

Shifting sands

With a vast array of unmanned assets operating in the Middle East and southwest Asia under the control of coalition forces in recent years, local developers, it seems, have now recognised the market potential of these systems and have recently undertaken substantial strides to remedy what might be described as a technology shortfall.

At IDEX in Abu Dhabi in February, for example, a multitude of deals and agreements were signed to cement cooperation between Middle Eastern investment houses and specialist Western companies – a trend that is set to only increase, according to industry sources.

Andrew White finds evidence at IDEX that the Middle Eastern states are waking up to the potential of unmanned systems.

REGIONAL RODEO

Illustrating the region's aspirations in the unmanned sector, the UAE's Higher Colleges of Technology recently announced the first 'Unmanned Systems Rodeo' in the Middle East, which will be supported by Northrop Grumman and Abu Dhabi Autonomous Systems Investments (ADASI), the latter being involved with Schiebel and its S-100 Camcopter locally.

Due to be held in Abu Dhabi on 4-5 May, the event is designed to encourage the

design, build and testing of 'remote-controlled unmanned aircraft' with Northrop specifically on call to assist with aerodynamics and airframe construction. According to Homaid Al Shemmari, chairman of ADASI, such a move will assist in ensuring the 'growing market need for autonomous systems... through the development of national capabilities in the UAE'.

Referring to the establishment of what he called the 'pillars' of a local autonomous



A General Atomics partnership with IGG is designed to offer the Predator XP to the Middle East market for the first time. (Photo: USAF)

REGIONAL FOCUS

systems industry, Al Shemmari continued: 'The strategic partnerships that are being formed will ensure the long-term growth and success of this industrial sector in Abu Dhabi, which will inevitably lead to the diversification of the local economy and the creation of highly skilled jobs. We are confident that not only will the UAE benefit from the development of this new industrial sector, but the region as a whole.'

However, according to Rockwell Collins International & Service Solutions VP Greg Churchill, the unmanned market in the Middle East still remains a 'challenging' opportunity.

'We believe the [UAVs] are coming. There is tremendous utility and countries are looking how to interoperate them in commercial airspace. There is a [required] cultural and procedural roll-out of UAVs, but I'm not sure if the UAE or the region, as a whole, has thought that far ahead,' he told *Unmanned Vehicles*.

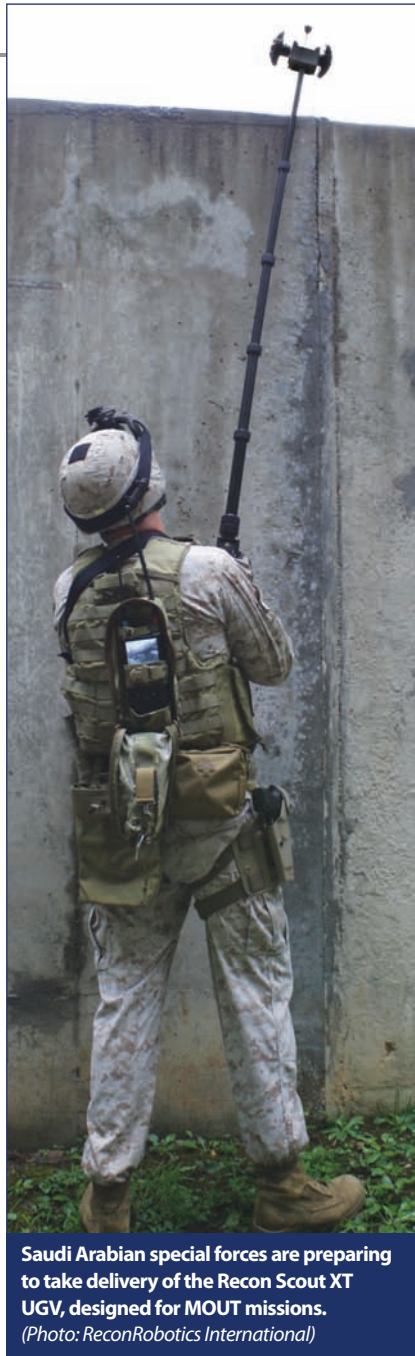
FORGING LINKS

Currently, the strategy is to encourage an early transition by forging link-ups with international companies and, finally, certain firms are now establishing a presence in the Middle East. Rockwell Collins has just opened up an office in Abu Dhabi for precisely this reason and, elsewhere, General Atomics Aeronautical Systems (GA-ASI) signed an MoU with International Golden Group (IGG) as part of the UAE's desire to generate a 'premier ISR capability'.

Signed on 16 February and officially completed at IDEX a day later, the MoU will allow GA-ASI to market its Predator XP UAV primarily to the UAE armed forces.

'GA-ASI's establishment of a working relationship with IGG represents a strategic commitment by both companies to help the UAE strengthen its national security and protect critical infrastructure,' said Neal Blue, chairman and CEO of General Atomics.

According to the company's strategic development director Christopher Ames, the agreement will initially focus on the



Saudi Arabian special forces are preparing to take delivery of the Recon Scout XT UGV, designed for MOUT missions.
(Photo: ReconRobotics International)

provision of surveillance variants of the UAV, as opposed to the weaponised platforms currently in service with the USAF and others.

The XP model could be fitted with GA-ASI's Lynx synthetic aperture radar, EO/IR payloads and satellite and line of sight communications, Ames told *UV*. Similar to the USAF's original RQ-1 Predator, the XP is designed for 'persistent ISR' and is capable of carrying up to 200kg in payload at altitudes up to 25,000ft.

Ames added that IGG would be involved in programme management and logistical solutions for the Predator XP. GA-ASI has

been working with IGG for a number of years now, as part of an agreement to sell its Griffin Eye manned ISR solution to the UAE. However, Ames would not comment on the progression of the MoU to cover other company products.

ROTARY SURVEILLANCE

Elsewhere, IDEX was used to announce news that Schiebel had delivered two S-100 Camcopter systems to Jordan's King Abdullah II Design and Development Bureau (KADDB) at the turn of the year. Unable to comment on contract details, Schiebel managing director Neil Hunter told *UV* that a single S-100 system would normally comprise two airframes plus a single GCS and antenna.

According to KADDB, the VTOL UAV will form a 'key' part of the Jordanian Armed Forces Reconnaissance Squadron, with operations likely to include ISTAR mission sets. The airframes are also the first S-100s to be fitted with L-3 Wescam's MX-10 EO/IR payload, with Schiebel also providing in-country support.

'KADDB said they would procure a couple of [Camcopter] systems before utilising and assessing them. We would be hopeful to achieve more sales,' Hunter said. Referring to the Middle East market in general, he continued: 'There is interest in this market and they have money. There's a lot of opportunity... and they tend to procure a bit more quickly than standard Western militaries.'

Elsewhere, he confirmed that all 60 S-100 aircraft ordered had been delivered to the UAE as part of ADASI's Al Sabr programme, designed to provide the UAE armed forces with an ISR capability based on a VTOL UAV.

Included in the requirement is capacity for 'capability building... for the production of aviation standard components,' and Hunter told *UV* that there was potential for an S-100 hub in the Middle East as a supply logistics centre. 'This is likely to turn into a JV agreement which we've talked about,' he continued. ➤

REGIONAL FOCUS

Elsewhere, Bahrain is understood to be seeking an aerostat/UAV surveillance solution for national security missions. Sources told *UV* that CyberTech Middle East, a JV between CyberTech Systems and Software and investment company GoldCoastway, was planning to offer up S3Tel's FalconEye aerostat and a tactical UAV based on Schiebel's S-100 airframe.

Jobs have also been advertised on the Internet for a UAV pilot, as well as a flight director, winch operator and flight engineer for aerostat operations. However, Hunter confirmed that Schiebel had had a 'relationship' with CyberTech in the past, although this had gone quiet in the past year.

BROAD SELECTION

Meanwhile, KADDB chairman and CEO Shadi Ramzi Majali told *UV* that Jordan was looking to increase its capability in the unmanned arena as the development agency considers a wider cross-section of ground and aerial vehicles. 'We are heavily interested in this area for UGVs,' he said. When questioned on whether he would action any future domestic development of UAVs, he would only admit that KADDB was looking into this area.

'We are testing and playing around with some of these [unmanned] gadgets but they are not fully developed yet in that field, and we are considering joint ventures,' he continued.

Meanwhile, referring to KADDB's development of its 'UGV' and 'Small UGV' programmes, Majali said: 'We have an excellent product there, but now we are trying to bring it down in size and [make it] better in quality.' Developed from start to finish by KADDB, the platform has been designed to carry a variety of weaponry and robotics such as the RPG-32 Hashim anti-tank projectile, for example, which was on show at IDEX.



One of the more visually striking UGVs, Rotundus is being developed under a UAE JV with a Western company. (Photo: Rotundus)

'The use of tele-operated ground vehicles is becoming an established tool for many civil and military applications. The military has and will continue to use a number of ground vehicles to provide mobility, counter-mobility, reconnaissance and survivability support to formations whilst providing protection to their own crews,' a KADDB official said, outlining the UGV's ability to carry a payload of up to 70kg. He said the platform had been driven remotely at distances of up to 1km. The six-wheel vehicle includes day and night surveillance payloads, obstacle detection, skid steering and communication nodes.

On the ground front, Emirates Arab Investments (EAI) displayed the Rotundus UGV at IDEX. Developed in conjunction with Sweden's FMV defence agency and Saab, the UGV forms part of Sweden's Robotic Collaboration Programme.

Dubbed a 'mobile sensor platform', Rotundus is designed to search and secure perimeters at speeds up to 10km/h. Described by an EAI operator as 'very silent', Rotundus carries two cameras and features GPS navigation. He added that it could also be equipped with CBRNE sensors.

Controlled via a game console control joystick, Rotundus can operate for between eight and 16 hours, running on a lithium-ion rechargeable battery. A standard payload

comprises two pan-tilt-zoom cameras for '360° field of vision'. Measuring 60cm in height and 80cm in width, Rotundus has also been proven to operate in temperatures between -30 and 40°C. A source close to EAI said discussions were under way with undisclosed customers in the Middle East, although he was unable to go into more detail.

THROWAWAY CAPABILITY

Elsewhere, Saudi Arabian special forces are understood to be preparing to take delivery of 37 Recon Scout XT UGVs, manufactured by ReconRobotics International. However, sources told *UV* that the Saudi Arabian government had yet to issue a purchase order for the systems, which are currently in use with US forces in Afghanistan.

Recon Scout XT, which weighs a total of 600g, comprises a day camera or IR payload and can be thrown over compound walls or driven into rooms for reconnaissance of an area before troops enter a position. They are accompanied by extending poles, allowing the camera to be handheld over a wall or obstruction. The UGVs can then relay video feed up to 30m indoors or 90m outdoors, according to the company.

However, it appears that in order for the Middle East to continue its journey into the unmanned sector, it must embrace international companies already established in this field. Speaking to *UV* at IDEX, Lockheed Martin Missiles and Fire Control director of international business development Morri Leland echoed this view, describing how the UAE, for one, was exploring 'potential participation' in unmanned solutions – especially ground and air vehicles.

'UAE companies approached Lockheed Martin to proceed with this before IDEX and possible options could include the Squad Mission Support System [UGV], Common Controller, Desert Hawk III [UAV] or Stalker [UAV],' he explained. **uv**