

What the Ops Team is Talking About . . .

Memo to Club CFI's and other interested parties - July 2020 - *please forward to your instructors.*
A summary of the key items discussed at the Ops Team on-line meeting on 28 July 2020.
David Moody (North), David Hirst (Central), Graham Erikson (South) and Martyn Cook (NOO).

1. Summary of Incident Reports for March - July 2020

- ASI sticking and reading too high, leading to two heavy landings where actual speed too low
- pilot sent on first solo flight prior to submission of medical declaration, subsequently passed
- cramped circuit on an instructional flight - landing in strong winds - turned at very low level
- airspace incursion during wave flight, pilot not current and poorly prepared for the flight
- double fatality during a trial flight, impacted hillside at speed - TAIC is investigating
- in-flight structural failure of wing skin due to over-stress, controlled landing, pilot unhurt

Commentary:

The structural failure incident has been investigated in considerable depth, and many contributing factors have been identified. Those involved have given permission for these factors to be promulgated in the hope of preventing a similar incident:

- internal communications within the Instructor Panel were weak regarding pilot's status
- pilots starting to learn to fly later in life - may be slower to learn, need more time
- adequacy of spin recovery sign-off, B-Cert (Soaring Pilot) consolidation is important
- awareness of a fault being possible in the ASI or other instrument vs. believe the instruments
- pilot verbally reported possible instrument fault, control stiffness, etc but no entry in DI book
- training to prevent structural overload when recovering from unusual attitudes
- keeping of pilot log book: adequacy and completeness of entries was not up to standard

The pilot had been put back on dual for further training, but not all members of the instructor panel were aware of this. Attendance at instructor meetings tended to be sparse. An improved method of communicating critical information about trainees (especially restrictions) would be desirable.

It seems difficult to "teach old dogs new tricks", and while some older persons accept this limitation gracefully others do not and their ambitions for flying may exceed their ability. Instructors need to be aware of this and ensure the required standards are met, even if it requires more flights.

This pilot accidentally entered a spin while thermalling, and was not certain of the correct spin recovery sequence. This item had not been fully signed off in the training record, but was now in a single-seat glider. The overspeed and overstress on recovery caused the skin on the underside of the wing to fail, but the wing itself remained intact, enabling a controlled landing. Very fortunate.

A mechanical fault with the ASI seems to have developed over several flights, but the pilot believed the instrument rather than performing a simple stall to check that it was reading correctly. This, plus low time in the aircraft, contributed to confusion about air speed. Too trusting of the ASI?

Recovery from unusual attitudes (including spins) typically ends with the nose down and the speed rapidly increasing. All gliders have reduced "g" limits with the airbrakes open (typically about 60% of the normal rating). Should airbrakes be deployed when a moderate "g" loading is present the structural integrity is likely compromised and structural failure can occur - as has happened twice with Gliding NZ pilots both causing fatalities. Beware.

Finally, a reminder that a pilot's log book is not a secret diary, but a record used by both pilot and instructor for many purposes.

As well as making entries to indicate progress, identify weaknesses and provide guidance for the next instructor, instructors should insist that the log book is brought to every flying session, presented after each lesson, and is filled in fully and accurately. Plus the instructor should sign it legibly whenever writing anything. Also check that endorsements are entered with the correct wording - see guidance below on the passenger rating, for example.

2. Pilots Not Suited to Gliding: Occasionally a pilot will show erratic or unpredictable behaviour when flying (and even on the ground) over a sustained period of time. These pilots cause concern to instructors, and are sometimes described as "an accident waiting to happen". It seems that some persons are simply unable to keep themselves safely within the operating envelope of the gliding movement. Some may suffer from mild mental disorders, possibly undiagnosed. They may attempt to fly beyond their level of competency, show disregard for the rules and guidance provided by Gliding NZ, or behave in a reckless or irresponsible manner.

As part of a tool kit for CFI's it has been suggested that a letter be drafted that could be used to officially warn such pilots that - in the view of the instructor panel at the club - they are unsuited to gliding, could be endangering their own life or those of others, and would be advised to "quit while they are ahead". This is a very difficult call to make - but so is taking no action while waiting for something disastrous to happen.

3. Authority to Launch: One of the contributing factors to the airspace incursion incident was that the pilot did not check in with the Duty Instructor prior to launch. This could have identified that the pilot was not current and was poorly prepared to operate near controlled airspace. This draft reminder is proposed for the "Cross Country Clearance" topic in the Training Program:

Cross Country Pilot: Privileges and Limitations: 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) 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 (Reference MOAP Part 2-8 Para 10.6, 10.7)

You are required to have a 406 MHz ELT installed in the glider or carry a 406 MHz 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.

4. Medical Requirements for Aging Pilots: Consideration is being given to introducing more stringent requirements for pilots over 70 years of age who wish to carry passengers, trial flieders or pre-solo trainees - anyone who could not land the glider by themselves if the P1 became incapacitated. The proposed standard is an annual medical to the DL-9 standard. Some senior instructors already apply this standard to themselves, and some clubs are either advising or requiring something similar. This could become a Gliding NZ standard in the future.

5. Passenger Ratings: Instructors are reminded that the issuing of a passenger rating should follow a specific format in the log book. This summary has been posted in the Pilot Training Program:

Passenger Rating Endorsement: *All of the following points must be included in the pilot's log book entry for the passenger rating to be valid (Reference: MOAP Part 2-3 Section 8):*

- authorised to carry a passenger
- in glider type (eg Twin Astir, DG-1000, Janus, etc)
- when launched by (eg, aerotow, winch, aerotow or winch)
- while seated in (eg front seat only, either seat)
- and limited to (eg 5 Nm from field, 10 Nm, or no limit)
- name and signature of issuer (B-Cat Instructor or higher)
- date of issue

Privileges and Limitations: *A pilot with a passenger rating may take a friend or acquaintance for a flight, but the pilot may not receive payment or other reward. Either the pilot bears the cost of the flight, or the passenger contributes no more than half the cost, otherwise it becomes a trial flight and GNZ AC 1-04 applies. Full definition of a legitimate "cost sharing flight" can be found in CAA Rule Part 1.*

The pilot must occupy the front seat unless their passenger rating includes a back seat rating, and must remain within gliding distance of the airfield unless their passenger rating includes a cross country clearance. Note that approval may be given on the day for a single flight beyond gliding distance when the likelihood of an outlanding is remote (Ref MOAP Part 2-8 Para 10.3).

No flight instruction may be given without an Instructor Rating. Aerobatics with a passenger requires an AFR Level 2 log book endorsement or higher, issued by an Aerobatics Instructor within the previous 24 months (Reference AC 2-06). Joy rides or scenic flights advertised to the public are limited to those operations with Part 115 certification.

6. Formation Flying: The point was made that pilots deliberately flying close to other gliders - either for fun or to obtain photographs - should exercise caution as this can be hazardous. A briefing paper on this topic is being considered.

Martyn Cook
31 July 2020