

Arab Defense Industry Papers News Bulletin

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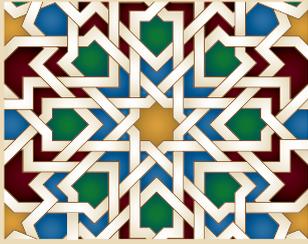
About the ADIP News Bulletin

The Arab Defense Industry Papers (ADIP) is a new professional series focusing on the role of the defense industry in Algeria Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, Turkey, and the United Arab Emirates. The focus of the series is on the establishment of national defense industrial bases in these countries and joint collaborative defense projects as well as defense exports. The ADIP News Bulletin complements the analytical papers by providing information about current and upcoming developments relevant for the Arab defense industrial establishment. The ADIP News Bulletin is available by subscription. ADIP and the ADIP News Bulletin are joint initiatives of Borchert Consulting & Research AG and Verocy. For more information about ADIP, see: <http://www.arabdefenseindustry.com>.

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The Big Picture

GCC in limbo after outbreak of Qatar crisis

(23 Jun 2017) In the early morning hours of 5 June 2017, Bahrain, Egypt, Saudi Arabia and the United Arab Emirates cut diplomatic ties with Qatar. The decision was followed by additional measures such as the cancellation of flights and transport blockades that put Doha under pressure. On 6 June 2017, the Command of the Arab Coalition fighting in Yemen ended Doha's participation in the coalition.

Three weeks into one of the severest crises in the modern history of the Gulf Cooperation Council (GCC), it is still difficult to assess, what brought about the sudden spat and how it is going to affect long-term prospects for the GCC as such. Qatar's close ties with Iran and its support of the Muslim brotherhood are among the key sources of disagreement between Doha and its Gulf Arab neighbors. However, these sources of concern have been existing for several years and had already caused a diplomatic rift that led former Qatari Emir Hamad to step aside and let his son Emir Tamim take the reign.

In April 2017, news reports suggested that Qatar had paid several hundred million U.S. dollars to Shia militias in Iraq to free 26 Qatari hostages, including members of the Qatari royal family, who had been kidnapped in 2016. Shortly thereafter websites of Qatar News Agency and other media platforms had allegedly been hacked and abused to post fake remarks. These remarks had been attributed to Emir Tamim suggesting he had expressed support for Iran and Hamas as well as Hezbollah.

It remains contested if and to what extend the May 2017 visit of U.S. President Trump to Saudi Arabia had emboldened Riyadh and Abu Dhabi to take a tough line against Qatar. President Trump's tweet on 6 June 2017 – *"They (the heads of government he met in Riyadh) said they would take a hard line on funding extremism, and all reference was pointing to Qatar. Perhaps this will be the beginning of the end of the horror of terrorism!"* – has widely been interpreted as a tacit approval of the Saudi-Emirati decision. However, the U.S. administration seems to deal with its own competing policy priorities in the region, as Hussein

Ibishi but it, and thus sends mixed signals. On 20 June 2017 a statement from the State Department said that the more time goes by, "the more doubt is raised about the actions taken by Saudi Arabia and the UAE."

On 23 June 2017, Saudi Arabia, the UAE and other Arab nations issued a 13-point list with demands for Qatar to comply with in order to end the crisis (see below). Among other things, Qatar is expected to close the Turkish military base – a demand that Turkey instantly rejected.

13-Point List (as published by Al Jazeera)

- 1) Scale down diplomatic ties with Iran and close the Iranian diplomatic missions in Qatar, expel members of Iran's Revolutionary Guard and cut off military and intelligence cooperation with Iran. Trade and commerce with Iran must comply with US and international sanctions in a manner that does not jeopardise the security of the [Gulf Cooperation Council](#).
- 2) Immediately shut down the Turkish military base, which is currently under construction, and halt military cooperation with Turkey inside of Qatar.
- 3) Sever ties to all "terrorist, sectarian and ideological organisations," specifically the Muslim Brotherhood, ISIL, [al-Qaeda](#), Fateh Al-Sham (formerly known as the Nusra Front) and Lebanon's Hezbollah. Formally declare these entities as terror groups as per the list announced by Saudi Arabia, Bahrain, UAE and Egypt, and concur with all future updates of this list.
- 4) Stop all means of funding for individuals, groups or organisations that have been designated as terrorists by Saudi Arabia, [UAE](#), Egypt, Bahrain, US and other countries.
- 5) Hand over "terrorist figures," fugitives and wanted individuals from Saudi Arabia, the UAE, Egypt and Bahrain to their countries of origin. Freeze their assets, and provide any desired information about their residency, movements and finances.
- 6) Shut down Al Jazeera and its affiliate stations.
- 7) End interference in sovereign countries' internal affairs. Stop granting citizenship to wanted nationals from Saudi Arabia, UAE, Egypt and Bahrain. Revoke Qatari citizenship for nationals where such citizenship violates those countries' laws.
- 8) Pay reparations and compensation for loss of life and other financial losses caused by Qatar's policies in recent years. The sum will be determined in coordination with Qatar.
- 9) Align Qatar's military, political, social and economic policies with the other Gulf and Arab countries, as well as on economic matters, as per the 2014 agreement reached with Saudi Arabia.
- 10) Cease contact with the political opposition in Saudi Arabia, the UAE, Egypt and Bahrain. Hand over files detailing Qatar's prior contact with and support for opposition groups, and submit details of their personal information and the support Qatar has provided them.
- 11) Shut down all news outlets funded directly and indirectly by Qatar, including Arabi21, Rassd, Al Araby Al Jadeed, Mekameleen and Middle East Eye, etc.
- 12) Agree to all the demands within 10 days of list being submitted to Qatar, or the list will become invalid.
- 13) Consent to monthly compliance audits in the first year after agreeing to the demands, followed by quarterly audits in the second year, and annual audits in the following 10 years.

<http://bit.ly/2sJRE3G>; <http://bit.ly/2saJlJf>;
<http://nyti.ms/2sJov8v>; <http://bit.ly/2tBcKB0>;
<http://bit.ly/2t1KPFn>

Mohammed bin Salman named Crown Prince

(21 Jun 2017) On 21 June 2017, Saudi King Salman has appointed his son, Deputy Crown Prince Mohammed bin Salman (MbS), by royal decree as the country's new Crown Prince thereby replacing Prince Mohammed bin Naif in this function. According to the *Saudi Press Agency*, 31 out of 34 members of the Allegiance Council have chosen MbS. Born in 1985, MbS now serves as Saudi Arabia's

- Crown Prince
 - Deputy Prime Minister
 - Chief of the Royal Court
 - Minister of Defense
 - Chairman of the council of Economic and Development Affairs
 - Chairman of Saudi Aramco Supreme Council
- Rumors have it that MbS could soon replace his father as Saudi Arabia's youngest king.

<http://bit.ly/2sSNpFA>

Germany relocates RECCE Tornado to Jordan

(21 Jun 2017) With 461 out of 569 votes, members of the German Bundestag approved the government's proposal to relocate six RECCE Tornado jets, one tanker jet and 260 soldiers from Turkey to Jordan. The German government decided to leave Incirlik after the Turkish government denied members of the Bundestag access to the Bundeswehr unit stationed in Turkey.

<http://bit.ly/2s3cF7f> (in German)

Turkish Parliament approves cooperation agreements with Qatar

(9 Jun 2017) In order to show solidarity with its strategic partner Qatar, the Turkish Parliament on 7 June 2017 approved two military cooperation agreements: the deployment of Turkish troops to a Turkish base in Qatar and the training of gendarmerie force personnel, *Al Defaya* reported on 9 June 2017.

<http://bit.ly/2rYwIswv>

"Mother of all defense deals": Saudi-U.S. weapons and tech transfer deal signed

(8 Jun 2017) During his visit to Saudi Arabia on 20 May 2017, U.S. President Donald Trump and Saudi King Salman signed agreements on several potential weapon sales that could be worth up to \$110bn. On 8 June 2017, *Defense News* published the following detailed overview of the potential sales:

- \$13.5bn for seven THAAD batteries, with an estimated delivery time of 2023-2026.
- \$4.46bn for 104,000 air-to-ground munitions, divided amongst five types (GBU 31v3, GBU-10, GBU-12, GBU-31v1, GBU-38).
- \$6.65bn for enhancements to Saudis' Patriot anti-missile system, with a scope of work from 2018-2027.
- \$2bn for "light close air support" aircraft, with the aircraft and delivery date still unknown.
- \$2bn for four new aircraft, of a to-be-determined variety, for Tactical Airborne Surveillance
- \$5.8bn for three KC-130J and 20 C-130J new aircraft, along with sustainment through 2026. Those planes would start delivery in 2022.
- \$6.25bn for an eight-year sustainment deal for Saudi Arabia's fleet of F-15 fighters, with another \$20m for an F-15 C/D recapitalization program study.
- \$2bn for an unknown number of MK-VI Patrol Boats, with an unknown delivery date.
- \$6bn for four Lockheed Martin-built frigates, based on the company's littoral combat ship design. That order falls under the Saudi Naval Expansion Program II (SNEP II) heading, with planned delivery in the 2025-2028 timeframe.
- \$2.35bn to modify 400 existing Bradley fighting vehicles, along with another \$1.35 for 213 new vehicles.
- \$1.5bn for 180 Howitzers, with an estimated delivery time of 2019-2022.
- \$18bn for C4I System and integration, with no further details given on what that means, nor with a delivery date offered.

Several official press releases and media reports indicate that the latest Saudi-U.S. deal also includes the transfer of technology to Saudi Arabia, a requirement that now Crown Prince Mohammed bin Salman has asked international defense partners to comply with. According to an

official statement release by the *Saudi-U.S. CEO Forum* on 20 May 2017,

- Lockheed Martin's delivery of 150 S-70 Black Hawk helicopters will support about 450 jobs in Saudi Arabia and will include technology and skills transfer;
- Raytheon will establish Raytheon Arabia to help create "indigenous defense, aerospace, and security capabilities in the Kingdom";
- General Dynamics has agreed to "localize design, engineering, manufacturing, and support of armored combat vehicles on current and future programs with a target of fifty-percent localization in support of Vision 2030."

<http://bit.ly/2t1WxYB>; <http://bit.ly/2sl0lnn>

Turkish-Russian negotiations on S-400 SAM said to be in final stages

(4 Jun 17) Speaking at conference at the 2017 St Petersburg International Economic Forum, Russian President Vladimir Putin said that negotiations concerning the sale of the S-400 surface-to-air missile system were about to enter the final stages. The President further said that Turkey's demand for co-production "requires great preparation in terms of technology and training staff," *Quwa* reported on 4 June 2017.

<http://bit.ly/2sUel7g>

Turkish and Pakistani officials satisfied with defense industrial cooperation

(30 May 17) Rana Tanveer, Pakistan's Minister for Defense Production, met Dr. Temel Ketil, CEO and President of Turkish Aeronautical Industry (TAI), Pakistan's *Press Information Department* reported on 30 May 2017. Both "emphasized the importance of joint ventures in emerging technologies" and expressed their wish for investment by private sector companies in these areas. "They also expressed satisfaction over ongoing cooperation in defense technical field making a special reference to PN Fleet Tanker, MILGEM Corvettes, 5th Generation Fighter (National Fighter Program), T-129 attack helicopter and Super Mushshak Aircraft project", the press release stated.

<http://bit.ly/2sULjVb>

Iran introduces third underground missile factory

(25 May 2017) Iran has built a third underground missile production factory, BG Amir Ali Hajizadeh, Commander of Iran's Islamic Revolution Guards Corps (IRGC), said at a public meeting in the city of Dezfoul in late May 2017. According to *FARS*, the "General further pointed out that the IRGC plans to build its first ground-to-ground ballistic missile that will be named 'Dezfoul' in the near future."

<http://bit.ly/2s3278b>

U.S. President and Secretary of Defense meet with Crown Prince of Abu Dhabi

(17 May 2017) Prior to his trip to Saudi Arabia on 20-21 May 2017, U.S. President Donald Trump met with H.H. Sheikh Mohamed bin Zayed Al Nayhan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces on 15 May 2017 in Washington, DC. "The leaders reaffirmed the close UAE-US security partnership and committed to intensify the fight against extremism" and discussed responses to "Iran's destabilizing interference" in regional affairs, UAE news agency *WAM* reported on 17 May 2017.

On the same day, U.S. Secretary of Defense James Mattis received Sheikh Mohamed bin Zayed, and they signed a new Defense Cooperation Agreement. According to *WAM* "the Crown Prince and the Secretary reviewed ongoing joint operations and planning to defeat AQAP, Al Shabab, ISIS and other extremist groups in the region."

<http://bit.ly/2tWHLiI>

Brazil receives UAE Minister of State for Defense

(16 May 2017) Raul Belens Jungmann Pinto, Brazil's Minister of Defense, received Mohamed bin Ahmed Al Bowari, UAE Minister of State for Defense Affairs on 16 May 2017 in Brasilia. Among other things, the two Defense Ministers discussed "ways of promoting and enhancing bilateral relations and cooperation in the military and defense spheres between the two countries," *WAM* reported.

<http://bit.ly/2rJWIUp>

Jordanian F-16 jets down UAV near Syrian border

(11 May 17) F-16 fighter jets of the Jordan Royal Air Force (RJAF) have shot down an unidentified UAV near the border with Syria, *The Jordan Times* reported on 11 May 2017, quoting an Air Force official. According to *IHS Jane's*, the RJAF used a Matra-45 missile to down the UAV.

<http://bit.ly/2rJp2pI>; <http://bit.ly/2tVu8QF>

Defense Industry

An-132 makes debut at Paris Air Show

(21 Jun 17) Antonov, Saudi Arabia's King Abdulaziz City for Science and Technology (KACST) and Taqnia Aeronautics Company have jointly presented the AN-132D transport aircraft at the 2017 Paris Air Show, *Quwa* reported on 21 June 2017. This is the first international show appearance of the transport aircraft that had originally been developed as a successor to the An-32.

<http://bit.ly/2rUSQ77>

STM presents MILDEN submarine design proposal; Navy workshop outlines areas of local development

(18 Jun 2017) During the 2017 International Defense Industry Fair in Istanbul, STM has presented a design proposal for the future national submarine (Milli Denizalti, MILDEN). According to Davut Yilmaz, CEO of STM, "the x-TS1700 was the outcome of STM's submarine design studies, which were commissioned by Turkey's Undersecretariat for Defence Industries (SSM)." The new submarines are said to replace Turkey's existing Type 209 submarines. According to *Quwa*, the current Type 214TN submarine program "could be considered a bridge to the MILDEN in that a bridge to the MILDEN in that a significant portion of the Type 214TN's subsystems, such as the combat management system, are being sourced domestically", for example by Havelan and Aselsan.

In view of Turkey's ambition for an indigenous submarine program, the latest submarine workshop organized by the Turkish Navy on 15-16 June 2017 at Tuzla Naval Shipyard is of interest. According to Admiral Bostanoglu, Commander

of the Turkish Navy, Ankara wants to commission the first indigenous submarine in 2030, *Bosphorus Naval News* reported on 18 June 2017. To this purpose Turkey strives for local work and innovation in the following technology areas:

- Accurate inertial navigation system
- AIP
- ECM system capable of detecting LPI radars
- EHF and SHF satellite communication system
- Enhanced COMINT and SIGINT capabilities
- High powered batteries
- High resolution optronic systems
- Integrated sonar and fire control system
- Link 16/22 ability
- Locally developed torpedoes and mines
- Long range land attack capable cruise missiles
- LPI navigation radar
- Periscope
- Torpedo and mine countermeasures.

<http://bit.ly/2sug2b2>; <http://bit.ly/2rMCycm>

SaSaD published 2016 defense industry performance report

(14 Jun 2017) The Turkish Defense and Aerospace Industry Manufacturers' Association (SaSaD) has published the 2016 performance report, *Hürriyet Daily News* reported on 14 June 2017. According to this report

- Turkish defense and aerospace exports reached \$1.7bn in 2017, with the U.S. (\$585m) and Europe (\$450m) being the two key export destinations;
- Turkey spent \$1.25bn on product and technology development;
- Turkey received \$12bn worth of new orders, in increase of 55% to the previous year, with orders for land systems worth \$6bn and air systems worth \$3.4bn.

<http://bit.ly/2rYqYz0>

UAE to produce remote-controlled Ka 226T helos

(13 Jun 2017) Annual financial reports of Russian Helicopters seem to suggest that the UAE are about to license-build a remote-controlled version of the Ka 226T helicopter, *Menadefense.net* wrote on 13 June 2017. According

to this only platform "O.V.Uspenskogo research center has engaged in the development of a remotely controllable avionics suite for the transformation of the small Kamov transport helicopter."

<http://bit.ly/2rYrtJ7>

TAF gets UMTAS anti-tank guided missile

(11 Jun 17) Roketsan's UMTAS anti-tank guided missile has formally entered service with the Turkish Armed Forces (TAF), *Quwa* reported on 11 June 2017. On 2 June 2017, the Turkish Army had acquired one UMTAS launching system with eight missiles.

<http://bit.ly/2sXE3Zk>

Anti-tank missiles for Lebanese Armed Forces

(4 Jun 2017) The Lebanese Armed Forces have officially received the first anti-tank missile systems from France, *Defence Blog* reported on 4 June 2017 with reference to the hand-over ceremony that took place on 29 May 2017. "The Lebanese Armed Forces (LAF) received VCAC Mephisto anti-tank missile launcher vehicles and 48 HOT 2 missiles," the blog wrote.

<http://bit.ly/2tWhGzS>

Saudi Arabian Military Industries launched

(18 May 2017) Saudi Arabia's Public Investment Fund (PIF) has announced the creation of Saudi Arabian Military Industries (SAMI), *Arab News* reported on 18 May 2017. According to the news agency, the new company will focus on four business areas:

- *Air Systems, which includes maintenance and repair of fixed-wing aircraft as well as manufacturing and repair of unmanned air vehicles*
- *Land Systems, which includes manufacturing and repair of military vehicles*
- *Weapons and Missiles, including ammunition*
- *Defense Electronics, which includes radars and sensors as well as communication systems and electronic warfare.*

SAMI will be government-owned and is expected to contribute to the goals of the country's ambitious Vision 2030, as the following infographic produced by *Arab News* illustrates.



<http://bit.ly/2qvGkcg>

Different Turkish defense companies sign MoUs with Antonov

(14 May 2017) Antonov seized the opportunity of the 2017 International Defence Industry Fair in Istanbul to sign several MoUs with Turkish companies. According to *Quwa*, these include

- MoU with Aselsan for an integrated avionics suite to be used in the An-148 family;
- MoU with TAI to jointly develop UAV;
- MoU with Havelsan and Saudi Arabia's Taqnia Aeronautics Company to jointly develop and manufacture a maritime patrol aircraft based on the An-123

<http://bit.ly/2sFgnGi>

KACST unveils Saqr 1 program

(12 May 2017) Saqr 1, Saudi Arabia's strategic drone program, was unveiled on 11 May 2017 at the King Abdulaziz City for Science and Technology (KACST). According to Prince Turki bin Saud bin Mohammed, President of KACST, the UAV is equipped with KA SATCOM systems that allow the UAV to fly at a range of more than 2,500km, *Arab News* reported. Saqr 1 can carry missiles and laser-guided bombs.

Prince Turki bin Saud bin Mohammed underlined that Saqr 1 had been "designed and manufactured by Saudi hands." The program also benefited from transfer of technology, in particular for engine technologies, sensor systems (high-temperature thermal cameras), and laser systems.

<http://bit.ly/2rIPeRC>

New Bora ballistic missile in Turkey

(12 May 2017) Roketsan has conducted another live firing test for the Bora long-range ballistic missile, *IHS Jane's* reported on 12 May 2017 with reference to a statement issued by the Turkish Ministry of Defense the day before. The test took place in Sinop. Bora missiles have a range of up to 280km.

<http://bit.ly/2sIiZmE>

Kale Group and Rolls-Royce join forces for TFX engine development

(9 May 17) Rolls-Royce and Turkey's Kale Group will set up a new company to develop and manufacture turbofan engines for the country's future TFX next-generation fighter jet. Kale Group will own 51% of the new TAEC Aircraft Engine Industry Corporation incorporated in Turkey with Rolls-Royce holding the remaining 49%. According to *Daily Sabah*, "intellectual property rights will remain in Turkey."

<http://bit.ly/2ty1IN2>

Defense Exports

UAE military donation to Libya

(12 Jun 2017) The Libyan National Army has received an unspecified number of M1248 Caiman mine-resistant armor-protected vehicles (MRAP) from the United Arab Emirates, *Defence Blog* reported on 12 June 2017. The first batch of the vehicle has already been seen in Benghazi, the blog added.

<http://bit.ly/2rYsaT4>

AJBAN 440A for European markets

(1 Jun 2017) As reported earlier (ADIP News Bulletin dated 10 February 2017, p. 4; 21 March 2017, p. 7), NIMR Automotive and Czech manufacturer VOP CZ, have signed a cooperation agreement to jointly produce armored vehicles, in particular with an eye on European markets. At the 14th International Defense and Security Technology Fair in Brno, Czech Republic, both companies presented the AJBAN 440A, a 4x4 armored vehicle "configured to European specifications," as *C4Defence* wrote on 1 June 2017.

<http://bit.ly/2rGPnoh>

Turkish targeting pods for Pakistan

(30 May 17) On 26 May 2017, Aselsan registered the sale of ASELPOD electro-optical targeting pods worth \$24.9m with Turkey's Public Disclosure Platform. According to Turkish media, the targeting pods were acquired by Pakistan, *Quwa* reported on 30 May 2017.

<http://bit.ly/2txnQHv>

Saudi-Turkish MILGEM talks said to be unaffected by Saudi-US arms deal

(30 May 17) Ismail Demir, Head of the Turkish Undersecretariat for Defense Industry (SSM), has denied rumors that negotiations with Saudi Arabia over the possible sale of MILGEM corvettes had been cancelled in light of the most recent deal between Saudi Arabia and the U.S. that also includes the delivery of LCS (see above). In response to questions by *Anadolu Agency*, Demir said Saudi Arabia had notified Turkey that the project would be continued, *C4Defence* reported.

<http://bit.ly/2rGDI9h>

Aselsan offers very high frequency radios to Ukraine

(29 May 17) Turkey's Aselsan seems to be offering its very high frequency (VHF) radios in an ongoing tender of the Ukrainian Ministry of Defense, *Quwa* reported on 29 May 2017 with reference to *Defence Express*, a Ukrainian source.

The Ukrainian Ministry of Defense started selecting new VHF radios back in 2016 as it wants to procure up to 600 new systems. Aselsan and

Harris Corporation have responded to the tender.

<http://bit.ly/2rZhmin>

Are Turkish companies involved in a new Pakistani program on mini submarines?

(23 May 17) *Quwa* speculates about the involvement of Turkish companies in a Pakistani program for the construction of a miniature submarine.

As the journal wrote on 23 May 17, the mini-sub program was mentioned in the 2015-16 year-book of the Pakistan Ministry of Defense Production. This program may be related to talks between the Pakistani navy and Turkey's STM. Together they studies "the feasibility of upgrading the MG110 (mini-submarines)", but concluded that upgrading was not an option. STM subsequently seems to have proposed a new design. According to *Quwa*, Yonca-Onuk, a Turkish shipbuilder is offering its Underwater Offensive Team boat.

<http://bit.ly/2rVmMQt>

STM and tkMS join forces for submarine sale to Indonesia

(15 May 17) On the occasion of the 2017 International Defense Industry Fair in Istanbul, STM and thyssenkrupp Marine Systems (tkMS) signed a letter of intent to explore the sale of Type 214 submarines built in Turkey to Indonesia, *Quwa* reported on 16 April 2017. This complements an earlier initiative by Turkey's Golcük Shipyard and tkMS to jointly market Type 214 submarines to Indonesia (ADIP dated 18 April 2017, p. 4).

<http://bit.ly/2suBnRK>

Turkey and Pakistan sign three new agreements

(10 May 17) On the occasion of the 2017 International Defense Industry Fair, Pakistan and Turkey have signed the following three agreements:

- Pakistan Aeronautical Complex has been awarded a contract for 52 Super Mushshak trainers from Turkey's Undersecretary for Defense Industries (SSM)

- PAC and Turkish Aerospace Industries (TAI) signed a letter of intent "for fresh collaboration", as *Quwa* reported
- Both sides also signed a letter of intent to deliver four MILGEM corvettes to Pakistan's Navy.

<http://bit.ly/2rUZII3>

Defense Modernization and Support

Turkey's SSM launches UGV design competition

(22 Jun 2017) In mid-June 2017, the Undersecretary for Defense Industry (SSM) has launched a design competition for unmanned ground vehicles. According to the project's website, the goal is to design three different categories of UGVs for use by the country's armed forces. The three categories differ in size, but all of them seem to focus on the same general missions such as bomb disposal, logistics support and transport, reconnaissance and surveillance, armed protection, and rescue. All design proposals need to take into account that the UGVs shall be used in tropical, desert, and cold northern climates (!). In addition,

- small scale systems shall move on ice, low snow, muddy and soft grounds
- medium scale system shall operate in shallow rivers and wetlands
- full scale systems shall be able to swim in shallow rivers and lakes.

These requirements not only suggest that the UGV designs are meant for amphibious operations. Reference to the three different climate zones could also be interpreted as an indication of future export vectors, should the designs lead to marketable products.

<http://roboik.ssm.gov.tr/>

Common Aperture Targeting Systems for Turkish air systems

(14 Jun 2017) On 14 June 2017, the Turkish Ministry of Defense has received 15 new Common Aperture Targeting Systems (CATS) developed by Aselsan for use by UAVs, helicopters, and aircrafts. According to *C4Defence*, the systems provide new features such as "laser range finder

and target designator, laser pointer and illuminator, inertial measurement unit (IMU) and low light (LL-NIR) camera."

<http://bit.ly/2sFEIB7>

Radar upgrade for Saudi Arabia's AWACS fleet completed

(23 May 2017) The radar system of Saudi Arabia's Airborne Warning and Control System (AWACS) fleet has been upgraded. The upgrades "comprise a new radar computer, a radar control maintenance panel and electrical and mechanical software and hardware," *Boeing* announced on 23 May 2017.

<http://bit.ly/2sXCeeg>

Iran tests high-speed torpedo Hoot

(10 May 2017) Iran has tested the Hoot high-speed torpedo near the Strait of Hormuz, Pentagon officials have told *NBC News*. The test took place on 7 May 2017, *C4DDefence* wrote three days later. "Reportedly, the torpedo is able to travel 11 km at 370 km/h, (but it) is unclear whether or not the test was a success", *C4DDefence* added.

<http://bit.ly/2rVRau8>

Defense Procurement

Qatar buys F-15QA

(21 Jun 2017) Qatar signed a contract for 36 F-15QA fighter jets in mid-June 2017, but the parties are still negotiating the details of the deal.

On 14 June 2017, Dr Halid bin Homammed Al Attiyah, Qatar's Minister of State for Defense Affairs, and James Mattis, U.S. Secretary of Defense, signed a deal for the delivery of F-15QA fighter jets. Official numbers were not disclosed, but press reports indicated Qatar would get 36 F-15QA. The agreement, which could be worth up to \$12.1bn, is still under negotiation, Leanne Caret, President and CEO of Boeing Defense Space & Security, told *Aviation Week*. The jets could be produced in 2019-2022.

In November 2016, the Obama administration had cleared the supply of up to 72 F-15QA. In-

cluding weapons, support and training, the total package could be worth up to \$21bn (see ADIP dated 12 December 2016, p. 7).

<https://bloom.bg/2slavvR;>

<http://bit.ly/2rYbYkD>

Turkey launches tender for Altay MBT serial production

(17 Jun 2017) Turkey's Undersecretariat for Defense Industry (SSM) and Otokar failed to reach an agreement on the conditions for the Altay Main Battle Tank (MBT) serial production. As a consequence, SMM has launched a tender process.

In a press release issued on 9 June 2017, Otokar said that its offer "had been turned down due to disagreement over contract terms and conditions, most notably price." Back in 2008, SSM and Otokar signed a \$500m contract to develop and produce for prototypes.

Otokar, FNSS and BMC are natural bidders, a procurement official told *Defense News*. According to *C4Defence*, six unnamed companies are interested to participate in the new tender. In a first for Turkey, SSM "has set up a selector committee, comprising of 80 individuals, to make use in selecting subcontractors. The committee is to evaluate the competitor subcontractors' sufficiency in terms of finance and production." According to the original plan, "the contract would be signed in 2017, the production line would have been completed by the end of 2019 and the first 15 tanks would have been rolled out in 2020 while further 20 manufactured in 2021," *C4Defence* wrote.

[http://bit.ly/2sIgcd3;](http://bit.ly/2sIgcd3) <http://bit.ly/2tSykjY>

TAF takes SOM-A missile into service

(15 Jun 2017) The SOM-A stand-off air-to-surface missile produced by Roketsan has entered service with the Turkish Armed Forces, *IHS Jane's* reported on 15 June 2017 with reference to a tweet by the Turkish Ministry of Defense published on 13 June 2017. SOM-A missiles have a range of 250km.

<http://bit.ly/2sJepEQ>

Bayraktar TB2 UAV delivered to Turkish Armed Forces

(16 Jun 2017) Bayraktar's TB2 UAV have passed acceptance test by the Turkish Armed Forces and have been delivered to them in mid-June 2017, *C4Defence* reported. The company is said to have produced 6 UAV indigenously.

<http://bit.ly/2rZBuRw>

Rumors about significant tank deal between Egypt and Russia

(14 Jun 2017) Rumors seem to circulate in Russian social media networks, that Egypt could place an order for 400-500 T-90MS tanks with Russia. The potential contract could also include several local assembly kits by Uralvagonzavod, *Menadefense.net* wrote on 14 June 2017.

<http://bit.ly/2tBLKSj>

S-300VM delivery to Egypt kicked off

(8 Jun 17) In early June 2017, Egypt received the first Almaz-Antey S-300VM long-range surface-to-air missiles, *Quwa* reported on 8 June 2017 with reference to the Russian social media sources. In 2015, Egypt ordered the system for \$1bn.

<http://bit.ly/2sFfihu>

Saudi Arabia to get continued U.S. training support and new radar systems

(6 Jun 2017) Irrespective of the \$110bn arms deal between Saudi Arabia and the U.S. the *Defense Security Cooperation Agency* has recently made a determination approving the following possible Foreign Military Sales to Saudi Arabia:

- 26 AN-TPQ-53(v) Radar Systems and related support worth up to \$662m
- Blanked order training for the Royal Saudi Air Force and other Saudi forces worth up to \$750m
- Navy blanked order training worth up to \$250m to continue existing naval training and education programs

<http://bit.ly/2sIYbLN>; <http://bit.ly/2rYnRH6>;

<http://bit.ly/2sIWqhG>

Saudi Arabia receives initial batch of AH-6i helicopters

(5 Jun 2017) The first nine of an initial batch of 12 Boeing AH-6i Little bird light attack and reconnaissance helicopters have arrived in Saudi Arabia, *IHS Jane's* reported on 5 June 2017. Three helicopters still remain in the U.S. for training purposes. In total the Saudi Arabian National Guard will receive 24 helicopters.

<http://bit.ly/2sId1SI>

Oman's first Eurofighter Typhoon and Hawk rolled out

(16 May 17) The first Omani Eurofighter Typhoon jet and Hawk advanced trainer were rolled out by BAE Systems on 15 May 2017. Back in 2012, Oman ordered a total of 12 Eurofighter Typhoon jets and 8 Hawk Mk 166 advanced trainers worth €4.06bn. On 21 June 2017, Oman took delivery of the first two Eurofighter Typhoon jets, *Quwa* reported.

<http://bit.ly/2qUEcf2>; <http://bit.ly/2s2QCO0>

Kuwait receives Sniper Pods from Lockheed Martin

(15 May 2017) The U.S. Air Force has placed a delivery order for 14 Sniper Advanced Targeting Pods to the Kuwait Air Force for its F/A-18C/D Hornet aircraft, *Lockheed Martin* announced on 15 May 2017. Pod delivery, that also includes spares, support equipment and integration, will begin in 2018 to satisfy urgent operational needs of the Kuwait Air Force.

<http://lmt.co/2rY7oTe>

SSM and TAI sign contract for Hürkus-C light attack aircraft

(11 May 2017) TAI will develop and produce the Hürkus-C light attack aircraft. The company has signed a contract with the Turkish Undersecretariat for Defense Industries (SSM) on 11 May 2017, *IHS Jane's* reported. The deal covers the production of an initial batch of 12 aircraft with the option for a second batch. The aircraft will be equipped with electronic warfare systems, guided bombs, general-purpose bombs, unguided rockets, and machine guns.

<http://goo.gl/2RGyx3>

Patriot PAC-3 for the UAE

(11 May 2017) The U.S. Defense Security Cooperation Agency informed U.S. Congress about the possible Foreign Military Sale of 60 Patriot Advanced Capability 3 (PAC-3) missiles with canisters and 100 Patriot Guidance Enhanced Missile-Tactical (GEM-T) missiles including logistics and program support to the UAE. The package has a contract value of up to \$2bn.

<http://bit.ly/2t25gtG>

Military Cooperation and Training

Thales to provide training simulators for Kuwait Air Force

(20 Jun 2017) Airbus Helicopters has selected Thales to provide flight and mission training solutions for Caracal helicopters of Kuwait's Air Force, *Al Defaiya* reported on 20 June 2017. According to the online news service, "Thales will participate in flight and tactical mission training for the pilots and crews of the Caracal helicopters operated by the Kuwait Air Force and National Guard."

<http://bit.ly/2t2CHfw>

Bahrain's Defense Chief receives U.S. and UK Commanders in separate meetings

(20 Jun 2017) Field Marshal Sheikh Khalifa bin Ahmed Al Khalifa has received Admiral Donegan Kevin, Commander of the U.S. 5th Fleet and U.S. Naval Forces Central Command, on 20 June 2017 in Bahrain. Five days earlier he received LTG John Lorimer, outgoing Chief of Joint Operations of the British Forces. Reports by *Al Defaiya* did not disclose meeting details.

<http://bit.ly/2sJlfu5>; <http://bit.ly/2rJEWkd>

Amid tensions, Turkish troops arrive in Qatar for training

(19 Jun 2017) A first group of Turkish troops has arrived in Qatar for a long-planned joint military exercise, *Gulf Times* reported on 19 June 2017. The exercise aims to "raise the Qatari and Turkish fighting efficiency to develop a joint plan in order to fight extremism and terrorism,

as well as peacekeeping operations before and after military operation."

<http://bit.ly/2tW1QVT>

Azerbaijani-Turkish exercise in Nakhchivan

(12 Jun 2017) Armed forces units of Azerbaijan and Turkey started a bilateral, 4-day exercise on 12 June 2017 in Nakhchivan. The exercise serves to improve coordination between both armed forces and to advance interoperability, *Defence Blog* wrote.

<http://bit.ly/2rJNs8>

Trilateral field exercise "Caucasian Eagle 2017" kicked off

(12 Jun 2017) Georgian, Turkish, and Azerbaijani units have conducted a 10-day trilateral field exercise "Caucasian Eagle 2017", *Defence Blog* reported on 12 June 2017. According to the website the "military servicemen fulfilled tactical, shooting, engineering and other kinds of special tasks."

<http://bit.ly/2rZ04qD>

Meeting of Egypt's and Russia's Defense Minister

(31 May 2017) Sedki Subhi, Commander in Chief of the Egyptian Armed Forces and Minister of Defense received Russia's Minister of Defense Sergei Shoigu on 30 May 2017 in Cairo. According to Russian news agency TASS "the two sides discussed means of enhancing and developing cooperation between the armed forces of both countries, especially in the fields of training and armament, exchange of information and expertise, and rehabilitation of the Egyptian military cadres in a number of fields."

<http://bit.ly/2rZ1jq0>

Cyprus and Jordan sign military cooperation agreement

(22 May 2017) General Mahmoud Friehat, Chairman of the Joint Chiefs of Staff of Jordan, and Christoforos Fokaides, Cypriot Minister of Defense, have signed an agreement to establish closer defense cooperation on 22 May 2017. According to Jordan's news agency *Petra*, the

"agreement seeks to cement military ties between the armies of both countries."

<http://bit.ly/2s3MaPc>

Counter-terrorism training by Havelan

(22 May 17) According to *IHS Jane's*, Havelan has opened a new center for counter-terrorism training and simulation technologies. The center, which is part of the company's headquarters in Ankara, "includes a demonstration three-building instrumented training site for urban operations that is typical of eastern Turkey and an indoor virtual training facility."

<http://bit.ly/2t1ZQ1F>

UAE and China discuss military cooperation

(19 May 2017) General Fan Changlong, Vice Chairman of China's Central Military Commission, received Mohammed bin Ahmed Al Bowardi, UAE Minister of State for Defense Affairs, on 17 May 2017 for bilateral talks. As the Emirati news agency WAM reported two days later, they talked about military ties. Al Bowardi "stressed the strength of strategic relations" between both countries, and General Fan Changlong express this country's "keenness to strengthen bilateral ties."

<http://bit.ly/2t2Ttet>

Finnish Prime Minister meets Qatari Defense Minister

(18 May 2017) Juha Sipila, Finland's Prime Minister met Qatar's Minister of State for Defense Affairs Dr. Khaled bin Mohammed Al-Attiah on 18 May 2017 in Doha. According to the *Qatar News Agency* "they reviewed bilateral relations, especially in the field of military cooperation, and means to promote them."

<http://bit.ly/2rK5G3Y>

Cybersecurity and Space

Iran could join space activities of the Eurasian Economic Union

(9 Jun 2017) The Eurasian Economic Union (EAEU), which consists of Armenia, Belarus, Kazakhstan, Kyrgyzstan, and Russia, is close to sign a free trade deal with Tehran, *SpaceWatchME* reported on 9 June 2017. The successful conclusion of the deal could see Iran join EAEU's space activities.

According to *SpaceWatchMe*, the EAEU plans to "create a joint remote earth sensing system by integrating the space- and ground-based capabilities of its member states." Satellite imagery would be provided "through an integrated we portal that will allow users to monitor urban and industrial areas, infrastructure and transport corridors, as well as agricultural land management applications." "Iran is known to be building a range of small experimental sensing satellites", *SpaceWatchMe* added.

<http://bit.ly/2sn7kwq>

Jordanian students build Cubesat

(6 Jun 2017) Fifteen Jordanian students from different universities have built a Cubesat that shall be launched in early 2018. The project was part of the Masar Initiative, that wants to "encourage, nurture, harness, and develop the talents of young Jordanians in the fields of science and technology", *SpaceWatchME* reported on 6 June 2017. The Masar Initiative is part of the Crown Prince Foundation.

<http://bit.ly/2t1IySU>

Roketsan plans satellite launch vehicle

(5 Jun 2017) In early May 2017, Roketsan revealed plans to develop and independently funded satellite launch vehicle (SLV), *SpaceWatchME* said on 5 June 2017. According to the online news platform the SLV "will be Turkey's first domestically produced rocket and it will be capable of launching low-Earth-orbiting satellites to an altitude of 500–700 km."

The SLV development, which is still in its early stages, is part of the Turkish Satellite Launch

System (SLS) program. The SLS program was launched in 2013 and aims at providing Turkey with an independent capability to reach space and to sustain the nation's satellite programs.

<http://bit.ly/2qU9F1B>

IDF to establish new Cyber Command

(18 May 2017) "The Israel Defense Forces (IDF) is in the process of creating a new Cyber Command that will be integrated with the existing C4i Directorate and be responsible for all defensive cyber operations and intelligence gathering," *IHS Jane's* reported on 18 May 2017 with reference to a senior IDF cyber official. The journal also indicated that the Military Intelligence Directorate's signals intelligence unit would not be part of the new command.

<http://bit.ly/2qV70V0>

Havelsan opens Cyber Security Operations Center

(11 May 2017) Havelsan now offers cyber security monitoring services via a new Cyber Security Operations Center established at the company's headquarters in Ankara, *IHS Jane's* wrote on 11 May 2017. The center can "monitor client networks in real time to detect attempted cyber attacks, issue warnings and alarms, and provide defences. In addition to this active response, the centre offers incident analysis and reporting as well as a cyber threat intelligence service."

<http://bit.ly/2s2DubE>

Göktürk-1 satellite sends first images

(11 May 2017) As *C4Defence* reported on 11 May 2017, Turkey's Göktürk-1 satellite has transmitted the first images. "The satellite, which has been undergoing testing and commissioning since the launch date, has taken more than 1000 images and strip test images in 6 months, some of which are for the calibration of the satellite, and others for the needs of the Turkish Air Forces Command," *C4Defence* wrote.

<http://bit.ly/2sVpxAr>

Critical Infrastructure Protection and Border Security

Saudi Navy said to have thwarted terror attack on oilfield

(19 Jun 2017) According to *Arab News*, the Saudi Royal Navy has thwarted an "attempted terrorist attack on a major offshore oilfield in the Arabian Gulf." The attack is said to have occurred just after midnight on 16 June 2017 involving three boats. One of the boats that had been seized had been "carrying weapons for a sabotage target." On 20 June 2017, *Arab News* quoted an official source of the Saudi Royal Navy saying that "three members of the Iranian Revolutionary Guards who were on board a boat", had been arrested.

<http://bit.ly/2s2xqQt>; <http://bit.ly/2t28jlu>

Turkey buys Aselsan border surveillance vehicles

(7 Jun 2017) Aselsan will provide surveillance vehicles to strengthen existing border surveillance capacities in Turkey, *C4Defence* reported on 7 June 2017. The respective contracts are worth €30m with deliveries scheduled for 2018.

<http://bit.ly/2rVKzjj>