

# Australian army floats joint amphibious helicopter need

PETER LA FRANCHI/CANBERRA

**T**HE AUSTRALIAN Army's most senior aviation policy adviser has proposed replacing the Royal Australian Navy's (RAN) Westland Sea King helicopters with a new generation rotary-wing aircraft to provide improved support for amphibious operations and special force missions.

Brig Robert Walford, commanding officer of the Australian Army Aviation Support Group, says the machines could also perform specialist aeromedical evacuation, and combat search and rescue roles.

Addressing the Australian-Pacific Vertiflite conference in Canberra, Walford said Australian Defence Force amphibious force structure plans call for the use of Army Sikorsky S-70 Black Hawk and RAN Sea Kings, but neither is optimised for the role.

He says the army plans to buy a further squadron of Black Hawks to meet an airlift shortfall for land-based operations. That shortfall, however, is set to increase significantly between 2006 and 2008 following the retirement of Australia's Bell UH-1H Iroquois fleet.

One option, says Walford, is to use the development of Australia's amphibious capability to explore "innovative" solutions. "In my view, we need something different



RAN Sea Kings could be replaced with dedicated amphibious machines

to the Black Hawk and something different to the Sea King. If we were to lease, buy or have a privately funded initiative that delivered an aircraft that provided optimum support for our amphibious capability and our special operations capability...that would release approximately 10 Black Hawks back into the air mobility capability."

This would give the army two air mobile squadrons as well as a special operations and amphibious support capability, he says. But there would be a cost in establishing the new capability, possibly in conjunction with the RAN.

Last month, the head of the RAN's Amphibious and Afloat Support Fleet Element Group, Capt Allan du Toit, told the ADF's amphibious warfare conference that in the short term, Australia

needs to optimise its assets as an interim amphibious capability, "but we have really got to start looking now as to where we take that aviation capability in the future, and have an aircraft which is well suited to the amphibious role".

The RAN operates seven Sea Kings, which received a mid-life upgrade between 1996 and 1998 and are due to be phased out of service around 2008.

■ Australian defence minister John Moore and US defence secretary William Cohen have signed a defence co-operation deal designed to boost the industrial links between the two countries.

Moore says the deal will give Australia greater access to US technology. Other areas covered by the agreement include harmonisation of military requirements and research and development. □

## EADS aims to use Eurofighter to flight test EJ2000 nozzle

**E**ADS (EUROPEAN Aeronautic Defence and Space) and ITP are exploring the use of Eurofighter prototype DA1 to carry out flight tests of the Spanish engine company's Eurojet EJ200 thrust-vectoring nozzle from late 2002.

Meanwhile, bench testing of the nozzle on an EJ200 mounted in an altitude chamber at Stuttgart technical university in Germany has been completed successfully.

Daniel Ikaza, ITP project manager nozzles, says funding is being sought for a Eurofighter test programme that could involve DA1, which is to complete its flight development duties in about two years. Another possibility would be to use a production aircraft from a customer nation, he says.

The Spanish engine manufacturer has stepped up its marketing to convince the four customer nations of the benefits of thrust-vectoring, particularly throughout the "normal" flight regime.

"We can't wait for a customer to come knocking on the door - we have to provoke a flight test programme," says Ikaza. "We are now at the point where the next logical step is a flight demonstration."

The EJ200 is also the leading powerplant candidate for EADS' planned Mako advanced trainer/light attack aircraft. Ikaza says the airframe company is discussing the option of thrust-vectoring with potential customers because there could be a requirement for thrust-vectoring-equipped trainers if the system is adopted for fighters.

The Stuttgart altitude tests comprised 22 engine hours during 18 runs over 10 days and were designed to simulate "representative points throughout the Eurofighter envelope", says Ikaza.

These exercises included tests to validate the potential of thrust-vectoring to improve Eurofighter's "supercruise" capabilities at speeds of up to M1.4. "It will make life much, much easier for supercruise," says Ikaza.

The bench trials were also used to validate the MTU-developed integrated thrust-vectoring control system. □

## USN's Theatre Wide ballistic missile fails test

**T**HE LATEST test of the US Navy's Theatre Wide (NTW) ballistic missile defence system failed on 14 July because of an undetermined malfunction.

The Aegis LEAP Intercept (ALI) Flight Test Round (FTR-1) flight test was conducted in the mid-Pacific from a USN Aegis-class cruiser. It was the first risk reduction flight of the Raytheon Standard Missile-3 (SM-3) with a new third stage rocket motor and

the second flight in the ALI series.

The USN says the SM-3 missile performed normally during launch until the malfunction occurred. Flight data is being analysed.

The first ALI flight test last September met all mission objectives. The test series will culminate in the planned intercept of a theatre ballistic missile target in the exoatmosphere.

The three-stage SM-3 missile carries a kinetic "hit-to-kill"

warhead called LEAP (light exoatmospheric projectile). The NTW is designed to intercept medium- and long-range missiles while the Navy Area system, which uses a modified Standard SM-2 surface-to-air missile, would be used against short- and medium-range ballistic missiles.

NTW would supplement the proposed National Missile Defense system. All Aegis cruisers should have NTW by 2010. □