

Soaring Ahead

It had been planned that the RAF's 208(R) Squadron would be disbanded in December 2012, but as **Tim Ripley** explains, it has been given a reprieve to be ready to train students from foreign nations



IN MAY 2012 BAE Systems announced that it had won a £1.6 billion (US\$2.5 billion) contract with Saudi Arabia to provide 102 training aircraft to the Kingdom of Saudi Arabia (KSA).

The small print of this deal revealed that in addition to the 22 BAE Systems Hawk Advanced Jet Trainers (AJTs), the order also included 55 Pilatus PC-21s, 25 primary training aircraft, simulators, upgraded training facilities, spares and support. Deliveries of the Swiss-manufactured Pilatus PC-21 will start in 2014, followed by delivery of the Hawk from 2016.

From the size and scope of this deal it is clear that the Royal Saudi Air Force (RSAF) has embarked on a major exercise to re-capitalise and expand its fast jet training organisation. This coincided with new orders for 84 new-build Boeing F-15SA Eagle fighters and upgrades to 68 existing F-15S aircraft. Negotiations are also under way with the UK to purchase additional Eurofighter Typhoons, possibly as many as 72.

With tension across the Middle East intensifying because of the Syrian conflict and the crisis over Iran's

alleged nuclear weapons programme, enhancing the capabilities of the RSAF was clearly rising up the agenda of the government in Riyadh. The leadership of the RSAF is now engaged in turning its ambitions into reality.

RSAF training

The UK has been an important training partner for the RSAF for more than 40 years since Harold Wilson's Labour government struck a deal to sell it BAC Strikemaster Mk80/80As. In the 1980s, this partnership expanded with the signing of the Al Yamamah (Wings of Peace) agreement between the UK and KSA governments. This included a major expansion of the RSAF training organisation with Pilatus PC-9, Hawk Mk65/65A and Jetstream aircraft being purchased via a deal with British Aerospace (BAe).

The fleet served in the RSAF through the 1990s and into the 21st century. Under Al Yamamah, BAe and Britain's Royal Air Force provided the RSAF with, as well as aircraft, advisors and instructors to help train

students and set up a cadre of instructors so it could take over the running of its own fast jet training pipeline.

By 2012 the RSAF training organisation mirrored the UK's in many ways, with elementary and basic flight training taking place at the King Faisal Air Academy at Riyadh Air Base. Elementary training is carried out using Cessna 172s and PAC Super Mushshaks with 8 Squadron, before students progress to the PC-9 for basic training with 9 and 22 Squadrons.

Pilots destined to fly fast jets then move to King Faisal Air Base at Tabuk to train on the remaining Hawk Mk65/65As, operated by 21, 37, 79 and 88 Squadrons. This includes advanced and basic weapons training. The base is also home to the Saudi Hawks display team, manned by instructors from the Hawk squadrons.

Before future pilots join their squadrons they head to operational conversion units (OCUs) for the main frontline types, the F-15 and Tornado IDS, at King Abdullah Aziz Air Base at Dhahran. In 2008 the first Typhoons were delivered to the RSAF at King Fahd Air



'Ruby' formation on the RAF Valley flightline before the Queen's Jubilee flypast on May 19, 2012. The 208(R) Squadron Hawks provided the 'R' in the 'E II R' formation over Windsor Castle. Paul Heasman



In 2012 the squadron provided what was thought to be the last solo Hawk T1 display for the UK airshow season. However, the extension of 208(R) Squadron's service may yet see its return one day. Paul Heasman

"We are now taking people straight from our air force academy, who have only flown the Hawk, to fly the Typhoon"



Base at Taif and this coincided with the establishment of a new OCU to train future Typhoon pilots.

Preparation for this had begun the year before when the UK and Saudi governments agreed the £4.43 billion Typhoon deal. In May 2007 it emerged that BAE Systems placed an advertisement in the service publication *RAF News* to recruit a technical training advisor to work in the RSAF Headquarters Typhoon team. It stated his job was to help implement the RSAF Typhoon technical training, which "is to be developed in line with the RAF's current and future technical training plans for Typhoon".

Shortly after the advert appeared an initial cadre of RSAF pilots, all experienced Tornado and F-15 pilots, arrived at RAF Coningsby in Lincolnshire, to begin training; they returned to Taif in 2009 to help set up the new Typhoon OCU.

Major Abdulaziz Abdullah Al-Shareeff of the RSAF's 3 Squadron, revealed details of the service's Typhoon training during the July 2012 Royal International Air Tattoo at RAF Fairford in Gloucestershire. He said 20 pilots had converted to the new fighter and a further seven were about to finish their conversion course. A former F-15C/D pilot, Major Shareef has so far accumulated 230 hours in the Typhoon and is now an instructor pilot. "I am very happy to fly Typhoon," he said. "As soon as I started conversion I discovered the Typhoon was really something good for me. It is a good aircraft, I really like it. Typhoon has big performance improvements on the F-15. The training facilities for conversion are easy; it is not that difficult [to learn to fly it]. We are now taking people straight from our air force academy, who have only flown the Hawk, to fly the Typhoon."

The RAF and BAE Systems are also working to develop a training package for hundreds of RSAF ground maintenance personnel destined to work on Typhoon. Industry sources describe the project as "ambitious", because not only will RSAF technicians be converting to a new aircraft type, but they will also be moving from a US-style single-skill to a UK-style multi-skill trade structure.

UK role grows

The RSAF long held the ambition to replace its

Above: A Hawk T1 from 208(R) Squadron flies high above its base at RAF Valley in Anglesey, Wales. For a history of the squadron see the March issue of *FlyPast* magazine, on sale now. Crown copyright/MoD/Cpl Paul Oldfield

Below: The Hawk T1 has been a familiar sight at RAF Valley in Anglesey since its introduction into service in 1976. It will almost certainly celebrate 40 years at the base in 2016. Key - Gary Parsons

Bottom: Now in the twilight of its career, the Hawk T1 is still teaching pilots from around the world to fly advanced fighters. Crown copyright/MoD/Corporal Mark Dixon





UK Typhoon training

The UK-Saudi partnership on training has not been entirely smooth – details of Anglo-Saudi tension emerged after an RSAF pilot was killed in Spain in a Typhoon accident in August 2010. An initial cadre of six RSAF Saudi instructor pilots were trained at RAF Coningsby during 2009 after the UK signed the deal to sell 72 Typhoon aircraft. It had been expected that a second batch would begin training in the UK in 2010 as part of that deal.

The plans fell through after the UK Treasury (finance ministry) insisted that the Saudis be invoiced for what is termed the 'real cost' for use of assets, which includes a charge for purchasing capital assets, rather than the 'marginal cost', which only covers daily usage. RAF officers say this pushed the rate for the use of Typhoon aircraft at RAF Coningsby from just under £10,000 per flying hour to over £95,000 per hour. The Treasury also insisted on very high commercial insurance rates being paid by the Saudis to cover the RAF Typhoons when they were being flown by RSAF pilots.

"Not surprisingly, the Saudis were not very impressed when they were told how much it was going to cost them," said an anonymous industry source familiar with the issue. "They wanted to

make a point by moving the training elsewhere. The Spanish and Italian air forces were asked to bid and the Spanish won."

When ministers in the UK's new coalition government of 2010 were made aware of the problems by ministry officials and executives of BAE Systems, they moved to resolve the issues with the Treasury. "Thankfully, the Treasury was made to see sense and it quickly reversed its position," said the industry executive.

A new batch of student Saudi pilots was trained at RAF Coningsby in 2011, but by 2012 the RSAF had moved all its Typhoon conversion training to Taif.

As of January the deal to put additional RSAF students through RAF Valley has still to be finalised. Four Saudi student pilots are expected to arrive at RAF Valley during 2013, but this is described as a 'standalone activity' involving a 'piecemeal batch' of students by the UK MoD, rather than part of a larger arrangement.

Whatever the outcome of the negotiations over the project at RAF Valley, the training relationship between the RAF and RSAF is close and has produced many benefits for both air forces. It looks like continuing for many years.

1980s-vintage Hawk Mk65s and PC-9s with 21st century aircraft incorporating glass cockpit and embedded synthetic training technology to smooth student pilots' transition to glass cockpit fighters, such as the Typhoon and F-15S/SA.

This was realised with the Hawk AJT order in May 2012. The new Saudi variant of the Hawk is designated Hawk Mk165. It is understood to be essentially similar in configuration to the UK's T2 (or Mk128) Hawks, which are now in service with IV(R) Squadron at RAF Valley in Anglesey for advanced jet training (see *Four to the Fore*, AFM December 2012).

The pace of new fighter aircraft deliveries over the next seven years has created a dilemma for the RSAF. It needs new pilots almost immediately and its first new Hawks are not going to be delivered until 2016. To fill its training gap, the RSAF turned to the UK; it wants to send pilots to RAF Valley to take up places on RAF courses. Under arrangements being discussed, Saudi student and instructor pilots could start training at the RAF base early this year.

The measure is seen as an interim solution, lasting three or four years, until its new Hawks, other new training aircraft and simulators come on line at RSAF bases. The potential number of Saudi students is such that to cope with the additional training load, the RAF is looking to extend the service of several Hawk T1s (believed to be no more than 24) that were intended to be retired at the end of 2012. Until late 2011 the RAF operated around 50 Hawk T1s at RAF Valley.

No 208(R) Squadron, which operates the T1, was expected to stand down in December 2012, but may now continue for another five years. Plans to move T1 conversion training for pilots destined to fly the 'legacy' Hawk to 100 Squadron at RAF Leeming in North Yorkshire (see *95 to The Top*, AFM February 2013) have also been put on hold. Air Commodore Terry Jones, RAF Director Flying Training and Air Officer Commander 22 Group confirmed at Farnborough's airshow last July that negotiations were under way with the Saudis. "The plan up to six months ago was for the T1s to go this year," he said. "While we talk to

the Saudis we are also looking to run on the T1 fleet, exploring the potential – the prospects are high."

The expected input of additional RSAF pilots is forcing the RAF to look again at its own training at RAF Valley and might result in UK students continuing to use the T1 to free up space for the Saudis on the new Hawk T2s that began being used for student training at RAF Valley last April. This is necessary because Saudi instructors need to use the synthetic training devices and systems on the T2, which mirrors the configuration of the Saudi Mk165s. That will allow the RSAF to bring its Mk165s into operational use very soon after its takes delivery of the first new aircraft in 2016.

"As it stands now, all [UK students] are currently destined to go to the T2," said Jones. "If the international defence training goes ahead we will have to look at it again." He said IV(R) Squadron, which operates the RAF's 28 Hawk T2s, was able to cope with a throughput of up to 50 students a year. "We are not working to full capacity. Our throughput is 28 to 30 RAF and four to eight Royal Navy students a year."



Hawk T1A XX156 is the oldest serving in the regular front line fleet. It was delivered on November 18, 1977 and is seen here during AFM's visit to RAF Valley in late September 2012. The first Hawk, XX154, still flies with QinetiQ at MoD Boscombe Down on research work.

Key – Gary Parsons