

UPGRADES STEWART PENNEY / LONDON

Lockheed Martin to update Merlin

Company receives \$30 million contract to study capability improvements for AgustaWestland maritime helicopter

Lockheed Martin has received an £18 million (\$30 million) contract to study possible capability improvements for the AgustaWestland EH101 Merlin HM1 maritime helicopter, which will be the backbone for the machine's in-service development.

The Merlin Capability Sustainment Plus (CSP) upgrade will ensure the helicopter's mission system is adaptable, allowing changes to be made faster, says Lockheed Martin UK Integrated Systems business development director Andy Head.

Commercial off-the-shelf systems and an open architecture will be part of the study, says Head. Lessons from the recent war in Iraq are also likely to be considered during the two-year study, he adds. The mission system dates from the late 1980s: Lockheed Martin UK says the processors under consideration for CSP are "3,000 times more powerful" than the existing computers.

Platform changes under consideration include the introduction of the Westland-developed Helicopter Electronic Actuation Technology (Heat) digital flight control system.

Some of the changes will be

"long-term", preparing the Merlin to receive new capabilities beyond the scope of CSP. Other upgrades will be "very rapid", he adds.

Lockheed Martin UK is the prime contractor for the Merlin HM1. Its sister Integrated Systems business in Owego, New York, is leading the US Navy's Sikorsky MH-60R maritime helicopter programme. Head says: "We'll ensure US lessons are learned, although there are no spe-

cific examples yet to draw on. But CSP won't be an MH-60R copy."

Head says Lockheed Martin and AgustaWestland will share the study work and take the lead in their respective areas of experience.

Final CSP approval is planned for 2005, which will be followed by a development and manufacturing phase. The in-service date is nominally 2009, although Head suggests new capabilities will likely be phased

in rather than introduced in one go.

■ The Italian navy's Helicopter Early Warning (HEW) version of the EH101 debuted at Paris. The HEW is equipped with a version of the FIAR APS-784 pulse-Doppler surveillance radar configured for airborne early warning (AEW). The machine is one of four AEW machines on order. The navy has taken delivery of eight maritime helicopters and eight for amphibious operations.

PROCUREMENT BRENDAN SOBIE / SINGAPORE

KHI forges engine manufacturing deal

Kawasaki Heavy Industries (KHI) plans to manufacture Rolls-Royce Turbomeca RTM322 engines in Japan as part of a sale of 14 AgustaWestland EH101s to the Japan Defence Agency (JDA).

The JDA picked the RTM322 over the General Electric T700/T6A1 for its new fleet of EH101s, giving Rolls-Royce Turbomeca its first non-European RTM322 deal.

KHI says the planned sale of 14 EH101s and 42 RTM322s to JDA could lead to further purchases domestically and elsewhere in Asia. The JDA plans to buy the first of 14 EH101s this year as part of a replacement programme for 11 Sikorsky MH-53 mine counter-measures and three Sikorsky S-61 Sea King Antarctic support helicopters. RTM322-powered EH101s will be considered as the JDA looks to replace its fleet of more than 60 Mitsubishi Heavy Industries (MHI)-built Sikorsky H-60s.

Manufacturers expect the JDA to kickstart an H-60 replacement programme in three to five years, but warn budget constraints threaten to slow down defence helicopter procurements. Sikorsky, which last year withdrew a bid with MHI for S-92s, hopes to compete against the EH101 when H-60 replacement is addressed.

KHI plans to begin work on the first Japanese-built EH101 this summer, pending the completion of contract negotiations. The JDA says RTM322 components will be imported, but the engine "is due to be produced in Japan".

Ishikawajima-Harima Industries proposed local production of the T700/T6A1 as part of a bid with GE. Japanese police already operate one EH101 with GE CT7-6A engines and the start of indigenous EH101 production could lead to further non-military sales in Japan.

CRUISE MISSILES

USN studies future Tomahawk warhead choice

The US Navy is studying several warhead options for future variants of the Raytheon Tactical Tomahawk land attack cruise missile, following two recent demonstration flight tests with a kinetic penetrator warhead.

Low-rate initial production of 192 Block IV Tactical Tomahawks is under way, with the first missiles due to enter service in mid-2004 armed with a 450kg (1,000lb) blast/fragmentation warhead. The USN plans an initial purchase of 1,350 missiles, but this is expected to increase to more than 2,000 to replenish stocks following the Iraq war and to allow alternative warheads to be studied.

"The navy is studying where they want to go next with Tactical



Initial production of 192 Block IV Tactical Tomahawks is under way, with first missiles due to enter service in 2004

Tomahawk and the penetrator is one option," says Gordon McKenzie, Raytheon business development manager Tomahawk programme. Other warhead options under consideration include combined penetrator and blast/fragmentation, and different submunitions such as the BLU-97 combined effects bomblet and

BLU-108 sensor fuzed weapon.

The two penetrator tests were funded as an advanced concept technology demonstration using modified Block IV missiles. The programme has so far included two development tests and two ship-launched operational tests.

Two more operational tests are planned, featuring the first vertical

launch from a submarine next month. Operational evaluation is to begin at the end of this year and will encompass another four firings, leading to a full rate production decision by mid-2004. The first test firing of the planned torpedo tube launched version for the USN and UK Royal Navy is planned for late next year.