

## V-TOL Information Bulletin Summary 2006

**Australia, 04 January 2007.** V-TOL wishes all its global technology partners and customers a happy and prosperous New Year. We look forward to continued growth and success in 2007.

### UAS Flight Operations

During 2006 V-TOL was proud to announce the launch of its Haigslea UAS Flight Operations Area. Located an easy 30 minutes drive west of Brisbane and within RAAF Amberley controlled airspace, the 40km<sup>2</sup> AO is ideal for mini-UAV operations up to 1000ft.



*Aerial view of the V-TOL LRF within the Haigslea UAS Area of Operations*

2006 was also a busy year for the Cyber Bug. In addition to V-TOL Bug Operations in Australia the CDS team has worked continuously to add value by supporting customers and contracts with a number of important demonstrations performed in the US and with NATO troops in Europe. V-TOL UAS business development manager, Peter Hill said 'The Cyber Bugs performed flawlessly time and time again demonstrating their ability to assess air strikes, track targets, follow convoys and provide increased battlefield awareness'.



*V-TOL Staff with Medium sized Cyber Bug at Gold Coast, Demonstrations*

### Cyber Bug Year in Review

- Total incident free flight hours as at December 2006 – 1,560
- Total incident free missions performed – 265
- Successfully hand-launched from a density altitude of 12,500ft
- Ground control station now supports geo-referenced maps allowing controllers to toggle between maps during flight.
- New fail safe mode upgrades including 'minimum height above terrain' function.
- New 'Convoy Following' function allowing Cyber Bug to follow the controller in mobile GCS setup.
- Updated payload software allowing sensors to be locked onto GPS coordinates.
- Optional targeting software allows Lat/Long of targets with an accuracy of 3-5m.
- Optional tracking software allowing payload to track moving or stationary targets.

### **Exercise 'Atlantic Strike' 2006**

Cyber Bug UAVs patrolled the skies over Avon Park, Florida during Atlantic Strike III in March and Atlantic Strike IV in October 2006. The exercises involved working with Air Force, Navy and Marine units with over 700 service members involved. Cyber Bug UAVs conducted numerous sorties to locate snipers, assess air strikes, follow convoys and monitor the battlefield. The Cyber Bug UAS transmitted live video to Joint Terminal Air Controllers and to soldiers on the ground demonstrating its network capabilities.

### **Exercise 'Eagle Rescue' 2006**

Responding to a simulated Hurricane in Naples, Florida a Cyber Bug UAS team successfully located and identified victims stranded on rooftops and lost in swamps. Cyber Bug controllers were also able to guide airboats and rescue teams directly to the victims. The most important objective of the exercise was to share live video. Cyber Bug controllers were able to directly feed their video footage via Internet connections into the Emergency Operations Centre 30 miles away. The exercise was a success and again demonstrated the capability of the Cyber Bug UAS in civil emergency missions.

### **Exercise 'Trial Spartan Hammer 2006'**

Exercise Trial Spartan Hammer, a 12-nation NATO collaborative effort exploring Navigation Warfare scenarios was conducted during November 2006 in western Greece. A variety of sensor payload configurations were carried onboard 3 large Cyber Bug UAVs that were used to collect information in support of signals intelligence and electronic warfare campaigns. A total of 22 sorties were flown with a 100% mission completion rate.

### **V-TOL Successful in CRC-SI Bid December 2006**

Minister for Education, Science and Training, the Hon Julie Bishop, has announced the Cooperative Research Centre Spatial Industries (CRC-SI) that its supplementary bid has been successful. The CRC-SI bid was established to focus and explore advanced tracking and data collection that includes investigating the use of UAV technology in Agriculture and Vegetation Monitoring. Managing Director of V-TOL Aerospace, Mark Xavier said 'CRC-SI has done extremely well to win funding to a total value of \$12.2m of which \$5.4m is in cash including \$2.7m of DEST funding'. V-TOL Aerospace was a part of the bidding team and is a member of the CRC-SI and looks forward to working with CRC-SI members on a number of UAV projects in 2007.

### **V-TOL Launches UATAR Program**

At a small ceremony held in Brisbane V-TOL Aerospace launched its UATAR Program on the 06 December 2006. The UATAR (Unmanned Aircraft Technology Applications Research) program was developed by V-TOL Aerospace Pty Ltd to fill a niche requirement to promote and educate end-users on the capabilities and benefits of UAS technology in a wide range of applications and scenarios. Customers participate in the program through a series of working groups that teams them with principle investigators and UAV products to meet a desired outcome for the customer. Further information on the UATAR program can be found at [www.uatar.com](http://www.uatar.com)

### **V-TOL Opens New Zealand Office**

In August 2006 saw V-TOL Aerospace extend its operations across the Tasman with an office established in New Zealand. Managing Director, Mark Xavier said 'V-TOL representation in New Zealand was a logical choice for us as our products and services are world-class and can add value to a wide range of government and industry groups in that neck of the woods'. For NZ inquires please contact: [brettarthur@v-tol.com](mailto:brettarthur@v-tol.com)

## V-TOL ISR Technology

V-TOL has teamed up with EMX Inc to be the exclusive supplier of EMX ISR surveillance and monitoring products for the ADF and NZDF. EMX has developed an affordable and innovative family of tactical ISR and targeting products for military and law enforcement applications. EMX products have operational military experience and live by the motto "We See in the Dark". V-TOL looks forward to delivering the first EMX capabilities to its market in 2007.



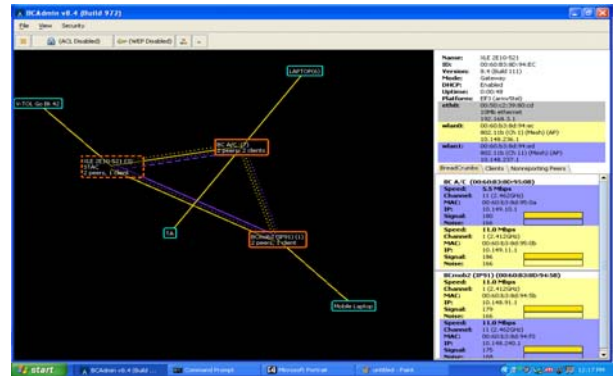
*Black Wolf Standalone ISR provides a unique capability to monitor and observe areas of interest in remote locations with networked enabled technologies*

## V-TOL SWLAN

2006 also saw the launch of a range of Secure WLAN (SWLAN) Meshed technologies in Australia by V-TOL. Designed to enable secure wireless voice, data and video transfer, the V-TOL i-Com product is designed around 802.11 and 802.16 capabilities providing leading edge C4ISR at an affordable price. V-TOL designs and delivers Secure Networked solutions that are customised to support its UAV and Surveillance technologies. The i-com system also affords the ability for SWLAN communications to be maintained while vehicles and troops are on the move.



*V-TOL and Defence personnel conducting i-Com Long Range Bridging Tests. The exercise involved sending and receiving secure voice, video and data transmissions between ground based troops and aircraft*



*i-com intermeshed network capability. The i-com system can be fitted to UAVs, UGVs, and Unattended Ground Sensors and provides a complete networked solution for both local and wide area applications.*

The SWLAN technology stemmed from lessons learnt at the 9/11 tragedy in the US. That incident highlighted to emergency services the requirement for a standalone and rapid communications system to be deployed when existing telecommunications infrastructure was destroyed or is non-existent. The i-com system is self-healing and intermesh capable with the ability to transmit voice, video, and files simultaneously. The system is in use with US forces in IRAQ, Afghanistan and has been called upon on numerous occasions during real-world disasters.

Authorised for release. For Information on any products or stories mentioned contact Peter Hill or Mark Xavier at:  
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