Man with a Mission

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In increasingly challenging times for historic aviation in the UK, how do you keep an iconic World War Two flying-boat in the air — and how do you pay for it? One determined operator has found an effective answer, as **TIM SKEET** reports from Duxford

ABOVE On top of things: Paul Warren Wilson, the driving force behind Plane Sailing's Consolidated Catalina.

ABOVE RIGHT Catalina G-PBYA (actually a Canadian Vickers-built Canso) over Cambridgeshire on July 8, 2005, at the time of the annual Flying Legends show. The aircraft wears the simple overall white World War Two paint scheme of a UK-based search-and-rescue 'boat of the US Eighth Air Force (see *News*, August 2005).

LAST YEAR WE took a long hard look at the costs and other challenges of keeping old jets flying in the UK (see *Aeroplane*, September & October 2004). We now turn our attention to a rather different category of historic aircraft. Recent controversy over insurance premiums and the threat to the continued operation of Boeing B-17 *Sally B* reminds us that large piston-engined aircraft are equally challenging. In 2005 vintage piston types were called upon to celebrate the 60th anniversary of the end of World War Two. Along with *Sally B*, the RAF-supported Avro Lancaster, a handful of DC-3s and B-25s, Plane Sailing's newly-acquired Consolidated Catalina also took part in the dramatic flypast down London's Mall and over Buckingham Palace on July 10. The big white amphibian flying-boat, resplendent in US Eighth Air Force markings, hosted a BBC camera team for the event.

That there was a Catalina to participate in the flypast — representing the Battle of the Atlantic against Germany's U-boats, offshore reconnaissance and air-sea rescue — is an epic story in itself. This rare survivor in the UK, one of some 20 airworthy examples worldwide, is flying thanks to the determination and commitment of one man. It is an object lesson in turning a passion into a business, of creating an organisation with financial controls.

Plane Sailing's experience of acquiring and operating a Catalina has been anything *but* plain sailing. The death of two of the original three partners, mounting costs, regulatory challenges and a fatal crash resulting in the write-off of the first aircraft might have put most people off this kind of project. However, the inspiration and persistence (or maybe even stubbornness) of an ex-fighter jet jockey with a passion for pistons and props has kept it going. Paul Warren Wilson's taste for adventure has taken him from high-g V/STOL as a 4 Sqn RAF Harrier pilot to amphibious assault, the man behind the UK's flying-boat.

Over coffee and biscuits in a Portakabin at Duxford I talked to Paul about keeping a flying-boat operational in the UK, and what had he has learnt over some 20 years of involvement. A youthful, lean 50-year-old father of four, he now earns a living flying Boeing 747 freighters for Cathay Pacific. While still in the RAF he teamed up with two friends to buy his first big Cat, a type he first flew in 1984. Although illness and accident deprived Paul of his partners, he persevered, also enduring the tragedy on Southampton Water 7½ years ago, when original Catalina VR-BPS (ex-46633), with almost 13,000 flying hours on the airframe, sank in a much-publicised fatal accident (see *News*, October 1998 *Aeroplane*).

Our discussion, however, does not start with the aircraft, but with a thick file of papers containing an information memorandum, a shareholder agreement and, most disconcerting of all, a white sheet of paper entitled "Outline Annual Operating Finances 2005". Paul adopts the language of an accountant as he talks through the documents. Besides the ever-vital issue of safety, his prime focus is on preventing the big white whale of an aircraft outside from turning into a big white elephant. With a budgeted total expenditure for 2005 amounting to £111,500, someone running this kind of project must be either very rich, very short-sighted or very well organised. Paul and his team fall into the last category. With 19 shareholders signed up as of September 2005 out of a maximum of 20 (as set by the Air Navigation Order, which limits the number of people who can share the costs before a business becomes classed as a Public Transport Operation), and a busy 2005 season successfully completed, the Catalina project represents a well-run business within the historic aviation world. However, that was not how the project started out.

"I didn't have any money, just a mortgage on the house. I fell into the trap of thinking capital cost, not running costs", admits Paul, talking about the acquisition of the first aircraft in 1984. In 1988 John Watts, one of the three partners, was killed in a Panavia Tornado crash. One effect of this tragedy, however, was that John's life insurance paid off the purchase loan. This obviously took some pressure off the project's finances. The aircraft flew on successfully for another ten years before the accident at Southampton.

The Catalina had been insured for £250,000, but repairs were estimated at over £300,000. Therefore the aircraft was written off, and Paul was forced to decide whether to acquire a replacement or call it a day. After some soul-searching, he decided to find a new aircraft. As he points out: "The capital cost of an aircraft is not that relevant. It is the running costs that overwhelm people". Over the almost 14 years of the first aircraft's operations, the net cost, after all revenues, amounted to nearly £100,000. Having learnt the financial lesson, Paul organised

BELOW Paul Warren Wilson at his Duxford headquarters. A former Harrier pilot, Paul left the RAF in 1993. Since 1998 he has been flying with Cathay Pacific, for whom he captains Boeing 747 Classic freighters.

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RIGHT As Europe's biggest centre for historic aircraft operations, Duxford makes an excellent maintenance and operations base for Plane Sailing's Catalina. Paul Warren Wilson lives just a couple of miles from the Cambridgeshire airfield.

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the acquisition of a new aircraft, but he went about it in a markedly different way.

"The first time round there was no financial planning. None; zero to begin with. The second time round the business plan came first," Paul explains with a steady gaze and calm voice. "If someone else wants to do this, I would advise them not to rush into it! Don't buy on the basis of feeling unless you are very rich. Put a plan in place first".

Why, one might wonder, did a former fast-jet pilot now flying cargo jets become so enthusiastic about a slow-flying amphibian? "We got the Cat partly because it was there; a large, simple, twin-engined historic aircraft. Moreover, it's different from others. It goes on water, is challenging, and requires the support of a small team." With that combination of passion and imagination that makes things happen, Paul arranged to buy a replacement Catalina in Canada. On this occasion he had a plan firmly in hand, and all the trappings of modern corporate governance were in place. He is candid about the costs: "We have spent almost £350,000 to date." Of this sum, the cost of the aircraft was US$285,000 (around £190,000 at the then exchange rate), engine overhauls cost C$130,000 (around £55,000), avionics some US$30,000 (£20,000), propeller overhaul C$10,000 (£4,000), certification and other paperwork in Canada C$25,000 (£10,000); and there were other costs both in Canada and in the UK. These sums took the project over initial budget, but the costs were spread among the ten people who had lined up to acquire the first 12 shares in the aircraft, and the subsequent subscribers.

The result is a fully-certificated, repainted and airworthy machine. Whereas the first aircraft was supported by an entirely volunteer staff, Plane Sailing now employs (part-time) chief engineer Gary Short, and bookings/support administrator Rachel Morris. Staff costs alone amount to some £40,000 a year, a further £6,000 being set aside for office administration and advertising.

The First Law of Old Aeroplanes simply states: "Costs are the only part of flying that permanently defies gravity. What goes up, generally keeps going up". The Second Law states: "Financial drag unchecked is likely, over time, to equal and exceed physical lift". One controversial example of increased costs has been the recent hike in insurance premiums that caused uproar in the industry. The well-publicised plight of Duxford neighbour *Sally B*, almost grounded but for the intervention of Virgin's Sir Richard Branson, was the result of barmy Brussels bureaucrats formulating another of those poorly-conceived directives that causes collateral damage.

The new EU-wide blanket insurance requirement lumps aircraft by size and weight into fixed categories — obliging them to maintain insurance levels set by reference to commercial jets, and leading to dramatically higher premiums. The effect of this on the Catalina has been an additional £3,000 per year on the insurance bill (taking the 2005 charge to some £14,000). Paul's views echo those across the industry. "It is totally ridiculous. This measure was put in place for airlines without any thought for private (non-commercial) aircraft, their permit status, use, maximum speed or age."

Other items inflating the annual bill include a budgeted £12,000 for spares (including shipping), provisional sums for engine/propeller/undercarriage maintenance amounting to £7,000 for the year, and £1,500 for oil. It all adds up to the £111,500 costs budgeted for 2005.

Work on G-PBYA has not finished. The interior requires some tidying-up, and there are plans to improve the furnishings. The original Cat was

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BELOW The Catalina in its previous guise as Canadian-registered C-FNJF. It was a firebomber with the Saskatchewan firefighting services (in whose colours it is seen here, at Shoreham, West Sussex) for a number of years, after which it was bought by a Zimbabwe-based tourist charter operation which never got off the ground. It was acquired by Catalina Aircraft Ltd, Plane Sailing's holding company, in 2002.


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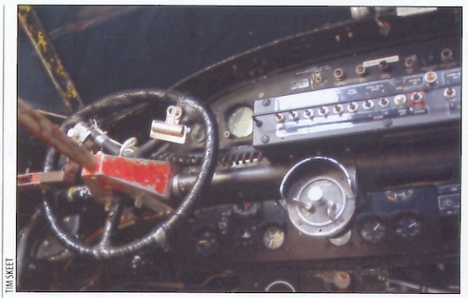
Bermuda-registered, and the current one had been on the Canadian register, but the practical way forward was to have it registered in the UK. That in itself required a lot of time and effort. How many seats the aircraft is allowed to have is just the latest episode in a long saga.

The maintenance schedule and planning cycle still envisages a useful working life of around 50 years, so maintenance is approached with a long-term view. Other additions could be made; the team has a nose turret, for instance. However, the cost and resulting operational constraints on the aircraft with the turret fitted have ruled out this modification for now.

"I love running a company and seeing a plan come together, seeing the project developing, but I must make sure it does not depend only on me", Paul says. The possible airframe life of 50 years makes it unlikely that he would still be at the helm for all that time. Succession planning, spreading costs and delegating workload is vital to the successful running of a company. These projects have a habit of taking over the lives of those involved. Modern communications and technology have transformed Paul's life, however. The laptop computer and e-mail have made supervising this project far easier. The chairman of the board can still fly to Hong Kong on his day-job and keep the organisation turning.

In 2002 there were ten men, 12 shares and a new aircraft. Three years later 19 shares had been sold. The sale of the 20th and final share will be cause for celebration. The current price is a capital contribution of £17,500 to own a chunk of Catalina through the holding company, Catalina Aircraft Limited. The shareholder also signs up to pay £150 per month (£1,800 per annum) towards the running costs of Plane Sailing Air Displays Ltd, the operating company. This amounts to total annual income for the company of £36,000 out of the £60,000–70,000 of annual maintenance and operating costs (excluding staff costs). This income forms a crucial part of the financial equation and source of stability for the project. Even so, time and thought must go into maintaining the full complement of shareholders.

Paul is an eternal optimist on this question, as on others. "There is a huge block of people out there with money and the interest; it's just a matter of finding them." In this he has done well, although success has not come overnight. The initial hit rate was about one subscriber every eight weeks, slowing to one every eight months. Even with only half the number of shareholders early on, there was financial stability in the project and no crisis of funding. Interestingly, the company does not have charitable status, as the paperwork would be too onerous. This project is therefore commercially structured.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In return for part-ownership, shareholders have rights to flying as pilot or passenger, and know that they are making a vital contribution towards the project. None has signed up as an investor hoping for some financial gain over time.

The provenance of shareholders, and why they became involved, is interesting. Graham Wilkinson, a local resident and IT specialist, saw the Cat at a show and wanted to get involved. He is not a pilot, and just enjoys going for a ride. Other shareholders include an American collector, a couple of Dutch supporters, a Swiss national, an Austrian and a handful of Britons. One shareholder signed up after he spotted the aircraft in *The Times Christmas Gift Guide*; a couple were sourced through advertisements in the specialist press ("Big girl with expensive tastes seeking to attract discerning men with a taste for adventure"), and others were simply "passing trade". Paul's charm and marketing skills scored with Chris Noon, a fellow Cathay pilot, who was persuaded to sign up during a long haul in the 747's cockpit. Chris is now a regular display pilot, and flew the Cat over the Palace in July. "I wrote out a cheque there and then in the cockpit in the mid-

ABOVE The Catalina at Shoreham's 2005 RAFA Air Display, held on September 3–4. Beyond it is Lancing College, which provides a distinctive backdrop to Shoreham Airport events.
LEFT The Catalina's cockpit (complete with control lock in this view) has that "lived-in" feel. Suitably qualified shareholders in the aircraft get to fly it.


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ABOVE Plane Sailing's chief engineer Gary Short gets to grips with the back end of one of the aircraft's pair of Pratt & Whitney R-1830-92 Twin Wasp radial engines.

TIM SKEET PHOTOGRAPHS

TOP The plain white paint scheme enhances the flowing curves of the Catalina's hull.
ABOVE Volunteer crew member Philip Curl perches above the port wheel-well. Enthusiasts are able to support the Catalina either by providing "hands-on" help via the "Cat Pack" team, or simply by joining the Catalina Society — see the *High Society* page in November 2003's *Aeroplane*, or log on to www.catalina.org.uk.

■ Interested in joining the waiting-list for a share in the Catalina? Or in booking the aircraft for an airshow or event? Contact Paul Warren-Wilson via e-mail at CatalinaOps@aol.com or tel/fax 01223 837011. For further information visit the website at www.catalina-bookings.org

dle of the night somewhere over Teheran," confesses Chris. "I could see the potential of the project and of Paul."

Although the magic 20 has almost been reached, there are inevitably a couple of shareholders who might be seeking to trade out. There is not a lot of liquidity in these shares, but, with a full register, new arrivals will replace existing members or form an orderly queue outside the Duxford Portakabin. Shares are expected to change hands every five years or so, according to Paul, meaning that his shareholder relations campaign never finishes. Besides the need to maintain a full share register, challenges arise from balancing shareholder interests. There has been no trouble or conflict to date with, or between, the shareholders, but Paul is realistic. There may be a "force-out clause" added to the shareholder agreement in the near future as a precaution. These things need to be anticipated ahead of difficulties.

With the costs partly covered, the next priority is to look for a steady income. The first aircraft enjoyed some long-term leases providing support or advertising for such brands as Peroni beer of Italy, Ireland's Guinness or Stuyvesant Travel. Today the main income focus remains airshows and displays. With its commemorative flypasts and events, 2005 was a good year, with some 16 appearances and a budgeted, unaudited income of about £70,000. Other income sources include the Catalina Society's membership subscriptions, memorabilia sales and on-board visits to the aircraft at shows. The society was due to raise around £19,000 in 2005. If the figures in the budget were correct, the year has generated a surplus of income (including the owner shareholders' subsidy as income) over costs of around £15,000. It may be a few months before Paul and his team can assess the full financial impact of the year as bills roll in and fees are slowly paid.

Airshow income is uncertain. Rates depend on the amount of fuel, distance of operation and intangibles such as the brand value of an appearance, merchandising opportunities and length of display. The fee typically may be between £3,500 and £5,000 per show. If a sea-landing is required, organisers are expected to fork out an additional £7,500, or £2,500 for freshwater landings. These sums are charged to deal with the potential corrosion exposure caused by water operations.

The number of shows has declined, and not all of them want or can afford a flying-boat. Thus the team must continually assess the market and the Cat's competitive position. "There is not that much competition," says Paul. "There is *Sally B* or the Dutch Catalina, but we are all competing for a fixed pot of money." Repainting the aircraft is also part of the marketing of the aircraft. The white paint shows up well, the colours are historic with local connections to Duxford and it is easy to maintain. The markings also differentiate the aircraft from its predecessor.

Among the other challenges involved in operating the Cat is the lack of experienced pilots and the high cost of training. The team has just been reinforced by the arrival of Paul Mulcahy from the Civil Aviation Authority's (CAA) Flight Test Department. "It is difficult to find people with water-operating experience," Paul points out. "The skill set of landing on water has been almost lost. Virtually no-one does it any longer."

Water operations are tricky. The surface is dynamic and quite unlike a fixed, static runway. Operations off water require careful planning and logistics. There is the need for safety boats, mooring points, slipways and so on. To qualify to captain the aircraft for water landings, a pilot must have practised at least 100 such landings in a minimum of ten locations under a variety of conditions. This is a tall order. Paul himself acts as the chief training pilot, his experience and qualifications deriving from over 1,000hr on type and plenty of water experience, a legacy of touring in exotic locations around the world with the first aircraft. Chris Noon, who does a lot of the display flying, has a Canadian "float rating". "You must be a sailor to take the aeroplane on water," says Paul. "A flying-boat is difficult to stop in the water, and it is very unwieldy." Naturally enough the Catalina behaves like a boat on water, albeit a rather badly-designed one. Noon, an old Africa hand with many hours on DC-3s, Friendships, Comets and VC10s with East African Airways, is now retired and has the time to put into the display flying.

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A further difficulty for all operators is finding a stable, well-equipped base. Britain has a number of possible sites, but Duxford offers many benefits. The Imperial War Museum and the facilities at the airfield represent a tremendous asset for the British vintage warbird industry. Duxford is a working museum with a concentration of expertise and like-minded people. Paul himself lives only two miles away, and getting staff and volunteers to Duxford is not difficult compared with other locations. Being based there is beneficial to the airfield and the aircraft.

Embarking upon an enterprise such as the Catalina project is not for the faint-hearted. Doing it twice is bold. Buying into the project is to make a meaningful contribution to aviation heritage, or to open the door to an exacting new flying experience. But, as Paul reminds me: "Membership is not recommended as an opportunity to realise capital growth". The project is regulated by the CAA, not the Financial Services Authority. But for those who can afford it, buying a share allows an individual to participate in an exciting well-run project, and to share in the ownership of a majestic piece of aviation history.

With secure financial backing in the form of a stable shareholder group, a cadre of pilots, engineering support and a convenient base, the Catalina is set to continue operating smoothly in the years ahead. In the shareholder documentation Paul Warren Wilson finds the words that really keep those Pratt & Whitneys turning: "There is no button-pushing wizardry here, just an old-fashioned handling experience".