

The Counterintuitive Role of Air Defense in Iran's Anti-Status Quo Regional Strategy

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Brief Analysis

While Iran's air defenses are a central element of its deterrent capabilities, newly arrived long-range mobile systems like the S-300 could also enable it to constrain the air forces of its neighbors over their own sovereign territory, thereby enhancing Tehran's ability to intimidate and coerce these neighbors.

On December 28, Iran concluded a three-day air-defense exercise aimed at honing its ability to defend the Bushehr nuclear plant and southern oil facilities. The exercise was overseen by the Khatam al-Anbia Air Defense Headquarters (KADHQ), an independent branch within the Iranian national armed forces that coordinates the air-defense assets and activities of all branches of the armed forces, including the Islamic Revolutionary Guard Corps (IRGC) and Basij paramilitary organization. The KADHQ was born in February 2009 out of the Islamic Republic of Iran Air Force air-defense command, as Iran's Supreme Leader Ali Khamenei reportedly gave air defense the "highest priority" in the face of a possible Israeli or U.S. airstrike against its nuclear program. In an August 2016 meeting with KADHQ commanders, he called air defense Iran's "first line of resistance against any aggression." The KADHQ has also asked for a share of the at least \$120 million Iran earns annually from commercial overflights.

The KADHQ serves as a national air-defense operations center (ADOC) with more than seven sector operations centers (SOCs) controlling different parts of the country. Every SOC links and manages air defenses within its area of responsibility, and coordinates its activities with adjacent sectors. The ADOC then shares and fuses all target information with that of the IRGC's Sarallah (Revenge of God) general headquarters into a comprehensive threat picture for use by commanders and top decisionmakers. Indeed, air defense is one of the few areas where the national and revolutionary armed forces cooperate. All sector commands, down to individual assets, are also empowered to take appropriate measures in case their communications with the ADOC are severed.

Ever since the appointment of the dynamic Gen. Farzad Ismaili as commander of KADHQ in 2011, Iran's air-defense capability has increased significantly, thanks to the indigenous development of an impressive number of radar, command-and-control, and surface-to-air-missile (SAM) and gun systems, many of which have been deployed around the country. Iran has installed at least four types of over-the-horizon (OTH) radars with a range of more than 1,000 km. Also, Iran's land-based phased array surveillance and targeting radars have various operating frequencies and support air-defense systems such as Raad (Thunder), Mersad (Ambush), and Talash (Endeavor) SAM systems with ranges of up to 150 km at medium to high altitudes. It is not known how these systems will perform in combat, but many of them are mobile and thus can rapidly redeploy on short notice to achieve some level of surprise. They are supported by various sensor arrays that Iran claims can detect and even track low observable aircraft from a considerable distance.

Iran also recently received a number of S-300 air-defense systems from Russia, each offering a capability to track one hundred targets simultaneously and engage six of them with missiles at a range of up to 200 km. The system is yet to be fielded and tested in Iran, as is another indigenous system of claimed similar capabilities, called Bavar (Faith) 373. Iran expects the S-300 to be operational before April 2017. Since 2010, there have been consistent suggestions in Iran that the KADHQ is also working on a ballistic missile-defense capability. In addition to providing enhanced air-defense early warning, Iran's numerous high-frequency OTH radar and signals intelligence projects -- operated by both the IRGC and KADHQ -- could provide targeting information for antishipping ballistic missiles, given that Iran is expected to develop longer-range versions of such missiles. The prospective OTH surveillance radars have claimed ranges of up to 3,000 km.

THE OFFENSIVE POTENTIAL OF IRAN'S AIR DEFENSES

Lacking a large, capable air force, Iran might compensate by using its new mobile medium- to long-range air defenses to deny the enemy the ability to achieve air superiority over the Persian Gulf in wartime, employing its air defenses and ballistic missiles to attack enemy aircraft, airfields, and aircraft carriers. This would enhance the freedom of action of its own air and naval forces, and its offensive capabilities. Conversely, in peacetime or during crises, Iran could use its air defenses to threaten the formation of maritime- or air-exclusion zones in the Persian Gulf, Strait of Hormuz, and Gulf of Oman, complicating access to and transit through these regions for the United States and its regional allies and creating leverage over its adversaries.

In the summer of 2012, Iran announced a coercive strategy that included selective or "smart" control of shipping traffic through the Strait of Hormuz. However, very little has in fact changed since then, aside from occasional harassment, the latest incident happening on January 9. Yet an S-300 deployment in the Persian Gulf could cover the U.S. Navy's Fifth Fleet and Royal Navy's HMS Jufair headquarters at Bahrain's port of Mina Salman, Qatar's North Dome gas field, and the entire Strait of Hormuz. Iranian S-300 batteries would likely be augmented and defended by various short- to medium-range SAM systems such as the TOR-M1, 3rd of Khordad (May 24), Raad, and Mersad.

As suggested thus far, Iran's growing air-defense and missile capabilities could ultimately allow the Islamic Republic to increase risk to, and reduce the freedom of action of, U.S. and partner air forces operating over the Persian Gulf, Strait of Hormuz, and Gulf of Oman, and increase the vulnerability of enemy air bases throughout the region. American pilots and Iranian air-defense operators already play cat and mouse over the Gulf, with the latter issuing a growing number of warnings against U.S. aircraft flying reconnaissance missions close to Iranian airspace or exercise areas. As yet, such games do not appear to have affected the U.S. ability to conduct its routine missions. This situation, however, could change someday if Iranian air-defense deployments were to increase and the U.S. presence in the Gulf were to diminish.

CONCLUSION

Iran has significantly reorganized and expanded its air defenses in the past few years, first by creating an independent air-defense headquarters, the KADHQ, and second by developing a full range of low- to high-altitude surveillance and air-defense systems. Facing formidable foreign air forces and lacking a capable air force of its own, Iran has chosen to deny its enemies the ability to achieve air superiority through its use of ground-based air defenses, complementing Iran's ability to deter by punishment through the use of ballistic missiles.

Yet the S-300 and other Iranian long-range anti-aircraft assets covering the Strait of Hormuz and the Persian Gulf shipping routes could enable anti-status quo policies or offensive action by threatening enemy aircraft operating over the Gulf, or even within their own airspace, thereby undermining those nations' protective buffer -- much like what China has been trying to achieve in the Taiwan Strait -- and altering the regional military balance. This could, in the long term, impose military costs on the United States and contribute to the Islamic Republic's efforts to control the region and to split Washington from its Gulf allies.

Farzin Nadimi is a Washington-based analyst specializing in the security and defense affairs of Iran and the Persian Gulf region. ❖

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