

CREATING INDUSTRIAL CAPABILITY IN SAUDI ARABIA

Hawk fast jet trainers, one of the most successful military aircraft ever built, is in service with the Royal Saudi Air Force's aerobatics team, *Sukoor As Saudia* (Saudi Hawks). Like Britain's *Red Arrows*, the Saudi team has found that the aircraft's agility, strength and control is unsurpassed for carrying out the balletic loops, dives, rolls and spins of an aerial display.

All this comes at a cost in terms of wear and tear to the aircraft, of course. Overhaul and maintenance are very special skills when it comes to keeping the aircraft flying spectacularly yet safely. So it is specially noteworthy that this work is carried out more and more often in the Kingdom.

A recent milestone was the achievement by Alsalam Aircraft Company of First Article Qualification for the overhaul of the Hawk aircraft canopies. This has paved the way for all Hawks in service with the Royal Saudi Air Force - including those flown by the air display team - to be supported in this way by the Riyadh-based engineering firm.

The first canopy recovered by Alsalam had been the subject of a 'bird strike', which meant the entire canopy transparency shell has to be replaced, said Peter Butterworth of BAE Systems. "The work required the drilling of the transparency material to exactly match the existing attachments on the structure. Following reassembly, the protective surface finish was applied and optical alignments checked.

"The quality of the work, produced to very fine tolerances, was closely monitored in the UK by General Electric, the original canopy producer, and BAE Systems' facility in Brough, Yorkshire, the design authority for Hawk aircraft."

Alsalam was required to replicate in Riyadh the Southampton facility of General Electric. Three specialist jigs have been built which ensure that canopies leaving Alsalam can be refitted to any Hawk aircraft in the Royal Saudi Air Force's fleet.

General Electric conducted a comprehensive training programme for Alsalam's employees, providing them with the full range of experience to recover canopies from initial inspection to parts



replacement, canopy polishing and fitting of the detonating cord.

This drive to bring engineering to the Kingdom is part of what BAE Systems calls the development of a home market. This is designed to make its operations in the Kingdom self-sufficient in providing assembly, maintenance, repairs and overhaul.

Quoted in BAE Systems' *Majalis* magazine, chief executive, Ian King, recently explained that the company is committed to acting as a domestic supplier in its home markets and specifically outlined what this entailed for the Kingdom.

"In Saudi Arabia, the aim is to create a defence industrial base as that's what the customer wants us to do. We've made commitments for training and education; we've got investments in Saudi companies with licenses to trade in defence and aerospace. And we have made promises to transfer technology on the back of the Salam Programme, to make sure support can be handled within the Kingdom.

"Creating an industrial base, rather than putting work into one that was already a significant player, provides its challenge. Generally, contractors struggle to meet offset for this reason. The government of Saudi Arabia said; 'Fine, create the defence industrial base' and far from being something that should deter us from doing business, we see this as an advantage and a discriminator. It means if we can do it, we are part of the industrial fabric and from then on in a much stronger position in the country," said Ian King.

SR 1 billion has been invested in support of these work transfers, which is in addition to BAE Systems' expenditure on goods and services in the local market, standing at the end of 2007 at SR 45 billion.