

Turquía, entre el S-400 y la pared

Resumen:

Turquía lleva cerca de dos décadas inmersa en diversos programas de obtención de sistemas de Defensa Antiaérea que le permitan hacer frente a amenazas aéreas que, considerando la inestabilidad endémica del entorno geográfico en que se ubica y de la proliferación de los arsenales de misiles en los países vecinos, resultan esenciales. Aunque la industria nacional ha sido capaz de satisfacer parcialmente esta necesidad, la complejidad propia de los sistemas de gran altitud y largo alcance ha obligado a dirigirse al mercado internacional. Por razones más políticas que de otra índole, el Gobierno turco se decantó a mediados de 2017 por la adquisición del sistema ruso S - 400, decisión que, con independencia del sentido que desde el punto de vista técnico u operativo pudiera tener, está acarreado profundas consecuencias.

Palabras clave:

Turquía, S-400, defensa aérea, misiles balísticos.

How to cite this document:

SÁNCHEZ TAPIA, Felipe. *S-400: Turkey between the hammer and the anvil*. IEEE Analysis Paper 13/2022.

https://www.ieee.es/Galerias/fichero/docs_analisis/2022/DIEEEA13_2022_FELSAN_Turquia_ENG.pdf and/or [bie³ link](#) (consulted day/month/year)

Introduction

On 12 July 2019, the first components of the Russian-made S-400 long-range counter air defence system, one of the most advanced of its kind in the world, arrived at the Mürted air base near Ankara¹. This marked the first steps in the execution of the contract signed two years earlier for the \$2.5 billion purchase of a total of four batteries (32 launchers)² of this sophisticated system which, since it was made public, had caused a number of problems in the deteriorating relations between Turkey and the USA, with consequences beyond the bilateral realm, affecting the entire Atlantic Alliance.

Turkey's attempts to equip its armed forces with a long-range counter air defence system go back decades, and there are undoubtedly numerous reasons for this operational necessity. The highly unstable area in which Turkey is located, where virtually all the surrounding states have vast arsenals of missiles of any kind, justifies its acquisition. But the decision to opt for a Russian system, more for political than operational reasons, is becoming a burden that is not easy to offload.

This paper seeks to explore the reasons that led the Turkish government to take this controversial decision and the resulting geopolitical consequences. To this end, we will first establish some basic facts about air defence to clarify the nature of this decision, which will help us to assess the reasons for its adoption from both a technical and political point of view. Then we will identify the consequences that the incorporation of a Russian weapon system into the inventories of its armed forces is having on Turkey's foreign policy and international relations.

¹ "Russian S-400 delivery process has started, Turkey says", *Daily Sabah*, 12 July 2019. Available at <https://www.dailysabah.com/defense/2019/07/12/russian-s-400-delivery-process-has-started-turkey-says> (accessed October 2021).

² Military Balance 2021.

Counter air defence: some basic concepts

From a doctrinal point of view³, the anti-aircraft artillery (AAA) is part of the broader concept of Air Defence (AD), the purpose of which is to prevent and counteract the effects of the enemy's offensive air operations, among which are three types of threat: aviation (fixed and rotary wing), drones and aerodynamic and ballistic missiles⁴. Without going into detailed technical issues, AD comprises command and control, surveillance, passive air defence and active air defence activities, with counter air defence systems contributing to the latter. Specifically, AAA contributes to the AD through two types of activities: *Missile Defence* (MD) and *Surface Based Air Defence* (SBAD).

The weapon systems (guns and missiles) used in AAA have different capabilities and possibilities (ranges, employment altitudes, minimum employment distances, etc.), so to be effective it is essential to combine and complement them, so that the possibilities of some compensate for the limitations of others. Consequently, counter air defence cannot rely exclusively on a single system, but must use its varying characteristics to provide different overlapping layers of protection (complementary weapons principle) to create a series of defensive "bubbles" that act as an impassable barrier to airborne threats (Figure 1). These bubbles combine systems with short/very short, medium and long ranges⁵ and various altitudes of effective employment⁶.

³ There are several official army publications of joint and specific scope that deal with Air Defence and Counter Air Defence. This work draws from the publications of the Training and Doctrine Command (MADOC), PD3-311 DEFENSA ANTIAÉREA, 9 January 2015 and PD4-300 EMPLEO DE LA ARTILLERÍA ANTIAÉREA, 6 October 2016. At the NATO level, various documents also deal with AD and AAA.

⁴ Ballistic missiles are those which, once their propulsive force has ceased, follow a programmed, approximately ballistic trajectory determined solely by gravity and aerodynamic drag.

⁵ NATO uses the designations VSHORAD (Very Short Range Air Defence, less than 6 km), SHORAD (Short Range Air Defence between 6 and 15 km), MRAD (Medium Range Air Defence, between 15 and 40 km) and LRAD (Long Range Air Defence, more than 40 km).

⁶ Low and very low altitude, below 5,000 m, medium altitude, between 5,000 and 10,000 m and high altitude, above 10,000 m.

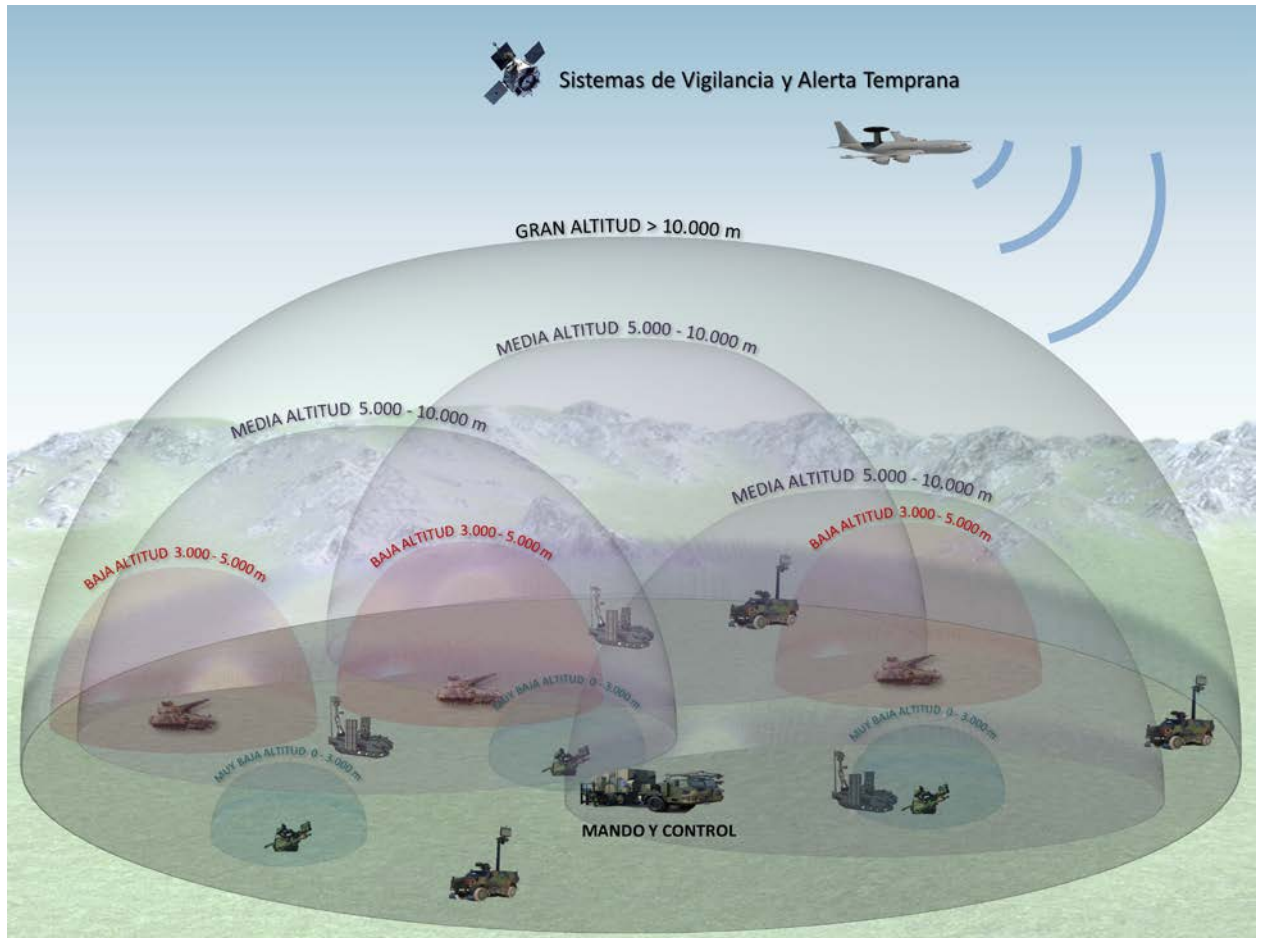


Figure 1: Layered air defence system.

Within the framework of NATO, the allies have established a NATO Integrated Air and Missile Defence (NATO IAMD) structure broken down in air policing missions and *NATO Ballistic Missile Defence (NATO BMD)*. The IAMD integrates the nations' weapon systems (Patriot missiles, Aegis, SAMP/T, etc.), sensors (radars, AWACS, etc.) and the necessary command and control assets (Figure 2). Altogether this is known by the acronym NATINAMDS (*NATO Integrated Air and Missile Defence System*)⁷.

⁷ "NATO Integrated Air and Missile Defence", NATO, 10 June 2021. Available at https://www.nato.int/cps/en/natohq/topics_8206.htm (accessed October 2021).

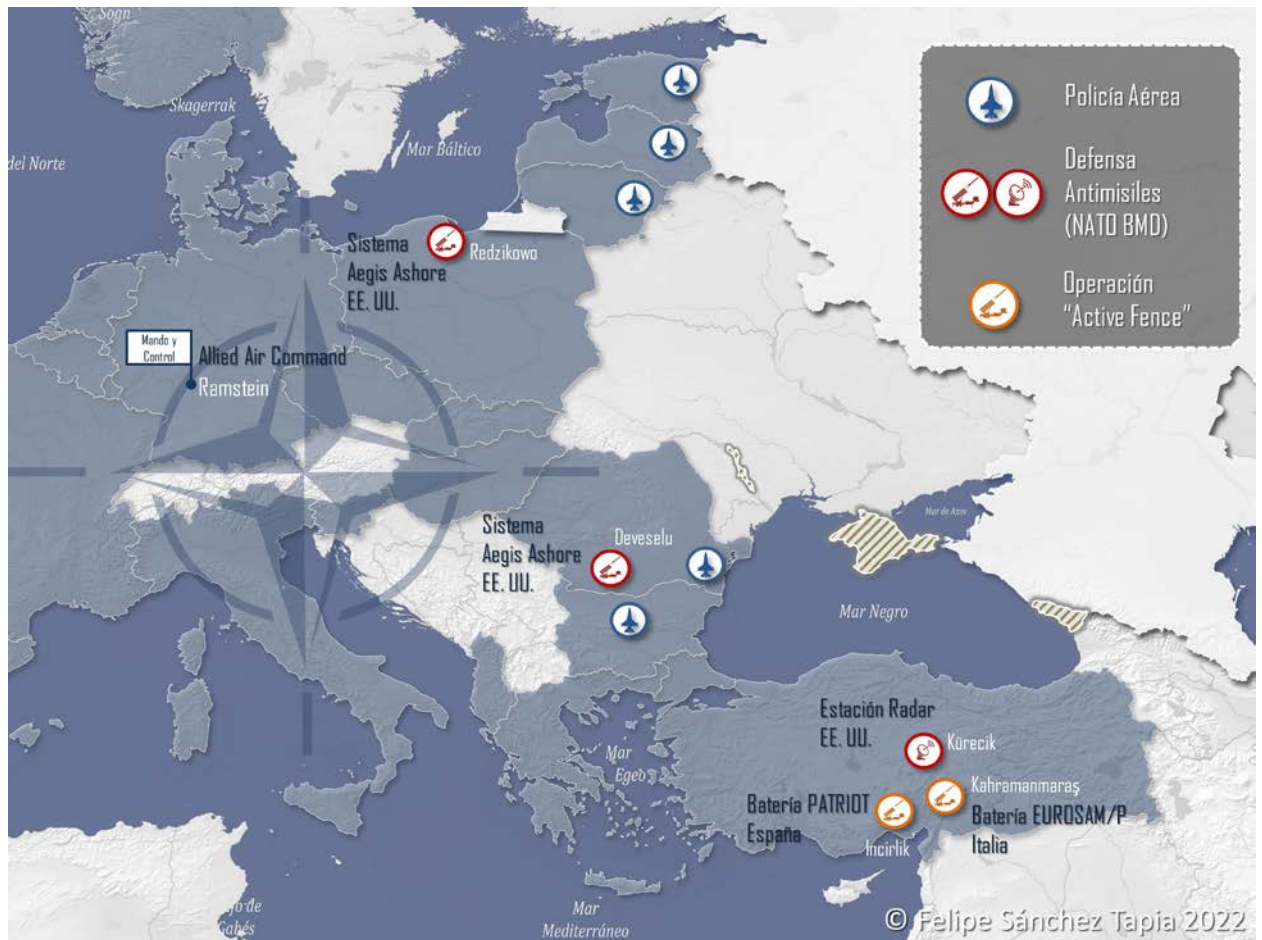


Figure 2: Elements of the NATO AD System (NATINAMDS). Source: NATO.

The Turkish problem

Turkey is a member of NATO and as such benefits from the security umbrella offered by NATINAMDS. In fact, it hosts one of the US radars that are part of NATO BMD on its territory. But the deployment of this system responds to threats which, according to NATO, come from Eastern Europe, so for Turkey, which is located in a geographical area that has been and is the scene of missile threat proliferation, this protection is insufficient⁸. During the war in neighbouring Syria, NATO had to reinforce Turkish defences by deploying counter air defence units, including a Spanish PATRIOT missile battery (Operation *Active Fence*) since 2015.

⁸ "Addressing missile threats in the Middle East and North Africa", *SIPRI Policy Brief*, November 2020. Available at https://www.sipri.org/sites/default/files/2020-11/pb_2011_missiles_0.pdf (accessed January 2022).

For this reason, as early as 2006 the Turkish Defence Industries Headquarters (known in Turkey as SSM)⁹ decided to launch three parallel projects to provide its armed forces with the necessary counter air defence resources it lacked: two domestic industrial developments for the production of short- and medium-range systems and the acquisition of a third long-range system from among the systems available on the international market.

The first two projects eventually crystallised into the HISAR (fortress in Turkish) family of systems, developed by two of Turkey's major defence industry companies, ASELSAN and ROCKETSAN, consisting of a short-range version, HISAR A+ (15 km)¹⁰ and a medium-range version, HISAR O+ (25 km)¹¹, both already in the inventory of the Turkish Armed Forces (Figure 3).



Figure 3: Main air defence systems of the Turkish Armed Forces. Various sources.

⁹ In December 2017, this agency, which was originally part of the Ministry of Defence, was transferred by Law No. 3238 to report directly to the Presidency of the Republic under the name of the Presidency of Defence Industries (SSB).

¹⁰ ASELSAN website. Available at https://www.aselsan.com.tr/HISARAENG_6712.pdf (accessed December 2021).

¹¹ ASELSAN website. Available at https://www.aselsan.com.tr/HISAROENG_3342.pdf (accessed December 2021).

The third project, called T-LORAMIDS (*Turkey Long Range Air and Missile Defence System*), turned out to be much more complex than initially envisaged, proving to be an issue with profound strategic implications rather than a simple acquisition.

It is this process which, years later, led to the S-400 being added to the Turkish Armed Forces' inventories, which is why it is worth a brief examination.

The search for a long-range counter air defence system

At that moment, the greater technological demands of such a system made developing it indigenously at home inadvisable, and so, in line with standard defence industry policy, preference was given to the system of acquisition through "industrial cooperation", which is simply the purchase of this material with the requirement to include technology transfer to acquire the industrial capabilities that will allow the totally autonomous development of this type of system in the future¹².

The SSM launched the procedure in 2007 and three years later, in March 2010, published the final *Request for Proposal* (RfP), which included the technical requirements of the programme to acquire a total of 12 systems (72 quad launchers, 288 missiles) with a budget of 4 billion dollars¹³.

During the bidding and counter-bidding process, which lasted until the end of 2014, proposals were formalised from four countries: the USA, Russia, China and France/Italy (Table 1)¹⁴.

¹² SÁNCHEZ TAPIA, Felipe. The Turkish defence industry. Strategic asset of the first magnitude. IEEE Analysis Paper 06/2021. Available at http://www.ieeee.es/Galerias/fichero/docs_analisis/2021/DIEEEA06_2021_FELSAN_IndustriaTurca.pdf (accessed December 2021).

¹³ EGELI, Sitki, "Making sense of Turkey's air and missile defence merry-go-round", *All Azimut V0, N0, 2018, 1-23, Izmir University of Economics*.

¹⁴ SEREN, Merve, 'Turkey's quest for a national missile defence system', *SETA Foundation for Political, Economic and Social Research, Analysis No 26, April 2017, p. 22*.

T- LORAMIDS PROGRAMME (2014)

	PATRIOT PAC-3	S - 300V Antey 2500	HQ – 9 FD – 2000	SAMP/T Aster 30
Manufacturer	Raytheon M&D	Rosoboronexport	CPMIEC	EUROSAM
Source	USA	Russia	China	France / Italy
Cost (1)	4.5 billion USD	5.2 billion USD	3.44 billion USD	4.4 billion USD
Entry into service	1990	2013	2012	2011
	Technical Data			
Range versus aerodynamic targets	160 km	200 km	125 km	120 km
Range against ballistic targets (2)	40 km	25 km	25 km	15 km
Maximum employment altitude	25,000 m	32,000 m	27,000 m	25,000 m

- (1) The offers varied in terms of the number of systems offered. For example, the Russian bid adjusted its final price to \$5.2 billion after halving the number of missiles.
- (2) The maximum range of a system varies depending on whether it is used against aircraft or missiles, and is considerably less when operating in missile defence mode.

Table 1: Characteristics of long-range air defence systems offered under the T-LORAMIDS programme. Sources of technical data: Rosoboronexport, EUROSAM, <http://www.military-today.com/index.htm>, <https://www.army-technology.com/projects/s-300vm-antey-2500-anti-ballistic-missile-defence-system/>

Within the evaluation process, the SSM chose initially the Chinese offer due to its price, 1 billion US dollars less than the next offer, the European one, but also and above all, because of the advantages it offered in terms of co-production, which theoretically included the transfer of technology¹⁵. However, the subsequent negotiation to establish the contract was by no means straightforward. First, because the promised technology transfers could not materialise to the satisfaction of the Turkish authorities; and second

¹⁵ KORKMAZ, Sertaç Canalp and MEVLÜTOĞLU, Arda, "Turkey's air defense umbrella and S - 400", *Ortadoğu Stratejik Araştırmalar Merkezi*, Report No: 213, September 2017.

because the US exerted considerable pressure to prevent it¹⁶, including the then current US sanctions on CPMIEC¹⁷, such that in 2015 the Chinese offer was definitively ruled out¹⁸.

The Russian S-300V was also ruled out, in this case because of its high price, leaving the PATRIOT system, *a priori*, the most reasonable option. This was not only the most widely used system among NATO allies and also the most reliable, having been used most successfully in real operations. But again, agreement was not reached. The argument used at the time by the Turkish authorities was the lack of understanding about technology transfer¹⁹. But no doubt the memory of the arms embargo imposed by the US Congress on Turkey during the Cyprus conflict in 1974 must also have played a large part²⁰. Under US law, arms sales to other countries are not made by direct contract with the manufacturer but by negotiation between governments and are formalised in the *Foreign Military Sales* (FMS) programme²¹. In practice, this means that subsequent operations such as maintenance, repairs, supply of spare parts or modernisation require US government approval²². None of this was part of the plans of the SSM, which was set up precisely after the 1974 embargo to avoid these limitations.

Having exhausted these options, Turkey continued negotiations with France and Italy²³ which, years later, in July 2017, crystallised in the signing of a cooperation agreement with the Franco-Italian consortium EUROSAM for the co-production of the SAMP/T Aster 30²⁴. The agreement was promising, not least because it opened the door for "joint

¹⁶ 'Turkey 'cannot ignore' Western concerns over missile deal', *Daily News*, 17 February 2014. Available at <https://www.hurriyetdailynews.com/turkey-cannot-ignore-western-concerns-over-missile-deal-62553> (accessed December 2021).

¹⁷ 'Iran, North Korea, and Syria Nonproliferation Act Sanctions (INKSNA)". *US Department of Defense, USA* Available at <https://www.state.gov/wp-content/uploads/2021/08/MASTER-Sanctions-chart-8-16-21.pdf> (accessed December 2021).

¹⁸ 'Turkey cancels \$3.4B missile deal with China to launch own project', *Daily Sabah*, 15 November 2015. Available at <https://www.dailysabah.com/diplomacy/2015/11/15/turkey-cancels-34b-missile-deal-with-china-to-launch-own-project> (accessed December 2021).

¹⁹ 'Turkey: Background and U.S. 'Relations in Brief', *Congressional Research Service*, 23 August 2021. Available at <https://sgp.fas.org/crs/mideast/R44000.pdf> (accessed December 2021).

²⁰ BRUMAGE, Jody, "The Turkish Arms Embargo, Part I", Byrd Center, 2015. Available at: <https://www.byrdcenter.org/byrd-center-blog/the-turkish-arms-embargo-part-i> (accessed January 2022).

²¹ USAgency for Security and Defence Cooperation . USA <https://www.dsca.mil/foreign-military-sales-fms>

²² YIN, R. *Op. cit.*, p. 21.

²³ 'Turkey To Continue Missile System Talks With France', *Daily Sabah*, 8 September 2014. Available at <https://www.dailysabah.com/politics/2014/09/08/turkey-to-continue-missile-system-talks-with-france> (accessed January 2022).

²⁴ 'Turkey joins Italian-French Eurosam consortium for SAMP/T Aster 30 missile defence system', *DAILY SABAH*, 14 July 2017. Available at <https://www.dailysabah.com/defense/2017/07/14/turkey-joins-italian-french-consortium-eurosam-for-sampt-aster-30-missile-defense-system> (accessed December 2021).

development to underpin the national missile development programme"²⁵ which, as we have seen, is a priority for Turkey²⁶. At that time, almost a decade after these projects had been initiated, Turkish industry had already gained some experience in developing such weapons and, by early 2018, its short- and medium-range HISAR systems had been successfully tested²⁷, encouraging the Turkish government to consider the development of a domestically manufactured long-range system²⁸.

The truth is that, over time, Turkey's complicated foreign relations with France have led to a deadlock in the cooperation with EUROSAM. However, the national option has finally come to fruition and has materialised in the form of the HISAR U - SIPER²⁹, a system that has already successfully passed its first operational tests and could enter service in 2023³⁰.

An opportunity for Russia

As has been established, in mid-2016 everything seemed to be on track, progressing perhaps at a slower pace than initially desired but nonetheless surely and with hopes of being able to cover this operational need over the next decade, even making use of the capabilities of its own industry. But the events of the summer of that year, in particular the coup attempt of 15 July, opened a window of opportunity that Russia did not let slip away.

The attitude of the various governments to the attempted overthrow of President Erdoğan has a lot to do with this. While Western partners and allies reacted slowly, coolly and, with

²⁵ 'Turkey contracts EUROSAM, ASELSAN and ROKETSAN to define its future air and missile defence system', EUROSAM press release, 5 January 2018. Available at <https://www.mbda-systems.com/2018/01/05/turkey-contracts-eurosam-aselsan-and-rocket-san-to-define-its-future-indigenous-air-and-missile-defence-system/> (accessed January 2022).

²⁶ Statement by Defence Minister Fikri Isik in "ASELSAN, EUROSAM and ROKETSAN Shake Hands for Air and Missile Defence System", *MSI Turkish Defence Review*, Issue 42, August 2017, p. 10.

²⁷ "Turkey successfully tests HISAR-A short-range air defence missile, ministry says", *The Defense Post*, 1 February 2018. Available at <https://www.thedefensepost.com/2018/02/01/turkey-test-flight-hisar-air-defense-missile/> (accessed January 2022).

²⁸ "Turkey launches project for its first long range air defence system 'Siper'", *Daily News*, 31 October 2018. Available at <https://www.hurriyetdailynews.com/turkey-launches-project-for-its-first-long-range-air-defense-system-siper-138460> (accessed January 2022).

²⁹ "Aselsan Signs Turkey's Long-Range Defense System Deal", *DefenseWorld.net*, 16 January 2018. Available in

https://www.defenseworld.net/news/21769/Aselsan_Signs_Turkey_s_Long_Range_Defense_System_Deal#.Ycr-enPMKMI (accessed December 2021).

³⁰ "Turkey test fires Siper long-range air-defence system". *JANES*, 10 November 2021. Available at <https://www.janes.com/defence-news/news-detail/turkey-test-fires-siper-long-range-air-defence-system> (accessed December 2021).

hindsight, critically, in some cases even speculating that the coup had been orchestrated by Erdoğan himself³¹, the reaction from Moscow was immediate and unequivocal, offering Erdoğan not only unconditional political support to quell the rebellion but also, as later reported, military direct assistance to crush the rebels³². These events have been little appreciated in the West, but the support offered at that difficult time by President Putin has been one of the most pivotal moment in Turkey's foreign relations in the more than five years since then.

In this atmosphere of *re-established cordiality*, President Putin was also the first to invite his Turkish counterpart to a bilateral meeting in St. Petersburg, the imperial capital, on 9 August³³. And it is precisely in this meeting between the two leaders that, in the opinion of some analysts and academics, the commitment to acquire the S-400 could have been made³⁴. Whether this is indeed the case or otherwise, the fact is that at the end of 2017 a contract was signed for the \$2.5 billion procurement of a system (battalion or group type unit) consisting of two batteries (8 quad launchers each, a total of 64 missiles), this offer being extendible to a second system³⁵. Turkey now has all four batteries with a total of 32 launchers³⁶.

³¹ "'No excuse' for Turkey to abandon rule of law: EU's Mogherini", *REUTERS*, 18 July 2016. Available at <https://www.reuters.com/article/us-turkey-security-eu-mogherini-idUSKCN0ZY0EZ> (accessed January 2022).

³² "Russia offered to help Turkey's Erdogan on night of failed coup - Kathimerini", *Ahval News*, 22 July 2019. Available at <https://ahvalnews.com/july-15/russia-offered-help-turkeys-erdogan-night-failed-coup-kathimerini> (accessed January 2022).

³³ "Erdoğan meets Putin in St. Petersburg", *TRT World*, 9 August 2016. Available at <https://www.trtworld.com/mea/erdogan-urges-joint-effort-with-russia-to-solve-syria-crisis-161076> (accessed January 2022).

³⁴ CAGAPTAY, Soner, "A sultan in Autumn", I.B. TAURIS, The Washington Institute for Near East Policy, 2021, p. 53.

³⁵ "Russia to supply Turkey with four S-400 missile batteries for \$2.5 billion: Kommersant", *REUTERS*, 27 December 2017. Available at <https://www.reuters.com/article/us-russia-turkey-missiles-idUSKBN1ELOH6> (accessed January 2022).

³⁶ Military Balance, 2021, *The International Institute for Strategic Studies - IISS*, February 2021.

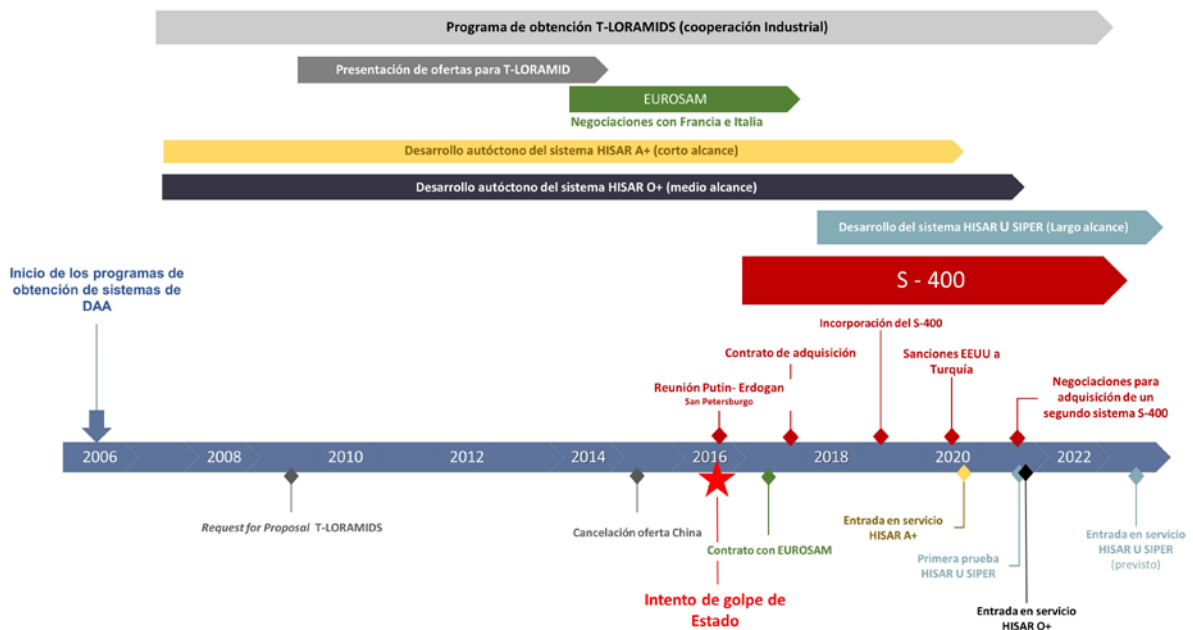


Figure 4: Chronology of the development of counter air defence systems.

What is the S-400 and what are the problems?

The S-400 "Triumph" is the new version of the aforementioned S-300 "Favorit" and, pending the development of the next-generation S-500 system, is the most modern and capable counter air defence system in service with the Russian Armed Forces. Its capabilities exceed those of its predecessor, although much of this depends not so much on the launch system itself but on the missile used, depending of course on the target to be hit. Notably in this regard, there are serious doubts that the most advanced missile that the system can operate and with which it obtains its maximum range, the 40N6E, has been included in the version sold to Turkey, which would impose major limitations on its tactical employment compared to its theoretical capabilities³⁷ (Figure 5).

³⁷ EGELI, Sitki, *Op. Cit.*, p. 18.

Elementos del sistema S-400

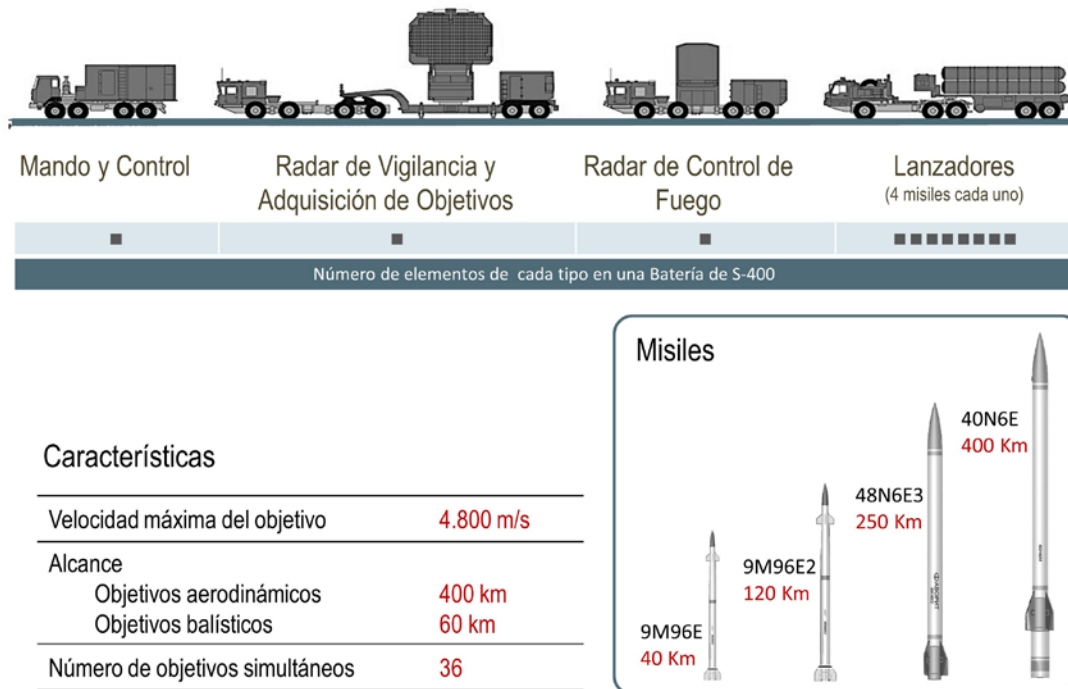


Figure 5: S-400 system. Various sources. Prepared internally.

Although it made political sense, the decision to acquire a Russian system proved extremely controversial both inside and outside Turkey, to the point that the Turkish government was forced to explain itself more than is usual in such cases, while always assuring that it was a sovereign decision that served Turkey's interests first and foremost. The arguments used revolved around the alleged price advantage of this system, in the first instance, and the favourable conditions for joint production and technology transfer in the second.

None of these arguments is entirely convincing. Although the first argument is difficult to verify as the final figures and detailed conditions of the contract are not in the public domain, taking the Chinese offer of 2014 (72 launchers for 3.4 billion dollars) as a reference, the 32 S-400 launchers do not seem, *a priori*, to have been acquired under better economic conditions. Regarding the second, it seems that there is no clause in the initial contract concerning this topic, as the Russian side made clear at the time³⁸.

³⁸ "Putin'in askeri danışmanı: Türkiye'ye S-400 vereceğiz, teknolojisini değil", T24 INTERNET GAZETESİ, 29 September 2017. Available at <https://t24.com.tr/haber/putinin-askeri-danismani-turkiyeye-s-400-verecgiz-teknolojisini-degil,453113> (accessed January 2022).

Nevertheless, in the summer of 2021, negotiations for a second delivery of this system were made public, without specifying the amount, and this time a clause for the local co-production of certain components could have been included³⁹. In fact, in November 2021, Rosoboronexport's Director General confirmed the start of cooperation with Turkey in technology transfer for the production of certain parts of the S-400, without specifying which parts would be the subject of this co-production⁴⁰.

In any case, in an attempt to reassure NATO allies, it was assured that there were no plans to integrate into the Alliance's AD system, something which would doubtfully have been permitted. Among other reasons, the continued operation of the latest generation of fighter aircraft, including the F-22 and F-35, together with the S-400, would allow the acquisition of technical data on the capabilities of these aircraft which, if they ended up in the hands of the manufacturer, could compromise their security.

It is true that the modes of operation of these weapon systems include an "autonomous mode", but this is reserved for the exceptional and undesirable circumstances where an AAA unit has lost all communications with higher echelons⁴¹. The effectiveness of any AAA system relies on the integration of all its components in real time and this includes surveillance and early warning assets, which are responsible for the remote detection of airborne threats. Disconnection from the NATO AD system forces the S-400 to rely exclusively on its own acquisition radar, which in practice, due to the curvature of the earth, limits its effective low-level aircraft detection capability to little more than around 35 km, or as little as below 20 km, depending on the terrain⁴². Under these conditions, the S-400 would operate against aircraft as a simple medium-range system. Faced with a missile threat, the result of operating in isolation is even worse. Given the speed at which missiles in any category travel, be they ballistic or aerodynamic, reaction times are very short, making it virtually impossible for a stand-alone system to respond effectively. Of

³⁹ "Erdogan says Turkey plans to buy more Russian defence systems", REUTERS, 27 September 2021. Available at <https://www.reuters.com/world/middle-east/turkeys-erdogan-says-intends-buy-another-russian-s-400-defence-system-cbs-news-2021-09-26/> (accessed January 2022).

⁴⁰ "Rusya, "S-400 parçalarının Türkiye'de üretimi" için teknoloji transferine başladıklarını duyurdu", *INDEPENDENT Türkçe*, 15 November 2021. Available at <https://www.indyurk.com/node/435921/d%C3%BCnya/rusya-s-400-par%C3%A7alar%C4%B1n%C4%B1n-t%C3%BCrkiyede-%C3%BCretimi-i%C3%A7in-teknoloji-transferine> (accessed January 2022).

⁴¹ PD4-300 EMPLOYMENT OF ANTIAERIAL ARTILLERY, *Training and Doctrine Command (MADOC)*, 6 October 2016.

⁴² BERGLUND, Erik, HAGSTRÖM, Martin and LENNARTSON, Anders, "The Long-range Weapon Threat", FOI, Swedish Defence Research Agency, Strategic Outlook 7, November 2017, p. 2.

course, autonomous operation of the system does not seem to be an optimal solution, at least from a cost-effective point of view.

Political decision with strategic consequences

All the above suggests that the decision was purely political in nature and little influenced by other factors. And if arguments relating to its tactical employment, supposed economic advantages or the interests of the defence industry could not convincingly justify the suitability of this operation, it was to be expected that the political reasons that promoted it would do so. But here, too, the balance is not positive.

This was not the first time that Russia had supplied these weapons systems to an allied country. Since 2007, Greece has had the Russian S-300 system, stationed in Crete and operating "non-integrated" in the NATINAMDS⁴³. But on this occasion, the signing of the contract and the subsequent delivery of the system generated enormous tensions with NATO allies, and particularly the USA

Why has the reaction been so different this time? There are two reasons that may justify this change of attitude, in addition to the aforementioned risk that the S-400 may pose to the safety of the F-35. The first relates to deteriorating bilateral relations between Turkey and the US. For years, they have been affected by substantive issues that have prevented a sincere rapprochement between the two countries⁴⁴. US support for the PYD⁴⁵ in the Syrian war and self-exile in the US of the cleric Fetullah Gülen, accused of orchestrating the 2016 coup d'état, are perhaps the most important. From this perspective, the S-400 issue is simply a consequence rather than a cause of the problems between the two countries.

The second stems from the changes in the global geopolitical landscape in recent years which, coinciding in time precisely with the signing of the contract, has evolved towards

⁴³ "Greece tested Russian S-300 Air Defence System During NATO Drill", *DefenseWorld.net*, 30 November 2020. Available at https://www.defenseworld.net/news/28426/Greece_tested_Russian_S_300_Air_Defence_System_During_NATO_Drill#.YdSRLHPMKMI (accessed January 2022).

⁴⁴ SÁNCHEZ TAPIA, Felipe. 'Turkey and the USA: a troubled relationship'. IEEE Analysis Paper 41/2018. Available at https://www.ieee.es/Galerias/fichero/docs_analisis/2018/DIEEEA41-2018TurquiaFelipe.pdf (accessed January 2022).

⁴⁵ The PYD is considered the Syrian branch of the Turkish Kurdistan Workers' Party (PKK), which is considered a terrorist organisation by Turkey, the EU and the USA.

a position of renewed competition between the major global powers. As stated in the US National Security Strategy (NSSS) of December 2017, international terrorism was no longer the top priority for the USA, who had come to regard Russia and China, the "revisionist powers", as the greatest threats to its hegemony, and had to devote all available resources of national power to their containment⁴⁶. Since that time, the rivalry between the USA and Russia has only worsened, and has in no way been mitigated by the arrival of the Biden administration⁴⁷, as witnessed by the current situation in eastern Ukraine, a conflict more related to maintaining US global hegemony than with purely European issues.

Both circumstances have led to an adverse reaction from the USA, which has ended up imposing sanctions on the Presidency of Defence Industries under the *Countering America's Adversaries Through Sanctions Act* (CAATSA, August 2017), in addition to expelling Turkey from the 5th generation F-35 fighter programme⁴⁸.

The effects of sanctions are beginning to be felt in its defence industry, which remains largely dependent on US components and technology⁴⁹. Furthermore, the expulsion from the F-35 programme is a serious blow in that it jeopardises Turkey's efforts to acquire and maintain air superiority in the Aegean and Eastern Mediterranean as it soon needs to replace its soon-to-be-obsolete F-16 fleet. This is why Turkey, which had joined the F-35 programme with the intention of adding a total of 100 aircraft to its inventory⁵⁰, has been making considerable efforts since its expulsion to be readmitted to the programme⁵¹. The

⁴⁶ National Security Strategy of the United States of America, December 2017. Available at <https://trumpwhitehouse.archives.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905-2.pdf> (accessed in January 2022).

⁴⁷ Interim National Security Strategic Guidance, 3 March 2021. Available in Interim National Security Strategic Guidance (accessed January 2022).

⁴⁸ "The United States Sanctions Turkey Under CAATSA 231", US Department of State press release. 14 December 2020. Available at <https://2017-2021.state.gov/the-united-states-sanctions-turkey-under-caatsa-231/index.html> (accessed January 2022).

⁴⁹ An example is Pakistan's cancellation of a contract for Turkish-made ATAK helicopters equipped with US engines. See "Pakistan cancels purchase of Turkish T129 ATAK helicopters, and seeks replacement from China", *AVIACIONLINE*, 5 January 2022. Available at <https://www.aviacionline.com/2022/01/pakistan-cancels-purchase-of-turkish-t129-atak-helicopters-and-seeks-replacement-from-china/> (accessed January 2022).

⁵⁰ "Turkey plans to purchase 100 F-35 jet fighters worth US\$ 16 billion", *Business Turkey*, 26 February 2012. Available at <https://businessturkeytoday.com/turkey-plans-to-purchase-100-f-35-jet-fighters-worth-us-16-billion.html> (accessed January 2022).

⁵¹ "Turkey hires U.S. lobbying firm to return to F-35 jet programme", *REUTERS*, 19 February 2021. Available at <https://www.reuters.com/article/us-turkey-usa-sanctions-idUSKBN2AJ139> (accessed January 2022).

Turkish defence minister has announced a forthcoming meeting to discuss the issue⁵², but without concessions on the S-400 readmission seems unlikely.

We could assume that the cost of straining relations with the United States to the extreme is one that ought to be largely offset by a marked improvement in relations with neighbouring Russia. But this has not been entirely the case either. Their relationship is a torturous one, heir to centuries-long neighbourhood issues that have seen them clash militarily on 12 occasions over the past 200 years, and in which both are aware that Russia is the more powerful. There are many points of friction, the most relevant of which are opposing positions on the conflicts in Libya and Syria, Turkey's presence in the South Caucasus, attempts to extend its influence in Central Asia, the close strategic partnership between Turkey and Ukraine forged in recent years, including the cooperation of their defence industries⁵³, and Turkey's non-recognition of Russia's annexation of Crimea.

In all of this geopolitical mesh, the S-400 is becoming a burden that getting rid of is not proving straightforward. Turkey does not want to irritate its powerful northern neighbour too much and the return of the system, even if it were technically possible, would add fuel to the fire. On the other hand, its withdrawal from service, given the high cost of the system, is simply difficult to justify to the public. And let us not forget that 2023 is an election year in Turkey, if the economic situation does not force an advance to 2022.

Conclusion

The proliferation of ballistic and aerodynamic missiles in its geographical area has forced Turkey to equip itself with counter air defence systems capable of providing adequate protection against such threats. In what has turned out to be a complicated process that began in the mid-2000s, its own defence industry has been able to provide short- and medium-range anti-aircraft systems already in service with its armed forces.

⁵² "Turkey seeks to buy F-35 from US despite sanctions over Russian S-400s", Sputnik, 8 January 2022. Available at <https://mundo.sputniknews.com/20220108/turquia-busca-comprar-los-f-35-a-eeuu-pese-a-las-sanciones-por-los-s-400-rusos-1120110092.html> (accessed January 2022).

⁵³ This cooperation includes the joint development of the famous Bayraktar-TB2 UCAV, which Ukraine has already used in the Donbas. See "Ukraine used Turkish armed drone Bayraktar TB2 against pro-Russian separatists in Donbas", *TRT English*, 27 October 2021. Available at <https://www.trt.net.tr/espanol/mundo/2021/10/27/ucrania-utilizo-el-dron-armado-turco-bayraktar-tb2-contra-los-separatistas-prorrusos-en-donbas-1725478> (accessed January 2022).

But obtaining a long-range system to complete the defensive arsenal provided by the previous ones is proving to be a matter of great strategic and even political importance, especially given that the national development of such a system is already underway. The Turkish government's decision in mid-2017 to purchase the Russian S-400 system, more for reasons related to the domestic situation than for technical or operational considerations, has been the cause of much controversy both inside and outside the country, inflicting more damage on the already strained bilateral relations between Turkey and the US. This has inevitably spilled over into relations within the Atlantic Alliance, which has a lot to do with the evolution of the global geopolitical landscape towards a marked competitiveness of the great powers, since it is precisely at the end of 2017 that the US was able to make a significant contribution to the global economic recovery. The US already explicitly identifies China and Russia as the greatest threats to its hegemony, over and above other security issues such as international terrorism. A miscalculation that, while it might have been tolerable in another era and in other circumstances, is now unacceptable.

For years, Turkey has been trying to maintain an independent foreign policy which, while responding to its particular security needs, allows it to reconcile pragmatic relations in the Eurasian environment with maintaining its historical ties to the Euro-Atlantic space. But in the renewed rivalry between Russia and the USA, Turkey has been caught between a rock and a hard place. The conflicts in Syria, Libya and the South Caucasus have highlighted the limits of cooperation with Russia, while for the US cooperation with Russia has been limited. As the developments in Ukraine show, this is no time for ambiguity: either you are with me or against me. Getting out of this mess is no easy task, although paradoxically the renewed competition between major powers may provide Turkey with some opportunities.

Starting with the USA, interest in a rapprochement could become mutual, with Turkey potentially becoming highly useful to contain Russian influence not only in the European area, but also in areas where the US aims to reduce its presence, such as the Middle East, the Eastern Mediterranean and Central Asia, a region which, after a complicated exit from Afghanistan and as recent events in Kazakhstan show, has been relatively out of reach. Turkey is likely to try to play this card, but issues such as US support for the Syrian PYD and the S-400 will have to be addressed to de-escalate tensions. The relative withdrawal of the US from the Middle East, particularly Iraq, which would logistically entail

an exit from Syria, might facilitate the former, but imaginative solutions are needed for the latter, especially if the balance in relations with Russia is to be maintained.

With regard to the latter, the crisis in Ukraine may also play in Turkey's favour, as the strategic partnership it has established with this country puts it in a position to play a relevant role in the conflict. Turkey has already offered to mediate between the parties, and while it remains to be seen whether the parties will accept the offer, if it can contribute in any way to the de-escalation of the conflict, Turkey's position would undoubtedly be considerably strengthened.

In summary, it is a complex situation in which the many risks seem to outweigh the few opportunities which, however, if skilfully managed, would allow Turkey to enhance its strategic value vis-à-vis both rivals. We will see if it uses them.

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