

II. Arms transfers and tensions in North East Asia

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There were a number of significant international security developments in North East Asia in 2014.¹ Relations between China and Japan deteriorated markedly due to the ongoing territorial dispute over a set of islands known as the Senkaku islands in Japan and the Diaoyu islands in China, and their associated maritime zones in the East China Sea. This led to significant changes in Japan's defence policy. In July 2014 Japan announced a change in its defence doctrine from the defence of Japanese territory to collective self-defence. This would allow Japanese forces to operate outside Japan to defend the territory or assets of other allies.² Tensions between the Democratic People's Republic of Korea (DPRK, North Korea) and the Republic of Korea (South Korea) continued to rise in 2014, due to North Korea's aggressive military posture and its decision to accelerate the build-up of ballistic missiles and nuclear weapons. In the background, the political friction between China and Taiwan remained a key driver of arms acquisitions. This section describes how the tensions in North East Asia shape, and in turn are shaped by, the levels of arms transfers in the region (table 10.5).

Arms transfers and China's military modernization

China was the largest importer of major weapons in North East Asia in the five-year period 2005–2009. Despite having made rapid progress in indigenous weapon design and production in recent years, China was still the third largest importer in 2010–14. Although many new Chinese weapons are of indigenous design, most of its combat aircraft are either imported from Russia or dependent on Russian engines. Russia delivered 283 Su-27 and Su-30 combat aircraft between 1991 and 2007, and at the end of 2014 Russia and China were close to completing a deal for the transfer of at least 24 Su-35 aircraft.³ In terms of indigenous production, China has used the Russian Su-27 as the basis for the design of its J-11 aircraft, which it has further developed into the J-15. The J-11 and J-15, as well as the J-10 combat aircraft and H-6K bomber aircraft, use Russian-manufactured engines. Between 2010 and 2014 Russia delivered an estimated 399 engines for these aircraft and more are on order. Similarly, China designs and

¹ In the context of this discussion, the states comprising North East Asia are China, Japan, North Korea, South Korea, Mongolia and Taiwan.

² Warimann, H. B., 'Japan's Cabinet approves larger military role', *Asian Defence Journal*, (July–Aug. 2014), pp. 4–7. On Japan–China relations see also chapter 7, section IV, in this volume.

³ Novichkov, N. and Hardy, J., 'Russia ready to supply "standard" Su-35s to China, says official', *Jane's Defence Weekly*, 25 Nov. 2014.

Table 10.5. Transfers of major weapons to North East Asia, 2010–14

Recipient	Share of global (%)	Change in volume since 2005–2009, (%)	Main suppliers (share of recipient's imports, %)		
			1	2	3
China	4.7	-42	Russia (61)	France (16)	Ukraine (13)
Japan	1.2	-34	USA (90)	UK (6)	Sweden (2)
North Korea	<0.05	-97	Russia (100)		
South Korea	3.3	-31	USA (89)	Germany (5)	Sweden (2)
Taiwan	1.7	82	USA (95)	Germany (5)	..

Note: Mongolia is included in the SIPRI definition of North East Asia but received minimal imports in 2010–14.

Source: SIPRI Arms Transfers Database, <<http://www.sipri.org/databases/armstransfers>>.

produces its own combat ships, including submarines, but depends to a large extent on French, German and Ukrainian engines to power them. Most of these engines are produced in China under licence.⁴ China's power projection capabilities have increased with the delivery in 2014 of the first of 3 Il-78 tanker aircraft from Ukraine. This follows on from the delivery in 2013 of 10 Il-76 transport aircraft from Belarus and Russia, and the maiden flight of the Y-20 transport aircraft in the same year. The Y-20 was designed in China with technical assistance from Ukraine and uses Russian engines.⁵ According to the National Defence University of China, the Chinese military needs at least 400 Y-20 aircraft.⁶

China–Taiwan relations and arms transfers

China continues to claim that Taiwan is part of China (the 'one-China principle'), but has long accepted Taiwan's *de facto* independent special status. However, when China perceives that the Taiwanese Government is steering Taiwan too far towards *de jure* independence, it typically reacts with strong political signals and displays of military force. Moreover, China has long maintained that unification might be effected by military force. The ever-present threat of enforced unification has led Taiwan to maintain large-scale armed forces. Over the past decade Taiwan and its ally the United States have expressed concern over China's military modernization, which they view as a possible attempt by China to increase its capacity to

⁴ See also Bräuner, O., Bromley, M. and Duchâtel, M., *Western Arms Exports to China*, SIPRI Policy Paper no. 43 (SIPRI: Stockholm, Jan. 2015).

⁵ Johnson, R. F., 'China's domination of global arms trade "inevitable"', *Jane's Defence Weekly*, 27 Mar. 2013, p. 17.

⁶ 'China eyes 400 Y-20 cargo planes for military transport', *Defense World*, 28 July 2014, <http://www.defenseworld.net/news/10856/China_Eyes_400_Y_20_Cargo_Planes_For_Military_Transport#.VZY7rxOqqkq>.

launch an attack against, or invasion of, Taiwan. China's naval force has improved its combat and amphibious capabilities, and the Chinese air force has introduced large numbers of combat aircraft able to operate over Taiwan. In addition, a significant number of short- and medium-range ballistic missiles—with conventional warheads—are aimed at Taiwan. China now also has an 'area denial capability' around Taiwan (i.e. the capacity to control the areas around Taiwan) making US intervention in support of Taiwan more difficult.⁷

Taiwan, following a similar policy to neighbouring South Korea, has reacted to China's growing military capabilities with its own mixture of new defensive and offensive capabilities. These include locally designed land-attack cruise missiles to deal with Chinese ballistic-missile sites, anti-ship missiles to counter Chinese naval and amphibious operations, and air-to-ground missiles.⁸ However, Taiwan's arms industry cannot provide some of the most important systems required by Taiwan's armed forces. Taiwan is almost completely dependent on the USA for such systems and in the past five years the USA has accounted for 95 per cent of Taiwan's imported major weapons.

To counter Chinese ballistic missiles, Taiwan has invested in anti-ballistic missile (ABM) defence systems, acquiring nine Patriot PAC-3 surface-to-air missile (SAM)/ABM systems from the USA, the first of which was delivered in 2011. To provide early warning of missile attacks, a \$1.4 billion long-range FPS-115 radar delivered by the USA became operational in 2013. Taiwan also ordered a modernization of its fleet of 144 F-16 combat aircraft in 2012, and plans to arm them with long-range air-to-ground missiles, some of local design and some from the USA.⁹ The missiles provide Taiwan with more offensive capabilities against potential targets on the Chinese mainland and at sea. In 2013 Taiwan took delivery from the USA of the first of 32 UGM-84L anti-ship/land-attack missiles for use on its two submarines. Taiwan has long planned to increase its fleet of submarines, which will probably be armed with land-attack missiles that would enable Taiwan to create maritime denied areas. In the 1990s the

⁷ The US Department of Defense *Dictionary of Military and Associated Terms* defines a 'denied area' as '[a]n area under enemy or unfriendly control in which friendly forces cannot expect to operate successfully within existing operational constraints and force capabilities'. US Department of Defense, *Dictionary of Military and Associated Terms* (US Department of Defense: Joint Publication 1-02, 8 Nov. 2010, as amended 15 Jan. 2015). Bräuner, Bromley and Duchâtel (note 4).

⁸ Cole, J. M., 'Taiwan unveils Wan Chien air-to-ground cruise missile', *The Diplomat*, 17 Jan. 2014, <<http://thediplomat.com/2014/01/taiwan-unveils-wan-chien-air-to-ground-cruise-missile/>>.

⁹ Lockheed Martin, 'Lockheed Martin awarded upgrade contract for 145 F-16s of the Republic of China air force', Press release, 1 Oct. 2012, <<http://www.lockheedmartin.com/us/news/press-releases/2012/october/lockheed-martin-awarded-upgrade-contract--for-145-f-16s-of-the-r.html>>; and US Department of Defense, 'Contracts', Press Operations no. CR-240-14, 16 Dec. 2014, <<http://www.defense.gov/Contracts/Contract.aspx?ContractID=5439>>. The modernization came after the USA refused to supply an additional 66 new F-16 aircraft requested by Taiwan in the 1990s.

USA and Taiwan held preliminary discussions over the supply, or assistance in the production of, eight submarines. However, until 2014 progress in this area had been limited, partly because the USA did not have capability to produce conventional submarines, and partly because Taiwan had failed to allocate the required funding.¹⁰ After numerous false starts, including an attempt to source submarines from Russia, Taiwan announced plans in 2014 for the production of indigenously designed submarines, with significant technological support from the USA.¹¹ The new submarines would fulfil an anti-submarine warfare (ASW) role and supplement the 12 P-3CUP ASW aircraft being delivered by the USA to counter China's growing fleet of advanced submarines, which form an important part of its ability to establish denied areas in the region.

Despite these increases in Taiwan's defensive and offensive capabilities in 2010–14, it was only the 18th largest importer during that period—far below the level of the 1990s. Nonetheless, its arms imports in 2010–14 were 82 per cent higher than in 2005–2009, and existing and planned orders are likely to lead to additional growth in the coming years.

China–Japan maritime tensions and arms transfers

The recent increased tensions between China and Japan over parts of the East China Sea come at a time of growing Chinese confidence and assertiveness that is partly based on the modernization of its armed forces and its resulting new capabilities to project power in the region. As is noted above, imports of weapons or components are a key element of this modernization process. Japan's military forces are a mixture of local designs, including Japan's entire naval fleet and the recently introduced P-1 ASW aircraft, and imported weapons, such as F-15 combat aircraft from the USA. In 2013 Japan announced its 2014–19 defence procurement programme, which included the planned purchase from the USA of a number of F-35 combat aircraft (see below) and 17 V-22 aircraft/helicopters, which combine the speed and range of an aircraft with the landing/take-off capabilities of a helicopter. Japan will also take delivery of 52 amphibious armoured personnel carriers (APCs) for its new marine forces—the first 4 of which were supplied by the USA in 2014, indicating the urgency Japan attaches to expanding its amphibious forces.

¹⁰ Taiwan has carefully tried to balance its high perception of threat with a limited budget and has not significantly increased its military spending in recent years, leading to some planned acquisitions being delayed, often to the frustration of the USA. See also chapter 9, section I, in this volume.

¹¹ Taiwan to present indigenous submarine plan to US', *Want China Times* (Taiwan), 2 Oct. 2014.

Reactions to North Korea's ballistic missiles and nuclear weapons

North Korea's programmes to develop ballistic missiles and nuclear weapons have been a cause for concern for Japan and South Korea for a number of years. These programmes continue despite strong pressure from Japan, South Korea, and the USA and other Western countries. North Korea has typically heightened tensions by reacting to such pressure with bellicose statements; this was again the case in 2013 and 2014.

Japan

Japan and the USA established strong cooperation on regional ballistic missile defence in the early 1990s. This included the delivery between 1993 and 2008 of SM-3 missiles and AEGIS combat systems with associated radar for use on 6 Japanese destroyers and a research ship. Japan also received 32 Patriot PAC-3 short-range ABM missiles in 2006–2007, but did not follow up on its original plan to order additional batteries of these missiles until 2014.¹² In the light of North Korea's ballistic missile deployments and tests in 2013–14, Japan officially deployed its PAC-3 defence systems near major cities for the first time to guard against what were termed 'possible North Korean missile attacks'.¹³ This appears to be the first step in a clear change in Japan's defence policy. Japan announced in 2014 that it plans to build two more AEGIS/SM-3 equipped destroyers and will upgrade several of its Patriot SAM systems to PAC-3, which will be deployed in Tokyo—not just in the vicinity of the city.¹⁴ It is also likely that Japan will now order additional PAC-3 missiles. The SM-3 and PAC-3 systems will improve Japan's defensive capabilities. However, the apparent change in policy could increase Japan's capabilities to operate outside its territory and enhance its weapons stocks of, for example, air-to-ground weapons or land- or ship-launched land-attack missiles for offensive and pre-emptive operations—areas in which Japan is currently lacking despite the relatively large size of its armed forces. Japan's acquisition of 4 KC-767 tanker aircraft in 2008–10 and the choice of 42 F-35A combat aircraft (with more probably to be included in future plans) may indicate that Japan is building a long-range ground-attack capability to match its new policy.¹⁵

¹² The USA has 5 SM-3 equipped destroyers stationed in Japan and will add 2 more by 2017. It has also stationed Terminal High Altitude Area Defense (THAAD) systems in Japan. See e.g. Jean, G., 'USN taps two BMD destroyers to forward deploy to Japan by 2017', *Jane's Defence Weekly*, 20 Oct. 2014, p. 10.

¹³ Yoshida, R., 'PAC-3 batteries deployed as North Korea threatens missile launch', *Japan Times*, 9 Apr. 2013; and 'Tokyo to get PAC-3 missile batteries', *Japan Times*, 10 May 2014.

¹⁴ 'Tokyo to get PAC-3 missile batteries' (note 13); and Kallender-Umezu, P., 'Japan to focus on Atago, PAC-3 upgrades', *Defense News*, 18 Nov. 2014. The PAC-3 has a maximum range of 20 km and, to defend a large city, would need to be stationed inside that city.

¹⁵ Kallender-Umezu (note 14).

South Korea

South Korea has for internal political reasons declined to be part of a proposed US–Japanese–Korean ballistic missile defence system. Instead, it has established its own air and missile defence capabilities and, from 2013, a set of offensive capabilities called ‘Kill Chain’, which could be deployed to attack North Korea or pre-empt the latter’s use of nuclear weapons.¹⁶ These capabilities are partly based on indigenously produced weapons and technologies, but are also heavily dependent on imported systems. Like China, South Korea’s arms production capabilities have significantly increased in the past 20 years. Nonetheless, in 2010–14 it was still the ninth largest recipient of major weapons worldwide.

The missile defence component of Kill Chain (known as Korea Air and Missile Defence) aims to intercept North Korean missiles at altitudes below 100 kilometres, that is, within the earth’s atmosphere. It includes Patriot SAM systems acquired second-hand from Germany in 2007, for which South Korea requested a modernization package from the USA in 2014. This would enable use of PAC-3 missiles, which are specifically designed for ABM use. It has also chosen not to follow up US proposals to supply the Terminal High Altitude Area Defense (THAAD) anti-ballistic missile system. In 2014 South Korea announced that it will develop its own shorter-range (L-SAM) system, planned to be in service around 2024.¹⁷

The offensive component of Kill Chain includes locally developed ballistic missiles, and land- and sea-launched cruise missiles. It also incorporates 134 F-16C combat aircraft delivered between 1986 and 2001, which will be significantly modernized under a 2013 order; and 60 F-15K combat aircraft delivered between 2006 and 2012. In 2013 South Korea ordered 177 Taurus KEPD-350K cruise missiles from Germany for its F-15 aircraft.¹⁸ It also ordered 40 F-35 combat aircraft from the USA in 2014 for delivery from 2018, with an option on 20 more, and will order 4 tanker aircraft in the near future.¹⁹

Kill Chain also has a reconnaissance aspect, which was enhanced by the delivery from the USA in 2011–12 of four Boeing-737 airborne early warning (AEW) aircraft. Reconnaissance operations will further benefit from orders in 2014 for four Global Hawk long-range unmanned aerial vehicles (UAVs) from the USA and a number of signals intelligence (SIGINT) aircraft, including two Falcon-2000 aircraft from France to be delivered in 2015.

¹⁶ Hardy, J. and Wasserbly, D., ‘US transfer of wartime control of South Korea delayed again’, *Jane’s Defence Weekly*, 23 Oct. 2014, p. 7.

¹⁷ ‘South Korea to develop homegrown missile defence instead of adopting THAAD’, *Asian Defence Journal* (July–Aug. 2014), p. 43.

¹⁸ Kang Seung-woo, ‘Seoul to conclude deal on Taurus missile next month’, *Korea Times*, 27 Nov. 2013.

¹⁹ Hardy, J., ‘South Korea agrees to buy F-35s’, *Jane’s Defence Industry*, 24 Sep. 2014; and ‘Korea to pick aerial refueling tanker by next year’, *Chosun Ilbo*, 28 Nov. 2013.