

Part 149

Quality Assurance and Operations Manual

DRAFT

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Definitions

The following definitions are used in this Manual:

Need to check all used in doc are included and listed in alphabetical order

- AD Airworthiness Directive
- ADMIN RAANZ Administration Officer
- AGL Above Ground Level
- ATO Authorised Testing Officer
- **BFR** Biannual Flight Review
- CAANZ The Civil Aviation Authority of New Zealand
- CAR Civil Aviation Rule
- **CEO** Chief Executive Officer of RAANZ
- **CFI** Chief Flying Instructor
- CMV- RAANZ Certificate and Membership Validation form
- **Combined Control Microlight Aircraft** A microlight aircraft in which control about at least one axis is achieved by body weight or by an unusual or specialist control. Control about the other axes is conventional.
- **Direct Supervision** Up to the completion of solo consolidation the instructor will be at the airfield.
- **eVTOL** electric Vertical Take off and Landing Aircraft
- FPV- RAANZ Flight Permit Validation form
- Gyrocopter rotorcraft with unpowered rotor in flight
- HELO RAANZ Helicopter Officer
- IA Inspection Authority
- **m** Metres.
- Microlight Aircraft An aircraft conforming to the definition in Part 103.3.
- NM Nautical Miles.
- OPS RAANZ Operations Officer
- Part 103 Civil Aviation Rule Part 103.
- Part 149 Civil Aviation Rule Part 149.
- Part 91 Civil Aviation Rules Part 91.
- **QA** RAANZ Systems Auditor
- **RAANZ** The Recreational Aircraft Association of New Zealand Incorporated.
- Rotorcraft aircraft using rotor as means of generating lift
- **Supervision** Where a trainee is under the control and authorisation of an Instructor who is readily available for advice or practical assistance
- **TAIC** Transport Accident Investigation Commission.
- TECH RAANZ Technical Officer
- **Three Axis Control Microlight** A microlight aircraft in which any seat is fixed to the fuselage structure. Control about the lateral axis is achieved by elevators or canard, about the longitudinal axis by ailerons, differential spoilers or wing warping and about the normal axis by rudder.

• Weight Shift Microlight - A microlight aircraft controlled by lateral and longitudinal movement of the pilot's body weight in relation to a control bar or `A' frame rigidly attached to the wing.

1 Introduction

This Quality Assurance and Operations Manual is the property of the Recreational Aircraft Association of New Zealand (Inc) and must be maintained in a current state by the person to whom it has been issued.

Sections of this manual may be copied by RAANZ members for their own use, however these copies remain as copyright to RAANZ and are not to be distributed outside the RAANZ organisation without written permission.

Once copied, information may become out of date. Ensure that you are using a current copy by downloading the current version from the RAANZ website (www.raanz.org.nz). Nothing contained in this Manual is to be construed as:

• preventing individual affiliated clubs from introducing additional procedures as may be required to suit local conditions.

or

• relieving the individual Microlight Pilot of their responsibility to take any action in an emergency or unusual circumstances which he/she considers necessary for the preservation of any life or property.

1.1 Manual Control

1.1.1 Indexing

This manual is in a PDF format and can be used both online (links are active) and in print (formatted for A4 printing).

Links throughout the document to external web resources are indicated in <u>this format</u>. Links internal to this document are provided wherever you see a Section number reference.

An index is not provided, but most PDF readers support searching on any user entered keyword.

1.1.2 Printing

Use the **Print** function of your PDF reader. The document is formatted for A4 printing.

1.2 Distribution

This manual is available to all members of RAANZ via our web site (www.raanz.org.nz). Members who do not have access to the Internet may request a hard copy from RAANZ Administration

All printed manuals are uncontrolled and should be marked "UNCONTROLLED".

1.3 Controlled Copies

There are two controlled copies, the master copy on the RAANZ website and a current version with CAA (PDF).

All other copies are uncontrolled.

1.4 Manual Release Dates

Each time alterations are made to the manual and it is released the new revision date will be shown in the document header, with a brief summary of the changes in Manual Version section (2) below.

There is no amendment service.

The RAANZ website hosts the current release.

2 Manual Version

This section contains a brief summary of changes to the current and previous versions only.

2025.1. A considerable update to the structure and content of the Exposition. All members should read the new version so that they are familiar with the RAANZ operating rules. Key changes include

- Consolidation of Exposition into one document
- A simplification and renaming of the certificate structure including elimination of the Intermediate Certificate
- Clarification of Cross-country requirements
- Addition of new microlight class
- Removal of SAC integration and Covid sections
- Copies of medicals to be sent to RAANZ
- BFR required for each Group of aircraft
- Novice requires dual check every 30 days or 5 hours of flight time

Version	Summary

	Full update
2025.1	

2.1 Transition Arrangements

A new certificate will be issued to members on receipt of their next CMV.

Current Certificate	New Certificate	Comments
Novice	Novice	No change
Intermediate	Novice	Complete X-country and flight test for RMPC
Advanced Local	Restricted Microlight Pilot Certificate (RMPC)	
Advanced National	Microlight Pilot Certificate (MPC)	
Flight Instructor	Junior Flight Instructor Certificate (JFIC)	
Senior Flight Instructor	Senior Flight Instructor Certificate (SFIC)	No change
Authorised Testing Officer	Authorised Testing Officer (ATO)	No change
Inspection Authority	Inspection Authority (IA)	No change

3 Associated Files

Files that this manual has hyperlinks to are:

RAANZ Constitution

4 Feedback

Use the issues reporting system or email RAANZ with any errors or suggestions about this manual or any RAANZ publication or service.

5 Organisation

5.1 Policy Statement

From the **RAANZ constitution**:

6 AIMS

- To promote, encourage and foster the sport of building and flying Recreational Aircraft in New Zealand.
- To promote the teaching of safe and efficient flying techniques in respect of Recreational Aircraft.
- To provide an organisational structure to liaise with the regulatory bodies governing recreational flying; to accept delegated responsibilities from these bodies; to discuss and promote all aspects of the sport of Recreational Flying and the use of Recreational Aircraft with these bodies.

6.1 Authority

This Policy and Procedures Manual has been produced to show conformity with Civil Aviation Rules:

- Part 12: Accidents, Incidents and Statistics
- Part 39: Airworthiness Directives
- Part 91: General Operating and Flight Rules
- Part 100: Safety Management
- Part 103: Microlight Aircraft Operating Rules,
- Part 149: Aviation Recreation Organisations Certification,

and to enable the Recreational Aircraft Association of New Zealand Inc. (RAANZ) to remain eligible for Certification as a Part 149 Microlight Organisation.

The Policy, Procedures and general guidance contained in this manual have the approval of the Chief Executive Officer and the RAANZ Executive Council.

6.2 Safety Policy and Chief Executive Statement

RAANZ is in place to support the microlight community. It is RAANZ policy to promote safe flying practices through various initiatives including:

 Supporting our ATOs and Instructors. We will continue to develop tools and training. We will run Seminars to learn and share leading practices in instructing and guiding our pilots;

- Supporting our Inspectors and aircraft owners. We will continue to develop tools and training. We will run Seminars to learn and share leading practices in maintaining standards in our fleet;
- Supporting our pilots with timely information and guidance on current issues related to skills, standards and safety;
- Conducting audits of our environment to ensure we comply with our exposition, in both training and technical requirements.
- Encouraging an open, timely and responsive reporting and response to incidents, defects and other such issues, in line with our Just Culture

On behalf of the Recreational Aircraft Association of New Zealand Incorporated, I confirm that this Exposition defines this organisation and demonstrates the means and methods for ensuring ongoing compliance with Civil Aviation Rule, Part 91, Part 103 and Part 149, other applicable rules, including those listed in 6.1above.

Scott James RAANZ CEO

6.3 Head Office

The Association's head office is located at the address of the Administration Officer. The RAANZ Address for Service is

Postal

RAANZ Inc, PO Box 15-016, Hamilton 3240

Physical

RAANZ Inc, 559 Rukuhia Rd, RD2, Ohaupo 3882

At this office is held:

- Association Financial Records
- Association Common Seal
- Association Certificate of Incorporation
- Computer
- Scanner/copier/printer
- Publications stock.

- All Administration Records (paper and electronic forms)
- Correspondence
- Letterheads.
- CAA senior person delegations and approvals
- All other relevant files

All pilot and aircraft documents received are logged in the RAANZ database, the appropriate contact log updated. Paper forms are scanned, and all forms archived electronically in member or aircraft folders

All electronic files are backed up immediately to the cloud (Dropbox) The website, database and associated files are hosted externally and backed up on daily/weekly/monthly schedules

6.4 Area of Operations

RAANZ members are located throughout New Zealand. Our Administration is based at our Head Office which is our principal location for our delegated activity.

6.5 Senior Persons

Senior persons will be provided with their responsibilities under this Rule with written authorisation to fulfil those responsibilities

Chief Executive Officer	Scott James	CAA Senior Person and Delegation Holder	ceo@raanz.org.nz	021 525 561
Systems Auditor	Grant Coldicott	CAA Senior Person	audit@raanz.org.nz	021 335 934
Administration Officer	Stuart Parker	CAA Senior Person and Delegation Holder	admin@raanz.org.nz	021 076 3483
Operations Officer	Rodger Ward	CAA Senior Person	ops@raanz.org.nz	027 493 2943
Technical Officer	Peter Kempthorne	CAA Senior Person	tech@raanz.org.nz	027 433 9828

Modifications assessment Officer	Colin Alexander	CAA Senior Person	mods@raanz.org.nz	027 276 7797
Medical Advisor	Dr Peter Vujcich		vujcichp@gmail.com	09 407 629

6.5.1 Governing Body

RAANZ is an Incorporated Society with an elected Executive Council.

The RAANZ Constitution can be found here.

6.5.2 Chief Executive Officer

The Chief Executive Officer shall be appointed by the Executive Council and be directly responsible to the Director and this body.

6.5.2.1 Qualifications

The Chief Executive Officer shall be a person acceptable to the Director as a Senior Person under the Civil Aviation Act 2023.

They shall have sufficient knowledge of the Association's activities to determine that its responsibilities are being discharged, and sufficient authority to ensure compliance with the certification document issued under CAR Part 149.

6.5.2.2 Responsibilities

The Chief Executive Officer is responsible to the Director and the Executive Council for the following functions-

- All activities listed on the Part 149 Certificate and in accordance with this manual.
- Discussing with the Executive Council and supporting control measures made by the Systems Auditor for correcting performance deficiencies in Offices of the Association, of affiliated clubs, groups or operators, or of individual members and may direct (if necessary) that the control measures are executed without delay.
- Considering recommendations from other Senior Persons when dealing with items within their expertise and passing these recommendations to the Executive Council for consideration and action.
- Ensuring that the Exposition is maintained as required. Acting and liaising in accordance with any delegation issued by Civil Aviation Authority of New Zealand.

6.5.3 Systems Auditor

The Systems Auditor shall be appointed by the Executive Council and shall be directly responsible to the Chief Executive Officer on matters of quality assurance.

6.5.3.1 Qualifications

The Systems Auditor shall be a person acceptable the Director as a Senior Person under the Civil Aviation Act 2023.

They shall have a sufficient understanding of quality assurance procedures to undertake the Quality Assurance responsibilities required under CAR 149.63.

6.5.3.2 Responsibilities

The Systems Auditor is responsible to the Chief Executive Officer for the following functions:

- Ensure that audits are carried out by someone independent of the area being audited
- Carrying out safety audits of the Association and its affiliated Clubs, groups and operators against the procedures contained within this manual.
- Reporting to the Chief Executive Officer any non-compliance, non-conformance and observations found on these audits.
- Recommending priorities for actioning any deficiencies found on these audits.
- Carrying out spot audits when detailed by the Chief Executive Officer.
- Liaising with the Civil Aviation Authority of New Zealand on safety matters through the Chief Executive Officer.
- Acting and liaising in accordance with any delegation issued by Civil Aviation Authority of New Zealand.

6.5.4 Administration Officer

The Administration Officer shall be appointed by the Executive Council and be directly responsible to the Chief Executive Officer.

The Administration Officer shall be a person acceptable to the Director as a Senior Person under the Civil Aviation Act 2023.

They shall be responsible for the day-to-day transactions of documented information which support the Civil Aviation Authority of New Zealand Certification of RAANZ and its Incorporation.

6.5.4.1 Qualifications

They shall have a good understanding of general administration procedures and sufficient knowledge of Association activities.

6.5.4.2 Responsibilities

The Administration Officer is responsible to the Chief Executive Officer for the following functions:

- Processing all membership and certificate applications.
- Processing all Aircraft Registration and Flight Permit applications.
- Undertaking such duties relating to the receiving and sending of correspondence as requested by the Executive Council.
- Undertaking such duties relating to the organisation of meetings and minuting such meetings as requested by the Executive Council.
- Undertaking such projects or developments as required on request of the Executive Council,
- Maintaining computer files and back-up files, including issuing such summaries and reports as may be requested.
- Undertaking any other work requested by the Executive Council including such authorised duties as other Office holders may require.
- Acting in any other capacity as required by the Executive Council, whether temporary or permanent.
- Acting and liaising in accordance with any delegation issued by Civil Aviation Authority of New Zealand.

6.5.5 Operations Officer

The Operations Officer shall be appointed by the Executive Council and be directly responsible to the Chief Executive Officer.

They shall be responsible for all the flying activities of the Association.

In carrying out this function the Operations Officer is responsible for the development, implementation, and function of operational and instructional flight standards of all affiliated Microlight Clubs, Groups and operators flying under the Certificate of Approval issued to RAANZ by Civil Aviation Authority of New Zealand.

6.5.5.1 Qualifications

The Operations Officer shall be a person acceptable to the Director as a Senior Person under the Civil Aviation Act 2023.

They shall have strong interpersonal skills and be qualified within the Association to at least Authorised Testing Officer Standard.

6.5.5.2 Responsibilities

The Operations Officer shall be responsible to the Chief Executive Officer for the following functions:

• Ensuring that all Microlight operations carried out under the RAANZ Microlight Organisation Certificate comply with the Rules in CAR Part 149, CAR Part 103, Subparts E and F, and CAR Part 91.

- Ensuring that all Operational Policies and Procedures contained in this manual are complied with.
- Reviewing and upgrading methods of flight training and instruction to keep pace with developments in Microlight Aviation.
- Reviewing and approving recommendations for the issue of Instructor Certificates.
- Coordinating and assisting ATOs in their activities and ensuring that training and operational standards remain consistent throughout the Association.
- Running Instructors Seminars for Association ATOs and Instructors.
- Acting and liaising in accordance with any delegation issued by Civil Aviation Authority of New Zealand.

6.5.6 Technical Officer

The Technical Officer shall be appointed by the Executive Council and shall be directly responsible to the Chief Executive Officer.

They shall be responsible for the training and assessment of persons requesting Inspection Authority and for the development, implementation and overview of maintenance systems for microlight aircraft operated within the Association.

6.5.6.1 Qualifications

The Technical Officer shall be a person acceptable to the director as a Senior Person under the Civil Aviation Act 2023.

They shall have good interpersonal skills and be qualified within the Association to Inspection Authority level or qualified to an industry standard such as a Licensed Aircraft Mechanical Engineer or Aeronautical Engineer or equivalent.

6.5.6.1.1 Responsibilities

The Technical Officer shall be responsible to the Chief Executive Officer for the following functions:

- Ensuring that all Microlight Aircraft operated under the RAANZ Microlight Organisation Certificate comply with the definition and Rules in CAR 103, Subpart G and CAR Part 43.
- Ensuring that all Maintenance Policies and Procedures contained in this Manual are complied with.
- Reviewing and upgrading maintenance methods and programs to ensure the continuing airworthiness of Microlight Aircraft operated by the Association.
- Assessing and categorising defects reported and discussing with the Executive Council any proposed action to be taken by the Council.
- Coordinating and assisting Inspection Authority Holders in their activities and ensuring that training and maintenance standards remain consistent throughout the Association.
- Examining applications, reviewing and recommending the issue or renewal of Inspection Authority applications.

- Running Maintenance Seminars for Association Inspection Authority Holders.
- Acting and liaising in accordance with any delegation issued by Civil Aviation Authority of New Zealand.

6.5.7 Medical Adviser

The Medical Adviser shall be appointed by the Executive Council.

Their advice will be sought on pilot medical questions as the need arises.

Note: Any charges incurred by the activities of the Medical Adviser shall be paid by the pilot in question.

6.5.7.1 Qualifications

The Medical Adviser shall be a registered Medical Practitioner with a Diploma in Aviation Medicine (such as are listed in the CAA Medical Directory as AMA Grade 1).

6.5.7.2 Responsibilities

The Medical Adviser shall be responsible to the Chief Executive Officer for:

- Advising on medical standards.
- Advising on pilot medical conditions which could affect the pilot's suitability to hold a Microlight Certificate.

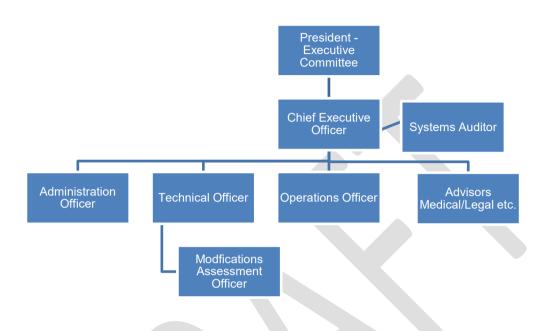
7 Part 149 Compliance

7.1 Exposition

This details how RAANZ will operate and comply with Part 149.

This manual and its related links contains all procedures and statements relating to RAANZ and how it operates in the Part 149 delegated environment.

7.2 Organisation Chart



7.3 Delegation Holders

Scott James (RAANZ CEO) holds delegation from the Director of Civil Aviation to:

- Receive applications for Microlight Pilot Certificates and Microlight Pilot Instructor Certificates.
- Issue, grant and renew Microlight Pilot Certificates and Microlight Pilot Instructor Certificates.
- Determine whether or not a person is a fit and proper person to hold a Microlight Pilot Certificate, or that a current holder of a Microlight Pilot Certificate continues to satisfy the fit and proper person test.

Stuart Parker (RAANZ ADMIN) holds delegation from the Director of Civil Aviation to:

- Receive applications for Microlight Pilot Certificates and Microlight Pilot Instructor Certificates.
- Issue, grant and renew Microlight Pilot Certificates and Microlight Pilot Instructor Certificates.

• Determine whether not a person is a fit and proper person to hold a Microlight Pilot Certificate, or that a current holder of a Microlight Pilot Certificate continues to satisfy the fit and proper person test.

Colin Alexander (RAANZ TECH) holds authorisation from the Director of Civil Aviation to:

• review and assess microlight aircraft modifications.

7.4 Delegated Activity

Microlight Pilot Certificate and Microlight Pilot Instructor Certificates are issued through the Certificate Issue procedure.

Fit and Proper Person applications are assessed through the FPP Assessment procedure.

Microlight aircraft modifications are reviewed and assessed through the Modification Assessment procedure.

RAANZ official forms will be reviewed annually.

7.5 Certificated Activities

RAANZ holds a Part 149 Aviation Recreation Organisation Certificate issued by the Director of Civil Aviation.

This authorises RAANZ for:

- Personnel Certification (Microlight)
 - Administer Pilot Certificates and Ratings
 - Administer Pilot Instructor Certificates
 - Administer additional ratings
 - Authorise microlight inspectors

7.6 Personnel - Authority

Each Officer is sent notification of the position they fill and authorisation to carry out that responsibility in accordance with the RAANZ Exposition.

7.7 Organisation Chart

7.8 Continued Compliance

RAANZ will operate according to this manual.

The master copy of our Exposition and its related documents are held on our website (<u>www.raanz.org.nz</u>).

This manual is available to all Personnel and RAANZ members as described under the heading Distribution (1.2) in the Manual Control section.

The Chief Executive Statement declares the intention to achieve Continued Compliance, and the Internal Audit Procedures provide the quality Assurance program to back the intention with action.

7.9 Changes to the Organisation/Exposition

Any change in procedures or personnel will be reflected in this Exposition.

The following changes as listed in 149.103(d) or those required by the Director will require prior notification to and acceptance by the Director.

- the Chief Executive:
- the listed senior persons:
- the holder or holders of any delegation made by the Director:
- the activities authorised by the certificate:
- the principal locations at which the activities may be carried out:
- the procedures for personnel assessment and certification:
- the procedures for organising aviation events.

The process for controlling such changes shall be-

- A 'working copy' of the current approved exposition will be created.
- Draft changes will be made in the working copy, leaving the approved and published exposition untouched.
- A general summary of changes made will be entered in Section 3 Manual Version, and the 'History' tab will record all textual additions/deletions/amendments in detail.
- The RAANZ Executive Council will review the draft and submit the revised copy to CAA for approval using form CAA 24149/01.
- On approval by CAA the working copy will be copied into the published copy on the RAANZ website.

7.10 Facilities

All facilities required to carry out the delegated activities are held in the RAANZ office.

The facilities held include:

- A computer for accessing and maintaining all files, databases, website, etc.
- A card printer for issuing pilot certificates.
- General office equipment and facilities.

7.11 Document Control

All controlled documents are held on and accessed from the RAANZ website.

Changes to controlled documents are first approved by the appropriate Senior Person in consultation with the RAANZ Executive Council.

Updated documents are marked with the revision date and uploaded to the website.

8 Internal Audit Procedures

8.1 Calendar

A Quality Assurance Calendar for each year will be drawn up to include:

- Internal Competence Review
- Conformity to Safety Policy
- Field Audit
- Head Office Audit
- Management Review

An audit manual with detailed procedures will be maintained.

8.2 Internal Competence Review

This review will be carried out as an agenda item in the Management Review.

The Executive Council will review all Senior Person's performance and understanding of their roles and identify any training needs.

This review action and any actions identified will be entered into the Quality Assurance Action file (a section of the RAANZ Incident Management system).

8.3 Conformity to Safety Policy

This review will be carried out as an agenda item in the Management Review.

The Executive Council will review and ensure that the Safety Policy is being achieved and is still appropriate to the member's needs.

8.4 The review will be entered into the Quality Assurance Action file as will any corrective actions that are identified during the review.Management Review

An annual Management Review meeting will be held by the Executive Council

Agenda items will include-

- the Field Audit report
- the Head Office Audit report
- the Internal Competence Review
- the Conformity to Safety Policy
- the Quality Assurance Action File review
- Review of completed Corrective Action effectiveness

The review will be entered into the Quality Assurance Action file as will any corrective actions that are identified during the review.

8.5 Field Audits

A field audit may take place at locations determined by the Internal Systems Auditor, or by sampled postal audit of pilots and aircraft.

The primary items and areas of interest to audit are the accuracy of pilot and aircraft records held.

The field audit should have a secondary aim of identifying system, education and training needs to ensure accurate records are kept.

The review will be entered into the Quality Assurance Action file as will any corrective actions that are identified during the review.

8.6 Head Office Audit

This audit will sample any procedures and data held at head office.

The primary aim of the audit will be to verify the integrity of the Internal Systems with respect to CAA part 149 Compliance

A secondary aim of the audit is to identify those procedures that currently comply but could be streamlined or made more secure.

The review will be entered into the Quality Assurance Action file as will any corrective actions that are identified during the review.

8.7 Available for Audit

RAANZ will make its records available for audit at any time.

9 Administration Procedures

9.1 Aircraft Defect Report Procedure

- Defect reporting is essential to the maintenance of flight safety.
- All aircraft defects must be reported to RAANZ.
- The RAANZ Defect Report form is available here.
- It is preferable that this form is used, but reports will be accepted in any written or printable electronic form.
- The report should include as much supporting documentation and pictures as necessary to clearly describe the defect.
- On receipt of the report the Administrator will notify the Technical Officer for review and any necessary action.
- Defect reports will form part of the agenda for Executive Council Meetings.

9.2 Aircraft Accident/Incident Report Procedure

- Accident and Incident reporting is essential to the maintenance of flight safety.
- All aircraft accidents and incidents must be reported to RAANZ.
- The RAANZ Accident/Incident Report form is available here.
- It is preferable that this form is used, but reports will be accepted in any written or printable electronic form.
- The report should include as much supporting documentation and pictures as necessary to clearly describe the accident or incident.
- On receipt of the report the Incident/Accident will be reviewed by the Administrator and CEO and passed on to the Operations Officer for review and any necessary action.
- Accident and incident reports will form part of the agenda for Executive Council Meetings.
- Any report on an accident as defined in CAR Part 1 will also be forwarded to CAA.

9.3 Examination Procedure

RAANZ exams are sat online and must be under Instructor supervision.

Online procedure:

• Select the <u>RAANZ Online Learning/Exams</u>.

• The exam process is documented within the Learning Management System. Exams must be invigilated by a current Instructor, a review of all incorrect questions must be completed and a certification of the exam results made by the Instructor.

9.4 Pilot Certificate Issue, Renewal, Upgrade

- All applications for pilot certificates initial issue, renewal and upgrade must be made via an Instructor or ATO, on a RAANZ Certificate and Membership Validation (CMV) form.
- The CMV form can be either the printed or online form.
- Printed CMV form booklets are held by the Instructor, online forms can be accessed by the Instructor logging in with their RAANZ number and password.
- The instructor will complete the CMV form and send a copy to RAANZ Administration (mail, scanned or online form).
- A copy of the printed form or a printed copy of the online form shall be affixed into the pilot's logbook.
- A endorsement shall be made by the instructor in the member logbook
- On receipt, the RAANZ delegation holder will perform the Certificate Issue procedure below.
- The RAANZ delegation holder may refuse the issue or renewal of a certificate if there are any significant concerns
- Note: The privileges of an initial Certificate issue or upgrade may not be exercised until the applicant has received confirmation from RAANZ that it has been processed and approved.

9.5 Instructor Certificate Issue

- An application for an Instructor Certificate from a suitably qualified pilot may be made following the procedure described in Instructor Issue (13.4) section.
- The ATO will complete the application for issue and send a copy of the CMV form to RAANZ Administration (mail, scanned or online form).
- A copy of the printed form or a printed copy of the online form shall be affixed into the pilot's logbook.
- On receipt the application is referred to the Operations Officer for review/approval.
- On approval the RAANZ delegation holder will then perform the Certificate Issue procedure below.
- The successful candidate will be issued with a CMV book and associated materials to assist in their role.
- Fit and Proper requirements as documented in 13.11
- Note: Instructor privileges may not be exercised until the applicant has received confirmation from RAANZ that it has been processed and approved.

9.6 Inspection Authority Authorisation

• An application for the issue of an Inspection Authority may be made by suitably qualified persons following the procedure described in section 14.3.

- Applications should contain significant details of relevant experience and letters of support from suitably qualified persons.
- The application will be reviewed by the Technical Officer with consideration to the advice and information received with the application and any other inquiries necessary.
- On approval the RAANZ delegation holder will then perform the Certificate Issue procedure below.
- The successful candidate will be issued with a FPV book and associated materials to assist in their role.
- Note: IA privileges may not be exercised until the applicant has received confirmation from RAANZ that it has been processed and approved.

9.7 Certificate Issue

The Delegation Holder will perform the following checks, as appropriate, before issuing/renewing a Certificate, Rating or Authorisation within the scope of the RAANZ 149 Certificate.

- Check that the Certificate and Membership Validation (CMV) form is correctly filled out.
- Check that the Instructor/ATO's RAANZ membership is current.
- Check that the Instructor/ATO's AFR/BFR is current.
- Check that the Instructor/ATO holds the appropriate rating.
- Check that the candidate's RAANZ membership is current.
- Check that the candidate's medical certificate is current if applicable.
- If an initial issue- perform the Fit and Proper Person Procedure.
- Check the necessary exams have been completed.
- Check the result of the flight test.
- Check for any concerns logged regarding the applicant

9.8 Modification Assessments

The holder of a **CAA re-assessment and re-inspection authorisation** will perform the following steps to assess a modification to a Microlight Aircraft within the scope of the RAANZ 149 Certificate.

- The aircraft owner will provide RAANZ with documentation of the modifications, including photos and drawings as appropriate.
- The modification request will be sent to the authorisation holder for review and assessment.
- If the application is rejected RAANZ will inform the applicant.
- If the modification request is accepted the authorisation holder will outline any steps the applicant may need to complete and confirm the modification.

- If the modification request is for a Class II microlight, it affects airworthiness and it is a significant change, the authorisation holder will refer it to CAA for consultation and agreement on the method of assessing/approving compliance with CAR 103.207.
- If the authorisation holder is unable to personally inspect the modification on site where required, that inspection may be carried out by a suitably qualified person selected by the authorisation holder.
- The authorisation holder shall complete a Technical Assessment (TA) for each modification assessed. This may range from a brief statement on the assessment form to a full report. The TA should assess the compliance of any design change with the original design standard of the aircraft, or by comparison when this is appropriate. If the original airworthiness design standard of the aircraft is not known, then an equivalent design standard should be used, such as BCAR Section S or the ASTM standards. The TA should consider all aspects, such as structural, handling, performance and continuing airworthiness, where applicable. If possible, the manufacturer of the aircraft should be consulted on the acceptability of any significant change
- On completion of the modification and after any requested inspections have been completed the authorisation holder will sign off the request and forward all documentation to the Administration Officer to complete the procedure.
- The Administration Officer will file all the documents in the Approved Modifications File. If the re-assessment involves an engine or propeller change, a copy of the form will be forwarded to the CAA to support the re-issue of the Flight Permit.

9.9 Quality Assurance Action Procedure

9.9.1 Quality Assurance Items

RAANZ operates an Incident Management system that is used for the recording of

- Accidents
- Incidents
- Defect reports
- Concerns
- Audit Findings

Quality Assurance Items will be opened when

- a Quality Assurance Feedback Form is received
- an Accident/Incident report is received
- a Defect report is received
- personal feedback from members requiring quality assurance action is received
- quality assurance procedures are performed
- audit procedures are performed
- vital safety information is received by any means.

Each item will be entered in the Incident Management system as an open item.

• The Chief Executive Officer, Systems Auditor and Administration Officer will then review the item.

- After responses have been reviewed appropriate action will be agreed on and implemented.
- If corrective or preventative action (including procedures or documents) is required it will be recorded against the item, stating what action is required and by whom.
- The item will be flagged as **closed** by the reviewers when the action has been completed

or

- The item will remain **open** to be reviewed during follow up.
- Where necessary new items will be opened with a date of proposed closure. These items will be reviewed during follow up.
- A summary of items opened, closed and currently open will be presented to the Management Review (8.4) by the Administration Officer.
- This action will be recorded as an audit entry, with the summary, each time the summary is produced.
- The Management Review (8.4) will review the Quality Assurance Action File and ensure that items are progressing and follow up on any open items that require action.
- An audit item will be recorded each time this step is performed.

9.9.2 Alert Level

If the RAANZ Executive Council receives more than three Incident, Accident or Defect Reports of a sufficiently similar nature as to be identifiable as a trend, or one of a significant magnitude, then notification will be sent to all members, clubs, published on the RAANZ website, and a copy sent to Civil Aviation Authority of New Zealand, of the trend indicated and recommended corrective action to be taken.

9.10 Fit and Proper Person Procedure

RAANZ will perform the following steps to determine if an applicant for a Certificate, Rating or Authorisation is a Fit and Proper Person as defined in section 10 of the CAA Act-

- Accept evidence of a current certificate issued by the director, implying Fit and Proper Person.
- Accept form CAA 24FPP Fit and Proper Person, or the RAANZ Fit and Proper Person declaration, with all relevant questions answered as "no".
- If any of the questions are answered "yes", the Delegation Holder will investigate the circumstances to determine if the applicant qualifies as a fit and proper person. using the CAA Fit and Proper Person Assessment Handbook as a guide.
- If an applicant fails these steps, RAANZ will seek advice regarding the Fit and Proper Person Application from CAA.
- RAANZ will proceed with the applicant's processing once guidance has been received from CAA. Any cost involved in this process will rest with the applicant.
- Any appeals regarding Fit and Proper applications will be handled with respect to procedures detailed in the Civil Aviation Act 2023.

10 Administrative Data Held

10.1 Data Policy

- Member and Aircraft data is held by RAANZ in two forms.
 - Incoming **Primary** data is received from Instructors and IAs on Certificate and Membership Validation (CMV) and Flight Permit Validation (FPV) forms. This contains the raw information on all members and aircraft. Primary data is discarded after scanning/entering into database, member and aircraft files.
 - This data is captured and transferred to an **online database** for easy search and retrieval by authorised parties. The online database logs the CMV or FPV numbers and other contact history for tracing back to the primary data scanned copies.
- Each member and aircraft have an associated **contact log** recording the date, action taken, and reference primary document to provide a history and traceability of previous documents.
- Each primary record (Certificate and Membership Validation or Flight Permit Validation form) is filed in an individual member or aircraft archive file allowing verification of data held on the computer database.
- All primary records are kept for at least 3 years from receipt.
- All records will be legible.
- All files will be held at RAANZ Head Office unless otherwise stated.
- The online database is hosted on a third-party hosting platform with appropriate safeguards.
- All locally held RAANZ files are mirrored in real time in the cloud.
- This provides a fully secured distributed backup service with change history, accessible from any registered computer.

10.2 RAANZ Database

A database holding a snapshot of current information on members, aircraft, instructors/ATOs, IAs and clubs, along with a contact log for each member and aircraft.

The contact log provides a history of previous changes to the pilot or aircraft status traceable back to the received document in the Archive files.

It is an obligation of RAANZ members to notify RAANZ of any changes to contact information.

10.3 Archive files

A file of all CMVs, FPVs and associated documents received and processed are converted to electronic form and archived in member or aircraft folders.

In association with the member or aircraft contact log this supports easier retrieval of the original document copy.

10.4 Senior Persons and Executive Council file

A file detailing qualification, experience, letters of appointment and contact information of all persons holding delegated authority, Senior Person or Executive Council membership.

10.5 Quality Assurance Action File

A file containing records of all Quality Assurance Actions. This is part of the RAANZ Incident Management System.

10.6 Approved Modifications File

A file containing records of all Modification Approvals. These are held in the appropriate aircraft file

10.7 Defect Reports File

A file containing defect reports and their status. This is part of the RAANZ Incident Management System.

10.8 Accident/Incident Report File

A file containing Accident/Incident reports and their status. This is part of the RAANZ Incident Management System.

11 Documentation

Copies of documentation required by Senior Persons are held at the Head Office in hard copy or available online. Wherever possible it is recommended that documentation is accessed via the internet. The following documents are accessed through the CAA website:

- The Civil Aviation Act 2023
- CAA Rules Parts 12, 61, 91, 103, 149 and their associated ACs

The RAANZ Administration Officer subscribes to the "notification" service provided by CAA for documentation changes and will notify the Senior Persons of any relevant documents affected.

11.1 Official Forms

The forms used by RAANZ in performing its responsibilities under Part 149 include:

- The RAANZ Incident Management System.
 - RAANZ Quality Assurance Feedback RAANZ Aircraft Defect Report
 - RAANZ Accident/Incident Report form
 - RAANZ Defect Report
- RAANZ Medical Declaration form
- RAANZ Fit and Proper Person declaration form
- RAANZ Certificate and Membership Validation form
- RAANZ Flight Permit Validation form
- RAANZ Instructor Application
- RAANZ Inspection Authority Application

12 Authorised Operations

12.1 General Rules

- A microlight aircraft must be operated in accordance with CAR Part 91, except where modified or exempted by CAR Part 103.
- A Microlight Pilot Certificate allows the pilot to operate both Microlights as defined in Part 103 and AC103, and Light Sport Aircraft as defined in Part 61.5.n

12.2 Low Flying and Low Flying Zone (LFZ) operations

- Low flying exercises must be dual flights under instruction with a Senior Instructor as pilot in command.
- For the purpose of practice and participation in microlight aircraft competition flying the pilot will be required to obtain an authorisation and briefing from a Senior Instructor prior to the flight. This authorisation may be given to operate to 200ft AGL under CAR Part 103.153.

12.3 Pilot Training

- Clubs shall ensure that Student members under training have access to RAANZ Pilot Training material, Pilot Logbooks, and qualified Instructors.
- Instructors shall ensure that instruction given under their jurisdiction conforms to the contents of the CAA GAP Flight Instructor Guide where appropriate.

- It shall be the responsibility of RAANZ to ensure that Instructors maintain a uniform high standard of training. This is to be achieved through Authorised Testing Officers giving Instructor Annual Flight Reviews (AFRs).
- Flight instruction toward a RAANZ Certificate must be under the direct supervision of a RAANZ appointed Instructor.

12.4 Conditions of Instruction

- Only persons who are financial members of RAANZ are eligible to obtain, hold and exercise a RAANZ Microlight Instructor Certificate.
- If an Instructor's RAANZ membership lapses, their Instructor rating becomes invalid until such time as membership is renewed.

12.5 Renewal of Certificate

- A Microlight Pilot Certificate is only valid when the following conditions are met;
 - The holder is a current RAANZ financial member.
 - The holder has a current Medical Certificate.
 - The holder has a current Annual Flight Review (AFR) or Biennial Flight Review (BFR) as appropriate.
- It is the responsibility of the holder of any Certificate to ensure that application for renewal, with all requirements met, is made in sufficient time before expiry to ensure continuity.
- Should continuity lapse the certificate holder will revert to Novice pilot status (subject to RAANZ membership being current) until such time as the conditions above are met.
- A BFR/AFR may be completed up to 30 days prior to when it is due to expire and it will be deemed to have been completed on the required date.

12.6 Application for Pilot Certificates

- All Microlight Pilot Certificate Applications must be received by RAANZ for processing within 28 days of the Flight Test.
- All appropriate sections of the form must be completed.
- Forms incorrectly completed will be returned to the Instructor for correction.
- The privileges of a Certificate issue or upgrade may not be exercised until the applicant has received confirmation from RAANZ that it has been processed and approved.

12.7 Out of area certificate issue and renewal

- All pilots, whenever possible, should use the services of their local instructors for issues, renewals and upgrades.
- If a pilot chooses to go outside the local area instructors, for whatever reasons, the outside area instructor must talk with the local area instructor(s) to ascertain any reason for not proceeding with the applicant pilot's flight test.

- If the view from the local instructor(s) is that the candidate should not hold that rating/renewal, then the flight test must not proceed.
- The applicant pilot may appeal this judgment to a review with the Operations Officer and RAANZ CEO.

12.8 Part 61/Overseas Microlight Pilots

12.8.1 Part 61 Pilots

Pilots who currently hold a Part 61 license can apply for a RAANZ certificate by meeting the following requirements:

- Becoming a financial member of RAANZ.
- Presenting the Part 61 licence
- Passing the RAANZ aviation law examination or otherwise demonstrating knowledge of RAANZ Law to the satisfaction of the Administrator.
- Satisfying a RAANZ Senior Instructor that they meet the standard set by RAANZ for the issue of the certificate type sought, particularly with respect to low inertia aircraft.

12.8.2 Part 61 Instructors

Instructors who currently hold a Part 61 A or B Category license can apply for a RAANZ Senior Instructor certificate by meeting the following requirements:

- Becoming a financial member of RAANZ.
- Presenting the Part 61 license
- Passing the RAANZ aviation law examination.
- Satisfying a RAANZ ATO that they meet the standard set by RAANZ for the issue of the certificate type sought, particularly with respect to low inertia aircraft.

To maintain the information loop with RAANZ and their instructors, all Part 61 Instructors holding a RAANZ microlight instructor certificate are required to be full financial members of RAANZ and encouraged to participate in our instructor seminars and workshops. Note that when instructing as a Part 149 instructor, an Instructor is not permitted to charge for their flying time, even if they have a current CPL.

A Part 61 C Category Instructor can apply for RAANZ instructor rating, the level of which will be dependent on their experience level.

12.8.3 Part 61 AFRs/BFRs

A Part 61 pilot holding a RAANZ certificate may renew their certificate without sitting a RAANZ flight review provided that:

• The date for their next flight review for the Part 61 license and the RAANZ certificate is synchronised. The RAANZ certificate cannot exceed the expiry date of the Part 61 flight review current at the time of application

and

• A photocopy of the logbook entry for the Part 61 flight test is provided

and

• A photocopy of their logbook is provided documenting currency in a microlight type at the time of renewal

and

- The pilot maintains continuous RAANZ membership
- This documentation should be included with the usual CMV form and sent to RAANZ administration.6
- The intent of this procedure is to allow pilots who hold dual Part 61 license and RAANZ certificates to easily renew their RAANZ certificate.

12.8.4 Cross-Crediting of Foreign Certificates

Visiting overseas pilots can apply for a RAANZ certificate up to the level of Microlight Pilot Certificate by meeting the following requirements:

- Becoming a financial member of RAANZ.
- Providing evidence that the overseas certificate held is equivalent to the RAANZ certificate sought.
- Passing the RAANZ aviation law examination.
- Satisfying a RAANZ Senior Instructor that they meet the standard set by RAANZ for the issue of the certificate type sought by passing a Flight Test and completing a CMV

12.8.4.1 Short Term Operation using Foreign Pilot Certificates/Licences

Pilots visiting for a period of less than one month may fly using their foreign certificate, up to the Microlight Pilot Certificate, and a logbook endorsement from a RAANZ Senior Instructor by meeting the following:

- Becoming a financial member of RAANZ.
- Satisfying a RAANZ Senior Instructor that they meet the standard set by RAANZ for the issue of a RAANZ certificate equivalent to the foreign certificate held.
- All flying is done under the supervision of the instructor named in the pilot's logbook endorsement.

Note: The Instructor is responsible for ensuring the pilot is fully briefed for the activity to be undertaken, particularly with respect to Aviation Law and Airspace.

12.8.4.2 Foreign Instructor Certificates/Licenses

Any foreign Instructor will have to comply with standard RAANZ Instructor issue procedures.

12.9 Introductory and cost-sharing flights

12.9.1 Private cost-sharing flight

An appropriately rated pilot may take a passenger on a cost-sharing flight provided the flight is carried out as specified in CAR Part 001

- the flight is not advertised to the public
- the pilot and passenger share equally in the direct running cost of the flight
- the pilot receives no payment or other reward for his/her services
- no other payment or reward is required of the passenger

Such a cost-sharing flight is deemed not to be an operation for hire or reward.

12.9.2 Public introductory flights

Publicly advertised introductory flights, including Club Open Days, may be carried out under the following conditions-

- the flight is conducted by a Flight Instructor
- the pilot receives no payment or other reward for his/her services
- the passenger holds at least short-term club membership
- the club may charge for membership and flight costs

Should the passenger decide to continue into microlight pilot training, the Introductory Flight may be logged.

13 Pilot Qualification

13.1 Overview of Certificate Structure

This section describes how RAANZ certificates are structured.

- The **Novice** certificate is a *learning* certificate. The purpose of this certificate is to create a safe learning environment with strong ties back to our Instructors.
- The provision of a Restricted Microlight Pilot and Microlight Certificate reflects the different needs of our pilots. Our aim is to have pilots advance to one of these certificates as soon as practical.

- Traditionally pilots of microlights did not cover large distances and tended to operate inside their local patch. The Restricted Microlight Certificate reflects and protects this type of operation and is intended to be equivalent to a Part 61 Restricted PPL
- The Microlight Pilot Certificate is designed and intended to be our equivalent to a Part 61 PPL licence. Pilots operating cross country capable aircraft will require this extra level of experience. A pilot who attains this certificate will have demonstrated competency to a similar level as a PPL except that no instrument flight instruction is included.
- The difference between the Restricted and full Microlight Pilot certificates is an extended cross-country requirement, mandatory FRTO examination pass and Controlled Airspace Knowledge (13.15) test. Note that the FRTO and Controlled Airspace Knowledge test may be added or required for the Restricted certificate if the area of operations dictates this. Both levels of certificate require the pilot to demonstrate competence to the same standard during flight tests.
- **Passenger ratings** are the most significant responsibility that a pilot accepts and to reflect this a passenger rating is not available to Novice Certificate holders.

13.2 Pilot Certificate Classes

All Pilot Certificates shall be endorsed with ratings in accordance with the schedule below:

- **GROUP A** Valid for the operation of Weight Shift Part 103 aircraft only.
- **GROUP B** Valid for the operation of 2 or 3-axis control Part 103 aircraft or Part 91 special category LSA aircraft.
- **GROUP H** Valid for the operation of Part 103 Helicopters.
- **GROUP P** Valid for the operation of Part 103 Powered Parachutes only.
- **GROUP G** Valid for the operation of Part 103 Gyroplanes only.
- **GROUP V** Valid for the operation of eVTOL aircraft (classified as Class 2 Helicopter for the purposes of Part 103)

13.3 Novice Pilot Certificate

13.3.1 Requirements for Application or Renewal

An applicant for a Novice Pilot Certificate must:

- Be a current RAANZ member
- Be at least 16 years of age
- Provide application or proof as a Fit and Proper Person (13.11)
- There is no minimum flight time experience for this certificate
- There is no flight test for this certificate

13.3.2 Privileges and Limitations

A Novice Pilot Certificate authorises the holder to act, under the supervision of an Instructor, as pilot-in-command of a Microlight Aircraft that is **not** carrying a passenger, for the purpose of:

- Increasing their skill to qualify for the issue of a Certificate of higher qualification or
- Engaging in flying practice to qualify for a Certificate that is no longer valid.
- A Novice Pilot **may not** carry a passenger under any circumstance
- ALL flights **must be** approved by a RAANZ Instructor and shall be for the purposes of training
- Before first Solo flight approval is given a Novice Pilot **must** meet the requirements of Solo Flight (13.3.3).
- Continued solo authorisation requires a dual check at least every 30 days or every 5 hours of flight time.
- The Novice Pilot Certificate remains valid provided the pilot holds a current RAANZ membership.

13.3.3 Solo Flight

- As a learning certificate, a Novice Pilot Certificate does not authorise the holder to exercise any flying privileges until they have received the necessary training and have successfully completed their first solo. A "pre-solo" Novice certificate holder receives dual instruction from their Instructor and the Instructor is the pilot-in-command
- Before the holder of a Novice Pilot Certificate engages in solo flight, they must have satisfactorily completed flight and ground instruction from a Microlight Instructor in the following areas:
 - The setting-up and pre-flight of Microlight Aircraft.
 - Ground handling and Taxiing.
 - Effect of controls.
 - Straight and level flight.
 - Climbing and descending.
 - Level, climbing and descending turns.
 - Stall recognition and recovery.
 - Take-off, circuit and landing.
 - Going around again.
 - Engine failure both during and after take-off.
 - Forced landing without power.
 - Circuit rejoins
 - FRTO exam pass (if a radio is used)
 - **Rotorcraft only** Operation behind the power curve.
 - Rotorcraft only Recovery from Pilot Induced Oscillation.
 - **Powered parachute only** Canopy Collapse, Steering Riser breakage and Canopy non-inflation on Take Off

A current medical is required for solo flight. Details are outlined in the Medical Section 13.10. The instructor authorising a first solo must check the medical to verify it meets these requirements.

- The Novice Pilot's Solo Logbook Endorsement will be signed by a Senior Microlight Instructor stating they have met the above requirements and satisfactorily completed a first solo.
- Gyroplane operations shall be limited to the airfield circuit area.

13.4 Restricted Microlight Pilot Certificate

13.4.1 Requirements for Issue and Renewal

An applicant for a Restricted Microlight Pilot Certificate must:

- Be a current RAANZ member
- Comply with Medical Fitness (13.10) and Fit and Proper (13.11) requirements.
- Have completed at least 35 hours Flight Experience (13.14).
- A pass in all required Microlight Exams
- Have completed the cross-country flights as set out under heading Restricted Cross Country (13.16) stage I and stage II.
- Have completed the Terrain Awareness training as set out under heading Terrain Awareness (13.17)
- Be flight tested by a RAANZ Instructor who has not been responsible for the majority of the candidate's training, to demonstrate their general knowledge and ability to perform competently those normal and emergency flight manoeuvres applicable to the type of Microlight Aircraft on which they are being flight tested. The syllabus for the flight test is set out under heading Pilot Flight Test (13.19)

and

- If the area of operation is to include controlled airspace
 - Have completed the requirements set out under Controlled Airspace Knowledge (13.15) and have a logbook endorsement documenting this.
 - Provide proof of a pass in a written examination for FRTO

13.4.2 Privileges and Limitations

- A Restricted Microlight Pilot Certificate authorises the holder to act, but not for remuneration, as pilot-in-command of a Microlight Aircraft.
- Unless the provisions under section 13.6 are met the certificate shall be endorsed **NOT PASSENGER RATED**.
- All flights are limited to a maximum of 50NM radius from the Base field of operation.
- Each base field (from which the maximum 50NM restriction applies) requires a briefing from (and may require a dual flight with) a RAANZ Instructor, depending on

the area and pilot experience. This instruction will include all local procedures, especially airspace requirements, and evidence of this will be recorded in the Pilots Logbook. The instructor may limit the approved area of operations to less than 50NM depending on the local environment. If the pilot has not met the requirements of Controlled Airspace Knowledge (13.15) and FRTO the approval will specifically state that approval is NOT given for entry into controlled airspace.

- All flights outside the approved area **must be** approved by a RAANZ Instructor and approval is for training purposes (advancement to Microlight Pilot Certificate)
- The Restricted Microlight Pilot Certificate will be valid for a maximum of Two Years, subject to any conditions or reduced period specified at the Instructor's discretion.
- Renewal is subject to a BFR (13.19), current medical (13.10), and current RAANZ membership.

13.5 Microlight Pilot Certificate

13.5.1 Requirements for Issue and Renewal

An applicant for a Microlight Pilot Certificate must:

- Meet all of the requirements of a Restricted Microlight Pilot Certificate (13.4)
- Have completed the cross-country flights as set out under heading Cross Country (13.16) Stage I, Stage II and Stage III.
- Have completed the requirements set out under Controlled Airspace Knowledge (13.15) and have a logbook endorsement documenting this.
- Have completed at least 45 hours flight experience (13.14).
- Be flight tested by a Senior RAANZ Instructor to demonstrate their general knowledge and ability to perform competently those normal and emergency flight manoeuvres applicable to the type of Microlight Aircraft on which they are being flight tested. The syllabus for the flight test is set out under heading Pilot Flight Test (13.19).

13.5.2 Privileges and Limitations

- A Microlight Pilot Certificate authorises the holder to act, but not for remuneration, as pilot-in-command of a Microlight Aircraft.
- Unless the provisions under section 13.6 are met the certificate shall be endorsed **NOT PASSENGER RATED**.
- The Microlight Pilot Certificate will be valid for a maximum of Two Years, subject to any conditions or reduced period specified at the Instructor's discretion.
- Renewal is subject to a BFR (13.19), current medical (13.10), and current RAANZ membership.

13.6 Passenger Rating

Pilots holding a RAANZ Restricted Microlight Pilot Certificate **or** Microlight Pilot Certificate will require a flight test for the issue of a Passenger Rating.

- Pilots wishing to carry passengers must have completed a minimum of 25 hours Flight Experience (13.14) as PIC.
- Pilots must demonstrate to a RAANZ Senior Instructor competency in a 2-seat Microlight Aircraft and receive a briefing on issues relating to carrying passengers. The briefing shall specifically cover:
 - Aircraft performance limitations and loading especially regarding heavy passengers
 - Pilot attitudes and their responsibility to innocent and trusting non pilots
 - Passenger fear and possible reaction to the flight experience
 - Passengers' ability to jeopardise flight safety
 - Briefing of passengers on aircraft operations and emergency procedures.
- Following the successful completion of this flight test a new Certificate shall be issued **Passenger Rated**.
- The holder of a Passenger Rating shall not exercise the privilege unless they have carried out at least three take-offs and landings on type in the preceding 90-day period. A pilot may regain currency by flying solo or dual with an instructor, at their discretion.

Pilots applying for a passenger rating will be reminded that holding this rating is dependent on the pilot continuing to demonstrate responsibility to flight safety.

- A pilot's passenger rating may be suspended, effective immediately, at discretion of an instructor, following legitimate concerns about the pilot's attitude to flight safety.
- The suspension may be lifted after a review and flight test by the suspending instructor.
- The suspended pilot may appeal any such decision to the RAANZ Operations Officer or RAANZ nominated ATO.

13.7 Junior Microlight Instructor Certificate

13.7.1 Requirements for Issue and Renewal

An applicant for a Junior Microlight Instructor Certificate must:

- Be a current RAANZ member
- Hold a Microlight Pilot Certificate and meet the requirements of this certificate,
- Have completed not less than 150 hours Flight Experience (13.14) in powered aircraft, which shall include at least 10 hours in Microlight Aircraft and at least 10 hrs cross country in powered aircraft,
- Have completed a RAANZ approved Instructional Techniques Course.
- Fit and Proper as documented in 13.11

If this is an initial issue-

- The applicant shall first seek a supervising RAANZ ATO and discuss with him the applicant's suitability for the role, identifying any areas that may require further training or experience, and assessing interpersonal and communication skills. This training will be a mixture of flight and briefing work carried out by the supervising ATO or other Instructors approved by the supervising ATO.
- The applicant's club committee shall also affirm that they know of no issues (e.g. personal, behavioural, anti-authority, recklessness) that might render the applicant unsuitable for the role and confirming the ATO who will be supervising the process.
- Instructor training shall include how to give a briefing and demonstrate the flying skills required for each element of the pilot training syllabus. These shall be progressively signed off in the applicant's logbook. Emphasis should also include utilising the correct instructional techniques (e.g. the phases of 'teaching the skill'). The CAA Flight Instructor Guide should be used for reference throughout and for future training of students
- Prior to undertaking the flight test for initial issue, shall demonstrate to a RAANZ Authorised Testing Officer their knowledge of all aspects of microlight aviation by completing a <u>Microlight Instructor Oral Examination</u> including the following subjects:
 - principles of flight;
 - VFR operations with particular emphasis on airspace considerations;
 - the preparation and operation of Microlight Aircraft (oral and practical);
 - micro meteorology;
 - Low Inertia performance characteristics;
 - the RAANZ certificate structure and use of the appropriate administration forms and manual;
 - Where candidates have most of their Flight Experience in Part 61 Aircraft special consideration shall be placed on "Low Inertia" performance characteristics;
 - Candidates will be assessed on their interpersonal skills and ability to pass information to a student;
- Evidence of this examination will be recorded in the pilot's logbook
- The applicant shall then demonstrate to a RAANZ Authorised Testing Officer their ability to give Instruction on Microlight Aircraft and demonstrate their ability to fly a Microlight Aircraft (within the Groups for which they have ratings) by completing a **Microlight Instructor Flight Test** as follows:
 - The flight test will be performed in a suitable two place machine.
 - The flight test should cover all of the elements of the Pilot Flight Test (13.19) as well as reviewing instructional technique using one of the lesson plans from the Instructor Guide.
 - Instructors training in 3 axis aircraft should use an aircraft that is approved to perform wing drop stalls and this exercise should be part of the flight test.
- The application for a Microlight Flight Instructor Certificate shall be made using the <u>Instructor Application Form</u> (including the club affirmation, the nominated supervising ATO, and evidence of satisfactory completion of the oral examination and flight test), along with the signed off CMV form. A new Fit and Proper form (Section 13.11) with additional requirements needs to be included.

The Microlight Instructor Examination and Flight Test shall be carried out by an ATO who is not directly responsible for the candidate and associated club. If for any reason this is not possible or practical, approval shall be obtained from the RAANZ Operations Officer.

13.7.2 Privileges and Limitations

The holder of a Junior Microlight Instructors Certificate may exercise the privileges of a Microlight Pilot Certificate and

- Give flight and ground Instruction in those types of Microlight Aircraft for which they hold a type rating AND are authorised by their supervising ATO.
- Authorise solo flight but not a pilot's first solo flight.
- Issue type ratings for type the instructor is type rated on.
- May receive payment for their time instructing on the ground. NOTE: it must be clear that the student is following a structured course of learning towards a pilot certificate and the operation is an accepted part of the local club's operations. This is NOT a mechanism for commercial operations or joy rides or adventure aviation in any form, under the guise of trial flights or instruction.
- The holder shall not exercise the privileges of their Certificate unless within the immediately preceding 90 days they have carried out at least three take-offs and landings in the type of aircraft they are instructing in.
- The Instructor Certificate will be valid for the maximum of One Year. Renewal is subject to current RAANZ membership and completion of an Annual Flight Review (AFR). AFR format is identical to initial flight test issue format.
- If a Instructor Certificate lapses, the pilot will revert to a Microlight Pilot Certificate providing all other Microlight Pilot Certificate conditions are met.

The holder of a Junior Microlight Instructor Certificate may not:

- Authorise a first solo flight.
- Flight test or perform BFRs for Microlight Pilot Certificates.
- Flight test applicants for a Passenger Rating

13.8 Senior Microlight Instructor Certificate

13.8.1 Requirements for Issue and Renewal

A Microlight Instructor shall be considered Junior until at the discretion of their sponsor ATO they may be upgraded to Senior Instructor.

An applicant for a Senior Microlight Instructor Certificate must:

- Be a current RAANZ member
- Hold a Junior Microlight Instructor Certificate (13.4) and meet the requirements of this certificate, **and**
- Have performed minimum of 50 hours Instructing time and

- Have a total Flight Experience (13.14) of 200hrs on powered aircraft and
- Have acted as the primary instructor responsible for managing at least 2 students training programs from ab initio to first solo and
- Have completed a RAANZ approved Instructional Techniques Course and
- Complete an AFR

13.8.2 Senior Microlight Instructor Privileges

The holder of a Senior Microlight Instructor certificate includes the privileges of a Junior Microlight Instructor Certificate and may also -

- Authorise a first solo flight.
- Flight test/perform Biennial Flight Reviews (BFRs) for applicants to the level of Microlight Pilot Certificate.
- Flight test applicants for a Passenger Rating
- The holder shall not exercise the privileges of their Certificate unless within the immediately preceding 90 days they have carried out at least three take-offs and landings in the type or similar type of aircraft they are instructing in.
- An Instructor rating only applies to the group for which it has been issued.

13.8.3 Senior Instructor privileges for groups that are not held

Under extraordinary circumstances a Senior Instructor may perform the following reviews / ratings for groups that are not on their certificate.

- Perform Biennial Flight Reviews (BFRs)
- Upgrade from Restricted Microlight Pilot Certificate to Microlight Pilot Certificate

Note: This intent is to allow pilots of the less common groups (P, G, A, V) to have access to instructors for upgrades and renewals. It is not intended that an instructor would perform these services if another instructor who is rated on the required group is available. It is not intended that ab-initio or type instruction would be given. Pilots need to be trained to Restricted Microlight Pilot level by instructors rated on the appropriate group. **Instructors wishing to exercise this privilege require a letter of authorisation from RAANZ.**

13.8.4 Type Rating Privileges for Senior Instructors

A Senior Instructor may self-rate on type with the assistance of a properly rated and experienced non-instructor pilot.

- Before flying the type, the instructor should seek a phone briefing from an experienced rated instructor and have access to all relevant information from the aircraft manufacturer.
- The non-instructor will be guided through the rating process by the instructor so that all aspects of a rating are covered.

• The non-instructor pilot shall be pilot in command until both pilots agree that the instructor is competent on the type and assumes pilot in command status.

If there is NO other practical way for a type rating to be attained a Senior Instructor who has experience in machines with similar characteristics within the same group, may choose to self-rate on type.

- Before flying the type, the instructor should seek a phone briefing from an experienced rated instructor and have access to all relevant information from the aircraft manufacturer.
- The instructor must add the aircraft type to their logbook with a statement indicating self-rating.

Self-rating into another Group and separate ratings (tailwheel, water, etc.) is not permitted.

13.9 Authorised Testing Officer

The Executive Committee will identify the need for and a suitable candidate for an ATO position in consultation with other Instructors and ATOs in the general area.

The position of ATO is an extra level of responsibility that we may ask an exceptionally experienced and respected RAANZ instructor to shoulder. It is important to note that an ATO rating is not a higher flight certificate level that Instructors may apply for, but an appointment that RAANZ executive in consultation with our existing ATO network may make at its discretion.

New candidates will already be Senior Instructors, have no less than 500 hrs Flight Experience on powered aircraft and no less than 100 hrs of instructing time logged.

The Operations Officer will interview the candidate to assess their suitability and brief them on RAANZ procedures and standards.

The Operations Officer will issue a CMV form to RAANZ Administration notifying the appointment.

The ATO appointment is enduring while the ATO holds a current Senior Instructor Rating and RAANZ Membership. The appointment may be reviewed at any time, at RAANZ's discretion.

In the event that an ATO does not maintain RAANZ membership for a period of more than 12 months, the ATO position will expire and will not automatically renew if membership is renewed.

Note: ATO privileges may not be exercised until the applicant has received confirmation from RAANZ that it has been processed and approved.

While an ATO's principal responsibility is to flight test RAANZ Instructors, it is also their responsibility for the training and supervision of new instructors. It is expected that they also uphold and represent RAANZ policies and procedures at a high level and be a 'mentor' for other instructors.

The flight standards an ATO expects at an Instructor's annual flight review should set the appropriate flight standards required of all RAANZ pilots.

The RAANZ executive may at its discretion accept as a test for an ATO, any form of flight test considered by the Operations Officer to be equivalent. Generally, it is preferred that ATOs flight test with other ATOs as this positively supports the concept of an ATO network.

13.9.1 ATO Privileges

- An ATO may exercise the privileges of a Senior Instructor as in 13.8 relating to Microlight Instructors certificates and may instruct and flight test all classes of applicant for Pilot Certificates, in any group rating the ATO holds.
- The validity period of their Senior Microlight Instructor certificate shall be 2 years.
- In extraordinary circumstances the RAANZ executive may issue a grouping alteration for an ATO by means of an appointment.

13.10 Medical Fitness

For any application for the issue or renewal of a RAANZ certificate or for a Novice pilot certificate holder before first solo, the Pilot must present to the Instructor one of the following documents as evidence of a medical examination:

- A current RAANZ Medical Declaration as set out in the Medical Declaration Form and approved by the examining Doctor **or**
- A current CAA Part 67 pilot medical certificate or
- A current LTSA DL9 (P endorsed) medical certificate or
- For overseas pilots seeking temporary certification (less than 6 months), a current medical certificate acceptable to the organisation that issued their certificate or licence.

The pilot must forward a copy of the medical certificate to the RAANZ Administrator who will acknowledge receipt by email.

The pilot must inform RAANZ of any change in medical status that may affect fitness to fly.If in doubt, do not fly until cleared by RAANZ or CAA Medical.

The Medical shall be valid for four years - or two years, if the pilot is 40 years old or older

13.11 Fit and Proper

- The first time a Pilot applies for a certificate within RAANZ they must complete and forward the Fit and Proper Person form **or** provide proof of acceptable fit and proper status.
- The initial certificate will not be issued until the fit and proper form has been received, processed and approved.
- Acceptable proof of an existing fit and proper person status is:
 - A current CAA Part 61 Pilot Licence
 - An acceptable current certificate with another CAA Part 149 approved organisation.
- Any changes or events affecting a pilot's Fit & Proper Person status must be reported to RAANZ.
- An application to be an Instructor will require a new Fit and Proper application, which is also required to include
 - A convictions history report from the Ministry of Justice
 - A demerits points and suspension history report from the <u>NZ Transport</u> <u>Agency</u>

13.12 Currency Requirements

A certificate remains current while

- The RAANZ membership is current
- The pilot has a current BFR on Group
- The pilot has a current medical

The passenger rating is current if

• The pilot has completed 3 take off and landings in the type of aircraft they intend to operate, in the previous 90 days.

Group Rating

• If a pilot has not flown in a particular group for a period of 24 months, they are deemed to be a novice in that group until approved by instructor to return to their issued certificate.

13.13 Cross Crediting Pilot Licences/Certificates/Ratings

A RAANZ Pilot Certificate and associated ratings can only be issued and renewed on a signed-off certificate and Membership Validation form (CMV) issued and signed by a current RAANZ Senior Instructor. Pilots with certificates, ratings and renewals from other Part 61 and 149 organisations still require a RAANZ instructor review and sign-off for acceptance within the RAANZ system. At a minimum this will require a review of the pilot logbook and

debriefing, a pass in the RAANZ Law exam, and a flight test and further training or flight experience.

The review for any Part 61 or Part 149 Instructors must be carried out by an ATO.

- Part 61 (A, B or C) Instructor cross-crediting is permitted- see 13.14. A pass in the RAANZ Law Exam is required.
- Other **Part 149 Instructors** applying for a RAANZ Instructor rating shall comply with and meet the requirements of section 13.8. The ATO will judge the applicant's suitability to hold an Instructors certificate or a Senior Instructors certificate following the flight test and an assessment of the instructor experience recorded in the applicant's flight log. On satisfying these requirements and completing the process, the applicant shall apply to RAANZ for a Microlight Flight Instructor Certificate using the <u>Instructor Application Form</u> accompanied by the CMV issued by the supervising ATO.

13.14 Flight Experience

Flight experience is

- Time spent within the RAANZ system as a student pilot under instruction or flying solo **or**
- Time spent as a Certificated pilot flying as Pilot in Command or under instruction or
- Time cross credited for any relevant flying experience that has been gained under a formally instructed, certificated/licenced and logged environment.
- The acceptance of this time is at the discretion of a Senior Instructor and needs to be formally recorded in the candidate's logbook including details of what is being accepted. Instructors may seek guidance from the Operations officer. Examples of time that may gualify are.:Part 61 (Certificated aircraft and helicopters)
- Part 103 (Microlights) under other Part 149 organisations
- Part 104 (Gliders)
- Part 106 (Hang gliders and Paragliders)
- Equivalent overseas certificates

Previous flight experience can be cross credited at the discretion of the instructor. The acceptance of this time may be up to 100%. The instructor will record the cross credited time in the pilot's logbook including details of time being accepted.

13.14.1 Competency Based Training

Regardless of whether previous experience is being counted or not, each flight exercise will be reviewed and will only be signed off when competency is demonstrated.

13.14.2 Minimum Times

These are **minimums**. In many cases candidates for a certificate will accumulate more time than the minimum. This is normal. A candidate will be progressed **only** when their instructor is satisfied that they have sufficient experience and competence to hold that appropriate certificate.

13.15 Controlled Airspace Knowledge and Experience

- All pilots operating in controlled airspace must have satisfied an instructor of their knowledge of practical requirements and procedures relating to the use of controlled airspace. Time will be spent in the classroom and the air to review the candidates understanding. After a successful demonstration the instructor will endorse the pilot's logbook.
- Knowledge to be demonstrated
 - Types of airspace
 - Requirements for entry
 - Procedures for entry and exit
 - Identification of controlling authority (Tower, Approach or Control)
 - At controlled airfields use of tower, ground, ATIS and uncontrolled ground movements
 - Recognition of airspace in 3 dimensions, especially layered airspace
 - Mandatory Broadcast Zone requirements
 - Transponder Mandatory requirements
 - Information on maps including VHF Radio frequencies for Airfields, ATIS and information service
 - Radio failure procedures
 - Use of transponders

13.16 Cross Country

These requirements are designed to prepare pilots for cross country. There are 3 Stages. Stages I and II are required for the Restricted Microlight Certificate, and all 3 stages required for the Microlight Certificate.

• Prior to undertaking solo cross country exercises candidate pilots will have gained passes in all examinations.

The following skills should be covered during the program:

- Preflight planning including accessing current met and notam information
- Fuel planning and management
- Use of AIP for planning and in flight
- Map reading including measuring distance, course plotting and airspace recognition.
- Use of radio, transponder and GPS (if fitted)
- Access to in flight information services

- En-route decision making and diversions
- Circuit rejoins

13.16.1 Cross Country - Stage I

Note: The student should be denied access to GNSS information during Elementary and Basic Cross country training to embed the principles of pilot navigation. An electronic map with the aircraft position symbol disabled or the use of paper map is recommended.

- At least 1 hour dual flight instruction and 1 hour solo flight time. A triangular course with no out landing.
- Preparation of charts and in-flight log, weather evaluation, NOTAM's, fuel and oil requirements, fuel management, maintenance of heading and map reading.

13.16.2 Cross Country - Stage II

- At least 2 hours dual flight instruction and 2 hours solo flight time. A triangular course.
- To include at least one landing at a controlled or uncontrolled aerodrome at least 25 nm from the point of departure.
- Solo basic navigation
 - The same route in reverse may be utilised. The flight should not be authorised unless the forecasts are at least 2,000 foot ceiling and 16 kilometres visibility.
 - Termination of flight plan, recording of flight time (including aircraft logbooks), recording and notification of defects, securing the aircraft.
 - Following the flight as pilot-in-command, the pilot is to submit map, flight plan, relevant weather and completed flight log to the supervising instructor.

13.16.3 Cross Country - Stage III

- At least 2 hours dual flight instruction and 2 hours solo flight time.
- A triangular course with two out landings, one of which is at least 35 nm from the point of departure including a diversion requiring low-level navigation.
- Solo advanced navigation
 - Reverse of Dual Stage III flight/s with two landings en-route.
 - This exercise shall not include low level navigation or diversion.
 - This flight is to be flown at medium level.
 - The candidate will be given the route to fly but will be expected to carry out all of the pre-flight preparation
 - The flight should not be authorised unless the forecasts are at least 2,000 foot ceiling and 16 kilometres visibility.

13.16.4 Logbook Certification

Upon satisfactory completion of each cross-country flight, the Instructor completing the training shall endorse the applicant's logbook by notarising the flight as completed.

13.17 Terrain Awareness

Terrain and weather awareness training does not require high mountains to establish the basic principles.

The Stage I exercise could be completed in a low flying area or other suitable area between 500ft to 1000 ft AGL.

For Stage II and III, the selection of a valley or gully that safely enables turning in the valley and saddle/ridge crossings is appropriate. Terrain awareness training should focus (whenever the opportunity presents itself) on recognising the significance of weather, especially wind relative to the terrain and its impact on flight conditions and flight path.

It is desirable that the student experience flight:

- In the clean and poor visibility configuration.
- In both calm and light wind conditions (less than15kts).
- In clear conditions and in conditions of reduced visibility
- Performing turns through 180° and 360° both clockwise and anticlockwise.

13.17.1 Stage I – Operating in a Simulated Confined Space

Aim: An exercise exploring the pilot's and the aircraft's capability to operate in a confined relatively flat area with clearly defined boundaries.

Exercise: A flat paddock of approximately 500 metres by 500 metres would suit most aircraft. Using both a 'clean' and the 'poor visibility configuration' fly the boundaries using minimum angle of bank while using all the available space. Commencing with a larger area, gradually reducing to the desired confined size will assist in managing the exercise.

13.17.2 Stage II - Operating in a Confined Space

Aim: Apply the technique and skill experienced in Stage I to an actual area confined by terrain to develop further the awareness of space and inertia.

Exercise: Relocate to a suitable valley to carry out the Stage I Exercise, but with surrounding terrain and consequently a less defined horizon or an imaginary horizon. Carry out 180 and then 360 degree turns using all of available space.

13.17.3 Stage III - Crossing Ridges, Spurs, Saddles or Passes

Aim: To safely cross ridges, spurs, saddles or passes applying appropriate TEM and decision making to determine the safest compromise of options and principals involved.

Exercise: Using the ridges to the valley in Stage II or other suitable ridges/saddles, assess the appropriate flight path for approach, crossing, and after crossing that applies the safest compromise of the options and principals involved. Experience, where safely possible, the merits of approaching both left to right and right to left, and returning back over an area just crossed.

Terrain Awareness training Stages I, II and III is required for both Restricted and Unrestricted Microlight Pilot Certificate

A logbook entry by the Instructor involved is required when Competence has been demonstrated in each Stage.

13.18 Pilot Examinations

The microlight exams include both required and optional subjects.

Required for all certificates except Novice.

- Aviation Law
- Navigation and Flight Planning
- Meteorology
- Aircraft Technology
- Human Factors

Required for Microlight Pilot Certificate, operating a radio ,or operations within 10NM of controlled airspace

- FRTO
- Required for special aircraft groups
 - Gyroplanes

Evidence of Part 61 exam passes are accepted for all except Part 103 Aviation Law.

13.18.1 Aircraft Technology

- Properties of air: density and variation with temperature, pressure, and height.
- Principles of flight.
- Basic aerodynamics: thrust, drag (induced and parasitic), lift, weight, aerofoil, angle of attack, centre of pressure, stalling, spinning.
- Propellers: pitch, effect of fine and coarse pitch, reduction drives, care.
- Combustion piston engines: principles of operation, ignition, cooling, carburation, carburettor heat, fuel, oil, control, performance, mixture control, fuel injection, turbo.
- Airframe: landing gear, wing and tail surfaces, attachment points, bracing wires, engine mounts, flying controls and their associated cables, recognition of defects.

- Loading: centre of gravity, limits, importance, precautions when loading, take-off, climb and landing performance.
- Airmanship

13.18.2 Aviation Law

- Civil Aviation Act, in particular section 14 "Duties of pilot-in-command" and 49 "Duty to notify accidents and incidents to CAA".
- Civil Aviation Rules:
- Part 91 General Operating and Flight Rules,
- Part 103 Microlight Aircraft Operating Rules,
- Part 12 Accidents, Incidents, and Statistics,
- Know the basics of
 - Part 43 General Maintenance Rules,
 - Part 47 Aircraft Registration and Markings,
 - Part 61 Pilot Licences and Ratings,
 - Part 93 Special Aerodrome Traffic rules and Noise Abatement Procedures.
- NZ Aeronautical Information Publication (AIP), in particular Volumes 1 and 4 and Supplements
- NOTAMS
- RAANZ Exposition

13.18.3 Flight Radio Telephone Operator (FRTO)

- VHF radio waves:
 - Propagation, range, surface interference.
- Radio Equipment:
 - Equipment controls and operation,
 - VHF transceiver, squelch, microphone use,
 - ADS-B transponder, mode A/C, emergency codes, transponder mandatory airspace,
 - Emergency Locator Transmitter (ELT/ PLB), requirements, activation, testing.
- Practices and Rules:
 - Phonetic alphabet, numbers, time system, words and phrases,
 - Establishing communication, frequencies, radiotelephony callsigns, exchanging messages, corrections and repetitions, readability,
 - Flight Service, UNICOM, ATIS, AWIB.
- Phraseology and Procedures:
 - Controlled and uncontrolled airspace, taxi, take-off, approach and landing, read-back,
 - Unauthorized transmissions, secrecy (s133A of Radiocommunications Act 1989),
 - Distress and Urgency,

 Loss of Communications, transmitting blind, speechless technique, light signals.

13.18.4 Gyroplanes

- Aerodynamics:
 - autorotation,
 - dissymmetry of lift,
 - o rotor flap,
 - out-of-track rotor,
 - propeller slipstream,
 - height vs velocity,
 - power curve.
- Technology:
 - rotor head,
 - o rotor blades,
 - o teeter,
 - rotor RPM,
 - pre-rotator.
- Performance and handling:
 - take-off,
 - climb and descent,
 - low 'G' manoeuvres, power push over
 - stick shake,
 - pilot induced oscillation.

13.18.5 Human Factors

- Physiology and Effects of Flight
 - Atmosphere and pressure changes
 - Circulation and respiratory system, incl. hypoxia, hyperventilation, entrapped gasses, decompression sickness
 - Vision and Perception, hearing and balance incl. spatial orientation, g-forces, motion sickness
- Health
 - Fitness to fly, incl. IM SAFER
 - Environmental, incl. CO, cold
 - Ageing pilot
- Aviation Psychology
 - Information processing
 - Airmanship, situational awareness, decision making, incl. hazardous attitudes
 - Threat and error management, culture, procedures incl. checklists

13.18.6 Meteorology

- Composition of the atmosphere
 - Atmospheric pressure
- Units, variation with height, pressure altitude, ISA
- Atmospheric temperature
 - Units, variation with height, density altitude, ISA
 - Pressure systems and fronts
 - Horizontal pressure, isobars, depression or 'low', anti-cyclone or 'high'
 - Cold and warm fronts, typical NZ systems and fronts
- Wind velocity
 - Wind-shear, backing and veering
 - Sea breezes, foehn winds, valley winds, anabatic and katabatic winds.
- Clouds
 - Cloud classification, fog, visibility
- Turbulence
 - Mechanical, terrain, convectional turbulence
 - Local winds, mountain waves
 - Slipstream, wake
- Aviation meteorological information
 - Terms and abbreviations
 - METAR, TAF, GRAFOR, AAW, SIGMET, space weather
 - Where to get them

13.18.7 Navigation and Flight Planning

- Coordinates: latitude/ longitude; degrees, minutes, seconds; great circles;
- Maps: map projection; map grid; true north; nautical miles;
- Compass: magnetic north; compass rose; magnetic variation;
- Map reading: map legend; scale, distances; airspace, transponder, radio; features, heights; safe altitude.
- Flight planning: navigation log, purpose, content; true track; distance;
- Wind: wind drift; wind triangle; true heading; ground speed;
- Planning data: magnetic heading; time on course; fuel required; fuel weight;
- Time: UTC; NZST/NZDT; ECT;
- Navigating: course corrections; return to base; 1:60 rule; standard correction angle; diversions;
- Flying the plan: X-country check list; getting the weather; aircraft loading; flight following, SAR watch; navigating; keeping the log; bad weather; getting lost; precautionary landing;
- Moving maps: GPS; apps; pitfalls

13.19 Pilot Flight Test/Annual Flight Review (AFR)/Biennial Flight Review (BFR)

Note: Refer to the RAANZ Flight/BFR Standards Guide for guidance on the standards required.

A separate AFR/BFR is required for each Group that the member wishes to exercise the privileges of.

Once the BFR process has begun, the member shall continue the process with the same instructor, unless special circumstances require a change. In this situation, the new Instructor must be informed of the change and reasons involved.

The test shall include an oral general knowledge and written test followed immediately by a pilot flight test in a single or 2-seat Microlight Aircraft.

- General Knowledge Test
 - Aircraft documents including knowledge of loading.
 - Aircraft inspection and pre-flight check.
- Piloting Technique Test
 - \circ Taxiing.
 - Take-off into wind.
 - Engine failure after take-off.
 - Straight and level flight, including minimum speed level flight.
 - Level, climbing and descending turns including steep level turns.
 - Forced landing without power from a height and position nominated by the examiner.
 - Circuit rejoin procedures
- Demonstration of three circuits:
 - Take-off into wind, circuit, overshoot from 50ft, re-circuit. (The examiner to specify the circuit parameters.)
 - Carry out a precision landing (i.e. short field approach and landing).
 - Precision power-off landing.
 - Crosswind take-off and landing
- Low flying exercises
 - Visual effects of low-level turns in wind.
 - Bad weather configuration
 - Technique for reversing turn in deteriorating weather
 - Evaluation of a precautionary landing site
- For 2/3 Axis aircraft
 - Approach to the stall in landing configuration with power off and with partial power. Recovery in both cases to be carried out at stall onset / hight sink rate with minimum height loss (within the stalling limitations of the Microlight Aircraft type as specified by the manufacturer).
 - Wing drop stall / Stall spin onset Demonstrate a wing drop stall with correct recovery technique. If the manual of the flight test aircraft does not allow wing drop stalls the exercise should not be performed BUT the pilot candidate will

need to show a logbook entry showing that wing drop stall exercises have been completed in the past.

- Proof of completion of wing drop stall exercises in any aircraft approved for this manoeuvre is acceptable. In any event Instructor and Pilot should discuss recovery from stall / spin with rudder and typical low speed, high angle of attack, banking and out of balance scenarios leading to stall / spin entry.
- For weight shift aircraft
 - Approach to the stall in landing configuration with power off and with partial power. Recovery in both cases to be carried out at stall onset / high sink rate with minimum height loss (within the stalling limitations of the Microlight Aircraft type as specified by the manufacturer).
- For Gyroplanes
 - Knowledge of operations behind the power curve.
 - Knowledge of Pilot Induced Oscillation and recovery.
- For Powered Parachutes
 - Knowledge of canopy collapse, steering riser breakage and canopy non inflation on take-off.
- For Instructors
 - A review of instructional techniques
- The Examiner shall enter the flight test/review on a RAANZ CMV form and submit it to RAANZ.
- A copy of the CMV form shall be affixed to the applicant's pilot logbook, along with a logbook entry recording the flight test.
- A third copy shall be retained by the Instructor.

Note: Flight tests conducted on single-seat Microlight Aircraft shall include all elements of the flight test syllabus. The applicant shall be briefed by the examiner to carry out the various manoeuvres to a sequence in an area in the examiners field of view.

13.20 Type Ratings

- All Microlight Aircraft require a specific type rating.
- Aircraft will be considered different types if any of the following are true:
 - The manufacturer assigns them as different aircraft
 - Their airframes are structurally or functionally different
 - They have different power plants or propeller control systems
 - They have different controls or systems
- Instructors need to assess if a pilot's certificate level is appropriate for the aircraft to be rated on. For a Restricted Microlight Certificate pilot seeking a rating on a cross-country capable machine it may be prudent to first upgrade to a Microlight Pilot certificate.
- After completing the rating and demonstrating competence the pilot's logbook will be endorsed by the instructor for the type of microlight aircraft.
- RAANZ recognises any type rating given by a duly authorised person recognised by CAA or other regulatory aviation authority as being valid, as long as the person issuing the rating records their authority with the rating in the candidate's logbook.

• For a type rating to be issued in a single seat microlight, the Instructor must be rated in the same aircraft type.

13.21 Microlight Test Pilot

- For the purposes of Test Flying Microlight aircraft, the holder of a valid Senior Microlight Instructor Certificate is acceptable as a Microlight Test Pilot.
- Other persons who require a Microlight Test Pilot Rating may apply to an ATO for evaluation.
- Such persons will be tested to the knowledge and flight test standard of a Senior Instructor, by an ATO, except that their instructional ability will not be assessed.
- Applicants should supply any supplementary evidence as to qualifications or experience as is available.
- A minimum experience of 150 hours Flight Experience will be required for Test Pilot approval.
- The Microlight Test Pilot must be rated on type, or a similar type, and for which there is suitable performance data available.
- It is recommended that ALL test flying be carried out in accordance with the FAA AC90-89A AMATEUR-BUILT AIRCRAFT AND ULTRALIGHT FLIGHT TESTING HANDBOOK. Test Pilots will have to modify sections of this booklet to suit the type of Microlight being tested.

13.22 Endurance Testing Endorsement

Our procedures require pilots who test fly aircraft to hold a Test Pilot rating. It is accepted that not all pilots may choose to or be sufficiently qualified to hold a test pilot rating. But they may be rated in the test aircraft type and be completely competent to safely fly off the remaining endurance hours of the test flying schedule.

Pilots without a test pilot rating, but who want to complete the endurance part of the flight testing, can contact their ATO to discuss the possibility of exercising this option.

The following requirements will apply:

- Minimum 150hrs TT, an Microlight Pilot certificate and a rating in the same aircraft type subject to the flight test.
- A flight test pass conducted with an ATO to meet the standard required. The flight test may be flown in the aircraft being test flown if the applicant pilot holds a rating in that type. Alternatively, the flight test may follow a type rating conducted in another aircraft of the same type and configuration to the test aircraft. Flight test emphasis will be on the pilot's ability to perform well in the areas of forced landings, glide approaches and emergency procedures.
- The endorsement would apply specifically to the aircraft being flight tested and is valid for 12 months.
- The carriage of passengers during the flight test period is not permitted.
- The flight test aircraft must not be used for type ratings during the flight test period.
- The aircraft must have a minimum of ten hours of the test flight schedule completed.

- The initial test pilot must testify that he is satisfied that the aircraft has adequate performance and is controllable through its normal range of speeds. The test pilot would have checked that all aircraft systems operate correctly, the aircraft is correctly rigged and that all stall, spin recovery, VNE flutter checks, and other flight performance checks have been completed and documented to his satisfaction.
- All subsequent test flying/endurance exercises and parameters will be established and documented in consultation with the original test pilot.

13.23 Special Ratings

The following special ratings are applicable across all types once attained. Aircraft type ratings are still required on specific types.

- Water Rating
- Tail Wheel Rating
- Tow rating- Hang Glider

13.24 Pilot logbooks

All pilotsmust maintain an accurate and up-to-date logbook containing-

- the pilot's name, details of aircraft type ratings, and certifications, authorisations and ratings held;
- a record (including the details specified in paragraph (b)) for every flight during which the pilot acted as a flight crew member of an aircraft;
- Record of training indicating completion of each syllabus item
- a record of each flight test, flight review, competency demonstration and flight crew competency check.

13.24.1 Logbook Endorsements

Logbook Endorsements by an appropriate Instructor are required for

- Novice Pilot solo flight
- Controlled Airspace
- Terrain Awareness Stages 1,2 and 3
- Cross Country Stages 1,2 and 3
- Restricted MPC briefing
- Type Ratings
- Endurance Flight Testing
- Completion of BFR or AFR with CMV number

The following flight details must be recorded in the pilot's logbook:

- the date of the flight:
- the aircraft registration mark;
- the flight time;

- the purpose and route of the flight including the place of departure, any intermediate landing, and the place of arrival;
- if appropriate, the name of the flight instructor or safety pilot:
- for a training flight, details of the training exercise
- Include record of training syllabus completion
- The logbook shall be a bound book with the details entered in ink, providing a permanent written record of the pilot's flight experience.
- The CAA Pilot's Logbook is the recommended form to use.
- The logbook is to be retained permanently by the pilot certificate holder.
- Every entry in a pilot's logbook must be made within 7 days after the completion of the flight to be recorded. If a pilot is engaged in an operation away from the base where the logbook is normally kept, the entry in the logbook must be made within 48 hours after return to base.

14 Microlight Aircraft

14.1 Accidents and Incidents

- CAR Part 12 requires that all accidents and incidents are reported to the appropriate authorities.
- Any accident as defined in CAR Part 12 involving a Microlight Aircraft must be reported to the RAANZ. RAANZ has approval from CAA to triage all reports and will forward the information to CAA as required under Part 12. The occurrence will be classified as an accident if there is any injury reported; if the aircraft is rendered unairworthy; or if RAANZ determines it qualifies as an accident.
- Any incident must be reported to RAANZ to review and assess any quality assurance or remedial action that may be required to help prevent further occurrences.
- In the event of an Accident, the pilot must comply the Part 12 requirement for access to aircraft.

All Accidents and Incidents are to be reported in the RAANZ Incident Management System.

14.2 Maintenance and Logbooks

- Microlight Aircraft maintenance shall be the responsibility of the aircraft Owner.
- All Microlight Aircraft maintenance shall be recorded in a Maintenance Logbook conforming to the requirements of CAR Part 91 and AC43-1. On sale of the Airframe, Engine or Propeller the appropriate Maintenance Logbook or section thereof shall accompany the part to the new owner for continuity.
- All Microlight Owners must maintain their aircraft, engines and equipment, in accordance with the Manufacturer's published Maintenance Schedules.

• Members of RAANZ who operate a microlight aircraft that meets a type design standard specified in rule 103.207(a)(1) may qualify to enter and operate under the RAANZ On-Condition Program.

14.3 Microlight Inspection Authority

The minimum qualifications for Microlight Inspection Authorities are:

- Current RAANZ Membership
- Licensed Aircraft Maintenance Engineer or
- Engineering Trade Certificate and microlight maintenance experience or
- Considerable experience in the maintenance and repair of microlights or
- Experience in building, repair and maintenance of amateur-built aircraft or microlights.

Minimum knowledge requirements are:

- Conversant with relevant Civil Aviation Rules.
- Understanding of the exemptions from the Rules as shown in CAR Part 103. (Candidates should have a copy of Part 103).
- Knowledge of standard aircraft maintenance practices, repairs to structures and fabrics. (AC43-13-1A refers).
- Knowledge of materials used in microlights, their properties, equivalents and aircraft hardware.
- Knowledge of propeller construction, defects, repair and balancing.
- Knowledge of 2 and 4 cycle engines, carburation, ignition, cooling, generation and installation in microlight aircraft.
- Knowledge of aircraft radio requirements, NZ Post Radio Licence.
- Knowledge of modification procedure and effect of modifications on weight and balance, performance and structural integrity.
- Understanding of the Flight Permit validation procedure, MOT 2117 and the responsibilities of being an Inspector.
- Familiarity with CAR Part 43.

Persons who meet the criteria set out above may apply to RAANZ for the granting of an Inspection Authority, using the application form in the Forms Section of this Manual.

- Applicants should attach to this form any supplementary evidence as to qualifications or experience as is available.
- Applications will not be accepted without the Club Recommendation section completed by a Club Office Holder.
- An Inspection Authority is valid while the holder retains current RAANZ membership, unless terminated as detailed below.
- Applicants will be examined by the RAANZ Technical Officer against the qualifications and knowledge requirements on this page.
- The RAANZ Technical Officer will screen the application, and if approved the applicant will be assigned a numbered book of inspection forms.

• The Authority Holder will use their Identification/Certificate number on all Inspection forms.

RAANZ may also delegate an existing Inspection Authority Holder to assess and train any new applicant.

RAANZ will conduct regular IA refresher courses to help IAs maintain competency and knowledge of current issues and new developments

Inspection Authority Holders who have not undertaken an Aircraft Inspection for a period of one year or have not attended a refresher course in Five Years may at the discretion of the RAANZ Executive have their inspection authority rescinded.

RAANZ reserves the right to terminate any such Authority granted by it.

14.4 Modifications

14.4.1 General

- A Class II Microlight that is modified in any manner that may affect the airworthiness of the aircraft shall not be flown until the modification has been inspected and assessed by the holder of a **CAA re-assessment and re-inspection authorisation**.
- The basic principle is that the modified aircraft must be at least as good as the previous configuration. This is done by comparison with the original where this is appropriate, or by showing the new design complies with the original aircraft airworthiness design standard or an acceptable equivalent design standard.

14.4.2 Class 2 Modification Procedure

The procedure for acceptance of any modification that may affect continuing airworthiness is detailed in section 9.8 of this exposition

14.4.3 Class 1 Modifications

• Every Class 1 microlight that is modified must continue to comply with the CAR Part 103.

14.4.4 Modifications invalidate existing flight permit

- Any modification made to a Class II aircraft which affects airworthiness will invalidate its existing Permit to Fly. The modification must be reinspected and reassessed for compliance with CAR 103.203 before further flight. This requires the procedure under 10.9.
- Once the modification has been assessed and authorised the Permit to Fly will become valid again, unless some information on it is changed.
- A new Permit to Fly will be required if the engine or propeller are changed, and this should be made a condition of the modification assessment

14.5 Defects

- The pilot in command and/or the aircraft owner is responsible for reporting Defects.
- Details of Microlight Defects may also be submitted by any RAANZ member or Club.
- Reports shall be made into the <u>RAANZ Incident Management System</u>
- Defect Reports should be brief and concise and shall be submitted within 1 month of the occurrence.
- If no access to the internet is available a report may be written on another format provided the same information required on the form is supplied.
- This is a mandatory reporting scheme designed to advertise to other Microlight pilots any safety related matter involving the maintenance or operation of Microlight Aircraft, or other defects that individual Pilots have experienced and consider it advantageous that other Pilots be aware of.
- Defects reported by this method will be assessed by the Technical Officer and Executive Council, as part of their monthly Meeting Agenda.
- If warranted, RAANZ will publish them on the RAANZ website or monthly newsletter.
- Defect Report details will be recorded by RAANZ and will be held by the Administration Officer.
- Reports will be analysed when necessary to determine trends detrimental to safety, in accordance with the procedure.
- It should be noted that the submission of this form to RAANZ does **not** absolve the pilot from compliance with any requirement in the Civil Aviation Act with respect to the notification of Aircraft Accidents.

14.5.1 Recording of defects - Technical Log

- Each aircraft shall have means of recording the detection and correction of defectsthe Technical Log.
- The pilot shall review the Technical Log prior to each flight to ascertain the airworthiness of the aircraft.
- On completion of the flight the pilot shall record in the Technical Log any further defects detected.
- On correction of a defect the Technical Log shall be updated to indicate the defect has been cleared.
- While 103.105 does not require this document to be carried in the aircraft, it is recommended to do so for convenient reference.
- This Technical Log is particularly important for club or syndicate aircraft that are shared by a group of pilots.

14.6 Safety Directive and Airworthiness Directive Compliance

- Manufacturers, Importers and the Civil Aviation Authority may supply a copy of any Microlight Aircraft Safety Directive to RAANZ.
- Upon receipt, RAANZ will forward a copy of any Safety Directive to the Director, Civil Aviation Authority, and each Registered Owner affected, at their last known address.
- RAANZ will also publish the Safety Directive on the RAANZ website or newsletter.
- It shall be the Owner's responsibility to comply with the Safety Directive.

- A Microlight aircraft that is not in compliance with an applicable Airworthiness or Safety Directive shall not be flown.
- Class 2 Microlight compliance shall be checked upon the annual re-validation of the Flight Permit

14.7 Service Bulletin Assessment and Dissemination

- Manufacturers and Importers may provide a copy of any Service Bulletin to RAANZ.
- The Service Bulletin will be assessed by the Technical Officer and the Executive Council, and, if warranted, RAANZ will publish it on the RAANZ website or newsletter.
- It shall be the Owner's responsibility to assess but not necessarily comply with the Service Bulletin.
- In the case of Service Bulletins classified as **mandatory** by the Manufacturer, Class 2 Microlight compliance will be checked upon re-validation of the Flight Permit document.

14.8 Type Acceptance

14.8.1 General

- For all microlights, an identification plate shall be fitted to the main frame carrying the serial number and registration.
- The registration letters shall be affixed as described in CAR Part 47.
- For Groups A and P, the wing and the main frame are treated as a complete unit. Any changes of wing to the main frame shall be treated as a modification.

14.8.2 Class 1 Microlight

- RAANZ is responsible for acceptance and clearance of the design.
- Class 1 Microlight Aircraft are not subject to a Flight Permit but must still be registered.
- Prior to the registration of a Class 1 Microlight, the owner shall submit to the RAANZ Executive Council sufficient documentary evidence in the form of designs or specifications that the Microlight conforms to the definition of a Class 1 Microlight, and a written request for acceptance, PRIOR to application to the Civil Aviation Authority for Registration.
- Such aircraft may be checked for conformity in the field at the request of RAANZ by an authorised person, who will forward written verification of conformity to RAANZ.
- In the case of Microlights certified in another Country acceptable under CAR Part 103, the Owner shall produce verification from the relevant Civil Aviation Authority, or the Manufacturer, that such certification exists and has been complied with.
- Certification from the Owner will be required that the aircraft is built in accordance with the Manufacturer's instructions.
- RAANZ will verify conformity to the definition and confirm such verification to the owner, who should submit the RAANZ acceptance along with the Registration Application to the Civil Aviation Authority of New Zealand.

• Where a hang-glider wing is to be used in the group, a microlight configuration verification shall be sought for the specific wing from the Hang-gliding Association as being satisfactory for flight.

14.8.3 Class 2 Microlights

- Class 2 Microlights are subject to a Flight Permit document, which is issued for the life of the aircraft, and re-validated annually by an inspection of the aircraft conducted by an Inspection Authority Holder.
- A Flight Permit may only be issued if the aircraft has had Registration Marks allocated by Civil Aviation Authority of New Zealand. as described in this Manual, has been inspected for Conformity with the Type Design, and the standard of workmanship checked as satisfactory by a RAANZ Inspector.
- The Flight Permit Document shall be carried in the aircraft. The current Flight Permit validation sticker shall be affixed to the aircraft in a clearly visible position.
- Inspection Authority holders shall have to hand such information pertaining to the Microlight aircraft or Gyroplanes being inspected as RAANZ shall issue from time-to-time.
- The RAANZ Flight Permit Validation process is available to RAANZ members and Affiliated Clubs.

14.9 Application for Certificate of Registration and Issue of Flight Permit

- Application for a Certificate of Registration and the issue of an initial Flight Permit shall be made to the CAA.
- RAANZ may recommend the issue of a Flight Permit document for a Class 2 Microlight aircraft if:
 - The aircraft is of a type which the Director has accepted as eligible for issue of a Flight Permit.

and

- The aircraft has been inspected by a person authorised in writing by the Director for that purpose and found to be in a safe condition.
- Unless otherwise prescribed by the Director, a Flight Permit for a Class 2 Microlight aircraft shall continue in force for the life of the aircraft and shall be valid for a period of 12 months.
- RAANZ may re-validate a Flight Permit for a Class 2 Microlight aircraft for a period not exceeding 12 months, if satisfied that the aircraft is in a safe condition for flight by the satisfactory completion of an annual inspection.
- A Flight Permit may be issued subject to such conditions as the Director considers appropriate, and where the aircraft is operated in breach of these conditions the Flight Permit shall become void and of no effect.

14.10 Revalidation of Flight Permit

The re-validation procedure is as follows:

- The Owner shall, before the expiry date of the last Flight Permit, contact an Inspection Authority holder and arrange an aircraft inspection.
- It is the Owner's responsibility to make the aircraft available for inspection. If Inspection Authority Holder is requested to travel, a charge may be made for travel expenses.
- A list of current Inspection Authority Holders is available from RAANZ on the RAANZ web site.
- The Inspection Authority Holder will complete an Aircraft Inspection and Flight Permit Validation Form.
- If the aircraft passes inspection, the Inspector shall affix a validation sticker to the aircraft after:
 - signing the validation sticker
 - entering an expiry date on the validation sticker 12 months after the inspection date.
 - Entering the annual inspection details in the aircraft logbook.
- Note: ALL sections of this Form must be completed.
- The Inspector will forward the completed Form, together with the appropriate fee, to RAANZ at the current address.
- RAANZ will confirm that the aircraft is registered and is an accepted type and will enter details into their records.
- An inspection may completed up to 30 days prior to when it is due to expire and it will be deemed to have been completed on the required date.

14.11 Duplicate Inspection

A duplicate inspection shall be carried out on aircraft/systems that are not designed for regular assembly/disassembly. This shall be carried out by a certified Pilot or Engineer (including RAANZ Inspection Authorities) when any control or throttle mechanism is disturbed,

15 Special Operations

15.1 Microlight Helicopter Operations

15.1.1 Pilot Training Requirements

• Pilot flight training for the issue of a RAANZ Microlight Pilot Certificate - Helicopter shall only be conducted by a Flight Training Organisation or Club approved by

RAANZ for that purpose, and shall generally meet those requirements necessary for qualification as a Private Pilot - Helicopter, except –

- •
- Pilot medical requirements may comply with the standard specified by RAANZ;

and

- Pilot knowledge requirements may be a standard approved by RAANZ.
- Approval for a Flight Training Organisation to conduct helicopter training shall only be given following a written application to the RAANZ Executive.
 - Microlight helicopter instructor rating issued by RAANZ to a standard equivalent to (a) above, shall give flight instruction on a Part 103 microlight helicopter for the qualification of a Microlight Pilot Certificate - Helicopter

15.2 eVTOL Operations

15.2.1 Authorised eVTOL Operations

The eVTOL category is a new and quickly evolving aircraft type. All operations and training must meet the requirements and syllabus as defined by the aircraft manufacturer and approved by RAANZ.

15.2.2 Exclusions

Due to the current range of eVTOL aircraft, cross-country training may be reduced to fit within capability. This applies only to the Restricted Microlight Certificate.

15.3 Microlight Towing Operations

15.3.1 Requirements for Issue

- No person shall act as pilot-in-command of a Microlight engaged in hang-glider towing operations unless that person:
 - Is the holder of a current Microlight Pilot Certificate (not Restricted) issued by RAANZ;

and

• Has completed a minimum of 100 hours total flight time in Microlight aircraft, which includes a minimum of 80 hours pilot-in-command;

and

• Has completed a minimum of 20 hours total flight time in the type of aircraft to be used in the towing operation;

and

- Has satisfactorily completed, within the last 24 months, an oral and practical test to be conducted by EITHER the holder of a Microlight Senior Instructor Certificate with Towing endorsement, OR the holder of a NZHGPA/Glider Instructor Rating with considerable aero-towing experience.
- The syllabus and standards for this test are contained in the N.Z. Aerotow Manual.
- The granting of a Tow Rating shall be entered into the pilot's logbook and signed by the Instructor.

16 List of Official Forms

Medical Declaration Fit and Proper Person Declaration Certificate Membership Validation (CMV) Form Flight Permit Validation (FPV) Form