

Between a Rock and a Hard Place: How to Make Sense of Turkey's S-400 Choice?*

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ABSTRACT *With the wrap-up of the S-400 deal with Russia in December 2017, critics argue that Turkey is caught between a rock and a hard place due to the adamant opposition of its NATO allies, the United States in particular, which has threatened Ankara with imposing severe sanctions. Would this be the correct representation of the situation at hand? Does it make any sense for Turkey to engage Russia, an archrival nation, to enhance the security of the country? Is the S-400 deal worth the risk of alienating the allied nations whose projected sanctions may have wide-ranging political, economic and military repercussions? With these questions in mind, this paper will try to shed light on the specifics of the S-400 deal that make one think that it may indeed make sense for Turkey to bear the brunt of engaging Russia. In the same vein, the paper will assess the impact of the S-400 deal on Turkey's defense industries. The paper will also present the author's conception of the current "international political non-order" as an underlying factor behind the deal. Finally, the paper will suggest that the S-400 deal must be approached from a wider perspective so as to grasp the extent of the service it has done in bolstering Turkey's military-industrial complex.*

Keywords: Turkey, Defense Industry, S-400, NATO, United States, Russia

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Introduction

Two main questions raised by most defense analysts, especially in Western countries and also at home with respect to Turkey's decision to buy the S-400 air defense system from Russia are: "Does it make sense?" and "Is it worth the risk?" These questions are simple, yet carry massive implications regarding the criticism to which Turkey has been subject over the last several years, and thus the challenges that lie ahead in connection with its decision.

The essence of the criticisms leveled against Turkey emanates from it being a long-time NATO ally, one that undertook extremely tough and risky responsibilities throughout the Cold War period in defense of the Western alliance against the threat posed by Soviet Russia. It may seem therefore strange for a NATO country like Turkey to go for a strategic defense procurement policy with a country like Russia, which is still treated as the main rival in the contingency plans of the Alliance. Indeed, NATO's long-term hostile stance toward Russia has toughened recently, especially since its illegal annexation of Crimea in March 2014 that brought to a halt the constructive and cooperative bilateral relations of the post-Cold War era within the context of the NATO-Russia Council that was created in 1997.

Nevertheless, approaching the S-400 issue from such a dire perspective would be highly misleading in the sense that it could create the impression that Turkey has made a radical decision as a result of a profound shift in its mainstream foreign and security policies. The story is not as clear cut. Turkey's decision to buy the S-400s is the outcome of a long and exhausting journey, full of hope and despair. Over the last three decades, Turkey has sought out the best air defense capability to be deployed all over the country.

Against this background, this article will discuss and analyze the timeline of one of Turkey's most critical—and most criticized—defense procurement projects with a particular emphasis on its hopefully constructive and yet potentially damaging impact on the future of the fledgling Turkish defense industries.

Accordingly, in the first section, a brief account will be given about how Turkey got to the point of signing defense contracts, first with a Chinese firm and then with a Russian firm, after having been involved in extended and tiresome deliberations for years in efforts to procure the Patriot air defense system from its ally, the United States. This section will also highlight the arguments and counter-arguments that Turkey and its NATO allies have leveled against each other over the logic and feasibility of buying non-Western air defense systems, given Turkey's status as a country that occupies a significant place within the West-

ern security structure, and about the implications of such a move for the security of the entire alliance.

The second section will highlight the controversy over Ankara's choice of non-Western air defense systems that sparked crises between Turkey and its NATO allies, the United States in particular, which prompted the U.S. Congress to pass legislation to impose tough sanctions on the

Turkish Armed Forces as well as on the leading Turkish companies operating in the military-industrial complex in Turkey that have developed longstanding collaborative defense projects with their American partners, such as the production of the F-16 fighter aircraft, SOM cruise missiles (*Satha Atılan Orta Menzilli Mühimmat*) and a large variety of electronic warfare products.

The third section will shed light on the specifics of the S-400 deal that indicate it may make sense for Turkey to bear the brunt of engaging Russia in a highly strategically important defense procurement policy despite the risk of the deterioration of its relations with its Western allies, apparently not only in the military domain but also in the political and economic domains.

The fourth section will assess the impact of the S-400 dispute on the recent developments and achievements taking place in the Turkish defense industries and will demonstrate how all of these play out in the context of bolstering the country's capacity and capability in these respects.

The article will conclude with remarks about the need to approach the S-400 dispute from a higher level and a much wider perspective by sketching a picture of the current situation in international politics where no dominant paradigm exists, unlike the Cold War period in which the behaviors of the actors on the world stage (states as well as non-states) at the regional and global level were constrained.

Turkey's Attempts to Establish an Air Defense System

It goes without saying that Turkey's geographical location in the vicinity of volatile regions and in a rather hostile environment requires the deployment of air defense systems all over the country against the threat posed by the missile and air force capabilities in the hands of a number of countries in its strategic environment.¹

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Turkey's airspace is patrolled by Turkish Air Force units consisting of F-16 fighter aircraft, which carry air-to-air missiles, as well as refueling (Aerial Tanker) aircraft and an early warning system (i.e., AWACS), with a view to achieving active protection against potential missile attacks and violations of Turkish airspace by enemy aircraft. A certain proportion of these patrolling missions are carried out by unmanned aerial vehicles (UAV), which have recently entered the Turkish Air Force inventory.² Nevertheless, UAVs are far less effective than a land-based system. 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 such as protecting its population and its territorial integrity in a rather hostile environment.³

Hence, erecting an elaborate air defense capability has long been a priority for Turkish politicians, diplomats and the military, and it has always been on the agenda of Turkish-American relations, especially since the temporary deployment of the U.S. anti-ballistic missile defense systems, namely 'Patriots,' during the first Iraq war in 1991.

Since then, Turkish authorities have been more than willing to procure this equipment at a fair value and deploy it permanently in Turkey, particularly in regions neighboring the Middle East. Despite 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, which was not very welcome by the United States.

A similar situation was experienced in the triangular relations among Turkey, the United States and Israel with respect to cooperation on the development and eventual deployment of the Arrow-II air defense system. While the Amer-

Turkey's existing air defense systems, consisting of Stingers, Rapiers and Hawks, not only have limited ranges (i.e., short and medium), but also limited lifespans, and 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 anymore, and many have been sent to retirement already.

Thus, Turkey's airspace is not being protected by proper land-based air defense systems, nor is the vast territory of 783,562 km² beneath it, where 84 million Turks live. In lieu of an effective land-based system, Tur-

icans 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 about the attitude of their American counterparts. All in all, the project was shelved, at least from Turkey's perspective, and has actually never come to fruition to date, due to the deterioration of Turkish-Israeli relations in the late 2000s.⁴

Nonetheless, Turkey's quest to develop an elaborate air defense capacity 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 the NATO allies, namely France and Italy. Turkey issued a call in 2009 for the procurement of a 'Long-range Air and Missile Defense System,' dubbed T-LO-RAMIDS, and collected offers in 2010.⁵

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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 on condition 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;
- The price would be affordable.

The U.S. firms Raytheon and Lockheed Martin responded to the call with Patriots, while the Chinese firm China Precision Machinery Import-Export Corporation (CPMIEC) made its offer with the FD-2000 (the export version of HQ-9), and the Russian firm Rosoboroneksport offered the S-300. Later, the Franco-Italian consortium Eurosam offered the SAMP/T.⁷

The outcome of the bid would soon reveal the divergent approaches to Turkey's desire to establish an effective air defense capability that was also thought to enhance the security of its allies by achieving interoperability between the

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NATO-wide air defense structure, also known as the ‘Missile Shield’ and the T-LORAMIDS. Experts and analysts did not miss a chance to debate whether it would be a wise decision for Turkey to spend billions of dollars while there would soon be a NATO project underway that would take care of defending the allies against a spectrum of airborne threats originating from enemy territories. Moreover, much to the Turks’ chagrin, came the swift and adamant opposition of the allied nations that would further complicate and prolong the whole process.

The Controversy over Turkey’s Choice of Non-Western Air Defense Systems

The Chinese firm CPMIEC, which had offered the FD-2000 air defense system, came to the fore with a promise for early delivery of the batteries as well as a price that was considerably lower than those of the Russian S-300, the American Patriots and the Franco-Italian SAMP/T.

Yet most of Turkey’s allies in the West, the United States, 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 the Alliance territory, and with Turkey’s major contribution of a 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 the country, 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.⁸ These criticisms also emphasized that the Chinese firm CPMIEC was subject to sanctions from the United States.

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 to prevent such scenarios from occurring. But the political climate was not at all conducive to reaching a consensus between the parties.



Russian Antonov AN-124 Ruslan transport aircraft, carrying the first batch of equipment of the S-400 missile defense system, arriving at Mürted Air Base in Ankara, Turkey on July 12, 2019 as deployment started.

Turkey's National Defense Ministry / AA

While the Chinese deal was still on the negotiation table, the ever-increasing pressure exerted on Turkey by its allies 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 the factors that had made them fail in the previous round.

This time, the Russian firm Rosoboroneksport stood out with its S-400 *Triumph* missile system. Turkish and Russian authorities conducted negotiations during 2016 and 2017 that culminated in the signing of an agreement on December 27, 2017. Criticisms voiced by politicians, diplomats and civil and military experts from the allied countries, as well as from within the country with respect 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. Moreover, some of the allies, the United States being at the forefront, went beyond the limits of diplomatic niceties by issuing openly threatening statements, implying that they would impose severe military and economic sanctions should Turkey go forward and finalize the procurement of the Russian air defense system.

The S-400 deal raised a number of concerns ranging from the technical aspects of military cooperation within NATO to broader political considerations. Some argued that the S-400 issue increased the possibility that Russia could take advantage of U.S.-Turkey friction to undermine the NATO alliance. For instance, in March 2018, Czech General Petr Pavel, who then chaired the

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see [an S-400 system from Russia] as being interoperable.”¹⁰ Moreover, in June 2018, Assistant Secretary of State Wess Mitchell, who spoke at a foreign relations subcommittee hearing at the U.S. Senate, explained that the United States 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.¹¹

Notwithstanding these and other harsh criticisms coming from the allies, in September 2018, the Secretary-General of NATO 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.”¹² However, in November 2018, 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” stated that “the U.S. Government has made clear to the Turkish Government that purchasing the S-400 would have unavoidable negative consequences for US-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);
- Banning of Turkish participation in the F-35 Joint Strike Fighter (JSF) Program (both aircraft acquisition and industrial workshare);
- Banning of potential future U.S. arms transfers to Turkey, and risk of losing broader bilateral defense industrial cooperation;
- Reduction in NATO interoperability in regards to Turkey;
- The risk of new vulnerabilities from Turkey’s increased dependence on Russia, including sanctioned Russian defense entities, for sophisticated military equipment.

NATO Military Committee, voiced concerns about the possibility that Russian personnel helping operate an S-400 system in Turkey could gain significant intelligence on NATO assets stationed in the country.⁹

Similarly, in May 2018, during a press briefing, 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

The report also stated 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 the eight partner nations should they continue with their purchase of the S-400.¹³

Turkey’s Choice of the S-400: “Does it Make Sense?” and “Is it Worth the Risks?”

The bulk of criticisms in the West against Turkey’s S-400 purchase from Russia originates mainly from the deal’s political and military implications due to the increasing degree of rapprochement between Turkey, a NATO ally, and Russia, NATO’s long-standing archrival, perceived from the allies’ perspective as a significant threat to the Euro-Atlantic security and defense architecture, especially in the aftermath of its illegal annexation of Crimea in 2014.

Local critics in Turkey, on the other hand, questioned the political, economic and military implications of the deal, basically on two grounds, one of which is whether the Russian deal makes sense in such a way that it would help to solve Turkey’s need for deploying an elaborate air defense system, and the other is whether the whole controversy is worth the risk of alienating the NATO allies and being subject to the severe military and economic sanctions of the United States.¹⁴

Does it Make Sense?

A number of experts confirm that the S-400 air defense system has some specifications that provide advantages in comparison to its rivals. Particular strengths of the S-400 system include its extended reach, its flexible ability to strike at different targets (primarily aircraft, but also cruise and ballistic missiles to a degree) and its sophisticated sensors, which Russia claims include some anti-stealth capability. The S-400s’ ranges allow them to target key enemy enabler aircraft, such as valuable aerial refueling tankers and airborne early warning and control aircraft. Their flexible targeting capabilities mean they can defend against multiple different types of threats and attacks.¹⁵

The S-400 Triumph air defense system integrates a multifunction radar, autonomous detection and targeting systems, anti-aircraft missile systems, launchers and a command and control center. The system can engage all types of aerial targets, including aircraft, UAVs and ballistic and cruise missiles within a range of 400 km at an altitude of up to 30 km. The system can simultaneously engage 36 targets. The S-400 is capable of firing three types of missiles to create a layered defense. The first missile inducted for the system was the 48N6DM



The S-400 air defense system from Russia is activated for testing at the Turkish Air Force's Mürted Air Base in Ankara, on November 25, 2019.
Stringer / Getty Images

(48N6E3), which is an improved variant of the 48N6M with a more powerful propulsion system. The missile can destroy airborne targets within a range of 250 km. The 40N6 missile has a claimed range of 400 km and uses active radar homing to intercept air targets at great distances. The S-400 Triumph also launches 9M96E and 9M96E2 medium range ground-to-air missiles. Designed for direct impact, the missiles can strike fast-moving targets such as fighter aircraft with a high hit probability. The maximum range of the 9M96 missile is 120 km. The radar of the S-400 can detect and track aircraft, rotorcraft, cruise missiles, guided missiles, drones and ballistic rockets within a distance of 600 km. It can simultaneously track up to 300 targets.¹⁶

The Patriot (PAC-3), on the other hand, is a long-range, all-altitude, all-weather air defense system. It is equipped with a track-via-missile (TVM) guidance system. Midcourse correction commands are transmitted to the guidance system from the mobile engagement control center. The Patriot has increased effectiveness against tactical ballistic, cruise missiles and advanced aircraft through the use of advanced hit-to-kill technology thanks to its guidance system that enables target destruction through the kinetic energy released by hitting the target head-on. The radar system of the Patriot has a range of up to 100 km, the capacity to track up to 100 targets and can provide missile guidance data for up to nine missiles simultaneously.¹⁷

Based on this brief comparison of the fundamental features of the two advanced air defense systems, it wouldn't be wrong to argue that "in the hands of

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competent and well-trained crews, the S-400 can inflict significant damage on an adversary.”¹⁸ Hence, given the four battalions of the S-400 that are reportedly purchased and the extent of the area each one is capable of covering, the strategic locations of major cities in Turkey as well as selected military installations, critical infrastructure and industrial sites could be effectively protected.

The mere presence of the system would enhance Turkey’s overall capabilities for deterrence and defense, especially if one takes into consideration the heightened tension in the Aegean and the Eastern Mediterranean stemming from deep divergences between Turkey and the other littoral states, Greece in particular, over a number of issue areas such as the continental shelf and exclusive economic zones, not to mention the territorial waters dispute. In such a strained context, contingencies that involve a potential airborne surprise attack by Greece on Turkey are no longer seen as routine intellectual exercises or professional training simulations for high-ranking officers by a growing number of security experts in the country.

Another factor that underlines the need for an effective air defense capability, especially around strategic locations, is the attempted coup in Turkey in July 2016 by certain elements in the Turkish Armed Forces who have been identified as members of a religious cult, namely the *Fetullahcı Terör Örgütü* (FETÖ). During the coup attempt, FETÖ members reportedly used 35 military aircraft, 24 of which were F-16s taking off from various airfields across the country and refueled by a tanker aircraft taking off from the Incirlik base. These aircraft were used to bombard a number of strategic sites including the Grand National Assembly and the Presidential Palace, which were defenseless against a surprise airborne attack of such a scale.¹⁹ Many have labeled this incident “Turkey’s 9/11,” an act of terrorism that no one in the country would even fathom happening again.

Alongside these perilous developments, there are also serious ongoing conflicts in Turkey’s immediate neighborhood in the Middle East and the Caucasus, such as the civil war in Syria, acute instability in Iraq, popular unrest and the explosive political situation in Lebanon, Iran’s controversial nuclear and ballistic missile program and the Karabakh conflict between Armenia and Azerbaijan, all of which may influence the extent of the threats to Turkey’s national sovereignty and territorial integrity perceived by the authorities in Ankara.

Considering such realities, one can easily observe that Turkey has a tough neighborhood in which to live. While Turkish decision makers may seem to have ‘rushed’ or ‘insisted’ on acquiring an effective air defense capability as soon as possible, despite the military, economic, political risks put forward by critics, it is important to note that the deal was signed and sealed back in December 2017 at a time of extreme security concerns felt by the Turkish Government and the general populace alike.

Is it Worth the Risk?

One concern raised by the critics of the S-400 deal with Russia from the onset was whether the whole controversy is worth the risk of alienating the allies and facing severe sanctions from the United States, which stands out as the key arms and technology supplier to Turkey.

Amid all this debate, both at home and abroad, as to whether Turkey would insist on going ahead with its decision to buy the S-400s, President Recep Tayyip Erdoğan put an end to the public discourse in February 2019 by telling journalists that the purchase of the Russian air defense system was a “done deal.”²⁰

Turkish authorities have underlined the fact that the S-400 system would be used in ‘stand-alone’ mode, meaning separately from the NATO command control structure with a view to eliminating the risks and the complaints that have been voiced in the West and at home about the possibility of the leakage of sensitive information to Russia.

This decision, however, regardless of its pronounced objectives, may carry the risk of limiting the extent of military cooperation and displaying solidarity with the allies in times of crisis due to the fact that they may not wish to deploy their airborne units on Turkish bases for fear of being hit by friendly fire from the Turkish S-400s should the system prove unable to identify friend from foe during an air battle.

To mitigate such concerns, Turkish authorities expect the Russian supplier to allow, in the delivery of the second batch of the battalions, the installation of a kit on the command control system, which will be produced by Turkey with software prepared by Turkish engineers, in order to integrate them to the Mode 5 Transponder that Turkey uses in coordination with its NATO allies for controlling the airspace, recognizing the air picture and identifying friends and foes in the air traffic.

While there is a lack of certainty about whether Russia will live up to its commitment to enable the S-400 to have such specifications, there are reports that Russia has already included a system (i.e., the interrogator) built to NATO

standards to distinguish between friendly and hostile aircraft on the S-400 system it has sold to Turkey. The same report claims that the actual coded waveforms that this “identification friend-or-foe system” (IFF) uses are kept secure within an attached but separate Turkish-made cryptologic system to which the Russians do not have direct access.²¹

Relatedly, Russia’s *Gazeta* newspaper published a report in December 2019 saying that Turkey successfully tested the IFF system during an initial evaluation of one of its S-400s. According to the report, two F-16s, one F-4 and a helicopter were constantly in the air for eight hours with refueling in the air.²² The *Gazeta*’s story also says that the interrogator that Russia built for Turkey’s S-400s conforms to NATO’s Mk-XII IFF system requirement as defined by a set of standards known as Standardization Agreement (STANAG) 4193. Turkey plans to refit its S-400s with its own equipment as soon as it is ready. It is still not clear, however, if the hybrid Russian-Turkish system actually meets the full array of applicable NATO standards, even if it is technically STANAG 4193 compliant. It’s not clear either whether other members of the Alliance would be willing to trust the safety of their aircraft during combined operations to a Russian-built system.²³

The technical and technological dimensions of the interoperability of the Russian S-400s and the American Patriots aside, authorities in the United States have serious concerns about the ability of the radar of the S-400 battalions that will be deployed in Turkey to collect data on the F-35 stealth aircraft, which might, in turn, enable the Russians to get that information.

Therefore, the United States has made it clear that Turkey should choose between the F-35 aircraft and the S-400 air defense system. In August 2019, Secretary of Defense Mark Esper stated that “the Pentagon would consider allowing Turkey to rejoin the F-35 program only if the Russian-made S-400 air defense system is completely removed from Turkish soil,” meaning that Turkey could not even keep the systems deactivated in warehouses.²⁴

The deal with Russia jeopardizes Turkey’s security in the sense that, while the S-400s will be the grandeur of the Turkish Armed Forces, there is also the possibility that the Turkish Air Force capability may be decimated over time due to the sanctions exercised by the United States; these include, among other things, interdiction of the sale of at least 100 F-35 aircraft that were envisaged,

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case with the two F-35s whose price had already been paid; these craft had passed the test flights with Turkish pilots, yet their delivery was halted by the Pentagon due to the controversy over Turkey's decision to buy the Russian air defense system.

To eliminate the possibility of such undesired situations, high-ranking civil and military officials as well as politicians and diplomats from both sides have gone through rounds of meetings in Ankara and in Washington to mend their differences with a view to putting the much-deteriorated Turkish-American relations back on track. Nevertheless, these deliberations have yet to produce tangible results.

On the contrary, in July 2020, two Republican Congressmen, namely Adam Kinzinger (Illinois) and Michael McCaul (Texas) and a Democratic Congresswoman Abigail Spanberger (Virginia) introduced legislation to impose sanctions on Turkey over the purchase of the Russian-made S-400 missile defense systems. The bill introduced by the U.S. Representatives, Countering Russia's Export of Arms Act, "would designate this acquisition by Turkey as a significant transaction pursuant to Section 231 of the Countering America's Adversaries Through Sanctions Act (CAATSA)," the statement read. The United States has already seized six F-35 aircraft meant for transfer to Turkey.²⁵

Impact of the S-400 Dispute on Developments in the Turkish Defense Industries

With all the pros and cons elaborated in the above sections, Turkey's much-debated air defense procurement process has frequently made the headlines in

at the beginning of the project, to be bought by Turkey.

In addition, Turkey's existing F-16 aircraft need to go through complete LRU (Line Replaceable Unit) checks for their advanced avionics programs and applications, as it is necessary to guarantee their reliable and deterministic communication and to obtain complete functional test coverage. Should the United States put the sanctions into practice, it may not be possible to send these aircraft for testing due to the concerns that they may not be returned to Turkey, as has been the



Russian President Vladimir Putin and Turkish President Recep Tayyip Erdoğan shake hands at the Kremlin during Erdoğan's one day visit to discuss the conflict in Syria, on March 5, 2020. MIKHAIL SVETLOV via Getty Images

a wide range of media outlets, both at home and abroad, over the last decade, which has done indeed a great deal of service for the country's fledgling defense industries in many ways.

First and foremost, the intense debate has attracted the attention of the Turkish people, particularly young pupils from all over the country, sparking a keen interest in defense-related matters more than ever. A growing number of Turkish university students have in mind the goal of joining one of the companies operating in Turkey's defense industry sector, such as Roketsan,²⁶ Aselsan²⁷ or Havelsan,²⁸ or starting their own. These young Turks constitute the hidden treasure of the country and hold 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 indigenous research and development projects in the field of defense industries. To illustrate, it is reported that Turkey's external dependence in the industry has dropped to 30 percent, down from over 70 percent in the early 2000s. While only 62 defense projects were carried out in 2002 with a budget of \$5.5 billion, the number today has reached 700 with a budget of around \$60 billion. The number of companies operating in the defense industry in Turkey rose from 56 to 1,500 and the turnover of the sector hit \$11 billion from just \$1 billion in the same period. Similarly, Turkish defense and aviation exports, which amounted to only \$248 million 18 years ago, have reached over \$3 billion.²⁹

While there is a lack of certainty about whether Russia will live up to its commitment to enable the S-400 to have such specifications, there are reports that Russia has already included a system (i.e., the interrogator) built to NATO standards to distinguish between friendly and hostile aircraft on the S-400 system it has sold to Turkey

Moreover, according to media reports, seven Turkish defense firms were recently listed among the “Defense News Top 100,” published every year by the U.S.-based military publishing company, *Defense News* magazine and based on the previous year’s defense sales. The magazine compiles data from analysts, annual reports by companies and research conducted by the *Defense News* and the International Institute for Strategic Studies. These seven Turkish defense companies are Aselsan, Turkish Aerospace Industries (TAI), BMC, Roketsan, STM, FNSS and Havelsan, which ranked 48th, 53rd, 89th, 91st, 92nd, 98th

and 99th on the list, respectively. While FNSS and Havelsan have entered the list for the first time, Aselsan joined the top 50 for the first time by moving up four spots.³⁰

According to a statement issued by the Directorate of Communications of the Turkish Presidency on August 11, 2020, following the meeting of the Defense Industry Executive Committee of Turkey, which was convened under the chairmanship of President Erdoğan, Turkey will resolutely continue on its path toward a fully independent defense industry and various projects related to electronic warfare, cyber security, communications, weapons, ammunition, missiles and various platforms will be concluded in order to add new domestic and national systems to the ones already in use in the Turkish Armed Forces and security units. The statement also highlighted that many systems employed in recent operations successfully conducted within and beyond Turkey’s borders by the Turkish Armed Forces and security units were designed, developed and manufactured by the Turkish defense industry.³¹

It is also worth noting that one of the conditions of purchase of advanced air defense battalions was that Turkey wanted to be able to participate in the development of the technology of whatever system it procured. If that is going to happen, to be able to learn from both NATO and Russian technology would be an additional potential benefit to the Turkish defense industry.

Hence, no matter how costly, in all respects, the S-400 deal might seem to be, the dispute between Turkey and its allies in the West must be approached from a wider perspective in order to assess the impact of the deal on Turkish

defense industries with respect to its vital contribution to the development and accomplishments of the essential instruments of national power, as well as to the making of the country's foreign and security policies that will be elaborated in the next section.

Approaching the S-400 Dispute from a Wider Perspective

Turkey's recent attempts to establish an effective air defense capability have been taking place in what can be observed as an interregnum of history.³² Unlike the diplomatic comfort zone the Concert of Europe provided in the 19th Century, which established a set of principles and rules to maintain balance between the major powers after the Napoleonic Wars, or the clear-cut geopolitical playground of the Cold War period in the 20th Century, which was characterized by the threat of mutual annihilation due to the excessive stocks of nuclear weapons deployed within the opposing territories of NATO and the Warsaw Pact countries, there exists no such a dominant order in the international arena right now in the 21st century. There is no coherent, dependable paradigm that governs or constrains the behaviors of actors on the world stage, as nation-states, multinational corporations and non-state actors pursue their own immediate interests without being urgently concerned about coordination or collaboration with others.

The functionality of preestablished alliances, pacts and leagues, most of which still remain nominally intact, are practically fading away. The old-fashioned East vs. West tension is giving way to a global decentralization of power, most visibly since the proliferation of populist politicians who began to come to the centerstage during the 2010s. Such populist figures do not readily observe the traditional boundaries in international affairs that prioritize legal norms, and moral and ethical values. Indeed, even the most well-institutionalized multilateral structures like NATO and the European Union are not immune to the consequences of rising populism. Even a brief survey concerning the statements and the actions of the leading figures at the helm of the governing bodies of these institutions would be sufficient to see the extent of the incongruent objectives and policies that aim to pull and push these organizations to opposite, short-term-minded policy visions. Hence, the short-hand reference that would best describe the current "international political non-order"³³ might just be: "You're on your own."

In the contemporary global geopolitical arena, each actor, big or small, rich or poor, may play a significant role in enhancing or diminishing the interests of other actors, including itself—often by way of entering into short-lived and *ad-hoc* collaborative interactions. In the absence of a long-term vision due to a lack of coherence among the perspectives of the leading powers that would also

The higher the proportion of indigenous capability in defense industries, the higher the quality of actionable intelligence and the more precise the attempts in diplomatic demarches

but also, within the same timeframe and setting, in any such deal, they may be in serious confrontations with the very same actors. Indeed, contemporary geopolitical actors are now increasingly observed to be simultaneously shaking hands and smiling to cameras while also jabbing each other in the face and looking for a quick knock-out. There are plenty of vivid instances. A recent example is contemporary Russo-Turkish relations. Turkey and Russia shook hands for the sale of a highly strategic weapons system, namely the S-400s, while confronting each other on war terrain as both are pursuing diametrically opposed policies with regard to the future of the regimes in Damascus, Syria and Libya. Similarly, Turkey and the United States, regarded as long-time allies within the NATO framework, are making active contributions to the contingency planning capabilities of the Alliance and deploying mutual troops around the world to fight against international terrorist organizations such as al-Qaeda and ISIS, all the while pursuing highly incongruous policies in regard to terrorist organizations entrenched in the Middle East, particularly in Iraq and Syria, most prominently the PKK/YPG/PYD.

streamline the behaviors of the remaining actors, one particular characteristic of the current international political non-order to bear in mind is that the fundamentals of the world stage have become very shaky due to the rapid changes in the decisions taken by a multitude of actors and in the decision-makers themselves.

Consequently, global political actors are not only open to pursuing collaborative schemes with anyone available to do so,

Conclusion

It is clear, under the current international political non-order presented above and likely to persist in the foreseeable future, where no dominant paradigm exists, out of the instruments of national power and capabilities that help states pursue their national interest in the international arena, three stand out: intelligence, diplomacy and the military-industrial complex.

In rapidly changing situations on the world stage, where dozens of actors may change their positions, and thus their national interest calculus, on very short notice (e.g. within weeks, if not days) because of their impressions about the behaviors of other actors, it becomes highly crucial to anticipate the moves of other actors before they take effect due to the potential consequences that may either be detrimental or beneficial. Hence, intelligence services must, on the

one hand, develop cutting-edge technological capabilities for routine remote sensing, surveillance and reconnaissance purposes, and build agile, flexible, potent, well-trained and well-equipped operatives so as to be up to the task of achieving such an objective.

Collecting timely and actionable intelligence is a necessary but insufficient condition for protecting the interests of a nation in this highly volatile international political environment. Thus the complementary role of diplomacy comes to the fore as an equally crucial instrument for states to be able to capitalize on the results of the successful intelligence gathering activities as well as to consolidate their political gains thereof, in accordance with the actual codes of conduct in the international arena. States whose diplomatic capabilities are better than others, in terms of the caliber, skills and abilities of their diplomatic cadre, may pursue a more successful foreign policy and achieve their goals regardless of the size of their military capabilities and economic resources.

In addition to these tools is the crucial role of a military-industrial complex. A high-tech, up-to-date military base is clearly a vital element for enhancing and further advancing the achievements that the intelligence units and the diplomatic cadre reach through skillful work in coordination and collaboration with each other. The extent of the capabilities and the degree of autonomy of the military industrial complex of a country determines the boundaries of the zone of operations of the intelligence units and the diplomatic cadre. The higher the proportion of indigenous capability in defense industries, the higher the quality of actionable intelligence and the more precise the attempts in diplomatic demarches. Thus, rather than any overriding international consensus or a peace-making rule of law, the contemporary geopolitical game is played on a first-principles basis of the sweet science: "Hit, and do not get hit." The S-400s may well serve this principle. Time will tell. ■

Endnotes

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