

What the Ops Team is Talking About . . .

A summary of key items discussed at the Operations Team on-line meeting on 9 March 2021. David Moody (North), David Hirst (Central), Gavin Wills (South) and Martyn Cook (NOO).

1. Incident Reports for Feb 2021 - Mar 2021

- * very-near mid-air collision - glider joining a thermal did not give way to glider in thermal
- * near mid-air head-on, single seater took avoiding action, not seen by other glider (2-seater)
- * radio request to lower undercarriage in late stages of final approach - better to say nothing
- * struck in the face by winch cable after starting tow-out, weak link broke, no serious injury
- * airbrakes open on ground roll, microlight tug, radio call not heard, rudder waggle not given
- * glider on final flew low over launch queue, other options were available but not taken
- * heavy landing to avoid 2 youngsters running along path across centre of runway (Raglan)
- contest outlanding, downwind + downhill, ground loop to avoid end fence, minor damage
- drinking water leaked onto avionics battery terminal behind pilot, caused sparking
- undercarriage collapse on winch launch after bump on ground roll, launch proceeded okay
- undercarriage collapsed on landing, possibly not locked down or fault with lock mechanism
- wheel brake grabbed when applied on landing causing undercarriage to collapse
- tow upset behind microlight, circling under thermal cloud, both aircraft released rope
- unintentional ground loop after landing in long grass, no damage
- unintentional breach of airspace protocols after losing more height in wing-drop stall
- tug and glider on different frequencies when operating in controlled airspace

* Commentary on Selected Incidents:

Mid-Air Collision: This is a very effective way to kill yourself and take another pilot with you. These incidents are being reported more frequently now - which is a good thing, because it helps us to work on avoidance strategies.

There are two points to make here: the first is that a glider in a thermal always has "right of way". This means that if you wish to join a glider in a thermal you must do so without disturbing the flight path of the circling glider. Do not assume the circling pilot will see your approach and "make room". Safe joining requires adhering to the *Safe Gaggle Flying Etiquette* as published in the Training Program under *To Cross Country Pilot*, including complying with the 11 rules. Joining at the same height is particularly hazardous, so it may be safer to delay your entry until the circling glider has made another turn and climbed above you.

Secondly, "keeping a good lookout" has a very different meaning in aviation than everyday use, and involves a more disciplined and systematic scan of the surroundings. In case you missed the original training, or your proficiency has degraded somewhat over the years, there is relevant study material in the on-line Training Program under *To Solo* (Part 1) and *To Soaring* (Part 2), plus further excellent material in the *Human Factors Study Guide*.

The Operations Team will be following up some of these near-miss reports, engaging with the pilots involved (and their CFI's) to assess their level of knowledge and proficiency.

Wheel-Up Landings: These still occur regularly, often due to the pilot being distracted and not completing the pre-circuit checks. So what do you do if you see a pilot on short finals with the wheel still retracted? The experience in NZ is that making a radio call can startle the pilot so much that they lose control and crash-land, whereas a wheel-up landing on grass causes little or no damage and certainly no injury. The advice is to not make a radio call to a pilot on short final, and if you are that pilot then don't try to lower the wheel at the last minute - you risk a worse outcome.

Winch Cables: A timely reminder that winch cables need to be handled carefully or they can cause injury. It's also helpful if everyone follows a "standard" procedure so there are no surprises.

Contest Launches: In this incident the glider was rolling over bumpy ground, being towed behind a microlight. The pilot was not certain that his pre-takeoff checks were done properly, or whether the airbrakes bounced open on the takeoff roll. There was a lot of radio traffic from the contest launch, and the pilot was concentrating on staying in line behind the tug. This focus tended to filter out the radio calls (it happens). The tow pilot did make a radio call about the airbrakes open, and wondered why there was no response. If the rudder had been waggled the glider pilot would certainly have noticed this and responded. Another reason to follow well-established procedures.

Circuit Options: Glider pilots typically become anxious when an aircraft approaches directly over a launch grid. If the aircraft is high and fast then there is usually no hazard. There were two gliders in the circuit and a tug and glider about to roll. The higher glider had not seen or heard the lower glider, so told the tug to launch, but the lower glider then asked for a stop. Despite other circuit options being available, and possibly in anticipation of having to avoid a launch in progress, the pilot of the lower glider chose to land short, leading to the very low pass over the grid.

It was pointed out that landing with gridded gliders at the launch point can be stressful: the landing is watched by many people so there can be pressure to make a good landing. The pilot might wish to land in a way which doesn't impede the launch sequence, even though this would only be for a few minutes. He may wish to land behind or near the grid to make a relaunch easier. He may concentrate on one option to the exclusion of others.

It's possible that "being considerate of others" can over-ride the primary requirement to make a safe landing in the space available. The main teaching with circuits is to follow a pattern which keeps options open to land in a different part of the airfield. The follow-up teaching is to ensure pilots actually make use of these options when it is prudent to do so, such as turning in early or changing the aiming point if better options present themselves.

Raglan Airfield: This airfield has a public walkway (access to a beach) across the runway halfway along. This is known potential hazard and is noted in Piako GC SOP's for Raglan camp. All pilots are aware of the hazard and this incident is an example of how difficult it is to see people crossing the runway. The response was to land heavily to avoid hitting two young girls, who clearly did not know how to respond - the pilot reports that "they saw the approaching glider but appeared to be fixated on getting the beach side of the path and at no time seemed to have considered stopping, or returning to the side they had come from". In hindsight the pilot stated he could have treated the pathway as an "obstacle" and landed before or after it. The airfield is controlled by Waikato District Council and they have been made aware of the incident.

2. Instructor Training

The on-line C-Cat and B-Cat Instructor Training Program is now the official GNZ program following the MOAP update on 22 February 2021. The attached appendix describes the main features of the new program.

There is ongoing discussion about how to improve instructor training. It was noted that a "block course" over a week works well for a small group of pilots at a similar stage in training, because they have plenty of opportunity to learn and gain motivation from each other as well as from the instructors. The logical extension would be to have longer "instructor training" courses, ideally residential and over a 5-day period, to allow the material to be covered.

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15 March 2021

Gliding New Zealand - Instructor Training Program - 2021

1. Location and Scope

The new Instructor Training Program (ITP) is located on-line at training.gliding.co.nz. It is divided into two sections: C-Category and B-Category Instructor. A new instructor candidate would begin by working through the C-Cat schedule, under the supervision of an Instructor Trainer.

The new ITP is supported by the Flight Training Program (FTP) which contains material that trainee pilots are expected to read and study before a flying lesson. For the instructor this is the "what to teach". The new ITP supplements this with advice on "how to teach" and "how to assess" each topic in the FTP, and offers suggestions about overcoming common difficulties.

Instructors need to know the material in the FTP in sufficient detail to assess pilot progress. A concise description of "what counts as a pass" is provided in the FTP for each topic, and use of these criteria should help achieve a consistent standard of training across the country.

Supplementing the above are two sections covering "log book endorsements". These spell out the pass criteria and the correct text required for each endorsement. The ITP also points to existing documents on the conduct of Biennial Flight Reviews and Instructor Competency Reviews.

2. Alignment with Flight Training Program

The Flight Training Program for pilots is divided into five sections:

- To Solo Pilot
- To Soaring Pilot
- To Cross Country Pilot
- To Task Pilot (and Contest Pilot)
- To Alpine Pilot

The Instructor Training Program focuses on teaching topics and exercises contained in the the first two sections (*To Solo & To Soaring*). The *To Cross Country* section includes the formal theory course (with exams) and preparation for cross-country flight.

3. Instructor Manual

The new Instructor Manual is on-line and divided into the same topics as those covered by the Pilot Manual. The Instructor Manual therefore needs to be studied in conjunction with the material in the Pilot Manual, which pilots are expected to read and understand prior to each flying lesson.

4. Removal of Redundant Material

The new ITP removes material from the general instructor training course that has proved to be redundant, or places it in a separate module for those instructors and pilots who wish to specialise in that aspect:

- teaching formation flying
- teaching instrument flying
- teaching how to perform functional check flights
- teaching aerobatics (taught under a separate program)
- teaching display flying (taught within aerobatics course)

5. Flying Skills Required

The new ITP specifies the required level of flying skill in a number of exercises before a candidate can be considered for instructor training. The new program also expects that instructors will continue with their own cross-country, badge and contest flying to develop their own skills and maintain their enthusiasm for the sport.

6. Clear Definition of Requirements for C-Cat, B-Cat

There has been some confusion about the specific standards for different grades of instructor (C-Cat, B-Cat, etc). The new ITP clarifies the requirements for each category or grade of instructor, taking into account the amount of time a typical candidate could realistically devote towards their instructor training and assuming that the candidate would continue to do their own flying.

With steady application and supervision a candidate with the pre-requisite skills and experience should be able to achieve a C-Cat rating within 12 months. This assumes the typical candidate is a recreational pilot with a full-time job and a family competing for time and attention.

7. Addition of Apprentice Instructor (D-Cat)

The addition of an apprentice rating, currently called a D-Cat, allows an Instructor Trainer to authorise a candidate to perform basic introductory flights while being trained to teach the other pre-solo exercises. This has a number of advantages, whereby the instructor candidate can:

- become accustomed to flying with different kinds of passengers as pilot in command
- support the club by freeing up other rostered instructors to give more advanced training
- practice basic skills (like handing over control, etc) without having to give a full lesson

The practice of an "Apprentice Instructor" follows the practice of the BGA. Privileges and limitations of this instructor rating have been spelled out in the ITP.

8. Endorsements Resolved

Endorsements are a key part of the FTP. They enable specific authorisations to be issued, and achievements recognised, some of which may be optional. The new ITP divides endorsements into two groups, and a C-Cat or B-Cat instructor can issue an endorsement from the appropriate group provided they have that endorsement in their own log book. This simplifies the issue of being "qualified to issue an endorsement" and is expected to result in greater compliance in log book entries.

The program also specifies the required wording in each case (for example, passenger rating needs to include glider type/launch type/front seat/back seat/cross country limits).

Solo & Soaring Pilot Endorsements

- Daily Inspection approval
- launch by aerotow
- launch by winch
- glider type rating
- cleared off check flights

Cross Country Pilot Endorsements

- passenger rating endorsement
- cross country clearance
- back seat rating
- dual aerotow rating
- independent operations approval
- glider oxygen rating

9. Nominated Instructor Trainer

The new program requires a candidate to have a principal Instructor Trainer (IT) who oversees and supervises. Other IT's could still provide training and supervision, but it does mean that the responsibility for training and supervising a new instructor falls to a specific named Instructor Trainer. The name of the responsible IT is entered on the candidate's Training Record.

10. Log of Exercises Taught

The instructor training record provides for the candidate to keep a record of self study (both of the pilot manual and the instructor manual), sign-off by the IT after assessment and testing, and then a log of exercises taught to trainees. This record will be important during future instructor competency reviews, where some exercises might not have been taught, or might have been deftly avoided (eg spin training).

11. Standard Terminology

The use of standard terminology (patter) is encouraged in early instructor training, particularly when an instructor candidate finds it difficult to offer brief, concise explanations. *Talking too much and saying too little* is a criticism levelled at a number of instructors, and not just new ones. The new ITP recognises the difficulty that some candidates have and includes suggested text and an audio file which can be listened to (for example, when driving). This should help new instructors learn accurate and succinct phrases.

12. Responsibilities of a Duty Instructor

The old ITP paid little attention to certain practical responsibilities which support safe airfield operations. This has caused problems in the past where pilots might have visited a different site and launched without a proper briefing or review of their flying ability. Some pilots have come to grief, or precipitated expensive searches after not returning. The new program addresses this loophole with the following obligations now placed on Pilots. This has implications for the Duty Instructor on the day. As a Pilot . . .

You are required to check in with the Duty Instructor (DI) at the site you are launching from before setting out on any cross country flight. Even if you are flying your own glider, and even if you are self-launching (Reference MOAP Part 2-8 Section 10).

Until you have a log book endorsement clearing you for "independent operations" you will need to satisfy the DI that you meet all currency requirements, are carrying a current airspace map, and are able to navigate well enough to avoid entering controlled airspace without a clearance. At a South Island mountainous site you will need to provide evidence of adequate training in alpine environments - or the DI may restrict where you can fly on the day.

All pilots (including those cleared for independent operations) intending to fly beyond 10 Nm must nominate their proposed method of flight following: either position reports by radio at specified intervals or the use of a GPS tracking device such as SPOT. If by radio then your position reports must be logged by the gliding base.

You are required to have a 406 MHz ELT installed in the glider or carry a 406 MHz Personal Locator Beacon (PLB) - Reference CAR Part 91.529(e).

Finally, the Duty Instructor will check that you are familiar with outlanding techniques and have arrangements in place in the event that a trailer retrieve is required.

The above text is located in the FTP under *XCP Privileges and Limitations*.

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