Light Aircraft Association

www.bristol-wing.co.uk

Bristol Wings

Newsletter of the LAA Bristol Wing

April 2014

NEXT MEETING—

Our next meeting **at 7.45 pm on Wednesday 2nd April 2014** and as usual we'll meet in Room 7 at BAWA.

This month our speaker will be Glen Moreman, who is Operations manager at Cotswold Airport, – the talk will be entitled "RAF Kemble 1936-1945".

Directions to BAWA are available on our website: www.bristol-wing.co.uk

Inside this issue:

LAST MONTH'S MEETING— John Brady

John Brady, LAA vice-chairman, took us back to 1969 and his time as an RAF Lightning pilot. He conducted a pre-flight walkround with us, explained the cockpit and described typical flights. These included a rapid 2-minute vertical climb to 30000' over the airfield, and long duration sorties seeking and shadowing Soviet patrol aircraft over the Norwegian Sea - relying on tanker aircraft, given the limited endurance capability of the Lightning (with its thin wing, fuel capacity was limited - even the flaps held fuel!). He explained the need for mental arithmetic (on top of flying the aircraft and hand-controlling the radar) in order to achieve an intercept with the B-scope.

John also touched on the activities of the LAA and the General Aviation Alliance in addressing the impact on GA operations of airspace changes, airfield closures and other regulatory influences. He explained that the CAA's Future Airspace Strategy VFR Implementation Group, of which he is joint chair, has the opportunity for significant favourable influence on GA VFR operations. He encouraged all to participate by joining the LAA's Campaigning Aviator Network and providing your input to the various matters raised there. Have you done so? - see : http://www.lightaircraftassociation.co.uk/Consultation/ConsultationMainPage.html

Contact Information

Wing Co-ordinator:
Trevor Wilcock
01275 858337
E-mail:
trevor@bristol-wing.co.uk

Treasurer/Membership Sec:
Gordon Pritt
01934 622795
e-mail:
gordon pritt@talktalk net

Newsletter Editor/distribution:
Mary Leader
01275 541572
e-mail: mary@bristol-wing co uk
Editorial address:
7 Cantell Grove
Stockwood, BRISTOL
BS14 8TP

Where to go...

Free landing vouchers for ***April 2014***

Flyer: City Airport Barton, Crosland Moor, Fishburn, Gigha Island, Lashenden Headcorn, Sandtoft

Pilot: Oxford (Kidlington) - Also their "Spring" edition is out (they have 13 issues a year) with vouchers for **14th April - 11th May**: Chiltern Park, Elstree, Fair Isle, Newtownards.

LAA: Bodmin, Breighton, Panshanger + 1/2 Price at Blackpool

Both optimists and pessimists contribute to our society. The optimist invents the airplane and the pessimist the parachute.

Gil Stern

Future dates for your diary:

Wessex Strut Annual Fly In - *Saturday 19th April*

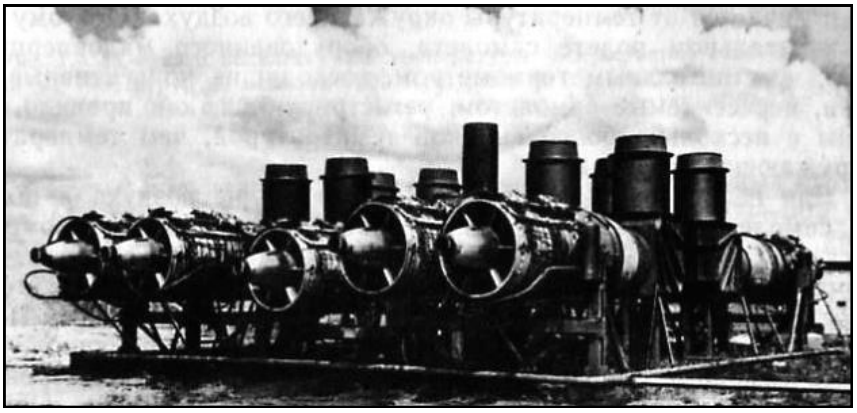
Bonjour Bodmin *3rd & 4th May*—A special French weekend—why not come along in French fancy dress? PPR Bodmin Airfield 01208 821419 or Pete White 07805 805679

Sywell's AeroExpo *30th May – 1st June*. Free entry to the show to pilots and passengers, just a landing fee to pay (£10 for single engine aircraft). Slot bookings are at www.sywellaerodrome.co.uk/bookings.php

And looking even further ahead: **Thorney Island** – *Saturday 6th & Sunday 7th Sept* Baker Barracks Fly in event

Picture Quiz

Last month's Picture Quiz



Well, what IS going on here?

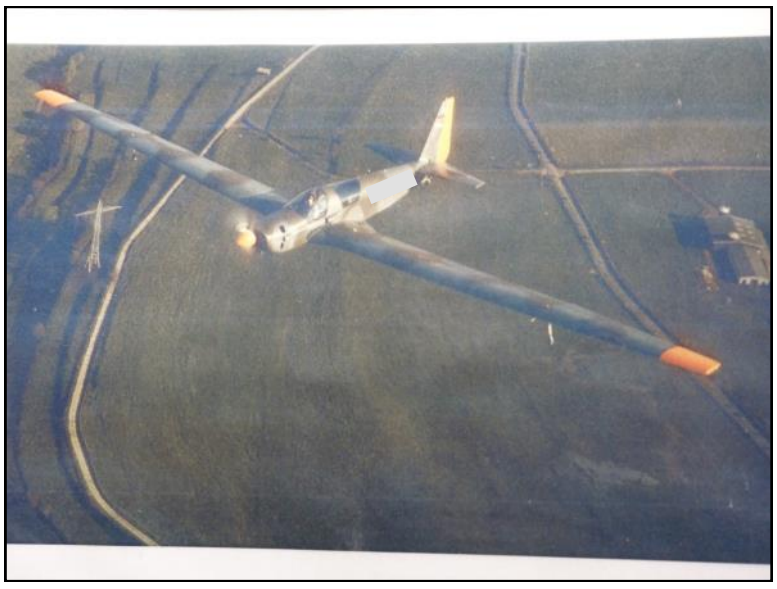
The answer is: Hurricane Modification!

Moshe Alamaro ENG '99, ME '99, SM '01 is a research affiliate at the Harvard-MIT Division of Health Sciences & Technology where he collaborates with Professor Robert Langer ScD '74 on a variety of project and program initiatives. One of those projects is Hurricane Modification.

Remember the butterfly effect ? According to it, a butterfly flapping its wings in Brazil may cause, in the chaotic weather system, a thunderstorm in Texas two weeks later. Well, Moshe reasoned that one jet engine might be equivalent probably to about 10-20 billion butterfly power. He suggested using an array or cluster of jet engines mounted on a barge in the ocean to replace the butterflies. More information on his projects can be found at:

http://alum.mit.edu/news/WhatMatters/Archive/200906?destination=node/18405

Phil Mathews is partly correct when he submitted the following: *For the mystery picture I'll hazard a guess at the engine test bed that was on the south side of Brockworth airfield.*



This month's puzzle picture from Graham:

"What aircraft is this?

RAeS Bristol Branch

Date: 24th April 2014
Start: 6.30 pm
Venue: Concorde Room—BAWA
Subject:: *Africa as an Emerging Market*
Speaker: Miguel Santos Director of International Sales – Africa and Middle East – Boeing
For enquiries contact Alessandra Badino (0751 529 7787, alessandra.badino@airbus.com) Registration recommended : www.raesbristol.org.uk

Miguel has been Director of International Sales – Africa and Middle East – for Boeing for over 30 years. In that time he has seen the African airline industry evolve spectacularly. Miguel will discuss how this has happened and his view of the future state of the African airline industry

Proposed Visit to Bristol Air Traffic Control

We have been invited by Julian Andrews, who is ATC Watch Manager at Bristol Airport, to visit the control tower. He is very accommodating and has offered daytime or evening, weekday or weekend.

So what would you like?

Please contact Mary with your personal preferences and we'll see if we can find a time suitable for the majority. When we do visit we'll join forces and enter through their security in as few cars as possible to reduce the checking time to a minimum. We have a very good relationship with Bristol ATC and I can assure you that these visits are very interesting, useful, informative and friendly.

Either e-mail me at mary@bristol-wing.co.uk or phone 01275 541572 or even see me at the next meeting on Wednesday 2nd April.

While we're on the subject why not take a look at their excellent publication "Flying in the Bristol Area" It is a guide is to assist with flying below, around, and through Bristol Controlled Airspace . It gives accurate photographs of all the VRPs around the Bristol Zone as well as a brilliant chart depicting the various levels of Controlled Airspace. Look at and download it from here:
http://www.caa.co.uk/docs/299/FLY%20ON%20TRACK%20amended%208thoct2011.pdf

Interesting Internet Links

Here are a couple of internet links which you may find interesting to read:

Virtual Airplane Museum

Data on every airplane that was ever built – by country. Great reference site and source of info to settle those "friendly arguments" about who built what and when, etc. You will be able pull up every airplane that was built in every country in the world and every aircraft company. Old, new, military, civilian?

Browse this site for a few minutes and you will be amazed at what has been done in airplane design. The amount of info available is unbelievable: Virtual Airplane Museum

Flying in a Lancaster and Mosquito

Wonderful video of the June 2013 Hamilton Air Show at Mount Hope ON (ground and air) as the Lancaster, Mosquito, two Spitfires and two Hurricanes fly together - as good as it gets short of being aboard yourself.

www.youtube.com/embed/ceuU1UQuwVU?feature=player_detailpage

CAA News

The CAA regularly issues documents affecting us. Below are links to some which may be relevant to some of our members/readers:

IN - 2014/054 Amendment of the requirement to renew a Class or Type Rating included in a UK issued Pilot Licence (except a UK NPPL or a Part-FCL LAPL, SPL, BPL) and to renew an Instrument Rating.

This Information Notice advises of a change to the requirements for the renewal of a class or type rating for pilots who also hold an equivalent and valid rating on a non-European licence and amends specific details concerning the renewal of type ratings given in IN 2013/098 (entitled "Amendment of the Requirements to Renew an Instrument Rating that has lapsed by more than seven years")

http://www.caa.co.uk/docs/33/Information%20Notice%202014_054.pdf

MORE ADVENTURES OF MEN

This is a further extract from Rene Fournier's autobiography. At this point of the story the aircraft is manufactured in Germany by Sportavia at Dahlem

During those years when the RF-4 was sold to international customers, some of our customers – far from having the professionalism of Mira Slovak – nevertheless distinguished themselves by the 'exploits', but of another order. I did not keep a record of the names of all the pilots during this era, but I have a perfect recollection of their stories, as told me by Alfons Pützer in detail.

The first is of a German pilot who had owned his aircraft for just one month, and who departed from Sportavia after having fitted one of the first radios designed for use in light aircraft. It was the month of September, which was usually pleasant and sunny enough but sometimes showed the onset of the first autumnal fogs. The aircraft was ready about four o'clock in the afternoon, and the customer thought this left him sufficient time to make it home to Bavaria. Alfons thought otherwise, and did everything he could to dissuade the customer, but in vain! Just one hour later a blanket of fog started to form over the land. Emboldened by the availability of a radio set, the pilot put out a first call, but heard no answer. A little later, he succeeded in raising Frankfurt, but seemed not to understand what he was told. Even so, he simply followed his compass heading as the fog descended, gradually obscuring the ground as the sun sunk to the horizon. The weather got worse and not knowing what to do, he continued. A little later, still not having understood the messages he had heard over the radio – which was working perfectly – he realised he had lost all contact with the ground and was now flying over a uniform blanket of fog , with the occasional glimpse of a hill or tree. Slowly, night began to fall and he had been flying for three hours. The fuel gauge was indicating empty and even though he thought his track was good, he didn't know where he was. Even so, he continued. What else could he do? He couldn't see the ground. Suddenly, the engine coughed, the prop became visible, rotated a few more times and then stopped. The fuel tank was empty. Slowly and in agonising silence, the aircraft began a steady descent towards the foggy mattress, which did nothing to slow his fall. It got increasingly dark and then all at once enormous fir trees came into view left and right. Before he had taken on board that he was over a forest, a green raft, almost black, opened before him and he was thrust forward into the straps by a violent jolt and arrested amidst an enormous racket, cracking of branches and breaking noises. Then there was nothing other than an immense silence.

Restrained in his seat by his harness, stunned and with shoulders bruised, there he was, immobilised in his broken RF-4, stuck at the top of a huge fir tree. Night fell on the forest but the sky was clear, with the moon a faint lantern illuminating his sad destiny. But he was not afraid, a miracle! He undid the harness, opened the canopy, climbed out of the cockpit and proceeded to climb down the tree branches. His clothes were torn but he was uninjured so he then walked for about two hours until – another miracle – he saw the lights of a hamlet. He knocked on the door of a house, which was opened to him and asked to use the telephone. And whom did he call? His wife, who without doubt, was dying of fear wouldn't you think? But no! He called Alfons Putzer the proprietor of Sportavia, who was asleep, to order another RF-4! It was midnight!

The second story is about a doctor from Frankfurt who arrived at the Sportavia factory to order an RF-4. It was summer, and Alfons was wearing a short-sleeved shirt. While he was filling out the purchase contract, this curious doctor took the kit from his medical case and proceeded to measure Alfons' blood pressure saying, "I want to be sure you are in perfect condition to fill out all details of the contract."

This same curious doctor was back three weeks later to take possession of his new aeroplane, which he had asked to be equipped with a radio. But on the evening of his flight home he was unable to find his own private airfield. Completely lost and with night falling, he found himself without lights over Frankfurt Airport, in the middle of long-range commercial traffic. But before the tower could give him any instructions, he announced to the frightened controllers that he had already landed. A thundering voice told him that he would be intercepted by a Follow Me truck and that he must, repeat must, follow it. He followed it, but thinking that this taxi trip was taking too long and seeing a large illuminated hangar over there to the left, without hesitation he left the taxiway and stopped his aeroplane near a group of flabbergasted airport workers. Today, such breaches of air law would undoubtedly be followed by the loss of licence, but back in 1969, the authorities still showed a modicum of pity on errant airmen. He got off with a serious warning and a few cases of champagne that evening for the hangar crew.

But it was not just German pilots who found themselves in breach of air law. In France, even my friend Etienne d'Halluin was a regular. He used to fly rather like a homing pigeon and his little trip to Greece was not the sole example. I remember his flight to Portugal to take part in the Fatima pilgrimage when he was caught up in bad weather over the Pyrenees. Following his guiding star, he wound his way through the valleys and in spite of everything managed to cross the mountains. On arrival in Portugal, over to the right he saw a big aerodrome, which happened to be a big NATO military airfield, strictly forbidden to civil aircraft. So what? The weather was awful, and the visibility lousy, he was in a hurry, and Etienne had a predilection for bending the rules. So he did not hesitate for a moment, but landed. Adopting a naïve air – a skill of which he had total command – he explained he had become lost in the bad weather and had no other choice than to land. Because he spoke no Portuguese, he constantly repeated the word 'Fatima', and it produced miraculous results. They put him on a military bus that enabled him to join the pilgrimage from which he returned two days later. He found his RF-4 in remarkable condition; the military had given it a thorough clean and filled the fuel tank. They nevertheless indicated quite clearly that although they had all been happy to welcome him, they would be even happier if he never came back. Another true story from the annals of Etienne d'Halluin in Portugal, dated 2 May 1967.

Some time later, he had purchased an RF-5 and set off on another adventure. He came to see me one morning in the office to announce quite simply: "Tomorrow, Nelly and I are going to take the RF-5 to the Canary Islands." This statement left me rather puzzled because, although I knew that on account of his genes Etienne had been born with a GPS, I was rather more worried about his ability to cope with the bureaucracy regulating aerodromes and the sky. Not doubting that he would encounter some issues of this kind I flagged up the problems. The huge fright he had got the previous winter, when he found himself inside an ice-packed cloud over the Alps, seemed to have done nothing to improve his airmanship.

On the morning of 4 April 1971 he took off towards the south with his wife and baggage. After several tourist stopovers at Biarritz, Saragossa, Carthage, Malaga, Tangiers and Casablanca, he arrived at Agadir on 9 April. From here, he decided to head for Cap Juby, which had once been a refuelling base for French airmail flights, a simple fishing village which the Moroccans have since renamed Tarfaia. This is the point of departure for the shortest over water flight to the Canaries. Believing that he might be short on fuel, he obtained a jerrycan with 20 litres which he placed on the floor and his wife stoically retained this between her knees during the flight; an enormous risk in an accident.

He landed not without problems at Cap Juby after 2 hr 40 min flying, where Etienne found the airfield abandoned. The old runway, or what remained of it, was covered in sand and was used more by the dromedaries than aircraft. In reality, donkeys had grazed an area about 20 degrees off to the left, about 300 metres further down the runway.

Plainly, the take-off would not be easy, but Etienne had a plan. Having transferred fuel from the jerrycan into the tanks, he prepared his departure. This was to be spectacular, precise and decisive. After an initial take-off run greatly slowed by the sand, the aircraft had still not taken off. So on reaching a speed of 40 km/h when the aircraft was horizontal and in perfect equilibrium on the single main wheel and just at the point where the runway curves, Etienne dropped the left wing to continue his take-off run along the area grazed by the donkeys. A hundred metres further on, the RF-5 was airborne. Success!

The huge fright he had got when he found himself inside an ice-packed cloud seemed to have done nothing to improve his airmanship

One problem had been mastered, but another awaited: over the sea, navigation became approximate. Visibility was poor and the horizon uncertain. However, ahead he could see two large clouds and one of these concealed the islands, but which one? However, Etienne had access to supernatural navigational techniques, which no doubt synchronise perfectly with those of providence. Out of his flying overalls he fetched a coin: head or tails? And it worked! A few minutes later a little white triangle hove into view, the snow-covered summit of Mount Teide, the highest point (3,750 m) in Tenerife. A short while later, the RF-5 and crew flew over the rocky island of Fuerteventura from which they reached Lanzarote, the nearest aerodrome, with joyful hearts. Over the following days, after visits around Tenerife and Las Palmas, they began their return via El Aioun and from there direct to Agadir in 3 hr 30 minutes. On return to Nitray I checked over the aeroplane and heard an unusual sound from the engine, which had continued to function with sand picked up in the Spanish Sahara!

A moment of nostalgia

Thanks to Frank Bond for sending this enlightening article which he received from an Aeronautical Engineer who . . .

Starting, take off and flying with the wonderful radial powered aircraft (an AD-6)

Radial Starting (3350 engine on an AD-6)

Be sure you drain both the sumps. (You can fill your Zippo lighter while you do this)
Look out the left side of the oily cockpit canopy and notice a very nervous person holding a huge fire bottle. Nod to this person.

1. Crack throttle about one-quarter of an inch
2. Battery on
3. Mags on
4. Fuel boost on
5. Hit starter button (The four bladed 13' 6' prop will start a slow turn)
6. Begin to bounce your finger on top of the primer button. (a) This act requires finesse and style. It is much like a ballet performance. The engine must be seduced and caressed into starting.
7. Act one will begin: Belching, banging, rattling, backfiring, spluttering, flame and black smoke from the exhaust shooting out about three feet. (Fire bottle person is very pale and has the nozzle at the ready position)
8. When the engine begins to "catch" on the primer. Move the mixture to full rich.
   The flames from the exhaust will stop and white smoke will come out. (Fire bottle guy relaxes a bit) You will hear a wonderful throaty roar that is like music to the ears.. (a) Enjoy the macho smell of engine oil, hydraulic fluid and pilot sweat
9. Immediately check the oil pressure and hydraulic gauges
10. The entire aircraft is now shaking and shuttering from the torque of the engine and RPM of prop. (a)The engine is an 18 cylinder R-3350 that develops 2,700 HP
11. Close cowl flaps to warm up the engine for taxi
12. Once you glance around at about 300 levers, gauges and gadgets, call the tower to taxi to the duty runway

Take off in the AD-6

1 Check both magnetos
2 Exercise the prop pitch
3 Cowl flaps open
4 Check oil temp and pressure
5 Crank 1.5 degrees right rudder trim to help your right leg with the torque on takeoff
6 Tell the tower you are ready for the duty runway
7 Line the bird up and lock the tail wheel for sure
8 Add power slowly because the plane (with the torque of the monster prop and engine power definitely wants to go left).
9 NEVER add full power suddenly! There is not enough rudder in the entire world to hold it straight.
10 Add more power and shove in right rudder till your leg begins to tremble
11 Expect banging, belching and an occasional manly fart as you roar down the runway at full power (I have found that the engine can make similar noises)
12 Lift the tail and when it "feels right" pull back gently on the stick to get off the ground.
13 Gear up
14 Adjust the throttle for climb setting
15 Ease the prop back to climb RPM
16 Close cowl flaps and keep an eye on the cylinder head temp.
17 Adjust the power as needed as you climb higher or turn on the super charger.

Flying with the round engine.

1. Once your reach altitude which isn't very! high (about 8000 feet) you reduce the throttle and prop to cruise settings.
2. The next fun thing is to pull back the mixture control until the engine just about quits. Then ease it forward a bit and this is best mixture
3. While cruising the engine sounds like it might blow or quit at any time. This keeps you occupied scanning engine gauges for the least hint of trouble
4. Moving various levers around to coax a more consistent sound from the engine concentrates the mind wonderfully.
5. At night or over water a radial engine makes noises you have never heard before
6. Looking out of the front of the cockpit the clouds are beautiful because they are slightly blurred from the oil on the cockpit canopy
7. Seeing lightning in the clouds ahead increases the pucker factor by about 10. (a) You can't fly high enough to get over them and if you try and get under the clouds—you will die in turbulence (b) You tie down everything in the cockpit that isn't already secured, get a good grip on the stick, turn on the deicers, tighten and lock your shoulder straps and hang on (c)You then have a ride to exceed any "terror" ride in any amusement park ever built. You discover the plane can actually fly sidewise whi le inverted
8. Once through the weather, you call ATC and in a calm deep voice advise them that there is slight turbulence on your route
9. You then scan your aircraft to see if all the major parts are still attached. This includes any popped rivets.
10. Do the controls still work? Are the gauges and levers still in proper limits?
11. These being done you fumble for the relief tube, because you desperately need it. (Be careful with your lower flight suit zipper.

The jet engine and aircraft

Start a jet

1. Fuel boost on.
2. Hit the start button
3. When the JPT starts to move ease the throttle forward
4. The fire bottle person is standing at the back of the plane and has no idea what is going on
5. The engine lights off—and . . .
6. . . .That's about it

Take off in the jet

1. Lower flaps
2. Tell the tower you are ready for takeoff
3. Roll on to the duty runway while adding 100% power
4. Tricycle gear—no tail to drag—no torque to contend with
5. At some exact airspeed you lift off the runway
6. Gear up
7. Milk up the flaps and fly
8. Leave the power at 100%

Flying the jet

1. Climb at 100%
2. Cruise at 100%
3. It is silent in the plane.
4. You can't see clouds because you are so far above them.
5. You look down and see lightning in some clouds below and pity some poor fool that may have to fly through that mess.
6. The jet plane is air conditioned!! Round engines are definitely not. If you fly in tropical areas, this cannot be stressed enough.
7. There is not much to do in a jet, so you eat your flight lunch at your leisure.
8. Few gauges to look at and no levers to adjust. This leaves you doodling on your knee board
9. Call some girl friends on their cell phones: "Guess where I am etc"

Some observed differences in round engines and jets

1. To be a real pilot you have to fly a tail dragger for an absolute minimum of 500 hours.
2. Large round engines smell of gasoline (115/145), rich oil, hydraulic fluid, man sweat and are not air-conditioned
3. Engine failure to the jet pilot means something is wrong with his air conditioner
4. When you take off in a jet there is no noise in the cockpit. (This does not create a macho feeling of doing something manly)
5. Landing a jet just requires a certain airspeed and altitude—at which you cut the power and drop like a rock to the runway. Landing a round engine tail dragger requires finesse, prayer, body English, pumping of rudder pedals and a lot of nerve.
6. After landing, a jet just goes straight down the runway.
7. A radial tail dragger is like a wild mustang—it might decide to go anywhere. Gusting winds help this behavior a lot.
8. You cannot fill your Zippo lighter with jet fuel.
9. Starting a jet is like turning on a light switch—a little click and it is on.
10. Starting a round engine is an artistic endeavour requiring prayer (curse words) and sometimes meditation
11. Jet engines don't break, spill oil or catch on fire very often which leads to boredom and complacency.
12. The round engine may blow an oil seal ring, burst into flame, splutter for no apparent reason or just quit. This results in heightened pilot awareness at all times.
13. Jets smell like a kerosene lantern at a scout camp out.
14. Round engines smell like God intended engines to smell and the tail dragger is the way God intended for man to fly