



GLIDING NEW ZEALAND INCORPORATED

ADVISORY CIRCULAR
AC 2-12

AIR TRAINING CORPS GLIDING

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1 Introduction

1.1 **General.**

This advisory circular (AC) provides guidance and information about standards, practices, and procedures for ATC cadet participation in gliding. It is recognized that responsibility is shared between New Zealand Cadet Forces (NZCF) and Gliding New Zealand (GNZ); the purpose of this Advisory Circular is to specify the responsibilities falling on each party.

ATC gliding is facilitated by a membership agreement between GNZ and the Air Training Corps Association of New Zealand (ATCANZ). GNZ's participation is subject to that agreement being current. The agreement is included as Appendix D for reference purposes only.

This AC provides operational requirements for four forms of ATC gliding, as follows:

1.2 **Flight training events.**

Cadet "flight training" events may comprise one-day or two-day visits to a GNZ affiliate gliding club ("club") by an ATC Squadron with each cadet taking one or two flights per day. In general, cadets will have no prior flight experience, and will be unfamiliar with gliding operations. The presence of an organised group of young people on an airfield imposes additional duties of care on both ATC and club ground organization. (While a cadet is in the care of an instructor, normal procedures apply).

Gliding operations will need to be run efficiently to achieve the necessary flight cycles; cadets may be trained and supervised to carry out some ground handling tasks, provided suitable experienced gliding club members are present.

1.3 **Flight training events using a self-launching motor glider.**

Flight training events may also use a self-launching motor glider. Where this occurs at a club, with or without parallel operations using gliders, considerations of section 1.2 Flight training events remain applicable.

When a self-launching motor glider is operated separately from a club (for example at an airfield that includes an aero club or flight training organisation) there may be no club ground organisation present. The minimum case would be a club Instructor operating the aircraft.

For these events, the presence of an organised group of young people on an airfield imposes additional duties of care on NZCF, as Civil Aviation Authority (CAANZ) procedures must be observed to maintain safety for cadets and operators of other aircraft.

1.4 **Individual cadets undertaking flight training with a club**

Individual cadets may be inspired by their "flight training" flight(s) and want to proceed with gliding training. Cadets may fly with a club under the GNZ-ATCANZ membership agreement until they achieve a "Solo Pilot" certificate. Normal club procedures apply.

1.5 **ATC National Gliding Course**

The National Gliding Activity is available to Air Training Corps Cadets and Under Officers, who are a minimum of 15 years of age at the start of the course, have completed the second year of the Training Syllabus, meet the medical requirements and are able to meet any course flying fees where applicable. The activity covers both theory and practical instruction in accordance with Gliding New Zealand "To Solo Pilot" syllabus, including Ground Handling, Effects of Controls, Turns, Stalls, Circuit and Circuit Emergencies.

2 General Requirements for ATC Gliding Events

2.1 **Responsibilities.**

NZCF remains responsible for managing Cadets during ATC gliding events; GNZ is responsible for safe operations. Detailed responsibilities are set out below:

2.2 **Preparation checklist.**

A preparation checklist is included as Appendix A of this AC.

2.3 **Preparatory training.**

Gliding New Zealand has a training programme available on-line at training.gliding.co.nz (Note that each Cadet will need to create an account). It is expected that Cadets will have reviewed some of this material before an event. The Club CFI is likely to liaise with ATC to specify sections appropriate for the planned event, as these will vary between different clubs.

Likely, Cadets should have looked at the following sections:

- Airfield and Safety Rules
- Glider Familiarisation
- Ground handling and retrieving
- Launch point procedures
- Aircraft handling, including
 - Taking control/handing back control
 - Effects of controls

2.4 **Briefings**

Checklists for the Leadership Briefing and the subsequent Cadet Briefing are included as Appendix C of this AC. There shall be separate pre-flight Leadership Briefing and Cadet Briefing on each day of an event. Attendance at the Leadership Briefing is required for both ATC Supervisor(s) (Refer section 2.6.1), GNZ Personnel (Refer section 2.6.2) and any other adults involved with assisting or supporting the event, collectively “Leaders”. Attendance at the Cadet Briefing is required for every Cadet at the event.

If a separate sub-group of an ATC Squadron is attending on the second day, Leadership Briefing content may be adjusted as necessary to ensure all attending leaders have been briefed on all items listed in the Leadership Briefing (Appendix C) (e.g., the briefing may exclude review of preparatory items checklist). Cadet briefing shall include all items on the Cadet Briefing checklist (Appendix C).

2.5 **Risks.**

It is important that Leaders engage in working through the risk assessment forms prepared by both ATC and GNZ (see Appendix B). There are two reasons for this review:

- To learn from the other group what risks are considered to present them with highest risks, so that all parties are primed to pay attention; and
- To use collective experience of the group to identify any risks that have been overlooked by the individuals preparing the risk assessments.

Of course, each group will have standard procedures developed to mitigate identified risks. Review of risks together helps each group to understand the “why” for the others SOP, and thus allows active participation in risk management.

2.6 **Personnel requirements.**

ATC and GNZ personnel described in this section shall be present for flight operations to continue, except when an individual is released for a rest break. Breaks may be taken as agreed with other personnel. Experience shows that “seamless” provision of ground support is necessary so that the very busy instructors can avoid distractions and focus on flight operations.

2.6.1 ATC supervision

A well-organised group of Cadets with a capable leader provides a better experience for Cadets, ensures Cadets are actively engaged with the operation, assists the gliding club to provide rapid turnaround between flights, and shows Cadets the “Team” nature of gliding.

These considerations mean that the Supervisor(s) shall:

- Be present with the group of Cadets at the launch point.
- Have the rank, training, and Mana to keep Cadets occupied while they await their turn.
- Have training and experience necessary to manage the flow of Cadets through ground activities, including (as applicable)
 - Keeping flight records
 - Retrieving gliders after landing
 - Ground handling of gliders to launch point
 - Collecting tow rope and attaching to glider tow hook*
 - Wing running[§]*
- Manage the flow of Cadets (typically, in weight order, from lightest to heaviest, for simplest management of glider weight & balance using balance weights installed to the glider) for their flight.

One supervisor for every eight Cadets is required.

2.6.2 GNZ personnel requirements

In addition to Instructor, Tow Pilot, Winch Driver and Duty Pilot who will normally be present for any gliding operation, ATC gliding requires greater support from experienced gliding club members. In “normal” operations, gliding club members are present, trained, and accustomed to assist with ground operations; during ATC gliding, Cadets are not yet trained in those operations, and so require instruction and supervision, to be provided by the club. The required number of additional experienced gliding club members varies with the number of gliders being used to train cadets in ground operations; refer section 3.2 for guidance.

2.7 **Checklists.**

Checklists for

- Preparation for ATC gliding
- Risk assessment
- Briefings

Are included in Appendix A, B & C respectively to this AC; it is intended that completed checklists be retained as evidence of the organisation taking “reasonable care” in creating and delivering the event.

[§] Items marked * require instruction and initial supervision to be given by a GNZ instructor, as defined in the GNZ Manual of Approved Procedures

3 Requirements – Flight Training Events

3.1 **ATC personnel requirements**

For a flight training event, it is expected that supervising ATC Officers will have visited the gliding club during “normal” operations prior to the event, to become familiar with airfield layout, airfield and safety rules, ground handling and retrieving, and launch point procedures. This familiarity will be required for active participation in the “risk assessment” during the leaders briefing on the day of the event, and for assessing which activities Cadets might engage with. If the planned event includes an overnight stay, this visit provides an opportunity to assess facilities on site.

3.2 **GNZ personnel requirements.**

For a flight training event, the club shall provide:

- An experienced “Duty Pilot” who is responsible for managing flight records, is thoroughly familiar with the role, and can train and supervise Cadets in performing the required administrative tasks. During ATC gliding, this means the Duty Pilot must work with Cadets to ensure accurate recording of Cadet names for each flight, as well as takeoff and landing times, and any recording of “Ops Normal” radio calls.
- A B-Cat Instructor who shall assist with ground operations, including
 - managing the launch queue,
 - liaison with ATC Supervisor to ensure the next Cadet is ready,
 - training and supervising Cadets in collecting tow rope and attaching to glider tow hook, and in wing running,
 - coordinating retrieve vehicle/driver/assistant with landing gliders to ensure prompt turnaround.
- An additional experienced gliding club member to support the B-Cat Instructor when more than 2 gliders are being used for training Cadets in ground operations (refer second bullet above).

4 Requirements – Events Using a Self-Launching Motor Glider

4.1 **Responsibilities.**

ATC remains responsible for cadet management during such events; the self-launching motor glider operator is responsible for safe operations. In this case, the operator will be acting in accordance with club procedures, however, may be carrying out an “independent operation” and thus self-reliant for many aspects. During all flying operations, the instructor in the self-launching motor glider shall be supported by an experienced gliding club member at the launch point.

4.2 **Airfield operations.**

When a self-launching motor glider is operated at an airfield other than at a gliding club, there will be no gliding club ground organisation present. This introduces additional risks associated with operations of other powered aircraft, and the need to comply with CAANZ airfield rules. It is expected procedures will be arranged by liaison between ATC, the self-launching motor glider operator, the supporting experienced gliding club member, and the airfield operator.

Considerations may include:

- Selection of a location on the airfield for Cadets to get into/out of the motor glider
- Finding a suitable location for briefing
- Finding shelter, toilet, and refreshment facilities for Cadets to await their flight

- Because there are no ground operations that Cadets may assist with, generating activities to keep them busy/engaged while at the airfield
- Minimising risk of conflicting with powered aircraft taxiing
- Refuelling provision

For these events, the presence of an organised group of young people on an airfield imposes additional duties of care on ATC, as CAANZ procedures must be observed to maintain safety for cadets and operators of other aircraft.

GNZ responsibility rests on the self-launching motor glider operator and the supporting experienced gliding club member and comprises:

- Providing a briefing regarding ground and flight operations on the airfield
- As required, assisting Cadets with airside access to the motor glider, including ingress/egress from the aircraft (expected to be performed by the supporting Instructor)
- Care of the Cadet while on-board the motor glider.

5 Individual Cadets Undertaking Flight Training with a Club

There are no specific responsibilities on either party arising from individual cadets visiting a club. Such cadet activities are independent of the squadron, so ATC has no responsibility for care or wellbeing of the cadet.

Affiliation of the cadet to GNZ is covered by the ATCANZ-GNZ membership agreement, so training may continue to attainment of the “Solo Pilot” qualification without the limitations applicable to temporary members in accordance with AC 1-04 Trial Flights. Club responsibilities in accordance with the MOAP and SOP remain, treating the cadet as a member of the club.

Note that typically the Cadet will have participated in an “flight training” event at the club, and this evidences that ATC has accepted that club operations meet the required standard.

6 ATC National Gliding Course

6.1 *General operations.*

The ATC National Gliding Course is a 5-day residential course that aims to deliver about 3 x 20-minute flights per day per cadet. There may be evening lectures as well. Cadets may be as young as 15.

Each instructor will be attempting to cover a significant portion of the Solo Pilot syllabus with up to 4 cadets apiece, resulting in up to 12 training flights per day.

This can be quite demanding for both instructors and cadets, and so the risk of tiredness must be mitigated by scheduling rest and refreshment breaks throughout each day.

6.2 *Initiation.*

Initially, the New Zealand Cadet Forces National Aviation Officer (NAO) shall propose venue, dates, and principal personnel for the course (see 6.2.1 Principal personnel for the course below) to the GNZ Regional Operations Officer (ROO). These two officers shall liaise with potential host clubs until these details are agreed.

6.2.1 **Principal personnel for the course**

- Course Chief Flying Instructor
- Course Chief Tow Pilot

- Course Director.

6.2.2 Course Chief Flying Instructor (CCFI)

The CCFI shall hold at least GNZ Category B Instructor rating, desirably with Instructor Trainer rating. The CCFI has overall responsibility for all flying operations.

6.2.3 Course Chief Tow Pilot (CCTP)

The CCTP shall have fulfilled the role of chief tow pilot at a GNZ sanctioned contest. The CCTP is responsible for flying operations of aerotow aircraft.

6.2.4 Course Director (CD)

The CD will be selected by NAO in accordance with ATC procedures. The CD is responsible for Cadet and course staff management, including accommodation and meal arrangements for cadets and provisioning refreshment breaks for cadets and staff throughout each day.

6.2.5 Preparation for the course

Once the principal personnel have been appointed, they become responsible for preparation and fulfilment of the course, as detailed in Appendix checklists.

Appendix A Checklist, preparation for ATC gliding events

Task	Name	Initials	Date
<u>ATC</u> requests GNZ supports an “flight training event” on given date, advising of planned numbers attending	<u>ATC</u>		
<u>GNZ</u> checks aircraft and personnel available; includes arranging ground controller, notifying tow pilot, winch driver and duty instructors of ATC event.	<u>GNZ</u>		
<u>ATC</u> Reviews medical history of cadets, ensuring all cadets are fit to fly, and reports any identified medical risks to GNZ	<u>ATC</u>		
<u>GNZ</u> advises recommended training resources	<u>GNZ</u>		
<u>ATC</u> arranges preparatory training of cadets, for both flight training and ground operations on airfield.	<u>ATC</u>		
<u>ATC</u> collects name and weight of each cadet	<u>ATC</u>		
<u>ATC</u> provides list of names and weights sorted from lightest to heaviest to club	<u>ATC</u>		
<u>GNZ and ATC</u> agree financial arrangements (club charges, method of payment etc.)	<u>ATC</u>		
	<u>GNZ</u>		
<u>ATC</u> appoints leader with knowledge of airfield procedures and mana to maintain order and discipline of cadets (site visit before event?)	<u>ATC</u>		
<u>GNZ and ATC</u> review club accident/ emergency plan and concur on personnel/ actions if a cadet is involved.	<u>ATC</u>		
	<u>GNZ</u>		
Preparation checklist completed, signed off by <u>ATC and GNZ</u> .	<u>ATC</u>		
	<u>GNZ</u>		

Appendix B Risk management checklists for ATC gliding events

NZCF Form NZCF12 Risk Management Plan is an acceptable means of compliance that may be used for risk identification and mitigation planning by ATC; however, this AC distinguishes responsibilities for risk management, as between ground operations (ATC) and flight operations (GNZ). These two aspects appear not always to have been separated on examples supplied.

GNZ shall prepare a flying operations risk management plan, with concurrence from ATC, prior to the event/course, while ATC attends to ground operations risks, with concurrence from GNZ.

As an initial proposal, suggest flying operations risk management plan includes:

- Required personnel not present
- Glider becomes unavailable due expiry of maintenance
- Glider damaged in ground handling incident (“Hangar rash”)
- Glider requires heavy landing inspection
- Glider becomes unavailable due defect develops during course (wear, something loose, tyre goes flat, battery goes flat, radio or variometer U/S))
- Personal injury or glider damage due ground staff in wrong place during launch, arising from inexperience leading to task fixation/inattentive blindness
- Motion sickness
- Airborne medical event due previously unidentified illness
- Airborne medical event despite judgement that it would not cause a problem
- Airborne anxiety attack
- Negative ‘g’ sensitivity not previously identified
- Dehydration of personnel leading to misjudgement (possibly due not drinking enough due lack of socially acceptable toilet facilities at flight line).
- Distraction of instructor due to higher-than-normal ground activities, possibly leading to incomplete check lists.
- Distraction of instructor due social interaction by ground staff unfamiliar with need for “sterile environment” during pre-flight checklists.
- Conflict with other users during flight inside MBZ
- Weather conditions unsuitable
- Instructor spits dummy, finds course environment “too hard”
- Tow aircraft becomes unserviceable during course
- Tow ropes become unserviceable during course
- Weak links broken and spare parts unavailable
- Tow pilot unavailable due unexpected event
- Fuel shortage

Appendix C Checklist, site briefings for ATC gliding events

Leadership briefing

Task	Name	Initials	Date
<u>ATC/GNZ</u> leaders meeting, introductions, overview of day, confirm preparatory items completed (first day only), risk review, accident/emergency plan, chain of command, “hand off” procedures for passing individual cadets from ATC responsibility to Instructors, and return after flight and debrief.	<u>ATC</u>		
	<u>GNZ</u>		
<u>GNZ</u> defines Cadet engagement in supervised ground handling to deliver gliders to launch point/possible return at end of flying.	<u>GNZ</u>		
<u>ATC</u> receives briefing on airfield procedures for Cadet groups moving between clubhouse/ hangar/ briefing room/toilets and launch point.	<u>ATC</u>		

Cadet briefing

Task	Name	Initials	Date
<u>ATC</u> gives briefing for Cadets – ground operations and airfield safety	<u>ATC</u>		
<u>GNZ</u> gives briefing for Cadets – supervised ground handling to deliver gliders to launch point (may occur at hangar)	<u>GNZ</u>		
<u>GNZ</u> gives briefing for Cadets – for wing runner, bookkeeper, retrieve, ground handling (may occur at launch point)	<u>GNZ</u>		
<u>GNZ</u> gives briefing for Cadets – review of GNZ Training Program undertaken by Cadets, supplementary study as required.	<u>GNZ</u>		

Appendix D

Membership agreement between Gliding New Zealand Incorporated (GNZ) and Air Training Corps Association of New Zealand Incorporated (ATCANZ)

1. Purpose of the agreement

GNZ and ATCANZ recognize mutual benefits arising from facilitating ATC Cadets to participate in gliding under GNZ's Aviation Recreation Organisation Certificate issued by the Civil Aviation Authority of New Zealand under Rule Part 149. ATCANZ is affiliated to GNZ as an "Annual Group Member" in terms of the GNZ constitutional rules.

2. Payment

GNZ waives individual affiliation fees for all ATC cadets who have not been awarded a Solo Pilot Certificate, in return for an ATCANZ affiliation fee equivalent to the regular fee for five full flying members of a club. An ATCANZ affiliation fee equivalent to the regular fee for five full flying members of a club is payable to GNZ no later than 1 October each year.

3. Notification of renewal of Affiliation

ATCANZ will notify NZ Cadet Forces no later 1 October each year that the Affiliation fee has been paid.

4. Agreement excludes "Solo Pilots"

Cadets awarded a Solo Pilot Certificate wishing to fly gliders solo are to be members of a GNZ affiliated gliding club.

5. Period of validity

This agreement supersedes all previous agreements between ATCANZ and GNZ and shall become effective from the date both parties have signed below. The agreement shall remain in force until terminated by either party subject to payment of the ATCANZ affiliation fee to GNZ.

Signed for ATCANZ by:
Peter Adamson
President ATCANZ



Signed for GNZ by:
Steven Wallace
President GNZ



Dated: 21 March 2022