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New Silo Type Built at 1st Test and Training District in Jilantai

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The People's Liberation Army Rocket Force (PLARF) has constructed an unknown type of fixed launch system at the 1st Test and Training District in Jilantai that appears capable of launching multiple missiles. Although satellite imagery is not conclusive, this launch system may employ a multi-cell vertical launch system. It appears to have a shorter depth than silos intended for intercontinental ballistic missiles (ICBMs), suggesting that it may support short-range ballistic missiles (SRBMs), medium-range ballistic missiles (MRBMs), and cruise missiles. The current PLARF missile inventory of those systems is almost entirely conventionally armed, suggesting an intent to field a conventional quick-strike capability for a counter-intervention mission set, or possibly to conduct strikes against Taiwan, both of which would provide the PLA with additional capabilities to influence U.S. strategic decision-making.

The capability to rapidly launch fires against multiple targets on Taiwan or against U.S. and allied targets could be used during peacetime to deter U.S. troop deployments within the First Island Chain or deepening military cooperation with Taiwan, or it could be used to compel the United States from intervening in a Taiwan crisis. Construction of these silo types at Jilantai suggests the PLARF is intent on refining its technical ability to utilize these systems and the tactics, techniques, and procedures for operating them, in order for their eventual adoption by PLARF combat units.

Facility Layout

The two new fixed launching systems built at Jilantai are located at 39.463405, 105.024422. Construction began sometime in late 2022, and, at least externally, appeared to be near completion by late 2023. Image 1 from September 2022 shows the initial excavations for the launch complex. Image 2 from December 2022 shows ongoing construction of the facility,

with the launch systems largely complete, but without their covers in place. Image 3 from January 2026 shows a launch system externally completed with its closure door installed.

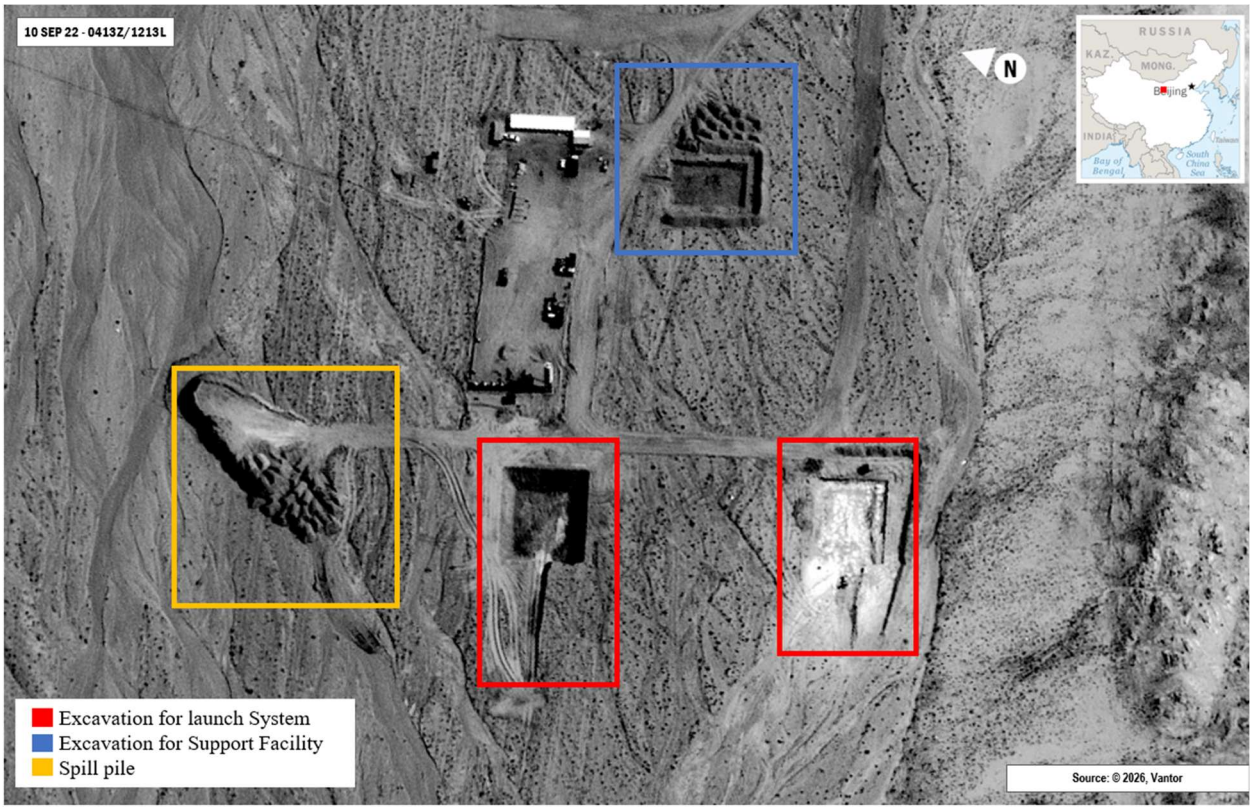

Image 1: Excavation at launch site in September 2022.

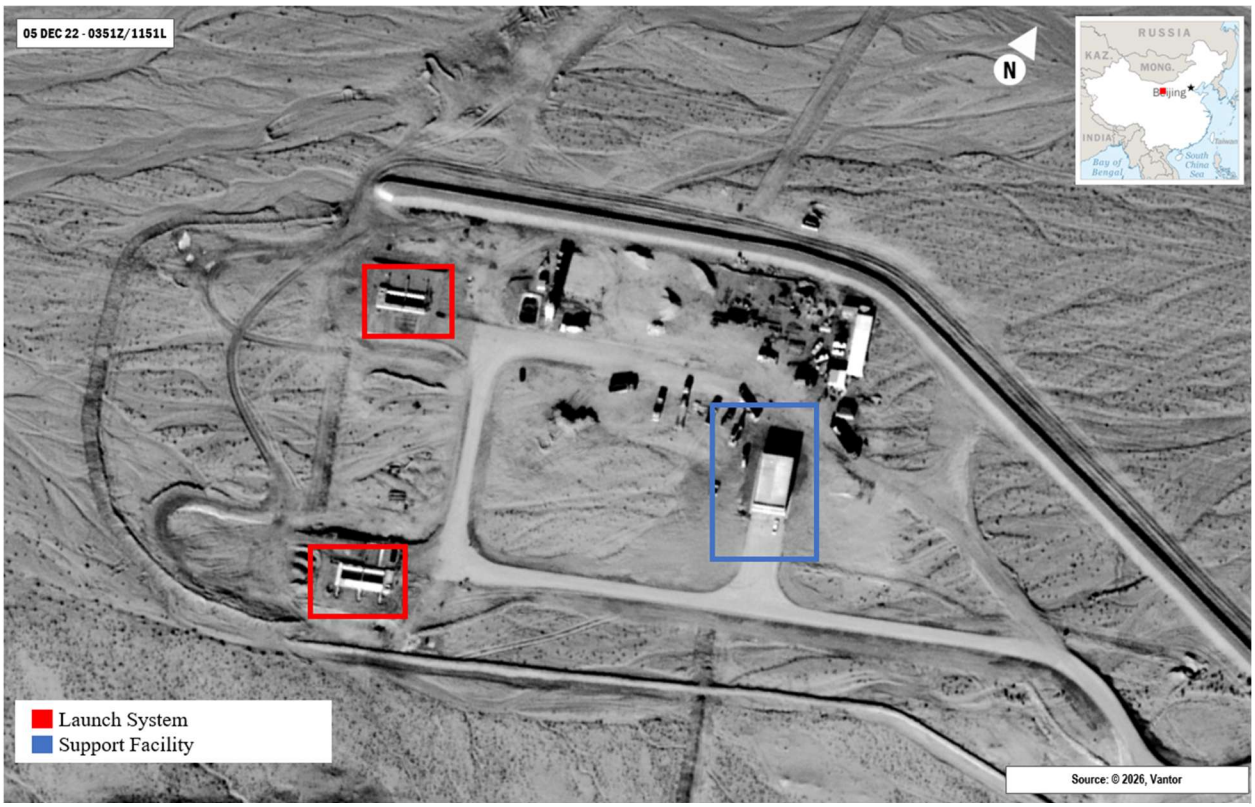

Image 2: Construction of launch site in December 2022, launchers do not have closure doors installed.

Image 3: Launcher in January 2026 with closure door installed.

Imagery Analysis

Imagery of these sites during excavation and construction suggests these structures are significantly smaller than ICBM silos. The excavation for the northern launcher, depicted in Image 1, measures roughly 12.5 meters deep when the image was captured. While it is possible that this foundation was dug deeper, it is not likely that it would have been significantly deeper, given the potential size of the finished interior of the launch system. The limited imagery available of the finished structure prior to the installation of the launcher closure door restricts more accurate measurement, but this structure appears to be somewhere between 6.4 meters and 11.8 meters in depth. Assuming the actual depth of the launch system is closer to the maximum range, these measurements suggest that these structures would likely be able to support up to an MRBM-class missile, assuming the roughly 10-meter length of a DF-21 or 11-meter length of a DF-17.[1] It is also highly likely that this launch structure could easily accommodate SRBMs and cruise missiles. Given these restrictions and current PLARF inventory, it is likely that this launch system is intended to support conventionally armed missiles, not nuclear weapons.

Possible Employment Options

The configuration of the launch system suggests two possible employment options: conventional ballistic missile operations or ballistic missile defense. Although ballistic missile defense is likely gaining increased importance within the PLA as the U.S. modernizes its long-range strike capabilities, several factors point away from this mission. Within the PLA, the PLA Air Force (PLAAF) serves as the primary service responsible for air defense. It maintains the bulk of the strategic surface-to-air missile systems responsible for cruise and ballistic missile defense, while other services, like the PLARF, maintain their own shorter-range capabilities for point defense. For example, the systems that the PLARF appears to operate at its warhead storage facilities were all initially developed for and tested by the PLA Air Force or PLA Army and in 2023, the PLA Navy transferred its surface-to-air missile units and radar units to the PLAAF in order to consolidate almost all components of the PLA's integrated air defenses under one service. As a result, it is likely that the PLAAF would likely be responsible for the development and employment of a ballistic missile defense system and that such a system would be undergoing testing and evaluation at a PLAAF facility rather than at a PLARF facility.

In addition, the PLARF's 1st Training District in Jilantai is intended for PLARF missile brigades to conduct training exercises and launches for nuclear and conventional missile systems and has yet to be reported as hosting PLARF training for air or missile defense activities. The PLARF's current air and missile defense systems and facilities, including its new ICBM fields and central warhead storage areas, indicate a focus on deploying mobile systems rather than fixed ones.[2] If the ICBM fields were being built with the intent to support fixed missile defenses, there would likely already have been indicators that the launch systems at Jilantai were being constructed there in preparation for their operational fielding.

Moreover, other fixed missile defense systems around the world, such as Aegis Ashore or the systems employed by the Taiwanese military, utilize fixed and in some cases co-located engagement radars, which is absent from this site. Despite this, the launch system could be employed without a radar on premises at the launch complex, like the ground-based mid-course interceptors employed by the US military. However, the only confirmed mid-course interceptor system in PLA service, the HQ-29, employs what appears to be a roughly 12.5-meter-long interceptor, which would likely not fit within the completed launch system.[3]

As a result, these launch systems more likely support conventional missiles launched via a vertical launch system or by erecting horizontal missile canisters housed within the launch system. While there may be space within this launch structure to store a small number of missiles horizontally that are

erected vertically prior to launch, a more efficient configuration appears to be a vertical launch system. A vertical launch system would enable the massing of fires for effect, reduce signatures, and maintain the flexibility to employ a variety of different munitions from a single launcher simultaneously, enabling these units to conduct rapid strikes against numerous target types.

A conventional quick strike capability, like that provided by a vertical launch system, could make PLA leadership more confident in their ability to compel Taiwan and U.S. behaviors during a crisis by threatening or conducting rapid preparatory strikes or counterintervention fires in the early stages of a conflict. Building out these launch systems in sufficient quantities could allow the PLA to rapidly escalate from a quarantine or blockade of Taiwan to conducting elements of a massive preparatory fires campaign against targets on Taiwan, U.S. bases in the first island chain, or U.S. Navy task groups if positioned along the coast.

Fixed launching options, however, are difficult to conceal, protect with active defenses and—depending on their location—potentially of limited utility for continued use after their first launch. Expansive investment in this type of system may provide significant "use or lose" incentives to the PLA leadership in the event of an escalating crisis. It is currently unclear how many of these systems the PLARF intends to construct, which PLARF Base they will be deployed under, and the specific mission set they are intended to support. Continued monitoring of the PLARF's organizational expansion and construction of these launch systems will help inform understanding of the purpose of these launch systems, their priority mission sets, and potentially better analysis of the impact of a use or loose dynamic for this new capability on PLA escalation calculus.

Opinions, conclusions, and recommendations expressed or implied within are solely those of the author and do not necessarily represent the views of the Air University, the Department of the Air Force, the Department of Defense, or any other U.S. government agency. Cleared for public release: distribution unlimited.

Endnotes

[1] "DF-21 (CSS-5)", Missile Threat, CSIS Missile Defense Project, 23 April 2024, https://missilethreat.csis.org/missile/df-21/ and "DF-17", Missile Threat, CSIS Missile Defense Project, 23 April 2024, https://missilethreat.csis.org/missile/df-17/.

[2] Matthew Bruzzese, "Dancers at the Knife's Edge: PLA Rocket Force Nuclear Warhead Management," China Aerospace Studies Institute, 9 March 2026, p 7. https://www.airuniversity.af.edu/CASI/Display/Article/4411337/dancers-at-the-knifes-edge-pla-rocket-force-nuclear-warhead-management/ and Decker Eveleth "People's Liberation Army Rocket Force Order of Battle 2023", Middlebury Institute of International Studies at Monterey James Martin Center for Nonproliferation Studies, P 55. https://nonproliferation.org/wp-content/uploads/2023/07/web_peoples_liberation_army_rocket_force_order_of_battle_07102023.pdf

[3] @Hurin92, X post, https://x.com/Hurin92/status/2036388783042461835, 24 March 2026.