

How the B-2 Can Help Reinforce U.S. Messaging to Iran

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Brief Analysis

Amid serious escalation in the Middle East, the United States should more clearly frame its recent deployment of B-2 and B-52 bombers to the region as a warning to Iran—and reinforce this with more posturing, messaging, and accelerated deployment of deep penetrators.

Late in the evening on October 16, two U.S. Air Force B-2 Spirit strategic stealth bombers flew from the United States for over thirty hours to strike five hardened underground Houthi sites in Yemen. Used for missile and drone storage and assembly, the sites were located in the Sanaa and Saada areas of the Houthi-controlled western part of the country. In those tunnels and caves, the Houthis prepared weapons to launch against international shipping traffic in the Red Sea and Bab al-Mandab Strait. Yet the Yemen strike was only one part of a complex regional picture.

Amid ongoing fighting against Iran-backed terrorist groups in Gaza and Lebanon, officials had been bracing for further direct military exchanges after Tehran launched a major salvo of ballistic missiles against Israel on October 1. Israel eventually responded on October 26 by hitting numerous air defense and military sites in Iran, spurring Tehran to threaten another retaliatory attack. This threat was taken seriously enough that on November 1, the Pentagon [announced \(https://www.defense.gov/News/Releases/Release/article/3954442/statement-from-pentagon-press-secretary-maj-gen-pat-ryder-on-middle-east-force/\)](https://www.defense.gov/News/Releases/Release/article/3954442/statement-from-pentagon-press-secretary-maj-gen-pat-ryder-on-middle-east-force/) the deployment of up to six cruise-missile-

armed B-52 bombers and several squadrons of tactical fighters and missile defense destroyers to various locations in the region just as the carrier USS *Abraham Lincoln* was preparing to depart. These moves were designed in part to warn Tehran against responding to Israel's military actions.

In a [statement \(https://www.defense.gov/News/Releases/Release/Article/3937640/statement-by-secretary-of-defense-loyd-j-austin-iii-on-us-airstrikes-in-houthi/\)](https://www.defense.gov/News/Releases/Release/Article/3937640/statement-by-secretary-of-defense-loyd-j-austin-iii-on-us-airstrikes-in-houthi/) issued by the Pentagon on October 16, Defense Secretary Lloyd Austin had called the B-2 strike “a unique demonstration of the United States’ ability to target facilities that our adversaries seek to keep out of reach, no matter how deeply buried underground, hardened, or fortified. The employment of U.S. Air Force B-2 Spirit long-range stealth bombers demonstrate U.S. global strike capabilities to take action against these targets when necessary, anytime, anywhere.” This was a clear message meant to deter Iran—which holds a significant part of its nuclear and missile programs in deeply buried and heavily fortified structures—from further escalating the already volatile situation in the Middle East. In the future, a more visible demonstration, probably closer to Iranian airspace or some other well-defended location, might be required.

In the meantime, the United States has completed deployment of a Terminal High-Altitude Area Defense (THAAD) battery to Israel—the first such deployment

—to help defend against any future Iranian ballistic missile attacks. Washington has also diverted other significant military assets over the past year from the Indo-Pacific and Eastern European theaters to the Middle East.

The Particular Importance of Deploying the B-2 in Yemen

The strategic importance of a precision strike on Yemen using a pair of \$2.2 billion U.S. national assets demonstrates Washington's strong commitment to combating threats to international security. The B-2 also has a number of specific attributes that underpin the importance of deploying it in Yemen. Advanced design in stealth and survivability makes the B-2 difficult, if not impossible, to target and destroy, allowing the bomber to penetrate heavily defended airspace and deliver precision strikes on hardened targets. The precision-guided weapons a B-2 can carry for this type of mission are:

- two 13.6-ton GBU-57A/B Massive Ordnance Penetrators (MOPs), capable of penetrating 60 feet of reinforced concrete or 200 feet of earth;
- two GBU-28/B or GBU-37/B 2.2-ton bombs, capable of penetrating over 20 feet of reinforced concrete or 100 feet of earth; or
- up to sixteen 907 kg GBU-31 bombs, each capable of penetrating over 6 feet of reinforced concrete.

The bombers used in the Yemen mission [reportedly \(https://www.airandspaceforces.com/b-2-stealth-bombers-strike-houthis-targets-yemen/\)](https://www.airandspaceforces.com/b-2-stealth-bombers-strike-houthis-targets-yemen/) employed GBU-31 penetrator bombs only, which should have been a suitable weapon considering the not-so-hardened nature of the limestone and sandstone caves around Sanaa and Saada that the Houthis use to store weapons. Also, only around twenty MOPs are reported to be in service, making them very precious assets in the B-2 inventory.

No other nation in the world has a direct equivalent to the B-2's combination of stealth, range, and payload capacity. Additionally, no nation comes close in supporting such an asset logistically over such great distances. The aircraft involved in the Yemen strike apparently originated from Whiteman Air Force Base in Missouri. The unrefueled range of the B-2 is approximately 11,000 kilometers, and depending on the route, Yemen would be about a 14,000-kilometer trip each way. Multiple air refueling events were required for the flight to reach its destination and return home. Also, while Yemeni airspace is not heavily defended, the use of B-2s still required some level of secrecy to

protect operational procedures.

Policy Recommendations

On October 16, the United States demonstrated the capability to deliver precise and devastating strikes on critical hardened targets. The B-2's stealth technology, combined with its global reach and conventional or nuclear payload, once again showcased the U.S. commitment to maintaining dominance in modern warfare and readiness to neutralize threats decisively.

More important than the damage done to enemy facilities, however, is Washington's style of messaging about its capabilities in such cases. A crucial part of the October 16 message to Iranian leaders was that the B-2 can be used to reach anywhere in their country, even in highly contested airspace, and deliver its very heavy and effective bunker-busting payload. This message was reinforced by Israel's successful October 26 operation, in which air-launched missile strikes across Iran exposed the vulnerability of the country's substantial "integrated air defense network."

Going forward, U.S. messaging needs to be reinforced in several ways. First, information operations should provide clear, consistent messages highlighting the risks to the Iranian regime. For example, regular Pentagon briefings highlighting the effectiveness of kinetic weapons and their delivery methods have been lacking in recent years and need to be reintroduced. Officials should also emphasize the MOP's effectiveness—as well as U.S. plans to field future standoff weapons with penetrator warheads to replace it.

Second, Washington needs to leverage multiple indirect channels—such as defense attache briefings and private messages to regional and European partners—to make sure Tehran understands that the United States will not hesitate to defend its people and allies. Such briefings would emphasize Washington's resolve and willingness to employ premier capabilities to maintain its advantage.

Third, the Defense Department and U.S. Air Forces Central (AFCENT) should consider including B-2 bombers in Middle East bomber task force (BTF) missions, which so far have included only non-stealthy B-52 and B-1 bombers. B-2s can participate in military exercises involving U.S. allies in the region. The more frequent presence of the most prized U.S. strategic stealth bombers in U.S. Central Command's area of responsibility would help reassure allies while reaffirming the "when necessary, anytime, anywhere" message closer to adversaries' home territory.

Moreover, once the new B-21 Raider enters operational service in the coming years, the Pentagon should consider forward deploying a detachment of B-2s and eventually B-21s to Diego Garcia (similar to a 2020 deployment) for frequent BTF missions within striking distance of Iran. The regime in Tehran should understand U.S. **offensive capabilities (<https://www.washingtoninstitute.org/policy-analysis/only-credible-offensive-threat-can-deter-iran-climbing-escalation-ladder>)** and Washington's willingness to use them if necessary.

Finally, a speedier introduction into service of the successor to the GBU-57—which is said to be smaller than MOPs yet more capable of penetrating hardened facilities—would add another layer to U.S. deterrence against Iran. Even rushing a supplemental order for MOPs through Congress would send Tehran a message. Iranian leaders would not fail to notice such mass production and the availability of a new generation of low-cost standoff penetrators based on new, leaner industrial models.

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