MILITARY HELICOPTERS

WESTLAND

Lynx family

gets tougher
While the impressive performance of Westland helicopters in the Falklands War has yel to produce new export orders, the company reports increased interest in its products at a time when the military helicopter market is stagnant.
Westland believes that Falklands ex-perience confirmed the reliability and robustness of the Sea King and Navy Lynx, but raised doubts about the sur-vivability of light helicopters such as the Gazelle. This validates plans to develop Army Lynx into a survivable all-weather battlefield helicopter, the company argues. Sales of Army Lynx have been disappointing, Westland admits, giving as a reason the helicopter's high price at a time when customers were content with less anti-tank capability at lower cost. But the advent of the AH-64 Apache has changed the shape of the attack helicopter market, Wr

estland believes. Lynx is no
longer the most expensive option, and its anti-tank capability still compares favour-ably with Apache.

Army Lynx needs a new image, how-ever. The market has moved up to meet Lynx, but Lynx must move up market to compete, Westland argues. Night-fighting capability and new-generation weapons demand a larger helicopter able to carry the weight of sensors and armament and to survive.

Lynx 3 is designed to this philosophy. An uprated dynamic system enables the helicopter to operate at weights up to 12,0001b and to carry almost any combina-tion of sensors and armament. Rolls-Royce Gem 60 engines provide hot-day, high-altitude performance, composite rotors with special tips increase lifting capacity by 20 per cent, and Westland 30 tail boom and tail rotor cope with the extra torque.

Ground mobility at the increased weight requires wheeled undercarriage, and Lynx 3 has crashworthy tricycle landing gear. Core avionics based on a 1553B-standard multiplex digital databus include cockpit controls and displays which reduce crew workload in night/all-weather operations. Based on its manufacturing experience with the commercial Westland 30, the company estimates that it will be able to produce a Lynx 3 for less than the current helicopter. Sensors and armament speci-fied by the customer will add to the basic price, and Lynx 3 will be marketed both as a multirole helicopter for armed recon-naissance, utility, and attack, and as a dedicated anti-tank machine with a useful "battle hold".

A major boost for Westland in its private-venture efforts to develop Lynx 3 is the UK Government's decision to leave the last two British Army Lynx with the company for conversion to Lynx 3 air-

Military use of the Westland 30 will come with the General Electric T700-powered Series 200

frame standard, and to fund a subsequent
Army/Westland joint evaluation of the
helicopters.
Navy Lynx has sold well, and looks like
continuing to do so, but in discussions
with existing customers Westland detects a need for increased capability. The mar-ket, perhaps influenced by the US Navy's Lamps III, wants a more sophisticated helicopter and Westland is seeking to pro-vide small-ship capability somewhere between Navy Lynx and the EH.101.

There are two options. The first is called Navy Lynx 3, which has the uprated dynamics and 1553B-based core avionics of Lynx 3, 360° search radar, and, within the limits of its 12,0001b all-up weight, almost any mission system the customer specifies.
The second option is a naval derivative of the Westland 30 transport helicopter, particularly suited to customers requiring a common helicopter for several tasks. Westland has firm plans for the devel-opment of its commercial Westland 30 transport helicopter, having secured UK Government launch aid for later versions. The initial Gem 41-powered Series 100 has little or no military potential, the com-pany admits, but the Gem 60-powered Series 160 may generate some interest once commercial deliveries begin in July. Real military potential comes with the General Electric CT7/T700 engine.The first GE-powered Series 200 will fly this month and its hot-and-high performance may attract Middle East customers. Once the commercial helicopter enters produc-tion later this year, Westland will begin to market military Series 200 derivatives. The most promising Westland 30 is the GE-powered Series 300, which features a new five-blade composite main rotor and has a 15,5001b maximum take-off weight. The Series 300 will become available in 1986, and could have considerable military potential, particularly with a degree of

militarisation in the form of Lynx 3 crash-worthy undercarriage and seats. A more specialised military devivative of the Series 300 could be produced for the Royal Air Force to meet Air Staff Target 404, which calls for Wessex/Puma support-helicopter replacement from 1988. Westland would be competing against the Aerospatiale Super Puma and Sikorsky Black Hawk.

The Sea King continues to sell, and Westland expects the helicopter to remain in production until the end of the 1980s, when the EH.101 will take over. Several company-funded improvements are being made to the naval Sea King and its Com-mando transport variant. These include composite main and tail rotor blades, up-rated Gnome engines for improved hot-and-high performance, plus structural and cockpit-layout refinements.

Westland is offering an integrated anti-submarine/anti-ship mission system for Sea King which goes beyond the Royal Navy's latest HAS.5 stan-dard, approaching that specified for the EH.101. This version is being offered to the Indian Navy in competition with the Aerospatiale Super Puma.
AST 404 is the only UK military heli-copter requirement likely to emerge in the 1980s. Both the British Army and Royal Navy intend improving their existing ma-chines in lieu of buying new helicopters. The Army has asked Westland to quote on a series of Lynx improvements, giving it night-fighting capability and increasing its survivability. Dynamic systems will be uprated to the latest Royal Navy standard, giving a 1,0001b take-off weight increase to cope with new night-vision devices and both active and passive countermeasures The Navy wants to bring all its Lynx up to the standard of its last 20 machines, including 10,5001b take-off weight, Sea Skua missiles, and electronic support

measures.
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