

DEFENCE GRAHAM WARWICK / WASHINGTON DC

Rand warns USA of waning design skills

Report highlights need for major programme launch

US industry could lose its ability to design manned combat aircraft within 10 years unless another major programme is launched, warns a report by research organisation Rand. Conceptual design skills are beginning to atrophy as the Joint Strike Fighter moves into detailed engineering, says a Congressionally directed study into competition and innovation in the US military fixed-wing aircraft industry.

The Rand report was ordered by Congress in the wake of the winner-takes-all JSF contest, to provide policy options to maintain the capability for more than one US company to design and produce military aircraft. Based on currently funded programmes, the report finds that research and development funding will fall below the minimum required to maintain a viable military aircraft design team at Boeing in 2006-8, at Northrop Grumman in 2008-10, and at JSF developer Lockheed Martin two years later.

Planned commercial aircraft derivatives, such as a Boeing 767-based aerial refuelling tanker and multi-sensor command and control aircraft, and unmanned air vehicle and combat air vehicle (UAV/UCAV) programmes "will be insufficient to sustain the current industry structure and capabilities beyond this decade," says the report.

Co-production of the F-35 JSF would be "expensive and does little to directly support design and development skills", says Rand, which backed the winner-takes-all strategy in a 2001 report.

"UCAVs and tankers will not do the job. We need another major combat aircraft start," says senior analyst John Birckler. "Already conceptual designers are out of work. There are just a few hundred of them, working on relatively small jobs." The special skills needed to design manned combat aircraft are at risk, he believes. A new long-range strike aircraft project would provide adequate funding to sustain all three contractors to 2020, but would cost \$30 billion for development and \$50 billion for production of 100 aircraft, the report says.

Alternatively, the US Department of Defense could fund a series of technology demonstrators to keep design teams intact. X-plane projects would have to be funded at a much higher level than today, at up to \$500 million a year, to ensure all three primes remain viable. This option would help sustain competition and innovation in the USA, but is not a complete solution, says the report, as it does not address development and production.

Boeing has no intention of abandoning its fighter design expertise, says George Muellner, senior vice-president of air force systems. Loss of the JSF to Lockheed Martin refocused the company on UCAVs and long-range strike concepts. The design team remains largely on the payroll. "The design engineers who worked the JSF have all been applied to other programmes...like FCS [Future Combat Systems]," he says.

**ADDITIONAL REPORTING BY
STEPHEN TRIMBLE**

GENERAL AVIATION

CAA allows breathing systems

The UK's Civil Aviation Authority has chosen not to mandate or ban the use of emergency breathing systems (EBS) on UK helicopters flying over water after a preliminary study, electing to make individual operators responsible for the devices.

Systems are in use on helicopters flying to offshore North Sea locations, but the equipment falls under employer safety liability regulations and is neither mandated nor approved by the CAA. The system provides a short air supply, usually about 60s, which gives helicopter passengers and crew time to escape from a submerged or capsized helicopter in the event of a crash or ditching in water.

Briefing

CASA to be headed by Bruce Byron

REGULATION Bruce Byron has been appointed chief executive and director of aviation safety at Australia's Civil Aviation Safety Authority (CASA). Byron replaces Mick Toller who left the authority in August, and the appointment comes with a restructuring of CASA which makes it more accountable to the transport department. Byron is a qualified pilot, instructor and examiner who has held positions at the Royal Australian Air Force Central Flying School, the former Bureau of Air Safety Investigation and the Department of Aviation. He was critical of CASA's performance in his most recent role as chairman of the Aviation Safety Forum, particularly over civil aviation safety reforms.

Air Arabia takes flight

START-UP The Gulf's first low-cost airline, Air Arabia, launched services from Sharjah, United Arab Emirates, last week. Air Arabia's first flight was to Bahrain, and it will serve Beirut, Lebanon; Damascus, Syria; Kuwait and Muscat, Oman. Owned by the Sharjah government, Air Arabia will emulate other low-cost carriers by selling tickets on its website and charging for in-flight meals. Its two ex-Air Malta Airbus A320s, leased from International Lease Finance (ILFC), will be joined in February by four new A320s, also from ILFC.

British Airways keeps Eddington

BOARDROOM Rod Eddington is to stay on as chief executive of British Airways after his contract expires next year, and says he is in no rush to seek a merger to match the Air France-KLM deal. Next year Eddington will move to a 12-month rolling contract. Responding to the Air France-KLM merger, Eddington is sceptical of the near-term benefits, saying that "both airlines have made a certain commitment not to pursue [labour] synergies. We don't have deal fever," says Eddington, who adds that BA's main focus is on its restructuring, which has led to a headcount reduction of 11,000 over the last two years.

Pre-production Predator B flies

FIRST FLIGHT The first pre-production General Atomics Aeronautical System Predator B unmanned air vehicle has flown from the company's flight operations site in El Mirage, California. The Honeywell TPE331-10 turboprop-powered UAV first flew in prototype form in 2001 and was developed into the extended wingspan, high-altitude Altair for NASA. The US Air Force ordered two production Predator Bs for delivery as MQ-9 Hunter Killers from this month, but it is not known if this schedule can be maintained.

Virgin Blue prepares for flotation

PRIVATISATION Australian low-cost carrier Virgin Blue will lodge a prospectus with the Australian Securities and Investments Commission by 10 November, for its initial public offer of shares. Shareholder Patrick Corp says the offer will involve new shares to raise A\$400 million (\$280 million), while fellow owner Virgin Group will sell part of its shareholding. Patrick intends to retain a shareholding of no less than 45%. Virgin Blue expects to make a profit of A\$150 million for the year to 31 March 2004.

Alitalia to axe 1,500 staff in restructure

JOBS Italian flag carrier Alitalia is to axe 1,500 staff as part of its restructuring plan. The board forecasts an operating loss of around €410 million (\$480 million) this year, almost four times last year's figure of €118 million. The airline says it needs to spend €1.2 billion in modernising its fleet, a sum that will be met through the job losses, outsourcing and fresh investment.

XCOR completes X-Prize application

LICENCE California-based XCOR Aerospace, maker of the EZ-Rocket, is the first X-Prize contender to "sufficiently" complete an application for a launch licence, says the US Federal Aviation Administration. The agency has until April to approve or deny the application, perhaps trumping a rival bid by the White Knight/Space Ship One concept unveiled last spring by Burt Rutan's Scaled Composites.