



Thomson-CSF offers MiG-29 upgrade

THOMSON-CSF has joined with MIG MAPO to offer new avionics and sensors for upgrading MiG-29 fighters and MiG-29UBT strike aircraft. The equipment includes the RC-400 radar system and the CLDP laser electro-optical targeting pod. The upgrade is intended for export customers which prefer a Western radar to Russian systems, such as the NO-19.

The radar, which is similar to the company's RDY system in service with the French air force, is under flight test and is scheduled to fly in a MiG-29 next year, says Thomson-CSF's Gerard Le Bretton. RC-400 is a monopulse radar with slotted array antenna, with all aspect look-up and look-down air-to-air and air-to-surface modes. The lightweight radar weighs 130kg (290lb), has multi-target engagement capability and a detection range of around 90km (50nm). The upgrade package is one of several now starting to be offered by various Western companies.

MAPO and Thomson-CSF have also fitted the CLDP laser designator pod to a MiG-29 for a trial. The system would be a likely candidate for the two-seat MiG-29UBT strike aircraft, which has been displayed with a variety of television and radar guided air-to-surface weapons but as yet has no radar or other sensors suitable for such weapons. The pod, which is available in either TV/laser or TV/infrared options, is yet to be flown on a MiG-29. □

NEWS IN BRIEF

■ 737 ORDER BOOST

GATX Capital has boosted its Next Generation 737 orders to 15 with a deal for five 737-800s. SAS has also ordered Next Generation 737s, exercising nine options from a 1995 deal and adding five more as it seeks to modernise its fleet. The orders are for -600s, -700s or -800s. The airline has a total of 55 firm orders and 40 options for the NG series.

First Comanche radar bids go in

NORTHROP Grumman and Raytheon have placed early bids for a new fire control radar (FCR) for the Boeing Sikorsky RAH-66 Comanche armed reconnaissance/attack helicopter. Further bids are expected.

According to Boeing, the US Army is proposing to include the radar in production Lot 1, rather than Lot 5 as originally planned. The army recently decided to run a new radar competition rather than sticking with the Northrop Grumman/Lockheed Martin Longbow radar used on the AH-64D Apache.

Boeing says it is proving cheaper and easier than expected to produce an improved FCR, so the army has now decided to introduce the equipment early.

The Comanche, in the shape of the second prototype, was on display for the first time outside the USA at the show.

The first prototype Comanche has flown 105h to date, and is undergoing inspection at Sikorsky's West Palm Beach, Florida, site. Flight testing will resume at the end of September, said programme manager Brig Gen Joe Bergantz at the show.

Prototype two, which has yet to fly, will be used to validate the Comanche's mission equipment package (MEP), including the mission computer and navigation, communications and identification systems. Most recently, the aircraft has been used for maintenance trials, timing the removal and replacement of critical compo-



Comanche made its international debut at the show

nents, and the test team is due to begin flying in April 1999.

Six more pre-production test aircraft are to be built and delivered from 2003, with deliveries at a rate of one every two months. Prototype number four will be the radar test aircraft, says Bergantz, adding that the current, revised delivery schedule - 14 months later than originally planned, will allow the pre-production aircraft to be equipped in a "production-representative configuration" with the full MEP.

Bergantz says that he hopes three of these aircraft will participate in a series of exercises in 2004 called Force XXI, which will be aimed at testing the concept of the digital battlefield.

The first eight production aircraft, two of which will be radar-equipped, will be delivered for operational evaluation trials in 2004 and 2005. These Comanches

will become operational in 2006.

According to army test pilot Chief Warrant Officer John Armbrust, flight tests to date have been carried out using the lowest levels of stability augmentation in the flight control system. The highest level tested to date is the mission primary flight control system, in which handling qualities "comparable to existing fielded systems" have been demonstrated.

The aircraft has been flown at forward speeds up to 172kt (320km/h), rearward at up to 70kt, 75kt to the left and 65kt to the right. The US Army has a requirement for 1,292 helicopters, which Bergantz says could be purchased over 20 years.

Bergantz says that international partnerships may be possible after the US Government commits to buy the helicopter in 2000, although "issues of technology transfer...have to be dealt with". □

Oman Air adds ATRs to aid regional expansion

OMAN AIR has concluded a deal for up to six ATRs to enable it to expand its regional operations.

The Muscat-based partially privately owned airline has placed firm orders for two ATR 42-500s with options on four more, which can be taken as the larger ATR 72-500. The two firmly ordered aircraft will be delivered later this year, with the options due in 1999.

Oman Air general manager Clive Raymond says that the ATRs will be used to expand services from

Muscat to various points in the region including Dubai and Abu Dhabi. "We are also planning to remove the seats and use the aircraft as freighters at night," says Raymond. Four Fokker F27s are now operated on the airline's regional network.

The carrier is also adding two secondhand Airbus A310-300s on lease from International Lease Finance, which Raymond says will replace two of three A320s now operated on lease. "Two A320 leases expire next year, and these will be

returned to Orix," he says, adding that a third aircraft is due to return in 2000. This may be terminated early and replaced by a third A310.

Raymond expresses his desire to establish some form of ATR regional support centre in Oman, which could eventually include training and maintenance facilities. The airline has recently concluded an agreement with Abu Dhabi-based Gulf Aircraft Maintenance (GAMCO) to set up a joint venture maintenance operation to support its expanding fleet. □