

MEETING NOTES – BGA SAFETY COMMITTEE 4TH SEPTEMBER 2014

Present: Hugh Browning, Peter Claiden, Tim Freearge, Mike Fox, Jim Hammerton, Chris Heames, Pete Stratten (Chairman)

In attendance: Gordon MacDonald

Apologies: John Hull

1. Trends/Developments

HB spoke to previously circulated data and noted that:

- 2008 was the first year since at least 1974 with no fatal accident
- 2011 and 2013 were also free from fatal accidents
- There has been one fatal accident in the first 11 months of accident year 2014. If there are no more fatal accidents in 2014 the trend to fewer fatal accidents that began in 2008 is reinforced
- Significantly reduced numbers of fatalities relating to instructing, tugs, TMG, winching and collision all contribute to the current statistically significant low seven year average.
- Fatal accidents have declined from a long term seven year average of 32 to a most recent seven year average of 9
- With the notable exception of winch accidents, overall neither the serious injury rate nor the substantial damage rate has declined.

HB went on to note that it has been extremely fortunate that pilots have not been killed or more pilots have not been seriously injured following a number of mid-air collisions and crashes caused by incorrectly rigged gliders.

The mid-air collision data was discussed in some detail:

- In the past 40 years (the period covered by BGA accident statistics) there has been an average of 15 collisions resulting in 7 fatalities in each seven year period to 2007
- In the seven years leading to the present, there have been 13 collisions resulting in 2 fatalities (an unusually high number of the recent collisions resulted in happy outcomes).

The data relating to incorrectly rigged gliders was considered, noting that:

- Approximately 1 million riggings in the last 40 years has led to 9 fatalities and 8 serious injuries from the 124 instances of an insecure or unconnected wing, tail, or a flying control
 - Many of the other pilots who flew with unconnected controls were lucky to survive
- The BGA has identified the most vulnerable glider types
 - 10% of those vulnerable gliders have been flown incorrectly rigged
- A small number of accidents arose because the rigger was not aware of the correct procedure
- The majority of accidents resulted from an omission following interruption or distraction during the rigging process

2. Accident Prevention

TF and HB spoke to previously circulated papers, noting:

- Human factors are particularly significant within any recreational air sport activity
- The BGA has produced a significant amount of safety education communications
- These appear to be working in respect of safe winching, where an intensive change programme was embedded and has been sustained
- It is unclear whether or not other communications are reaching the intended audience with the right effect
- There is a need to understand what works

Discussion took place regarding rigging issues, noting that:

- Distraction on airfields is a fact of gliding club life. Pilots need to be made aware of that hazard and understand how to cope with it
- Pilot interviews could identify whether or not the BGA safety education messages are reaching the intended target, and thereby inform/improve future education effort
- Rigging is included within the BGA pilot training syllabus
 - However, this training item is delivered on an ad-hoc/haphazard basis
- A pre-flight walk-around is a well-established method of identifying problems with an aircraft
 - However, BGA glider pilots are not trained to carry out a pre-launch walk around

Actions:

1. **HB agreed to develop draft questions** ahead of winter programme of interviews with pilots of the vulnerable type gliders at Lasham, Dunstable and Bicester (subject to those clubs agreement). PC (Dunstable) and PS (Bicester) agreed to provide local support.
2. **MF agreed to address** the subject of rigging within the BGA training syllabus (and future syllabus) with the aim of establishing the correct level of emphasis and involvement by instructors
3. **MF agreed to address** through instructor training the subject of teaching pilots to always complete a pre-launch walk round
 - a. PS to raise the subject with the emerging BGA Examiner Panel/SE(S) team with respect to skills tests and proficiency checks

3.BGA Accident Investigation

PC and CH spoke to a previously circulated paper:

- Accident investigation process was discussed including AAIB/DfT and BGA governance requirements
- It was agreed that investigation reports should be used as a safety education tool
- It was agreed that there is a need for investigators to supply sensitive detail to the SC to facilitate development of advice to help avoid future occurrences. This sensitive detail would not appear in publications.
- Limited BGA resources were noted (noting the similar issues at AAIB)
- It was agreed that there is a need to re-invigorate existing but dormant BGA investigators
- It was agreed that there is a need to focus on investigating accidents that provide the most useful input to the BGA SMS
- It was agreed that it would be helpful if a safety committee member liaised between the SMS and investigators to assist in identifying which accidents should be prioritised for BGA investigation (rather than club level investigation)
- It was agreed that the accident/incident report form is in need of overhaul

Actions:

1. **CH/PC to contact dormant investigators** and refresh where required
2. **TF to liaise** between SMS and investigators re investigation priorities and to develop formal process, including receipt of any helpful, sensitive information from investigators.
3. **HB to redevelop** the accident/incident reporting guidance and form content (in slow time)
 - a. **PC, TF and MF** (web 'smart form') to review HB's draft
 - b. **GMD agreed to liaise** with HB re airworthiness incident reporting

4.Investigation Update

PC and CH described the current status and headline issues relating to a number of investigations/reports, ie:

- Long Mynd – winch launch with disconnected elevator
- Lasham – winch launch on nose hook
- St Neots – mid-air collision

- Sibson – Grob 109 spin-in
- Gransden Lodge – mid-air collision
- Aboyne – mid -air collision
- Portmoak – mid-air collision

It was noted that common themes in the mid-air collisions are that:

- In most cases one participant did not have FLARM capability
- Proximity to others was either unknown or assumed OK.

5.Club Safety Reviews

PS noted how the SMS explicitly places responsibility on clubs for carrying out their own 3-yearly club safety reviews. He went on to note that other than 3 very well documented examples supplied to the BGA office, it is unclear whether clubs are carrying out safety reviews.

Action:

PS to discuss briefly with club chairmen in November and subsequently identify what supporting information may be required

6.Competition Accidents

HB spoke to a previously circulated paper. It was noted:

- Competition launches represent about 1% of the total
- In the past 40 years, there have been 11 fatalities, 27 serious injuries and 199 substantial accidents in competitions
- Most competition accidents occur during field landings or final glides
- The competition accident rate is 25x higher than the club flying accident rate
- The rate is increasing

Those present watched samples of pre-production, IGC developed and highly engaging educational videos derived using logger data from real WGC racing.

Action:

It was agreed that **PS will advise the Executive Committee** that competition participants should be made aware of the level of risk associated with competition flying and that competition pilots should be educated about the specific issues in co-ordination with IGC efforts.

7.UK Airprox Board Recommendations

PS spoke to previously circulated documents describing UK Airprox Board (UKAB) reports and their subsequent recommendations. Putting to one side the rather one-sided nature of some of the recommendations which have been the subject of written constructive dialogue between PS and the head of the UKAB, the recommendations were discussed, noting:

UKAB: *"The BGA Competitions Committee reviews content of glider competition NOTAMs and promulgation of daily task notification"*

Action:

It was noted that this topic has been discussed with the Competitions Committee and clubs. The BGA has also developed a daily task notification tool. However, it is clear that this issue would be best served through a development within the UK's most popular GA NOTAM/flight planning software, ie Skydemon. It was agreed that **the UKAB would be advised accordingly by PS**, making it clear that BGA will support but not lead that approach. MF offered to provide BGA expertise as required.

b.UKAB: *"The BGA Instructors' Panel reviews gliding activity at Booker"*

Action:

It was noted that Booker GC has already addressed the issues to the satisfaction of all parties at the airfield. **UKAB has been advised.**

UKAB: *"The BGA reviews the education of glider pilots regarding IFR procedures and operations"*

This topic needs further thought:

- Glider pilots use the standard ½ mil in class G
- IFR pilots use IFR charts and plates in class G
- How can glider pilots make themselves aware of IFR operations?
- There is a need to identify instrument approaches on moving map software

Action

PS agreed to discuss with JW (Airspace Committee) and report back to the Safety Committee

UKAB: *"The BGA consider reviewing the feasibility of fitting radar reflectors in gliders"*

Action

It was agreed that **PS should respond to the UKAB** noting that BGA would like to review any technical assessment that has informed the recommendation. It was noted that any changes to gliders would result in formal modification action.

8.AoB

a.Effective lookout, FLARM and collision avoidance

Collision investigation outcomes, FLARM data, current and emerging FLARM display options and an enlightening email from Pete Harvey which includes anonymous comments by competition pilots were discussed in detail. It was agreed that:

- Non-equipage with FLARM is very likely to have been a significant factor in a number of mid-air collisions
- FLARM ID and climb data represent a potential significant hazard once the in-cockpit display equipment becomes normal fit at clubs – it is already recognised as a growing hazard in International Competition
- There is a need for FLARM good practice guidance, eg installation, use, issues (see above)
- There is a need for good practice guidance on defensive flying while soaring
- There is a need to ensure that the training syllabus soaring elements include defensive flying while soaring

Action:

Prior to developing that work, it was agreed that **PS will advise the BGA Executive Committee** that while recognising other technologies are being developed that may emerge in the years ahead alongside FLARM, there is a need for the BGA to support and encourage FLARM equipage at BGA clubs as an aid to effective lookout.

b).Electronic Conspicuity Working Group Report

PS noted that the ECWG had concluded its work in response to a previous AAIB recommendation and a report has been produced for CAA identifying stakeholder views (inc BGA) and options, all of which point to the need to develop technology in support of lookout that will be taken up voluntarily.

c).ASW28-18E

JH noted his significant concern that a fleet check instigated by BGA has identified that four of fourteen ASW28-18E's operating in the UK have cracked engine pylons, that failure of the pylon could in his view result in rotating parts entering the cockpit, and that EASA is not reacting to notification by BGA. It was agreed by JH that a BGA note would be sent out asap to all ASW28-

18E owners recommending that the engine should not be used until a modified pylon is installed or the issue resolved by the manufacturer. JH noted that he would apply further pressure on EASA following discussion with the UK agent.

d.Jim Hammerton, BGA CTO

On behalf of the Safety Committee, PS thanked JH for his contribution to the work of the committee. HB and TF described JH's significant contribution as CTO to the low number of airworthiness related incidents and accidents experienced over a long period of time.

Pete Stratten
SC Chairman
5th September 2014