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FEATURES

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United Arab Emirates procurement - Power drive

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In the second half of the 21st Century's first decade, the armed forces of the United Arab Emirates (UAE) are in the process of fielding modern capabilities that, in some cases, are far in advance of those possessed by NATO nations.

The growing maturity of the UAE's armed forces comes at a time when the Gulf state's foreign and economic policies are increasingly ambitious and far ranging.

The UAE continues to invest in its armed forces and the recent surge in oil and natural gas prices is expected to make more money available for future defence modernisation.

Training and logistic support are now high on the UAE procurement agenda to enhance the ability of its armed forces to sustain operations with their recently purchased military equipment.

Meanwhile, the UAE's geographic position at the southern shore of the Persian Gulf and its toehold on the Indian Ocean, its status as a major oil and natural gas exporter and its growing position as a world trading centre have meant the country is increasingly involved in the global economy and regional political structures.

Political stability in the Gulf region has long been a high priority for the UAE. The country has been a major player over the past 26 years in efforts by the Gulf Co-operation Council (GCC) to co-ordinate mutual defence activities with Bahrain, Kuwait, Oman, Qatar and Saudi Arabia. This saw the participation of GCC forces in military operations in 1991 to drive Iraqi forces from occupied Kuwait. Until December 2005 the UAE contributed a battalion-sized ground force contingent to the organisation's Peninsula Shield deployment in northern Saudi Arabia. Co-operation has continued on a major project to enhance technical linkages between the GCC state's air-defence networks.

The UAE remains a leading member of the Arab League; it has contributed significantly to the rebuilding of Lebanon after Israeli air strikes in mid-2006 while UAE military aircraft delivered humanitarian aid to Beirut.

The last decade has seen the UAE become increasingly involved in peace support and humanitarian relief operations outside the Gulf region through the UN and other international organisations. This began to gain momentum during the 1999 Kosovo crisis when UAE Puma light utility helicopters were dispatched to Albania to help UN-led humanitarian relief operations. Subsequently the UAE contributed a mechanised battle group to serve with the NATO-led peacekeeping force in Kosovo, supported by a contingent of six AH-64A Apache attack helicopters. This force served in the disputed Balkan territory for two years until late 2001.

In response to 9/11, the UAE joined the US-led Global War on Terror and allowed US forces - including RQ-4 Global Hawk unmanned aerial vehicles (UAVs), U-2 Dragon Lady reconnaissance aircraft and KC-10 tanker aircraft supporting the operation in Afghanistan - to use bases in the country. Canada, Italy and other nations contributing forces to the NATO-led International Security Assistance Force (ISAF) have also been allowed to use UAE airbases to provide logistics support to their contingents in Afghanistan.

The UAE's alliance with the US continued during the invasion of Iraq in 2003 and the US Air Force (USAF) units based in the country participated in Operation 'Iraqi Freedom', in reconnaissance and support roles. Since then, the UAE has provided military assistance to the new Iraqi government in Baghdad to re-build its armed forces, including donating surplus Bell 206 Kiowa light helicopters.

Within the Gulf region, the UAE continues to dispute Iranian control of the Abu Musa and Greater and Lesser Tunb islands. Tehran's nuclear programme has also raised concern in the Emirates. Any potential conflict between the US and Iran that might result in the closure of the strategic Strait of Hormuz would cause major economic disruption to the UAE.

With this span of international involvement, it is little surprise that the contribution of the UAE's armed forces to the country's foreign policy is growing and looks set to expand.

The UAE is a unique political entity, created as a federation of seven emirates Abu Dhabi, Ajman, Dubai, Fujairah, Ras al-Khaimah, Sharjah and Umm al-Qaiwain - some 36 years ago. These emirates are all ruled by royal families, which had their own armed forces when the UAE was established.

Since then those armed forces have been brought under the umbrella of the unified UAE armed forces structure. The last Emiri armed forces joined the unified structure more than a decade ago.

Although the Abu Dhabi-based UAE Ministry of Defence and General Headquarters have grown in influence, the seven emirates retain influence through the system of regional commands. Defence procurement is particularly influenced by the contribution the seven emirates make to the central defence budget, with Abu Dhabi and Dubai having the greatest say in the purchase of new military equipment.

Abu Dhabi, as the UAE's major oil and natural gas producing emirate, makes the largest contribution to defence procurement. It is also home to major shipbuilding and aviation repair companies so is keen to attract work to these operations.

The UAE central defence budget has been set around USD2 billion to USD2.5 billion over the past decade, which meant that major procurement projects had to be spread out over several years to be accommodated. Recent surges in oil and natural gas prices have resulted in significant increases in revenue to the UAE, with one oil industry analyst suggesting to Jane's that this might be in the region of USD50 billion to USD100 billion over the next decade if prices remain at current levels.

How much of this windfall will be spent on defence modernisation is unclear due to the heavy secrecy regarding future UAE defence procurement planning. Some industry sources suggest it could be between USD10 billion and USD20 billion over the planning period.

The UAE has financed a number of recent defence purchases, including the recent -F-16 fighter deal with Lockheed Martin, via trade barter arrangements and this is likely to become a growing trend. A number of longstanding requirements exist but this does not necessarily mean they will all receive funding in the near or medium term. The air force and navy have received priority in recent years, although indications are that the re-equipping of the country's land forces is now rising up the UAE's procurement agenda.

The UAE's armed forces are all-professional organisations and some 30 per cent of the 55,000 military personnel are thought to comprise ex-patriates, from other Middle Eastern countries, Europe and the Indian subcontinent. Recruiting and training UAE nationals to serve in the country's armed forces is a growing issue because of wage inflation and better career opportunities offered in the country's booming civilian sector.

The growing economic development of the UAE's two major urban areas, Abu Dhabi and Dubai, is also creating major pressure on land usage and moves are under way to re-locate military infrastructure away from the country's cities.

The UAE Air Force and Air Defence Force (UAE AF&AD) has commanded the lion's share of new procurement funding over the past decade, including major programmes to buy 80 new F-16E/F Desert Falcon multirole combat aircraft. This follows on the heels of deals with France to acquire new Mirage 2000-9-combat jets and

upgrade the UAE AF&AD's existing Mirage 2000 fleet to this new standard. These projects will give the UAE AF&AD long-range precision strike and beyond-visual-range air-to-air combat capabilities, making it one of the most advanced air forces in the Middle East.

The Desert Falcon deal was estimated to be worth USD6.4 billion, including the associated weapon package from Raytheon and the development of the Northrop Grumman AN/APG-80 Agile Beam Radar (ABR) for improved tracking of multiple targets. Special aircraft equipment for the Block 60 version of the F-16 will include a new Integrated Electronic Warfare System (IEWS) supplied by Northrop Grumman, which also supplies the AN/AAQ-32 Internal Forward-looking infra-red and Targeting System (IFTS) for the aircraft. General Electric has been selected to supply the engines for the aircraft.

Ten F-16E/Fs were delivered to the Al Dhafra airbase in May 2005 and Lot 2 deliveries started in 2006. Lot 3 aircraft are scheduled to arrive in 2007 and they will feature a terrain-avoidance system. Integration work has begun on the Al Hakeem stand-off precision guided missile. This weapon was one of the first bespoke products developed specifically for the UAE by the UK company GEC (now part of MBDA) in the 1990s under conditions of great secrecy.

The UAE was the launch customer for the Mirage 2000-9, ordering 32 new-build aircraft, including 20 single-seaters and 12 twin-seaters as the Mirage 2000-9D. Initial deliveries of the UAE Mirages began in the first quarter of 2003. Around 30 of the older UAE AF&AD Mirage 2000s were also upgraded to Mirage 2000-9 capability.

The UAE Mirage 2000-9s are equipped with the Shehab laser targeting pod: a variant of the Thales Damocles pod and the Nahar navigation pod. The UAE is also obtaining the Black Shaheen cruise missile, purpose-built for the UAE by European missile house MBDA Missile Systems.

The Mirage III and V fleets were retired in 2003 and are now up for sale following the Mirage 2000-9 deliveries.

Following these major investments in combat aircraft, the UAE AF&AD is keen to acquire up to 60 lead-in fighter trainer aircraft to replace its current Hawk Mk 102s.

The UAE was a partner with EADS on the German Mako advanced trainer project, but this has failed to proceed and the BAE Systems Hawk Mk 128, Alenia Aermacchi M-346 or Lockheed Martin/Korean Aerospace T-50 are all now in the running. A new fleet of turboprop-powered trainers is also to be acquired, with the Raytheon T-6 Texan II, Embraer Super Tucano and Pilatus PC-21 competing.

Next on the agenda are force-multiplying assets to extend the range of the air force's strike assets and its ability to participate in networked coalition operations. An airborne early-warning and control (AEW&C) capability is particularly sought after. The UAE AF&AD is still considering buying five E-2Cs upgraded to the Hawkeye 2000 standard and Saab has proposed its Erieye system. A tanker purchase is also anticipated to support long-range F-16 and Mirage operations, with Boeing promoting a 767 variant, EADS offering an Airbus A330 and Russian industry trying to sell the Ilyushin Il-78 Midas.

The helicopter force is to be enhanced with a proposed USD808 million purchase of 26 Sikorsky UH-60M Black Hawks and the USD90 million Puma upgrade project with Romania is progressing with the first two returned to service in April 2006. This deal involved the upgrade of 15 original UAE and 10 ex-South African Air Force aircraft, which will eventually be brought up to SA 330SM standard.

Eight AgustaWestland AB139s were ordered in February 2005 for USD83 million. Evergreen International was contracted in August 2006 to provide search-and-rescue coverage with two AgustaWestland AW139s (redesignated AB139s) and two Bell 412EPs at three locations.

The UAE's airlift capability was boosted in February 2004 when an Antonov An-124 was delivered, although it is unclear if this aircraft is operated directly by the country's air force. Five An-32 transport aircraft were ordered from Ukraine during 2006.

The privatisation of helicopter training is under way, with some UAE AF&AD Bell 206Bs already sold to the -

service provider and proposals for the remaining Eurocopter AS 350Bs to also be sold.

UAE pilot training on the F-16E/F began at Tucson Air National Guard Base, Arizona, in September 2004, and the first group of pilots completed their training in April 2005. Additional pilots began F-16 training in Turkey in February 2002. Ten pilots joined the NATO Flying Training in Canada programme in November 2004.

The UAE AF&AD has a long tradition of participation in multinational exercises with US and other forces run from the UAE's air warfare centre at Al Dhafra Airbase, near Abu Dhabi.

A programme to build a major hardened airbase to allow the UAE AF&AD aircraft to survive a surprise attack is under way in the desert south of Abu Dhabi. This project has taken several years and is understood to be costing more than USD1 billion. It involves the construction of dual runways, hardened aircraft shelters and underground weapon storage sites.

A strategic air-defence requirement emerged in the mid-1990s but funding issues continue to delay it. UAE interest in the Russian Almaz -S-300 system was headed off by US government pressure, which claimed the Russian system would not be interoperable with US-controlled coalition air-defence networks in the Middle East.

Air defence has not been neglected, however, and after some delays the UAE is now taking delivery from Russia of 50 Pantsir-S1 mobile air-defence systems ordered in 2000 under a USD734 million contract. All of the systems will be integrated onto an 8 x 8 truck chassis for greater strategic mobility.

The UAEAF&AD has a strategic reconnaissance capability via its Space Reconnaissance Centre in Abu Dhabi, which has been in operation for some 20 years to provide access to and analysis of data from Russian, SPOT and Landsat satellites. In late 2000, the UAE established a National Ground Station with direct reception of Ikonos, IRS and Korean Multi-Purpose Satellite (KOMPSAT) satellites imagery data. UAE nationals control all stages of data reception, processing, analysis and production.

Given its reliance on shipborne trade to its oil industry and ambitions to become a major regional trading centre, it is not surprising that the UAE has decided to significantly enhance its naval forces. The navy also includes a marine battalion and a naval aviation squadron with Eurocopter AS332B/F/M and AS565SB helicopters.

The UAE Navy's current inventory includes two Kortenaer-class frigates, two Lürssen-class missile corvettes, eight fast missile patrol boats, six coastal patrol craft, five landing craft capable of carrying tanks, two support craft and miscellaneous other craft. As part of the UAE's defence modernisation effort, the navy is seeking to upgrade its bluewater capabilities with the construction of six multirole corvettes and to enhance its amphibious capabilities through the acquisition of assault and landing craft as well as amphibious armoured personnel carriers for its marine battalion. These projects are expected to take up the bulk of the UAE Navy's procurement budget for the remainder of the decade.

Project Baynunah, the UAE Navy's flagship naval procurement programme, is centred on a USD540 million contract awarded to Abu Dhabi Ship Building (ADSB) in late December 2003. It is based on a ship design developed by French shipbuilder Constructions Mécaniques de Normandie (CMN). Construction of the first vessel began in May 2005 for launch in 2006 and delivery in 2008. In July 2005, the UAE exercised the contract option for a further two vessels to bring the total to six ships of the class.

The main roles of the corvettes will be in patrol and surveillance, minelaying, interception and other anti-surface warfare operations in the UAE's territorial waters and further afield.

The procurement of the Baynunah frigates is also expected to lead to major investment by the UAE Navy in training to ensure its personnel can operate them to their full potential. Until now the navy has largely been a coastal force and has had little experience of operations far from home waters for sustained periods.

The threat of closure of the Strait of Hormuz is of great concern to UAE naval planners and efforts are under way to enhance its ability to operate outside the Arabian Gulf by the expansion of the Fujairah naval base on the

Indian Ocean. Kongsberg Maritime has recently installed its SM2000 underwater surveillance system at several UAE naval bases.

UAE land forces appear to be on the verge of a major transformation effort as a result of the growing interest of the country's leaders in developing an expeditionary warfare capability to allow greater participation in peacekeeping, humanitarian and regional stability operations.

Interest is reportedly growing in converting at least one of the UAE's mechanised infantry or armoured brigades into a rapid-reaction intervention force, equipped with medium or light armoured vehicles. Emerging armoured vehicle requirements include air-portable personnel carriers and tank destroyer vehicles. It has been suggested that this medium brigade could be earmarked as the lead reaction brigade of the GCC Peninsula Shield Force.

In recent years the UAE has taken delivery of a considerable amount of new ground forces equipment from a wide variety of sources.

The now Nexter of France has supplied 436 Leclerc main battle tanks (MBTs) and armoured recovery vehicles (ARVs), which have all now been delivered. It is understood that a small batch of ARVs have been retained in France for possible conversion into specialised combat engineer vehicles such as mine-clearing.

The UAE Leclerc MBTs have a number of enhancements when compared with the French Army Leclerc MBTs, including a German MTU EuroPowerPack, additional armour, auxiliary power unit and enhanced gunner's sight.

The Russian company Kurgan has supplied more than 400 of its BMP-3 infantry fighting vehicles (IFVs), which are the most well armed vehicle of its type with some being fitted with French Sagem thermal sights.

Between 1999 and 2002 the Turkish company FNSS Savunma Sistemleri supplied a total of 136 of its latest Armoured Combat Vehicles in a number of specialised versions developed specifically to meet the requirements of the UAE.

The artillery army has been re-equipped with 78 South African Denel 155 mm/-45-cal 6 x 6 self-propelled weapons coupled to new fire-control systems.

In 1999 the UAE took delivery of the last of 85 ex-Royal Netherlands Army M109 self-propelled howitzers upgraded with a 155 mm/-47-cal barrel by RDM Technology (which has ceased trading) to the enhanced M109L47 standard.

Several sources have told *Jane's* that the UAE Army is considering divesting itself of its Leclerc MBTs and Kurgan BMP-3 IFVs, as part of its plans to move towards a more strategically mobile force.

The agility of the UAE army was recently enhanced by the transfer of 30 AH-64As to the newly formed Army Aviation Group. Its capability will be considerably enhanced between 2008 and 2010 by the upgrading of the helicopters to D-model standard by Boeing and Lockheed Martin under contracts worth more than USD300 million. Some 40 micro UAVs based on a version of the Schiebel S-100 Camcopter are on order, which will give the army a close-in intelligence, surveillance, target acquisition and reconnaissance (ISTAR) capability. These will augment Denel Seeker UAVs, which have been operated by the UAE AF&AD for more than 15 years.

Central to efforts by the UAE to create more expeditionary armed forces is the recent formation of a Special Operations Command. As well as controlling army special forces units, this triservice command can also draw on units for the air force and navy.

Some 12 CH-47C Chinook support helicopters acquired from Libya will be modernised to D standard by AgustaWestland to support the new command. Many of the new landing craft being bought by the UAE Navy are also earmarked to support special forces operations. A significant number of swimmer delivery systems have also recently been acquired.

The UAE has long sought to build up its domestic defence and aerospace industry by demanding significant technology transfer from international defence companies that supply equipment to its armed forces.

Ship-building and aviation repair services are currently in the forefront of these efforts, although interest in developing a local UAV capability is growing. Moves to establish local capability to maintain and upgrade land forces equipment are thought to be the next on the UAE's agenda.

Abu Dhabi Ship Building (ADSB) is playing a key role in the Baynunah corvette programme, building the last five in the class. Its order book for the UAE Navy also includes 64 m and 42 m naval landing craft, four fast supply vessels and a 40 m crew boat. The company also has major projects under way for the mid-life refit of two missile patrol boats and combat system upgrades on six 45 m missile patrol boats.

ADSB recently completed a new facility in the Mussafah Industrial Area of Abu Dhabi, allowing it to construct complex naval vessels in steel, marine-grade aluminium alloy and advanced composites. Through a running long-term contract, ADSB also supports the UAE Navy with routine navigation refits. The company also provides repair and overhaul services to international navies operating in the Gulf region.

The Abu Dhabi-based Gulf Aircraft Maintenance Company (GAMCO) has extensive business in the civil aviation sector but has recently established a new division in order to handle an expanding military business. It was appointed by Lockheed Martin to be a C-130 authorised service centre in January 2002, covering more than 16 countries in Africa, Asia and the Middle East.

The company has been the depot-level maintenance base for UAE C-130s for more than 14 years and is expanding its operations to provide maintenance for more recent types of aircraft to enter UAE AF&AD service, including the EADS CASA CN-235, Mirage 2000 and F-16E/F aircraft. It also carries out engine overhaul and repairs and has been selected by UAE AF&AD to conduct depot-level maintenance on the General Electric GE F110-132 turbofan engines of the F-16E/Fs.

This follows on from work on UAE AF&AD T700-701C engines of the service's Apache helicopters and CT7-9C engines of its CN-235 aircraft. The new military hangar was approved in April 2002 to accommodate C-130 and CN-235 transport aircraft, fighters and helicopters. GAMCO is also contracted to provide depot-level maintenance on the UK's Lockheed Martin Tristar air-to-air refuelling and airlift aircraft.

In 2004, the UAE military established a UAV research and technology centre under the guidance of the air force. The centre, located in Abu Dhabi, is the first of its kind in the Gulf region. The UAE has launched a number of new projects to locally produce UAVs, including the Al Sber camcopter, which is a version of the Schiebel -S-100. The second programme, the Apid 55, (a smaller multipurpose UAV) is being developed in conjunction with CybAero, a Swedish company. The UAV centre is also working with GAMCO to develop the GRS 100 Falcon 1 UAV as an anti-submarine-warfare platform carrying a miniature magnetic anomaly detection system in a pod beneath the air wing.

The Abu Dhabi-based Advanced Communication Systems Group has been developing unmanned systems for use as targets for 13 years. Its SAT-400 medium-speed target -system is in operation in Canada and the UAE military.

The UAE armed forces have grown in maturity and capability considerably over the past decade, in line with the country's substantial economic development. The next 20 years are likely to see the UAE's government increasingly draw upon the capabilities of its armed forces to support the aims of its foreign policy to help promote stability in the Middle East region and further afield.

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The UAE has become increasingly interested in assisting humanitarian relief and peacekeeping operations outside the Gulf region, such as its contribution of a mechanised battle group to Kosovo



(Empics)



The keel of the first of the United Arab Emirates Naval Forces' new Baynunah corvettes

(Constructions Mecaniques de Normandie)



The UAE's Black Shaheen is a custom-built cruise missile built on MBDA's combat-proven Storm Shadow/SCALP-EG long-range conventionally-armed stand-off system
(MBDA Missile Systems)

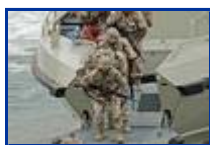


A flight of UAE air force Mirage 2000SAD-8s variously carrying Al Hakeem 1A precision guided missiles and Shehab laser targeting pods
(Dassault Aviation)



The UAE Air Force's first F-16F Desert Falcons arrived in May 2005

(Lockheed Martin)



The navy is seeking to enhance its amphibious capabilities through the indigenously built acquisition of additional assault and landing craft
(Patrick Allen)



The UAE army is considering divesting itself of its Leclerc main battle tanks, according to defence sources

(Patrick Allen)

UAE Apaches have been deployed to Kosovo



(T Ripley)

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