



Volume 2 Number 15

Editorial

(Brian Lloyd)

A two page coloured Feature appeared in the August 08 "Flypast" magazine, written by the Editor Ken Ellis who kindly attended the opening ceremony. Many visitors have made complimentary comments about the shop and the "Bob Brown" hall.



(photo: Geoff Etridge)

ALAN LOTT. We regret to report the death, at the age of 86, of Alan Lott on September 28th 2008. Alan was a great supporter of the Museum and always full of good ideas. Anything to do with filming was his passion and he helped to compile many video documentaries, including one about the Miles Aircraft Company which is on sale, including on disc, at the Museum of Berkshire Aviation.

We welcome the two replacement Committee Members. Mrs P. Jorgensen representing Wokingham Borough Council and

Mr. B. Franklin representing Woodley Town Council. We also take this opportunity to thank their predecessors, Mr. I Brown and Mrs. M. Knight (who continues ex-officio) for their contributions at the meetings and support.

Engineering Report

(Geoff Etridge)

There has been good progress on a number of items during the past few months with special thanks to the Wednesday volunteers – known within the Museum as "The Wednesday Boys"

Miles Magister. The replacement wing section has been fitted for a trial fit and the mountings had to be modified to facilitate fitment of the tapered wing mounting pins, which was kindly manufactured by Brian Lamb. The engineering team have started to remake the leading and trailing edges, after which the wing section will be removed in order to marry it up with the outer section, prior to covering and painting.

Miles Martinet: the forward cowling manufacture is progressing. The left hand side is now completed and the right hand side is being manufactured.

Miles Student: the rear fuselage framework is now fitted and the engine compartment rebuild is in progress. Some of the control rods are being altered in order to facilitate rigging the rudder and elevator rigging.

More on the Miles Falcon and M52.

(Jeremy Miles)

The Falcon fitted with razor-edged wings seen by David Miles (no relation as far as I know) was, of course, the Gillette Falcon. If others have already provided this information (or even different information sorry).

The airframe was one which had been sold to Farnborough for research into various wing configurations and was returned to Woodley to have a pair of M52 style wings fitted to explore the low speed handling of the bi-convex thin wing intended for the supersonic project; it was never used in a wind tunnel being, of course, too big. After some preliminary flight trials it was fitted with the all-moving tail also intended for the M52. I remember seeing the Gillette Falcon in the Experimental shop with wooden battens clamped onto the leading and trailing edges because, apparently, someone had inadvertently walked into the wing and had cut his head open, not fatally I assume.

According to Eric Brown, it was not (probably predictably) especially pleasant to fly but did demonstrate that the low-speed handling, including the stall, of the M52 would not present any undue problems. "Low speed" in the case of the M52 was probably somewhere around 150knots, rather above the maximum speed of the Falcon which, being lighter, stalled at a lower speed.

Thank you Mr. Miles for this contribution. Any additional contributions welcome.

Lindbergh's Mohawk

(Ken Fostekew)

In March 2008 the Museum of Berkshire Aviation was asked by the *RAF Museum Hendon* for assistance with the colour scheme for the M.12 Mohawk, as it was about to go to the paint shop for finishing. There was no doubt about the shade of black, but the shade of orange was another matter.

Museum volunteer *Monty Cook* is probably the only person alive today to have seen this aircraft when new, in fact Monty refuelled the aircraft for *Charles Lindbergh* here at Woodley when asked if Charles Lindbergh spoke to Monty he said yes, "just don't spill fuel on the paintwork".

Shortly after the remains were recovered from the United States, where

restoration had been started by Mr Lou Casey, a group of volunteers were invited to visit *Skysport Engineering* to view the aircraft. Whilst there a piece of original ply skin was found and when cleaned was found to be the original shade of orange, Monty Cook had taken with him an old orange tooth brush which was the exact match with the piece of ply skin. Why Monty just had an old orange toothbrush in his pocket, it would be better to ask him! Dulux colour charts were obtained and we were able to select a shade of orange, along with a piece of Monty's toothbrush to send to Hendon. The result is a very spectacular looking aircraft and great credit to all who were involved with the restoration. *The Museum of Berkshire Aviation* is

proud to have been able to assist, albeit in a modest way.

News

(Brian Lloyd)

Did You Know: A Miles Aerovan crashed in June 1947. It took off from Croydon Aerodrome and came down in a field opposite Pampisford Road, South Croydon. The three occupants were released by a member of the public wielding a long-handled axe. During the evening vans took away a cargo of baskets containing some 4000 racing pigeons said to be en route to France.

Courtesy, *Best of British Magazine*, www.bestofbritish-mag.co.uk

E-mail: mail@british.fsbusiness.co.uk

The Maidenhead Heritage Centre Opens at the new Premises. Worth a visit to see over 3,000 historic objects, including aviation items and information/pictures about White Waltham.

01628 780555. WWW.Maidenheadheritage.org.uk Address is 18, Park Street, Maidenhead, SL6 1SL. Open each day, and Second Sunday of the month, 10.00 to 1300hrs.

Mr. John Fairey. One of our Patrons, John Fairey, met 51 other Test Pilots at their Reunion on 8th July 2008 at Popham Arfield. These pilots are both current and retired. The Reunion was sponsored by Rolls Royce and a panoramic picture of all of the attendees appeared in the September edition of "Aeroplane" magazine.

Attention Gift Aid Donors. Anyone who has kindly completed a Gift Aid form are reminded that you must be a UK Tax Payer to ensure the Museum recovers the contribution from the HM Revenue and Customs. If you qualify and have not completed a Gift Aid form, these are available from our Treasurer.

Regarding the Weihi - Miles Aeronautical Technical School

by Dorothy Whitfield (later Mrs. Nicholas) 1945/1946 ?
(handwritten)

Some time last term the school was suddenly (so it seemed to me) confronted with bits and pieces of woodwork. Apparently Commander Wills had offered these to the Miles Technical School with the idea that the school should start to construct a sailplane - for these bits and pieces were no less than the parts of the German Weihe - in contrast with the twin-engined Venture. The idea, no doubt, being that building a glider would be a much simpler effort than a powered aircraft - and would take less time.

Next was heard that a certain few intelligent people (not including me ?!) had been selected to check all the German drawings, which had come with the Weihe and to discover what other drawings would be needed. A school meeting was held in the large lecture room at which anybody could fire questions at the few, so that the whole school should know what was being done. At that time a glider or a sailplane to me was just a non-powered aircraft, which was

towed along and then let loose on its own - any idea of thermals and other meteorological phenomena just did not exist in my ignorant brain. I did not really see why a glider should not glide downward without mishap, providing its C.G. position was alright.

The thought of a non-powered glider defying gravity, merely by moving with currents of air, just had not entered my mind. By now, I almost feel confident to take off in a sailplane on my own, though I am sure that a more experienced glider pilot would tell me not to be such a fool.

But the flying of the school Weihe is still in the distant future as yet, though by this time next year, there may be signs of a gliding school, because work started in the drawing office in earnest this term. A lot of students were disappointed when instead of being put in the Weihe D.O. they had to sit all day in front of Venture drawings, or stay in the machine shop, in tea-ups listening to new tales of the Weihe, but they bore up to it very well. Those who were selected to work on the sailplane worked like Trojans for the first month (somebody informed me) some of them do not do so badly at the moment, either.

But I did not see what was going on in the D.O. then, as I spent my time in the Engines Hangar, learning why the crankshaft did so many revolutions, why a piston moves up and down the cylinder etc. I fully expected to be there until Christmas and tried to harden myself to the climatic conditions, so imagine my surprise when one Friday a voice over the telephone informed me

that I was wanted in the office; then the owner of the voice telling me in person that the time had come when the sailplane needed a real "boffin" on the job, to work out its aerodynamic and stress it, and that I had been chosen for the job.

From that day, my idea of the glider changed from mere bits and pieces to an important job. Working in the Stress Office previously had taught me that concentration and deep thinking was essential so here was a chance to show people what I could do. I left Mr. Marples office with great resolutions in my mind. "From now on", I said to myself, "you will work hard and take life more seriously. This is what you want to do", I went on, "now it's up to you". So I wished farewell to Engines, not that I wanted to leave there particularly, I considered that my time in there had been of great use and the company had been pleasant. And though there had been a range of temperatures in the hangar, it was preferable to the stuffy and drowsy atmosphere in the D.O. which no amount of open windows will get rid of.

At last I saw for myself how the bits and pieces I had seen in the previous term connected up with each other and of what use they were when there were no drawings. The students concerned had a chance of seeing the German construction better too - the good and bad points. So I am now installed in No. 1 D.O. to watch with interest the work being done on the sailplane - Parmenter working hard with his tailplane and controls, Tuffs managing to overcome his decimal points. I have decided that

though there are the inevitable few who do not manage to do their work, the majority are hard working individuals, who are keen and all try their hardest to do their best.

It took a few days to settle in, but I felt as though I was expected to have stressed half the Weihe in that time. My wish then was that I had taken more interest in the Weihe previously, because, as it was, I did not know a single thing about it, and had to start from scratch. But eventually things began to run smoothly and to sort themselves out. My first job was to estimate the C.G. position, which was done with the help of Mr. Budd's department, who weighed the bits and pieces.

This weighing and measuring went alright until it was realised that a lot of the German data was not to be relied upon. Then things began to happen - the fuselage lengths did not key up with each other (that is those on the drawings and on the 'gen' sheet), and the worst thing of all, the aerofoil sections did not check. That upset both the drawing and the stress offices, the lay-out for the wing had been drawn, but of course, was then useless, and I had done all my calculations on the assumption that the section at the root was GOT.549, up to the semi-span, changing parabolically to M.12 at the tip. But Tuffs' efforts to determine the sections showed that these were certainly not the ones, so my calcs. on stressing cases etc. were to put it mildly, "up the pole".

Another shock came too, when it was thought that the actual Weihe's spar was under strength. I suggested that maybe the 13%

thickness of the 549 would be deep enough to take a strong enough spar. So calculating the Reserve Factor of the Weihe's 15% thickness spar, we discovered it to be .76, so the idea of reducing the percentage thickness was out of the question. We now asked ourselves why should we discover that the spar's strength was bad after experts had been on the job and after hundreds of Weihe's had flown without the spar failing. But looking deeper into the matter, found that Mr. Marples's estimate on one point was 5% out which altered the Reserve Factor from .7 to 1.08.

But this did not help to determine anything definite about the wings. So a meeting was held in Mr. Evans' office of the chief people concerned on the Weihe, because a general policy was needed, due to this uncertainty. It was decided that the material that the fuselage would be made of, would have to depend on whether the Woodwork Hangar or the Fitting Shop had not enough of the Venture to keep them going; that No. 1 D.O. should be responsible for the wooden one and No.2 D.O. for the metal one.

Then transferring from the fuselage to the wings it was agreed that some of us should try to design another wing - thus stress and drawing offices combined forces and set out to discover the best wing section. The stress office finding the characteristics and the drawing office finding the ordinates. But, while all this was going on, a set of drawings arrive from Slingsby's and there was a mad rush to try to discover the section they used, which they had accidentally, or otherwise,

forgotten to state. Meanwhile the rest of the D.O. carried on with their drawings of metal fittings taken from the bits and pieces of the Weihe.

Extract from another handwritten essay written by Dorothy Whitfield. entitled

“M.A.T.S. Stress Office and Weihe”

The work on the Weihe so far this term has been of an understanding nature, and not introduced any difficulties. All past calculations are now at the stage where they all have to be checked and written up, because all future work will depend so much on them. Most of the calculations have been independent on others, depending only on the geometry of the plane. Waiting for the B.G.A. requirements is building up some work which ought to be done. We hope to find some information on gust cases in the requirements as A.P. 970 and Shenstone do not give sufficient data; some of their statements being rather ambiguous too.

Many of the requirements will be similar to A.P. 970, so there is not a hold up for lack of work. The work is distributed with an object in mind. If a person works through some detail stressing with no difficulty and with understanding, he will then be given some primary stressing or aerodynamics. Or similarly if he has understood primary stressing he will be given something different. But if he has only done the work with much help from other quarters (he may have done some hard thinking, or he may not) he

will be given a similar problem to do - and so on, until he understands it.

Royal Berkshire Aviation Society

A full programme of meetings will be held over the coming months – (first Tuesday of each month excluding August) at the Museum.

All Museum Members are very welcome to come to any meetings.

Committee Members Information

Chairman & Curator Ken Fostekew:
ken@clarkscomputers.co.uk

Treasurer Alan Foskett

Engineering Geoff Etridge:
m.retridge@homecall.co.uk

Publicity & Press Brian Lloyd:
[brianlloyd@redwood32.
freerve.co.uk](mailto:brianlloyd@redwood32.freerve.co.uk)
01628 661 005

Museum Manning: Jean & Ken Fostekew:

Membership Keith Freeman:
museumberksav@gmail.com

Published by The Museum of Berkshire Aviation, Mohawk Way, Woodley, Reading, Berkshire RG5 4UE

Web Site

<http://www.museumofberkshire-aviation.co.uk/>
