

# ARCHIVED REPORT

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## Westland Group PLC - Archived 11/96

### Headquarters

Westland Group plc  
Yeovil, England  
United Kingdom  
Telephone: (44 1935) 752 22

Westland Group plc is the only helicopter manufacturer in the United Kingdom, and one of the most important suppliers of helicopters in Europe. In addition to its primary function, which is the design, development and manufacture of helicopters, Westland is a major supplier of composite and conventional aerostructures for advanced civil applications.

Westland Helicopters, the group subsidiary responsible for rotary-wing aircraft activities, is, in addition to its own design and development work for in house aircraft, an important partner in the cooperative EH Industries EH-101 heavy helicopter. Westland is also an important participant in Joint European Helicopter srl, which is a

consortium which will develop the NH-90 medium helicopter for British, Dutch, German, and Italian requirements. The NH-90 is naturally also intended for export to further customers, and perhaps the greatest possibilities for export lie in the Middle East and Asia. Westland cooperation takes on an added dimension with the 5 percent ownership by United Technologies Corp (UTC) Sikorsky Aircraft. Westland is an important license manufacturer of the Sikorsky UH-60 (Westland WS-70) Blackhawk/Seahawk series, after decades of licensed Sikorsky Sea King production.

In 1994, Westland was acquired in a hostile takeover by GKN plc. Following the takeover, GKN's Defence division and Westland were assimilated into a new GKN business division called GKN Aerospace and Special Vehicles. This unit is essentially responsible for all of GKN's defense operations.

### Structure And Personnel

David J. Wright

Managing Director, GKN Aerospace and Special Vehicles

as of 1/95

Richard I. Case

Managing Director, Westland Helicopters

Chris C. Gustar

Managing Director, Westland Aerospace

John E. Perry

Managing Director, Westland Engineering

John W. Rosenthal

Managing Director, Westland Industries Ltd

Michael A. O'Loughlin

Managing Director, Westland Technologies Ltd

### Product Area

The Westland Group is composed as follows:

#### I. GKN Aerospace and Special Vehicles

1. Westland Aerospace Limited (WAL)

2. Westland Helicopters Limited (WHL)

3. Westland Engineering Limited (WEL)

3.1 Aerostructures

3.2 Transmissions

3.3 Composites & Helicopter Blades

4. Westland Industries Limited

4.1 Westland Industrial Products

4.2 Westland Design Services

4.3 Westland System Assessment

5. Westland Technologies

5.1 Hermetic Aircraft International Corporation (USA)

5.2 Normalair-Garrett Limited (UK and Australia)

5.3 Westland-Sitec (Germany)

## Facilities

Westland Aerospace Ltd, East Cowes, Low PO32 6RH. Telephone (44 1983) 29 41 01. Westland Aerospace designs and manufactures flight critical structures and components for civil aircraft.

Westland Helicopters Ltd, Yeovil, Somerset, BA20 2YB. Telephone (44 1935) 752 22. This operations produces a complete range of helicopters such as the Lynx, EH-101, and WS-70.

Westland Industries Ltd, Winterstroke Rd, Weston-Super-Mare, Avon BS24 9AB. Telephone (44 1934) 63 55 55. This location provides design and engineering services to aerospace and defense related industries in the realms of aerostructures, mechanical systems, avionics, weapon systems and ground support equipment.

### Principal Subsidiaries

(wholly owned by GKN through Westland unless percentage of ownership indicated)

#### Westland Helicopters

Westland Helicopters Limited (UK)

Westland do Brasil Comercio Representacoes Ltda (Brazil)

Westland Design Services Limited (UK)

Westland Engineering Limited (UK)

Westland Inc. (USA)

Westland Industries Limited (UK)

Westland Industrial Products Limited (UK)

Westland System Assessment Limited (UK)

E.H. Industries (UK, 50%)

Aerosystems International Ltd (UK, 50%)

#### Westland Aerospace

Westland Aerospace Limited (UK)

FPT Industries Limited (UK)

Marex Technology Limited (UK)

#### Westland Technologies

Westland Technologies Limited (UK)

Hermetic Aircraft International Corp. (USA)

Normalair-Garrett Holdings (UK, 52%)

Westland-Sitec GmbH (Germany)

## Corporate Overview

Westland Group, now a wholly owned subsidiary of GKN, designs, develops and manufactures a wide variety of products under the advanced aerospace structures, composite materials, helicopters, services, control systems, and components categories. Although the group has made significant forays into various aerospace markets, it is still widely recognized for the production of high-quality, technologically advanced military and civilian helicopters.

### *New Products And Services*

**AH-64 Apache.** In July 1995, the United Kingdom selected the McDonnell Douglas Apache to fill its hotly contested

attack helicopter requirement. The UK Ministry of Defense plans to order 67 AH-64s in a deal valued at \$3.95 billion. Westland, which is teamed with McDonnell Douglas Helicopter, will be the prime contractor.

**Canadian Helo Requirement.** In August 1995, Canadian sources believed Canada's government would authorize that country's Department of National Defense (DND) to begin soliciting industry interest in filling a 15-unit search-and-rescue (SAR) helicopter requirement. Current speculation is that a formal request for proposals will be issued in the spring of 1996, with a contract to be awarded next December. Candidate aircraft include a variant of the EHI EH-101, developed by Agusta and Westland, as well

as the previous government's original choice which was overturned by the recently elected Liberal Government; the Boeing Helicopter CH-47D; and the Eurocopter AS.532 Cougar. Sikorsky is expected to propose a version of its US Coast Guard-operated HH-60J SAR helo, derived from the US manufacturer's Seahawk/Black Hawk family. The Agusta/Westland contender, known as the AW520 Cormorant, is largely based on the EH 101 Merlin selected by Britain's Royal Navy, but will feature commercial avionics to hold costs down.

### *Plant Expansion/Modernization/ Organization Update*

No recent plant expansion, modernization, or organizational updates have been announced by Westland Group.

### *Mergers/Acquisitions/Divestitures*

**GKN Acquires Westland.** In April 1994, Westland lost its fight to stay independent after GKN increased its bid to 335 pence (\$4.95) for 290 pence (\$4.29). According to GKN Chairman Sir David Lees, "As we said from the beginning, this is not a hostile bid. We are very supportive of the Westland management ... and hope they will continue in their roles under GKN. There are no plans for restructuring." As of August 1994, the Westland group has been absorbed into a newly created division of UK parent group GKN, called GKN Aerospace and Defence. Former Westland chairman Alan Jones has been appointed managing director of the division. By the end of 1994, Westland and GKN's Defence division were combined into a new division called GKN Aerospace and Special Vehicles.

### *Teaming/Competition/Joint Ventures*

**Shorts.** In December 1993, Bombardier subsidiary Short Brothers announced that it would team with Westland Helicopters to promote and sell the Westland WAH64 Apache to meet UK MoD requirements for an attack helicopter. Shorts will be responsible for a significant package of aerostructures work.

**Airbus Industries.** Westland Aerospace is a risk-sharing partner with Airbus Industries for the A340. This aircraft gained JAA certification at the end of 1992 and is currently in service with Lufthansa. Westland is involved

with the production of inner fixed structures (IFS) for engine thrust reversers on the A340.

**EH Industries.** The EH-101 medium-heavy class of helicopter is currently under development for civil and military utility duties. EH Industries Ltd (EHI) is a company jointly controlled by Costruzioni Aeronautiche Giovanni Agusta SpA, Milan, Italy; and Westland Group PLC, Yeovil, Somerset, England, UK. Production in Italy is to be in Cascina Costa di Samarte, while UK production will take place in Yeovil.

**Normalair-Garrett Limited.** Normalair-Garrett Ltd is the principal company of Westland Technologies Limited based in Yeovil, England. The firm is jointly-owned by Allied-Signal Aerospace Company of the United States and Westland Group plc of the United Kingdom. Normalair-Garrett provides the international aerospace, defense, and engineering industries with principal technologies such as environmental control, life support, electronics, hydraulic and mechanical equipment, and a comprehensive repair and overhaul service.

**Joint European Helicopter srl.** Agusta is a participant in Joint European Helicopter srl, which has been established to design and manufacture the NH-90 multirole military helicopter for NATO forces. The joint company is composed of Aerospaziale (42.4 percent), Agusta (26.9 percent), MBB Messerschmitt-Bölkow-Blohm (24 percent) and Fokker (6.7 percent).

**European Future Advanced Rotorcraft (EUROFAR) Group.** The EUROFAR (European Future Advanced Rotorcraft) Group, which includes Agusta/Alenia (29 percent), Aerospaziale/MBB (Eurocopter, each with 29 percent) and CASA (6.5 percent) has recently been established to examine the feasibility of development of

a tilt-rotor aircraft along the lines of the Bell/Boeing V-22 Osprey. The EUROFAR design is currently specifying an advanced technology, pressurized 20-40 seat commercial and military tilt-rotor transport aircraft sponsored by EUREKA, a 19-nation, European government research and development consortium. An unofficial consortium for the development/production of this aircraft includes Alenia and Agusta of Italy, Aerospaziale of France, CASA of Spain, Deutsche Aerospace of Germany, and Westland of Great Britain. Concept definition phase is under way and should be completed in the very near future. This aircraft will perform short range regional/commuter passenger transportation, business/executive transportation, small package express, cargo, and charter freight missions. Military missions include airborne troop assault, ASW, special operations, search and rescue.

**Fokker.** Fokker undertakes production of radomes and fairings for the Westland Lynx helicopter. They are

manufactured at the Fokker facilities in Ypenburg, the Netherlands.

**Saab.** Westland Aerospace supplies the integrated nacelle and propulsion system for the Saab 2000, while Westland Engineering is the supplier of the rear fuselage of the aircraft.

**UTC Sikorsky Aircraft.** Continuing its long relationship with American helicopter builder Sikorsky, Westland began licensed Sea King production in 1966, combining the basic Sikorsky SH-3D airframe with a pair of Rolls-

Royce Gnome engines rated at 1,237 kW each. The Gnome is essentially a Rolls-Royce-modified version of the GE T58 family used on all other members of the H-3/S-61 family of rotorcraft. Current production model is the Sea King HAS. Mk.5. The non-amphibious version named Commando was announced in mid-1971, and was flown in September 1973. In addition to the manufacture of the Sea King/Commando series, Westland undertakes license production of the Sikorsky UH-60 series of utility helicopters.

## Financial Results/Corporate Statistics

According to GKN's 1994 annual report, Westland posted an operating profit of £19 million on sales of £301 million. Westland's latest year statistics are provided below. US dollar figure translated as a 1993 average at the rate of £1= US \$1.502.

Y/E September 27 (£ millions)	1989	1990	1991	1992	1993	1993 US\$
Net Sales	431.9	411.0	467.4	422.1	448.0	672.9
Net Income	16.6	20.9	18.6	19.8	22.6	33.9
Orders Received	347.7	452.7	407.5	1179.1	465.4	699.0
R&D Expenditures	-	10.6	12.5	10.8	14.7	22.0

### Industry Segments

A breakdown of Westland's sales and operating income by major market segment for the years 1993 through 1990 is given below. Sales figures are believed to include intersegment sales.

SALES (£ millions)	1991	1992	1993
Westland Aerospace	81.6	81.0	74.1
Westland Helicopters	311.0	262.5	295.1
Westland Technologies	87.6	90.9	91.7
OPERATING INCOME (£ millions)	1991	1992	1993
Westland Aerospace	7.4	7.8	8.8
Westland Helicopters	25.9	26.7	28.9
Westland Technologies	5.6	6.6	9.0

## Strategic Outlook

Following its acquisition by GKN, Westland's future prospects appear stronger now that it has some solid support from its new owner. Over the years, Westland has carved a number of strong niches for itself in the international helicopter market as well as in the business of aircraft engineering, maintenance and overhaul - and these are expected to remain its strong points under GKN. The firm is currently one of the most prominent and prolific producers of high-tech military and civil helicopters in the world and is commonly recognized for

its ability to not only maintain levels of quality, but provide competent after-sales service to its customers. Although the firm cannot expect to reap full benefits from sales of its upcoming 30-passenger-capacity EH101 until the later years of the decade, slack business is being picked up by the company's entrance into other aerospace markets. Westland now garners a significant profit from aircraft modifications and spares through the business units of Westland Aerospace Limited, Westland Engineering Limited, Westland Industries Limited, and

Westland Technologies Limited. Particularly, the Group has cultivated two of its subsidiaries, Westland Aerospace and Westland Technologies, to the point that they contribute a total of almost half of the total new orders for Westland.

Following its absorption into GKN, the activities of Westland will be combined and updated with that report. Therefore, this will be the final independent update of Westland.

## Prime Award Summary

In March 1995, Westland was awarded a contract for 22 EH101s from the UK's Royal Air Force. The order is worth an estimated £500 million.

In March 1994, Westland was awarded a £4.5 million contract from the Belgian Air Force to upgrade its fleet of five Westland Sea King helicopters.

In January 1994, Brazil ordered nine new Super Lynx naval helicopters from Westland in a contract valued at £150 million. Deliveries will take place over the next two years.

## Program Activity

**Business Interests.** Some important aerospace and government programs currently underway at Westland Group plc are listed below. The briefs are intended to provide a listing of programs that are of major importance to the company. For detailed information or analysis of specific aerospace and defense programs or equipment, please refer to the appropriate FORECAST INTERNATIONAL binder (for example, AIRCRAFT, MILITARY VEHICLES, WARSHIPS, MISSILES, ELECTRONICS, and GAS TURBINES). The following is an outline of the company's business interests:

- .. Helicopters
- .. Advanced aerospace structures
- .. Composite materials
- .. Environmental control systems
- .. Life support systems
- .. Electronic systems
- .. Components
- .. Services

### Aircraft Programs

#### *Lynx*

This is a single-rotor, twin-engine multi-role military and commercial helicopter designed by Westland plc, Westland Helicopters Group (UK). Aerospatiale participated in the original development and produced aircraft for French military use. Military uses of the Lynx include ASW, training, utility, and transport roles. The W30 was also offered as 17-passenger civil shuttle, and offshore oil and gas support transport. The aircraft can

hold up to 10 troops in its transport role, and current military models range in price between \$7.2 - \$9.2 million, depending on configuration and equipment. The majority of Lynx export sales have been of naval variants. Customers include Brazil, Portugal, Denmark, Germany, the Netherlands, Nigeria, Norway, Qatar, and the Republic of Korea. Westland will produce and deliver an estimated 33 Lynxes during the next ten years, approximately two-thirds of these will be Sea Lynx variants for export.

### *European Future Advanced Rotorcraft*

The European Advanced Future Rotorcraft (EUROFAR) is an advanced technology, pressurized 20-40 seat commercial and military tilt-rotor transport aircraft, currently in a concept definition phase. EUREKA, a 19-nation, European government research and development consortium, is sponsoring the program, and an unofficial consortium including Agusta and Alenia of Italy, Aerospatiale of France, CASA of Spain, Deutsche Aerospace of Germany, and Westland of Great Britain has banded together to pursue the design, development and ultimate manufacture of this aircraft. The EUROFAR is intended to be, or could be, optimized for short-range regional/commuter passenger transportation, business/executive transportation, small package express, cargo, and charter freight. Military missions include airborne troop assault, ASW, special operations, search and rescue. The initial phase of EUROFAR will define the baseline aircraft, determine marketability and infrastructure requirements, and evaluate how a tilt-rotor would fit the European civilian air transportation market. EUROFAR's concept and development phase were

completed in January 1991. The second phase of the program began in February 1993. This phase covers system consolidation and detailed definition of a demonstrator vehicle, and will lead to a firm design proposal by the end of 1996. However, the prospect of the aircraft actually entering production is uncertain.

### *Light Attack Helicopter*

The Joint European Helicopter consortium was set up to manage a program aimed at defining, developing and producing a multi-role light attack helicopter to fill the requirements of Italy (90 units), The Netherlands (70), Spain (70), and the UK (125). The initial thrust of this program was to develop a Tonal variant of the Agusta A129 anti-tank helicopter in a configuration adaptable to the anti-helicopter, scout and anti-armor missions. This program was canceled in 1990. Westland was the first company to break from the LAH, signing MoUs with Bell Helicopter Textron and McDonnell Douglas for codevelopment and production of AH-1W and/or AH-64 Apache attack helicopters. The Netherlands then delayed its attack helicopter decision by three to four years and subsequently indicated its favorable position toward the Apache and Tiger. As originally planned, the four-nation JEH group intended to begin deploying the A129 Tonal in 1997. In light of the recent program termination in 1990, none are projected.

### *EH-101*

In 1980, Agusta and Westland of the United Kingdom formed EH Industries to promote the development and production of the EH-101 multirole military-civil helicopter. In 1986, AVIOFER Breda, a subholding of EFIM, acquired a total of 98.7 percent of Agusta share capital. The EH-101 medium-heavy class of helicopter is currently in preproduction and flight tests for civil and military utility duties. EH Industries Ltd (EHI) is a company jointly controlled by Costruzioni Aeronautiche

Giovanni Agusta SpA, Milan, Italy; and Westland Group PLC, Yeovil, Somerset, England, UK. Production in Italy is to be in Cascina Costa di Samarte, while UK production will take place in Yeovil. The EH101 is currently undergoing various tests before full production and deliveries begin later in the decade. The Canadian Government has canceled its order for 43 EH-101s. Order for 16 by the Italian Navy is pending. Westland and Agusta have produced nine EH-101 prototypes to date. PP2 was lost in a January 21, 1993, accident.

### *Sea King/Commando*

The Sea King/Commando series is a twin-engined, medium lift general purpose family of military helicopters. Sea King and Commando helicopters are produced under license from United Technologies Corp (UTC) Sikorsky, of Stratford CT, USA. The Sea King/Commando series is used as land-based troop and cargo transport and assault. Sea-based duties include anti-submarine warfare, search and rescue, and AEW. The production line is expected to shut down in 1995 upon completion of the recently ordered HAR Mk.3 variants for the RAF and the two Mk 43Bs for Norway.

### *Sikorsky UH-60/S-70 Black Hawk*

This is a twin-engine, single-main rotor, medium-lift military transport helicopter. Part of the Sikorsky/Fiat acquisition of nearly a 16-percent share in Westland involved licensed production of the UH-60 by the UK manufacturer. In September 1986, Westland officially launched the WS-70 program, followed by a first flight in April 1987. Westland and Sikorsky are working together on advanced UH-60/WS-70 models, which will incorporate new, all-composite blades and other Westland-developed technology. As of 1994, Westland has yet to gain a single order for the WS-70.