



Prospects for Missile Defence in Europe Against Ballistic Threats From Iran

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Initiated in 2010 by the United States, the European Phased Adaptive Approach (EPAA) system is designed to protect the European countries of NATO and U.S. military bases there against ballistic missiles from Iran. The incoming Biden administration will likely prepare a comprehensive review of U.S. missile defence and the EPAA project given the uncertainty of the progress of the Iranian arsenal and delays in finalisation of the system's Phase III, including the base in Redzikowo, Poland. A further slowdown in work on EPAA or a halt might be elements of the U.S.-Russia strategic dialogue. The conclusions of the missile defence review will influence the final shape of NATO's defence against Iran's missile arsenal, however any potential changes in the project may have less impact on Poland's interests or its relations with the U.S. than was observed in 2009.

Evolution of Missile Threats From Iran. The country possesses the largest ballistic missile arsenal in the Middle East, estimated at about 2,000 short- or medium-range Scud or the more advanced Fateh types, which are capable of hitting targets in the region as well as Turkey and Southern Europe. Some short-range missiles and artillery rockets produced by Iran are also held by Shia militias in Yemen, Iraq, and Lebanon. Iran's ballistic missiles together [with cruise-missile models are targeting Middle Eastern countries](#) and U.S. military bases within range. However, for Israel and Europeans, of most serious concern are Iranian ballistic missiles with potentially longer ranges. These concerns are augmented by [Iran's scientific and industrial potential for a nuclear arsenal](#) and space programme, both officially for civilian purposes. This capacity might help Iran build missiles of intermediate ranges of up to 3,000 km (reaching all of Europe) or intercontinental, with ranges above 5,500 km (reaching U.S. territory).

The ambiguity of unclassified U.S. intelligence and Pentagon estimates do not permit clear-cut conclusions about Iran's long-range missile threat. Iran declared a 2,000 km self-imposed limit on missile ranges of its Shahab-3 and Khorramshar variants of the North Korean Nodong and Musudan missiles. The latter missile with a lighter warhead

might reach 2,500 km, but failed tests by North Korea and Iran suggest the Musudan is unreliable. In 2008-2011, Iran also tested Sejil-2 medium-range missiles with an advanced solid fuel engine. This model might be the starting point for a new intermediate-range missile, however further testing was halted in the negotiations on the Iran nuclear deal (JCPOA). Because of assumed technological ties between the Sejil and Pukkuksong missiles, it cannot be excluded that some elements will continue to be tested in North Korea. Technologies from this country were observed in space launch vehicles used by Iran's Space Agency, including Safir (flights in 2009, 2011, 2012, 2015, and 2019) and the heavier Simorgh (flights in 2016-2017 and 2019-2020). The flights under Iran's civilian programme were mainly for prestige and propaganda goals of the regime. The majority of these flight ended in failure (which Iran tried to hide) and were not conducive to mastering the technologies. Another and formally separate space programme is developed by the powerful Islamic Revolutionary Guard Corps, which in April 2020 demonstrated the Qassed vehicle for reconnaissance nanosatellites, with a liquid first stage and solid-fuel second stage. The institutional and technological ties between the Space Agency and Guards are unclear, even if likely.

Previous Changes in the U.S. Plans. The expected progress of Iran's missile programme was an important, but not the sole factor influencing U.S. plans in 2002–2009, including the National Missile Defense (NMD) project, with elements in Poland and Czech Republic. In 2009, the Obama administration concluded a review of the NMD in the context of intelligence estimates of that time, the high costs of ground-based interceptors (GBI), and plans for a “reset” in relations with Russia. The review concluded with the discontinuation of the European elements of the NMD system and initiation of the EPAA as an American contribution to the security of Europe and to other missile defence programmes of NATO. The EPAA was set as four phases with each one responding to the expected progress of Iran and the readiness of four versions of SM-3 interceptors. In 2012 (Phase I), Arleigh Burke-class destroyers with Aegis BMD and SM-3 Blk. IA were deployed for defence of Southern Europe against Iranian short- and medium-range missiles. In Phase II (up to spring 2016), SM-3 Blk. IB interceptors on the land-based Aegis Ashore system were deployed in Romania. Phase III of the EPAA intended to deploy in Poland by the end of 2018 a second Aegis Ashore system with 24 SM-3 Blk. IIA interceptors of intermediate-range ballistic missiles. The original EPAA plan foresaw implementation of Phase IV by 2020 with the introduction to both Aegis Ashore systems the next-generation SM-3 Blk. IIB interceptors of Iranian intercontinental ballistic missiles that threaten the continental U.S. However [in spring 2013, delays in the SM-3 Blk. IIB programme, the growing threats to the U.S. from the Northern Korean arsenal, and Russia's persistent negative stance on the EPAA as a threat, taken together resulted in the Pentagon cancelling Phase IV](#) of this system.

[The Trump administration's Missile Defense Review \(MDR\) declared the intention to finish the EPAA's Phase III](#)—the Aegis Ashore system in Redzikowo. The inclusion of this in the MDR can be seen as a success for the Pentagon, especially in the context of President Donald Trump's sharp criticism of financial burden-sharing in NATO. However, the planned initial operational capability of the Redzikowo system was delayed from the planned date of December 2018 because of growing costs and changes in contract conditions and delays in building material deliveries and finishing construction. The opening of Redzikowo in May 2020, even with the interceptor containers deployed there, was pushed back again. The Pentagon is declaring it will be complete sometime in 2022. As well, SM-3 Blk. IIA tests slid into 2017–2018, with three of five interception tests successful. The initial deliveries of these interceptors were accepted by the Pentagon in autumn 2019. However, the COVID-19 pandemic also delayed to November 2020 the first, and successful, test of the SM-3 Blk. IIA against an intercontinental ballistic missile target. Now, with expected U.S. defence budget cuts, there probably will be some delays in planned deliveries of the SM-3 Blk. IIA, which would impact the assumed mix of interceptors for ship and land-

based systems in Europe and Asia. The advanced capabilities of this version of the SM-3 Blk. might be another factor in the final decision to deploy them to Poland, however these interceptors might also be necessary and intended for missile defence of Guam, Hawaii, and the continental U.S.

Possible Changes in the Direction of the EPAA. The Biden administration might decide to conduct a new MDR that takes into account an updated intelligence estimate of Iran's missile arsenal threat (with or without the impact of the new North Korean technologies), as well as all other factors crucial for the future of European NATO and U.S. missile defence systems. Such a review might be conducted in the context of the possible return of the U.S. to the 2015 JCPOA nuclear deal, which—even if fully reinstated—will not eliminate all of Iran's nuclear and missile capabilities.

The Biden administration will analyse all the costs of EPAA Phase III and its finalisation impact on U.S. relations with Russia. Although issues related to missile defence were not visible during the presidential campaign, some experts connected to the Democratic Party presented a few ideas that might influence the future official position of the White House. For instance, the Biden administration might renew wider strategic dialogue with Russia on missile defence issues as [an element connected to both powers' strategic arsenals and stability](#). One result of this dialogue might be the suspension of SM-3 Blk. IIA deployment to Redzikowo but with de facto permanent readiness to quickly deploy them in case of a serious crisis with Iran. An alternative and financially more costly option for the U.S. might be the deployment of additional vessels with Aegis BMD and SM-3 Blk. IIA to the Mediterranean, but this option would reduce U.S. naval and missile assets necessary in Asia.

Implications for Poland. A comprehensive MDR by the Biden administration is rather likely. For NATO and Poland, the optimal and best result would be confirmation of the plan to implement full EPAA operational capabilities in 2022. This would secure European members of NATO in the worst-case scenario in which Iran builds a nuclear weapon and longer-range missile arsenal. Even if the U.S. fully re-joins the JCPOA, Iran still poses many risks, requiring adequate missile defence of Europe. If the Biden administration includes the Russian concerns in further U.S. missile defence and EPAA reviews, this will not compromise Polish-American security cooperation. In 2009–2014, the base in Redzikowo was widely seen as a pillar of bilateral relations between Poland and the U.S. In 2021, however, the situation will be different because Poland hosts growing U.S. land forces, considered crucial to Polish security interests, the deterrence of Russia, and defence of NATO's Eastern Flank. Nevertheless, from the point of view of its allies and in case of changes or corrections to the EPAA plans, prior bilateral and NATO consultations are desirable for a full understanding of the decisions and steps preferred by the new U.S. administration.