# On Turkey's Missile Defense Strategy: The Four Faces of the S-400 Deal between Turkey and Russia

Mustafa KİBAROĞLU\*

#### **Abstract**

The S-400 deal signed between Turkey and Russia has sparked an intense debate in the international arena, where harsh criticisms have been leveled against Turkey. This paper explains the reasons behind Turkey's desire to build an elaborate air defense structure, and discuss how and why its successive attempts to reach this objective in collaboration with the allied countries have failed. It highlights the major arguments behind the severe criticisms in the West concerning Turkey's negotiations, first with a Chinese firm, and then with a Russian firm, and how this entire process has become a serious bone of contention between Turkey and the U.S., carrying a risk of a spill over into NATO. It also discusses why and how the severe sanctions threatened to be imposed on Turkish defense industries by the Trump administration will indeed damage the security and the defensive capability not only of Turkey, but also the U.S.

## Keywords

Turkish foreign policy, S-400, missile defense, Russia, NATO.

#### Introduction

The S-400 deal signed between Turkey and Russia concerning the sale of four battalions of sophisticated Russian air defense systems, worth 2.5 billion U.S.

Received on: 09.03.2019 Accepted on: 17.06.2019

<sup>\*</sup> Prof., MEF University, Department of International Relations, Istanbul, Turkey. E-mail: mustafa. kibaroglu@mef.edu.tr. This is an edited version of the article that was first published as part of *SAM Papers* series (No. 16, April 2019). See http://sam.gov.tr/wp-content/uploads/2019/04/SAM-Papers-No.-16.pdf.

dollars, sparked yet another round of stiff debate in the international arena, where harsh criticisms have been leveled against Turkey mainly from the ranks of its NATO allies.

A number of issues have been raised in these criticisms, extending from whether Turkey needs to spend billions of dollars on buying an air defense system whose effectiveness has not yet been entirely proven across a spectrum of air-borne threats, to how Turkey's longstanding alliance relationship with the U.S. and its status in NATO as a prominent ally might be severely damaged due to the country's increasing degree of rapprochement with Russia, whose foreign and security policies toward the West constitute major challenges for the Alliance and to the rules-based system that has been put in place since the end of the Cold War.<sup>1</sup>

Hence, this paper will, first of all, discuss the fundamental issues that have come to the fore, prior to and during the debate, by focusing particularly on the four faces of the controversial S-400 deal that was signed and sealed between Turkey and Russia. In this context, the paper will first highlight the reasons behind Turkish authorities' desire to build an elaborate air defense structure in the post-Cold War era, and then discuss how and why their successive attempts to reach this objective in collaboration with the allied countries have failed.

Second, the major arguments behind the harsh criticisms leveled against Turkey's negotiations for purchasing an air defense system, first from a Chinese firm, and then a Russian firm, and how this entire process has become a serious bone of contention between Turkey and its NATO allies, in particular the U.S. will be discussed.

Third, the impact of Turkey's acquisition of S-400 from Russia on its medium to long-term objectives to build an effective air defense architecture will be discussed under the shadow of the threatening statements pronounced by leading civil and military figures in the Trump administration, hinting at severe military and economic sanctions to be imposed on Turkey.

Fourth, the positive spin of the intense debate on the S-400 deal that has apparently become a politically motivating factor for Turks, particularly those from the younger generation, toward joining the defense industries sector will be elaborated.

Finally, the paper will conclude with remarks and recommendations with a view to finding a breakthrough in the strained relations between Turkey and its allies that resulted from its decision to buy the Russian S-400 air defense system.

# Turkey's Strategic Environment and its Quest for Air Defense Capability

Due to its geographical location in the vicinity of the most volatile regions of the world, the deployment of an advanced air defense system against the threat posed by the missile and aircraft capabilities in the arsenals of a number of surrounding countries has become an urgent necessity for Turkey.<sup>2</sup>

The existing air defense systems in the country, such as the Stingers, Rapiers and the Hawks, not only have Due to its geographical location in the vicinity of the most volatile regions of the world, the deployment of an advanced air defense system against the threat posed by the missile and aircraft capabilities in the arsenals of a number of surrounding countries has become an urgent necessity for Turkey.

limited ranges (i.e. short and medium), but also limited lifespans. They are aging fast. Turkey's Nike Hercules missiles, which were deployed around the city of Istanbul during the Cold War years, have relatively longer ranges of about 140 km, but they cannot be relied upon any more, and many have been sent to retirement already.

Hence, it wouldn't be wrong to argue that Turkey's airspace is not being protected by proper land-based air defense systems, nor is the vast territory of 783,562 km<sup>2</sup> beneath it, where 82 million Turks live in their homeland.

In lieu of an effective land-based system, Turkey's airspace is patrolled by Turkish Air Force units consisting of F-16 fighter aircraft, which carry airto-air missiles, as well as early warning (i.e., AWACS) and refueling (Aerial Tanker) aircraft, with a view to achieving active protection against potential missile attacks and violations of Turkish airspace by enemy aircraft. This is by no means an acceptable situation from Turkey's standpoint for two reasons: First, the cutting edge technologies used in the land-based anti-ballistic missile defense systems are far more capable of engaging enemy missiles and aircraft while they are still hundreds of kilometers away from the homeland, and they are also much more reliable in eliminating them before they get dan-

Turkey's desire back in the late 1990s was to have a share in the development of the ballistic missile defense technology, a proposal that was not warmly welcomed by the U.S.

gerously close to the strategic assets in the country. Second, military aircraft in the inventory of the Turkish Air Force, such as F16s, which have to fly much longer hours due to airspace patrolling and protection missions than they would normally

do during periods of stable relations with neighbors, run the risk of aging more rapidly as a result of metal fatigue. The excessive stress load on the pilots is also a factor, although a certain proportion of these patrolling missions are being carried out by unmanned aerial vehicles (UAV), which have entered the Turkish Air Force inventory recently.<sup>3</sup> Although the use of drones may reduce the strain on personnel, UAVs are far less effective than a land-based system would be. Turkey is therefore in dire need of deploying a proper air defense structure that would provide consistent coverage all over the country in order to meet the fundamental requirements of being a sovereign state, as well as protecting its population and its territorial integrity in a rather hostile environment.<sup>4</sup>

This issue has long been on the agenda of Turkish politicians, diplomats, and military personnel who have conducted a series of negotiations with their American counterparts since the temporary deployment of the U.S. "Patriot" air defense system in Turkey's southeast during the first Iraq war in 1991. Since then, Turkish authorities have been more than willing to deploy these elaborate air defense systems permanently in Turkey, especially in regions neighboring the Middle East. Despite the extended negotiations, however, no consensus could be found in order to go ahead with a joint project. Turkey's desire back in the late 1990s was to have a share in the development of the ballistic missile defense technology, a proposal that was not warmly welcomed by the U.S.<sup>6</sup>

A similar situation occurred in the triangular relations among Turkey, the U.S. and Israel with respect to cooperation on the development and deployment of the "Arrow-II" air defense system, which has never been realized. While the Americans put the blame on the Israelis as being the ones who did not want to share this new and sensitive technology with Turkey, Israelis pronounced almost exactly the same views regarding the attitude of their American counterparts.<sup>7</sup> All in all, the project was shelved from the perspective of Turkey.<sup>8</sup>

Turkey's quest to develop an elaborate air defense capacity nevertheless continued during the second half of the 2000s, as Ankara widened the scope of potential suppliers to include new countries, such as China, Russia, and NATO allies France and Italy. Turkey issued a call in 2009 for the procurement of a "Long-range Air and Missile Defense System," dubbed T-LORA-MIDS, and collected offers in 2010.9 The U.S. firms Raytheon and Lockheed Martin responded to the call with Patriots, while the Chinese firm CPMIEC made its offer with FD-2000 (the export version of HQ-9), and the Russian firm Rosoboroneksport offered S-400. Later, the Franco-Italian consortium Eurosam offered SAMP/T.<sup>10</sup>

While the bid was still in the evaluation phase on the side of the Turkish authorities, the year 2010 was also critical in terms of developments in NATO air defense. During the Lisbon summit of the Alliance in November of that year, it was announced that the Ballistic Missile Defense (BMD) project that the U.S. had been developing for a couple of decades already, would be transformed into a NATO-wide air defense structure, also known as the "Missile Shield". Hence, the debate on Turkey's quest for deploying an elaborate air defense capability took a new turn, with comments and criticisms coming from experts and analysts underlining whether it would be a wise decision for Turkey to spend billions of dollars while there would be a NATO project underway that would soon take care of defending the allies against a spectrum of airborne threats originating from enemy territories.<sup>11</sup>

Two issues that were either overlooked or hardly mentioned during that debate were highly critical from Turkey's perspective. First, if everything went according to plan, it would take about a decade for the "Missile Shield" project to become fully operational, if not longer, meaning that Turkey's airspace would remain unprotected by land-based air defense systems during that period. Second, no one mentioned publicly that even when the "Missile Shield" would become fully operational in the 2020s, large parts of Turkey's eastern and southeastern districts could not be covered and, therefore, would not be protected due to the technical and geographical limitations of the project.<sup>12</sup>

Authorities argued that the gap could be filled, theoretically, and if need be, with a temporary deployment of U.S. Aegis ashore systems in the eastern Mediterranean. This, however, would not be considered a highly convincing argument for a variety of reasons, such as the slow deployment of the Patriots

in Turkey's southeast in 2012 against the threat posed by Syria and their hasty withdrawal a couple of years later.<sup>13</sup>

# Turkey's Air Defense Project Becomes a Bone of Contention with Allies

The lack of an effective air defense system in Turkey was felt vividly when Syria plunged into civil war in March 2011, which eventually led, among other things, to a reversal of the then gradually improving bilateral relations

The lack of an effective air defense system in Turkey was felt vividly when Syria plunged into civil war in March 2011.

between Ankara and Damascus.<sup>14</sup> In response to Syria's shooting down of a Turkish military reconnaissance aircraft in the international airspace of the eastern Mediterranean in June 2012, the issue was brought before the NATO Council. The Council discussed and eventually approved, in December 2012, the deploy-

ment of Patriot battalions in Turkey's southeastern cities along the Syrian border, namely Adana, Kahramanmaraş and Gaziantep, as a protective measure against possible attacks coming from Syria again.<sup>15</sup>

This incident revived the need for taking swift measures for deploying a permanent air defense structure in the country vis-à-vis the growing threat perceived from the ballistic and cruise missile capabilities in the arsenals of its neighboring states. Based on the lessons learned from earlier attempts in the 1990s and 2000s, the prevailing view among Turkish authorities was, this time, to acquire an elaborate air defense capability in such a way that:

- The system would provide an effective air defense shelter for Turkey against the threat of ballistic and cruise missiles as well as military aircraft:
- The first set of batteries could be deployed and become operational within a short span of time after the signing of the purchase agreement;
- The supplier firm would agree to share the technology with Turkey to allow co-production of the system, including its advanced versions in the near future; and
- The price should be affordable.

The Chinese firm CPMIEC, which had offered the FD-2000 (the export version of HQ-9) air defense system, came to the fore with a promise for an early delivery of the batteries as well as a price that was considerably lower than the price of the S-400, the Patriot, and the SAMP/T. Yet most of Turkey's allies in the West, the U.S. in particular, were quick to react harshly to Ankara's pick among the bidders, on the grounds that the Chinese system would not be compatible with the "Missile Shield" that was being erected across Alliance territory, with a major contribution from Turkey with the radar site in the Kürecik village near the city of Malatya in the southeastern part of the country. Critics of Turkey's decision to go ahead with the Chinese firm, from both inside and outside of the country, also argued that the FD-2000 air defense system, if deployed, would seriously jeopardize the integrity of NATO's sensitive command, control, and communication systems as well as its intelligence collecting capability. If It was also emphasized in these criticisms that the Chinese firm CPMIEC was subject to sanctions of the U.S.

Turkish political and military authorities tried hard to convince their peers in Western capitals and military headquarters that it would be technically possible to find effective solutions for preventing such scenarios from occurring. Nevertheless, the political climate was not at all conducive for reaching a consensus between the parties. As one high-ranking NATO official once told the author at NATO Headquarters in Brussels, "even though effective measures could be put in place, technically speaking, in order to prevent leakage of sensitive information to the Chinese firm, it would be simply not acceptable for the Alliance, politically speaking, to agree to a Turkish-Chinese deal."<sup>17</sup>

While the Chinese deal was still on the negotiation table, the ever-increasing pressure exerted on Turkey by its allies apparently caused a certain degree of reluctance in Ankara's attitude to finalize the deal, which in turn, caused the Chinese firm to withdraw its offer. This development led to a new round of talks between Turkey and the other contenders to renew their offers, bearing in mind what may have made them fail in the previous round.

This time, the Russian firm Rosoboroneksport stood out with its S-400 "Triumf" missile system. Turkish and Russian authorities conducted negotiations, which culminated in the signing of an agreement.

Criticisms voiced by politicians, diplomats, and civil and military experts from the allied countries as well as from within the country, with respect Some have argued that the S-400 issue increased the possibility that Russia could take advantage of U.S.-Turkey friction to undermine the NATO alliance.

to Turkey's choice of the Russian firm, were no less severe than those pronounced only two years before when the Chinese offer was on the negotiation table. This time, however, some of the allies, the U.S. be-

ing at the forefront, went beyond the limits of diplomatic niceties by issuing threatening statements, implying that they would impose severe military and economic sanctions should Turkey finalize the procurement of the Russian air defense system.

The S-400 deal raised a number concerns ranging from the technical aspects of military cooperation within NATO to broader political considerations. Some have argued that the S-400 issue increased the possibility that Russia could take advantage of U.S.-Turkey friction to undermine the NATO alliance.

During a press briefing in May 2018, a State Department spokesperson said, "Under NATO and under the NATO agreement... you're only supposed to buy... weapons and other materiel that are interoperable with other NATO partners. We don't see [an S-400 system from Russia] as being interoperable." In March 2018, Czech General Petr Pavel, who chairs the NATO Military Committee, voiced concerns about the possibility that Russian personnel helping operate a S-400 system in Turkey could gain significant intelligence on NATO assets stationed in the country. <sup>19</sup>

NATO Secretary General has consistently underlined that "decisions on acquisition of military capabilities is a national decision, but what is important for NATO is interoperability, that the different systems can work together."

Assistant Secretary of State Wess Mitchell, who spoke at a foreign relations subcommittee hearing at the U.S. Senate on June 26, 2018, explained that the U.S. would implement sanctions against Turkey through "Section 231 of the Countering America's Adversaries Through Sanctions Act." Mitchell also said that Ankara's decision to purchase the Russian missiles would lead Washington to cancel further delivery of F-35 stealth fighters.<sup>21</sup>

More recently, the "Unclassified Executive Summary" of the "FY19 NDAA Sec 1282 Report" published by the U.S. Department of Defense on the "Status of the U.S. Relationship with the Republic of Turkey," in its section on the "Impact of Turkey's S-400 Acquisition," states that "the U.S. Government has

made clear to the Turkish Government that purchasing the S-400 would have unavoidable negative consequences for U.S.-Turkey bilateral relations, as well as Turkey's role in NATO, including:

- Potential sanctions under Section 231 of the Countering America's Adversaries Through Sanctions Act (CAATSA);
- Risk to Turkish participation in the F-35 Joint Strike Fighter (JSF) Program (both aircraft acquisition and industrial workshare);
- Risk to other potential future U.S. arms transfers to Turkey, and risk
  of losing broader bilateral defense industrial cooperation;
- Reduction in NATO interoperability; and
- Introduction of new vulnerabilities from Turkey's increased dependence on Russia, including sanctioned Russian defense entities, for sophisticated military equipment."

The Report also states that "Turkish acquisition programs that could be affected include but are not limited to the F-35 Joint Strike Fighter, Patriot Air and Missile Defense System, CH-47F Chinook heavy lift helicopter, UH-60 Black Hawk utility helicopter, and the F-16 Fighting Falcon aircraft," and that the U.S. administration would reassess Turkey's continued participation as one of eight partner nations should they continue with their purchase of the S-400.<sup>23</sup>

The severity of these sanctions goes without saying; if imposed on Turkey, they may cause serious damage to Turkey' defensive capacity and operational capabilities, at least in the short to medium term. These risks raise the most important question of all: Who will benefit from such a situation, and who will lose, if and when these sanctions are put in practice? The answer is in the following sections.

### Impact of Turkey's Acquisition of S-400 on its Defensive Capacity

The bulk of criticisms in the West against Turkey's S-400 deal with Russia originates mainly from the deal's political implications due to the increasing degree of rapprochement between Turkey, a NATO ally, and Russia, NATO's long-standing archrival in particular in the aftermath of its illegal annexation of Crimea which has been perceived, from the allies' perspective, a signifi-

cant challenge to the Euro-Atlantic security and defense architecture. Critics at home instead question the military implications of the deal, basically on two grounds, one of which is whether the Russian deal would solve Turkey's need for deploying an elaborate air defense system, and the other is whether the whole controversy is worth the risk of being alienated within the NATO alliance, and being exposed to the severe military and economic sanctions of the U.S.<sup>24</sup>

As for the first concern, it would be far-fetched to argue that the purchase of a Russian air defense system, consisting of only four S-400 battalions, no matter how sophisticated they may be, would provide effective deterrence or extensive protection for Turkey against enemy missiles and military aircraft in an actual conflict. Due to the limited number of battalions and the extent of the area each one of them would cover, the system could only operate on "stand alone" mode, and therefore, only the strategic locations of major cities, selected military installations, and critical infrastructure and industrial sites would be protected. Given this possible scenario, once the S-400 system is deployed and became operational, which could be as soon early 2020, then the second concern, which questions whether the whole controversy is worth the risk of facing severe sanctions by the allies, gains currency.

It is not yet certain whether the U.S. will definitely impose the above-cited sanctions as a response to Turkey's purchase of the Russian S-400 system. But one must bear in mind that the sanctions mentioned here would damage not only Turkey's interests, but also those of the U.S. by way of crippling the defensive capacity and the operational capability of the North Atlantic Alliance as a whole, where Turkey is a major power neighboring one of the most volatile regions of the world.

Therefore, attempting to weaken Turkish military capacity and its economy would only play into the hands of the rivals and the enemies of Turkey, in particular, and of NATO, in general, thereby resulting in a lose-lose situation for both parties within the Alliance.

President Recep Tayyip Erdoğan told journalists, on return from a summit meeting with Russian President Vladimir Putin and Iranian President Hassan Rouhani, which was held in Sochi, Russia on February 15, 2019 that the purchase of S-400 was a "done deal." Having heard this from Turkey's top political leader, and also knowing that nearly half of the price of the S-400

battalions has already been paid to the Russians, a reversal in the Turkish government's policy from this point onward would be only remotely possible, if not totally impossible. No sovereign state would logically take such a radical decision.

If political and military authorities in the U.S. have come to the point of discussing the imposition of severe sanctions on Turkey because of the S-400 deal, they should, before everything else, ask themselves how Turkey has

Had the U.S. administrations so far agreed to the sale of the Patriot air defense system to Turkey under terms similar to those which some of their other allies have entertained, such as, for instance, the Netherlands and Spain, would Turkish authorities have looked for other suppliers from China or Russia? Most probably not!

come, or rather, has been pushed, to the point of negotiating such a deal with Russia.<sup>27</sup>

Had the U.S. administrations so far agreed to the sale of the Patriot air defense system to Turkey under terms similar to those which some of their other allies have entertained, such as, for instance, the Netherlands and Spain, would Turkish authorities have looked for other suppliers from China or Russia? Most probably not! So, who is to blame for the current deadlock that Turkey and its allies have been experiencing lately because of the S-400 deal with Russia?

# Impact of the Debate on Turkey's Quest for Air Defense on the Public

Turkey's missile defense procurement process has frequently made headlines in media outlets both at home and abroad over the last decade, which has indeed done a great deal of service for the country in many ways.

First and foremost, the intense debate has attracted the attention of young pupils from all over the country, sparking a keen interest in defense-related matters. Turkish citizens have also appreciated the value of becoming self-sufficient in this area by investing more in the defense industries sector.

Recently, a growing number of Turkish university students have in mind the goal of joining one of the companies operating in Turkey's defense industries sector, such as Roketsan, <sup>28</sup> Aselsan, <sup>29</sup> and Havelsan. <sup>30</sup> These young Turks constitute the hidden treasure of the country as well as the great potential for the rapid progress of the Turkish economy in the coming decades.

Second, Turkish governments have become much more conscious than ever about the significance of supporting and thus sponsoring domestic research and development projects in the field of defense industries. As an indicator of this acknowledgment, one might cite that the capacity of the Presidency of Defense Industries operating under the auspices of the Presidency of the Republic of Turkey<sup>31</sup> has increased many folds, in less than a decade, in terms of skilled human resources, financial assets, and technical capabilities.<sup>32</sup>

At a ceremony at the Turkish Scientific and Technological Research Council's (TÜBİTAK) Defense Industry Research and Development Institute (SAGE) campus in Ankara in October 2018, President Erdoğan stated that "Turkey is moving rapidly on the way to have a say in all fields of defense, aviation and space technologies." He noted "the locality rate in the defense industry [has] increased from 20 percent to 65 percent." President Erdoğan also emphasized that "Turkey will reach the target of an independent and strong country by uninterruptedly continuing its national defense moves that have been initiated in the defense industry." 33

These two extremely valuable developments alone, which have been taking place in the country almost simultaneously over the past several years, thanks to the reluctance of Turkey's allies to supply sophisticated weapons systems, indeed reflect the extent of change in the mindset of Turkish people from all ranks of society as well as the degree of transformation and determination of the government to become self-reliant in defense procurement matters.

It is hoped that Turkey's friends and allies will take note of this rapid change and the transformation in the country in a timely manner in order to be able draw up win-win scenarios in the alliance relationship that otherwise seem to be tilted toward lose-lose, due to careless speeches in Western capitals and military headquarters about imposing severe sanctions on their "staunch ally" Turkey.

### Conclusion

The world is a dangerous place and, unfortunately, it's not likely to get any better in the foreseeable future for countries like Turkey that seek stability and peace in their neighborhoods. Hence, achieving collaboration and cooperation among like-minded states is more important than ever, in the face of threats posed by rival states and non-state actors.

Bearing these in mind, the U.S. and other concerned NATO countries should thoroughly revise their stance vis-à-vis Turkey's desire to build its own elabo-

rate air defense architecture, preferably in close collaboration with them. Such an eventuality would certainly serve the national interest of both Turkey and the NATO allies.

Hence, the U.S. Raytheon-Lockheed Martin consortium and the Franco-Italian Eurosam consortium should both revise and refresh their offers to provide Turkey with an elaborate air defense capability that could be integrated to the Alliance-wide Missile Shield project once it becomes fully operational and then onwards.

Should this be the case, the co-existence of two separate air defense systems deployed on Turkish territory, one of them being the Russian S-400s that would be operational on "stand alone" mode, would not cause security problems for the NATO allies.

Politicians, diplomats, and civil and military experts from the allied countries who have harshly criticized Turkey for purchasing strategic weapons systems from Russia should feel the responsibility to prove that their governments were sincere in their statements suggesting that they would like to be the major supplier of the air defense system that used to be on the mind of Turkish authorities. They should also ask their government officials to act accordingly and swiftly catch up with the time that they unfortunately wasted so far.

### **Endnotes**

- 1 Can Kasapoğlu, "Turkey's S-400 Dilemma," EDAM Foreign Policy and Security Paper Series, No. 5, July 2017, http://edam.org.tr/wp-content/uploads/2017/10/s400en.pdf (Accessed 5 March 2019).
- Vann H. Van Diepen, "Missile Proliferation in the Middle East," James Martin Center for Nonproliferation Studies, June 2018, https://www.nonproliferation.org/wpcontent/ uploads/2018/07/180711-us-israel-nonproliferation-dialogue-vann-van-diepen.pdf (Accessed 1 March 2019).
- 3 Can Kasapoğlu and Barış Kırdemir, "The Rising Drone Power: Turkey on the Eve of its Military Breakthrough," EDAM Foreign Policy and Security Report, No. 4, June 2018, http://edam.org. tr/en/the-rising-drone-power-turkey-on-the-eve-of-its-militarybreakthrough (Accessed 5 March 2019).
- 4 Fadime Özkan, "Prof. Dr. Kibaroğlu: Hava Savunma Sistemi Türkiye İçin Acil İhtiyaç," Star, 7 August 2017, http://www.star.com.tr/roportaj/prof-dr-kibaroglu-hava-savunmasistemi-turkiye-icin-acil-ihtiyac-haber-1243684/ (Accessed 1 March 2019).
- 5 Mustafa Kibaroğlu, "Turkey's Place in the Missile Shield Project," Journal of Balkan and Near Eastern Studies, Vol. 15, No. 2 (2013), pp. 223-236.
- Ibid.
- 7 Conversations with American and Israeli military and diplomatic staff as well as academics on the sidelines of conferences in Turkey and in the U.S. who would not want to be named.
- 8 Mustafa Kibaroğlu, "Acceptance and Anxiety: Turkey (Mostly) Embraces Obama's Nuclear Posture," Nonproliferation Review, Vol. 18, No. 1 (2011), pp. 201–217.
- 9 Merve Seren, "Turkey's Quest for a National Missile Defence System," SETA Analysis, No. 26, April 2017. Fahrettin Altun, "Turkey's S-400 Strategy," Daily Sabah, 15 September 201, https://www.setav.org/en/turkeys-s-400-strategy/ (Accessed 5 March 2019). Mustafa Kibaroğlu, "Türkiye'nin S-400 Macerasının 4 Yüzü," Yörünge, 1 February 2018, http://www.yorungedergi.com/2018/02/turkiyenin-s-400-macerasinin-4-yuzu/ (Accessed 1 March 2019).
- Sertaç Canalp Korkmaz and Arda Mevlütoğlu, "Turkey's Air Defense Umbrella and S-400," ORSAM, 12 September 2017, http://orsam.org.tr//d\_hbanaliz/213\_eng.pdf (Accessed 3 March 2019).
- 11 Conversations with civil and military experts, academics and journalist in conferences convened both in Turkey and abroad.
- 12 Conversations with Friedrich Wilhelm Ploeger, who recently served as Deputy Commander of NATO's Allied Air Command, on the subject matter on the sidelines of a panel on the "Transatlantic Missile Defense Architecture" organized by the Atlantic Council based in Washington D.C., 30 June 2015. See https://www.atlanticcouncil.org/events/pastevents/global-missile-defense-conference.
- 13 Mustafa Kibaroğlu, "NATO, AB Parantezinde Türkiye-Almanya İlişkileri ve 'İncirlik' Gerilimi," *Stratejist*, No. 2, July 2017, pp. 16-23, http://www.mustafakibaroglu.com/sitebuildercontent/sitebuilderfiles/MK-Stratejist-2-Temmuz2017.pdf (Accessed 3 March 2019).

- 14 Turkey's coercive diplomacy in October 1998 compelled Syria to put a halt to the extensive support that it had provided to the PKK terrorist organization since the early 1980s. The two countries signed a memorandum, known as the "Adana Protocol," aimed at ceasing hostilities and advancing good neighborly relations.
- 15 BBC Türkçe, "NATO, Türkiye-Suriye Sınırına Patriot Kararını Onayladı," 4 December 2012, https://www.bbc.com/turkce/haberler/2012/12/121204\_nato\_patriot\_update2.shtml (Accessed 5 March 2019).
- 16 Can Kasapoğlu and Sinan Ülgen, "Strategic Weapons Systems in the Turkey-Russia-US Triangle," EDAM Foreign Policy & Security Report, No. 2, 16 January 2019, http://edam.org.tr/en/strategic-weapons-systems-in-the-turkey-russia-us-triangle/ (Accessed 1 March 2019).
- 17 Conversations with a high-ranking NATO official on the sidelines of the "Experts on Defence Issues from NATO Countries" roundtable discussions organized by the Public Diplomacy Division of NATO, 25 November 2013, Brussels, Belgium.
- 18 "Turkey: Background and U.S. Relations in Brief," Every CRSC Report, 6 June 2018. https://www.everycrsreport.com/files/20180606\_R44000\_931db862c7f8197428021742a6be57aa5d6e24ee. html#\_Toc516147434 (Accessed 3 March 2019).
- 19 Ibid.
- 20 Remarks by NATO Secretary General Jens Stoltenberg at the Heritage Foundation in Washington, Washington D.C., 18 September 2018, https://www.nato.int/cps/en/natohq/ opinions\_158078.htm (Accessed 1 March 2019).
- 21 Jason Lemon, "US May Punish Turkey for 'Cooperating' with Russia, State Department Official Says," Newsweek, 27 June 2018, https://www.newsweek.com/us-punish-turkey-cooperatingrussia-state-department-officialsays-997517 (Accessed 2 March 2019).
- 22 Department of Defense, "Status of the U.S. Relationship with the Republic of Turkey," Federation of American Scientists, 26 November 2018, https://fas.org/man/eprint/dod-turkey.pdf (Accessed 8 March 2019).
- 23 Ibid.
- 24 Kasapoğlu and Ülgen, Strategic Weapons Systems in the Turkey-Russia-US Triangle.
- 25 See, in this respect, the tweets of a prominent Turkish expert on defense industry matters, namely Turan Oğuz, on 3 October 2017, https://twitter.com/trex\_sss/status/915113268989108226, and on 15 December 2017, https://twitter.com/tyrannosurusrex/status/941591336934936582 (Accessed 1 March 2019).
- 26 "Erdoğan: Turkey's S-400 Missile Systems Purchase from Russia 'Done Deal,'" *Arab News*, 16 February 2019, http://www.arabnews.com/node/1452981/middle-east (Accessed 8 March 2019).
- 27 Barçın Yinanç, "End to Nuke Deal May Start 'Era Worse than Cold War': Expert," Hürriyet Daily News, 25 February 2019, http://www.hurriyetdailynews.com/end-to-nuke-deal-may-start-era-worse-than-cold-war-141455 (Accessed 12 March 2019).
- 28 See http://www.roketsan.com.tr/en/.
- 29 See http://www.aselsan.com.tr/en-us/Pages/default.aspx.

- 30 See http://www.havelsan.com.tr/en/.
- 31 The Presidency of Defense Industries was formerly the Under-Secretariat of Defense Industries under the auspices of the Turkish Ministry of Defense until mid-2018.
- 32 See the website of the Presidency of Defense Industries of Turkey at https://www.ssb.gov.tr/ WebSite/contentlist.aspx?PageID=512&LangID=2.
- 33 "Turkey to Develop its Own Long-Range Air Defense System 'Siper,' Erdoğan Says," *Daily Sabah*, 31 October 2018. https://www.dailysabah.com/defense/2018/10/31/turkey-to-develop-its-own-long-range-air-defense-system-siper-erdogan-says (Accessed 2 March 2019).