

U.S. Deploys Cruise Missile Submarine to Strengthen Deterrence Against Iran

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Brief Analysis

Amid rising tensions with Tehran and its proxies, the United States is sending a message by openly deploying one of its few guided missile submarines to the region.

Typically, U.S. submarine deployments are not announced in advance, especially when the vessels are entering a potentially hot zone of operation that may require them to rely on stealth, their main operational advantage. Yet conventionally armed guided missile submarines are an exception—their presence is occasionally made known as a show of deterrence. This seemed to be the main purpose when U.S. Naval Forces Central Command announced on April 8 that the USS *Florida* (SSGN-728) had been deployed to the Middle East “to help ensure regional maritime security and stability.” The *Florida* is one of only four guided missile/special forces submarines in U.S. Navy service—vessels that are usually tasked with top-priority clandestine missions.

Increased U.S.-Iran-Israel Clashes

On March 23, a U.S.-manned forward base near Hasaka, Syria, was attacked by an explosive drone launched by Iraqi Shia militias affiliated with Iran’s Islamic Revolutionary Guard Corps (IRGC). Among other casualties, an American contractor was killed in the attack—an outcome that crossed Washington’s red lines and triggered multiple U.S. airstrikes inside Syria. Yet those strikes were only partially successful in deterring Iran and its proxies—a salvo of rockets was soon fired at another U.S. compound in Syria, raising concerns about further escalation.

These clashes coincided with a series of Israeli standoff precision airstrikes against IRGC and Hezbollah targets in Syria beginning on March 30. The resultant deaths of two IRGC officers

<https://www.washingtoninstitute.org/policy-analysis/iran-israel-clashes-syria-could-spill-gulf>) and other operatives prompted Tehran to issue promises of revenge. On April 2, a drone of reportedly Iranian origin tried to penetrate northern Israel from Syria but was shot down. The next day, Israel downed a Hamas Shahab drone as it tried to enter from the Gaza Strip.

Meanwhile, rising tensions in the West Bank led to multiple rocket strikes against Israel, some launched by [Palestinian factions in south Lebanon \(https://www.washingtoninstitute.org/policy-analysis/lebanese-social-media-reactions-rocket-strikes-israel\)](https://www.washingtoninstitute.org/policy-analysis/lebanese-social-media-reactions-rocket-strikes-israel) and others from Gaza and Syria. In response, Israel conducted bombing raids targeting the launch sites. The risk of escalation is significant given [ongoing tensions \(https://www.washingtoninstitute.org/policy-analysis/regional-reactions-israels-protests\)](https://www.washingtoninstitute.org/policy-analysis/regional-reactions-israels-protests) at the Temple Mount/al-Haram al-Sharif and Iran's declared "Qods (Jerusalem) Day," which falls today, the last Friday of Ramadan. In this environment, the United States and its partners can benefit from the USS *Florida*'s deterrent effect and robust intelligence collection capabilities—and, if necessary, from its additional firepower.

Signaling with Submarines

According to [media reports \(https://www.nytimes.com/2023/04/08/world/middleeast/us-submarine-middle-east-iran.html\)](https://www.nytimes.com/2023/04/08/world/middleeast/us-submarine-middle-east-iran.html) quoting U.S. defense officials, suspicious Iranian drone activities in the Gulf of Aden, Arabian Sea, and Red Sea spurred the U.S. Navy and United Kingdom Maritime Trade Operations (UKMTO) to issue warnings of potential shipping attacks on April 5-6. The warnings were especially geared toward Israeli cargo ships and tankers, which were reportedly asked to navigate away from Iranian waters with their transponders turned off. Since February 2021, the IRGC has attacked Israeli-linked commercial vessels in the Gulf of Oman or Arabian Sea at least seven times, using suicide drones and/or limpet mines to damage the ships and, in one case, kill crewmembers.

It has been a while since the U.S. Navy acknowledged the deployment of a submarine to the region. On December 21, 2020, the USS *Georgia*—another SSGN, the designation used for nuclear-powered guided missile submarines—[transited \(https://www.washingtoninstitute.org/policy-analysis/submarine-movements-irans-doorstep-military-and-legal-implications\)](https://www.washingtoninstitute.org/policy-analysis/submarine-movements-irans-doorstep-military-and-legal-implications) the Strait of Hormuz while surfacing alongside two U.S. missile cruisers. That deployment came during another period of high tensions marked by two developments: the imminent first anniversary of the U.S. strike that killed IRGC Qods Force commander Qasem Soleimani, and the November assassination of top Iranian nuclear official Mohsen Fakhrizadeh, allegedly by Israel. At the time, the Nimitz Carrier Strike Group was also deployed to the northern Arabian Sea to support troop withdrawals from Iraq and Afghanistan.

Another high-profile deployment came on October 19, 2022, when U.S. Central Command chief Gen. Michael Kurilla was given a tour of the ballistic missile submarine USS *West Virginia* in the Arabian Sea. These vessels are considered key tools of strategic deterrence and part of the U.S. nuclear triad, and they do not often patrol in the Middle East. The move was interpreted as a message to Russian president Vladimir Putin (who had recently threatened to use nuclear weapons in Ukraine) and Iran (which had been [supplying Moscow with suicide drones \(https://www.washingtoninstitute.org/policy-analysis/after-ukraine-russias-potential-military-and-nuclear-compensation-iran\)](https://www.washingtoninstitute.org/policy-analysis/after-ukraine-russias-potential-military-and-nuclear-compensation-iran) for use in Ukraine, and possibly short-range ballistic missiles as well).

How Could an SSGN Be Used Against Iran?

The Navy's four converted *Ohio*-class SSGNs are usually tasked with highly secretive intelligence gathering and conventional strike missions. They are armed with up to 154 vertically launched precision-guided TLAM-E Tomahawk cruise missiles (UGM-109E Block IV) with a range of up to 1,600 km and a 454 kg warhead. This version of the Tomahawk is capable of loitering in flight and has a two-way satellite datalink that can receive updated mission data for retargeting, course corrections, and damage assessment. This ability is especially useful for targeting air defense systems and mobile ballistic missile launchers.

The 1,600 km range could enable an SSGN submerged at a safe distance in the Arabian Sea to clandestinely launch cruise missiles at targets deep inside Iran, using any ingress point along its 784 km coastline with the Gulf of Oman and most of its 1,600 km land borders with Pakistan and Afghanistan. This puts all of the regime's military sites, military industrial facilities, and other targets in the south and east within striking range, as well as some of its main nuclear sites. Although the TLAM-E does not have significant hard-target penetration capabilities, its multi-effect programmable warhead still allows for some degree of "bunker busting," especially when several missiles hit a single point sequentially.

With a vessel like the USS *Florida* in theater, Iran's monitoring capabilities and cruise missile defenses along these vast and remote borders could be stretched quite thin (for a more detailed discussion of the regime's air defense, including graphics, [see PolicyWatch 3626 \(https://www.washingtoninstitute.org/policy-analysis/dont-look-down-struggle-over-lebanons-airspace\)](https://www.washingtoninstitute.org/policy-analysis/dont-look-down-struggle-over-lebanons-airspace)). In January 2021, false reports of penetration by American cruise missiles from several directions reportedly caused confusion within Iran's military command following its strike against al-Asad Air Base in Iraq—so much so that an IRGC TOR-M1 short-range air defense system shot down a Ukrainian civilian airliner near Tehran.

Converted *Ohio*-class submarines are also equipped with a thirty-ton dry deck shelter. This gives them the ability to deliver and recover SEAL commando teams on clandestine missions using submersibles or small boats.

These capabilities, coupled with robust intelligence gathering and task force command-level secure communications, give SSGNs carrier-like abilities when a carrier is not available. SSGNs also offer logistical advantages compared to a carrier strike group, such as quicker deployment and concealment of their whereabouts—though as noted above, the Pentagon will sometimes publicize a submarine deployment to achieve the same deterrent effects as a carrier presence.

In the current case, the *Florida* was apparently forward-deployed to the Middle East because the Russia-focused mission of the *George H. W. Bush* Carrier Strike Group in the East Mediterranean has been extended. Although the carrier group can still project airpower into Syria from the Mediterranean, cruise missiles launched by the *Florida* would offer a much better alternative against potential targets in both Iran and eastern/southern Syria, which could be struck from standoff range in the Arabian Sea or Gulf of Oman. Low-flying Tomahawks are difficult to detect and counter, especially if launched from submerged SSGNs.

Interestingly, Tehran is eyeing a stealthy submarine launch capability of its own. Since at least 2019, the Iranian national navy has been developing and testing a canister-based system for launching Nasr antiship missiles from submarine torpedo tubes; these missiles now have a reported range of around 100 km. Iranian submarines still lack slant or vertical launch systems for long-range cruise missiles, but the regime is likely working on this capability.

Conclusion

Despite [making overtures \(https://www.washingtoninstitute.org/policy-analysis/what-beijings-iran-saudi-deal-means-and-what-it-doesnt\)](https://www.washingtoninstitute.org/policy-analysis/what-beijings-iran-saudi-deal-means-and-what-it-doesnt) to American partners in the Gulf, Iran is still committed to pushing the United States out of the region and posing a clear and present danger to its forces in Syria and elsewhere. It has also been developing "anti-carrier" capabilities in the form of antiship homing ballistic missiles with a claimed range of up to 2,000 km.

In this environment, the U.S. Navy's flexible and stealthy guided missile submarines are an excellent alternative to carrier deployments when needed, providing a way to enhance deterrence against Tehran and its proxies by maintaining a persistent clandestine presence—and delivering occasional public reminders of U.S. firepower. Notably, all four SSGNs are slated for retirement between 2026 and 2028, with no replacement in sight. Until then, however, the prospect of 154 Tomahawks causing massive damage inside Iran could send a powerful message, since

the regime is obviously much more sensitive to potential strikes on its home territory versus far away in Syria.

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