

Technical Officers Report 2015

This time last year I wrote "It's been a busy first year for me back in the role of technical officer and I can't help feeling I've been distracted from the Gliders a little by other technical issues, let's hope the balance swings the other way in 2015".

Reflecting on this in 2015 makes me realise that the post of Technical Officer has grown over the years and now technical items directly related to the Glider fleet probably only amount to 50% of the office.

Gliders

Back in October the Committee reviewed the clubs 5 year plan and this gave me cause to look quite carefully at the glider usage. What was clear following this exercise was that none of the club single seater gliders are paying their way i.e. the income for each is considerably less than their respective insurance contribution, ARC inspection and sundry maintenance charges. I'm not saying that to allow the single seater's to be subsidised by other club income is a bad thing indeed that's exactly why we have the club single seater's to cater for those members who are not affiliated to a syndicate.

However when the usage of the Pirat over the major part of the soaring season was just some 12 launches and 4.25 hours with a nett income of just £76 we needed to ask the question do we need this glider. Then fate stepped in and the aircraft was damaged resulting in an easy decision not to replace it at this time.

Usage on the two Astirs and the SF27 is also well below the break-even point. Of the three the SF27 is most popular but even this had only logged 59 hours from December to September 2014.

I accept the Astirs are not the hottest ships around but with such low usage numbers it is not possible to make any sensible business case to replace one or both of them with a higher performance sailplane(s).

We must ask ourselves the question why is the usage so low and why do so many club members move into a syndicate shortly after going solo.

The Committee believes that the ESGC Single Seater usage policy may be at least partly to blame dissuading members from making the most of the club's single seater fleet. To address this the Committee has agreed to change the policy, from this date forward the Single Seater Usage Policy will be as follows:-

- 1) There will be no time limit an individual member can fly a ESGC single seater for, unless all of the club single seater's are airborne.
- 2) If all single seater's are airborne, then the time limit for an individual pilot is 2 hours. There should be no expectation that the aircraft will automatically return after 2 hours, the next prospective pilot should ensure that a radio request for the return of the aircraft is made in a timely manner say after 1 hr 45mins.
- 3) The above conditions do not apply to attempted badge flights. If one of the single seater's is engaged on a badge flight or off site; say at an inter club league competition then point 2) above applies to the remaining aircraft.

By rewriting this policy as above I am aware that some members may feel disadvantaged i.e.

1. Those pilots who only fly the SF27, please ask yourself the question why have you never advanced to flying the Astirs. The Astirs are not difficult to fly just a little different to a k13. If we look to a point in the future where the club has an all Glass 2 seater's fleet then the Astirs would be suitable for first single seat solo flights.

2. The Astirs have slightly less head room than the SF27 and I am aware of at least one member who is too tall to physically fit into the Astirs.

3. The placard weights for KEE are restrictive to some of our lightest club members. I will address this in the near future with a new ballast weight installation, removing any limitations for light weight pilots.

Moving on to the two seater fleet as part of the 5 year review I also looked quite closely at the k13's. The wooden parts of these are assembled with the same glue which has seen many K6's scrapped in recent years making it inevitable that at some time in the future we will see K13's also suffering terminal glue failure. However the K13s are younger than the K6's and the current consensus in the broader technical community is that terminal glue failure in K13s is still some years in the future.

If the ESGC did have to scrap the K13's as our primary training gliders, the choice of replacement is very limited since none of the newer glass alternatives offer such an ideal all round package in one aircraft. The value of a K13 depends very much on when it last underwent major maintenance i.e. recovering/painting but is typically £10-15k, if significant numbers of aircraft start to see glue failure this will fall to practically zero. Either way the residual value in the K13 makes only a small contribution to the £100k price tag of a new two seater.

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In early July the Grob 103 was finally returned to service following damage to the wing tip which occurred back in October 2013. While this was not the most difficult repair the complexities of dealing with a third party agency - Lindner delayed the repair by many months. Lindner took over the Grob spares franchise back in 2001 so you might have expected them to be able to offer a professional/rapid service but unfortunately this was not our experience. A bit of deja vu here as I wrote a similar paragraph for last year's AGM never expecting this repair to take some 9 months.

This highlights one of the great advantages of the K13s if they should suffer minor damage it is usually possible to return them to service in a matter of weeks whereas the repair to glass gliders can take much longer, just another consideration for when the K13s do finally reach the end of their serviceable life.

Following on from my report last year during the course of the year we have scrapped some of the ageing PZL varicos replacing them with newer Winter instruments and we have also cycled some of the ASIs through a service program. I believe these actions have addressed the major issues with the ageing pneumatic instruments.

Some of my focus has now moved towards the electronic instruments as many of these are also in excess of 20 years old. Whereas we can often revitalise the pneumatic instruments with a service many of the electronic devices are from companies which no longer exist or contain obsolete components. This renders these instruments unserviceable and in the event of failure we will have to look for replacements.

Trailers

Conversion of the redundant Pegasus trailer to take either of the two Astirs is now almost complete only a couple of minor jobs need to be finalised e.g. magnetic catches to hold the root clamps out of the way when inserting/removing the wings.

As we move into the 2015 soaring season I would like this trailer to become the default trailer for transporting either of the Astirs.

The fittings are universal to accept either type of Astir but the belly dolly stop needs to be correctly positioned to suit – Instructions will be posted in the trailer.

Work is in progress to improve the Grob 103 trailer such that there is less chance of damaging the leading edges when inserting/removing the wings.

I recently became aware of some corrosion damage to the frame at the front of the K21 trailer. Repairing this will require removing the aluminium skin from the front of the trailer and hence is not a sensible winter activity. Once the better weather arrives I will expedite repair ASAP but in the meantime let's try not to land the K21 out.

Log System

January 2015 this year marked the one year anniversary of our switch over to the Electronic Log as our primary log and I hope most of you will agree it is a major step forward for the club. Again I must thank Robbie Nunn for hundreds of hours analysing, writing and supporting this.

Before the ESGC embarked on a custom log system we did evaluate a couple of other systems but these had to be rejected for one reason or another.

As with many things gliding related the market is too small for a major commercial enterprise to produce and support Log System programmes and this results in systems dare I say products which like our own have been written by dedicated individuals at other clubs. From our evaluation of these third party programmes they tend to be rather club specific and tailoring a match to special ESGC requirements like 15 mins free flying for a Cadet's first flight, although not difficult to implement in practice could result in lengthy time-scales before such features were added.

Anyway moving on to our system, I believe on a day to day basis for member and trial lesson Glider Flying this is now working very well, requiring very little manual intervention to ensure correct logging/charging.

Mid way through the year we automated the transfer of flight charges from the Log System to each individual Members Flying Account. Prior to this time each flight was manually entered into individual member flying accounts to produce the "Members Monthly Statement" a time consuming and potentially error prone process. To the best of my knowledge since the switch over nobodies statement has shown a charge which doesn't correspond to a log sheet charge. (That's not to say all charges on the log sheet are correct! If you do not check at the end of the flying day a slip of the log keeper's fingers and you could see incorrect charges on your Monthly Statement)

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The items still needing attention are the less regular activities.

1. Membership Renewal
2. New Members
3. Motor Glider Flights

For a large part these are due not to problems with the Electronic log System itself but how the clubs procedures needed to adapted to work in harmony with the system.

Membership Renewal next month will be a major test of how our new/improved procedures

Website

During the course of the year a number of members have expressed their dissatisfaction with the clubs new web site. This is a valid criticism but when you dig deeper the actual dissatisfaction is mostly aimed at the new burble room and the difficulty in communicating with other club members. Moving into 2015 correcting these issues will be a major focus.

The old website suffered from three major problems

- Member data was held in 3 different data bases which in practice should have been synchronised but this was never implemented resulting in inconsistent data across the site.
- The site had been built and modified by different individuals over the years and did not have a common coding structure making modifications very difficult
- With the disparate coding styles the old site was not ticking the right boxes where "Google" was concerned resulting in us being positioned well down any search results

To address these failing a re-structure/re-write of the entire site was required and without full time staff doing the work this was inevitably going to take many months. Faced with this task and in light of the relatively poor financial results presented last AGM the decision was made to focus the first phase of the development on attracting Trial Lessons and New Members.

I must thank Dennis Heslop for his expertise and time in re-writing the basic framework of the new site. This was completed in a relatively short period of time giving the site a much cleaner more modern feel and raising us up the "Google" rankings.

We still have work to do to improve the phase one development as the online purchase of Trial Lesson vouchers is not as smooth as most people's online purchase experience with other companies. For instance most people these days would expect not only an email confirmation of their purchase but to also receive their voucher electronically.

Unfortunately all of this was rather at the expense of the club member's area and hence the comments I opened with regarding the burble room.

Moving forward with the basic structure of the new Website in place we have now sub-divided the development tasks so that we are not solely dependent on Dennis to build new pages and implement new features.

In the not too distant future I hope to see the following added/fixed:-

- Burble room
 - Online Instructors and Winch drivers rotors, with real time edit.
 - Online Trial Lesson allocations, also with real time edit.
- Possibly allow Trial Lesson punters to select their own day
- Social Events Calendar

In the longer term all members should be automatically subscribed to the Website and be able to administer their own personal information e.g. address, phone numbers, email address, gliding achievements. This information should be synchronised with the log system database so that we finally have just one unified database of members details.

To do the latter requires a data exchange between the Log System and the Web Server which brings with it some security considerations. Simply opening the Log System Membership Database to the internet would be a major security issue not to mention a direct violation of the clubs data protection policy so rest assured we will not be going down this route. To avoid the security hole requires some additional hardware and dedicated software to be put in place making this the longer term goal.

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Technical Officers Gripes

> Ground Handling

With the exception of the Pirat incident the majority of the damage to the club aircraft this year can be attributed to poor ground handling in various forms. I started an exercise back in October to look into instruction and monitoring of ground operating procedures. Unfortunately all this revealed was that we are sadly lacking in ground instruction and monitoring of what individual members do. I don't have a complete answer to this at present as the ESGC Ground Handling manual needs some updating before it can be held aloft as the definitive reference. Once this is updated I'm seriously considering adding ground handling/procedures as part of each members Annuals.

> Tow out gear, buckets, oil drip pan and other junk left in the entrance to the hanger. (Still a gripe from 2014)

Despite marking the Hanger floor with an exclusion area and providing hanging storage for all of the club glider tow out gear we still get clutter dumped on the floor at the front of the Hanger. This is especially important now the Grob is returned to service as we need this area clear to allow the nose to enter the hanger as we rotate in.

> Trailer fittings dumped in hanger (Still a gripe from 2014)

If you re-rig a club glider after a land out or competition, please ensure all of the trailer fittings are returned to the trailer.

> Canopies

I continue to see actions which could lead to major canopy damage almost daily e.g. arms in coats reaching through DV panels, lifting on the DV panel cut-out. Please think!!!

Canopy cleaning is still only performed when the canopy is very dirty, or I specifically ask someone to do it it should be a standard part of the DI. The materials, cloths to care for canopies are in the cupboard in the hanger and there are instructions on the door.