

# UNMANNED

VEHICLES

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**The US Army's  
versatile flying machines**

**French Navy MCM plans**

**Latin America's gradual approach**

## EMERGING MARKETS



Chile's IDETEC Stardust UAV is available with electrical or combustion powerplants.

2,000m. Piloted by remote control on take-off, once in the air it can operate in automatic mode, following a programmed path with up to 1,000 reference points. The M3 is fitted with multifocal and IR cameras and the images are sent to a ground station in real time.

An upgrade to the type's control system is currently being prepared, incorporating developments from the software developed for the more advanced Lipán M4, allowing for fully automatic operation. Work on the M4 is said to be proceeding apace and should be completed before the end of 2010. The new variant has more range, greater autonomy and will be able to operate at higher altitudes. It will be capable of carrying out longer missions in full automatic mode.

Two independent companies also develop and produce UAVs in Argentina. One is Nostromo Defensa from Córdoba, which produces the Yará medium tactical UAV. This type has been sold to the US DoD, which is using it to train new operators, and to Colombia, Chile and Paraguay for civilian applications. With a wingspan of 4m, a range of 20km and autonomy of four hours, Yará can cruise at 100km/h and carry a 7kg payload. The Yará II under development will include a Wankel-type engine running on heavy fuel and featuring electronic injection for extended range, altitude and payload. Nostromo also produces Caburé, a hand-launched light

tactical UAV for over-the-hill observation and surveillance at ranges of up to 10km.

AeroDreams, a company based in Formosa, produces the ADS-101 Strix, sold locally for civilian applications including surveillance of water reserves and forest fire prevention. Another AeroDreams product is the ADS-201 Petrel Jet UAV developed from a target drone, and the firm is also working on development of the ADS-401, a maritime surveillance platform with a range of over 700km.

#### OTHER COUNTRIES

Between eight and ten Insitu ScanEagles were acquired by the Colombian Air Force in 2008, to be used for surveillance in support of counter-drug and anti-guerrilla operations. The presence of UAVs in the service's inventory was revealed in March 2009, after the FARC guerrilla group showed pictures of a crashed ScanEagle allegedly shot down by its forces. The aircraft are operated by Tactical Combat Squadron 613, based at Tres Esquinas in the south-east and by Tactical Combat Squadron 1113, based at Marandua in the north-east.

Chile has plans to acquire tactical UAVs for its army and strategic UAVs for the air force, with RfIs currently being processed by a committee under the Joint Defence Staff. The shortlist and RfPs will be defined by the end of October and winners selected by the end of the year. Surprisingly, in August 2010 Elbit delivered two Skylark Is

to the army at no charge for extended ground testing.

RMS, a company based near Valparaiso with long experience of manufacturing naval target drones, is developing the Mantarraya I experimental UAV in cooperation with the Chilean Navy. IDETEC UAV, based in Santiago, produces the Sirol and Stardust I/II series of light UAVs, which have sold well locally and in countries such as Colombia and Nicaragua. Its aircraft are available with electrical engines for discreet military or law enforcement use, or with combustion powerplants for more economical civilian applications and military training. Wheeled landing gear or skids are also offered as alternatives.

In Uruguay, the Charrua tactical UAV is the result of an effort launched by the army in 2003 to help prevent forest fires and support disaster relief and peacekeeping operations abroad. It started by adapting commercial radio-controlled models and the experience gathered allowed for the design and construction of a UAV fitted with cameras that can transmit images in real time to a GCS. The project is now part of a major programme to develop a C4I system covering the whole of the Uruguayan territory. Further development aims to improve the EO suite and add an automatic operation system.

In Peru, the Ministry of Defence and the National Council of Science and Technology (CONCYTEC) launched a programme to develop UAVs in 2007. The same year, the Peruvian Navy came up with a design called Arpón II – suggesting that there was a previous Arpón I – but nothing was heard about it afterwards. In August this year, the air force and army presented three projects, ranging from 2.7-4.15m in wingspan, with autonomous operation from three to four hours and payload of 2-10kg. The requirements guiding the development of these machines are driven by needs arising from the fight against the last faction of the Shining Path guerrilla group in the Apurimac/Ene river valley area (VRAE). **uv**