

Power Projection

Turkey's Military Build-Up: Arms Transfers
and an Emerging Military Industry

PAX

www.paxforpeace.nl

Colophon

January 2017

Author: Frank Slijper

Editing: Susan Clark

Cover photo: Ruins of a house after Turkish aircraft attacked SDF fighters south of Jarablus, Syria, killing 24 civilians and 10 to 15 SDF fighters, 28 August 2016. Private via Human Rights Watch

Other photos: Ceegee; MilborneOne; SAC Helen Farrer RAF Mobile News Team - © Crown Copyright 2014; and Selcuk Bey.

Graphic design: Het IJzeren Gordijn

PAX would like to thank the following people for their invaluable input: Jessica Dorsey, Daan Kayser, Jan Jaap van Oosterzee, Miriam Struyk and Wim Zwijnenburg.

About PAX

PAX works with committed citizens and partners to protect civilians against acts of war, to end armed violence and to build peace. PAX operates independently of political interests.

P.O. Box 19318
3501 DH Utrecht
The Netherlands

info@paxforpeace.nl
www.paxforpeace.nl

Power Projection

Turkey's Military Build-Up: Arms Transfers
and an Emerging Military Industry

Table of Contents

Table of Contents	4
Executive Summary	6
Introduction	8
1. Background	12
Towards military autarky	12
Military spending	13
2. Arms Transfers to Turkey	16
The 1990s	16
Post-2000	17
Most recent deals	18
3. Turkey's Military Industry and Arms Exports	24
Military electronics	25
Aerospace	25
Armoured vehicles	30
Munitions and guns	32
Shipbuilding	34
Turkish arms exports	35
4. Use of Weapons by Turkey and Arms Export Control	38
Use of weapons	38
Arms export control	40
5. Conclusion	42

Executive Summary

Strategically located between the Middle East and Europe, Turkey has traditionally played a key role in geopolitics. Recently, the influx of refugees, the rise of ISIS as well as Western-backed Kurdish fighters in Syria and Iraq, the re-emergence of the Kurdish conflict within Turkey, as well as the military coup and its aftermath, have put Turkey in the spotlight once again.

Since the collapse of the Kurdish peace process in July 2015 the violence has escalated. State forces launched attacks on PKK bases in Turkey and northern Iraq, while the PKK launched deadly attacks on police and army targets. Since July 2015 at least 2,400 people have been killed in the southeast of Turkey.

In response to the July 2016 coup, Turkey has jailed 36,000 people and suspended or dismissed more than 100,000 people from the military, judiciary and other public services. Many Kurdish mayors and members of parliament have been jailed. Turkey has also severely restricted public freedoms such as the freedom of the press. Turkey's heavy crackdown has strengthened the notion in Europe that the world's 15th military power is drifting away in terms of democracy and the rule of law.

Against this background of violence and instability, PAX highlights the role of arms transfers and the rapidly emerging Turkish arms industry over the past few decades.

No longer the world's number one arms importer, as it was in the 1990s, Turkey is still number six post-2010. Recent arms imports have mostly come from the United States, South Korea, Spain and Italy.

Subject to arms embargos in the past, Turkey has made military-industrial independence a top priority. That policy is reflected in the rapid growth of Turkey's arms industry and the ambitious development of indigenous weapon systems. Whereas currently half of its military equipment is still bought abroad, Turkey – unrealistically - aims to be self-sufficient by 2023. Its emerging arms industry has also fostered exports; Turkey is currently the world's 18th arms exporting country.

Turkey's procurement of military equipment is clearly shaped by the Kurdish conflict. It has intensified bombing raids on Kurdish targets in both southeast Turkey and northern Iraq; heavy bombardments have virtually depopulated dozens of villages. More recently, Turkey has also attacked targets in Syria. The military attacks have reportedly caused high numbers of casualties among civilians.

Besides air raids by fighter jets, attack helicopters and artillery bombardment, Turkey has recently also started using armed drones as part of its military operations.

While both the UN Arms Trade Treaty and EU arms export policy oblige states to adopt the highest possible levels of restraint in assessing arms exports, many states have exported military technology and equipment that is clearly meant to be used in Turkey's conflicts.

According to PAX, exporting states should therefore stop all arms exports when there are reasonable concerns with regards to potential human rights violations or violations of international humanitarian law. ♦

Introduction

Home to 80 million people and the world's 17th largest economy, Turkey is also the 15th biggest military spender. As a bridge between Europe and Asia, it has traditionally played a key geopolitical role. During the Cold War it was NATO's key frontline state, bordering the Soviet Union. Today its fluctuating relations with other states in the region, such as Iran, Iraq, Israel, Russia and Syria, illustrate the dynamics of the country's position within the wider Middle East. More recently, the influx of refugees (whether or not on their way to Europe), the rise of ISIS as well as Western-backed Kurdish fighters in Syria and Iraq, the re-emergence of the Kurdish conflict within Turkey, as well as the military coup and subsequent mass arrests, have put Turkey's military and geopolitical position in the spotlight once again.¹

A fragile peace process between the Kurdish armed PKK group (Kurdistan Workers' Party) and the Turkish state, in place since 2013, collapsed in July 2015. State forces launched attacks on PKK bases in Turkey and northern Iraq, while the PKK launched deadly attacks on police and army targets. Armed clashes between the youth wing of the PKK (YDG-H) and the police and army in urban centres took a particularly heavy toll on the lives of ordinary residents, according to Amnesty International. The mass deployment of Turkish security forces in the south-eastern provinces in late 2015 resulted in an intensification of clashes and the killings of scores of reportedly unarmed residents. In contrast, the Minister of the Interior stated that over 3,000

1 Islamic State of Iraq and Syria, also known as Islamic State (IS) or Daesh, the derogatory Arabic term. Also see Tulay Karadeniz, 'Turkey aims to fully secure borders early next year with Syria campaign', Reuters, 17 November 2016, <http://www.reuters.com/article/us-mideast-crisis-turkey-security-idUSKBN13C13X>.

“terrorists” had been killed since the end of the ceasefire.² According to International Crisis Group’s casualty tally, at least 2,393 people were killed between 20 July 2015 and 2 December 2016, 372 of whom were civilians, 219 “youth of unknown affiliation”, 986 PKK militants and 816 state security forces.³

Also in 2015, three suicide bomb attacks, which were blamed on ISIS, caused major casualties. In June, four people were killed at a rally of the progressive, pro-Kurdish HDP, the third largest faction in the parliament. A month later, a bomb killed 33 young left-wing activists in Suruç, across the border from Kobani in Syria, which ISIS had lost earlier that year. In October, twin explosions in Ankara targeting a peace rally organised by trade unions, civil society organisations and left-wing parties killed 102 people.⁴

The deal that the European Union (EU) made with Turkey to stem large numbers of refugees coming via Turkey to Europe appears to be serving its purpose. “In truth, though, the crisis has just been diverted”, according to a recent report in *Der Spiegel*. “The wall on the German border that Chancellor Angela Merkel wanted to avoid at all costs has been erected instead by Turkish President Recep Tayyip Erdogan on his country’s border with Syria: A three-meter [...] tall cement barricade that extends for hundreds of kilometers and prevents refugees from entering the country. People may no longer be drowning in the Aegean Sea [...]. Instead they are dying at the Turkish-Syrian border”.⁵ Its journalists spoke with several people in Syria and Turkey who witnessed Turkish border guards shooting at people seeking protection, while Human Rights Watch documented seven similar cases in May.

Then in July 2016, those involved in the coup attempt “deployed tanks in the streets of Istanbul and Ankara, bombed the parliament with fighter jets, and opened fire from helicopters on people who took to the street to protest”.⁶ At least 241 citizens and security personnel died in the fighting, according to Human Rights Watch. In response to the coup, Turkey has jailed some 36,000 people and suspended or dismissed more than 100,000 people from the military, judiciary and other public services.⁷

As a consequence of all this, there is a serious threat to fundamental freedoms and democracy. With Turkey’s military at the centre of an internal crisis and at the same time heavily involved in both internal conflicts and across Turkey’s borders in Iraq and Syria, Turkey’s role in NATO and as a potential EU member is the subject of discussion once again.⁸

2 See <https://www.amnesty.org/en/countries/europe-and-central-asia/turkey/report-turkey/>.

3 Turkey’s PKK Conflict: The Rising Toll’, International Crisis Group, <http://www.crisisgroup.be/interactives/turkey/>.

4 <https://www.amnesty.org/en/countries/europe-and-central-asia/turkey/report-turkey/>.

5 Riham Alkousaa and Maximilian Popp, ‘The Death Strip at the Turkish-Syrian Border’, *Der Spiegel*, 7 December 2016, <http://www.spiegel.de/international/world/death-strip-on-border-between-turkey-and-syria-a-1124706.html>.

6 <https://www.hrw.org/report/2016/10/24/blank-check/turkeys-post-coup-suspension-safeguards-against-torture>.

7 Tuvan Gumrukcu, ‘Turkey seeks to arrest 55 people suspected of financing Gulen - NTV’, Reuters, 10 December 2016, <http://www.reuters.com/article/us-turkey-security-idUSKBN13Z0AE>.

8 See for example James Stavridis, ‘Turkey and NATO: What Comes Next Is Messy’, 18 July 2016, <http://foreignpolicy.com/2016/07/18/turkey-and-nato-what-comes-next-is-messy-coup-erdogan-incirlik-air-base-nuclear-weapons/> and James Drew, ‘Turkey Coup Raises Questions About NATO’s B61 Nuke Posture’, AW&ST, 20 July 2016, <http://aviationweek.com/defense/turkey-coup-raises-questions-about-nato-s-b61-nuke-posture>.

Against this background of violence and instability, this briefing paper aims to highlight the role of arms transfers and the rapidly emerging Turkish arms industry over the past few decades and the (possible) use of weapons in the Kurdish conflict—developments that have not been documented to any great extent recently.⁹ Also, this paper assesses how arms exports to Turkey relate to export control regimes, such as the EU Common Position on arms exports and the United Nations (UN) Arms Trade Treaty (ATT). This review does not consider reports of covert or illicit arms transfers to non-state groups inside or outside Turkey, since these reports are mostly sketchy and difficult to verify.¹⁰

Chapter 1 looks at Turkey's military-industrial ambitions against the background of its defence spending levels. Chapter 2 then reviews arms transfers to Turkey since the 1990s, with Chapter 3 taking a look at Turkey's arms exports and rapidly developing indigenous arms industry. Chapter 4 then discusses arms export control policies against the potential of weapons being used in the current conflicts. This is followed by a concluding section. ♦

9 In-depth publications from the 1990s include e.g. Human Rights Watch, 'Weapons Transfers and Violations of the Laws of War in Turkey' (1995) and AMOK/ 'De Turkije connectie' (1993).

10 Probably most controversial in this respect are reports of secret transports of weapons by the Turkish intelligence service MIT to Islamist groups in Syria; see e.g.: Can Dunder, 'I revealed the truth about President Erdogan and Syria. For that he had me jailed', The Guardian, 28 December 2015, <https://www.theguardian.com/commentisfree/2015/dec/28/truth-president-erdogan-jailed-turkey-regime-state-security-crime> and Humeyra Pamuk and Nick Tattersall, 'Exclusive: Turkish intelligence helped ship arms to Syrian Islamist rebel areas', Reuters, 21 May 2015, <http://www.reuters.com/article/us-mideast-crisis-turkey-arms-idUSKBN0O61L220150521>.

1. Background

Towards military autarky

When discussing Turkey's military-industrial ambitions, certain aspects often come up, such as the 'painful experience' in World War I when it was forced to buy arms abroad, or losing access to US-produced weapons after the 1974 invasion of Cyprus. This, in addition to the occasional denial of weapons by some NATO partners in the 1990s due to human rights violations in the Kurdish conflict has made self-sufficiency in military production a cornerstone of Turkey's defence policy.

To foster industrial development, from the second half of the 1960s Turkey set up foundations to support e.g. local shipbuilding and aviation manufacturing, culminating in what is now the Armed Forces Foundation, which governs 14 companies.¹¹ Turkey has made participation of its industry in foreign procurement—also known as offset policy—standard practice to support the development of a domestic arms industry. The production of German G-3 and MG-3 weapons under licence in Turkey by MKEK from the 1970s onwards was an early example of this. The establishment of the Undersecretariat for Defence Industries (SSM) in 1985 was another step intended to “constitute a modern defence industry in Turkey and to achieve the modernization of the Turkish Armed Forces”.¹² SSM uses a quote from Turkey's founder Atatürk as a motto: “Measures taken to further develop and expand our defence industry infrastructure should be pursued and military requirements shall also be considered within our industrialization efforts”.¹³

¹¹ Six subsidiaries, six affiliates and two indirect companies: <http://www.tskgv.org.tr/history/>.

¹² <http://www.ssm.gov.tr/home/tdi/Sayfalar/historical.aspx>.

¹³ <http://www.ssm.gov.tr/home/Sayfalar/default.aspx>

“A nation without its own defence industry cannot fight the cause of liberation,” said then Prime Minister Davutoglu in 2015 at the 100th anniversary of the Battle of Gallipoli, adding that by 2023 a locally made combat plane will “fly the Turkish skies”.¹⁴

During the 2015 election campaign, President Erdogan’s AKP put up billboards on the streets proclaiming, “We’re making our own warplanes” and “We’re making our own tanks”.¹⁵

In May 2015, in the opening address at Turkey’s main arms fair, IDEF, Erdogan reiterated that aim: “Our goal is to completely rid our defence industry of foreign dependency by 2023”.¹⁶ While Turkey has undoubtedly made considerable progress towards that end over the past three decades, today about half of Turkey’s military equipment is still purchased from abroad.¹⁷ In the next few chapters we will see how this has developed since the 1990s.

Military spending

According to the renowned think tank SIPRI (Stockholm International Peace Research Institute), Turkey spent 2.1 per cent of its gross domestic product (GDP) on ‘Defence’ in 2015, down from a peak of 4 per cent in the late 1990s.¹⁸ In real or constant terms, spending has remained rather stable over the past decade at an annual average of USD 16.9 billion.¹⁹ Still, Turkey is the 15th biggest military spender worldwide, and number 6 in NATO, after the US, UK, France, Germany and Italy.²⁰

High military spending has long been explained by its rivalry with Greece—mostly over the Aegean Sea and Cyprus—and the Kurdish conflict. Today the former factor has become less prominent, while the latter conflict has re-emerged and expanded across the borders into Syria and Iraq, influencing Turkey’s military policy, including spending levels and arms procurement decisions. These issues are shrouded in secrecy though. A 2014 SIPRI study concluded that democratic oversight of the military, as well as transparency in military data, should be improved. It mentions that “parliamentarians are largely misinformed about the details of military spending and important procurement projects. Their investigation is limited to 2 or 3 pages of information on very broad categories of expenditure, and military programmes and projects are not investigated. These limitations make effective policy evaluation impossible and increase the need for parliamentary oversight on procurement decisions and strategies implemented by military institutions”.²¹ Nevertheless, reliable open-source information can help to provide a better picture. ♦

14 Jonny Hogg and Can Sezer, ‘Erdogan aims to turn Turkey into major defence industry power’, Reuters, 27 May 2015, <http://www.reuters.com/article/us-turkey-election-defence-idUSKBN0OC0FT20150527>.

15 Corporate Watch, ‘As Turkey massacres Kurds, UK arms fair welcomes Turkish officials and military companies’, 10 September 2015, <https://corporatewatch.org/news/2015/sep/10/turkey-massacres-kurds-uk-arms-fair-welcomes-turkish-officials-and-military>.

16 Jonny Hogg and Can Sezer, ‘Erdogan aims to turn Turkey into major defence industry power’, Reuters, 27 May 2015, <http://www.reuters.com/article/us-turkey-election-defence-idUSKBN0OC0FT20150527>.

17 Up from around 25 per cent in 2004 (Lale Sariibrahimoglu, ‘Turkey receives Stinger air-defence systems’, Jane’s Defence Weekly (JDW), 8 December 2004).

18 Globally the average is 2.3 per cent (‘Trends in World Military Expenditure, 2015’, SIPRI Fact Sheet, April 2016, https://www.sipri.org/sites/default/files/EMBARGO_FS1604_Milex_2015.pdf).

19 Converted to constant 2014 prices and exchange rates.

20 <https://www.sipri.org/databases/milex>.

21 http://books.sipri.org/product_info?c_product_id=474.

Table 1.

Global military spending in 2015—top 20 budgets*

No	Country	Military budget*
1	USA	596,024
2	China**	214,787
3	Saudi Arabia	87,186
4	Russia	66,421
5	UK	55,460
6	India	51,257
7	France	50,860
8	Japan	40,885
9	Germany	39,393
10	Korea, South	36,435
11	Brazil	24,584
12	Italy	23,840
13	Australia	23,588
14	Israel	16,101
15	Turkey	15,275
16	Canada	15,031
17	Spain	14,104
18	Iraq	13,121
19	Poland	10,460
20	Algeria	10,413

* In million USD at 2015 prices and exchange rates.

** The figure for China is labelled as an 'estimate' by SIPRI. Source: <https://www.sipri.org/databases/milex>



F-16 Fighting Falcon of the Turkish Air Force takes off from Air Force Base Konya during Exercise Anatolian Eagle, 2014.

2. Arms Transfers to Turkey

The 1990s

In the post-Cold War decade, when Turkey was waging a devastating war against Kurds in the south-east, the country was the world's largest arms importer (see Table 2), including of huge amounts of military equipment aided by NATO allies downsizing their own inventories.²² For example, scores of tanks and armoured vehicles were transferred from Germany, Italy and the US, as well as fighter aircraft from the Netherlands. "The cascade program has provided a major arms bonanza for the Turkish counterinsurgency effort in the southeast", as Human Rights Watch (HRW) observed at the time.²³

Or, as a Dutch Defence spokesperson later reflected, referring to earlier sales of F-104 Starfighter jets: "Every time Turkey bombs Kurdish targets, we wonder whether they use 'our' Starfighters for it".²⁴ Some aid was given for the purchase of 80 F-16 fighter jets, acquired under the USD 2.8 billion 'Peace Onyx-2' deal, following another 160 F-16s supplied between 1987 and 1995 (Peace Onyx-1).²⁵

In its 1995 report, HRW described extensively how Turkey used Western-supplied weapons and ammunition in the Kurdish conflict in the south-east, ranging from tanks and artillery to attack

22 As part of NATO's 'Equipment Transfer and Equipment Rationalization Programme' (a.k.a. 'Cascade'), under the Conventional Forces in Europe (CFE) Treaty between Warsaw Pact and NATO states. It should be noted that equipment acquired with aid is included in SIPRI's TIV as used in the tables, which reflect the military-strategic value of transfers rather than monetary costs.

23 HRW, 'Weapons Transfers and Violations of the Laws of War in Turkey', 1995, p. 29.

24 Arnold Mandemaker, 'Een tank is geen tweedehands auto', Brabants Dagblad, 27 January 1999.

25 By the US, Saudi Arabia, Kuwait and the UAE, rewarding Turkey for its role in the 1990-1991 Gulf War.

Table 2.

Turkey as a leading arms importer (1991-2015)

1991-2000		2001-2010		2011-2015	
Turkey	17,425	China	23,907	India	20,107
Taiwan	16,936	India	20,058	Saudi Arabia	9,932
Saudi Arabia	15,594	South Korea	11,050	China	6,680
Japan	14,791	Greece	10,073	UAE	6,552
South Korea	13,355	UAE	9,330	Australia	5,204
India	11,793	Pakistan	7,900	Turkey	4,926
China	10,815	Australia	7,759	Pakistan	4,723
Egypt	10,718	US	7,148	Vietnam	4,114
Greece	10,095	Turkey	6,311	US	4,109
Israel	7,399	Egypt	6,134	South Korea	3,761

Figures are SIPRI Trend Indicator Values (TIVs) expressed in USD million at constant (1990) prices. Source: SIPRI Arms Transfers Database, generated 11 November 2016; for more information, see <http://www.sipri.org/databases/armstransfers/background>.

helicopters and fighter jets. These weapons were reportedly also used in military actions that were in violation of international law. As a consequence of such reports, some countries—e.g. Germany, the Netherlands and Switzerland—temporarily embargoed arms transfers on several occasions, but never for more than a few months, effectively only delaying transfers rather than completely preventing them.²⁶ For example, around the turn of the century Norway at first refused an export licence for 16 Penguin anti-ship missiles because of human rights concerns, but the USD 34-40 million deal was allowed after Turkey became an EU candidate at the end of 1999.²⁷

Post-2000

From 2001 to 2010—internally a quieter period for Turkey, but with the US-led invasion of Iraq next door—Turkey received markedly fewer weapons from abroad and was ‘only’ the 9th global arms importer (down from 1st position), but still with an impressive list of new weapon systems flowing into the country.²⁸

US sales continued to dominate, for example with 4,800 Stinger anti-aircraft missiles between 1993 and 2004, as well as 551 armoured vehicles (the latter for USD 338 million).²⁹ From 1999

²⁶ The opposite also happened, as Turkey briefly blacklisted the Netherlands for allowing the Kurdish parliament in exile to meet in The Hague.

²⁷ SIPRI Arms Transfers Database.

²⁸ All data mentioned below come from the SIPRI Arms Transfers Database, unless additional sources are given.

²⁹ Turkish industry had a 40 per cent share in the four-nation European Stinger programme launched in the 1980s with Germany, Greece and the Netherlands. The Turkish company Aselsan was responsible for the Pedestal-Mounted Air Defence Systems (PMADS), of which e.g. the Netherlands bought 18 to be integrated in Fennek armoured vehicles. See e.g.: ‘Aselsan to sell Stinger systems to Holland’, 29 September 2005, <http://www.hurriyetdailynews.com/aselsan-to-sell-stinger-systems-to-holland.aspx> and Lale Sariibrahimoglu, ‘Turkey receives Stinger air-defence systems’, JDW, 8 December 2004.

to 2002, it supplied 50 BlackHawk helicopters (USD 561 million). Originally ordered in 1992, that deal had been suspended from 1994 until 1999, reportedly both for financial reasons and in reaction to the US policy towards Turkish actions against the Kurds.

Other large purchases in the first years of the new millennium included a range of naval deals, such as four submarines (USD 556 million), six mine hunters (USD 625 million) and six fast attack craft (FAC) from **Germany**—all of which were partly assembled in Turkey. The Thales Group's branch in the **Netherlands** supplied combat management systems and several types of radar for all six FAC for an estimated EUR 120 million.³⁰

France sold six second-hand corvettes (USD 210 million) and 30 Cougar helicopters, which were partly assembled in Turkey (USD 430 million).

A USD 1 billion deal with **South Korea's** Hanwha Techwin ensured local production of its K-9 self-propelled howitzer, known in Turkey as the T-155 Firtina; 300 pieces were produced between 2004 and 2013.³¹ The deal also included 70 K10 armoured ammunition re-supply vehicles (ARV) for the howitzers, an estimated 22 of which have been produced in Turkey since 2013.

Improving relations with **Israel** resulted in deals for ten Heron unmanned aircraft (USD 183 million—beating a rivalling Predator bid by US drone maker General Atomics) and the rebuilding of 170 M-60/Sabra-3 tanks (USD 688 million) by Israel Military Industries (IMI).³²

Also, **Russia** supplied an estimated 800 Kornet anti-tank missiles between 2009 and 2010 in a USD 60-100 million deal (including 80 launchers).

Finally, under a USD 230-250 million deal, the **UK** rebuilt 78 Turkish Rapier air defence systems, with 840 of its missiles produced locally by Roketsan.

Most recent deals

Against the backdrop of the 'Arab Spring' and major regional instability, Turkey has stepped up its arms purchases in recent years, as reflected by a sixth place globally for the 2011-2015 period according to SIPRI (see Table 2). The most prominent arms transfers of the past few years—by supplier country—include the following.

While there have been concerns in the past in the **United States** about human rights abuses and the war in the south-east, they have taken a back seat since the 'War on Terror' rhetoric took precedence in much of US arms export policy. Even against the recent flare-up of the conflict in the south-east and tensions over US military support of Syrian Kurds of the YPG, or People's Protection Units—who are seen by Ankara as linked to the PKK and thus a threat to Turkey's sovereignty—Washington appears more willing than before to allow large-scale arms transfers to Turkey. Indeed, they have increased massively since 2011 (see Table 3).

30 'Turkish Navy Patrol Boats To Use Signal Equipment', Defense News, 11 December 2000. Furthermore, Thales Nederland was contracted in 2003 by the Turkish Navy to supply the Integrated Maritime Surveillance System (IMSS) on the Aegean coast for USD 52 million (Thales Nederland, Flash no. 147).

31 Formerly Samsung Techwin; see also Jung Sung-Ki, 'South Korea To Export K-9 Howitzers To Poland', Defense News, 16 December 2014, <http://www.defensenews.com/story/defense/international/europe/2014/12/16/south-korea-to-export-k-9-howitzers-to-poland/20477349/>.

32 More M-60 upgrades may follow from 2017 on: Burak Bekdil, 'Turkey Mulling Upgrade to Leopard 2s, M60s', Defense News, 18 October 2016, <http://www.defensenews.com/articles/turkey-mulling-upgrade-to-leopard-2s-m60s>.

Major air weapon deals have been concluded, including for another 30 F-16 fighter jets under the Peace Onyx-4 programme (USD 1.8 billion), delivered by Lockheed Martin in 2011 and 2012. Furthermore, 163 Peace Onyx-3 F-16s were modernised for another USD 1.1 billion. Lockheed Martin recently signed another two huge deals: one for up to 100 F-35 Joint Strike Fighters (USD 11-16 billion, to be delivered from 2018 onwards) and the second for another 109 Black Hawk helicopters (USD 3.5 billion, deliveries in 2016-2024) (see also Aerospace section).³³

Boeing, the world's second largest arms manufacturer, has equally big interests in the Turkish military market. It earned USD 1 billion with the 'Peace Eagle' deal for four spy aircraft, delivered in 2014 and 2015.³⁴ It also has orders for 11 Chinook transport helicopters, the first of which were due to be delivered in 2016, including to the Special Forces.³⁵ Originally, the deal covered 14 Chinooks worth approximately USD 1.2 billion; the remaining three helicopters may be bought later.³⁶

Raytheon may deliver 1,000 Joint Direct Attack Munitions to Turkey worth USD 70 million, believed to be the first time that the US has allowed these kits for guiding 'dumb' bombs to be sold to Turkey.³⁷ Finally, General Dynamics and Ellwood National Forge were awarded a major USD 683 million contract to sell Turkey an undisclosed number of BLU-109 2,000 pound penetrator bomb parts—another first for Turkey. Commenting on the deal, a Turkish official said: "The deal came timely as we are deeply engaged in asymmetrical warfare and need smart bombs".³⁸

Germany's ThyssenKrupp Marine Systems (TKMS) signed a EUR 2.0 billion contract in 2011 to sell six Type-214 submarines being built in Turkey in the Gölcük Naval Shipyard.³⁹ Delivery is scheduled for 2019-2024.

MTU has been Turkey's preferred supplier of diesel engines. It previously supplied them for both the 300 Korean K-9 howitzers and the 170 Sabra tanks rebuilt in Israel, and it has been selected for Turkey's indigenous Altay tank (see Armoured vehicles section).

Relations with **Israel** cooled markedly after ten Turkish people were killed in 2010 by Israeli commandos on board a ship that was part of an aid flotilla attempting to breach the blockade

³³ The Black Hawk producer Sikorsky was taken over by Lockheed Martin in 2015; see also

<http://lockheedmartin.com/us/news/press-releases/2016/june/160616-mst-sikorsky-turkish-industry-launch-program-to-build-T70-utility-helicopters.html>.

³⁴ These are officially known as Boeing-737 Airborne Early Warning and Control (AEW&C) aircraft. The Dutch company Fokker Elmo has been a subcontractor for these aircraft.

³⁵ Burak Bekdil, 'Turkey Expects CH-47F Deliveries Soon', Defense News, 27 March 2016,

<http://www.defensenews.com/story/defense/air-space/2016/03/27/turkey-expects-ch-47f-deliveries-soon/82325138/>.

³⁶ Including training and logistical support. US Defense Security Agency, News Release, 8 December 2009,

<http://www.dsca.mil/major-arms-sales/turkey-ch-47f-chinook-helicopters>.

³⁷ Nicholas de Larrinaga, 'US approves JDAM export to Turkey', JDW, 4 November 2015.

³⁸ Burak Bekdil, 'Pentagon Awards Contract To Sell Smart Bombs To Turkey', Defense News, 1 March 2016, <http://www.defensenews.com/story/defense/policy-budget/industry/2016/02/29/pentagon-awards-contract-sell-smart-bombs-turkey/81130030/> and Gareth Jennings, 'Turkey to receive BLU-109 penetrator bomb parts', JDW, 28 February 2016, <http://www.janes.com/article/58396/turkey-to-receive-blu-109-penetrator-bomb-parts>.

³⁹ See press release at <https://www.thyssenkrupp.com/en/newsroom/press-releases/press-release-48184.html>. TKMS is the result of the merger of Howaldtswerke-Deutsche Werft (HDW), Blohm+Voss and Swedish yard Kockums (<https://www.thyssenkrupp-marinesystems.com/en/hdw.html>).



TAI T129 Attack Helicopter on display at Farnborough, 2014

of Gaza. It was not until June 2016 that Turkey and Israel agreed to normalise their relations.⁴⁰ Just one major deal continued in recent years: the local production by BMC of Israeli-designed Navigator 'Mine Resistant Ambush Protected Vehicles', known in Turkey as Kirpi ('Hedgehog'), a valued asset for Turkish operations in the south-east of the country.⁴¹

Most of **Spain's** exports have been related to the navy, such as nine CN-235 naval aircraft, assembled and equipped locally in Turkey. A USD 1 billion contract for Navantia's naval Landing Platform Dock or Light Aircraft Carrier, in collaboration with Turkey's Sedef Shipbuilding, was signed in 2015.⁴² The Spanish branch of Airbus has also been contracted for ten A400M transport aircraft for the Turkish air force, while Turkish companies will produce components for the aircraft.

One of the most significant European deals in recent years has been the USD 3 billion deal for the sale and transfer of technology of Mangusta attack helicopters by Leonardo (previously Finmeccanica/AgustaWestland) in **Italy**. Nine were exported from Italy in 2014 and 2015, and a

40 'Mavi Marmara: Why did Israel stop the Gaza flotilla?', BBC News, 27 June 2016, <http://www.bbc.com/news/10203726>. Relations had already cooled after vocal Turkish criticism of Israel's invasion of Gaza in 2008; see e.g.: Alon Ben-David, 'Frayed Friendship' AW&ST, 1 February 2010 and Barbara Opall-Rome and Vago Muradian, 'Israel-Turkey Rift Derails Defense Trade', Defense News, 19 October 2009.

41 Based on a design by Israeli company CARMOR (formerly Hatehof): http://www.armyrecognition.com/turkey_turkish_army_wheeled_armoured_vehicles_uk/kirpi_bmc_350_mrap_armoured_vehicle_personnel_carrier_data_sheet_specifications_description_pictures.html and <http://www.carmor.com/carmor-won-tender-production-supply-latin-america-state-armored-vehicles-rcvs/>.

42 See: George Tsiboukis, 'Turkey signs contract with Navantia-Sedef for the construction of a light aircraft carrier', 11 May 2015, <http://blogs.plymouth.ac.uk/dcscs/2015/05/11/turkey-signs-contract-with-navantia-sedef-for-the-construction-of-a-light-aircraft-carrier/> and Richard Tomkins, 'Contract awarded for building Turkish Navy LPD', UPI, 12 May 2015, http://www.upi.com/Business_News/Security-Industry/2015/05/12/Contract-awarded-for-building-Turkish-Navy-LPD/2771431456839/.

further 50 aircraft are being assembled in Turkey by TAI as T-129B ATAK (see ATAK section). From 2011 to 2015, the Italian company Oto Melara delivered naval guns for 16 patrol vessels and two MilGem corvettes, all locally built ships. For the two MilGems, the Thales branch in the **Netherlands** sold its SMART and STING radars, in addition to another 14 SMARTs ordered in recent years for a range of other Turkish warships.

Smaller recent arms transfers include e.g. **Denmark's** 2012 deliveries of 143 second-hand Maverick air-to-ground missiles, commonly used by F-4 and F-16 fighter aircraft. **Saudi Arabia** supplied an unconfirmed six second-hand Hercules transport aircraft to Turkey in 2011, meant as a stopgap for the troubled Airbus A400M programme, in which Turkey originally planned to buy ten aircraft.⁴³ Finally, **China's** CPMIEC (China's Precision Machinery Import-Export Corporation) sold 200 B-611 surface-to-surface missiles, produced under licence in Turkey by Roketsan as 'Yildirim' between 2002 and 2012.

The table below sums up Turkey's main arms suppliers during the past decade. Clearly, the United States is by far the largest, followed by Germany; this has mostly been the case since Turkey joined NATO in 1952. Other NATO allies, mostly Italy and the Netherlands, have also been consistent suppliers over the years. However, trade relations with NATO partners are under pressure, with Turkey diversifying its supplier base and developing military-industrial relations with e.g. South Korea, Israel and China.

Table 3.

Turkish arms imports (2006-2015, top-10 suppliers and total imports)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
United States	5	25	49	21	11	331	1,009	355	1,116	308	3,228
Germany	330	404	287	172	126	40	28	4	54	14	1,459
South Korea	104	104	173	173	181	206	198	53	6	6	1,202
Israel	6	99	97	320	69	22	9		17	15	654
Spain								135	229	73	437
Italy	30		30	5	5	8	170	35	72	32	387
China	28	35	35	35	35	35	35				238
Netherlands	13		13	13	13	42	38	50	55		238
United Kingdom	14	26	26	26	25						117
Saudi Arabia						62					62
Total	531	692	710	780	484	770	1,503	650	1,556	448	8,123

Figures are SIPRI Trend Indicator Values (TIVs) expressed in USD million at constant (1990) prices. Figures may not add up due to rounding.

Source: SIPRI Arms Transfers Database, generated 11 November 2016; for more information, see <http://www.sipri.org/databases/armstransfers/background>.

43 Umit Enginsoy and Burak Bekdil, 'Turkey To Buy 6 Saudi C-130Es', Defense News, 19 July 2010.

This trend is clearly illustrated by Turkey's pending requirement for long-range missile defence systems. China's CPMIEC surprisingly won the contract for this in 2013, but it was then revoked in 2015, officially because the required transfer of technology could not be delivered. Clearly, NATO also put substantial pressure on Turkey to choose NATO-compatible systems, whereas the US has blacklisted CPMIEC for allegedly aiding Iran and North Korea.⁴⁴

Three years later, all options appear to be open again, with Russia invited to rebid with its S-400 system—after Putin and Erdogan were reconciled following Turkey's downing of a Russian fighter jet that had allegedly entered its airspace from Syria.⁴⁵ Over the past few years, under NATO's umbrella, Turkey has received material support from its partners, deploying Patriot air defence systems to intercept potential fire from across the border with Syria (and Iraq during the Gulf Wars). It is precisely that dependency that has shaped Turkey's goal of diversifying its supplier base and further developing its domestic military industry. ♦

⁴⁴ Reuters, AFP, 'Turkey scraps Chinese air defence system', Deutsche Welle (DW), 18 November 2015, <http://dw.com/p/1H7cU>; Jacob Resneck, 'Turkey riles NATO with Chinese whispers', DW, 19 February 2015, <http://dw.com/p/1Eej5>; Spencer Kimball, 'Turkey's planned China arms deal ruffles feathers', DW, 22 October 2013, <http://dw.com/p/1A40E>.

⁴⁵ Burak Bekdil, 'Turkey Invites Russian Bid for Air Defense Contract', Defense News, 10 October 2016, <http://www.defensenews.com/articles/turkey-invites-russian-bid-for-air-defense-contract>.

3. Turkey's Military Industry and Arms Exports

President Erdogan has lent his full support to Turkey's military-industrial growth. "We are talking about a country that will have its own national tank, national ship, national helicopter, satellite and war plane," he said. "We are aiming to have everything the five permanent members of the U.N. Security Council have."⁴⁶ Or, as the then Prime Minister Davutoglu said in January 2015: "Now we have a Turkey that won't bow to others with its own national defence industry. This is the new Turkey."⁴⁷

Regardless of the aim or claim, Turkey has without doubt demonstrated that it can make major strides towards expanding and diversifying its arms industry, with or without foreign assistance. One such example is the launch of Teknopark Istanbul, intended as Turkey's Silicon Valley for the arms industry. To a large extent pushed by SSM, the military procurement agency, the 700,000m² of indoor space will be able to accommodate 30,000 people.⁴⁸

Among the hundred largest arms-producing companies in the world (excluding China), two are Turkish: the military electronics company Aselsan and Turkish Aerospace Industries. Besides these two, there are a number of state-controlled and private companies producing or assembling everything from grenades and missiles to military vehicles, aircraft and warships. An overview (not

46 Jonny Hogg and Can Sezer, 'Erdogan aims to turn Turkey into major defence industry power', Reuters, 27 May 2015, <http://www.reuters.com/article/us-turkey-election-defence-idUSKBN0OC0FT20150527>.

47 As quoted in Corporate Watch, 'As Turkey massacres Kurds, UK arms fair welcomes Turkish officials and military companies', 10 September 2015, <https://corporatewatch.org/news/2015/sep/10/turkey-massacres-kurds-uk-arms-fair-welcomes-turkish-officials-and-military>.

48 Burak Bekdil and Umit Enginsoy, 'Turkey Launches R&D Center', Defense News, 17 January 2011.

intended to be exhaustive) is given below of the main Turkish companies in this business.

Military electronics

With USD 1 billion in military revenues and employing nearly 5,000 people, **Aselsan** is Turkey's biggest arms company and ranked 58 (according to Defense News) or 69 (SIPRI) in the world.⁴⁹ Aselsan was established in 1975 for the purpose of producing communications equipment. In 1980, its first 'manpack and tank wireless radios' were delivered to the Turkish army, followed in 1983 by the first export order.⁵⁰ Applications for F-16s and Stinger missiles soon followed; radar and electro-optical systems became part of the product range in the early 1990s. From the turn of the century Aselsan products were integrated into nearly every major weapon system acquired by the Turkish armed forces. Since 1990, Aselsan shares have been publicly traded on the Istanbul stock exchange.

One of Aselsan's main international partners is Thales; its French and Dutch branches in particular have worked closely together with Aselsan for years.⁵¹ Besides strong connections in the naval sphere, Thales and Aselsan are also cooperating to "develop a family of launchers to integrate Thales Lightweight Multirole Missile (LMM) on Aselsan turrets together with the Aselsan Fire Control System, STAMP".⁵²

Aerospace

Turkish Aircraft Industries Corporation (TUSAS) was established in 1973 under the auspices of the Turkish Ministry of Industry and Technology in order to reduce foreign dependency. TUSAS Aerospace Industries (TAI) was established in 1984 for the manufacturing, systems integration and flight tests of F-16s; it eventually assembled more than 200 of the fighter jets for the Turkish air force plus another 46 for Egypt.⁵³ As part of a 2005 restructuring, TAI and TUSAS merged to form Turkish Aerospace Industries (TAI), which has become Turkey's leading aerospace company, working on fixed and rotary wing aircraft as well as unmanned aerial vehicles (UAVs; see also Armed Drones section) and military satellites.⁵⁴

Located in Ankara, TAI is the world's 72nd biggest arms producer according to Defense News (78th according to SIPRI), with USD 887 million, or 86 per cent of its total revenues, coming

49 'Top 100 for 2016', <http://people.defensenews.com/top-100/> and <https://www.sipri.org/databases/armsindustry>.

50 <http://www.aselsan.com.tr/en-us/about-us/Pages/milestones.aspx>.

51 See also e.g. <http://www.aselsan.com.tr/tr-tr/basin-odasi/haberler/Sayfalar/THALES-ASELSAN-Modullerini-Kullanacak.aspx> and <http://www.defense-aerospace.com/article-view/release/89364/turkish-navy-purchases-thales-sensors.html>.

52 <https://www.thalesgroup.com/en/worldwide/defence-turkey> and <https://www.thalesgroup.com/en/worldwide/defence/press-release/thales-and-aselsan-sign-further-cooperation-agreement-during-idex>.

53 <https://www.tai.com.tr/en/about-us/company-profile>. Originally Lockheed Martin held a 42 per cent stake, but TAI is currently fully state-owned; see also Umit Enginsoy and Burak Begdil, 'Getting Ready for Takeoff', Defense News, 18 January 2010.

54 Turkey launched its Gokturk-1 earth observation satellite in December 2016, with Aselsan and TAI as key Turkish contractors. "Security officials said that the Gokturk-1 would be widely used in Turkey's fight against the Kurdistan Workers' Party (PKK)"; see Burak Bekdil, 'Turkey Launches New Military Satellite', Defense News, 9 December 2016, <http://www.defensenews.com/articles/turkey-launches-new-military-satellite>.

from military sales.⁵⁵

TAI has led the development of the ambitious TFX fighter jet programme since 2011. Although in January 2015 the then Turkish Prime Minister Davutoglu announced that the TFX “will be a completely indigenous Turkish fighter, and not a copy of any existing fighter”, TAI is working with foreign partners on the design and development, including Saab and BAE Systems.⁵⁶ The TFX is slated to replace the F-16s and to be offered for export. The Turkish air force is planning to buy more than 250 TFX jets, and the first prototype should be introduced in 2023. The jets will operate alongside F-35 jets currently procured from Lockheed Martin, for which TAI is also a major subcontractor (see below). While it is no longer assembling F-16s, TAI has—with US permission—modernised older versions in recent years for Jordan and Pakistan.

Possibly TAI’s largest project for the coming years is the licenced production of 109 Black Hawk helicopters, between 2021 and 2026 for the Turkish Land Forces, Air Force, Gendarme, Special Forces, National Police, and Directorate General of Forestry. Over a 30-year time frame, TAI will deliver an equal number of Black Hawks for export to Sikorsky.⁵⁷

TAI is also working closely with Lockheed’s rival Boeing, including on the AEW&C aircraft mentioned earlier, as well as modernising Boeing Chinook transport helicopters for Turkey’s Land Forces Command and the Special Forces Command.⁵⁸

Foreign Cooperation

F-35, a.k.a. JSF

Turkey has committed to buying 100 F-35 Joint Strike Fighters (JSF) from the US prime contractor Lockheed Martin in a deal that is estimated at USD 11 billion. Turkey is also participating in the industrial cooperation programme, building an engine maintenance centre supporting the Pratt & Whitney F135 power plant and with TAI producing the aircraft’s centre fuselage.⁵⁹

55 ‘Top 100 for 2016’, <http://people.defensenews.com/top-100/> and <https://www.sipri.org/databases/armsindustry>.

56 Tolga Ozbek, ‘BAE chosen to assist with Turkey’s TFX fighter project’, FlightGlobal, 3 December 2015, <https://www.flightglobal.com/news/articles/bae-chosen-to-assist-with-turkeys-tfx-fighter-proje-419695/>, Lale Sariibrahimoglu, ‘Turkey advances TFX fighter project, orders new rifles, more F-35s, CH-47s’, JDW, 8 January 2015, retrieved from <http://web.archive.org/web/20160101230341/http://www.janes.com/article/47750/turkey-advances-tfx-fighter-project-orders-new-rifles-more-f-35s-ch-47s> and Burak Bekdil, ‘Turkey Picks Saab To Mentor National Fighter Program’, Defense News, 3 June 2013.

57 <http://lockheedmartin.com/us/news/press-releases/2016/june/160616-mst-sikorsky-turkish-industry-launch-program-to-build-T70-utility-helicopters.html>; Lale Sariibrahimoglu, ‘Turkey signs \$3.5 bn deal for 109 Black Hawks’, JDW, 5 March 2014.

58 Lale Sariibrahimoglu, ‘Turkey confirms purchase of A129 as stop-gap’, JDW, 23 June 2010.

59 Leigh Giangreco, ‘Turkey confirms second F-35 order’, FlightGlobal, 31 October 2016, <https://www.flightglobal.com/news/articles/turkey-confirms-second-f-35-order-430947/>, Aaron Mehta, ‘Italy, Turkey Selected for F-35 European Maintenance’, Defense News, 11 December 2014, <http://www.defensenews.com/story/defense/international/americas/2014/12/11/italy-turkey-selected-for-f-35-european-maintenance/20254061/> and ‘Turkey produces first F-35 center fuselage’, UPI, 12 December 2013, http://www.upi.com/Business_News/Security-Industry/2013/12/12/Turkey-produces-first-F-35-center-fuselage/UPI-31291386863364/ - ixzz2nRfak2BU.

Furthermore, in 2014 Roketsan and Lockheed Martin signed an agreement to collaborate on the SOM-J, advertised as an "autonomous, long-range, low-observable, all-weather, precision air-to-surface cruise missile" for the F-35 and other aircraft.⁶⁰ The military research and development institute TÜBİTAK-AGE developed the SOM; Roketsan will undertake the production process.⁶¹

The Dutch company Fokker opened a factory in İzmir in 2008 to produce military aircraft wiring systems, including for the F-35.⁶² More recently, another Dutch link with Turkey's F-35 programme was revealed: a EUR 700 million export licence had been granted to the Dutch branch of a US F-35 producer to distribute internationally produced F-35 components from the Netherlands to assembly locations in the US, Turkey and Italy.⁶³

ATAK

As previously mentioned, one of Turkey's largest procurement programmes in recent years involves the local manufacture of Italian-origin attack helicopters dubbed the T-129 ATAK; they "will mainly be used for operations against terror organizations", Anadolu Agency reported.⁶⁴ Turkey relies heavily on attack helicopters in the fight against the PKK, until recently mainly US-supplied Cobra helicopters.⁶⁵ The multi-billion dollar contract between AgustaWestland (now Leonardo Helicopters) and TAI and Aselsan took effect in 2008, after US companies had withdrawn from the contest because they could not meet Turkish technology transfer demands.⁶⁶ ATAK can undertake high-altitude missions with heavy artillery. Its weapon systems include UMTAS laser-guided anti-tank weapons and lighter Cirit laser-guided rockets, both made by Roketsan.

As of November 2016 Turkey's inventory comprised 16 ATAK helicopters, due to increase to up to 35 by the end of 2017; 60 pieces have been ordered, while options are being held on 32 more.⁶⁷

60 'Lockheed Martin Teams with Roketsan of Turkey on New Standoff Missile for the F-35', 22 October 2014, <http://www.lockheedmartin.com/us/news/press-releases/2014/october/mfc-102214-lm--teams-with-roketsan-turkey-new-f-35.html>.

61 'Turkey becomes one of world's top drone makers: Minister', Hurriyet Daily News, 12 September 2016, <http://www.hurriyetdailynews.com/Default.aspx?pageID=238&nID=103827&NewsCatID=345>.

62 Joris Janssen Lok, 'Turkish Connection', AW&ST, 5 November 2007.

63 <https://www.rijksoverheid.nl/binaries/rijksoverheid/documenten/rapporten/2015/11/20/het-nederlandse-wapenexportbeleid-in-2014/het-nederlandse-wapenexportbeleid-in-2014.pdf>.

64 'Turkey's indigenous helicopter to be equipped with locally-made missiles', Hurriyet Daily News, 23 November 2016, <http://www.hurriyetdailynews.com/turkeys-indigenous-helicopter-to-be-equipped-with-locally-made-missiles>.

65 See e.g. Lale Sariibrahimoglu, 'Turkey approves USD6 billion in new defence buys', JDW 16 March 2016.

66 See e.g. Lale Sariibrahimoglu, 'Turkey confirms purchase of A129 as stop-gap', JDW, 23 June 2010; Umit Eginsoy and Burak Bekdil, 'U.S., Turkey Work on Super Cobra Sale', Defense News, 15 June 2009.

67 Burak Bekdil and Umit Eginsoy, 'European Manufacturers Back on Turkish Market', Defense News, 7 September 2009; see also <http://www.leonardocompany.com/en/-/t129>.

67 'TAI Delivers 16th Production T129 ATAK', AirForces Monthly, December 2016; 'Turkey's indigenous helicopter to be equipped with locally-made missiles', Hurriyet Daily News, 23 November 2016, <http://www.hurriyetdailynews.com/turkeys-indigenous-helicopter-to-be-equipped-with-locally-made-missiles>.
68 <http://www.hurriyetdailynews.com/turkeys-indigenous-helicopter-to-be-equipped-with-locally-made-missiles.aspx?pageID=238&nID=106468&NewsCatID=344>.

Armed Drones

Turkey has become the sixth nation to develop and field an indigenous armed UAV system, after China, Iran, Israel, Pakistan and the US. While originally (unsuccessfully) aiming to acquire armed US-made Reaper drones for use against Kurdish guerrillas, Turkey has since focused on developing an indigenous medium-altitude long-endurance (MALE) type drone.⁶⁸ The Anka, or Phoenix, has been developed by TAI. In 2013 Turkey signed a deal with TAI for ten Ankas and ground stations. In 2016 it made its debut from Elazığ in the east with a four-hour observation flight. Industry and Technology Minister Özlü recently boasted: "These drones are, for instance, now used to complement our support to the Free Syrian Army [FSA]. These tactical drones weigh around 560-600 kg with a small weapons system on them."⁶⁹ Turkey does indeed consider the use of armed drones against ISIS in Syria as a key asset, confirmed Turkey's chief procurement official: "The best method is to monitor the region [...] and to have capabilities to hit the threat at its origin ... like armed drones."⁷⁰

The Bayraktar drone was developed for the Turkish Armed Forces by a joint venture between the **Rıale Group** and **Baykar Technologies**. A version armed with Roketsan MAM-İ (20kg) munition was successfully demonstrated in December 2015. Bayraktar can fly at an altitude of nearly six kilometres and has an endurance of more than 24 hours.⁷¹ Military officials would reportedly prefer the Bayraktar, especially in anti-terror operations, because of its "exceptional quietness".⁷²

A third drone developed by Turkey is **Vestel's** Karayel, which commenced operations in early 2016 "in an undisclosed area of Turkey [...] helping iron out operational issues". While so far there is no information that it has been used in an armed configuration, it has been designed to be able to carry munitions.⁷³ Turkey announced in August 2015 that it will buy 30 new drones: 15 Ankas and 15 Bayraktars. All will be used by the anti-terror units of the Turkish police

68 Burak Bekdil, 'Turkey mulls unarmed Reaper drones from US', Hurriyet Daily News, 4 March 2014, <http://www.hurriyetaidailynews.com/turkey-mulls-unarmed-reaper-drones-from-us-.aspx?pageID=238&nID=63143&NewsCatID=483>; Burak Bekdil and Umit Enginsoy, 'Turkey Seeks U.S. Nod for Reaper UAV Buy', Defense News, 17 November 2008.

69 'Turkey becomes one of world's top drone makers: Minister', Hurriyet Daily News, 12 September 2016, <http://www.hurriyetaidailynews.com/Default.aspx?pageID=238&nID=103827&NewsCatID=345>.

70 Burak Bekdil, 'Turkey Looks to Enrich Drone Fleet', Defense News, 18 October 2016, <http://www.defensenews.com/articles/turkey-looks-to-enrich-drone-fleet>.

71 <http://baykarmakina.com/en/sistemler-2/bayraktar-taktik-ihaf-1458637130929-195f09d3-ff5a>; Tony Osborne, 'Indigenous Eyes', AW&ST, 21 November-4 December 2016.

72 Burak Bekdil, 'Turkey Shifts to Anti-Terror Gear as Kurd Violence Renews', Defense News, 30 August 2015, <http://www.defensenews.com/story/defense/land/weapons/2015/08/30/turkey-shifts-anti-terror-gear-kurd-violence-renews/32478949/>.

73 Huw Williams, 'UMEX 2016: Vestel's Karayel goes operational', Jane's International Defence Review, 8 March 2016, <http://www.janes.com/article/58613/umex-2016-vestel-s-karayel-goes-operational>; Burak Bekdil, 'Turkish Drone Passes Flight Test with Payload', Defense News, 1 March 2015, <http://www.defensenews.com/story/defense/air-space/isr/2015/03/01/turkish-drone-passes-flight-test-with-payload/24219877/>.

force, which has said they are “to be used against rising terror attacks”.⁷⁴

Ankara has indeed deployed armed UAVs since then. Details of their first missions emerged in September 2016, when reportedly a Bayraktar had killed six PKK militants. UAVs have also been used to cue Cobra helicopter missile strikes. In October, Defence Minister İsik confirmed that armed UAVs had killed 72 PKK fighters in the Hakkari region over a two-month period. “İsik’s statement—communicated via Twitter—was the first official government confirmation that the armed UAVs were being used.”⁷⁵



Unmanned aerial vehicle ANKA of Turkish Aerospace Industries at IDEF, 2015

“Turkey views the UAVs as a force multiplier for its current military operations against the PKK,” according to Aaron Stein, an expert on Turkey’s military at the Atlantic Council.⁷⁶ However, the legality, morality and effectiveness of such attacks have also been starkly and extensively criticised, especially in the context of 15 years of US armed drone strikes in Afghanistan, Pakistan, Somalia and Yemen.⁷⁷

The Bayraktar and the Rarayel are entirely indigenous, which makes it easier to export them.⁷⁸ Turkish media reported in 2012 that Qatar had ordered 10 Bayraktars in a USD 25 million deal.⁷⁹

74 ‘Turkish police ramping up drone purchases in fight against terror’, Hurriyet Daily News, 21 August 2015, <http://www.hurriyetdailynews.com/turkish-police-ramping-up-drone-purchases-in-fight-against-terror.aspx?pageID=238&nID=87342&NewsCatID=345>.

75 Tony Osborne, ‘Indigenous Eyes’, AW&ST, 21 November–4 December 2016.

76 Ibid.

77 Also see Aaron Stein, ‘The First Rule of Drone Club - The bad lessons Turkey learned from Obama’s war from above’, Foreign Policy, 25 February 2013, <http://foreignpolicy.com/2013/02/25/the-first-rule-of-drone-club/>.

78 Tony Osborne, ‘Indigenous Eyes’, AW&ST, 21 November–4 December 2016.

79 Gareth Jennings, ‘Qatar to buy Turkish UAVs’, JDW, 21 March 2012.

Armoured vehicles

Both Turkey's military and its police are major customers for its domestic military vehicle industry. In November 2016, the Interior Minister Soylu announced that the ministry would buy 2,684 vehicles for anti-terror operations before the end of the year, including 231 armoured vehicles, to be followed in 2017 by another 440 armoured vehicles and 50 anti-riot vehicles, as well as 300 armoured vehicles for the gendarmerie. The minister's armoured vehicles shopping list for 2017 would "most likely" grow, as clashes may intensify after next spring.⁸⁰ The military vehicle sector has also become the backbone of Turkey's arms export success, possibly contributing to half of all arms exports.⁸¹ A few companies stand out.

Otokar is based in Istanbul and part of the Koc privately-owned industrial conglomerate. Its signature product is the Cobra 4x4 vehicles used by the police and army. Since late 2015 Otokar has received at least three Turkish orders for the latest Cobra II version, including for "internal security forces" and thus to be used in the fight against the PKK.⁸² It is also the producer of the Kaya mine-protected vehicle, based on a DaimlerChrysler chassis.⁸³ The 6x6 Arma amphibious armoured carrier received at least two export orders in 2010-2011, one of which was possibly from Bahrain.⁸⁴ Otokar has sold its military vehicles to at least 15 countries, including Azerbaijan.⁸⁵

In 2008, Otokar was chosen to develop the Altay, Turkey's first indigenous tank, alongside the companies Aselsan, Roketsan and MKEK, under a USD 500 million contract to deliver four prototypes. For the project, Otokar acquired technology from Hyundai Rotem, which builds South Korea's K1 and K2 tanks.⁸⁶ At the time of writing the tanks are undergoing field tests, but a new competition for the contract to build the initial 250 tanks (and eventually possibly 1,000) is not unlikely, even though for a long time Otokar appeared to be certain of that contract.⁸⁷

Ankara-based **FNSS Savunma Sistemleri**, established in 1988, is a joint venture company, 51 per cent of which is owned by the privately-owned company **Nurol** (Turkey) and 49 per cent by BAE Systems. It makes tracked and wheeled armoured combat vehicles and weapon systems.⁸⁸

80 Burak Bekdil, 'Local Violence Boosts Turkish Armor Market', Defense News, 29 November 2016, <http://www.defensenews.com/articles/local-violence-boosts-turkish-armor-market>.

81 Umit Enginsoy and Burak Bekdil, 'Success on Wheels', Defense News, 28 March 2011.

82 Lale Sariibrahimoglu, 'Turkey orders more Cobra II armoured vehicles', JDW, 23 June 2016, <http://www.janes.com/article/61726/turkey-orders-more-cobra-ii-armoured-vehicles>.

83 Burak Bekdil and Umit Enginsoy, 'Turkish Maker Launches Mine-Protected Vehicle', Defense News, 2 March 2009.

84 Christopher Foss, 'Otokar receives second Arma APC export contract', JDW, 29 June 2011; Christopher Foss, 'First customer signs up to buy Otokar's ARMA APC', JDW, 22 December 2010.

85 Umit Enginsoy and Burak Bekdil, 'Success on Wheels', Defense News, 28 March 2011; Umit Enginsoy and Burak Bekdil, 'Turkey Aims To Export \$1.5B in Goods in 2011', Defense News, 7 February 2011.

86 Umit Enginsoy and Burak Bekdil, 'Success on Wheels', Defense News, 28 March 2011.

87 Christopher Foss, 'Otokar enters final bid for Altay programme', Jane's International Defence Review, November 2016; Burak Bekdil, 'Contest, Not Sole-Source Buy, Likely in Turkish Tank Program', Defense News, 29 September 2016, <http://www.defensenews.com/articles/contest-not-sole-source-buy-likely-in-turkish-tank-program>.

88 <http://www.fnss.com.tr/en/corporate/about-us/company-profile>. This stake was originally held by the US company United Defense, but BAE later acquired the company, including the stake in FNSS.



Altay tank, Turkish Parade Day, 2015

In 2011, FNSS signed a USD 600 million cooperation contract with Malaysia's Deftech to build 257 Pars wheeled amphibious armoured vehicles, as well as 48 Adnan combat vehicles; at the time this was the largest single Turkish arms export deal.⁸⁹ The Al Jaber Group (UAE) has also partnered with FNSS for the local production of vehicles based on the Pars design. The Dutch company DSM Dyneema, which has supplied its polyethylene fibre to the Turkish military industry since at least the 1990s, is working with FNSS to supply armour protection, including for the Malaysian Pars vehicles.⁹⁰ Finally, FNSS upgraded US-origin M-113 armoured personnel carriers for Saudi Arabia for USD 300 million and is currently working with Indonesia's PT Pindad to develop the Modern Medium Weight Tank for the Indonesian army, with two prototypes to be completed in 2017.⁹¹

Nurol Makina Sanayi (NMS)—a 100-per cent Nurol subsidiary—produces the TOMA crowd control vehicle, “a very effective vehicle to ensure the interior security, fast and effective dispersion of the riots” [sic], extensively used by the Turkish police and gendarmerie.⁹² TOMA

89 Umit Enginsoy and Burak Bekdil, 'Turkey Aims To Export \$1.5B in Goods in 201', Defense News, 7 February 2011 and Umit Enginsoy and Burak Bekdil, 'Success on Wheels', Defense News, 28 March 2011.

90 Dennis-P. Merklingshaus, 'IDEF 2013 – Turkey Demonstrates Growing Defence Capabilities', Military Technology, 10/2013; 'DSM Dyneema and FNSS sign letter of intent for future cooperation on lightweight, high-performance armor protection solutions', DSM press release, 7 May 2013, http://www.dsm.com/content/prcc/cworld/en_US/informationcenter-news/2013/05/2013-05-07-dsm-dyneema-and-fnss-sign-letter-of-intent-for-future-cooperation-on-lightweight-high-performance-armor-protection-solutions.html.

91 Christopher Foss, 'Modern Medium Weight Tank breaks cover', Jane's International Defence Review, December 2016 (with Belgium's CMI Defence providing the turret); Umit Enginsoy and Burak Bekdil, 'Success on Wheels', Defense News, 28 March 2011.

92 <http://www.nurolmakina.com.tr/en/products/internal-security/toma.html>.

is the Turkish acronym for 'vehicles to intervene in social incidents' and they were extensively used during the country-wide anti-government protests in the summer of 2013, which emerged after the heavy-handed handling of the Gezi park protests in Istanbul.⁹³ It is also "actively used in many countries such as Azerbaijan, Libya, Zimbabwe, Georgia and Kazakhstan"; 20 pieces were sold to Libya's Ministry of the Interior in 2013.⁹⁴

Katmerciler Ekipman was established in 1985 as Turkey's leading anti-riot vehicle maker. The company's founder, Ismail Katmerci, is a former lawmaker from President Erdogan's AKP. In 2015, the company posted record profits and revenue; income rose by 83 per cent to some USD 110 million, up from a mere USD 8 million. Recently, Katmerciler made its debut in Turkey's military vehicles market too; it plans to produce 1,500 armoured personnel carriers and 500 armoured weapon carriers annually at its production unit in Izmir. On top of those seemingly unrealistically high numbers, a new production unit in Ankara will produce 1,000 armoured vehicles annually.⁹⁵

Confusingly, Katmerciler also sells anti-riot vehicles that look similar to the Nurol version and also calls them TOMA.⁹⁶ "There's huge interest in our TOMAs," Katmerci's son said. "People saw through the world media that Turkey is able to produce such vehicles".⁹⁷ Katmerciler has exported its vehicles to 49 countries.⁹⁸

BMC, finally, was bought for USD 360 million in 2014 by businessman Ethem Sancak, known to be a close friend of President Erdogan; 50 per cent of BMC has since been bought by a Qatari investment fund.⁹⁹ BMC builds the Kirpi, among other things, a 'mine-resistant ambush-protected vehicle' based on the Israeli Navigator design and procured by Turkey in particular to protect troops against Kurdish attacks (see also previous chapter). In August 2016, BMC, Germany's Rheinmetall and Malaysia's Etika Strategi launched a Turkey-based joint venture to cooperate in the production of wheeled and tracked armoured vehicles, possibly including the Altay too.¹⁰⁰ The joint venture also seems well-positioned to upgrade around 100 German-origin Leopard 2 tanks.¹⁰¹

93 See also https://en.wikipedia.org/wiki/Gezi_Park_protests.

94 <http://www.nurolmakina.com.tr/en/products/internal-security/toma.html> and Ibrahim Sunnetci, 'An overview of the Turkish Defence Industry', *Military Technology*, 5/2013.

95 Burak Bekdil, 'Leading Turkish Anti-Riot Gear Maker Eyes Military Armor Market', *Defense News*, 6 September 2016, <http://www.defensenews.com/articles/leading-turkish-anti-riot-gear-maker-eyes-military-armor-market>.

96 <http://www.katmerciler.com.tr/L/EN/mid/343/g/343/c/31/id/21/Anti-Riot-Vehicle.htm>.

97 Taylan Bilgic, 'Turkey Riot Trucks Spur Share Gain for Ex-Lawmaker Katmerci', *Bloomberg*, 15 August 2013, <https://www.bloomberg.com/news/articles/2013-08-14/turkey-riot-trucks-spur-share-gain-for-ex-lawmaker-s-katmerciler>.

98 <http://www.katmerciler.com.tr/L/EN/mid/411/Export-Network.htm>.

99 Burak Bekdil, 'Contest, Not Sole-Source Buy, Likely in Turkish Tank Program', *Defense News*, 29 September 2016, <http://www.defensenews.com/articles/contest-not-sole-source-buy-likely-in-turkish-tank-program>; Anadolu Agency, 'Military vehicle manufacturer BMC's sale to businessman Ethem Sancak approved', *Hurriyet Daily News*, 21 May 2014, <http://www.hurriyetdailynews.com/military-vehicle-manufacturer-bmcs-sale-to-businessman-ethem-sancak-approved.aspx?pageID=238&nID=66774&NewsCatID=345>.

100 Burak Bekdil, 'Leading Turkish Anti-Riot Gear Maker Eyes Military Armor Market', *Defense News*, 6 September 2016, <http://www.defensenews.com/articles/leading-turkish-anti-riot-gear-maker-eyes-military-armor-market>.

101 Burak Bekdil, 'Turkey Mulling Upgrade to Leopard 2s, M60s', *Defense News*, 18 October 2016, <http://www.defensenews.com/articles/turkey-mulling-upgrade-to-leopard-2s-m60s>.



Stand-off missile SOM of Roketsan at IDEF 2015

Munitions and guns

Two companies are particularly prominent in Turkey's production of all kinds of ammunition, from grenades to guided missiles; one also manufactures a number of fire arms and cannons.

Roketsan was founded in 1988 so that Turkey could have "a leading institution in the country for designing, developing and manufacturing rockets and missiles"; it currently employs some 1,900 people. Its first project was the manufacture of a propulsion system for Stinger missiles within the 'Stinger European Joint Production Project' in the early 1990s. It has since developed a range of other munitions for the Turkish Armed Forces, including the TR-107 and TR-122 rockets (with a range of 11km and 40km respectively), the Sakarya Multi Barrel Rocket Launcher (MBRL) Weapon System, the Kasirga (Hurricane) and Yildirim (Lighting) missile systems, and UMTAS and OMTAS anti-tank missiles.¹⁰²

In production since 2011, the Cirit 70mm laser-guided rocket is one of Roketsan's most widely sold products. In June 2016, Airbus signed a memorandum with Roketsan to integrate its Cirit into its H135M and H145M helicopters, followed by another memorandum in July to integrate at least three different Roketsan weapon systems into C295 transport aircraft.¹⁰³ Roketsan also supplies the UAE armed forces with Cirit missile systems through its cooperation with the UAE

¹⁰² See <http://www.roketsan.com.tr/en/urunler-hizmetler/>; individual product descriptions via <http://www.roketsan.com.tr/en/urunler-hizmetler/>.

¹⁰³ <http://www.arabianaerospace.aero/rocketing-upwards-.html> and <http://www.roketsan.com.tr/en/en-airbus-defence-and-space-and-roketsan-to-integrate-weapon-systems-on-c295w/>

company Tawazun.¹⁰⁴ Probably its technologically most advanced product is the SOM cruise missile, developed for use on fighter jets (see F-35 section).

According to Roketsan, its first export contract was signed in 2004.¹⁰⁵ Possibly its largest export contract was signed in 2010 with Azerbaijan, reportedly worth USD 240 million for “various equipment”.¹⁰⁶

The roots of **MKEK** (Makina ve Kimya Endüstrisi Kurumu) go back to the late 15th century as part of the Ottoman arms industry; it has been operating since 1950 under its current name. MKEK is still a government-owned company, with more than 7,000 personnel.¹⁰⁷ Until the early 1990s, MKEK was the only company legally permitted to produce small arms in Turkey.¹⁰⁸ Production is divided over four product groups: Ammunition; Rockets; Weapons; and the Explosives, Propellants and Pyrotechnic Products Group. MKEK products are exported to more than 40 countries.¹⁰⁹

Besides ammunition, MKEK also makes several types of firearms, including the JNG-90 sniper rifle, the T94 submachine gun and the MPT-76 and MKEK T50 assault rifles. The Turkish armed forces have ordered some 35,000 MPT-76 rifles and may eventually buy as many as 500,000 MPT-76s, replacing the H&K G3 and G33.¹¹⁰ MKEK also made the cannon for the T-155 Firtina howitzer built under South Korean licence; it is currently developing the gun for the Turkish Altay battle tank. In May 2015, Rheinmetall announced that it would form a joint venture with MKEK to develop weapon systems and munitions.¹¹¹

Shipbuilding

Over the past decade or so, Turkish naval shipbuilding has grown significantly, with a number of new players entering the market. The USD 2 billion, eight-ship MilGem corvette programme is another ambitious Turkish project, with the first two being built at the navy’s **Tuzla** yard. **RMK Marine** shipyard in Istanbul—like Otokar, part of the Koc conglomerate—was selected to build the other six in 2013. However, later that year the contract was cancelled because the tender “violated the rules of competition”.¹¹² The third and fourth vessels have since been built at Tuzla, while a new

¹⁰⁴ ‘Tawazun and Turkey’s Roketsan sign agreement’, Tawazun, 19 February 2013, <https://www.tawazun.ae/blog/2013/02/19/tawazun-and-turkeys-roketsan-sign-agreement/>.

¹⁰⁵ <http://www.roketsan.com.tr/en/kurumsal/hakkimizda/>

¹⁰⁶ Umit Enginsoy and Burak Bekdil, ‘Turkey Aims To Export \$1.5B in Goods in 2011’, Defense News, 7 February 2011.

¹⁰⁷ <http://www.mkek.gov.tr/en/Corporate.aspx>.

¹⁰⁸ Small Arms Survey, Yearbook 2003, p. 31.

¹⁰⁹ <http://www.mkek.gov.tr/en/Corporate.aspx>

¹¹⁰ Lale Saribrahimoglu, ‘Turkey orders more MPT-76 service rifles’, JDW, 17 December 2015, <http://www.janes.com/article/56695/turkey-orders-more-mpt-76-service-rifles> and Nicholas de Larrinaga, ‘Eurosatory 2014: MKEK delivers first MPT-76 rifles to Turkey’, JDW, 18 June 2014, via <http://web.archive.org/web/20140728034155/http://www.janes.com/article/39542/eurosatory-2014-mkek-delivers-first-mpt-76-rifles-to-turkey>.

¹¹¹ Richard Tomkins, ‘Rheinmetall, MKEK of Turkey forming joint venture company’, UPI, 6 May 2015, http://www.upi.com/Business_News/Security-Industry/2015/05/06/Rheinmetall-MKEK-of-Turkey-forming-joint-venture-company/6601430937698/. See also Otfried Nassauer, ‘Hemmungslos in alle Welt – Die Munitionsexporte der Rheinmetall AG’, BITS, October 2016, <http://www.bits.de/public/pdf/rr16-01.pdf>.

¹¹² Lale Saribrahimoglu, ‘Turkey cancels MILGEM project following probe’, JDW, 21 August 2013.

competition was only launched in 2016. RMK Marine had previously also delivered coastguard search-and-rescue boats.¹¹³

Turkey's largest naval programme is the EUR 2 billion U-214 submarine programme with ThyssenKrupp (see previous chapter); the six subs are likely to be built under licence at **Golcuk** naval yard with deliveries now scheduled from around 2020.¹¹⁴ Havelsan, a producer of military software, is an important subcontractor, developing six submarine-related programmes.¹¹⁵ It appears that disagreements over the software used for the submarines caused the delay in production, with deliveries originally planned for 2015.¹¹⁶

Other Istanbul-based shipyards, such as **Yonca Onuk** and **Dearsan**, have also entered the growing Turkish shipbuilding market. In 2010 Yonca signed a USD 100 million contract with Egypt to supply six fast patrol boats to Egypt, half of which will be built at a shipyard in Alexandria. The year before, it had sold 34 high-speed intervention craft to the UAE navy for EUR 125 million; 24 of them were to be built in Abu Dhabi.¹¹⁷

In 2010 Dearsan signed a EUR 55 million contract with Turkmenistan for two patrol boats for its Caspian coastguard, for which Aselsan, Roketsan, Oto Melara (Italy, naval guns) and Thales Nederland (radar) are major subcontractors.¹¹⁸ Six more boats are being assembled in Turkmenistan with assistance from Dearsan.¹¹⁹ Previously Dearsan had supplied the Turkish coastguard with 16 Tuzla class patrol vessels under a EUR 402 million contract.¹²⁰

Turkish arms exports

Not surprisingly given that its arms industry was in its infancy, Turkey's arms exports (especially of complete weapons systems) were almost negligible until the late 1990s. Most exports at that time related to small arms and ammunition, with some electronic equipment as well as the assembly and modernisation of weapon systems. With the industry expanding and becoming more advanced technologically, exports have grown steadily since the turn of the century, with Saudi Arabia, Turkmenistan and the United Arab Emirates being the top three destinations for Turkish

113 Burak Bekdil and Umit Enginsoy, 'Their Goal: Self-Sufficiency', Defense News, 12 July 2010.

114 George Tsiboukis, 'Construction of the first type-214TN AIP submarine', 12 October 2015, <http://blogs.plymouth.ac.uk/dcscs/2015/10/12/440/> and Umit Enginsoy, 'Huge submarine deal with German firm takes effect', Hurriyet Daily News, 7 January 2011, <http://www.hurriyetdailynews.com/default.aspx?pageid=438&n=huge-submarine-deal-with-german-firm-takes-effect-2011-07-01>.

115 Burak Bekdil, 'Turkish Havelsan Develops Submarine Systems', Defense News, 20 September 2016, <http://www.defensenews.com/articles/turkish-havelsan-develops-submarine-systems>.

116 Cihan News Agency, 'German company will pay compensation to Turkey over delay in submarine delivery', Hurriyet Daily News, 12 February 2015, <http://www.hurriyetdailynews.com/german-company-will-pay-compe...n-submarine-delivery-.aspx?pageID=238&nID=78260&NewsCatID=345>.

117 Umit Enginsoy and Burak Bekdil, 'Business as Usual for Turkish Firms in Mideast', Defense News, 7 March 2011.

118 'Turkmenistan Moves To Revamp Its Soviet-era Sea Services', Seapower International, December 2011, <http://www.seapower-digital.com/seapower/201112?pg=56-pg56>; Umit Enginsoy and Burak Bekdil, 'Turkey Aims To Export \$1.5B in Goods in 2011', Defense News, 7 February 2011.

119 Mrityunjay Mazumdar, 'Turkmenistan's maritime forces continue expansion with Turkish help', Jane's Navy International, 1 July 2016, <http://www.janes.com/article/61934/turkmenistan-s-maritime-forces-continue-expansion-with-turkish-help>.

120 <http://www.dearsan.com/dunya-basininda/naval-forces-article-related-tuzla-class-patrol-boat.html>

Table 4.

Turkish arms exports (2006-2015, top five destinations and all exports)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Saudi Arabia	8	20	26	26	29	33	33	44	39	52	309
Turkmenistan						20	20	40	60	91	231
UAE	7	7	7		3		10	20	20	80	154
Pakistan		19	26	7		22	22	22		24	142
Iraq	66										66
All exports	82	58	97	63	72	86	143	156	179	291	1,228

Figures are SIPRI Trend Indicator Values (TIVs) expressed in USD million at constant (1990) prices. Figures may not add up due to the conventions of rounding.

Source: SIPRI Arms Transfers Database, generated 9 November 2016; for more information see: <http://www.sipri.org/databases/armstransfers/background>.

military equipment.¹²¹ Currently SIPRI ranks Turkey as the world's 18th arms exporting country for the period 2010-2015, with a clear upward trend visible for every year since 2011.

Since SIPRI's arms transfers database only covers major weapons and subsystems and regular government reports are lacking, it is hard to estimate the total value of Turkey's arms exports. According to a Reuters report, total arms exports rose by 18 per cent to a substantial USD 1.65 billion in 2014, though that figure may also include civil aerospace sales.¹²²

Data provided by SaSaD, Turkey's defence and aerospace manufacturers' association, show that the defence turnover more than doubled between the late 1990s and 2010, from an average of USD 1 billion to USD 2.7 billion, while exports increased from an average of USD 100 million to USD 634 million in 2010.¹²³ Turkey meanwhile boasts of an unrealistic aim to increase that to no less than USD 25 billion by 2023, the 100th anniversary of the establishment of the Turkish Republic—a value even the US and Russia have difficulty achieving.¹²⁴

However, there is no doubt about Turkey's export-oriented drive and indicators show a clear upward trend. In March 2016, the Turkish Exporters Assembly quoted a 30 per cent rise in defence exports compared to the previous year, with the US the main destination with 34 per

¹²¹ See examples of exports mentioned earlier in this chapter.

¹²² Jonny Hogg and Can Sezer, 'Erdogan aims to turn Turkey into major defence industry power', Reuters, 27 May 2015, <http://www.reuters.com/article/us-turkey-election-defence-idUSKBN0OC0FT20150527>.

¹²³ http://www.sasad.org.tr/images/WEB-Sitemize_Eng.pdf. Some background on the different data used is provided by Guy Anderson, 'Turkey's exports thrive to Saudi Arabia in 2011', JDW, 22 February 2012.

¹²⁴ Jonny Hogg and Can Sezer, 'Erdogan aims to turn Turkey into major defence industry power', Reuters, 27 May 2015, <http://www.reuters.com/article/us-turkey-election-defence-idUSKBN0OC0FT20150527>; see also: <http://www.defenceturkey.com/index2.php?p=article&i=2206#.WEFNR5LBf9I> and <http://www.defenceturkey.com/index2.php?p=article&i=2327#.WEFOOZLBf9I>.

cent of all exports, followed by Germany and the UAE.¹²⁵ As Aselsan's director recently stated: "We're making products better than most in the West. We're cheaper ... We're ready to share technology. The Turkish defence industry can be a valid alternative to the West".¹²⁶ ♦

125 'Turkey's defence exports rise in first two months of 2016', TRT World, 11 March 2016,

<http://www.trtworld.com/turkey/turkeys-defence-exports-rise-in-first-two-months-of-2016-65562>.

126 Jonny Hogg and Can Sezer, 'Erdogan aims to turn Turkey into major defence industry power', Reuters, 27 May 2015,

<http://www.reuters.com/article/us-turkey-election-defence-idUSKBN0OC0FT20150527>.

4. Use of Weapons by Turkey and Arms Export Control

Use of weapons

As noted in previous chapters, Turkey's procurement of military equipment is clearly shaped by the war the armed forces are waging in the Kurdish conflict. With the renewal of armed conflict in Turkey's south-east, the armed forces have resorted to heavy violence to try and force a military solution. "There also appears to have been massive, and seemingly highly disproportionate, destruction of property and key communal infrastructure—including buildings hit by mortar or shellfire, and damage inflicted on the contents of individual apartments and houses taken over by security forces," according to UN High Commissioner for Human Rights Zeid Ra'ad Al Hussein.¹²⁷ The High Commissioner said he had received reports of unarmed civilians—including women and children—being deliberately shot by snipers, or by gunfire from tanks and other military vehicles.

Speaking to supporters in late 2015, President Erdogan said about Kurdish fighters: "You will be annihilated in those houses, those buildings, those ditches which you have dug. [...] Our security forces will continue this fight until it has been completely cleansed and a peaceful atmosphere established."¹²⁸

127 'Need for transparency, investigations, in light of "alarming" reports of major violations in south-east Turkey – Zeid', OHCHR, 10 May 2016, <http://www.ohchr.org/SP/NewsEvents/Pages/DisplayNews.aspx?NewsID=19937&LangID=E>.

128 Ceylan Yeginsu, 'Turkey's Campaign Against Kurdish Militants Takes Toll on Civilians', New York Times, 30 December 2015, http://www.nytimes.com/2015/12/31/world/europe/turkey-kurds-pkk.html?_r=0. See also Seyhmus Cakan, 'Turkish tanks pound Kurdish militancy in week-long military campaign', Reuters, 22 December 2015, <http://www.reuters.com/article/us-turkey-kurds-idUSKBN0U51UR20151222>.

In a report released in July 2016, Human Rights Watch (HRW) noted that:

*“In response to the sealing off of neighborhoods by the PKK, the government authorized police and military operations that involved the use of armored personnel carriers and, increasingly, heavy artillery. [...] In addition to civilian deaths, there has been huge temporary displacement of civilians since August 2015. The health minister said on February 27 an estimated 355,000 people had been driven from their homes, and security operations since then have displaced large parts of the populations of Idil, Sirnak, Nusaybin, and Yüksekova”.*¹²⁹

HRW “reviewed lists of the dead compiled by Cizre-based lawyers, which show that as many as 66 residents, including 11 children, were killed by gunfire or mortar explosions during security operations between December 14 and February 11, 2016. According to witnesses and victims interviewed by Human Rights Watch, in some cases the security forces opened fire on civilians on the streets carrying white flags. The available information also indicates that security forces surrounded three buildings and deliberately and unjustifiably killed about 130 people—among whom were unarmed civilians and injured combatants—trapped in the basements.”

Reporting on recent events in Sur, a UNESCO world heritage site and the historical centre of Diyarbakir, the largest Kurdish-dominated town, Amnesty International notes that:

*“Homes in the once-bustling district have been destroyed by shelling, demolished and expropriated to pave the way for a redevelopment project that very few former residents are likely to benefit from. [...] The clashes in Sur ended in March 2016, but the curfew has remained in large parts of the district. Following the forced evictions almost all properties have been expropriated by Turkish authorities with many buildings also demolished”.*¹³⁰

From late 2007, Turkey started making use of intelligence acquired, for example, from US-operated Predator surveillance drones, including for attacks against PKK bases in the mountains in Kurdish Iraq.¹³¹

One case where dozens of civilians were killed is known as the ‘Roboski massacre’ or ‘Uludere airstrike’. On 28 December 2011, 34 people, mostly teenagers, who were smuggling cigarettes, diesel and the like, were killed by Turkish F-16s reportedly acting upon US-provided information received via a surveillance drone, in which the victims were identified as PKK militants. Turkish

129 ‘Turkey: State Blocks Probes of Southeast Killings’, HRW, 11 July 2016, <https://www.hrw.org/news/2016/07/11/turkey-state-blocks-probes-southeast-killings>.

130 ‘Turkey: Curfews and crackdown force hundreds of thousands of Kurds from their homes’, Amnesty International, 6 December 2016, <https://www.amnesty.org/en/latest/news/2016/12/turkey-curfews-and-crackdown-force-hundreds-of-thousands-of-kurds-from-their-homes/>.

131 Burak Bekdil and Umit Enginsoy, ‘Turkey Seeks U.S. Nod for Reaper UAV Buy’, Defense News, 17 November 2008.

military prosecutors later cleared five officers accused of perpetrating the strike.¹³²

Especially since mid-2015, mostly Turkish F-4 and F-16 fighter jets have intensified their bombing raids on Kurdish targets in both south-east Turkey and northern Iraq.¹³³ While PKK fighters are always mentioned as the intended target, heavy bombardments have virtually depopulated dozens of villages in these areas.¹³⁴

More recently, Turkish artillery and fighter jets have also attacked targets in Syria, including Islamic State targets and Kurdish YPG fighters, occasionally under the banner of its 'Operation Euphrates Shield'.¹³⁵ In one case investigated by HRW, a Turkish attack on US-backed Syrian Democratic Forces (SDF) fighters in northern Syria on August 28, 2016, killed 24 civilians, including 6 children. Between 10 and 15 fighters deployed among the civilians were also killed. According to HRW, "available information suggests that both sides could have done more to minimize civilian loss of life, as required by the laws of war. Two local residents told Human Rights Watch that before sunrise on August 28, Turkish aircraft struck SDF forces who had just disembarked from military vehicles among residential buildings in which about four dozen civilians had sought shelter from nearby fighting. Artillery shelling soon after resulted in additional casualties."¹³⁶

Arms export control

States should assess any transfer of military goods using criteria that take into account, among other things, the risk that the weapons may be used to violate human rights or be used in internal or regional conflicts as, for example, defined in the UN Arms Trade Treaty or the EU Common Position on arms exports.

The ATT, for example, stipulates that State Parties "assess the potential that the conventional arms or items:

132 See e.g. Adam Entous and Joe Parkinson, 'Turkey Aims to Damp Drone-Report Furor', 17 May 2012, <http://www.wsj.com/articles/SB10001424052702303879604577410570952425982> and Adam Entous and Joe Parkinson, 'Turkey's Attack on Civilians Tied to U.S. Military Drone', Wall Street Journal, updated 16 May 2012, <http://www.wsj.com/articles/SB10001424052702303877604577380480677575646>.

133 See e.g.: 'Turkish air strikes hit 12 targets in north Iraq: military', Reuters, 6 September 2016, <http://ca.reuters.com/article/topNews/idCAKCN11C0E3>; 'Turkish jets strike rebels in Iraq following failed coup', AP, 20 July 2016, via <http://www.thejakartapost.com/news/2016/07/20/turkish-jets-strike-rebels-in-iraq-following-failed-coup.html>; Seyhmus Cakan, 'Turkish jets strike PKK targets in northern Iraq, southeast Turkey', Reuters, 22 June 2016, <http://in.reuters.com/article/turkey-security-kurds-idINKN0Z80E8>; Daren Butler, 'Turkish warplanes target Kurdish militants, at least 27 killed', Reuters, 5 June 2016, <http://www.reuters.com/article/us-turkey-security-kurds-idUSKCN0YR0BZ>; Benedetta Argentieri, 'We Went Into the Mountains Where Turkey Bombs the PKK', War is Boring, 8 October 2015, <https://warisboring.com/we-went-into-the-mountains-where-turkey-bombs-the-pkk-f247a2ff0b67-.7nssctbl7>.

134 Balint Szlanko, 'Turkish airstrikes empty dozens of villages in northern Iraq', AP, 10 April 2016, <http://bigstory.ap.org/article/55312a22ceb14b19835b7d0b26088b04/turkish-strikes-leave-dozens-kurdish-villages-empty>.

135 See e.g.: 'Turkey: Army kills up to 200 YPG fighters in Aleppo', Al Jazeera, 20 October 2016, <http://www.aljazeera.com/news/2016/10/turkey-army-kills-200-ypg-fighters-aleppo-161020070457309.html>; 'Turkish military strikes Islamic State, PKK targets', AP, 10 July 2016, <http://bigstory.ap.org/article/e4b8aaa67e514bd88417b512ea2943a2/turkish-military-strikes-islamic-state-pkk-targets> and 'Turkey confirms shelling Kurdish fighters in Syria', BBC News, 27 October 2015, <http://www.bbc.com/news/world-middle-east-34645462>.

136 'Syria: Turkish Strikes on SDF Fighthers Kill 24 Civilians', HRW, 15 September 2016, <https://www.hrw.org/news/2016/09/15/syria-turkish-strikes-sdf-fighters-kill-24-civilians>.

- (a) would contribute to or undermine peace and security;
- (b) could be used to:
 - (i) commit or facilitate a serious violation of international humanitarian law;
 - (ii) commit or facilitate a serious violation of international human rights law;
 - [...]

If, after conducting this assessment and considering available mitigating measures, the exporting State Party determines that there is an overriding risk of any of the negative consequences in paragraph 1, the exporting State Party shall not authorize the export.”¹³⁷

The EU Common Position sets out “high common standards which shall be regarded as the minimum for the management of, and restraint in, transfers of military technology and equipment by all Member States” and includes eight criteria that States should assess when deciding on required arms export licences.¹³⁸ Under these criteria EU States should for example “deny an export licence if there is a clear risk that the military technology or equipment to be exported might be used for internal repression”; they should also “deny an export licence for military technology or equipment which would provoke or prolong armed conflicts or aggravate existing tensions or conflicts in the country of final destination”.¹³⁹

All EU countries are also ATT State Parties, whereas the US for example has signed but not ratified the ATT.¹⁴⁰ Turkey itself has also signed but not ratified the treaty.¹⁴¹

Given the abundant proof of the use of heavy force by Turkey’s police, land and air forces against the Kurds in south-east Turkey, northern Iraq and Syria, and especially the heavy toll these actions take on the civilian population, there is a compelling case not to allow any military equipment which could be used in the Kurdish conflict to be exported to Turkey. That particularly the US and EU States have in recent years nevertheless continued to allow major arms export deals to go through is a clear breach of their commitments in the area of arms export control.

As a positive example, the Austrian parliament recently unanimously adopted a motion urging the government to take into account the threat of armed conflict, as well as the human rights situation. “The applicants are thus convinced that under these circumstances no deliveries of war materials, defence goods or dual-use goods for military or police purposes to Turkey may take place from Austria”, according to the motion.¹⁴² ♦

¹³⁷ Arms Trade Treaty, article 7.

¹³⁸ https://eeas.europa.eu/headquarters/headquarters-homepage/8465/arms-export-control_en#Common+Position+on+arms+export+controls and <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:335:0099:0103:EN:PDF>.

¹³⁹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:335:0099:0103:EN:PDF>.

¹⁴⁰ <http://armstreaty.org/>

¹⁴¹ <http://armstreaty.org/state/turkey/>.

¹⁴² ‘Austrian parliament in favor of restricting weapons sales embargo to Turkey’ [sic], Xinhua, 24 November 2016, http://news.xinhuanet.com/english/2016-11/25/c_135856973.htm. Heckler & Koch’s recently reported restraint in any future sales is also remarkable, with a manager claiming that the company would no longer supply its weapons to customers outside NATO, plus Turkey. The new policy appears to be driven mainly by practical reasons: German authorities would hardly be willing to grant the required export licences for these countries (Maria Sheahan, ‘Heckler & Koch to stop doing deals with non-NATO countries: DPA’, Reuters, 28 November 2016, <http://www.reuters.com/article/us-germany-heckler-koch-idUSKBN13N1JQ?i=0>).

5. Conclusion

The situation in Turkey is worrisome in many respects. The failed July 2016 coup and subsequent emergency rule and mass arrests of people suspected of having links to the Gulen movement have also severely restricted public freedoms such as the freedom of the press. Dozens of media outlets have been forced to close their business.¹⁴³ Many Kurdish mayors have been arrested as well as twelve HDP members of parliament, including the two party leaders, and have since been jailed.¹⁴⁴ Turkey's heavy crackdown has strengthened the notion in Europe that Ankara is drifting away in terms of democracy and the rule of law.

But the internal situation had already deteriorated before then, certainly after President Erdogan's AKP secured an absolute majority in the Parliament in the November 2015 election. The election took place amid security concerns after ceasefire negotiations between the government and PKK rebels collapsed in July 2015, causing a resumption of the conflict in the predominately Kurdish south-east.

In a recent assessment of the situation in Turkey, the European Commission has called the situation in the south-east "one of the most critical challenges for the country", under a "continued very serious deterioration in the security situation, leading to heavy casualties following the collapse of the Kurdish settlement process in July 2015". It concludes that "the settlement of the Kurdish issue through a political process is the only way forward; reconciliation and

¹⁴³ 'Turkey coup attempt: More than 130 media outlets shut', BBC News, 28 July 2016, <http://www.bbc.com/news/world-europe-36910556>.

¹⁴⁴ 'Turkey pro-Kurd HDP party condemns arrest of leaders', BBC News, 4 November 2016, <http://www.bbc.com/news/world-europe-37875605>.

reconstruction are also becoming key issues for the authorities to address.”¹⁴⁵

Since the Kurdish conflict re-emerged in 2015, civilians have paid a heavy price, with “mounting civilian deaths and multiple rights violations”, according to Human Rights Watch.¹⁴⁶ Armed violence by all involved in the conflict should be stopped to prevent further escalation and to reduce civilian harm.

Within that context, arms transfers to Turkey, especially to its land and air forces, should be halted until real progress is made towards a political solution with the Kurds. In the context of current EU-Turkey relations, a freeze in arms sales would be a logical and necessary step, in line with the obligations EU States have with respect to the Common Position on arms exports, as well as under the UN Arms Trade Treaty. ♦

¹⁴⁵ http://europa.eu/rapid/press-release_MEMO-16-3639_en.htm.

¹⁴⁶ <https://www.hrw.org/europe/central-asia/turkey>.



Godebaldkwartier 74
3511 DZ Utrecht
The Netherlands

www.paxforpeace.nl
info@paxforpeace.nl
+31 (0)30 233 33 46

P.O. Box 19318
3501 DH Utrecht
The Netherlands