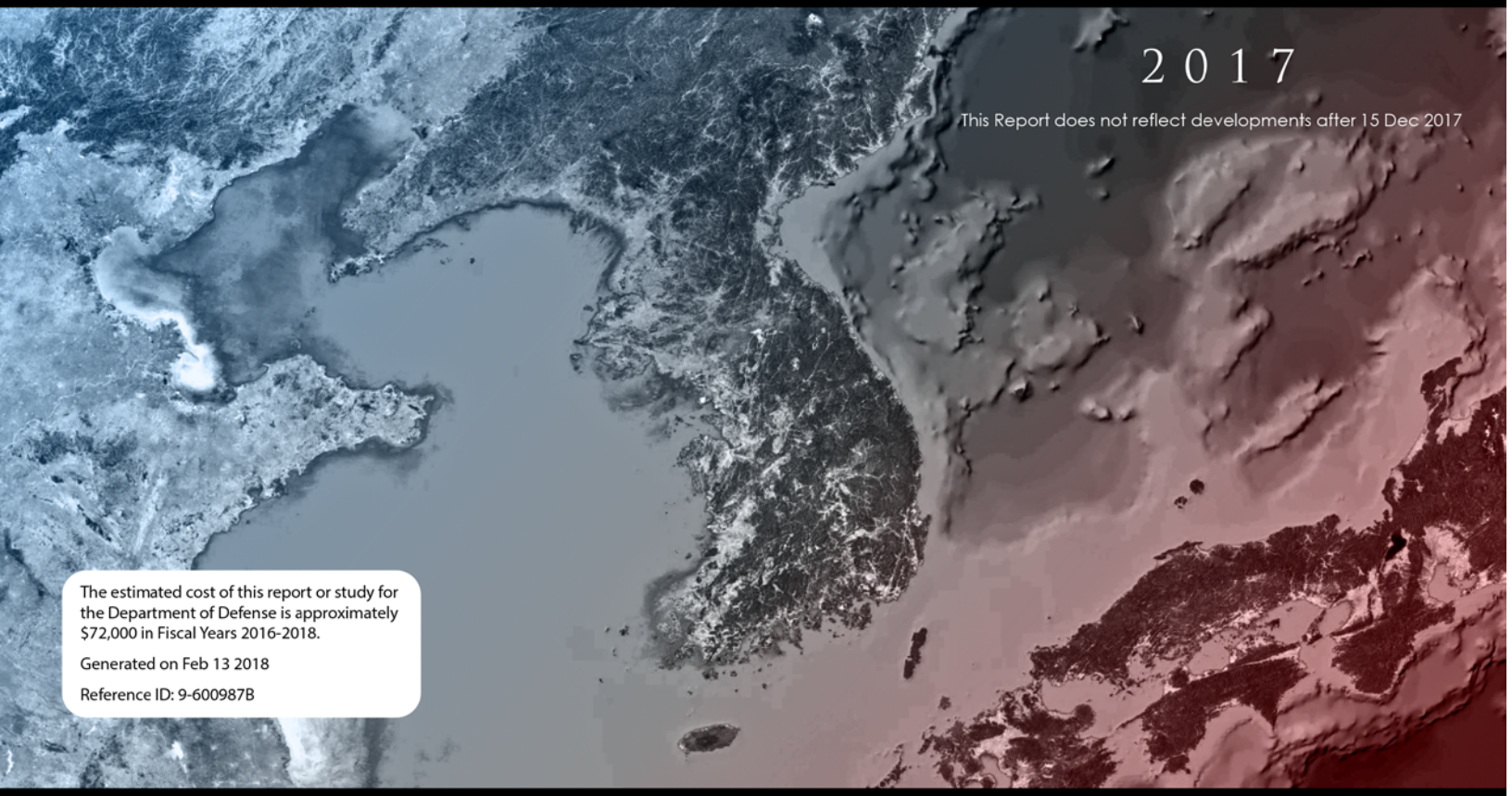
MILITARY AND SECURITY DEVELOPMENTS INVOLVING THE DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA

REPORT TO CONGRESS



2017

This Report does not reflect developments after 15 Dec 2017

The estimated cost of this report or study for the Department of Defense is approximately $72,000 in Fiscal Years 2016-2018.

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OFFICE OF THE SECRETARY OF DEFENSE

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Military and Security Developments Involving the Democratic People's Republic of Korea 2017

A Report to Congress

Pursuant to the National Defense Authorization Act for Fiscal Year 2012

Section 1236 of the National Defense Authorization Act for Fiscal Year 2012, Public Law 112-81, as amended by Section 1292 of the National Defense Authorization Act for Fiscal Year 2013 and Section 1245 of the National Defense Authorization Act for Fiscal Year 2014, provides that the Secretary of Defense shall submit a report "in both classified and unclassified form, on the current and future military power of the Democratic People's Republic of Korea" (DPRK). The report shall address an assessment of the security situation on the Korean Peninsula, the goals and factors shaping North Korean security strategy and military strategy, trends in North Korean security, an assessment of North Korea's regional security objectives, including an assessment of the North Korean military's capabilities, developments in North Korean military doctrine and training, an assessment of North Korea's proliferation activities, and other military security developments

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EXECUTIVE SUMMARY

North Korea's primary strategic goal is perpetual Kim family rule via the simultaneous development of its economy and nuclear weapons program – a two-pronged policy known as *byungjin*. Pyongyang portrays nuclear weapons as its most effective way to deter the threat from the United States. However, regime propaganda began emphasizing "final victory" over the United States and Republic of Korea (ROK) in 2017, suggesting Kim Jong Un has larger ambitions, including use of nuclear weapons to deter interference if it attempts to reunify the Korean Peninsula. Internally, the regime seeks to maintain control over a populace that is decreasingly reliant on it, and Kim Jong Un has embraced coercive measures such as purges and public executions to quell dissent. Regionally, the North has been willing to accept a decline in relations, including with its main benefactor China, to further its nuclear program.

North Korea conducted more than 20 missile launches in 2016 alone with a similar number in 2017. 2017 also saw North Korea's first intercontinental ballistic missile (ICBM) flight tests in July and intermediate-range missile (IRBM) tests over Japan in August and September. In addition to ICBMs, North Korea is developing and testing longer-range solid-propellant missile systems, submarine-launched ballistic missiles (SLBM), and short-range ballistic missiles (SRBM) as countermeasures against U.S. and allied missile defenses. North Korea conducted its sixth and largest nuclear test in September 2017 after two in 2016, and continues to invest in its nuclear infrastructure.

North Korea's conventional force continues to emphasize large defensive and asymmetric attack capabilities to counter the technologically superior forces of the U.S. and ROK Alliance. The (North) Korean People's Army's (KPA) large artillery force is deployed along the demilitarized zone (DMZ), posing a constant threat to the Greater Seoul Metropolitan Area (GSMA). In 2016, the North publicized tests of a new close-range ballistic missile (CRBM), the KN-SS-X-9, which, if deployed, could extend North Korea's artillery reach to U.S. Garrison Humphreys (current location of U.S. 8th Army HQ and future location of U.S. Forces Korea and the United Nations Command) and beyond. North Korea uses offensive cyberoperations as a cost-effective and deniable asymmetric tool to carry out regime goals on a global scale.

North Korea continues to market, sell, and deliver weapons-related goods and services to a small set of countries in Africa, Southeast Asia, and the Middle East, providing a vital source of foreign currency. Global concern about North Korea's proliferation activities has led some countries to halt new purchases from North Korea and has led other nations to take action to prevent arms-related deliveries.

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CHAPTER ONE: ASSESSMENT OF THE SECURITY SITUATION

KEY DEVELOPMENTS IN NORTH KOREAN AND PENINSULAR SECURITY

During the past two years, the Democratic People's Republic of Korea's (DPRK) ballistic missile and nuclear weapons development has been trending in a more dangerous direction for the United States and its allies. In 2016, North Korea conducted more than 20 missile launches with a similar number in 2017. In addition to testing new longer-range missiles, North Korea has also made progress with solid-propellant technologies, submarine-launched ballistic missiles, and probably has an interest in countermeasures against U.S. and allied missile defenses. This period also includes three nuclear tests: two in 2016 and one, the largest to date, in 2017.

On January 6, 2016, North Korea claimed a successful hydrogen bomb test. In response, the previous ROK administration of President Park Geun-hye expanded its propaganda campaign using loudspeakers along the DMZ and unilaterally suspending operations at the Kaesong Industrial Complex, a jointly run industrial park in North Korea. In addition, the UN Security Council (UNSC) unanimously adopted Resolution (UNSCR) 2270 in March 2016 to sanction North Korea's primary sources of revenue, such as iron, iron ore, coal, etc. and require all member States to inspect North Korean cargo transiting their ports.

North Korea conducted its fifth nuclear test on September 9, 2016. This was met with the unanimous adoption in November 2016 of UNSCR 2321, which strengthened existing sanctions and included measures meant to cap North Korea's revenue from coal, its main export and a vital source of hard currency.

In February 2017, China announced a total ban on imports of North Korean coal for the year. China's willingness to support UN Security Council resolutions and restrict coal imports has led to deepening North Korean animosity toward China.

North Korea conducted its inaugural test of an ICBM on July 4, 2017, followed by a second test less than four weeks later on July 28, 2017. In August 2017, the UN Security Council adopted UNSCR 2371, which included sectoral bans for the first time. These bans target North Korean coal, iron ore, lead, and seafood.

In early August 2017, North Korea threatened to launch four IRBMs toward Guam, a U.S. territory, and in late August and September 2017, North Korea tested an IRBM over Japan. North Korea conducted a sixth and significantly larger nuclear test on September 3, 2017, claiming that the detonation had been a "successful hydrogen bomb test for an ICBM."

NORTH KOREAN SECURITY PERCEPTIONS

The internal security situation remains stable despite greater international pressure and sanctions. North Korean security perceptions have not substantially changed during the past two years, although regime propaganda has more frequently and harshly articulated a perceived threat from the United States. Deterring foreign intervention, eliminating perceived threats to the Kim family regime, and a belief that North Korea is entitled to respect as a world power are the primary drivers of North Korea's security strategy.

The regime sees itself beset by internal and external threats. It does not trust regional actors, including China and Russia, nor does the regime trust its own population. The regime embraces the worldview of a garrison state, cultivating fears of an imminent threat and external hostility, which serves to justify draconian internal security controls, vast expenditures on the military, and the continued unchallenged rule by the Kim dynasty, which it portrays as uniquely able to defend Korea.

North Korea portrays nuclear weapons as its most effective way to deter the threat it claims from the United States and its allies. North Korea repeatedly points to interventions in Syria, Afghanistan, Iraq, and Libya as evidence that possession of nuclear weapons is necessary to prevent U.S. action in North Korea. However, the increased pace of nuclear and ballistic missile testing under Kim Jong Un, and its new rhetoric about achieving "final victory" over the United States and "reunification under Juche," suggest the regime seeks to achieve a capability that goes beyond minimal deterrence to one that could provide greater freedom of action for North Korean aggression or coercion against its neighbors. North Korea may reason, incorrectly, that possession of nuclear weapons makes it immune from retaliation if it attacks a non-nuclear state.

CHAPTER TWO: UNDERSTANDING NORTH KOREA'S STRATEGY

STRATEGIC GOALS

The regime's overriding strategic goal is to ensure the Kim family's perpetual rule of North Korea. The means to achieve this goal have remained consistent under Kim Jong Un: ending the U.S.-ROK Alliance and removing U.S. forces from the Korean Peninsula; gaining international recognition and acceptance as a nuclear state; possessing a viable nuclear strike capability; simultaneously developing its economy and nuclear weapons program (i.e., the *byungjin* policy); maintaining tight control over communications, borders, movement, and trade; and eventually reunifying Korea under North Korea's control.

Reunification with the ROK, by force if necessary, is a key component of North Korea's national identity, validating its policies and strategies, and justifying the sacrifices demanded of the populace. However, North Korea's leaders almost certainly recognize that achieving forceful reunification under North Korea's control is unattainable so long as the ROK has greater military capabilities and an alliance with the United States. Therefore, North Korea's nuclear weapons development is probably designed with the assessment that nuclear weapons will deter foreign intervention if Pyongyang attempts to reunify the peninsula by force or coercion. This idea is repeated in North Korea's internal propaganda and rhetoric about nuclear weapons enabling "final victory over the United States." 2017 saw growing and repeated emphasis of this phrase, which is always linked to the nuclear program.

NATIONAL STRATEGY

North Korea ultimately seeks the capability to strike the continental United States with a nuclear-armed ICBM. This pursuit supports North Korea's strategy of deterring the United States as well as weakening U.S. alliances in the region by casting doubt on the U.S. commitment to extended deterrence. In the long term, North Korea may see nuclear weapons as permitting more frequent coercive behavior and may further increase Kim Jong Un's tolerance for risk. Internally, the Kim regime seeks to maintain ideological control over a population that is growing less reliant on the state because it no longer provides basic goods and services outside the capital and major cities. The regime continues to give top priority to ideological indoctrination, intimidation, and preferential treatment of the privileged elite in Pyongyang and of select military units. Kim Jong Un has embraced the coercive tools used by his father and grandfather—a repressive police state backed up by force and the threat of force, combined with inducements—to quell

domestic dissent, strengthen internal security, and co-opt the North Korean military and elites. Periodic purges and public executions serve as a mechanism to ensure loyalty, instill fear, and eliminate perceived rivals.

REGIONAL OBJECTIVES AND BEHAVIOR

In early 2015, Kim began reaching out diplomatically to Southeast Asia, Africa, and Russia to improve North Korea's economy and lessen its dependence on China. Those efforts have met with little success; North Korea remains a pariah – unable to significantly expand ties because of international sanctions and the stigma of gross human rights violations and the development of weapons prohibited by UNSCRs. However, North Korea's skill in navigating black markets and hiding funds, and its "no-questions-asked" philosophy on illicit trade and slave labor, make it an attractive partner to some actors.

North Korea remains willing to temporarily disrupt relations with regional neighbors, including Russia and China, and absorb the associated cost when it believes its actions will advance its strategic objectives. For example, relations with Southeast Asian nations have broken down somewhat following the assassination of Kim Jong Un's half brother in Malaysia in February. Despite this, North Korea probably believes periodic "charm offensives" will eventually lead to improvements in regional relationships and gradual advancement of its strategic objectives.

North Korea remains dependent on China as its key economic benefactor, and North Korea's leaders realize that efforts to advance its nuclear and missile capabilities have angered China. Over the last two years, relations with China have reached their lowest levels in decades. The two nations conducted no high-level engagements in 2016, and North Korean official media has made uncharacteristically critical statements toward China after it announced its February 2017 coal import ban. Nevertheless, the regime likely thinks China's highest priority is preserving the status quo and therefore will not punish North Korea too severely.

North Korea maintains friendly relations with Russia. Although Moscow has publicly criticized Pyongyang's nuclear weapons testing and has supported additional UNSC sanctions after North Korea's nuclear and ICBM tests, Russia vetoed a UN Presidential Statement following North Korea's July 4, 2017, ICBM test. Economically, long-stalled plans for the creation of a natural gas pipeline from Russia to the ROK through North Korea—a project that could earn North Korea millions of dollars annually in transit fees—have made little concrete progress in recent years. Still, the countries began marginally expanding bilateral economic relations in early 2017.

North Korea's relations with Japan deteriorated in the last decade and remain stagnant. Tokyo has become increasingly alarmed over North Korea's nuclear and missile development, as Japan is within range of its medium-range and intermediate-range ballistic missiles (IRBMs). North Korean IRBMs

overflew Hokkaido in August and September 2017, and a number of North Korean missiles have dropped in Japan's exclusive economic zone.

A persistent unresolved irritant is the history of North Korean abductions of dozens, potentially hundreds, of Japanese citizens in the 1970s and 1980s for a variety of purposes, including gathering intelligence and training its special forces. The issue remains unresolved, and North Korea has failed to account for them despite repeated promises.

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CHAPTER THREE:
THE CAPABILITIES AND MODERNIZATION GOALS OF NORTH KOREA'S MILITARY FORCES

OVERVIEW

The North Korean military poses a serious and growing threat to Northeast Asia, U.S. forces in the region, and the world. This is despite its many internal challenges and shortcomings, such as a degraded conventional military force that has been modernized only selectively.

North Korea's national military strategy is designed to support its national security strategy by defending the Kim regime's rule. This strategy relies heavily on deterrence: strategic deterrence through its nuclear weapons program and supporting delivery systems; and conventional deterrence through the fielding of a large, heavily armed, forward-deployed military that presents a constant threat to the ROK, particularly the GSMA

North Korea's force-modernization goals are aimed at enhancing the credibility of its strategic capabilities by advancing its nuclear and missile programs, and retaining sufficient conventional strength to inflict large-scale damage on the ROK and defend North Korea in the event of an invasion or attack. North Korea is attempting to accomplish this through modest levels of production on new systems and maintaining the credibility of its conventional forces through more realistic training. North Korea directs its scarce resources to areas where it sees the potential for localized comparative advantage.

North Korea offsets logistic resupply problems, resource shortages, and dated equipment by maintaining a large, forward-positioned force. This allows North Korea the ability to initiate an attack against the ROK with little to no warning.

GROWING CAPABILITIES TO BOLSTER AN AGING FORCE

The Korean People's Army (KPA)—a large, ground-force–centric organization comprising ground, air, naval, missile, and special operations forces (SOF) units—has more than 1 million soldiers, making it the world's fourth-largest military. Six percent of North Korea's 25 million people serve on active duty, and another 25 to 30 percent are assigned to a reserve or paramilitary unit subject to wartime mobilization. About 70 percent of North Korea's ground forces and 50 percent of its air and naval forces are deployed within approximately 60 miles of the Demilitarized Zone (DMZ), making the KPA a continuous threat to ROK and U.S. forces. The KPA's general disposition has not changed in the last two years.

The KPA primarily fields legacy equipment either produced in or based on designs from the former Soviet Union and China dating to the 1950s, 1960s, and 1970s. Although a few weapon systems are based on modern technology, the KPA has not kept pace with regional military developments. The KPA has not acquired new fighter aircraft in decades, relies on older air defense systems, lacks ballistic missile defense, and its Navy does not train for bluewater operations.

To overcome many of these shortfalls, Kim Jong Un seems to prioritize the development of new weapon systems, as demonstrated by his numerous appearances with military units and research and development organizations. He has personally overseen land- and submarine-based ballistic missile and anti-ship cruise missile testing activity. He has also overseen events designed to demonstrate the proficiency of his conventional military forces.

Ballistic Missile Force. North Korea has an ambitious ballistic missile development program that has made substantial advances in the last two years. North Korea has several hundred short- and medium-range ballistic missiles (SRBMs and MRBMs) available for use against targets on the Korean Peninsula and Japan and is developing longer-range systems.

North Korea is committed to developing a nuclear-armed ICBM that is capable of posing a direct threat to the United States. On July 4, 2017, North Korea flight-tested an ICBM for the first time; a second test followed on July 28, 2017. These events marked a significant milestone in North Korea's ballistic missile development process—the first flight tests of intercontinental ballistic missiles intended to reach the U.S. mainland.

However, ICBMs are extremely complex systems that require multiple flight tests to identify and correct design or manufacturing defects. ICBM trajectories impart significant structural and thermal stresses on the reentry vehicle (RV), requiring repeated testing to ensure that the RV will survive and that the warhead will operate as designed.

In the last two years, North Korea has diversified its ballistic missile force to include longer-range, solid-fueled systems. In 2017, North Korea test- launched a new solid-propellant MRBM from a tracked transporter-erector-launcher (TEL), describing this system as a land-based variant of its submarine-launched ballistic missile (SLBM). The North successfully flight-tested its SLBM from a submerged submarine in August 2016. In May 2017, after North Korea's second successful SLBM launch, Kim approved deployment of the land-based variant.

Kim's public emphasis on the missile force has continued, highlighted by an April 2017 military parade that included four previously unseen missile systems and other equipment. These included a modified SCUD SRBM on a tracked transporter-erector-launcher (TEL), a new liquid-propellant IRBM on a modified Musudan TEL,

and launchers for two canister-launched probable solid-propellant systems. One of the canister systems was mounted on a modified Hwasong-13 eight-axle TEL, and the other canister system was mounted on a semitrailer or mobile-erector-launcher with a three-axle prime mover. Although airframes were not displayed, the canister systems probably can support IRBMs and ICBMs.

North Korea also still has the TD-2, an ICBM configured as a space launch vehicle (SLV), which could reach the continental United States if configured as an ICBM. The past use of the TD-2 as an SLV contributed to the long-range ballistic missile capability North Korea now possesses because the two configurations have many shared technologies. However, a space launch does not test a reentry vehicle (RV).

Advances in ballistic missile delivery systems, coupled with developments in nuclear technology discussed in Chapter 4, are in line with North Korea's stated objective of being able to strike the continental United States. North Korea followed its 2016 nuclear tests with a campaign of media releases and authoritative public announcements reaffirming its need to counter perceived U.S. hostility with nuclear-armed ICBMs. In photos published by North Korean state media the day before Pyongyang's September 2017 nuclear test, Kim Jong Un appeared with a device it described as a hydrogen bomb capable of being mounted on an ICBM. North Korea continues to devote scarce resources to these programs, but the pace of its progress may depend partly on how much technology and other aid it can acquire from other countries.

Ground. The KPA's ground forces are predominantly regular and light infantry units supported by armored and mechanized units and heavy concentrations of artillery. These forces are forward-deployed, fortified in several thousand underground facilities, and include long-range cannon and rocket artillery forces that are capable of reaching targets in Seoul from their garrisons.

The ground forces have numerous light and medium tanks and many armored personnel carriers. The KPA's large artillery force includes long-range 170-mm guns and 240-mm multiple rocket launchers (MRLs), many deployed along the DMZ posing a constant threat to northern parts of the ROK.

North Korea publicized multiple tests of the KN-SS-X-9 CRBM, the most recent occurring in March 2016, after which Kim Jong Un declared it ready for deployment. If added to the North's ground forces, this system with a range of 118 miles could extend North Korea's long-range artillery and rocket threat to points south of U.S. Garrison Humphreys. In recent years, North Korea has unveiled other new ground-forces equipment, including tanks, artillery guns, armored vehicles, and infantry weapons.

North Korea periodically conducts large live-fire exercises and firepower demonstrations, often coinciding with

important national holidays or observances. In one such event held on April 25, 2017, to celebrate the 85th anniversary of the KPA's founding, North Korea fired more than 300 heavy weapons along the east coast into the ocean. These pre-planned, pre-scripted, showcase events are intended for internal propaganda and to demonstrate continued capacity to inflict substantial casualties and damage on the ROK, including in the GSMA.

Air and Air Defense. The North Korean Air Force (NKAF), a fleet of more than 1,300 aircraft, is primarily responsible for defending North Korean airspace. Its other missions include special operations forces (SOF) insertion, transportation and logistics support, reconnaissance, and tactical air support for KPA ground forces. However, because of the technological inferiority of most of its aircraft fleet, which are mostly legacy Soviet models, and the country's rigid air defense command and control structure, much of North Korea's air defense is provided by surface-to-air missiles (SAMs) and anti-aircraft artillery (AAA).

The NKAF's most capable combat aircraft are MiG-29s (procured from the Soviet Union in the late 1980s), MiG-23s, and Su-25 ground-attack aircraft. However, the majority of its aircraft—MiG-15s, MiG-17s, MiG-19s, and MiG-21s—are less capable. The NKAF operates a large fleet of An-2 Colt ~~aircraft,~~ which are 1940s-era, single-engine, 10-passenger biplanes, likely tasked with multiple missions, including ground attack and insertion of SOF into the ROK. The NKAF is rounded out with several hundred helicopters that would be used for troop transport and ground attack. These helicopters are predominantly Mi-2 Hoplites but also include some U.S.-made MD-500 helicopters obtained by circumventing U.S. export controls in 1985.

North Korea has a dense, overlapping air defense system of SA-2, SA-3, and SA-5 SAM sites; mobile SA-13 SAMs; mobile and fixed AAA; and numerous man-portable air-defense systems, such as the SA-7. As the NKAF's aircraft continue to age, it increasingly relies on ground-based air defenses and hiding or hardening assets to resist air attacks. During a 2010 military parade, North Korea displayed a new mobile SAM launcher and accompanying radar that bore external resemblance to the Russian S-300 and Chinese HQ-9. North Korea most recently tested this system in May 2017.

North Korea publicized a March 2013 live-fire military drill that for the first time featured an unmanned aerial vehicle (UAV) in flight. The UAV appeared to be a North Korean copy of a U.S.-produced target drone. North Korean press coverage of the event described the UAV as being capable of precision strike by crashing into the target. Between 2013 and 2016, North Korea overflew the ROK with several UAVs configured for intelligence collection.

Naval. The North Korean Navy (NKN) is the smallest of the KPA's three main services. This coastal force primarily comprises numerous aging small patrol craft that carry

a variety of anti-ship cruise missiles, torpedoes, and guns. The NKN maintains one of the world's largest, albeit aging, submarine forces, with around 70 attack-, coastal-, and midget-type submarines. In addition, the NKN operates a large fleet of air-cushioned hovercraft and conventional landing craft to support amphibious operations and SOF insertion. The force is divided into East and West Coast Fleets, each operating a variety of patrol craft, guided-missile patrol boats, submarines, and landing craft.

The NKN has displayed some modernization efforts, highlighted by upgrades to selected surface ships and a small-scale program to produce modern, surface, missile-armed patrol boats and corvettes.

North Korea continues to operate and test its GORAE-class ballistic missile–capable submarine as part of its larger high-priority ballistic missile program.

SOF. North Korean SOF personnel are among the most highly trained, well-equipped, best-fed, and highly motivated forces in the KPA.

Strategic SOF units dispersed across North Korea appear designed for rapid offensive operations, internal defense against foreign attacks, or limited attacks against vulnerable targets in the ROK. They operate in specialized units, such as reconnaissance, airborne and seaborne insertion, commando, and other specialty units. All emphasize speed of movement and surprise attack to accomplish their missions. SOF may be airlifted by An-2 Colts or helicopters (and possibly Civil Air Administration transports), moved by maritime insertion platforms, or travel on foot over land or via suspected underground cross-DMZ tunnels to attack high-value targets, such as command and control nodes or airbases in the ROK.

In 2016, Kim Jong Un publicly unveiled a possible new SOF battalion of KPA Unit 525 that may be tasked with decapitation missions. During a publicized exercise in December 2016, the SOF battalion assaulted a full-scale mockup of the Blue House, the official residence of the President of the Republic of Korea, practicing helicopter insertion, probable abduction of the ROK President, and eventual destruction of the building.

Cyberwarfare Capabilities. North Korea possesses increasingly sophisticated cyber warfare capabilities, including offensive capabilities, which are capable of damaging and disruptive cyberattacks. North Korean cyber effects operations have been implicated in malicious cyber activity since 2009 and challenge widely recognized norms of state behavior in cyberspace. North Korea has invested in developing its cyber capabilities and probably views cyber operations as an appealing, cost-effective, and deniable means by which to collect intelligence and cause disruption against its highly networked adversaries, notably the ROK, Japan, and the United States. North Korea likely believes it can conduct cyber effects operations with little risk of reprisal, in part because its networks are largely separated

from the Internet and disruption of Internet access would have minimal impact on its economy. In November 2014, North Korean cyber actors using the nom de guerre "Guardians of Peace" attacked Sony Pictures Entertainment, shutting down employee access and deleting data. For these types of attacks, North Korea likely uses Internet infrastructure from third-party nations.

Pyongyang probably is increasingly using cybercrime to offset financial losses resulting from international sanctions, especially given stricter Chinese enforcement of these sanctions. For example, North Korea probably was involved in the theft of $81 million from the Central Bank of Bangladesh in February 2016. North Korean cyber actors also are using malware to blackmail individuals and companies into paying large fees to keep sensitive information (such as personally identifiable information) from being publicly released. In 2017, North Korea carried out the malicious "WannaCry" ransomware attack that spread across the world damaging civilian infrastructure, including the United Kingdom's National Health Service and Chinese firms. North Korea exploited an existing vulnerability that allowed it to encrypt a target's hard drive, then demanded payment in cryptocurrency within a set time period or else the users' data would be wiped. Even individuals and firms which paid the ransom did not recover their data.

Intelligence Services. North Korean intelligence and security services collect political, military, economic, and technical information through open sources, human intelligence, cyber intrusions, and signals intelligence capabilities. North Korea's primary intelligence collection targets remain the ROK, the United States, and Japan. They likely operate anywhere North Korea has a diplomatic or sizable economic overseas presence.

The **Reconnaissance General Bureau** (RGB) is North Korea's primary foreign intelligence service, responsible for collection and clandestine operations. The RGB comprises six bureaus with compartmented functions, including operations, reconnaissance, technology and cyber capabilities, overseas intelligence, inter-Korean talks, and service support.

The **Ministry of State Security** (MSS) is North Korea's primary counterintelligence service and is an autonomous agency of the North Korean Government reporting directly to Kim Jong Un. The MSS is responsible for operating North Korean prison camps, investigating cases of domestic espionage, repatriating defectors, and conducting overseas counterespionage activities in North Korea's foreign missions.

The **United Front Department** (UFD) overtly attempts to establish pro–North Korean groups in the ROK, such as the Korean Asia-Pacific Committee and the Ethnic Reconciliation Council. The UFD is also the primary department involved in managing inter-Korean dialogue and North Korea's policy toward the ROK.

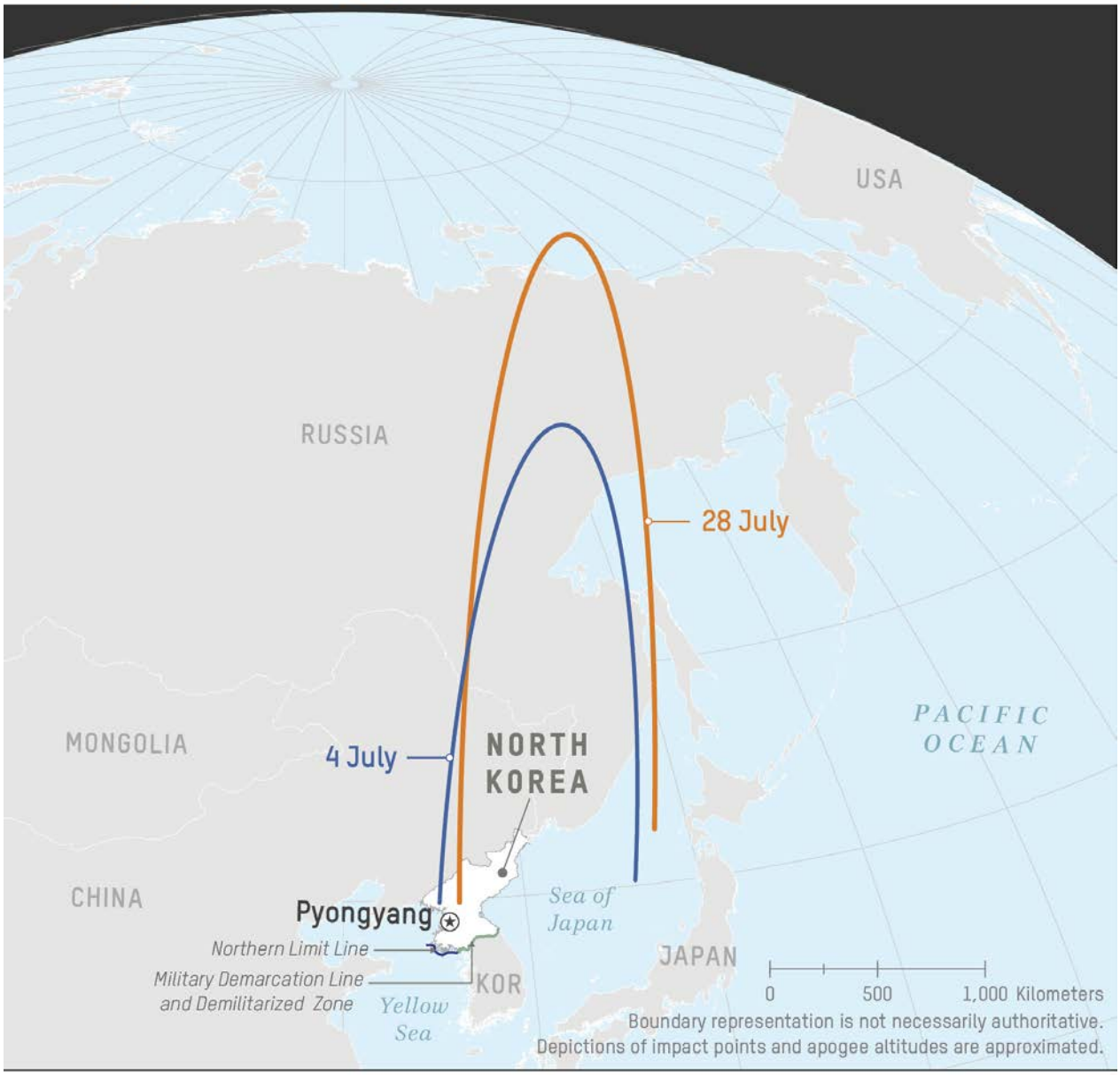
The **225th Bureau** is responsible for training agents to infiltrate the ROK and establish underground political parties focused on fomenting unrest and revolution.

Command, Control, and Communications. North Korea exercises control of the KPA through overlapping state, military, and party organizations. North Korea's State Affairs Commission is the official state authority over the North's military and security services. The Ministry of People's Armed Forces is the KPA's administrative superior, and the General Staff Department exercises operational command and control.

North Korea has a nationwide fiber-optic network and has invested in a modern nationwide cellular network. However, telecommunication services and access are strictly controlled, and all networks are available for military use.

(U) North Korean ICBM Flight-Tests, July 2017

DATE	LOCATION	APOGEE	RANGE
4 July	Panghyon Aircraft Plant	~2,800 km	~930 km
28 July	Mupyong Ni Arms Plant	~3,700 km	~1,000 km



Visualization: DIA, D3 Design • 1708-14318

(U) North Korean Ballistic Missiles

System	Range Class	# of Launchers	Estimated Range
SCUD B	SRBM	Fewer than 100	185 miles
SCUD C	SRBM		310 miles
SCUD ER	SRBM/MRBM		435–625 miles
No Dong	MRBM	Fewer than 50	800 miles
Pukguksong-2	MRBM	Unknown	620+ miles
Hwasong-10 (Musudan)	IRBM	Fewer than 50	2,000+ miles
Hwasong-12	IRBM	Unknown	1,800+ miles
Pukguksong-1	SLBM	At least 1	Unknown
TD-2	SLV/ICBM	Unknown*	7,400+ miles
Hwasong-13	ICBM	Unknown	Intercontinental**
Hwasong-14	ICBM		Intercontinental**
Unidentified ICBM	ICBM		Intercontinental**

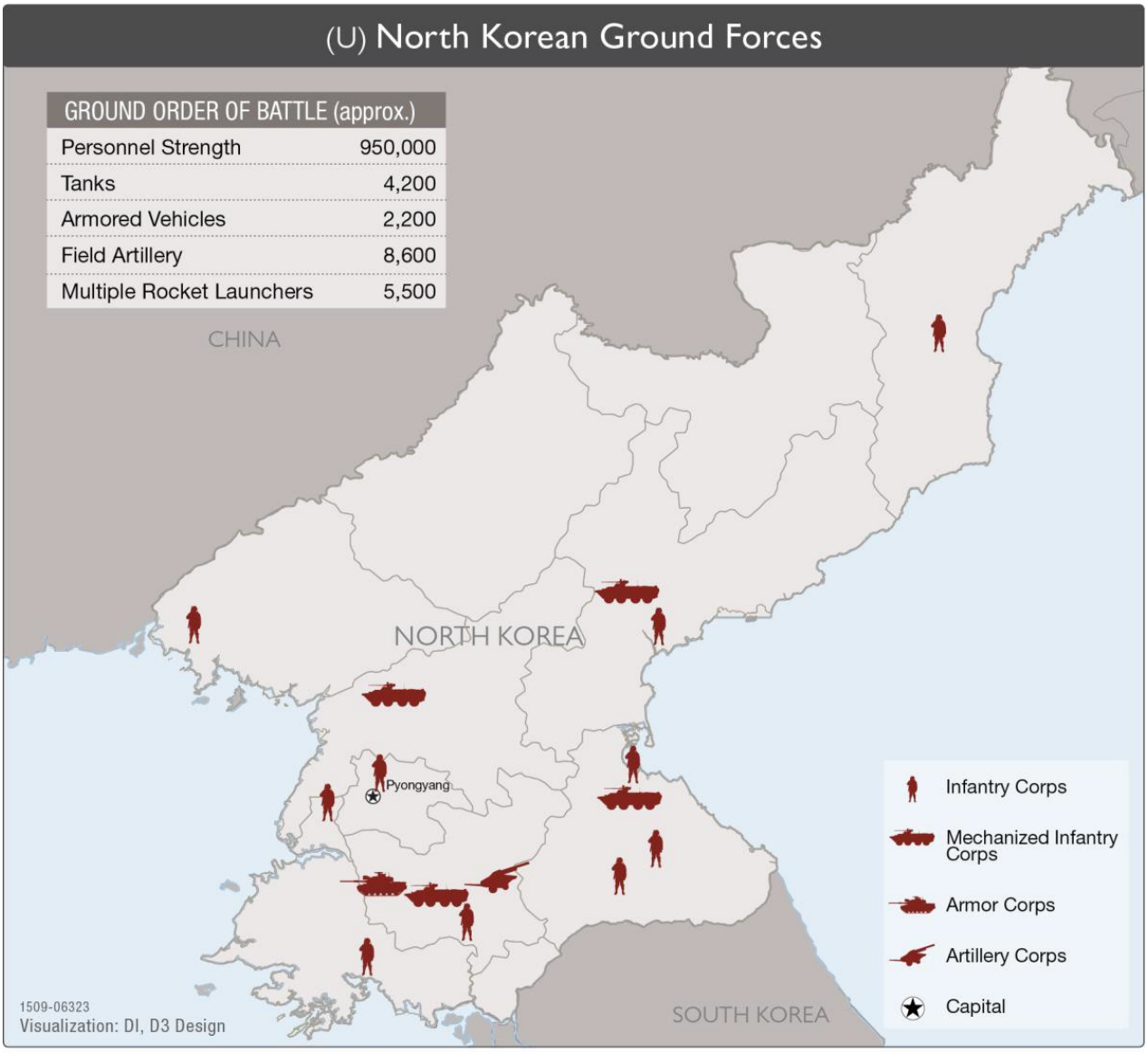
Tested Untested

Note: The TD-2 has been used only in a space launch role but probably could reach the United States if configured as an ICBM.

* Launches of the TD-2 have been observed from both east and west coast launch facilities.

** ICBM is defined as a ballistic missile (land-based) capable of a range in excess of 5,500 kilometers (3,418 miles).

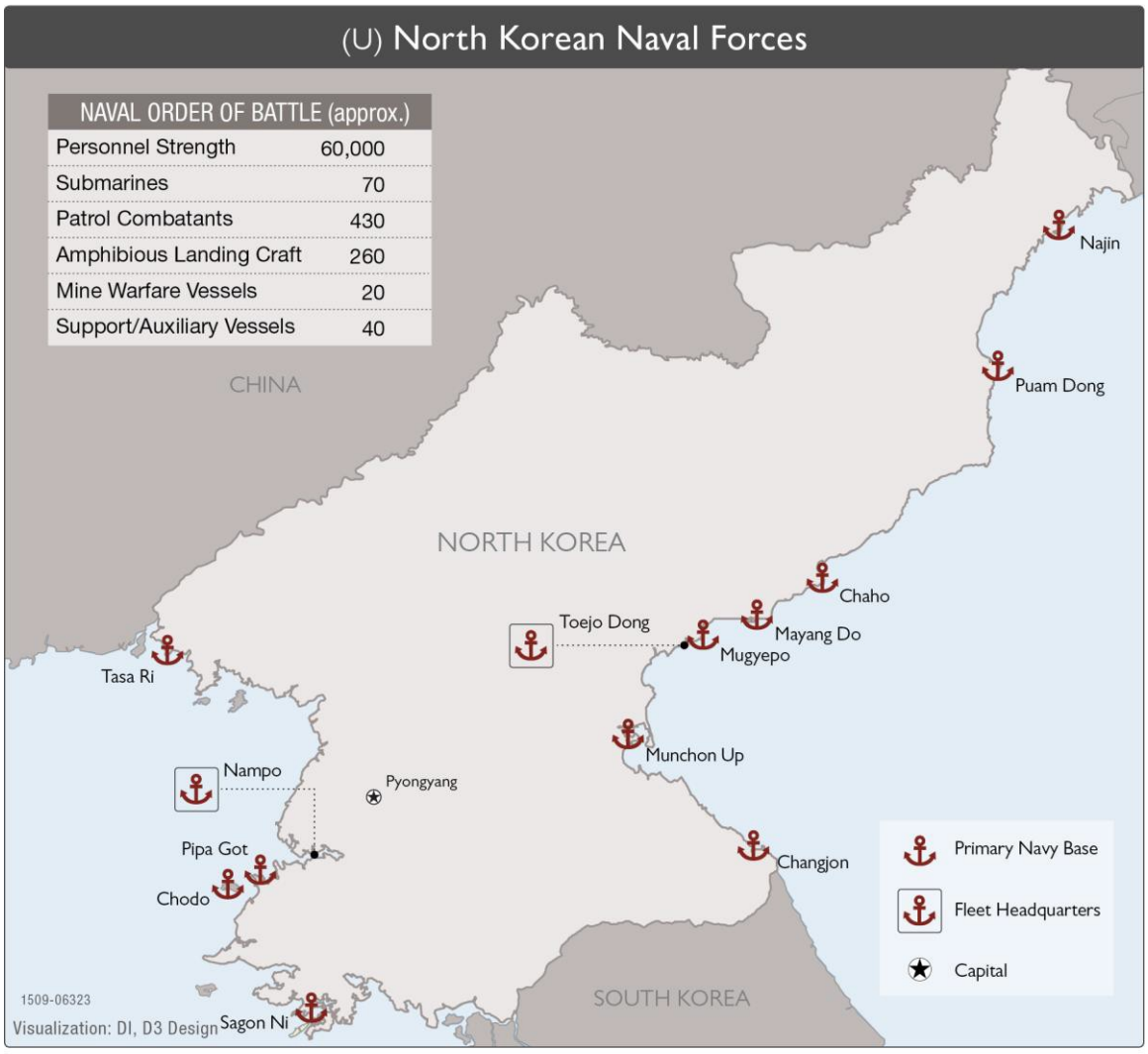
Visualization: DIA, D3 Design • 1709-14451


(U) North Korean Ground Forces
GROUND ORDER OF BATTLE (approx.)
Personnel Strength 950,000
Tanks 4,200
Armored Vehicles 2,200
Field Artillery 8,600
Multiple Rocket Launchers 5,500
CHINA
NORTH KOREA
Pyongyang
SOUTH KOREA
Infantry Corps
Mechanized Infantry Corps
Armor Corps
Artillery Corps
Capital
1509-06323
Visualization: DI, D3 Design

UNCLASSIFIED



UNCLASSIFIED



CHAPTER FOUR: WEAPONS OF MASS DESTRUCTION PROGRAMS AND PROLIFERATION

NORTH KOREA'S WMD PROGRAMS

Nuclear Weapons. North Korea's illegal pursuit of a nuclear weapons program is well documented. North Korea continues to invest in its nuclear infrastructure and could conduct additional nuclear tests at any time. It conducted nuclear tests in 2006, 2009, 2013, two in 2016, and one in 2017, according to seismic detections and public claims by North Korean media.

In April 2013, less than two months after its third nuclear test, North Korea promulgated a domestic "Law on Consolidating Position as a Nuclear Weapons State" to provide both a legal basis for its nuclear program and another signal that it does not intend to give up its pursuit of nuclear development. The law says that "the nuclear weapons of the DPRK can only be used by a final order of the Supreme Commander of the Korean's People's Army [i.e., Kim Jong Un] to repel invasion or attack from a hostile nuclear weapons state and make retaliatory strikes."

In 2010, North Korea revealed a uranium enrichment facility at Yongbyon that it claimed was for producing fuel for a light water reactor then under construction. In April 2013, North Korea announced its intent to restart and refurbish the nuclear facilities at Yongbyon, including the nuclear reactor that had been shut down since 2007 as well as the uranium enrichment facility. The Director of the DPRK Atomic Energy Institute confirmed in September 2015 that all of the nuclear facilities in Yongbyon, including the uranium enrichment plant and reactor, were "adjusted and altered" following the April 2013 announcement and restarted for the purpose of building North Korea's nuclear force. The Director also claimed that scientists and technicians were enhancing the levels of various nuclear weapons in quality and quantity.

These activities violate North Korea's obligations under multiple UNSCRs, most recently 2371 and 2375; contravene its commitments under the September 19, 2005, Six-Party Talks Joint Statement; and increase the risk of proliferation.

Biological Weapons. North Korea may consider the use of biological weapons as an option, contrary to its obligations under the Biological and Toxins Weapons Convention (BTWC). Most aspects of biological weapons research is inherently dual-use and North Korea continues to develop its biological research and development capabilities that would enable a biological weapons program. Pyongyang has never declared any relevant developments and has failed to

provide a BTWC Confidence-Building Measure declaration since 1990.

Chemical Weapons (CW). In February 2017, North Korea likely assassinated Kim Jong Un's older half-brother Kim Jong Nam in a crowded Malaysian airport via VX nerve agent—a class I weapon of mass destruction under the Chemical Weapons Convention (CWC). Malaysia is still investigating North Korea's role in the incident. If proven, this supports the argument that North Korea has a CW stockpile from a longstanding CW program with the capability to produce nerve, blister, blood, and choking agents. North Korea probably could employ CW agents by modifying a variety of conventional munitions, including artillery and ballistic missiles. In addition, North Korean forces are prepared to operate in a contaminated environment; they train regularly in chemical defense operations. North Korea is not party to the CWC.

PROLIFERATION

North Korea has been an exporter of conventional arms and ballistic missiles for several decades. Despite the implementation of UNSCRs 1718, 1874, 2087, 2094, 2270, 2321, and 2356, which prohibit North Korea from selling weapons and providing related technical training, Pyongyang continues to market, sell, and deliver weapons-related goods and services. Weapon sales are an important source of foreign currency for North Korea's weapons programs and, as such, Pyongyang is unlikely to cease export activity despite UN Security Council sanctions, increased international efforts to interdict North Korea's weapons-related exports, and the implementation of Executive Order 13382, under which designated WMD proliferators' access to the United States and global financial systems are targeted.

Global concern about North Korea's proliferation activities continues to mount, which has led some countries, such as Namibia, to halt new purchases from North Korea and has prompted other nations to take action to prevent arms-related deliveries. Although the international community has interdicted some of North Korea's weapons-transfer attempts, North Korea very likely will continue to attempt arms shipments via new and increasingly complex methods.

NUCLEAR PROLIFERATION

North Korea has demonstrated a willingness to proliferate nuclear technology. Using the proliferation network of Pakistani nuclear scientist AQ Khan, North Korea provided Libya under Moamar Qaddafi with uranium hexafluoride, the form of uranium used in the uranium enrichment process to produce fuel for nuclear reactors and nuclear weapons. North Korea also provided Syria with nuclear reactor technology until the facility was destroyed in 2007.

ARMS AND MISSILE SALES

North Korea uses a worldwide network to facilitate arms-sales activities. It has a core, but dwindling, group of customers that

includes Iran and Syria. Others core customers, such as Sudan and Uganda, have recently agreed to end arms cooperation with Pyongyang. North Korea has transferred ballistic missile–related equipment, components, materials, and technical assistance to countries in Africa, Asia, and the Middle East. Conventional weapons sales have included ammunition, small arms, radars, and SAMs, as well as repair services, technical support services, and military equipment production facilities.

In late 2009, North Korea was implicated in the attempted sale of rocket-propelled grenades and other heavy weapons to Iran or possibly to Hizballah when Thailand interdicted and seized a cargo plane laden with arms. In 2013, Panamanian authorities held a North Korean ship, the Chong Chon Gang, as it attempted to transit the Panama Canal laden with 240 tons of military equipment, including a MiG-21 fighter aircraft concealed under a licit cargo shipment of sugar. North Korea claimed that it was repairing the equipment for Cuba.

In August 2016, Egypt inspected and seized a shipment of 30,000 PG-7 rocket-propelled grenades concealed under a cargo of iron ore, which was a UNSCR-proscribed item. According to the final report of the UN Panel of Experts established pursuant to UNSCR 1718, this was the largest interdicted ammunition consignment in the history of sanctions against North Korea.

In addition to Iran and Syria, past clients for North Korea's ballistic missiles and associated technology have included Egypt, Iraq, Libya, Pakistan, and Yemen. Burma has begun distancing itself from North Korea, but concerns remain regarding lingering arms trade ties between the two countries.

North Korea uses various methods to circumvent UNSCRs, including falsifying end-user certificates, mislabeling crates, sending cargo through multiple front companies and intermediaries, and using point-to-point air cargo deliveries for high-value and sensitive arms exports, thus limiting interdiction opportunities.

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