

DGAP REPORT

Country Report: South Korea

Defense Reform and Force Enhancement Plans

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ABOUT THE PROJECT

The DGAP’s project on “Risk Reduction and Arms Control in the Asia-Pacific Region” aims to provide a comprehensive analysis of the security dynamics in the Indo-Pacific and East Asia, with a focus on important players including Australia, China, Japan, North Korea, Russia, South Korea, Taiwan, and the United States. The objective is to foster understanding in Germany and Europe of the risk of conflict in the Asia-Pacific and suggest possible steps to mitigate this risk and safeguard stability in and beyond the region. The project starts with taking stock of security developments in the Asia-Pacific. As part of a series, the following report provides a detailed review of South Korea’s security and defense policies and partnerships in the current geopolitical context. It concludes with a list of policy recommendations to stakeholders and policymakers.

All information and country reports can be accessed at <https://on.dgap.org/3f35EBO>

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DISCLAIMER

This report does not contain new empirical findings, but assesses primary documents and compiles existing studies, primarily from expert sources. It is tailored for a European audience.

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EXECUTIVE SUMMARY

The Republic of Korea (ROK, South Korea) is facing 'omni-directional' threats, including a risk of war with the Democratic People's Republic of Korea (DPRK, North Korea). South Korea is building up an appropriate level of military force to be able to counter threats from any direction across regions and operational domains. In addition, the ROK Armed Forces are eager to contribute to a mutually complementary and robust ROK-US alliance to strengthen deterrence and territorial defense. At the same time, South Korea aims to bolster its role on the international stage by increasing its contributions to overseas deployments and out-of-area operations. It actively supports global responses against threats to the international norms and order. In South Korea, the idea that the two goals of national- and international-oriented security are complementary enjoys very broad support.

Given the changing security environment, South Korea is focused on force enhancement through comprehensive defense reforms. Defense Reform 2.0 – launched in the early days of the Moon Jae-in administration to improve the defense reform plan of the previous government—aims to transform the ROK Armed Forces into a more mobile and lethal force. Defense Reform 2.0 heavily emphasizes preparing the army for future challenges, whereas previous reforms had a narrower focus on defending and deterring threats from North Korea. The ROK's close alliance with the United States provides an additional driver for reform: Seoul has the ambition to take over the lead of joint ROK-US operations under a Future Combined Command. For now, however, wartime operational control of joint forces continues to lie with the United States.

The force enhancement programs focus on strengthening South Korea's capabilities to deter and respond to the threats posed by weapons of mass destruction by reinforcing its capabilities for situational awareness and ensuring the Armed Forces are able to conduct rapid and decisive joint operations in all operational domains. South Korea institutionally guarantees the continuity of reforms to achieve its long-term defense vision. Therefore, the efforts to transform the Armed Forces into a military structure centered on advanced science and technology such as artificial intelligence-based surveillance and reconnaissance, hyper-connected intelligent command and control, stealth-based platforms, and combined manned and unmanned combat systems will continue.

South Korea's defense demands and visions create opportunities to deepen and broaden relations with European countries. South Korea and its partners in Europe can expand the scope and scale of military exchanges, training, and operations in response to transregional threats and challenges. The European Union and South Korea already maintain a deep security cooperation regarding nuclear nonproliferation, disarmament, space technology, cybersecurity, and crisis management. These issue-specific partnerships can evolve from institutional to practical cooperation by addressing issues of mutual concern and interest.

Relations between South Korea and the North Atlantic Treaty Organization (NATO) have taken significant steps in recent years. Both sides are aiming to intensify their partnership, particularly in the fields of chemical, biological, radiological, and nuclear threats, cyber security, and hybrid warfare. Seoul's recent establishment of a diplomatic mission to NATO illustrates the country's willingness to intensify the relationship and expand it into new areas of cooperation.

1 – SOUTH KOREA'S
GEOSTRATEGIC
LOCATION AND
RELEVANT DISTANCES



Introduction

SOUTH KOREA'S GEOSTRATEGIC LOCATION AND SECURITY ENVIRONMENT

Northeast Asia is marked by a high level of military activity and tension among regional countries. Historically, the Korean Peninsula has been at the center of a geopolitical vortex in which land power and sea power clash – and it continues to straddle the geostrategic fault-line between regional powers.¹ In this environment, South Korea's national security is permanently challenged by instability and uncertainty.

To look at the wider context first, the strategic divide between China and the United States has gradually deepened in recent years. China is becoming increasingly clear in its ambitions to engage in strategic competition with the United States. It is modernizing the People's Liberation Army (PLA) to improve its performance in all the domains of warfare.² Certainly, it aims to be able to project power to secure its growing overseas interests and advance its foreign policy goals. At the same time, the United States is determined to intensify military cooperation with its allies in Asia to counter China's efforts.

Japan is also steadily improving its defense capabilities, with a focus on the maritime and air domains, stand-off defense capabilities, and comprehensive air and missile defense capabilities. It is also acquiring capabilities in new domains such as space, cyberspace, and electromagnetic spectrum.³

South Korea is highly concerned that all the countries in the region are expanding their military capabilities and militarizing new domains. Such technological developments can intensify the arms race in Northeast Asia. This dynamic also affects the ROK's immediate neighborhood: North Korea is forging ahead with its nuclear weapons buildup and military modernization, which it commonly justifies by

accusing others of conducting hostile policies and fueling regional competition.

In fact, the situation on the Korean peninsula is unique: Ever since the liberation from Japanese colonial rule and the division of the peninsula along the 38th parallel in 1945, North Korea has sought to destabilize South Korea. Formally, both countries have been at war since 1950. The Armistice Treaty brought about a cessation of hostilities on the Korean peninsula in 1953 but did not completely end the state of war; a final peace settlement remains out of sight. In this context and given the endurance of the regime in Pyongyang and its revisionist state media communication, South Korea sees North Korea's military buildup and modernization as the key threat to its national and regional security.

As North Korea is developing weapons of mass destruction (WMD), expanding its armed forces, and conducting military provocations and massive cyberattacks, the nature and scope of provocations has changed. North Korea's nuclear and missile capabilities have become the largest challenge for South Korea, particularly since September 2021, when the regime in Pyongyang increased the pace and scale of developing armaments. Following the plan outlined by the North Korean leader in January 2021, this includes the development of tactical nuclear weapons, inter-continental ballistic missiles (ICBM) with a 15,000 km range, a new submarine, hypersonic glide vehicles, and intelligence, surveillance, and reconnaissance (ISR) assets.⁴

North Korea directly threatens South Korea as well as Japan and the United States. Nevertheless – or indeed, for this very reason – South Korea continues to seek the complete denuclearization of the Korean peninsula. At the same time, it is establishing a robust military readiness posture to deter and actively counter provocations by North Korea. In addition to the rapidly changing security environment, foreign policy goals and demographic challenges inform South Korea's defense planning. To meet demands, the Ministry of National Defense has clearly defined its defense vision and reform plans.

1 Chung Min Lee, *Fault lines in a Rising Asia*, Washington DC, 2016.

2 Department of Defense, *Military and Security Developments Involving the People's Republic of China 2021*, Washington DC, 2021, pp. 36-43, <https://media.defense.gov/2021/Nov/03/2002885874/-1/-1/0/2021-CMPR-FINAL.PDF> (accessed November 28, 2022).

3 Ryo Hinata-Yamaguchi, *Country Report: Japan, Defense Planning in Transition*, German Council on Foreign Relations, DGAP Report, September 2022, https://dgap.org/system/files/article_pdfs/DGAP-Report-2022-00-Japan%20.pdf (accessed November 23, 2022).

4 Korean Central News Agency, *On Report Made by Supreme Leader Ki Jong Un at 8th Congress of WPK*, Pyongyang, January 9, 2021, <https://kcnawatch.org/newstream/1610155111-665078257/on-report-made-by-supreme-leader-kim-jong-un-at-8th-congress-of-wpk/?t=1610156439257> (accessed November 28, 2022).

NATIONAL DEFENSE VISIONS AND TENETS

As South Korea's neighboring countries competitively strengthen their military capabilities and as competition between the two Koreas intensifies, it has become imperative for South Korea to build an appropriate level of military force.

The first tenet of South Korea's defense policy is to have a robust posture against omni-directional security threats – threats from any direction, across all regions and domains.⁵ This means that the ROK Armed Forces seek to deter and respond with prompt and firm action in the event of a provocation not only by North Korea but any other player. Threats to be addressed include cyber-attacks and terrorism, but also infectious diseases, drugs, and disasters. In short, South Korea aims to enable the military to respond more effectively to both traditional and non-traditional security threats in the region and beyond. The ROK Armed Forces will also act as a responsible member of the international community and increasingly contribute to overseas deployments and out-of-area operations. The ROK is also consolidating its cooperation with India, ASEAN, Europe, the Middle East, and Africa.

Maintaining and expanding the US-ROK alliance forms the second fundamental tenet.⁶ South Korea aims to develop it into a mutually complementary and robust relationship encompassing security, economic cooperation, and global leadership. That is consistent with the ROK-US joint statements issued by both allies at their summit meetings in 2021 and 2022.⁷

Defense cooperation between the two countries goes back nearly 70 years. After the establishment of the armistice in July 1953, South Korea and the United States signed the "Korea-US Mutual Defense Treaty" in October of the same year, the foundation of their alliance system. The allied forces agreed to maintain military readiness by developing joint wartime plans, boosting interoperability, and practicing

joint and combined operations. South Korea contributes by providing an appropriate level of defense cost-sharing as well as boosting its own capabilities. Within the alliance context, South Korea seeks to consolidate its role in the defense of its territory and fulfill the conditions for assuming wartime operational control (see Chapter II).

The third tenet of South Korea's defense policy emphasizes the role of defense reform to reinforce national security, ensure territorial defense, and contribute to international peace. Details of reform plans to enhance the army, navy, and air force, as well as improve the military structure based on a more intensive use of technology are outlined below (Chapter II). Defense reform is institutionally guaranteed; the Minister of National Defense establishes an implementation plan for national defense reform every five years and reports to the parliament every year regarding the reform process.⁸ The defense reform pursued by the Moon Jae-in government is based on three elements: enhance defense capabilities to take the lead in national defense; fully utilize technology based on the advances of the Fourth Industrial Revolution; and gain nationwide support by meeting the demands of the nation and society.⁹ These goals are in line with reform plans by previous governments and thus ensure continuity.

The fourth tenet corresponds to changes in social conditions and public expectations. The ROK Armed Forces aim to increase the efficiency, openness, and transparency of the overall national defense system. Much of this has to do with the increasing importance of civilian experts and women for defense. The proportion of women in the ROK Armed Forces rose from 5.5 percent in 2016 to 7.4 percent in 2020. South Korea planned to increase it to 8.8 percent by the end of 2022.¹⁰ At the same time, the government wants to transform the Armed Forces into a technology-intensive elite force by using more non-commissioned officers and civilian employees for positions requiring specialties, for instance in cyber operations, education, and research. Finally, South

5 Ministry of National Defense, *Defense White Paper 2018*, Seoul, 2018, p. 45, https://www.mnd.go.kr/user/mndEN/upload/pblictN/PBLICTNEBOOK_201908070153390840.pdf (accessed November 28, 2022);

Ministry of National Defense, *Defense White Paper 2020*, Seoul, 2019, p. 46: https://www.mnd.go.kr/user/mnd/upload/pblictN/PBLICTNEBOOK_202106300300426680.pdf (accessed November 28, 2022).

6 *Defense White Paper 2020*, p. 46.

7 *US-ROK Leaders' Joint Statement*, Washington DC, May 21, 2021, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/05/21/u-s-rok-leaders-joint-statement/> (accessed November 28, 2022).

8 Korea Law Translation Center, *National Defense Reform Act*, March 2017, Article 5, para. 3, https://elaw.klri.re.kr/eng_mobile/viewer.do?hseq=43954&type=part&key=13 (accessed November 28, 2022).

9 *Defense White Paper 2020*, p. 53.

10 Pyong Chun Choi, "12,000 women in the military, accounting for 6.8 percent of the total" [in Korean], *Yonhap News*, January 29, 2020, <https://www.yna.co.kr/view/AKR20200129076200504> (accessed November 28, 2022).

Korea has shortened military service to ease the burden of mandatory military service for male citizens.¹¹

The fifth tenet of South Korea's defense policy is to aim for a high-morale military culture that is inclusive of and trusted by the public. Cultural innovation since 2015 has brought many changes to social communication, human rights promotion, safe barracks life, and harmony of autonomy and responsibility.¹² The number of military casualties, suicides, and unauthorized leaves has decreased significantly.

As its sixth tenet, South Korea is pursuing a strategy for risk reduction and establishing a peace regime on the Korean Peninsula through military confidence-building and arms control accords.¹³ The two Koreas signed the Agreement on the Implementation of the Historic Panmunjom Declaration in the Military Domain (CMA: Comprehensive Military Agreement) at the Inter-Korean Summit in Pyongyang on September 19, 2018.¹⁴ The CMA is a comprehensive package that includes all previously agreed measures to cease all hostile acts, transform the Korean Demilitarized Zone (DMZ) into a peace zone, and militarily support inter-Korean exchange and cooperation. North and South Korea partially implemented the CMA in late 2018, including the withdrawal of guard posts in the DMZ, the demilitarization of the Joint Security Area at Panmunjom, the establishment of no-fly zones, and the cessation of artillery fire and outdoor military maneuvers at regiment level and above in buffer zones.

These are operational measures to reduce tensions, not structural arms control measures. The two Koreas have engaged in talks on military confidence-building measures since 1991. In May 1992, they agreed on the establishment of the Inter-Korean Joint Military Committee, a high-level military consultative body that was supposed to discuss various military issues between the military authorities of the North and South.¹⁵ The 2018 CMA actually included a plan to make this committee operational. However, this never materialized. In 2019, North Korea severed its relations to South Korea and violated the CMA. Multiple missile tests and artillery firing

in 2022 infringed on agreed buffer zones. Today, the government in Seoul formally still upholds the CMA but has moved to boost its defense capabilities and take a firm stance on North Korea. The intensifying rivalry between the two Koreas is now fueling an arms race in which neither side wants to fall behind.

To implement its defense tenets, South Korea pursues defense reform. The continuity of the reform is institutionally guaranteed by Article 5 of the National Defense Reform Act of December 1, 2006.¹⁶ While every government in South Korean history has amended and supplemented the basic plan for defense reform, the Moon Jae-in government in 2018 adopted a major shift toward creating a military structure focused on advanced science and technology and enhanced capabilities to adapt to the changing security environment. Since most of the defense experts in the new South Korean government led by President Yoon Seok-yeol already served under Moon Jae-in and since the defense reform programs involve long-term budgeting and implementation, the current Ministry of National Defense (MND) is expected to stay the course on defense strategy and structure.

11 Korea Law Translation Center, *Military Service Act*, amended by No. 16356, April 23, 2019, https://elaw.klri.re.kr/eng_mobile/viewer.do?hseq=52485&type=sogan&key=28 (accessed November 28, 2022).

12 Ministry of National Defense, *Innovation of Military Culture*, Press Release, February 2, 2017.

13 Defense White Paper 2020, p. 46.

14 *Comprehensive Military Agreement*, Pyongyang, September 19, 2018, <https://www.ncnk.org/resources/publications/agreement-implementation-historic-panmunjom-declaration-military-domain.pdf> (accessed November 28, 2022).

15 *Agreement on the Composition and Operation of the Inter-Korean Military Committee*, May 7, 1992.

16 Korea Law Translation Center, *National Defense Reform Act*, enacted on December 28, 2006, amended by Act No. 14609, March 21, 2017, https://elaw.klri.re.kr/eng_mobile/viewer.do?hseq=43954&type=part&key=13 (accessed November 28, 2022).

Characteristics of Force Improvement Plans

In accordance with the constitution, the Armed Forces Organization Act and related laws, South Korea's president serves as commander-in-chief of the ROK Armed Forces.¹⁷ The minister of national defense is in charge of military matters under the authority of the president and directs and supervises the chairman of the Joint Chiefs of Staff (JCS) and the chief of staff of each service.¹⁸ The JCS assist the defense minister and command the combat operation units of the army, navy, and air force.

South Korea maintains a combined defense posture with the United States. The US-ROK alliance is organized through two high-level military consultative bodies, the Security Consultative Meeting (SCM) and the Military Committee Meeting (MCM). The SCM is chaired by the defense ministers of South Korea and the United States. Together with delegations of senior defense and foreign affairs officials, they define the framework for building and operating their combined defense force. The SCM is also tasked with policy consultations on overall security issues, a common assessment of regional military threats, and the establishment of joint countermeasures.¹⁹

The MCM is headed by the Chairmen of the Joint Chiefs of Staff of the ROK and the United States, who are joined by the Commander of the Indo-Pacific Command of the United States, the Director of the ROK JCS Strategic Planning, and the Commander of the Combined Forces Command (CFC) who is currently a US four-star general.²⁰ Its mission is to implement the SCM's instructions, respond promptly to pending issues, and provide guidance to the CFC, which is the warfighting headquarters designed to deter any aggressor from moving against the ROK.²¹

In the future, following the transfer of wartime operational control (OPCON), a ROK four-star general will serve as commander of the CFC with a US four-star general as deputy commander. Peacetime OPCON has already been led by South Korea for decades: The ROK took back control of peacetime operations, which had been held by the United Nations Command established during the Korean War, in 1994. Since then, the ROK-US command structure has become more co-equal as training, maintenance, and equipping procedures are under South Korea's control.

At the 47th SCM in November 2015, South Korea and the United States signed the "Conditions-based Operational Control Transition Plan,"²² which will allow South Korea to lead OPCON during wartime, too. The OPCON transition requires South Korea to acquire critical capabilities in connection with the ongoing defense reform²³ in order to be able to lead the combined defense posture and effectively counter North Korean ballistic missiles. This is not entirely unachievable but will take time.

With the advancement of North Korea's WMD and conventional military capabilities, the allies are committed to regular reviews of the time frame, budget constraints, and other issues related to the OPCON transfer.²⁴ This is done at the annual meetings of the

17 Korea Law Translation Center, *Armed Forces Organization Act*, amended by Act No. 10821, July 14, 2011, https://elaw.klri.re.kr/eng_mobile/viewer.do?hseq=26880&type=sogan&key=3 (accessed November 28, 2022).

18 Ibid., Article 8.

19 SCM started under the name of the ROK-US Defense Ministers Talks after North Korea captured the USS Pueblo in 1968 and has been using the current name since 1971.

20 The MCM was launched in 1978 in response to calls for a committee to establish and control the ROK-US Combined Forces Command (CFC).

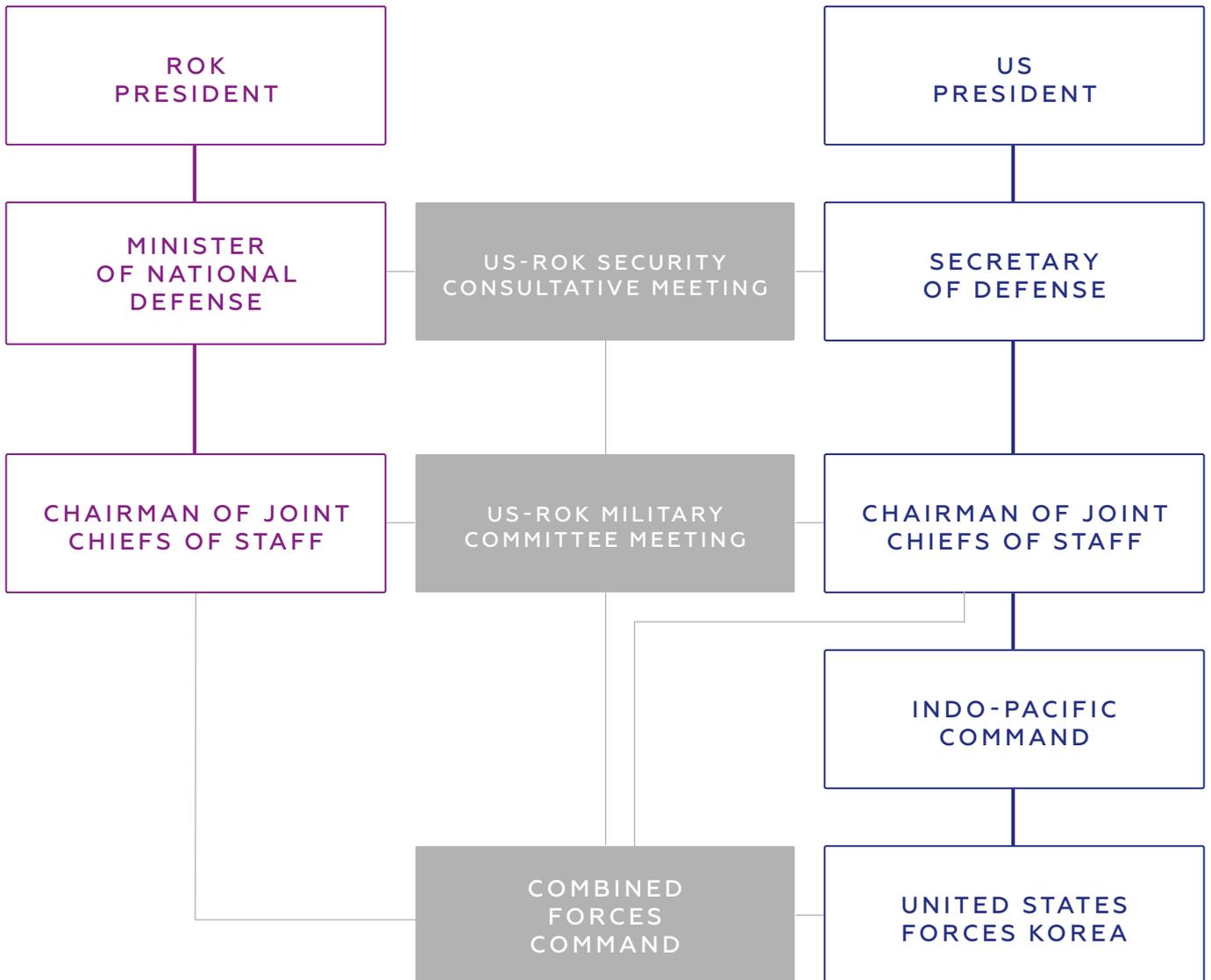
21 United States Forces Korea, *Mission of the ROK-US Combined Forces Command*, <https://www.usfk.mil/About/Combined-Forces-Command/> (accessed November 28, 2022).

22 The OPCON transition plan was drawn up in accordance with the "Memorandum of Understanding between the MND of the Republic of Korea and the Department of Defense of the United States of America Regarding the Implementation of a Conditions-Based Approach to the Transition of Wartime Operational Control" signed in 2014. See United States Forces Korea, *Joint Communique of the 47th ROK-US Security Consultative Meeting*, November 1, 2015, <https://www.usfk.mil/Media/Newsroom/News/Article/626859/full-text-of-47th-rok-us-joint-communique/> (accessed November 28, 2022).

23 United States Department of Defense, *Joint Communique of the 49th ROK-US Security Consultative Meeting*, October 28, 2017, <https://en.yna.co.kr/view/AEN20171028003000315> (accessed November 28, 2022).

24 Jina Kim, "Military Considerations for OPCON Transfer on the Korean Peninsula", *Asia Unbound*, March 20, 2020, <https://www.cfr.org/blog/military-considerations-opcon-transfer-korean-peninsula> (accessed November 28, 2022).

2 – THE ALLIES' DECISION-MAKING STRUCTURE



Source: Author's own compilation; data collected from the ROK Defense White Papers 2016 and 2018.

SCM and MCM. At the 51st SCM in 2019, the United States and South Korea reviewed the Initial Operational Capability (IOC) certification results²⁵ and decided to pursue an assessment of Full Operational Capability (FOC), which has not been accomplished yet. As South Korea is committed to acquiring the defense capabilities necessary to command the future combined defense system, it has agreed to continue with its investment into force enhancement projects in the long term.

FORCE ENHANCEMENT THROUGH DEFENSE REFORM

The ROK military will be transformed from a structure centered on troops to one centered on cutting-edge weapon systems. South Korea is pursuing a smart defense concept that involves building a force based on advanced technology, creating a super-connected, super-intelligent, and super-converged defense infrastructure, and innovating its force system to prepare for future wars.

On April 18, 2022, South Korea's Defense Acquisition Program Administration announced a long-term Defense Technology Plan, laying out strategies to secure and develop core technologies for future advanced weapon systems.²⁶ The Defense Acquisition Program Act calls for efforts to maintain a self-reliant national defense by strengthening the competitiveness of the defense industry.²⁷

Accordingly, the Defense Science and Technology Promotion Policy of 2019 presented eight fields of defense technology to focus on in support of these goals: artificial intelligence-based surveillance and reconnaissance; hyper-connected intelligent command and control; high-speed and high-power precision strikes; stealth-based platforms; combined manned and unmanned combat systems; personal combat systems using advanced technology; cyber

capabilities for active response and protection; and other emerging technologies.²⁸

CAPABILITIES TO DETER AND RESPOND TO WMD THREATS

Through the establishment of the WMD Response System, the ROK Armed Forces are building a key force to deter and respond to nuclear and missile threats. The Armed Forces continue to acquire multi-layered defense capabilities such as ballistic and aircraft defense capabilities and long-range artillery interception capabilities.

South Korea is developing its own Korea Air and Missile Defense (KAMD) to trace and shoot down missiles heading for its territory. KAMD refers to a multi-layered missile defense system that detects missiles launched toward the ROK at an early stage and intercepts these in their terminal phase. Its command and control system can be linked into the real-time strike system so that surveillance and reconnaissance information is integrated and transmitted through the Military Satellite Communications System, the Tactical Information Communication Network, and the Joint Fire Operating System Korea. KAMD will comprise medium-range surface-to-air Patriot missiles (PAC-2, PAC-3), indigenously built medium-range (M-SAM), and long-range (L-SAM) surface-to-air missile systems. While the L-SAM was recently tested and is scheduled to be deployed in 2035, South Korea has also decided to procure additional PAC-2 and PAC-3.²⁹ Its M-SAM is already deployed; South Korea will also export M-SAM to the United Arab Emirates as agreed in January 2022.³⁰

In addition to the PAC-2 and PAC-3, the United States has deployed the Terminal High Altitude Area Defense (THAAD) system in South Korea; both countries plan upgrades to THAAD with a view to strengthen interoperability with Patriot systems.³¹

25 United States Department of Defense, *Joint Communique of the 51st ROK-US Security Consultative Meeting*, November 16, 2019, <https://www.defense.gov/News/Releases/Release/Article/2018651/joint-communique-of-the-51st-rok-us-security-consultative-meeting/> (accessed November 28, 2022).

26 Defense Acquisition Program Administration, *Defense Technology Plan*, [in Korean] Press Release, April 18, 2022, <https://www.dapa.go.kr/dapa/na/ntt/selectNttInfo.do?bbsId=326&nttSn=41112&menuId=678> (accessed November 28, 2022).

27 Korea Law Translation Center, *Defense Acquisition Program Act*, amended by Act No. 17165, March 31, 2020, https://elaw.klri.re.kr/eng_mobile/viewer.do?hseq=54104&type=part&key=13 (accessed November 28, 2022).

28 Ministry of National Defense, *Defense Science & Technology Promotion Policy 2019-2033*, Seoul, 2019.

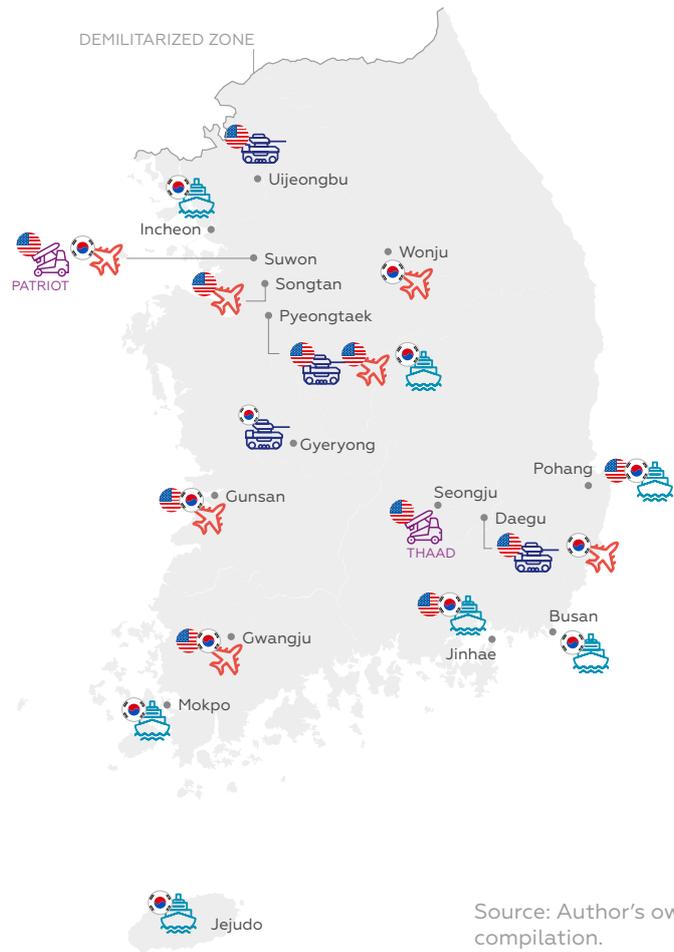
29 Thomas Newdick, "South Korea's New Anti-Ballistic Missile System Downs Targets In Tests", *The Drive*, November 22, 2022, <https://www.thedrive.com/the-war-zone/south-koreas-new-anti-ballistic-missile-system-downs-targets-in-tests> (accessed November 23, 2022).

30 Brian Kim, "South Korea inks largest arms export deal with UAE for missile interceptor", *Defense News*, January 18, 2022, <https://www.defensenews.com/industry/2022/01/18/south-korea-inks-largest-arms-export-deal-with-uae-for-missile-interceptor/> (accessed November 23, 2022).

31 Jin Kai, "The Trouble With South Korea's THAAD Upgrade", *The Diplomat*, October 28, 2022, <https://thediplomat.com/2022/10/the-trouble-with-south-koreas-thaad-upgrade/> (accessed November 23, 2022).

3 – MILITARY BASES IN SOUTH KOREA

-  REPUBLIC OF KOREA (ROK)
-  UNITED STATES
-  NAVAL BASE
-  AIR BASE
-  ARMY BASE
-  MISSILE DEFENSE SYSTEM



Source: Author's own compilation.

Although all aforementioned air and missile defense systems in South Korea officially seek to defend against North Korea, China continues to condemn the THAAD deployment since the system's radar could reach far into Northern China, bringing Chinese missile deployments there into US surveillance range.³² South Korea's other capabilities for air defense and response to WMD threats include systems to intercept long-range artillery, electro-magnetic pulse (EMP), and chemical, biological, radiological and nuclear (CBRN) protection capabilities.

In terms of strike capabilities, South Korea has developed several cruise and ballistic missile systems. Its cruise missile capabilities include ground-, sea-

and air-launched variants of its Haesong- and Hyunmoo-series, among them shorter-range anti-ship and anti-aircraft systems as well as longer-range land-attack cruise missiles. At their summit in Washington in May 2021, the United States and South Korea agreed to abolish the missile guidelines which for 40 years had restricted the maximum range and payload of South Korea's ballistic missiles.³³ Previously, the guidelines had been revised four times—2001, 2012, 2017 and 2020. By late 2022, South Korea had developed short- and medium-range ballistic missiles as part of its road-mobile Hyunmoo-series.³⁴ In 2021, South Korea has also tested a sea-based Hyunmoo-variant, making it the first non-nuclear weapon state to develop submarine-launched ballistic missiles.³⁵

32 Tong Zhao, "Managing the Sino-American Dispute over Missile Defense", *War on the Rocks*, August 11, 2022: <https://warontherocks.com/2020/08/managing-the-sino-american-dispute-over-missile-defense/> (accessed November 23, 2022).

33 US-ROK Leaders' Joint Statement, 2021.

34 Center for Strategic and International Studies (CSIS), "Missiles of South Korea", *CSIS Missile Defense Project*, <https://missilethreat.csis.org/country/south-korea/> (accessed November 7, 2022).

35 Masao Dahlgren, "South Korea Tests First Submarine-launched Ballistic Missile", *CSIS Missile Defense Project*, September 16, 2021, <https://missilethreat.csis.org/south-korea-tests-first-submarine-launched-ballistic-missile/> (accessed November 23, 2022).

FORCE DEVELOPMENT IN THE ARMY

The ROK Army's command structure consists of Army Headquarters, two Operations Commands, Capital Defense Command, Special Warfare Command, Army Aviation Operations Command, Missile Command, Mobilization Force Command, and support units. The ROK Army is restructuring its units to improve their capacity to carry out rapid decision operations – a precondition for future joint operations and a preparation for wartime OPCON transfer.³⁶ Its restructuring is aimed at expanding the surveillance and striking ranges and maximizing the force's survivability, mobility, and combat capabilities, thereby reducing the number of operating troops required.³⁷

In addition to building powerful, high-precision cruise and ballistic missiles, as mentioned above, the Army seeks to upgrade its armored mechanized warfare capabilities for high-speed maneuver warfare. To improve its ability to respond quickly and perform decisive operations as well as protect its soldiers, the Army is developing technologies such as reconnaissance, attack drones, and operation support robots that will be combined with manned and unmanned combined combat systems. With a view to quickly and accurately detecting and destroying targets, South Korea is introducing the counter-battery radar-II, 230mm Multiple Launch Rocket System (Chunmoo, also called Korean-MLRS) with a launchpad capable of simultaneously firing multiple rockets. It will also develop a new miniaturized counter-battery detection radar-III, which can detect the origin of a fired shell. Further plans include the upgrading of the K9 self-propelled gun to automatically load shells, which would reduce the need for personnel while enabling faster and more destructive fire.

FORCE DEVELOPMENT IN THE NAVY

The ROK Navy's command structure consists of Navy Headquarters, Fleet Command, Marine Corps Headquarters, Northwest Islands Defense Command, and support units. The Navy will reorganize its command structure to be able to conduct multi-domain and multi-dimension operations. To that end, it is establishing a task force command responsible for protecting maritime transportation routes by expanding operational areas to the high seas and ensuring free

maritime activities and safety of the Korean people. At the same time, the Marine Corps is restructuring its forces to be capable of defending strategic islands and carrying out multidimensional, high-speed amphibious operations and rapid response operations.

To respond to various types of surface, underwater, and airborne threats and maintain maritime dominance around the Korean Peninsula, the Navy is enhancing its existing capabilities and acquiring additional destroyers, frigates, and next-generation submarines as well as maritime patrol aircraft and maritime operations helicopters.³⁸ Most notable are South Korea's plans to replace the old frigate and patrol ships with the latest frigate, which weighs more than 3,000 tons and has enhanced long-range operational and combat capabilities including ship-to-ship, anti-aircraft, and anti-submarine guided missiles. The Navy will also get an additional Aegis destroyer, the main battleship of the mobile fleet, and develop a 6,000-ton destroyer (KDDX). To improve its high-speed amphibious operation capabilities, the Navy will acquire utility helicopters and high-speed landing craft.

FORCE DEVELOPMENT IN THE AIR FORCE

The ROK Air Force's command structure consists of Air Force Headquarters, Air Force Operations Command, and other operational and support units. The Air Force Operations Command is in charge of overall air operations including counter-air operations, air interdiction operations, close air support operations, and operations to effectively counter nuclear, missile, and long-range artillery threats. As the Air Force is responsible for strategic deterrence and aerospace operations, it has acquired state-of-the-art fighter aircraft, including F-35 aircraft, and fielded aerial refueling tankers to bolster its long-range operational capabilities.

The Air Force is drawing up a long-term development plan to adapt to the future security environment. It will be reorganized into a unit structure to maximize its aerospace and joint operational capabilities. The key objective is to be able to take the initiative in deterring and achieving air superiority in the operation area. To address omni-directional se-

³⁶ Defense White Paper 2020, p.64.

³⁷ Defense White Paper 2020, p.134.

³⁸ Defense White Paper 2020, p.65.

4 – MAJOR FORCE ENHANCEMENT PROJECTS

DURATION OF NEW PROGRAM FOR RESPECTIVE WEAPON SYSTEM

CATEGORY	2017	2018	2019	2020
BATTLEFIELD AWARENESS & COMMAND, CONTROL, COMMUNICATION 	Military reconnaissance satellite			
	High-altitude reconnaissance unmanned aerial vehicle (UAV)			Medium-altitude reconnaissance UAV
MANEUVER / FIRES 	Upgrade of the Military Information Management System	Second upgrade of the ground tactical C4I system	<ul style="list-style-type: none"> Multi-source video convergence system Performance enhancement of ballistic missile operation and control station 	<ul style="list-style-type: none"> Joint Tactical Data Link System Completion Type Mobile long-range surveillance radar
	Large attack helicopter	K2 tank, wheeled combat vehicle		
MARITIME ASSETS 	230 mm multiple launch rocket system			
	<ul style="list-style-type: none"> Explosives detection and removal robot (R&D) Unmanned light-weight combat vehicle (R&D) 	Firefinder radar II 230mm non-guided missile (R&D)	<ul style="list-style-type: none"> Combat engineer vehicle Armored amphibious assault bridge Laser-based anti-aircraft weapon 	<ul style="list-style-type: none"> Individual combat system 120 mm self-propelled mortar Light machine gun II
AIR ASSETS 	Gwanggaeto III-class destroyer, Jangbogo III-class submarine		Ulsan-class	Maritime patrol aircraft II
	Maritime patrol aircraft II	<ul style="list-style-type: none"> Tactical ship-to-surface missile Combined influence minesweeping system 	Autonomous underwater vehicle for mine reconnaissance	<ul style="list-style-type: none"> Destroyer (KDDX) Gumdoksuri-B Batch II
AIR ASSETS 	F-35A		Performance improvement of F-35A and KF-16, indigenous fighter (KF-X)	
	Aerial refueling tanker			
	Precision approach radar (PAR)	<ul style="list-style-type: none"> Upgrade of the identification, friend or foe system Service life extension of KF-16D 	<ul style="list-style-type: none"> Lead-in fighter trainer II T-50 simulator 	GPS guided bomb (2000 lbs-class) VI

Source: Author's own compilation on the basis of South Korea's Defense White Paper 2020 and 2018.

curity threats, South Korea is significantly reinforcing its combat power by fielding unmanned aerial reconnaissance vehicles and F-35As. It will also continue to acquire next-generation fighters (FX-II), indigenously developed fighters (KF-X), KF-16 upgrade, light aircraft carrier, and all-weather precision-guided weapons. It will secure electronic strike capabilities and enhance its air transportation capabilities by deploying electronic warfare aircraft and large transport aircraft.

SPACE CAPABILITIES

The Air Force has set up a space operations squadron to provide surveillance and a reconnaissance wing to efficiently integrate and operate existing reconnaissance assets. In 2019, South Korea established its first space unit, the ROK Air Force Satellite Surveillance Control Unit (renamed the “ROK Air Force Space Operations Unit” in 2020). An indigenous military communications satellite was launched in 2020. The Army and Navy are also preparing for space operations.

To be effective, preparation for space warfare requires clear leadership and enforcement structures. In 2018, South Korea revised its “Basic Plan for the Promotion of Space Development”³⁹ to provide guidelines for the development of military reconnaissance satellites and space threat surveillance systems. According to the 2022 Space Development Implementation Plan, South Korea will continue to acquire space assets to bring its space capabilities up to strength.⁴⁰ South Korea’s defense plan foresees the development of a high-power laser satellite tracking system and a space monitoring system. The latter will use radar to monitor satellites and objects in space over the Korean Peninsula and is scheduled to be deployed in the early 2030s. South Korea also plans to develop a satellite navigation system that provides locational, navigational, and visual information. The Defense Acquisition Program Administration plans to invest KRW 1.6 trillion (\$1.4 billion) for the development of core technology such as satellites and launch vehicles for surveillance and reconnaissance, communication, and navigation by 2030.

INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE CAPABILITIES

The ROK Armed Forces emphasize the importance of capabilities for surveillance and reconnaissance, command and control, and communication to be able to repel an aggressor at an early stage and prevail in combat.⁴¹ South Korea is purchasing military reconnaissance satellites, multipurpose satellites, medium-altitude reconnaissance UAVs, multi-source video convergence systems, and thermal and multi-functional observation devices to improve battlefield recognition and visualization. The Arirang-6 military reconnaissance satellite will provide video information on events on the Korean Peninsula, while the HUAVs (High- and Medium-Level Unmanned Reconnaissance Vehicles) will enable 24-hour surveillance. By mass-producing UAVs and organizing a UAV response system, the ROK Armed Forces seek to sabotage adversarial UAVs by disrupting or manipulating their navigation information. These systems will help the ROK Armed Forces maintain an early warning posture against North Korea and prepare for military activities in South Korea’s airspace and waters.

COMMAND, CONTROL, COMMUNICATIONS, COMPUTERS, AND INTELLIGENCE (C4I) CAPABILITIES

To help commanders gain awareness of the battlefield situation and make decisions more quickly, South Korea is reinforcing the C4I system of each branch of the Armed Forces, the Allied Korea Joint Command and Control System, and the Korea Joint Command Control System.⁴² The ability to command and control forces that can combine and disseminate detection and identification data and link them to strike systems is crucial. Therefore, the ROK Armed Forces are working to improve battlefield situation awareness even at the level of tactical units. This requires high-speed, high-volume information distribution capabilities as well as improvements to

39 Ministry of Science and ICT, *Basic Plan for Space Development 2018-2040*, Sejong, 2018.

40 The implementation plan finalized by the meeting of 16 related ministries says that for the first time in the history of space development, Korea will perform in all three space development areas, including launch vehicles, satellites, and space exploration. See Ministry of Science and ICT, *2022 Space Development Implementation Plan*, News Release, February 25, 2022, <https://bit.ly/3FmBByx> (Accessed November 28, 2022)

41 Defense White Paper 2020, p. 131.

42 Defense White Paper 2018, p. 124.

interoperability during combined and joint operations. The Armed Forces are upgrading joint tactical data links and air-to-ground communications radios as well as the digital tactical data links between the ROK and US Combined Forces.⁴³

CYBER CAPABILITIES

The ROK Armed Forces aim to increase cyber security and resilience, as malicious cyber operations are getting more sophisticated all the time. In 2019, South Korea announced its first National Cybersecurity Strategy as the top guideline for national cybersecurity policy. All relevant agencies and ministries are participating in formulating mid- to long-term development goals and plans led by the Ministry of National Defense (MND).⁴⁴ These efforts include using artificial intelligence to enhance the performance of the cyber operation system, developing a cybersecurity mission execution system, fostering specialized and elite cyberwarfare professionals, advancing cyber-attack response capabilities, and strengthening international cooperation on issues regarding cybersecurity.

A cyber operation system integrates and visualizes information necessary for cyber operations, which facilitates prompt decision-making and command and control. Cyber forces identify and analyze abnormal behavior on the network and prepare for taking systematic measures in a cyber crisis by periodically conducting training and by cooperating with the civilian sector.⁴⁵ To enhance the performance of the ROK Armed Forces in this domain, substantial education and training programs are under way to put together a stable force of cyber specialists. South Korea is also strengthening civilian-military-police cooperation system to counter cyber attack attempts including GPS jamming attempts.⁴⁶ This involves collaboration with the Ministry of Science and updating the crisis response manual for GPS signal disturbance.

DEFENSE BUDGET FOR FORCE ENHANCEMENT

South Korea has long allocated more than two percent of its GDP to its defense budget. This level of expenditure has been maintained despite economic crises and hardships; in fact, administrations in Seoul have remained fairly consistent in increasing the defense budget even in times of economic decline. In 2022, KRW 54.6 trillion (\$49.6 billion) were allocated to defense spending, a record 3.4 percent more than the year before. In the past, administrations led by the Democratic Party increased the share of GDP spent on defense with a view to reducing military dependencies and boosting the ROK's ability to defend itself. Overall, while liberal and conservative governments have differed substantially in terms of domestic and foreign policies, defense reforms and increasing funds allocated to the defense budget have remained consistent. The current conservative government and future administrations will need to discuss how to maintain adequate defense spending, given economic difficulties, domestic financial conditions, welfare demands, and demographic change.⁴⁷

Another trend in South Korea's defense spending concerns the shifting focus of its defense budget in recent years: A substantial and increasing share of the budget allocated to the military go toward force enhancement plans, including research and development (R&D). Of the country's total defense expenditure in 2022, KRW 16.7 trillion (\$15.1 billion, 30.6 percent) went to force enhancement, including defense R&D in preparation for future warfare.⁴⁸ For the domestic development of advanced weapon systems, the defense R&D budget required to secure core technologies necessary for weapon system development has increased by 11.5 percent compared to the previous year.

Force enhancement expenses accounted for 30.2 percent of defense spending in 2017, increasing to 31.3 percent in 2018, 32.9 percent in 2019 and 33.3 percent in 2020. In August 2021, the MND announced a plan to expand the force enhancement budget by 8.3 percent. Clearly, South Korea continues to focus on strengthening the military as a future-ori-

43 Defense White Paper 2020, p. 132.

44 National Security Office, National Cybersecurity Strategy, Seoul, 2019, pp. 16-17, https://www.itu.int/en/ITU-D/Cybersecurity/Documents/National_Strategies_Repository/National%20Cybersecurity%20Strategy_South%20Korea.pdf (Accessed on Nov 28 2022)

45 Defense White Paper 2020, p. 82.

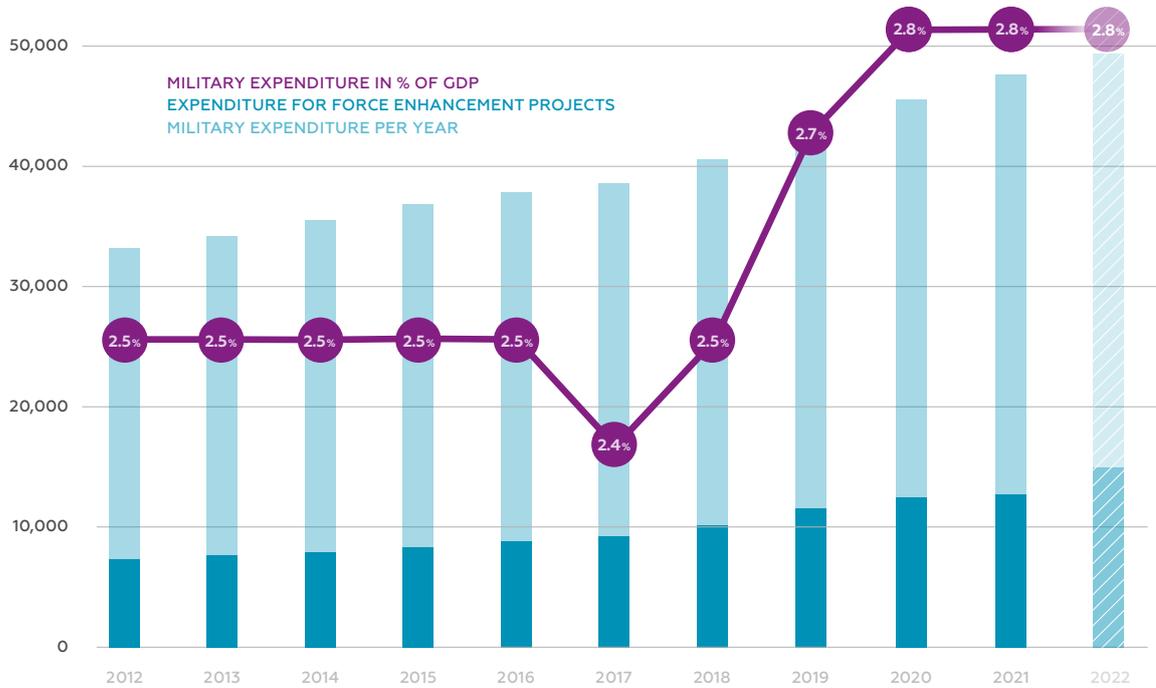
46 Ibid, p 69.

47 Ministry of National Defense, Defense Budget, Seoul, 2016, p. 12.

48 Ministry of Economy and Finance, Summary of Budget for FY 2022, Sejong, 2022.

5 – SOUTH KOREA’S MILITARY EXPENDITURE

ALL AMOUNTS IN MILLION USD



Sources: SIPRI Military Expenditure Database, <https://milex.sipri.org/sipri>; South Korea’s Ministry of Economy and Finance, Summary of Budget for FY 2022; OECD Statistics, <https://stats.oecd.org/Index.aspx?QueryId=72631> (Accessed 13 December 2022).

ented force based on advanced technology.⁴⁹ The ministry is planning to research and develop cutting-edge technologies such as stealth detection radar, hypersonic missiles, and military autonomous robots. Additional efforts will go toward the R&D of micro-satellite systems, satellite navigation systems, and UAVs for reinforcing surveillance and reconnaissance forces, long-range surface-to-air missiles (L-SAM) and long-range artillery interception systems (Korean-style iron domes) for missile defense, and high-power, long-range guided weapons.⁵⁰

R&D expenditure is expected to increase from 6.9 percent of total defense spending in 2019 to 8.9 percent in 2023 and 10 percent in 2033. At the same time, the share of money spent on core technolo-

gy R&D will rise: from 9.4 percent of total defense R&D expenditure in 2019 to 11.6 percent in 2023 and 15 percent in 2033. The budget for research and development of advanced weapons systems such as radar, sonar, satellites, and missiles will be expanded to KRW 3.44 trillion (\$3.1 billion) in 2026, while the defense technology development budget that is designed to strengthen the military’s scientific capabilities will be increased to KRW 2.63 trillion (\$2.3 billion) in 2026.⁵¹ Meanwhile, investment will be concentrated on eight high-tech fields to adapt to the defense market of the future and give a major boost to domestic technology in areas such as ultra-high-speed and high-power precision strikes, manned and unmanned hybrid combat execution, and other cutting-edge technologies.

49 Lee Young-bin, “The 2022-2026 Mid-term Defense Plan for Successful Accomplishment of Defense Reform 2.0 and Building a Digitalized Strong Military”, ROK Angle, No. 240, September 24, 2021.
 50 Ministry of Economy and Finance, Summary of Budget for FY 2022, Sejong, 2022, p. 131.
 51 Ministry of National Defense, Mid-term Defense Plan 2022-2026, Press Release, October 1, 2021.

Challenges and Implications of the Defense Plan

The decline of the population is lending great urgency to South Korea's efforts to reduce the size of its standing forces while maximizing combat efficiency. The Armed Forces are bringing in and training up more skilled personnel to operate high-tech weapons. At the same time, staff for non-combat areas such as maintenance, distribution, administration, and education will be replaced by professional civilians. The problem is that the population is declining faster than the Armed Forces can implement plans for force restructuring and introducing new weapons systems. While South Korea had about 330,000 men reaching the age of 20 in 2020, their number will decrease to about 250,000 in 2023 and 230,000 in 2025.⁵² This will put an additional strain on South Korea's efforts to implement its national defense reform and establish cutting-edge forces.

The introduction of advanced technology into the defense sector will continue as defense R&D focuses on systems such as drones, robots, and space-based assets. Strengthening the global competitiveness of South Korea's defense industry is closely linked to its economic viability. The government in Seoul thus has a domestic interest in making funds available for developing the defense industry, including for weapons systems designed for overseas markets, for defense venture companies and the formation of defense innovation clusters, and for the protection of defense technology.

South Korea's new government shares concerns that the Armed Forces do not dispose of enough surveillance and reconnaissance assets and are insufficiently prepared to operate such systems.⁵³ In light of the changing security environment, it will continue to invest into light aircraft carriers, long-range artillery intercept systems, and Patriot performance improvement projects. In particular, higher investments into intelligence, surveillance, and reconnaissance assets will make it possible to "see earlier, see further, and strike faster" as well as to reduce excessive reliance on the United States for information-gathering capabilities.⁵⁴

Northeast Asia's arms build-up will keep South Korea persevering in its current drive to modernize the Armed Forces. This region was one of the few places where defense budgets were already rising when the rest of the world was scaling back after the Cold War. By late 2022, there was a clear trend toward higher spending on defense throughout Northeast Asia. As a result, the region is becoming even more dangerous, given the fast pace of weapons development and procurement and the high density of deployed troops and assets, the latter including advanced missile technology that can reach far into adversarial territories.

Developments on the Korean Peninsula have been particularly worrisome: North Korea has accelerated its nuclear weapons and missile development programs since 2006, with impressive progress made in both 2016/2017 as well as 2021/2022. In a similar timeline, South Korea's missile development programs have also made big strides. In addition to improving their missile capabilities, North and South Korea both have codified employment strategies that feature preemptive strikes, allowing for strikes against adversarial targets if an incoming threats seems imminent.⁵⁵ South Korea's strategy even includes preemptive strikes to take out North Korea's leadership.⁵⁶ This significantly increases the risk of war, given the North's paranoia over security and both sides' perceptions of each other's belligerence. Overall, the arms race on the Korean Peninsula con-

52 Korean Statistical Information Service, *Population Projection*, https://kosis.kr/search/search.do?query=percentEC_percent9D_percentB8_percentEA_percentB5_percentAC.

53 Dong Hyuk Lee, "VOA Interviews South Korea's President-Elect Yoon Suk-yeol", *Voice of America*, May 7, 2022, <https://www.voanews.com/a/voa-interviews-south-korea-s-president-elect-yoon-suk-yeol---transcript/6562053.html> (Accessed November 28, 2022).

54 Ministry of National Defense, *Defense White Paper 2014*, Seoul, 2014, p. 88.

55 James Action, Ankit Panda, "North Korea's Doctrinal Shifts Are More Dangerous Than Missile Launches", *Foreign Policy*, November 4, 2022, https://foreignpolicy.com/2022/11/04/north-korea-nuclear-doctrine-more-dangerous-than-missile-launches/?tpcc=recirc_latest062921 (Accessed November 24, 2022).

56 Ankit Panda, *South Korea's "Decapitation" Strategy Against North Korea Has More Risks Than Benefits*, Carnegie Endowment for International Peace, August 15, 2022, <https://carnegieendowment.org/2022/08/15/south-korea-s-decapitation-strategy-against-north-korea-has-more-risks-than-benefits-pub-87672> (Accessed November 24, 2022).

tributes to worsening tensions between the two Koreas and makes it less likely for both sides to engage in conventional arms control negotiations and nuclear threat reduction.

South Korea's plans for building a missile force with no range limit, developing supersonic missiles to deter neighboring countries' access, or building a light carrier capable of operating on the high seas have military implications that go beyond the Korean Peninsula. In this regional context, states are defined by their interactions just as the security environment is defined by countries embracing the arms race.

DIVERSIFYING AND STRENGTHENING DEFENSE RELATIONS

As announced at the ROK-US summit in May 2022, South Korea and the United States will deepen and broaden their partnership in the Indo-Pacific region, which includes expanding the scope and scale of combined military exercises and training on and around the Korean Peninsula. In the context of North Korea's ever more frequent missile tests, the allies announced that US strategic assets, such as nuclear-capable bombers, would be moving in and out of South Korea "on a routine basis."⁵⁷

While the alliance with the United States remains the cornerstone of South Korea's defense, the country is interested in diversifying and intensifying its strategic defense exchange and cooperation with regional stakeholders. The previous government's foreign policy initiatives were focused on cooperation with countries in Southeast and Central Asia. As the new administration takes a clearer stance on the Indo-Pacific, the scope of regional partners will likely broaden, and cooperation will intensify.

Japan is a geographically and culturally close neighbor and, as one of the US treaty allies in the Indo-Pacific, a natural partner for security cooperation. South Korea maintains a bilateral agreement on sharing military information (GSOMIA) and has joined multiple trilateral and multinational military exercises with Japan and the United States. Particularly in the context of North Korea's missile tests and the cur-

rent conservative administration in Seoul, overlapping threat perceptions are likely to facilitate military cooperation between Japan and South Korea.

The ROK military is attempting to establish a diplomatic framework with Southeast Asian countries regarding defense industrial cooperation, cyber security information sharing, and maritime security cooperation. ASEAN Regional Forum (ARF) and ASEAN Defense Ministers Plus (ADMM Plus) will continue to provide platforms for South Korea to further enhance relations for regional security partnership.

Australia and New Zealand are key nations of Oceania and long-standing partners for South Korea. The ROK has been expanding and intensifying defense cooperation through high-level defense exchanges as well as through combined training.

In 2020, Seoul and New Delhi agreed on a defense cooperation roadmap which covers joint research and development as well as production and marketing strategies for the defense industry. For South Korea, security cooperation with India will become even more significant in the future, given its stake in the Indo-Pacific.

Historically, South Korea has not cooperated particularly closely with European countries on defense matters. This, however, has changed in recent years. The strategic partnership between the European Union (EU) and South Korea establishes a framework for sharing experiences in maritime security, counterterrorism, and cyber security. In terms of defense industry cooperation, South Korea's technological advancements and indigenously-developed weapon systems provide new opportunities for both sides. In recent years, South Korea has massively increased its arms exports, becoming the eighth largest global arms exporter.⁵⁸

There is significant room for European governments to facilitate the defense industrial exchange with the South Korean government and its defense agencies. Discussing how to combine different demands and strategies, such as procuring off-the-shelf weapons systems, investing in domestic R&D, and maintaining interoperability with allies, can present a particular and mutually beneficial point of exchange.

57 "Secretary of Defense Lloyd J. Austin III and South Korean Minister of National Defense Lee Jong-sup Hold a News Conference", Transcript, November 3, 2022, US Department of Defense, <https://www.defense.gov/News/Transcripts/Transcript/Article/3209711/secretary-of-defense-lloyd-j-austin-iii-and-south-korean-minister-of-national-d/> (Accessed November 7, 2022).

58 Wezeman, Pieter D., Alexandra Kuimova, Siemon T. Wezeman, *Trends in International Arms Transfers, 2021*, SIPRI Factsheet, March 2022, https://www.sipri.org/sites/default/files/2022-03/fs_2203_at_2021.pdf (Accessed November 7, 2022).

6 – SELECTION OF ALLIES AND PARTNERS

COUNTRY	FORM OF COOPERATION	KEY AGREEMENT/Framework
 United States	Alliance	1953 Korea-US Mutual Defense Treaty
 Japan	Partnership	2016 Agreement on the Protection of Classified Military Information
 Australia	"Comprehensive Strategic Partnership"	2021 MOU on Cyber and Critical Technology Cooperation, 2015 Blueprint for Defence and Security Cooperation
 New Zealand	"Partnership for the 21st Century"	2014 MOU on defense cooperation in the areas of joint exercises, education and training
 Russia	Partnership	2021 Defense Cooperation Agreement, including mutual visits to military exercises, exchanges between military educational institutions, 1997 Agreement on Cooperation in the Military - Technical Sphere, Defense Industry and Logistics
 Italy	Partnership	2018 Defense Cooperation Agreement, including research on defense products and services
 Indonesia	Partnership	2013 Defense Cooperation Agreement, including regular bilateral dialogue, human exchanges, technical cooperation, planned establishment of a joint defense cooperation committee
 Poland	Partnership	2013 Defense Cooperation Agreement, including military exercises, military assistance, exchanges of instructors and trainees
 Saudi Arabia	Partnership	2013 Defense Cooperation Agreement, including exchanges of defense-related information, bilateral talks, mutual visits to facilities, industry
 Brazil	Partnership	2008 Defense Cooperation Agreement in areas of defense industry and human exchanges
 UAE	Partnership	2006 Military Cooperation Agreement, including military-related information, defense industry and logistics support, military education and training
 India	Partnership, Foreign Policy and Security Dialogue	2018 Republic of Korea and India: A Vision for People, Prosperity, Peace and our Future
 EU	Strategic Partnership	2016 Framework Agreement for the participation in EU Crisis Management Operations
 NATO	"Partners across the globe"	2012 Individual Partnership and Cooperation Programme, 2014 Partnership Interoperability Initiative
 ASEAN	"Dialogue Partnership"	2010 Joint Declaration on ASEAN-ROK Strategic Partnership for Peace and Prosperity

Author's note: Agreements on the Exchange and Mutual Protection of Classified Military Information exist with: Thailand (2019), Saudi Arabia (2018), Jordan (2017), Japan (2016), Hungary (2015), Philippines (2015), Greece (2013), Qatar (2014), Romania (2015), India (2014), New Zealand (2012), Uzbekistan (2012), Australia (2009), United Kingdom (2009), Poland (2009), Bulgaria (2009), Spain (2009), Sweden (2009), Ukraine (2003), Russia (2002), France (2000), Canada (1999).

Source: Author's own compilation on the basis of information provided by South Korea's Ministry of Foreign Affairs.

Besides working together on conventional defense issues, European countries and South Korea are expanding their cooperation to cover new areas. Since 2014, the EU and South Korea have held regular cyber dialogues. Both sides are also exchanging views on the geopolitical aspects of emerging technologies and on the applicability of international laws and norms. Their dialogue is also about handling practical issues for enterprises.⁵⁹ Both South Korea and European countries have become targets of malicious cyber operations, particularly from agents operating on behalf of North Korea, China, and Russia. Strengthening their exchange and sharing information about vulnerabilities and perpetrators will help to increase cyber security and resilience and improve attribution.

In May 2022, South Korea's intelligence agency joined NATO's cyber defense group based in Tallinn, Estonia, which highlights the institutional efforts being made for practical exchanges and cooperation. South Korea has also established a diplomatic mission to NATO in Brussels in late November 2022, a clear sign of South Korea's interest in strengthening inter-regional security cooperation.⁶⁰ Such a presence at NATO can facilitate the expansion of exchange and cooperation to include topics of security- and defense-relevant science and technology. Given South Korea's technological advancements and ambitions for state-of-the-art weapons systems and command and control, both sides would benefit from cooperation.

Non-proliferation and counter-proliferation are areas of intensive cooperation between the EU and South Korea.⁶¹ The EU strongly supports counter-proliferation efforts and works closely with South Korea on WMD challenges. South Korea has signed up to several export control regimes, including the Missile Technology Control Regime, and subscribes to the Hague Code of Conduct. This makes South Korea the only other country in Northeast Asia besides Japan to formally participate in regimes to prevent the proliferation of missile and related technologies. Europe and South Korea can build on this shared interest and intensify their dialogue on im-

plementing export control regimes and using new technologies to do so.

In addition to their dialogue on non-proliferation, the EU and South Korea can join forces to enhance capacity-building in the Indo-Pacific. Both sides take part in the Proliferation Security Initiative (PSI) to help increase the interdiction capabilities of PSI endorsees by sharing relevant experiences and information. The EU and South Korea share a common interest in strengthening non-proliferation activities and capacities in the Indo-Pacific region, particularly North Korea's activities of evading arms embargos or sanctions through ship-to-ship transfers under false flags. Both sides can build on their shared experience of cooperating on maritime security operations since late 2016 to strengthen the EU-South Korean partnership on non-proliferation and export control.⁶²

Europe and South Korea have room to push forward with their cooperation. They share common interests and concerns; both have security- and defense-related experiences that the other side can learn from. As described above, defense-industrial relations, cyber security, and non-proliferation in the Indo-Pacific stand out as three areas of cooperation where strategic interests and capacities overlap and can bring mutual benefits. Doing so will strengthen inter-regional security cooperation and help defend the norm-based international order.

59 George Christou, Ji Soo Lee, "EU-ROK cooperation on cyber-security and data protection", in: Nicola Casarini (ed.), *EU-Korea Security Relations*, London, 2021.

60 Republic of Korea opens diplomatic mission to NATO, NATO Press Release, November 22, 2022, https://www.nato.int/cps/en/natohq/news_209320.htm (Accessed November 24, 2022).

61 Jina Kim, "EU-Korea cooperation in nonproliferation and disarmament", in: Nicola Casarini, Antonio Fiori, Nam-Kook Kim, Jae Seung Lee, and Ramon Pacheco Pardo (eds.), *The Routledge Handbook of Europe-Korea Relations*, London, 2021.

62 Delegation of the European Union to the Republic of Korea, *The European Union and the Republic of Korea*, August 4, 2021, https://www.eeas.europa.eu/south-korea/european-union-and-republic-korea_en?s=179 (Accessed on Nov 28 2022).

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