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**Research Report**

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# SWP Comment

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## Significant and Sound: US Medium-Range Missiles in Germany

Jonas Schneider and Torben Arnold

At the NATO summit in July 2024, the United States and Germany announced that, in 2026, the United States would be deploying ground-launched medium-range missiles in Germany that can reach targets in Russia's heartland. This deployment is a critical step because it gives NATO new capabilities in an area that has become more important as a result of Russia's missile war against Ukraine. Moscow has threatened to respond with military countermeasures. A close analysis reveals, however, that the associated risks for Germany are less severe than many assume. The plan even has the potential to contribute to future arms control agreements with Russia.

Russia is using ballistic and cruise missiles on a massive scale in its war against Ukraine. More important than this military capability, however, is the fact that Vladimir Putin has demonstrated politically that he is willing to accept high costs and risks in order to achieve goals by force. Many fear that a Russia "ready for anything" might underestimate the resolve of a potentially divided NATO and dare to launch a limited attack. To influence Putin's risk assessment and prevent this miscalculation, the Alliance is relying on additional – and in some cases new types of – standoff weapons that can accurately destroy targets deep behind the front lines and will be deployed on land for the first time in decades. Some European NATO countries are currently also planning to develop a ground-launched missile under the European Long Range Strike Approach (ELSA). Yet, NATO currently has no such

medium-range weapons, only air- and sea-launched variants.

The German-American plan envisages the deployment of three types of land-based US medium-range weapons in 2026. The first is the *Tomahawk* cruise missile, which can presumably fly up to 2,500 km. This would largely cover Russia's western military districts from Germany. Second, the *Standard Missile (SM) 6*, a ballistic missile, will be sent to Germany. The US Army uses its much-improved 1B variant, which has a range of more than 1,600 km. Third, the *Long-Range Hypersonic Weapon (LRHW)*, also called *Dark Eagle*, will be deployed. This hypersonic missile can probably fly more than 3,000 km. For comparison, the *Army Tactical Missile System (ATACMS)* is currently NATO's longest-range ground-based weapon and can fly more than 300 km.



## Better deterrence capability

The three missiles will be deployed in Germany as part of the US Army's 2nd Multi-Domain Task Force. Its core mission is to counter Russia's anti-access/area-denial (A2/AD) capabilities with new technologies and concepts: In the event of war, Moscow hopes to keep the bulk of NATO forces away from the combat zone along its border by using ballistic and cruise missile strikes to prevent the alliance's troops from deploying and resupplying, or by forcing NATO to back down with strikes against individual member states. The Alliance could not effectively defend itself against these Russian options with air and missile defence systems alone because Europe's territory is vast, and comprehensive protection against Russia's missile arsenal would be too expensive. Nevertheless, with its own medium-range precision weapons, NATO can thwart this Russian plan in two complementary ways.

Their first task is to target credibly ("hold at risk") and possibly destroy those Russian deep-strike capabilities designed to keep the Alliance at a distance — before they are launched towards NATO assets. If the Kremlin were to lose these systems because they have been destroyed or withdrawn, that would make it easier for NATO to roll back the attack. This should deter Russia from attacking NATO countries in the first place.

The second task of the medium-range weapons is to be able to destroy at least some time-critical high-value targets in Russia. These include mobile command centres and mobile launchers of ballistic and cruise missiles. This would signal to Russia that NATO, in the event of an attack against the Alliance, has the option to massively constrain Russia's ability to continue hostilities — a signal that is intended as a deterrent.

These two tasks cannot be optimally fulfilled by NATO's current air- and sea-launched short- and medium-range missiles. In the case of cruise missiles being launched from aircraft, the bombers must first be airborne, which consumes valuable time. This limits their effectiveness against high-value mobile targets. Available sea-based cruise

missiles either have too short a range or take too long to reach time-critical targets in the Russian heartland due to their relatively low speed. Today's land-based systems, such as ATACMS, are highly responsive: They do not need to be launched from airborne bombers, and they fly much faster than cruise missiles. But their range is too short to hit targets deep inside Russia.

The three ground-based medium-range weapons offer significant added value for conventional deterrence against Russia because they fulfil the two tasks better. Not only the LRHW, but also the Army's SM 6 version flies at more than five times the speed of sound, and both are capable of being manoeuvred as they approach their targets. This makes them highly effective against mobile targets and very difficult to intercept, even for modern missile defence systems. Flying at up to 17 times the speed of sound, the *Dark Eagle* is almost unstoppable. With this high penetration capability, both weapons are ideal for destroying high-value Russian targets that are particularly well protected. The extremely expensive *Dark Eagle* is probably intended for use against the most valuable targets; the SM 6 is a more affordable alternative.

The *Tomahawk* flies at subsonic speed, but at an extremely low altitude. This means it can often stay below enemy radar and evade air defences. As the cheapest of the three missiles, the *Tomahawk* is an efficient solution for less well-protected and less-mobile targets. The fact that the three weapons have completely different trajectories makes defensive efforts against them more difficult.

Other advantages over air- and sea-based standoff weapons are the low cost and mobility of ground-based systems. They are launched from road-mobile vehicles that can be quickly redeployed by C-17A transport aircraft. This mobility makes the army's medium-range missile systems less vulnerable than slow-moving ships or aircraft on the ground.

## No significant additional risks

The announced deployment of ground-launched US medium-range precision weapons in Germany raises the question of Russia's reaction — and what risks Moscow's behaviour would in turn pose to Germany.

Opponents of the deployment plan argue that the US weapons would become targets for Moscow's missiles, thereby exposing Germany to an increased threat. This narrative must be countered: Although the Kremlin is likely to consider future medium-range US weapons legitimate targets, Putin sees Berlin as an adversary anyway. As a NATO logistics hub with many US bases, Germany is already a priority target for precision strikes if Moscow wants to keep NATO at a distance in the event of war. New US missiles deployed there will not significantly exacerbate this situation.

Another concern is that the deployment of US weapons will force Russia to produce even more missiles and station them in Europe. The result would be an "arms race". Indeed, the Russian government announced vague military countermeasures during the NATO summit. In June, Putin had already declared that Russia would probably have to produce and, if necessary, deploy more Russian short- and medium-range weapons in response to the short-term deployment of *Tomahawk* and SM 6 missiles for US Army exercises in Denmark and the Philippines. However, Russia's production of standoff weaponry can hardly be increased any further, at least in the short term. Putin would probably like to launch new missile programmes in response, if only for prestige reasons. Nevertheless, due to Russia's current arms build-up and the sanctions imposed upon the country, Russia's defence industrial sector is already reaching its limits. Production capacity, skilled labour and financial resources are limited. For this reason, even Russian and US experts who share concerns about an arms race have serious doubts that the Kremlin could launch a missile arms race with new programmes in the short or medium term.

Critics also complain that Germany is being "singularised", as it is the only country where the new ground-launched missiles will be deployed. When NATO implemented its "dual track" decision in the 1980s, Bonn had insisted that the ground-launched medium-range missiles had to be deployed in several NATO countries. This concern was due to the fact that the Bonn Republic was particularly vulnerable, as the Soviet Union could have provoked a new Berlin crisis, for example, or found other means of exerting pressure in connection with the division of Germany. This unique German situation ceased to exist in 1990.

Another risk being discussed, particularly in relation to the LRHW, is a potential erosion of crisis stability — that is, premature military escalation by Russia due to fear of a decisive surprise attack by NATO. The LRHW can reach the Russian heartland in just a few minutes, and its manoeuvrability creates ambiguity for Moscow as to whether the attack might be aimed at Russia's nuclear retaliatory forces. This situation might incentivise the Kremlin to use its own nuclear arsenal at an early stage in a crisis before NATO missiles destroy it ("use 'em or lose 'em"). Furthermore, Moscow would not know whether approaching LRHW are conventional or nuclear-tipped, and could therefore overreact by firing nuclear missiles, the argument goes.

But this "warhead ambiguity" problem is in-existent. The three ground-launched US standoff weapons only exist as conventionally armed versions. The United States has not had *dual-capable* missiles in its inventory since 2011.

Uncertainty about the target and the short flight time actually increase the pressure on the Kremlin. However, the resulting risks of escalation are often overestimated. "Use 'em or lose 'em" scenarios, in which Russia launches a nuclear war against the United States to prevent its missiles from being destroyed on the ground, raise questions. Why should Moscow, out of fear of a *possible* US attack, start a nuclear war in which US nuclear retaliation is *guaranteed*? Russia's fears of US attacks have been expressed



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many times, but they have led both sides to more caution rather than rapid escalation.

Moscow's worries that NATO could potentially use *Dark Eagle* to carry out disarming precision strikes — thereby largely destroying Russia's land-based nuclear second-strike forces or eliminating its political leadership centres in one fell swoop — are greatly exaggerated. The number of US systems to be deployed in Germany is far too small for that: Only four launch vehicles are planned for the LRHW, each capable of firing two missiles. The launchers are reloadable, but the (secret) total number of these highly expensive missiles should be relatively small.

The most likely response to the US-German plan is for Moscow to step up its propaganda and disinformation efforts to thwart the actual deployment in 2026 and sow doubts about NATO's intentions. Influence operations controlled or supported by Russia's intelligence services have recently increased significantly. To be sure, not every criticism voiced in Germany about the deployment of US medium-range weapons is Russian propaganda. However, Moscow is already spreading the false narrative that NATO is fomenting a confrontation with Russia to preserve its influence at the expense of the security of the people of Europe.

Overall, the risk for Germany is moderate. And this must be weighed against the real risk of inaction: What conclusions will Putin draw if NATO does not signal to him that further escalation by Russia against NATO would be met by a strongly resolved Alliance with new, even more effective standoff weapons at its disposal? Berlin should counter Kremlin propaganda by emphasising that the deployment is a response to Russia, not an end in itself. An arms control proposal could help to underline this argument.

## Potential for arms control

The Kremlin claims that NATO is only deploying medium-range weapons in order to preserve its role in Europe. The Alliance could effectively counter this propaganda by offering to refrain from deployment if Russia also renounces ground-launched medium-range systems in Europe, or if their numbers are capped at a low level on both sides. This would be an INF Treaty *light*. As deployment will not take place until 2026 in any case, there would be a window of opportunity to reach an agreement.

Such arms control proposals would aim to ameliorate, or ideally eliminate, the current imbalance in ground-launched medium-range weapons, which strongly favours Russia: Moscow has had the SSC-8 cruise missile (number in the high double-digits) at its disposal, which killed the INF Treaty in 2019, as well as Iran's *Zolfaghar* ballistic missile (around 400 units) and North Korea's *KN-23* (around 50 units). Since 2024, Russia has also been firing the sea-launched *Zirkon* hypersonic cruise missiles (number in the high tens) from land. Moreover, Moscow should still have well over 100 of the ballistic version of the *Iskander SS-26* (experts consider the *SS-26* to be a medium-range weapon), despite its extensive use against Ukraine. The result: Russia has well over 500 ground-launched medium-range missiles, whereas NATO has none.

But would it make sense to scrap the hard-won US deployments (and the expensive development work within ELSA) for an arms control agreement in 2026? It would, because if Moscow were to lose most of its A2/AD capacity as a result of the agreement, Europe would also need fewer standoff weapons to counter it. NATO Europe would have an advantage with the remaining sea- and air-based standoff weapons. Finally, the United States would then also have more ground-launched medium-range weapons available for East Asia, where the numerical imbalance — in China's favour — is even greater.

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