

Deter and defend: The 2019 US Missile Defense Review

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Following the release in January of the Trump administration's first US Missile Defense Review, *Dr Lee Willett* considers the posture, policy, and programmatic implications of the review for the United States and its allies

Missile defence is an enduring and constantly evolving strategic issue in the international security balance.

Missile defence strategies, concepts, and technologies first developed in response to ballistic missile threats against fixed land targets. Next came the need to provide theatre missile defence for forward-deployed forces, at sea but particularly ashore. More recently, more capable threats to ships at sea from ballistic missiles have added a third evolution to the conceptual focus.

Today, dealing with the emerging cruise missile threat to targets ashore and at sea has arguably created a fourth evolution. One implication of this emergent cruise missile threat has been the consideration of a holistic technological and geographic response in the form of integrated air and missile defence (IAMD).



The Chinese DF-21D medium-range anti-ship ballistic missile, often referred to as a 'carrier killer'. China possesses a range of ballistic missiles, conventional and nuclear, that have relevance to regional crises ashore and at sea. (AFP/Getty Images)

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The centrality of cruise missiles in the IAMD equation has been highlighted by two recent developments: first, the deployment and combat use of new cruise missiles, such as the Russian Kalibr anti-ship and land-attack sea-launched cruise missile (SLCM); and second the collapse of the 1987 Intermediate-range Nuclear Forces (INF) Treaty because of US concerns about alleged Russian deployments of the 9M729 ground-launched cruise missile (GLCM) in Europe and Russia's own concerns that US cruise missiles could be based ashore in Europe to target Russian territory.

However, despite this emerging focus on cruise missiles, ballistic missiles still feature heavily in threat assessments. The nuclear powers are all recapitalising their nuclear force structures, including developing new ballistic missile capabilities. North Korea has recently become a recognised nuclear power, including testing for the first time in November 2017 its new Hwaseong-15 intercontinental ballistic missile (ICBM).

In May 2018 US President Donald Trump's administration withdrew from the 2015 Joint Comprehensive Plan of Action (JCPOA) accord, which was designed to restrict Iranian nuclear technology developments and prohibit Tehran from developing nuclear weapons. The JCPOA had been signed by Iran and the 'P5 + 1' powers: the five United Nations Security Council permanent – China, France, Russia, the United Kingdom, and the United States – plus Germany. The Trump administration cited the accord's inability to constrain continued Iranian ballistic missile developments.

Moreover, the security risk from ballistic missiles is neither just theoretical nor confined to prospective crises between states. For example, Ansah Allah (Houthi) rebels have fired ballistic missiles against targets in Saudi Arabia during the ongoing civil war in Yemen and Saudi Arabia has used missile defence capabilities in response.

Perhaps one of the most significant recent developments in this area was the publication in January of the Trump administration's first Missile Defense Review (MDR), which reflects all elements of the evolutionary US missile defence story and builds on Trump's first Nuclear Posture Review (NPR), which was published in February 2018.

Regarding missile defence the NPR noted continued Chinese and Russian development of missile-defence capabilities and pointed to the need for the US to possess missile defence capabilities for regional contingencies if deterrence fails.

The NPR also underlined the importance of the US and its allies maintaining leading missile-defence capabilities to reinforce credible extended deterrence and retain the ability to address threats from rogue states such as North Korea. Conversely, it noted the need for the US to develop capabilities for defeating advanced air- and missile-defence networks, such as through improving US ICBMs and submarine-launched ballistic missiles (SLBMs).

Defence review

In the MDR the US government reiterated that missile defence remains an “essential component of US national security and defence strategies”. In this regard, as the US seeks to address threats from what the MDR referred to as “rogue states and revisionist powers”, the review forms part of a wider US strategy to deter aggression and defend against threats. Moreover, it reassures allies, including through supporting US and allied freedom of action in responding to regional aggression, and helps build a hedge against future uncertainty.

The MDR notes the need to address shifts in the security balance since the last US MDR in 2010 and to respond to advanced developments in established technologies, such as ballistic and cruise missiles, while also tackling new technologies such as hypersonic glide vehicles (HGVs).

In capability terms all four of Washington’s potential nuclear rivals – China, Iran, North Korea, and Russia – are developing various technologies, some of which are bringing new capability dimensions. HGVs are perhaps the most notable development here, with China and Russia developing such systems.

According to Russian media reports Moscow’s Avangard HGV will be deployed operationally for the first time this year atop the RS-18/SS-19 ‘Stiletto’ ICBM. Media reports early this year also suggested that testing of a nuclear-powered and prospectively nuclear-armed unmanned underwater vehicle named Poseidon is progressing.

In what it refers to as a “comprehensive” approach to missile defence, the MDR calls for US capability focus in several areas:

- A concerted effort to improve and integrate homeland and regional offensive and defensive capabilities against nuclear threats that are increasing in capability terms, more closely intertwined with conventional military operational concepts and planning, and underpin adversary strategies to establish anti-access/area denial (A2/AD) ‘bubbles’ around regions of international strategic competition;
- the improvement of active defence to intercept missiles in all flight phases, the building of passive defence to mitigate attack effects, and development of the ability to conduct attack operations during conflict to neutralise missile threats pre-launch;
- and the introduction of new concepts and technologies that offer more cost-effective missile defence options.

Underpinning these focus areas, the MDR covered several themes.

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