

GFA GLIDING SAFETY SEMINAR – APRIL 2016

Recently a group of CGC members, which included Garrett Russell, David Higgs, Alan Graham, Bob Hainsworth, John Knox, Jim Thompson and Barry Collins, attended the 2016 GFA Gliding Safety Seminar held at Acacia Ridge. The seminar was conducted by Chris Thorpe, GFA Executive Manager Operations, assisted by several other team members.

This report on the seminar has been prepared with reference to Chris Thorpe's briefing package package, which he has generously forwarded for dissemination to club members. For brevity purposes I have summarized somewhat the discussion modules, retaining the content and thrust of the safety messages faithfully at all times.

Notwithstanding the seminar statement, which was:

*Learn SAFETY From Others –
Do Not Let Others Learn SAFETY From You!*

the overall theme dealt more with the need to be better prepared for both the expected and the unexpected with regard to all areas of gliding. Specifically, we are talking about:

THREAT AND ERROR MANAGEMENT (TEM)

Accordingly, the agenda included the following areas of interest to us all:

- Review of Operational Accidents & Incidents
- SOAR Reporting
- Pushing the margins – Threat & Error Management
- Role of the Regional Safety Manager
- Accident & Incident Investigation
- Airworthiness Safety Management
- Fuel Management For tow pilots, and other safety issues

REVIEW OF ACCIDENTS AND INCIDENTS

The review covered the period 01/05/2011 to 30/09/2015. During this period there were reported totals of **217 Accidents** and **254 Incidents! Fatalities** occurred in all years of the review except 2014.

These events occurred throughout a wide spectrum of gliding operations, both on the ground and airborne. Further details can be found on the GFA website.

The summary of occurrences presented was arranged and presented in specific areas as follows:

- Extent of Injury
- Extent of Damage
- Phase of Flight
- Nature of Flight
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They were further grouped as *Level 2 Classifications*, namely:

- Aircraft Control
- Runway Events
- Terrain Collisions
- Airframe
- Aircraft Separation
- Miscellaneous
- Ground Operations
- Flight Preparation/Navigation
- Systems
- Airspace Infringement
- Low Circuit
- Powerplant/Propulsion
- Fuel Related

Clearly the scope and number of accidents and incidents is of great concern to all of us. It is obvious that we must seek to minimise the risks of further occurrences.

Only through diligent adherence to established Standard Operating Procedures, including Training Standardisation and Safety Education can we expect to reduce the number of events from occurring.

Recommended reading includes, but is not limited to, the following:

- ***The GFA magazine*** which provides regular updates of occurrence reports and subsequent action taken.
- ***GFA Operational Safety Bulletins (OSB)*** which deal with specific areas of concern such as:

OSB No 01/14 – Circuit and Landing Advice, and

OSB No 02/14 – See-and-Avoid for Glider Pilots

SOAR REPORTING

SOAR reporting is available to everyone, at any time. The GFA website enables members to submit reports on-line which is the preferred method.

Subsequent processing by GFA will mean that the report will be referred to the CFI of the gliding club concerned for further action. The CFI then has specific responsibilities with regard to the investigation of the SOAR.

ACCIDENT AND INCIDENT INVESTIGATION

This module presented guidance for Chief Flying Instructors and Competition Safety Officers.

Notwithstanding that the protocols and responsibilities involved here are certainly of interest to all members, a detailed explanation of same will not be presented within this report. Should members require further information on the subject, please contact either the club CFI or CSO, who have access to the original GFA Powerpoint package presented by EM/O, Chris Thorpe.

PUSHING THE MARGINS (TEM)

It is an inescapable fact that threats and errors are part of everyday gliding operations.

Managing these omnipresent threats and errors is essential to avoid unsafe outcomes, thereby maintaining acceptable safety margins in gliding operations.

Threats

These are generally defined as **events or errors that occur beyond our influence**, increase operational complexity and which must be managed to maintain safety margins.

Errors

These are generally defined as **actions or inactions by the pilot that lead to deviations** from operational intentions or expectations, and which may lead to undesired aircraft states arising. **In A Gliding Context** then:

Threats are events or errors that:

- occur outside the influence of the pilot as:

EXTERNAL eg; Weather, other gliders or aircraft

INTERNAL eg; Fatigue, Complacency
- increase the operational complexity of the flight, and
- require the pilot's attention and management if safety margins are to be maintained.

Errors are pilot actions or inactions that:

- lead to deviations from intentions or expectations
- reduce safety margins, and
- increase the probability of adverse operational events occurring on the ground and during flight.

Typical errors in gliding may result from:

- inaccurate flight planning
- incorrect performance calculations eg; final glide
- non-standard communications
- departure from established SOPs
- misapplication of flight controls
- incorrect systems configuration
- checklist errors

Left unchecked and/or uncorrected, as already stated, threats and errors may result in **Undesired Aircraft States**. In a gliding context these can result from pilot induced aircraft position or speed deviations, misapplication of flight controls or incorrect systems configuration, all of which lead to reduced safety margins.

Pilots need to realize that they will be faced with threats and errors on every flight, and that these must be managed effectively and efficiently in order to ensure safety of flight. Different flight activities will introduce specific threats.

For example, if you take the time to consider activities such as Cross Country Flying and Competition Flying, specific threats will arise, most of which can be minimised through adequate preparation and flight planning.

Most pilots can very easily identify the threats, but it is the superior pilot who will implement TEM strategies from the outset, with the aim of reducing the likelihood of errors arising from those threats.

TEM Strategies

- **Follow Normal Operating Procedures Diligently**
- **Don't succumb to time pressure**
- **Always fly the glider first**

Aviate/Navigate/Communicate

- **When fatigued be more careful and conscientious**
- **After interruptions, say " Where was I? " Restart Checklists if interrupted or distracted.**
- **Always conduct a Situation Awareness review after a period of high workload.**
- **Set limits and don't exceed them**
- **Don't ' see what you expect to see ' – look for errors**
- **Listen to that ' little voice ' that questions what you are doing.**
- **Take advice from other pilots, especially experienced glider pilots.**

On every single flight you need to ask:

- **What are my threats today?**
- **Am I taking unnecessary risks?**
- **How will I manage and mitigate the threats I identify?**

GLIDER TOWING OPERATIONS – FUEL MANAGEMENT

Sub-headed ' Fuel (Mis)management, this was an extremely interesting and sobering section that pointed out at least five occasions when tug aircraft fuel exhaustion occurred during glider towing operations. On one of these the tug aircraft lost power at 300' AGL during launch. The glider pilot released and both aircraft landed safely off modified circuits. The others were similar examples of fuel exhaustion occurring as a result of poor fuel management.

Fortunately, CGC has established normal procedures in place to prevent the likelihood of problems of this nature occurring at YCAB. Suffice to say, though, the Threat certainly exists, and our tug pilots have effective strategies in place to manage that Threat accordingly.

SUMMARY

The GFA safety seminar was a very well organized and conducted event, which promoted a great deal of audience participation and discussion on the various topics presented. I would say that all CGC members who attended definitely left the venue with a greater appreciation of the safety issues that we all face in our gliding operations.

Threats are omnipresent and we need to be fully prepared to be able to Manage them.

To err is human: Errors will occur.

Identifying and Managing the Threats and Errors will go a long way towards ensuring safe and efficient gliding operations for all.

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(for CFI and Safety Committee)

13 May 2016