Signed by then United States president Ronald Reagan and the Soviet Union’s Communist Party general secretary Mikhail Gorbachev, the 1987 Intermediate-range Nuclear Forces (INF) Treaty required the US and the Soviet Union to ‘eliminate intermediate-range and shorter-range missiles’ and ‘not have such systems thereafter’. With the dissolution of the Soviet Union in 1991, the Russian Federation assumed responsibility for adhering to the INF accord.

The treaty was intended to reduce strategic instability in Europe and it did this successfully for more than 30 years. However, the effective collapse of the treaty in 2019 may have at least as significant an impact in Asia as in Europe, despite it being a region that was peripheral to the treaty at its inception.

In 2014, a year after privately raising concerns with Moscow, the United States publicly accused Russia of violating the INF Treaty. Over the course of the last decade, Washington grew increasingly troubled by Russian activity that it believed violated the treaty, with the Novator 9M729 (SSC-8 Screwdriver) ground-launched cruise missile emerging as the primary source of concern. The 9M729 may have a range of up to 2,500 kilometres, though Moscow maintains that the missile’s range is below the INF Treaty’s lower threshold of 500 km.

In efforts to resolve Russia’s violations and preserve the INF Treaty, Washington unsuccessfully engaged Moscow more than 30 times over seven years beginning in 2013. US President Donald Trump then indicated on 20 October 2018 that the US would withdraw from the treaty, citing Russia’s violations. He also argued that the United States is disadvantaged by the unconstrained deployment of intermediate-range missiles by China (which was, of course, not a party to the treaty). Russian alleged non-compliance, however, was the cause of the treaty’s collapse.

Washington withdrew from the INF Treaty in August 2019, citing Moscow’s failure to return to compliance. Initially the US and later its NATO allies said that Russia had tested and deployed a ground-launched cruise missile with a range prohibited by the treaty. While the US abandoned the treaty because it could not persuade Russia to comply, the end of the INF agreement now allows Washington to develop, should it wish, ground-launched cruise and ballistic missiles, which could be deployed in the Indo-Pacific.

When Reagan and Gorbachev signed the INF Treaty in December 1987, Beijing’s missile arsenal was so small as to be of marginal interest to either superpower. China had a small number of DF-4 (CH-SS-3) and DF-5 (CH-SS-4) intercontinental ballistic missiles (ICBMs), along with 30 or more DF-2 (CH-SS-1) short-range ballistic missiles (SRBMs) and 40 DF-3 (CH-SS-2) intermediate-range ballistic missiles (IRBMs). Relations between Beijing and Washington were broadly positive, and the US had eased trade restrictions on China in 1983. Beijing was seeking access to Western technology, including military equipment and US and European assistance in upgrading Chinese military systems. Access to Western defence technology, however, was halted in the wake of the Chinese government’s response to the Tiananmen Square protests.

Today, China’s ballistic-missile force bears scant resemblance to the small inventory of comparatively inaccurate systems in service in the late 1980s. As Chinese officials have pointed out repeatedly, its force of ICBMs and submarine-launched ballistic missiles is small compared to those of the US and Russia. However, it now also probably possesses the world’s largest inventory of short- and medium-range ballistic missiles. Open-source estimates of the exact size of the People’s Liberation Army (PLA)
Rocket Force’s inventory of short-, medium- and intermediate-range ballistic missiles vary. The US Defense Intelligence Agency suggested in its 2019 China Military Power report that China had ‘about 1,200’ SRBMs while the US Department of Defense’s annual report on the Chinese military is more circumspect (750–1,500). Although the exact numbers remain uncertain, the PLA’s emphasis on further developing these classes of weapons is clear: the DF-26 IRBM is entering service with the Rocket Force while new missile brigades continue to be formed.

China did not, however, necessarily set out to field the world’s largest inventory of sub-5,500 km ballistic missiles. Nor indeed did the US intend, when Reagan signed the INF Treaty, to bar itself from acquiring a class of weapons that China, now the United States’ leading strategic rival, would eventually hone in on as a means of regional power projection.

China’s early forays into ballistic-missile development during the 1960s and 1970s were circumscribed by its available technology. As China’s technical capabilities grew and it began to field ICBMs, shorter-range systems were increasingly of interest. There are several possible reasons for this: shorter-range systems could be spun off of longer-range developments for the PLA to provide valuable export sales.
Recipients of Chinese ballistic missiles include Saudi Arabia with the DF-1A, and possibly the DF-21, while Pakistan has also benefited from the supply of Chinese ballistic missiles including the DF-11. Ballistic-missile systems and associated technologies have also been supplied to Iran and North Korea. Domestically, such systems may also have been viewed as a substitute for increasingly obsolescent long-range bomber aircraft; as a response to its analysis of the US operational approach to the First Gulf War (1990–91); and as a means of holding Taiwan at threat.

China’s medium-range DF-15 and DF-21 missiles began to enter service in the early 1990s, while the short-range DF-11 probably became operational around 2000 after prolonged development. The DF-15 was operational by 1994 and the firing of this missile was central to the 1995–96 Taiwan Strait missile crisis. DF-15s were launched into waters close to Taiwan in July 1995 and again in March 1996, and were a key element of broader military exercises widely viewed as an attempt to influence Taiwanese politics and US policy towards Taiwan. Washington’s response to the July 1995 tests was restrained; however, the March 1996 firings and accompanying air and naval exercises prompted the US to deploy two carrier task groups near Taiwan.

Washington’s intervention, coupled with Beijing’s analysis of the First Gulf War, spurred China to build up its short- and medium-range ballistic-missile force. More widely, it also accelerated the shift from the mid-1980s doctrine of ‘local war under modern conditions’ to the post-1993 ‘local wars under high-technology conditions’. The new doctrine placed increased emphasis on operations further away from the Chinese homeland. In 2015, the language was further changed to ‘winning informationized local wars’, placing increased emphasis on networked operations and ‘active defence’. The Rocket Force’s ballistic- and cruise-missile inventory forms a core element of the armed forces’ offensive capability within the context of ‘active defence’.

### POST-INF US INTENT

By the time that the US formally withdrew from the INF Treaty in 2019, it believed that Russia had already broken its INF Treaty obligations by deploying at least four battalions equipped with the 9M729 missile. Soon after leaving the treaty, on 18 August 2019 the United States flight-tested a Tomahawk cruise missile from a ground-launcher on San Nicolas Island off the coast of California, followed on 12 December 2019 by the flight-testing of a ballistic missile from Vandenberg Air Force Base. According to US Secretary of Defense Mark Esper, any US deployment of such systems to Asia would be conventionally armed.

At the time in 2014 that the US assessed that Russia was violating the range limits imposed by the INF Treaty, the Pentagon initiated a study (the results of which have not been made public) to determine whether the US needed new capabilities to counter advantages Moscow might accrue by deploying the 9M729 cruise missile. The then principal deputy under secretary of defence for policy said that the United States could respond to Moscow’s non-compliance with the INF Treaty by fielding cruise-missile defences and developing new intermediate-range ballistic missiles to counter Russia’s deployment of the 9M729 cruise missile.

The end of the INF Treaty has allowed the Pentagon to begin to explore if and how the acquisition and deployment of ground-based ballistic and

<table>
<thead>
<tr>
<th>System</th>
<th>Launchers</th>
<th>Missiles</th>
<th>Estimated range (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICBM</td>
<td>98</td>
<td>98</td>
<td>&gt;5,500</td>
</tr>
<tr>
<td>IRBM</td>
<td>72</td>
<td>72–144</td>
<td>3,000–5,500</td>
</tr>
<tr>
<td>MRBM</td>
<td>174</td>
<td>174–522</td>
<td>1,000–3,000</td>
</tr>
<tr>
<td>SRBM</td>
<td>189</td>
<td>567–1,134</td>
<td>300–1,000</td>
</tr>
<tr>
<td>GLCM</td>
<td>70</td>
<td>210–420</td>
<td>&gt;1,500</td>
</tr>
</tbody>
</table>

Source: IISS
cruise missiles would help support the goals of the 2018 National Defense Strategy. While the strategy does not discuss specific types of weapons, it does identify the need for US armed forces to ‘be able to strike diverse targets inside adversary air and missile defense networks’. The Department of Defense requested nearly US$100 million in its fiscal year 2020 budget to develop ground-based intermediate-range missiles. The United States Congress approved funding for research and development activities in 2020, but explicitly banned Pentagon procurement of any systems that would have violated the defunct INF Treaty. The congressional move was partly prompted by broader concerns over the erosion of arms control, and the Trump administration’s approach to this.

The 2020 National Defense Authorization Act also requires the Pentagon to submit an ‘analysis of alternatives’ to the ground-based missiles, as well as potential basing options and a review of consultations with allies on US plans. As of February 2020, the United States has not formally requested that any nation host post-treaty missiles.

**IT’S ABOUT CHINA, NOT RUSSIA**

While the immediate cause of the US withdrawal from the INF Treaty was Russia’s unwillingness to end its violations, several US analysts view the Trump administration’s decision as incidentally providing an opportunity to develop and position ground-based intermediate-range missiles in Asia to counter China’s growing military strength. Such proponents argue that China – which was not a party to the INF Treaty – is gaining a military advantage in the Indo-Pacific region by fielding a substantial arsenal of missiles that can credibly hold at risk US and allied air bases, other military installations and ships. The US, by deploying to the region similarly capable missiles, would have the firepower to strike high-value targets such as missile launch sites, air bases or command-and-control centres in China and in the South and East China seas without having to rely only on air-launched and sea-based missiles. This new-found capability would, in their view, enable Washington to reverse a growing regional imbalance in ground-based, long-range strike capacity and thereby reduce China’s ability to intimidate vulnerable US allies in the Indo-Pacific theatre.

How the United States would build up the necessary ground-based, long-range missile capability is left unsaid. The Pentagon’s Indo-Pacific Strategy Report, for example, defines the challenges that the US faces in the region but fails to address the ‘core operational issues’ required to counter the threat posed by China. Further, it does not detail the kinds of weapons systems, platforms, capabilities and forces that would be required to meet the aims of the National Defense Strategy and the Indo-Pacific Strategy Report.

Meanwhile, other analysts have questioned the need to deploy land-based missiles to address US concerns about the challenges posed by China. They indicate that it is not necessary, nor is it a wise use of limited resources, for the United States to mirror China’s regional missile capabilities. The extent to which inter-service rivalry plays a part in US Army and US Marine Corps interests in long-range ground-launched missiles has also been raised. The Indo-Pacific theatre has been viewed as primarily a maritime domain where the US Navy, including its organic airpower, plays the dominant role in American strategy, with support from the US Air Force. Some analysts have considered that US ground forces would have the least significant role to play among the US armed services in any substantial confrontation with China, but the US Army is attempting to redress this.

A challenge for the United States in planning for ground-based-missile deployments in the region is its inadequate access to potential bases in Asia that are within the purview of intermediate-range missiles intended for targets in China. The US base on the island of Guam is roughly 3,000 km from the Chinese coastline, and the minimum range needed to strike targets in China’s interior is about 4,000 km.

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**Table 2.2: Missile systems eliminated by the INF Treaty**

<table>
<thead>
<tr>
<th>US</th>
<th>Soviet Union</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ballistic missiles</strong></td>
<td><strong>Ballistic missiles</strong></td>
</tr>
<tr>
<td>Pershing IA</td>
<td>R-12 (SS-4 Sandal)</td>
</tr>
<tr>
<td>Pershing IB</td>
<td>R-14 (SS-5 Sgean)</td>
</tr>
<tr>
<td>Pershing II</td>
<td>OTR-22 (SS-12 Scaleboard)</td>
</tr>
<tr>
<td></td>
<td>RSD-10 (SS-20 Saber)</td>
</tr>
<tr>
<td></td>
<td>OTR-23 (SS-23 Spider)</td>
</tr>
<tr>
<td><strong>Cruise missiles</strong></td>
<td><strong>Cruise missiles</strong></td>
</tr>
<tr>
<td>BGM-109G Gryphon</td>
<td>3K12 (SSC-X-4 Slingshot)</td>
</tr>
</tbody>
</table>

Source: INF Treaty
Allies Japan and South Korea are much closer to China, but it is doubtful that either would grant basing rights. China’s strong response – including efforts to coerce Seoul economically – to the US deployment of Terminal High-Altitude Area Defense (THAAD) missile systems to South Korea provided a taste of how it might react to the stationing of offensive missiles. In addition, it is unlikely that any US administration would be willing to provoke China by deploying missiles on Taiwan.

The United States enjoys far greater access to the oceans in the Indo-Pacific theatre, which strengthens the argument for additional missile deployments at sea. Those who support land-based deployments say that sea- and air-delivered capabilities would be both more expensive and more vulnerable than mobile land-based missiles, and that the US Navy is already burdened with expanding missions and responsibilities. However, it is far from certain that ground-based missiles would either be more cost-effective or more survivable than sea- or air-delivered missiles. The submarine-based leg of the United States’ nuclear triad is widely seen as its most survivable element, so why this would not also be true of conventional systems is unclear.

By early 2020, the United States had not fleshed out plans for what ground-based, long-range missile capabilities are required, how many are needed, and where they might be deployed and for what purpose.

**POSSIBLE SYSTEMS AND TIMELINES**

While ‘sooner rather than later’ was Esper’s August 2019 response to when the US might begin to deploy ground-based intermediate-range missiles, some commentators have been more cautious. Eric Sayers, an adjunct senior fellow at the Center for a New American Security, and a proponent of leaving the INF, suggested it would be a few years rather than months before any possible deployment.

The simplest and quickest measure the United States could take would be to deploy the navy’s conventionally armed Raytheon RGM/UGM-109 Tomahawk cruise missile on land. This missile has a range of considerably less than 2,500 km but can be fired from the Mk 41 Vertical Launch System (VLS) mounted on a flat-bed vehicle, as was done for the 18 August 2019 demonstration test. The Tomahawk could also be deployed on more agile trucks for mobility and survivability, as the BGM-109G Gryphon was in Europe prior to the signing of the INF Treaty. Alternatively, they could be placed in the multipurpose Mk 41VLS at a fixed site. The Aegis Ashore missile-defence batteries in Romania and Poland use the VLS to hold and fire SM-3 interceptor missiles. While the Tomahawk option could perhaps be readied in about 18 months, its limited range would require...
deployment near Chinese territory, but none of Taiwan, Japan or South Korea have expressed a willingness to host offensive weapons once banned by the INF Treaty.

A still more limited option would come from extending the range of ballistic missiles that already exist or are being developed. The Army Tactical Missile System (ATACMS) has a range of less than 300 km and is no longer in production, but the basic design could be modified to enable ranges of 600–700 km. Similarly, the US Army is currently developing an all-new Precision Strike Missile to hit targets up to 500 km away. It could be upgraded to extend its reach to somewhere below 1,000 km. But these missiles would be more range-limited than the previously mentioned cruise missiles and could not, even if deployed in South Korea, hold at risk targets deep inside China.

Positioning a new capability on Guam, a United States territory, would require a missile with a range of 4,000 km. Designing, developing and testing such a ground-based IRBM would require at least three and maybe up to five years. There are two ‘IRBM-like’ options. The first and least challenging would rely on technologies found on the Pershing II missile that was deployed in Europe from 1983, pre-dating the INF Treaty. The Pershing II was armed with a manoeuvrable re-entry vehicle that could make course corrections during final approach to the assigned target, enabling unprecedented accuracy and lethality. However, Pershing II had a range of less than 2,000 km, so a longer-range missile would have to be developed. It is unclear if the same re-entry technology used on the Pershing II would be effective at ranges of 3,000–4,000 km. Research on more sophisticated trajectory-shaping re-entry vehicles is continuing, but it is uncertain if the technology is mature enough for immediate application.

The second option might employ ballistic missiles of a range of 4,000 km, armed with hypersonic glide vehicles (HGVs). Conventionally armed HGVs rely on kinetic energy derived from their high-velocity travel to destroy targets or penetrate underground facilities. Unlike ballistic missiles, HGVs do not travel to their targets on a ballistic trajectory. Rather, they glide through the upper atmosphere and can manoeuvre during most of the flight towards the target. This makes HGVs difficult to intercept and facilitates rapid, high-precision delivery. As former commander of US Strategic Command General John Hyten recently remarked, HGVs enable ‘responsive, long-range, strike options against distant, defended, and/or time-critical threats [such as road-mobile missiles] when other forces are unavailable, denied access, or not preferred’.

However, the deployment of operational, intermediate-range HGVs is years away. The two most promising relevant development programmes are the US Army’s Land-Based Hypersonic Missile programme that is expected to join a ‘common glide vehicle’ with a two-stage, ground-launched booster system, and the US Navy’s Intermediate Range Conventional Prompt Strike Weapon programme, which includes development of a common glide vehicle for use across the services. Prototype development and flight-testing for these two programmes is expected to continue until 2023, with operational systems possible several years later.

**THE RESPONSE FROM BEIJING**

China’s reaction to the termination of the INF Treaty was predictably negative. On 2 August 2019, foreign-ministry spokesperson Hua Chunying said that China ‘deeply regrets and firmly opposes the US practice of insisting to withdraw from the INF Treaty in disregard of international opposition’. From Beijing’s perspective, the dissolution of the treaty is the fault of both the US and Russia, but with blame attached to the former’s unilateral actions. Indeed, Hua pointed out that ‘withdrawing from the INF Treaty is another negative move of the US that ignores its international commitment and pursues unilateralism’. In China’s view, the US move would
undermine global security. Beijing did not specifically comment on Russia's missile programmes, which the US claimed violated the treaty.

Beijing also rejected any notion of China becoming involved in discussions to create a multilateral equivalent of the now defunct INF Treaty – an idea that had previously been floated while the treaty was still extant. This took place as early as 2007, when Russian President Vladimir Putin had cautioned during a meeting with US officials that Moscow might withdraw from the treaty unless it was expanded to include other countries such as China. He argued at the 2007 Munich Security Conference that countries not party to the INF Treaty such as the Democratic People's Republic of Korea (North Korea), the Republic of Korea (South Korea), India, Pakistan and Israel had developed small- and medium-range missiles with a 'plan to incorporate them as part of their weapons arsenals'. Implicit in Russian concern was the size of China's ground-based missile inventory that fell within the prohibited INF ranges. Yet as far as Beijing was concerned the fate of the INF Treaty was only a bilateral issue for the US and Russia; it was the responsibility of Moscow and Washington to resolve their differences, but any approach predicated on the future involvement of China was unacceptable. Indeed, as foreign-ministry spokesperson Geng Shuang said in February 2019: 'China opposes the multilateralization of this treaty. What is imperative at the moment is to uphold and implement the existing treaty instead of creating a new one.' He urged 'the US and Russia to properly resolve the differences through constructive dialogue'. Following the termination of the treaty, China's public position with regard to potentially joining a multilateral post-INF arms-control regime was unchanged: it was not interested.

Besides the fact that almost all of its ballistic-missile inventory would contravene an INF-like treaty, Beijing also argued that Washington was merely using China's missiles as a pretext. China's Permanent Representative to the United Nations Zhang Jun maintained that Washington's interest in a multilateral deal including Beijing was just using China 'as an excuse for leaving the treaty'. Echoing China's 2019 Defense White Paper, Zhang said: 'China unswervingly pursues a national defense policy that is defensive in nature ... China's nuclear strategy for self-defense is completely transparent and its nuclear policy is highly responsible.' He said that China was not fundamentally averse to multilateral arms-control discussions, claiming that it has worked 'under multilateral mechanisms and frameworks' before in relation to arms control but, in the case of a potential successor to the INF Treaty, Beijing's inclusion was out of the question.

Zhang contended that if China accedes to such a treaty it would be to its own disadvantage and to the benefit of the US, a concern that underscored Beijing's distrust of Washington's motives. For Zhang, US policy was 'aimed at relieving restrictions and seeking absolute military advantage'. From Beijing's perspective, China only deployed land-based intermediate-range missiles on its own territory and 'for defense purposes'. Any move on the part of Washington to deploy previously banned classes of missiles in the Indo-Pacific would simply bolster China's view that the US was pursuing a strategy of containment. Beijing views the potential deployment of such systems as a direct threat.

Chinese concerns are not entirely surprising. The United States' 2017 National Security Strategy labelled China (like Russia) a 'revisionist' power challenging US interests. The Pentagon's aforementioned China Military Power report recognised that 'China's leaders increasingly view the United States as adopting a more confrontational approach, reflecting China's long-held perception that the United States seeks to contain China's rise'. Furthermore, Trump had drawn a direct connection between upholding the INF Treaty and reducing China's missile arsenal, saying in October 2018:
We’ll have to develop those weapons, unless Russia comes to us and China comes to us and they all come to us and say let’s really get smart and let’s none of us develop those weapons, but if Russia’s doing it and if China’s doing it, and we’re adhering to the agreement, that’s unacceptable.43

Washington’s behaviour immediately after its withdrawal from the INF Treaty did nothing to assuage Beijing’s concerns. The testing first of a cruise missile from a ground-launcher, on 18 August 2019, followed on 12 December 2019 by a ballistic-missile launch with a previously proscribed range, reinforced Chinese suspicions.44 From the Chinese perspective, these tests confirmed that the US had used China as an excuse to allow it to develop previously prohibited classes of missiles, with the aim of countering China’s rise. According to Geng Shuang, ‘this fully shows the true intention of the US withdrawal, which is to make the treaty no longer binding on itself so that it can go all out to develop cutting-edge missiles and unilaterally seek military strength’. He warned that the provocative missile tests would trigger a new round of an arms race, and undermine regional security.45

Any US moves to deploy medium- and intermediate-range land-based missiles in the Asia-Pacific region would exacerbate Chinese concerns, and court some form of response. In August 2019, China threatened countermeasures if the US decided to do so, suggesting ‘anything will be on the table’. Exactly how and the extent to which China might respond is unclear, as is the extent to which Beijing’s warnings are posturing.

Beijing has already warned US allies not to consider providing bases for such systems. Fu Cong, director-general of the arms-control department at China’s

<table>
<thead>
<tr>
<th>Missile type</th>
<th>PLA service designation</th>
<th>Western designation</th>
<th>Estimated maximum range (km)</th>
<th>Estimated number of launchers</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercontinental ballistic missile (ICBM)</td>
<td>DF-4</td>
<td>CH-SS-3</td>
<td>5,500</td>
<td>10</td>
<td>Nuclear; roll-out to launch</td>
</tr>
<tr>
<td></td>
<td>DF-5A</td>
<td>CH-SS-4 mod 2</td>
<td>13,000</td>
<td>20</td>
<td>Nuclear; silo-based</td>
</tr>
<tr>
<td></td>
<td>DF-5B</td>
<td>CH-SS-4 mod 3</td>
<td>13,000?</td>
<td>N/A</td>
<td>Nuclear; silo-based; MIRV** capable</td>
</tr>
<tr>
<td></td>
<td>DF-31</td>
<td>CH-SS-10 mod 1</td>
<td>7,200</td>
<td>8</td>
<td>Nuclear; road-mobile</td>
</tr>
<tr>
<td></td>
<td>DF-31A</td>
<td>CH-SS-10 mod 2</td>
<td>11,200</td>
<td>24</td>
<td>Nuclear; road-mobile; MIRV capable</td>
</tr>
<tr>
<td></td>
<td>DF-31A(G)</td>
<td>CH-SS-10 mod 3*?</td>
<td>11,200+</td>
<td>18</td>
<td>Nuclear; nuclear; road-mobile; MIRV capable</td>
</tr>
<tr>
<td></td>
<td>DF-41*</td>
<td>CH-SS-20</td>
<td>15,000?</td>
<td>18</td>
<td>Nuclear; road-mobile; MIRV capable</td>
</tr>
<tr>
<td>Intermediate-range ballistic missile (IRBM)</td>
<td>DF-26</td>
<td>n.k.</td>
<td>3,500+</td>
<td>72</td>
<td>Nuclear, conventional and anti-ship variants; road-mobile</td>
</tr>
<tr>
<td>Medium-range ballistic missile (MRBM)</td>
<td>DF-16</td>
<td>CH-SS-11 mod 1</td>
<td>1,000</td>
<td>24</td>
<td>Conventional</td>
</tr>
<tr>
<td></td>
<td>DF-16A/(G)?</td>
<td>CH-SS-11 mod 2</td>
<td>1,000</td>
<td>20</td>
<td>Conventional</td>
</tr>
<tr>
<td></td>
<td>DF-17*</td>
<td>CH-SS-22?</td>
<td>2,000?</td>
<td>18</td>
<td>Conventional with hypersonic glide vehicle</td>
</tr>
<tr>
<td></td>
<td>DF-21A</td>
<td>CH-SS-5 mod 2</td>
<td>1,750</td>
<td>80</td>
<td>Nuclear</td>
</tr>
<tr>
<td></td>
<td>DF-21A(G)/E?</td>
<td>CH-SS-5 mod 6</td>
<td>1,750?</td>
<td>N/A</td>
<td>Anti-ship</td>
</tr>
<tr>
<td></td>
<td>DF-21C</td>
<td>CH-SS-5 mod 4</td>
<td>1,500</td>
<td>24</td>
<td>Conventional</td>
</tr>
<tr>
<td></td>
<td>DF-21D</td>
<td>CH-SS-5 mod 5</td>
<td>1,500</td>
<td>30</td>
<td>Anti-ship</td>
</tr>
<tr>
<td>Short-range ballistic missile (SRBM)</td>
<td>DF-11A</td>
<td>CH-SS-7 mod 2</td>
<td>600</td>
<td>108</td>
<td>Conventional</td>
</tr>
<tr>
<td></td>
<td>DF-15B</td>
<td>CH-SS-6 mod 3</td>
<td>725+</td>
<td>81</td>
<td>Conventional</td>
</tr>
<tr>
<td>Ground-launched cruise missile (GLCM)</td>
<td>CJ-10</td>
<td>n.k.</td>
<td>1,500+</td>
<td>54</td>
<td>Conventional</td>
</tr>
<tr>
<td></td>
<td>CJ-10A</td>
<td>n.k.</td>
<td>1,500+</td>
<td>N/A</td>
<td>Conventional</td>
</tr>
<tr>
<td></td>
<td>CJ-100*</td>
<td>n.k.</td>
<td>1,000</td>
<td>16</td>
<td>Conventional</td>
</tr>
</tbody>
</table>

Source: IISS INF Treaty-class weapons. *Entering service. **Multiple independently targetable re-entry vehicle

Table 2.3. China’s ground-launched cruise and ballistic missiles in service with the PLA Rocket Force
foreign ministry, said that ‘if the U.S. deploys missiles in this part of the world, at the doorstep of China, China will be forced to take countermeasures … I urge our neighbours to exercise prudence.’ Australia, Japan and South Korea were mentioned specifically.³⁶

While Fu Cong reasoned that China’s opposition to taking part in any trilateral talks with the US and Russia was based on the fact that China’s missiles could not reach the US heartland, and that China’s nuclear arsenal was an order of magnitude smaller than those of Russia or the US, he failed to mention a significant influence on China’s opposition: Taiwan. Indeed, some analysts argue that Beijing’s refusal to take part in arms-control negotiations is due at least in part to its heavy reliance on missiles as a means of pressuring Taiwan to reunify with the mainland. The IISS estimates that complying with the INF Treaty restriction would remove 85% of the PLA Rocket Force’s missile launchers and prohibit up to 95% of its current ballistic- and cruise-missile inventory. As stated by Director-General Dr John Chipman, ‘this would include such systems as the DF-21D’, as well as DF-26 ballistic missiles, ‘and perhaps all of China’s short- and intermediate-range missiles ranged against Taiwan’.³⁷ It is thus highly unlikely that Beijing would agree to join any INF-like arms-control regime in the foreseeable future.

REGIONAL VOICES, REGIONAL OPTIONS
The United States’ most important Asian allies – Australia, Japan and South Korea – are suitable forward-basing locations for any regional deployment by the US of ground-launched surface-to-surface systems of the classes previously prohibited by the INF. These allies have not, however, echoed Esper’s enthusiasm for early deployment. Assuming there is at least a narrow military case for introducing such systems to the region – and even this is contentious – the argument that would need to be made to domestic audiences in each of these countries would be even more difficult to sustain.

As it became increasingly clear during 2019 that the INF Treaty would collapse, then Japanese foreign minister Kono Taro called for the bilateral agreement to be replaced by a multilateral framework including China. Beijing rejected his suggestion.³⁸ Almost certainly reflecting his recognition of Japan’s lack of enthusiasm, in January 2020, US Chargé d’Affaires ad interim to Japan Joseph Young adopted a more cautious approach than Esper towards the potential missile deployments, saying: ‘If we ever get to the point of deciding on and developing those [INF-class] systems … we would have a conversation with our Japanese counterparts, very thorough discussions, before any decisions would be made about deployment.’³⁹ Meanwhile, in August 2019, Australian Prime Minister Scott Morrison noted: ‘It’s not been asked of us, not being considered, not been put to us.’⁴⁰ Washington, of course, could develop and introduce into service INF-class ballistic missiles and ground-launched cruise missiles without immediately deploying them to bases in the Indo-Pacific. The missiles could be held in the US, or perhaps on Guam, and only deployed forward to US allies (potentially in Europe as well as the Indo-Pacific) in times of crisis. Should Washington continue to pursue the development of theatre-range land-mobile ballistic and cruise missiles, this option would probably provoke a lesser response from either Beijing or Moscow. However, deployment in crisis could easily be interpreted as an escalatory gesture, and might have a destabilising effect.

PROSPECTS FOR ARMS CONTROL
Beijing has so far shown little to no interest in joining a multilateral treaty or accord covering the types of ground-launched systems previously encompassed by the INF. A multilateral, INF-like treaty would from Beijing’s perspective be a ‘lose-lose’ outcome. At risk would be almost all of its ballistic-missile inventory apart from its ICBMs, and all of its land-attack,
ground-launched cruise missiles. In return, Beijing perceives the US as being blocked merely from deploying such missiles in theatre, remaining free to maintain and develop its holdings of these weapons as long as they are kept outside the region.

The emphasis in Washington, meanwhile, appears to be more on developing a range of weapons to counter an increasingly capable PLA than on attempting to engage Beijing on arms control. Russia seems to view China as a convenient ally in its jousting with the US on arms control. The near-term prospects for relevant arms-control measures do not seem promising.

Barring a distinct change in approach, the US armed forces will by the mid-2020s at the latest be able to introduce into service ballistic and ground-launched cruise missiles with ranges previously forbidden by the INF Treaty. Before the original INF Treaty was first signed, one important development was the US introduction of BGM-109G Gryphon GLCM and Pershing II ballistic missiles to Western Europe, much to the concern of the Soviet leadership. However, many if not all of the other contributory factors that led to the 1987 signature are so far absent. For example, Gorbachev recognised the immense cost being imposed on the Soviet economy by defence expenditure and was seeking means to reduce this as part of wider reforms: arms control was one route to achieving this. He and Reagan also wanted to pursue arms control as part of their legacies and the two had a personal rapprochement that supported this. The Soviet Union was also negotiating from a position of comparative weakness, which made a positive outcome more likely.

China’s development of increasingly capable non-nuclear capabilities for its armed forces may over time reduce the importance of its dual-capable, theatre-level, ballistic-missile force. While other regional powers will welcome the reduced emphasis on dual-capable systems, a further strengthening of Beijing’s conventional forces would be less reassuring. Ultimately, the lessening of emphasis on dual-capable systems could allow China’s leadership to begin exploring regional arms control for such weapons. However, the US would even then likely need to provide incentives for China to move in that direction.

CONCLUSION

The implications of the end of the INF Treaty have yet to play out in Asia, but the collapse of the accord risks further exacerbating an already tense regional-security climate. If the US were to deploy ground-launched systems previously prohibited by the treaty, then this could prompt an action–reaction cycle of weapons development and deployment between Washington and Beijing. Whether US moves to deploy such systems might draw Beijing to the negotiating table remains a question. Encouraging China to engage in strategic and regional arms control will likely require an imaginative leap on the part of Washington beyond simply forgoing the deployment of ground-launched ballistic and cruise missiles in Asia. It will also require greater willingness than Beijing has so far shown.

NOTES


7 US, Central Intelligence Agency, ‘China’s Strategic Weapons
AN IISS STRATEGIC DOSSIER
THE END OF THE INTERMEDIATE-RANGE NUCLEAR FORCES TREATY: IMPLICATIONS FOR ASIA

13 Ibid.
21 Reif and Bugos, ‘U.S. Tests Second Medium-Range Missile’.
23 Ibid.


35 Ibid.


40 Ibid.


Douglas Barrie is Senior Fellow for Military Aerospace, Defence and Military Analysis Programme, IISS. Michael Elleman is Director of the Non-Proliferation and Nuclear Policy Programme, IISS. Meia Nouwens is Research Fellow for Chinese Defence Policy and Military Modernisation, Defence and Military Analysis Programme, IISS.