

Summary

We are a leading engine maker for the military transport market and the second largest provider of defence aero-engine products and services globally. Defence has 16,000 engines in service with 160 customers in over 100 countries.

Key highlights

- Underlying revenue 5% lower; revenues impacted by weaker helicopter and trainer volumes, partially offset by higher combat original equipment sales.
- Underlying profit before financing up 4%; steady gross margin and lower restructuring costs offset higher R&D charges.
- Strong positions in transport and patrol, and combat underpin outlook for a steady performance in 2016.
- Major five-year \$600m investment in Indianapolis, US, to improve cost base and benefit long-term growth.

F-35B Lightning II

The F-35B aircraft, which employs the Rolls-Royce LiftSystem, was declared operational in 2015.



Underlying revenue mix



OE revenue	39%
Services revenue	61%

Underlying revenue by sector



Combat	36%
Transport and patrol	43%
Other	21%

DEFENCE AEROSPACE

OPERATIONAL REVIEW

Underlying revenue at £2,035m was 5% lower on a constant currency basis (down 2% at actual exchange rates). Lower original equipment volumes for helicopters and trainers were partially offset by growth in LiftSystem™ volumes. Aftermarket revenues reflected lower volumes on helicopter spares partially offset by higher revenues related to long-term service agreements for UK combat aircraft.

Despite the reduced revenues, gross margin improved to 28.5%. Lower helicopter volumes and lower margins on some transport contract extensions were offset by higher LiftSystem volumes and increased retrospective margin improvements of £101m (2014: £53m) on existing long-term contracts. These relate to various combat platforms, where overall profitability has been improved by changed flying patterns and lower service costs, including approximately £40m (2014: £nil) due to one-off contract and scope variations.

Overall R&D costs were £20m higher in 2015 reflecting increased investment in new programmes. Restructuring costs were lower due to reduced level of severance costs and lower costs related to changing our operational footprint.

Underlying profit before financing of £393m was 4% up on the prior year on a constant currency basis, reflecting the lower volumes, the one-off margin improvements, increased R&D charges and lower restructuring charges. As a result, operating margin improved by 170 basis points to 19.3%.

Investments and business development

Overall, the Defence order book declined 5%, in large part reflecting the 2014 benefit of the significant multi-year order for engines to power C-130J aircraft. With a major focus within defence budgets on cost control, 2015 saw significant interest in availability-based service contracts and also on offering efficiency upgrades. New contracts included an extension of the UK's Hercules Integrated Operational Support contract and commitment to the UK's Future Combat Air System (FCAS) programme. After successful first flights on US 'Hurricane Hunter' P-3 aircraft in May, we received strong international interest including an initial USAAF order for the T56 3.5 technology insertion kit upgrade delivering both fuel saving and performance benefits for an engine programme which has been in existence for over 50 years.

Outside the UK and US markets, our particular focus has been on positioning ourselves to be competitive for forthcoming combat programmes. We had success in South Korea in conjunction with Airbus, with the contract being awarded to power the A330 tanker fleet with Trent 700 engines, as well as agreeing an order for our largest ever number of engines – a ten-year order with Robinson to supply at least 1,000 RR300 engines.

Long term, it remains essential that we have a cost-efficient supply chain to support the profitable growth of our business in a competitive market. To support future business competitiveness we initiated a major \$600m investment in the upgrading of our Indianapolis facility, which will bring a combination of cost reductions, operational efficiencies and greater development capabilities for defence technologies. This investment recognises the importance of the US market and our strong position there.

Defence Aerospace outlook

The long-term outlook for Defence Aerospace remains positive with good opportunities to capitalise on its strong positions in transport and patrol and combat. Investment in developing new advanced technologies will be a feature of R&D for the next few years as the business ensures it can compete for new opportunities.

The outlook for revenues in 2016 remains steady. Operating profit will be adversely impacted by the lower level of expected long-term contract benefits in 2016, together with higher R&D and operational restructuring costs.

Free cash flow from Defence Aerospace is expected to remain strong in the longer term, reflecting the high proportion of aftermarket revenues. However, in the coming year free cash flow is expected to be lower reflecting the increased cost of investment and the run out of costs on key UK programmes where deposits have been received in advance of delivery.

Investment in US facilities

\$600m

DEFENCE AEROSPACE / KEY FINANCIAL DATA

£m	2014	Underlying change	Acquisitions & disposals	Foreign exchange	2015
Order book	4,564	(248)	—	—	4,316
Engine deliveries	744	(95)	—	—	649
Underlying revenue	2,069	(101)	—	67	2,035
<i>Change</i>		-5%	—	+3%	-2%
Underlying OE revenue	816	(45)	—	30	801
<i>Change</i>		-6%	—	+4%	-2%
Underlying services revenue	1,253	(56)	—	37	1,234
<i>Change</i>		-5%	—	+3%	-2%
Underlying gross margin	567	(9)	—	21	579
<i>Gross margin %</i>	<i>27.4%</i>	<i>+90bps</i>	—	—	<i>28.5%</i>
Commercial and administrative costs	(112)	(7)	—	(5)	(124)
Restructuring costs	(55)	48	—	(1)	(8)
Research and development costs	(50)	(20)	—	(3)	(73)
Joint ventures and associates	16	3	—	—	19
Underlying profit before financing	366	15	—	12	393
<i>Change</i>		+4%	—	—	+7%
Underlying operating margin	17.7%	+170bps	—	—	19.3%

MARKET REVIEW

Rolls-Royce is a market leader in defence aero engines for military transport aircraft and has strong positions in other sectors, including combat, trainer aircraft and helicopters. We are pursuing new opportunities emerging in Asia and the Middle East to mitigate flat defence budgets in the established North American and European markets.

Potential for OE and services over the next 20 years

Defence Aerospace – all sectors

\$400bn

Original equipment

\$125bn

Aftermarket

\$275bn

Market dynamics

- Defence budgets are expected to show modest growth, flat in real terms in the US and UK, partially offset by growth in other emerging markets.
- Western customers are seeking to reduce and minimise costs by delaying or deferring purchases, improving asset availability and extending lifecycles of aircraft/engines.
- Increasing levels of economic affluence and political tension in the Asia Pacific and Middle East regions are leading to increases in both original equipment and services spend.
- Revenue has historically been broadly balanced between original equipment sales and aftermarket services, biased towards the latter.

Business risks

- If we experience a major product failure in service, then this could result in loss of life and critical damage to our reputation.
- If global defence spending experiences a further downturn, then our financial performance may be impacted.
- If we do not continue to invest to improve the performance and cost of our products, then we may lose market share.
- If we suffer a major disruption in our supply chain, then our delivery schedules may be delayed, damaging our financial performance and reputation.
- If we do not secure new applications, then our capabilities may be eroded in the long term.

Competition

- GE, Pratt & Whitney, Honeywell and Safran are the main competition in our sectors.
- In Europe, large defence programmes tend to be addressed by consortia of two or more companies due to the political environment. Examples include our collaboration with ITP, MTU and Safran on the TP400 engine for the Airbus A400M and with GE Avio, ITP and MTU on the EJ200 engine for the Eurofighter Typhoon.
- We support/lead sales campaigns globally on behalf of Eurojet for export sales opportunities of Eurofighter Typhoon.
- Barriers to entry are high and we do not envisage the competitive landscape changing significantly in the near future.

Opportunities

- The UK's FCAS potentially a joint programme with France, presents a longer-term combat opportunity to Rolls-Royce.
- Our LiftFan™ system for the F-35B is only just entering service and we expect to deliver over 400 systems in the next 20 years.
- Emerging markets, such as India, Turkey and South Korea are inviting bids on new combat aircraft. We estimate a potential of over 300 aircraft for these programmes.
- In transport, we believe the Airbus A400M transport aircraft and V-22 Osprey have overseas sales opportunities.
- We see strong growth potential for increased service provision to the military and we are well positioned with programmes such as MissionCare®.

Key Rolls-Royce differentiators

- We are investing heavily in technology, integration capabilities and facility modernisation to deliver capable, affordable engines for our customers. Additionally, we leverage our large installed base and strong services capabilities to provide superior and affordable service solutions.



World leader in transport engines

A KC-130J tanker-transport aircraft is seen here (above left) preparing to refuel a V-22 tiltrotor Osprey transporter. Both aircraft are in service with the US Marine Corps and both are powered by Rolls-Royce.

The Lockheed Martin C-130J is one of the most reliable and versatile transport aircraft in the world (the KC-130J being the tanker version).

Powered by the Rolls-Royce AE 2100 engine, the C-130J family of aircraft follows on from the original, venerable, C-130, which is still giving sterling service all over the world with its Rolls-Royce T56 powerplants.

In fact, Rolls-Royce has breathed further life into the T56 by developing a new version of the engine which is delivering significant fuel savings and which the Group believes will see the T56 continue in service for many years to come. In December 2015, we announced that Rolls-Royce was one of three companies to benefit from a £369m contract to support the RAF's C-130 fleet.

The C-130J has also seen developments beyond its transport and refuelling role. One of the lessons learned in Afghanistan was the constant demand for airborne video surveillance and the requirement for a 'quick strike' weapon to help protect troops

on the ground. The US Marine Corps turned to the KC-130J. The aircraft can loiter in the air for over ten hours thanks to the performance of its AE 2100 engines and so they armed it with a quick strike weapon that would not affect the core mission of aerial refuelling.

In its tanker role, the aircraft has the ability to refuel both low-speed helicopters and high-speed jet aircraft by changing the basket on the drogue system. The aerial refuelling pods can deliver more than 12,000 US gallons of fuel and can refuel two aircraft simultaneously.

In addition to the V-22 and C-130J families, Rolls-Royce also powers the Airbus A330 Voyager tanker/transport with Trent 700 engines and we are a major partner in the Europrop International consortium responsible for the design and build of the TP400 engine for the new A400M military transport aircraft. The first A400M began active service with the RAF during 2015.