

RESEARCH NOTE

New Trends in Western Support for The Turkish Arms Industry



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Companies are finding new avenues to profit from the Turkish military-industrial complex, despite trends toward self-sufficiency in the Turkish arms market driven by Erdoğan's nationalist intentions

At least 6 of the top 10 and 40% of the world's top twenty-five arms companies have established joint venture projects, daughter companies and knowledge-sharing agreements with the Turkish state in recent years

Rheinmetall: expert advice and engines of next-generation tanks being supplied by German companies despite state moratorium on tank upgrades during the Afrin operation

Extracting Profits from Turkey's Nationalist Nationalist Military Project

INTRODUCTION

Companies in NATO countries are finding ways to continue and expand lucrative relations with the Turkish state, ignoring their worsening human rights record and reputation on the world stage¹. Turkey has taken advantage of these companies willingness to do so while simultaneously seeking out new partners themselves for arms projects especially among weaker NATO states such as Italy and post-Brexit Britain.

Having established joint venture projects and third party companies in Turkey in order to enable the sale of military information, consultancy, and expertise, European companies like Germany's Rheinmetall are able to:

- circumnavigate laws intended to limit their dealings with the Turkish state
- extract profits from the Turkish government's nationalist military project (see below)
- cement lucrative, long-lasting relationships with the Turkish state and its military-industrial complex in order to profit from the Turkish state's move toward military self sufficiency.

Accordingly, at least 6 of the top 10 and 40% of the world's top twenty-five arms companies have established joint venture projects, daughter companies or knowledge-sharing agreements with the Turkish state in recent years².

Lockheed Martin, BAE Systems and Northrop Grumman, all of whom have established joint venture projects in Turkey in recent years, are among the world's largest arms companies. Joint venture projects around Lockheed Martin's F-35 fighter jet program were poised to create some \$12 billion in revenue for Turkish companies³, until the programs suspension, caused by the sale of the Russian S-400 missile system to Turkey - Though these programs are set to come to an end they will continue to produce 937 parts for the F-35 until early 2020⁴.

This report looks in turn at how these and other major global arms companies are making increased use of joint venture projects, the sale of training and expertise, and third-party companies in their dealings with the Turkish state.

1 https://www.hrw.org/sites/default/files/turkey_3.pdf

All figures taken from Stockholm Institute for Peace 2017 rankings, published December 2018, unless otherwise stated:

2 https://www.sipri.org/sites/default/files/2018-12/fs_arms_industry_2017_0.pdf

3 <https://www.f35.com/global/participation/turkey-industrial-participation>

4 <https://www.defensenews.com/air/2019/06/07/turkish-suppliers-to-be-eliminated-from-f-35-program-in-2020/>

Erdoğan: Centralising & Expanding the Turkish Arms Market

Though it is not the main subject of this paper, it is important to note that these companies are still involved in well documented conventional arms sales and manufacturing deals, worth billions of dollars.

But reducing dependency on imported weapons has become an increased priority of the Turkish government, in line with the AKP party's nationalist agenda and President Recep Tayyip Erdoğan's strongman image. In the recently announced 11th Turkish Development Plan the goal was set for Turkey to domestically produce 75% of its military needs by 2023¹. Additionally, following the imposition of the state of emergency in 2017, Erdoğan placed the Turkish arms industry directly under his control. These actions necessitate the cooperation with major arms suppliers which will be detailed in this paper.

Per the state of emergency decree No. 696, the Turkish Armed Forces Foundation (TSKGV), which owns majority shares in Turkey's top defense companies, reports to the president and not to the defense minister, as was the previous policy². As a result the Turkish state's largest defense company Turkish Aerospace Industries (TAI), military electronics specialist Aselsan, missile-maker Roketsan, and military software specialist Havelsan now report directly to Erdoğan.

The Turkish state's domestic weapons market has been anticipated to be worth some \$6.7 billion by 2027, including a projected \$3.4 billion ground-launched weapons market. The ground-to-ground precision-guided weapons market is estimated to increase over 500% in the same time period, from about \$99 million in 2018 to \$530 million³. Though these figures do not account for the changes made in the new Defense Industry Development Plan due to its recency - In actuality these figures will be much larger.

The Turkish state's focus on industrial nationalism is not new, but an ongoing project. In the previous 10th Development Plan it was identified that Turkey had gained the ability to satisfy roughly 50% of its military defense needs as of 2011 and that its eventual goal was to be able to satisfy at least 85% of its military defense needs, a proportion in line with that of developed countries⁴.

The Afrin operation of 2018 was a reminder to Ankara of the vulnerability caused by dependency on foreign markets. Notably, Germany blocked a key upgrade of Turkish owned, German made Leopard tanks because of their use in the Afrin operation⁴. In a February 2018 meeting at his presidential palace, Erdoğan said: "Almost all of the armored carriers (operating) in Afrin are domestically produced. I thank our friends who produced them."⁵ If the Turkish state is to reach its stated goal of 75% domestic satisfaction it will be detrimental to the stability of the region, as it is unlikely the increasingly autocratic state will not seek to further dominate the region. As such, the trends identified in this report provide a picture of what the future holds for the lucrative Western arms trade with the Turkish state, as Western companies participate in and facilitate this arms boom.

1 <https://www.forbes.com/sites/richardaboulafia/2019/07/21/turkey-after-the-f-35-choice-for-alternative-fighter-will-help-shape-countrys-future/#5bdde8f04326>
 2 <https://www.defensenews.com/industry/2017/12/27/turkeys-erdogan-decrees-sweeping-defense-procurement-takeover/>
 3 <http://www.nationaldefensemagazine.org/articles/2018/6/12/opportunities-abound-in-turkish-weapons-market-over-next-decade> http://www.sbb.gov.tr/wp-content/uploads/2018/11/The_Tenth_Development_Plan_2014-2018.pdf
 4 <http://www.hurriyetdailynews.com/turkey-aims-to-produce-unmanned-tanks-erdogan-127712>

Rheinmetall: Exploiting Loophole to Profit from Turkish Altay Battle Tank

CASE STUDY

World ranking: #25

Arms sales in 2017:
\$3.4 billion

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The Turkish state is currently developing an indigenous next generation battle tank. The Altay Tank will be serial produced by BMC, a privately owned Turkish-Qatari armored vehicles manufacturer, in a multibillion dollar contract. The \$500 million prototype contract went to Otokar.¹

Rheinmetall is Germany's largest arms company and ranks in the top 25 arms companies globally by annual turnover. In October, 2016, Rheinmetall founded the joint venture Rheinmetall BMC Defense Industry (RBSS) in Turkey, together with BMC and Malaysian partners². BMC is owned by Erdoğan's ally Ethem Sancak, who also owns a number of Turkish newspapers, while the Malaysian partners also fund the "Turken Foundation", an Islamic institution which Erdoğan's son, daughter, and other family members are involved in and which is suspected as serving as a vehicle for Erdoğan's political intentions³.

In internal papers published in 2015, Rheinmetall talked about developing joint venture battle tanks for the Turkish state, citing the project at around €7 billion.

In 2017, Rheinmetall expressed dismay that tensions between the Turkish state and Germany over human rights concerns would hold up its planned involvement in the tank project⁴. By law, arms exports from Germany have to be approved by the government, and in October 2017 the project was frozen.

But **by using their joint venture company in Turkey and charging for technical support and expertise ("consultancy"), Rheinmetall is still playing a critical role in the Altay project**⁵. Arms restrictions do not extend to training and expertise, meaning they are able to avoid the need for government approval while still forming an indispensable part of the project.

Moreover, the Altay's prototype is set to be **powered by a 1,500 hp diesel engine from Germany's MTU Friedrichshafen GmbH**. A spokesperson said that the Germans have not objected to providing the engine for the tank, despite the freeze on updating the Turkish state's old tank fleet imposed during the Afrin invasion.⁶

1 <https://www.defensenews.com/land/2018/04/25/turkey-awards-multibillion-dollar-contract-for-indigenous-altay-tank/>

2 <https://www.rbss.com/>

3 https://www.huffpost.com/entry/turken-foundation-a-wolf_b_12688412 [https://](https://www.businessinsider.com/r-rheinmetall-ceo-says-turkey-row-holding-up-defense-projects-dpa-2017-10)

4 www.businessinsider.com/r-rheinmetall-ceo-says-turkey-row-holding-up-defense-projects-dpa-2017-10

5 <https://www.dailysabah.com/defense/2018/11/09/turkey-signs-mass-production-deal-with-bmc-for-altay-tanks>

6 <https://www.defense-aerospace.com/articles-view/release/3/197460/turkey%E2%80%99s-bmc-wins-altay-tank-production-contract.html>

LOCKHEED MARTIN: \$12 BILLION OPPORTUNITIES FOR TURKISH COMPANIES TIED TO F-35 FIGHTER JET

World ranking: #1

Arms sales in 2017:
\$44.9 billion

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With a 2017 revenue of \$51 billion, 88% of which is derived from arms sales, Lockheed Martin was the world's largest arms producer in 2017.

The development of the flagship F-35 fighter jet has created industrial opportunities for Turkish companies, which were expected to reach \$12 billion with the key beneficiaries being TAI, Roketsan, and Aselsan¹, with whom Lockheed Martin has established joint venture projects. This was until Turkey was recently ejected from the F-35 program with great reluctance from the US government due to their purchase of S-400 missile systems from Russia².

But despite what one may presume about relations between the Turkish state and Lockheed Martin given this development, there is still cooperation between the two.

Since 2017 Lockheed Martin has also engaged in a joint venture project with Turkish Aerospace Industries to co-produce and upgrade Turkey's F-16 Fighting Falcons by the end of 2023. As part of this agreement Turkey is to produce 75% of its own order of fighter jets in-house, based on Lockheed's expertise and systems³. In the face of Turkey's ejection from the F-35 fighter program there has been no talk of also scrapping the F-16 modernization agreement.

This F-16 program will be one of two fall back options for Turkey as it seeks to upgrade its air capabilities and push forward its goal of domestically producing 75% of its defense needs⁴.

In addition to this, Lockheed Martin has also partnered with Roketsan and state subsidiary TÜBİTAK-SAGE since 2016 to produce a new kind of Standoff Missile, the SOM-J. Lockheed state that their contribution in this project is, "delivering experience and expertise to the SOM-J development team."⁵ This is perfectly in line with the trends previously discussed in the introduction.

The SOM-J will be serial produced by Roketsan and will be compatible with both the F-16 and the F-35 despite Turkey's ejection from the F-35 program⁶. This development will be important in both strengthening Turkey's domestic military industry and export market as well as its military capabilities with regard to the F-16.

- 1 <https://www.f35.com/global/participation/turkey-industrial-participation>
- 2 <https://www.forbes.com/sites/richardaboulafia/2019/07/21/turkey-after-the-f-35-choice-for-alternative-fighter-will-help-shape-countrys-future/#2b1b6c294326>
- 3 <https://www.lockheedmartin.com/en-us/who-we-are/international/turkey.html>
- 4 <https://www.forbes.com/sites/richardaboulafia/2019/07/21/turkey-after-the-f-35-choice-for-alternative-fighter-will-help-shape-countrys-future/#5bdde8f04326>
- 5 <https://www.roketsan.com.tr/en/urunler-hizmetler/hassas-gudumlu-fuzeler/som-j-jsf-uyumlu-stand-off-muhimmat/>
- 6 <https://www.roketsan.com.tr/en/urunler-hizmetler/hassas-gudumlu-fuzeler/som-j-jsf-uyumlu-stand-off-muhimmat/>

BAE SYSTEMS: TECHNOLOGY AND CONCEPTUAL SUPPORT FOR TF-X INDIGENOUS FIGHTER JET

British company BAE Systems is Europe's largest arms dealer.

In a recent interview highlighting the "bright future" for BAE Systems in Turkey, a spokesperson summed up the trends identified in this report: "Our strategy is reflected in the increasing number of partnership ventures performing at a technology rather than product level. The bringing together of technologies from BAE Systems and from Turkish industry to develop future solutions for the international market is at the heart of what we do."¹

BAE Systems now employs over a thousand people in Turkey, through its joint venture holdings as well as some in its local office. In 2015 it established a joint venture company in which it holds a 49% stake, Nurol BAE Systems. This company has itself embarked on a new engine development partnership with a German company².

The TF-X program to develop a next-generation, indigenous fighter jet is one of Erdoğan's prestige projects. Under a \$125 million agreement, BAE Systems is providing know-how for the program's conceptual design phase. On April 26 2018, Turkish state controlled companies TAI and Aselsan signed a memorandum for their cooperation in developing this aircraft and a radar, electro-optical systems, mission-control systems and so forth.³

World ranking: #4
Arms sales in 2017:
\$22.9 billion

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NORTHOPP GRUMANN: OUTSOURCED CONSTRUCTION OF F-35 FIGHTER JET FUSELAGES

TAI was planned to be a second source supplier of F-35 center fuselages to Northrop Grumman, a principal member of the Lockheed Martin led F-35 industry team⁴. In this venture Northrop Grumman, following the described trends, had the role of providing training on how to build the fuselage⁵.

There has been little discussion of the fuselage production facility in the aftermath of Turkey's ejection from the F-35 program, but it does seem clear that they will be removed from the production line⁶.

Other associated projects involved TAI's manufacturing of composite skins, weapons bay doors, and composite air inlet ducts as well as Aselsan's production of the F-35 CNI Avionic Interface Controller⁷.

Though all of these projects are to be canceled this cooperation surely is indicative of new attitudes toward military outsourcing to Turkey and brings to light the possibility of similar cooperation on future projects.

World ranking: #5
Arms sales in 2017:
\$22.4 billion

1 <https://www.defenceturkey.com/en/content/bright-future-for-bae-systems-partnerships-in-turkey-3120>

2 <https://www.defenceturkey.com/en/content/nurol-bae-systems-performed-partnership-with-germany-companies-developed-motor-control-system-2701#.XFG4YVwzblU>

3 <https://www.defensenews.com/industry/2018/05/24/is-the-us-out-as-turkeys-top-western-arms-dealer/>

4 <https://news.northropgrumman.com/news/releases/tai-delivers-first-center-fuselage-to-northrop-grumman-under-jsf-f-35-program>

5 <https://www.materialstoday.com/composite-applications/news/northrop-grumman-expands-composites-training-for/>

6 <https://www.reuters.com/article/us-usa-turkey-f35/despite-ankaras-claims-u-s-can-make-f-35-without-turkish-parts-sources-idUSKCN1R90CY>

7 <https://www.f35.com/global/participation/turkey-industrial-participation/translate/tr>

THALES: THE JOINT VENTURE GÖKTÜRK SPY SATELLITE

World ranking: #8

Arms sales in 2017:
\$9 billion

8

World top-10 arms company Thales is partially owned by the French state (25.8%)¹. In 2009, it established the daughter company Thales Ulaşım Sistemleri (Thales Transportation Systems) in Turkey². This company delivers installation, site tests and commissioning, software tests, maintenance, project management and training capabilities.

In 2002, Thales created the joint venture Yaltes along with a Turkish partner. Yaltes locally provides technologies, system integration solutions and system life cycle support in the fields of Maritime Warfare Management Systems, Integrated Platform Control & Monitoring Systems for Vessels, and Network-supported Abilities. In 2011, Thales took over Yaltes².

Thales and ASELSAN signed a cooperation agreement in 2015 to continue the joint development of a Missile Launcher System⁴. The cooperation between the two companies was initiated in 2010 and first stage firings of an integrated Missile Launcher System and LMM were demonstrated in 2014.

Thales and the Turkish military industry have been working closely together on several programs, including 3D Radar Modernization, Helmet Mounted Sight Display with Aselsan, Genesis with Havelsan and Göktürk with TAI⁵.

They are key players in the Göktürk-1 project, a Turkish spy satellite which is "used primarily in Turkey's eastern and southeastern regions, as well as in Iraq and Syria."⁶ The satellite is now in orbit and in use by the Turkish military. This project involves both direct sales to the Turkish state, and joint venture development on the ground.

Telespazio (Rome, Italy) and its sister company TAS (Thales Alenia Space) are the prime developers of the Göktürk-1 spacecraft⁷. The satellite uses the Proteus multi-mission platform. The Italian-French contractor also delivered a satellite assembly integration and test facility to be built by the Turkish state-owned TAI A.S. (Turkish Aerospace Industries, Inc.) with assistance from TurkSat, the Turkish state's national telecommunications operator.

1 <https://www.thalesgroup.com/en/global/about-us>

2 <https://www.thalesgroup.com/en/countries/eurasia/turkey>

3 <https://www.thalesgroup.com/en/worldwide/defense/press-release/thales-et-aselsan-signent-un-nouvel-accord-de-cooperation-dans-le>

4 <https://www.thalesgroup.com/en/countries/thales-eurasia>

5 <http://www.hurriyetdailynews.com/turkey-launches-space-satellite-gokturk-1--106936>

6 <https://directory.eoportal.org/web/eoportal/satellite-missions/content/-/article/gokturk-1>

Other Major Arms Dealers

MBDA: Erdoğan & Macron Award Missile Contract to Wholly-Owned Turkish Daughter Company

MBDA is a trans-European conglomerate formed as a joint venture by a merger of the guided missile divisions of Airbus, Leonardo, and BAE Systems¹. MBDA also owns the Turkish defense company Eurosam. The Turkish state has awarded Eurosam a contract for the definition study of the future Turkish Long Range Air and Missile Defence System.

The contract award was made during a meeting between Erdoğan and French President Emmanuel Macron on 5 January 2018 in Paris and the study is set to be concluded in 2020².

World ranking: #26
Arms sales in 2017:
\$3.4 billion

9

Airbus: \$500 million 5A/B satellite project subcontracted to Turkish state-controlled businesses

Aerospace and arms company Airbus are partially owned by the French government with the French government holding an 11.1% stake in Airbus³.

On November 9th, 2017 Turksat, the Turkish state-run satellite operator, signed a contract with Airbus Defence and Space for two new-generation communications satellites, Turksat 5A and Turksat 5B⁴.

Though these satellites are for civil use, Turksat is “an important stakeholder of the defense and aerospace industry” and the chairman of Turksat’s board of directors emphasized the links between their aerospace developments and the booming Turkish defense industry in a recent interview⁵.

Turksat officials say the contract to build and launch satellites will be worth about \$500 million. For those two satellites, the local contractors are Aselsan and Turkish Aerospace Industries, or TAI. The satellite Turksat 5B will cost \$141 million according to officials⁶.

In a new deal penned at the time of the Afrin invasion, Airbus committed to acquisitions worth \$5 billion from the Turkish defense industry between 2020 and 2030⁷. Additionally the British government recently issued a loan to the Turkish government worth \$325 million to facilitate the projects⁸.

World ranking: #7
Arms sales in 2017:
\$11.2 billion

1 <https://www.mbda-systems.com/about-us/>

2 <https://www.upi.com/Defense-News/2018/01/05/Turkey-commissions-study-for-future-missile-defense-system/3431515175919/>

3 <https://www.marketscreener.com/AIRBUS-SE-4637/company/>

4 <https://www.airbus.com/newsroom/press-releases/en/2017/11/Airbus-build-Turksat-5A-and-5B-satellites.html>

5 http://www.milscint.com/en/files/2017/06/MSI_TDR_39_idef2017-TURKSAT.pdf

6 <https://www.defensenews.com/space/2017/11/13/airbus-to-build-spacex-to-launch-turkeys-2-new-satellites/>

7 <https://www.dailysabah.com/defense/2018/01/25/airbus-to-buy-7b-worth-of-goods-from-turkish-suppliers-until-2030>

8 <https://spacenews.com/uk-export-finance-loans-325-million-for-turksat-satellites-airbus-is-building/>

Leonardo: Rebranding and Expanding in Turkey

World ranking: 9

Arms sales in 2017:
\$8.8 billion

Top-10 company Leonardo is part-owned by the Italian state (30.2%)¹. It has long operated a subsidiary company in Turkey under the name of Selex ES Elektronik Turkey. This company is now being re-branded and expanded, as Leonardo “Doubles their network of international branches, joint ventures and subsidiary companies.”²

“The relatively strong and improved results of Selex ES Elektronik Turkey AS, which reflect investment and a significant turnaround effort in the last few years, have resulted in a growing number of high technology products that are now manufactured, supported and sold directly by Selex ES Elektronik Turkey AS to the Turkish market and to other export markets,”² a representative said in a recent interview.

United Technologies Corporation: Turkish Military Vehicle Systems Being Produced in Turkish Joint Venture Project

World ranking: #11

Arms sales in 2017:
\$7.8 billion

US giant United Technologies Corporation launched a new project in 2018 to produce automatic fire/explosion suppression systems for military ground vehicles in collaboration with Alp Aviation systems at their Turkish base. These ground vehicles will be used by the Turkish army³.

L-3 Communications: Joint Venture Radar Project

World ranking: #12

Arms sales in 2017:
\$7.8 billion

L-3 communications owns 40% of AYESAŞ, a joint venture project with the Turkish Zorlu Group⁴. AYESAŞ focuses on mobile radar and technology solutions. The company recently announced its plans to supply 8 Helicopter Long Range Active Sonar systems to the Turkish Navy⁵.

Textron: Outsourcing Servicing Work to Turkey

World ranking: #20

Arms sales in 2017:
\$4.1 billion

In 2016, arms company Textron announced it was outsourcing servicing work to Turkish company Genel Havacilik (General Aviation)⁶.

1 <https://www.marketscreener.com/LEONARDO-162001/company/>

2 <https://www.defenceturkey.com/en/content/leonardo-s-new-operating-and-organization-model-optimization-plan-leonardo-2-0-2987>

3 <http://www.utc.com/News/UTAS/Pages/UTC-Aerospace-Systems-Signs-Agreement-with-Alp-Aviation-to-Begin-Phased-Productio.aspx>

4 <https://www.epicos.com/company/13291/aydin-yazilim-ve-elektronik-sanayesas>

5 http://www.defense-aerospace.com/article-view/release/626/l_3-communications-wins-sonar-contract-from-republic-of-turkey-navy.html

6 <https://investor.textron.com/news/news-releases/press-release-details/2016/Bell-Helicopters-Service-Network-to-Grow-in-Turkey/default.aspx>