



Understanding Turkey's Air and Missile Defense Deals

OE Watch Commentary: On 29 December, Turkey and Russia finalized a deal for Moscow to supply Ankara with S-400 surface-to-air missiles, that the two countries had been working on for over a year. Just as the details of that deal were becoming clear, on 5 January, Turkey also took the first step towards a deal with the Franco-Italian group EUROSAM to develop and produce a long-range air and missile defense system. While this development caused some confusion about Turkey's motivations, the accompanying passages from Turkish sources shed light on Turkey's calculations for each of these deals. The passages highlight that the S-400s will fulfill Turkey's need for air defense, while the EUROSAM deal will fulfill Turkey's need for missile defense.

The first accompanying passage discusses the EUROSAM deal, which "aims to defend against threats from stealth aircraft, drones and missiles..." The passage also quotes a EUROSAM statement which says, "The joint development activity is expected to support Turkey's indigenous air and missile development program in addition to opening up prospects for exports and longer-term co-operation of Turkey, Italy and France."

This is crucial, because the S-400 deal with Russia would not be able to satisfy this need. The second and third accompanying passages highlight the assessments of two Turkish experts on weapons systems and military strategy who have analyzed the technical and political/strategic aspects of the S-400 purchase. The second passage, from a report by Can Kasapoğlu, defense analyst at the Center for Economic and Foreign Policy Research, highlights his core military assessment of the S-400 deal, which is that "Ankara's immediate aim is to procure the system primarily for air defense missions as a surface-to-air missile (SAM) asset, rather than performing ballistic missile defense (BMD) functions. This priority largely stems from the Turkish Air Force's currently low pilot-to-cockpit ratio (0.8:1 by open-source 2016 estimates)... Turkey will first and foremost operate the S-400s as a stopgap measure to augment its air superiority calculus over geo-strategically crucial areas."

In the third accompanying passage, Sıtkı Egeli, one of Turkey's foremost experts on weapons, defense and strategy, notes that "a modern air defense concept is based on many receptive, weapons and communications systems working in an integrated way that close the gaps in each other's vulnerabilities and that complement each other..." The author then continues by saying that otherwise, enemies will target the weakest point of the defense chain to destroy the air defense architecture that way. He notes, for example, that "the S-400, which is known to be effective in long-range and mid/high altitude settings, should be expected to be targeted with low-altitude reconnaissance missiles or mid-range ballistic missiles that the S-400 can't address."

This is where the EUROSAM deal comes in. As the final passage discusses, "in the aftermath of 15 July... there was a reduction in the number of F-16 pilots, creating a need to develop [Turkey's own] air defense. This is the reason for the S-400 purchase." However, since the S-400 is not compatible with NATO infrastructure, it will not be able to protect against missile defense. For this reason, Sinan Ülgen, President of the Center for Economic and Foreign Policy Research, calls this system "half-blind." The author says that this is why Turkey is buying its missile defense system from EUROSAM, which is compatible with the NATO infrastructure. Thus, a much more effective defense system is established.

End OE Watch Commentary (Kaya)

"We are actually buying two separate missile defense systems. Turkey has two needs to ensure its security. One is air defense, and the second is missile defense. The S-400s will fulfill the first, and the EUROSAM [deal] will fulfill the second."

Source: "Turkey awards missile system study to Franco-Italian group, Turkish firms," *Hurriyet Daily News*, 5 January 2018. <http://www.hurriyetdailynews.com/turkey-awards-missile-system-study-to-franco-italian-group-turkish-firms-125304>

Turkey took a step on January 5 toward closer defense cooperation with France and Italy with a contract for a study into the development and production of a long-range air and missile defense system.... Turkey awarded the 18-month contract to the Franco-Italian Eurosam consortium and its Turkish partners Aselsan and Roketsan, Eurosam said in statement.

... The three-country missile program ... aims to defend against threats from stealth aircraft, drones and missiles, Eurosam said.

"The joint development activity is expected to support Turkey's indigenous air and missile development program in addition to opening up prospects for exports and longer-term co-operation of Turkey, Italy and France," Eurosam said.

Source: Can Kasapoğlu, "Turkey's S-400 Dilemma," [Turkey] Center for Economic and Foreign Policy Research (EDAM), July 2017. <http://edam.org.tr/wp-content/uploads/2017/10/s400en.pdf>

This report's core military assessment of a possible S-400 deal concludes that Ankara's immediate aim is to procure the system primarily for air defense missions as a surface-to-air missile (SAM) asset, rather than performing ballistic missile defense (BMD) functions. This priority largely stems from the Turkish Air Force's currently low pilot-to-cockpit ratio (0.8:1 by open-source 2016 estimates). Thus, ... Turkey will first and foremost operate the S-400s as a stopgap measure to augment its air superiority calculus over geo-strategically crucial areas.

Although it is not a combat-tested system, not only Russian sources but also many Western military analysts evaluate that the S-400 is a robust anti-access & area-denial (A2/AD) asset. Therefore, if SAM configuration is planned correctly, the system could theoretically give a boost to Turkey's air defense capabilities. However, it would be unrealistic to portray the S-400 solution as a panacea for protecting the Turkish territory and population against ballistic missiles. In the absence of a robust network of satellites, radars, early-warning aircraft, and sensors connected with a tactical data link, as well as without a layered interception capacity including exo-atmospheric coverage, the S-400s' BMD role would be very limited."

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Continued: Understanding Turkey's Air and Missile Defense Deals

Source: Sıtkı Egeli, "S-400 alımı, hava savunması, füze savunması, NATO: Mitler ve Gerçekler (The S-400 purchase, air defense, missile defense, NATO: Myths and Realities)," *Kokpit.aero*, 2 August 2017. <http://www.kokpit.aero/s400-sitki-egeli>

"... a modern air defense concept is based on many receptive, weapons and communications systems working in an integrated way that closes the gaps in each other's vulnerabilities and that complement each other; as opposed to a single system. Otherwise, enemies will target the weakest point of the defense chain and try to destroy the air defense architecture that way. For example, the S-400, which is known to be effective in long-range and mid/high altitude settings, should be expected to be targeted with low-altitude reconnaissance missiles or mid-range ballistic missiles that the S-400 can't address."

Source: Verda Özer, "Füzeler Rusya'dan mı Batı'dan mı? (Are the Missiles from Russia or from the West?)," *Milliyet.com.tr*, 6 January 2018. <http://www.milliyet.com.tr/yazarlar/verda-ozer/fuzeler-rusya-dan-mi-bati-dan-mi--2585992/>

Right as all the details about the S-400 missile system from Russia were revealed.... All of a sudden, the news that President Erdogan would sign a missile agreement with joint French-Italian EUROSAM comes out. Now people are confused: Are we buying the missile system from Russia? If so, then where are we putting this European defense system?...

The answer is simple. We are actually buying two separate missile defense systems. Turkey has two needs to ensure its security. One is air defense, and the second is missile defense. The S-400s will fulfill the first, and the EUROSAM [deal] will fulfill the second.

The air defense system's mission is to identify the planes that violate our air space and take them out of Turkish territory or when necessary, to shoot them down. Traditionally, this was done by Turkey's own national air defense infrastructure. But, in the aftermath of 15 July, with the operations against the Turkish Armed Forces, there was a reduction in the number of F-16 pilots, creating a need to develop our air defense. This is the reason for the S-400 purchase.

....Now, since the Russian S-400 system cannot be integrated into this NATO infrastructure, it cannot be used to protect against missile defense. For this reason, Sinan Ülgen, President of the Center for Economic and Foreign Policy Research, says that this system is "half-blind." And that is why Turkey is buying its missile defense system from EUROSAM, which is compatible with the NATO infrastructure. Thus, a much more effective defense system is established, that can use NATO's "signals intelligence," which the S-400's wouldn't be able to access.

What is the strategic meaning of this dual defense system? Is Turkey trying to balance its alliances with Russia and the West? Sinan Ülgen's answer is critical: Turkey is cooperating with Russia to alleviate the gap in its air defense in the aftermath of 15 July. So this is a short-term, pragmatic cooperation. The alliance with the West is long-term, permanent and is continuing as it always has. So, the two are not alternatives to each other."



S-400 Triumf air defence system transporter erector launcher.

Source: Vitaly V. Kuzmin via Wikimedia Commons, https://commons.wikimedia.org/wiki/File%3AS-400_Triumf-34.jpg, CC BY SA 4.0.