



The 2019 Missile Defense Review – Old Content in a New Package

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It is often argued that ballistic and cruise missiles are very important weaponry, but not only just because of their versatility, lethality, long range and a capability to carry mass destruction payloads. The most important attribute of these weapons is that they are, generally speaking, extremely hard to defeat. Therefore, they offer a chance to inflict a heavy damage deep inside the enemy's territory in almost every situation and on very short notice. Hence, whoever possesses ballistic and/or cruise missiles, he or she may use them not only in case of an all-out conflict as a formidable means of warfighting. These weapons may also be tools of surprise surgical strikes during low intensity conflicts or instruments of hybrid warfare. Without actually being used, they may also become a very powerful instrument of political coercion and a potent deterrent. And, let us reiterate, ballistic and cruise missiles are particularly effective for abovementioned tasks, because they are almost undefeatable in comparison to other means of a long-distance strike, especially to classic aviation.

Currently, the most important issue with regard to these weapons is that they proliferate throughout the world at a very quick pace and, simultaneously, they become more and more sophisticated. Consequently, at present not only the most advanced Western countries plus Russia and China can execute long-range, almost impossible to counteract strikes with the use of ballistic or cruise missiles. Other countries such as India, Pakistan, Iran, Syria, North Korea, and several post-Soviet republics have developed considerable missile forces, which are constantly being augmented both in quantity and quality. Therefore, the Western nations, their deployed forces, and interests abroad, together with their regional allies and partners, are confronted with the threat of a long-range missile strike from many directions, despite technological and numerical superiority of their militaries. Thus, the issue of defence against ballistic and cruise missiles gains more and more attention especially in the West, but certainly

not exclusively there, as some of the regional powers also work to develop some means of missile defence.

The United States as a global power is obviously most interested in this issue since it has numerous enemies and competitors. Some of them can even threaten the American soil with ballistic and cruise missiles. Moreover, since Washington has a multitude of interests in every corner of the world, its armed forces are present in all of the key regions. It is because the American military installations and deployed units are a crucial instrument of U.S. foreign policy – their very presence is an important commitment, the threat of their use gives weight to every word Washington utters. Should such a need arise, these forces might instantly execute combat missions of every kind in support of the country's interests. The American military assets scattered around the world are of course well-guarded and defended by numerous means and elaborate tactics. Nevertheless, despite this powerful protection, ballistic and cruise missiles with their superior capability to overcome defences pose a serious challenge to the U.S. military presence overseas.

The same goes with regard to the allies and partners that Washington supports throughout the world. Conventional deterrent and even the nuclear umbrella do not necessarily have to be effective enough to protect these political assets in the most dangerous regions. Ballistic and cruise missiles as a means of coercion, deterrence or low-intensity conflict may be used to hamper American influence by creating a sort of the asymmetric threat the U.S. would not be able to oppose. The worst-case scenario is an all-out war or another armed conflict in which a theoretically weaker enemy with the use of ballistic and cruise missiles would take the U.S. soil, the American forces, and installations along with partners and allies hostage, thus nullifying the dominant position of the United States military. This is, in the most general terms, why this kind of weapons pose a very special and grave threat to the overall American position in the world and to the American interests as a whole. Consequently, it is no wonder that not only China and Russia but also a host of other countries frantically work to acquire, modernize or expand their missile forces.

It is, therefore, rather obvious, that the United States was forced to adopt a special defence posture with regard to the missile threat, as it considers it, let us reiterate, very special and very grave. In essence, this stance entails an obvious conviction that the strategies and tactics to offset missile threat must be devised and corresponding weapons systems and supporting efforts must be developed.

The story of missile defence in the U.S. is very long and dates back to the last months of WWII. Initially, and through decades of the Cold War, missile defence was considered with regard to the strategic missile threat from the Soviet Union and, later on, from China. But the power and quantity of nuclear offensive weapons of that era were of the magnitude that rendered any credible missile defence impossible. At the end of the Cold War, when ballistic missiles started to proliferate, the missile defence posture was altered to fit in the limited threat posed by less developed countries located in regions where the U.S. had important interests. This posture led to the establishment of a technical and organizational basis for the global ballistic missile defence system, which started to be deployed in 2004. In effect, the U.S. armed forces currently possess an extensive ballistic missile defence system, the [BMDS](#), which is prepared

to be able to overcome various threats and is deployed worldwide. The United States has also developed a comprehensive missile defence strategy, that entails threat assessment, operational issues, development of technology and organization, along with a political rationale for spending billions of dollars on the issue.

The general interpretation of the current defence posture related to the missile threat is enclosed in special documents authorized by the U.S. Congress and produced by the Department of Defence. They constitute a part of the United States security policy doctrine and are the most comprehensive source of information regarding the official American stance. Until recently the Ballistic Missile Defence Review of 2010 ([BMDR](#)) was the basic missile defence posture document. Its provisions can be summarized as follows:

- the proliferation of ballistic missiles poses a significant threat to the U.S. forces, the American allies and partners, and to an extent to the United States home soil,
- ballistic missile defence against regional threats is crucial to help the U.S. maintain its freedom of action throughout the world, and secure its political influence,
- ballistic missile defence is tailored against limited threat, which means both limited quantity and quality of missiles to be defeated,
- notably, the missile defence is not directed against strategic nuclear deterrent of Russia and China.

The developments of the last decade have rendered this thinking partially inadequate, especially because the proliferation of ballistic missiles has been supplemented with the increasingly quick spreading of long-range land-attack cruise missiles. Quite recently, a development of the novel technology of [hypersonic vehicles](#) added another kind of weapons which are similar to the ones mentioned above, as far as their most important capabilities are concerned. Therefore, the United States decided to develop the new strategic document on missile defence outlining a redesigned posture towards these threats. It finally took the form of the Missile Defence Review ([MDR](#)), published in January 2019. It is the most up-to-date interpretation of the American posture related to the threat of ballistic and cruise missiles. Below we will outline its main provisions, taking into account elements of continuity, as well as shifts of emphasis and some new issues presented in it.

Threat assessment, which is an initial part of the MDR, represents the most important shift in strategic thinking in comparison to the BMDR. First of all, when it comes to the danger that looms over the U.S. homeland, the document of 2010 recognized an emerging threat from the rogue states, but dismissed the one posed by China and Russia as unlikely; as we have already noticed, the American missile defence was not deployed against strategic deterrent forces of these countries. The current document repeats the notion of the threat to the U.S. soil from regional powers but also notes in many instances that China and Russia are more and more in odds with the United States, so their missile arsenals pose an increasingly real threat. However, the MDR fails to state openly that the U.S. missile defence is crafted to defeat the Chinese or Russian missiles. To the contrary, it reiterates that with respect to these two countries the nuclear deterrence is still an ultimate instrument providing security to the United States. So, the declared shift of strategic thinking appears to be a rhetorical one,

at least for the time being. Admittedly, the MDR recognizes that there is a new (or renewed) threat but it does not envision any tangible strategy to confront it.

When it comes to the regional threats to the American allies, partners and the U.S. forces and installations, the missile defence posture documents, old and new alike, refer to the regional powers which are considered enemies of the United States, namely to Iran and North Korea. But as the BMDR only vaguely mentioned China as a growing threat against Taiwan, the MDR bluntly declares that Chinese and Russian missile build-ups, which are a part of A2/AD strategies of these countries, are negatively impacting American security and interests in the world. This is, of course, an obvious continuation of the abovementioned notion referring to the evolution of the global security environment, but again, it changes nothing. In the current U.S. missile defence posture, there is no concrete provision that would refer to counteracting missile developments of China and Russia. In essence, the BMDS remains, as the official policy states, tailored to counteract limited threats, not the massive ones of the Chinese and Russian origins. Here we can see another example of a half-baked strategic shift – the new (or renewed) threat is recognized but no concrete action is undertaken with regard to it.

Additionally, the MDR notices an increasing danger posed by missile defence assets and anti-satellite systems of possible adversaries, first of all, the Chinese and Russians. But other international actors also pursue related capabilities what is also considered to be dangerous.

In the following, the MDR clarifies various roles for the U.S. missile defence, deriving them from the broader conceptual basis of the 2017 National Security Strategy, 2018 National Defence Strategy and 2018 Nuclear Posture Review. As we have already mentioned, there are in fact no significant changes in comparison to the BMDR. Hence, despite a broader threat assessment, the missile defence is still tailored to counter the threat to the U.S. territory coming only from rogue states and it is supposed to remain so in the future, missile defence also contributes to the overall deterrence from regional threats to the United States, its allies or partners, by adding uncertainty to the planning against the U.S.; it is also supposed to give time and broaden the scope of options that Washington has in certain situations; in essence, it is the same attitude as before, missile defence has also a political relevance as an assurance to the allies and a part of a broader effort of supporting the diplomatic activities, missile defence is an important tool of ensuring the freedom of operation of the U.S. forces globally.

With regard to implementation of the missile defence mission, the MDR stresses the need to stay ahead rogue states' capabilities. It is worth noting that there is no word about China and Russia with respect to this practical measure as if the threat from these countries was non-existent. It is only openly declared that the U.S. will not accept any limitation to developments of its missile defence, what is clearly directed against China and Russia. Both countries maintain that such limitations should be imposed, because both express concerns with regard to strategic stability, allegedly compromised by the U.S. missile defence. The BMDR had no provision of such direct nature regarding this issue.

The MDR stresses many times the need to expand appropriate technologies and seek new principles and operational concepts to offset changing threats. This is the only area where

we can see the measures to counter the new (or renewed) threat from Russia and China, as far as only some tremendous technological breakthrough can lead to the creation of credible defences against their massive and increasingly sophisticated missile forces. But it is, of course, a very vague and distant perspective; for now, the MDR tacitly admits that there is no technology and no capability to counter the Russian and Chinese menaces in a way other than the well-established deterrence by nuclear retaliation.

The MDR stresses the importance of the outer space for missile defence and it does it much stronger than the previous posture, adding an entirely new dimension to the issue of the value of space assets. They are supposed not only to provide a platform for sensors and communications, but it is also mentioned that space-based interceptors may be applicable if adversaries' missile capabilities improve.

This notion is potentially very important because it contains not just a statement of an unspecified intention. There is also a related real measure: the MDR directs the Department of Defence to start an initial examination of the concept of space-borne missile defence. This is an entirely new feature of the U.S. missile posture which, until now, has not officially envisioned space weapons. If this path of development is actually pursued it will change the very nature of the American missile defence and be an extremely important development from a point of view the international security. But still, the effort to lift anti-missile systems into orbit is in its very early stage, the very feasibility and practical sense of such weapons are debatable. That is why the MDR brings only a declaration of change which may eventually not happen. Even if the development of space weapons gets the green light, their deployment will occur in a rather distant future.

The missile defence strategy, as described in the MDR, encompasses a variety of assets and their operational use, not only the ones that are specifically designed for anti-missile missions. It is stressed, much stronger than in the BMDR, that an integrated offence-defence approach must be applied, and it should include the use of various weapons systems in a concerted effort to overcome the missile threat. Especially when operating in anti-access environments, the U.S. forces must flexibly employ various assets and tactics, both offensive and defensive. By stressing this aspect, the MDR shifts the United States missile defence posture somewhat closer to the left-of-launch measures which were only vaguely mentioned in 2010. Now, it is openly stated that the U.S. will seek improvement of its capabilities applicable in case of regional hostilities of limited nature or open conflict with a rogue state to engage enemies' missile launch systems. But again, it is nothing particularly new, as the U.S. warfighting doctrine holds that offensive assets of an adversary must be destroyed during initial stages of a conflict. The MDR only reiterates what is already quite obvious, but fails to provide any clue to what extent it is supposed to change, or what assets or capabilities besides the ones already deployed are supposed to be used. Note that with regard to this issue there is no mention of all-out war or any other direct clash with China and Russia.

The MDR also envisions the development of every existing weapons system in the BMDS inventory, starting from GBI, through Aegis/SM-3 (with its Ashore version), to THAAD and Patriot PAC-3. The capabilities of these systems should be enhanced by fielding new variants in the coming years, and by increasing the number of deployed units and quantity

of munitions. The F-35 fighter jet is also mentioned as the new means of missile defence. With its formidable sensor suite, it could be used to track and destroy cruise missiles, with the potential to expand this capability to ballistic missiles with the use of future weaponry. The MDR lists also an entirely new ballistic missile defence weapon, the Multi-Object Kill Vehicle (MOKV) which is currently being developed. It is the new multiple warhead for the GBI, which could potentially [increase the capability](#) to intercept salvos of ballistic missiles or act as an offset against decoys or other penetration aids deployed by incoming missiles. But there is no concrete statement with regard to a timeframe of the introduction of this novel weapon, its development will probably take several more years. Of course, this new technology still has to prove if it is doable, what is not entirely certain, as the previous incarnation of this concept, the Multiple Kill Vehicle (MKV) was cancelled in 2009. The laser weapons program is also listed as one of the priorities of missile defence development, the MDR refers also to the Department of Defence's comprehensive programme of directed energy weapons already in progress since 2017.

What should be strongly underlined is that the MDR refers to many kinds of missile threats – ballistic, hypersonic and cruise missiles. It is, therefore, more comprehensive in the conceptual approach, but with regard to the capabilities and operational concept it does not deliver any significant addition beyond quantitative and qualitative development of current anti-ballistic systems. Other weapons systems, specifically designed to defeat all kinds of missiles prior to launch, intercept ballistic missiles in a boost phase, or engage cruise missiles and hypersonic missiles in-flight remain only a vague perspective, as they are still in initial stages of the R&D process. Therefore, once again we have to stress that the shift to a more comprehensive approach represents more an intent and will to seek new capabilities than the actual change in operational realities, engagement tactics and strategy.

Summarizing, we notice several important issues pertaining to the content of the 2019 Missile Defence Review:

1. MDR offers [no substantial difference](#) in the missile defence posture, as it is still directed against regional and limited threats. Even if the document recognizes the rising threat from China or Russia [there is actually no new defensive stance against them](#). We may sense it only remotely from frequent notions about the need to rapidly and decisively enhance the technology involved. But unless some real technological breakthrough occurs, nothing will change with respect to that.
2. The inclusion of cruise missiles into the defence posture document means only the recognition of the growing threat, not the substantial shift in the strategy. Defeating cruise missiles is still in hands of air defence and offensive assets, the MDR changes nothing in technology and organization of the effort. It may change in some more distant future if, for example, space-based sensors are integrated with tactical air defence, but there are only unclear hints about that, nothing substantial.
3. The stress on left-of-launch and boost-phase capabilities is something new, but still it [does not bring any new quality](#) to the already developed strategies and operational concepts of counteracting enemy's most valuable offensive assets. It could even be said

that underlining this issue is a display of the vulnerability and weakness of the defences, along with recognition of the improving quality of U.S. adversaries' weapons.

4. The MDR directs the Department of Defense to produce twelve six or nine-month feasibility studies, of which the programme concerning prospective space weapons has been mentioned above. The others refer to the future capabilities of current weapons and the operational concepts of their use, to the number of units and installations of the BMDS, and to some more vague issues like defence of the continental United States against cruise and hypersonic missiles. As most of the content of the MDR is marked by continuity, only these concrete measures bear a real mark of the substantial change. But, needless to say, the outcome of these studies will most likely be rather imprecise, pointing to more and more efforts and to the hope for future breakthroughs. Thus, the expectations elevated by much anticipated technological solutions are [rather premature](#), but anyway, when the abovementioned studies are concluded, only then we will be able to fully assess the impact of this document.
5. In a broader perspective, missile defence is an element of the concerted effort to make another technological leap forward, which would sustain the American technological advantage, questioned in its present shape. To be true, the U.S. forces are and will remain the most formidable fighting force in the world for the foreseeable future. But their capability to act almost wherever and do almost whatever is waning, thus increasing the possible cost of future operations and adding risk to the strategic and operational planning. Many current programs and concepts, currently analyzed in the United States, like [the one](#) executed by the Air Force, are directed to offset technologic development of the potential adversaries.

Assessing the prospects of achieving the goal stated in the last point above, what would also mean substantial development of capabilities of missile defence, we are not overly optimistic. Our guestimate is that the United States will manage to make a concentrated effort to keep its technological edge against the world, but it will lead only to the slowdown of the pace at which America is losing its advantage. However, it is not because of the lack of knowledge, creativity or technical skills needed to derive new applicable techniques from newly discovered or already established principles of related technologies. On the contrary, the United States remains and will remain in the future the absolute world leader in technology creation. But the systemic underperformances of the American military-industrial complex are constantly obstructing its struggle to stay ahead of the adversaries. We may create a whole big list of deficiencies that plague the American armed forces and military-related industry, of which the most important are:

- bureaucratic clumsiness of an enormous administration machinery of the Pentagon and related agencies, together with the overwhelming pressure of vested interests of entrenched and intertwined self-serving lobbies in politics, industry and military;
- the lack of effectiveness of *de facto* monopolies of defence industry, which do not hurry with delivering up-to-date products and often complicate it more than it is necessary to achieve a higher price which does not necessarily translates to substantial military effects;

- the constant outflow of cutting-edge technologies to potential adversaries which stems from weak security supervision over a vast and entangled system of scientific research, as well as common nonchalance and sometimes even malevolence of many poorly motivated employees.

These arguments refer of course to missile defence as well, maybe even to a greater extent than to other elements of the American military effort. In its current and possible future shapes missile defence is more dependent on the new technologies than any other part of the armed forces.