



Standard Operating Procedures (SOPS)

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Member Administration Documents online www.omarama.com

- OGC Schedule of Fees
- OGC Booking policy
- OGC Pre Paid scheme
- OGC Insurance Policies (full hard copy)

OGC Member Forms online www.omarama.com

- OGC Membership form
- OGC Temporary Member Form
- OGC Day Membership form
- OGC NZ Reciprocal Membership

OGC Exec Administration Documents (refer separate list)

These SOPs shall be read by all OGC flying members

Members shall be deemed to certify that they have read the current version of the SOP's each time they renew their membership.

Prior to flying with OGC for the first time all pilots shall read these SOP's using the electronic copy on the Omarama Airfield Users webpage, and clicking the read and comply box on their user area on the website.

As well as the requirement to read the SOP's it is recommended that pilots annually read the relevant sections of MOAP, and the glider/instrument manuals.

GNZ, CAA, & OGC SOP rule summary

CAA Rules <https://www.caa.govt.nz/rules/rules.htm>

GNZ MOAP Link <http://gliding.co.nz/pilots/moap/>

GNZ Advisory Circulars <http://gliding.co.nz/pilots/moap/advisory-circular/>

- All OGC sanctioned gliding operations shall be carried out in accordance with GNZ Manual of Approved Procedures (MOAP), applicable Civil Aviation Rules (CAR's) and these SOPs.
- All pilots in command shall hold:
 - current membership of a New Zealand Gliding Club affiliated to Gliding New Zealand
 - a current biannual flight review
 - if flying dual PIC: current medical form and 2 flights in last two months being MOAP currency requirement for carriage of passengers.
- Any pilot who has not flown an OGC glider within the past 90 days, when making a booking on the club web site, shall be required to email the CFI with details of their recent flying experience prior to flying. The CFI can then determine whether any check flight is required.
- All pilots cleared by CFI for “independent operations”: it is the responsibility of the pilot to ensure they are suitably qualified and rated. No daily instructor briefing is required.
- All pilots not cleared for “independent operations” shall every day be authorized and briefed by an OGC 'B' Category instructor or CFI nominated C Cat instructor on the day.
- Pilots not cross country rated must remain within gliding distance of the Omarama airfield or other airstrips which have been authorised by an OGC instructor.

Emergencies

- Transmit '**mayday**' on the frequency in use or on the emergency frequency 121.5, or on CHCH/Dunedin/Invercargill/Queenstown Control
- Give details of the emergency, geographical position and the aircraft registration.
- Activate the Personal Locator Beacon situated in the glider.
- Turn transponder to 7700.
- Press the 911 button on the SPOT unit.
- Refer herein Appendices:
 - OGC Crisis Procedures*
 - Emergency Phone numbers*
 - Main Radio Frequencies*

Weather related problems radio Christchurch Information on e.g. 129.3 118.5, 122.2, 123.5...
(Check Airways map for frequencies in your flying location)

If able, notify the OGC CFI. Crisis procedures are located on OGC clubroom desk.

Daily Briefing 10.00 am Omarama Terminal Building

All pilots who are not cleared independent operations in their logbook shall have a daily briefing from OGC B Cat instructor.

All pilots are recommended to attend the daily briefings held 10.00 am in the Terminal building during the season which includes a detailed weather briefing.

At a minimum, if a cleared independent pilot cannot attend the daily briefing, they shall at least refer the prognosis chart for the day in daily newspaper or online.

A full list of reliable on-line weather information sources is set out in Appendix 2.

Rules for ground movement of gliders

New member pilots are not permitted to open canopies or move gliders until they have received a briefing and been cleared to fly.

Prior to ground towing any glider check the landing gear and airbrakes are locked and the canopy is down and locked.

The canopy cover is to remain with the glider at all times so it can be used to protect the canopy and parachutes from excessive UV damage. In the event of an outlanding it can also be used as a survival aid, signaling device, canopy protection.

The tail dolly on UO must be fitted prior to moving the aircraft into or out of the hangar to avoid scraping the under fuselage.

Watch the glider tails don't swing behind the metal hangar struts as you push the glider out.

Close hangar doors after removing glider. Open doors can damage parked glider rudders which flop around in the wind violently.

OGC has an old car for towing out, ask for details. (not at this time, Dec. 2021)

Most glider damage occurs on car tow.

Whilst towing:

- Never tow above walking speed.
- Never use car brakes on tow to avoid rudder damage.
- Never back on tow.
- Watch and listen for wing drops on tow CONSTANTLY.
- Keep car window open so you can hear problems and rear/side car mirrors adjusted to watch the glider. Wing wheel on left wing is best for tow out to 27 or wing drops when you turn left from gravel track to launch point. Weight the wing with wheel if necessary with rubber tube and water.
- When turning glider on car tow, the wing dolly should be on downwind wing side to avoid wing drops. Avoid tight turns.

After landing:

- ASAP clear the glider off the runway or airstrip so other gliders and towplanes, and itinerant aircraft can land. Ask someone to help push your glider off or do it yourself if you can, failing that get your car ASAP and move your glider.
- Ensure the glider is adequately secured for the prevailing conditions when left in the open. In windy conditions (25 knot plus) glider nose 45 degrees off the wind, upwind wing high.
- The glider is to be returned to the correct hangar slot.

Pre-flight Requirements

DI inspection

Complete DI book inspection and carry DI book in flight along with the gliders C of A, small weight and balance, radio form, & flight manual (if required, cockpit placards remove this requirement). Check DI book for Major Defects (glider can't be flown) and Minor Defects (glider can be flown). Remember to check for tail ballast!

Oxygen EDS preparation: Either use your own new 9v battery and/or carry a spare new battery in your pocket, and one for the passenger.

Refer Appendix 6 herein *Oxygen and EDS Operating Instructions*.

EPIRB ensure you know how to operate the gliders epirb, if an emergency landing is coming up and you have the time you or pax set off the epirb.

Glider Navigation Instruments

Ensure you know how to find ground speed /wind readings, and nearest landing, next nearest landing etc, and how to navigate back to Omarama.

Water Check the tape is removed from water filler in glider tail and ballast valve is open otherwise you may inadvertently be carrying tail water, a nasty hazard particularly in DUO if solo.

And refer Appendix 7 herein: *Recommended Flying Kit & flight preparation*

Oxygen filling hazard

Pilots and spectators shall exit hangar when oxygen filling is in progress. Don't stand and watch. Only authorized personal shall operate oxygen filling equipment.

Airspace rules & Land out books/maps

OGC pilots new to the area flying cross country SHALL carry both an Omarama Gliding map which includes airspace and airstrips (land out locations) and a separate book detailing individual airstrips.

OGC pilots will also have the current Airways chart for navigation and radio frequencies to use in emergency and for clearances into airspace. These can be purchased from http://secureorders.airways.co.nz/aimsite/aip_shop

All pilots are to ensure they have a clear understanding of local airspace areas, designation and limitations. *Individual briefings are available on request.*

Check with other pilots on 133.55 to see if Glider Areas G957 and G958 are open (13,500 to FL175) in Omarama/McKenzie area. Alternatively call Christchurch Control on 129.3

Flight following requirements

All cross country flights need “flight following” with someone who will initiate a search if you don’t return.

Make sure you advise the responsible person directly by voice, phone or radio of your flight intentions and the need for flight following so you can be recorded as needing an Ops Normal service.

Leave a written record of your call sign, flight intentions and contact details (cell phone numbers) for both yourself and your retrieve crew.

Please note that it is the pilot’s responsibility to arrange a trailer retrieve crew.

It is recommended pilots carry the following phone numbers in flight:

- Duty tow pilot refer white noticeboard in terminal building or ask tow pilot.
- Any friends or other pilots flying on the day to track each other.
- Your responsible flight following person in addition to your retrieve crew.
- Airstrip Landowner list
- Print out Emergency phone numbers in Appendix 1 herein, in particular:
 - ⊖ OGC CFI cell

All club gliders have their own SPOT devices. Use them. If not familiar with their usage, obtain a briefing before using them. If using your own SPOT instead, take care of the flight following it will not appear on GNZ Spot tracking page <http://tracking.gliding.co.nz/> unless registered.

Refer herein Appendix 5 *Spot Track Instruction*.

Cell phone and SPOT tracker use

OGC recently had a glider blown over when pilot went to make phone call at farm house. Best to stay with glider and ensure it doesn't jiggle around. Pilots are urged to carry 027 Telecom network phone on all flights, 027 has significantly better coverage in particular up the Ohau Valley area. It's cheap to buy a 027 SIM card.

SPOT units have a 'help' function (in contrast to 911 for Wellington rescue centre) which can be used for retrieval if someone is following your SPOT and IF the SPOT is in GPS range. SPOT has to face upward looking to sky and if in narrow valley/close to mountain it might not send any signal (speaking of experience in the Matukituki strip). If this happens, carry the SPOT into an area with a wider/clearer view of the sky to enhance your chance of sending a signal. The icon on the SPOT unit will show whether you have a gps signal and whether the messages have been sent (red flashing = failure) unless they are different from next generation.

Refer Appendix 5 herein *Spot Tracker Instructions*

Position reporting

Unless carrying a Spot with flight following (club or crew) report your position to '(Omarama) Soaring base' on frequency 133.55:

- on the hour (minimum),
- when your flight intentions change,
- when entering new valley system (recommended).
- well prior to an out-landing,
- after landing either at Omarama or elsewhere to terminate flight following and initiate the retrieval process if applicable.

Carry a cell phone. If you lose radio contact, use it for position reporting. The 027 network has better coverage than 021. Consider using text in areas of poor coverage.

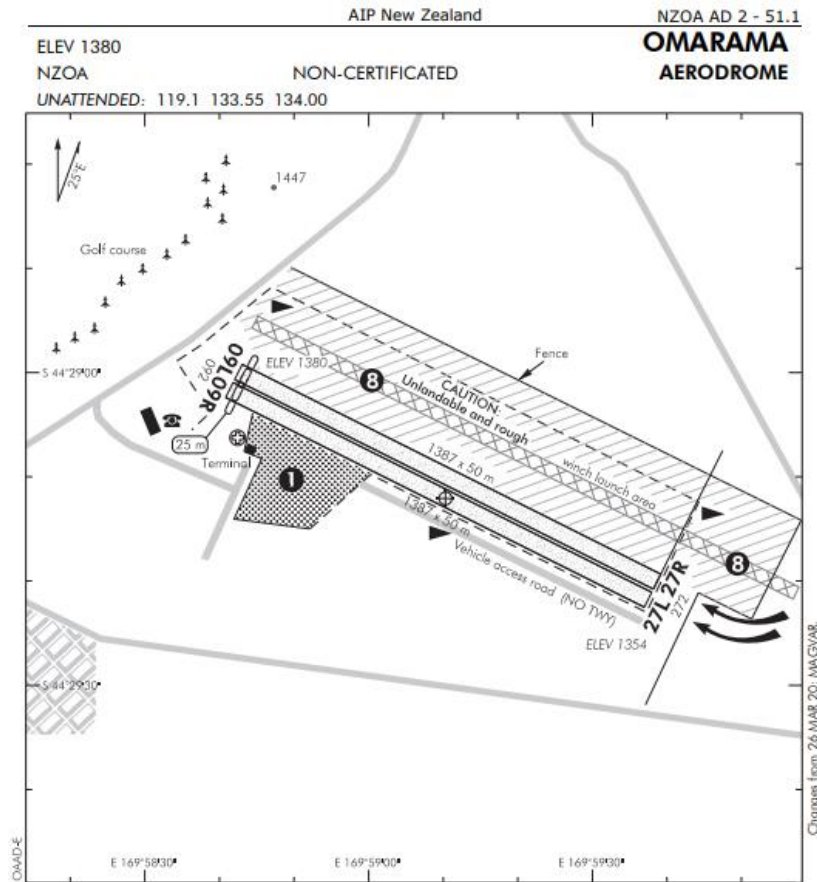
Passenger flying disclaimer

When flying the DUO with someone who is not a member of the Omarama Gliding Club please have them complete the Day Membership Form (*forms are in the filing cabinet in the OGC room in the Terminal Building*) and leave it on the desk in the club room during the flight.

Details requested are name, address, next of kin contact details – the basic information we would need to supply to the authorities in the case of a search and rescue being activated.

Airfield Hazards, Omarama AIP and Topo

This annotated CAA AIP landing chart <http://www.aip.net.nz/> does not show some additional landing areas which are shown on the OMARAMA AIRFIELD LAYOUT.



- 1 Aircraft parking areas, hangars and cafe.
- 2. Circuit: RWY 09 L/R — Left hand
RWY 27 L/R — Right hand
- 3. Standard overhead join procedure should be avoided during glider winch launching operations.
- 4. Intensive gliding operations September to April — 7 days. Occasional winching to north of RWY 09L/27R. Glider winching wire may reach up to 3000 ft AGL from 09L/27R.
- 5. Glider/gliding communication operations outside local area frequency 119.1 use gliding frequencies 133.55 and 134.00. Call intentions on these frequencies.
- 6. **CAUTION:** Daily overnight irrigation during summer months from late afternoon to early morning using visible towed K-Line pipes with sprinklers the full length of one parallel Left or Right runway. The runway being irrigated will be marked and closed, land clear on the other parallel Left or Right runway. Note poor braking on wet grass during and after irrigation.
- 7. Up to 3 rows of gliders waiting to launch will line up and park using RWY 09R/27L. Arriving/ departing aircraft should use RWY 09L/27R to maintain separation and avoid overflying parked aircraft.
- 8 **CAUTION:** Glider winch launch area — can be mistaken for a runway. Do NOT use.

S 44 29 12 E 169 59 10

Effective: 12 AUG 21

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**OMARAMA
AERODROME**

Omarama Airman's Information Publication (AIP) page 2

NZOA AD 2 - 52.1 AIP New Zealand
Non-Certificated Aerodrome 1 NM E of Omarama

OMARAMA OPERATIONAL DATA

NZOA

RWY

RWY	SFC	Strength	Gp	Slope	ASDA	Take-off distance			LDG DIST
						1:20	1:30	1:40	
09R 27L	Gr	ESWL 2565	8	0.59D 0.59U	1387	1387 1362			1362 1387
09L 27R	Gr	ESWL 2565	8	0.59D 0.59U	1387	1387 1362			1362 1387

LIGHTING

Nil

FACILITIES

Fuel: Z Energy Avgas 100, Access via Z card

On site cafe open daily OCT/APR

Toilets/1st aid inside terminal

Aircraft heavy duty tie-down lines

SUPPLEMENTARY

Operator: Omarama Airfield Ltd, PO Box 284, Queenstown
Fax (03) 442 7309

Terry Jones
Tel (027) 452 1498
Email: morganjones@xtra.co.nz

Secondary onsite contact:
Rod Dew
Glide Omarama Office
Tel (03) 438 9555

Available for general use without the permission of the operator.

Landing fees: Payable for ALL aircraft.

Annual multiple fees may be paid in advance by application to:
Omarama Airfield Ltd, PO Box 284, Queenstown.

Scale of fees, honesty box and envelopes located adjacent to fuel pump. Payment can also be made by bank transfer to Omarama Airfield Limited, bank account 01 0867 0047901 00 using your aircraft registration and date as the reference.

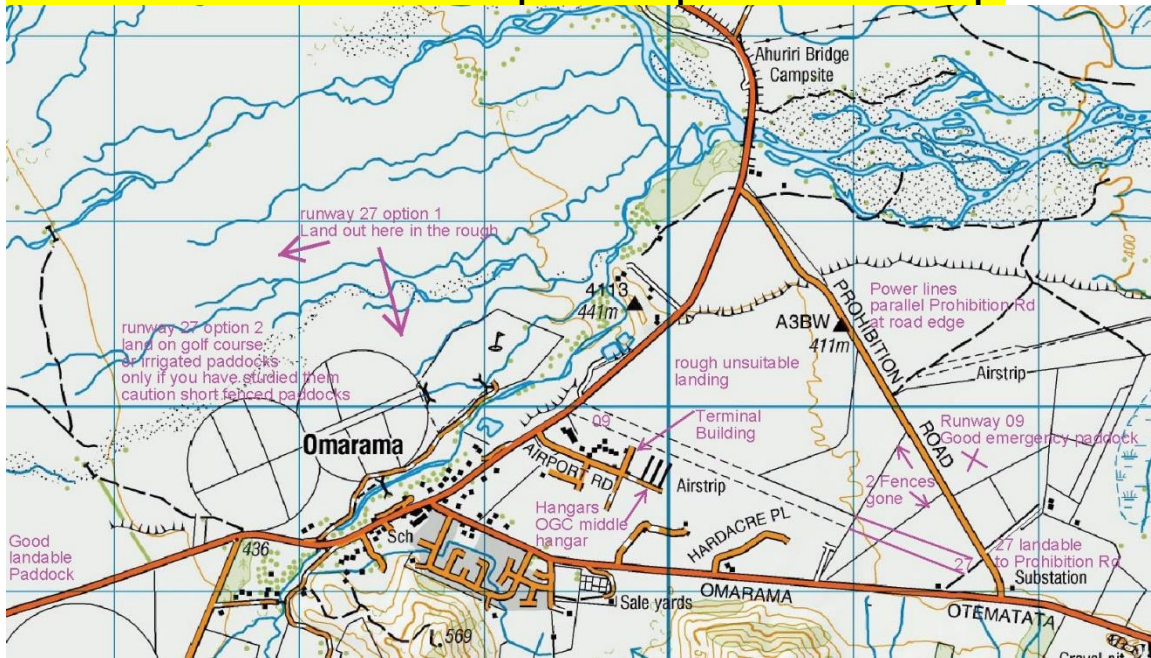
NB. An automatic recording system for monitoring landings and aircraft movement is installed. Unpaid landing fees will be invoiced to the aircraft operator and will include additional administration charges.

Effective: 30 JAN 20

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OMARAMA
OPERATIONAL DATA

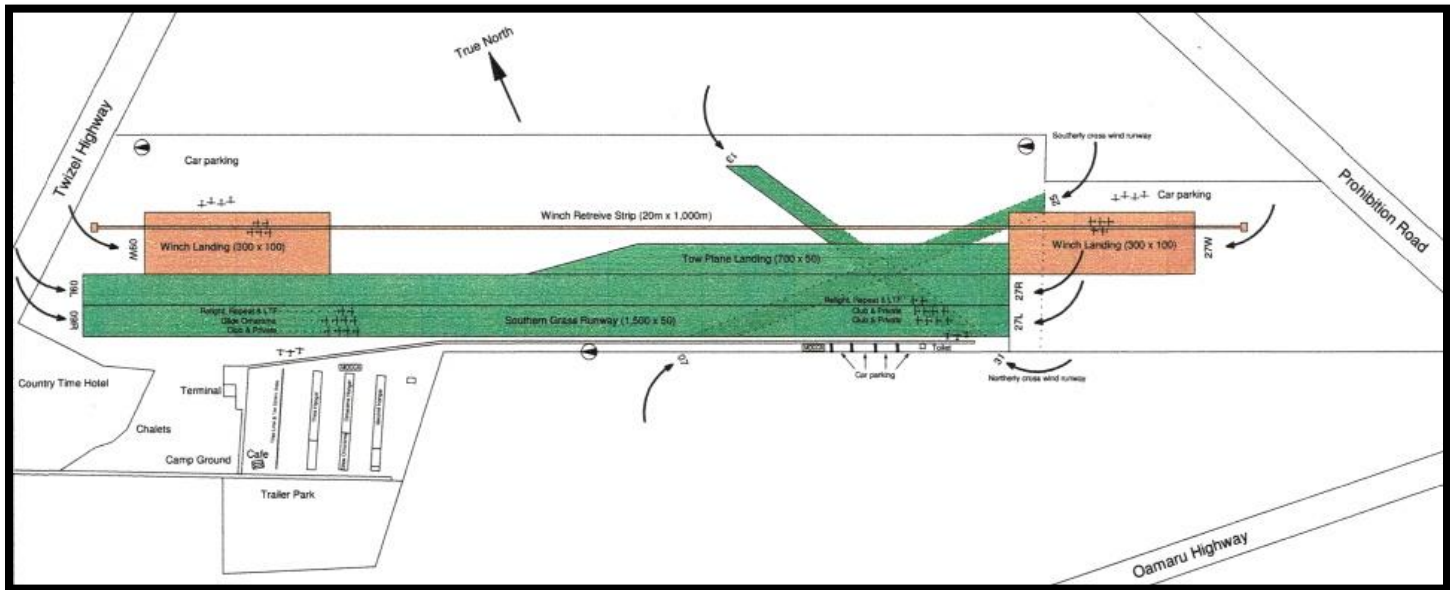
Omarama Airfield launch failure options. Map Grid 1km. North up.



Free NZ topo maps in link below, select area (BZ..CA.. etc) then when popup opens select *Image Files / Tiff.*

<http://www.linz.govt.nz/land/maps/linz-topographic-maps/map-chooser/map-21>

Omarama Airfield Layout



Two additional landing areas have been created to provide safer landing options in certain weather (wind) conditions where landing on the main vector 09 / 27 would require acceptance of a higher cross-wind component than desired or within the operating limits of the aircraft. They are also useful for conducting “strip landout” training. These vectors may be obscured or unmarked due to changing needs of airfield users, including the positioning of the winching strip.

Use of these vectors is at the pilot’s discretion and in all instances, should be done with due care to ensure all circuit traffic is aware of what vector is being used. Any traffic using the main charted vector has priority unless an emergency is dictating the use of the unofficial vector. Aircraft using the unofficial vectors for landing are to ensure their operation does not impinge or obstruct operations on the main vector. Similarly, operations on the main vector shall remain clear of the unofficial vectors when they are known to be in use.

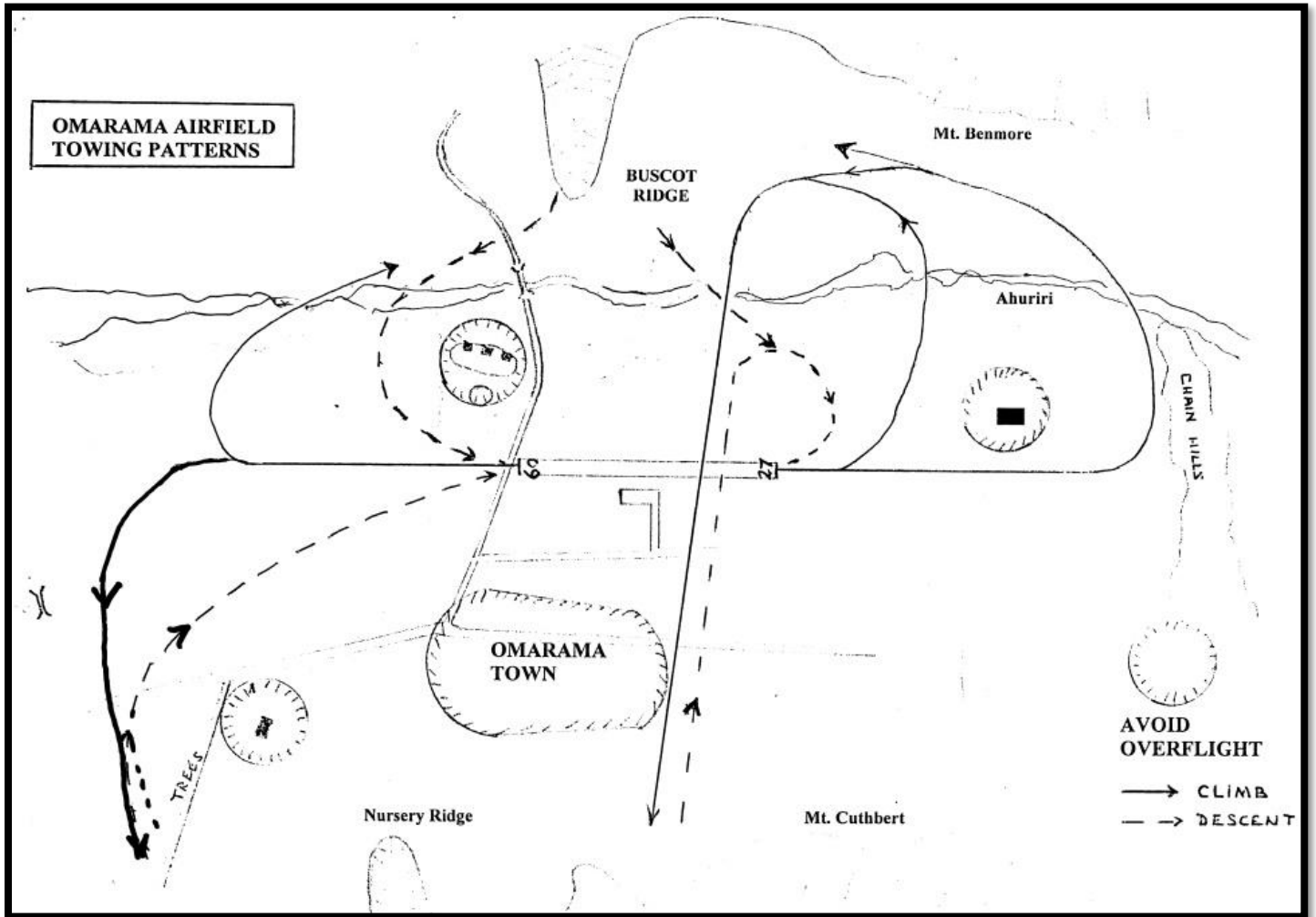
Landing gliders must not cross the gravel track on south west side of runway.

Passenger and visitor vehicles may use the gravel track to 27 threshold, but must not go north of the gravel track onto the active runway. No children or dogs are allowed on the active runway north of gravel track.

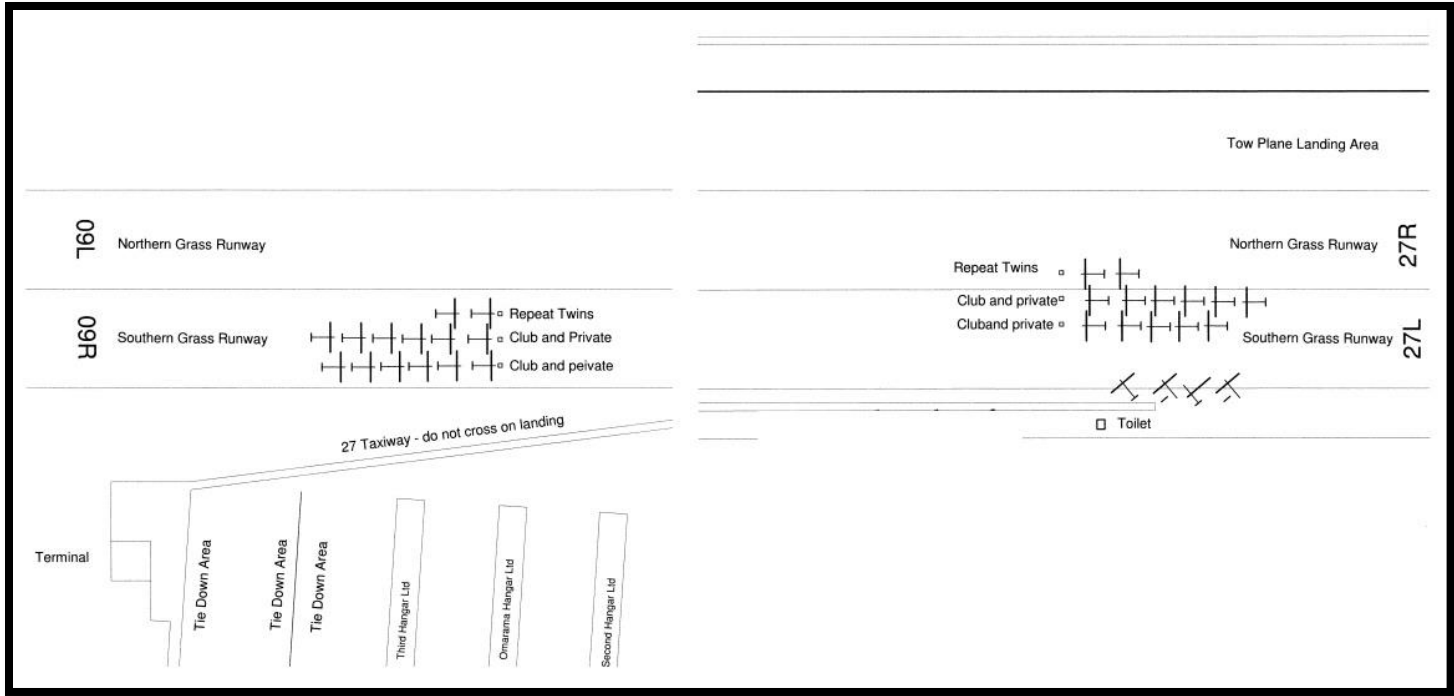
Cross Wind take offs and landings: the worst condition is south south west around 200 degree winds, launch early before it picks up or for experienced cleared independent pilots line up on north side of 27 and aim tow plane at Country time Hotel to reduce cross wind component. Omarama has short cross vectors not shown on AIP, please enquire.

K line irrigation (32mm black alcatene pipe with sprinklers connected) are in regular use to maintain the runway. These are often pulled out onto the landing strip late afternoon early evening. Safety cones are normally placed with irrigation. However, if landing after 6.00 pm keep a particular look out for these on landing. There is a tractor on airfield in the evenings, and the runway can become slippery if watered. Tractor has no flashing light hard to see so again keep a particular look-out. Flags are placed on steel irrigation pipes that stick 300mm out of the ground, don't hit these.

Omarama aero-towing patterns on days when winching NOT in process



Omarama Aerotow Grid



After out-landing procedures

Pickets must be carried on all flights. Quickly make room for other gliders/tow plane to land. Put canopy cover on.

The pilot remains responsible for the safety of the glider upon landing, Be aware of picketing requirements. Refer Appendix 9 herein *Glider Out-landing Picketing on a Windy Day*.

Should you land in a remote area and choose to leave the glider be sure to signal any airborne observer that you have exited the glider safely. You may also want to take the SPOT with you.

Every effort must be made to contact the land owner. Carry 'land owner list' to seek permission by cell phone before relaunching or call Southern Soaring base to telephone land owner prior to calling in tow plane.

If not cleared for independent operations, contact an OGC B Cat Instructor prior to relaunching. Relaunch is often far riskier than outlanding itself, trailer retrieve needs to be considered.

On return to the airfield record the out landing and any action taken with regard to the farmer in the Omarama Land out book in the Terminal Building. This is important to keep good relations with the local farming community. Contribution towards a gift to the landowner is expected.

In case you are unable to contact Omarama, use the SPOT Help function (not 911 unless it's an emergency).

NOTE 1: The SPOT should be transmitting your position in any case – as long as you leave it on tracking mode both green lights flashing.

NOTE 2: The Help function should not be relied on, but it may help when all else fails.

After flying

- Record flight time in glider DI book and OGC timesheets located on battery charging table.
- Record defects in DI book AND on the whiteboard in the hangar.
- All glider battery(s) removed and put on charge,
- oxygen bottle closed. **Thumb and forefinger tighten only** or needle valve damaged if you over tighten.
- Oxygen EDS unit turned off,
-
- SPOT turned off and put in the cockpit pocket,
- all rubbish removed from the cockpit,
- dirt/bugs cleaned off wings and under fuselage
- canopy cover put on. On the Duo's leave the tail dolly on (unless it is wet). If wing dolly off then use a wing stand to secure glider under high wing.
- Close the hangar doors to avoid damage.
- Notify anyone who was providing you with a flight following service.

Glider defect recording

Glider minor defects and major defects (unserviceability's) shall be recorded in the DI book in the normal way. These together with any other problems with the gliders or ancillary equipment need to be referred to the glider maintenance coordinator (see contact list). In addition, should the glider by your estimate not be airworthy, leave a clearly visible message to that effect in the glider e.g. tape piece of paper. Put a message on the whiteboard in addition to recording unserviceable in DI book.

Caution OGC trailer connections are 50mm

Care is to be taken that the tow ball attachments and electrical fittings are compatible with those on the towing vehicle. Check the glider trailer Warrant of Fitness and registration is current. Pump up the tyres if they look flat.

(CAUTION be aware that in NZ that we have two different sized tow balls so compatibility between trailer and car coupling needs to be correct before setting off on a road retrieve). All the OGC glider trailers have 50mm female couplings fitted but most NZ cars have imperial 1" 7/8" male tow balls, hence a 50mm glider trailer will seem to go on 1 7/8" car hitch OK but WILL come off under load. In addition, you may need an electrical adaptor to go from your car (square) electrical socket to glider trailer (round) socket. The club has such an adaptor in the CFI's office drawer.

Aerobatics in Club Gliders

DUO's are not certified for aerobatics or spins, by the manufacturer. OGC is a mountain cross – country soaring club!

Insurance requirements for OGC gliders and trailers are outlined in a separate appendix

If you have had an aviation accident in last 5 years or CAA prosecution OGC insurer must approve you before you fly OGC gliders. A higher deductible may apply and or you may not be able to fly.

OGC Crisis Procedure Appendix 1

copy in Clubrooms in Terminal Building on the wall

Emergency Contact Numbers, Appendix 2

It is recommended pilots print and carry in cockpit appendix 1 to 7 herein

Police Ambulance Fire: Dial 111

NZ Search & Rescue Center Wellington 0508 472 269

OGC CFI Gavin Wrigley. (+61)418844014 gavinwr@hotmail.com

OGC Deputy CFI

Queenstown Control Tower 03 450 9520

Christchurch Control Tower 03 357 0214

Invercargill Control Tower 03 211 8118

Dunedin Control Tower 03 467 7027

Radio calls and frequencies Appendix 3

Check your current Airways Chart

119.10	Omarama, Pukaki Airfields
118.10	Queenstown Tower & Information
125.75	Queenstown Approach
129.3	CHCH Control in Omarama area Nth of Lindis Pass (e.g. open Glider Areas G957 G958)
133.55	Glider chat, position report, land-out pre-report, & emergency (transmitter on Lindis Ridge)
134.00	Alternative glider chat
120.1	Wanaka CFZ
118.60	Mt Cook MBZ and landing at Tekapo Mt Cook Glentanner
119.2	Milford MBZ
129.3 118.5, 122.2, 123.5	Weather related problems radio Christchurch Information on e.g... refer map for frequency in your location

Radio calls:

Pre take off

Pilot does not accept tow rope ring until pre-flight checks are complete and canopy closed.

When at the desired altitude verify that you have a safe glide to a suitable landing place, clear the airspace to your right then pull the yellow release knob twice. Visually check the tow ring and rope are clear of glider, turn right if desired then call “*thanks*” to the tow pilot by name or Tug Rego. Don’t turn left as that is the standard direction of turn for the Tow plane.

Raise the landing gear and check flap settings (if applicable) when safe to do so.

Landing radio calls

When approaching Omarama from any direction call 5 nautical miles from Omarama on 119.1 eg “*Omarama Traffic Golf Zulu Sierra 5 miles north landing 27 right hand* (or 09 Left hand).”

When entering down wind call e.g. “*Omarama Traffic Golf Zulu Sierra downwind 27 right hand* (or 09 Left).” We don’t normally call base of final at Omarama. If there is other traffic in the circuit include in your radio call if have traffic visual i.e. call *have you visual* (or *don’t have you visual*), if you have traffic visual call your landing position in circuit e.g. *number 1*, number 2... if no visual contact with traffic you or they can call their physical position on downwind if necessary e.g. “*abeam the 27 grid*” or “*abeam the 09 grid*” or *midfield* and *altitude*

133.55 or 134.0 Flight following with other gliders and Soaring Base

Once 5 miles clear of Omarama advise on 119.1 e.g.: *Omarama Traffic Golf Zulu Sierra changing 133.55*

Then change 133.55 and say e.g. “*Glider traffic Zulu Sierra (include position, altitude, intentions, & requests for weather or route information)*”. Ask if G957 or G958 are open, if not stay under 13,500ft in Omarama area or open G957 G958 see below.

Call Christchurch Control 129.3 to open gliding areas G957 G958. Get on frequency and wait one minute before first radio call in case an aircraft you can’t see is speaking to CHCH control. Call “*CHCH Control Golf Zulu Sierra*”. That’s all, and wait for a reply. Upon reply say “*CHCH Control Golf Zulu Sierra requests opening G957 and G958 until CET*”. Control may advise you to wait up to ten minutes to clear aircraft from the area before giving a clearance. When you get the clearance, read it back and make sure the requirement to stay open to CET is included and request frequency change back to 133.55. Then let other glider pilots know on 133.55 that G957 and G958 are open.

118.6 Mt Cook MBZ “*Alps traffic Glider Zulu Sierra (include position, altitude, intentions)*”. You need an airways chart to see official reporting points, otherwise just call which mountain, valley, or range you are on, which end, where headed (intentions), altitude.

118.2 Wanaka Common Frequency Zone

Wanaka traffic Glider Zulu Sierra (include position, altitude, intentions)". You need an airways chart to see official reporting points, otherwise just call which mountain, valley, or range you are on, which end, where headed (intentions), altitude.

OSC Land out Protocols & Landowner list airstrips Appendix 4

This Protocol has been formulated by the Omarama Soaring Center, Glide Omarama and Southern Soaring in the interests of maintaining good relationships with land owners. ALL glider pilots operating from Omarama who land out at other than a public aerodrome MUST adhere to this protocol [Tekapo Airfield is not public]. Entering on private land [to retrieve a glider] is a privilege not a right. If you adhere to this protocol you will generally find the land owner very helpful. Remember you are an ambassador for the next pilot who lands there.

1. **Before** take off from Omarama, ensure you have in your glider a copy of the landowner directory. [on following page herein].

2. Attempt to contact the landowner by one of the following means:

- visit nearby farm houses
- telephone (if necessary leave a message)
- if nobody answers and there is no answer phone, make a note of the time that you called and try again when you get back to Omarama.

3. Having contacted the landowner, thank him [them!] for the use of his land and ask for his permission to retrieve, whether it is by aerotow or road. Then abide by his wishes. Be sure to leave gates as you find them [closing gates can block stock access to water].

4. When organising your retrieve [with friends or Omarama base], let them know whether you have been able to contact the landowner or not . If not, your tow pilot or retrieve crew will try on your behalf. They should make every attempt to contact the land owner before leaving.

5. Is there a way of thanking the landowner? A donation to Omarama First Responders?

Spot Tracking Instruction Appendix 5

Turn the SPOT unit on by holding the On button for a few seconds until one green light starts flashing. Then wait for the unit to initiate for a few minutes with sky view (not in hangar), then press and hold the OK button for about 6 seconds until both green lights are flashing, you are now in tracking mode. Any red lights indicate low battery or error.

Take care when pushing the OK button in flight not to turn off tracking mode, best to not touch OK button in flight without a reason, just leave Spot in tracking mode. If your tracking is not working and someone notifies you by radio, repeat the 6 second push on the OK button.

Don't accidentally push the 911 emergency button when you reach for the Spot unit when Spot unit front face is out of your sight mounted on glider panel. I have.

The "help" button just messages your friends who are tracking you on computer, at this web location: <http://tracking.glidering.co.nz/>

Oxygen / EDS operating instruction Appendix 6

Oxygen bottle on, check there is a minimum of 100lbs an hour for your anticipated flight. Turn EDS to “n” (night) setting, check you have oxygen flow in cannula by breathing with cannula on. Turn EDs to D5 and leave it turned on during glider preflight check to ensure 9v battery is ok, because it takes 5 minutes for the EDS battery flat warning signal to crank up.

In flight, there are four main causes of oxygen failure with accompanying various EDS warning signals:

- EDS 9v battery flat (most common)
- Oxygen bottle not turned on
- Cannula not inserted into nose correctly, or forgotten cannula.
- Pilot or Pax not breathing due to hypoxia

EDS with cannula is only rated for use to a maximum of 18,000ft.

Detailed EDS instructions from a US Doctor/ Glider Pilot below .

EDS MODEL D1 OXYGEN SETTINGS David Reed M.D. Boulder, CO

Pilot suggestions only - see Owner's Manual details)

"Basic" oxygen flow = 1L/min/10000'

N = automatic - gives "basic" O2 from SL to 34000'.

OK for nasal catheters to 18000'

D5, 10, 15 = "basic" as above but doesn't start O2 flow until 5000', 10000', or 15000' reached. Saves O2 low down.

F10, 15, 20, 25 = adds more O2 as a "floor" to "basic" at the "basic" rate of 1L/10000'.

EXAMPLES

At 10000' with F10 = 1.0L "basic" + 1L "floor" =2.0L

At 20000' with F10 = 2.0L "basic" + 1L "floor" =3.0L

At 20000' with F20 = 2.0L "basic" + 2L "floor" =4.0L

OK for masks over 18000', or health problems.

R/M = FOR EMERGENCY - each breath = ½ sec at 10L/min

ALARMS:

Green LED flashes with every breath-O2 pulse delivered

Red LED flash every 2 secs = low batt (OK 4 hours more)

Red flash every sec = REPLACE

Red steady = dead battery - non- functional

Red LED ON + AUDIO = no breath for 45 secs, OR system

malfunction. Take breath. If stays on **GET DOWN**

then check system connections lower or on ground.

SEE OTHER SIDE FOR SUGGESTED PREFLIGHT

SUGGESTED PREFLIGHT

Pilot suggestions only - see Owner's Manual details)

A. IF ARE PREFLIGHTING AT UNDER 5000':

1. Turn unit to "N" - get warnings at 45 secs

Because unit is ready to deliver O2 but senses no breath

2. Take breath - feel pulse of O2 - warnings go off.

Wait 45 secs - warnings recur

3. Turn unit to "D5"-should NOT get warnings at 45 secs

Because unit senses you are not over 5000'

4. Turn unit to F10 - get warnings at 45 secs

Because are on "basic" flow that starts at SL + the "floor".

5. Turn unit to "R/M" - breathe - check "emergency" pulse.

6. Turn unit to desired "N", "D", or "F" setting.

B. IF ARE PREFLIGHTING AT OVER 5000':

1. Turn unit to "N" - get warnings at 45 secs
Because unit is ready to deliver O2 but senses no breath
2. Take breath - feel pulse of O2 - warnings go off.
Wait 45 secs - warnings recur
3. Turn unit to D5 - get warnings at 45 secs
Unit is over 5000' and ready to deliver O2 but senses no breath
4. Take breath - feel pulse of O2 - warnings go off.
5. Turn unit to D10 - should NOT get warnings at 45 secs
Because unit senses you are not over 10000'.
6. Turn unit to F10 - get warnings at 45 secs
Because are on "basic" flow that starts at SL + the "floor".
7. Turn unit to "R/M" - check strong "emergency" pulse.
8. Turn unit to desired "N", "D", or "F" setting.

Recommended Flying Kit & flight preparation Appendix 7

General gear for taking in your car when you go gliding

Bucket
Chamois
Chux cleaning cloths
Pledge
Meths for cleaning tape and grease off
Picketing pegs (6)
Hammer and 'general' tool kit
Tow-out rope, at least 12 meters long
Tape (white)
Mat / tarpaulin to lie on when working on glider

Glider Equipment and Preparation

Picket and ropes
Batteries fully charged
Cleaned and bug free exterior, vacuumed interior
Parachute, check comfort
Water Ballast
Release to Service (DI)
Oxygen topped up, oxygen masks / cannulas fitted
Survival blanket
Food, drink, money and cellphone (fully charged & appropriate numbers loaded) safe stowage
Camera stowage if you are taking one along
Warm clothing and weatherproof jacket

Task Preparation

Maps sorted, task marked on it and folded to stow

GPS loaded
Declaration
VFG for frequencies and airspace
Nav computer

Support

Crew organised
Trailer checked ready (internal fittings) (external tyres, towball size, warrant, lights)
Official observer
Tow pilot
Retrieve vehicle fuel / oil / water / food supplies

Personal Preparation

Well rested physically and mentally
Suitable comfortable clothing, sunglasses, hat and gloves

Task selection and declaration
GPS programming competency to avoid “heads down” while flying
Knowledge of task area and potential land-out sites
Knowledge of ATC requirements

Weather information Appendix 8

METFLIGHT: by NZ MetService. <http://metflight.metra.co.nz> This is a free service to glider pilots providing weather for mostly fixed wing pilots with a simple “plain language” option tab if you can’t understand the jargon. This is a good way to check for NOTAMS.

To login:

- Username:GNZxxxx where xxxx is your 4 digit GNZ member number
- Password: your birthday in format e.g. 13/04/1970

Step 1: After login, in the top white box type in *CY AL* for Clyde and Alps forecast, with these options you will automatically get Terminal Area Forecasts (TAFs) for NZWF (Wanaka) NZQN (Queenstown) NZMC (Mt Cook). Select additional areas to CY & AL as you like, they are shown on a map, TAFs in those additional areas will appear also.

Step 2: If you want more TAFs without the Area Forecasts, select them in lower white box eg *NZNV* (Invercargill), *NZDN* (Dunedin), *NZCH* (Christchurch),

Step 3: Click “*get Weather briefing*” then you will get:

- Area Forecasts (ARFORS) for Clyde and ALPs
- [Airport] Terminal Area Forecasts (TAFs)
- Metars
- Sigmets (Significant Meteorological conditions shown on a map e.g. thunderstorms)
- Notams (Notice to Airmen e.g. hazards, special events, closed areas etc)

There is a good help tab top right. Webcams are available also.

METSERVICE www.metservice.co.nz

Step 1: select tab *Mountains and National Parks / National Parks / Aoraki Mt Cook National Park*. You may also want to select *Mt Aspiring National Park* (west of Wanaka), *Southern Lakes* (Queenstown area), *Canterbury High Country* (inland from Christchurch). A map of the area selected appears with the general forecast which includes freezing levels and winds at 1000m & 2000m.

Step 2: select tab *Maps and Radars*, then select *Surface Pressure* and *3 Day Rain* and *Satellite imagery/Tasman Sea Infrared*. Select *5 Day Rain* for longer forecasts.

Step 3: select tab *Maps and Radars*, click the tab *Your Weather*, a map with temperatures appears, then on RHS select *Wind Speed and Direction* to view wind meters all over the south island, bottom right zoom in and out as required - a very useful function.

NZ RASP soaring forecasts available free online from <http://zakalwe.com/rasp>

Step 1: Choose Area 4, *South Island South of Rangitata river.*

Step 2: Choose the Day you want.

Step 3: Select the Data you want, most useful are:

- *Thermal Updraft Velocity and Buoyancy/Shear Ratio*
- *Thermaling Height*
- *Surface Wind*
- *Upper level wind forecasts*

WEB CAMS unofficial (others in METFLIGHT above)

Glide Omarama <http://www.glideomarama.com/omarama/webcams/>

Tekapo webcam <http://www.tekapotourism.co.nz/webcam.html>

Mt Cook Webcam <http://www.glentanner.co.nz/web-cam/>

Wanaka Webcam <http://www.lakewanaka.co.nz/new-zealand/webcam/>

Mt Aspiring National Park, East Matukituki <http://www.wharekealodge.com/nz/weather/>

Queenstown SkylineWeb cams <http://www.skyline.co.nz/queenstown/webcams/>

Queenstown airport <http://www.queenstownairport.co.nz/travelling/flight-info/webcam>

Alexandra Webcam view west <http://www.alexandra.co.nz/webcam.php>

Invercargill <http://weather.southlandgirls.school.nz/gauges.htm>

Canterbury Gliding Club Springfield <http://www.glidingcanterbury.org.nz/weather-cam.aspx>

Unofficial WIND METERS (see also METFLIGHT and METSERVICE above)

Invercargill <http://weather.southlandgirls.school.nz/gauges.htm>

Queenstown Airport <http://www.wunderground.com/cgi-bin/findweather/getForecast?query=nzqn&wuSelect=WEATHER>

Top Coronet Peak Queenstown 5300ft <http://holfuy.hu/en/data/152>

Snow Farm Pisa Range 4000ft <http://122.56.124.118:12080/index.html>

Treble Cone Wanaka parking lot 4000ft <http://www.harvestalarms.com/w.cgi?hsn=10522>

Mt Aspiring National Park, East Matukituki <http://www.wharekealodge.com/nz/weather/>

OTHER WEATHER RESOURCES unofficial

Earth Null School –graphical video wind flows over NZ

<http://earth.nullschool.net/#current/wind/isobaric/1000hPa/orthographic=-191.42,-43.56,1106>

MetVUW – select *Upper Air Data* for Tephigrams. And forecast charts for a different take on the weather to Metservice, plus upper air data.

<http://www.metvuw.com/forecast/forecast.php?type=wind850®ion=nz&noofdays=7>

Glider out-landing picketing on Windy days Appendix 9

FIRST DRAFT 14 June 2014

Contributors/checkers Doug H, RR, Graham E, T Mollard, C Streat, Jyri

Edited by C Streat

Pilot has to decide what to do on the day, below are just some options to think about.

1. **When your ground roll ends:** keep the airbrakes out, stick forward, wings level, wheel brake on, check airspeed, this is wind-speed on the ground.
2. **Assess the situation,** gusts may arrive at 5-15 minute or so intervals. When the sun comes out it blows harder and thermals go off is a significant factor for ground wind conditions and gust factor.
3. **Choose a lull to exit glider,** check for dust clouds on ground upwind etc before you exit, unless you are going to stay in the glider until help arrives then keep air and wheel brakes on and stick forward, wings level, call for help using radio, SPOT (911 or help as case may be), or cell phone. Texts only require a fraction of second of coverage in poor coverage locations.
4. **Secure the controls as follows for all picketing methods,** use the light rope provided in the glider for this purpose with a loop in one end which can be threaded through the rudder pedals and around the stick, tensioned and secured with at least 3 half hitches. Secure airbrakes back and on with separate light rope.
5. **If you decide to exit the glider** rather than sit in it and fly it on the ground, there are four different ways to position the glider below, in order of general preference:
 - (i) **glider TAIL into wind general direction but rotated 45 degrees** off the wind, upwind wing low & picketed and or weighted & controls secured. This method provides the "dirtiest" wing section to the wind so provides the least chance of the glider lifting off the ground. Preferred method in windy conditions (25 knot plus):

This technique weak if pilot incapable of turning the glider tail wind due to severe wind strength or the pilot is not a strong enough person (e.g. elderly, light woman).

- (ii) **nose generally into wind, nose rotated 45 degrees off the wind,** up wind

wing on the ground and picketed and or weighted.

(iii) **nose generally into wind, nose rotated 45 degrees off the wind**, upwind wing high. Picket 7 eight downwind wing and fuselage.

This method less dependent on pickets than upwind high methods (i) and (ii), and OK for winds under 25 knots gust or as temporary situation until pickets are got out of glider and so on.

(iv) **upwind wing down and pointing directly into wind**, rather than 45 deg off either way. This can be useful if pickets are limited and only the wing tip can be tied or weighted down. The wind flow will have less effect on control surfaces while minimising the risk of lift off.

6. **The weakness of the more picketing dependant techniques** are if the ground conditions are unsuitable for picketing e.g. rocky, sandy, the picket holding the wing or fuselage can come out, the wing lifts, or the tail swings around, and glider is on the move and could flip, unless the pilot stays and monitors or holds the wing on the ground. For this reason, it's important to carry a good jacket in the glider, so you don't freeze holding the glider! A canopy cover prevents wind blown sand damage.
7. **The weakness of tail into wind methods** is the control surfaces will quickly get damaged if they manage to become unsecured in the cockpit. So, if your technique of securing controls is not good this technique isn't good.
8. **The weakness of upwind wing low methods:** if upwind wing becomes unsecured the downwind wing hits the ground hard with shock loading and can get damaged.
9. **Signal or radio any airborne observer** should you land in a remote area and choose to leave the glider to let them know you got out safely.
10. **Carry the Spot tracker** into an area with a wider/clearer view of the sky to enhance your chance of sending a signal. icon on spot unit will show whether you have a gps signal and whether the messages have been sent (red flashing = failure) unless they are different from next generation.

You may also want to take the Spot with you.

**Most importantly enjoy many hours of safe soaring and have heaps of fun!
HELP IS ALWAYS AVAILABLE – YOU ONLY NEED TO ASK**