

AIR 9000 PHASE 8

Australia's military helicopter acquisition program sustained a massive blow with cancellation of Seasprite. It cannot afford another fiasco. Yet there are worrying signs that the current project to buy helicopters for the Navy and Army, known as Project Air 9000, may be about to follow a similar path. The problem is the widespread belief that a common airframe should be a determining factor. However, this may be a dangerously narrow approach.

Project Air 9000 Phase 8, Future Naval Aviation Combat System, is Defence code for replacement of the S70B Seahawk in current service and the cancelled Seasprite project. Defence White Paper 2009 indicated that as a matter of urgency the Government would acquire at least 24 new naval combat helicopters. The new aircraft would be required to possess advanced anti-submarine capabilities along with an ability to fire air-to-surface missiles.

While the name Seahawk covers a very large fleet of naval helicopters, the S70B in RAN service is an orphan that is becoming difficult to maintain. The S70B was a commercial acquisition acquired to meet a unique RAN requirement.

DMO has been assessing available solutions since at least 2006 when responses to a Request For Information were submitted by at least two contenders: EADS with NH-90 and Sikorsky with MH-60R. This RFI was followed up in 2008/9 by requests for Price and Availability and Pricing for 10 years' Through Life Support. This is consistent with the increased rigor for cost information prior to Government approval mandated in recent acquisition reforms. It also enables the Government to make an accelerated decision based on the best available data. The challenge for Defence remains a balance between certification of the mission system for RAN (including coalition) operations, certification of the aircraft for operations from RAN (and coalition) ships, logistics support for the aircraft and mission system and the transition risks from the current fleet to the new helicopter. Recent history suggests certification and integration into the broader Defence capability are often underestimated by both Defence and the system provider.

Recent commentary in the Australian press has focused on potential logistics savings from a 'common fleet of helicopters' and potential local industry benefits from the two candidates. These are both important considerations but should not be considered the only differentiators. The Defence White Paper noted an urgent capability requirement must be filled and any analysis of options must consider cost, risk and capability impact of each candidate with this in mind.

The two options have very different risk profiles at this point. The MH-60R has a certified mission system, is cleared for operations from USN frigates and has a communications system that is fully compliant with existing US, Australian and coalition information environments. The NH-90, drawing on the experience of the MRH-90, has a detailed development schedule that could be considered a 'spiral development' for fielding of a full maritime helicopter capability. The NH-90 has achieved significant progress on development of the maritime mission system but is still several years away from a certified design comparable with the level of capability delivered by the existing RAN Seahawk fleet. The NH-90 will also require clearance

for operations from RAN frigate decks, a not insignificant task that will test the resources of the RAN and DMO. By way of comparison, it was nearly four years from the time the MH-60R mission system was certified to the first operational deployment on a USN ship, despite all the shipborne clearance and certification data that could be used from earlier Seahawk variants. Commencing this process for the NH-90 as first-of-class approvals for the FFG, ANZAC and AWD/F100 would be a courageous undertaking. The estimate for certification of MH-60R for operations from RAN frigates is 12 months given the work completed for USN MH-60R certification and the existing RAN S70B certifications.

The increased size of the NH-90 will provide a greater utility capability than the MH-60R, but this remains a secondary capability for the embarked helicopter. Recent Senate Estimates hearings suggest the increased size of the NH-90 may create a need to modify RAN ships that were designed to operate with Seahawk-sized helicopters.

The final capability risk issue that should be highlighted is integration of the mission system into the Australian, US and coalition information environments. The European radios and datalinks in the ARH and NH-90 aircraft were identified as a risk for the level of integration into the necessary Australian, US and coalition information networks. As a result the Armed Reconnaissance Helicopter and MRH-90 were fitted with US ARC-210 radios. The NH-90 will also require a similar modification for Australia. As the radios are a key part of the NH-90 mission system and the basis of how it will exchange information with RAN ships and other ADF/coalition assets, it will require the mission system software to be fully compatible with a US radio similar to the ARC-210, not just the European radios that are currently the baseline for the NH-90.

An important consideration for Government will be the industry plans associated with each proposal and the balance between industry proposals and the operational capabilities provided. The sunk cost of current Australian Aerospace industrial capability together with the proposed additional 500 jobs (Australian 18Sep09) would have to be weighted against the \$1.0b Australian Industry Plan announced by Sikorsky (DIAR.com e-Newsletter No 33). Experience with the F/A18A/B program has shown the industrial capability developed for the Australian market alone does not necessarily lead to a long term industrial capability.

Without access to fine grained or classified data, the Williams Foundation is unable to make any recommendation on which aircraft type would best meet Australia's requirements. However, the Williams Foundation is concerned that, in public fora at least, undue emphasis has so far been given to the benefits of fleet commonality without balancing those perceived benefits against the potential loss of capability accompanying selection of platforms which compromise capability specifications. A comprehensive and balanced analysis of the contenders is required.

Note:- Lockheed Martin is a sponsor of the Williams Foundation, three Board members are associated with Rolls Royce, General Electric and Thales Australia respectively.