

INFO PACK

Turkey's Procurement of the S-400 System: An Explainer

TRT WORLD research centre

INFO PACK

Turkey's Procurement of the S-400 System: An Explainer

TRT WORLD research centre

© TRT WORLD RESEARCH CENTRE

ALL RIGHTS RESERVED

PUBLISHER

TRT WORLD RESEARCH CENTRE

August 2019

WRITTEN BY

Abdullah Keşvelioğlu

Alpaslan Oğuz

Edebali Murat Akca

Muhammed Lütfi Türkcan

PHOTO CREDIT

ANADOLU AGENCY

TRT WORLD İSTANBUL

AHMET ADNAN SAYGUN STREET NO:83 34347

ULUS, BEŞİKTAŞ

İSTANBUL / TURKEY

TRT WORLD LONDON

200 GRAYS INN ROAD, WC1X 8XZ

LONDON / UNITED KINGDOM

TRT WORLD WASHINGTON D.C.

1819 L STREET NW SUITE, 700 20036

WASHINGTON DC / UNITED STATES

www.trtworld.com

researchcentre.trtworld.com

The opinions expressed in this report represent the views of the author(s) and do not necessarily reflect the views of the TRT World Research Centre.

Contents

06 **Introduction**

07 **Timeline: Run-up to the S-400 Deal**

08 **History of Turkey's Pursuit of Air Defence Systems**

10 **What are the Specifications of the S-400 System?**

11 **How does the S-400 Work?**

12 **The US Position towards the S-400 Deal**

14 **CAATSA Scenarios for Turkey**

14 **Turkey's Participation in the F-35 Programme**

15 **Q&A: The Implications of Turkey's Removal from the F-35 Program**

16 **Conclusion**

Introduction

Since the 1990s, Turkey has aimed to enhance its defensive capabilities with long-range air defence systems. The Gulf War of 1991, the invasion of Iraq in 2003, and the Syrian civil war have demonstrated the need for Turkey to acquire advanced air defence systems.

NATO countries, including the United States, deployed Patriot and SAMP-T air defence systems in Turkey during times of crises under NATO's joint defence programme. Nevertheless, in 2006 Ankara initiated the T-LORAMIDS (Turkish Long-Range Air and Missile Defence System) programme to procure its own defence system. In 2017, after rigorous assessment, Turkey announced that it would procure the S-400 air and missile defence system from Russia.

The United States opposed Turkey's S-400 purchase claiming that the Russian made systems would undermine the Alliance's defence systems by capturing critical data on the F-35's stealth capabilities. The US subsequently suspended delivery of F-35 fighter jets to Turkey and publicly committed to 'unwind' Turkey's involvement in the project. In response to the concerns, Turkey stated that it would not integrate the S-400's into the NATO defence network.

On July 12, 2019, over a decade after the T-LORAMIDS programme started, the delivery of S-400s began. According to Turkish President Recep Tayyip Erdoğan, by April 2020, the systems will be fully operational.

This info-pack aims to provide the necessary background information on the issue. In the first section, the history of Turkey's pursuit of air defence systems will be discussed. In the second section, the specifications of the S-400 systems will be explained in detail. In the last section, the US position towards Turkey's purchase of S-400s and potential US sanctions against Turkey will be evaluated.



(Sefa Karacan - Anadolu Ajansı)

Timeline: Run up to the S-400 Deal

2006 Turkey launches T-LORAMIDS (Turkish Long-Range Air and Missile Defence System).

2009 Turkey initiates talks with the US over a possible purchase of Patriots.

2010 Turkey announces request for proposals to provide solutions to the T-LORAMIDS issue.

2013 Due to US rejection of technology transfer of Patriots, Turkey turns to alternative options for its air defence needs.

September 26, 2013 Turkey provisionally decides to purchase the Chinese FD-2000 air defence system after holding a T-LORAMIDS tender.

November 15, 2015 Turkey abandons its purchase of the Chinese FD-2000 missile system after deciding to produce a defence system using domestic resources.

July 25, 2017 President Erdoğan says Turkey signs a deal to acquire the Russian S-400 air defence system.

March 6, 2019 Turkish Foreign Minister Mevlüt Çavuşoğlu says "Turkey can buy any defence system it deems necessary, and needs no permission".

April 3, 2019 Turkey offers establishment of a technical working group with the US to settle issues so that the S-400 system does not pose a threat to the NATO system.

April 3, 2019 Turkish Vice President Fuat Oktay says "The United States must choose. Does it want to remain Turkey's ally or risk our friendship by joining forces with terrorists to undermine its NATO ally's defence against its enemies?"

April 04, 2019 US halts delivery of F-35 equipment to Turkey over the S-400 dispute.

May 5, 2019 Former Acting U.S. Defence Secretary Patrick Shanahan says "If Turkey decides that the S-400 is a decision they want to go forward with, then we have to move work [F-35 manufacturing] out of Turkey".

May 18, 2019 Turkish President Erdoğan says Purchase of S-400 from Russia is a done deal.

June 6, 2019 Turkish President Erdoğan says the S-400 deal is irreversible and the missile system will start arriving in Turkey in July.

June 11, 2019 The US halts the training of Turkish pilots on F-35 jets.



(Turkey's National Defense Ministry / Handout - Anadolu Agency)

July 12 2019 The first batch of the S-400 system arrives in Turkey.

July 15, 2019: Erdoğan says the S-400 missiles will be completely installed by April 2020.

July 16, 2019 Trump says the F-35 situation is not fair to Turkey, acknowledging that the US refused to sell Turkey the Patriot missile defence system.

July 17, 2019 White House states "Unfortunately, Turkey's decision to purchase Russian S-400 air defence systems renders its continued involvement with the F-35 impossible"

July 18, 2019 Turkish Defence Minister Hulusi Akar says Turkey's removal from F-35 program will harm NATO's strength, at its southern flank in particular.

July 22, 2019 Turkish Foreign Minister Mevlüt Cavuşoğlu says Turkey will retaliate if the US imposes economic sanctions on Turkey.

The History of Turkey's Pursuit of Air Defence Systems

Air defence systems are designed to defend an area from airborne threats such as ballistic missiles and aircraft. Long-range missile systems are one of the fundamental components of air defence systems. The US, Russia, China, the United Kingdom, France, Germany, Japan, India, and many other countries use these defence systems to protect their air space from hostile parties.

Throughout the Cold War, Turkey used American-made Nike Hercules missile systems for its air defence. However, as technology progressed, offensive and defensive systems evolved. Therefore, the outdated Nike Hercules systems made Turkish airspace vulnerable to threats.

During the 1991 Gulf War, The Saddam Hussein regime in Iraq possessed Soviet-made SCUD ballistic missiles capable of striking Turkey. Under the umbrella of NATO, the US deployed Patriot missile systems in southern Turkey to defend against Iraqi missiles. During the 2003 American invasion of Iraq, American Patriot batteries were deployed in Turkey for a second time.

NATO air defence systems were deployed to Turkey for the third time in 2013 to defend against potential threats posed by Syrian regime's ballistic missiles. At the time, the US, the Netherlands and Germany deployed Patriot systems in southern Turkey. After two years of deployment, these countries withdrew their Patriots in 2015. However, Spain and later in 2016 Italy, deployed air defence systems to continue the NATO air defence mission in Turkey. Currently, Spanish Patriot and Italian SAMP-T missile systems are deployed in Turkey.

The 1991 Gulf War showed Turkey the importance of air defence systems. Turkey's southern neighbours Syria and Iraq both possessed SCUD ballistic missiles. Iran also held SCUD's in addition to its indigenous missile systems with the range to strike inland Turkey. These threats led Turkey to consider building air defence capabilities. However, economic and political difficulties throughout the 1990s prevented Ankara from taking concrete steps on the issue during this time.

In 2006, Turkey finally commenced T-LORAMIDS programme to make the necessary upgrade in its air defence capabilities. By 2010, Ankara had determined its technical specifications and announced its request for proposals. American, French - Italian, Russian and Chinese companies showed interest in the programme. Accordingly, American Raytheon and Lockheed Martin offered the Patriot system, French and Italian joint venture Eurosam offered the SAMP-T, Russian Rosoboronexport offered S-300, and Chinese CPMIEC offered the FD-2000 export model of HQ9 systems to Turkey.

Aiming to strengthen its domestic defence industry, Turkey wanted to secure technology transfer and future co-production of whatever system it decided to purchase.

The T129 Atak helicopters provide a good case for understanding Turkey's policy in this regard. Rather than direct foreign acquisition, Turkey aimed to produce helicopters to meet the army's needs. However, building these complex systems from scratch required a vast amount of R&D financing and time. In 2007, Turkish Aerospace Industries (TAI) and Italian AgustaWestland agreed to co-develop attack helicopters based on AgustaWestland's A129 helicopters. In this way, Turkey developed critical parts of the helicopters such as avionics, computer and weapons systems. Moreover, TAI also produced the engine of the helicopter under licence in its facilities. In 2014, the T129 Atak's started its service in Turkish Army.

The Turkish defence industry made remarkable gains from the T129 experience. With the transfer of know-how in the production of T129, TAI began developing its own T625 multipurpose helicopter project in 2013. 85% of the helicopter's parts are Turkish made. Moreover, Turkish Engine Industries (TEI) is also developing an indigenous engine, enhancing the level of domestic parts in the production. The T625 made its first flight in 2018 and serial production is planned to begin in 2021.

In 2013, Chinese CPMIEC made the lowest bid in the tender process with a US$3.4 billion offer for its HQ-9's export variant FD-2000. The Chinese side also offered technology transfer and co-production, the most important criteria for Ankara. Hence, Turkey chose the Chinese FD-2000 systems for its long-range air and missile defence systems.

The US opposed Turkey's agreement with CPMIEC. Washington expressed concerns that Turkey's procurement of FD-2000 would pose a risk to NATO's defence network. The Americans argued that these systems would allow the Chinese to perform espionage activities on NATO's joint systems. Moreover, CPMIEC, manufacturer of the FD-2000,

was sanctioned by the US for the violations of Iran, North Korea and Syria Non-proliferation Act.
NATO also opposed Turkey's deal with China. According to NATO officials, the FD-2000 was not compatible with NATO systems and Turkey's acquisition of these systems would hinder the collective defence capabilities of the alliance.

Ankara stated that it would not integrate the Chinese FD-2000's into the NATO defence network. Turkish officials also expressed their disappointment to their Western allies. According to the Turkish side, their first preference had been to buy American Patriots or French-Italian SAMP-Ts. However, neither the American side nor the European side agreed to Turkey's technology transfer and co-production requirements. Hence, Turkey's FD-2000's decision was deemed a necessity rather than a choice.

However, by November 2015, Turkey cancelled the US$3.4 billion deal with China's CPMIEC. Apparently, the Chinese side failed to fulfil Ankara's requirements. The parties failed to reach an agreement on the level of technology transfer and the level of participation Turkish companies would have in the production process. Turkey declared that rather than buying a foreign system, it would focus on building its indigenous air and missile defence system.

Although Spanish Patriot and Italian SAMP-T systems were deployed to continue the NATO air defence mission in Turkey, the withdrawal of American, Dutch and German Patriots at a time of high risk demonstrated to Turkish authorities the importance of procuring an indigenous air defence system.

However, the research and development process of such complex systems is a lengthy and expensive process. Daesh's expansion and infiltration of military bases in Iraq and Syria, the continuation of the Syrian civil war and rising uncertainty in the Middle East meant that the threat profile facing Turkey would remain. These and other developments led Turkey to reconsider its decision to cancel procurement of foreign missile systems.

In 2017, Turkey signed a deal with Russia to purchase the S-400 air and missile defence system. The S-400s are an evolved and upgraded version of the S-300s and are considered to be one of the most successful air and missile defence systems ever produced. According to the deal, Turkey would be getting two batteries of S-400s for US$2.5 billion.

The US and NATO once again opposed Turkey's decision to buy non-Western military equipment. American and NATO officials argued that, like the Chinese FD-2000's, the S-400s would risk the security of NATO's defence security



(Turkey's National Defense Ministry / Handout - Anadolu Agency)

network. According to US and NATO officials, the S-400s could not be integrated to NATO systems because Russia may be able to use a backdoor in the software to infiltrate the NATO network. Moreover, Washington has expressed concerns that the S-400s would undermine the stealth capabilities of the F-35 fighter jets. In light of these concerns, the US cancelled the delivery of F-35s and suspended Turkey's participation in the programme.

In return, Ankara declared that it would not integrate the S-400s into the NATO network. According to the Turkish officials however, the US position reflected a double standard as Turkey was not the first NATO member to use Russian systems. Greece, Slovakia and Bulgaria also possess S-300s. Turkish officials also said that they would operate these systems in separate regions; therefore, the F-35s would not be as risk.

In the midst of all these discussions, the first components of the S-400s were delivered to Turkey on July 12, 2019. According to Turkish officials, the delivery process will be completed by April 2020.

What are the Specifications of S-400 System?



(Sefa Karacan - Anadolu Agency)

The S-400 Triumph, known as the SA-21 Growler by NATO countries, is a long-range, surface-to-air defence system developed by Russian defence company Almaz-Antey. The S-400 is considered one of the best operational air defence systems in the world. It is the fourth generation of Russia's long-range air defence system. Its development began in 1993 based on the technology of its predecessor, the S-300. Between 70 and 80% of its technology is employed from S-300, including missile storage containers, launchers and radars.

The need for developing such an air defence arose when Russian officials realised that the S-300s were not able to engage effectively with new generation fighter jets and missiles. According to analysts, the S-400 was developed in order to track and take down fifth generation fighter jets, such as the American made F-35s.

Testing of the S-400 system began in 1999 and Russia added it into its inventory in 2007. The first field that S-400 was deployed in was the Russian capital city of Moscow. The S-400 is a mobile system capable of engaging with warplanes, command and control planes, scout planes, strategic and tactical aircraft, hypersonic targets, armed and unarmed unmanned aerial vehicle as well as cruise and ballistic missiles.

Battalions are made up of eight launchers, and each launcher is able to carry four missiles. The S-400s range is between 250 and 400 km - depending on the missile type that it uses - at an altitude of up to 30km. The S-400 system is able to use two missile series and another one is in the development process. It primarily uses the 48N6 missile series with which the system is able to intercept aerial targets up to 250 km and ballistic missiles across a 60 km radius. The missile uses a 143 kg high explosive warhead.

Another missile series that the S-400 is compatible with is the 40N6, which is a long-range air defence missile with a range of 400 km. There is also the 77N6 missile series under development which has a "hit-to-kill" technology and designed specifically to destroy ballistic missile warheads.

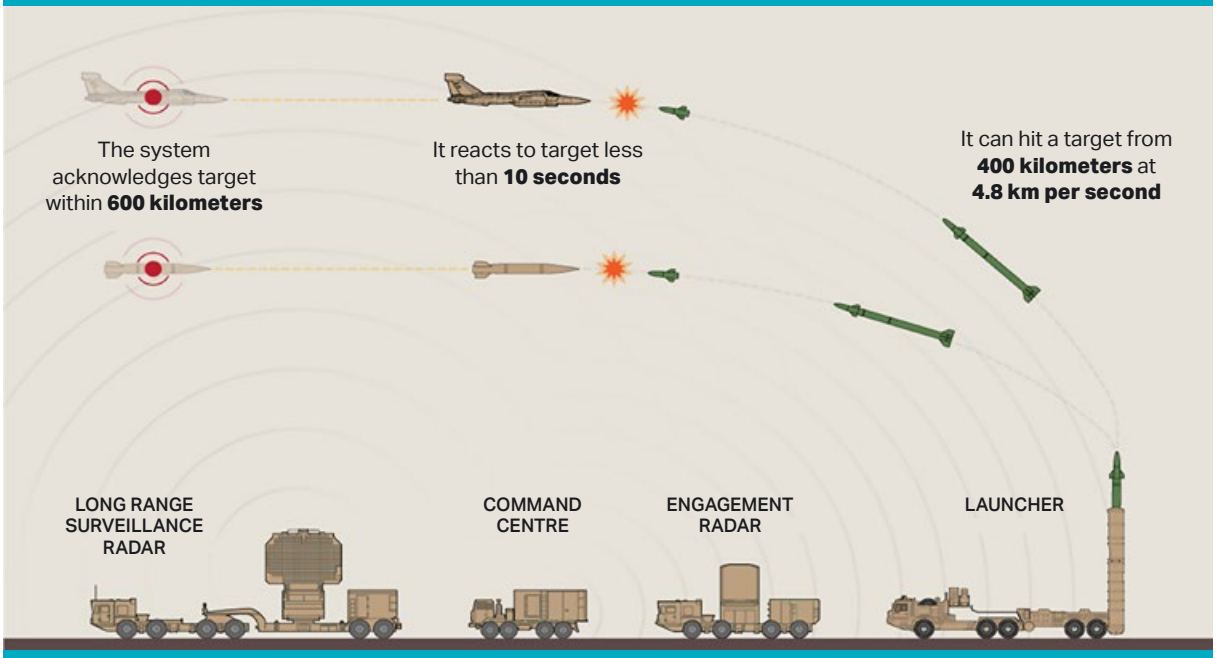
One of the most distinct specifications of the S-400 is its ability to lock two missiles on a single target and the ability to simultaneously hit 80 separate targets. Its maximum range to hit a ballistic missile is 3.5 km. Each missile that the S-400 utilizes weighs about 1.8 tonnes, is 8 metres long and has a 50 cm radius.

Russia has deployed S-400s in various strategic locations, including Moscow, St. Petersburg, Kaliningrad, Krasnodar, Severomorsk and Crimea, annexed by Russia in 2014. It has also deployed them in the Syrian city of Latakia alongside a deployment of S-300s in Tartus.

Apart from Russia's deployment of S-400s within Russian territories and in Syria, Belarus and China use the system as well. Belarus received two S-400 battalions in 2016. China brokered a deal with Russia in 2015 and delivery of the system began in 2018, with the expectation that the delivery process will be completed by 2020. The US, after the deal, imposed sanctions on China in accordance with the CAATSA act.

There are other potential buyers of S-400s. Saudi Arabia expressed interest in the Russian air defence system as far back as 2009. Amid disagreements on whether it should be the S-300 or S-400, a deal was completed on the sale of S-400s in 2018. However, the delivery of the system to Saudi Arabia has yet to take place. India also brokered a deal with Russia in 2016 to buy the S-400 and the parties signed a formal agreement in 2018, worth almost US$5.43 billion. It is expected that the delivery of the system will start in October 2020. There are also many other countries, such as Iran, Egypt, South Korea, Qatar, Iraq and Pakistan, who have shown interest in the system.

HOW DOES THE S-400 WORK?



1. The long-range surveillance radar tracks target objects and informs the command centre. Potential targets are then evaluated in the command vehicle.

2. Once the target has been defined, the command vehicle orders the launch.

3. Data is sent to the launch vehicle which is in the best position to hit the target with surface-to-air missiles.

4. Engagement radar helps the missile reach its target.

Source: Anadolu Agency

The US Position towards the S-400 Deal

The crisis over Turkey's purchase of the S-400 system emerged amid ongoing tensions between the two countries over US support for YPG - the Syrian offshoot of the PKK terrorist organisation - and the lack of US action regarding Turkey's request to extradite FETO leader, Fethullah Gulen, who Turkey considers to be behind the July 15 coup attempt. The US strongly reacted to Turkey's decision to purchase the S-400 air defence system by warning that if Turkey finalizes the deal, there would be negative consequences for US-Turkey bilateral relations as well as Turkey's role in NATO. The US also warned that this would trigger potential sanctions under the Countering America's Adversaries through Sanctions Act (CAATSA) and risk the continuation of Turkish participation in the F-35 Joint Strike Fighter Program. The US also stated that this might risk future US arms transfers to Turkey and cause a broader reduction in bilateral defence industrial cooperation.



(Metin Aktas - Anadolu Agency)

One of the main US concerns regarding Turkey's acquisition of the S-400 has to do with the possibility that Russia might carry out espionage activities once the Russian system is integrated into NATO architecture. As such, the US officials stated that the Russian system will not be allowed to be plugged into NATO infrastructure. In response to this concern, Turkey stated that the S-400 will be used separately, therefore the US concern is unnecessary. Turkey also stated that despite being NATO members, Greece, Bulgaria and Slovakia operate Russian made S-300 air defence systems, which has not invoked similar concerns. The second concern of the US pertains to the possibility that the S-400 system might be used by Russia to figure out how the stealth mechanisms of F-35 fighter jets work, which might be revealed once jets fly within the radar of S-400 operating in Turkey. With this consideration, US officials stated that S-400 and F-35 jets cannot coexist in one country. At this point, Mark Esper, Trump's nominee as Secretary of Defence stated "the acquisition of the S-400 fundamentally undermines the capability of the F-35 and our ability to maintain that overmatch in the skies". However, Ankara again found this concern to be unfounded. As a matter of fact, the F-35 aircraft in the inventory of the British and Israeli Air Forces have operated several times in Syrian airspace protected by the Russian S-300 and S-400 air systems.

Despite US disapproval of the S-400 deal, Turkey, seeking to enhance its national defence industry through technology transfer and co-production opportunities, went forward with the deal.

The response in the US has been somewhat mixed. While certain Republican members of Congress and members of the Trump Administration, such as National Security Advisor, John Bolton, and Secretary of State Mike Pompeo have advocated a tougher approach, President Trump himself seems to have indicated a degree of sympathy and understanding for Turkey's position. As such, President Trump stated that responsibility for the recent tension regarding the S-400 lies with his predecessor, President Obama. As he announced the decision to suspend Turkey from the F-35 project, Trump said, "We are now telling Turkey that because you have really been forced to buy another missile system, we're not going to sell you the F-35 fighter jets". Trump added "It's a very tough situation that they're in and it's a very tough situation that we've been placed in, the United States. With all of that being said, we are working through it, we will see what happens. But it's not really fair."

US officials have so far remained cautious in their public statements regarding this issue.. As such, official announcements have highlighted the fact that Turkey is a valuable NATO ally and a strategic partner of the US with whom cooperation in other areas will continue without disruption. As such, the statement made by the White House was as follows: "The United States still greatly values our strategic relationship with Turkey. As NATO Allies, our relationship is multi-layered, and not solely focused on the F-35. Our military-to-military relationship is strong, and we will continue to cooperate with Turkey extensively, mindful of constraints due to the presence of the S-400 system in Turkey." Yet, the White House did not hesitate to suspend Turkey's participation in F-35 project and is set to discuss sanctions under CAATSA.

CAATSA

On August 2, 2017, Congress passed a bill entitled Countering America's Adversaries through Sanctions Act (CAATSA), which includes a series of measures regarding sanctions related to Russia, Iran and North Korea. President Trump signed the bill despite his publicly revealed concerns that the law encroaches on executive power and limits the president in foreign policy. In his signing statement, by describing the bill as "seriously flawed", President Trump said "by limiting the Executive's flexibility, this bill makes it harder for the United States to strike good deals for the American people, and will drive China, Russia, and North Korea much closer together". He added, "Yet despite its problems, I am signing this bill for the sake of national unity."

Turkey's purchase of S-400s from Russia is said to have violated Article 231 of the CAATSA, which requires the President to sanction individuals and entities that have "significant transactions" with Russian defence and intelligence agencies. The State Department is responsible for determining whether the transaction is 'significant' or not. Various factors are considered in this determination including the importance of the transaction to U.S. national security and foreign policy interests, the nature and magnitude of the transaction and its contribution to the Russian intelligence and defence sector. Once the transaction is determined as significant, the act necessitates the President to choose at least five out of twelve sanctions under the section 235 of the act.

The President may waive the initial imposition of sanctions by writing a determination that the waiver will contribute to the national security interests of the US, among other issues. Additionally, the president may delay the imposition of sanctions for 180 days (6 months) period if he certifies to the relevant congressional committees that the sanctioned person or entity has substantially reduced the transactions in question. Delay of sanctions can be renewed following the same procedure at least 15 days before the end of the 180-day delay.

Sanctions under the Section 235 of CAATSA

1 The President may direct the Export-Import Bank of the United States not to give approval to the issuance of any guarantee, insurance and extension of credit to the sanctioned person.

2 The President may order the United States Government not to issue any specific license and not to grant any other specific permission or authority to export any goods or technology to the sanctioned person.

3 The President may prohibit any United States financial institution from making loans or providing credits to the sanctioned person totalling more than $10,000,000 in any 12-month period.

4 The President may direct the United States executive director to each international financial institution to use the voice and vote of the United States to oppose any loan from the international financial institution that would benefit the sanctioned person.

5 The President may impose prohibitions on sanctioned financial institutions from designation as primary dealer and service as a repository of government funds.

6 The United States Government may not procure, or enter into any contract for the procurement of, any goods or services from the sanctioned person.

7 The President may prohibit any transactions in foreign exchange that are subject to the jurisdiction of the United States and in which the sanctioned person has any interest.

8 The President may prohibit any transfers of credit or payments between financial institutions or by, through, or to any financial institution, to the extent that such transfers or payments are subject to the jurisdiction of the United States and involve any interest of the sanctioned person.

9 The President may prohibit any person from acquiring, holding, withholding, using, transferring, withdrawing, transporting, importing, or exporting any property that is subject to the jurisdiction of the United States.

10 The President may prohibit any United States person from investing in or purchasing significant amounts of equity or debt instruments of the sanctioned person.

11 The President may direct the Secretary of State to deny a visa to, and the Secretary of Homeland Security to exclude from the United States, any alien that the President determines is a corporate officer or principal of, or a shareholder with a controlling interest in, the sanctioned person.

12 The President may impose on the principal executive officer or officers of the sanctioned person, or on persons performing similar functions and with similar authorities as such officer or officers, any of the sanctions under this subsection.

CAATSA Scenarios for Turkey

The decision of the US administration regarding the imposition of CAATSA sanctions on Turkey has not yet been revealed. One of the possibilities is that, according to CAATSA, transactions in question must have taken place on, or after, August 2nd, 2017, the date the law was enacted. Based on this clause, some claim that the S-400 agreement was concluded prior to this date and that this transaction would not fall under the scope of CAATSA sanctions. Yet, others argue that the date of the delivery of S-400 systems should be taken into consideration while applying the article of the law, not the date the deal was signed.

The Trump administration might also opt to waive the initial application of the imposed sanctions for a period of 180 days in the first place and then further delay its implementation. The other option might be that the Trump administration might choose mostly symbolic sanctions, which will have a relatively less negative effects on the Turkish economy. President Trump's sympathetic statements might be taken as an indication of the likelihood of this option. In the worst-case scenario, all 12 of the CAATSA sanctions can be imposed on Turkey, ranging from prohibiting any United States financial institution and international financial institutions from making loans or providing credits to denying visas.

Turkey's Participation in the F-35 Programme

The US launched the F-35 Joint Strike Fighter Programme in 1992. Turkey, one of 9 partner countries in the F-35 project, was interested in joining the program as early as 1995, although they did not become party to the project until 2002. Turkey has invested a total of US$1.25 billion so far and pledged to purchase 116 aircraft. Turkish companies produce a total of 937 components for all F-35 variants and customers including centre fuselage, cockpit display systems and landing gear. Additionally, Turkey was established as a national-level F-35 Engine Final Assembly and Check Out provider and had been selected as a Regional F-35 Maintenance, Repair, Overhaul, and Upgrade Facility.

Turkey received the first batch of jets in July 2018, however, the jets were not immediately transferred to Turkey and were instead taken to an American air base in Arizona where Turkish pilots would receive training. Upon Turkey's purchase of the S-400 missile defence systems from Russia, the US suspended the training of Turkish pilots and subsequently cancelled Turkish partnership in the programme. With the suspension decision, the US is waiving over US$25 billion income which will be received from Turkey as part of the purchase of 116 aircraft and should change supply chain of the aircraft.



(Lockheed Martin - Anadolu Agency)

Q&A: The Implications of Turkey's removal from the F-35 Program

How will the suspension decision influence the supply chain of F-35 program?

• Eight Turkish firms are involved in manufacturing more than 937 components for the F-35 and are solely responsible for the manufacturing of a total of 400.
• Turkish firms have been involved in producing various structural components of the jets, including centre fuselage, cockpit display systems and landing gear.
• Turkish companies involved in the program are Roketsan, Havelsan, Alp Aviation, Ayesas, Kale Aerospace, Tubitak-SAGE, Turkish Aerospace Industries (TAI), and the Turkish branch of the Dutch Fokker Elmo.
• According to former US Secretary of Defence James Mattis, Turkey's removal from the programme will delay the delivery of 50-75 F-35s by a duration of approximately 18-24 months.
• US Under Secretary of Defence Ellen M. Lord stated that "The United States is spending between US$500 million and US$600 million in non-recurring engineering in order to shift the supply chain."
• Lockheed Martin spokesperson Mike Friedman, confirmed Turkey's significant role in the F-35 supply chain, listing 8-10 Turkish companies engaged in the production of parts for the F-35, some of which are critical components.
• The unwinding of Turkey's participation in the partnership is expected to be completed by March 2020.
• Turkey's removal from the program may have an impact on the readiness and availability of the F-35 jets, a problem stemming from shortages of spare parts as well as existing stockpiles that are no longer usable.

What will be the additional cost per jet when Turkey is removed from the F-35 program?

• The head of Presidency of Defence Industries (SSB), Ismail Demir, said other countries involved in the F-35 program would face an additional cost of $7-8 million per jet.
• Ismail Demir also said "the price of F-35 jets will increase by nearly 10% after the U.S. decision to suspend Ankara from the fighter jet program"
• Partner countries – Britain, Australia, Italy, the Netherlands, Denmark, Norway and Canada – as well as countries that have placed orders – South Korea, Japan and Israel – will be affected by the increases in the price of F-35 jets.

Has Turkey been formally expelled from the F-35 program?

• The US halted the delivery of F-35's to Turkey in April 2019.
• US Under Secretary of Defence Ellen Lord stated on July 17, that "the U.S. and other F-35 partners are aligned in this decision to suspend Turkey from the program and initiate the process to formally remove Turkey from the program."
• A White House statement regarding Turkey's purchase of S-400 systems from Russia stated that "Turkey's decision to purchase Russian S-400 air defence systems renders its continued involvement with the F-35 impossible."
• Turkish President Erdogan said: "Turkey has already invested US$1.25 billion dollars in the F-35 programme. If the US goes the other way, we will apply to international arbitration and request the refund for our payments."
• As such, countries who are interested in buying F-35 fighter jets are looking forward for legal remedies for the US's unilateral suspension decision.
• The F-35 Programme Memorandum of Understanding does not include a mechanism to remove a member from the programme.

What will be the implications of the suspension decision on future of international development projects?

• The US decision to suspend Turkey's partnership in the F-35 Joint Strike Fighter Programme will have repercussions on the future of the programme itself and future international development projects in general.
• The suspension of Turkey's partnership to the programme injures the trustworthiness of the US in the eyes of Turkish decision-makers. This action of the US concerns not only Turkey, but also other parties in the programme.
• Although NATO Secretary-General Jen Stoltenberg expressed that "acquiring defence equipment is a national decision", US officials put forward a claim that Turkey's purchase of S-400s endangers the integrity of NATO. In line with this, the US Congress introduced a bill entitled "Protect NATO Skies Act of 2019", which puts restrictions on the sale of F-35s to Turkey.

Conclusion: What is Next?

In a bid to secure its air space, Turkey has purchased the Russian-made S-400 air defence system. The first delivery arrived in Turkey on July 12, engendering strong reactions from the US and causing further tensions in bilateral relations.

Due to the risks stemming from its unstable neighbourhood and a multitude of internal and external threats, Turkey has long sought to enhance its air defence through the procurement of high-tech systems while also continuing its rigorous investment in its domestic defence industry. In parallel to this ambitious venture, Turkey has prioritized bids that provide technology transfer and co-production opportunities. As a NATO member, Turkey first sought to purchase the US made Patriot system since they would be effectively integrated into the wider NATO defence architecture. The US ultimately declined Turkey's request based on disagreement over technology transfer expectations. Consequently, Turkey accepted the Russian bid, which more clearly met Turkey's specifications.

The US reacted by halting Turkey's participation in the F-35 programme and also warned that the deal struck between Turkey and Russia would trigger the imposition of sanctions under CAATSA. Despite the initial statements made by the US officials, there have been mixed signals as to whether sanctions will actually be imposed, or what the scope of sanctions might be. Furthermore, in line with his previous remarks, President Trump most recently stated that he does not blame Turkey for purchasing the Russian missile defence system, demonstrating the divergent views that exist in Washington.

Turkey's decision to go ahead with the deal despite strong opposition from the US revealed that Turkey is keen to improve its defence capabilities and enhance its autonomy when it comes to foreign policy making and national security interests. Given the difficulty Turkey faced during the wars in Iraq and the Syrian Civil War - when it needed the deployment of NATO air defence system to protect its air space from potential attacks - Turkey has recognized the importance of possessing its own high-tech air defence system. Moreover, Turkey also aims at enhancing its security though acquiring defence systems against possible future threats, which could emerge as a result of dramatic changes in the global distribution of power. History shows that such transitional periods are ripe for the eruption of conflict.

Additionally, the already strained bilateral relationships between the US and Turkey have led to a perception in Turkey that the US may not be the reliable partner that it once was, particularly as it relates to Turkey's unique security concerns and its challenging strategic environment.



(Turkey's National Defense Ministry - Anadolu Agency)

TRT WORLD
research centre

TRTWORLD
research centre