

DEPLOYMENT

Allies add strength to US Gulf air fleet

UK quadruples strength in region while Australia also contributes squadron of fighters to build-up for possible conflict

Australia and the UK are to deploy significant numbers of aircraft to the Gulf as part of the build-up to a possible US-led attack on Iraq. The USA has already committed significant numbers of aircraft.

The number of Royal Air Force aircraft is to increase to around 100. Typically, there are 25 RAF air-

craft participating in the Northern Watch and Southern Watch "no fly" operations over Iraq.

Deployed aircraft will comprise Panavia Tornado GR4As and Sepecat Jaguar GR3s for reconnaissance; air defence Tornado F3s; BAE Systems/Boeing Harrier GR7s and Tornado GR4s for offensive mis-

sions; Boeing Sentry AEW1 airborne command and control platforms; Lockheed Martin C-130 Hercules transports; and BAC VC10 and Lockheed TriStar in-flight refuelling tankers. The RAF is also contributing 27 Boeing Chinook HC2/A and Westland Puma HC1 support helicopters.

Defence sources say around three-quarters of the fixed-wing fleet will be combat aircraft and the rest support platforms. The UK Ministry of Defence declines to reveal where the aircraft will be based, but combat aircraft supporting on-going operations are based in Bahrain, Kuwait, Oman, Saudi Arabia and Turkey, and Thumrait in Oman.

Australia, meanwhile, has committed 14 Boeing F/A-18 Hornets and three C-130 Hercules aircraft. It has also earmarked CH-47s to support Australian special forces in the

region. The Australian and UK forces will bolster the 113,000 US servicemen already there.

The US Air Force has almost 300 aircraft located around Iraq, with Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates hosting USAF aircraft. Deployed aircraft include Boeing F-15C, Fairchild A-10, and Lockheed Martin F-16CJ fighters; Northrop Grumman E-8 JSTARS airborne ground surveillance platforms; Boeing KC-135 tankers; C-130s; and Rockwell B-1 and Boeing B-52 bombers.

The US Navy has three carrier battlegroups and seven amphibious assault ships deployed. The US Army's XVIII Airborne Corps is in the region equipped with Bell OH-58 scouts, Boeing AH-64D Apaches and CH-47s and Sikorsky UH-60 Black Hawks.



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The UK is sending Tornados for strike and reconnaissance duties in the Gulf

AIR-TO-AIR MISSILES

IRIS-T set for series production as Germany gives green light

The German government has given the go-ahead for series production of the BGT IRIS-T infrared-guided air-to-air missile. Spain has also joined the programme, replacing Canada, which decided not to participate.

BGT, which is leading a six-nation consortium, says following the German parliament's approval of the memorandum of understanding (MoU), series production investment and missile acquisition, the five other nations are now working to approve the MoU for production.

The German company says a final contract signature is expected in April and that production will be worth around €1 billion (\$1.07 billion).

Greece, Italy, Norway and Sweden, in addition to Germany, have been developing the missile for several years. BGT says Spain has selected the IRIS-T and that Spanish companies ICSA and Sener will join the programme. Spain was seen as key as it provides the opportunity to integrate IRIS-T on to the Boeing F/A-18 Hornet fighter.

The missile will also equip the Eurofighter Typhoon, Lockheed Martin F-16, Panavia Tornado and Saab/BAE Systems Gripen.

MISSILE DEFENCE

USA to upgrade UK radar site

The UK government has agreed to a US request to upgrade a ballistic missile early warning radar at RAF Fylingdales in northern England as part of Washington DC's missile defence programme.

UK defence secretary Geoff Hoon says the upgrade "essentially comprises computer hardware and software modification, and involves no new development or change to the external appearance or power output of the radar". The upgrade does not commit the UK to any greater participation in the US missile defence programme, adds Hoon.

PROPULSION GUY NORRIS / LOS ANGELES

JSF engine speeds up

The Pratt & Whitney-led F135 Joint Strike Fighter (JSF) propulsion system team has completed Phase 1 risk-reduction tests and is preparing for a quick-fire succession of crucial programme milestones for the conventional take-off and landing (CTOL) and short take-off and vertical landing (STOVL) versions over the next 14 months.

The 10-month risk reduction tests focused on the basic reliability of the engine as well as validating several new design concepts developed for the F135 production configuration. The tests pave the way for the manufacture of 32 production compliant engines for the JSF system development and demonstration (SDD) phase, 20 of which will be flight-test engines.

"We're cutting chips," says F135 engine programmes vice-president Tom Farmer. "We are developing our manufacturing process concurrently with the development of the ground-test programme."

A key modification being tested is a revised lift-fan clutch for the STOVL variant, scheduled for a

major SDD-phase test in June. The first production-standard hollow, wide-chord blades for the lift fan, manufactured by Rolls-Royce, will, meanwhile, be tested as a complete set in December. The first full STOVL test engine is due to be run in April next year.

A critical design review to set the production configuration for all variants is scheduled for May, preparing the ground for the first CTOL test engine in October this year. The third flight-test engine is scheduled for delivery to Lockheed Martin for installation in the first CTOL aircraft in the fourth quarter of 2005. The first flight-test engine for the initial STOVL Lockheed Martin F-35 is set for delivery in the first quarter of 2006.

Successful evaluation for the SDD phase depends on the use of a set of test facilities developed specifically for the STOVL version. These include a 29,800kW (40,000hp) electrically powered lift fan test site due to start operations in November, and a test stand to measure thrust loads in the hover mode.