

STRATEGIC PLATFORMS PETER LA FRANCHI / MELBOURNE

# Global Hawk could grow winglets

Northrop Grumman considers ways to increase UAV's payload by a third as part of on-going development plans

Northrop Grumman's "Spiral 2" version of the RQ-4 Global Hawk unmanned air vehicle (UAV) will be stretched by 0.9m (3ft), while a new 39.6m-span wing in development could have winglets.

The modifications are the result of US Air Force requirements to increase the Global Hawk's payload by 450kg (1,000lb) to 1,360kg as part of the Spiral 2 development.

The present RQ-4 has a 35.4m

wing span and Northrop Grumman says that the new wing is nearing final design review, with the USAF asking for winglets to be studied as an option for further extending air vehicle endurance.

A variety of configurations have been examined, including a blended winglet.

Northrop Grumman says a final decision on whether winglets will be adopted depends on whether

design studies, due to be completed shortly, demonstrate substantial gains. Final decisions on the wing's form are to be made by the USAF.

Northrop Grumman says the nose section is to be fitted with a 480mm plug, while a 130mm plug will be fitted immediately ahead of the wing leading edge. A 305mm plug will be fitted behind the wing.

Spiral 2 air vehicles will also have improved on-board power supply.

Northrop Grumman says plans now call for a 27kVA main generator, replacing the 10kVA system. Spiral 2 aircraft will also have a 10kVA back-up generator.

The company says ongoing improvements planned for the RQ-4 ground control segment are expected to enable trial control of three air vehicles from a single station. A series of flight trials is being planned for 2004-5.

## FLIGHT TESTING

### France tries out tactical drone system

Sagem has completed initial flight tests of the SDTI "system of intermediary tactical drones", which is derived from the company's Sperwer unmanned air vehicle (UAV).

SDTI will replace Sagem's Crecerelle, which has been in French army service since 1995, and is a precursor for the MCM "multi-charge, multi-mission" UAV programme that is to be developed as part of the French defence ministry's current five-year procurement budget. SDTI deliveries are due this year.

The SDTI differs from Sperwer principally in its data connections with French command, control, communication and intelligence systems.

## LETHAL SYSTEMS

### General Atomics and USAF aim to make Predator more dangerous

General Atomics is hoping to test arm its MQ-9A Hunter Killer (Predator B) unmanned air vehicle (UAV) with Raytheon AIM-9M Sidewinder and AIM-120 AMRAAM air-to-air missiles and AGM-65 Maverick air-to-surface missiles.

The company also wants to explore whether the MQ-9 can be armed with GBU-38 laser-guided bombs and Boeing Harpoon stand-off missiles. Options for a self-defence suite are also being studied.

General Atomics says it is talking to the US Air Force about widening ordnance options for the earlier RQ-1 Predator and the MQ-9. The USAF is already examining fitting the MQ-9 with 16 Lockheed Martin Hellfire anti-armour missiles.

Christopher Dassault, General

Atomics Predator programme manager, says tactics development for armed UAVs is a key challenge as alternative weapons are developed.

Emerging issues include engagement strategies for the use of air-to-

air missiles. "We don't have an onboard radar so we need to be cued. We have to hear that the bad guy is coming in. The main problem is the human-machine interface and the tactics," he says.



Predators could be armed with laser-guided bombs

## ISTAR

### Downselect sparks off Watchkeeper team talks

The two companies eliminated from the UK's Watchkeeper intelligence, surveillance, target acquisition and reconnaissance (ISTAR) programme are discussing joining the two remaining teams, led by Northrop Grumman and Thales UK.

BAE Systems and Lockheed Martin were knocked out of the contest this month. The two shortlisted candidates will receive £9 million

(\$15 million) systems integration assurance phase contracts, lasting around a year. Watchkeeper, potentially worth over £800 million, is intended to provide ISTAR at battle group, brigade and divisional level and will comprise unmanned air vehicles and a system for distributing and exploiting intelligence. The UK targets 2006 for initial operational capability.

Lockheed Martin UK says: "We are exploring a number of options with regard to our future participation in the Watchkeeper programme, but the precise details and scope of our involvement are yet to be determined." The company adds that it has held "constructive talks" with the successful bidders.

BAE is discussing joining the Northrop Grumman team, offering

its "extensive UK modelling and simulation environment". It adds: "Northrop Grumman clearly has lots of smart modelling capability, but they don't have the in-depth UK domain knowledge."

Watchkeeper will be complemented by the Joint Service UAV Experimentation Programme, to assess the wider operational use of UAVs across the three services.