

TURKEY'S AIR DEFENSE AGENDA A CHALLENGING PATH

MURAT ASLAN

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SUMMARY

This study is designed to deliver background information, to lay bare the course of the S-400 procurement process, and to provide the reasoning to better understand the responses to the famous five “wh” and “how” questions.

The issue of the S-400s has turned out to be a turning point between the USA and Turkey in testing the strength of their long-lasting partnership. Although both are deeply involved in searching for a way out, the probable “dead-end” is still a challenging factor for their alliance. On the other hand, the problematic fields in question, which are actually the iceberg lurking underneath the surface, make the S-400 dispute the iconic interface. Both countries have long experienced controversy after a series of events that have occurred over the last two decades. Within this context, Turkey’s S-400 procurement and the threats by U.S. political figures -mainly the expulsion of Turkey from the F-35 Fighter Jet program - escalated tension between the two traditional allies. As Turkey received the S-400 air defense system, it has been vital to refresh the “whats” and “whys” in order to facilitate assessments. This study is designed to deliver background information, to lay bare the course of the S-400 procurement process, and to provide the reasoning to better understand the responses to the famous five “wh” and “how” questions.¹

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1. ‘Wh’ questions are ‘what, when, which, where and why’.

BACKGROUND INFORMATION

For a long time, Turkey has been searching to procure high-tech air defense systems of varying types while developing its own air defense capacity due to persistent aerial threats in the surrounding regions. With this in mind, Turkey launched its national Long-Range Regional Air and Missile Defense Program (T-LORAMIDS) in 2006 and started the procurement process of the S-400 systems from Russia following the cancellations of the U.S. PATRIOT and China FD-2000 deals. Likewise, Turkey joined another project with Italy and France in order to become a partner in the EUROSAM air defense system programs and address its long-term needs. Regarding low- and medium-altitude air defense assets, the Turkish defense industry also started the testing phase of the HİSAR-A and HİSAR-O projects thanks to the dedicated efforts of Turkish engineers. Furthermore, President Erdoğan announced the start of the air defense project SİPER, independent of these aforementioned sys-

tems, to neutralize high-altitude and long-range air threats. Recently, the U.S. has proposed an offer for the sale of PATRIOT systems to Turkey in order to hinder S-400 procurement contrary to Obama's rejection policy. In parallel to the debates on the Turkish S-400 deal with Russia, the U.S. government is constantly bringing up probable sanctions via the "Countering America's Adversaries Through Sanctions Act – CAATSA" which was decreed for Russia and Iran. In this context, three U.S. Senators drafted a bill to sanction Turkey in the case Turkey procures S-400. Despite the efforts of certain American senators and inconclusive negotiations between the U.S. and Turkey, the strategy of Turkey is to import its urgent needs from outside resources, while mobilizing national capacity to manufacture domestically produced air defense systems in the coming decade. The fact that the United States is trying to put constraints on Turkey regarding the procurement of the desired air defense system and Turkey's determination despite the U.S. pressure led to a political rift between Ankara and Washington.

INTRODUCTION

Politicians in the United States have long criticized Turkey for its preference for the Russian S-400 Air Defense System over the U.S.-made PATRIOTs. The criticism even reached the level of blockading F-35 fighter jet sales to Turkey,¹ having Turkey removed from the F-35 program, and issuing threats to limit the sales of certain spare parts of the U.S.-made weapons and equipment.² In this framework, the U.S. Senate

1. Available at <https://www.lankford.senate.gov/imo/media/doc/DAV19465.pdf>, accessed on April 19, 2019.

2. "Pentagon: Türkiye Rusya'dan S-400 Alırsa, F-35 Projesinden Çıkarılma Riskiyle Yüz Yüze Kalır", BBC, November 29, 2018, <https://www.bbc.com/turkce/haberler-dunya-46385727>, accessed on December 27, 2018.

issued a defense budget with derogations sanctioning Turkey's F-35 procurement and built a report mechanism to the U.S. Presidency for further approvals.³ Finally, the Secretary of Defense brought new offers for PATRIOTs to challenge Turkey's choice of procuring the Russian air defense system.⁴ Parallel to straining political relations, the issue of the S-400s appeared to be the main cause of the political crises that could potentially diffuse a wide range of intertwined relations and multilateral fields of strategic partnership between Turkey and the U.S.

At this stage, the United States pursues a strategy that offers favorable conditions for PATRIOT sales and emphasizes sanctions in the case of S-400 procurement. The justification of such a strategy is often pronounced as the incompatible nature of the F-35 fighter jets and the other NATO systems, despite the fact that Turkey is originally both a partner and customer of the F-35 program. Turkish-American relations will continue to be intensely stressed unless a compromise is reached after the S-400 has been activated. In this regard, this analysis sheds light on the course of Turkey's air defense program in order to examine the root causes of the current tension. With this in mind, the question of why Turkey has preferred the S-400 system has been investigated in order to highlight the background information of the conflict's current arguments. The research suggests that the current "quarrel" is not solely due to Turkey's quest for air defense capacity-building but is a result of a number of factors. These factors are:

- The U.S. government's policy choices challenging the interests of its long-term ally, Turkey.
- The U.S. government's disinclination to engage in arms sales with Turkey in the past.
- Strategic political and military developments in the vicinity of Turkish territory, which pose risks to Turkish interests.
- The U.S. support for the PYD/YPG and FETO terrorist organizations, which constitute direct threats to Turkish sovereignty and integrity.

As a result of the previous factors, the trust between Turkey and the United States is continuously eroding, which pushes Turkey to adopt a "self-help" approach to improve its defense mechanisms.

STRATEGIC RATIONALITY BEHIND TURKEY'S AIR DEFENSE APPROACH

Turkey is situated in the middle of three regions and three seas where crises have traditionally challenged both the regional and international order. What is meant by three regions is the triangle of the Balkans, the Caucasus, and the Middle East that surrounds Turkey and its acute risks and potential spillover effects. By being located between the western and eastern blocs of the Cold War era and being equipped with varying types of high-tech weapons, these regions are filled by potential state actors who are keen to revise the current order or by non-state actors that challenge states or the international realm. Furthermore, the hegemonic and great powers are also committed to either preserving or challenging the status quo in order to realize their ultimate benefits on the road to "shaping the future." The triangle of the Balkans

3. The original text of the "FY19 NDAA Sec 1282 Report: Status of the U.S. Relationship with the Republic of Turkey" can be accessed at the following link <https://fas.org/man/eprint/dod-turkey.pdf>, accessed on March 12, 2019.

4. Reuters, "We Need Turkey to Buy the Patriot: Pentagon Chief", available at <http://www.hurriyetdailynews.com/we-need-turkey-to-buy-the-patriot-pentagon-chief-142233>, accessed on April 12, 2019.

– Caucasus – Middle East harbors state and/or non-state actors, who possess or can potentially obtain weapons of mass destruction or long-range rocket and missile systems along with launching platforms. The three seas, on the other hand, are the Eastern Mediterranean (including the Aegean Sea), the Black, and the Caspian Sea that surround either Turkey or its vicinity. The three seas are focal points of both regional and global actors because these waters rest upon energy resources, key transportation routes, and economic activities. Hence the three seas are a matter of competition among the regional and global state actors while non-state actors are committed to being a tool or an impediment to them.⁵

Potential problematic areas in the three seas also have the potentiality to increase the expected tensions in the aforementioned regions. Turkey was forced to seek air defense procurement due to the gap between the developments in these three regions and seas compared to its existing air defense capabilities. Egeli identifies the states in the region, who have deterrent air forces, missiles, and cruise capabilities:

Four states, which are Russia, Israel, Saudi Arabia, and Greece [in terms of air force are] on a par with, or superior to Turkey ... [On the other hand,] eight states in the region (Russia, Armenia, Azerbaijan, Iran, Syria, Israel, Saudi Arabia, and Greece) have short, medium, and intermediate range ballistic missiles capable of reaching Turkish territory. Likewise, six states in Turkey's immediate vicinity (Russia, Azerbaijan, Iran, Syria, Israel, and Greece) field [have] advanced cruise missiles.⁶

On the other hand, the discovery of energy resources and the Syrian crisis have led the global

state actors to project their naval and aerial forces towards the Mediterranean while they - mainly the U.S. - have conflicting interests with Turkey. Meanwhile, Russia's annexation of Crimea has mobilized NATO members to send their naval power to the Black Sea, within the restrictions of the Montreux Treaty, that has coincided with the removal of the Intermediate-Range Nuclear Forces (INF) Treaty. Increasing tension in these seas may be escalated by short- to long-range missile competition where any misunderstanding or miscalculation can see Turkey targeted or transited by missile exchange.

If rocket systems, like the SCUDs of the former Eastern Bloc, are causes of concern, they are in the inventory of most of Turkey's neighboring states. The Balkans, the Caucasus, and the Middle East have become a depot of rockets. Significantly, Iran has been the country of interest for the last three decades due to its already developing missile technology based on reverse engineering and smart automation. The discourse of Iran's rocket program has increased the threat perceptions, especially after Iran's failing attempt to launch a satellite and have it reach orbit.⁷ Iran's current rocket inventory can reach up to 10,000 km with 24 different rocket types, which use liquid or solid fuel, and are jet-propelled.⁸ The other countries have varying types of rockets or missiles as can be seen in Appendix A, which is based on information from the Arms Control Association.⁹ The list indicates the availability of rockets and missiles of the countries surrounding the aforementioned three seas and regions. As a

5. Turkish strategy in the three seas can be reviewed at the following link MSI, "Turkish Naval Forces Strategy", available at <http://www.milscint.com/en/article-turkish-naval-forces-strategy/>, accessed on April 7, 2019.

6. Sitki Egeli, "Making Sense of Turkey's Air and Missile Defence Merry-Go-Round", *All Azimuth*, V8, N1, 2019, 69-92.

7. Thomas Erdbrink, "Iranian Satellite Launch Ends in Failure", *The New York Times*, January 15, 2019, <https://www.nytimes.com/2019/01/15/world/middleeast/iran-satellite-launch-fail.html>, accessed on January 15, 2019.

8. Global Security, available at <https://www.globalsecurity.org/wmd/world/iran/missile.htm>, accessed on April 6, 2019.

9. The types and ranges of the missiles of most states can be reviewed at the following link <https://www.armscontrol.org/factsheets/missiles>.

result, rockets appear to be one of the main apparatuses in the case that a conflict erupts, and Turkey becomes the transit route of the delivered rockets and missiles. Moreover, some of the states on the list are either failed or potentially failed states, from which non-state actors can acquire rockets from their national arsenals.

NATO has selected the Kürecik district of Turkey as the main radar base to detect and provide early warnings for “probable” rocket launches in the aforementioned regions. Romania and Bulgaria have been identified as countries with the capabilities to counter the delivered rockets and missiles. For that purpose, the U.S. has allotted \$12.9 million through the 2019 U.S. defense budget for anti-missile shield systems in the Balkans¹⁰ in order to protect European and American interests, which also means the exclusion of Turkey from the air defense shield. On the other hand, Turkey’s request from NATO to provide air defense support was temporarily satisfied after the eruption of the Syrian crisis. Despite the fact that other NATO member states established long-range air defense coverage, the United States did not offer air defense support to Turkey when Turkish-American interests were opposed, while it continued to protect the İncirlik base with PATRIOTs.¹¹

Another prominent threat in the discussed geography, which mobilized Turkey, was the progress made in rocket and missile technology, and the outreach of non-state actors capable of obtaining these systems, mainly the PKK/PYD

and DAESH. The U.S. support to the PKK/PYD was solidified by an arms transfer, where the amount of inventory provided to the terrorist organizations is still unknown. According to the *Balkan Insight*, “The [U.S.] Department of Defense has budgeted \$584 million specifically for this Syrian operation for the financial years 2017 and 2018, and has earmarked another \$900 million of spending on Soviet-style munitions between now and 2022”.¹² Although the U.S. claims that the PKK, or as it has been legitimized under the name “Syrian Democratic Forces – SDF,” has enjoyed the support of the U.S. government only to counter DAESH, it is not clear whether the PKK/PYD has obtained any rocket or missile capability or confiscated any portion of the Syrian arsenal. In any case, non-state actors in the three regions and seas tend to have rockets and missiles, as witnessed in the Yemen and Hezbollah cases, which could have been an early warning for the PKK/PYD and DAESH since Turkey is concerned with the reality of the previous American arms and ammunition support to the PKK/PYD.¹³

Today, air threats and risks are developing fast by inserted or embedded hardware and soft-

Rockets appear to be one of the main apparatuses in the case that a conflict erupts, and Turkey becomes the transit route of the delivered rockets and missiles.

10. Luca, Anna Maria, “US Plans to Upgrade Military Bases in Romania, Bulgaria,” *Balkans Insight*, <https://balkaninsight.com/2018/08/15/us-plans-to-boost-military-bases-in-romania-bulgaria-08-15-2018/>, accessed on April 7, 2019.

11. Haberler, “İncirlik’te Afrin Alarmı! Patriot Füze Sistemleri Hazır Kıta Bekliyor”, available at <https://www.haberler.com/ispanyol-patriotlari-incirlik-te-aktif-10462150-haberleri/>, accessed on April 6, 2019; Burak Ege Bekdil, “US Begins Removing Patriot Missiles from Turkey”, *Defense News*, October 11, 2015, available at <https://www.defensenews.com/home/2015/10/11/us-begins-removing-patriot-missiles-from-turkey/>, accessed on April 6, 2019.

12. Ivan Angelovski and Lawrence Marzouk, “The Pentagon’s \$2.2 Billion Soviet Arms Pipeline Flooding Syria”, *Balkan Insight*, September 12, 2017, available at <https://balkaninsight.com/2017/09/12/the-pentagon-s-2-2-billion-soviet-arms-pipeline-flooding-syria-09-12-2017/>, accessed on April 12, 2019.

13. Soner Cagaptay and Andrew J. Tabler, “The U.S.-PYD-Turkey Puzzle”, The Washington Institute, <https://www.washingtoninstitute.org/policy-analysis/view/the-u-s-pyd-turkey-puzzle>, October 23, 2015, accessed on December 25, 2018.

ware and by the improved “targeting capability” with the capacity to deliver standoff munitions from remote distances. In this context, certain regional powers may pose threats to Turkey if they possess American aircrafts and missiles. Meanwhile, the discovery of energy resources has led to a disturbance for Turkey: Turkish Cypriots have been overlooked in the fair distribution of the resources. Israel, Greece, Egypt, the U.S., and other European powers have formed a coalition to counter probable incursions and to protect their interests. For this purpose, on March 20, 2019, the prime ministers and/or foreign ministers of Greece, the Republic of Cyprus, Israel, and the United States agreed “to increase regional cooperation, including energy, and to defend against ‘external malign influences’ in the Eastern Mediterranean and the broader Middle East.”¹⁴ The declaration includes the word “malign” to describe Turkey, and Ankara is, therefore, required to be prepared to counterbalance any military undertakings that might be on the agenda of these states. Another attempt is the drafted bill by U.S. Senators Marco Rubio and Robert Menendez, which states that “the Eastern Mediterranean Security and Partnership Act of 2019, [is] legislation which aims to reshape the U.S. strategy in the Eastern Mediterranean”.¹⁵ The undertakings of the U.S. senators urge Turkey to be prepared for coalitions and alliances targeting Turkish interests. Meanwhile the potential disagreements on the borders of exclusive economic zones in the Eastern Mediterranean Sea may lead to regional competition that may prevent Turkey

from benefitting from its sovereign rights.¹⁶ As a result, Turkey will have to be ready to counter the regional air powers by means of symmetric and asymmetric assets, which make the S-400s a prominent tool to counter the unjust actions of the aforementioned actors - unless a collaborative resolution is accepted to prevent further escalation of crises in the Eastern Mediterranean Sea.

Other than the hydrocarbon-rich Eastern Mediterranean Sea, the Aegean Sea constitutes and has always constituted an area of competition between Turkey and Greece. The problematic fields in question are many; the most prominent ones include Greece’s 12-mile continental shelf claim,¹⁷ the militarization of the demilitarized islands in the Aegean Sea by the Greek Army, the Flight Information Region (FIR) line, and the reefs.¹⁸ In case a crisis erupts in the Aegean, as was the case with the Kardak Islands in 1996, there is no balance of air defense capability between Greece and Turkey. Greece has formed an air defense cascade mainly composed of a S-300 (Russian), a SA-15 (Russian), a SA-8 (Russian), a ZSU-23 (Russian), PATRIOTS (USA), HAWKS (USA), SPARROWs (France), ASRADs (German-Swedish), STINGERs (USA), and MISTRALs (European).¹⁹ Turkish air and air defense assets appear short of balancing the Greek air and air defense capabilities in terms of quantity and quality of air defense assets.

14. Geropolus, Kostis, “US, Israel, Cyprus, Greece Reaffirm Regional Energy Cooperation”, *New Europe*, March 21, 2019, available at <https://www.neweurope.eu/article/us-israel-cyprus-greece-reaffirm-regional-energy-cooperation/>, accessed on April 6, 2019.

15. The Office of Marco Rubio, “Rubio, Menendez Introduce Eastern Mediterranean Security and Energy Partnership Act of 2019”, April 9, 2019, available at <https://www.rubio.senate.gov/public/index.cfm/press-releases?ID=8AC56C8E-D082-449B-A2B1-5538CE647866>, accessed on April 17, 2019.

16. (Referring to Turkish Minister of Foreign Affairs Mevlüt Çavuşoğlu), “Turkey Set to Begin Oil and Gas Drilling off Cyprus”, *Hürriyet Daily News*, February 21, 2019, available at <http://www.hurriyetdailynews.com/turkey-set-to-begin-oil-and-gas-drilling-off-cyprus-141390>, accessed on April 7, 2019.

17. (Referring to Greek Minister of Foreign Affairs Nikos Kotzias), “What If Greece Extends Its Territorial Waters to 12 Miles in the Aegean?”, HARECACT Border Monitoring, October 21, 2019, available at <https://harecact.bordermonitoring.eu/2018/10/21/what-if-greece-extends-its-territorial-waters-to-12-miles-in-the-aegean/>, accessed on April 7, 2019.

18. Yüksel İnan and Yücel Acer, “The Aegean Disputes”, available at <http://www.foreignpolicy.org.tr/documents/251202.pdf>, accessed on April 19, 2019.

19. The Greek air defense assets can be investigated at the following link <http://greekmilitary.net/airdefence.htm>.

Besides the regional missile threats and developments, unmanned aerial vehicles (UAVs) should also be taken into account when it comes to Turkey's security perception. Every state actor has the capability to procure or manufacture UAVs of varying payloads and sizes. Meanwhile, non-state actors can easily access markets to buy mini and midi UAVs and drones or assemble them themselves as can be witnessed by certain PKK/PYD and DAESH activities. DAESH had attacked Russian soldiers in Syria while the PKK/PYD have practiced the same type of attacks on two separate occasions in Turkey during the Republic Day ceremonies on October 29, 2018 and December 31, 2018 via assembled drones. The PKK/PYD integrated mortar shells to its drones, but Turkish anti-drone weapons were able to render them ineffective. Turkey was obliged to design not only strategic but also tactical and operative air defense systems to deter such terror attacks and intelligence gathering efforts through ROKETSAN.²⁰ Although it is certain that the S-400 systems will not be wasted on non-state actors' mini and midi UAVs, Turkey is concerned for the future capacity of non-state actors. If the UAV capabilities of state actors and future ambiguity of non-state actors is taken into account, Turkey needs to have an air defense strategy and counter-UAV assets to neutralize possible infiltration attempts.

Consequently, the mentioned air threats and persistent risks in the three regions and three seas require Turkey to develop capable air defense systems in order to deter and destroy future aerospace violations, terror attacks, and regional/global rocket and missile exchanges. Taking into consideration the limited abilities of conventional air defense artillery, despite its integration

into the radar systems, modern air defense architecture appears to be vital against developing aircraft and ammunition technology. Turkey, which was covertly sanctioned in order to constrain weapon and ammunition procurement in the past,²¹ has been limited to responding to air threats via the Turkish Air Force whose strategic air defense is destined to lack an adequate response level. The NIKE-HERCULUS of the Cold War era is still in the inventory of the Turkish Armed Forces; the older systems fall short of providing security in Turkish aerospace, including the Dardanelles and Bosphorus straits. Other than these assets, the Turkish modern air defense weapon system leans on short-range and low-altitude MANPADs (STINGER) - Turkey is a partner nation of MANPAD production - and lacks the ability to respond to medium- to high-altitude air threats and risks. Hence, it is possible to argue that Turkey felt the risk of a lack of qualified air defense systems when its surrounding regions and seas are filled with varying air assets. Also, Turkey was subjected to "covert embargoes or sanctions" of western arms exporters. As a result, Ankara decided to start air defense programs to overcome the imposed constraints of its allies and respond to the high risks of regional conflicts that could unprecedented loss of life and property, given it was unprotected against air threats and the consequences of these risks. The Turkish quest to procure and manufacture air defense assets to respond to the potential threats and deter risks can be understood by the existing dynamics and relevant air defense programs that shape the preferences of the Turkish government.

20. "PKK'nın Gizli Drone Üssü", *CNN TÜRK*, <https://www.cnntrk.com/turkiye/plkknin-gizli-drone-ussu>, December 11, 2018, accessed on December 25, 2018.

21. (Referring to Turkish Minister of Defense Nurettin Canikli), "Türkiye'ye örtülü ambargo uyguluyorlar", *Dünya Newspaper*, September 17, 2017, available at <https://www.dunya.com/gundem/canikli-turkiyeye-ortulu-ambargo-uyguluyorlar-haberi-382354>, accessed on April 7, 2019.

TURKEY'S AIR DEFENSE PROGRAM: DYNAMICS AND PROCESSES

The dynamics that affect air defense procurement and production options can be examined by (international) political balances, military prerequisites, financial concerns, technical comparisons, and mission effectiveness. An integrated analysis of these parameters can provide the basis for understanding Turkey's S-400 choice and the "PATRIOT" challenge to Turkey's decision. Rationality does not usually explain arms sales or procurement since deals are subject to expected benefits, future expectations, or the prerequisites of national agendas. In this sense, Turkey's perception of expected politico-military developments has to be delved into in order to understand the logic of why Turkey selected S-400s, why it is still negotiating for PATRIOTs, and why it is pursuing a strategy to manufacture its own air defense assets.

The dynamics that affect air defense procurement and production options can be examined by (international) political balances, military prerequisites, financial concerns, technical comparisons, and mission effectiveness.

Political Balances

Political balances shape the preference of the Turkish government's impending political decisions and moves regarding arms procurement. Turkey desires to buy defense systems from reliable countries by getting rid of usage constraints on the said systems in terms of location and situation, and also with the inclusion of the offer of technology transfer. The main reason for this tendency

is Turkey's desire to be independent and unconstrained by the political will of any supplier. Within this context, Turkey's strategic arms procurement tendency has not occurred or changed by a split-second policy transformation. Despite all negative developments, Turkey was still inclined to procure air defense assets from the U.S., which was concluded by a polite rejection from the U.S. side that will be discussed below. Eroding trust, which was observed in the minds of politicians and society as a whole, was a consequence of a series of events. The perceptions of both the United States and Turkey need to be captured and analyzed in order to understand these shifts.

If the brief history of Turkish–American relations is taken into consideration, it can be argued that the relations have been retreating from the “normal course” since March 1, 2003, when the U.S. demand for permission to transfer U.S. soldiers via Turkish territory was democratically rejected by the Turkish Assembly. The new AK Party government of the time was in favor of the resolution to permit the transfer of U.S. troops via Turkish territory to the Iraq War. But the number of favoring deputies in the parliament was smaller than that required; the opposition political parties, including pro-PKK HADEP (the previous political structure of the current HDP), and certain members of the AK Party were against the resolution. The liberal values, which were becoming (more) acceptable in the democratic system, were a challenge to the U.S. agenda in Iraq. The Suleymaniya incident of July 4, 2003, escalated the tension while the U.S. attempt to compensate for the March 1 resolution marked a shift in Turkish society's perception of the United States. Turkish soldiers in the northern city of Iraq were humiliated by the Bush administration; as a result, trust on the side of the Turkish community towards the USA collapsed in hours. During the Obama term, the ten-

sion continued between the allies and the covert sanctions on Turkish arms procurement started. In this context, for Kanat, “the arrest of the deputy CEO of Halkbank and his trial was another major scandal in relations. During the trial, a Gülenist and a former police officer was used as a witness, and his illegally obtained recordings were presented as exhibits during the trial.”²²

The prominent issue in question when looking at Turkish-American relations is the lack of trust after the events that have been witnessed.²³ These events can be grouped as follows:

- The U.S. attitudes regarding the sanction options against Turkey, which have become a frequent practice when Turkey’s policy clashes with the American perspective while trying to ensure its national security.²⁴
- The U.S. support to state and non-state actors which are perceived as challenges to Turkish national security.²⁵
- The sentiments of American politicians which view Turkey as a potential adversary.²⁶

Other than these factors, Turkey was critical of the United States due to its tolerance of FETO,

some of whose members are U.S. residents, and its silence regarding the coup d’état of July 15 along with the U.S. sympathy towards the Gezi events in Istanbul.²⁷⁻²⁸ The Syrian case, on the other hand, hardened American-Turkish relations more than ever due to the fact that the U.S. preferred the PKK/PYD terrorist organization as its partner in countering DAESH rather than Turkey and the Turkey-backed Free Syrian Army. Moreover, the U.S. government armed the terrorist organization and organized it to be a regular army along with its “territorialization” in Syria.

Besides the uncooperative attitude of the U.S. towards Turkey, the following events shaped the negative perceptions of Turkish society:

- The partnership of the U.S. with the PYD/YPG, which is actually the PKK’s sister organization, which was admitted by the U.S. Special Forces Commander General Raymond Thomas.²⁹
- Drafted bills and sanctions targeting Turkey as mentioned previously.
- The U.S. silence against the attempts to destroy Turkish democratic life.
- The U.S. interests which are designed against Turkey in terms of energy politics; the U.S. political alignment with Turkey’s competing actors in the Middle East; and the future projections of the U.S. government denouncing Turkey as a strategic partner.

22. Kılıç Buğra Kanat, “S-400 a Critical Juncture in Turkey-US Partnership”, SETA, April 20, 2019, available at <https://www.setav.org/en/s-400-a-critical-juncture-in-turkey-us-partnership/>, accessed on April 21, 2019.

23. Dinçer Bayer, “Evaluation of Crisis between the Republic of Turkey and the United States of America in Terms of Alliance Principles: Outlook into Relations in 2018” available at https://www.academia.edu/35871391/EVALUATION_OF_CRISIS_BETWEEN_THE_REPUBLIC_OF_TURKEY_AND_THE_UNITED_STATES_OF_AMERICA_IN_TERMS_OF_ALLIANCE_PRINCIPLES_OUTLOOK_INTO_RELATIONS_IN_2018, accessed on April 15, 2019.

24. Burak Ege Bekdil, “Turkey Accuses US, Germany of Arms Embargo”, *Defense News*, September 25, 2017, available at <https://www.defensenews.com/global/europe/2017/09/25/turkey-accuses-us-germany-of-arms-embargo/>, accessed on April 15, 2019.

25. İbrahim Kalın, “Statement by Presidential Spokesperson İbrahim Kalın Following the Meeting of the Presidential Cabinet”, Presidency of Turkey, November 7, 2018, available at <https://www.tccb.gov.tr/en/spokesperson/1696/99582/statement-by-presidential-spokesperson-ibrahim-kalin-following-the-meeting-of-the-presidential-cabinet>, accessed on April 19, 2019.

26. Kıymet Sezer, “6. Filo Türkiye’ye Saldıracak”, *Yeni Şafak*, March 29, 2019, available at <https://www.yenisafak.com/dunya/6-filo-turkiye-y-saldiracak-3453933>, accessed on April 18, 2019.

27. Tolga Tanış, “Gezi Olayları ABD Kongresi’nde Tartışıldı”, *Hürriyet*, June 27, 2013, available at <http://www.hurriyet.com.tr/avrupa/gezi-olaylari-abd-kongresi-nde-tartisildi-23593272>, accessed on April 20, 2019.

28. The U.S. Department of State, “Human 2013 Rights Report”, available at <https://www.state.gov/documents/organization/220551.pdf>, accessed on April 19, 2019.

29. Reuters, “U.S. General Told Syria’s YPG: ‘You Have Got to Change Your Brand’”, July 22, 2017, available at <https://www.reuters.com/article/us-mideast-crisis-usa-ypg/u-s-general-told-syrias-ypg-you-have-got-to-change-your-brand-idUSKBN1A62SS?il=0>, accessed on March 12, 2019. For full video, see <https://twitter.com/trtworld/status/955149270440488960>.

If these policies, sentiments, or undertakings are combined with the U.S. backing of Israel, Greece, and Greek Cypriots in the Eastern Mediterranean, Turkey feels the need to be independent in its decision-making in order to deny any possible U.S. incursion. As a result, it appears that the U.S. governments' policies are the apparent causes of the overall Turkish defense program based on "procurement for urgent needs and national production for the long-term needs." If the facts and the politico-military picture are taken into account, as discussed above, Turkey attempted to obtain a defense system based on the self-help principle and not to be bound by second actors' interests.

As Kanat argues regarding the Turkish-American relations, "[in the] atmosphere of mistrust and broken promises, even optimists in Turkey have been cautiously optimistic and always recommended waiting for actions instead of making projections based on statements."³⁰ Hence the broken promises of the U.S. compelled Turkey to intervene in the west of the Euphrates, and later in Afrin, following FETO's July 15 coup attempt, in parallel with the obligated relations with Russia in order to protect its national interests in Syria. The improving relations of Turkey and Russia on the axis of Syria was a challenge to the U.S. interests. In this context, Turkey's S-400 procurement and F-35 partnership have appeared to be the iconic issues representing the relationships between the three actors and are seen as the sign of Turkey's "alleged" paradigm shift despite the fact that Turkey was more focused on its security priorities in relation to the YPG's presence and the conflict spillover consequences of the Syrian war. In other words,

Turkey's has sought to become self-reliant so as to deter risks and deny threats, and to eliminate external dependency within the belief that the U.S. follows contrasting policies towards Turkey.

Military Prerequisites

Military prerequisites, other than political balance, can be typified by doctrinal transformation, military interaction, and diffusion of cooperation in the defense sector. Doctrinal transformation is about norm-building to which the Turkish air defense and other relevant military fields are subjected. Turkey employs the NATO doctrine, although possible air defense procurement will have NATO and Russian doctrines compete with each other to have bold influence on the Turkish air defense strategy. Military interconnectedness is desired for the states that are interested in air defense system procurement and may be assessed as promoting the interconnectedness of militaries in general.³¹ Complex equipment, like air defense systems, require compatibility of radars, communication, targeting, maintenance, and logistics systems that facilitate military diffusion in wider military functions. As a result, for Turkey, air defense competition among the global actors is not only a matter of arm sales but is also about building dependency. Contrary to this desire, Turkey's perspective is to break any dependency and reach an independent and sustainable status in the defense industry. In this sense, Turkey started its national air defense program not to be bound by the U.S. or Russian military systems but to develop its own potential. The current Turkish defense industry is strong and persistent enough to develop technology for the Turkish air defense architecture integrated with other functional areas of the military.

30. Kılıç Buğra Kanat, "Syria Safe Zone May Be 'Safe Zone' for Turkey-US Relations", *SETA*, April 15, 2019, available at <https://www.setav.org/en/syria-safe-zone-may-be-safe-zone-for-turkey-us-relations/>, accessed on April 22, 2019.

31. Can Kasapoğlu, "Turkey's S-400 Dilemma", *EDAM Foreign Policy and Security Paper Series* 2017/5, July 2017.

The mentioned potential for a comprehensive air defense program, on the other hand, is a time-consuming process that Turkey needs to realize gradually. In this context, Turkey started a national program by

- obtaining ready-to-use air defense assets for long-range and high-altitude aerial risks and threats for its urgent air defense needs;
- transferring technology to speed up the domestic manufacturing processes while procuring assets;
- being involved in partnered air defense projects to create alternatives;
- domestically manufacturing air defense assets of short-, medium- and long-range and altitudes in accordance with its air defense program.

As part of the first phase that requires the satisfaction of Turkey's urgent air defense needs, Turkey initiated a long-range missile program through S-400 systems. The capabilities of the S-400 offer superiority to the Turkish Armed Forces with almost 400 km air defense coverage around Turkey. Militarily, Turkey will be able to reach half of the Eastern Mediterranean Sea, the whole of the Aegean and Black Sea, the Caspian Sea, and halfway to the Middle East (depending on the positioning of the procured S-400s). Such coverage is a challenge to the actors who do not want to be checked and balanced. Meanwhile the radar coverage of the S-400s will be almost 200 km longer than the current coverage.

Financial Concerns

The financial dimension of the S-400-PATRIOT dilemma is essential and cannot be ignored. Turkey stopped the PATRIOT procurement due to several reasons, although the financial burden aspect appears to be the pro-

minent factor in comparison to the Chinese and Russian deals. The cost of sustaining the air defense system after the procurement – such as ammunition, spare parts, and maintenance – identifies what one needs to consider in deciding to procure. That being said, whatever the cost of military procurement is, the cost-effective course is usually to develop national manufacture programs for the long term. Turkey's strategy to develop a national air defense program is consistent with financial concerns, especially if foreign sales of national systems is a long-term goal that is realized. However, the course to buy long-range air defense systems for urgent needs indicates the cost and financing system as an input in the decision-making process.

Turkey desired long-range and strategic air defense assets made by the T-LORAMIDS program, which could be fulfilled by procuring PATRIOTs, designed by Raytheon and Lockheed Martin, at the initial stage of the program. Turkey spent a prolonged negotiation process with the U.S. companies and government to meet its urgent air defense needs. The U.S. bodies hesitated to respond to Turkey's request for technology transfer, pricing the system highly at \$4.5 billion, which seems exaggerated for a "two-battery strength" air defense unit,³² additional to the political resistance of the U.S. congress as claimed by the U.S. government. This is why Turkey had to stop the procurement process as a response to the negative attitude displayed of the U.S. – contrary to the current American perspective. Turkey, respectively, started a new procurement process to address its urgent needs. China proposed \$3.4 billion for the HQ-9 series of the FD-2000, which was technically equivalent to PATRIOT, while accepting the condi-

32. "T-Loramids Long-Range Air-and Missile-Defence System", *Global Security*, <https://www.globalsecurity.org/military/world/europe/t-loramids.htm>, accessed on December 23, 2018.

ons of partnered production and 30 percent Turkish contribution.^{33,34} Turkey accepted the offer even though the procurement was later cancelled by the Turkish government due to the ambiguity regarding the technology transfer. After these two attempts, Turkey negotiated with Russia for the procurement of the Roseboro Exports S-400 missile system, at a cost exceeding \$2 billion in September 2017. The agreement requires Russia to deliver one system, and an additional other one, which will be optional.³⁵ It is clear from the air defense procurement process that each time Turkey negotiated with the mentioned countries, the price of the system dropped either due to competition or political concerns. Looking at it from this perspective, the U.S. proposed favorable conditions to urge Turkey to procure the PATRIOT instead of the S-400s.³⁶

Turkey negotiated with Russia for the procurement of the Roseboro Exports S-400 missile system, at a cost exceeding \$2 billion in September 2017.

33. Merve Seren, "Turkey's Quest for a National Missile Defense System: Prospects & Challenges", *SETA*, 2017, available at https://setav.org/en/assets/uploads/2017/04/Analysis_26.pdf, accessed on March 12, 2019.

34. "Turkey Confirms Cancellation of \$3.4 Billion Missile Defence Project Awarded to China", *Reuters*, <https://www.reuters.com/article/us-turkey-china-missile/turkey-confirms-cancellation-of-3-4-billion-missile-defence-project-awarded-to-china-idUSKCN0T61OV20151118>, November 12, 2015, accessed on December 23, 2018.

35. Hüseyin Hayatsever, "Savunma Sanayii Müsteşarlığı: S-400'lerde Kontrol Tamamen TSK'da Olacak", <https://tr.sputniknews.com/turkiye/201712291031616289-savunma-sanayii-mustesarligi-s400lerde-kontrol-tamamen-tskda-olacak/>, December 29, 2017, accessed on December 23, 2018; Debalina Ghoshal, "Why Did Turkey Choose the S-400?", *Defence IQ*, <https://www.defenceiq.com/air-land-and-sea-defence-services/news/will-turkey-buy-the-patriot-system>, October 15, 2018, accessed on December 23, 2018.

36. Hurriyet Daily News, "US Makes an Offer to Turkey for the Sale of Patriot Missiles", January 3, 2019, available at <http://www.hurriyetdailynews.com/us-makes-an-offer-to-turkey-for-the-sale-of-patriot-missiles-140228>, accessed on April 8, 2019.

As a confirmation of cost effectiveness, Muspratt argues that the S-400 "not only is ... highly advanced, but it costs a fraction of its counterparts. The S-400 system costs around \$500 million, in comparison to the Patriot PAC-2 which comes in at around \$1 billion"³⁷ while "a THAAD battery rings in at about \$3 billion."³⁸ With this in mind, it should be noted that there are "around 13 countries ... interested in purchasing the S-400."³⁹ On the other hand, Turkey is willing to procure PATRIOTs after convenient conditions are offered by the U.S. side in terms of technology transfer, partnered production, and cost efficiency.⁴⁰ But unfavorable conditions, for the Minister of Foreign Affairs Mevlüt Çavuşoğlu, may push Turkey to procure another S-400 system.⁴¹

Further Projects and Their Technical Comparison

Turkey started another project with Italy and France to produce an air defense system for its long-term needs. In this context, the three countries signed an agreement in January 2018 to establish a consortium indicating the equal partnership of all three. The project is designed to produce the air defense systems after 2020 with the partnership of ROKETSAN and ASELSAN,

37. Adam Muspratt, "How Capable Is the S-400 Missile System?", November 21, 2018, <https://www.defenceiq.com/air-forces-military-aircraft/news/how-capable-is-the-s-400>, accessed on March 4, 2018.

38. Amanda Macias, "Russia Is Luring International Arms Buyers with a Missile System That Costs Much Less Than Models Made by American Companies", *CNBC*, November 19, 2018, <https://www.cnn.com/2018/11/19/russia-lures-buyers-as-s-400-missile-system-costs-less-than-us-models.html>, accessed on March 4, 2019.

39. Adam Muspratt, "How Capable Is the S-400 Missile System?", November 21, 2018, <https://www.defenceiq.com/air-forces-military-aircraft/news/how-capable-is-the-s-400>, accessed on March 4, 2018.

40. TRT HABER, "Bakan Çavuşoğlu: ABD Patriot satmak istemezse ikinci S-400'ü alabiliriz", April 10, 2019, available at <https://www.trthaber.com/haber/gundem/bakan-cavusoglu-abd-patriot-satmak-istemezse-ikinci-s-400u-alabiliriz-411467.html>, accessed on April 11, 2019.

41. Ibid.

TABLE 1: COMPARISON OF TURKEY'S FUTURE AIR DEFENSE ARSENAL*

	S-400	PATRIOT	SAMP-T	SİPER	HİSAR-A	HİSAR-O
Readiness	5'	30'	High	Under Development		
Reaction	10"	15"	10"			
Altitude	30 km	24 km	20 km			
Range	400 km (Max)	160 km (Max)	100 km		15 km	25 km
Tubes	4	4	8		6	6

* The numeric values are taken from the websites of the manufacturers. There are journalists claiming different numbers.

the Turkish defense giants.⁴² Aside from foreign procurement and production programs, Turkey started a number of air defense programs with its national capabilities.⁴³ The contractor companies tasked with developing the air defense system, listed as the ASELSAN-ROKETSAN-TÜBİTAK SAGE partnership, will deliver the first long-range air defense system, designated as SİPER, to the Turkish Armed Forces in 2021.⁴⁴ Meanwhile, ROKETSAN has developed and tested the short- and medium-range missile systems HİSAR-A and HİSAR-O, that will be delivered in 2020.⁴⁵

Mission Parameters and Effectiveness: A Comparison of S-400 and PATRIOT

Turkey's quest to obtain air defense infrastructure leans on having well-developed and qualified air

defense assets in order to effectively respond to the volatile security threats in the vicinity of Turkey's geopolitical position. In this regard, Turkey needs to have an air defense system that can detect targets from a distance of at least the outer borders of the surrounding states. This would be roughly 600 km that appears to be the maximum distance of radar coverage that the S-400 air defense asset will provide. The air defense system is expected to destroy the rocket, missile, or aircraft as far away as possible from its intended target, i.e. in the range of 300-400 km and at an altitude of minimum 25 km. In this sense, the S-400 is the preferable option for long-range and high-altitude air threats. Furthermore, the risk of facing weapons of mass destruction (WMD) pushes Turkey to lessen the reaction time. Finally, Turkey desires a family of air defense assets that can fill the vulnerability gaps of each other at varying altitudes and ranges, with no dependence on a single supplier, and no restrictions to activating the systems against any threat.

The desired characteristics of air defense assets that can fulfil the given prerequisites can be viewed and summarized in Table 1. PATRIOTS do not address the range and adequate altitude requirements held by Turkey; their numbers are off by 160 and 24 km respectively. Today's air threats fly above 24 km and generally have a range of at least 1,000 km. The range of the PATRIOTS

42. "EUROSAM, Together with ASELSAN and ROKETSAN, Lay the Foundation of Strategic Cooperation in Air and Missile Defence", *MBDA Missile Systems*, <https://www.mbd-systems.com/2017/07/20/eurosam-together-aselsan-roketsan-lay-foundation-strategic-cooperation-air-missile-defence/>, July 20, 2017, accessed on December 2018.

43. Merve Seren, "Türkiye'nin Hava Savunma Sistemi İhtiyacı", *SETA*, <https://www.setav.org/turkiyenin-hava-savunma-sistemi-ihitiyaci/>, November 28, 2015, accessed on December 24, 2018.

44. "SİPER Hava Füze Savunma Sistemi Nedir?", *Hürriyet*, <http://www.hurriyet.com.tr/gundem/siper-hava-fuze-savunma-sistemi-nedir-41004403>, October 31, 2018, accessed on December 24, 2018.

45. "ASELSAN, Milli Hava Savunma Projeleri HİSAR-A ve HİSAR-O'nun Güncel Durumunu Anlattı", *MSI*, <http://www.milscint.com.tr/hisar-projeleri-hiz-kesmiyor/>, January 8, 2018, accessed December 24, 2018.

would give an air threat adequate response time to ignite another missile. EUROSAM, on the other hand, is more or less made up of medium-altitude assets that can complement high-altitude air defense systems. In comparison to PATRIOTs and EUROSAM, the S-400 Triumph is a “mobile multichannel air defense missile system (ADMS) ... to engage current and future air threats [which are] aircraft jammers, early-warning and direction aircraft, reconnaissance aircraft, strategic aircraft carrying airborne missiles, tactical and operational-tactical ballistic missiles, medium-range ballistic missiles and other air attack vehicles in a heavy ECM [electronic counter measures] environment” with “appropriate changes to equipment, software and operational documentation in accordance with established procedure.”⁴⁶ It can also be “launched against AWACS, J-STARS, EA-6B support jammers, and other high-value targets”⁴⁷ under “an intensive jamming environment.”⁴⁸ Moreover, the S-400 does not require “extensive maintenance support”⁴⁹ which lessens the dependency on the supplier in sustaining the system.

Reactions to Turkey's S-400 Procurement

The Turkish choice of S-400 created turbulence in Turkish-American relations. As a response to the S-400 deal, some NATO officials,⁵⁰ mainly

of U.S. nationality like former SACEUR General Curtis Scaparrotti and current SACUER General Tadd Walters, reacted to Turkey's S-400 procurement since it may negatively affect the “interoperability” of NATO countries and may harm the stealth technology of F-35 Joint Strike Fighter. In parallel to the military wing of the U.S. government, the U.S. Congress conditioned the F-35 sales in the defense budget of the Pentagon by preparing and presenting a report on Turkey's S-400 procurement in order to delve into the consequences.⁵¹ Parallel to the global political and military developments and the rapprochement of two countries, the United States has proposed an offer to Turkey and sent a report to the U.S. Congress on November 15, 2018, which outlined the air defense offer and F-35 sales in accordance with the Defense Budget Act. The report emphasized the necessity of offering an alternative proposal to Turkey to make the S-400 procurement less appealing and have Turkey hold an air defense asset consistent with NATO. Parallel to the statement, the secretary of state sent a statement to Turkey on December 19, 2018, which indicates the approval of a \$3.5 billion-worth PATRIOT system.⁵² As such, the U.S. started a campaign to challenge Turkey's quest to procure the Russian air defense system while Turkish authorities delineated the determined stance of Turkey to acquire the partially paid Russian systems.

The reaction of Turkey towards the S-400 decision is solidified in the sentiments of the Minister of Foreign Affairs Mevlüt Çavuşoğlu.

46. ROSOBORONEXPORT, <http://roe.ru/eng/catalog/air-defence-systems/air-defence-systems-and-mounts/s-400-triumf/>, accessed on March 4, 2019.

47. Army Technology, <https://www.army-technology.com/projects/s-400-triumph-air-defence-missile-system/>, accessed on March 4, 2019.

48. Adam Muspratt, “How Capable Is the S-400 Missile System?”, November 21, 2018, <https://www.defenceiq.com/air-forces-military-aircraft/news/how-capable-is-the-s-400>, accessed on March 4, 2018.

49. Macias, “Russia Is Luring International Arms Buyers”.

50. NATO General Secretary frequently announced that it is “national decision” to select and procure the weapons system they want. “S-400 Procurement ‘National Decision’: NATO Chief”, *Hürriyet Daily News*, Available at <http://www.hurriyetaidailynews.com/s-400-procurement-national-decision-nato-chief-142441>, accessed on April 09, 2019.

51. Department of Defense, “Status of the U.S. Relationship with the Republic of Turkey”, November 26, 2018, available at <https://fas.org/man/eprint/dod-turkey.pdf>, accessed on April 13, 2019.

52. Aaron Mehta, “Turkey Cleared by US for \$3.5 Billion Patriot Missile Deal, Despite S-400 Row”, *Defence News*, <https://www.defencenews.com/global/europe/2018/12/19/turkey-cleared-by-us-for-35-billion-patriot-missile-deal-despite-s-400-row/>, December 18, 2018, accessed on December 25, 2018.

He reminded the interested parties that Turkey decided to buy the Russian-made missiles after the U.S. blocked the purchase of the PATRIOT system. Turkey's quest was blocked with no excuse offered during the Obama administration. From the Turkish perspective, it is a contradiction to pressure Turkey to procure PATRIOTs after Turkey has concluded a trade deal with Russia appealing to its national interests and security.

The Turkish thesis against the United States' claims rests on analogies and realities on the ground. For instance, the examples of certain Baltic and East European states whose air defense arsenals are made up of Russian systems along with the lately procured NATO ones, including radars and support systems. In addition, the Greek case, as a NATO member, is very significant to counter the argument of having NATO countries be bound by the U.S. systems. Greece has both an S-300, the previous version of S-400 with many similarities in terms of hard and software, and SA-15s (TOR M1) and SA-8s, which are highly developed and complicated Russian air defense systems that contain the identical component structure of S-400. Greece positioned an S-300s on the island Crete where most Allied flights can be observed including F-35s. In this sense, Greece hosted the Iniochos Exercise on March 31, 2019, with Italian F-35s and Israeli aircrafts joining while the Greek S-300 was being tested. This might have been to observe the effectiveness of the S-300 radar even though a Russian system was activated while the F-35s and F16s were flying, which could breach the secrecy of the aircrafts.

Interoperability is another argument against Turkey's S-400 procurement in so far as this system requires the IFF (Identifying Friend and Foe) system to identify friend and enemy forces along with the aligned data link of the early

warning and radar systems. The deal with the Russian government does not ban any further patch of software that Turkey can modify in accordance with national and NATO standards.⁵³ It is a vital issue, not only for NATO, but also for the Turkish aviation assets. Moreover, Turkey's air defense program is designed to allow alternative air defense systems, specifically the Turkish ones, that will offer initiatives to turn off a given S-400 in the event that it can be replaced by the other systems.

The deal with the Russian government does not ban any further patch of software that Turkey can modify in accordance with national and NATO standards.

Another question could be why Turkey wants the S-400 systems. Air defense principles require such a capacity, since it is better to destroy the threat as close to the location it was identified as possible. In other words, any aircraft, rocket, or missile would be destroyed before it reaches Turkish airspace. Also, the air defense system infrastructure has to lean on a family system that will cover short, medium, and long range and attitude that makes a variety of assets necessary to compliment the vulnerabilities of one another. The range of the S-400 will fill the gap of having an alternative system against all the different types of threats and risks because neither of the air defense systems, including PATRIOT, reaches the maximum range of the S-400.

53. Kokpitaero, "İsmail Demir: S-400'lere Milli IFF Takılacak", October 7, 2018, available at <http://www.kokpit.aero/s400-teknoloji-transferi-yapilacak-mi>, accessed on April 9, 2019.

CONCLUSION: AMERICAN-TURKISH RELATIONS AND S-400 PROCUREMENT

The general course of the American-Turkish relations is detrimental to assessing the developments relating to the S-400 systems and the F-35s. Within this context, the S-400 and, as an extension of this problem, the F-35 projects, are the tip of the iceberg which represents the entirety of the other problem fields. The initial attempt to pinpoint the actual problems can be affiliated to perceptions of both actors. The U.S. perception of Turkey leans on its design of the Middle East and North Africa whereby Turkey is perceived as a challenger due to its recently autonomous political stance. The USA sees a Turkey, led by Erdogan, as a tough “friend,” disobedient to the U.S. desires and running a self-help system in order to ensure its own interests. For sure, Islamophobia and the post-9/11 psychology of American society multiplies the biased perception of the U.S. decision-makers. The Turkish perception, on the other hand, leans on concerns regarding the American tolerance or encouragement of the perceived risks and threats to Turkey. In this context the U.S. backing of the PKK/PYD and FETO has become the backbone of the criticisms in Turkey. The U.S. still pledges logistical support to the PKK/PYD as if they are “secular Kurds” rather than addressing their ‘terrorist identity’. The economic assault on Turkey in August 2018 furthered the prejudices in Turkish minds. Hence the S-400 procurement has become an iconic struggle to cover up the essence of the “real” problems.

If the S-400 procurement is taken among all the other disputes, two aspects can be put forward to better understand the current cri-

sis. Technically, the S-400 is the preference of Turkish governments that reflects the sovereign right of building a defense architecture with appropriate assets. After the U.S. refusal to sell PATRIOTS, Turkey naturally searched for alternative suppliers to respond to the expanding rocket/missile threats in the vicinity. The S-400 system has become the “wise” option with its long-range, high-altitude, and precise air defense capability in relation to the developments in the surrounding three regions and three seas. In this frame, the recent S-200 missile from Syria had an impact point in Cyprus and acted as a reminder of the vitalness of an efficient air defense system. Furthermore, the whispering crises in the Eastern Mediterranean Sea urge Turkish decision-makers to rely on Turkey’s own power in case its “allies” militarily protect the unsatisfied desires of the Greek Cypriots. Without a doubt, Turkey must have an air defense system that can respond to any aerial threat and which is not dependent or subject to the “friendly” incursions of its “allies.”

Another aspect of the S-400 procurement is the political consequences after the systems are set in Turkey. Politically, the U.S. government may apply sanctions by the available apparatus that will also have economic outcomes on Turkey. The U.S. politicians and bureaucrats have expressed such threats, putting forward the expulsion of Turkey from the F-35 project. Interestingly, Trump’s latest position on the discourse of the Turkish S-400 procurement process rendered the CAATSA measures unreasonable. Fluctuation in the attitudes of the U.S. departments emphasizes the continuity in the ambiguity of predicting how the U.S. government will act. Hence Obama’s “hidden” sanctifying strategy may overtly be applied to Turkey, although President Trump’s stance on the background of procurement and ethics of trade makes any sanction

affiliated with Turkey's S-400 and F-35 procurements unlikely.

The U.S. decision and American opinion-makers claim CAATSA as the base of the sanctions. CAATSA is an arrangement requiring the U.S. government to apply sanctions on the "persons" who are involved in intelligence and defense cooperation with Russia and Iran. The "person" described at the beginning of the law is either a real person, as indicated in the whole text, or an entity. According to Merriam Webster Dictionary, entity means "an organization (such as a business or governmental unit) that has an identity separate from those of its members." In the case of S-400 procurement, the U.S. government may apply the mentioned measures on the "real" persons and the entities of the Turkish defense architecture. But the problem starts at this point since those who decided the S-400 procurement are the president of Turkey, the minister of defense, and the chief of general staff - no other person or entity. Then, any harmed "person," like defense companies, may sue the U.S. government since the company has not been involved in the S-400 procurement but has been sanctioned by the USA.

The focus of the debates to expel Turkey from the overall project is on the information security of F-35 fighter jets. Despite the Turkish call to investigate the extent to which the F-35 is endangered by the S-400 systems, there is no apparent American desire to build a team to delve into the technical aspect of the argument. It is as if Turkey is consciously being precluded from the project irrelevant of the S-400 procurement. It is also a fact that the Turkish Air Force's F-16s need to be replaced and Turkey's urgent needs will push it to procure jet fighters in parallel with the ongoing national combat fighter project TFX. It is certain that Russians will be waiting with SU-35, SU-36 or SU-57 options along with other

cooperation offers to manufacture fifth or sixth generation fighter jets.

If Turkey's S-400 procurement is assessed beyond the overall depth of relations, the S-400 procurement is technically a strategic preference of the Turkish government to have an alternative and reliable weapon system other than those presented by the U.S. Actually, the covert sanctions of the previous terms on arms exportation led Turkey to accept the Russian proposal, which also offers "no conditionality" on usage constraints and was seen as a cost-efficient option. Furthermore, it could also be indicative of how the U.S. government exaggerated the prices of air defense assets and the conditions for the allies when there was no viable alternative.

Turkey, for sure, is and will be criticized on interoperability and counterintelligence concerns, or the aforementioned dynamics. Nonetheless, Turkey will enjoy advantages of an additional supplier, which will decrease the constraints of the western club. The S-400, which can be integrated into the NATO system through, for instance, procedural control measures, may add a richness to the air defense of the Alliance, in the manner that the Greek S-300 and SA-15 have been achieving for more than 20 years. EURO-SAM will also enrich the air defense inventory of Turkey, and NATO as well, in responding to the aerial threats as complementary assets.

Turkish national air defense projects, other than the S-400 and EUROSAM, will comply with the prerequisites of NATO's air defense. HİSAR-A and HİSAR-O projects, with a 15-25 km range, will meet the air defense needs for low and medium altitudes. Nationally manufactured SİPER will essentially be the backbone of the Turkish long-range and high-altitude air defense coverage in the future. These projects will fill the gap of regional air defense needs and decrease dependency on foreign military imports while

contributing to Turkish defense exports. These assets may also make Turkish air defense systems competitive with other countries.

All other considerations aside, the S-400 systems are what Turkey needs in a fragile geography if the current political, military, and hydrocarbon-affiliated economic concerns are taken into account. However, the political outcomes of the available options have to be well-calculated by all actors because once a reactive strategy is preferred, responses will heighten the tension. In this context, once Turkey includes S-400 systems in its inventory, the U.S. may apply CAATSA and cancel the F-35 pledge to Turkey. Yet, if Turkey breaks the chains with the U.S., strategic outcomes will also hamper U.S. politics in

the three regions and seas. If the other allies with Russian weaponry are taken into consideration, compromise and tolerance appear to be the wise option for both the United States and Turkey.

What Turkey expects from the United States is to respect its interests and not to undermine Turkish security concerns. The first step towards a normalization of bilateral relations would be to resolve the S-400 issue. A comprehensive security dialogue appears to be crucial to a future “strategic” partnership and to re-establishing the positive mood of the alliance. Such a dialogue will promote the interests of both countries; however, the U.S. support of the PKK/PYD and FETO appears to be the main impediment to establishing such a bridge.

APPENDIX

THE ROCKET AND MISSILE ARSENALS OF THE COUNTRIES IN THE VICINITY OF TURKEY*			
Country	System	Status	Range
Armenia	Frog-7	Operational	70 km
	Scud-B	Operational	300 km
	SS-21 Scarab-C	Operational	70-120 km
	SS-26 Stone (Iskander E)	Operational	280 km
Egypt	R-300 (SS-1-C Scud-B)	Operational	300 km
	Project-T (Scud B-100)	Operational	450 km
	Scud-C	Operational	550 km
	R-70 Luna M (Frog-7B)	Operational	70 km
Georgia	Sakr-80	Operational	80+ km
	Scud B	Operational	300 km
Greece	ATACMS Block 1 (MGM-140)	Operational	165 km
Iran	Mushak-120	Operational	130 km
	Mushak-160	Operational	160 km
	Qiam-1	Operational	500-1,000 km
	Fateh-110	Operational	200-300 km
	Fateh-313	Operational	500 km
	Tondar-69 (CSS-8)	Operational	150 km
	Scud-B (Shahab 1)	Operational	300 km
	Scud-C (Shahab 2)	Operational	500 km
	Zolfaghar	Operational	700 km
	Shahab-3 (Zelzal-3)	Operational	800-1,000 km
	Ghadr 1/Modified Shahab-3/Kadr Ghadr 110	Tested/Development	1,000-2,000 km
	Ashura/Sejjil/Sejjil-2	Operational	1,500-2,500 km
	BM-25/Musudan (Suspected)	Unclear	2,500+ km
	Khoramshahr	Tested/Development	2,000 km
	Emad-1	Tested/Development	1,750-2,000 km
Iraq [not clear]	Al Fat'h (Ababil-100)	Operational	160 km
	Al Samoud II	Operational	180-200 km
Israel	LORA	Operational	280 km
	Jericho-2	Operational	1,500-3,500 km
	Jericho-3	Operational	4,800-6,500 km
Libya [not clear]	Frog-7	Operational	70 km
	Al Fatah (Itislat)	Tested/Development (on hold)	1,300-1,500 km
	Scud-B	Operational	300 km
Romania	Scud-B	Operational	300 km
Saudi Arabia	DF-3 (CSS-2)	Operational	2,600 km
	DF-21 East Wind (CSS-5)	Operational	2,100+ km
Syria	SS-21-B (Scarab-B)	Operational	120 km
	SS-1-C (Scud-B)	Operational	300 km
	SS-1-D (Scud-C)	Operational	500-700 km
	SS-1-E (Scud-D)	Tested/Development	700 km
	CSS-8 (Fateh 110A)	Operational	210-250 km
	Frog-7	Operational	70 km

* Available at <https://www.armscontrol.org/factsheets/missiles>, accessed on April 19, 2019.

TURKEY'S AIR DEFENSE AGENDA A CHALLENGING PATH

MURAT ASLAN

SETA | ANALYSIS

The issue of the S-400s has turned out to be a turning point between the USA and Turkey in testing the strength of their long-lasting partnership. Although both are deeply involved in searching for a way out, the probable “dead-end” is still a challenging factor for their alliance. On the other hand, the problematic fields in question, which are actually the iceberg lurking underneath the surface, make the S-400 dispute the iconic interface. Both countries have long experienced controversy after a series of events that have occurred over the last two decades. Within this context, Turkey's S-400 procurement and the threats by U.S. political figures -mainly the expulsion of Turkey from the F-35 Fighter Jet program - escalated tension between the two traditional allies. As Turkey received the S-400 air defense system, it has been vital to refresh the “whats” and “whys” in order to facilitate assessments. This study is designed to deliver background information, to lay bare the course of the S-400 procurement process, and to provide the reasoning to better understand the responses to the famous five “wh” and “how” questions.

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