What the GNZ Operations Team is Talking About . . .
A summary of key items discussed at the Operations Team on-line meeting on 18 January 2022. David Moody (North), David Hirst (Central) and Martyn Cook (NOO). Apologies G Wills (South).

1. Incident Reports for December 2021 - January 2022
- tow rope dangling behind a landing towplane startles cyclists about 100 m away
- two spur-winged plovers in a flock strike wing of glider 5 seconds before touchdown
- winch cable blown back over winch due to burst of tailwind after glider released
- undercarriage collapsed on landing - attributed to lever not being correctly locked down *
- accidental airspace breach during contest - airspace warnings on GPS had been turned off *
- controlled airfield - glider towed to launch point before clearance became effective
- landed on river stopbank after attempts to start sustainer engine proved unsuccessful *

Commentary on Selected Incidents:
Undercarriage Collapsed on Landing: In this case the submitter reports that the gear lever was not quite "in the detent". In a number of gliders the down-lock is not particularly reliable or effective. There are other instances where the down-lock has been assembled incorrectly after maintenance. In some gliders the undercarriage lever needs to be pressed firmly against the cockpit wall. If the hand grip is installed 180° from its correct position the ergonomically-shaped grip can hit the cockpit wall but the latch will be barely over the lip and is easily dislodged when the wheel first touches the ground. A further vulnerability is when there is free play in the gear leg over-centre mechanism. Normal vibration of the ground roll can then cause the gear to collapse. These items can all be checked by the pilot on a DI.

Accidental Airspace Breach: Access to controlled airspace is a privilege that could easily be restricted or withdrawn if pilots don't follow the rules. In this instance the club two-seater had abandoned the task turnpoint and was tracking along a line of clouds away from the planned track. The incursion was minor, and a clearance could have been obtained had the pilot sought it. The pilot further admitted that the glide computer was warning him of airspace close by, but these warnings were seen as a "nuisance" and switched off. This raises the issue that too many warnings can be as bad as not enough, and that - to be effective - the level and types of warning need to be programmed correctly. In this case the state of the settings was not known to the PiC, as the software settings were subject to modification by different pilots flying on different days.

Unsuccessful Attempt to Start Sustainer Engine: In this incident the pilot provided a helpful commentary on the sequence of events.

> "At 2,000 feet I initiated the procedure for an engine start . . . despite two dives to 75kt, the engine did not start. Quite a lot of height was quickly lost in these attempts."
>
> "I had only picked an area of fields rather than a specific field and was now in urgent need of a suitable landing spot. At the same time, I was attempting to retract the engine."
>
> "I picked a field . . . and made a landing on what I took to be a track down the centre of a field. It was, in fact, the crest of the stopbank for the river; a narrow flat section with a 30 degree fall of about 6 metres on either side. I succeeded in staying on that track, although the glider veered towards the embankment as the wing dropped, tipping the glider wing below horizontal as the wings extended beyond the path out over the slope."
>
> "I cannot confidently say that I set the ignition switch to "on" when I toggled the switch to extend the engine . . . "

Clearly, having an engine doesn't always get you out of trouble, especially when the work-load gets high. A rigid check list can help, but in times of overload check lists get ignored. One piece of advice from a pilot caught out by a similar incident is: For practice, land your retractable-engine glider with the engine out and the propeller stationary. This gives you a chance to experience directly the configuration you would be in if the engine did not start. The increased sink rate can be considerable.

2. Survey of Instructors and Instructor Trainers

The following top level information has emerged from this survey. Thanks to Brian Sharpe & participating CFI's for a 90+% response rate.

	1997	2021	Ratio	Comment
Membership	993	668	67%	33% reduction in membership
Instructors	284	121	43%	57% reduction in instructors
Students	447	301	67%	students reduced in proportion
Students per Instructor	1.6	2.5		instructor load increased 50%

The proportion of the membership that are "students" (ie. yet to obtain a QGP/XCP) has remained consistent at about 45%. But the percentage of members that are active instructors has reduced from 28% to just 18%. As a result, each instructor has to work 50% harder in 2021 than in 1997.

In terms of ratings among current instructors, and instructors by region, the following table gives the information:

Current & Active Instructors in 2021

	A	**B**	**C**	**Total**	**Inst Trainers**
Northern	3	28	20	43	10
Central	3	35	17	43	5
Southern	6	20	11	35	4
	12	83	48	121	19

The Ops Team is suggesting a promotional campaign to highlight the joys, virtues and prerequisites for becoming an instructor. And for Clubs to realise that training instructors is just as important for our longer-term survival as training pilots.

In terms of promoting instructors from C-to-B and B-to-A categories, there is an understandable reluctance to promote instructors before they are ready, or before they meet the higher standard. However, if we are too hesitant and cautious about promoting instructors then the load falls on fewer shoulders, and Clubs end up with a lack of senior people in leadership and governance roles.

To this end the Ops Team is inviting Clubs and senior instructors to look for any potential candidates for upgrades - including to Instructor Trainer and A-Category Instructor. If the conditions in MOAP have been met then please make an application. If some further training is required or requested at least we will have a target to work towards.

The Ops Team did consider options for outsourcing professional help to "teach the teachers." It was recognised that one need not be an aviator to provide a useful course on effective instructional techniques.

3. Gradual Introduction of SMS (Safety Management System): The Ops Team is of the view that Clubs would be wise to start adopting some of the principles of SMS and incorporating these principles into Club governance.
One example would be the assessment of hazards and risks and how these are to be managed and mitigated. It would be helpful to see our Club culture moving in this direction, as the requirement for formal SMS systems will catch up with us eventually.

4. Landing on Sloping Ground: The material in Cross-Country Pilot on this topic has been reviewed and expanded slightly to provide more detail on how to carry out such a landing, and the factors to take into account. Some clubs may elect to require pilots to land on a reasonably safe "medium" slope to demonstrate proficiency. This could apply where pilots fly over undulating sheep country where topdressing strips may have significant slope. However, the practical requirement is optional - what is being assessed is a clear understanding of the issues.

5. Filing Pilot Documents in Gliding NZ's Database: Instructors and Club Administrators are strongly encouraged to file pilot documents in the Gliding NZ database - both ratings and achievements. Such documents should at least include the latest Medical Declaration, and the BFR and ICR (if applicable).

Just a note on Medical Declarations: the database cannot be relied upon to keep sensitive personal medical information confidential. Any medical document with such information could either be loaded with all sensitive information redacted, or not loaded at all providing the CFI can certify that the document has been seen. In either of these cases a paper copy should be retained by the Club in a secure place.

It would be a huge help if the achievements of Solo Pilot and Soaring Pilot were also logged, plus passenger and cross-country ratings. The Awards Officer automatically logs the XCP qualification. Likewise, the NOO loads all new instructor, tow pilot and instructor trainer ratings. Putting this information in the database helps to make it available for analysis of broader trends such as retention rates and the rates at which pilots are being trained to different stages.

Martyn Cook
National Operations Officer
26 January 2022