



HOW LONG CAN BRITAIN'S COMBAT AIRCRAFT INDUSTRY FLY HIGH FOR?

News / Manufacturer



The silhouette of one of the British Army's Apache attack helicopters in the skies over Afghanistan is a reassuring sight for coalition forces on the battlefield. Its ungainly shape projects a menacing power that foes are unlikely to stand up to – if they haven't already fled at the sound of its approaching rotors.

But this symbol of British military power won't be quite so British in the future. It's almost certain that a forthcoming order for 50 updated Apaches will go to Boeing, the latest in a spate of major defence deals to go to the US. Three weeks ago, Defence Secretary Michael Fallon announced he would soon sign the contract for the first of P-8 Poseidon, part of a nine-aircraft deal worth 2bn.

Even the current Apache isn't as British as the layman might think – it's a Boeing design that Britain modified. The first eight were built in the US, with the remainder assembled from Boeing-supplied kits by Westland Helicopters in Yeovil, where they were given better engines from Rolls-Royce, more advanced avionics and other upgrades.

The work, which made the UK helicopters far more capable than their American contemporaries, maintained British engineering expertise, but the modifications more than doubled the cost, adding

£24m to each of the £20m basic helicopters.

Apache

Image not found or type unknown

Britain is set to get a a refitted fleet of 50 Apache helicopters CREDIT: ALAMY

Since the prospect of modernising the fleet of Apaches was first mooted, Westland – which is now owned by Leonardo, the recently renamed Finmeccanica – argued for a similar arrangement, in a deal that would guarantee skills and jobs in the UK. However, Boeing countered that adding new Apaches for the UK on to a much larger order from the US military would mean the price would be slashed.

It's hard to see how the hard-pressed MoD can refuse a deal where new helicopters cost less than those bought 20 years ago. The engineers in Yeovil can look forward to servicing the next generation of Apaches, but they won't be building them.

And once work has finished on current Wildcat and Merlin orders, construction of military helicopters in the UK for the British forces is likely to end for good, with future hardware being bought abroad.

It's not just in helicopters this is happening. The newest British fighter, the F-35, is a largely American affair. BAE Systems is building 15pc by value of each of the 3,000 or so aircraft expected to be ordered but the company is limited to producing the tailplane and wingtips, with the company's US unit making some of the jet's highly sophisticated avionics.

Typhoon

Image not found or type unknown

The Typhoon jet is a pan-European collaboration

The mainstay of the RAF, the Typhoon, is a pan-European collaboration, as was its predecessor, the Tornado, along with its forerunner, the Anglo-French Jaguar. As the cost of developing combat aircraft rises, working in partnership with others makes sense to share risks and costs but it raises the prospect of "hollowing out" Britain's defence industry.

The Royal Aeronautical Society (RAS) is concerned that without government efforts to protect them, vital skills could be lost that could harm Britain's ability to defend itself.

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"Operational sovereignty depends on indigenous industrial capacity," said Iain McNicoll, former chairman of the RAS's Air Power Group and a former Air Marshall in the RAF.

"The defence aerospace sector should be treated the same as nuclear, shipbuilding and complex weapons are – ie it is vital to sustain UK industry in this sector. Without a high-end design-and-build capacity in aerospace, we would lose a critical national capability."

He accepts the UK is "unlikely" to build another manned combat aircraft alone and that "any high-end project requires European collaboration". However, he warns that a reliance on being part of US-led programmes could hit the UK's sovereignty because of America's ITAR scheme, which controls sharing technology.

McNicoll believes one of the best hopes for Britain retaining high-end aerospace skills and

technology is the £1.5bn that the UK and France have committed to developing a prototype Future Combat Air System (FCAS) – an unmanned warplane that could be the basis of future European air forces.

Nimrod

Image not found or type unknown

The Nimrod - which was scrapped - was the one of the last indigenous British combat aircraft projectsan

Others in the sector are more sceptical. "The question is whether the UK's combat aircraft industry is on life support with FCAS or if it's in palliative care," said one industry source.

"If the Government decides we don't need an indigenous combat aircraft soon, maybe they should just say so. At this rate, if in 10 years they call up and ask us to build one, we'll just give them the business card of someone in the States."

The FCAS project might be worth only a fraction of £620bn lifetime cost of the F-35 – the world's biggest ever defence contract – but it's a start, according to Ben Moores, a defence analyst at IHS.

"FCAS is great but they have to follow through and get it into production – that's where the benefits are," he said. "When we just buy in, that's where the UK industry loses out. Each time we just buy off the shelf from the US, it costs us thousands of jobs.

"Collaborating is the smart way of doing things, but we also have to be smart about it to make sure we get the right share of the work. OK, collaborating can cause delays and cost over-runs but these are bigger and better projects with a much better chance of getting export sales that will deliver the wider economic benefits."

Image not found or type unknown

Britain has 'given up' on building its own military land vehicles, says IHS, relying on foreign technology such as the Mastiff truck CREDIT: GETTY

Moore backs McNicoll in thinking certain areas need to be supported. "Britain needs to pick winners and say, 'This is a project we are going to do properly and export it, and this is one we will just buy in'. It's not enough to just do the final assembly."

IHS also has concerns about the UK's land and naval defence businesses. Moore claims the UK has "given up" on armoured vehicles, relying on imports such as the Mastiff, which has only low value final assembly work done in the UK. Britain is very good at building Royal Navy ships, he added, but they are so specialised for UK needs that there is little export market for them.

According to IHS's data Britain is a major player in the global defence industry, exporting \$3.9bn of equipment at the "system level" (ie. the whole vehicle) in 2015. This is forecast to rise to \$4.3bn in 2019 –making Britain the world's fifth largest exporter - helped by \$1.8bn of Typhoon jets going to Saudi Arabia. However, if Saudi deal falters, Britain will drop to seventh place globally.

Action needs to be taken while the sector is still relatively strong. "There are high barriers to entry in aviation in technology, cash and expertise. That's why India is having problems with the fighters it's building and China's buying jet engines from Ukraine," said Moore. "We have to act now while we still can."

BAE builds 15pc of each F-35 jet by value

Image not found or type unknown

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BAE Systems is a little more relaxed about the prospects , though Chris Allam, engineering director in the company's military air unit, does acknowledge the industry will look different in the future.

"At the moment we still have the capability to design and build combat aircraft and we have sufficient work to maintain that for the medium term," he said, adding that the F-35, upgrades to the Typhoon and FCAS are all keeping skills very much alive.

"What sits beyond that and leads to production work is a bigger question. You can't go on for ever without a programme to work on."

Engineers and technicians at BAE's Lancashire plants are currently working on Typhoon orders from the UK, Saudi and Oman, and a recent order for 28 typhoon of the jets - will be worth a further £1bn to the company, even though the sale was led by Italy, one of the European partners in the fighter.

Image not found or type unknown

The Taranis drone will help maintain engineering skills CREDIT: BAE

Allam also welcomes FCAS – which will build on the Taranis drone BAE developed – but adds that in the medium term it seems the company will be doing more developing than manufacturing fleets of new aircraft.

As well as more complex and expensive, aircraft have become more capable, meaning far fewer of them are needed – though a cynic might say “can be afforded”. A single F-35 that is all-but invisible to enemy defences and equipped with hyper-accurate weapons can eliminate a target that it might have taken a squadron of earlier-generation aircraft to destroy.

While Britain might not be building its own aircraft from scratch any longer, the industry is not in terminal decline. Companies retain niche specialisms, one of the most high-profile being Rolls-Royce, which says it sees “opportunities to provide innovative services programmes which can deliver greater capability and affordability”, as well as its traditional engine contracts.

Image not found or type unknown

Britain can no longer expect to build fleets of jets like it did in the 1960s, with the Lightning
CREDIT: RAF

Independent defence analyst Howard Wheeldon also sees Rolls as champion for the sector, saying its work building the lift fan that allows the F-35B model to land vertically is a stunning example of British expertise.

“You’d be in cloud-cuckoo land if you think any other company could do that,” he said. “What’s interesting about the UK defence industry is despite all the cutting and slashing – which now seems to be over – it has somehow survived and somehow or other made sure it can supply what the MoD and its customers want.”

He has a positive view of the future. “The days of designing and building squadrons of Lightnings are gone but there is more than a light at the end of the tunnel,” Wheeldon said. “It’s a different kind of light, with British expertise in specialist areas and partnerships in the most advanced technologies.”

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