

Streets ahead

While many states in the Middle East have yet to fully access the opportunities inherent in unmanned systems capabilities, one country stands out as being far ahead of the game both in its utilisation of UAVs and the development of technology.

Israel's need for security has been one of the drivers of its development of UAV technology and the Israel Defense Forces (IDF) were an early adopter. In many respects, Israel's defence industry kick-started the UAV sector and many countries continue to rely on technology that was originally imported from Israel.

need to be sensitive to the differences in work practices and relationships.

'Countries in the region are not renowned for using technology cleverly,' one insider states. 'There is a real need to understand exactly what is needed and assist in making sure that they get the most out of the systems you are providing. A lot of support'

Aeronautics Defense Systems, Elbit, IAI and Rafael are all powerhouses in the unmanned systems field. They have been instrumental in equipping the IDF with advanced UAV capabilities that have been proven in a number of combat situations.

Recent conflict in Lebanon in 2006 and Operation Cast Lead in the Gaza strip last year have meant that both the IDF and the Israeli defence industry have gained a lot of hands-on experience with their systems. In fact, many of the engineers and managers that staff Israel's defence contractors are also reserve IDF personnel, and

The increased demand for local co-operation and production also places demands on companies, who say that the days when it was possible just to sell equipment to the region and leave are long gone. Like nations elsewhere, there is now a demand for more local engagement and industrial offsets.

have used the systems that they design and sell on real operations.

It appears that the IDF are now well equipped with all the UAVs they need for current operations, and there are not believed to be any outstanding requirements. Having fulfilled domestic needs, Israel's defence industry is therefore faced with looking at other markets for its goods.

Much Western UAV technology was originally based on Israeli systems and some countries, such as the UK, are still relying on Israeli expertise to kick-start their own UAV development programmes. However, both the US and

For US companies hoping to operate in the region, the issue of technology transfer is a crucial one. Manufacturers like Northrop Grumman are looking at the Middle East as burgeoning export market, and the company has had enquiries from the region about both its Global Hawk platform and Fire Scout.

PAYLOAD PREDICAMENT

According to Gene Fraser, VP unmanned systems, the company believes it can eventually sell its systems into the region, but the key concern will not be the airframes themselves but the sensor payloads they carry. The aim there, according to Fraser, will be to allow customers to select locally sourced or non-US payloads for the aircraft in order to sidestep any technology transfer problems.

Beyond UAVs, the Middle East is also seen as an emergent market for both UGVs and UGVs for broadly similar reasons. In particular, the use of USVs for littoral patrol and security is seen as a real option (see feature on p 21 of this issue), especially when it comes to the protection of strategic infrastructure such as oil and gas fields and pipelines.

The UGV sector is one that there is also conceivably real interest in, although this is likely to mature more slowly. Again, infrastructure and border protection are viewed as the main areas for development. **uv**

SHEPARD'S MAGAZINE AND HANDBOOK PORTFOLIO IN ELECTRONIC FORMAT

NOW AVAILABLE - WITH AEROSPACE-INDEX.COM

Aerospace-index.com
The Civil and Military Aerospace Database

REGISTER AT **AEROSPACE-INDEX.COM**
FOR YOUR FREE CD ISSUE

The advertisement shows a laptop screen displaying a website interface with various magazine covers like 'DEFENCE HELICOPTER', 'ROTORHUB', 'UNMANNED', 'LOW-FARE REGIONAL AIRLINES', and 'DIGITAL battlespace'. Below the laptop, there's a navigation menu with categories like 'A-Z Manufacturer', 'Manufacturers by Country', 'Product/Service', 'Dubai CRPS Exhibitors', and 'Product/Service is... find multiple manuf... particular product ca... specialising in...'. A search bar is also visible at the bottom left.

European countries are now looking to develop independent technologies.

Given this trend and Israel's frosty relationship with its immediate neighbours, its defence industry has looked to expand into emerging markets in sub-Saharan Africa, Asia and South America. India is viewed as a strong prospect, as are countries such as Argentina and Brazil.

Speaking to Elbit Systems at the Paris Air Show, **Unmanned Vehicles** was told that the ambition is to be able to offer products to meet any of its customers' needs. As a result, Elbit, like its main rivals, is looking to develop a

family of UAVs that operate from a common ground control station and can take on a variety of roles.

In the next year, you can expect Israel's UAV industry to become increasingly aggressive in the marketing of its capabilities as it looks to find further outlets for its systems. The hiatus in IDF requirements means that companies will need to find other revenue streams to continue system development.

The other area that Israeli industry has turned its autonomy know-how towards is the USV and UGV markets. The Israeli Navy has been exploring

a number of options in terms of the use of USVs, both for coastal protection and deep-water operations. Several manufacturers, including Aeronautics, Elbit, IAI and Rafael are exploring the USV sector.

As for the UGV sector, there is co-operation between Elbit and IAI in a joint venture (JV) called G-Nius. The JV has developed a patrol UGV known as Guardium and recently announced its expansion into the logistics sector with a new variant of this system. The Guardium LS was displayed at London's DSEi in September and has already undergone extensive trials.



The world's 1st operational autonomous UGV system is ready for action. Now.

Driven by today's most advanced technologies and proven in diverse, real life applications, the **Guardium UGV™** goes anywhere to keep soldiers out of harm's way.

- **Force protection, combat support, urban warfare and HLS**
- **Modular selection of payloads for diverse operational requirements**
- **Common interfaces for seamless integration with user's available C4I infrastructure**
- **Enduring and fail-proof operation in "dull, dangerous and dirty" scenarios**

GNIUS
Unmanned Ground Systems

An IAI & Elbit Systems Joint Venture

e-mail: marketing@g-nius.co.il • www.g-nius.co.il

