

Review of operations: Aerospace

GKN **Aerospace** businesses are its 50% interest in AgustaWestland and its wholly owned business, GKN Aerospace Services. GKN Westland Helicopters merged in 2001 with Agusta of Italy to create one of the world's premier helicopter manufacturers. GKN Aerospace Services, with operations in Europe and the US, is a first tier supplier of structures, components, assemblies and engineering services to leading aircraft and aero-engine manufacturers.

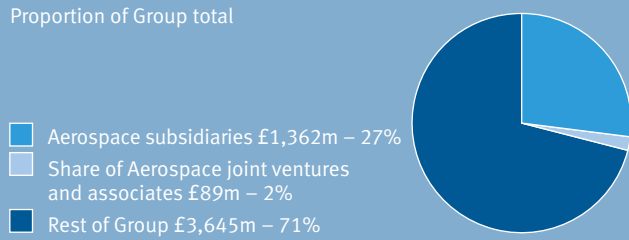
Aerospace highlights in 2000

- AgustaWestland becomes world's second largest helicopter company
- Major milestone – first UK produced Apache delivered on schedule
- New and upgraded Lynx delivered to customers in Europe and Asia
- Acquisition of US fabrication business from Boeing – GKN becomes core strategic supplier to Boeing
- GKN Aerospace Services being restructured into seven focused manufacturing sites in Europe and US

The joint venture of GKN Westland Helicopters and Agusta of Italy was completed in February 2001. It is the second largest helicopter company in the world, starting with a strong order book of US\$8 billion. A major restructuring of GKN Aerospace Services was announced in October 2000 and is well underway.

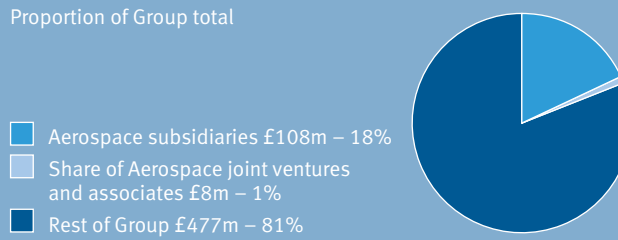
Sales 2000

Proportion of Group total



Operating profit 2000*

Proportion of Group total



* Before goodwill amortisation and exceptional items

Sales 2000

	By origin £m	By market £m
United Kingdom	1,276	1,003
Continental Europe	32	169
Americas	143	171
Rest of the World	–	108
Total	1,451	1,451



Review of operations: Aerospace continued

“the new company is already a **powerful** force in the helicopter industry”

A new future for helicopters

At the Farnborough International Air Show in July, GKN and Finmeccanica announced that they had finalised their agreement to merge their respective helicopter businesses – GKN Westland Helicopters and Agusta. The new company, which was established in February 2001, is known as AgustaWestland. GKN and Finmeccanica each own 50% of the joint venture.

In consideration for its 50% interest in AgustaWestland, GKN has contributed its helicopter prime contractor, GKN Westland Helicopters, including its 50% share in the EH Industries joint venture with Agusta. GKN has also contributed its aerospace transmissions business and 50% interest in Aviation Training International, the joint venture with Boeing to provide training support for the British Army's Apache helicopter.

Finmeccanica has contributed its Agusta

helicopter business including its transmissions and structures businesses and its 50% share in EH Industries. It has also contributed Agusta's interests in the NH90 joint venture, NH Industries, whose other partners are Eurocopter and Fokker, as well as Agusta's share of the joint venture with Bell Helicopter Textron of the US which includes the AB 139, a new medium twin-engine helicopter, and the revolutionary BA 609 tilt rotor aircraft.

With combined revenues of £1.4 billion and a civil and defence order book of more than £5.4 billion, the new company is already a powerful force in the helicopter industry. It is a leader in a number of important programmes and has an impressive pipeline of new products and technologies.

New milestones for Lynx

The major achievement of 2000 was the successful deliveries of new and

re-airframed aircraft to customers in Europe and the Far East. The first of the Royal Danish navy's newly upgraded Super Lynx was handed over – the first of eight to receive an upgrade to Super Lynx standard. Seven new Sea Lynx were delivered to the German navy and the first two upgrades to their 17 existing aircraft were also delivered. A further three aircraft were delivered to a Far East customer as part of a contract for 13.

UK Apache on time and budget

The Apache attack helicopter for the British Army is one of the top five UK Ministry of Defence procurement programmes by value and the project was one of the first to form an Integrated Project Team, a key element of the UK Government's Smart Procurement Initiative. Major achievements on the Apache programme included the delivery of the first UK produced Apache in July in accordance

Main photo – One of the Men in Black teams (left to right): Geoff Critchley, Les Cornford, Terry Ward (cockpit), George Guthrie, Dave Hayward (front), and Dave Cole.



Innovation on the Apache

GKN Westland is intent on being innovative to ensure high efficiency and employee motivation in the new Apache assembly hall at Yeovil. The men who build the attack helicopter are expected to contribute their own ideas to the development of new production processes. They were also asked to find ways to enhance team spirit. An early idea was distinctive black overalls. Very soon they became known as the 'Men in Black'. It's a name they wear with pride.

Review of operations: Aerospace continued

GKN has completed two major strategic initiatives which have positioned its aerospace businesses for the future. GKN Westland Helicopters has come together in a joint venture with Agusta of Italy and GKN Aerospace Services has acquired a major fabrication business from Boeing in the US.

with the contracted delivery date established in April 1996. This significant milestone confirmed that this complex prime contract programme is on schedule and on budget.

EH101 – making its mark

The Anglo-Italian EH101, the world's most advanced medium-lift helicopter, was a familiar sight in the skies over Europe in 2000 with visits to six countries and appearances at a number of major events. Already in service with Britain's Royal Navy and with the Tokyo Metropolitan Police, the EH101 is setting new standards in the medium-lift category. More than 40 production aircraft have already been delivered and assembly lines are in full production in the UK and Italy.

Major achievements in 2000 included the EH101 fleet passing 15,000 flying hours and the completion of an Intensive Flying Operations Programme.

Deliveries of the 15 Cormorant search and rescue aircraft to the Canadian Armed Forces are due to begin in March 2001 and the EH101 successfully completed an icing trial in Canada during which, on a number of occasions when many civilian and military aircraft

were grounded due to severe weather, the EH101 remained fully operational.

GKN Aerospace Services – preparing for new opportunities

Increasingly, prime contractors are focusing on core activities, placing a greater reliance on suppliers to take on more responsibility for supply chain management.

This trend was evidenced in January 2001 when the division completed the US\$55 million acquisition of a major fabrication business from The Boeing Company in St Louis, USA, which supplies programmes such as the F18 E/F fighter and C17 airlifter. GKN and Boeing also entered into a memorandum of understanding under which GKN Aerospace Services becomes a core structures supplier to Boeing and positions GKN for involvement in the Joint Strike Fighter programme. The memorandum also envisages GKN becoming responsible for managing elements of the supply chain, logistics and industrial participation for Boeing's Military Aircraft and Missile Systems Group.

To take further advantage of this new direction GKN's aerospace businesses

were restructured to create a first tier supplier of structures, components, assemblies and engineering services. At the core of the restructuring was the creation of GKN Aerospace Services which is consolidating its operations on to seven focused manufacturing centres in Europe and the US. This involved the closure of manufacturing sites at Avonmouth in the UK and at Carson in the US. The restructuring is continuing in 2001 with resin transfer moulding manufacturing at Wallingford in the US being transferred to St Louis and further downsizing in Munich and Cowes in Europe. A small actuation business in Germany is being divested.

The exceptional cost of the business rationalisation and closures charged in 2000 was £70 million, including £8 million of goodwill previously written off to reserves and £24 million of asset write downs. The performance of GKN Aerospace Services was adversely impacted by high learning costs on new programmes, customer programme delays and some operational difficulties. It is expected that the division will achieve a significant improvement in profit margins by 2002.



More than 60 people work on the team which builds the fan module for the Rolls-Royce Trent 800 jet engine at GKN Aerospace in San Diego, USA. Since their first development unit was shipped in 1993 the team have worked together to reduce production hours per unit to 30% of the original time required and throughout 2000 they maintained a 100% on-time delivery record. Pictures (left to right): Cesar Alanis, Bob Novinsky, Francisco Cardona, Victor Cox, Alex Bautista, Phil Peterson, Pete Wining and Ray Cortez.

First tier relationships with the major aircraft and engine prime contractors were extended. For Lockheed Martin, GKN's Alabama plant took on more F22 composite work whilst, in Luton, work is proceeding satisfactorily on the creation of a cell for F16 canopies. Development work on the nacelle for the Bombardier Continental neared completion.

GKN in Alabama has taken over outsourced production from Sikorsky to supply kits to the production line and won a contract to supply all the composite panels for GE's 115B engine for the extended range Boeing 777

airliner. During 2000, GKN supplied composite structures to all Airbus programmes.

In 2000, the design services business, re-branded as Engage, won business with several new customers, the largest of which is Rolls-Royce. As part of the restructuring, Engage has been more closely integrated within GKN Aerospace Services' overall engineering capability.

Business jet nacelle

The supply of nacelles for business jets is a major sector for GKN Aerospace Services.

The photograph (right) shows part of an engine nacelle for the Dassault Falcon 50EX and the IAI Astra SPX. All of these nacelles are manufactured by GKN Aerospace Services and integrated with the AlliedSignal TFE 731 engine, providing complete propulsion systems.

