

The Librarian in his domain of grimoires and ancient magic. The zoomed document is a 1947 modification log for the Dove

Our treasured Twin Pioneer has been grounded now since 2008. That's a huge frustration when applied to any of our collection, but in the case of the world's only (potentially) flyable example of the type, it's something close to tragic. Deep inside a dark corner of the maintenance hangar at Coventry is a man with the keys to the solution. Martin Aspden showed Jem Shaw around his dusty collection of brittlely fragile documents and revealed a fascinating treasure trove.

Martin Aspden reacts with surprising equanimity when I compare him to Terry Pratchett's primate librarian. Sir Terry's invention has shrugged* off the inconvenience of the magical accident that turned him into an orang-utan because it makes it easier for him to reach the higher shelves, and also allows him to unscrew the head of anyone who threatens his precious books.

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"It's true I'd cheerfully kill anyone who damaged this stuff," he says as he unlocks the first of the rooms that form his kingdom. "And I'm quite fond of peanuts."

Martin is the Archivist for the collection. He's taken on the Augean task of cataloguing and, where possible, digitising the

vast collection paperwork that documents the collection. It's all housed in a two-storey building-within-a-building inside the maintenance hangar.

"It's a widely accepted fact that every aircraft requires twice its own weight in paper," says Martin, carefully opening a crackling, hand-written tome.

He passes me a modification list for the DH Dove. A varying array of elegant handwriting reminds me that this is another skill we've lost in our world of keyboards and touch screens.

DESPERATELY SEEKING STRUTS

* Easy for an orang-utan; they're more or less designed for shrugging

The dates begin in 1947 and I find myself wondering aloud who these people were.

"The stories in here are fascinating. You'll be cataloguing a mod log like this and suddenly a classified memo about the Comet and Ambassador investigations will float out. You can get absorbed and lose hours if you're not careful."

I find an example of this in the next room, this one devoted to the Twin Pioneer. Leafing through a pile of as-yet unsorted papers I come across two pencilled sheets detailing proposed modifications to the Douglas Skyraider in order to tow targets for the Swedish Air Force. It's as relevant to the collection as a tin of salmon, but I suddenly realise I haven't been listening to Martin for the last five minutes.

if ever you're asked how to install a winch pump in a Douglas Skyraider - and it could happen - then Martin has the answers locked away in his precious archives.



"Ah, it's got to you then," he smiles, taking it from me and squinting through his reading glasses. "Oh, that's quite a good one. Scottish Aviation did a fair number of mods on Skyraiders. We'll keep that to one side."

So if ever you're asked how to install a winch pump in a Douglas Skyraider - and it could happen - then Martin has the answers locked away in his precious archives. The Skyraider has always struck me as something of an ungainly anachronism, but this piece of paper has turned it into something magical and I find myself lamenting its reduction to an airborne tugboat.

But enough wool-gathering. We're here to understand why it should be that the Twin Pioneer can be grounded for so many years.

"You saw the scale of problem in the Dove mod list," explains Martin. "Each entry in that ledger could lead to a whole new paper trail, and there's nothing to say where those papers are, or whether they even still exist. And when you've stared at a few thousand pages of faded handwriting it's easy to miss things."



He hands me a battered screw-bound book. "See anything wrong with that?"

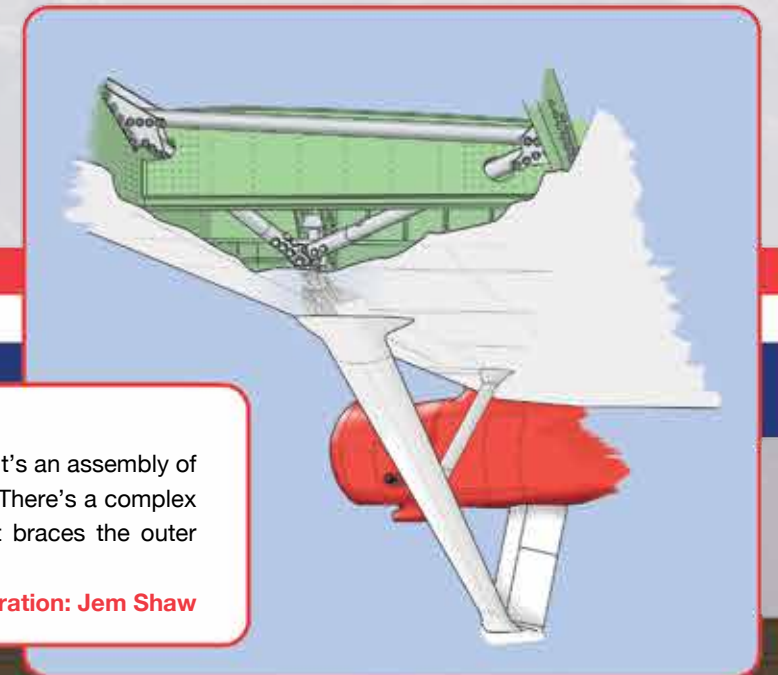
I'm not going to be easily caught out. I leaf through the faded pages, determined to spot the trap for the unwary archivist. Eventually I go for a guess.

"The Twin Pin's not a Mark One?"

He takes it back, closes it and taps the cover. "No, the Twin Pin's a Twin Pioneer, not a Pioneer - as I realised after a long day's cataloguing the damn' things in the wrong place. You get tired and your mind wanders. Not that I'd have it any other way; quite apart from the need to create a secure, definitive technical and accessible archive, we're building a vitally important historical record."

The problem with the Twin-Pin was possible corrosion in the internal wing struts. One aircraft was destroyed in a crash in 1957, and failure of a vee-brace was identified as the likely cause. Scottish Aviation imposed a maximum life limitation on the components to avoid the possibility of a recurrence.

When the vee-braces fitted to G-APRS reached their fatigue life limits it became necessary to find replacements - a quest that has led us, literally, all over the world. When suitable ●●●



A Brace of Problems

Here's the brace that's proved to be such a challenge. It's an assembly of three hefty tubes that bolt to the front and rear spars. There's a complex swivel joint coupling it to the main external strut that braces the outer wings to undercarriage.

Illustration: Jem Shaw

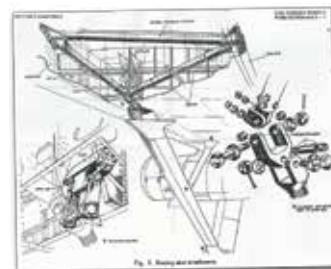
components were eventually located - in Australia - we awaited their arrival with eager anticipation.

So it was a disappointment to find that they didn't fit.

"That'll be another mod - one that either wasn't documented or the documentation has been lost," Martin gestures at the packed shelves. "Or it's in that lot and we haven't found it yet."

The incompatibility of the new struts was made all the more frustrating by the fact that the actual problem was so slight. They bolted in easily enough, but protruded a fraction too far to allow the skin to be re-fitted to the wing. If this was a classic car then a competent engineer could have everything fixed in one reasonably busy afternoon.

But this is an aeroplane. Every modification has to be approved, and approval is an elusive target. That's understandable - it's one of the primary reasons that aviation is so safe - but it was a bitter moment to realise that, after years of searching, we were back at the start. The only option left was to remanufacture the brace - which brings its own challenges.



First, the drawing needed to be located among the vast collection of paperwork still to be located. Just when hope was fading, it was finally located, wrapped up inside a bundle of OE suppliers' drawings.

Now the materials needed to be sourced, and here was yet another problem: the alloy specified for the braces is no longer available. The modern replacement is many times stronger, but as it's not to original specification it has to be approved.

Which brings us to today. We now have a suitable drawing and a materials modification under consideration by the CAA. We're confident that the application will be successful, and then the new braces can be fabricated. Meanwhile both Leonides engines have to be deep stripped for work in accordance with a notice issued following a problem recorded on the piston Provost, which also uses a Leonides.

But at last we're on the final lap, and Primrose's long period of hospitalisation is coming to an end. As for any old aeroplane, she probably has a few surprises left for us but, with a moderately benign Providence, she should be amazing her us with her slow flying antics again in the first half of 2014.

A collection of chilly film canisters contains thousands of yards of microfilm, smelling ominously of vinegar. That smell means that they're deteriorating.

I could cheerfully spend days exploring Martin's kingdom. A collection of chilly film canisters contains thousands of yards of microfilm, smelling ominously of vinegar.



"That smell means they're deteriorating," Martin explains. "We're in a race against time with these films. We have to get them digitised before they decompose beyond redemption. Some have been done, but it's an expensive process, given the sheer volume of material to be converted. Meanwhile all we can do is keep them cool and protected from the atmosphere."

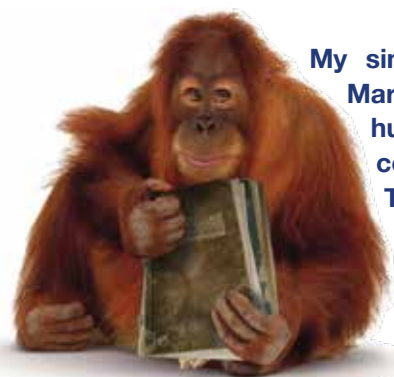


Not even slightly simian; Martin Aspden examines one of his precious documents

As the librarian carefully locks away his priceless collection I'm reminded again of Pratchett's dedicated, though admittedly anthropoid custodian of ancient lore. These rooms contain history just as precious and irreplaceable as the aircraft themselves. He glances at me as he tries the handle, confirming its security.

"Ook?"

Eloquently put. And he's right, of course. 



My sincere thanks go to Martin Aspden for being hugely entertaining company, a fellow Terry Pratchett fan, and a great sport about the primate comparisons.

JS

Seen it all before? We need your help with that

Over the years we've amassed a sizeable library of images, but by now you've probably begun to notice that there are certain favourites that crop up again and again. We'd like to enlist your help and generosity to resolve that problem.

Not wishing to sound like a broken record, it's still worth mentioning that restoring and maintaining a growing fleet of rare old aircraft is a phenomenally expensive endeavour. So any money we spend on photography is money that can't be devoted to our primary mission.

Fortunately, many of you have already generously allowed us to use some magnificent imagery. We're very grateful for that, but we're also conscious that many of these photos are being over-used. There's also the problem that much of our archive is uncredited, so it's often impossible to name the photographer as we know we should.

So here's the appeal. Please have a look through your photos of our collection; they could be air-to-air, hangar images or even candid shots of the aircraft in their underwear for maintenance. If you find a few that you're willing to share with us then we'd be very grateful.

What we're asking for is your permission to use your photographs, properly credited of course* - because this time we'll ensure that the archive is properly indexed. All we can offer in return is our gratitude, though we do want to add a photographers' page to our website. If you have an on-line portfolio then we'll happily add a link to it.

Please e-mail your photos to jemshaw@classicairforce.com. For files over 4-5MB we suggest you use WeTransfer's excellent free file transfer system on www.wetransfer.com.

Look out for news in the next issue of our planned exclusive air-to-air photography flights.

* In rare circumstances, for example when an image is reproduced at a very small size or as part of a montage, this may not be possible.