

## By Neil Wilson

eil Wilson visits LAA member Caroline Rhodes, who flies Falcon 20 jets for Cobham Aviation Services (CAS) based at Bournemouth, while in her spare time she pilots a variety of LAA types from Henstridge, including a Silence Twister, an Auster J-1A and a Colomban Cri-Cri

As a result of the Falklands war of 1982, the Royal Navy detected a gap in its training and a lack of awareness of the threat posed by both air and ground-launched missiles against Navy ships. A contract to fly simulated attacks against Navy ships was awarded to Bournemouth-based Cobham Aviation Services (formerly known as FR Aviation Ltd) to help provide this valuable understanding and training.

To understand how this service is provided, I was invited to visit CAS's HQ at Bournemouth Airport in Dorset, to look around their facilities and to fly with them in a practice exercise known as 'The Tuesday War'.

On arrival, you immediately see on the corridor walls the history of the company, dating back to Sir Alan Cobham. There are photographs showing the man himself blazing new flying routes around what was then the British Empire, and indeed beyond. There is even a picture showing him landing on the River Thames at Westminster Bridge in 1926, on his way to Buckingham Palace to be knighted later that day. Later in his career, in 1934, he was instrumental in the invention of inflight refuelling systems, initially developed at Ford Aerodrome in Sussex.

These days the company has aircraft based at Bournemouth and Durham Tees Valley Airports, from where it often deploys aircraft and crew all over Europe, visiting the likes of Sicily and Crete for target-towing and attack simulation. The company Falcon 20s have also been on exercises to various NATO airfields, the Middle East and as far afield as Malaysia

The exercise planned on the day of my visit was to fly three Dassault Falcon 20 aircraft accompanied by two BAE Systems Hawks against five warships that were in the English Channel, some miles off Plymouth Sound. We were to attack these warships using the pods carried under our wings to jam the ships' radars and to simulate the electronic emissions associated with the launch of sea-skimming missiles. The Hawks would join us later in the exercise and would fly tucked under our wings until 'launched' by us to simulate the profile of a sea-skimming missile. Once launched, the Hawks would fly at low level across the sea, while the ships' guns and missile systems would launch a simulated defence. Once one attack had finished, an observer on board the ship may instruct some of the crew (including officers or even the Captain) to simulate having been killed or injured, requiring the remaining crew members to deal with the second missile attack with depleted numbers. It makes for quite a realistic war scenario.

I was introduced to the staff who plan the exercises, which can be quite complex, co-ordinating aircraft, crews, warships as

well as other resources from the armed forces. Planning also takes into account notams, weight and balance of the individual aircraft and which electronic pods are to be deployed with each aircraft for a particular exercise. My tour also included the engineering department which is responsible for preparing the aircraft earmarked for a particular sortie. Depending on the particular exercise, many different types of electronic warfare pods are carried underneath the Falcon.

On the day of my visit our particular aircraft had four pods, so the engineers loaded these while also fuelling the aircraft, taking into consideration the expected duration of the sortie and the weight of the aircraft. The more pods carried, the heavier the aeroplane becomes, which of course means more drag and extra fuel. The deep maintenance hangar, where engine changes and airframe work are carried out, is also based at Bournemouth.

While walking around the company buildings, we visited one hangar which provides the target towing facility. Here manager John Mitchell explained that a variety of targets can be deployed from beneath the Falcon's wings, typically trailing from 10,000ft to 30,000ft behind the aircraft, depending upon which targets are being used and which weapon systems are engaging them. One of the targets is similar in shape to a Tomahawk cruise missile, against which RN ships prove their missile and gun systems. It has its own radio-altimeter which enables the target to fly as low as 25ft above the sea. The

(Right) Caroline in her Auster, which she shares with her husband Ken. They also fly a Twister which they built themselves.

(Left) Close up view of Amber one as we fly in formation to the exercise area. Note underwing pods that enable the aircraft to be equipped for a range of different exercises.

(Right) Pretending to be a missile, the naval ships doing all they can to avoid being hit. This role is usually played by RAF Hawks but on the day crosswinds kept them grounded.

Falcons also tow banner targets for air-to-air firing by RAF Typhoon and Tornado aircraft.

We were due to take-off for our exercise at 13.55, before which a full briefing was given. The weather forecast was good although occasional CBs were expected in the exercise area.

We were to be led by Amber One, piloted by Captain Steve Wells, who was flying with crew member Les Sim, also an LAA member, who pilots a Streak Shadow from Old Sarum in his spare time. I would follow in Amber Two with Caroline, who would fly in formation with the lead aircraft to the exercise area and 'attack' five Navy warships, which included one of the Royal Navy's brand new warships HMS Defender, a Type 45 destroyer, alongside two Type 23 frigates, Argyle and Northumberland, the Royal Fleet Auxiliary (RFA) ship Orangeleaf and the Belgian Navy frigate Leopold. Amber Three, being flown by yet another LAA member, Stephen Tomlinson, who flies an RV-6 out of Bournemouth, would follow us, and attack a little later.

We had earlier learnt that even the best laid plans can go awry, as the Hawks had cancelled owing to the crosswind being too high for them to land back at their base at RNAS Culdrose in Cornwall. This meant that we would now take the place of the Hawk 'missile' and be launched ourselves against the fleet. Although a little disappointing for me that a Hawk wouldn't be in formation with us, but this was more than made up by the

THE TUESDAY WAR

fact that we would now be simulating three attacks as the 'missile', two from the sea, and one from off the land, so more low, level, high-

speed flying!

'Armed' and fuelled up, we made our way to the Falcon, started up and took off. We flew out from Bournemouth over the Needles, past Swanage and out over the Lyme Regis coast, making our way west to the exercise area. We formed up under Amber One's wing, with our Electronic Warfare Officer, Nick Dukes, sitting in the rear of the aircraft already starting to jam the ships' radars with the Falcon's on-board radar jamming pods, hopefully be putting them off our scent. I was sitting in the jump seat between Caroline, who was in the Captain's seat on my left, and First Officer Ryan Harris on my right, who was flying the aircraft for the first half of the sortie. What a vantage point! I could see Amber One in formation only a few yards away, the instrumentation which showed how long to run to our target, and to our right, the coastline with Seaton, Exeter and Plymouth in view. While en route, Steve in Amber One called for various formation changes to give us practise

Early days, Caroline started her flying career in gliders.

in low level formation keeping and manoeuvring.

We were now flying into the war zone under the control of Plymouth Military, so we got into position for battle. We moved closer to Amber One's left wing, cranked up our speed and were 'launched' from a distance of about 30 miles from the

target ships; we were on our way and now behaving as an air-launched missile. We let down to 250ft above the waves, flying at 350 knots looking for our target - HMS Northumberland. Ahead in the distance we could see the ships, all leaving large wakes as they tried to take avoiding action. We were now getting spray and salt on the windscreen as we got closer to our target and there was a real impression of speed because of the proximity of the sea and the ships. In our headphones we could even occasionally hear the ships' crews shouting as they barked out orders. We roar past the RFA ship Orangeleaf, which stands out from the other warships because of its size, and pass directly over Northumberland, which is at quite an angle in the water as she tries to avoid the attack. Ryan pulls up the Falcon after our attack, and we then turn East, and head back towards Portland, looking for Amber One, which has been loitering in the area during our attack.

At this point the roles are reversed and Amber One is now going to attack the ships. We form up together and launch him this time, the second 'missile' is on its way to attack HMS Argyle.

## THE TUESDAY WAR

It is now our turn to keep out of the way, so we fly over and around the Torbay area at about 3,000ft, and as luck would have it, the clouds part and the sun comes out so I nip back to the rear of the aircraft to look out, and take pictures of the Dartmouth estuary and the famous Naval College, Torquay and the local area. Devon is such a lovely county to fly over.

We then get ready for our last attack when we will pretend to be a land-based missile attacking the ships. We get into position at the prescribed time somewhere near Plymouth and start our attack run, and this time with Caroline flying the aircraft. We again let down to low level, pick up speed and head towards the ships, all of which are now nicely spaced out and Caroline decides we can fly over and attack them all. This, as with the first attack, is all manual flying, so Caroline cranks over the stick to the right as we pull around and fly over the Belgian frigate Leopold, hard left and we are going over HMS Defender and then straight out over RFA Orange Leaf again before we spot Argyle, so a hard right turn and we make an attack with lots of noise right over them, as they veer one way and

another trying to escape the attack. I must say that this is all very exciting, being at low level, attacking ships in a jet – not something I thought I would ever have the opportunity to be involved with, all real Boy's Own stuff.

The Tuesday War is now over so we make our way back to Bournemouth, where the Falcon 20 quickly slows down when the flaps are lowered. A nice smooth landing by my Captain gets us back at base for a welcome cup of tea. We debrief the attacks with the crew from Amber One, which had returned ahead us. All seems to have gone well – I like to think we won – but whatever the result today, this is a valuable training service provided by the team at Cobham PLC, not only to our own Services but also foreign air forces and navies, therefore providing a valuable asset to the UK and her Allies.

I would like to thank everyone at Cobham PLC, including Director of Flight Operations, Spike Jepson who gave permission for my visit, Steve Wells and Caroline for organising my tour and flight.

LAA member Caroline Rhodes has flown many different types in her career. She began her flying with the Oxford Gliding Club, gaining some 500 hours on various types of glider. She gained her PPL and flew as a pilot's assistant on a Citation business jet, and after several years of instructing on singles and twins at Oxford Airport, she was accepted by Cobham (then FR Aviation Ltd) and has flown the Falcon 20 for them since 1998.

Caroline was also only the second woman to gain a licence to fly an Autogyro in the UK, an RAF 2000, which she shared with her husband Ken (also an LAA member) – who himself flew Phantoms, Hunters and Hawks for the RAF. It was the autogyro that she used to fly into their wedding at Sherborne Castle (makes a change from a vintage Rolls-Royce!). She now has over 11,000 hours in total, including 28 in a BAE Systems' Hawk.

She and Ken now own and fly a J1-A Auster, a Cri-Cri and a Silence Twister which they built together. ■





Caroline poses with her Cri-Cri and the Falcon 20, the two extremes of her flying life.