POPULAR flying Association

THE BRISSLE STRUTTER

Newsletter of the PFA Bristol Strut

April 2000

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This month's meeting: April 13th 2000.
Mapping for the new Millenium.
You may recall from one of last year's Strut meetings, that the CAA were proposing some changes to their VFR charts, and they sent us some sample charts to comment on. Well, they appreciated the feedback they received, and have used the information to produce a new style of chart for the 1:500,000 and 1:250,000 formats.

To co-incide with the publishing of the first of these new charts (Southern England and Wales 1:500,000, out at the end of the month), I have invited John Gentleman, the manager of the Aeronautical Charts and Data Section at the CAA, to visit the Strut and talk about the work they do to help prevent us from getting lost.

I am hoping John will bring plenty of these new charts with him, so we can bring ourselves up to date. As John pointed out, the new look charts means that pilots flying with an out of date chart can readily be identified!

The March Meeting: Flying the aircraft of the Shuttleworth Collection.
A presentation by Chief Pilot, Andy Sephton.
We were very fortunate to have Andy as our guest speaker for the March meeting, and he gave us a very entertaining presentation about flying the Edwardian period aeroplanes that are owned by the Shuttleworth Collection. This meeting was a standing room only event, having attracted the largest turn-out of members I can remember.

He guided us through the techniques required to fly the 1909 Bleriot XI, the 1910 Deperdussin, the 1910 Bristol Boxkite replica, the 1910 Avro Triplane IV replica and the 1912 Blackburn, the oldest genuine original British aeroplane still to fly anywhere in the world. Dealing with the complexities of aircraft and engine handling sounded remarkable, so its not surprising these aircraft are only trusted

to very experienced pilots. Quite how the early aviators achieved what they did while dealing with these sensitive engines amazes me. We modern day pilots have it easy with our Lycomings and Continentals!

Our collection raised the grand total of £90, which Andy was delighted with. He has offered to return in the future to talk about some of the other collection aircraft that he didn't have time to include, so I'll be pencilling him in for one of the Strut meetings in 2001.

Cameron Balloon visit - 11th March
Ian Wakeling's report about this very interesting visit appears later in the Newsletter.

May's meeting...
Those of you who attended the last AGM might recall that we were not been able to book a room for the May 2000 meeting. In addition to this we don't currently have a speaker. I would rather not miss out a May gathering, so I'm working hard to come up with an alternative meeting solution. If any member thinks they might have a good idea then I'd be pleased to hear from you.

Other news....
RV-6 Update.
Our RV has an engine! Okay, so the airframe hasn't arrived yet, but Barry Clifford gave Nigel and I a really good tip-off on a brand-new Lycoming that had come onto the market. So, after a few phone calls, we had secured our first major component. Hmmm. now we just need something to put it on.....!

Barry, who had at one time considered building a Glastar, before deciding he preffered the RV-6A, had a call from a Glastar builder who was putting his project on long-term hold and wanted to sell his engine. Barry already had an engine for his, so being the fine fellow he is, he passed the details to me. Thank you Barry.

RV-9A Project.

Since Nigel and I initiated our RV-6 project, I have been surprised by the number of Strut members who have spoken to me and expressed their interest in building too. Particular interest has been shown in the RV-series and the conventional metal construction techniques these designs use to great effect.

With this in mind, I would like to float the idea of forming a small group within the Strut to build and operate a Van's RV-9A. This latest design from the World's most successful kit manufacturer is an exciting combination of building simplicity, flying ease, and excellent performance that I believe make it an excellent candidate for such a partnership. The RV-9A is a tricycle gear aircraft similar to the RV-6A. It is designed to use 118-160hp. I anticipate the proposed Strut aircraft might use a 118hp Lycoming O-235.

The RV-9A was designed to do its best in the average pilot's day-to-day flying environment of local trips and short cross-countries, with occasional long flights. The performance it provides is useable every day, and has been designed to be easy to fly so that low time pilots can make a quick and painless transition. Its short field performance permits it to easily use grass strips. When it's time for that long cross-country, the RV-9A will transport its occupants

there and back almost as quickly as many of the "go-fast" designs.

The RV-9A has a new wing that is longer and narrower than the wings of the RV-4/6/8 series, and uses a new Roncz airfoil. While the enlarged wing area at 124 square feet is only 12% greater, the span has been increased by 5 ft. The flaps are a long span, slotted, high lift design that allows the airplane to land slower than many primary trainers.

The fuselage is very similar to the RV-6A but with a slightly longer and taller cabin, and lengthened tail cone. A simplified constant-chord horizontal tail is employed, while the vertical tail surfaces are larger than those of other RVs. The RV-9A's efficient airframe does not need a lot of power to perform well. The increased wing span provides a better span loading, which means that it will climb well on low power and glide a long way. Low overall drag means a smaller engine can pull it along at relatively high top speeds, or, more practically, at useful cruise speeds using little fuel. Van's have demonstrated this by using a 118 HP Lycoming (the same engine used in the Cessna 152) to power their prototype. The result is an efficient airplane with excellent short field capability, respectable cruise speed, and good fuel economy.

Probably that greatest aspect of the RV-9A is that in the kit, all the fastener holes in the skins and most of the underlying structure are pre-punched, so major structures can be assembled right out of the box. This feature, called "matched-hole tooling", has become economically available only through the combination of CAD computer design and modern CNC production machinery. The design and production accuracy are truly phenomenal, and mean the traditional alignment jigs are no longer needed...if the holes match, the structure must be straight. A few simple leveling and alignment checks are all that is necessary before proceeding with the final dimpling, priming, and riveting. Van's are confident that building times for RV-9As will be very short indeed.

Handling is docile and easy, but not mushy or unpleasant. In keeping with their goal of offering a more "relaxed" airplane well suited to low time pilots and those who enjoy more leisurely flying, control forces are firmer than other RVs and response rates are not as rapid. The stall is gentle, and the long span flaps provide a stall speed about 7 mph lower than the RV-6A, which is itself noted for exceptional low speed performance. What the pilot feels is a solid, steady airplane, even in the most critical phase of flight; low speed flight following lift-off and prior to touchdown.

RV-9A Performance (gross weight)ENGINE (horsepower) 118
GROSS WEIGHT 1600
CRUISE (75% @ 8000') 165
CRUISE (55% @ 8000') 149
STALL SPEED 47
TAKEOFF DISTANCE (ft) 525
LANDING DISTANCE (ft) 375
RATE OF CLIMB (fpm) 950
CEILING (est) 14,000
RANGE (75% @ 8000') 900
RANGE (55% @ 8000') 1100
Speeds & ranges in statute miles.

Once the group is formed, the kit would be purchased in incremental stages to spread the cost of investment, and the aircraft would be completed as a sport VFR touring aircraft. Equipment would include basic instruments plus a Comm, Transponder and a maybe a GPS.

I would propose that initially, the empennage kit and possibly the wing kit could be built at my workshop, in tandem with the RV-6. This would give the project a good start. With pre-punched components throughout eliminating the tiresome job of conventional jigging, and by keeping the aircraft simple, I believe the aircraft could be built in less time than our RV-6QB.

The cost of the project is currently estimated to be £25,000. We wouldn't be the first Strut to initiate such a scheme. Something similar has already been run by the Cambridge Strut with good success.

To quote one of those interested in this project:
"We've been looking closely at the possibility of involvement, and concluded it seems the way to go! Especially as it shouldn't be neccessary to find the whole cost up front. This is certainly the sort of aircraft we want to fly, so count us in."

Obviously this isn't going to be something to enter into without serious consideration, and each member must feel happy with the others and be committed to the sucess of the project. I have already received a firm commitment to the proposed project from two Strut members. Do you think this is something you would like to be involved in?

This topic will be discussed at our April meeting. Remember, a small group will mean limited availibility.

For more information on this and other Vans aircraft, visit their website via our links page!

Forthcoming fly-ins and events.

RV Fly-in: Henstridge-16th April 2000.
Conveniently located for Bristol Strut members, the UK RV Squadron (the group for UK RV builders and enthusiasts) holds its first fly-in of the year at Henstridge on the 16th April. Weather permitting, there is a sizable RV turnout promised. I'll be there :-)

21st Air-Britain Fly-In. 20th & 21st May 2000.
Coventry Airport.
This year the theme is shared between 80 years of De Havilland and 40 years of the Piper PA28, but as usual, all aircraft are welcome. The weekend will also feature AeroBoot 2000, visits to the Atlantic Group's hangars and pleasure flights in their fleet of classic aircraft.

There will be no landing fees, camping is avialable to those who want to stay Saturday night, and food and a bar facility will be in operation.

For all pre-event information, call John Withers on 01543 677254, or e-mail depledge@lineone.net, or visit the Air-Britain website at http://fly.to/abflyin/

Organised Visit to SBAC Farnborough Airshow and Exhibition.
I recently received a call from the organiser of a trip to this year's Farnborough Airshow and Exhibition, offering places to Bristol Strut Members.

The trip, which takes place on Tuesday the 25th of July (a "Trade Day", so there won't be masses of the general public), departs Bristol at 0800hrs and returns at 2100hrs. The cost, including admission is £34. If the mid-week date is a problem, then an alternate trip is available on Sunday 30th July. For more information, contact John Elver on 0117 9 693119.

Other Events:

16th April VAC Daffodil Rally	Popham 01256 397733
16th April Spring Fly-in	Compton Abbas 01747 811767
30th April Wessex Strut Fly-in	Henstridge 01963 364231
22/23 April Treasure Hunt & BBQ	Old Sarum 01722 322525
23rd April Cholesterolfest	Henstridge 01963 364231
29/30th April Microlight Trade Fair	Popham 01256 397733
1st May Devon Strut Fly-in	Dunkeswell 01404 891643
13/14 May Great Vintage Flying weekend	Thruxton 01747 838165

PFA National Council Meeting update.
Nigel Hitchman reports...

CAA delegated authority-
Recent meetings with the CAA have been very encouraging, it appears that the CAA might be willing to delegate a much greater authority to an organisation covering recreational flying. This might lead to PFA (or a body incorporating PFA) being responsible for the airworthiness and certification of many of the older factory built aircraft as well as more authority for homebuilts/kitbuilts.

New "National PPL"-
This proposal has been put forward by AOPA and is being activly encouraged by PFA and other organisations. The CAA again seem very keen. This license would only be valid in the UK, but would be much simpler and cheaper than the JAA PPL (or the old CAA PPL) The basis is approx 30 hours flight training, GP Medical(as in PPL D), Day VFR only, aircraft upto 2000kg. The CAA still want a full radio license and the same ground exams as in the JAA PPL. All factors are still up for discussion, but the timescale could be as soon as 12-18 months

New PFA HQ-
A working group is looking at various sites including Long Marston, Kemble, Compton Abbas, Elvington and one that doesn't want its identity revealed! It would appear that Long Marston is the clear favourite at the moment. Although quite an untidy site at the moment, it has good potential, a 1/2 acre freehold for £1 has been offered together with a 20 year contract for holding the rally, making investment on infrastructure worthwhile. The airfield is owned by a family trust and the local council are in favour of a PFA move.

If none of these work out, PFA staff have been told that a local off airfield site in Shoreham will be leased as an interim measure. The airport accomodation is becoming very cramped and makes for a difficult working environment.

PFA Jabiru raffle-
This will be the only raffle this year, there will not be an extra raffle for the Rally.

Ticket sales have so far been slow, so you have a very good chance to win the Jabiru kit, but only if you buy some tickets! Remember even if you don't want a Jabiru, you could sell the kit to someone who does and then buy that aircraft you have been dreaming of (it may not quite fund a Spitfire, but it would be in the price bracket of a few flying PFA types).

Membership-
Numbers are rising every month over the winter, the new look magazine has gone down very favourably and is helping to attract new members and more advertisers. Encourage your friends to join!!

PFA insurance-
A policy is now in place covering strut fly-in risks and Young Eagles events. Aircraft owners still need to have the minimum insurance, but the PFA insurance will top this up, with a limit of £7.5 million for MOD airfields and £2 million for others. This insurance also covers any incidental accidents, not aircraft related.

PFA Rally-
Biggest news is that pilots of PFA aircraft will get free entry again, thanks to sponsorship from Jeppesen (passengers still have to pay). New members will get a £5 discount for joining at the Rally. Everything else is running to plan, with most of the exhibition site sold out already. The Rally will be much better advertised this year, in the aviation enthusiast press as well as locally. Hopefully, we will pick up some of those tens of thousands of people who read magazines like Flypast, but haven't come to the Rally yet.

One of the stars of this year's Rally will be Globe-trotting pilot Jon Johansen, who will be flying his RV-4 in from Australia, on his 3rd round the World flight, this time via the North and South Poles!!

It is expected that the 2001 rally will also be at Cranfield, but this time one week later (2nd weekend in July) so as not to clash with the World Air Games.

Four Star Petrol-
This is still available via the Bayford Trust tel 01937 541111 or sales@bayford.co.uk for info on your nearest distributor.

Mainly still produced for classic cars, it still complies with BS4040 and is approved for aircraft use. Now why can't we get it without all the road fund duty? After all, the boating people don't pay the road fund on their diesel!

Unleaded Mogas-
Many aircraft have already been cleared to operate on unleaded, but so far these are mostly aircraft with Rotax engines. PFA are still looking into the implications for Continentals, Lycomings and other engines prior to approval. I hope they are taking note of all the work the Experimental Aircraft Association has done on this subject and the fact that tens of thousands of US aircraft fly on unleaded mogas every day.

Pilot coaching scheme-
All PFA coaches can now do the "1hr instructional flight" required for the renewal of your PPL under the new JAR rules. Some can do the test required if your licence has lapsed and more are being cleared each week. The cost has come down following various discussions and the realisation that it would often be cheaper to go to the local flying club instructor, if they will let him fly on your aircraft. It is now £35 for the one hour flight.

Unfortunately the CAA still will not agree to anything for single seaters, such as an observed test. So if you have a single seater, you will be required to borrow or hire another aircraft. AIC 127 which gave the details of what was required to be "checked" during this flight has now been scrapped and is being re-written!! The first issue contained almost a complete GFT and was worded as though it was a test. It will be re-written to cover what Continuation Training is required.

Foreign travel in PFA aircraft-
Mainly covered in the last issue of Popular Flying. Latest update is that PFA have been negotiating with the DGAC in France which appear to be positive. It seems like the DGAC will probably give permission for ALL PFA aircraft to visit France, but you never know what some obstinate bureaucrat will come up with, the French are worse than most when it comes to paperwork! Owners of homebuilts can still currently get individual permission themselves.

As for foreign aircraft visiting the UK, the CAA are now re-publishing Notice 52 which again will basically allow all foreign homebuilt aircraft to visit as long as they send in a form, to which they do not even have to get a reply. So at least the CAA is being positive in this respect.

The next meeting is on the 20th of May. I won't be able to attend, so if anyone else from the Strut would like to go, I will pass on the appropriate details to them.
(Ed's note - if you are interested in taking Nigel's place for the next meeting then let me know).

T-31 Motor Cadet project for sale.
Aircraft restorer and prop manufacturer Ken Fern sent me the following for sale notice:

T31 Motor Cadet project: All the fuselage mods have been done and the firewall is drilled for a VW engine, all contols modified to single place. It is sitting on a new undercarriage assembly and there is a new Aluminium fuel tank (made by Personal Plane Services for £350!). The airframe is all there and looks to be in good condition but there is no engine or instruments. He has the RAF service record log book showing all mods etc and is a registered PFA project with build book.

Asking price is only £500 which has to be a bargain for someone, it is at my workshop where it can be viewed by ringing me on 01782 773140.

From the AVWeb internet news pages comes the following-

INSURANCE PROBLEM GROUNDS AEROBATIC LEGEND BOB HOOVER...
Airshow ledgend R.A. "Bob" Hoover has canceled his 2000 airshow schedule after finding he was unable to obtain adequate liability insurance. Hoover is famous for his P-51 Mustang shows and his "energy management manoeuvers" with both engines shut down in his Shrike Commander, but the aviation insurance market may accomplish what the FAA could not -- bringing to an end over 40 years of

spectacular airshow performances. EAA President Tom Poberezny said that in a recent phone conversation with Hoover, Bob emphasized that he was not retiring and hopes to be back on the circuit in 2001. Hoover's promoters stress that Hoover is in excellent physical and mental health and will continue to make personal appearances, including at the EAA AirVenture 2000 in Oshkosh.

and from AVWeb's "AVFalsch" April 1st news update...

NASA CONTRACTS WITH DANISH COMPANY FOR FUTURE PLANETARY PROBES...
Faced with rampant criticism after the loss of its Mars Climate Observer and Mars Polar Lander, NASA has been forced to look for a foreign partner to help turn things around. The agency has chosen the LEGO Company of Billund, Denmark, as the prime contractor for the next series of interplanetary vehicles. NASA Administrator Dan Goldin was very optimistic about the ability of the LEGO Company to perfect the "faster, better, cheaper" approach to space exploration he has been striving for since the beginning of his tenure. "I initially knew very little about this company," admitted Goldin, "but when I saw their impressive portfolio of infinitely reconfigurable spacecraft, together with LEGO's proven track record in intergalactic travels, it seemed like a perfect match."

...WITH BACKUP SPACECRAFT AVAILABLE IN A MATTER OF DAYS
"The ability to rapidly assemble spacecraft from radiation-hardened LEGO bricks will give NASA the kind of quick turnaround it needs when one of its space missions meets an untimely end," said LEGO spokesman Helmut Brick. "LEGO pieces are light, and come in a variety of pleasing colors as a bonus." Brick added, "NASA is getting our manufacturing services quite cheap. We are only asking for exclusive rights to any deposits of colored plastic that might be discovered by future spacecraft." :-)

SHORT FINAL.

A Delta Air Lines jet was traversing Arizona on a clear day. The copilot was bombarding passengers with remarks about landmarks over the PA system. "Coming up on the right side of our cabin, you can see the Meteor Crater. A major tourist attraction in northern Arizona, it was formed when a lump of nickel and iron weighing 300,000 tons, 150 feet across, struck the earth at 40,000 miles an hour, scattering white-hot debris for miles in every direction. The hole measures nearly a mile across and is 570 feet deep."
From the cabin, a passenger was heard to exclaim: "Wow! It just missed the highway!"

Don't forget that all newsletter contributions, great or small, are gratefully received.
Bye for now.
Ed.

Thanks to Frank Bond for his latest newsletter contribution. Frank recently retired from flying for British Airways and planned to spend a little more time with his Renegade Spirit, but as you'll find out, his plans have changed a little.....

Well, that's it. My time has run its allotted course with British Airways, and I have returned my chattels to uniform stores. This was no anti-climax, for I relished the second chance to fly with the company I had first joined in 1967. The involuntary retirement I had taken three years earlier had lapsed into a distant memory. The years spent flying long haul routes, on the 747

particularly, and the final two on the shorter haul routes of Europe had made for a fabulous career. Perhaps I had one regret, and that was that I was not to know it was to be the last time I was to land a Boeing 747. But I am not complaining. The experience of the year without a licence to fly, and then regaining my flying licence and throwing myself whole-heartedly into the frenetic aviating of northern winters and multi-sector days was indeed re-vitalising.

As I approached the compulsory retirement date, that was coincident with my 55th birthday, I developed an awareness that I should try to recall the last landing I would do on the Boeing 757 and 767. This would give me two final approaches to muck up, or if the Angels are kind, return to earth without so much as a minute rumble of the wheels as they kissed the runway. Fine chance! So November came along, and the count down began in earnest.

My very last trip was a two day stay in Cyprus. So Alison thought it would be a fine idea to come along for the ride. This route is flown by the larger of the Boeings, the 767. So the one before was to be my last Boeing 757 flight. It was a three day trip, with the final part, a shuttle flight to Aberdeen and back. The Angels were having a fractious day, and were feeling a little testy. Only the test was in the form of most inclement weather. By definition, I was the oldest pilot in the company, so one would expect a little light breeze to be wafting along the active runway. But no, the isobars were packed together, and at 90 degrees to the east west runway of Heathrow. There was a wall of water at the west end of the airfield, and a healthy 30 knot wind tugging at the tiles from the south. I had always promised myself that I would try to remember this final landing, but ended up trying to forget it. The gustiness, and sharp wind changes must have made the aeroplane look very impressive from the ground. It felt oddly fun in the cockpit, as the drift gave a very strange view from the front windows. The KLM aeroplane in front of us decided enough was enough and opened up the throttles to go around and wait for the storm to go through. We watched him vanish into the wall of water that was moving along the runway towards us. Not that much of a better option. No words were said between the co-pilot and me. We continued crabbing down the last miles of the bucking waves of wind, until we were over the threshold. The wall of water was now half way along the runway, the heart beat telling the brain that an early conclusion to the proceedings would be in everyone's interest, not that it wasn't interesting.

And so the rudder went in to offset the crabbing, and the aileron firmly placed to port to stop the wing coming up. The elevators were raised to arrest the descent rate and the throttles closed, because that is a good time to close them. The nose came round and up, the wheels met the ground. The relief in the Boeing was such that no-one could recall the firmness of the arrival. (For some reason, these conditions often end with a rather pleasing and gentle arrival, while balmy and calm conditions can ruin the ego.) The man on the radio, the ever calm voice of Heathrow Tower, said welcome home, that was a good one! The co-pilot told him it was the skipper's last landing on the Boeing 757. To which someone else replied "Not surprised!"

They then closed the airfield for a short time whist the Angels regrouped and whistled this weather away. The next trip would be to the lovely Island of Cyprus, where they claim 360 days of sunshine a year. We would still have to fly back to London. But I had thought of that, and decided to fly the sector to Cyprus, and give the one back home to the co-pilot. A cunning plan!

No-one really expects to 'grease' a Boeing 767 on to the runway, as the geometry of the landing gear is rather back to front for some reason best not mentioned here. The flight was in lovely weather with the approach along the coast towards the east with the setting sun behind us. The gentle sea breeze was just that. How very different from the previous approach. The wheels for once, caressed the tarmac, and gently spun up to speed. The best one I had ever done! These things are disproportionately important, but who cares! I looked out of the side window, and upwards - thank you Angels, wherever you are.

The crew, my wife Alison, and I met up in some taverna or other near the hotel in Larnaca, and set about the Cyprus hospitality. Wine, beer, food, and more brandy sours than are good for one, meant that very little could be recounted of the evening. Next morning was more suitable to an easy uprising, a fried breakfast and a little bathing, - sunbathing. The day wore on as the headaches wore off. The repeat show would have to be postponed as we were due to take-off in the early hours of the following morning. Sensibly, we all met up for a local meal; only Alison this time had any alcohol, and that was a single beer.

The co-pilot now put his master plan into action, and suggested that he could not allow me to give him the sector home. He quite insisted that I should fly this, the last sector of my British Airways career. Ah well, the landing had been rather too good an arrival to end on, so I had better take the bull by the horns and accept the remarks after a more typical Boeing 767 landing.

The weather forecast was good, and I slept very well before the early pick up. The flight was a very pleasant affair, and the landing yet again an un-worthingly smooth one! What I had not accounted for was the schemes amongst the crew. The co-pilot had told all the passengers that this was the captain's final flight after some 32 years in the company, and finished with a potted history of all the aeroplanes I had flown. As the aeroplane slowed, I was aware of all the clapping and cheering from behind the open cockpit door. I looked around, and saw the balloons that had been attached to the doors, the notices that had been arranged all over the place and the passengers and crew smirking, smiling or laughing.

I parked the aeroplane and left my seat to see my final load of passengers leave. Comments and congratulations abounded. All I remember was a dear old lady, half doubled up with some age related back problem, so that she had to look sideways and upwards at me, saying "I hear that you are retiring, so now you are one of us!"

The crew had bought presents, the station staff at Cyprus had given me a case of beer, a cake and a bottle of bubbly. And the Angels, well they had been more than kind. The sun shone in the east, and all was well with the world. There was some thing else to be done...

I drove to Garston farm, and pulled my little biplane, 'Mongrel Spirit', from the barn, and took off towards the east, away from the setting sun. Alone I flew, towards a bank of cloud, until I was abeam the very top of them. I circled this private world of cumulus and was very grateful. The low November sun created a shimmering white carpet of tidal like incoming waves. Away from the sun, the view was pure and clean, the colours exact and the infinite sky as deep a blue as can be imagined. Towards the sun, the clouds had a

golden edge, the far distances were foreshortened and the sky a far more vibrant affair, with sun beams finding any airborne morsel to reflect upon. What a day to end a career on. I looped and spiralled my way through a corridor of this ethereal cover, until I was back in sight of the green earth below. From there, I flew the short distance to the airstrip, with a landing to the south of the village, the one that takes the aeroplane along an invisible passage through a gap between some trees. Even the leaves were showing that magic golden bronze colour that they exhibit before they take their own final flight to the earth beneath the branches they have graced throughout the summer months.

Alison had not stood idly by. She had arranged for a gathering at home on the following Saturday to celebrate the retirement, and as it was also my birthday, - my birthday. Any excuse. The assembled group needed no introductions, neither did they stand around quietly. We had gathered around the fine refectory table that had been in the family for centuries, and now had fallen under my custodianship. It took the brunt of the festivities as well as it had throughout the years gone by. Even the speeches were heckled and soon forgotten, which was a pity, for I think some rather nice things had been said! By four in the morning, all had departed, the utensils cleared away and I had my first night as a pensioner. Seemed like any other, but there it was, or was it?

Six weeks before all this, an ex-Flight engineer friend had called in. Alan Jones told me of a company called AFX. Airfrieght Express is a new company, they own one Boeing 747.

I gave the number a ring and finished up talking to the Chief Pilot, a Captain Peter Royce. Now he happened to be a fleet manager while I was on the 707, and later he was the Chief pilot on the 747 fleet. It had been over six years since I last flew the 747 Classic, and three since I had flown the newer version, the 400 series. The thought of having another crack at a jumbo was most appealing. I have to admit to prefer flying the older version. For a start they carry a flight engineer, and they really know the systems. The aeroplane would be in a cargo configuration, so no passengers, and no hoards of cabin crew, much as I appreciated the smaller number on the short haul routes of Europe. My old Fleet Manager invited me along for a chat.

I immediately contacted the Civil Aviation Authority, to find out just what I would need to do to re-qualify on the type. As it had been over 5 years since I had last flown the Classic, theoretically I should have to do a full course, the ground school alone costing £22,500. But considering my time on the later version of the 747, and regular flying around Europe in a similar concept aeroplane, then a refresher course, followed by a few simulator exercises would suffice! I was amazed at the speed the CAA had made this decision. So I called into the British Airways training school, and negotiated a refresher course for £500! I was getting into the swing of things. The very next Monday, I was at the training establishment, paid my cheque to the required source, and settled down to a few days of revamping lost knowledge. Three exams, and three day later, I had the requisite bit of paper, a course certificate.

So I had my chat with Peter Royce and the owner of AFX, Phil Bowles. From working with the largest airline in the business, I was now offered a job with the smallest - just one aeroplane. I liked the set up, and relished the chance to fly a 747 again. All the names that were mentioned were pilots and

engineers I had known over the years from BOAC days, let alone British Airways. They offered me a contract, a part time one. I could hardly believe my good fortune, a part time contract would allow me the time to indulge in all those hobbies, pursuits and objectives I have vaguely tried in the course of a busy life. Or, I could just get bored, no I don't suppose that really is an option. I then had the pleasure of being measured for a new uniform. Ironically, the material and style were better than the one I had handed in the previous week. Yes, I had been unemployed for just eight days.

As for flying a cargo 747-200, I'll tell you about that some other time.

Frank

BRISTOL STRUT TRIP TO CAMERON BALLOON FACTORY
11th MARCH 2000

Pictures and report by Ian Wakeling.

On Saturday 11th March a number of Bristol Strutters visited the Cameron Balloon Factory in Bedminster Bristol. We were greeted by Hannah Cameron and given a very interesting tour around the factory. Cameron Balloons have been in Bristol for approximately 30 years and was started by Don Cameron (Hannah's dad, but she is the "Boss") having decided upon making his first balloon to keep costs under control. (Where have we heard that before?) Approximately 132 people are employed by Cameron throughout the UK and they produce a balloon a day. Each balloon has a 6 to 8 week schedule but they are proud of the fact no project is ever turned down, and they have met some pretty tight timescales requests in the past. 85% of production is exported.

Hannah started by showing us the artwork department where lettering and logos are stuck on or sewn or cut into the fabric. We were shown an extensive floor area with balloon material held down by weights to keep everything in place.

We moved on to the main sewing floor where the machinists were busily sewing masses of material which appeared to be a sewing nightmare.
Balloons come down from artwork for sewing, then on to inspection, after which they are packed into large orange bags ready for inflation tests in their field. 192 checks are carried out before final inspection.

Each balloon is designed on computer and has a work pack identifying all of the different shapes and artwork required. The software is very specialist and has been written by Don, and when another shape is requested, he gets to work to produce yet another programme.

Many thousands of BTU's (British thermal units) are produced by a balloon burner and therefore special materials are used for balloon construction. Hannah took us to the

material section and showed us samples of the three different types. At the bottom of the balloon Nomex flame proof material is used just in case the flame gets too near during inflation. Next in the middle a rip stop nylon is used and at the top a very strong heat proof material called Hyperlast is used. All of the materials are made in the UK and the Hyperlast is also used for patient slides in the medical industry. An average sized balloon uses about 1000 square meters of material and 3Km of thread. There are 23 standard material colours.

Hannah pointed out a wall covered in pictures of all the different designs and shapes of balloons they have made, many of course very familiar to us in Bristol being the home of the balloon fiesta.

Baskets are not made on site but they are wired up and this was the next section of our visit. Wicker is the best material for baskets because it is light, strong, flexible easy to clean, and above all cheap. There are four basket manufacturers in the UK supplying Cameron. Wires attach to stainless steel tubes woven into the basket and extend up the side of the balloon to attach to load tapes which in turn extend up the segments to a ring fitted at the top of the balloon.

Coffee break was next and we were met by Don Cameron who very kindly answered our many questions, when allowed to by Hannah because some did rather pre-empt the next part of our tour to the burner section.

Cameron do all their own stainless steel work and there is much of it associated with this very important part of the balloon. Burner technology has advanced somewhat since the early days and for those in the know, the stealth and pepperpot mix is the best combination to use in balloons today.

Before we came to the final part of our tour, we stopped off to see the latest creation, a hot air airship, which would knock you back about £70K. The balloon associated with this airship would cost about £15K to fill with helium, so you can see why hot air is used.

Our final section before returning to the foyer was the spraying booths where special designs are sprayed onto the materials as another method of meeting customer design requirements. We could not, for health and safety reasons, see any spraying taking place but we did see some of the work examples done in the past.

Our tour finished back in the foyer and we thanked Hannah for a very instructive and informative tour. Thanks were also extended to Ian Bently for setting up the visit. Who knows, perhaps there will be some more strutters who decide to go the hot air way.

Top...