



Tauranga Gliding Club Standard Operating Procedure



No pilot may fly as PIC under the Tauranga Gliding Club Inc. unless they have read, understand, and agree to the latest SOP as found on the club website.

This document is to be referenced to in the member application and a copy given to the applicant. This document is subject to change and the only controlled document is the Tauranga Gliding Club Standard Operating Procedures found on the Web Site at <http://glidingtauranga.co.nz/documents-2/>

Release of this document, including updates, are by way of approval in Committee minutes. Any printed versions are uncontrolled and are not to be relied on.

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AMENDMENT HISTORY

Version	Description of Changes	Release Date
06	Rewritten and changed from club rules to this document as a Standard Operating Procedure	24/02/2016
07	Updated	27/02/2019
08	Updated	28/11/2021

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ABBREVIATIONS

Abbreviation	Description
AGL	Altitude above Ground Level
Airways	Airways Corporation of New Zealand acting through Tauranga Tower
AMSL	Above Mean Sea Level
ATC	Air Traffic Control
ATIS	Automatic Terminal Information Service
CAA	Civil Aviation Authority
CFI	Chief Flying Instructor
Committee	Committee of the Tauranga Gliding Club Inc.
CTZ	Control Zone
DCFI	Deputy Chief Flying Instructor
DI	Daily Inspection
GNZ	Gliding New Zealand
Instructor	Club Gliding Instructor
MHz	Megahertz
MOAP	GNZ Manual Of Approved Procedures
MOU	Memorandum Of Understanding between Airways and TGC
NOO	GNZ National Operations Officer
PIC	Pilot In Command
QGP	Qualified Glider Pilot
ROO	GNZ Regional Operations Officer
Senior Instructor	A Category and B Category Instructor
SOP	Standard Operating Procedure – This document
TGC	Tauranga Gliding Club
Tower	The Tauranga Airways Control Tower and its Controllers

TAURANGA GLIDING CLUB SOP

1. Scope

This SOP explains the duties and privileges of all Members and details our operations and procedures for both glider pilots and tow pilots.

Amendments to the SOP that concern flying operations can be made at any time by the Club CFI in consultation with the instructor panel. Any matters that affect the finances of the club are to be approved by the Club Committee.

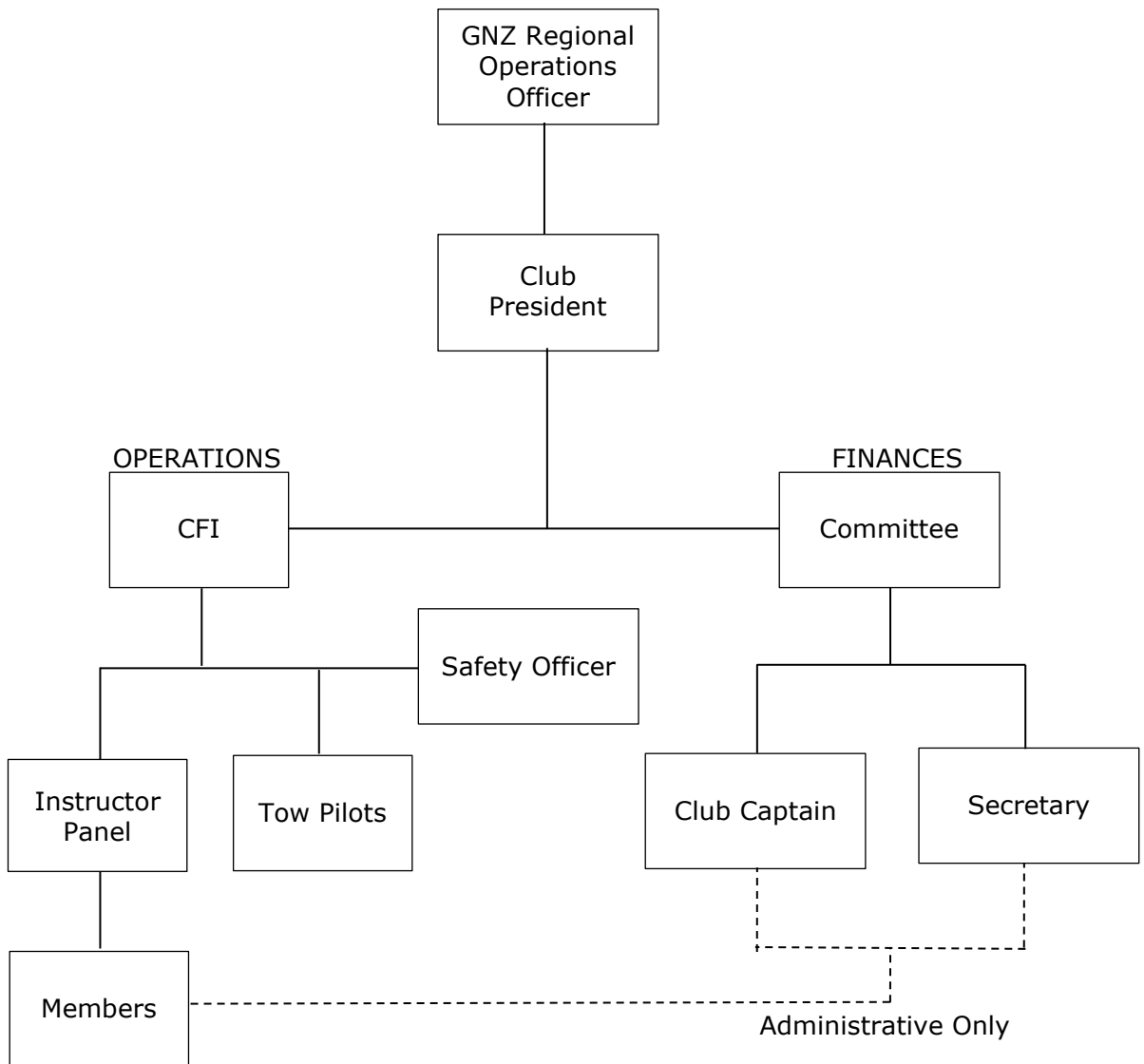
Where this document refers to external documents that are controlled only at their source (Web) the content of those websites will not be copied into this document. Please refer directly to those websites for up-to-date information.

2. Precedence

The precedence is the Civil Aviation Act 1990 (excluding exemptions for gliders) [CAA](#), followed by the [MOAP](#), followed by the [MOU](#), followed by this SOP.

This SOP has the lowest precedence of these and may have more, but not less, stringent requirements than these other documents.

3. Club Responsibility Tree



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3.1 Task Responsibilities

Adrian Cable	Member Activities & Motivation and Instructor Trainer
Bruce Little	Glider Trailer Condition
James Graham	Airspace Advisory
Derek Wagstaff	Trailer & UTE WOF
Mark Arundel	Tow Master
Paul Ellison	CFI
John Roberts	Oxygen Systems
Johan Naude	Glider Log Books
Kevin Partridge	Club Safety Officer
Mark Tingey	Parachutes
Adrian Cable	Club Away Flying
Ross Scholes	Youth Glide
Brad Lacey	Club Captain
Richard Haxell	Member's Files
Michael Cooper	Member Maintenance Club & GNZ
Scott Wagstaff	Hangar Condition & Layout

3.2 Covid 19 Mandate & Process

- 3.2.1 All members requiring access to club facilities or club aircraft must provide evidence of having been double vaccinated by Pfizer vaccine or other government approved vaccine to the CFI who will maintain a record.
- 3.2.2 All members of The Public requiring access to club facilities or club aircraft must provide evidence of having been double vaccinated by Pfizer vaccine or other government approved vaccine to the Duty Instructor.
- 3.2.3 The CFI can at their discretion after consultation, accept alternative sources of vaccination approved by WHO or other International Sources in good faith.
- 3.2.4 The Duty Instructor or their nominee for the day will be responsible for ensuring all people present at the club can provide evidence of having been vaccinated.
- 3.2.5 No person will be permitted access to the club within less than 14 days of their final vaccination.

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- 3.2.6 Where practical, social distancing should be observed.
- 3.2.7 Where a possible covid exposure event occurs, The Committee and CFI are to be notified as soon as possible following which a best course of action will be verified and The Club members notified of the event.
- 3.2.8 The Duty Instructor shall have discretion over the following;
 - a. Requiring the wearing of facemasks.
 - b. Limiting access to Trial Flight public supporters i.e. requiring them to remain outside the clubrooms.
 - c. Any other matters they consider necessary on the day to provide a reasonable limit of protection.
 - d. Declining a trial flight.

4. MEMBERSHIP

4.1 Class of Membership

The Club shall consist of five (5) classes of members.

- 4.1.1 Pilot Members. They shall have full privileges in respect of the Club's equipment and property subject to such rules as the Committee may from time to time make.
- 4.1.2 Junior Members. They shall have all the privileges and responsibilities of Pilot members with the exception of voting at any meeting. Junior members shall be persons under the age of 19 or bona-fide full time students under the age of 25.
- 4.1.3 Associate Members. They shall have the privileges of Pilot members with the exception of piloting of aircraft, voting at any meeting and holding office.
- 4.1.4 Short Term Members. They shall be entitled to a maximum of 6 instructional flights as a student in a Club glider with an instructor. They shall not be entitled to vote at any meeting or hold office.
- 4.1.5 Life Member. They shall be appointed at a General Meeting of the Club by a majority of 75% of the members present. They shall have the privileges of a Pilot Member without obligation to pay any annual subscription.

4.2 General

- 4.2.1 Application for membership as Pilot, Junior and Associates Members shall be in writing to the CFI on the application form provided signed by the candidate, the applicant's proposer and seconder who must be pilot members. The CFI and the President will approve the application on behalf of the committee and the club.
- 4.2.2 In the event of an applicant being approved that person shall be a probationary member for a period of six months and during that time may not vote at any meeting or hold office.
- 4.2.3 If an applicant is not approved or not confirmed after 6 months the applicant may re-apply for membership. It shall not be necessary for the club to state any reason for any non-approval.
- 4.2.4 Application for Short Term Membership shall be made on the application form provided, signed by the candidate and approved by an instructor on duty on the day application was made.
- 4.2.5 Junior members shall not be charged club annual fees, or for the use of a Puchacz glider. They shall pay the standard tow fees and are expected to do at least one duty day per month.

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5. Information

5.1 General

- 5.1.1 Members may have full usage of a club glider for one hour after which time they may be called to return if another member has been on the field and waiting for more than 30 minutes and no other gliders are available that the waiting pilot is rated to fly.
- 5.1.2 Members may, for a fixed annual sum, fly club aircraft for no per flight glider charge as per the pricing sheet and as amended by the committee from time to time. Normal tow fees and Airport/Airways charges will apply.
- 5.1.3 The Committee of the Tauranga Gliding Club usually meets monthly in the Clubrooms. Any member may attend but may not vote.
- 5.1.4 Election of Committee members is at the AGM held in August each year.
- 5.1.5 The Instructors Panel of the TGC meet from time to time. Any member may attend the non-confidential sessions but may not vote.
- 5.1.6 On occasions during the year, some of the club's gliders may be relocated to another airfield such as Matamata to give club members the opportunity to experience different flying conditions and attempt new tasks or skills. A check flight as a minimum is required for all pilots who have not flown in the area.
- 5.1.7 Many activities which have nothing to do with actually flying a glider, such as family picnics or barbecues, take place at Tauranga Airport. Some great days under an open sky can be spent this way, far from the daily grind. Don't forget hat, sunglasses, suntan lotion, and drinking water; it is easy to get dehydrated at the airfield.

5.2 Private use of Hangar

- 5.2.1 Private owners must be fully paid up members of the Tauranga Gliding Club.
- 5.2.2 The cost for hangar hire is determined by the committee from time to time.
- 5.2.3 The Club accepts no responsibility for damage to privately owned gliders.
- 5.2.4 Private owners need to have the club's interest noted on their insurance policy.
- 5.2.5 Private owners need to have signed a waiver before leaving their glider in the hangar.
- 5.2.6 Spaces for private gliders will be balloted annually if demand exceeds spaces available.
- 5.2.7 Priority will be given to active members that regularly do duty.

6. Permission to Fly

There are no exceptions to the following detailed in this paragraph. Failure to follow this process means that pilots are flying at their own risk, and that the Tauranga Gliding Club Inc. has done all it can to ensure their safety.

6.1 Club Flying Days

- 6.1.1 All pilots permitted to fly under GNZ from the Tauranga Gliding Club Inc. are to advise the duty instructor and duty pilot of their intentions before launching from the Tauranga airfield.
This applies equally to club gliders, club microlights, club tow planes and private gliders, whether they are kept in the club hangar or in a hangar elsewhere.
- 6.1.2 All pilots flying as PIC must be current, have a valid medical and BFR.
- 6.1.3 The duty instructor is not permitted to leave the airfield until all club and private aircraft have been accounted for or their duty has been handed over to another instructor with a full status update.

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- 6.1.4 During normal club flying the instructor on duty has the responsibility for all club operations including towing.
- 6.1.5 The Tow Master has responsibility for the club Tow planes and Tow pilots as delegated to him/her by the club CFI.

6.2 Non Club Flying Days

- 6.2.1 All pilots permitted to fly under GNZ flying from the Tauranga Gliding Club Inc. are to advise the CFI by phone (or the Deputy CFI if the CFI is not available), or the Tow Master in the case of Tow Planes, of their intentions before launching from the Tauranga airfield.
- 6.2.2 This applies equally to club gliders, club microlights and private gliders whether they are kept in the club hangar or in a hangar elsewhere.

6.3 Cross Country Flights

- 6.3.1 At all times while in flight the aircraft is to have its transponder switched on or if outside of controlled airspace;
 - e. then a SPOT or other similar non terrestrial device must be enabled that sends a position report at least once every 30 minutes or
 - f. the pilot must make contact at least once every 30 minutes by mobile phone with the club or by radio to other gliders in the area giving a position report that can be readily obtained by the CFI or duty instructor.

6.4 SOP and MOU

No pilot may fly as PIC under the Tauranga Gliding Club Inc. unless they have signed the Pilot Acknowledgement that they have read and understand the Tauranga Gliding Club Standard Operating Procedure (this document) and the [MOU](#).

7. General Club Rules

Three levels of conduct govern operations of the Club.

- 1 What pilots are legally required to do.
- 2 What pilots are advised to do.
- 3 Fitting in with other users of the Tauranga Airport.

It is the duty of each and every Member not only to follow the rules but also to remind others when rules appear to be broken. This may be unpleasant to do at times but it will certainly be less so than if you witness some irregularities that develop into a fully-fledged disaster.

Safety underlies all the operations of the Club and the Club has an excellent safety record. If at any time safety seems to be compromised, for any reason, do not let a situation develop. Act immediately.

Although there may be a Safety Officer in the Club every Member becomes responsible for safety during the time that they are at the club and has a responsibility to report any safety concerns to the Safety Officer.

7.1 Regulations

7.1.1 The [MOAP](#)

GNZ is authorised under Civil Aviation Part 149 to control Gliding Operations in New Zealand. The Club is an affiliate of GNZ and is therefore subject to compliance with the [MOAP](#).

The requirements for official flights such as Badge and record flights are available on the International Gliding site www.fai.org/gliding

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7.1.2 First Solo

No student pilot or member from another club may fly as PIC at the Tauranga Gliding Club for the first time unless they have:

- a. A current Medical Declaration,
- b. understand the operational requirements from the GNZ QGP radio examination,
- c. signed acceptance of this SOP and
- d. been previously cleared by an "A" or "B" Category Instructor to fly solo and this has first been discussed between the instructor and CFI or Deputy CFI. This is important because the CFI and his deputy should be aware of any reasons as to why a student or other first time pilot should not fly solo.

7.1.3 Glider PIC

No glider pilot previously cleared for solo may fly as PIC at the Tauranga Gliding Club unless they have:

- a. A current Medical Declaration,
- b. understand the operational requirements from the GNZ QGP radio examination,
- c. agreed to this SOP,
- d. hold a current BFR,
- e. are current in gliders as can be verified by their logbook and
- f. have read and understand the [MOU](#).

7.1.4 Tow Pilots

Tow Pilots must be approved by the tow master and must have a currently medical and BFR unless exempt under CAA Part 61.

7.1.5 Incident Reporting and Discipline

- a. All members should report an incident or raise safety concerns with the club Safety Officer as the first point of contact. In the event that a member believes the matter is not being dealt with satisfactorily, then he or she must report this to the club CFI and then the club President. If the member believes the matter is not being dealt with satisfactorily by the club President, then it is the responsibility of that member to take the matter up with the ROO and failing that then with the NOO.
- b. At all times a no-blame culture must be cultivated to allow the free flow of information and to make it easy for members to put their hands up and admit that they did something incorrectly. Only in this way is it possible for the club to constantly monitor and improve its operational performance and safety culture.
- c. Under no circumstances may a member discipline another member. Any disciplinary action is only to be carried out by the CFI and club President, together, who shall ensure that this is managed in an unemotional and just manner.
- d. No bullying of one member by another will be tolerated and any such cases must immediately be brought to the attention of the CFI or club President.

7.1.6 Medical Certification

- a. As described in the [MOAP](#) pilots are required to have a GNZ [OPS 01](#) Medical Declaration if under 70.
- b. Those 70 and over are required to get a signed DL9 from their GP.

7.1.7 Insurance

The Club's insurance is provided in a number of ways:

- a. Some aircraft are covered by an insurance policy and some are under the Club self-insurance scheme where the club pays for all repairs and there is no claim on the member subject to the following:

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- Provision is made for an excess as determined by the committee from time to time for single seater gliders and for two seater gliders to be paid when a glider has been taken for approved private use such as for a competition.
 - The committee reserves the right to charge members an excess for careless use causing damage as determined by the committee from time to time.
 - The committee reserves the right to charge all members that have been members for less than 3 months an excess in the event that a club aircraft is damaged while more than 10 nautical miles from the Tauranga airfield.
- b. Club aircraft damage by fire in the Hangar only, is covered by a commercial policy.
- c. A commercial policy provides Third Party Liability for club members.

8. Tauranga Airport Operations

8.1 Tauranga Airport Rules

- 8.1.1 Tauranga airport is owned and operated by the Tauranga District Council and relevant bylaws are applicable to airport land. This includes the requirement for only licensed drivers to operate vehicles on the airport surface and that speed limits be adhered to.
- 8.1.2 All aircraft operations on the airfield are subject to control by the Tower as they are responsible to the Tauranga City Council to run the airport operations. Airways are bound by CAA Part 172.
- 8.1.3 It is important for club members to understand that Runway 04/22 is a regular runway and may be used by any legitimate air traffic. It is not for the sole use of gliders. A [MOU](#) controls the relationship between the Tower and the Club. All members are to read and understand the [MOU](#).

8.2 Radio and ATIS

- 8.2.1 The airport is controlled with a main radio frequency of 118.30 MHz. Contact by phone to the Tower can be made on 07-547 4616 extension 9; some phone answering delay may be experienced if the Controller is busy with radio traffic. An ATIS is provided on a radio frequency of 126.60 MHz. Radio checks for gliders must be carried out on 118.30 MHz by requesting a signal strength report from the Tower during the aircraft DI.
- 8.2.2 The Tauranga Airport Control Zone is Mode C Transponder Mandatory.
- 8.2.3 A radio failure is always possible and in this event
- a. continue to transmit 'blind',
 - b. call the tower on a mobile telephone if possible,
 - c. set the transponder to 7600,
 - d. land as soon as you can and
 - e. make sure your path is not through aeroplane traffic areas.

8.3 Tauranga Pilots 'Bay Approach' Radio Procedure

All heights are agl and instructions are as follows unless otherwise advised.

- 8.3.1 RULE
- a. Glider and Tow aircraft returning to TG for landing shall be issued with a 'Glider Arrival' from Bay Approach.
 - b. Unless otherwise instructed, aircraft shall track directly to overhead the Mount Sector maintaining 2000ft or above.
 - c. Unless otherwise instructed, Glider and Tow aircraft shall contact TG TWR when established overhead the Mount Sector, above 2000ft and remain outside the TG CTR/D or above 2000ft until TG TWR issues a clearance to enter the TG CTR/D.

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8.3.2 Tow Pilots

- a. When taking off from Tauranga change to 119.5 MHz, call Bay Approach advising of glider on tow and request a block clearance 2,000' to 5,000', before reaching a height of 1,000'.
- b. Ensure that you get the clearance before reaching 1,500'.
- c. If no clearance is received from Bay Approach do not continue to climb.
- d. When using runway 04 ensure that you make an early right turn and track parallel to runway 07 to give the best options in the case of an engine failure or a rope break.
- e. On glider release give your call sign and "glider release".
- f. On descent to Tauranga and well above 2,000' feet call Bay Approach with <your call sign> plus "<current height> requesting glider arrival Tauranga".
Example: "BKJ 3000' requesting glider arrival"
- g. You may call glider arrival soon after the glider release call.
- h. Bay Approach will respond with "<your call sign> cleared for Glider Arrival".
- i. They may or may not say "Call Tauranga on 118 decimal 3".
- j. You reply with your call sign plus "cleared glider arrival Tauranga".
- k. You remain on 119.5 MHz until you are over the Mount Sector.
- l. When over the Mount Sector change to 118.3 MHz and call Tauranga Tower with <your call sign> plus "<current height> requesting Mount Sector".
- m. It is not an issue if your height is 3,000' or 2,300' but it must not be 2,000' or below. *Note that you must be over the Mount Sector so do not request Mount Sector over Matakana, for example.*
Example: "BKJ 2,800' requesting Mount Sector"
- n. From then follow the standard joining procedure.

8.3.3 Glider Pilots

- a. When launching from Tauranga and at 800' change to 119.5 MHz. Note that will ensure that the glider does not jump the gun and assume clearance before this has been given to the Tow Plane from Bay Approach.
- b. Monitor first for the tow plane clearance OR before reaching 1500' without hearing the tow plane clearance then:
- c. Broadcast <your call sign> plus "monitoring 119 decimal 5".
- d. You may or may not get a response because this is information only.
- e. On descent to Tauranga and well above 2,000' feet call Bay Approach with <your call sign> plus "<current height> requesting glider arrival Tauranga".
Example: "GPZ 2,800' requesting glider arrival".
- f. Bay Approach will respond with "<your call sign> cleared for Glider Arrival". They may or may not say "Call Tauranga on 118 decimal 3".
- g. You reply with your call sign plus "cleared glider arrival Tauranga"
- h. You remain on 119.5 MHz until you are over the Mount Sector.
- i. When over the Mount Sector change to 118.3 MHz and call Tauranga Tower with <your call sign> plus "<current height> requesting Mount Sector".
- j. It is not an issue if your height is 3,000' or 2,300' but it must not be 2,000' or below.
- k. Note that you must be over the Mount Sector so do not request Mount Sector over Matakana, for example.
Example: "GPZ 2,300' requesting Mount Sector"

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- I. From then follow our standard joining procedure.

8.3.4 Additional Notes

- a. You cannot make a Glider Arrival over the Racecourse area so if you are getting low and therefore not able to confidently make a Glider Arrival you call Bay Approach well above 2000' with <your call sign> plus "cannot maintain height, request clearance into Tauranga Airspace over the Hospital (or whatever landmark you need to use)".
- b. Bay Approach will advise Tauranga that a glider is about to drop into their airspace over the Hospital. Tauranga will then clear any conflicting traffic.
- c. Bay Approach will call you with "<call sign> cleared entry into Tauranga over the Hospital (or wherever)".
- d. Call Tauranga with your call sign and height "over the Hospital" and follow their instructions to the circuit area.
- e. At any time, you can state <your call sign> plus "cannot comply" and negotiate a safer option.

8.4 Runways

- 8.4.1 The Tauranga Airport is located at S 37°40.244' E176°11.313' and is made up of three runways. The main seal runway is 07/25 and has a parallel grass runway 07/25. Dual operations are allowed on this runway system that provides for two landings concurrently. This runway is normally used for powered aircraft only, although permission may be granted by the Tower for gliders to use this.
- 8.4.2 A cross-runway 16/34 is split into North and South vectors divided by the sealed runway. Runway 34 North is not recommended for the towing off of gliders.
- 8.4.3 The third runway 04/22 is that usually used for Glider operations and is closed for gliding's exclusive use on request to the Tower. This request is to be made by telephone before moving aircraft off the hangar apron, on to the runway.
- 8.4.4 The Duo Discus glider GXT may not be launched off runway 04 unless there is sufficient headwind component as determined by the CFI. Alternatively permission must be sought from the Tower by telephone to use runway 07 when the wind direction and strength is not suitable for the use of runway 04.
- 8.4.5 When towing gliders off runway 04 vehicles used for the movement of gliders are to be parked no further forward than the launching glider.

8.5 Circuit Directions

- 8.5.1 The 04/22 circuit pattern for gliders is generally to the west making for a right-hand circuit for 22 and left-hand circuit for 04.
- 8.5.2 Gliders are restricted from operating in the normal circuit area below 1500ft, unless transiting in a straight line to the glider circuit. Glider pilots are to be aware that an aeroplane's circuit height is 1000 feet AGL, so keep an especially good lookout at this height near the airfield.
- 8.5.3 The 07/25 aeroplane circuit pattern is to the south.
- 8.5.4 The 16/34 aeroplane circuit pattern is to the east and it is important to note that departures from 34 and arrivals to 16 may cross through the glider circuit.
- 8.5.5 A "Paddock Practice" strip may be used for landing practice and for this, clearance in advance must be obtained from the Tower.

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9. Ground Operations

- 9.1.1 The TGC consists only of volunteers so please volunteer for the many tasks and sometimes chores which accompany flying gliders. It is general good practice that members who fly either help getting the aircraft out and ready to fly or at the end of the day assist in putting all the aircraft away and tidying up.
- 9.1.2 One of the things that can be learned at the Club is taking initiative which is a useful personal asset for many other endeavours. For example, there is no 'boss' to tell you to wash a glider so if you notice a dirty aircraft then recruit some help and wash it; the job will be done in 10 minutes.

9.2 General Airfield Operations

- 9.2.1 Car driving and other motor vehicle operation on the airport are subject to Council bylaws and control by the Tower. In general traffic on the perimeter track are able to move freely out to the Gliding operations area.
- 9.2.2 Pedestrians and aircraft have the right-of-way over any vehicle traffic. The speed limit is 15 km/h. Vehicle operations are to be limited to marked tracks except when towing or retrieving gliders.
- 9.2.3 Vehicles

Cars, motorbikes and the like are hazards on airports. Members are required to drive following the perimeter road and then park behind the signs. No motor vehicle other than the retrieve vehicle is allowed on the runway or taxiway unless previously authorised by the Duty Instructor.
- 9.2.4 Visitors

Unlike many airport operations that are generally hostile to curious onlookers, the Club encourages visitors to witness all our operations. It is the duty of each and every Club member to ensure that all visitors and absent-minded members are channelled out of harm's way and that there are no unsupervised children and no dogs on the airfield.

Visitors must be

 - a. escorted across any runway to or from a glider,
 - b. advised to keep away from propellers,
 - c. advised to keep away from towropes on the ground and
 - d. closely monitored.

9.3 Trailers

- 9.3.1 Retrieve gear

If you are involved in a retrieve of a glider that has landed out:

 - a. Ensure that the trailer you select will hold the particular glider and is unlocked.
 - b. Has no glider in it (as has happened), has all the gear inside to facilitate de-rigging, and proper storage items for that glider.
 - c. Check tyres are pumped up, lights and indicators work, and has the correct ball fitting.
 - d. Check that the duty pilot has your mobile number and that it has been given to the pilot awaiting the retrieve.
 - e. Check that you have the pilot's mobile number and phone them as you leave.
 - f. Make sure that you have the GPS co-ordinates for the land out and look at a map to ensure that you have the best road route in mind.
 - g. Check that you have the glider dolly wheel and anything else you may need.

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h. Find an experienced person and ask if there is any doubt.

9.3.2 Tow Couplings

There are two sizes of tow couplings available, 50 mm and 1 & 7/8 inches. Ensure that you have the correct ball for the coupling on the trailer; a mix of different couplings and balls will not work and should not be tried - especially with a glider on-board.

9.4 Hangar and Club House

9.4.1 Security

9.4.2 The hangar and Clubhouse are fitted with security alarms that are triggered by the detection of movement. These security systems are activated by pushing the AWAY key for 5 seconds on the relevant alarm panel.

9.4.3 Disarming the alarms requires that the security code be entered and the AWAY key pressed.

9.4.4 The keypad will have a RED light glowing if the alarm is set and this changes to green when the alarm is deactivated.

9.4.5 Hangar doors need to be chained as well as having the door latches set. This is due to door length being longer than hangar length.

9.4.6 Keep the door to the car park closed as much as possible to eliminate wind damage to the door and inside the clubhouse.

9.4.7 The rubbish collection wheelie bin is chained to a fence post away from the clubhouse for insurance purposes. Contact the contractor by means of the phone number on the bin if collections are being missed.

9.5 Aircraft Moving and Handling

9.5.1 Aircraft moving

a. It is very easy to damage an aircraft while moving it in or out of a hangar. Never push or pull on a control surface, an airbrake, a cable, an antenna, or a Pitot tube. Never push the tow plane by the fuselage or vertical stabiliser. Use the handle mounted at the rear.

b. Avoid pulling/pushing on glider wingtips in a forward direction. Push only on leading edges.

9.5.2 Glider Ground Towing

a. Gliders must be towed at walking pace by a length of rope longer than half a wingspan to reduce the chance of glider overruns or by means of a solid glider specific towbar.

b. In windy conditions gliders should have a wing walker on the upwind wing.

c. Gliders may be towed either forward or backwards; check which way is safest for each type with an experienced member.

d. Wherever possible do not tow by means of the nose hook as this may only be operated a defined number of times before being replaced. Most gliders have a tail dolly that has a hook for the rope.

9.5.3 Aircraft parking

- a. When a glider is not in use, the last Member who has moved or flown that glider is responsible for
- switching off the radio, instruments and the master switch,
 - removing any ballast from the glider,
 - unlocking the airbrakes,

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- closing and locking the canopy (A gust of wind slamming and cracking the canopy of a Glider can cause many dollars of damage and the possible loss of use of that glider for weeks or months) and
 - parking the glider off the runway if it is not going to be immediately used by another member.
- b. In light and variable wind conditions gliders must be parked with their wings across the wind. In moderate wind conditions, gliders must be parked according to their Pilot Operations Handbooks, and wingtips picketed. In strong wind conditions or winds blowing or gusting at more than 22 knots gliders not in use must be carefully towed back into the hangar preferably with people walking both wings.
 - c. When picketing gliders overnight or for extended unmonitored periods it is generally good practise to tie the stick back with the seatbelts, secure the rudder to prevent it banging on the stops, secure the tail to stop the glider swinging and tying the wings with the glider level.
 - d. The wind can change direction at any time so care needs to be taken not to simply assume that the wind will continue from the direction it was when the glider was first tied down.

9.6 Aircraft Maintenance

9.6.1 Aircraft Damage

- a. In the event that there is damage, a ground loop, or heavy landing to an aircraft report it immediately to the duty instructor and ensure that the damage or fault is entered into the DI book under major or minor defects. Damaging an aircraft can happen to anyone, for example when rolling it out of the hangar or in an off-field landing. In some cases what appears like a small nick has to be inspected by a qualified engineer. It is not difficult to suffer a heavy landing or to scrape a wing on a windy day; do not let the next user discover the problem. Always report anomalies such as weird noises, cracks, different feel to the controls, glider behaviour, faulty instruments, or radio and if in doubt take the initiative to personally ground the aircraft until it has been cleared as airworthy by an Engineer.
- b. If you suspect that the glider may have exceeded VNE land immediately with minimal gentle control inputs and advise the duty instructor so that the glider is grounded until inspected by an Engineer.

9.6.2 Aircraft washing

- a. Washing an aircraft is considered by many as a chore but it is said that people who wash gliders become better glider pilots and not just because the glider gets a significantly better glide ratio.
- b. When the wings appear dusty the aircraft deserves to be washed. Bird droppings contain acids that eat into the surface in a short time. To wash only use a mild dishwashing liquid diluted in a bucket with water and clean sponges. Rinse with plain water and never use scouring pads to remove bugs. Fibreglass airframes can be waxed with a no-silicone wax.
- c. Extra care must be taken when washing canopies to avoid scratches that will be very annoying in sunlight. To wash the canopy use plenty of plain water only and an alcohol-free plastic cleaner. Using a detergent containing even mild abrasives would be disastrous. Never wipe a dry canopy with a dry rag. Always wash from front to back and not in a circular motion. Never wax a canopy. At the end of the day always fit the canopy cover, if available, and then only if the canopy is free of dirt.
- d. It is the responsibility of the PIC to wash the cockpit clean in the event of pilot or passenger airsickness. It is recommended to always have "barf bags" handy to completely avoid that chore.

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9.6.3 Aircraft Batteries

- a. At the end of each flying day glider batteries are to be put on the recharging shelves inside the hangar. Remember before plugging in batteries or removing plugs ensure that the charger is switched off and then make sure that the charger is switched on when the battery is connected. If in doubt ask. Charging batteries is not part of standard flight training curricula and yet a well charged battery for radio and transponder use enhances safety.
- b. Always remember that in a glider the Master switch is first when switching on the instruments and last when switching off the instruments.

9.7 FES Battery Usage and Maintenance

- 9.7.1 Lithium batteries have been around for some time now, and are used in all manner of things from phones to airliners. While there have been a few well-documented failures, the number isn't huge considering how many are in service world-wide. Lithium batteries look like they're going to become more common in gliders, so it's never going to be too soon to implement some robust and reliable management procedures - with proper management of risks we should be able to ensure the safe operation of FES equipped gliders.
- 9.7.2 A lithium battery is designed to deliver high output with minimal weight (compared with other battery types), so as a consequence many of the parts are relatively thin. Since some of these parts are tasked with keeping apart chemicals that don't get on well together, it's in our best interests to ensure that we do nothing that could lead to puncturing a cell, cause a short circuit, or induce thermal runaway. Any one of these events could completely ruin your whole day.
- 9.7.3 So, what does this mean for us, and how do we go about minimising any risk?
- 9.7.4 Firstly, read and understand the manufacturer's instruction manuals. These are on the club's website under Home/Learn to Fly/Information/Documents.
- 9.7.5 Secondly, follow the manufacturer's instructions to the letter, both on the ground and in the air - failure to do so has been a common factor in most, if not all, of the glider incidents to date.
- 9.7.6 The factory-supplied chargers will charge the batteries in a safe and proper manner, but always remove the batteries from the aircraft before doing so. If the FES hasn't been run on previous flights it's likely the batteries won't need a top-up unless they're down to 110V, but if you do put the batteries on charge you must allow the charging process to run its full course, part of which process is equalising volage across all cells. Failure to do so will result in the cells having unequal charge levels, and all sorts of alarms will go off when you switch on the FCU in the aircraft. Deciding to override these warnings could turn out to be not the best idea you ever had.
- 9.7.7 The batteries must be handled with care at all times, and you should be particularly vigilant in checking for any signs of damage to the casings. If you drop a battery or find any signs of exterior damage, then the battery must be checked and by a suitably qualified person before being installed in the glider. In order to minimise the chances of any damage occurring during battery installation and/or removal, we are currently leaving the batteries in the aircraft when not in use - but, however, the blue and the orange power cables must be disconnected from the batteries and the BMS switches on top of the batteries turned off. The data cables can remain connected if you're not removing the batteries; the pins in the plugs are quite small and are easily damaged when being reconnected.

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- 9.7.8 If the glider is not going to be used for some time the batteries should be discharged to 104V, either by running the engine or by using an electronic device designed for that purpose. While being left fully charged will not increase the fire risk, it can shorten the life of the batteries. (The problem here, as I see it, is how long is "some time", and how do you know if and when the glider is next going to be used?). Plan ahead, it could take a while to bring them back up to full charge.
- 9.7.9 One of the potential causes of battery fires is thermal runaway whilst in use. The Battery Management System should ensure that this doesn't happen, but always keep an eye on the battery temperature (on the FCU) when the engine is in use. The front cockpit vent must be open while the engine is running, and make sure that no clothing or anything in the luggage area is able to block airflow to the fans immediately behind the pilot's head.
- 9.7.10 The engine will also shut down if the battery voltage drops to 90V. Using the engine at high power settings will ensure that this happens fairly quickly, you will find that you get a much greater range if you fly at minimum sink speed with just enough power to retain your height – think of it as a "go sideways" engine rather than a "go higher" engine, a way to get to the next area of lift or the next safe landing area. There will, of course, be times when these won't be viable options, but be aware that higher power settings can (and do) greatly reduce battery endurance – in general, use as little power as you can get away with.
- 9.7.11 Another thing to bear in mind is that electrics and water don't go well together. While the glider can be flown in rain, the engine must not be operated in those conditions. Be sure to tape around the battery hatch before taking to the air, and the overhead cockpit vent if there's a chance the glider may get rained on while on the ground. A leaky drink bottle also has the potential to be an issue, depending upon where you've stored it.
- 9.7.12 And finally, transporting the batteries. If you're taking a glider away somewhere, then probably the safest and most convenient place to transport the batteries is secured in their normal place in the aircraft. If you are transporting the batteries independent of the glider, then we have two purpose-built, stainless steel boxes for them to go in. While the manufacturers say not to transport them in the passenger compartment of the car, it is probably a lot easier to secure them behind the front seats, for example, rather than in the boot, in a trailer or on the tray of a ute. Whatever, you don't want them to be sliding about as you negotiate our often-tortuous roads and be wary of exposing the batteries to high temperatures as can occur in a parked car in hot, sunny weather.
- 9.7.13 Summary
- a. While the FES system is very reliable, like with any glider you should always have a "Plan B".
 - b. Read and understand the manufacturer's instructions re the usage and care of Lithium Batteries and Front Engine Sustainers (FES), and follow those instructions explicitly
 - c. Take care to avoid damaging the batteries. Report any damage or potential damage, and do not charge or use the batteries until they have been checked by a suitably-qualified person.
 - d. DO NOT charge the batteries while they are in the glider - it's Ok to leave them in the glider when it's not in use, but the power cables MUST be disconnected.
 - e. When the batteries are put on charge they will not be ready for use until the charging cycle has been fully completed, i.e. the light on the charger has gone out. This allows the Battery Management System to balance the cells.
 - f. If the glider is unlikely to be used for an extended period, the batteries should be reduced to approximately half charge (104 volts in the case of the Lak).

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- g. If the glider is being transported in its trailer, the safest place to carry the batteries is secured in the battery bay (as if you were flying). The power leads must be disconnected, of course. If it is necessary to transport the batteries separately, then there are two stainless steel protective boxes for this purpose. Ensure also that these boxes are secured in the vehicle in a way that they are unable move around.
- h. The FES Control Unit (FCU – silver switch) must remain in the “ON” position whenever the glider is airborne, as it continuously monitors battery condition
- i. The cockpit (front) air vent must be open when running the engine. Ensure nothing can impede airflow to the cooling fans behind the pilot’s head
- j. Don’t use the engine in rain
- k. Read and understand the manufacturer’s instruction manuals again

9.7.14 Parachutes

- a. Parachutes are required for Competition flying, when doing aerobatics and recommended for high altitude flying such as in Wave. When not in use they are to be stored in the clubhouse bunkroom. This area is clean, dry and free of mice.
- b. If a pilot or passenger wets a parachute from any source please ensure that that parachute is properly cleaned and repacked before it is used again. When it has dried off there may be no way of observing that this damage has occurred.
- c. Parachutes should never be left on the ground or used to weigh down a wing. If you accidentally partially pull the release handle ask someone knowledgeable to inspect it and in most cases the parachute will have to be repacked. Parachutes have their own packing slips indicating the date it was packed.
- d. Parachutes must be repacked annually.

9.7.15 First pre-flight check of the day - Known as a Daily Inspection (DI).

- a. This is described in the [MOAP](#).
- b. It is the PIC’s responsibility to make sure the aircraft has been adequately pre-flight checked before taking to the air. Do not assume that the previous pilot performed the pre-flight in a thorough manner and that the DI book is signed just because the aircraft was flown earlier in the day.
- c. DI activities should be performed at the hangar to guard against an aircraft being flown without being inspected.

10. Aircraft Fleet

- a. Puchacz Dual Seat Trainer – GPZ
- d. LS4 Single Seat – GKM
- e. LAK-17B FES Single seat - GFS
- f. Duo Discus High Performance Dual Seat – GRZ
- g. Duo Discus X Turbo, High Performance Dual Seat – GXT
- h. Pipistrel Taurus, Self-Launching Dual Seat - GSU
- i. Piper Super Cub with 180 hp Engine – BKJ
- j. Piper Pawnee with 180 hp Engine – PNE

10.1.1 All aircraft are to be operated according to their Pilot Operations Handbooks that includes weights & ballast, speeds, manoeuvres, and any other limitations.

10.1.2 Tow Pilots

- a. Information on tow ratings and operations are found in the GNZ [AC2-09](#) Tow Pilots Manual.
- b. Information on individual Tow aircraft and their handling and care must be obtained from the Club Tow Master.

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10.1.3 Tow Speeds

- a. Tow Plane cockpits should have the following tow speeds placarded.
 - Single seat gliders 75+ miles per hour
 - Puchacz 70+ miles per hour
 - Duo Discus 75+ miles per hour
- b. Water laden gliders are better towed a little faster than normal.

10.1.4 Tow Ratings

- a. Prospective Tow pilots shall pay for both the tow plane and glider tow to obtain their basic tow rating.
- b. For our purposes there are various levels of rating:
 - Circuit and local tows.
 - Wave towing.
 - Cross country towing.
 - Dual towing.
 - Competition towing.
 - Retrieving tows from non-standard airfields such as paddocks.

10.1.5 Passengers are not to be taken in tow planes during towing operations with the following exceptions:

- a. Glider instructor's familiarisation of the "other end" of the Tow.
- b. Tow Pilots under instruction for ratings and check flights.
- c. On cross country tows for the purpose of relocating gliders such as for away trips.
- d. Relocating club members from one airfield to another.

11. TOW PLANE SAFETY

- a. Be extra careful during glider hook-up operations.
- b. Always approach tow planes from behind.
- c. Glider pilots and visitors may be interested only in gliders, become complacent, not take note of a tow plane and get caught off guard. To reduce the risk of this, instructors must:
 - be aware that the noise of the engine is disorienting,
 - recognise that the pilots of tail-dragger planes such as the Cub and Pawnee have poor frontal visibility,
 - consider that aircraft brakes can fail unexpectedly and
 - realise that it is important to keep visitors away from potential danger.

12. STANDARD FLIGHT OPERATIONS

12.1 Weekend Glider Operations

- a. All members are expected to do duty at least once a month
- b. Members not doing duty may be charged an amount, as determined by the club committee, each month at the discretion of the CFI.
- c. Trial flights to be booked on the hour from 11 am with no gaps in bookings.
- d. Duty pilots, instructors, and tow pilots be at the club by 10 am on weekends and be ready to fly by 11 am weekends, 1 pm Wednesday's.
- e. Rostered members are not expected to remain more than 2 hours if no member contacts them with the intention to fly and there are no trial flights booked.
- f. Pilots should contact the instructor on duty if they wish to fly in the afternoon.

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12.1.1 The Duty Pilot

- a. The Duty Pilot is responsible for the management of Tauranga Gliding Club ground operations at the airport.
- b. It is an important job and if the rostered Duty Pilot is unable to do their scheduled duty day then it is their responsibility to swap with another member or find a replacement and to advise the Duty Instructor accordingly.
- c. Duty Pilot responsibilities include:
 - Ensuring qualified individuals launch and recover aircraft.
 - Ensuring that the club ground operations are consistent with safety procedures.
 - On weekends, obtaining the trial flight bookings from the Club Website.
 - Checking with the instructor on duty that the tower has closed runway 04/22 for gliding and confirm which runway is in use before any aircraft are moved onto the runway.
 - Ensuring that the "Airfield Closed for Gliding" flag is set up as soon as it is confirmed that the runway is closed.



- Setting up the flight order list on a sheets and maintaining the first come first served waiting list.
 - Booking trial flights for that day on the booking sheets.
 - Completing trial flight indemnities and log sheets.
 - Checking that parked gliders are secure and away from the runway.
 - Checking that parachutes are not left lying on the ground.
 - Limiting flights to one hour if the glider is required by others as defined in paragraph 12.2.2 below.
 - Ensuring that instructors are made available for training flights.
 - Solving schedule conflicts in an impartial and gracious manner.
 - Logging each and every flight on the log sheet.
 - Collecting and recording all payments.
 - Checking that batteries are correctly placed on charge.
 - Ensuring that no tow ropes or other items have been left outside the hangar or club house.
 - Ensuring that all hangar doors are locked and the hangar and club house alarms are set before going home.
- d. This long list can be summarised by saying that the general objective of the Duty Pilot is to organise ground operations so as to have as many aircraft in the air as possible at any given time and to do that with safety first in mind.

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12.2 Glider scheduling

The best way to schedule gliders on weekends is a recurrent theme of discussion at the club meetings as there does not seem to be an ideal solution. There are currently three simultaneous scheduling methods, one for use by Trial Flights by advance reservation, one for use by members for advance booking of some gliders and one by a first-come, first-served waiting list for members.

12.2.1 Trial Flight reservation

This system is available for Trial Flights booking on the Hour from 11 am to 4 pm. Advance reservations before the day of the flight are registered at Classic Flyers and the person booking must have a valid Trial Flight Voucher Number. Bookings on the day are to be booked by the Duty Pilot. The Duty Pilot must not take bookings for future dates.

12.2.2 Weekend waiting list

- a. In practice the easiest method to use is a "first come, first served" waiting list. Each weekend morning individual lists for each aircraft are available on the booking sheet form.
- b. The pilot is responsible for notifying the Duty Pilot and Duty Instructor of their intentions. Once the pilot has completed their turn they may again be added to the bottom of the list.
- c. From an instructional point of view it is best to allow a student to fly a number of circuits in succession in order to work on problem areas. This repetition is at the discretion of the instructor but limited to a maximum usage time of one hour if there are others waiting to fly that glider.
- d. After a pilot has put his name on the list they may leave the airport while waiting for their turn on the understanding that if their slot comes up next on the list and they are not available then they forfeit their slot.
- e. When there is a waiting list the time limit per glider is one hour. The waiting pilot's name must have been on the list for at least 30 minutes to prevent pilots turning up on the field and immediately ordering the glider to land. If there is no waiting list then there is no time limit, however the Glider pilot is responsible for checking with the Duty Pilot every hour to check if the glider is required and to advise "operations normal". This contact can be via cell phone to the Duty Pilot on the club house number or by calling Tauranga Tower on the radio and asking them to contact glider operations on their behalf.
- f. If a pilot is unable to get confirmation from the Duty Pilot after one hour then the glider is to be returned to the club by default.
- g. To bring a glider back the Duty Pilot must telephone the pilot directly if possible or telephone the tower and ask the controller to request that the glider be brought back. Only the tower is to call gliders over the radio.
- h. An exception to the one-hour limit is for pilots that have had permission from the Duty Instructor to attempt either a FAI badge task or complete an approved cross country flight.

12.3 Special Scheduling Rules

12.3.1 Cross Country Gliders

The Duo Discus', Taurus, LAK, and the LS4 may be booked in advance for a cross country flight and other gliders may be used for a cross country flight subject to approval by the duty instructor. A glider when taken on a proposed cross country flight will not be subject to a time limit.

12.3.2 Aircraft for Private Use

The Tow Master will determine if a tow plane may be used for private or other club purposes and will advise the CFI accordingly.

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Any pilot member may apply to the CFI to take a glider away from the club for private use by completing the Application for Private Use of a Club Aircraft under the following conditions:

- a. Applications for the use of a glider over summer will not be considered before October to give all members the equal opportunity.
- b. Those that have not recently applied for the private use of a glider will be given preference.
- c. The successful applicant will be responsible for the glider from the time it leaves the Tauranga hangar until the time it is rigged and returned to the Tauranga hangar.
- d. Any defects are to be noted and the CFI notified prior to the glider being taken away otherwise the applicant may be held responsible for these on their return.
- e. The applicant is responsible for any insurance excess.
- f. No "all you can eat" flight packages apply when a glider is used for private use.
- g. The applicant can refuse any other club pilot member the right to use the glider while it is booked for their exclusive use because the glider is at that time the responsibility of the applicant.

12.3.3 FAI Badge attempts

One of the greatest thrills of soaring is cross-country flying and attempting FAI Badge tasks.

- a. It is possible by contacting the CFI or Duty Instructor to book a glider for a FAI Badge attempt.
- b. This booking must be done by 10 am on the day the aircraft is required on a first come first served basis.
- c. Pilots attempting such badge flights need to nominate their retrieve crew, ensure that a vehicle is available and the trailer is prepared for a retrieve. The vehicle should be hooked up to the trailer and its keys given to the Duty Pilot along with the the pilot's mobile number.

12.3.4 Trial Flight – Short Term Members

People wishing to determine if gliding is a sport that they may wish to engage in may become short term members and take a Trial Flight.

The full and current Trial Flight policy is described in the GNZ Advisor Circular AC1-04 available on the GNZ web site <http://gliding.co.nz/wp-content/uploads/2014/06/AC-1-04-Trial-Flightsv6.pdf> some of which is extracted as follows:

- a. How the flight is promoted
Any promotion of trial flights must make it clear that the purpose is to provide an introduction to the sport with ongoing membership as the goal; also that flight instruction will be involved. Overt advertising of glider flights as "joy rides" or "scenic" is not appropriate.
- b. Planned to return to the point of take off
Flights should be conducted within gliding range of the airfield, or with reliable lift conditions, so that the likelihood of the need for an away landing is remote at all times. Safety is paramount.
- c. Currently rated instructor suitably experienced
Pilots deployed to trial flights must hold a current Gliding Instructor Rating in accordance with GNZ [MOAP](#) requirements (as expanded by AC 2-04 Instructor Privileges & Currency), and have been approved to provide instruction in at least the following:
 - Air experience and familiarisation with gliding
 - Primary effects of controls

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- Turns up to 30 degrees of bank
 - Straight & level
 - Handing over / taking over controls
- d. Instructor gives a full pre-flight technical briefing and offers manipulation of controls.
The aim should simply be to orientate the prospective trainee to the new surroundings, to introduce the sensation of flight and to show that the glider is stable and easily controlled. The pre-flight technical briefing need be no more than necessary to facilitate this. Generally, the temptation to go into great technical detail should be avoided. It is important to ensure that the person is comfortable and at ease. The "Familiarisation" and "Orientation" sections in Part 2 of the GNZ Instructors' Handbook should generally be followed.
- e. Post-Flight Considerations
The prospective trainee should be given an attractive "certificate" as a reminder of the flight that records their period of membership, the flight details and exercises covered signed by the duty pilot.
- Material about the club's facilities, charges, and gliding in general are available for the prospective trainee on the club web site <http://glidingtauranga.co.nz>

12.3.5 Indemnity Form

An indemnity form is to be filled out by any non-club members, including Trial Flight members, before they fly.

12.3.6 Payment of Flying Fees

- a. The TGC operates a debit system as well as the pay as you fly method. This means that you may deposit funds to your account and have the cost of flights deducted from this account as you fly.
- b. The club does not operate a credit scheme and you should refrain from flying if you cannot clear your account at the end of the month. Abuse of this facility will see your flying privileges suspended.
- c. If you have trouble clearing your account, contact the treasurer immediately.

12.4 Launching

- a. All launches need to be cleared by the Duty Instructor prior to the pilot getting into a glider.
- a. The Launch Procedures and their associated signals are clearly explained in the GNZ [MOAP](#).
- b. Pilots are reminded that once they have accepted a hook-up they are ready to launch and the wing runner and tow-plane will automatically take up slack and commence the launch.
- c. At any time the pilot wishes to stop the launch they MUST release the towrope.
- d. If the wing runner wishes to stop the launch they MUST put the wing tip on the ground. If the tow plane starts moving after this action the glider pilot is to release the tow-rope.
- e. Only fully briefed persons should act as wing runners. All student pilots should be briefed on wing running.
- f. Be prepared well before launch, with seat belts and seats pre-adjusted, passenger or student pilot fully briefed, unused seat belts and cushions secured. This reduces the time the tow plane is idling on the runway, consuming fuel, oil, and creating unnecessary wear and tear. Perhaps more importantly, it will not put pressure on you for a hurried checklist in case a glider is on downwind and about to land just where you are.

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- g. Prior to launch the glider pilot will advise the intended altitude and the Sector to the tow pilot, by advising the wing runner radio or with 1 digit of the hand per 1000' AGL, followed by a signal of the sector into which they wish to be towed. More complex tow instructions should either be worked out with the tow pilot before he starts the tow plane, or passed on to the tow pilot via the wing runner.
- h. On a really hot day when there are delays and you wish to open the canopy, you must release the rope BEFORE opening the canopy. When the launch is imminent, close the canopy, check the brakes, and only then re-accept the tow-rope. Gliders have been towed with canopies open.

12.5 Climb

- a. The tow plane will initially turn right to parallel the 07/25 runway after taking off on runway 04 before turning left.
- b. No "boxing of the wake" should take place below 800 feet AGL and the tow pilot should be advised before the commencement of the tow.
- c. The height of the tow is not an ATC clearance but an indication of intent. If you expect to continue the climb significantly above that altitude the tow pilot should, as a courtesy, advise ATC.

12.6 Local flights

12.6.1 Around Tauranga Airfield

As per the Tower [MOU](#).

12.6.2 Maximum Charge

If nobody is waiting, or it is an approved cross country flight, the maximum glider charge is calculated as decided by the committee from time to time.

12.7 Landing

12.7.1 Landing at Tauranga airport, see Circuits 8.5 and 15.4.

12.7.2 Gliders are not to be left with the master switch turned on, or pushed on to the runway unless a flight is planned and the launch is imminent.

12.7.3 Landing at other airfields or airstrips

- a. There are a number of private airstrips around Tauranga, which may be a better option than to land in a field should you run out of lift. However, these are private so let's not abuse it.
- b. By landing at an airstrip, a glider may possibly be retrieved by tow plane instead of by trailer and ground crew. In that case there will be a charge based on the time for the tow plane to fly there and tow you back.

12.7.4 Off-field (paddock) landings

- a. Due to the nature of the sport all pilots should be familiar with off field landings as they may be required even on local flights. This is why it is worth making precision spot landings at every opportunity, and reading specifically about off-field landings for some useful tips.
- b. Be very careful about landing on sports grounds and parks by carefully checking for people especially on Saturday sports days. There is a lot of water around Tauranga and landing in the harbour may well be the best option if there is even the slightest risk of people being present where you intend to land out. If landing in water make sure that you have your undercarriage down, your wings are level, avoid the tail touching first, and if possible without distraction switch off the battery Master switch before touchdown.
- c. In all situations, the pilot landing out is responsible for the glider and contacting the landowner or occupier.

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- d. Do not attempt to tow out of a remote landing site unless the tow pilot has experience in these matters and considers it safe.
- e. Preservation of private property is vital.

13. FLIGHT TRAINING

Tauranga Gliding Club trains in accordance with Gliding New Zealand's Manual of Approved Procedures ([MOAP](#)).

14. QUALIFICATIONS

The following qualifications are recognised and defined as follows:

14.1 First Solo

- 14.1.1 A First Solo may only be authorised by an "A" or "B" category Instructor.
- 14.1.2 The minimum age for solo may be 14 years of age providing specific requirements are met. Refer to the [MOAP](#).
- 14.1.3 A pilot's log book may be endorsed as "Off daily Checks" after attaining a high standard of competence in flying and in airmanship.

14.2 Student Pilot

Currently training towards the Qualified Glider Pilot qualification

14.3 Qualified Glider Pilot

- 14.3.1 A pilot who has completed the QGP syllabus defined in the [MOAP](#) and has been issued with a QGP licence.
- 14.3.2 A pilot who holds the full C certificate is recognised as having similar qualifications Refer to the [MOAP](#).

14.4 Instructor

- 14.4.1 There are four grades of instructors, "D" category, "C" category, "B" category and "A" category. Their respective privileges are outlined in the [MOAP](#).
- 14.4.2 Some instructors may also have additional ratings to issue specialist ratings such as aerobatics.
- 14.4.3 The Instructors panel is responsible for appointing new Instructors.

15. CLUB FLYING RULES

All operations are to be carried out in accordance with GNZ Manual of Approved Procedures ([MOAP](#)) and Civil Aviation Rules, as applicable.

15.1 Operational Restrictions.

All TGC flying must abide by the following conditions. This includes privately owned gliders operated by club members unless they are specifically operate under the auspices of another club, or organisation.

- 15.1.1 All flights must have the approval of the CFI or Duty Instructor who is delegated this responsibility for an agreed period.
- 15.1.2 Holders of QGP and Unrestricted Cross Country Rating.
 - a. The pilot must advise the Duty Instructor in person of intentions and expected movements.
 - b. Advise the Duty Pilot for recording purposes.

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- c. Where there is no Club Base Operation active, the pilot must advise ATC and the CFI or suitable persons of intentions.
 - d. Report "ops normal" every 30 minutes OR have a working transponder or automatic tracking device switched on. This is important for Search and Rescue purposes.
- 15.1.3 Holders of QGP and Restricted Cross-Country Rating
- a. The pilot must advise the Duty Instructor in person of intentions and expected movements.
 - b. Advise the Duty Pilot for recording purposes.
 - c. A briefing from the Duty Instructor if intention to fly more than 10km from the field.
 - d. Report "ops normal" every 30 minutes OR have a working transponder or automatic tracking device switched on. This is important for Search and Rescue purposes.
- 15.1.4 Holders of QGP.
- a. The pilot must have a briefing and clearance from the Duty Instructor on the day before flying as PIC.
 - b. Restricted to a radius of 10km from the field OR as otherwise directed by the Duty Instructor.
- 15.1.5 Solo Student pilot off checks
- a. The pilot must have a briefing and clearance from the Duty Instructor on the day before flying as PIC.
 - b. The Duty Instructor may first require that the pilot have a Check Flight.
 - c. Restricted to a radius of 10km from the field OR as otherwise directed by the Duty Instructor.
- 15.1.6 Solo Student pilot on checks
- a. The pilot must have at least one Check Flight before their first solo flight each day AND again if weather conditions change.
 - b. The pilot must have a briefing and clearance from the Duty Instructor on the day before flying.
 - c. Restricted to a radius of 10km from the field OR as otherwise directed by the Duty Instructor.

15.2 Currency Requirements

- 15.2.1 All flights must have the approval of the CFI or Duty Instructor who is delegated this responsibility for an agreed period.
- 15.2.2 The duty instructor must check Pilot currency if they suspect that the Pilot is not current.
- 15.2.3 All pilots and instructors are to have their logbook with them when they come to fly as PIC at the Tauranga Gliding Club and must produce this for the duty instructor to inspect on request. **No logbook no flying as PIC.**
- 15.2.4 A BFR is a legal requirement and no pilot may operate a glider as PIC unless they have a current BFR.
- 15.2.5 No instructor shall exercise the privileges of an instructor rating unless they current as defined in the [MOAP](#), unless an AFR as a check has been conducted.
- 15.2.6 All pilots shall have an AFR unless they have within the last 12 months flown 15 hours or 50 launches in gliders or powered gliders, of which 5 hours must be solo flying.
- 15.2.7 Even if a pilot is current they may elect to have an AFR.

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- 15.2.8 There may only be one AFR in the alternate year to that of their BFR, further currency flights are check flights.
- 15.2.9 All pilots shall have a Check Flight under the following conditions:
- Student Solo Pilots - At the discretion of the Duty Instructor.
 - QGP with less than 101 hours – Not had at least one flight in the last six weeks.
 - QGP with and more than 100 hours – Not had at least three flights or two hours gliding in the last 12 weeks.
 - The Duty Instructor decides that a Check Flight is appropriate.
- 15.2.10 All Tow Pilots are also entitled to a free Glider flight initially, and then annually, to ensure they are current with glider pilot requirements.

15.3 Cost of Currency Flights

- 15.3.1 The club covers the cost of one BFR or ICR and one AFR to encourage pilots.
- 15.3.2 Pilots pay for all their check flights.

15.4 Circuits

The circuit should be a 'Standard Circuit' (see Section 8.5), with landings on the active runway unless as agreed by the duty instructor or in cases of emergency.

15.5 Landing

- 15.5.1 Deviations from the standard circuit must initially be cleared by ATC except in cases of emergency.
- 15.5.2 Touch down is to be after the tyres and a good pilot will aim to touch down at least one third of the way into a runway.
- 15.5.3 Turning off on the landing ground run is discouraged.
- 15.5.4 Pilots should aim to land no closer than one wingspan from any obstruction.
- 15.5.5 The approach and landing must be clear of any obstruction. Refer to the [MOAP](#).

15.6 Airspace boundaries

Pilots must know the boundaries (both horizontal and vertical) and conditions of use of the sectors and airspace they intend to operate in.

15.7 Landing out

Pilots, when landing out, are expected to carry out a standard circuit of their intended landing area.

15.8 Time recording

All pilots must check in with the Duty Pilot before flying and are advised to check that their times have been recorded correctly after flying.

15.9 Securing Gliders

On windy days gliders must not be left unattended unless properly secured by proper weights or tying down. See also Section 9.5.3.

15.10 Airspace Charts

All pilots must have the appropriate charts in the cockpit when flying cross country. The charts may be in an electronic device.

15.11 Shared Flying

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- 15.11.1 The following considerations are to be observed for shared flying by passenger rated pilots:
- In all cases it must be clearly decided who is PIC before the flight and the Duty Pilot advised.
 - The PIC must occupy the seat appropriate to their rating.
 - Passenger rated pilots as PIC are not authorised to allow their passengers to have control of the aircraft.
(The reason is that only instructors may allow another pilot to touch the controls. A pilot with a passenger rating does not have the training to hand over control/take back control even if both are passenger rated.)

15.12 Club Aircraft Ratings

15.12.1 Puchacz – Rating issued at time of first solo.

15.12.2 LS4

At least 15 solo flights in the Puchacz over the past 6 months.
Then Instruction flights in the Duo to solo standard, no engine, but not to actually fly solo in the Duo at this stage. Emphasis on energy control.
Then at a suitably qualified instructor's discretion, after discussion with the CFI on the student ability.

15.12.3 Duo Discus

After 15 flights in the LS4 over the past 6 months.
Then at an instructor's discretion the student will continue training in the Duo, including engine management, to solo standard.

15.12.4 LAK

Solo in the Duo and a LAK rating from a suitably experienced instructor.

15.12.5 Pipistrel Taurus

Minimum of 100 hours total glider time, appropriate rating, and at Duty Instructors discretion.

15.13 Passenger Rating

15.13.1 Refer to the [MOAP](#).

15.13.2 The rating entitles the holder to act as PIC from the front seat.

15.13.3 Extension of the Passenger rating to other aircraft types require a check flight.

15.13.4 Issued as a logbook entry by an approved instructor.

15.14 Back Seat Rating

15.14.1 Must have a front seat passenger rating on type.

15.14.2 Satisfactory completion of check flight by Duty Instructor

15.14.3 Demonstrating the ability to adapt to the different visual clues and restricted field of view obtained from the rear seat.

15.14.4 Issued as a logbook entry by an approved instructor.

15.15 Oxygen Rating

15.15.1 Refer to AC2-07.

15.15.2 An oxygen Rating is required for gliding operations above 10,000 feet AMSL.

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15.15.3 A rating may be obtained after attending an approved course of instruction and lectures from a person authorised to teach the subject.

15.15.4 Issue is a logbook entry signed by an instructor qualified to issue the rating.

15.15.5 Privileges entitle the holder to act as PIC of a glider at altitudes above 10,000 feet AMSL.

15.16 Dual Tow Rating

15.16.1 50 hours and 100 launches from aerotow.

15.16.2 Completed the approved syllabus of a multiple tow rating

15.16.3 A minimum satisfactory training flights, on both short and long ropes, accompanied by an Instructor qualified to issue Dual Tow ratings

15.16.4 Rating should be sought on both long and short ropes. Normally the short rope rating is completed first.

15.16.5 Additional rating required for Janus and DUO Discus.

15.16.6 Issue is by way of a logbook entry by a suitably qualified Instructor

15.17 Restricted Cross Country

This rating is given so pilots may embark on Silver C attempts and longer flights.

15.17.1 Restricted cross-country rating requirements

- a. GNZ QGP.
- b. 25 hours total time, including ten flights and 5 hours PIC on type.
- c. Current on type.
- d. Have an understanding of out-landing techniques.
- e. Experience in rigging and de-rigging.
- f. Approval from the duty Instructor before each cross-country flight.

15.17.2 Note that a DUO Discus or Taurus may not be flown cross-country by the holder of a Restricted Cross-Country Rating as PIC.

15.17.3 Issue is by way of a logbook entry by a suitably qualified Instructor

15.17.4 This entitles the holder to act as PIC of a glider on cross-country flight subject to specific briefing and authorisation for each occasion.

15.18 Unrestricted Cross Country

All the requirements of Restricted Cross Country Rating plus the following.

15.18.1 A minimum of five solo flights more than 10nm from the airfield.

15.18.2 Ability to plan and execute a Cross Country flight.

15.18.3 Understands the preparation of the aircraft (Flight logger, Pickets, Oxygen etc.).

15.18.4 Understands retrieve arrangements.

15.18.5 Has knowledge of Air Traffic Control Areas and Procedures.

15.18.6 Has reasonably proven an ability to make a successful out landing.

15.18.7 This rating is issued by way of a logbook entry by a suitably qualified Instructor

15.18.8 This entitles the holder to act as PIC of a glider on cross-country flight subject to the conditions as laid out in this document.

15.19 Aerobatics

Refer to the [MOAP](#).

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15.20 Annual Review of Ratings

- 15.20.1 All qualified glider pilots in the Tauranga Gliding Club shall have an annual flight check, either as an AFR or BFR (including an ICR for instructors), in which flying skills and airmanship standards are reviewed. This flight will start with an aero tow to 3000' and will be FREE.
- 15.20.2 The AFR requirement may be waived by the CFI if the pilot can demonstrate by logbook entries that he/she is current.

16. ADVANCED SOARING

16.1 Altitude Flying or "Wave"

Tauranga is fortunate to occasionally have the "Kaimai Wave" which produces powerful lift enabling pilots to gain huge heights. Some pilots talk of little else. Unfortunately these areas of lift are neighboured by very turbulent 'rotor' and very large areas of down-draught or sink, making wave flying quite a stressful exercise for the untrained and unwary. Getting caught in 1000ft per minute down-draught can be frightening so training is important.

- 16.1.1 Oxygen is legislated by CAA to be used for flights above 10,000 feet. Hypoxia is not an easy thing to self-diagnose and training is required in this area.
- 16.1.2 You must always have a clear view of the land if you are above cloud level. Getting caught above cloud is extremely dangerous.
- 16.1.3 The airspace above the Tauranga CTZ is controlled by Christchurch Control on 119.50 MHz.
- 16.1.4 Aerobatics and spinning must not be attempted when there is the possibility of wave and the associated rotor.
- 16.1.5 Before attempting to fly in wave make sure you have all the necessary training and equipment. Several dual flights with an instructor are required before flying solo in wave.

16.2 Aerobatics

- 16.2.1 Some gliders can perform aerobatics manoeuvres, which opens some thrilling possibilities. Only the manoeuvres listed in the Pilot Operations Handbooks are permitted and those only after having them demonstrated by an instructor familiar with them and receiving an aerobatics rating as described in the [MOAP](#).
- 16.2.2 All occupants of pilots involved in aerobatics should wear parachutes. Request for aerobatic clearance from the Tower must be made by telephone before launch. This includes spinning exercises as carried out during a BFR. Aerobatics flights are prohibited above the city of Tauranga and other built up areas. Refer to the [MOU](#).

16.3 Weekday Flying

As opposed to the sometimes frantic operations of weekends, flying on weekdays is very relaxing. It is a benefit for both the Club and Club Members to maximise the use of the equipment during the week. It may also be the only way for some to do serious cross-country attempts. However, in order to avoid spending precious vacation time uselessly, weekday flying needs more organisation, as there is no Duty Pilot or Duty Instructor (Wednesday afternoons excepted).

- 16.3.1 If you think that day or the next day will be a great soaring day for a club machine, you need the approval of, and supervision of at least a "B" Cat Instructor who will liaise with the CFI. You also need to arrange a tow pilot and help in getting out and putting away, the aircraft you require. Realise that the "first up best dressed" principles generally apply.

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16.3.2 On weekdays there may not be a Duty Pilot so flight duration MUST be duly registered on a timesheet for that Day.

16.4 Cross Country flights

16.4.1 As well as holding required ratings, members who want to go on a cross-country flight should have knowledge of glider assembly, disassembly, and retrieving. It is better to have actually participated in a rig or de-rig so don't miss any opportunity to do so. Refer to the Cross-Country Ratings Section 15.17 and 15.18.

16.5 Competition Flying

16.5.1 Any Pilot member may borrow a glider with the intention of participating in a competition or a soaring camp in some other airport than Tauranga providing that:

- a. The application is submitted by the end of August 2021. The CFI may remind members but in any event it is the members responsibility to note this date.
- b. The people who did not use that glider the previous year have priority.
- c. Application is be on the prescribed form and approved by the CFI in consultation with the committee at the September committee meeting.
- d. A fee set from time to time by the committee is payable for each day and/or the hours that the glider is flown. This fee is also payable by members participating in the fixed "all you can eat" fee scheme if applicable at that time.
- e. Accurate flight times must be recorded and notified to the Secretary so that the aircraft's log books can be updated.
- f. Members are totally responsible for the aircraft & trailer in their personal capacity from the time it leaves the TGA Airfield until its return, and may prohibit any other member or person from using or touching the glider during this period.
- g. Insurance excesses as published by the committee from time to time apply.
- h. A Cross-Country Rating is required unless the purpose of the hire is for a cross country course.

17. SAFETY PLAN

17.1 Equipment

All members are to ensure that they know where to find fire extinguishers and first aid kits. There are fire extinguishers in the club house, hangar, retrieve vehicle and tow planes. First aid kits are to be in all aircraft.

17.2 Phone Numbers

17.2.1 In case of an emergency dial 111.

17.2.2 In case of an accident involving injury:

- a. Dial 111.
- b. Dial 0508 222 433 for the Rescue Co-ordination Centre (RCC) who will contact CAA.
- c. Contact the local tower and provide them with an update.
- d. Contact the CFI or failing that then the DCFI and failing both of those the club President. Do not leave a message on an answering machine; talk to someone in person.
- e. The CFI will then contact GNZ.
- f. Do not talk to the media or to others, leave this to the CFI or the club President or GNZ. It is important that no names are released.

17.3 Actions to take following an accident involving injury

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17.3.1 Local

This process is very similar to attending a motor vehicle accident.

- a. Have someone call the numbers listed in 17.2.2.
- b. If risk of fire remove occupants if it is safe to do so.
- c. Render first aid if applicable
- d. Extinguish fire if applicable.
- e. Do not move any wreckage.
- f. Secure wreckage to limit access until the arrival of the police.
- g. Hand over responsibility to the police.
- h. If asked for a statement by the police only give the facts without any speculation such as follows:
 - Date and time of accident.
 - Aircraft type and registration.
 - Name of owner.
 - Location of accident and access details.
 - Name of PIC and passengers if any.
 - Type of operation.
 - Description of weather at the time of accident.

17.3.2 Remote

- a. Have someone call the numbers listed in 17.2.2 giving GPS co-ordinates if known.
- b. If there are other aircraft airborne in the area determine if they can provide assistance.
- c. Despatch responsible persons to the accident site to assist and follow the process as outlined in 17.3.1 above.

17.4 Aircraft Missing

This is invoked when an aircraft is overdue by more than 1 hour.

- a. Contact ATC if flying in controlled airspace and enquire when they last heard or had a transponder response from that aircraft.
- b. Contact the CFI to check on any Spot messages.
- c. Try phoning the PIC on their mobile phone.
- d. Call or ask ATC to call other aircraft on the radio in the expected area to advise as to whether they have seen or heard from the missing aircraft.
- e. If no contact has been had with the aircraft in the last hour then dial 0508 222 433 for the Rescue Co-ordination Centre (RCC) who will start a lost party search.