

LIFE WITH A LEGEND

Recollections of Mosquito RR299 may fade, but are never totally forgotten. As plans to give the UK another flying 'Mossie' gather pace, we talked to two of '299's illustrious former British Aerospace pilots about campaigning the much-missed machine around airshows at home and abroad **WORDS: BEN DUNNELL**

There seemed no end to it. A Venom accident at Hawarden that could have ended in tragedy, the P-38 Lightning crash at Duxford that killed 'Hoof' Proudfoot, the non-fatal Bristol Freighter loss at Enstone — July 1996 had already been a terrible month for British historic aviation. Then it got even worse.

Somehow, to be without Mosquito TIII RR299 was unthinkable. It seemed as permanent a part of our aviation heritage as any museum

exhibit, its presence virtually taken for granted. The events of 21 July 1996 changed all that, and claimed two lives. The loss of RR299, of pilot Kevin Moorhouse and engineer Steve Watson during a display at Barton near Manchester sent further shockwaves through a vintage aircraft scene that was already reeling from the events of the past few weeks. An aircraft that, to many, had always been around was gone, along with two popular men closely associated with it.

For the Hawker Siddeley and British Aerospace test pilots who flew the Mosquito, the chance to do so was a privileged one. Its demise was deeply felt; that of two company colleagues, all the more so. But, for Tony Craig and John Sadler, whose time with RR299 coincided during the 1980s and early '90s, many marvellous recollections remain. They help tell the story of its airshow heyday — which, had it continued past 1996, would have been in different hands.



A late-1980s image by a British Aerospace photographer of Mosquito RR299.
AVIATION-IMAGES.COM

What was then still known as the de Havilland Division of Hawker Siddeley Aviation had acquired RR299 during 1963, and registered it as G-ASKH on 12 July that year. Test pilot Pat Fillingham, who had flown many Mosquitos during wartime, delivered it from storage at Shawbury to the HSA factory airfield at Hawarden in September. For the next three seasons the machine was displayed in a silver scheme, but in 1968 camouflage was applied for film purposes, specifically the making of *Mosquito Squadron*. Dummy nose guns were added, and for a time RR299 was re-serialised as 'HJ695', as well as sporting the fictional squadron codes HT-P and HT-E. This was, of course, the sequel to *633 Squadron*, in which several other ex-No 3 Civilian Anti-Aircraft Co-operation Unit machines had participated, but not this one.

While the guns and the false serial were removed once filming was done, the camouflage and HT-E codes remained. The pattern for RR299's future was set. Famous test pilots took the controls for its display appearances: the likes of John Cunningham, Pat Fillingham, Ron Clear, Chris Capper and George Aird. So it continued after HSA was merged into British Aerospace during 1977. George Ellis, also a Shuttleworth Collection pilot, joined the roster. And, as the 1980s dawned, there was a need to bring in further new blood.

As an RAF engineer turned Lightning pilot, Tony Craig's time on the English Electric fighter included a season of solo displays. He had joined BAe as a production test pilot on the 125 executive jet in late 1979. John Sadler's first ever flight was a Dragon Rapide joyride from West Malling, so DH twins were a big part of his story. Later he was an RAF Canberra pilot, Empire Test Pilots' School graduate and Royal Aircraft Establishment test pilot before going to BAe in 1982, again mainly on 125s. They were the fortunate two.

Craig's first Mosquito flight was on 15 September 1981. "I sat with George Ellis on a trip from Hatfield to Chester, and I did an air test with George Aird, who showed me how the aeroplane worked. He then just said, 'Off you go'. My first solo was on 3 May 1983". Sadler followed soon afterwards. "Tony took it down to Hatfield one day in June 1983, and I went as a passenger. I thought it was great. Tony flew it back, and later he said he'd give me a check-



out. He briefed me, and on 18 May 1984, off I went". If this sounds a little perfunctory, consider that RR299, despite being a T.III, did not have dual controls. The right-hand stick had been removed years earlier.

As Craig recalls, "Because I came through on jets, I didn't have much asymmetric practice, and I certainly didn't get any 'big props on the wings' practice, with the torque that comes off them and the scary possibility of losing an engine. You had to think about that a lot, but then grit your teeth and get on with it. We did feather engines on the air

tests, so we learned how to do that. When you took off the props were in fully fine [pitch], so there was a lot of drag if you lost an engine. It was something to be thought about but probably never practised.

"The 'Mossie' was not easy on the brakes. You used the brakes to keep it straight from the beginning of the take-off run to when you got the tail up. It was a case of having the rudder full left and applying a little bit of brake — a second or two later you got the effect. It was delayed, which was difficult to control, and it's caught out a lot of people who aren't used to that sort of aeroplane. You could use slightly differential props, but we tended to just set the thrust and hope the rudder would keep you going straight once you got the tail up and had the airflow over the fin. Then it was easy to keep straight.

"On landing, learning it from ab initio with not many experienced people around you, you had to work it out for yourself. What I used to do was a tail-down wheeler. You put it on the mainwheels, slightly above stall speed, lowered the tail onto the ground and hoped you could keep it straight with the brakes. With quite long runways where we did displays, it was much safer to do it that way than to try and three-point, because it would bounce on you if you got it wrong. The chance of getting it wrong was quite high when you were learning. It became easier, but not too easy. You never, ever, presumed you could do it perfectly."

ABOVE: Wearing the silver scheme in which it started being operated by Hawker Siddeley, RR299 takes off from Farnborough in September 1966.

ADRIAN M. BALCH COLLECTION



VIA TONY CRAIG



ABOVE: Outside the BAe Service Centre at Hawarden in April 1984 after an annual service and repainting of the 'HT-E' code letters in a larger-scale format. Incidentally, the port engine was a Merlin 25 and the starboard one a Merlin 502, the only differences being in the installation. On both, the high-speed supercharger mode had been disabled.

STUART HOWE VIA IAN THIRSK

ABOVE RIGHT: In *Mosquito Squadron* movie markings as 'HJ695' at Hatfield in July 1968. The dummy guns, subsequently removed, are notable too. ADRIAN M. BALCH

As a former Canberra qualified flying instructor, Sadler was well-versed in tricky asymmetric control issues, while Shackleton time at the RAE meant he knew about heavy taildragger handling. Even so, on first acquaintance the Mosquito was a different kettle of fish. Landing back at Hawarden, he recalls, "I had a momentary pang that I was going to write it off. Tony had advised me to do a wheeler landing rather than a three-pointer. You could then lower the tailwheel onto the runway in an orderly fashion, compensating for the propellers' gyroscopic effects as you did so. On my first landing I did indeed get a swing to the right as the tail dropped. Also, of course, with all three wheels on the ground the aircraft loses its directional stability. Despite my smartly applying a bootful of left rudder and a heavy squeeze of left brake, the yawing continued and the edge of the runway was getting uncomfortably

close. I gave a sharp burst of power on the right engine. That stopped the yawing and it was easy then to restore order. I cleaned up the aircraft and taxied happily in, to be met with knowing looks from the groundcrew. For a considerable time afterwards my sinuous tyre marks on the runway served as a silent rebuke to over-confidence."

With conversion complete, the display circuit beckoned. Craig says, "My philosophy when flying displays was never to scare the audience by doing something brave, but just to present a good aeroplane. That meant getting the engines perfectly in sync, so they made a nice sound,

and the props looking good, and being gentle with it. If you pulled too tight you would get close to the high-speed stall, which you didn't want to get anywhere near. You had to keep positive g on. It was really

sensitive to zero or negative g — it just wouldn't do it. And you had to be super-sympathetic to the feel of the controls, because you got the aerodynamic feel through them."

BAe's Mosquito operation was no grand affair

— quite the reverse. For the pilots, it was like being owner-operators, taking the show bookings and doing all the surrounding admin. The company management had no input at all. It was only when Tony Craig

“ We were like a little flying club. There was a great feeling of freedom, but at the same time a feeling that we had to get it right ”

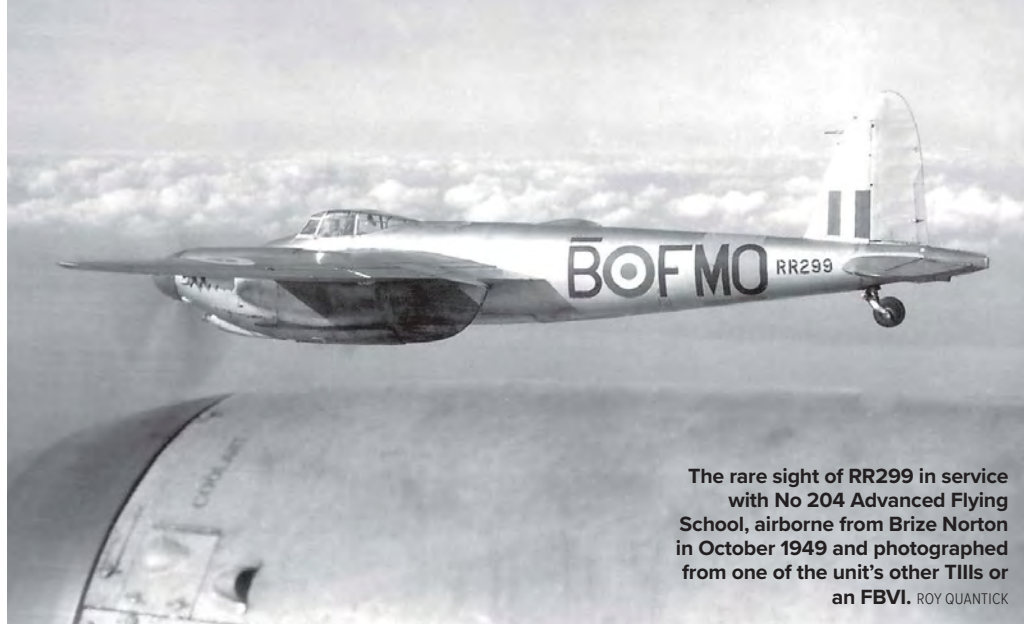
arrived that organisers began having to pay for the privilege of seeing RR299 at their events. “When Chris [Capper] and George [Aird] flew it they didn’t charge anything”, he says. “I thought it was sensible to put a price on its head, not because we benefited financially by flying it, but because I felt it ought to pay its way a bit. We charged a modest fee to keep it going.”

John Sadler still smiles at the thought. “It was like being in the air force, but without any supervision. It was astonishing. We were like a little flying club. We had revised pilot’s notes, with a maximum of 250kt and 8lb of boost and so on, but it was then up to us what we did with it. Other than that, there were no rules — nothing laid down, except what was in the Air Navigation Order. There was a great feeling of freedom, but at the same time a feeling that we had to get it right, otherwise we’d be in serious trouble.



“The first time I took the aircraft away was 1985, for a double bill at Inverness Airport and, would you believe, Filton. Between Inverness and Bristol, half-way there is Chester. I said to [engineer] Bill Brayshaw that we’d go and have a little look at my daughter’s school, which overlooked Chester racecourse, because they were having some kind of do for the parents. We whizzed across there and carried on down to Filton, where we were well received by [chief test pilot] John Lewis, and went to our hotel. I rang Jill [Sadler’s wife] and she asked, ‘Are you all right?’ ‘Yes, why?’ ‘Oh, I’ve been in a terrible state. When you flew across the school, I was convinced you were going to frighten the horses at the races!’ She’d imagined that they’d gone berserk and bolted everywhere. I’d no idea and blithely carried on...”

That freedom manifested itself in other ways, too. “I’d just been promoted to chief production test pilot”, remembers Craig, “when the PSO [personal staff officer] of the Chief of the Air Staff rang up one day. He said, ‘The Chief of the Air Staff wants to fly your aeroplane!’ I learned a bit about what he was wanting, and said I could probably get him in the right seat and show him round. ‘No’, he said, ‘he wants to fly it himself. He wants it for his logbook!’ Having left the air force as a junior squadron leader, it was quite fun to say I just couldn’t allow the Chief of the Air Staff to fly our Mosquito. He asked



The rare sight of RR299 in service with No 204 Advanced Flying School, airborne from Brize Norton in October 1949 and photographed from one of the unit’s other TIIIs or an FBVI. ROY QUANTICK

RR299’S RAF DAYS

Mosquito TIII RR299 rolled off the de Havilland production line at Leavesden, Hertfordshire, in early 1945. The machine was taken on RAF charge on 14 April that year and delivered to No 51 Operational Training Unit at Cranfield, but its impending disbandment saw a period of storage with No 27 Maintenance Unit at Shawbury from June. It emerged by December, when the Pershore-based No 1 Ferry Unit transferred the aeroplane to Cairo and Aden, where it served with No 114 Squadron.

Returning home in May 1949, RR299 was allocated to No 204 Advanced Flying School at Driffild and subsequently Brize Norton. This posting was short-lived, for on 19 December 1949 a swing on landing at Brize while being flown by a Burmese Air Force pilot resulted in the port undercarriage being torn off, and major damage to the fuselage and port wing.

Brooklands Aviation conducted repairs, after which RR299 was stored with No 22 MU at Silloth. de Havilland flew the aircraft from Hatfield for a time, starting in November 1952. Its next RAF allocation was to the Benson-based Ferry Training Unit in September 1954, but that lasted just a month. Again the airframe entered storage, with No 48 MU at Hawarden — a future base for ‘299 — and No 12 MU at Kirkbride.

The Mosquito’s RAF days were drawing to a close. May 1957 saw this example going to the Home Command Examining Unit at White Waltham. Between April 1959 and March 1963, RR299’s final service was from Exeter with No 3 Civilian Anti-Aircraft Co-operation Unit, where it and other TIIIs converted pilots destined to fly the TT35 target tugs, provided refresher and instrument training, and acted as non-towing targets. Its job done, RR299 went back to storage at Shawbury, but a new life beckoned.

me, ‘Who’s your boss?’ I told him it was so-and-so down at Hatfield. As soon as I put the ‘phone down I rang the boss and told him I’d refused the Chief of the Air Staff. He said, ‘Well done.’ He refused him as well.”

As an aircraft for lengthy overseas display deployments, being rapid and long-legged, the Mosquito was especially good. A memorable sortie for Sadler was to the show at Sion, Switzerland, in June 1986. “The weather was fine until we got to the Jura mountains. I knew the height of the ground around me, I knew my safety height, and I climbed to that, clearing cloud as far as I could. By this time I wasn’t worried about icing, but I was worried by the fact that we were at 10,000ft, which was our limit without any oxygen. I let it climb up very gently to 13,000, checking that Bill [Brayshaw] was all right. ‘Yep, fine,’ he said.

“I tried to call Geneva control, but I wasn’t getting anything out of

them. We only had a certain number of crystals for the VHF set. But I managed to get through to Sion. I was flying down the Rhône valley and I could see Mont Blanc, so I was happy with that. I asked them what the weather was like. They said it was a bit cloudy, but there was a gap over the airfield. I turned, went up the valley on a heading of 080 or thereabouts and told them I was on my way. I said to Bill, ‘There’s a hole there. I wonder if that’s where Sion is?’ Luckily, it was. They cleared me to circle down and land, and I came down through this hole.”

The Sion venue, bordered by mountains on one side, is rather unusual. “It’s hidden in a valley, and when I looked at the contours of it — strewth! It was tight on the south side. North of Sion, the ground was gently rising, and once I’d got my orientation I could turn to the north of the airfield to reposition. It went fine”. Showing the aircraft’s

OPPOSITE PAGE, TOP LEFT TO RIGHT: John Sadler was at the helm of RR299 for this memorable formation with his former BAe colleague George Aird in Mosquito B35 RS712, before the latter was delivered across the Atlantic to Kermit Weeks during 1987. BAE SYSTEMS

Space in RR299’s cockpit had been improved by removal of the right-hand stick, but it remained on the cramped side, and getting in and out — not least for the engineer or passenger — proved a bit of a trial.

VIA JOHN SADLER

PRESERVATION HISTORY Mosquito RR299



“I took time to fly over the Möhne dam, circling it gently at 2,000ft over the top. That was a lovely thing to do with two Merlins”



CLOCKWISE FROM TOP LEFT: Tony Craig presents a picture of RR299 to Barry Jones (left), the then Labour MP for Alyn and Deeside, whose constituency included Hawarden airfield. Among the others in attendance are engineers Bill Brayshaw and Steve Watson. VIA TONY CRAIG

John Sadler (right) after a trip from Wyton in May 1989 with Forbes Smith, who did three tours on No 16 Squadron in the Canberra, Buccaneer and Tornado GR1. VIA JOHN SADLER

The view from the cockpit as John Sadler formats RR299 on Shuttleworth's DH88 Comet *Grosvenor House*, in the hands of fellow BAe Mosquito pilot George Ellis, near Old Warden in May 1989. VIA JOHN SADLER

Tony Craig's last Mosquito flight included an escort to Leeming by a No 23 Squadron Tornado F3. VIA TONY CRAIG

Elvington, 15 May 1991: the 50th anniversary of the maiden flight of the prototype Mosquito night-fighter, and the inaugural outing for Tony Agar's part-restored NFII HJ711. Peter Henley brought RR299 in to the airfield near York to create a unique spectacle. By this time, Agar had been able to fly in the BAe machine. KEN COTHLIFF



capabilities, with his slot at Sion complete and the fuel topped up, Sadler transited direct to Dunsfold for a display there, and finished the day with a third demo at Coningsby. Surely no other airworthy historic aeroplane could have done that.

Craig once took RR299 to Kristiansand in Norway. “We headed off towards Teesside and across the North Sea, and I got hopelessly lost. We didn’t coast out where I wanted to coast out, and it took a lot of recovery and talking to air traffic, but we got there and did the airshow. Coming back, I headed towards Teesside again and ended up hearing someone say, ‘The ‘Mossie’s’ going down the Firth of Forth. I got it back home by tracking south along the east coast prior to turning west for Liverpool to clear customs. The compass was set incorrectly because, when they did the compass swing on the ground, the tail was down by 20° and there was a huge parallax on the compass which was not allowed for. They swung it again, and you could fly really accurately on it.”

Scandinavia was a favourite destination, given the strong ‘Mossie’ connections with Norway and Sweden. Both Craig and Sadler flew RR299 to Västerås, the latter’s appearance, in 1987, being shown live on Swedish TV and including a formation with B-17 *Sally B*. Again that day the aircraft’s performance was used to the full, John making it back in time to display at Finningley and get home to Chester the same

evening. On another occasion, Tony was doing a show at Gütersloh, “and I took time off to fly over the Möhne dam, circling it gently at 2,000ft over the top. That was a lovely thing to do with two Merlins...”

The presence of an engineer was invaluable. During Craig and Sadler’s time, Bill Brayshaw and Steve Watson did the honours. Nominally they had other jobs, but, Sadler says, “They were always there. They were very thorough in looking after the Mosquito. Every year the wood was tested for moisture, and the engines were very thoroughly examined and tested. That was pretty well a full-time job.”



Their efforts ensured excellent serviceability, though Sadler recalls, “I had to land it once because an engine failed in flight. Steve and I had been to Folkestone” — taking part in 1990’s inaugural Shepway Airshow, where RR299 led five warbird fighters in the finale formation — “and we were doing a routine flight home to Hawarden when the right engine began to cough. We were right over Southend, so I said we were going to land there. The fuel pump had failed, and the engine was still running, but roughly. I kept it running, but we landed on one-and-a-half engines, effectively. We got the train home.”

Also helping was Ian Thirsk. Today head of collections at the

RAF Museum, as a volunteer on the Mosquito restoration team at what was then the Mosquito Aircraft Museum — now the de Havilland Aircraft Museum — he acted as the liaison with RR299’s maintenance team. “We’d regularly supply spares and technical information to maintain RR299 in return for a free air display over Salisbury Hall every summer”, he recalls. A good example of that assistance came in July 1988, when a new pilot making his first flight on type ground-looped the machine at Hawarden. As Thirsk says, it “suffered extensive damage to the undercarriage due to sideways loading — fortunately she didn’t end up on her belly. The Mosquito Museum was able to provide the necessary replacement undercarriage components, some of which originated from a spares cache of ex-RNZAF FBVI parts received from Ted Packer in New Zealand, to enable RR299 to be repaired and flown again two months later.”

A display at Salisbury Hall on 25 November 1990 was John Sadler’s penultimate trip in RR299. That date was the 50th anniversary of the prototype Mosquito’s maiden flight. One more demo followed, at Shawbury in December. Tony Craig continued for a little longer, making his last Mosquito flight on his birthday, 11 May 1991. That occasion was doubly special as he was escorted to Leeming by a pair of Tornado F3s from No 23

ABOVE: Two outstanding generations of British strike aircraft. RR299 appeared at Wyton on 13 May 1989 to help celebrate the 40th anniversary of the Canberra’s first flight, appropriately enough with former Canberra pilot and qualified flying instructor John Sadler at the helm; coming in to land is one of the two Canberra T4s (in this case WT478) painted in what were thought to have been prototype VN799’s colours, piloted on a commemoration of the maiden flight by Sqn Ldr Dave Watson and the great Roland Beamont.

PETER R. FOSTER



ABOVE: When the Aircraft Restoration Company's freshly restored Blenheim IV, 'Z5722', first appeared on the circuit in 1993, several times the Mosquito joined it — as here at Duxford's Classic Fighter show. John Romain and John Davies were the respective pilots on this occasion.

BEN DUNNELL

Squadron, his old Lightning unit. Both of them had decided they were too busy with BAe 125 flying to carry on with the 'Mossie' — and, most importantly, to do so safely, given the burden of flight planning in those pre-internet days.

Talented replacements were available to take up RR299's reins. Peter Tait was director of flight operations for BAe Regional Aircraft at Hatfield, while Peter Henley worked as vice-president of flight operations on the ATP airliner programme at Woodford. George Ellis having also stepped away from Mosquito flying, Tait and Henley took over for the bulk of the 1991 season.

That was RR299's last year in its familiar colours. Come the start of 1992, BAe gave the aircraft a

major overhaul. Its fabric was also renewed, this being done by Clive Denney of Vintage Fabrics with the assistance of Ian Thirsk and the Mosquito Museum. When they came to conduct the repaint,

“It had that unique aeroplane smell attributed to sweat, aviation gasoline, hydraulic oil and gently cooked electrics”

Second Tactical Air Force-style D-Day invasion stripes were applied, but BAe elected to retain the old HT-E film codes rather than have the machine represent a particular airframe from a real

squadron. Many considered this an opportunity missed, but the end result still looked good. At Farnborough that year, Henley later recalled in this magazine, “BAe marketeers ruefully complained that the Mosquito was the only aeroplane for which they had received a cash offer at the show.”

It's often forgotten how close the Mosquito came to disaster on 27 September 1992. In good weather, Henley and Watson were flying at 2,500ft near the south-western Dutch town of Axel, en route between Hawarden and Antwerp, when RR299 was in collision with a glider. At the time, Henley told *Aeroplane*, “We were aware that the glider had come very close, but it was only after landing at Antwerp and filing an airmiss report that we discovered the two aircraft had actually collided”. Damage was confined to a nick in one of the Mosquito's propeller blades and a lost wingtip on the glider. Both had been very fortunate indeed.

Henley loved flying the 'Mossie'. It had, he wrote, “a wonderful patina of age and use, and an abundance of that unique aeroplane smell usually attributed to a heady mixture of sweat, aviation gasoline, hydraulic oil and gently cooked electrics”. His last season was 1993, concluding on 4 October with a display over an address in the south London suburb of Coulsdon. Henley recalled, “This was, I think, a generous present by a son to his father, who had flown Mosquitoes in the war. The Civil Aviation Authority had sensibly issued authority for a limited display on the outer fringe of suburbia, but Woodplace Lane was not all that easy to find, and I relied heavily on the fact that I could see only one social gathering in the vicinity. To this day I am still not certain whether it was number 4, or bemused guests at a wedding reception or a funeral wake.”

By now, two more BAe test pilots had been introduced to RR299, Kevin Moorhouse and

RIGHT: RR299 took its place in the International Air Tattoo's Victory Finale in 1995, flying in the RAF warbird element alongside the BBMF Lancaster, Hurricane PZ865 and Spitfire AB910, which is breaking away in a 'missing man' salute.

JOHN DUNNELL



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British Aerospace's Mosquito TIII RR299
in the hands of Peter Henley and Clive
Denney during September 1992. RICHARD PAVER



AEROPLANE



New colours for the 1992 season, complete with invasion stripes. The Mosquito, flown by Peter Henley, was joined for a photo sortie by Historic Flying's Spitfire LFXVIe RW382. RICHARD PAVER



John Davies. They would be the last. Davies in particular became known for his notably spirited performances, sticking to the tried and tested display profile — and all the well-established limits — but somehow injecting a certain verve of his own. At Old Warden, making maximum use of the curved display line, his style enjoyed its finest expression. But there were exceptional appearances elsewhere, too, not least at some of Duxford's early Flying Legends shows, where mixing it with multiple Spitfires became the order of the day.



In these latter years, operation of the Mosquito was transferred to Airbus, which now ran the Hawarden site, though it remained in BAe ownership. That was set to change, however. An agreement had been reached whereby BAe would hand RR299 over to the RAF's Battle of Britain Memorial Flight at the end of the 1996 season, starting a new chapter in its history. It was never destined to open.

That display at Barton on 21 July proceeded like any other. Then, entering a perfectly benign wingover, a temporary power loss on the port engine resulted in a loss of control. In the words of the

accident report, "control appeared to have been regained, but at too low a height to prevent impact with the ground". One potential cause was reduced fuel flow through the carburettors in negative g conditions, not necessarily because negative — or reduced positive — g had been induced, but as "a function of complex dynamic conditions". However, a hard and fast conclusion could not be reached.

Within two years of the loss of Moorhouse and Watson, their colleague John Davies had also been killed, in a Hunter accident at Dunsfold. Since then Peter Henley and George Ellis have passed away. As the years go by, RR299 sadly becomes an ever more distant memory, but it will never fade away completely. It was too beloved an aeroplane, too much part of the fabric of historic aviation, for that to happen.

The late Peter Henley summed it up well. A "properly choreographed routine showed off every aspect of the elegant airframe", he wrote, "while the harmony of the Rolls-Royce Merlins waxed and waned in accord with the air speed and the proximity to the crowd. Everyone, from schoolboys to cultured experts, seemed to enjoy it". They certainly did.



The late Steve Watson (left) and Kevin Moorhouse with their mount at Hawarden in 1994. IAN THIRSK



Britain's 'Mossie' revival

Twenty-three years have passed since we last saw a Mosquito flying in the UK. Now, two separate efforts are under way to finally change that **WORDS: BEN DUNNELL**

Many an envious glance has been cast from British shores towards the overseas population of airworthy de Havilland Mosquitoes. Since 2012, no fewer than four examples have flown again, all now resident in North America. When, it is justifiable to wonder, will it be our turn? Sooner rather than later, hopefully. Two current, separate projects are seeking to reverse

the lack of a flying 'Mossie' in the UK. The organisations behind them are The People's Mosquito and the Mosquito Pathfinder Trust, each taking different routes towards the end goal but with the same purpose: to pay tribute to the aircraft and its crews in the most appropriate way possible. They are making tangible progress, and seeking your support. *Aeroplane* spoke to representatives of both.

The People's Mosquito

Taking its identity from the recovered remains of Mosquito NF36 RL249, which crashed at RAF Coltishall in February 1949 and was subsequently used as an instructional airframe until being burned and dumped, the project set up by The People's Mosquito (TPM) has moved into a new phase. "We've gone from needing people's help to get going, to getting going", says chairman and managing director John Lilley.

"For a long time", Lilley explains, "we were raising money towards the dream of returning a Mosquito to UK skies. In the last 18 months we've not only started the fuselage mould, with Retrotec, but we've also been able to acquire a wing jig, a tail jig, and other tooling to make fuel tanks, bomb bay doors and things like that. Those jigs were

acquired from Aerowood of New Zealand, who unfortunately have gone out of business. They were delivered to us by container ship in March of this year, and they currently sit at Retrotec's premises down in East Sussex."

The selection of Retrotec, under the leadership of Guy Black, as TPM's partner in the build of RL249 was a big step forward. So, earlier, had been the donation by Airbus of more than 22,000 original Mosquito airframe drawings. From them, says Lilley, "Retrotec was able to take the lofting drawings — which give you the outline of the fuselage

moulds, the bulkheads and so on — and Guy Black and his team could use them to design a CAD [computer-aided design] profile of the moulds. The monies we've raised last year and this year have really contributed to getting them

“We're six months into a five-to six-year plan. We've seen double-digit growth year on year”

done. We've got a one-tonne steel jig being assembled for the bulkheads to sit on, and we're moving into the next stage which is calculating what we call the in-fills between the bulkheads, to define the Mosquito fuselage shape."

While the jigs acquired earlier this year had been used in the rebuild by Avspecs of Rod Lewis's Mosquito FBVI PZ474



John Lilley from The People's Mosquito with Retrotec's Guy Black and the initial work on the first fuselage mould for Mosquito RL249. VIA TPM

(see *Aeroplane* April 2019), TPM has not gone down the route of having its 'Mossie' done in New Zealand. Lilley pays generous tribute to the work undertaken there by Glyn Powell and Avspecs, but, he says, "In the end, this was a British-designed and British-built aeroplane originally. When we looked at the costs of having something done 14,000 miles away, there was still a cost to get things done to [meet UK] CAA regulations, and associated engineering processes to go through — it was almost the same money. The board of TPM realised, with Guy [Black]'s support, that it was a



similar cost to make new ones in the UK. And it just felt right. We will be giving supporters access to see the moulds and see the construction throughout, which is quite difficult being the other side of the world.”



What about a timescale? “I believe we’re six months into a five- to six-year plan. The way fundraising is going at the moment, we’re still hitting six-figure sums raised each year, but ideally we need to be getting more into seven figures. We have seen double-digit growth year on year in terms of fundraising,

which has been positive. We’re quite a lean organisation, so from the monies we’re raising we’re putting a large proportion of that into construction. Operational costs are kept to a minimum as the charity is run and manned entirely by volunteers.”

It goes without saying that Civil Aviation Authority support is essential. “We had a very big project meeting three or four years ago down at Gatwick. It was attended by the number two in the CAA and an airframe structures and propulsion expert, and they were enthusiastic. We understood what the BCAR [British Civil Airworthiness

Requirements] rules are — they had the manual but never opened it, and said it was because we knew what we were talking about. Fast-forward to 2019: we’d selected Retrotec as our supplier, and obviously they come with all the necessary CAA remanufacturing licences. That’s a big thumbs-up, and the CAA liaison officer who works with Retrotec has been supportive.

“There are definitely going to be modifications to the aeroplane. We can’t use the same glues; we’ve got to use modern aerospace glues, which is a safety feature, because they’re much better. As far as I’m

concerned, the CAA have been doing their job, but at the same time been very supportive and considerate. The CAA does not want an old fuselage that’s 75 or 80 years old flying, because they were never designed to last 75 or 80 years. The original de Havilland designers were amazed when they got past 25 operations. In that respect, new wood is their mantra.”

Thought has been given as to how the aeroplane will be finished. “We ran a poll several years ago, and there was a very clear, almost three-to-one majority to make it an FBVI — very similar to all the other

ones that have been finished. Currently, that is the thinking. When we had our CAA planning meeting several years ago they were quite happy that it was to be configured in that way, and not as an NF36". As for a colour scheme, "RL249 originally served with No 23 Squadron, so I'd quite like to do a No 23 Squadron night intruder scheme. There's one particular pilot who's still with us, a Canadian chap called Flt Lt George Stewart DFC, who gave us advice on how to fly the aeroplane, so I'd personally like to do it as a tribute to George.



"We want to operate with a similar model to the Battle of Britain Memorial Flight. What I mean by that is that BBMF doesn't just do airshows, but flypasts, memorials and so on. We'd like to do a very similar thing. The People's Mosquito name is to do with the fact that the aircraft will be donated by the people to the UK aviation scene. We wish to operate with a similar spirit of openness and accessibility, and operate the aircraft ourselves. We may look at outsourcing operation — at the moment, it's very far down the line — but we have Wg Cdr Bill Ramsey in our team, and he will be in charge of the air operation. Bill is very keen about the type of pilot and crew we need.

"Another question we often get asked is where the aircraft will be based, and there are, shall we say, several suitors. The selection of a base is really important because of accessibility. We need a location from where we can cover as much of the UK as safely as possible, and go into Europe as well. For safety, we will be fitting some modern navigation aids, but tastefully done."

With the fuselage moulds under way, TPM has something tangible to show. Assistance continues to be sought, and Lilley reports, "we are in close negotiations with several very well-known aviation companies to support and accelerate the project. As yet we are not ready to reveal who, but hope to do so in the coming months."

For more details and to support The People's Mosquito, go to www.peoplesmosquito.org.uk



The subject of the Mosquito Pathfinder Trust (MPT)'s efforts is ex-Royal New Zealand Air Force Mosquito T43 NZ2308, the restoration of which has already been half-completed by Glyn Powell of Mosquito Aircraft Restoration near Auckland. It will be finished by Ardmore-based Avspecs. "We were put in touch with Mosquito Aircraft Restoration and Avspecs by our friends at the Battle of Britain Memorial Flight", recalls MPT chairman John Merry. "That's where this initiative arose from, two years ago. We've made a couple of visits [to New Zealand] and met with the team there. The path that we've chosen is a proven one. The work Glyn Powell has put into this during his retirement is quite remarkable."

Originally produced at de Havilland's Bankstown plant near Sydney for the Royal

Australian Air Force as a Mosquito FB40 fighter-bomber but modified into a T43 trainer with serial A52-1054, the airframe in question was delivered to the RAAF in 1946, but went straight into storage. The following June it was delivered to the RNZAF, serving until early 1952. NZ2308 is owned at present by Mosquito Aircraft Restoration, but the intention is that it will be purchased by the MPT.

An announcement in April 2019 stated that this process, and the start of the remaining work on the aircraft, had been paused pending additional funding. Says Merry, "One of the corporate partners we had identified, who we'd hoped would put up a significant sum of money, for various reasons — some slightly linked to Brexit — decided they could not proceed, despite earlier indications that they would. We've spent time finding alternate partners.

We're not completely signed on the line, but at the same time we've got a reasonable prospect that we will be by the end of the year. There are detailed discussions with two counter-parties at this point.

"Rather than going down the route — and the noble route, I should add — of small amounts of public funding, the strategy that we've adopted is initially more towards the ultra-high net worth and corporate market. Like many warbird restorations this is inevitably an expensive project, and at least we understand what the costs are, pretty much to the penny. From our side, getting somebody with the financial muscle to be able to underwrite the completion works needed on our selected project was, and remains, the priority. It is also our intention, over time, to give the general public the opportunity for part-ownership, but we — as reasonably experienced



Mosquito T43 NZ2308, the aircraft the Mosquito Pathfinder Trust intends to purchase, is around half-complete. VIA MPT

business-people ourselves — didn't feel that was really the best way to start, as [being] absent some substantial pledges at [the] project commencement we felt there's too much risk attached to it for not actually completing the project. We're working hard to get it underwritten and, once [we're] confident of a timeline to practical completion, to harness public interest to allow those who have a desire to do so some participation in the ownership of the aircraft.

"Assuming that all goes well, we would hope to be in a position that the aircraft can go into work in the first quarter of next year. It is substantially built — all the woodwork is built. I won't say it's 'turn-key', but it is as close to being as one of these things can get. Where the additional money is required is doing the fit and finish, and that is the function that Avspecs undertakes". If all goes to plan, Merry adds, "In broad terms,

it will [take] 27 months from December of this year."

The UK CAA was involved from an early stage. "We invited the CAA to take a look themselves as to what the serviceable state of the airframe was, even as it was going through its new moulding", says MPT chief executive Allan McGreal. "We were fortunate that the CAA inspector happened to be in New Zealand at the early part of the assessment and was able to visit the aircraft while he was there — he was on holiday, in fact. He could see and touch the airframe. The guidance from the CAA was really invaluable. We could have confidence in what was necessary to get a permit to fly relatively easily,

“We hope to be in a position that the aircraft can go into work in the first quarter of next year”

given that it was a complex arrangement between the New Zealand CAA, the Part 21 organisations” — in other words, design authorities — “in New Zealand, and the prospective Part 21s here in the UK, to take it from a New Zealand certificate of airworthiness or permit to fly and put it into a UK permit to

fly. We worked really hard at building a bridge between those two regulations. “There was an identified issue on the wing scarf joints, which would have proven complex were we to try and pursue a permit to fly after completion. This was an example whereby we were able to do all of the work before the wings were mated, or even before a prospective mate of

the wings into the fuselage. We could knock those out using a combination of New Zealand Part 21 organisations together with UK [ones] and my own resource. This concern was satisfactorily resolved.”

The Duxford-based Aircraft Restoration Company has been selected to furnish Part 21 design services, together with A8-23 and -25 and necessary Part 145 services. As McGreal says, “John Romain, with his connections and influence, is really quite invaluable too”. And there will be benefits on the operational side from having such an experienced warbird operator involved. “What is also important as far as the CAA is concerned is how we take it on to the operational level”, continues McGreal. “Our aspiration is to have a much more mature relationship with the airframe and its investors, whether it's going to be a single, high-net worth individual, or whether it's going to go into public ownership some time, as we get more funding. The aspiration of the trust is, yes, to bring the Mosquito over to the UK and fly it, but equally to ensure that it has a proper, formatted, operational life. That's where we think the Aircraft Restoration Company is really going to help us become more mature, in flying the Mosquito purposefully rather than as a simple show entrant at every invitation it might get. We want it to be something far more structured. And behind that is going to be the educational value of the Mosquito.”

This could lead to structured relationships with other collections, so the 'Mossie' can tell wider stories alongside their aircraft. However, initial operation by the ARC is, says Merry, “our preferred route”. NZ2308 will be delivered technically as a T43, complete with dual controls, but its visual appearance remains to be decided. Input is coming from various quarters. The application of different colour schemes over time is a definite possibility. **A**

For more info and to support the Mosquito Pathfinder Trust, go to www.thewoodenwonder.org.uk