulting on the startup ideas its members have developed.

Third stage is composed of various startup competition hosted by the Ministry of National Defense and the respective services. These competitions are meant to provide an opportunity for the participants to further develop their ideas and put them to test. The teams selected at the Ministry of National Defense's startup competition are moved up to the next level to compete in the government-wide contest, which forces them to further hone their ideas, concepts and push their innovations to the limit.

During the fourth and last stage, teams that emerged successful in the competitive stage are provided consulting, technical and funding support for their startup projects in collaboration with the Ministry of SMEs and Startups. By nurturing such business ideas of these service members, the startup support program provides the opportunity to make their time spent serving the nation into a productive one with potential for personal and professional growth. By recognizing and nurturing the entrepreneurial potential of service members early on, the startup support program, contributes to the national efforts to foster future business leaders. From 2022, the program has been wholly funded by the Ministry of National Defense and is no longer dependent on corporate sponsorship, which makes its operation more stable and consistent. The Ministry of National Defense will continuously expand the range of startup support by adding new mentorship programs in emerging Fourth Industrial Revolution technology fields to more meaningfully contribute to the development of future business leaders and the sustainable growth of the national economy.

Assistance for a Successful Return to Civilian Life

The Ministry of National Defense has made a broad range of resources available to assist service members in their transition to civilian life. Personalized career counseling is offered to service members expecting to be discharged in the near future. Meanwhile, the career development program, designed to closely reflect the life cycle of armed forces personnel, from enlistment to discharge, and their individual profiles, helps them plan and prepare for a professional career in civilian society and minimize the disruptive effects of military service on education or professional growth.

The career development program is conducted in three phases. During the first phase, basic

coaching is provided to all service members on career planning. Under an outreach program, professional career counselors visit the respective units to talk about the job market and the most promising career paths in recent years, conduct vocational aptitude tests and self-diagnosis tests, and offer personalized counseling.

During the second phase, job skills training is offered to service members who wish to receive such training. To help increase their odds of landing a job in the civilian sector, job skills training is provided throughout the year in desired career fields, in collaboration with the Ministry of Employment and Labor and the Ministry of SMEs and Startups. Job training is conducted outside military bases, at civilian training centers and is attended on average by some 5,000 service members annually. The size of these training sessions will continuously expand through the coming years. Meanwhile, an SME internship program is also available for service members to familiarize themselves with the work environment in their desired fields.

During the third and final phase, tailored training is provided to service members that completed the first two stages of the program to help them meet the requirements of the specific company they wish to work for. This training is provided in cooperation with relevant government agencies and veteran-friendly firms and is focused on increasing the actual chances of finding a new job. Programs such as “Career Academy,” a personalized job search program, “Employer-sponsored Job Training,” a program in which training is directly provided by a prospective employer, and “Traveling Career Information Seminar,” are conducted on a monthly basis to offer direct career opportunities to as many service members as possible.



Career Education for Service Members



Employer-Sponsored Job Training

Career Transition Services for Medium and Long-term Service Members

members who served for five or more years in the military. By improving the career transition training system and increasing the period of transition services, the odds of landing a civilian job have been improved. In 2019, eligibility for military service planning education was expanded to include second lieutenants and staff sergeants, in addition to captains and sergeants first class. The military service planning education program is aimed at helping incoming officers and NCOs to gain a better understanding about the life cycle of the service career and plan ahead of time on their own terms, in relation to their life goals.

The Ministry of National Defense is strengthening life cycle-based career transition services for medium and long-term service

In 2020, to assist with the systematic and stable preparation of officers and NCOs that are soon to be discharged from the military for transition to a civilian career, the “Career Design”³²⁾ program and the “Personalized Basic Career Transition”³³⁾ program were launched. Those who completed the basic education program can choose to move on to an advanced program³⁴⁾ to train further in preparation for one’s career. Starting in 2021, all officers and NCOs who will be discharged in two years or less are required to attend a career design education program so that medium-term service members can begin their preparation for transition to a civilian career in a timely manner, using a planned approach. By requiring medium and long-term service members to complete a basic course package and a variety of personalized training (up to two programs), the Ministry of National Defense strives to improve their employment prospectives and maximize the possibility of finding employment during the career transition support period.

Moreover, for those medium and long-term service members who do not qualify for the military pension, the Ministry of National Defense is currently in discussion with the Ministry of Patriots and Veterans Affairs and the Ministry of Finance and Economy to increase the career transition grant to assist their successful reintegration into civilian society. Taking into consideration the manpower and funding situation of each service, the Ministry of National Defense will also review the possibility increasing the length of the career transition support period and using them in installments to support medium-term service members, for whom reintegration into a civilian career is often more challenging.

More Jobs for Veterans, Standardization of Military Occupational Competencies

The Ministry of National Defense is making continuous efforts to create new military jobs for veterans so that the experience and skills

they acquired during their service can be put to productive use.

Within the military, new non-combat positions are being created in administrative, educational, logistics, and other areas to expand employment for both veterans and civilians. The Ministry of National Defense is also closely working with the National Police Agency, the National Fire Agency, and the Korea Coast Guard to create more job opportunities for veterans in areas outside the military, where their experiences can be valuable assets. To broaden veterans’ access to public sector jobs based on their military credentials, applicant eligibility requirements for competitive experience-based recruitment have been eased and job families and skills categories for which written tests are waived, such as security

32)

This program assists in exploring and setting new career goals based on skills and capabilities acquired during military service.

33)

The program is aimed at improving the employment prospects of medium and long-term officers and NCOs, expecting to be discharged from military service in the near future, by training them on skill sets that are tailored to their civilian career goal (employment, business startup, agriculture).

34)

A program to provide officers and NCOs with qualifications necessary to be competitive in a civilian career according to their job capabilities and individual profile



Armed Forces Job Fair (September 2022)

instructors, have been increased.

Moreover, the Ministry of National Defense organizes a job fair two to three times every year to connect service members that are soon to leave the military and are in search of a civilian job and potential employer. Although the job fair was held mainly online during the past two years, due to the pandemic, in 2022, a large-scale fair was organized in a hybrid style, combining in-person and online sessions. In-person job interviews and career inquiries between job seekers and employers were coupled with a variety of ancillary events, such as career counseling sessions, including one-on-one mentoring sessions with those that currently work in professional fields that are of interest to service members. The career talk and the job search seminar were live-streamed on YouTube so that service members who were not able to attend the fair could participate virtually.

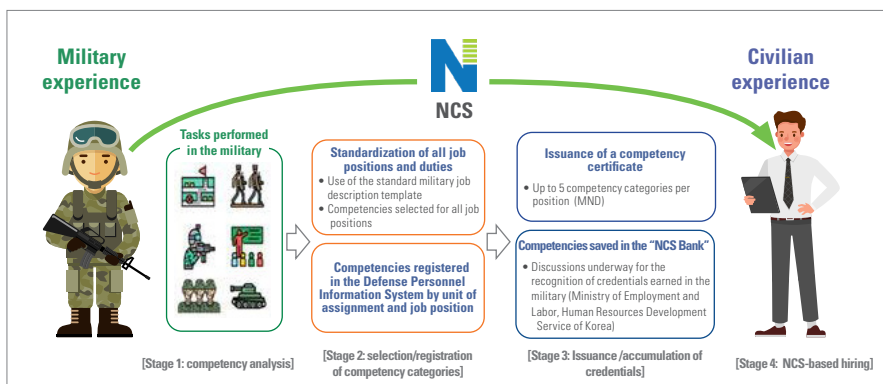
The Ministry of National Defense also recognizes the best employers for veterans through an annual award program, during which commendation certificates and plaques are issued, and organizes roundtables with CEOs and human resources managers of companies to maintain close ties with potential employers, in a continuing effort to broaden employment opportunities for veterans.

In 2015, the government introduced the National Competency Standards (NCS)³⁵⁾ to encourage competency-based manpower development and hiring practices among government agencies, public institutions, as well as private-sector firms. The NCS-based hiring culture has gradually taken hold in recent years. However, competencies gained in the military have not been duly recognized in the hiring process because of differences in terminology between the NCS and military job descriptions and the lack of an equivalence or reciprocity system between the two, even though many of the tasks carried out by armed forces personnel are the same or similar to those in the civil sector.

Currently, a project is underway to harmonize military competency categories with the NCS so that veterans are given credentials for their experiences and skills in corresponding military task areas. Under this project, competencies that match the NCS will be entered in the certificate of experience so that they may count toward academic credits and be presented for the consideration of recruiters and occupational certificate examiners.

Task categories are being standardized, with competency units (codes) established in

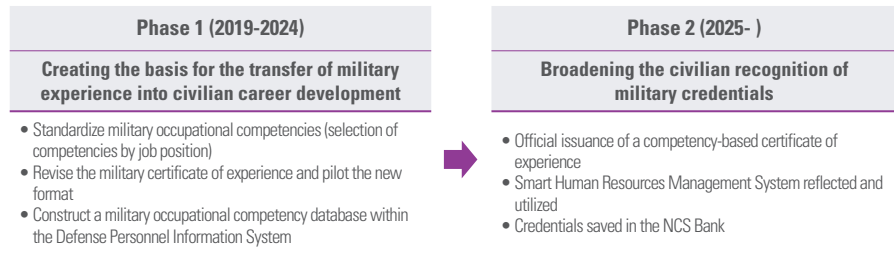
[Figure 6-11] Using Military Service Credentials for Civilian Career Advancement



35)

A government-created standard classification system for knowledge, skills, and abilities required to perform job tasks across different industries, organized according to the sector and task level

[Figure 6-12] Civilian Recognition of Military Occupational Training and Experience – Project Timeline



accordance with the NCS, for each armed services. A standard job description template is being introduced and a database is constructed to manage related data. The first phase of this project, which will include the revision of the format of the certificate of experience and the amendment of relevant laws and regulations, is expected to come to completion by 2024.

During the second phase of the project, scheduled to kick off in 2025, the Ministry of National Defense's Smart Human Resources Management System, currently under construction, will be linked to the NCS Bank, a system by the Ministry of Employment and Labor, which is also in development. This will allow training, qualifications, and experience received and gained while serving in the military service to be more efficiently transferred to a civilian career, while enabling a comprehensive management of related data.

Securing an Adequate Defense Budget and Rational Allocation of Budget Resources

Securing an adequate level of defense budget is essential in order to maintain a comprehensive defense posture against a broad spectrum of security threats and consistently implement key defense policies. The Ministry of National Defense makes utmost efforts to secure budgetary resources needed to build a strong, cutting-edge technology-based armed forces with high morale. Furthermore, continuous efforts are made to more rationally allocate budget resources by ensuring that the expenditure planning is closely and appropriately aligned with policy priority.

1. Importance of an Adequate Defense Budget

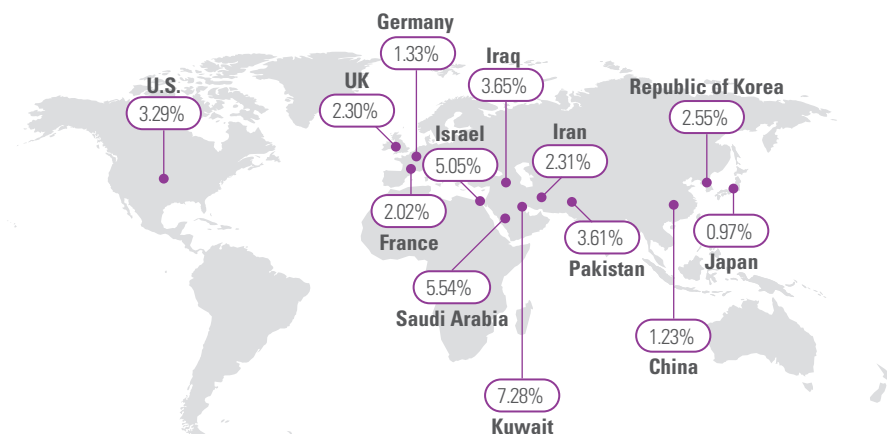
National defense is a public good and the defense budget is a public budget allocated for defense programs conducted to produce this good in accordance with applicable defense policies. An adequate level of defense budget is determined by considering a comprehensive range of factors, including the costs associated with building, operating, and maintaining the military and available fiscal resource.

A country's defense spending tends to increase proportionally to the level of security threats it faces. As can be seen in [Figure 6-13], defense expenditure in countries facing relatively lower levels of security threat, such as France, the UK, Japan, China, and Germany, is only 1-2% of the total GDP. On the other hand, in countries that are parties to geopolitical conflicts or standoffs, such as Israel, Iraq, Kuwait, Saudi Arabia, and Pakistan, defense expenditure accounts for 3% or more of the total GDP. In 2021, the Republic of Korea's defense spending represented 2.55% of its GDP, which is higher than the global average of 1.85%, but lower than the corresponding average among countries that are prone to conflicts or standoffs.

The Republic of Korea is in a military standoff with North Korea and is faced with front-line security threats, including nuclear and missile threats. North Korea has recently carried out various types of back-to-back military provocations, ratcheting up tensions on the Korean peninsula. To firmly respond to these threats and build a basis for peace on the Korean peninsula, it is important for the Republic of Korea to acquire superiority North Korea in defense capability by building a cutting-edge technology-based force and maintain a robust military readiness posture.

Moreover, in light of the paradigm shift in future warfare and declining military manpower, a timely response to adapt to the evolving environment is also crucial. The ROK Armed Forces must harness the latest technologies by integrating them across all areas of national defense as well as strengthen defense capabilities in new areas including the cyber and space domains.

[Figure 6-13] Defense Budget of Major Countries in Relation to their GDP(as of 2021)



* Source: "The Military Balance 2022" (International Institute for Strategic Studies, February 2022); ROK government statistics used for ROK expenditure

Continuous investment must be made to ensure required logistics support, facilities, as well as education and training, while being able to respond to the growing call for a new culture of respect for military service and improvement of the service environment to bring it in line with the expectations of the new generations by complying to their qualitative and quantitative demands.

Proactively and effectively responding to omnidirectional security threats and the changing defense environment, as well as meeting the Korean public's expectations about military culture and the service environment is possible only if there is sufficient funding to support such initiatives. Amidst increasing security threats in the international community, governments in major countries are accelerating efforts to increase defense spending. In the U.S., Germany, and France, in particular, even with the reduction of the overall government budget, defense budget has been increased significantly based on the need to strengthen capabilities to respond to security threats and prepare for future threats. In Japan, the government plans to raise the amount of defense expenditure to 2% of GDP by 2027, which was 0.97% in 2022.³⁶⁾

[Figure 6-14] Change in Government Budget and Defense Budget in Major Countries

/	U.S. (2023)	Germany (2022)	France (2022)	Australia (2022)	Japan (2022)	China (2022)
Government budget	△1.0%	△19.1%	△0.2%	△1.7%	+0.9%	+8.4%
Defense budget	+3.7%	+7.2%	+4.3%	+6.6%	+1.0%	+7.1%

36)

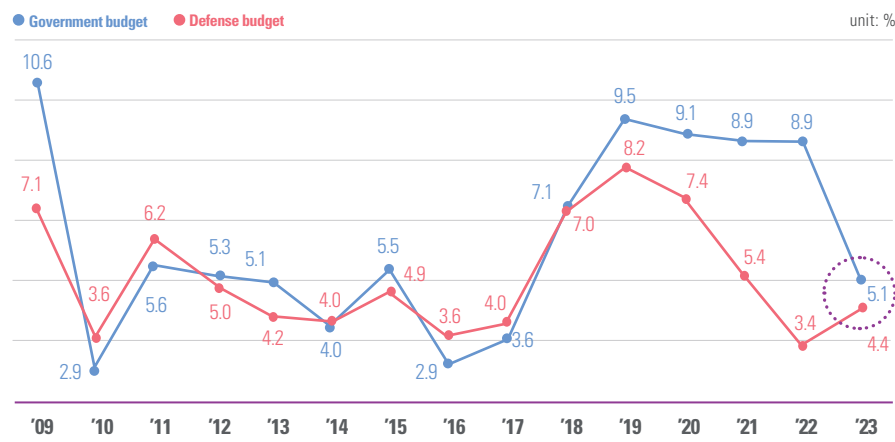
Japan plans to spend JPY 43 trillion in Defense from 2023 to 2027 (JPY 5.4 trillion in 2022 increased to JPY 8.9 trillion in 2027; Japanese Defense Forces Reform Plan).

2. 2023 Defense Budget

Budget planning for the fiscal year 2023 began amid growing domestic and external economic uncertainty, caused by soaring prices of crude oil and raw materials, persistent supply chain disruptions, and ballooning household debt. Because of this, the government adopted an overall conservative budgetary approach to limit governmental expenditure, which also put constraint on the defense budget.

Despite such difficulties, the Ministry of National Defense made its best efforts to secure an adequate level of defense funding by conveying the need to strengthen the capability to deter and respond to omnidirectional security threats and make timely improvements in the welfare of service members. Appreciating the gravity of the current security environment, the government allocated a significant portion of available fiscal resources to national defense. As a result, as it can be seen in [Figure 6-15], while the rate of increase in the government's total expenditures fell sharply from 8.9% in 2022 to 5.1% in 2023,³⁷⁾ the corresponding rate for the defense budget rose from 3.4% in 2022 to 4.4% in 2023.³⁸⁾

[Figure 6-15]] Changes in the Growth Rate of Government Budget and Defense Budget (rate of change, main budget basis)



The defense budget for 2023 was increased to KRW 57.143 trillion to meet fiscal needs to build strong professional military, while creating a pleasant environment and compassionate military culture that service members can be proud of. Of this amount, KRW 40.974 trillion was allocated to operating costs, which includes the cost of taking care of servicemembers as well as operating and maintaining weapons systems, representing an increase of 5.7% compared to last year. Funding for defense forces improvement, which are costs associated with the acquisition and development of weapons systems, was increased by 1.3% from the prior year to KRW 16.916 trillion. The breakdown of the 2023 defense budget based on general accepted accounting principles (GAAP) is provided in [Figure 6-16].

37)

The government's total budgetary resources, excluding funds that are legally required to be transferred to local municipalities (local share tax, educational block grants), are expected to increase by only about 1% in 2023.

38)

The government announced that defense (+4.4%) and social welfare (+3.8%) were two priority spending areas (Ministry of Finance and Economy, 2023 Budget).

[Figure 6-16] 2023 Defense Budget (GAAP basis)

Program	2022 budget (A)	2023 budget (B)	Change (B-A)	%
Defense budget	KRW 54. 6112 trillion	KRW 57.0143 trillion	KRW 2. 4031 trillion	4.4
Forces operating budget	KRW 37. 9195 trillion	KRW 40.0974 trillion	KRW 2. 1779 trillion	5.7
Forces improvement budget	KRW 16. 6917 trillion	KRW 16.9169 trillion	KRW 225.2 billion	1.3

In light of escalating nuclear and missile threats from North Korea, the allocation of the 2023 defense budget prioritized acquisition of core military assets required to optimize the ROK 3K Defense. Funding for the Kill Chain, the KAMD, and the KMPR - the very three weapons systems of the ROK 3K Defense - was increased sharply from 2022 (KRW 4.8 trillion) to KRW 5.3 trillion. This will enable the Ministry of National Defense to acquire all necessary core military assets for the ROK 3K Defense, including the 2nd F-X project, the 2nd performance enhancement project for Cheolmae-II, long-range ship-to-ship guided missiles, and strategic surface-to-surface guided weapons-II as planned.

The 2023 budget also proactively reflects the budget requirements related to harnessing AI to build capabilities that are adapted to the future battlefield environment. Additionally, number of smart units using ICT systems for security, logistics, and general operating needs will be increased, and more cutting-edge scientific training equipment and training centers, equipped with AR and VR-powered training systems, are also to be established. The budget also takes account of funding needed to enhance the capabilities of reserve forces, including the increase in the compensations for reservists who participate in mobilization drills, as well as purchasing MILES equipment, virtual marksmanship trainers, and a smart management system for cutting-edge reserve force training centers.

Expanding investment in defense technology R&D and enhancing the capability of the domestic defense industry was among the key expenditure items as well. Funds were allocated for the acquisition of the latest state-of-the-art weapons systems and the support for the domestic production of weapons parts to pave a path to the localization of military technology and independent national defense capabilities. Funds were also allotted to foster the defense industry into a strategic national industry by increasing support for new and competitive defense corporations.

Moreover, a substantial portion of budget resources was allocated to raising wages and compensation for military service personnel and provide a more respectful and humane service environment.

Additional funds were earmarked to pay wages that are appropriate with tasks performed by conscripted servicemembers serving their mandatory military service. The Ministry of National Defense plans to gradually raise their monthly wage (including the government support to the savings plan program for such soldiers) to KRW 2.05 million by 2025. The 2023 compensation budget will allow the enlisted wage (based on a sergeant's wage) and the government's savings plan contribution to be increased to KRW 1 million and KRW 300,000, respectively. The enlisted wage schedule for 2023 is shown in [Figure 6-17]. The compensation budget also includes funding necessary to increase the short-term service incentive by 50%.³⁹⁾ The short-term service incentive is granted to encourage applications for

39)

A one-time grant issued to short-term non-commissioned officers or officers (non-commissioned officers: KRW 5 million in 2022→ KRW 7.5 million in 2023, Officers: KRW 6 million in 2022 → KRW 9 million in 2023).

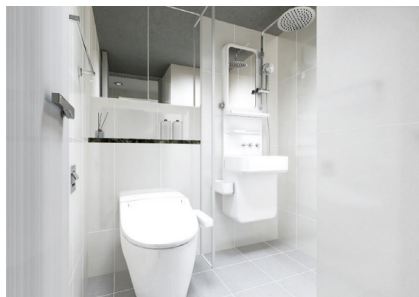
short-term officer or NCO positions and fairly compensate them for their short-term services

[Figure 6-17] Enlisted Wage Increase Planned for 2023

	Private	Private first class	Corporal	Sergeant
2022	KRW 510,100	KRW 552,100	KRW 610,200	KRW 676,100
2023	KRW 600,000 (+KRW 89,900)	KRW 680,000 (+KRW 127,900)	KRW 800,000 (+KRW 189,800)	KRW 1,000,000 (+KRW 323,900)

The 2023 budget also reflects the cost of improving the standard of living in the barracks in a way that meets the expectations of future generations of soldiers. Additional funds were allocated to the meal program to offer soldiers with more choices of food. Cooking equipment and utensils and meal trays will be updated and additional civilian staff will be hired in an effort to dramatically enhance the quality of food services. Meanwhile, a new program called “Community Eat Out”⁴⁰⁾ was recently launched to provide service personnel dining out opportunities and give a much-needed break to overworked military culinary specialists. The quality of housing in the barracks will also be improved by progressively replacing all 8 to 10 person rooms with 2 to 4 person rooms. Military wool and woobie blankets will be replaced with regular comforters. Modular construction,⁴¹⁾ which is faster and cheaper than traditional construction methods, will be introduced for the housing of officers and NCOs and will later be used for housing of all personnel.

The 2023 budget also focused on the improvements in the lives and welfare of officers and



Modular Cadre Apartments (photo rendition)

40)

A dine out program, offered in cooperation with local restaurants, allowing soldiers to eat out once a month, covering their expense of meals of up to KRW 13,000 per person.

41)

Prefabricated buildings with standardized units and measurements made in a factory setting are transported to the building site where they are assembled.

NCOs, who have been often left out of the recent improvement in personnel welfare despite the fact that their responsibilities have increased over the years. The platoon-level command allowance budget allocated to a platoon commander for activities aimed at uplifting the morale of his or her unit, such as birthday events and sporting events, will be doubled to facilitate the performance of command duties. The allowance paid to command sergeant majors (CSM) for activities such as managing personnel affairs related to non-commissioned officers and providing counseling for the enlisted will be raised from KRW 200,000 to KRW 300,000 per month. The housing allowance for officers and NCOs who are not provided housing will also be doubled. The Ministry of National Defense will continue to implement measures to maintain the morale of its service members and enhance the quality of living and compensation for them to properly value and appreciate their service to the country.

[Figure 6-18]] Increase in Platoon Command Allowance, CSM Allowance and Housing Allowance (monthly) Planned for 2023

/	Platoon Command Allowance (based on a 25-member platoon)	CSM Allowance (battalion or equivalent)	Housing Allowance
2022	KRW 62,500	KRW 200,000	KRW 80,000
2023	KRW 125,000	KRW 300,000	KRW 160,000

3. 2023-2027 Medium-term Defense Plan

The medium-term defense plan provides a blueprint for the construction and maintenance of armed forces for the upcoming five year period and allocates resources accordingly.

The 2023-2027 Medium-term Defense Plan is the first medium-term plan established since the Yoon administration took office. In the face of increasing nuclear and missile threats from North Korea, driving up uncertainty in the security environment, the new plan lays focus on carrying out national tasks as planned and without compromise despite the overall budgetary stance emphasizing fiscal discipline. In light of the gravity of the current security environment, acquiring core military assets including the components of ROK 3K Defense was given the highest priority in budget allocation. Enhancing the military service environment, including increasing enlisted salaries, was also given preference. The total defense spending planned for this five-year period is KRW 331.4 trillion and the defense budget will increase by 6.8% annually over this period. KRW 107.4 trillion (annual average increase of 10.5%) will be spent on the acquisition and development of new weapons systems and KRW 224 trillion (annual average increase of 5.1%) on the operation and maintenance of armed forces and weapons systems. KRW 99.8 trillion will be invested in 272 national projects, including procurement of ROK 3K Defense capability and the increase of enlisted salaries. Key objectives and programs under the 2023-2027 Medium-term Defense Plan are as follows:

First, response capabilities against North Korea's nuclear and missile threats will be dramatically strengthened. The ROK Armed Forces will acquire overwhelming defense capabilities based on the ROK 3K Defense, composed of Kill Chain self-defense

[Figure 6-19] 2023-2027 Medium-term Defense Plan

unit: trillions of KRW

/	2022	Year					
		2023	2024	2025	2026	2027	Total
Defense Spending (change, %)	54.6 (3.4)	57.1 (4.6)	61.4 (7.5)	66.0 (7.5)	70.9 (7.3)	76.0 (7.3)	331.4 (6.8)
Forces Operating Costs (change, %) (share, %)	37.9 (5.8) (69.4)	40.1 (5.8) (70.2)	42.9 (6.9) (69.8)	45.3 (5.7) (68.6)	47.2 (4.2) (66.6)	48.5 (3.0) (63.9)	224.0 (5.1) (67.6)
Forces Improvement Costs (change, %) (share, %)	16.7 (△1.8) (30.6)	17.0 (2.0) (29.8)	18.5 (8.8) (30.2)	20.7 (11.8) (31.4)	23.7 (14.2) (33.4)	27.5 (16.1) (36.1)	107.4 (10.5) (32.4)

* 2023 numbers are based on the government proposal.

mechanism, KAMD missile defense system, and KMPR (Korea Massive Punishment and Retaliation) system. The Kill Chain's ability to detect and strike targets will be boosted through the introduction of high-performance stealth fighters, 3,000t-class submarines equipped with SLBM, and ship-to-surface ballistic missiles. The complex, multi-layered defense capabilities of the KAMD system will be enhanced by continuously improving the performance of intermediate and long-range surface-to-guided weapons systems as well as the Patriot system. The response capabilities of the KMPR system will be bolstered by developing high-power, super precision-strike missiles and further ramping up the infiltration and strike capacity of special forces. In addition, to augment deterrence and response capabilities through integration, a "Strategic Command" will be established in 2024, which will increase the efficiency of the military command structure.

Second, in order to build the capacity to carry out integrated operations across all domains, including space, cyberspace, and electromagnetic spectrum in addition to the ground, maritime, and air domains, funding will be increased to develop capabilities for key battlefield functions. In the ground domain, to strengthen precision strike capabilities for deep areas and mobile operations capabilities, Counter-battery Radar-II, 230mm multiple rocket launchers, and K-variant tanks and wheeled armored vehicles will be deployed. In the maritime and amphibious domain, costal fleets will be upgraded through the integration of cutting-edge technologies and anti-ship, anti-air, and anti-surface combat capabilities will be boosted. To enhance division-level 3D high-speed landing operations capabilities, Ulsan-class Batch III frigates, Gumdoksuri-B Batch-II patrol vessels, and marine attack helicopters will be fielded. In the air domain, in order to acquire air superiority within the defense zones and improve strategic target strike capabilities, KF-21 fighter aircraft will be fielded in tandem to upgrades to the KF-16 and F-15K fighters.

Third, funding for development of AI-powered technology-based force will also be increased. To improve surveillance capabilities for key targets and major targets located beyond the Military Demarcation Line, intelligence assets, including medium to high-altitude unmanned reconnaissance aircraft, will be fielded at different altitudes. Meanwhile, to minimize manpower-intensive approaches to combat and minimize human casualties

at the same as maximizing combat efficiency, continuous efforts will be made to develop an AI-assisted manned and unmanned hybrid combat system by adding more cutting-edge unmanned weapons systems (individual battlefield visualization systems, unmanned surveillance vehicles, etc.). Moreover, a Defense AI Center will be established in 2024 to coordinate AI policy in the defense domain. 1,000 officers and NCOs will be trained at specialized civilian educational institutions into AI experts by 2026. This will be coupled with the construction and acquisition of a range of AI infrastructure, including high-quality data, high-performance computers, and hyper-fast communications networks. The number of smart intelligent units will be increased, broadening the military application of the latest technological innovations.

Fourth, an array of measures will be implemented to upgrade R&D capabilities in the defense field, foster the growth of the domestic defense industry and facilitate defense export. Support will be stepped up for R&D on defense technologies to respond to current threats as well as the future battlefield environment. Funding will be expanded in the development of hypersonic, space, quantum, and unmanned autonomous weapons systems that can be potential game changers. The government will invest in the defense industry, focusing particularly on such areas as rapid acquisition, maximization of the performance of existing forces, technology protection, and assist defense exports.

Fifth, to create a culture in which military service is valued and respected, the compensation to service members will be increased as well as expense allowances and benefits for officers and NCOs. The average monthly enlisted wage (based on a sergeant's wage) will be increased to KRW 1.5 million by 2025 and the government's monthly contribution to the savings plan for enlisted members will be raised up to KRW 550,000, resulting in the total compensation going up to KRW 2.05 million. Service incentive payments to short-term officers and non-commissioned officers will also be continuously increased to attract more applicants.

[Figure 6-20] Planned Increase in Enlisted Wages and the Government's Contribution to the Savings Plan

/	2022	2023	2024	2025
Wage (sergeant wage basis)	KRW 676,000	KRW 1 million	KRW 1.25 million	KRW 1.5 million
Government Contribution to the Savings Plan	KRW 141,000	KRW 300,000	KRW 400,000	KRW 550,000

Living standards and conditions in the barracks will also be brought more closely in line with the expectations of new generations of enlisted service members. To raise the quality of food services, budget allocated for meals will continue to increase and the current six types of cold weather gear will be replaced by four types of high-performance garments, providing enhanced mobility, thermal insulation, and comfort. Meanwhile, living quarters will also improve from the previous communal living arrangement to a more private setting that accommodates 2 to 4 persons per room, with each being furnished with their separate bathrooms. Mobile telemedicine system will be established by 2027 at 104 division to brigade-size units, to ensure the timely provision of vital emergency care to save lives.

Finally, the housing program for officers and NCOs will be substantially expanded. The supply of family-size housing units (85m²) will be increased and studio type BOQ facilities will also be introduced. Meanwhile, officers and NCOs who are not provided with military housing will be compensated with a housing allowance.⁴²⁾ Expense allowances for platoon commanders and command sergeant majors will also be increased so that they are more in line with actually incurred expenses.

⁴²⁾

The "housing allowance" will replace the two existing forms of housing assistance, namely, housing benefits and assistance with the payment of interest expenses on leasehold deposit loans. The provided unit cost will reflect the real-world housing expense level.



Chapter 7

Development of a Military Culture that meets the Needs of the Future Generation

Section 1. Improved Food, Clothing, and Living Conditions to meet the Expectation of Service Members

Section 2. Remuneration that Respects and is Commensurate with the Sacrifices made by Service Members

Section 3. Improved Service Environment that is Reflective of Changes in Society

Section 4. Emphasis on the Human Rights of Service Members



Improved Food, Clothing, and Living Conditions to meet the Expectation of Service Members

Food, clothing, and living conditions are essential components for a strong military and quality of life for service members. As such, they must be improved to match the standards expected by the public and service members alike. The Ministry of National Defense is striving to improve the quality of life of service members through measures such as 'soldier-selective catering system', improvements to the quality of military gear and apparel, as well as improved living quarters that place 2 to 4 person per room.

1. Improved Meals for Service Members

Improved Meal Provisioning System that Caters to the Needs of Service Members

The Ministry of National Defense has introduced a 'soldier-selective catering system' in which the menu consists of a wide range of dishes and ingredients that reflect the preference of service members, unlike in the past when meals were cooked only with limited ingredients. The new meal program is part of the government's project to improve food, clothing, and living conditions of service members (transition to a selective meal program), with the aim of raising satisfaction of servicemembers of their quality of life. Under the previous system, menu was determined after the procurement of ingredients, which had to be done within designated areas and only through private contracts. As such, the list of ingredients were limited and the military was unable to completely satisfy the diverse preferences and health concerns of the service members. In response, the MND is gradually phasing out private contracts and improving the procurement system so that all ingredients are to be supplied through a competitive bidding process by 2025. Under this new system, the MND will first develop the menu and then procure the necessary ingredients, which will allow it to provide meals that are more closely aligned with the customer demand and hence result in improved customer satisfaction.

The main features of the new selective meal program include abolishing the regulation mandating the inclusion of relatively expensive or unpopular food items in the menu. As such, each unit is now free to choose whether to include popular dishes like donkatsu (pork cutlets), meatballs, sweet and sour pork, popcorn chicken, and chicken tenders in their menus as well as how frequently they are to be served in their dining facilities. The MND has also abolished the requirement to service unpopular rice-based food items and relaxed the mandate regarding white milk to the serving of flavored milk (chocolate milk, strawberry milk, etc.) as well as other drinks such as juice and soy milk. Starting in 2022, the requirement that a meal must consist of rice, soup, kimchi and two additional side dishes was abolished. As such, there is now greater flexibility to provide a wider range of meals that cater to the preference of the younger service members such as single-dish meals and meals without soup. Also, through brunch days or meals served outside the cafeteria (lunch boxes, food trucks, etc.), military is providing food service to match the preference of the service members.

The MND also operates a “Cafeteria Meal Steering Committee” composed of enlisted service members. Through this committee, the MND aims to continuously improve the menu selection and dining management based on the input made by service members, while striving to provide customer-based food service.



Enhanced Satisfaction through Improved Meals

Increased Cooking Personnel and Improved Cooking Environment

To depart from the past of monotonous food service management and to improve the capability of division level units to develop the ability to design their own menus for their personnel, the MND has dispatched nutritionists down to the division-level since November 2021. It has shared various insights on culinary skills and is continuing to expand the number of civilian cooks to ensure that quality food service can be provided in the mornings and on national holidays.¹⁾ Furthermore, efforts are being made to improve the treatment of civilian cooks by raising their base pay and providing them with a monthly travel allowance (KRW 70,000) starting in 2022. The MND has also increased the pool of military cooks to lessen their work load and to guarantee time for rest and recuperation. Furthermore, in 2022, the MND introduced a snack allowance (KRW 1,000 per day) for cooks to boost their morale. It has also introduced modern cooking equipment such as ovens, fryers, and conveyor toasters to military units in order to allow cooks to offer a greater variety of food and to cook with greater ease and convenience. Currently, the MND is pursuing a project to improve the food service environment by promoting better hygiene in dining halls and kitchens. With such improvements, dining halls will not only be used as a venue for eating, but also serve as a form of culture complex capable of meeting various needs.

1)

Allocation of civilian cook doubled as it changed from 1 cook per 80 service members to 2. To support this change, number of civilian cooks increased by 910 from 2,278 in 2021 to 3,188 in 2022, providing a robust capability to support the culinary needs of service members.



Improved Kitchen



Improved Dining Hall

Improved Meal Provisioning System

In order to expand the range of meals preferred by service members and use better quality ingredients, the MND continuously increased the budget allocated for meals to servicemembers. Furthermore, since October 2021, the Ministry has been piloting a project at eighteen military training camps where the catering service is outsourced to an external party in the civilian sector. Outsourced catering service offers two main advantages: First, military units can utilize the expertise held by private sector catering service companies, and second, permanently understaffed military kitchen personnel can now focus more on their military life and training. The MND will review the results of this pilot project and then decide whether to expand its application. It should also be mentioned that under the supervision of unit commanders, every aspect of the cooking procedure is carefully inspected by food service managers and nutritionists to ensure that all meals are provided in a safe way under excellent hygienic conditions. Commanders as well as staff officers and NCOs will continue to work hard to improve the catering management system by holding regular meetings with cooking personnel, and by personally participating in kitchen operations to hear their opinions.

[Figure 7-1] Daily Meal Cost per Service Member

Category	2018	2019	2020	2021	2022	
					1st Half	2st Half
Daily meal cost per service member	KRW 7,855	KRW 8,012	KRW 8,493	KRW 8,790	KRW 11,000	KRW 13,000
Increase rate	5.0%	2.0%	6.0%	3.5%	25.1%	18.2%
Annual budget	KRW 1.4974 trillion	KRW 1.4531 trillion	KRW 1.4325 trillion	KRW 1.3990 trillion	KRW 1.5538 trillion	KRW 1.6663 trillion

2. Improvements in the Quality of Military Clothing and Gear

Military clothing and gear are important supplies directly linked to soldiers' combat capability and their quality of life. Therefore, the MND is constantly working to improve the quality of these items.

First, to secure highly functional and comfortable military clothing, the MND is conducting a pilot test of the domestic OEM (original equipment manufacturing)²⁾ model. Under this model, a mid-size and large businesses with superior technology would be in charge of product development and quality control, while the smaller business would be responsible for the actual production. This arrangement would allow the military to procure highly functional yet comfortable clothing while contributing to the overall development of the domestic textile industry through mutually beneficial arrangements that allows small firms that produce the garment to the larger firms with their technical expertise to all prosper at the same time.

Second, the MND is pursuing a reform of its clothing layering system³⁾ to reduce the

2)

OEM:

A method of manufacturing a product to be sold under the trademark of the client

3)

Layering refers to dressing in multiple layers. In the military terminology, it refers to the functional practice of wearing multiple layers to protect service members from the weather (temperature, wind, rain) and to prevent loss of body heat due to physical conditions (sweating, breathing).

number of layers from six to four by replacing redundant items such as winter wear and winter jackets with high performing yet simple garment. the current system requiring service members to wear multiple layers of clothing during the cold season meant sacrifice in fit and comfort. To resolve this issue, the MND commissioned a study in 2020 that produced ideas for improving the military clothing system. Another study was carried out in 2021 to gauge the current level of technology and based on its results, a cost analysis was completed in 2022. By pushing ahead with future projects as scheduled, the ROK military will eliminate any overlapping functions in military clothing and maximize the combat capability of individual servicemembers by improving mobility, comfort, and insulation of their uniform. Third, to ensure comfortable and hygienic conditions sleeping conditions, the MND is planning to replace traditional bedding (wool blankets, pancho liner) used in the Army and Marine Corps with commercial blankets (summer blankets, winter blankets, comforter). In the past, all services used the same type of bedding, but in 1974 Air Force switched to commercial blankets, and the Navy followed suit in 1999. However, the Army and the Marine Corps continued to use wool blankets and pancho liners, which received low satisfaction rating from service members. To ameliorate this situation, the MND is planning to supply commercial blankets⁴⁾ to all service personnel by 2023, for which the budget has been duly assigned.

Fourth, the MND is continuously researching, developing, and enhancing the quality of personal gear as they critically affect the combat power and survivability of individual service members during combat. Since 2021, a new water bottle with improvements in capacity and hygiene is being issued, compared to the previous water bottle made from aluminum, the new bottle is made from stainless steel and has an opening that is twice the size of the previous one, making it easier to clean and more resistant to heat and corrosion. Also, starting in 2023, the MND will make every effort to timely procure light bulletproof helmets, counter-terrorism equipment, and bulletproof helmets for mobilized units.



New Bulletproof Helmet



New Bulletproof Vest



New Water Bottle

4)
320,000 sets for the ROK Army and Marine Corps

5)
Daily necessities: shoe brush, shoe polish, razor, razor blade, soap case, shower towel, soap, laundry net, laundry detergent, nail clipper, toilet paper, toothbrush case, etc.

6)
Products for which cash allowances are given: face wash, toothpaste, toothbrush, shampoo, body wash, skin tonic, and lotion

Meanwhile, the MND is supplying each service member with number of essential daily necessities⁵⁾ to manage their personal hygiene, as well as giving cash allowances⁶⁾ to allow them to buy other daily necessities based on personal needs and preferences. The MND is continuously expanding the range of products in the cash allowance category in order to offer as much flexibility of choice as possible to each service member. The amount of cash allowance has also increased. Especially in 2021, skin tonic and lotion were added to the list of product categories (previously restricted to five categories for three years) for which cash allowances are given. The amount of cash allowance per person was also increased from KRW 7,870 in 2020 to KRW 11,550 in 2021. In the future, the MND plans to add

more product categories to the list of cash allowance items and continue to increase the cash allowances to ensure the satisfaction of its service members.

In order to guarantee success in the future battlefield and to improve the living conditions of service members, the MND will continuously pursue research and development aimed at improving the quality of military clothing and personal gear. The MND will also work hard to ensure that all new improved personal gear and clothing are delivered in a timely manner to the troops to enhance their combat capabilities.

3. Improvement of Military Barracks

Renovation to Bed-type Quarters Shared by a Squad (Upgraded between 2004 and 2002)

To provide service members with a more comfortable living environment, the MND undertook a project to upgrade the military barracks to bed-type quarters from 2004 to 2022. In order to transform the military barracks from a simple accommodation into an actual space for living, floor-type quarters shared by a platoon (30-50 members) has been replaced with bed-type quarters shared by a squad (8-10 members). This renovation has effectively increased the living area per person from 2.3m² to 6.3m², and all sanitary facilities and amenities (washrooms, toilets, libraries, and gyms) have been integrated into the barracks as well.

Renovation to 2-4 Person Quarters (Introduced in 2022)

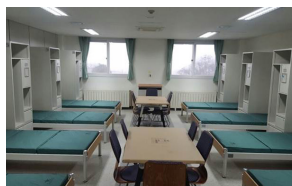
As the general living standards within the ROK have risen in recent years, service members of newer generations are also expecting higher standards from the military as well. Therefore, the MND is planning to launch a project in 2023 to convert military barracks into 4-person quarters that will include washing facilities. The adoption of quarters that can accommodate 2-4 persons will increase the living area per person from the current 6.3m² to 10.78m², thereby assuring adequate independent living space, quality sleep, larger resting areas, and mitigating the threat of infectious disease.

For this purpose, the building standards for 2-4 person quarters were established in 2022, and three units of newly constructed military barracks were designed and built as 2-4 person quarters to pilot test the feasibility of the idea.

Starting with 54 units in 2023, the 2-4 person quarter configuration will gradually expand to include all army units across the country, vastly improving the military barrack environment.



Floor-type Quarters Shared by a Platoon (~2003)



Bed-type Quarters Shared by a Squad (2004-2022)



4-person Quarters (2023 onwards)

Remuneration that Respects and is Commensurate with the Sacrifices made by Service Members

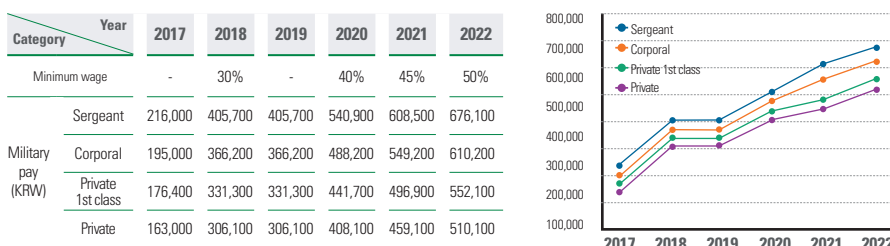
To provide remuneration that is reasonable and honorable to service members who are faithfully fulfilling their duty of national military service, the MND raised the military wage to 50% of the national minimum wage by 2022. The MND aims to raise the monthly wage of sergeants to KRW two million by 2025. Furthermore, by providing various allowances and improving housing conditions, the MND is also trying to improve the quality of life for Officers and NCOs. By showing due respect to servicemembers who serve our nation, the MND is striving to raise a culture of “proud to serve” within the Republic of Korea.⁷⁾

1. Increase National Support for those Fulfilling their Mandatory Military Service

Gradual Increase in Pay of Conscripted Service Members

In order to provide fair compensation and improve accountability of the government towards citizens fulfilling their mandatory military service, the government began raising military pay with the goal of reaching 50% of the national minimum wage of 2017 by 2022. As a result, the monthly wage of a sergeant, which was just KRW 216,000 in 2017, rose to KRW 676,100 by 2022.

[Figure 7-2] Annual increases in military pay



Increase Monthly Pay up to KRW 2 Million

Despite continuous efforts to improve the monthly wage of service personnel, the general consensus among the public was that additional compensation is needed in consideration of the opportunities lost while serving in the military (e.g. break in career, economic losses, etc.). Based on such findings, the MND decided to gradually increase the monthly wage during the period 2023-2025 in combination with a wealth creation program (job preparation program for service members) designed to provide a combined monthly compensation of KRW 2 million to sergeants. This has been selected as a national task and is being actively pursued today.

This will be achieved by raising the monthly wage (based on a sergeant's wage) to KRW

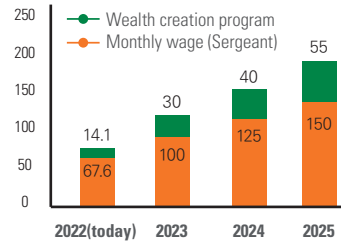
7)

Wage increase in 2022 (compared to 2017):
Sergeant (KRW 216,000 → KRW 676,100),
Corporal (KRW 195,000 → KRW 610,200),
Private 1st C (KRW 176,400 → KRW 552,100),
Private (KRW 163,000 → KRW 510,000)

1.5 million⁸⁾ by 2025. The remaining KRW 500,000 will be funded with government assistance (Military Wealth Creation Program¹⁰⁾ established for the Service Members Tomorrow Preparation Fund⁹⁾, which will be increased from KRW 140,000 as of 2022 to KRW 550,000¹¹⁾ by 2025.

[Figure 7-3] Introduction of the Wealth Creation Program

Category \ Year	2022	2023	2024	2025
Total	KRW 817,000	KRW 1,300,000	KRW 1,650,000	KRW 2,050,000
Monthly wage (Sergeant)	KRW 676,000	KRW 1,000,000	KRW 1,250,000	KRW 1,500,000
Wealth Creation Program (Maximum assistance provided each month)	KRW 141,000	KRW 300,000	KRW 400,000	KRW 550,000



Such initiative will enable service members fulfilling their mandatory military service to receive remuneration that they deserve. In particular, the Wealth Creation Program is expected to provide enough seed money for taking that first step into society after discharge, because the sum of personal deposits, interests and government subsidies will be as much as KRW 20,000,000 per person (for those who are conscripted in 2025).

2. Improving Treatment and Working Conditions for Career Military Officers

Increase in Salary and Allowances

The MND is seeking to improve the compensation system (salaries and allowances) in order to better reflect the realities of the working environment and the special nature of the work performed by service members who devote themselves to the defense of the country.

Given the significant raise in pay for conscripted service members and compensation given to other civil servants, the MND introduced new types of allowances or raised existing ones so that they may match those provided to other civil servants.

It has also increased the allowances paid to service members who serve in difficult environments such as GP/GOP, islands, and submarines to more realistic levels, and, by also raising other allowances that had remained at the same level for a long time, the MND is pursuing improvements in the quality of life for Officer and NCOs as well.

Over the past five years (2018 to 2022), the MND introduced around 6 improvements on allowances per year on average, for a total of thirty-three improvements.

Notably, for submarine crews, the MND has established an encouragement allowance of up to KRW 20 million to induce submarine crews to serve for another tour of duty (KRW 300,000-500,000 starting with crews who are on their fourth year of duty). For military personnel who are serving in special regions like the GP/GOPs, the MND raised the allowance for special region duty. These are just two of the six improvements that were introduced and took effect in January 2022.

8)

Wage increase (Sergeant):
2023: (KRW 1,000,000) →
2024: (KRW 1,250,000) →
2025: (KRW 1,500,000)

9)

An installment savings program was created by the MND as part of the 2018 monthly wage increase plan through a partnership with the FSC, the Korea Federation of Banks, the Military Manpower Administration, and 14 national banks. This is a free installment program (maximum monthly deposit amount of 400,000 per person) with a high-interest rate (5%) that provides capital to each servicemember after their discharge from military service.

10)

This program is designed to help service personnel develop the habit of saving by accumulating a portion of their monthly wages in an account. This money becomes a lump sum upon their discharge and ensures that the first step they take as they venture out into society is a successful one. When service members collect the Service Members Tomorrow Preparation Fund repayment upon maturity (discharge rate), they receive a 1% additional interest rate payment. The government also subsidizes up to 33% of the principal and interest.
- (1% interest subsidy) In addition to the bank's basic interest rate (5%) applied to the Service Members Tomorrow Preparation Fund, 1% additional interest is provided as a form of government assistance.
- (3:1 Matching Support Fund) Starting in January 2022, the government will provide 33% of the principal and interest in subsidies for monthly deposits made by service members into the Service Members Tomorrow Preparation Fund, based on a 3 to 1 matching scheme.

11)

Wealth Creation Program (Service Members Tomorrow Preparation Fund):
2023 (max. of KRW 300,000 per month)
→ 2024 (max. of KRW 400,000 per month)
→ 2025 (max. of KRW 550,000 per month)

[Figure 7-4] Improved Compensation for Career Service Members

Year	Improved Compensation (33 improvements)
2018 (9)	<ul style="list-style-type: none"> ① Sea Pay for submarine crews (staff sergeant – 1st Lieutenant) increased (KRW 70,000 ~ 85,000 per month) ② 10% raise overseas deployment allowance. ③ 10% raise in aviation incentive pay. ④ Establish additional pay for pilots flying scramble (KRW 10,000 per sortie). ⑤ Increase allowance for special region duty for officers and NCOs. ⑥ Expand eligibility for additional NCO encouragement allowance. ⑦ Incentives increased for enlisted service members to KRW 50,000. ⑧ Hazardous duty incentive pay introduced for civilian military servants performing on-site identification and autopsy assistance duties (KRW 40, 000). ⑨ Expand eligibility for encouragement allowance for special weapon operators(CFC Combined Targeting Board).
2019 (8)	<ul style="list-style-type: none"> ① Improved the pay of salaried volunteer servicemembers to match that of regular staff sergeants. ② Encouragement allowances for short-term NCOs increased (KRW 2,500,000→5,000,000). ③ Increased seagoing allowance for sailors(KRW 3,000 →4,000). ④ Expanded the payment period for maintaining submarine qualification. ⑤ Introduced ship duty pay for onboard UAV operators. ⑥ Introduced hazardous duty incentive pay to UDT/SSU trainees (KRW 150,000 per month). ⑦ Increased watch duty pay (weekdays: KRW 5,000 →10,000/ holidays: KRW 10,000 →20,000). ⑧ Increased travel allowance for conscript servicemembers going on leave and discharge.
2020년 (6)	<ul style="list-style-type: none"> ① Expanded encouragement allowance eligibility for NCOs serving in combat units. ② 10% raise in aviation incentive pay for rotary wing aircraft. ③ Raise in aviation incentive pay for officers serving as flight crew on transport aircraft. ④ Raise in aviation incentive pay for E-737 air traffic control officers. ⑤ Expanded eligibility for pilots to receive encouragement pay for maintaining flight currency. ⑥ 5% raise in ship duty pay for navy personnel on combat vessels.
2021 (4)	<ul style="list-style-type: none"> ① Established encouragement allowance to image analysts (KRW 80,000 ~ 130,000 per month). ② Increased seagoing allowance for submarine crews (KRW 10,000→30,000 for 1-day). ③ Established hazardous duty pay for navy medics operating diving chambers (70,000 per month). ④ Established of encouragement allowances for specialists operating the F-35 information system (80,000~120,000 per month).
2022 (6)	<ul style="list-style-type: none"> ① Additional allowance for special region duty (KRW 5,000 ~ 10,000). ② Established Encouragement allowance introduced for submarine crews willing to extend their service period (KRW 300,000-500,000 starting with crews who are on their fourth year of duty). ③ Established Encouragement allowance for unmanned aircraft pilots (Global Hawk) (KRW 180,000 per month). ④ Expanded eligibility for Short-term NCO encouragement allowance, to include fixed-term NCOs. ⑤ Expanded eligibility for of hazardous duty incentive pay for civilian personnel serving in maritime facilities. ⑥ Expanded eligibility for of encouragement allowance for special equipment operators.

In 2022, the following improvements were proposed for adoption in 2023: double the housing allowance from KRW 80,000 to KRW 160,000; increase the incentive pay and allowance for short-term serving NCOs by 50%; double the platoon leader's monthly activity allowance from the current KRW 62,500 to KRW 125,000 to improve the conditions for performance of their duties; and increase the monthly activity allowance for master chief petty officers, which had remained around KRW 200,000-300,000, to 300,000 per month.

In addition, the MND has selected the payment of special allowances, as an item of national agenda, for service members and civilian personal who work night shifts and on holidays staying alert to defend the nation 24/7. By seeking such adjustments to the military allowance system to properly reflect realities of the working environment and military operations, the MND is doing its utmost to improve the quality of life for those who are serving our nation under challenging environments.

Improving Housing Support

Guaranteeing a stable residential environment is a crucial element in the life of a service member and a critical component in mission execution. As such, the Framework Act on Military Welfare provides a legal basis to provide housing support to service members by explicitly stating this responsibility in its clause.

Housing support is one of the most important policies that have a direct impact on the quality of life for servicemembers and as such, improvements in the area will significantly contribute to the overall service environment. For this reason, the MND created the Military Housing Policy Division in 2020, laying the foundations for the systematic development of a wide range of housing policies, as described below.

First, the MND is pursuing tailored residential support that takes into consideration all the different requirements voiced by the beneficiaries, as well as social-environmental changes and regional characteristics. Improving the poor housing conditions faced by junior officers and NCOs is an urgent issue, and improving housing for officers and NCOs was selected as a top task by the MND. To prevent cases of multiple individuals having to share a single room, the MND has been building ‘single household’ residences for officers and NCOs. In 2022, the largest number of housing units (6,400) was renovated and the quality of housing for officers was improved with added furnishings and equipment. Furthermore, the building regulation for officers’ housing was changed to accommodate the ‘standard apartment size’ of 85m²(32 pyeong), which is the amount of space that officers strongly desire. With the change in regulation all new housing units constructed starting in 2023 will be built to the ‘standard apartment size’. In addition, the accuracy of estimating housing demand was enhanced by revising the method of calculation used to determine the quota for each military unit, which is often used as the basis of housing needs. Based on this calculation, the MND is planning to provide housing support that matches the characteristics of each region. Also, as the military is now employing a growing number of civilian employees to carry out duties originally performed by active-duty personnel, the need to provide these civilian employees with housing has become a pressing issue. Therefore, the MND is looking into expanding the housing support for civilian employees working in remote areas.

Second, the MND is ceaselessly refining its policies to ensure practical help to officers and NCOs who have not been provided housing of any kind. Despite the rise in housing prices, housing allowance paid to service members remain frozen until now at KRW 80,000 since 1995, when it was first introduced. In 2023, the MND raised the housing allowance to KRW 160,000, a 100% increase that significantly lifted the burden of housing costs for service members. The MND also noted the rise in long-term rental deposit prices and accordingly increased the government subsidies for long-term rental deposit from KRW 130 million in 2017 to KRW 180 million in 2022. The upper limit of subsidies was also adjusted to reflect regional differences in order to reduce the personal financial burdens of service personnel. In December 2020, the deferment policy for repayment was improved by expanding it so that even when service members are relocated to a different posting, they can continue to live in the same place of residence if they have proper cause such as education requirement for their children. Third, the MND is outsourcing the management of residential facilities to civilian vendors as this is the best way of managing residences effectively and professionally.

To minimize any gaps in the quality of the service provided to military units and improve the level of management, the National Assembly enacted the Framework Act on Military Welfare, and its enforcement decree, in 2021. Under this law, instead of each military unit selecting a vendor on its own through competitive bidding, the vendor selection process has become centralized and requires the MND to select a qualified vendor. Each military unit then signs a contract with the selected vendor after negotiating terms and conditions that fit its needs. In addition, the MND will introduce an integrated housing support information system designed to enable the military authority to provide housing support services more efficiently and seamlessly. With this system, the MND intends to refine the housing support information system and enhance the users' access and convenience.

Improving Educational Environment for the Children of Military Service Members

Children of service personnel stationed in remote regions have to deal with a schooling environment that is not up

to par with the rest of the country as they face inadequate educational infrastructure and frequent transfers. To address this issue, the MND has been expanding its collaboration with civilian companies and educational institutions like LG U+ and EBS to provide high-quality educational contents to the children of military personnel serving in remote regions. For example, the schoolwork mentoring program run by the MND in partnership with EBS previously accepted 300 applicants, but in 2023, the number expanded to 1,500 students. In addition, in the hope of alleviating the financial burden of parents, the MND enlarged the scholarship fund for children of service members who are entering their freshman year at college and expanded the scholarship program that it operates in partnership with a civilian scholarship foundation. These are just a few of the efforts the MND is making to foster an environment in which officers and NCOs can concentrate on their duties without having to worry about the education of their children.

3. Improving the Military Pension System

Significance and Characteristic of the Military Pension System

The military pension system is designed to foster stable living conditions and improve the welfare of service members and their families

by providing them with proper remuneration in their retirement after years of faithful service or providing it to their family members in the event of their death. Service members perform life-endangering duties such as taking part in combat or training, and most live and work in remote or forward areas under harsh working conditions involved in military operations and long periods of standby duty. Due to the mandatory retirement age, most retire between the ages of 45 and 56, when their living expenses tend to be highest.

The military pension system, which reflects the unique circumstances of military service, not only serves as a social insurance that guarantees an income for one's later years, but also works as a form of national compensation to provide stable livelihood for service personnel who sacrifice themselves for the country, but also need to retire at a much younger age than

other recipients of the government employee pension program such as police officers, fire fighters, civil servants and school teachers. The military pension plays an important role in helping career service members focus on their duties without having to worry about their life after retirement. Given such unique nature of military pension system, other developed countries have established military pension programs that provide greater benefits than pension for its civil servants.

Improving Military Pension System

The MND has been continuously improving the military pension system by identifying areas of the system that must be reformed to accommodate changes in the social environment and thereby allow retired service members and their families to enjoy stable lives and better welfare. In June 2020, the MND granted the right to receive the split portion of the pension to divorced spouses of military service members and to protect the right to receive a military pension and guarantee the beneficiary's basic right to a livelihood, the MND also introduced a bank account dedicated to preventing any attempt to collect debt below the minimum cost of living (KRW 1.85 million). In February 2022, the age ceiling for how long a child or grandchild can receive a deceased service member's pension was extended from 19 years to 25 years, provided that the person concerned is incapable of performing economic activities for such reasons as the need to attend school. Also, while operating the military pension payment suspension policy for elected officials, the MND discovered that the remuneration for local council members fell short of the military pension amount and is planning to reform this policy.

4. Properly Honor Fallen Service Members

Honoring the Deceased Commensurate to Posthumous Promotion

Under the current law, soldiers deceased in the line of duty in a non-battle situation, and those who made a clear contribution to the country in times of war, battle, or national calamity, may receive posthumous promotion to the next rank. However, because there is no regulation which stipulates that survivors' pensions, allowances and other benefits must be granted based on their posthumous rank, both the deceased and their surviving family members were not given the appropriate respect that is to be associated with posthumous promotions. Acknowledging this problem, the MND is pursuing a revision of the related laws and regulations to ensure that benefits and treatments are provided accordance with the posthumous promotion.

To honor the soldiers who made the ultimate sacrifice for the country and promote respect for the patriotic spirit of national martyrs, the MND will continue improving the relevant policies.

Expanding the Recovery of Korean War Remains

The recovery of Korean War Remains is nationwide project to honor veterans with the aim of recovering and if possible, identifying the remains of patriots who gave

their lives in defending the country and returning them to their loved ones. Launched in 2000 as part of the 50th anniversary commemoration of the Korean War, the recovery effort has been expanded by establishing the MND Agency for Killed in Action Recovery and Identification (MAKRI) in 2007.

In March 2008, the legal foundation for recovery of remains was established when the Act on the Recovery of the Remains of Service Members Killed during the Korean War was signed into law. In accordance with the Regulations on the Operation of the Project to Recover the Remains of Service Members Killed During the Korean War (Prime Ministerial Decree), twelve government departments¹²⁾ are participating in the Korean War Remains Recovery Committee, whose role is to address issues such as identification of the remains, ascertaining the whereabouts of surviving family members, collecting genetic samples from surviving family members, and publicizing the project.

Each year from March to November, the MND sends around 100,000 soldiers (900 persons per day) from 30 divisions and brigades to 40 regions to search for human remains. As of December 2022, the remains of 13,131 service members have been recovered. The effort to recover remains in the DMZ began in March 2019 with the Arrowhead Hill project, which formally ended in June 2021, to be followed by the White Horse Hill project starting in September 2021. Table 7-5 below shows the total number of human remains recovered by year.

[Figure 7-5] Remains Recovered by Year

(As of December 2022, unit: bodies)

Category	Total	2000~ 2014	2015	2016	2017	2018	2019	2020	2021	2022
Remains recovered	13,147	9,671	623	435	420	356	551	511	363	217

*Includes 424 sets of remains recovered in the DMZ (Arrowhead Hill, White Horse Hill)



Remains recovered at
Arrowhead Hill

12)

Office for Government Policy Coordination, Ministry of National Defense, Ministry of Unification, Ministry of the Interior and Safety, Ministry of Foreign Affairs, Ministry of Health and Welfare, Ministry of Land, Infrastructure and Transport, Ministry of Culture, Sports and Tourism, Ministry of Education, Ministry of Patriots and Veterans Affairs, Cultural Heritage Administration, Korean National Police Agency



Remains Recovered at Arrowhead Hill



On Scene Ritual to Pay Respect at Arrowhead Hill

The MND is making concerted efforts to increase DNA sampling of surviving family members of deceased soldiers because DNA is critical to identifying the remains. As of December 2022, a total of 86,575 DNA samples were collected. The Ministry of Unification, the Ministry of Foreign Affairs, the Ministry of Patriots and Veterans Affairs, local governments, Nonghyup (National Agricultural Cooperative Federation), and the Korean Veterans Association are cooperating to promote the Korean War Human Remains Recovery

Project and jointly running a national campaign to support the effort. Notably, in 2021, the military and local governments combined their manpower to focus their search for the surviving family members of soldiers who were killed during the Korean War¹³⁾ on a few specific areas (Gyeongsangbuk-do, Daegu, Gyeongsangnam-do, Busan, and Ulsan), resulting in the collection of around 10,000 DNA samples in 2021 alone. Based on this successful experience, the MND began searching for family members in Gyeonggi-do, Incheon, Jeju-do, Chungcheong-do, and Gangwon-do regions in 2022. Table 7-6 below presents the data on the DNA sampling of surviving family members by year, while Table 7-7 shows the DNA sampling of surviving family members carried out during 2021-2022 with the cooperation of counties and local governments.

[Figure 7-6] DNA Sampling of Surviving Family Members

(As of December 2022, unit: cases)

Category	Total	2003 ~2015	2016	2017	2018	2019	2020	2021	2022
DNA sampling	86,575	32,160	4,041	4,072	4,155	8,936	8,973	12,959	11,279

[Figure 7-7] DNA Sampling of Surviving Family Members Conducted in 2021-2022 with the Cooperation of Counties and Local Governments

(As of December 2022, unit: cases)

Category	Total	Gyeongsangbuk-do, Daegu, Gyeongsangnam-do, Jinhae	Gyeongsangnam-do, Busan, Ulsan	Gyeonggi-do, Incheon, Jeju-do, Chungcheong-do, Gangwon-do
DNA sampling	4,196	1,731	1,690	775

To increase the chances of successfully identifying the recovered remains, the MND reorganized the DNA analysis teams¹⁴⁾ and consolidated their functions with MAKRI. Furthermore, with the opening of MAKRI's Human remains Identification Center¹⁵⁾ in March 2021, the entire process of storage, identification and DNA analysis could be conducted in a single facility, vastly improving the efficiency of identifying human remains. During the three years since restructuring of MAKRI from 2020 to 2022, sixty-six sets of remains were ascertained, which accounts 31% of all identified remains. To strengthen the credibility of its results, the Human Remains Identification Center is seeking to obtain international certification by the end of 2023. Table 7-8 below summarizes the data on the identification of soldiers killed in action during the Korean War.

[Figure 7-8] Identification of Soldier Killed in Action during Korean War

(As of December 2022, unit: cases)

Category	Total	2000 ~2014	2016	2017	2018	2019	2020	2021	2022
Identity verification	204	109	9	9	4	7	19	24	23

The MND is also strengthening international cooperation in the recovery of the remains of service members killed during the Korean War. It holds yearly meetings with the United States on the progress of the recovery effort and carries out joint identification of human

13)

Cheongdo County, Gyeongsangbuk-do (3.8. ~ 3.12. / MAKRI), Gyeongsangbuk-do-Daegu-Gyeongsangnam-do-Jinhae-gu (6.1. ~ 6.30. / ROK Army 50th Division, Jinhae Naval Base Command), Gyeongsangnam-do-Busan-Ulsan (10.1. ~ 10.31. / ROK Army 39th Division)

14)

In January 2020, the DNA team of the MND's Criminal Investigations Command was merged into MAKRI.

15)

The Human Remains Identification Center (opened on March 24, 2021) verifies the identity of fallen service members through identification and genetic analysis of their remains. The Center is comprised of a remains storage room, a remains identification room, and a genetic testing and analysis room.

remains. By 2021, remains of 307 ROK service members killed during the war that were erroneously transported to the United States, returned to the Republic of Korea, while the remains of 26 U.S. service members were returned to the United States after recovery. Through such dignified transfers, the MND demonstrated the government's determination to show the utmost respect and commitment to honor those who have made the ultimate sacrifice to defend their nation. Table 7-9 below shows the data on the transfer of remains between the ROK and the U.S.

[Figure 7-9] Status of Remains Transfer between the ROK and the U.S.

(unit: sets of remains)

Category	Total	2000 ~2016	2017	2018	2019	2020	2021	2022
Remains of ROK service members transferred to Republic of Korea	307	27	0	65	0	147	68	0
Remains of US service members returned to the U.S.	26	12	1	2	0	5	6	0



Promotional Poster made by Local Government



Promotional Poster made by Civilian Bank

The MND also signed a memorandum of understanding (MOU)¹⁶⁾ with six UNC sending states to identify the remains of missing personnel. In November 2021, the remains of three British service members were identified and buried for the first time at the UN cemetery in Busan, an event that served as an opportunity to commemorate the noble sacrifices made by UN troops during the Korean War with the Korean people. Since 2014, based on humanitarian principles and international law, Republic of Korea and China have been pursuing return of Chinese remains; 913 sets of remains have been returned to China up to this point. The Korean War Remains Recovery Project is being undertaken faithfully through the unified efforts of the government, the military, and civilian sector. However, additional effort is required to move the project to the next level such as modernization of the remain recovery and identification process as well as increased participation from the general public.

16)

MOU signatory countries:
The USA (2000)
Belgium (2015)
Australia (2019)
The Netherlands (2020)
Canada/Columbia (2021)



Korean War Veterans on a Visit to Korea (September 2022)



Handover Ceremony for the Remains of Chinese Military (September 2022)

Given the current recovery rate of around 500 sets of remains per year, it will take a significant amount of time to recover the estimated 120,000 sets of remains. Considering the ongoing nationwide development projects and the age of Korean war veterans, the remains recovery project needs to be pursued in a timely manner. To this end, the MND is analyzing real world limitations and possible mitigation in the search for the Korean war remains to determine the future direction of the recovery project and develop detailed policies. Based on the findings of the study, the MND will establish the future direction of the war remains recovery effort to be adopted in 2023 and beyond.

Appropriate Compensation for Accidents and Injuries

The MND has been emphasizing the government's responsibility to honor the noble sacrifices made by service members by increasing the compensation in the event of injury, disease, disability and death. In December 2019, when the Military Accident Compensation Act was separated from the Military Pension Act and adopted as a new law, the legal basis was established to develop a more professional and systemized accident compensation system. In March 2021, the MND also created the Military Accident Compensation Division to handle policies related to compensation for service members.

With the enactment of the Military Accident Compensation Act, the compensation for death and pensions for bereaved families of service members killed on duty were both adjusted upwards, while the additional points system for bereaved families was created to improve the livelihood of surviving family members. In the case of disabilities sustained by service members during active engagement with enemy forces and during special duties, the amounts of compensation were raised compared to the compensation granted for general disabilities by 2.5 times and 1.88 times, respectively. The accident compensation system was also revised to better reflect the reality. For example, conscripted service members can now receive the same level of accident compensation as officers and NCOs.

In February 2022, the legal basis was established to allow male service members who could not previously obtain compensation for scars to receive an injury pension. Whereas female service members have been eligible to receive an injury pension for clearly visible scars picked up during their service since July 1994, eligibility was only granted to male service members in October 2006. However, male service members who sustained such injury before October 2006 had no way of being compensated because there were no

transition rules. To address this issue, a transitions rule was created to address the gender bias. In addition, the upper age limit for children and grandchildren to receive pension benefits as surviving family members was extended from 19 to 25 years of age, qualifying them to receive benefits until they can achieve financial independence.

In the future, the MND will continue to improve the accident compensation system on an ongoing basis in keeping with its responsibility to honor the sacrifice made by our service members to defend this country.

Support a Successful Reintegration of Medium and Long-term Service Members to Society

In addition to the programs for active service members, the Ministry of Patriots and Veterans Affairs is promoting diverse support programs to help discharged

service members who have faithfully fulfilled their duties in the armed forces to transition seamlessly to civilian life, as required by the Support for Veterans Act and is also working to instill a sense of pride amongst separated service members and raise societal awareness. For medium and long-term service members who served for more than five years in the armed forces, there are ten Veteran Support Centers located across the country where they can go to receive professional consulting services, job training and job search support, as well as attending one-day job fairs. For those who are non-eligible to receive military pension, the Ministry of Patriots and Veterans Affairs provides them with financial assistance similar to the allowances handed out to civilian jobseekers, as well as free legal counsel. Furthermore, for long-term servicemembers who served for more than 10 years, the Ministry of Patriots and Veterans Affairs provides letters of recommendation for employment as a veteran, educational subsidies for veterans and their children, special allocation of apartments, loan support, medical care, and burial in a national cemetery.

First introduced in 2008, the monthly allowance for jobseekers was increased from KRW 500,000 to KRW 700,000 for long-term career veterans and from KRW 250,000 to KRW 500,000 for mid-term career veterans. Veterans are eligible to receive this allowance for a maximum of six months. The ministry is planning to raise the allowance to KRW 990,000 by 2025, which would be equivalent to 50% of the allowance given to jobseekers in the civilian sector. The payment period will also increase to match that of the civilians.

In addition, to secure the kinds of high-quality jobs favored by discharged service members, the government amended the Support for Veterans Act in 2021 to include an article on the establishment of a certification program for companies that excel in the recruitment of veterans. To attract the interest of companies, the government created a range of incentives. Exemption for customs inspections by the Korea Customs Service, funding from the Seoul government to improve the working environment, and preferential interest rates from Nonghyup Bank, Shinhan Bank, and SC First Bank are just some of the nine incentives offered to companies that recruit veterans. In the future, the government will continue to develop and expand its support policies for companies that hire veterans.

Meanwhile, in a drive to boost the self-esteem of veterans, foster a culture of appreciation of their contribution and create stable jobs for them, the Ministry of Patriots and Veterans Affairs has held a ‘Veterans Week’ every year since 2012. In 2021, the Support for Veterans

Act was amended to permanently designate the second week of October as ‘Veterans Week’, and in 2022 it was elevated to the status of a legal commemorative event that can be celebrated with the hosting of diverse events.

At the 2022 Veterans Week commemorative ceremony, the official event was followed by a talk show in which veterans were invited to hear their thoughts. Various events were held during Veterans Week, including a seminar on improving the (government) policies pertaining to veterans, a plaque unveiling ceremony for companies recognized as excellent employers of veterans, an online job fair, and an invitational homecoming day for veterans.

Furthermore, during the Veterans Week, the Ministry of Patriots and Veterans Affairs launched a national publicity campaign to thank veterans and cheer them on with the slogans “Gratitude and Jobs for Veterans” and “Re;SPEC Veterans”, the latter’s wording being a composite of the words ‘respect’ and ‘spec redesign’, which loosely means “redesigning one’s personal specifications to return to civilian life”.



Veterans Week Ceremony (October 2022)



Plaque Unveiling Ceremony for Companies Recognized as Excellent Employers of Veterans (October 2022)

Lastly, the current version of the Support for Veterans Act is focused on supporting retired service members with medium- and long-term careers in the military. Therefore, to create the legal basis for providing support to younger service members discharged after completing their mandatory military service, the MND has been pushing for a revision of the Support for Veterans Act. Since launching a pilot project in 2018, the MND has been providing job search/entrepreneurship support to young conscripted service members who sustained light injuries during their military service, those coming from low-income households and recognized and recognized for the exemplary service, and those recruited as technology specialists for positions whose job skills can be used upon their return to civilian life.

Improved Service Environment that is Reflective of Changes in Society

The MND and the ROK Armed Forces are introducing innovative measures to the military culture in order to deal with various malicious incidents that occur within the military, and are striving to improve the service environment to reflect ongoing social changes. The MND and the ROK Armed Forces will continue a military culture that is trusted by the public. This initiative will be accomplished by respecting the autonomy and human rights of service members in a way that matches the expectations of the public, while maintaining strict discipline in the ranks to ensure that the duties of the armed forces are carried out properly.

1. A Barracks Culture Where Autonomy and Responsibility are Equally Balanced

Innovation of the Barracks Culture

Due to steady effort to guarantee basic rights of conscripted services members (use of personal mobile phones, off-post activities, leave policies, etc.) incidents of AWOL have fallen¹⁷⁾ markedly, and the general public is also very cognizant of the progress being made in this regard.¹⁸⁾ However, this does not mean that violence and abuse in the armed forces have been completely eradicated, and the public's standards on human rights and welfare in the military are much higher than that of the past. Due to the recent controversies surrounding the quality of meals provided to service members quarantined during the COVID pandemic in 2021 and the sexual harassment of a female NCO that ultimately led to her suicide, public is demanding a fundamental solution to the problems plaguing the military environment. In response, on June 2021, the MND formed a civilian-government-military joint committee to study these issues. As a result, the committee came up with several recommendations on improving the overall military service, including clothing, eating and living conditions of service members, and the MND and the military subsequently concretized (concept, timing, etc.) the recommendations and derived 102 tasks. To ensure that the tasks are pursued consistently, they have been included as an important item of agenda in the government's policies on human rights and military service, such as the Basic Policy on Military Service. In the future, the ROK military will strike a sound balance between the need to maintain discipline and the need to protect the basic rights of service members, as this is essential for carrying out the mission of defending national security and the national territory. Henceforth, the MND will work hard to establish a military culture in which the creative ideas are the service members are respected while ensuring mature accountability of their actions.

17)

The number of AWOLs fell from 705 in 2011 to 73 in 2021.

18)

The results of the 2021 KIDA survey (survey on public perceptions of military life) showed that over 90% of respondents held a positive view of the changes introduced to improve military life for service members. The results of the past three surveys all show a similarly positive view (93.9% in 2019, 94.4% in 2020, and 90.1% in 2021).

Intensifying the Effort to Eradicate Injustice

The ROK Armed Forces have made various efforts to eradicate injustice within the military culture with the aim of building a military environment and culture that is safe, fair and instils a high level of morale.

The MND pays regular onsite visits to teach military units how to innovate their barracks culture, conducts field inspections to check how well the units are doing in abolishing unreasonable and unjust practices, and select units that show exemplary results.

The MND is also reviewing the option of expanding the ‘self-governing system for conscripted service members’ allowing them to plan and execute self-governance activities, while maintaining discipline within the ranks.

Similarly, ROK Air Force has been operating a self-governing committee called the ‘Top-notch Service Member System’ since 2005, while the Navy launched its ‘Model Sailor Policy’ in 2022, and the ROK Army and Marines are also expected to adopt similar self-governing programs tailored to their needs. At the same time, the MND will continue to award military units that excel at eradicating unreasonable and unjust practices.



Self-governing Committee of Service Members (Top-notch Service Members System of the Air Force)

Use of Personal Mobile Phones

In July 2020, the MND adopted the policy of permitting service members to use their mobile phones after duty hours. The use of mobile phones not only alleviated service members’ sense of disconnection from society, but also contributed to improving the combat power and camaraderie within the respective unit by facilitating communication among its members. In addition, this change in policy ushered in a positive and productive environment as conscripted service members used their mobile phones for personal development activities, such as attending online courses, acquiring certificates, and gathering information on employment and business opportunities. Especially at the height of the COVID-19 pandemic, when long-term leaves, off-post activities and overnight passes were all restricted, mobile phones played a major role on mental health of conscripted service members as they could use their devices to search for information on infectious diseases, attend online religious services, receive remote psychological counseling with professional barrack life counselors, and make video calls to their family members and friends.



Soldiers Using Their Mobile Phones
(Personal Development, Communication with Society)

Meanwhile, to prevent a rise in security incidents caused by service members’ use of mobile phones, a detailed list of prohibited activities and policy on the appropriate use of mobile phones in the military was established so that reasonable sanctions could be levied in cases of infringements. At the same time, the relevant regulations, including the Unit

Management Directive, were updated, and a defense mobile security app was developed to control pictures being taken within military facilities. All service members regardless of their rank are required to download and install this app on their mobile phones.

Also, to protect service members from vices like illegal gambling and digital sex crimes, the MND produces materials on vice prevention in collaboration with civilian firms and train professional instructors to educate service members accordingly. These are just some of the measures now being taken to minimize the adverse effects of using mobile phones. Furthermore, from June to December 2022, the MND conducted a pilot program called ‘Expanded Hours for Carrying Mobile Phones’, the results of this experiment will be used by the MND to improve its policies on mobile phone use, for example by determining the appropriate number of hours that conscripted service members should be allowed to carry their mobile phones and devising methods to mitigate the adverse effects.

Off-post Activities after Duty Hours and Improvements in Leave Policy

In February 2019, to guarantee sufficient rest and autonomy outside duty hours, the MND allowed conscripted service members to engage in off-post

activities after duty hours on weekdays.

Each service member is allowed to leave the base for off-post activities twice a month after approval by their commanders, provided that military readiness is not affected. Service members are using this policy for small get-togethers, hospital visits, meetings with family, personal development, and various other personal needs. Off-post activities after working hours on weekdays were found to have beneficial effects in alleviating service members’ feelings of isolation and stress, while strengthening their solidarity with other members of their unit and enhancing their overall satisfaction with military life.¹⁹⁾

In 2021, the military HR information system was changed to allow conscripted service members to also directly apply for leave and obtain approval. Furthermore, if the conscripted service member requires an extension of their leave due to personal reasons, the system allows the service member to directly contact his Commander through mobile phones or social media and gain the necessary approval. The MND will continue to improve its policies on leave in order to ensure that service members can fully enjoy their right to rest under the principle of ‘autonomy and responsibility’.



Service Members Enjoying Off-post Activities after Work

19)

The results of the 2019 KIDA survey (perceptions and lifestyle of service members) revealed the following facts: The respondents felt that off-post activities during weekdays produce positive effects such as helping them to relieve stress (90.5%), mitigate the feelings of isolation (89.6%), promote solidarity of military units (89.1%), and improve satisfaction with military life (89.6%). In addition, 79.1% (4 out of 5) of the respondents were ‘satisfied’ with the opportunity to enjoy off-post activities during weekdays.

20)

The number of registered foreigners specified in the statistical monthly report released by the Ministry of Justice (Immigration Office, Immigration Policy Division): 210,249 in 2020, 1,143,696 in September 2022.

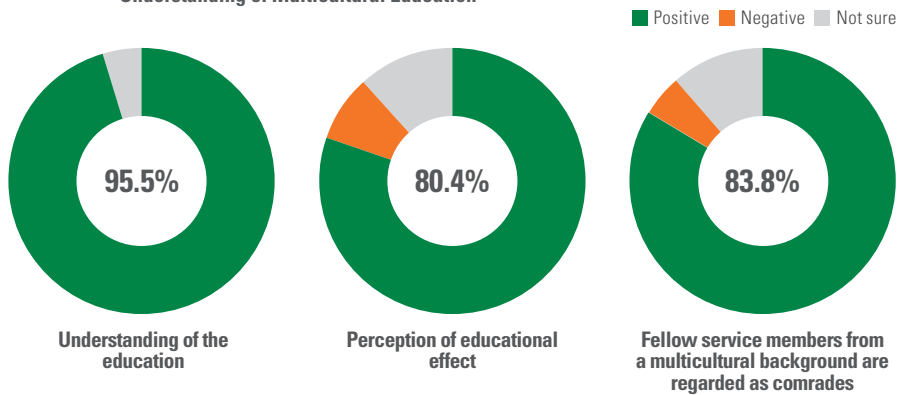
Creation of a Barracks Culture that Respects Cultural Diversity

Republic of Korea is rapidly becoming a multi-cultural society, with the number of registered foreign nationals increasing²⁰⁾ from 210,000 in 2000 to 1.14 million in 2022. Such change in society means that it is incumbent for the armed forces to properly understand the issue of cultural diversity. The MND intent is for service

Republic of Korea is rapidly becoming a multi-cultural society, with the number of registered foreign nationals increasing²⁰⁾ from 210,000 in

members from multicultural backgrounds to serve in the military free from discrimination, and has been educating troops about multiculturalism since 2010. In addition, for service members who cannot eat certain foods like pork, beef, etc., for religious reasons, the military offers alternative foods such as tofu, vegetables, and fried eggs. For service members who are adherents of minority religions, religious facilities in military bases have been renovated to allow them to attend religious ceremonies or, alternatively, arrangements are made so they can use civilian religious facilities. The MND will continue to foster a military culture that respects cultural diversity by making the necessary educational and policy improvements.

[Figure 7-10] Results of the Survey on Service Members' Perceptions of the Effectiveness and their Understanding of Multicultural Education



*Source: Korea Institute for Defense Analyses (KIDA, 2021).

2. Spreading a Culture of Respect for Human Life and Dignity

Increased Suicide Prevention Activities

To prevent non-combat casualties and protect precious lives, the ROK military requires all service members to become “Gatekeepers”²¹⁾ who are responsible for preventing suicides among their comrades. To this end, the MND has developed educational contents²²⁾ based on the principle of ‘watching-listening-talking’ that are tailored to the specific needs of each branch of the armed forces and certified by the Ministry of Health and Welfare (MOHW), as well as providing suicide prevention education (at least once every 6 months) taught by professionally trained instructors. The MND also operates an integrated suicide prevention program that consists of three phases, i.e. identification, management, and separation, in order to help service members adapt to military life and prevent them from committing suicide. In cooperation with the Military Manpower Administration (MMA) and MOHW, the MND provides social security services (mental counseling, welfare services, and job consultation) to service members who have been discharged early as a result of their inability to adapt to military service due to various psychiatric issues.

Recently, the MND kicked off the respect for life campaign, held a writing and poster-making contest on the theme of protecting life, and held a civilian-military joint seminar as part of its efforts to raise awareness of suicide risks and build an environment that prevents suicides.

21)

A person who identifies service members who are at high risk of committing suicide and refers them to professional clinics (military life counselors) where they can receive counseling and treatment. In an emergency situation, this person manages and provides assistance to prevent a high-risk individual from committing suicide.

22)

Educational content designed to teach service members how to ‘watch out’ for signs of suicidal behavior in their comrades, ‘listen’ to suicidal thoughts and ‘talk’ to them and give them advice.

The MND has commissioned an external professional training agency to train prospective suicide prevention instructors and develop their expertise. Once trained, the suicide prevention instructors embark upon speaking tours to military facilities around the country to educate all service members and officers about how to prevent suicides. The MND will continue to expand its suicide prevention efforts through video materials tailored to the needs of each branch of the armed forces, role play activities, counseling programs as well as assistance to military units to overcome suicide incidents through rehabilitation and support program for grieving family and friends.



Seminar on Culture of Respect for Life (ROK Army)

[Figure 7-11] Number of Suicide Prevention Instructors Trained Each Year

As of December 2022, Unit: persons

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
No. of instructors	534	653	664	668	822	650	808	377	413	516

* In the case of 2020 and 2021, the number of instructors trained decreased because the COVID-19 pandemic restricted classroom-based teaching at off-base institutions.

Addressing the Emotional Distress of Service Members

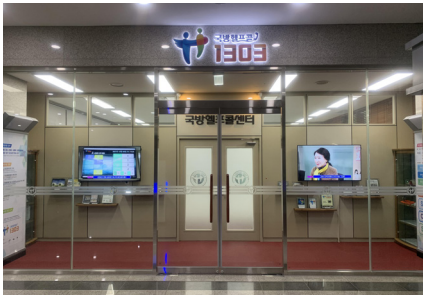
To ensure that service members complete their military service with a healthy mindset, the MND operates a variety of systems for diagnosing and resolving any personal problems they might experience during their service in a timely manner. Because service members are used to living as civilians before entering the military, they may well experience stress or emotional distress in the tightly controlled and regimented military environment. Furthermore, they must accustom themselves to living in a group. To control the factors that impede a smooth adjustment to military life, the MND regularly conducts four-stage personality tests²³⁾ and expanded dispatchment of professional counselors to battalion equivalent level units that can treat service members and offer them counseling services. The MND also operates the Green Camp program, which provides psychological counseling and therapy to service members who are experiencing difficulties. In addition, the MND operates the National Defense Help Call Center, a 24-hour hotline through which troubled service members can receive counseling and report their problems. Other counseling hotlines are also available, such as the Wish Processing program and the Military Human Rights Guardian program through which the military identifies some of the problems experienced by service members and then resolves them as quickly as possible.

In 2022, the mental counseling support program, which was offered only to junior Officers and NCOs until 2021, was expanded and made available to all officers, NCOs and civilians working for the armed forces. The MND has also developed a mobile app with which service members can now access the National Defense Help Call Center anytime, anywhere.

Going forward, the MND and the Korea Institute for Defense Analysis will work together

23)

A scientific tool used to screen out recruits with psychiatric issues and a low ability to adapt to military life. The tool consists of a 4-stage evaluation: (Stage 1) evaluation of a recruit's suitability to serve conducted during the conscription examination stage; (Stage 2) evaluation of a recruit's suitability to serve conducted during the medical checkup stage; (Stage 3) evaluation of a recruit's adaptability to military life during boot camp training; and (Stage 4) evaluation of a recruit's adaptability to military service and human relationships during the active duty period (Stage 4).



National Defense Help Call Center

[Figure 7-12] Average Number of Daily Counseling Session at the National Defense Help Call Center

As of December 2022, Unit: cases

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
No. of sessions	47	111	159	176	170	134	159	155	139

* To protect the privacy of service members, the public cyber counseling sessions were discontinued on September 1, 2018.

to enhance the reliability of personality testing, strengthen the counseling system designed to help service members deal with distress, and spread a culture of respect for human life and dignity through effective education.

Promoting the Use of Proper Language

Since verbal violence, including abusive language and swear words often ignite unfortunate incidents and mishaps, the ROK military is trying to create a military culture of dialogue, consideration for others and respect for individual dignity by encouraging service members to use proper language in their daily lives.

To promote the use of proper language by service members, the MND has started a movement to improve the standard of language used by soldiers, and published guidelines on language use in the barracks and a comic book on the use of appropriate language in barracks. The MND has also launched an educational program on the use of proper language with the aim of building an environment in which service members use words that are respectful and considerate of others, and refrain from using profanity-laden language.

Based on the belief that a great military culture begins with language that is considerate and respectful of others, the MND will continue introducing effective methods for encouraging service members to use proper and decent words when they speak.

3. Support for a Healthy Work-Life Balance and Gender Equality

Laying the Foundations for Gender Equality

To pursue gender equality policies such as spreading a culture and awareness of gender equality as well as increasing female representation and participation in a methodical manner, the MND establishes annual implementation plans for gender equality policies and

reviews the progress of each task being. Whenever a law is amended, a new law is adopted or a major project is launched, the impact on gender is evaluated by the MND's gender impact evaluation system. Also, the MND publishes the National Defense Gender Recognition Statistics Book every year and reflects the data, when setting its gender equality policies.

In addition, based on the '2018-2022 Female Service Member Recruitment Plan', percentage of females officers and NCOs gradually increased from 6.2% in 2018 to 9.0% in 2022. As a result, female officers were appointed for the first time in 2021 to serve as the commander of a marine infantry battalion, commander of the special air force rescue team squadron and leader of the army DMZ operations team. In 2022, a female officer took command of the coastal surveillance and maneuver battalion for the first time. These pioneers are all performing brilliantly in their respective positions. The MND plans to develop the '2023-2027 Female Service Member Recruitment Plan', which includes the goal of constituting 15.3% of the armed forces with female service members by 2027 with consideration to future manpower recruiting conditions. Furthermore, in August 2021, to guarantee conditions for parental leave, the MND revised its policy so that officers returning to active-duty status will be given preference in filling out vacancies due to parental leaves. The MND will continue making efforts to put female service members, whose ranks are growing steadily, into positions where they can demonstrate their capabilities.

Expansion of Essential Facilities for Female Service Members

The MND is expanding the scope of essential facilities for females, such as restrooms and shower rooms, following the increase in the number of female service members, caused by increased recruitment and retention, as well as female civilian employees. After identifying the level of demand by through a complete enumeration survey of female essential facilities and gender impact assessments, the MND installed 542 facilities at military bases that lacked such critical facilities required for female service members. In 2022, an additional 192 such facilities were installed. The MND intends to improve the service environment by continuously expanding essential facilities in view of the increased number of female personnel within the military.

Spreading an Organizational Culture that Values Gender Equality

The MND uses various methods to cultivate a culture of gender equality within military units. In 2022, it introduced self-governing councils on gender equality communication to promote understanding and communication in military units (division level and above). Through discussions among service members organized by their background and rank, the self-governing council discussed gender biases within organizational cultures and pursued opportunities to remedy the issue through mutual understanding and dialogue.

In 2022, the MND tried another approach to cultivating an organizational culture that upholds gender equality by launching a 'tailored gender awareness consulting project'. Under this project, a military unit (division level or equivalent) that best represents each branch of the armed forces were selected. Improvement tasks for the selected units were derived through diagnosis of their organizational culture after considering of their characteristics;

afterwards, each unit received counseling on how to improve gender equality.

Another such endeavor is the Gender Awareness Level Assessment applied to officers above the rank of colonel. In the second half of 2022, this assessment was expanded to include commanding officers and NCOs in a drive to improve the gender sensitivity of mid-level officers. Moreover, to make certain that all service members and civilian workers receive effective gender awareness education, contents such as standardized lesson plan and remote educational videos that reflect the unique characteristics of each branch of the armed forces were developed and utilized in courses on gender equality. In addition, training designed to enhance the skills of instructors who teach gender equality courses was expanded (2021: 330 students > 2022: 500 students).

In the future, contents tailored to the MZ generation and educational materials that match the needs of each branch of the armed forces will be developed and used to continuously enhance gender sensitivity of all service members and civilian workers in all branches of the armed forces.

Support for a Healthy Work-Life Balance

The MND is gradually improving its system in a direction that will make it easier for all service members to use the work-life balance support programs, irrespective of gender, and in a direction that promotes family-friendly culture.

First, to guarantee maternity protection and improve parenting conditions for service members, the application process for parental leave and fertility leave was simplified in 2021. Age ceiling in granting flexible working hours to servicemembers who have children with disabilities was raised from 12 to 19. Also, eligibility and causes for childcare leave, were expanded and the number of days for such leave increased from 2-3 days to 10 days per annum.

In 2022, the Directive on Supporting Gender Equality in the Armed Forces was revised to limit mothers who are pregnant or have recently given birth from serving night shifts. The amended directive also permitted service members and civilian employees couples to adjust their duty hours in the event of an emergency and provides up to four days of leave for fertility treatment.

As of end of 2022, the MND operates a total of 159 childcare centers and 45 co-parenting centers to create a stable parenting environment. The MND also subsidizes the staffing cost to run night time childcare programs to allow service members to use the childcare centers during the evening in the event of a training exercise or emergency recall.



Childcare Centers on Military Bases

In the future, the MND will give preference in installing military childcare facilities in the forward areas and remote regions that lack a robust parenting infrastructure, in order to guarantee a stable working environments for all service members and civilian employees.

Emphasis on the Human Rights of Service Members

The MND and the Armed Forces are pursuing various human rights protection policies to eradicate human rights violations and accidents in the military. Led by the Military Human Rights Improvement Group, launched in 2022, the National Human Rights Commission, the Ministry of Justice and other government agencies are cooperating to prevent human rights violations against service members and providing support to victims. The MND and the Armed Forces are seeking to increase satisfaction amongst service members by meeting public expectations regarding human rights and establishing an advanced military culture that is trusted by the public.

1. Improving the Human Rights Protection System for Military Personnel

Strengthening Education on Human Rights and Improving the Human Rights Protection System

cooperating with the National Human Rights Commission to raise awareness amongst service members of their rights and responsibilities as “citizens in uniform” and to spread a military culture that respects human rights. Specific action items within this policy include the following: human rights education tailored to individual service member’s term of service and conditions of their particular military unit, invitational lectures by human rights experts for commanding officers, skills enhancement training for human rights workers and instructors in the areas of healthcare, investigations, corrections, judge advocacy, and military discipline, promotion of online human rights education, and the development and distribution of participatory human rights educational material. In particular, ROK MND is collaborating with the National Human Rights Commission to develop and distribute human rights education plans that are tailored to the situation of each military unit.

In addition, to keep up with the changing view on human rights of service members, the MND is working to improve the current human rights protection system by updating related statutes and cooperating with outside organizations. Whereas until now, the MND utilized the human rights impact assessment only while processing changes to human rights statutes and regulations, the MND will expand the scope of this assessment to additionally apply to changes in policies and systems. The MND also operates the Military Human Rights Guardian System,²⁴⁾ through which service members may apply for human rights counseling and request an investigation. To eliminate blind spots in protecting human rights, the MND operates the National Defense Human Rights Monitoring Group, conducts surveys on the state of human rights protection for servicemembers, and pursues improvements in human rights policies to that match the public expectation with the help of outside experts such as the advisory committees on human rights set up under the MND and the headquarters of the three branches of the armed forces and human rights advisory lawyers at division level units.

In 2022, in order to enable the National Defense Human Rights Monitoring Group to identify weak points in different areas of human rights protection, the MND reformed the

The Ministry of National Defense is pursuing a systemized human rights education policy by closely

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An integrated national defense human rights system where service members can apply for human rights counseling and file petitions for investigations. Service members are allowed to request counseling or an investigation of human rights violations or discrimination and check the progress and results of the investigation.

*Application procedure for the counseling service and petition: Go to the “Military Human Rights Guardian” linked through the MND website on the Internet or Intranet.
Internet: MND website
→ Direct link to key information
→ Military Human Rights Guardian
→ Click “Apply for Human Rights Counseling and Investigation”
Intranet: National Defense Hub
→ Counseling/Suggestion
→ Military Human Rights Guardian
→ Click ‘Human Rights Counseling and Investigation’

way this group was managed, subdividing its activities, among other measures. Subsequently, the group came up with several recommendations, for example, that the healthcare support provided to service members could be made more efficient, and that the meal management system should be improved. The MND is also trying to implement changes that have a real impact on service members in the field by increasing the frequency of human rights inspection from once a year to twice a year and expanding the number of military units subject to such inspection from 10 to 30. Such increase in the frequency and scope of human rights inspection will allow an in-depth study into the actual human rights situation within the front-line units.

Strengthening the Foundation of Human Rights Policies

In February 2022, the MND created the Military Personnel Human Rights Improvement Group²⁵⁾ and tasked it with all the policy work on human rights

that were previously distributed amongst different offices such as personnel management, welfare, and legal. Based on the ‘2023-2027 Basic Policy on Military Service’, the Group is expanding the scope of human rights guarantees for service members by increasing interconnectivity of existing policies on human rights, while establishing a comprehensive human rights policy that encompasses agendas such as food, clothing, living conditions, and the general service environment at large. In July 2022, the MND created the position of Military Personnel Human Rights Protection Officer, whose role is to report as an independent investigative body of the ROK Armed Forces to the National Human Rights Commission. The President of the Republic of Korea appoints a member of the National Human Rights Commission to the position of Military Personnel Human Rights Protection Officer in addition to maintain their position as a member of the commission. Meanwhile, the MND also formed a subcommittee, named the Military Personnel Human Rights Protection Committee, and a support organization, the Military Personnel Human Rights Protection Bureau. The MND cooperates actively to enable the Military Personnel Human Rights Protection Officer to objectively investigate reports of human rights infringements and promptly make remedial actions on behalf of victims, while guaranteeing military mission capabilities and operational security.

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This group was created by combining the Legal Affairs Office's Human Rights Policy Department, the HR Welfare Office's Gender Equality Policy Department, and the Military Culture Innovation Team. This merged entity was then reorganized and established directly under the Vice Minister's Office to consist of the General Office on Service Members Rights, Sexual Violence Prevention Response Office, Military Culture Innovation Office, and Gender Equality Policy Team.

Fundamental Systematic Improvements for Ascertaining the Truth of Unsolved Deaths in the Military

By providing fundamental solutions concerning the deaths of military service members in cases where bereaved family members have serious doubts about the

cause of death, the MND is endeavoring to clear all doubts and earn the public's trust. Notably, on April 11, 2019, the MND introduced a policy of allocating a government-appointed attorney to bereaved families of service members who died in duty, to ensure that they receive full and proper legal support; furthermore, the MND revised the Framework Act on Military Status and Service on May 2020 to clarify the legal grounds thereof.

In accordance with the Special Act on Ascertaining the Truth of Military Accidents Resulting in Death, the MND launched the Presidential Truth Commission on Deaths in the Military in September 2018, and has been striving to honor deceased service members and

their bereaved families, in addition to compensating damages suffered. The aforementioned commission is tasked with investigating allegations raised by bereaved families in as objective of a manner as possible.

In 2022, the MND sought to improve its expertise in military investigations by preparing the formation of an investigation education center under the Criminal Investigation Command as well as sending action level officers to receive training at the National Forensic Service and the Korea Police Investigation Academy.

To uncover the truth and fundamentally resolve questionable deaths in the military, the Military Court Act was revised and starting on July 1, 2022, responsibility to investigate whether a crime was involved in the death of a service member or a civilian employee of military was transferred to the civilian police, including the right to adjudicate.

The MND aims to gain the public's trust and improve the human rights of service members by continuously improving relevant policies, including expanding the government's responsibilities when service members die in service and honoring them to the fullest extent possible.

2. Establishing a System for Preventing Sexual Violence in the Military and Protecting Victims

Strengthening Prevention against Sexual Violence

To prevent sexual violence, the ROK Armed Forces, under the leadership of commanding officers, are emphasizing prevention against sexual violence in the workplace, introducing multifaceted policy improvements to better support and protect victims of sexual violence, and reinforcing the integrated support system for victims.

To create working conditions safe from sexual violence, the MND issues annual guidelines on the prevention of sexual violence and harassment, and focuses on improving gender awareness education and inspecting/supplementing mechanisms to prevent sexual violence. In 2020, as a means of improving gender awareness education, the MND added gender equality to the four major categories of violence to be prevented which are sexual violence, sexual harassment, sex trafficking, and domestic violence, to its education program. The MND introduced a mandatory education course on gender equality that is offered twice a year, once in online format and the other conducted on site.

All commissioned officers, sergeant majors and civilian employees grade 5 and above are required to complete the onsite course, which focuses on holding discussions on gender equality, moderated by expert lecturers. The onsite course has contributed to raising awareness of gender issues and gender equality amongst those who serve in managerial roles. Also, given the frequency of incidents in particular seasons, the MND designated summer and winters as periods for emphasizing preventative measures against sexual violence. Through sexual violence prevention programs overseen by unit commanding officers, in addition to education about the procedures for handling incidents of sexual violence, the MND warns service members to remain vigilant at all times, and is working to minimize the occurrence of sex-related incidents.

To eradicate sexual violence in the military and enforce gender equality policies, civilian members of the MND's Gender Equality Committee visited field units in the first and second half of the year. During these visits, committee members observed how the MND gender equality policies are being enforced, and measured the level of gender awareness among service members by holding separate meetings with commanding officers and key staff, female personnel with less than five years of service, personnel in charge of handling cases of sexual harassment and sexual violence as well as a survey of both male and female service members. The committee also looked into the conditions for handling cases of sexual harassment and sexual violence. The Military Sexual Violence Survey is a sample survey that has been conducted by the MND once every three years since 2016. In 2022, this survey was expanded to include all service members and civilian employees, with the expectation that it will produce more accurate data with which the MND will be able to develop increasingly practical policies.

In 2021, the MND took the first step towards setting up a department dedicated to rooting out and handling sexual harassment and sexual violence in the military at the MND as well as the headquarters for each service. The establishment of such department to oversee the prevention, management and handling of sex-related incidents was a key recommendation of the civilian-government-military joint committee. As a result, the position of Sexual Violence Prevention Officer, in addition to Sexual Violence Prevention and Response Centers, were created at each branch of the armed forces in February 2022.

Victim Protection

In 2021, the joint committee produced fifteen recommendations, one of which concerned the formation of a team dedicated to preventing sexual violence in the armed forces so that tragedies such as the recent case of a female NCO committing suicide after being sexually harassed does not repeat itself. Another recommendation implemented by the military concerned the establishment of the "Support System for Victims before Referral to Investigation Authorities," which took effect in September 2021, to protect victims and prevent secondary damages. Under this system, victims could receive mental counseling, medical care, job/position reassignment, and legal advice before having to report the crime to investigation authorities. In May 2022, the MND adopted "Guidelines for Preventing Secondary Damages caused by Sexual Harassment/ Sexual Violence", reforming the regulations on how "secondary damages" should be defined, and providing guidelines on treatment.

In order to protect and help victims more effectively, the MND will increase the number of counselors for sexual grievances from 50 per Corps level echelons in 2021 to 150 per Division level echelons in 2023 and, accordingly, the MND is improving independent working conditions and expanding education to improve job competency. The MND is also building channels of cooperation with other government organizations. In October 2021, to help victims return to normal life, the MND entered into an agreement with the Ministry of Justice to allow victims of sexual violence to access the services provided by the Smile Center, an agency that provides psychological therapy to victims of sexual violence. The MND is planning to develop a mobile reporting app by 2023 that guarantees anonymity and could potentially increase the reporting rate, in addition to setting up an incident management

information system that would permit a more systemized management of incidents and data-based formulation of policies .

In the future, the military will pursue multiple improvements of its policies with the aim of preventing sexual violence and protecting the victims. By boosting the effectiveness of gender awareness education, the MND will improve the internal culture of military units and increase awareness of sexual violence amongst service members, which in turn will create a military culture that is safe from sexual violence and upholds gender equality.

3. Operating a Fair and Trusted Military Justice System

Military Justice Reform

In February 2018, the MND developed a plan to reform the military judicial system to guarantee the constitutional rights and human rights of service members. In 2019, a bill to amend the Military Court Act was submitted to the National Assembly, in which the peacetime appellate military court would be abolished and appeals heard and ruled in a civilian court, while first instance military courts would be consolidated and brought under the direct control of the Minister of National Defense. In essence, the amendment sought to restructure the organization of military courts and military investigation bodies, and improve the overall military court system.

Aside from modifying the Military Court Act, the MND actively worked on implementable tasks on its own accord. In March 2019, the MND introduced the policy of allocating a government-appointed attorney to bereaved families of service members who died in duty and victims of crimes committed in the military to provide them with proper legal support. In August 2020, the MND abolished the confinement policy, which had been criticized as a form of “arrest without warrant” and introduced the discipline training policy as its replacement. Furthermore, in December 2020, the National Assembly enacted the Act on the Performance of the Military Police, which provided legitimacy to the duties performed by the Military Police.


Lastly, in January 2022, investigation teams were set up for each branch of the armed forces and the ROK Marine Corps to directly report to the Service Chiefs and the Marine Commandant. This initiative was adopted to create an independent environment for the investigators without the possibility of intervention by front-line commanders.

Revision of the Military Court Act

The amended Military Court Act, containing newly added provisions on the military judicial system, took effect on July 1, 2022. To guarantee military personnel’s right to be tried by judges, jurisdiction over appellate trials was transferred from the High Military Court to the Seoul High Court. Under the Act, crimes involving sexual violence, death of a service member, and those committed prior to the perpetrator’s entry into military service shall be investigated by the civilian police and the prosecutor’s office and tried in a civilian court. Moreover, such practices as appointing field officers as lay judges in peacetime, convening the authorities’ right to confirm judgments, and exercising commanders’ right to approve detention warrants were abolished.

Fairness and independence of investigations and trials in the military were guaranteed by appointing separate, independent military judges and protecting their status, combining first instance military courts of each branch of the armed forces into a military court directly under the Minister of National Defense, and replacing the general prosecution teams assigned to military units headed by General and Flag level officers with a prosecution team for each branch of the armed forces that reports directly to its respective Service Chief.

[Figure 7-13] Binary Criminal Procedures Following the Revision of the Military Court Act

Comparison of applicable laws after separation of the criminal procedures for military cases								
Category	Institution name	Applicable law		Category	Crimes over which the military court has jurisdiction		Crimes transferred to a civilian court	
					Institution name	Applicable law	Institution name	Applicable law
Final appellate	Supreme Court	Military Court Act	Changes in procedures Bifurcation of criminal procedures 	Final appellate	Supreme Court	Military Court Act	Supreme Court	Criminal Procedure Act
Appellate	High Military Court			Appellate	Seoul High Court		High Court	Court Organization Act
First instance	General Military Court			First instance	General Military Court		District Court	Prosecutors' Office Act
Investigation	Military Prosecutor			Investigation	Military Prosecutor		Prosecutor	Structure and Operation of National and Autonomous Police
	Military Judicial Police	Military Judicial Police	Police					

Modification of Laws for the Establishing the Military Judicial System

With the passage of the amended Military Court Act, the MND modified relevant regulations to guarantee proper conditions for military judicial agencies to carry out their duties. In March 2022, the MND introduced regulations on the rules for investigations conducted by military prosecutors and military judicial police, which outlines areas in which military prosecutors and military judicial police must cooperate—as well as regulations on investigation procedures for crimes committed by service members when such crimes fall under the jurisdiction of the courts, which covers areas of cooperation between civilian and military investigations of crimes like sexual violence when jurisdiction is transferred to civilian courts.

The MND will spare no effort in establishing a military judicial system that is trusted by both the public and members of the military, and will work closely with the courts, prosecutors' office, police, and other related agencies to this end.

4. Operating an Alternative Military Service²⁶⁾ System Integrating Military Duty and Human Rights

On June 28, 2018, the Constitutional Court of Korea declared that the provisions related to Article 5 of the Military Service Act did not conform²⁷⁾ to the Constitution. Subsequently, in July 2018, the MND, the Military Manpower Administration (MMA), and the Ministry of Justice launched a task force to formulate an alternative service program.

As a result, on December 28, 2018, the MND announced its plan to introduce an alternative

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A person with the obligation to serve in the military who, on the grounds of freedom of conscience (guaranteed under the Constitution of the Republic of Korea), is currently serving or is obligated to serve in an alternative service in lieu of active-duty service, reserve service or supplementary service (Article 5, Clause 1-6 of the Military Service Act).

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"Because the current categories of military service violate the conscience of objectors due to their religious beliefs, etc. as they all premise military training, Article 5 (1) of the Military Service Act, which does not prescribe any alternative service programs for conscientious objectors pursuant to the freedom of conscience provided under Article 19 of the Constitution of the Republic of Korea, does not conform to the Constitution, the relevant articles shall be applicable provisionally until December 31, 2019."

service program in which both “duty of military service” and “freedom of conscience” were satisfied, by requiring service members to serve 36 months in a correctional facility for alternative service. On April 25, 2019, the MND submitted the alternative service legislation bill to the National Assembly and, on December 31, 2019, the Act on the Assignment and Performance of the Alternative Service (“Alternative Service Act”) was promulgated, entering effect on January 1, 2020.

In June 2020, the Enforcement Decree of the Alternative Service Act and its subordinate laws were enacted and amended; a screening committee for alternative service was formed to review alternative service assignments and, on June 30, the committee began accepting applications for alternative service assignments. By the end of October 2022, a total of 64 plenary meetings of the alternative service review committee had been held and decisions made on 2,684 applications (out of the 2,989 applications submitted) by vote. Of these, 5 cases were dismissed on the grounds that the applicants’ reasons for refusing to serve in the military were insufficient, and 6 cases were dismissed due to lack of documents, while the remaining 2,673 applications for an alternative service assignment were approved.

In this way, a person who is accorded an alternative service assignment by the review committee must work as an alternative service personnel. Following the adoption of this system in October 2020, the MND, in consultation with the Ministry of Justice, assigned 106 individuals to serve as alternative service personnel in 2020, 545 in 2021, and 403 in 2022. After recruiting the first batch of 63 individuals in October 2020, the MMA has recruited a total of 1,070 individuals for alternative service as of December 2022. These individuals receive basic job training at an alternative training center for three weeks and are then assigned to work at one of 19 alternative service institutions, such as prisons or detention centers. For their 36 month of service, they live together and perform public services such as providing meals, managing supplies, hygiene, and facilities at these correctional institutions.

The MMA is committed to maintaining fairness by strictly managing the alternative service program as it is also an extension of the military service obligations. The MMA is also cooperating with the Ministry of Justice to create an environment in which alternative service personnel can fulfill their obligations faithfully. Furthermore, the MMA is striving to stably manage the alternative service system, which allows conscientious objectors to proudly fulfill their military obligations while ensuring their freedom of conscience guaranteed in the constitution. The MMA is also working hard to improve conditions for alternative service, in order to support alternative service members’ efforts to carry out their obligations faithfully. For example, the MMA is closely cooperating with other government agencies to provide alternative service members with the same level of benefits enjoyed by those serving on active duty such as discounts on mobile phone plans and language test fees. Further efforts are being made to support their return to society by making the Tomorrow Preparation Fund program available to alternative service personnel as compensation for completing their military service obligation and paying the cost of their national health insurance while they are performing their alternative service.

