

DEFENCE GUY NORRIS / LOS ANGELES

First F-35s may be delivered heavy

Critical design review could provide answers for fighter

Lockheed Martin is reviewing options to tackle signs of weight problems with the F-35 Joint Strike Fighter, one of which includes delivering a first batch of aircraft overweight.

The study is being conducted in the run-up to the F-35 Air System critical design review (CDR 1) in April/May 2004 as weight issues continue to dog the baseline configuration.

While most of the open items from last April's preliminary design review (PDR) are now closed, Lockheed Martin says it is "right in the middle of weight review number four" and adds: "It is no secret we've got tough challenges."

Lockheed Martin F-35 programme general manager Tom Burbage says it is unclear whether weight targets will be achieved by CDR. Although less than 15% of the detailed design of the conventional take-off and landing (CTOL) version by structural weight has been "released", Lockheed Martin expects to reach around the 60% mark by early December and "based on parametric estimates that looks good", adds Burbage.

The company is using a parametric process to predict structural weight and gradually converting it to a known-weight through a series of "bottom-up" reviews, beginning

with the CTOL aircraft. After December, the study is expected to include the F-35 short take-off and landing (STOVL) and carrier variants.

If weight remains a problem, Lockheed Martin has the option of an "optimisation design pass". This enables the company to pass initial Block 0/1 flight-test aircraft for assembly at higher than optimum weight to allow flying qualities, flight loads and static tests to begin on time. In addition, "we would know specifically what parts didn't meet the target", says Burbage.

The company is also looking at related options such as an "optimisation design pass" for the STOVL version only, he adds. Lockheed Martin still aims to achieve 80-85% design release by CDR and says first flight of the CTOL remains on track for early November 2005.

Schedule is viewed as a dominant factor for the F-35 Joint Program Office. Program executive officer Maj Gen John Hudson says: "We want to stay on our schedule or close to it."

Some engineers within the F-35 effort are believed to be pushing for a slide in the schedule, estimated at around two to three years overall.

**ADDITIONAL REPORTING BY
STEPHEN TRIMBLE IN
WASHINGTON DC**

DEFENCE JUSTIN WASTNAGE / COPENHAGEN

Teams to talk on subcontracts

Canadian and Dutch industrial teams are to meet their Norwegian counterparts early next week in Oslo to discuss a possible joint bid for Lockheed Martin F-35 Joint Strike Fighter subcontracts.

The three countries are level III participants in the programme, and expect to receive around 1-2% of the total industrial work, valued at around \$250-500 million per country. However, all three countries have fallen behind in the initial schedule for securing workshare.

Denmark and Norway joined the JSF programme under a joint memorandum of understanding with Lockheed Martin stemming from the F-16 Multinational Fighter Programme and hope to emulate Canada's success in the North American market, says Maj Gen Lars Fynbo, deputy chief of staff, material, infrastructure and logistics at defence command Denmark.

Lockheed Martin has signalled that it would welcome level III countries joining together to bid for subassemblies and Børge Witthøft, chairman of the Danish F-35 industrial group JSF-DK, says the three teams aim to identify areas of common expertise so that they can bid for bigger packages.

Briefing

Alcohol implicated in Yak-42 crash

ACCIDENT Investigators of the 26 May Yakovlev Yak-42 crash at Trabzon, Turkey, say at least one pilot and a stewardess had blood alcohol levels well above the permitted limit. The charter flight, operated by Ukrainian-Mediterranean Air, was carrying Spanish troops home from Afghanistan when it crashed during a night go-around after its second attempt to land at the Black Sea coastal airport. Crew fatigue is considered a possible cause, and Turkish and Ukrainian investigators say the cause was pilot error. Spanish press reports say contamination may make the autopsy findings unreliable.

UK awards PFI military satellite contract

CONTRACT EADS is to provide satellite communication services for the UK military under a £2.5 billion (\$4.2 billion) private finance initiative (PFI) deal. The UK Ministry of Defence's contract with the Astrium-led Paradigm consortium will use capacity on the Skynet 5 defence satellite system, which will take over the Skynet 4 constellation.

CAE contests US Army training loss

APPEAL Canadian training systems developer CAE is appealing against a US Army decision to award a C\$1 billion (\$760 million) contract for Flight School XXI to train helicopter pilots to an all-American consortium of companies. The appeal follows a debriefing by US military officials informing CAE why the contract was awarded to a rival consortium led by Computer Sciences, and CAE has filed the debriefing with the US General Accounting Office (GAO). CAE teamed with Boeing and says its bid was 16% lower than that of Computer Sciences. The complaint was filed on 7 October, and the GAO has 100 days to make a decision, although an overturn is considered unlikely.

General Dynamics turns down BAE merger

CONSOLIDATION General Dynamics has ended merger talks with BAE Systems, but a US merger is still a possibility for the UK company. BAE chief executive Mike Turner has long sought a US merger to reap benefits from Pentagon spending, but a team from General Dynamics left the UK last week after refusing to consider a tie-up, say sources close to the negotiations.

Bell to remanufacture H-1s

UPGRADE The US Department of Defense has approved Bell Helicopter's H-1 upgrade programme, with low-rate initial production to be launched this year. The go-ahead by the Defense Acquisition Board signals the revival of the \$6.2 billion programme, which had nearly been cancelled due to cost and schedule lapses. Bell is authorised to remanufacture six UH-1N and three AH-1W helicopters to UH-1Y and AH-1Z configuration in fiscal 2004.

Directory call

ENGINES The deadline is looming for free inclusion in the *Flight International* 2003 engine directories. The directories – to be published on 2 December 2003 and 20 April 2004 – cover civil and military turbine engines from 1,900hp (8.5kN) and upwards (turbofans) and from 400hp (300kW) and 11,400hp (turboprop/turboshafts). The directories do not cover companies that only provide overhaul or parts maintenance. Contact Fabrice Tacoun at *Air Transport Intelligence* for a reply form. Tel: +44 (0) 20 8652 3847; Fax +44 (0) 20 8652 3898 or email: fabrice.tacoun@rati.com

Farewell Concorde

RETIREMENT The Aerospatiale/BAC Concorde was finally retired from commercial service last week after more than 27 years of operations for Air France and British Airways. Three BA Concordes touched down at Heathrow on Friday afternoon to complete a week of "farewell" flights to UK capital cities as well as the final transatlantic crossing from New York's Kennedy airport. Even as the last flights landed, however, Virgin Group chairman Sir Richard Branson continued to discuss potential future operation of the aircraft by Virgin Atlantic Airways.