

## > RESTORATION



You only have to check the TV schedules to see that as a nation we have a penchant for the old and the nostalgic. *Antiques*

*Roadshow*, *Cash in the Attic* and a host of other programmes often tell how some long-lost artifact surfaces after being 'lost' for generations.

With a painting or a ceramic pot, that such things can have been secreted away only to reappear many years later is not surprising, but that it also happens with cars, motorbikes and aeroplanes I always find quite intriguing. This latest chapter of this story begins with such a find in 1979.

After its whereabouts or its fate had been unknown for over 40 years, G-ACSP, the DH.88 Comet Racer *Black Magic* which Jim and Amy Mollison had flown in the 1934 MacRobertson London to Melbourne Air Race, was discovered by British aircraft restorer Jim Pearce in a Portuguese barn and returned to England for restoration.

Only five Comets were ever built, and until this discovery only one was thought to have survived, namely G-ACSS *Grosvenor House*, the aircraft that had won the race and had been rescued from an ignominious end after several years of neglect under tarpaulins at Southend Airport. *Grosvenor House* was restored to exhibition status by the de Havilland Technical School for display at the Festival of Britain in 1951 and then underwent further restoration to flying condition. After residing at Hatfield for many years, it is now with the Shuttleworth Collection at Old Warden, soon to recommence flying following repair after a heavy landing.

Three of the five Comets took part in the race; along with *Grosvenor House* and *Black Magic* was the unnamed G-ACSR, which finished in fourth place, piloted by Ken Waller and Owen Cathcart-Jones. G-ACSR and an unraced Comet, F-ANPZ, had been sold to the French Government for proving mail service routes but at the outbreak of WWII they were both destroyed to stop them falling into enemy hands.

The final machine was built for Tom Campbell Black, who with Charles W A Scott had won the MacRobertson Race in *Grosvenor House*. This fifth machine, registered G-ADEF and named *Boomerang*, had been flown by

**The Comet *Grosvenor House* – it is hard to believe that this impressively sleek machine is 77 years old**

Black and Gordon MacArthur from England on 1 September 1935 to attempt the London–Cape Town record, but an engine failure on the Cairo–Kisumu (Kenya) leg forced them to bail out over inhospitable terrain. Fortunately they were soon rescued by friendly tribesmen but the aircraft was lost.

### BUILT TO RACE

Before continuing with the rebuild narrative, a few more details about the MacRobertson Air Race, for which the Comet was actually designed, might be of interest.

The idea for the race came from a Festival Committee formed in Melbourne in 1932 to consider how to mark the centenary of the founding of the State of Victoria, but it was not until late April 1933 that the race finally became a reality, by now named the MacRobertson Air Race after its sponsor Macpherson Robertson, who had built an Australian confectionery empire. Entries were sought by no later than 1 June 1934, with the competing aircraft being present at the departure airfield one week prior to the start of the race on Saturday 20 October for scrutineering. The departure airfield was eventually decided upon as Mildenhall, in Suffolk, then a brand new airfield about to be handed over to the RAF on completion.

Entries came in from around the world, and with a history of many trailblazing flights being made in a variety of its Moth types, de Havilland made the decision to design and build a new racer to take on the best the rest of the world could offer. Incredibly, the company designed the DH.88 Comet and built three examples for private buyers in time for the race in just six months. What makes this feat even more amazing is that the Comet was such a major departure from the company's production machines; the latest design to roll off the DH production line at that time was the Dragon Six biplane, the forerunner to the Dragon Rapide.

A number of books have been written about the race itself, so I will not go into detail here other than to say that it

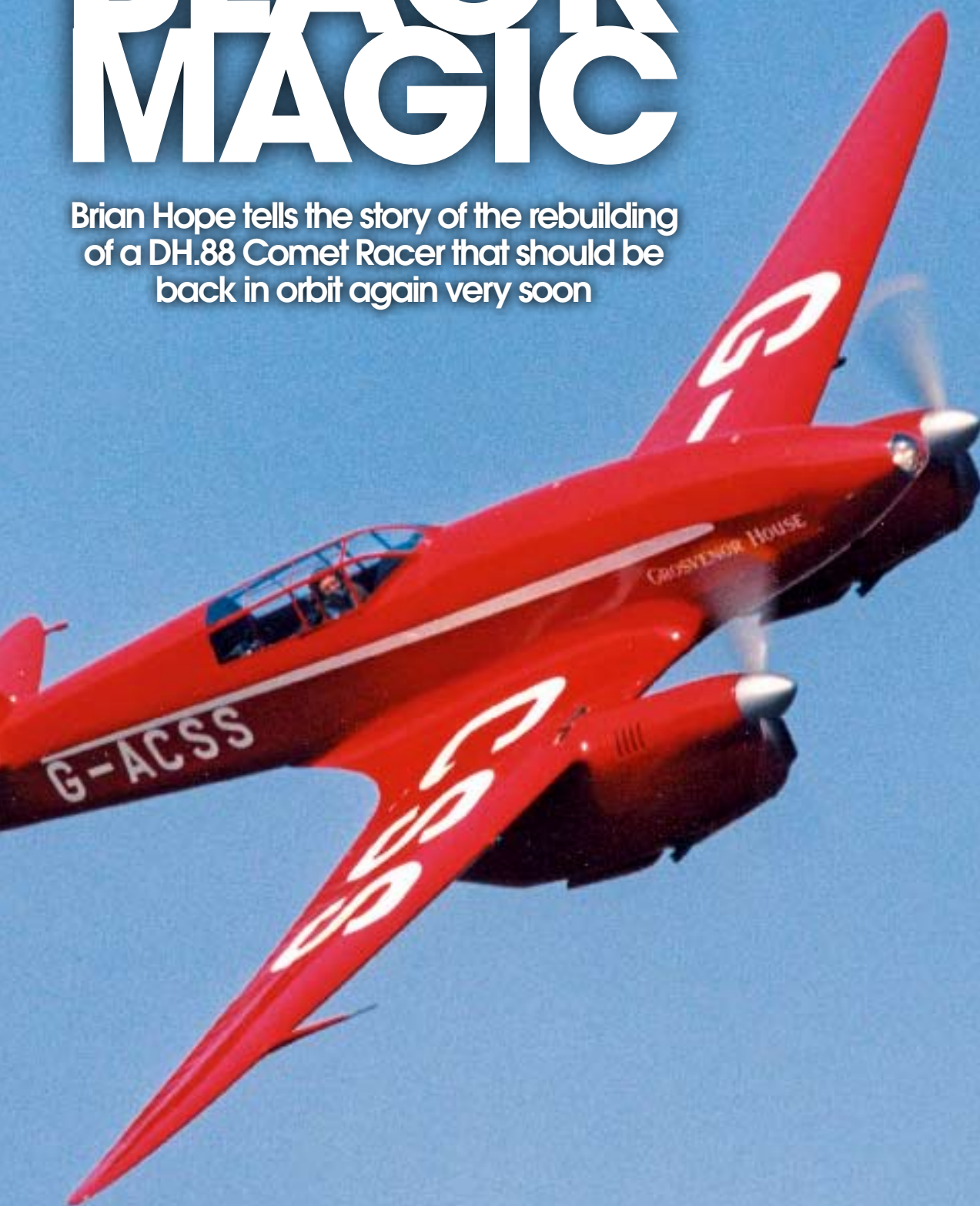


Left to right: Ken Fern who brought the project to Derby, George Armstrong who has redrawn many of the old photographed original blueprints, and LAA Vice-President Stewart Jackson, a long-time supporter of the project



# BLACK MAGIC

Brian Hope tells the story of the rebuilding  
of a DH.88 Comet Racer that should be  
back in orbit again very soon





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developed into a contest between the Comet *Grosvenor House* and a Douglas DC2 operated by the Dutch airline KLM. The Comet took first place with 70hr 54min 18sec having elapsed since it departed Mildenhall, the DC2 completing the race in 90hr 9min to come home second, having proven that a modern commercial airliner could safely complete the journey.

*Black Magic* did not fare well in the race, however. After a good run to Baghdad, in 12hr 40min, the Mollisons were in the lead and set out after refuelling for Karachi. Landing after a total elapsed time of just 22hr 13min they were still ahead of the field and had set a new record for London-Karachi. After taking off for Allahabad, the gear refused to retract so they had to return to Karachi where it took 16hr to resolve the problem. Flying in darkness, it was impossible to get a decent navigational fix and getting low on fuel the Mollisons landed at Jabalpur and took on the only available fuel, some low grade automotive petrol from a local bus company. Completing the 175-mile run to Allahabad on this fuel severely damaged the engines and *Black Magic's* race was run.

The aircraft was repaired and flown back to England, whereupon it was sold to the Portuguese Government and renamed *Salazar*. It continued breaking distance records up until the war, when it disappeared, not to be discovered again until that day in 1979.

Jim Pearce intended to restore *Black Magic*, which was in a parlous state, but vandals set fire to his hangar at Chirk and what was left of the wings was destroyed. He decided to sell the remains on and they were acquired by Bill Hosie and moved to Cornwall. Tragically Bill lost his life in Supermarine Replica S.5 G-BDFF in 1987 and *Black Magic* moved on again, this time to Staverton.

Propeller-maker Ken Fern then became involved and managed to raise sufficient money to buy the aircraft, ultimately forming a partnership with Martin Jones, stalwart LAA member and owner of Derby Airfield and Airspeed Aviation. The aircraft is now housed in a large, converted, portable building on Derby Airfield which sports its own small machine shop and a technical drawing office where photographic copies of old construction drawings can be redrawn for components to be made by outside contractors or in-house.

A number of companies are sponsoring the rebuild with material, cash and services, plus there is a Comet Racer Project Group to which members can make a one-off payment of £25 and receive information about forthcoming related events and be able to have guided tours of the Comet rebuild facility, by appointment.

### AMBITIOUS TARGET

I was privileged to see the Comet Racer project in late September and discuss the rebuild with Martin Jones and Ken Fern. Steady progress is being made and the target date for completion is currently 2014, the 80th anniversary of the aircraft's first flight, and of course the MacRobertson Air Race. By their own admission, Martin and Ken accept that this is a tall order but believe with an influx of money and labour it could be made possible.

Certainly the project is farther along than first impressions might lead you to believe. The main room in the Comet building contains



The Comets line up at Mildenhall before the Air Race. *Black Magic* is in the foreground



Tandem cockpit with original alloy seat-shell

the fuselage, the woodwork of which is now complete. At nearly 29ft long it is an imposing structure and sufficient of the original has been retained for the CAA to officially recognise the aircraft as the original aircraft. Of particular interest are the upper and lower forward fuel-tank fairings, which are made from two layers of diagonal slats, glued together in opposing directions in order to give the necessary double curvature. The original tanks are no longer with the aircraft but they would have been massive, giving the aircraft a range of 2,900nm. New, smaller tanks, will be made for the rebuild.

The tailplane, elevators and fin have been built from scratch, and the rudder is currently under construction by one of the volunteers. Derby is of course the Rolls-Royce heartland and there are highly-skilled aeronautical tradesmen in the area who have made very high quality components for the rebuild.

The planking for the wing-spar laminations is prepared and many of the wing ribs were built by the late Don Cashmore, who had a number of vintage rebuilds and replicas



Front view shows new double-curvature upper and lower fuel-tank covers

to his name, including the Shuttleworth's diminutive Hawker Cygnet replica G-CAMM. Plans are afoot to commence wing construction shortly.

The team has managed to gather several engines and constant-speed propellers for the project, and Ken has already built the engine mounts and landing-gear assemblies. The latter were a slight problem so a 50% scale mock-up was built first to test the retract geometry. There are no stops on the system, and this is considered to be a factor in the *Grosvenor House* accident so this has been rectified on *Black Magic* and Shuttleworth is considering doing likewise on GH. The Derby team is quick to acknowledge the tremendous help and encouragement it has received from the Shuttleworth Collection, which has willingly provided advice throughout.

This rebuild is certainly a mammoth undertaking but after a slow and stop/start beginning when the aircraft was first discovered and returned to the UK, it is now being managed by a professional team of





skilled craftsmen and I have no doubt it will reach fruition. As aviation enthusiasts we are indebted to people like Martin Jones, Ken Fern and all those willing members of the Comet Racer Project. There is a relatively small group of individuals in the UK who devote their time, effort and money into preserving our civil aviation heritage when most of the big money tends to go into warbird restoration. I'm not knocking the warbird guys, good luck to them, but our world would be a much poorer place without the wonderful collection of Golden Age machinery that graces our skies during the fly-in season. Hopefully it will not be too long before *Black Magic* joins them.

You can find out more about the *Black Magic* Project and how you can get involved by going to the group's website at [www.cometracer.co.uk](http://www.cometracer.co.uk)

The group also sells a most informative booklet about the Comets and the MacRobertson Air Race, written by LAA Vice-President Stewart Jackson, to whom I am indebted for much of the historical information provided in this article. ■



The recently completed elevators. Only the rudder needs finishing and the empennage is complete