

CANTERBURY GLIDING CLUB

Standard Operating Procedures



January 2016

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INTRODUCTION

1. These Standard Operating Procedures (SOP's) and guidelines have been formulated by the Instructors Panel of the Canterbury Gliding Club (CGC) and approved by the Executive Committee
2. All CGC operations are to be carried out in accordance with GNZ Manual of Approved Procedures, (MOAP), and applicable Civil Aviation Rules (CAR's).
3. The purpose of these SOP's is to specify those additional or conditions more restrictive than those contained in the MOAP's as deemed necessary by the Instructors Panel from time to time for reasons of safety or operational requirements. These may be set to suit local conditions or specific sites. Any duplication of MOAP procedures in these SOP's is included for ease of reference only.
4. Nothing contained in these SOP's is to be construed as relieving the individual glider pilot of their responsibility to take any action in emergency or unusual circumstances, which they consider necessary to preserve the safety of the aircraft, its occupants, or any third party.
5. All gliding operations by CGC members must abide by these procedures. This includes Club members operating syndicated or privately owned Gliders and/or Powered Gliders,
6. ALL flights in Club operated Gliders must have the authorisation of a GNZ qualified CGC Instructor.
7. Pilots who fly without authorisation will be answerable to the Instructors Panel, and may be subject to disciplinary action. N.B 'Authorisation' and/or any operational restrictions must be clear (not implied) and preferably recorded by an Instructor's initials on timesheets.
8. Pilots are to read and understand the GNZ MOAP, Advisory Circulars (AC's) and the applicable extracts from CAA rules. Members with access to the Internet are encouraged to download the current documents themselves. *N.B. Pilots must keep current with updates/amendments to these documents.*

AMENDMENT PROCEDURES

9. Suggestions for amendments to these SOP's should be made in writing to the Chief Flying Instructor (CFI).
10. The CFI should present amendments to the Instructors Panel for discussion and approval. It is the responsibility of the CFI, or their Deputy, to ensure that a copy of these procedures is available to Club members.

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FLYING PRIVILEGES

Note: Operational responsibilities of the Pilot in Command (PIC) are contained within the MOAP Part 2 OPS, 2-2-2.

11. ALL PILOTS

Where there are Club Based Operations, all pilots must advise the Timekeeper, in person, (not by radio) of intentions and check airspace status. Where there are no Club Based Operations active, the pilot must advise a suitably responsible person of intentions and/or ATC. This is particularly important for Search and Rescue (SAR) purposes. **Note: The PIC is responsible to their CFI and is held directly responsible to the Director CAA for regulatory compliance.**

12. STUDENT GLIDER PILOT

A first solo may only be authorised by an "A" or "B" category Instructor. For a pilot under 16 years of age, the provisions of CAR Part 104.5(2)(ii), and GNZ policy [MOAP Appendix 2-B] relating to special circumstances & conditions for individual authorisation of pilots under 16 years of age shall apply. In all cases, after the first solo session, the pilot must have one or more dual flights before each of the next three solo sessions. (A "session" is a group of consecutive flights).

13. Holders of "A CERTIFICATE" - SOLO STUDENT GLIDER PILOT (on daily checks)



A briefing and authorisation from an Instructor. This may include a Check flight. Advise the Timekeeper etc. as above. Restricted to a radius from the field no greater than straight gliding distance up to a maximum of ten Km from the field in the particular glider for the prevailing conditions, Or as otherwise directed by the

authorising Instructor.

Notwithstanding all the above, further operational restrictions may be imposed by the authorising Instructor due to safety considerations, weather conditions, site, etc.

14. HOLDERS OF A "B CERTIFICATE" (off daily checks)



Operational restrictions; authorisation and a briefing from an Instructor – you are not authorised to fly cross-country **see definition of Cross Country Operations in MOAP Part 2 OPS para 9 [2-7-5]** and may be restricted to a radius from the field no greater than straight gliding distance up to a maximum of twenty Km from the field, in the particular glider in the prevailing conditions. "B" Cert. Holders, who have completed the "Out landing" and "X/Country Soaring" modules of the QGP syllabus, may be cleared cross-country on a flight-by-flight basis.

15. HOLDERS OF A QGP'S (QGP) CERTIFICATE – NOT AUTHORISED FOR INDEPENDENT OPERATIONS



No operational restrictions for local flying. A briefing and authorisation from an Instructor if intending to fly cross-country or site briefing if away from home field.

16. HOLDERS OF A QGP CERTIFICATE - PILOTS AUTHORISED FOR INDEPENDENT OPERATIONS

No operational restrictions. Advise a suitably responsible person of intentions

GENERAL

17. The standard circuit shall be a rectangular circuit with landings into wind. Deviations from the standard circuit may be made to facilitate training exercises (e.g crosswind landing practice) and should be advised by radio to alert other traffic of the pilot's intentions and circuit/landing direction.
18. When landing out, pilots are expected to carry out a standard circuit of their intended landing area.
 - a) Below 3000' agl pilots are expected to be actively looking for potential landout areas and moving towards a safe landout area.
 - b) Below 2000' agl – a suitable landing site should be selected and the pilot should plan the potential circuit and options. *NB: always stay within range of the chosen landing site to enable a safe circuit to be carried out.*
 - c) Below 1000' agl – make the decision to land – ideally plan the circuit so that the final turn is made no less than 300' above the surface of the chosen site.
19. Pilots should aim to land no closer than one wingspan from any obstruction. (e.g. Caravan, car, trailer, parked aircraft, etc.) Their approach and landing line should take them clear of any such obstruction.
20. All pilots, when on soaring flights of more than thirty minutes, must give an "Ops Normal" radio call.

This call is to be made approximately every thirty minutes and is to be directed to the appropriate Glider Base. The call will be timed and recorded on receipt. The call will include, as a minimum, approximate position and height.
21. Pilots must know the boundaries, (both horizontal and vertical), and conditions of use of the airspace they intend to operate in. e.g. Hororata special airspace (G976), General Aviation Area's (GAA's), TMA's, CTA's.
22. After flying, pilots are to ensure that their flight has been recorded correctly on the Club timesheets.
23. Pilots are reminded that, after landing, it is good practice to not release parachute harnesses until clear of the cockpit.
24. Gliders must not be left unattended unless properly secured by tie downs or by wing weights designed for the purpose. Parachutes are NOT to be used for this purpose.
25. All pilots must have the appropriate, current aeronautical maps/charts in the cockpit when flying.
26. Aero tows are not permitted while winch launching is in progress.
27. The preferred method of communication when winching is via flashing lights (to avoid confusion, avoid rogue radio interference and hence maximize safety).
28. A circuit plan is attached showing vectors, circuit direction, airfield frequency and other information.

CURRENCY REQUIREMENTS. [Note; required by MOAP Part 2 OPS pilot qualifications para 11.1]

29. CURRENCY.

- a) Student Glider Pilot holding an "A Certificate": further solo flight individually authorised by an Instructor.
- b) Student Glider Pilot holding a "B Certificate", and up to 100 hours gliding: one flight in the last month, otherwise a check flight with an Instructor.
- c) QGPs with over 100 hours gliding: three flights or two hours in the last 90 days.
- d) In all cases, the authorising Instructor may impose such additional requirements as they consider appropriate.
- e) Details of currency requirements for Instructors are in accordance with the MOAP Part 2 Page 2-4-6.

30. OTHER CURRENCY CONSIDERATIONS

- a) As well as general flying currency as in (26) above, similar considerations apply to currency in respect of:
 - i) Type of glider.
 - ii) Wire launching.
 - iii) Passenger flying.
 - iv) Aerobatics (Specific manoeuvre)
 - v) As a general rule, if a pilot has not had experience within their appropriate currency span, (30 days if under 100 hours, 90 days if over), they are out of currency in that particular respect. An Instructor should be consulted to establish whether a briefing only is needed, or whether a flight check is required.
 - vi) A flight check shall be conducted to the standards required of a BFR (and will qualify as a BFR when the pilot's logbook is endorsed).

31. ON DAILY CHECKS.

- a) When considered appropriate by an Instructor, the pilot's logbook may be endorsed as being on "Daily Checks" This permits a day's solo flying after dual check or briefing, at the Instructor's discretion.
- b) A specific briefing for flying will, however, be required if the conditions change during the course of the day.

32. OFF DAILY CHECKS.

- a) A pilot may be recommended for an "Off Checks" check flight, to be carried out by two different "A" or "B" Category Instructors, on separate days, after attaining:
 - i) A "B" Certificate.
 - ii) A high standard of flying competence and airmanship.
 - iii) A minimum of ten advanced dual training flights.
 - iv) A minimum of both thirty flights and ten hours as PIC in gliders.
- b) Note that the status of being "Off Checks" at Springfield does not automatically apply to other sites. A site check is necessary.

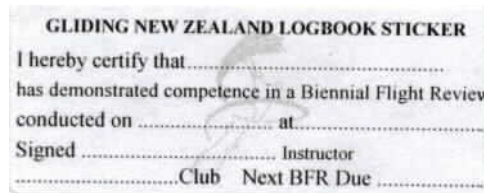
33. SHARED FLYING.

The following considerations are to be observed for shared flying by passenger rated pilots:

- a) Both of the pilots must be QGP's. In all cases it must be clearly decided who is to be the PIC.
- b) The PIC must occupy the seat appropriate to their Rating.
- c) The PIC must do the take off and landing.

34. BI-ENNIAL FLIGHT REVIEWS (BFR's).

- a) All QGP's must have a BFR in accordance with CAR Part 61.39 in which flying skills and airmanship standards are reviewed by a B or A category Instructor.
- b) This will include an audit of the pilot's logbook.
- c) The standard BFR form is to be completed and forwarded to the CFI.
- d) The pilot's logbook is to be endorsed with a BFR sticker or suitable equivalent wording.
- e) Note: the checking Instructor may restrict the QGP privileges by endorsing the pilot's logbook.



RATINGS

Validity periods are as stated with each rating and in all cases are subject to the provisions of currency requirements.

The BFR will be used to review all qualifications, privileges and authorisations a pilot wishes to exercise. Any restriction to such privileges will be made by the checking Instructor endorsing the pilot's logbook e.g. A restriction to the carriage of passengers.

35. FLIGHT RADIO TELEPHONE OPERATORS RATING (FRTTO)

- a) The rating is obtained by gaining a credit (pass) in the Private Pilot's Licence Flight Radiotelephony exam run by Aviation Services Ltd. (ASL).
- b) This is a requirement for issue of a QGP.
- c) FRTTO holders must present evidence of a pass in this subject to the CFI for the purposes of updating Club records.

36. ADDITIONAL REQUIREMENTS FOR SPECIFIED CLUB AIRCRAFT RATINGS

ISSUE OF GLIDER TYPE RATINGS.

These are the *minimum requirements* to receive a rating on a glider type. There may be occasions where more experience is deemed necessary. The initial rating will be by a logbook entry signed by an Instructor qualified to issue the rating.

Grob G103 Acro/Twin Astir/Twin II

A pilot must have:

- a) Demonstrated a skill level compatible to local flying in the glider.
- b) Completed and have the "Ground Training" Syllabus signed off.
- c) Completed and have the "A Certificate" Training Syllabus signed off.

LS4-b

The LS4-b is a multi-role single seat aircraft. An easy and precise glider to fly, ZK-GCC is suited to both low time solo pilots and those seeking good cross-country and competition experience. The Instructors Panel has determined that use of GCC should be based primarily on demonstrated skill and attitude, rather than a precise number of hours or flights.

Minimum requirements are;

- a) A minimum of twenty (20) hours total time gliding plus a minimum of 10 flights of a satisfactory standard in a Grob103 or similar aircraft, and;
- b) At least two advanced dual training flights in a G103 and Janus must be completed in the thirty days prior to the conversion. In particular, satisfactory attention to undercarriage operation (Janus), precision in flying and both technical skill and judgment must be consistently demonstrated, and;
- c) Satisfactory completion of "spin training" – especially recognition and recovery, and;
- d) The first flight on type must be briefed and authorised by an Instructor current on type and authorised to issue ratings, and;
- e) Demonstrate a good knowledge of the aircraft's flight manual with particular reference to placard limitations, and;
- f) Satisfactory demonstration of rig/derig and ground handling competency (care of aircraft and trailer).
- g) B-Certificate. *Note this requirement may be waived on a flight-by-flight basis by the Duty Instructor for local flights by pupils flying to B-Cert standard who have not yet completed all requirements for issue of the B Certificate (e.g. 30 minute flight).*

JANUS Ce

NB: Ab-initio training is not authorised in the Janus. These restrictive procedures were approved by the Instructors panel on 4 October 1994.

Minimum requirements to fly as PIC for the listed ratings are;

- a) 5 hours and 12 take-offs and landings on type or similar type.
Or; 3 take-offs and landings if pilot has more than above in a high performance flapped glider
Or; 1 take-off and landing if the pilot already has a Janus rating (eg with another Club)
- b) Complete a satisfactory flight test with an 'A' or 'B' Instructor qualified to issue the rating.
- c) Demonstrate a good knowledge of the aircraft's flight manual with particular regard to placard limitations.
- d) Satisfactorily conducted a review of the Janus "spin characteristics".
- e) A minimum of fifty (50) hours gliding [for local flying].
- f) Holder of a QGP Certificate.

JANUS RATING (RESTRICTED GEOGRAPHICALLY)

Minimum additional requirements of Silver Badge and one hundred (100) hours PIC in gliders.

- i) **SPRINGFIELD**
Canterbury Plains and foothills if landable paddocks are in gliding range. NB *Note that mountain flying is excluded.*
- ii) **OMARAMA**
 - The Mackenzie Basin, south to the Lindis (Dalrachney),
 - West to southern end of Lake Ohau.
 - North to Tekapo airfield.
 - No further east than the western edge of Lake Benmore.
- iii) **AWAY CAMPS**
Limits to be set by senior Instructor on the day (may be restricted by prevailing weather conditions).

UNRESTRICTED JANUS RATING

- i) QGP Certificate, authorised for independent operations, Silver Badge but current to Gold Badge standard.
- ii) Approval of this rating will be made by the Instructors Panel.

37. PASSENGER FLYING BY QGP's

NB: Pilots are not authorised to allow non-rated passengers to have control of the aircraft.

The CGC sets the following additional requirements over and above those of the QGP Training Syllabus for flying passengers.

A pilot must have:

- a) Twenty-five hours PIC in gliders.
- b) Provided a copy of a valid/current Medical Declaration to the CFI.
- c) A minimum of fifty (50) hours total flying.

38. AUTHORISATION TO FLY PAX FROM THE BACK SEAT

A pilot must have;

- a) "QGP's" Certificate.
- b) Satisfactory completion of at least two check flights, by an A or B category Instructor.
- c) Demonstrated the ability to adapt to the different visual cues and restricted field of view obtained from the rear seat.

Transitional phase from old C Badge to QGP

Note: holders of a C-Badge rating will automatically transition to QGP status but will not be authorised to exercise the privileges of a passenger rating until satisfactory completion of the "Flying Passengers" module in the QGP Training Syllabus.

39. HIGH ALTITUDE FLIGHT.

For flight above 10,000ft amsl, pilots must have completed the HIGH ALTITUDE soaring module of the Advanced Training Syllabus covering;

- Conditions for wave
- Launch in wave conditions
- Soaring rotor
- Crossing waves
- Cloud formations / gaps
- IAS/TAS/flutter/turbulence
- Airspace
- Navigation
- Hypoxia / hyperventilation
- Oxygen systems
- Effects of reduced pressure
- Cold stress / hunger stress
- Vision
- Cold soak considerations
- Carriage of passengers

40. USE OF OXYGEN IN GLIDERS.

Pilots must be fully familiar with and current in the use of the oxygen system fitted to the glider they intend to fly above 10,000 ft amsl.

In club gliders with EDS, this system must be operated in accordance with the manufacturer's guidelines and includes a maximum of 18,000 ft amsl when using only a cannula.

A suitable, approved mask may be used for operations up to 25,000 ft amsl.

For operations at altitudes above 25,000 ft amsl, the CFI or the Deputy CFI shall be consulted for authorisation.

Where the oxygen system requires battery power (e.g. EDS system) it is recommended to always use fresh batteries and to carry spares in a pack that can be plugged in to power the unit in the event of a low battery alarm.

Batteries fitted to EDS units should be marked with the date fitted whenever replaced and an entry made in the glider's DI book to this effect.

NO flight is permitted above 10,000 ft amsl with a passenger unless the passenger has been briefed and trained in the use of the oxygen system to be used and has demonstrated adequate understanding of the use of the system to a qualified GNZ Instructor.

For reference; the relevant CAA Rule Parts for carriage and use of oxygen in gliders are:

CAA Rule 91.207	Use of Oxygen.
CAA Rule 91.209	Use of Oxygen equipment.
CAA Rule 91.531	Oxygen Indicators.
CAA Rule 91.533	Supplemental oxygen for non-pressurised aircraft.

41. FLIGHT FOLLOWING.

- a) It is recommended that all pilots flying cross country carry a flight following device, such as "Spot".
- b) It is recommended that such device should be tested before take-off or before proceeding cross country.
- c) If a flight following device fails in flight, the pilot must give position reports at least every 30 minutes.

42. AEROBATICS.

- a) To conduct aerobatics pilots must have completed the relevant sections of the "Aerobatics" module of the Advanced Training Syllabus.
- b) Pilots are restricted by CAR 91.701 and any current exemptions including;
 - i) No aerobatics below 1500' above obstacles.
 - ii) No aerobatics with passengers below 3000' above obstacles.

43. FINAL GLIDE and COMPETITION FINISH.

This rating is to provide a safe and proper opportunity for sensible practice of competition finishes, it does NOT sanction illegal low-flying.

Pilots must have completed the Final Glides to Circuit Height module of the QGP Training Syllabus and be familiar with MOAP Section 2-11 Final Glides and Competitions Finishes.

Pilots are to be briefed on procedures set out for competitions at other sites (eg Omarama has comprehensive procedures in place). The following procedures have been set for Springfield:

- a) Pilots must give clear intention to practice competition finish on frequency 133.55,

- call to be made to SPRINGFIELD BASE.
- b) The intended finish may only proceed if acknowledgement received from Springfield base.
- c) The pilot will notify position and intentions at 5nm and 2nm and at any other time considered necessary for safety reasons.
- d) The pilot must clearly state intended LANDING VECTOR to avoid confusion (eg zero-four v two-two)
- e) The finish line is the intersection of the runway vectors.
- f) Minimum speed and height at the finish line is **100 knots 100 feet – no exceptions.**
- g) Multiple finishes are expressly forbidden (one pass only).
- h) Finishes are to be on the Western side of runway 04/22
- i) Pilots conducting practice competition finishes must remain vigilant of traffic conducting standard circuits and winching operations at Springfield and CANCEL if conflicting traffic or winching in progress.

44. Cleared for INDEPENDENT OPERATIONS (refer MOAP 2-3-3 para 8)

To meet the minimum CGC requirements a pilot must have:

- a) QGP Certificate,
- b) 100 Hours PIC,
- c) and be current to Gold Badge standard.

Note: Operational responsibilities of the PIC are contained within the MOAP part 2 OPS, 2-2-2. Pilots are to note that in all cases they are responsible to their CFI (or the Contest Director if participating in a GNZ sanctioned gliding competition) for any independent operations.

45. Night Flying

All flights should aim to be completed by sunset.

46. THERMAL SOARING PROTOCOL

a) Joining the Thermal

- i) Gliders established in the thermal have right of way.
- ii) Exercise caution entering a thermal above thermalling speed.
- iii) Do not pull up into a thermal unless absolutely sure that there are no other gliders above or in front which could possibly be a collision risk.
- iv) All pilots must circle in the same direction as any glider already established in the lift.
- v) If there are gliders circling in opposite directions, the joining glider must turn in the same direction as the one nearest or with the least vertical separation.
- vi) The entry turn should be made so as to enable visible contact to be maintained with all gliders at or near the pilot's entry level.
- vii) The entry should be flown at a tangent to the circle so that no glider already turning will be required to take avoiding action.
- viii) Avoid thermalling in the active traffic area of the circuit or in close proximity to winch operations.

b) Sharing a Thermal

- i) Pilots should adhere to the principle of "see and be "seen."
- ii) When at a similar level, never turn inside, point at, or ahead of another glider unless able to overtake with a certain safe vertical separation.
- iii) Leave a thermal if uncertain of maintaining safe separation.
- iv) Maintain a lookout for other gliders joining a thermal, or converging in height.

c) Leaving a Thermal

- i) Look outside the turn before maneuvering.
- ii) Do not maneuver abruptly unless clear of all other gliders.
- iii) Consider there may be another aircraft vertically under your glider.

WINCH LAUNCHING OPERATIONS

47. PIC requirements

For winch operations a PIC must have;

- a) Completed the "Wire Launch" and "Non Normal Situation" modules of the "A Certificate" Training Syllabus.
- b) Demonstrated to an "A" or "B" Category Instructor a satisfactory standard of flying through all aspects of the launch.

With particular attention to

- i) Speed control
- ii) Cable break procedure
- iii) Rotation to full climb
- iv) Understanding of signals,
- v) Release and cable clearance procedure.

48. Cable tow out

It is of vital importance that the tow out from the winch with tandem cables is done in an absolute straight line to avoid cables from becoming crossed. The tow out vehicle must accelerate slowly when leaving the winch (max speed 25kph) and slow down gradually when nearing the glider to prevent wire over-run on the winch drums. The wing tip to which the cables are towed to is determined by the winch driver (& will normally be the upwind wing tip). After dropping the cables at the launch point, the two cables must be separated with the cable being closest to the centre of the glider always being used first. Under no circumstances is the parachute to be connected to the second cable until the first launch has taken place.

- a) Operations on RWY 04

RWY 04 winch to be setup on the designated winch-pad at the western end of runway 22. The tow-out car is to pull out the cable/s to the southern (house) side of the runway. The tow-car will proceed back down to the winch on the southern (house) side of the runway, varying the track slightly to avoid creating ruts.

- b) Operations on RWY 28

RWY 28 winch to be setup on the designated winch-pad at the northern end of runway 10. The tow-out car is to pull out the cables on the northern (Sheffield) side of the runway. The tow-car will proceed back down to the winch on the northern (Sheffield) side of the runway, varying the track slightly to avoid creating ruts.

49. Winch Launching

Gliders are to winch launch as close as practicable to the right hand side of the strip. A

centre line has been marked for positioning the gliders. Pilots waiting to launch should line up behind the front glider on the grid, ensuring that wings are down nearest the centre of the strip. Note; due to restricted strip length a maximum of two astern is considered optimal in calm wind conditions. From a launch point efficiency perspective, the expectation is that the pilots to be launched should be strapped in, with all pre-flight checks completed ready to go prior to the wire/s arriving.

Launching Pilots should give a pre-warning to ensure the winch is also ready along the following lines "winch OR (e.g.) two minutes western wire" other gliders must be ready to push into line for an immediate launch once the second glider has launched.

50. Landing

Pilots are to use the centre of the airstrip to touch down, then at an appropriate speed should veer to the left to ensure that the centre of the strip is open for other landing gliders and to ensure that launching is not impeded. (If necessary after landing, pilots should immediately get out & pull the a/c to the side of the strip to ensure concurrent landings & launches can occur). Gliders being retrieved are to be towed up the left hand side of the strip which is the Hangar side for both 04 & 28 as close as possible to the fence, then to rejoin the grid once clear to cross the runway. NB: in the interests of launching efficiency, pilots about to re-join the circuit should monitor gliders about to launch & delay re-joining to allow the gliders to launch unimpeded, if conditions and height permit and it is safe to do so.

51. Con-current Aero-tow - Winching

Winching operations detailed above will occur without modification. The aero-tow operation will operate from the left hand side of the strip. Co-ordination of simultaneous operation will occur via positive radio communication. Back-tracking of the tow plane will occur along the aero tow landing side and winch launches shall only take place when the tow-plane is clear of the winch launch area.

52. Radio Operations

It is vitally important that radio communications are standardised and given correctly to ensure that no miscommunications arise that could lead to an unsafe situation from developing. Due to other passing aircraft and aerotow operations at Springfield utilising 133.55, broken transmissions often occur. It is imperative that any transmission that is broken during launch procedures and is not clearly received is repeated, with the station receiving asking the station calling to repeat the transmission.

Examples of the required standardised phrases to be utilised are given in S52, however the following should be noted.

- a) The initial launching instruction by the pilot must state the glider registration, which cable is to be used, and the action required must be stated twice (see examples 1 & 3)
- b) The winch driver should repeat the gliders registration, confirm the wire being used and the action being taken (see example 2)
- c) Emergency stopping instructions must be given to somebody followed by the words stop, stop, stop, which must be repeated until the required action actually occurs. (see example 5)
- d) Only the words North, South, East or West are to be used when confirming which launch cable is being utilised during twin drum launching operations. (This is to avoid any possible confusion between the pilots left & right being opposite to the winch drivers left & right (see example 4)
- e) Radio communication on 133.55 is not to occur while launching operations are in progress.
This does not apply to gliders in the circuit however where safety may be an issue.

53. Standardised radio communications examples

- Pilot to winch: *"winch Oscar Romeo,, take up slack, take up slack, western wire"*
- Winch driver to Springfield traffic: *"Springfield traffic, winch launch about to take place {04}, taking up slack {western} wire"*

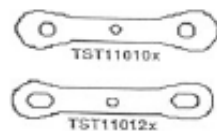
- Pilot to winch: *“winch all out, all out”*
- Winch to pilot: *“Oscar Romeo come towards the West”* (or East as the case may be) if offsetting is required. N.B. this instruction needs to be repeated if the desired off set is not achieved, and is absolutely crucial if drift is excessive.
- Emergency Stopping: ***“winch stop stop stop” or “tow car stop, stop, stop”*** or whatever as the case may be. (It is important that the word “winch” (or whoever is being required to stop) be given first.

54. Miscellaneous Notes

- When launching using the two drum winch, the cable closest to the centre line of the glider must always be connected as the first launch wire.
- In the interests of launching efficiency the winch driver will engage the drum for the first cable immediately upon completion of the cable tow out.
- Parachute shroud lines must be untangled if necessary before every launch. Failure to do this can result in the parachute failing to deploy, with potential for cable “snarl ups”.
- If unknown to the winch driver, the maximum winch launching speed of the aircraft must be ascertained from the pilot prior to the launch commencing.
- The pilot and the winch driver need to be pro-active to monitor drift to ensure adequate offset occurs during cross winds. Due to the fact that it is often not possible for the pilot to view his position in relation to the strip, it is the winch drivers responsibility to advise the pilot to offset (and keep advising if necessary) until adequate offset is achieved.
- Speed readouts must be given by the pilot to the winch driver once full rotation has occurred, if the maximum airspeed is increasing & likely to be exceeded.

55. Weak links

It is the pilots responsibility to ensure they use the correct weak link for the glider.
Refer GNZ Advisory circular AC 3-04



1. Black	1000 Kgs
2. Brown	850 Kgs
3. Red	750 Kgs
4. Blue	600 Kgs
5. White	500 Kgs
6. Yellow	400 Kgs
7. Green	300 Kgs
8. Purple	200 Kgs



56. Weather Minima

- Winch launching shall not take place when there is a possibility that the launch may result in an aircraft entering cloud.
- Individual glider pilots must be familiar with crosswind minima for the aircraft being flown, as detailed in the applicable flight manual. In addition it shall be the responsibility of the duty instructor to ensure that launching does not occur when the crosswind minima for any particular aircraft is likely to be exceeded.

57. WINCH SET UP CHECKLIST.

- Un-isolate the battery.
- Check oil level, (top up oil is in winch shed).
- Check radiator water level, (top up water mixed with anti-freeze is in winch shed).
- Check fuel level, (take fuel can and additive with you, use “95” petrol that the tow plane

uses).

- Check gearbox is in neutral and winch drum brakes ("brake(s)" are on).
- Start motor and warm it up for five minutes.
- Check auto choke is off, (i.e. engine is warm).
- Hook on to the tow car – ensure wheel brake is off.
- Position appropriately (for "04" there is a special reinforced mound that has been built for the winch).
- Apply wheel brake – discard car!
- Drop the support legs so that 2 holes are showing.
- Wind an even amount both sides, front and rear till you can rotate all wheels.
- Set the brakes for tow-out, 2 clicks on the left and 5 clicks on the right.
- Hook the cables on to the tow car attachment and aim for the gap in the hedge (if setting up for "04"), or the orange sign which is in front of it.
- Remember the radio call:
- "Springfield traffic, tow car laying winch cables {04}."
- Accelerate slowly to 20kph and decelerate slowly, (remember the drums have a lot of mass/inertia).
- Brakes fully on.
- Check the cables for kinks, (a broom is ideal for this).

58. Winch Launch Checklist

- Glider will give two minute ready call and indicate wire to be used:
- "Winch, OR, two minutes, {western} wire."
- Downwind wire first, so that cables are less likely to drift over each other:
- Engage appropriate drum (brake off will allow you to rotate drum to assist this, bring gloves as this can be a greasy operation, engage brake again).
- Flip locking plate over.
- Engage "preventer" on drum not in use, (this is a wooden block and prevents inactive drum engaging).
- Start engine.
- Glider will call:
- "Winch, OR, take up slack, {western} wire."
- Double check correct drum, drum lock and preventer in place.
- LOOK for traffic.
- Winch will call:
- "Springfield traffic, winch launch about to take place {04}, taking up slack {western} wire".
- Put transmission into drive.
- Ease the brake off and take up slack while idling.
- Glider will call:
- "Winch all out, all out."

- If you don't hear the word "winch" do not proceed with launch.
- Ease to full power on the twins, (75% for a single) while counting to three, roughly two seconds.
- Maintain power till the top of launch (unless glider advises differently) and then cut the power.
- [If, in the rare event the glider can't release –guillotine the wire.]
- Maintain about 1,500 rpm or enough to keep the cable tight, this facilitates safe drum storage.
- Locate the brake and look for kinks, while retrieving the cable, stop if some are noticed.
- Ideally pull the parachute in whilst in the air, a small amount of drag on the ground is acceptable (and preferable to pulling chute through the rollers!)
- Move transmission to neutral, (once on ground), and let drum inertia pull the rest of the wire in.
- Apply the brake, once finished, or to ensure that chute does not go through the rollers!
- Turn the motor off.
- Refuel as appropriate – remember the additive.

59. End of day.

- Secure cables.
- Turn radio off.
- Disconnect battery.
- Chutes, ladder and tool kit back into cab.
- Put winch in shed, with cover over cab.

60. DISCIPLINE

Pilots are encouraged to maintain a high standard of flying discipline. Any "intentional undue risk taking" or blatant flouting of Rules, Regulations or SOP's will not be tolerated and infringements will be referred to the Instructors Panel. The Instructors Panel may remove privileges as it sees fit to maintain a safe, disciplined flying culture within the club.

Appendix 1

OPERATING GUIDELINES FOR CGC TOW PLANES

The following guidance has been drafted to assist all pilots with deciding when it is unsuitable to proceed with a launch using a CGC tow-plane at Springfield.

An anemometer will be operational in the launch point caravan and shall be used to determine acceptable wind conditions for launching to proceed. Consideration must be given to erring on the side of caution if conditions are variable, fluctuating or if wind strength is increasing.

The CGC tow-plane must remain in the hangar if wind strength is above 25 kts. If caught outside in increasing wind conditions, it should be either returned to the hangar or secured as best as possible until it is safe to move it to the hangar.

Max wind speeds for take-off and landing are: 25 kts in any direction; crosswind 15 kts; tailwind 6 kts

04

- The favoured vector when winds are light as it has the advantage of a downhill slope.
- No tail wind is to be accepted with any two seat glider or a ballasted single seat glider.
- A max of an 8 kt crosswind component is acceptable.

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- This has an uphill slope and terrain and obstructions in the takeoff fan.
- No launching unless there is at least a 5 kt headwind component for single seaters
- and a 10 kt headwind component for two seat gliders or ballasted single seaters.
- A max of a 5 kt crosswind component is acceptable

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- This has an overall downhill slope and terrain and obstructions in the takeoff fan.
- No launching unless there is at least a 5 kt headwind component for single seaters
- and a 10 kt headwind component for two seat gliders or ballasted single seaters.
- There must be no crosswind component from the right due low level turbulence caused by the trees at the end of the vector.
- A max of a 5 kt crosswind component is acceptable from the left.

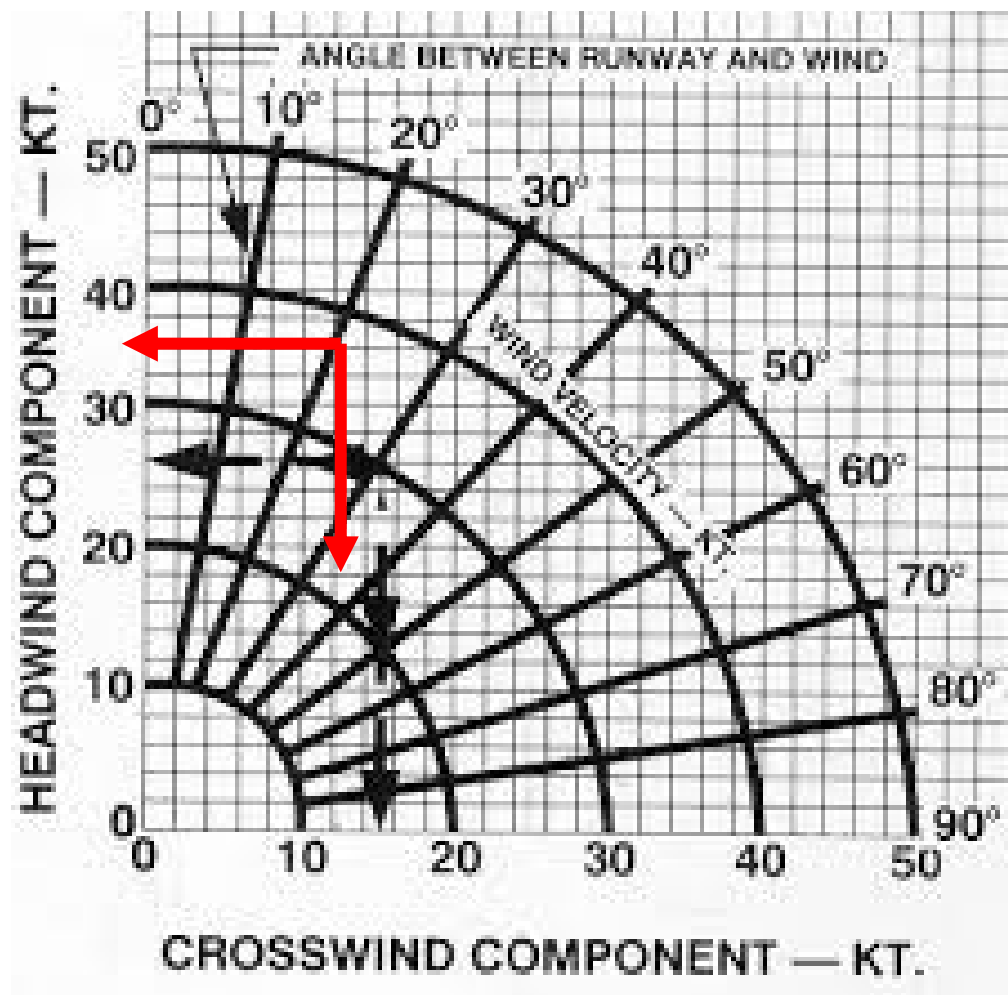
28

- This has an uphill slope and significant terrain and obstructions in the takeoff fan.
- No launching unless there is at least a 5 kt headwind component for single seaters
- and a 10 kt headwind component for two seat gliders or ballasted single seaters.
- There is to be no launching off this vector if the wind is greater than 15 kts.
- There must be no crosswind component from the right due low level turbulence caused by the trees at the right hand side of the vector.
- A max of a 5 kt crosswind component is acceptable from the left.

Some other considerations can be summarised as being “Performance Variables” and come under the following headings:

Environment - Temperature; Pressure; (Density Altitude)
 Physical - Surface condition - hard / soft / wet / dry; Grass length; Slope
 Pilot Techniques - T/o technique; delay in getting on to main wheel / wing drop; Aircraft Fuel load

Guidance on how to determine the Crosswind Component

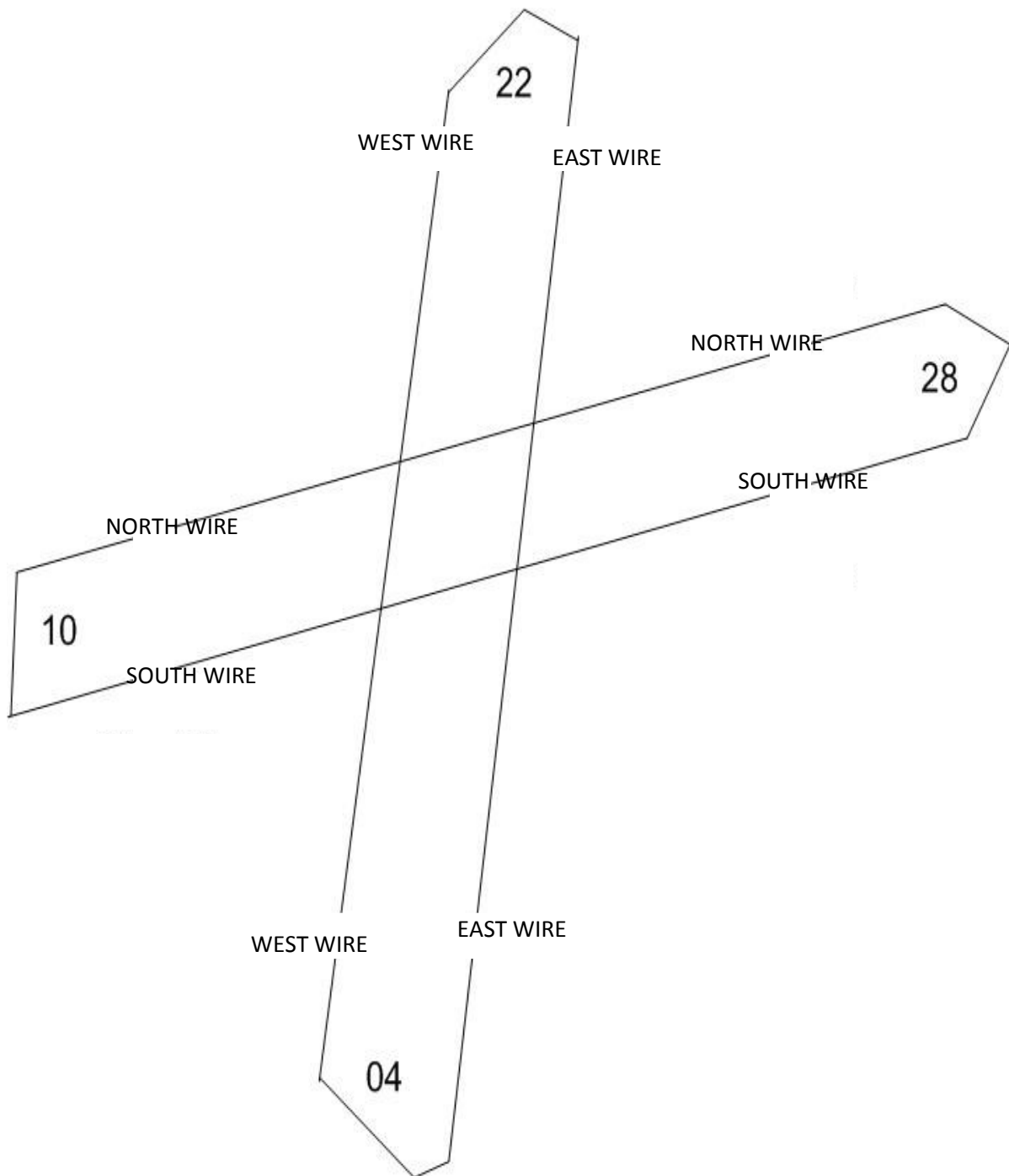


In the black line example, we have a 30 kt wind 30 degrees off runway heading.
 This gives a headwind component of 26 kts
 and a crosswind component of 15 kts

In the red line example, we have a 20 kt wind gust 40 degrees off runway heading.
 This gives a headwind component of 15 kts
 and a crosswind component of 12.5 kts

Flight Manual Max allowable X-Wind for takeoff and landing in our club gliders:					
OR and PR	11 kts	CC	11 kts	PB	12 kts

Wire layout



61.

1. SPRINGFIELD - AIP chart/Vectors

