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The Assumptions of the New U.S. Missile Defence Review

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The Missile Defence Review assumes the continuity of U.S. and allied missile defence systems, including within NATO. Studies on new, ambitious and costly technologies, are the most controversial elements of report. The shape and schedule of these projects are unclear, which risks causing disputes in NATO on arms control and the development of more advanced offensive systems by Russia and China.

Document Status. The Missile Defence Review (MDR) was prepared by the U.S. Department of Defence, at the request of President Donald Trump at the beginning of his term of office. Publication of the report was expected in the spring of 2018, but personnel changes in the Pentagon and shifts in Trump's approach to the DPRK and Iran delayed the report until 17 January. The MDR succeeds the document from 2010, which focused only on defence against ballistic missiles launched by the DPRK and Iran. The new review extends the catalogue of threats to include cruise missiles and hypersonic weapons. It sets research and development directions for new technologies, expanding on conclusions of the U.S. National Security Strategy (NSS), the National Defence Strategy (NDS) and the Nuclear Posture Review (NPR). The significance of this year's document was increased by the involvement of the president, vice-president and selected members of Congress. Trump's comments on the plan to establish defences against missiles "anytime, anywhere, anyplace" and "before and after launch," similar to some of the new projects in the MDR, were received by critics of his administration as a part of strategy against China and Russia.

Missile Threats. The MDR's point of departure is based on estimates of missile arsenals of the United States' rivals. Unlike the NSS and NDS, the new document assesses firstly missile threats from the DPRK, then from Iran, and later from Russia and China. This order is probably a consequence of the U.S. attachment to mutual deterrence between nuclear powers, and the assumed unpredictability of the DPRK and Iran. Progress of the DPRK's development of intercontinental missiles and naval nuclear deterrent forces were ranked as most dangerous for the United States. DPRK and Iranian missile arsenals are described as threats to U.S. regional allies. The MDR also notes the transfer of Iranian short-range ballistic missiles to Syria, Lebanese Hezbollah and Yemeni Houti. After these, the document lists threats arising from the modernisation of strategic arsenals in Russia and China, as well as these countries' potential development of new hypersonic and anti-satellite weapons.

Defence of U.S. Territory. The MDR declares continuity in investments in the ground-based midcourse defence (GMD) system with ground-based interceptors (GBI) for use against intercontinental ballistic missiles. It stresses, contrary to comments by Trump, the GMD's purpose to defend against ballistic strikes on a limited scale, which excludes effective defence against a potential massive exchange of strikes with Russia or China. The review also announces that studies on the modernisation of GMD command and control and North American Aerospace Defence Command (NORAD) systems will continue until the autumn of 2020. Congress has requested that the Pentagon prepare analysis of reorganisation of continental U.S. defences against cruise missiles, within six months of the MDR being published. Both studies might lead to initiation of projects augmenting the GMD and creating a new layer of defence against missiles other than

ballistic. The MDR also includes plans for tests of new infrared-sensing Space-based Kill Assessment (SKA) satellites. Due in 2019, these studies and tests should result in a future increase in the chances of such systems intercepting ballistic and hypersonic missiles.

In response to the DPRK's growing capabilities in the event of a strike against the United States, the Pentagon plans to increase the number of GBI interceptors in Alaska and California from 44 to 64 by 2023. The MDR does not address Republican demands to build a third GMD base on U.S. territory and purchase even more GBI interceptors in the event of an increased threat from Iran, but it does include a plan to study such an eventuality. Moreover, GMD should be augmented by additional upgraded early warning radars (UEWR) and long-range discrimination radars (LRDR) in Alaska, Hawaii and Kwajalein Atoll by 2023. It also foresees the continued development of advanced new warheads for GBI interceptors, due to the failure of older exoatmospheric kill vehicle (EKV) warheads. By 2030, U.S. missile defence architecture might also be strengthened by prototypes of new space systems, defences against hypersonic weapons, and drones with lasers to intercept missiles in their boost phase (in launching areas).

Defence of Regional U.S. Forces and Allies. The MDR assumes continuity in building up defences against intermediate, medium and short-range missiles. Its pillars are transportable radar surveillance (AN/TPY-2), the terminal high-altitude area defence (THAAD) system, different variants of the Aegis ballistic missile defence system and its standard missile interceptors (SM-3), and the Patriot/Patriot advanced capability (PAC-3) system. The MDR promises more interceptors, and exports to allies. New projects include adaptation of F-35 planes and air-to-air missiles for the interception of cruise missiles in flight and ballistic missiles in the boost phase. Such new U.S. capabilities could reduce the costs of regional missile defence systems in the event of real military conflict.

The MDR primarily stresses requirements in the Far East, where it is necessary to continue cooperation with Japan on new SM-3 Blk. IIA interceptors, and with South Korea on upgrading the PAC-2 system to PAC-3 and integrating this with a new layer of defence provided by the THAAD system. The MDR notes the need for closer defence cooperation within the triangle of the United States, Japan and Australia, and recognises cooperation within NATO as a second priority in the area of regional missile defence. The report also states that European defences against missiles from the Middle East should be completed, despite delays and repeated opposition by Russia. It stresses the capabilities already at NATO's disposal, including radar in Turkey, four Aegis-BMD vessels in the Mediterranean Sea, and an Aegis Ashore base in Romania, equipped with SM-3 Blk. IB interceptors. The report foresees operational readiness of the Aegis Ashore base in Poland, equipped with SM-3 Blk. IIA interceptors, by 2020. Reference is made to the contribution of allies to the defence of Turkey, ongoing modernisation of missile defence systems in Denmark, France, the Netherlands and the UK, and purchases of PAC-3 systems by Romania and Poland. However, the MDR is imprecise on the needs arising from the growing Russian cruise missile threat to NATO. Other U.S. priorities include missile defence cooperation with Arab countries of the Gulf, continued financing for different systems in Israel, and vaguely mentioned cooperation with India.

Implications. The MDR commissioned by the Trump Administration confirms the continuity of previously developed missile defence systems. New missile defence technologies and plans for nuclear triad modernisation are restrained by budget considerations beyond the term of the current president. It is probable that some Pentagon projects (for instance drones with lasers) will not progress beyond the initial study phase, and there will be no guarantee that they will be introduced to military service. Their strategic rationale and financial costs might be contested by the Democratic majority Congress. Russia and China might perceive projects postulated by the MDR as a threat to their strategic nuclear forces, so are almost certain to continue development of hypersonic weapons capable of overcoming current U.S. missile defence systems. Both nuclear powers are likely to intensify development of offensive anti-satellite systems, capable of neutralising an additional constellation of satellite sensors relatively cheaply and easily. In the light of the interconnected issues of missile defence and arms control, there is also risk to cohesion among NATO countries, similar to their differences of opinion regarding Russian violations of the INF Treaty. Despite this, NATO should perfect its defence of Europe against Iran's missile arsenal. Finishing this system in 2020 will strengthen the close partnership between the U.S. and Poland, and perpetuate transatlantic ties within NATO. Separate NATO joint efforts should also be considered, focused on balancing defences against Russia's developed missile arsenal. This will need integrated network between air and missile defence batteries on the Eastern Flank, and studies of NATO's effective and conventional defence capabilities. A leap forward in U.S. missile defence technology during the next decade may also be beneficial for Poland and NATO.