



Imagery Update: New Construction at Golab Dareh November 2024

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Recent high resolution satellite imagery acquired by the Institute shows new construction at Golab Dareh, a former nuclear weapons development site used by Iran during the Amad Plan nuclear weapons project in the early 2000s. An earlier Institute report from early September 2024 discussed reactivated and accelerated activities at this site and another important Amad Plan site, Sanjarian.¹ While renewed activity could be visually detected at Sanjarian, the earlier study could not find visual evidence of activity at Golab Dareh. This new imagery adds visual credence to the assertion by our sources about renewed activity there.

The construction visible in newer commercial satellite imagery consists of new security upgrades in the form of trench excavations, possibly for the laying of cabling stretching from a security checkpoint into two explosive storage bunkers and Golab Dareh's explosive fire control bunker (see Figure 1). If indeed for the purpose of cable installation, such cabling would likely be used for security purposes, such as alarms or surveillance cameras. The excavations likely began in late September or early October and extended throughout the month (see Figure 2). Figure 3 shows a zoomed in, detailed image of the site and its construction.

While satellite imagery has not shown the presence of vehicles or personnel inside the Golab Dareh complex, this new activity indicates that the site, and its security, remains important. Moreover, it shows that the site has not been abandoned, which is also consistent with the recent reporting of renewed operations.

Renewed activity has raised concerns that the sites could be bridging technical gaps in Iran's nuclear weapons program. The September report described that the activities at both sites were allegedly being conducted by experts who had participated in Amad's weaponization work and are now at the Organization of Defensive Innovation and Research (aka SPND). SPND, which evolved from the Amad Plan and still holds many of Amad's personnel and material assets, is widely viewed as the locus of Iranian work on nuclear weaponization.

¹ David Albright, Spencer Faragasso, and the Good ISIS Team, "Renewed Activity at the Sanjarian and Golab Dareh Amad Sites," *Institute for Science and International Security*, September 12, 2024, <https://isis-online.org/isis-reports/detail/renewed-activity-at-the-sanjarian-and-golab-dareh-amad-sites>.

Golab Dareh is situated within the southern part of the Parchin military complex. During the Amad Plan, this site was engaged in activities related to the development of a multi-point initiation system for a nuclear explosive and equation of state experiments. The former Amad personnel allegedly working at these two sites (Golab Dareh and Sanjarian) appear to have freedom of action within SPND, so their activity cannot be construed as representing a regime decision to build nuclear weapons, but it can be seen as possibly better preparing for building nuclear weapons, if the order to do so is received.



Figure 1. An October 27, 2024, satellite image of Golab Dareh. The trench work and installed cable are visible running from the security booth towards the site.

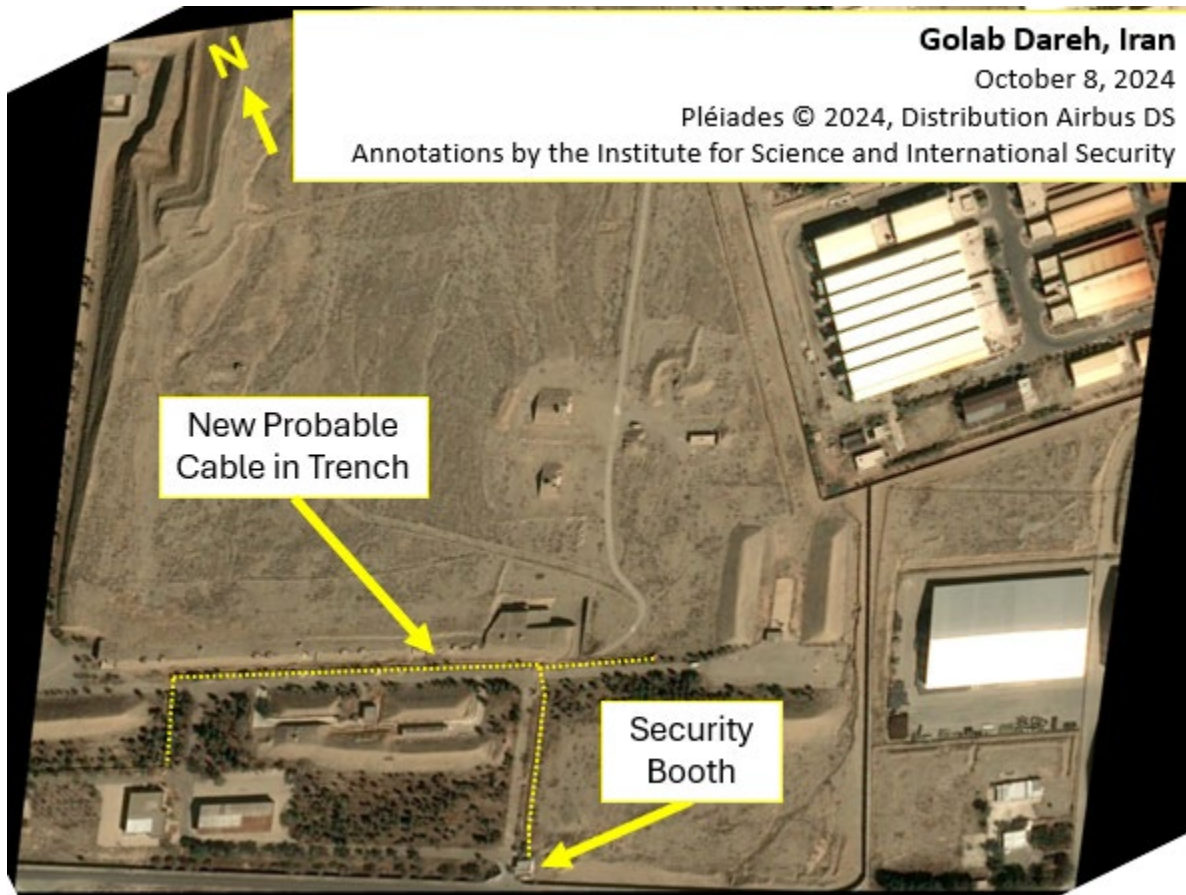


Figure 2. An October 8, 2024, satellite image shows the trench work and cabling under construction. Here the construction can be seen coming from the Southern security booth, but not yet into the complex.

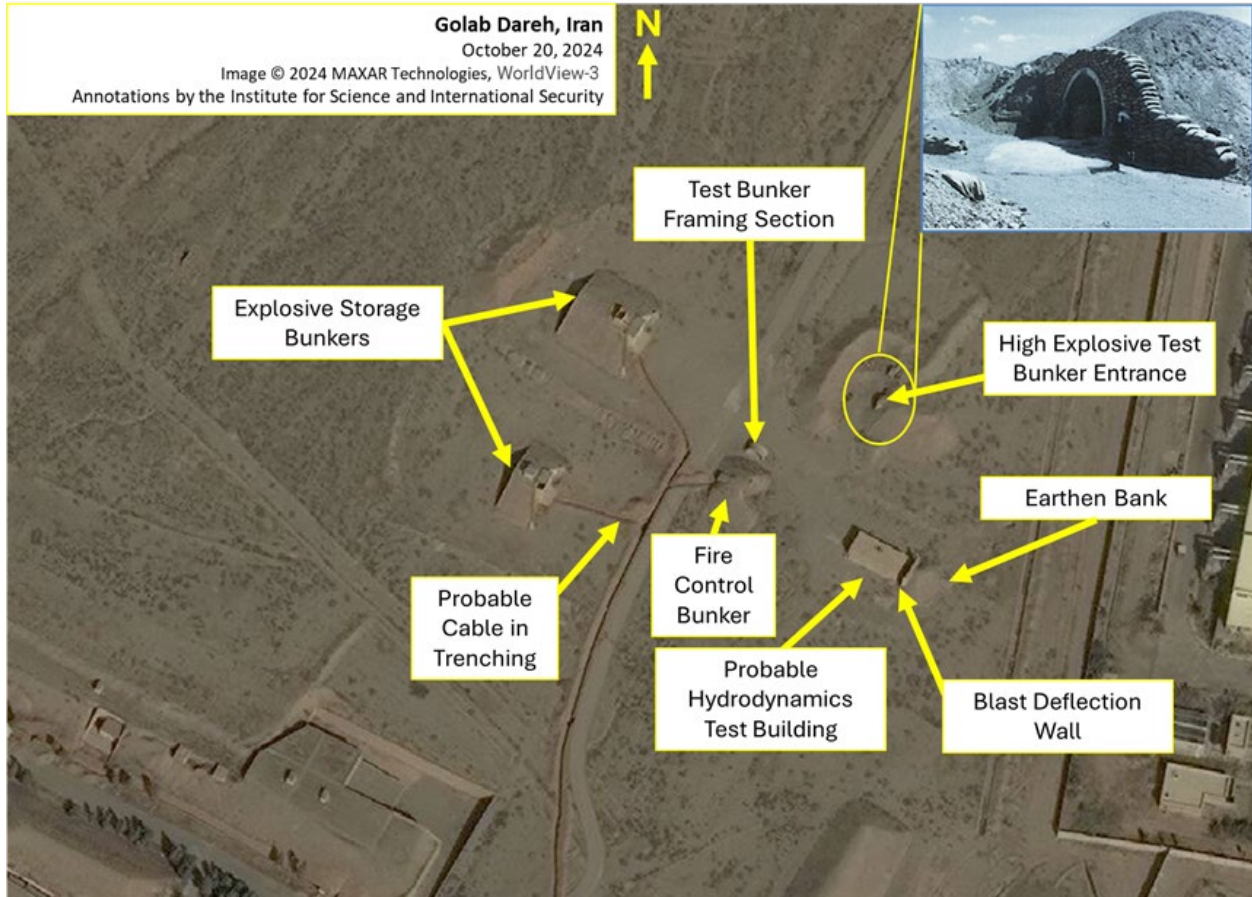


Figure 3. An October 20, 2024, up-close image of the Golab Dareh site, showing the bunkers and buildings in detail.