A Sea King HC4 from 846 NAS operating in Iraq. This is one of four aircraft being upgraded to the HC4 (Plus) standard.
(Photograph: Patrick Allen)

UK’s Commando Helicopter Force deploys to Afghanistan

By Patrick Allen

This autumn will see 846 Naval Air Squadron (NAS), part of the UK’s Commando Helicopter Force (CHF), deploy to Afghanistan for the first time, operating a number of its newly upgraded AgustaWestland Commando Sea King HC4 (Plus) variants, equipped with Carson composite main rotor blades, the AgustaWestland composite five-bladed tail rotor developed for the Indian Sea King programme and the Elbit Systems Digital Night Vision Goggle (D-NVG) package.

846 NAS, along with 845 NAS, had been operational in Iraq since 2003, working within Joint Helicopter Force (Iraq) in support of MND (South East). 846 NAS withdrew from the country in March 2007 in order to prepare for its next deployment, leaving 845 NAS to continue the CHF’s considerable commitment to this theatre.

The requirements of the Afghan mission have led to a performance-enhancing upgrade to the Sea King HC4 (Plus) standard and also to pre-deployment training for the 45 squadron personnel.

846 NAS will operate as part of the Joint Helicopter Force (Afghanistan), working alongside Army Air Corps Lynx AH7s and Apache AH1s, and RAF Chinook HC2s. The squadron will deploy its Sea Kings to provide helicopters for 24-hour daily tasking.

An aircraft will take over from the Chinook HC2 permanently assigned to the Immediate Response Team (IRT), providing 24-hour medical evacuation. Both 845 NAS and 846 NAS have been operating IRT aircraft in Iraq and, previously, Bosnia for a number of years, and their crews are well versed in this role. The Sea King can carry at least three stretcher cases, plus two medics and a doctor. Other HC4 (Plus) helicopters will be available for tasking, working alongside RAF Chinooks operating in support of UK and ISAF operations.

The retrofitting of the Carson composite main blades and AgustaWestland composite five-bladed tail rotor provides the Commando Sea King HC4 (Plus) aircraft with an increase in lift capacity equivalent to an additional eight troops. The estimated improvement in performance is about 2,000 lb (907 kg) of additional lift and an increase in Vmax (do-not-exceed velocity) of up to 15 kt throughout the flight envelope. This will be invaluable when operating in Afghanistan.

The addition of the Elbit Systems D-NVG package, with the head-up display of engine, flight and navigation information through the goggles, provides much better situational awareness and flight safety when operating in low light levels. This will enable the pilots to fly with eyes out of the cockpit during high workloads in low light, instead of having to scan the cockpit instrument panel. The 846 NAS Sea King HC4 (Plus) aircraft have already been equipped with the D-NVG system, and crews have undertaken a training package at their home base at RNAS Yeovilton, Somerset, UK.

Over the past few months, QinetiQ has been conducting a series of trials with the Carson blade technology at Boscombe Down, Wiltshire, using its Sea King HAS5 helicopter to obtain baseline data. Final hot-and-high trials were conducted in the USA in July 2007.

With the trials completed, 846 NAS’S aircraft are due to be retrofitted with Carson blades and the five-bladed tail rotor, following which they will undertake a main rotor blade-fold check, then be loaded onto air transport to be flown to Cyprus, where the squadron will undertake its final pre-deployment training package before beginning operations in Afghanistan in the early autumn.