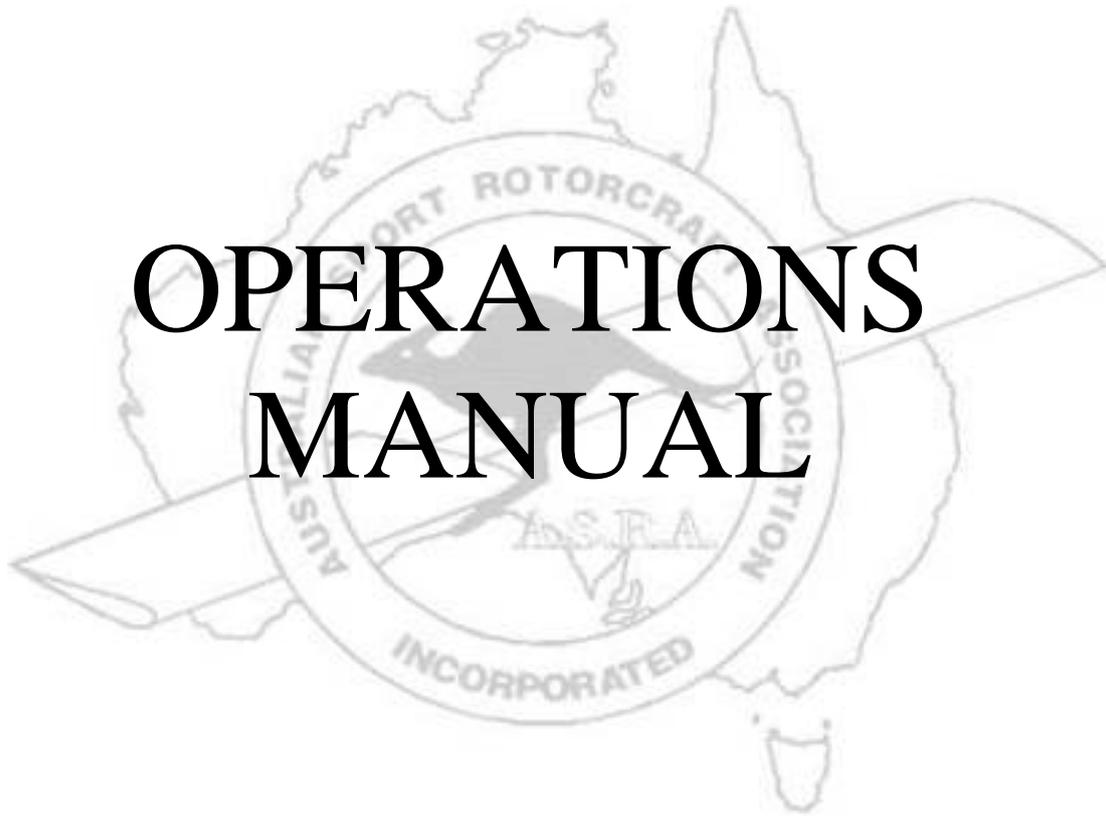


A.S.R.A.

**OPERATIONS
MANUAL**



Compiled by Allan Wardill

Effective 1st. January 2003

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ASRA OPERATIONS MANUAL
ISSUE 6 – MARCH 2020
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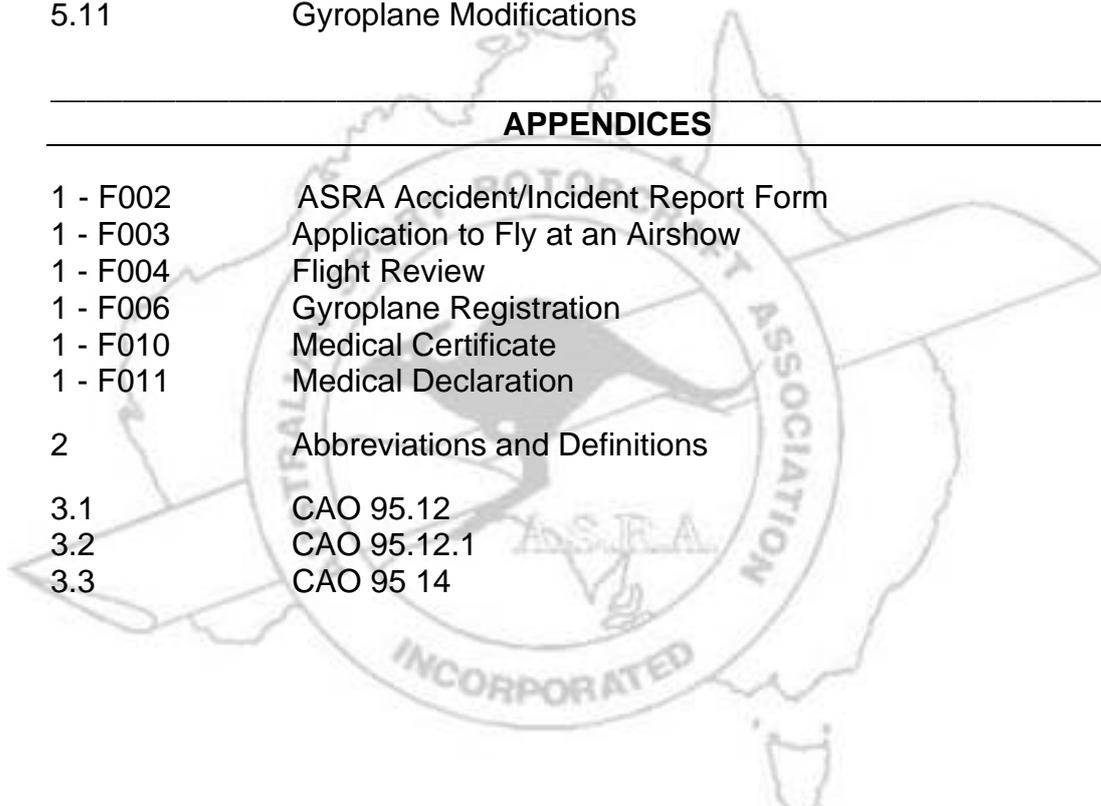
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INTRODUCTION

**All forms of flight are potentially hazardous. The risks and hazards associated with flying are real and all pilots and potential pilots must be fully aware of the possible risks involved.
All persons participating in flight training or instruction conducted in accordance with this Manual, do so at their own risk.**

Civil Aviation Orders (CAO) 95.12, 95.12.1, require that all gyroplanes operated under the provisions of the relevant CAOs be operated in accordance with the standards and procedures specified in the Australian Sport Rotorcraft Association Operations Manual.

Gyrogiders are operated under CAO 95.14. ASRA requires that its members operate gyrogiders in accordance with this Manual and its supplements.

This Manual and its supplements have been compiled to meet the requirements of the relevant CAOs and is the only Manual recognised by ASRA for the control of gyroplane operations. Words importing gender include any other gender. Words importing a singular number include the plural and words importing the plural number include the singular.

This Manual is approved by the Civil Aviation Safety Authority (CASA) and is effective from the date of approval by CASA.

Changes and amendments to this Manual must be approved by CASA prior to incorporation into the Manual. All such changes and amendments will be entered into the Manual immediately upon receipt by the manual holder, and the details of the changes and/or amendments noted in the Amendment Record Section of the Manual.

This Manual sets out the requirements and procedures to obtain and maintain the following qualifications to operate a gyroplane.

1. Student Pilot Certificate.
2. Pilot Certificate.
3. Assistant Instructor (Gyroplane) Rating.
4. Instructor (Gyroplane) Rating.
5. Senior Instructor (Gyroplane) Rating.
6. Chief Flying Instructor Approval.
7. Various endorsements.

To achieve standardisation of pilot training methods and procedures, thus ensuring a high and continued level of gyroplane pilot competency, the procedures contained in this Manual will be strictly adhered to.

General information concerning this Manual can be obtained by directing enquiries to the ASRA Operations Manager.

Technical information concerning specific gyroplanes should be obtained directly from the manufacturer's handbook or by directing enquiries to the manufacturer or designer.

ASRA will be the sole authority regarding the interpretation of all or part of this Manual and the ASRA interpretation will be final.

NOTE: The Civil Aviation Regulations apply to all gyroplanes just as they do to other aircraft except where the ASRA member is specifically exempted from some regulations in either CAOs 95.12, 95.12.1 or 95.14.



SECTION 1.01**ORGANISATION AND ADMINISTRATION**

The Australian Sport Rotorcraft Association Inc. (ASRA) is a non-profit organisation consisting of individual members and affiliated clubs and associations, whose aims and objectives are to foster and encourage the construction and safe operation of gyroplanes for educational, recreational and research purposes.

The day-to-day administration of ASRA is the responsibility of the affiliated clubs and the Executive Members of the ASRA Board, who function in accordance with the directions of the ASRA Board.

The ASRA Board consists of the President, Vice-President, Secretary and Treasurer, who form the Executive of the Association, plus three ordinary members.

The ASRA Board is responsible for:

- a. the administration of ASRA.
- b. ensuring the safe operation of gyroplanes registered with ASRA and that they are operated in accordance with the appropriate CAOs.
- c. delegating work to appropriate members where required.
- d. the production and distribution of the “Gyro News” magazine.
- e. the appointment and monitoring of the Operations Manager, Training and Safety Manager, Technical Manager and Chief Training Pilot.
- f. ensuring that all appointees diligently carry out their duties in accordance with their respective Duty Statements.

All ASRA members are supplied with a personal copy of this Operations Manual and the ASRA Constitution, By-Laws and Disciplinary Procedures Hand Book.

All members who are receiving gyroplane pilot training, or who are pilots or Instructors, are obliged to possess a personal copy of the following additional documentation:

- a. STUDENT PILOTS and PILOTS – Pilot Log Book, ASRA Basic Aeronautical Knowledge Manual and Pilot Training Booklet
- b. INSTRUCTORS – In addition to (a), Gyroplane Instructor Training Manual, and manuals relevant to the subjects on which that they are qualified to instruct.

Registration of ASRA Members:

See Section 1.05

Registration of Pilot Qualifications:

See Section 1.03

Registration of Gyroplanes:

See Section 5.03



SECTION 1.02**STATEMENT OF DUTIES AND RESPONSIBILITIES****OPERATIONS MANAGER**

The Operations Manager will undertake to carry out the duties listed below, for which he is responsible to the ASRA Board -

1. Supervise and control gyroplane operations in Australia, in accordance with the relevant CASA Regulations and Directives, the ASRA Operations Manual and supplements thereto.
2. Assist in achieving and maintaining ASRA's Certification under CASR part 149 as the Administrative Body for Sport Rotorcraft in Australia.
3. Maintain regular contact with the ASRA Board and the ASRA Officers responsible to him.
4. Liaise with CASA on all matters pertaining to the relevant CAOs and airworthiness requirements for gyroplanes, the ASRA Operations Manual, amendments and supplements thereto.
5. Coordinate the activities of the Technical Officer, Training Officer and the Chief Training Pilot to ensure that high standards in the technical and training areas are set and maintained.
6. Conduct theory and flight examinations of Senior Instructor, Instructor and Assistant Instructor candidates for the initial issue and renewal of the appropriate ratings.
7. Approve or otherwise the initial issue and renewal of all ASRA Pilot Certificates, Approvals, Ratings and Endorsements, or delegate this authority as appropriate.
8. Develop and administer an effective accident and incident reporting, investigation and recording system, and make regular reports regarding these activities to the ASRA Board and the members of ASRA.
9. Where there has been a breach of the procedures and/or regulations set out in this Manual or the relevant CASA Regulations, act in accordance with this Manual, Section 2.11 "Suspension or Cancellation of ASRA Flight Crew Certificates".
10. Provide the ASRA Board with regular written reports on all aspects of these duties and responsibilities.



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SECTION 1.03**STATEMENT OF DUTIES AND RESPONSIBILITIES****TRAINING OFFICER**

The Training Officer will undertake to carry out the following duties, for which he is responsible to the ASRA Board through the Operations Manager:

1. Liaise with the Operations Manager to ensure the maintenance of pilot training standards such that ASRA certificate holders are correctly trained and qualified to enable them to meet and maintain the standards required by their certificates and ratings.
2. Maintain a register of the initial issue and renewals of members' Instructor Ratings, and their Medical Certificates, and advise the Operations Manager of the failure of any member to renew these in accordance with the provisions of this Manual.
3. Upon instructions, plan and formulate the syllabus, training materials and examinations required for the conduct of courses associated with Instructor Rating training.
4. Produce and issue instructor packs to the holders of ASRA Instructor Ratings, and amend and update these packs when necessary.
5. Organise the flight-testing of CFIs who apply for renewal of their CFI Approval.
6. Assist in the organisation of instructor training courses, to ensure that ASRA has an adequate number of correctly trained and qualified Instructors.

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SECTION 1.04**STATEMENT OF DUTIES AND RESPONSIBILITIES****CHIEF TRAINING PILOT**

The Chief Training Pilot will undertake to carry out the following duties, for which he is responsible to the ASRA Board through the Operations Manager:

1. Conduct theory and flight examinations of senior instructor, instructor and assistant instructor candidates for the initial issue and renewal of the appropriate ratings, and make recommendations to the Operations Manager regarding the issue or renewal of such ratings.
2. Conduct theory and flight assessments for the issue or renewal of Chief Flying Instructor Approvals, and make recommendations to the Operations Manager regarding the issue or renewal of such approvals.
3. Organise and conduct theory and in-flight training courses for instructor candidates, and make recommendations to the Operations Manager regarding the issue of the applicable ratings.
4. Make recommendations to the Operations Manager regarding improved training methods and procedures that may be incorporated into the ASRA training programme to ensure a high standard of training is maintained.
5. By personal example, provide a high level of training and general flying practices that will serve as an example for other Instructors.
6. Liaise with, and make recommendations to the Operations Manager regarding the overall standard of gyroplane operations in Australia.



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SECTION 1.05**STATEMENT OF DUTIES AND RESPONSIBILITIES****REGISTRAR**

The ASRA Registrar will undertake to carry out the duties listed below, for which he shall be responsible to the Operations Manager, and the ASRA Board.

1. Maintain an accurate and up to date database of the ASRA membership.
2. Maintain an accurate and up to date database of the issue and renewal of ASRA Pilot Certificates and the ratings and endorsements attached thereto.
3. Maintain an accurate and up to date database of the Medical Declarations or Certificates held by the holders of ASRA Pilot Certificates.
4. Advise the Operations Manager immediately of the failure of the holder of an ASRA Pilot Certificate to comply with the requirements of this Manual regarding the renewal of his ASRA Pilot Certificate, Medical Declaration or Medical Certificate.
5. At the request of the person responsible and at the intervals specified, provide details of the databases maintained for inclusion in the ASRA Combined Database.
6. Process membership application, and membership renewal forms and issue membership cards.
7. Liaise with ASRA's Board and members.
8. Ensure all members' documentation is filed.
9. Send out reminder letters to members whose membership has lapsed.



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SECTION 1.06STATEMENT OF DUTIES AND RESPONSIBILITIESASSISTANT INSTRUCTOR

An ASRA Assistant Instructor will undertake to carry out the duties listed below, for which he will be responsible to an ASRA CFI and the Operations Manager.

1. By his own influence and activities, positively influence the standards of certificate training and operational procedures in his local area.
2. Under the instructions and supervision of an ASRA CFI or Instructor, conduct theory training and examinations for ASRA student pilots in accordance with the standards, procedures and regulations set out in this Manual and the relevant CAOs.
3. Under the instructions and supervision of a CFI or Instructor, conduct the direct supervision of ASRA student pilots who have been authorised by a CFI or Senior Instructor to carry out solo flights.

NOTE: ASRA Assistant Instructors are **NOT** permitted to authorise student pilots to undertake their first solo flight.

4. When authorised by the Operations Manager, conduct Flight Reviews and endorsement training and checks, but only for those endorsements for which he is personally qualified, and make recommendations to his responsible CFI regarding the renewal of ASRA Pilot Certificates.

NOTE: ASRA Assistant Instructors are NOT qualified to occupy the control seat of a gyroplane for the purpose of conducting flight reviews, endorsement training or checks. These activities must be completed by direct observation, either from the ground or from another gyroplane in-flight.

5. Ensure that each gyroplane to be used for solo flight by student pilots is in an airworthy state, and also satisfy himself that each gyroplane is properly registered with ASRA.
6. Ensure that sufficient and regular solo in-flight practice is carried out, so as to maintain a high personal level of pilot competency and currency.
7. Maintain accurate training records, and provide statistics regarding hours flown and training carried out, as and when requested.

NOTE 1: An Assistant Instructor is certificated by ASRA, and as such ASRA can suspend or cancel his certificates for failure to fulfil the obligations of these certificates as laid down in this Manual.

NOTE 2: At no time is an Assistant Instructor an employee or agent of ASRA by virtue of these certificates.

- 8 Identify pilots who in his opinion are suitable to become ASRA Instructors, and assist, encourage and mentor such pilots with a view to achieving an operational standard that will allow them to undertake an ASRA approved Instructor course.



SECTION 1.07**STATEMENT OF DUTIES AND RESPONSIBILITIES****INSTRUCTOR**

An Instructor will undertake to carry out the duties listed below, for which he will be responsible to his nominated CFI and the Operations Manager.

1. By his own influence and activities, positively influence the standards of certificate training and operational procedures in his local area.
2. Under the supervision of his CFI, conduct theory instruction and examinations, and in-flight instruction for student pilots, and make recommendations to his CFI as to the readiness of a student pilot to undertake his first solo flight.

NOTE: Instructors are **NOT** permitted to authorise a student pilot's first solo flight.

3. When authorised by the Operations Manager, conduct Flight Reviews and endorsement training and checks, but only for those endorsements for which he is personally qualified, and make recommendations to his responsible CFI regarding the renewal of ASRA Pilot Certificates.
4. Ensure that each two-place gyroplane to be used for flight training is kept in a clean and airworthy state, and ensure that the same gyroplane complies with the ASRA two-seat requirements, is properly registered with ASRA and has, where available, public liability insurance.
5. Ensure that sufficient and regular solo in-flight practice is carried out, so as to maintain a high personal level of pilot competency and currency.
6. Enter details of endorsement and flight checks successfully carried out in the pilot's log book and update the online data base for the pilot concerned.
7. Maintain accurate student pilot training records, and provide statistics regarding hours flown and training carried out, as and when requested.
8. Identify pilots who in his opinion are suitable to become ASRA Instructors, and assist, encourage and mentor such pilots with a view to achieving an operational standard that will allow them to undertake an ASRA approved Instructor course.

NOTE 1: An Instructor is certificated by ASRA, and as such ASRA can suspend or cancel his certificates for failure to fulfil the obligations of these certificates as laid down in the ASRA Operations Manual.

NOTE 2: At no time is an Instructor an employee or agent of ASRA by virtue of these certificates.



SECTION 1.08**STATEMENT OF DUTIES AND RESPONSIBILITIES****SENIOR INSTRUCTOR**

A Senior Instructor will undertake to carry out the duties listed below, for which he is responsible to his nominated CFI and the Operations Manager.

1. By his own influence and activities, positively influence the standards of certificate training and operational procedures in his local area.
2. Under the directions of a CFI, instruct, examine and recommend the issue of ASRA Certificates and Endorsements, but only for those endorsements for which he is personally qualified.
3. Conduct Flight Reviews.
4. Assess the readiness for, and authorise student pilots to undertake their first and subsequent solo flights.
5. Make recommendations to the Operations Manager regarding the issue and renewal of ASRA Pilot Certificates.
6. Ensure that the gyroplane to be used for flight training is kept in a clean and airworthy state, and ensure that the same gyroplane complies with the ASRA two-seat requirements, is properly registered with ASRA and has, where available, public liability insurance.
7. Ensure that sufficient and regular solo in-flight practice is carried out, so as to maintain a high personal level of pilot competency and currency.
8. Enter details of endorsement and flight checks successfully carried out in the pilot's log book, and update the online database for the pilot concerned.
9. Maintain accurate student pilot training records, and provide statistics regarding hours flown and training carried out, as and when requested.
10. Identify pilots who in his opinion are suitable to become ASRA Instructors, and assist, encourage and mentor such pilots with a view to achieving an operational standard that will allow them to undertake an ASRA approved Instructor course.

NOTE 1: A Senior Instructor is certificated by ASRA, and as such ASRA can suspend or cancel his certificates for failure to fulfil the

obligations of the certificates as laid down in the ASRA Operations Manual.

NOTE 2: At no time is a Senior Instructor an employee or agent of ASRA by virtue of these certificates.



SECTION 1.09**STATEMENT OF DUTIES AND RESPONSIBILITIES****CHIEF FLYING INSTRUCTOR**

A Chief Flying Instructor (CFI) will undertake to carry out the following duties, for which he is responsible to the Operations Manager:

1. By his own virtue and via the ASRA Instructors and Assistant Instructors for whom he is responsible, positively influence the standards of certificate training and operational procedures of those for whom he is responsible.
2. Instruct, examine and recommend candidates for the issue or renewal of ASRA Certificates, Ratings and Endorsements, but only for the endorsements for which he is personally qualified.
3. Provide adequate leadership and support to the ASRA Instructors and Assistant Instructors for whom he is responsible.
4. Ensure that ASRA Instructors maintain the highest level of competency and currency, and conduct regular check flights to assess their continued suitability to conduct flight training.
5. Ensure that the gyroplanes used for flight training are kept in a clean and airworthy state, and ensure that the same gyroplanes comply with the ASRA two-seat requirements, and are properly registered with ASRA, and have, where available, public liability insurance.
6. Maintain accurate student pilot training records, and provide statistics regarding hours flown and training carried out, as and when requested.
7. Enter details of endorsement and flight checks successfully carried out in the pilot's log book, and update the online database for the pilot concerned.
8. Make recommendations to the Operations Manager regarding the standards of gyroplane pilot training, and the safety of gyroplane operations in Australia.
9. Identify pilots who in his opinion are suitable to become ASRA Instructors, and assist, encourage and mentor such pilots with a view to achieving an operational standard that will allow them to undertake an ASRA approved Instructor course.

NOTE 1: A CFI is approved by ASRA, and as such his Approval can be withdrawn at any time for failure to fulfil the obligations of this Approval.

NOTE 2: At no time is a CFI an employee or agent of ASRA by virtue of this Approval.



SECTION 1.10**STATEMENT OF DUTIES AND RESPONSIBILITIES****TECHNICAL ADVISER**

A Technical Adviser will undertake to carry out the following duties and responsibilities, for which he is responsible to the Operations Manager through the Technical Manager:

1. Inspect gyroplanes during construction to assess the build standard and provide guidance in relation to the applicable construction standards and accepted engineering practices.
2. Upon request from an owner, inspect a gyroplane following construction, modification or repair, providing guidance in relation to the appropriateness of materials, standards and techniques used. Where the gyroplane is a LSA approved type, the manufacturer's requirements must be complied with.
3. Complete or supervise the accurate completion of ASRA form F006, Gyroplane Registration Form for newly constructed, modified, and repaired gyroplanes and ownership transfers and ensure that the form and the appropriate fee are forwarded to the ASRA Registrar promptly, or preferably, enter the data and pay the fee online.
4. Advise the owner of a gyroplane in relation to the requirements of published directives and alerts that may be applicable to that gyroplane.
5. Immediately report to the ASRA Technical Manager, faults that may prejudice the technical integrity or flight safety of a gyroplane.
6. Make recommendations regarding changes to the ASRA construction standards for gyroplanes.
7. By personal example, seek to ensure that ASRA members build and maintain their gyroplanes to the applicable standard and the manufacturer's instructions and requirements.
8. Not enter into any commercial or business relationships with any person with a view to undertaking technical inspections for that person. However, a Technical Adviser is entitled to be reimbursed by the gyroplane owner for out-of-pocket expenses incurred during technical inspections.

Note: The ASRA Board has previously varied paragraph 8 above in relation to Gyroscopic Rotorcraft of Broken Hill NSW due to geographic remoteness together with the relatively large number of identical or near-identical gyroplanes successfully constructed in the past.

9. Undertake to attend any update training and/or testing directed by the Technical Manager and approved by the ASRA Board and remain aware of new technologies, materials and construction techniques.
10. Not carry out technical inspection on a “first of type” gyroplane unless specifically authorised to do so by the Technical or Operations Manager.

Note: An ASRA Technical Adviser is not qualified or authorised to provide certification as to the airworthiness or otherwise of any gyroplane. Nothing in this Manual shall be interpreted in a way other than is stated here.



SECTION 2.01**FLIGHT CREW LIMITATIONS****PILOT IN COMMAND**

1. The pilot-in-command of a gyroplane operated under the provisions of CAOs 95.12, 95.12.1, or 95.14 must:
 - a. hold a valid ASRA Student Pilot or Pilot Certificate as listed in Section 2.03 issued or recognised by ASRA.
 - b. comply with the medical standards specified in Paragraph 10 of this Section.

PILOT INSTRUCTION

2. No person shall give flight instruction regarding gyroplanes unless that person is the holder of a valid ASRA Pilot Certificate, endorsed with an Instructor Rating issued by ASRA, and is responsible to, and under the supervision of, an ASRA CFI.

CARRIAGE OF PASSENGERS

3. No person shall carry passengers in a gyroplane unless:
 - (a) That person holds a valid ASRA Passenger Carrying Endorsement, and the gyroplane used for that purpose meets the two seat registration requirements specified by ASRA; or
 - (b) the two seat gyroplane is provisionally registered with ASRA, and is being flown for the purpose of testing for compliance with ASRA two seat registration requirements, and then only under the following conditions:
 1. the observer must be the holder of a Pilot Certificate (Gyroplane) issued by or recognised by ASRA; and
 2. the flight or flights are specifically approved by the Operations Manager or a CFI; and
 - (c) that person complies with the medical standard specified in Paragraph 10 of this Section.

CROSS COUNTRY FLYING

4. No pilot certificate holder shall act as pilot-in-command of a gyroplane at a distance greater than 25 nautical miles from the point of departure without being:

- a. issued with an ASRA Cross Country Endorsement; or
- b. under the supervision and control of a suitably qualified ASRA Instructor, and undertaking flight training exercises for the issue of an ASRA Cross Country Endorsement.

NOTE: Consecutive flights of 25 nautical miles do not comply with this requirement.

CLOSE PROXIMITY FLYING

5. No person shall pilot a gyroplane close to another gyroplane unless that person has been trained in accordance with an approved formation flying syllabus, and issued with an ASRA Formation Endorsement.

AIR DISPLAYS

6. No person may operate a gyroplane at an airshow, air display or public demonstration unless that person has completed an Application to Fly at an Airshow, ASRA Form F003 contained in Appendix 1 of this Manual, and the ASRA Operations Manager has approved that application.

AIRCRAFT RADIO

7. No person may operate aeronautical frequency VHF radio equipment installed in or used in conjunction with gyroplane operations, unless that person holds a Radio Operator Endorsement issued by ASRA.

CARRIAGE AND PRODUCTION OF GYROPLANE PILOT CERTIFICATE

8. Pilots-in-command of gyroplanes should carry their ASRA Pilot Certificate and their current ASRA Membership Card, and are required to produce these immediately on demand from an ASRA official (including members of the ASRA Board, CFIs, and Instructors), an officer of CASA, or a Police Officer.

COMPLIANCE WITH DIRECTIVES

9. The holder of an ASRA Pilot Certificate shall comply with all applicable directives issued by the Operations Manager or the ASRA Board.

MEDICAL STANDARD

10. The Medical Standard for the holders of ASRA Pilot Certificates is as follows:

- (a) For the holders of ASRA Student, Pilot Certificates and Assistant Instructor Ratings:
 - 1. a Class 2 Aviation Medical Certificate; or
 - 2. the standard required to hold a Motor Vehicle Driver Licence in Australia (ASRA Form F011); or

- (b) For the holders of ASRA Instructor Ratings and/or an ASRA Passenger Carrying Endorsement:
 - 1. a Class 2 Aviation Medical Certificate; or
 - 2. the standard set by the National Road Transport Commission in their publication “Medical Examination of Commercial Vehicle Drivers”, and on their website www.nrtc.gov.au (ASRA Form F010).

NOTE: Where (2) above is utilised and a Conditional Medical Certificate is issued, the ASRA Board may require an Indemnity and Disclaimer Form to be understood and signed by any person who flies with a pilot who holds a Conditional Medical Certificate (Form F010, Box ‘C’ ticked). The determination of this requirement shall lie solely with the ASRA Board.



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SECTION 2.02**GYROPLANE PILOT LOG BOOK**

Gyroplane pilots are required to keep accurate records of their aeronautical experience. A pilot log book will be kept by all gyroplane pilots for this purpose and shall contain the following information, entered by the pilot:

- a. date of flight;
- b. place of takeoff and landing;
- c. duration of flight;
- d. registration markings of the gyroplane;
- e. name of the pilot-in-command;
- f. type of gyroplane flown;
- g. crew capacity of the log book holder;
- h. if under instruction, state dual or solo and the nature of the in-flight exercise carried out;
- i. if carrying out instruction, the name of the person under instruction;
- j. if carrying a passenger, the name of the passenger;
- k. a record of the number of landings completed per day together with the progressive total number of landings carried out as pilot in command of gyroplanes.

Details of endorsements and flight checks shall be entered in the pilot log book by the ASRA Instructor who carried out the check.

Gyroplane Pilot Logbooks must be produced on demand by an ASRA official (including members of the ASRA Board, CFIs, and Instructors), an officer of CASA, or a Police Officer.



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SECTION 2.03**FLIGHT CREW CERTIFICATES – LEVELS**

ASRA Pilot Certificates will only be issued to financial members of the Australian Sport Rotorcraft Association Inc., and will **remain valid only while the holder is a financial member of the Association.**

Upon approval from the Operations Manager, all ASRA Pilot Certificates may be endorsed with one or more of the following listed below.

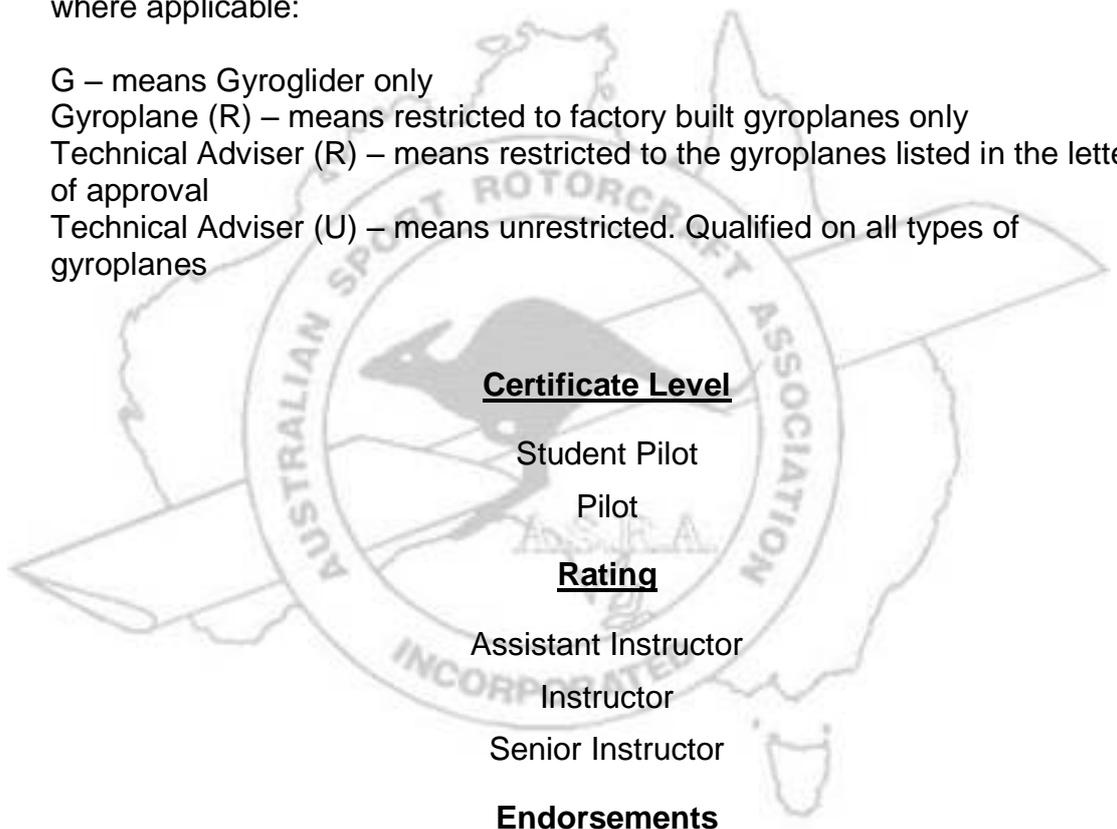
NOTE: The following abbreviations may be suffixed to the appropriate fields where applicable:

G – means Gyroglider only

Gyroplane (R) – means restricted to factory built gyroplanes only

Technical Adviser (R) – means restricted to the gyroplanes listed in the letter of approval

Technical Adviser (U) – means unrestricted. Qualified on all types of gyroplanes

**Certificate Level**

Student Pilot

Pilot

Rating

Assistant Instructor

Instructor

Senior Instructor

Endorsements

Gyroglider

Gyroplane

Radio Operator

Passenger Carriage

Cross Country

Formation

Waterborne

Beach

Low Level

Aerodrome

Above 500'

Approvals

Chief Flying Instructor

Technical Advisor

Chief Training Pilot

Note: Approvals are issued in writing by the Operations Manager.



SECTION 2.04**FLIGHT CREW CERTIFICATE****STUDENT PILOT CERTIFICATE****REQUIREMENTS FOR ISSUE**

1. An applicant for the issue of an ASRA Student Pilot Certificate must:
 - (a) be a financial member of ASRA; and
 - (b) have attained the age of 15 years; and
 - (c) comply with the medical standard specified in Section 2.01 of this Manual; and
 - (d) be able to understand and carry out instructions given in the English language.

PRIVILEGES

- (e) An ASRA Student Pilot Certificate authorises the holder to act, under the direct supervision of an ASRA Assistant Instructor or higher, as pilot-in-command of a gyroplane that is not carrying a passenger, with the exception of the Instructor, for the purpose of increasing their flying skills in order to qualify for the issue of an ASRA Pilot Certificate.
- (f) An ASRA Student Pilot Certificate holder may not fly solo unless such flights are authorised by an ASRA Senior Instructor or higher, and these solo flights are directly supervised by that instructor or another suitably qualified ASRA Instructor.

NOTE: Direct Supervision means that the supervisor must be physically present and, in a position, to observe all phases of the flight (s).

TIMEFRAME FOR STUDENT APPLICATION

- (g) A person may commence initial flight training in accordance with the approved training syllabus, subject to the following limitations:
 - a. they have been issued with temporary ASRA membership or,
 - b. they must become a full ASRA member before exceeding 2 hours of dual instruction.

- c. they must obtain an ASRA Student Pilot Certificate before exceeding 5 hours of dual instruction.

NOTE: NO STUDENT MAY FLY SOLO PRIOR TO THE ISSUE OF THE STUDENT PILOT CERTIFICATE.

PERIOD OF VALIDITY

- (h) A Student Pilot Certificate remains valid for two (2) years from the date of issue. Where a Student Pilot has not been issued with a Pilot Certificate during this period, he must apply for the renewal of the Student Pilot Certificate in writing to the ASRA Training and Safety Manager, explaining the reason why a Pilot Certificate has not been issued.



SECTION 2.05**FLIGHT CREW CERTIFICATE****PILOT CERTIFICATE****REQUIREMENTS FOR ISSUE**

1. An applicant for the issue of an ASRA Pilot Certificate shall, unless approved by the Operations Manager:
 - a. has attained the age of 15 years.
 - b. hold a valid ASRA Student Pilot Certificate;
 - c. be a financial member of ASRA;
 - d. comply with the medical standard specified in Section 2.01 of this Manual;
 - e. have undergone theory and flight training in accordance with the Operations Manual or have completed a recognised course acceptable to the Operations Manager;
 - f. has successfully passed theory and in-flight examinations in accordance with the requirements of the Operations Manual, thus demonstrating to an ASRA Instructor or higher that he has reached the level of competency required for the issue of an ASRA Pilot Certificate;

AERONAUTICAL EXPERIENCE

2. Prior to undertaking a flight test for the issue of an ASRA Pilot Certificate an applicant shall satisfy one of the aeronautical experience requirements listed in either para. a or para. b below:
 - a. have completed a minimum of 20 hours flying experience in gyroplanes, which shall include a minimum of 15 hours of instructional flight in a two-seat gyroplane, and a minimum of 5 hours as pilot-in-command; or
 - b. if having previous flying experience in sailplanes, aeroplanes, helicopters, gyrogliders or ultralight aeroplanes:
 - (1) have in excess of 20 hours flying experience with a minimum of 5 hours as pilot-in-command;
 - (2) undertake such dual training in a two-seat gyroplane as is deemed necessary by an ASRA Instructor or higher;
 - (3) acquire a minimum of 5 hours flying experience in gyroplanes, which must include at least 1 hour as pilot-in-command.

PRIVILEGES

3. A valid ASRA Pilot Certificate authorises the holder to act as pilot-in-command of a gyroplane. A pilot certificate holder may **not** fly as pilot-in-command of a gyroplane:
 - a. when a gyroplane is flown a distance greater than 25 nautical miles from the original point of departure unless:
 - (1) he holds a valid ASRA Cross Country Endorsement; or
 - (2) he is conducting flight training solo exercises under the direct supervision and control of an ASRA Instructor or higher.
 - b. at or within 8 KM (5 NM) of a certified or registered aerodrome unless:
 - (1) he holds a valid ASRA Aerodrome endorsement.
 - c. when carrying passengers unless:
 - (1) he holds a valid ASRA Passenger Carriage Endorsement.
 - d. when operating within the vicinity of a certified or registered aerodrome or other areas where the carriage and use of VHF aircraft band radio is mandatory, unless:
 - (1) the gyroplane is fitted with a serviceable VHF aircraft band radio, and he holds a valid ASRA Radio Operator Endorsement.

PERIOD OF VALIDITY

4. Unless cancelled or suspended by the Operations Manager, an ASRA Pilot Certificate shall remain valid subject to the following conditions being met:
 - a. the pilot is a financial member of ASRA; and
 - b. the pilot abides by the conditions of the ASRA Operations Manual and the Civil Aviation Regulations (CAR) 1988.

REQUIREMENTS FOR THE MAINTENANCE OF A VALID PILOT CERTIFICATE

5. Unless approved by the Operations Manager, in order for the holder to exercise the privileges of an ASRA Pilot Certificate, he shall:

- a. continue to meet the medical standard specified in Section 2.01 of this Manual;
- b. within a period of 1 year immediately before the day of the proposed flight, have flown and logged a minimum of 10 hours as pilot-in-command of a gyroplane, or completed a Flight Review conducted by an ASRA Assistant Instructor or higher who is authorised to conduct Flight Reviews;
- c. within a period of two years immediately before the day of the proposed flight, have satisfactorily completed a Flight Review with an ASRA Assistant Instructor or higher who is authorised to conduct Flight Reviews;
- d. for a period of 3 years immediately following the initial issue of an ASRA Pilot Certificate, or until 150 hours as pilot-in-command of gyroplanes has been flown and logged, the holder must satisfactorily complete a flight check with an ASRA Instructor or higher if he:
 - (1) has not flown a gyroplane for a period exceeding 90 days; or
 - (2) has not completed at least 3 idle power landings in a gyroplane in the preceding 90 days; or
 - (3) has not flown and logged at least 15 hours in a gyroplane in any 12 month period.

NOTES ON FLIGHT REVIEWS

- (1) the review will normally be conducted in a gyroplane of the type in which the pilot flew the greatest amount of time as pilot-in-command during the last ten flights, or a gyroplane nominated by the pilot under review;
- (2) if the type of gyroplane referred to in subparagraph (1) is a single place gyroplane, or is not fitted with dual controls, the examining person may waive the dual flight check, provided he has satisfied himself by discussion and observation, that the pilot is competent to continue to exercise the privileges of the certificate;
- (3) subparagraph (1) notwithstanding, the examining person may waive the flight check, providing that he has satisfied himself by discussion and observation that the pilot is competent to continue to exercise the privileges of the certificate;
- (4) where, due to time and/or distance constraints, the examining person is unable to physically observe the operations of a certificate holder for the purpose of carrying out a Flight Review under this section, a video tape may be utilized, provided that:

- (i) the video tape is unedited; and
 - (ii) the video tape is time and date stamped; and
 - (iii) the video tape clearly shows the satisfactory completion of the flying sequences nominated by the examining person; and
 - (iv) approval is obtained from the Operations Manager or Training Officer.
- (5) If a certificate holder has passed a flight check within the specified period, for the issue of an ASRA Pilot Certificate, Endorsement or Rating, then the pilot is deemed to have satisfactorily completed a Flight Review.
- (6) When the pilot has satisfied the examining person as to his competency and is deemed to have satisfactorily completed the Flight Review, the examining person must make an entry in the pilot's personal logbook to the effect that the pilot has satisfactorily completed the Flight Review. The examining person must also update the online database for the pilot concerned.

NOTES FOR INSTRUCTORS

- (1) Prior to the issue of an ASRA Pilot Certificate, instructors must sight the following documentation and upload copies to the "Documents" section of the member's personal database file:
- a. syllabus for Basic Aeronautical Knowledge, Flight Rules and Procedures and Human Factors successfully completed;
 - b. flight training records uploaded;
 - c. certification statements completed and uploaded;
 - d. the last page of the member's log book confirming the minimum requirements in accordance with para. 2 above.
 - e. In order to preserve the privacy rights of members, examination answer sheets must be uploaded to the "Private Documents" section of the member's personal database file.

CROSS COUNTRY ENDORSEMENT

6. Applicants for the issue of an ASRA Cross Country Endorsement shall meet the following minimum requirements:
 - a. be the holder of a valid ASRA Pilot Certificate.
 - b. have completed a minimum of 3 hours dual cross country navigation flight training prior to accumulating a minimum of 2 hours of solo cross country navigation experience under the in-flight supervision of an instructor.
 - c. reach the standard required as specified in Section 3.03, Syllabus of Gyroplane Flight Training (17. Flight Planning and 18. Navigation); and
 - d. pass a navigation flight check in a gyroplane with an appropriately qualified ASRA Instructor or higher.

NOTE: Pilots holding qualifications issued by CASA or other recognised authorities may be exempted from these requirements.

CROSS COUNTRY PERIOD OF VALIDITY

7. An ASRA Cross Country Endorsement shall remain valid only while the holder's ASRA Pilot Certificate is valid.

NOTES FOR INSTRUCTORS

- (1) Prior to the issue of an ASRA Cross Country Endorsement, instructors must sight the following documentation and upload copies to the "Documents" section of the member's personal database file:
 - a. syllabus of Meteorology and Navigation successfully completed;
 - b. pages of the pilot's log book confirming that the minimum requirements of Para 6 above have been completed;
 - c. cross country theory examination successfully passed.

PASSENGER CARRIAGE ENDORSEMENT

8. An applicant for the issue of an ASRA Passenger Carriage Endorsement shall, unless approved by the ASRA Operations Manager:

- a. be the holder of a valid ASRA Pilot Certificate endorsed with Radio Operator;
- b. complies with the medical standard specified in Section 2.01 of this Manual;
- c. completes an ASRA recognised passenger carriage course;
- d. demonstrates to an ASRA CFI, the ASRA Operations Manager or his nominee, his ability to adequately brief passengers and safely control a gyroplane under any conditions likely to be encountered.

NOTE: The level of competency required, is to satisfy the examiner of his ability to:

- (1) fly the gyroplane accurately and safely in all phases of flight; and
- (2) safely complete a minimum of three (3) power-off landings to a full stop; and
- (3) recover from simulated passenger induced situations.

PASSENGER CARRIAGE AERONAUTICAL EXPERIENCE

9. Prior to undertaking a flight check for the issue of an ASRA Passenger Carriage Endorsement, an applicant shall have logged as pilot-in-command of gyroplanes not less than;
 - a. 60 hours flying experience and a minimum of 200 landings, or
 - b. 40 hours flying experience and a minimum of 200 landings, where the pilot holds current qualifications issued by an authority recognised by ASRA that permits the carriage of passengers.

PASSENGER CARRIAGE PRIVILEGES

10. Unless cancelled or suspended, an ASRA Passenger Carriage Endorsement authorises the holder to carry non-fare paying passengers in gyroplanes.

PASSENGER CARRIAGE LIMITATIONS

11. The holder of an ASRA Passenger Carriage Endorsement shall:
- a. be responsible to the ASRA Operations Manager;
 - b. submit to Flight Reviews conducted by an ASRA Instructor or higher;
 - c. not carry passengers for hire or reward;
 - d. not carry passengers in a gyroplane unless he has:
 - (i) logged a minimum of 5 hours as pilot-in-command in a gyroplane of the type to be used for the carriage of passengers;
 - (ii) during the 90 days preceding the flight, have logged a minimum of 1 hour (including at least 3 take-offs and landings) as pilot-in command of a gyroplane of the type to be used for the carriage of passengers; and
 - (iii) has satisfied himself that the gyroplane to be used is correctly registered with ASRA;
 - e. not plan to carry passengers for more than a total of 6 hours per day;
 - f. ensure that the passenger has read, understood and signed an appropriate indemnity form; and
 - g. log the name of the passenger carried, together with the flight details in his pilot log book.

PASSENGER CARRIAGE PERIOD OF VALIDITY

12. Unless cancelled or suspended by the ASRA Operations Manager, an ASRA Passenger Carriage Endorsement shall remain valid whilst ever the holder's pilot certificate remains valid.

PASSENGER CARRIAGE ADDITIONAL REQUIREMENTS

13. The holder of an ASRA Passenger Carriage Endorsement shall:
- a. comply with the medical standard specified in Section 2.01 of this Manual; and
 - b. record the name of the passenger carried on each flight in his pilot log book, and make this log book available to the Operations Manager on demand.

NOTES FOR INSTRUCTORS

Prior to the issue of an ASRA Passenger Carriage Endorsement, instructors must sight the following documentation and where applicable, upload copies to the “Documents” section of the member’s personal database file:

- a. a medical certificate issued in accordance with Section 2.01 of this manual;
- b. pilot’s log book confirming that the requirements of Para 9 above;
- c. confirmation of the completion of an ASRA recognised passenger carriage course.

RADIO OPERATOR ENDORSEMENT

14. An applicant for the issue of an ASRA Radio Operator Endorsement must be able to intelligibly speak and understand the English language, and shall pass a written and oral test conducted by an ASRA Assistant Instructor or higher who holds a current ASRA Radio Operator Endorsement.

NOTE: Pilots holding qualifications issued by CASA or other recognised authorities, may be exempted from this requirement.

RADIO OPERATOR PRIVILEGES AND LIMITATIONS

15. An ASRA Radio Operator Endorsement permits the holder to operate approved aeronautical frequency VHF radio equipment installed in or used in conjunction with a gyroplane.

ASRA Student or Pilot Certificate holders undergoing training for the issue of an ASRA Radio Operator Endorsement may use aeronautical frequency VHF radio equipment, providing they operate the radio equipment under the supervision and control of an Assistant Instructor or higher who holds an ASRA Radio Operator Endorsement.

The holder of an ASRA Radio Operator Endorsement is at all times subject to the requirements of the CARs, CAOs and AIP.

RADIO OPERATOR PERIOD OF VALIDITY

16. An ASRA Radio Operator Endorsement shall remain valid only while the holder's ASRA Pilot Certificate is valid.

NOTES FOR INSTRUCTORS

Prior to the issue of an ASRA Radio Operator Endorsement, instructors must sight the following documentation and where applicable, upload copies to the "Documents" section of the member's personal database file:

- a. syllabus for Radio Operator Endorsement successfully completed;
- b. radio theory examination successfully passed;
- c. a document attesting to the satisfactory completion of an oral test of the pilot.

GYROGLIDER ENDORSEMENT

17. Refer to SUPPLEMENT – GYROGLIDER in this Manual.

AERODROME ENDORSEMENT

18. An applicant for the issue of an ASRA Aerodrome Endorsement shall, unless approved by the ASRA Operations Manager:
- a. be the holder of a valid ASRA Pilot Certificate endorsed with Radio Operator; and
 - b. satisfy an ASRA Instructor or a person approved by the Operations Manager that he has the knowledge required to conduct aerodrome operations in accordance with the regulations. A thorough knowledge of the Flight Radio requirements and usage for operations in the vicinity of certified or registered aerodromes will normally satisfy this requirement.

NOTE: Subject to the approval of the ASRA Operations Manager, Pilots holding qualifications issued by CASA or other recognised authorities may be exempted from paragraph b. above.

AERODROME PRIVILEGES AND LIMITATIONS

19. Unless cancelled or suspended, an ASRA Aerodrome Endorsement authorises the holder to operate within 8KM (5NM) of certified or registered aerodromes, provided that the holder complies with any operating procedures, restrictions or limitations laid down by the aerodrome owner or operator, or CASA.

AERODROME PERIOD OF VALIDITY

20. An ASRA Aerodrome Endorsement shall remain valid only while the holder's ASRA Pilot Certificate is valid.

ABOVE 500' AGL ENDORSEMENT

21. An applicant for the issue of an ASRA Above 500' AGL Endorsement shall:
- a. be the holder of a valid ASRA Pilot Certificate; and
 - b. satisfy an ASRA Instructor or a person approved by the Operations Manager that he has the knowledge required to conduct operations above 500' AGL in accordance with the regulations.

NOTE: Subject to the approval of the ASRA Operations Manager, Pilots holding qualifications issued by CASA or other recognised authorities may be exempted from paragraph b. above.

ABOVE 500' AGL PRIVILEGES AND LIMITATIONS

22. Unless cancelled or suspended, an ASRA Above 500' AGL Endorsement authorises the holder to operate at altitudes above 500' AGL, provided that the holder complies with the regulatory requirements including the requirements laid down in AIP for radios and transponders. Operations above 10,000' AMSL must comply with CAO 20.4 in regard to carriage of oxygen, and operations above 5000' AMSL must carry and use VHF radio.

ABOVE 500' AGL PERIOD OF VALIDITY

23. An ASRA Above 500' AGL Endorsement shall remain valid only while the holder's ASRA Pilot Certificate is valid.

WATERBORNE OPERATIONS

24. An applicant for the issue of an ASRA Waterborne Endorsement shall, unless approved by the ASRA Operations Manager:
- a. be the holder of a valid ASRA Pilot Certificate endorsed with Cross Country, Radio Operator, above 500' and Aerodrome endorsements;
 - b. completes such training as is deemed necessary by an appropriately qualified ASRA Instructor, but in any case, complete not less than 5 hours of dual instruction and 1 hour of solo operation in an appropriately equipped gyroplane;
 - c. completes a flight check with the ASRA Operations Manager or his nominee, demonstrating his competence in safely operating a gyroplane from water.

NOTE: The flight check will include, but is not limited to:

- (1) launching and recovering a gyroplane from solid ground;
- (2) a satisfactory safety briefing on the fitting and operation of life preservers and other safety related equipment, including actions in the event of a rollover on water;
- (3) confirmation that the applicant has a complete understanding of the regulatory and operational requirements for waterborne operations.

WATERBORNE AERONAUTICAL EXPERIENCE

25. Prior to undertaking a flight check for the issue of an ASRA Waterborne Endorsement, an applicant shall satisfy the aeronautical experience specified for the issue of an ASRA Passenger Carriage Endorsement in paragraph 9 of this Section.

WATERBORNE PRIVILEGES

26. Unless cancelled or suspended, an ASRA Waterborne Endorsement authorises the holder to conduct operations on water in accordance with the regulatory and operational requirements applicable at the time.

WATERBORNE PERIOD OF VALIDITY

27. Unless cancelled or suspended by the ASRA Operations Manager, and ASRA Waterborne Endorsement shall remain valid whilst ever the holder's pilot certificate remains valid.

NOTE: The ASRA Operations Manager will confirm his approval of the issue of the endorsement in writing. Such approval must be received by the applicant prior to exercising the privileges of the endorsement.

HUMAN FACTORS

28. An applicant for the issue of a Pilot Certificate shall pass a written exam and watch a CASA video conducted by an ASRA Assistant Instructor or higher. The ASRA Instructor is to observe the applicant watching the video presentation.

NOTE: Pilots holding qualifications issued by CASA or other recognised authorities, are not exempt from this requirement.

NOTES FOR INSTRUCTORS

Prior to the issue of an ASRA Pilot Certificate, instructors must sight the following documentation and where applicable, upload copies to the “Documents” section of the member’s personal database file:

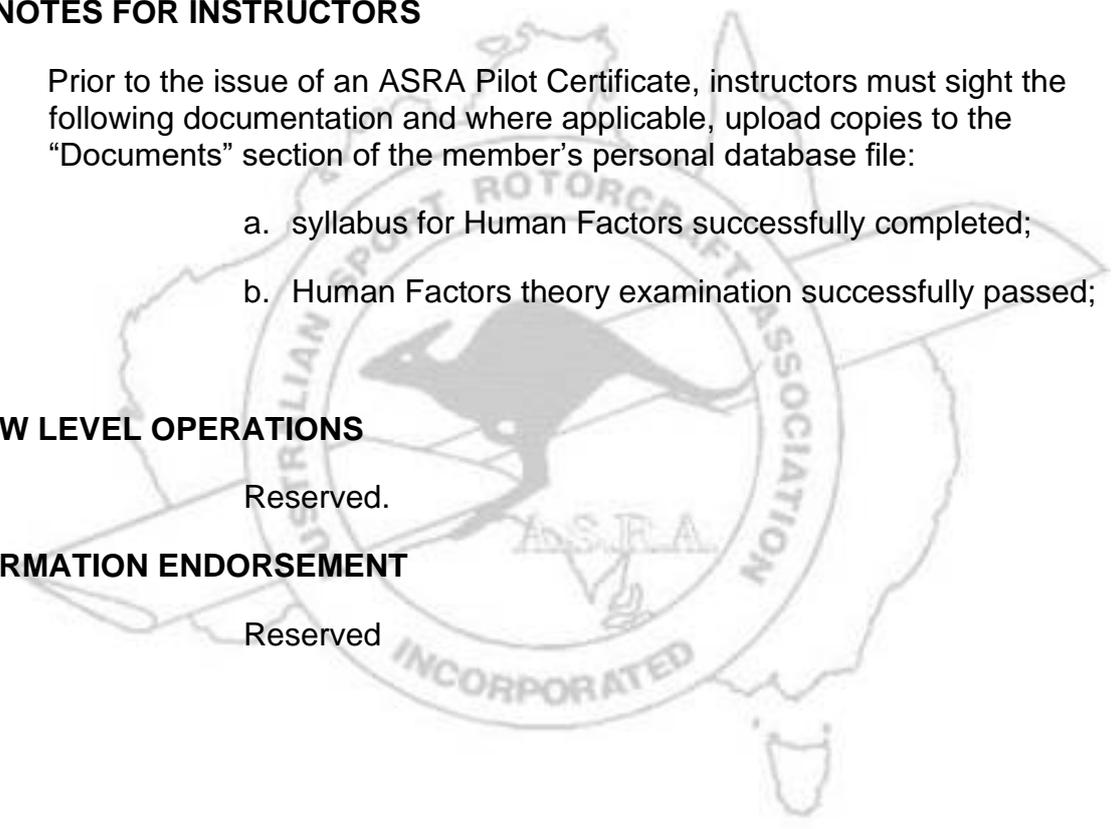
- a. syllabus for Human Factors successfully completed;
- b. Human Factors theory examination successfully passed;

LOW LEVEL OPERATIONS

Reserved.

FORMATION ENDORSEMENT

Reserved



SECTION 2.06**FLIGHT CREW CERTIFICATE****ASSISTANT INSTRUCTOR RATING****REQUIREMENTS FOR ISSUE**

1. An applicant for the issue of an ASRA Assistant Instructor Rating shall, unless approved by the Operations Manager:
 - a. be the holder of a valid ASRA Pilot Certificate;
 - b. have attained the age of 18 years;
 - c. comply with the medical standard specified in Section 2.01 of this Manual;
 - d. have undergone an Instructor Training Course which is recognised by ASRA, and

NOTE: The ground course shall include an approved Principles and Methods of Instruction Course required for ASRA Instructors. Where a candidate has already gained this qualification, the requirement is waived.

- e. demonstrate to an ASRA CFI, the Operations Manager or his nominee, his ability to give theory instruction to persons undergoing training in gyroplanes.

NOTE: The level of competency required is to:

1. give theory lessons, pre-flight and post-flight briefings on any or all parts of the gyroplane flight training syllabus, with a first attempt accuracy of 90 percent;
2. accurately explain all aspects of the syllabus, with explanations adjusted to suit the individual; and
3. demonstrate an ability to assess a student's understanding of syllabus subjects.

AERONAUTICAL EXPERIENCE

2. Prior to undertaking an examination for the issue of an ASRA Assistant Instructor Rating, an applicant shall have not less than 50 hours flying experience as pilot-in-command of gyroplanes.

PRIVILEGES

3. An ASRA Assistant Instructor Rating authorises the holder to:
 - a. conduct theory instruction;
 - b. where authorised by the Operations Manager, conduct Flight Reviews;
 - c. conduct the direct supervision of ASRA student pilots who have completed sufficient dual training to the satisfaction of an authorised Instructor, and have been authorised by an ASRA CFI or Senior Instructor to carry out solo flights in gyroplanes, where the holder is under the supervision of, and is responsible to, an ASRA CFI.

LIMITATIONS

4. The holder of an ASRA Assistant Instructor Rating shall:
 - a. conduct theory instruction and direct supervision of authorised solo operations only under the supervision of an ASRA CFI; and
 - b. not authorise the undertaking of a first solo.

PERIOD OF VALIDITY

5. Unless cancelled, suspended or extended by the Operations Manager, and provided that the holder continues to meet the medical standard specified in Section 2.01 of this Manual and maintains a valid pilot certificate, an ASRA Assistant Instructor Rating shall remain valid for a period of 2 years from the date of issue or renewal. The Operations Manager may give an extension of no more than 90 days.

REQUIREMENTS FOR RENEWAL

6. An applicant for the renewal of an ASRA Assistant Instructor Rating shall, unless otherwise approved by the Operations Manager:
 - a. within 90 days prior to the expiry date of his rating submit to a flight check with an ASRA CFI, and successfully demonstrate his competence;
 - b. comply with the medical standard specified in Section 2.01 of this Manual, and
 - c. ensure that the person who conducts the flight check updates the online database.

NOTE: Failure to renew an ASRA Assistant Instructor Rating by the due date means the rating is no longer valid, and the holder may not exercise the privileges of the rating until it is renewed.

Where an ASRA Assistant Instructor is located in an area where access to an ASRA CFI or an approved ASRA Senior Instructor is difficult, the foregoing notwithstanding, the Operations Manager may approve in writing an alternative source of examination.

ADDITIONAL REQUIREMENTS

7. Assistant Instructors will maintain accurate training records and make them available to an ASRA CFI, the Operations Manager, and the Training Officer, officers of CASA and Police Officers on demand.





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SECTION 2.07**FLIGHT CREW CERTIFICATE****INSTRUCTOR RATING****REQUIREMENTS FOR ISSUE**

1. An applicant for the issue of an ASRA Instructor Rating shall, unless approved by the Operations Manager:
 - a. be the holder of a valid ASRA Pilot Certificate endorsed for Radio, Passenger Carriage, Cross Country, Beach, Above 500' and Aerodrome operations;
 - b. have attained the age of 18 years;
 - c. comply with the medical standard specified in Section 2.01 of this Manual;
 - d. have undergone an Instructor Training Course which is recognised by ASRA;

NOTE: The ground course shall include an approved Principles and Methods of Instruction Course required for ASRA Instructors. Where a candidate has already gained this qualification, the requirement is waived.

- e. undertake a check flight with the ASRA Operations Manager, Training Manager, Chief Training Pilot, or a pilot authorised by the ASRA Operations Manager and demonstrate his competency in recovering from simulated emergency and student induced situations.

NOTE: The level of competency required is to:

1. give theory and in-flight instruction, pre-flight and post flight briefings on all flying sequences listed in the Gyroplane Flight Training Syllabus, with a first attempt accuracy of 90 percent;
2. accurately explain all aspects of the syllabus, with explanations adjusted to suit the individual;
3. demonstrate an ability to assess a student's understanding of syllabus subjects; and
4. fly the gyroplane accurately and safely in each sequence, and recover from simulated student induced situations, to the satisfaction of the examiner.

AERONAUTICAL EXPERIENCE

2. Prior to undertaking an in-flight examination for the issue of an ASRA Instructor Rating, an applicant shall:
 - a. have held an ASRA Pilot Certificate for at least 12 months; and
 - b. have logged a minimum of 160 hours as pilot in command of gyroplanes after the issue of his ASRA Pilot Certificate; and
 - c. have logged a minimum of 500 landings after the issue of his ASRA Pilot Certificate.

PRIVILEGES

3. An ASRA Instructor Rating authorises the holder to:
 - a. conduct theory and in-flight instruction in gyroplanes, where the holder is under the supervision of, and responsible to, an ASRA CFI; and
 - b. where authorised by the ASRA Operations Manager, Training Manager or Chief Training Pilot, conduct Flight Reviews and Flight Checks for the issue of ASRA Pilot Certificates and, where the Instructor himself holds the qualification, Endorsements.

LIMITATIONS

4. The holder of an ASRA Instructor Rating shall:
 - a. conduct theory and in-flight instruction only under the supervision of an ASRA CFI;
 - b. not authorise the undertaking of a first solo;
 - c. not carry students in a gyroplane unless he has:
 1. a minimum of 5 hours experience as pilot-in-command of a gyroplane of the type to be used for the carriage of students; and
 2. during the last 90 days, accrued a minimum of 1 hour experience as pilot-in-command of a gyroplane of the type to be used for the carriage of students; and

PERIOD OF VALIDITY

5. Unless cancelled, suspended or extended by the ASRA Operations Manager or Training Manager and provided that the holder continues to meet the medical standard specified in Section 2.01 of this Manual and maintains a valid pilot certificate, an ASRA Instructor Rating shall remain valid for a period of 2 years from the date of issue or renewal. The Operations Manager may give an extension of no more than 90 days.

6. REQUIREMENTS FOR RENEWAL

An applicant for the renewal of an ASRA Instructor Rating shall:

- a. within 90 days prior to the expiry date of his rating submit to a flight check with an ASRA CFI, and successfully demonstrate his competence and instructional ability;
- b. comply with the medical standard specified in section 2.01 of this Manual;
- c. ensure that the person conducting the flight check updates the online database.

NOTE: Failure to renew an Instructor Rating by the due date means the rating is no longer valid, and the holder may not exercise the privileges of the rating until it is renewed.

Where an Instructor is located in an area where access to a CFI or approved Senior Instructor is difficult, the foregoing notwithstanding, the Operations Manager may approve in writing an alternative source of examination.

ADDITIONAL REQUIREMENTS

7. Instructors will keep accurate training records and make them available to an ASRA CFI, the Operations Manager, and the Training Manager, officers of CASA and Police Officers on demand.



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SECTION 2.08**FLIGHT CREW CERTIFICATE****SENIOR INSTRUCTOR RATING****REQUIREMENTS FOR ISSUE**

1. An applicant for the issue of an ASRA Senior Instructor Rating shall, unless approved by the Operations Manager:
 - a. be the holder of a valid ASRA Pilot Certificate, endorsed with an Instructor Rating;
 - b. comply with the medical standard specified in Section 2.01 of this Manual;
 - c. have been an ASRA Instructor for a period of at least 1 year.

AERONAUTICAL EXPERIENCE

2. Prior to undertaking an assessment for upgrading an ASRA Instructor Rating to an ASRA Senior Instructor Rating, a candidate, unless otherwise approved by the Operations Manager, shall:
 - a. have not less than 100 hours in-flight instruction and;
 - b. satisfy the Operations Manager or his nominee, or the ASRA Chief Training Pilot that he is capable of training and assessing a student's readiness to undertake a first solo flight. This ability shall be demonstrated for at least 3 different students. (Pilots holding Senior Instructor (Gyroglider) Ratings may be exempted from this requirement.)

PRIVILEGES

3. An ASRA Senior Instructor Rating authorises the holder to:
 - a. conduct theory and in-flight instruction for ASRA student pilots;
 - b. authorise the undertaking of first and subsequent solo flights by ASRA student pilots;
 - c. conduct endorsement training and checking, and recommend the issue of such endorsements in accordance with Section 2.03 of this Manual, provided that he himself holds the endorsement and has accrued a minimum of 10 hours as pilot-in-command of gyroplanes, utilising that endorsement;

- d. conduct Flight Reviews and Flight Checks for the issue of ASRA Pilot Certificates and, where the Senior Instructor himself holds the qualification, Endorsements.

LIMITATIONS

4. The holder of an ASRA Senior Instructor Rating shall:
 - a. not conduct in-flight instruction unless he has, during the last two years, satisfactorily passed a flight check with a CFI, or another ASRA Senior Instructor approved by the Operations Manager; and
 - b. not carry students in gyroplanes unless he has:
 1. a minimum of 5 hours experience as pilot-in-command of the gyroplane, or one of similar type, that will be used for the carriage of students; and
 2. during the last 90 days accrued a minimum of 1 hour experience as pilot-in-command of a gyroplane of a similar type as that to be used for the carriage of students.

PERIOD OF VALIDITY

5. Unless cancelled, suspended or extended by the Operations Manager, and provided that the holder continues to meet the medical standard specified in Section 2.01 of this Manual and maintain a valid pilot certificate, an ASRA Senior Instructor Rating shall remain valid for a period of two years from the date of issue or renewal. The Operations Manager may give an extension of no more than 90 days.

REQUIREMENTS FOR RENEWAL

6. An applicant for the renewal of an ASRA Senior Instructor Rating shall:
 - a. within 90 days prior to the expiry date of his rating, submit to a check flight with an ASRA CFI, or another ASRA Senior Instructor approved by the Operations Manager, and successfully demonstrate their competency and instructional ability;
 - b. comply with the medical standard specified in Section 2.01 of this Manual; and
 - c. ensure that the person who conducted the flight check updates the online database.

NOTE: Failure to renew an ASRA Senior Instructor Rating by the due date means that the rating is no longer valid and the holder may not exercise the privileges of the rating until it is renewed.

Where an ASRA Senior Instructor is located in an area where access to a CFI or approved ASRA Senior Instructor is difficult, the foregoing notwithstanding, the Operations Manager may approve in writing an alternative source of examination.

ADDITIONAL REQUIREMENTS

7. Senior Instructors will maintain accurate training records and make them available to an ASRA CFI, the Operations Manager, and the Training Officer, officers of CASA and Police Officers on demand.



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SECTION 2.09**FLIGHT CREW CERTIFICATE****CHIEF FLYING INSTRUCTOR APPROVAL**

1. A person shall not act as an ASRA Chief Flying Instructor unless written authority has been issued by the ASRA Operations Manager.

REQUIREMENTS FOR ISSUE

2. A person seeking to act as an ASRA Chief Flying Instructor, unless approved in writing by the Operations Manager, shall:
 - a. hold a valid ASRA Pilot Certificate endorsed with a Senior Instructor Rating, and demonstrate to the Operations Manager or his nominee by interview and flight check, his ability to carry out the duties of an ASRA Chief Flying Instructor.
 - b. have attained the age of 21 years; and
 - c. undertake to conduct all theory and flight training in accordance with the standards, procedures and regulations as specified in this Manual, the relevant CARs and CAOs.

AERONAUTICAL EXPERIENCE

3. Prior to making application for the issue of an ASRA Chief Flying Instructor Approval, an applicant shall:
 - a. have not less than 150 hours of in-flight instructional experience on gyroplanes; and
 - b. have been an ASRA Senior Instructor in gyroplanes for a period of at least 12 months.

PRIVILEGES

4. An ASRA Chief Flying Instructor Approval authorises the holder to:
 - a. operate and control flight training as approved by the ASRA Operations Manager;
 - b. conduct theory and in-flight instruction in gyroplanes;
 - c. authorise the undertaking of solo flights by an ASRA student pilot; and

- d. conduct flight checks for the issue or renewal of ASRA Pilot Certificates, up to and including pilots holding ASRA Senior Instructor Ratings, but not for those holding ASRA CFI Approvals, unless specifically authorised by the Operations Manager.

LIMITATIONS

5. An ASRA Chief Flying Instructor shall not exercise the privileges of the Approval unless he has, during the last 90 days, accrued a minimum of one hour experience as pilot-in-command of the gyroplane, or one of similar type as that to be used for the flight.

PERIOD OF VALIDITY

6. Unless cancelled or suspended by the Operations Manager, and provided that the holder continues to meet the medical standard specified in Section 2.01 of this Manual and maintains a valid pilot certificate, an ASRA Chief Flying Instructor Approval shall remain valid for a period of two years from the date of issue or renewal. The Operations Manager may allow an extension of no more than 90 days.

REQUIREMENTS FOR RENEWAL

7. An applicant for the renewal of an ASRA Chief Flying Instructor Approval shall:
 - a. comply with the medical standard specified in Section 2.01 of this Manual;
 - b. submit to and pass a check flight in a gyroplane, conducted by the ASRA Chief Training Pilot, or another ASRA CFI specifically authorised by the Operations Manager; and
 - c. ensure that the person who conducted the flight check updates the online database.

ADDITIONAL REQUIREMENTS

8. A Chief Flying Instructor will maintain accurate training records and make them available to the Operations Manager, the Training Officer, officers of CASA and Police Officers on demand.

SECTION 2.10
FLIGHT CREW CERTIFICATE
CHIEF TRAINING PILOT APPROVAL

REQUIREMENTS FOR ISSUE

1. An applicant for the position of the ASRA Chief Training Pilot shall:
 - a. hold a valid ASRA Chief Flying Instructor Approval;
 - b. demonstrate to the Operations Manager or his delegate, his ability to correctly assess the capabilities and performance of ASRA Pilots and Instructors, and to take appropriate remedial action in cases where their performance is below standard.

AERONAUTICAL EXPERIENCE

2. Prior to making application for the position of the ASRA Chief Training Pilot, an applicant shall, unless approved by the Operations Manager:
 - a. have not less than 300 hours as pilot-in-command of gyroplanes, of which not less than 150 hours shall be in-flight experience as an ASRA Instructor; and
 - b. have a minimum of five years experience in flight training, which may include training experience in aircraft other than gyroplanes; and
 - c. have current experience as an ASRA Chief Flying Instructor.

LIMITATIONS

3. The ASRA Chief Training Pilot shall not conduct theory and flight training for ASRA Instructor Rating candidates, unless specifically authorised to do so by the Operations Manager.

PERIOD OF VALIDITY

4. Unless cancelled or suspended by the Operations Manager, the ASRA Chief Training Pilot Approval shall remain valid whilst the approval holder retains a valid ASRA Chief Flying Instructor Approval.



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SECTION 2.11**FLIGHT CREW CERTIFICATE****TECHNICAL ADVISER APPROVAL****REQUIREMENTS FOR ISSUE – General**

1. An applicant for the position of an ASRA Technical Adviser shall, unless otherwise approved by the ASRA Operations Manager:
 - a. be a current ASRA member of no less than three (3) years standing; and
 - b. hold or have held an ASRA gyroplane pilot certificate; and
 - c. have logged not less than 250 hours as pilot-in-command of gyroplanes; and
 - d. successfully complete a technical examination set by ASRA.

Note 1: The technical examination will be based on material contained in the ASRA Construction Standards for Basic and Compliant Gyroplanes and FAA publication AC 43.13 Aircraft Inspection, Repair and Alterations.

Note2: Applicants holding CASA LAME qualifications are exempted from the above requirement to have been an ASRA member for three (3) years.

ADDITIONAL REQUIREMENTS FOR ISSUE

2. An applicant for the position of Technical Adviser – Home Built, in addition to the Requirements for Issue – General, shall:
 - a. have constructed at least one gyroplane that had been registered and successfully flown for not less than forty (40) hours.

Note: "constructed" means that the member has personally undertaken not less than 50% of the fabrication work such as cutting and drilling keel, mast, cluster and cheek plates; fabricating and fitting the undercarriage; the controls and cables; the engine mounts and engine accessory fittings; any pod or enclosure; the horizontal stabilizer, and, the rudder and vertical stabilizer. For the avoidance of doubt, the re-assembly of a factory-built or previously home-built gyroplane that has been dismantled for storage or transport, or the assembling of a quick build kit from a kit manufacturer, does not qualify as home-built construction.

3. An applicant for the position of Technical Adviser – Factory Built, in addition to the Requirements for Issue – General, shall:
 - a. Satisfy the ASRA Operations Manager or his delegate that he has an understanding of the relevant manufacturer's technical publications and assembly and inspection techniques pertaining to the factory-built gyroplane in which he has acquired his gyroplane experience or factory-built gyroplanes of a similar type from other manufacturers.
4. An applicant for the position of Technical Adviser – Home and Factory Built, in addition to the Requirements for Issue – General, shall:
 - a. comply with paragraphs 2 a. and 3 a. above and own or have owned a factory-built gyroplane or have regularly operated such types in an instructional capacity.

Note: Highly desirable and advantageous qualities include familiarity with the materials and techniques used in amateur aircraft construction, a background in automotive, mechanical, military, general aviation or recreational aviation engineering and maintenance.

LIMITATIONS

5. An ASRA Technical Adviser shall not sign an F 006 for newly constructed, modified or repaired gyroplane unless he holds approval on the specific type of gyroplane presented, unless delegated by the Operations Manager e.g. a Technical Adviser (R) may not sign an F 006 for a home-built gyroplane.

PERIOD OF VALIDITY

6. Unless cancelled or suspended by the Operations Manager or relinquished by the member and provided that the membership of the holder remains valid, ASRA Technical Adviser Approvals shall remain valid for a period of five (5) years from the date of issue.

REQUIREMENTS FOR RENEWAL

7. An applicant for the renewal of his Technical Adviser Approval shall apply to the Operations Manager through the Technical Manager. The Approval may be renewed provided that the applicant has:
 - a. reaffirmed his willingness to undertake the duties and responsibilities as specified in this Manual Section 1.10: and
 - b. within the last five (5) years, successfully completed a Technical Adviser course or successfully completed an ASRA technical examination.

SECTION 2.12**SUSPENSION OR CANCELLATION OF ASRA FLIGHT CREW
CERTIFICATES****ENFORCEMENT PHILISOPHY**

1. ASRA is constituted to advance the interests of rotorcraft activity within Australia and is focused on promoting, rather than restricting, such activity. As such, ASRA expects that members will behave collaboratively and cooperate with each other always in the interest of enhancing rotorcraft safety. ASRA expects that where instances arise where a person's technical or flying preparation or planning are noticeably poor or sub-standard that other members will immediately, informally and co-operatively advise and assist that person to rectify the deficiencies.
2. In almost all cases this informal counselling is highly effective, and formal breaching procedures should not be utilised where there is insufficient evidence to substantiate a breach.
3. Where, however, a person is demonstrating a persistent disregard of informal counselling, or continues to demonstrate poor technical or flying preparation or planning, or shows unnecessarily risky behaviour during ground operations or when airborne, or displays dismissive, argumentative, abusive or defiant behaviour when informal counselling is attempted, then breaching action where reliable evidence of breaching behaviour is available must be commenced.
4. Breaching action is also mandatory when it is discovered that a person has flown while their membership or registration has not been renewed or where a breach of the CASA Exemptions or Regulation 308 Instruments has occurred and where there was no operational necessity for the breach. This applies regardless of whether the breach was intentional or deliberate or unintentional or inadvertent.

FAILURE TO MEET HEALTH STANDARD

6. It is the responsibility of all members holding an ASRA Flight Crew Certificate to report to the Association any change in their health status, which would cause them to fall below the minimum health standard required to exercise the privileges of that Certificate, or Endorsements or Ratings attached thereto.
7. Where the health standard of a member falls below the minimum required, the Operations Manager may if appropriate suspend, and the Board may cancel any or all of the member's ASRA Flight Crew

Certificates, Ratings or Endorsements after due consideration is given to the nature, severity and term of the illness, incapacity or disability.

8. Where the health standard of a member whose ASRA Flight Crew Certificate, Ratings or Endorsements has been suspended or cancelled under paragraph 7 of this Section improves such that the member believes his health standard now meets the required minimum, the member is entitled to apply to the Operations Manager or the Board for reinstatement of those suspended or cancelled ASRA Flight Certificates, Ratings or Endorsements. A Medical Certificate, ASRA Form F010 or F011, as appropriate, contained in Appendix 1 of this Manual, must accompany such application.

EXPIRY OF MEMBERSHIP

9. Where a member fails to renew his membership, the privileges of his ASRA Flight Crew Certificate are automatically suspended. These privileges are automatically restored upon payment of the appropriate fee, provided that the member holds a valid medical certificate and maintains the currency requirements as detailed in this manual.

The certificate is automatically cancelled if a member fails to renew within 90 days of expiry, or advises the Association of his desire to resign his membership of the Association, but may be reinstated if the holder subsequently resumes his membership and meets the currency requirements. Refer to the ASRA Constitution Part 2, Membership.

SUSPENSION OF PRIVILEGES DUE TO NON-CURRENCY

10. Where the holder of an ASRA Flight Crew Certificate, Assistant Instructor, Instructor or Senior Instructor Rating does not meet the currency requirements of this Manual, the certificate or ratings will remain valid until their expiry date, but the holder is not able to exercise the privileges of the certificate, or carry out the duties associated with the rating until the currency requirements have been met.

SECTION 3.01**PILOT FLIGHT TRAINING****RISKS AND HAZARDS**

1. All forms of flight are potentially hazardous. The risks and hazards associated with flying are real and all pilots and potential pilots must be fully aware of the possible risks involved.
2. All persons participating in flight training or instruction conducted in accordance with the requirements of this Manual, do so at their own risk, and are required to sign an ASRA Indemnity Form prior to engaging in flight training or instruction.

TRAINING

3. A person undertaking flight training in a gyroplane, must obtain ASRA membership before exceeding 2 hours of instruction, and must be issued with an ASRA Student Pilot Certificate before exceeding 5 hours of instruction, and before undertaking solo flight in a gyroplane.
4. The flight training programme described in this Manual and its supplements must be completed to the standard indicated, prior to making application for the issue of an ASRA Pilot Certificate.
5. All theory and flight training will be conducted under the direct supervision of an ASRA Instructor or higher.
6. Protective headwear should be worn where practical.
7. A suitable intercom must be used during all two-seat gyroplane training.
8. Demonstration and practice of flight 'behind the power curve' shall be commenced at an altitude of not less than 1000 feet AGL.
9. Upon receipt of an ASRA Pilot Certificate application and recommendation, ASRA may call for copies of logbooks and training records, in order to conduct a desktop audit.
10. Students are limited to a maximum of 3 hours of in-flight instruction per day.
11. Instructors shall plan a maximum of 6 hours of in-flight instruction per day.



SECTION 3.02**EXAMINATIONS AND CHECKS****FLIGHT CHECKS**

1. Prior to his first solo flight, a student pilot is required to demonstrate to an ASRA Senior Instructor or higher, the level of competency indicated in the Pilot Training Syllabus.
2. Prior to a student pilot being issued with an ASRA Pilot Certificate, he will be required to undergo a flight check by an ASRA Instructor. The student pilot will be required to demonstrate his manipulative ability to the standard required by the Pilot Training Syllabus, and to the satisfaction of the Instructor.
3. Prior to a pilot certificate holder being issued with an ASRA Instructor or higher Rating, he will be required to undergo a course of training approved by the Operations Manager and pass a flight check with an ASRA CFI approved by the Operations Manager, to demonstrate his ability to conduct in-flight instruction in given flight sequences from the Pilot Training Syllabus to the satisfaction of the examiner.

THEORY EXAMINATIONS

4. Prior to being issued with an ASRA Pilot Certificate, an applicant will be required to pass a written examination conducted by an ASRA Assistant Instructor or higher on Basic Aeronautical Knowledge detailed at Section 3.04 of this Manual.
5. Recommended study references for the syllabus topics include:
 - a. Flight Rules and Air Law by Trevor Thom.
 - b. ASRA Basic Navigation for Gyroplanes
 - c. Understanding the Sky by Dennis Pagen.
 - d. ASRA Flight Radio Handbook for Gyroplanes
 - e. ASRA Basic Aeronautical Knowledge for Gyroplanes.
 - f. ASRA Operations Manual.
 - g. Aeronautical Information Publication (AIP).
 - h. VFR Flight Guide (VFG)
 - i. Rotorcraft Flying Handbook (FAA-H-8083-21)

FLIGHT RULES AND PROCEDURES

6. Prior to undertaking a first solo flight, an ASRA Student Pilot is required to pass a written multi-choice examination on Flight Rules and Procedures. The examination will be conducted by an ASRA Assistant Instructor or higher, and will include questions on the syllabus contained in Section 3.04 of this Manual.

CROSS COUNTRY ENDORSEMENT

7. Prior to the issue of an ASRA Cross Country Endorsement, an ASRA Pilot Certificate holder must pass a written multi-choice examination on Flight Planning, Meteorology, and Navigation. It is strongly recommended that the candidate be the holder of an ASRA Radio Endorsement.

RE-TESTING OF CERTIFICATE HOLDERS

8. Where the actions of the holder of an ASRA Pilot Certificate cast doubt on his ability to continue to meet the standard required for the ASRA Pilot Certificate, Endorsement or Rating held, the Operations Manager may require the certificate holder to demonstrate his competence to continue to hold the qualification to an ASRA CFI or ASRA Senior Instructor nominated by the Operations Manager, before they undertake any further flying as pilot-in-command of a gyroplane.



SECTION 3.03**SYLLABUS OF GYROPLANE FLIGHT TRAINING**

The following syllabus specifies the minimum standard that is required by ASRA Student Pilots. Qualifying numbers are used to indicate the degree of ability required for each individual item within a particular subject as follows:

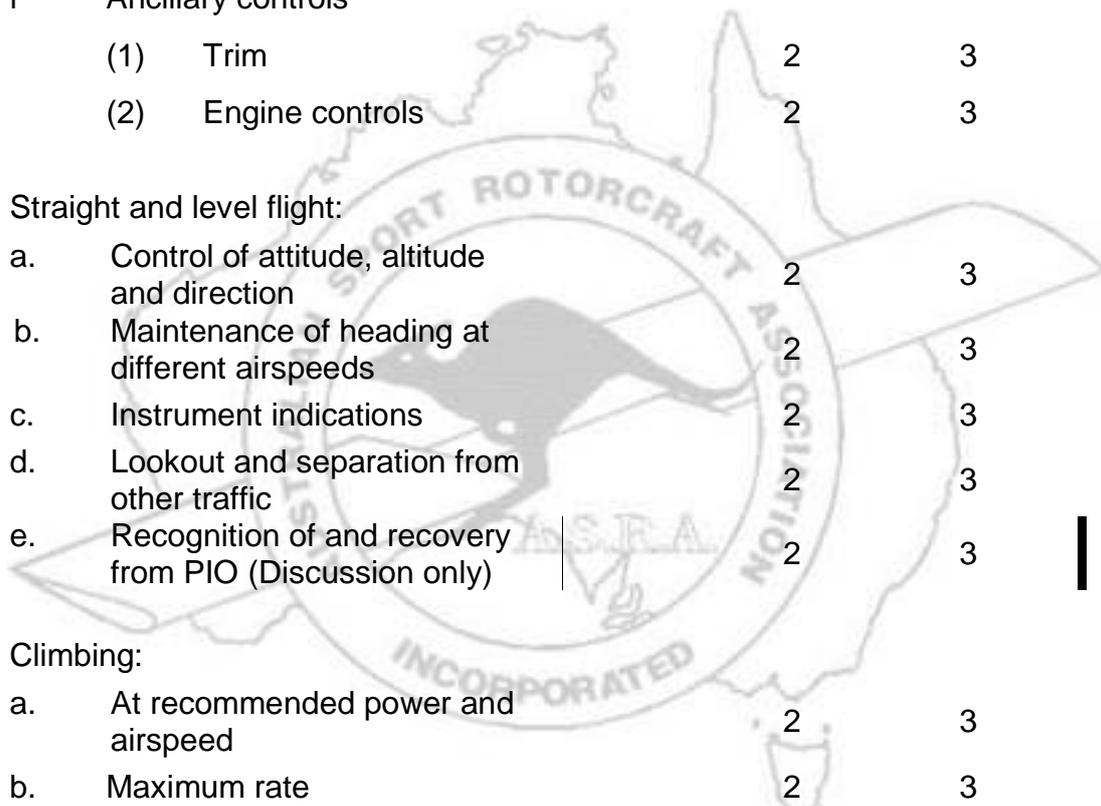
CODES

- 1 Assisted by the Instructor, ability to perform the activity correctly.
 - 2 Ability to perform the activity correctly without assistance, under carefully supervised conditions.
 - 3 Without instructional assistance or supervision, ability to perform the activity correctly and adjust actions to cope with emergencies.
-

SYLLABUS

	Before Solo	Applicant for Pilot Cert
1. Gyroplane assembly	1	3
2. Preparation for Flight;		
a. Gyroplane documents	1	3
b. Pre-flight inspection	2	3
c. Starting and warm-up	2	3
d. Power check	2	3
3. Ground handling:		
a. Use of power	2	3
b. Control of direction	2	3
c. Use of brakes	2	3
d. Rotor ground handling techniques	2	3
e. Pre takeoff checks	2	3

	Before Solo	Applicant for Pilot Cert
4. Operation of Controls		
a. Primary effects of controls	2	3
b. Effect of slipstream and airspeed	2	3
c. Bank/rudder co-ordination	2	3
d. Further effects of rudder	2	3
e. Power/rudder co-ordination	2	3
f. Ancillary controls		
(1) Trim	2	3
(2) Engine controls	2	3
5. Straight and level flight:		
a. Control of attitude, altitude and direction	2	3
b. Maintenance of heading at different airspeeds	2	3
c. Instrument indications	2	3
d. Lookout and separation from other traffic	2	3
e. Recognition of and recovery from PIO (Discussion only)	2	3
6. Climbing:		
a. At recommended power and airspeed	2	3
b. Maximum rate	2	3
c. Maximum angle	2	3
d. Engine handling	2	3
e. Instrument indications	2	3
f. Lookout and separation from other traffic	2	3



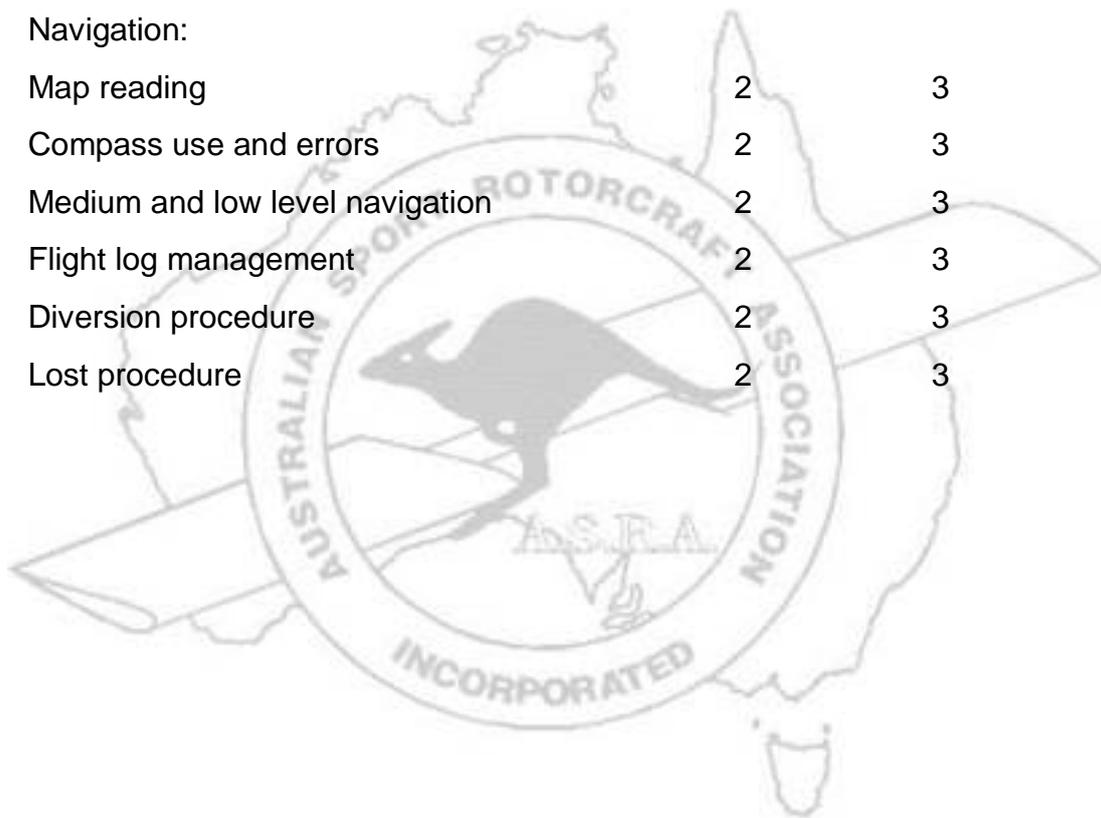
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	Before Solo	Applicant for Pilot Cert
7. Descending:		
a. With power	2	3
b. Without power	2	3
c. Engine handling	2	3
d. Instrument indications	2	3
e. Lookout and separation from other traffic	2	3
8. Turning:		
a. Lookout and separation from other traffic	2	3
b. Level flight:	2	3
(1) Medium	2	3
(2) Steep	2	3
c. Descending turns:	2	3
(1) Medium	2	3
(2) Steep (including Spiral recovery)	2	3
d. Climbing turns	2	3
e. Instrument indications	2	3
9. Slow speed flight:		
a. Approach to and recovery from flight on the back side of the power curve	2	3
b. Avoidance of and recovery from flat spins (discussion only)	2	3
c. Engine handling	2	3
d. Instrument indications	2	3
e. Lookout and separation from other traffic	2	3

	Before Solo	Applicant for Pilot Cert
10. Takeoff:		
a. Into wind	2	3
b. Cross wind	2	3
c. Short takeoff	2	3
d. Soft field takeoff	2	3
11. Circuit planning:		
a. Standard gyroplane circuit	2	3
b. Joining a circuit	2	3
c. Departing a circuit	2	3
d. Lookout and separation from other traffic	2	3
12. Approach and landing:		
a. Approach:		
(1) With power	2	3
(2) Glide approach	2	3
b. Landing:		
(1) Normal	2	3
(2) Cross wind	2	3
(3) Short/soft field	2	3
(4) Minimum ground roll	2	3
c. Missed approach and go-around	2	3

	Before Solo	Applicant for Pilot Cert
13. Engine failures (simulated):		
a. During takeoff	2	3
b. In the circuit	2	3
c. During cruise, high and low level	2	3
d. Checks and procedures	2	3
14. Precautionary search and landing	2	3
15. Pre-first circuit requirements: A student shall not make his first solo circuit unless he has passed a written examination on Flight Rules and Procedures. The examination will cover the subjects detailed in Section 3.04 of this Manual.		
16. Pre-pilot certificate flight check requirements: A student shall not be flight checked for an ASRA Pilot Certificate until he has passed a written examination on Gyroplane Basic Aeronautical Knowledge. The examination will cover the subjects detailed in Section 3.04 of this Manual.		
17. Flight Planning:		
Preparation for flight: Pilot, aircraft, & equipment	2	3
Interpretation and use of weather charts and forecasts	1	3
Interpretation and use of aeronautical publications, documents and charts	2	3
Basic navigation computer skills	2	3
Flight Notification	1	3

	Before solo navigation flight	Applicant for cross country endorsement
17. Flight Planning: (Continued)		
Flight plan use including:		
Cruise level selection	2	3
Track, distance, heading, groundspeed and time interval calculations	2	3
Fuel management including fuel reserve calculations	2	3
18. Navigation:		
Map reading	2	3
Compass use and errors	2	3
Medium and low level navigation	2	3
Flight log management	2	3
Diversion procedure	2	3
Lost procedure	2	3



SECTION 3.04**SYLLABUS OF BASIC AERONAUTICAL KNOWLEDGE AND
FLIGHT RULES AND PROCEDURES**

The following syllabus specifies the **MINIMUM** standard of knowledge required.

Qualifying letters are used to indicate the levels of knowledge necessary for each individual item within a particular subject as follows:

LEVELS

- A** A **basic** understanding of the subject matter, sufficient, with some assistance from an ASRA Instructor, for the solution of simple practical problems either by calculation or exercise of judgement.
- B** A **sound** understanding of the subject matter, sufficient, without assistance, for the solution of more advanced practical problems either by calculation or by the exercise of judgement.
- C** A **thorough** understanding of the subject matter, achieving without assistance, a first attempt accuracy of 80% in the solution of advanced practical problems either by calculation or the exercise of judgement.
- P** Practical application of relevant procedures.

Note The over all pass mark for the set ASRA BAK and FR&P examinations is 80%.

PRINCIPLES OF FLIGHT

	Before Solo	Applicant for Pilot Cert
1. An understanding of the following terms:		
Rotors: chord, diameter and pitch	A	B
Weight, lift, thrust and drag as forces acting on a gyroplane	A	B
Angle of attack of a rotor blade and rotor disc	A	B
Rotor loading	A	B
Lift/drag ratio and glide angle	A	B
Dissymmetry of lift	A	B
Flapping – causes and remedies	A	B
Autorotation, self-governing and precession forces	A	B

	Before Solo	Applicant for Pilot Cert
2. Relationship of the following factors in the production of lift and drag by rotor blades:		
Air density	A	B
Surface area	A	B
Angle of attack	A	B
Rotor speed	A	B
Shape	A	B
3. An understanding of the following controls and how they should be used:		
Primary controls – control column, rudder and throttle	B & P	C & P
Ancillary controls – trim springs and tab - pre-rotator	B & P	C & P
4. How a gyroplane is manoeuvred:		
a. Straight and level (under power)	B & P	C & P
How a gyroplane is flown at various airspeeds and attitudes	B & P	C & P
Limiting airspeeds and factors affecting them	B	C
b. Climbing:		
How a gyroplane climbs at various speeds and power settings to achieve varying rates and angles of climb	B & P	C & P
c. Descending:		
How a gyroplane descends at various speeds and power settings to achieve varying rates and angles of descent	B & P	C & P
Normal glide (engine idling)	B & P	C & P
d. Turning:		
How a gyroplane is turned and the relationship between airspeed, angle of bank, rate of turn, radius of turn and rotor RPM	B & P	C & P

e.	Behind the Power Curve:		
	Causes – the relationship between power available vs. power required	B	C
	Indications of impending 'sink'	B	C
	Use of controls to recover from 'sink'	C & P	C & P
	The relationship between attitude and airspeed	B	C
	The relationship between angle of bank and airspeed	B	C
	The effect of aircraft weight on 'sink' rate	B	C
f.	Take-off:		
	The effect of propeller rotation and crosswind on directional control during take-off	B & P	C & P
g.	Approach and Landing:		
	The effect of crosswind and how it is overcome	B & P	C & P
	The effect of wind gradient and how it is overcome	B & P	C & P
h.	Ground Handling:		
	How a gyroplane is controlled and handled on the ground under various wind conditions	B & P	C & P
	Taxying	B & P	C & P
	Rotor Handling	B & P	C & P

AIRFRAME

	Recognition of defects in:		
	Landing gear	P	P
	Flying controls and cables	P	P
	Rotor and rotor head bolts	P	P
	Tail surface attachment points	P	P
	Bracing wires and stays	P	P
	Engine mounts	P	P
	Propeller	P	P
	Vibration – Causes. Consequences of significant increases in-flight	C & P	C & P

LOADING

	Before Solo	Applicant for Pilot Cert
An understanding of:		
Hang test and its limits	A	B
The importance of the limits	B	C
Precautions when loading	B & P	C & P
Effect of loading on take-off, climb and landing performance	A	B

AIRCRAFT OPERATION

a. Administration:		
The use and purpose of the Gyroplane Log Book and the Gyroplane Pilot Log Book	B & P	C & P
ASRA Operations Manual	B & P	C & P
b. Ground operation:		
Daily and pre-flight inspection of airframe and engine	B	C
Quality control and fire prevention during re-fuelling	B	C
Precautions to be taken during start, warm-up, run up and run down	B	C
Tie-down procedures	B	C
c. In-flight operation:		
Power limitations	B	C
d. Weight and balance:		
The proper loading of the gyroplane in accordance with specified limitations	B	C

GYROPLANE SYSTEMS

	Before Solo	Applicant for Pilot Cert
a. Propellers:		
Pitch	A	B
Effect on engine and aircraft performance:		
(1) of fine pitch propeller	A	B
(2) of coarse pitch propeller	A	B
Propeller care	B	C
Reduction drives	A	B
Vibration – Causes, consequences and remedies	C & P	C & P
b. Rotors:		
Effect on gyroplane performance:		
(1) of rotor diameter	B	C
(2) of rotor blade pitch settings	B	C
Vibration - Causes, consequences and remedies	C & P	C & P

ENGINE AND ASSOCIATED SYSTEMS

a. An understanding of how a piston engine functions	A	B
b. Ignition system: The main components, effect on engine operation of ignition; faults; purpose of ignition harness shielding	A	B
c. Carburation systems:		
An understanding of fuel systems	A	B
Carburettor icing – causes and remedies	A	B
d. Fuel and fuel systems:		
Fuel selection applicable to engine performance	A	B
Detonation and it's causes and effects	A	B
Octane numbering and fuel grading	A	B
Difference between gravity and pump-fed systems	A	B

Fuel and fuel systems: (continued)	Before Solo	Applicant for Pilot Cert
Venting	A	B
Usable and unusable fuel	A	B
e. Control of engine and indications of performance	B & P	C & P

GYROPLANE INSTRUMENTATION

a. Engine instruments – an understanding of the following instruments and the units of measurement used: Tachometer, Water temperature, Oil pressure, Cylinder head temperature and Exhaust gas temperature gauges, Voltmeter and Ammeter	A	B
The interpretation and use of the above instruments	B	C
b. Flight instruments – an understanding of the principle of operation of the following instruments and units of measurement used: Pressure altimeter	A	B
Airspeed indicator	A	B
Vertical Speed Indicator	A	B
The interpretation and use of the above instruments	B	C
Magnetic compass – danger of placing magnetic materials in the vicinity of the compass, errors in reading to be anticipated during turning and accelerating	A	B

FLIGHT RULES AND PROCEDURES

Right of way rules	P	P
Airspace classification	A	P
Operations at aerodromes	A	P
Visual flight rules	A	P
Flight procedures	A	P

Flight Rules and Procedures (continued)	Before Solo	Applicant for Pilot Cert
Use of QNH altimeter settings	A	P
ASRA Operations Manual requirements	A	P
ASRA pilot's relationship to CARs and CAOs	A	P

METEOROLOGY

	Applicant for Pilot Cert	Applicant for Cross Country
a. Atmospheric pressure:		
Units of measurement	A	C
Variation with height	A	C
Pressure altitude	A	C
Effects of pressure altitude	B	C
ICAO Standard Atmosphere	A	C
b. Atmospheric temperature:		
Units of measurement	A	C
Variation with height	A	C
Density altitude	A	C
Effects of density altitude	B	C
ICAO Standard Atmosphere	A	C
Temperature Inversion	A	C
c. Pressure systems and fronts:		
Depression or low pressure	A	C
Anti-cyclone or high pressure	A	C
Cold and warm fronts	A	C
General characteristics of pressure systems and fronts over Australia	A	C
Horizontal pressure gradients	A	C
Isobars	A	C
d. Moisture, humidity and clouds	A	C
e. Effects of haze, smoke and fog on visibility	A	C
f. Visibility	A	C

Meteorology (continued)	Applicant for Pilot Cert	Applicant for Cross Country
g. Turbulence:		
Mechanical	A	C
Terrain	A	C
Convective	A	C
Local winds	A	C
Slipstream	A	C
Wake	A	C
The recognition and evaluation of potential areas of low-level turbulence, and it's potential effect on gyroplane operations	B	C
Mountain waves	A	C
h. Wind:		
Wind velocity	A	C
Wind-shear	A	C
Wind gradient	B	C
Backing and veering	A	C
Sea breezes	A	C
Valley winds	A	C
Anabatic and katabatic winds	A	C
i. Meteorological forecasts:		
Terms and abbreviations	A	C
Procedures for obtaining pre-flight information	A	C

NAVIGATION

Latitude and longitude		B
Direction by 360-degree system		B
True north		B
Magnetic north		B
Variation		B
Topographical charts		B
Navigation (Continued)	Applicant for Pilot Cert	Applicant for Cross Country

Use of charts	B
Measuring tracks and distances	B
Principal chart symbols	B
Depiction of Airspace	C
Contour lines	B
Fuel planning	C



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SECTION 3.05**SYLLABUS OF ASRA RADIO OPERATOR ENDORSEMENT**

Holders of radio operator qualifications issued by CASA and other recognised authorities, may apply for the issue of an ASRA Radio Operator Endorsement based on these qualifications. Photocopies of these qualifications must accompany such an application.

The standard to be achieved by applicants for the issue of an ASRA Radio Operator Endorsement for each element of the syllabus is specified by the following codes:

CODES

- A** **Basic** theoretical understanding
B **Thorough** theoretical understanding
C **Basic** practical application
D **Thorough** practical application

SYLLABUS

1. Privileges and limitations of the certificate holder:

ASRA Operations Manual	B
Required use of ACA approved radios	B
Requirements for use of handheld radio equipment	A, D

2. Communications – General:

Phonetic alphabet and numbers	D
Standard phraseology	D
Gyroplane callsign	D
Strength and clarity definition	A, D
Definitions relating to communications (Reference: AIP-GEN)	A
Date and time system, UTC	B, D

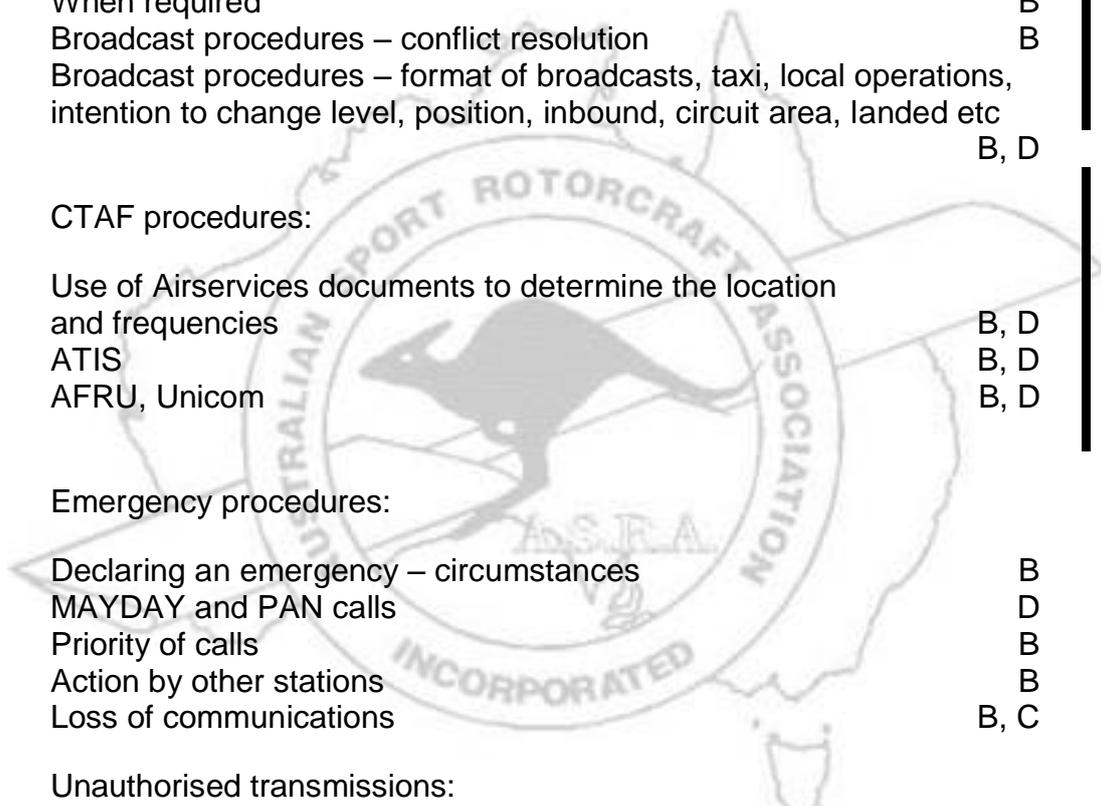
3. Documentation:

AIP	A, D
ERSA	A, D
Charts (ERC, VTC, PCA, WAC, VNC)	A, D
NOTAM	A, D

4. Characteristics of VHF – AM Radio:

Line of sight	B
Carrier wave	A
Modulation	A
Use of squelch	D

- | | | |
|-----|---|------|
| | VHF aviation band frequency designation | A, C |
| 5. | Practical operation of radio equipment: | |
| | Normal operation – on/off, frequency change, squelch | A, D |
| | Faultfinding – on/off, frequency, squelch, volume, fuse/circuit breaker, power supply, aerial type and location, electrical interference | A, D |
| 6. | Search and Rescue categories: | |
| | SARTIME – use and cancellation of SARTIME | B, D |
| 7. | Broadcast procedures: | |
| | When required | B |
| | Broadcast procedures – conflict resolution | B |
| | Broadcast procedures – format of broadcasts, taxi, local operations, intention to change level, position, inbound, circuit area, landed etc | B, D |
| 8. | CTAF procedures: | |
| | Use of Aircservices documents to determine the location and frequencies | B, D |
| | ATIS | B, D |
| | AFRU, Unicom | B, D |
| 9. | Emergency procedures: | |
| | Declaring an emergency – circumstances | B |
| | MAYDAY and PAN calls | D |
| | Priority of calls | B |
| | Action by other stations | B |
| | Loss of communications | B, C |
| 10. | Unauthorised transmissions: | |
| | Profane or obscene language | B |
| | Deceptive or false nature | B |
| | Improper use of another callsign | B |
| | Use not pertaining to operational requirements | B |
| | Not in the English language | B |

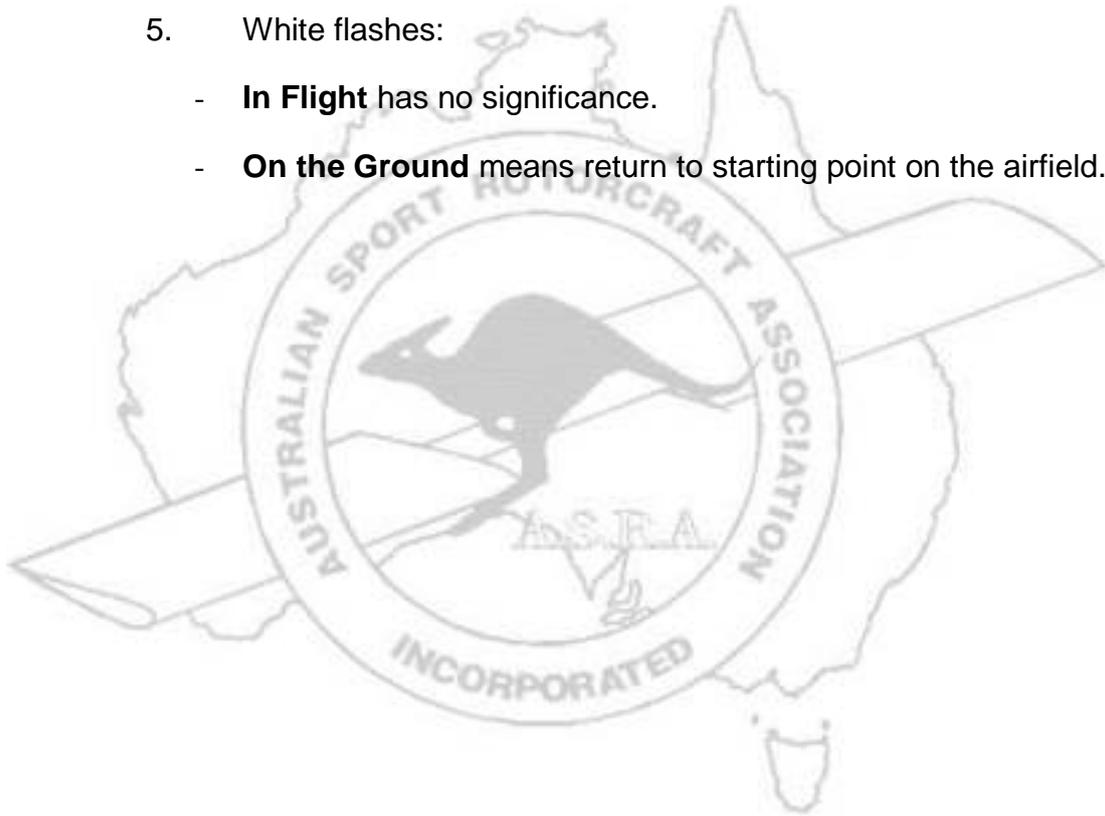


SECTION 4.01GYROPLANE OPERATIONSAIRFIELD CONTROL

1. When more than one gyroplane is operating from a flying field other than a training field, a Duty Officer shall be elected from those present. The Duty Officer will have the authority to control and direct gyroplane operations that are conducted in accordance with CAOs, this Manual, and in accordance with the conditions set down by the owner of the field.
2. Where gyroplanes are operating from a field that is a training field, then an ASRA Instructor will have the authority to control and direct gyroplane operations, or to appoint and direct a Duty Officer. Where more than one ASRA Instructor operates from the same field, procedures will be mutually agreed upon and complied with.
3. Flying is to be conducted only in Visual Meteorological Conditions.
4. All gyroplanes operating from the field are to be airworthy and properly registered with ASRA.
5. Only appropriately qualified pilots may fly gyroplanes from the field.
6. Gyroplane pilots must obey all directions and instructions given by the Duty Officer, including the grounding of pilots and/or gyroplanes if necessary.
7. Engines must **NOT** be started, and rotors must **NOT** be spinning in hangars, parking areas or any other location that could present a danger to persons or property.
8. Gyroplanes should be correctly parked clear of active areas after flight, with engines off and rotors secured. The person responsible for parking a gyroplane must ensure that it is chocked or tied down so as to ensure that it cannot shift in winds likely at the location while the gyroplane is parked.
9. When ground testing and running up engines, wheels must be adequately chocked and the gyroplane tied down if necessary.
10. Gyroplanes with engines operating or rotors unsecured must not be left unattended at any time.
11. Gyroplanes will be assembled and inspected well clear of runways, taxiways and any other areas where aircraft are being moved under their own power.

12. Private vehicles and trailers will be parked well clear of designated aircraft assembly areas, as soon as the gyroplane and associated equipment have been unloaded.
13. Pilots must **NOT** consume any liquor, drugs or other intoxicating substances within eight (8) hours immediately prior to operating a gyroplane.
14. **NO SMOKING** or **NAKED FLAMES** are permitted within 15 metres of any aircraft or aircraft refuelling point.
15. Adequate fire fighting equipment should be on hand during all refuelling operations.
16. All vehicles will be kept clear of aircraft, particularly those aircraft being refuelled or moving under their own power.
17. When operating at a flying field that is not their home field, pilots **MUST** ensure that they are properly briefed on local requirements and conditions.
18. Ground Signals to Aircraft:
 1. A White Dumb-bell in the airfield signal area adjacent to the primary wind direction indicator means use hard surfaced or prepared runways, taxiways and apron areas only.
 2. A White Cross in the airfield signal area adjacent to the primary wind direction indicator means the airfield is unserviceable.
 3. A White Cross on a manoeuvring area means the area marked by the cross within the limits defined by cone markers is unserviceable.
 4. A Double White Cross in the airfield signal area adjacent to the primary wind direction indicator means gliding operations are in progress.
 5. Red-banded White Cone Markers define obstacles or unserviceable areas on the airfield.
19. Light Signals to Aircraft:
 1. Steady Green:
 - **In Flight** means authorised to land provided the pilot is satisfied that no risk of collision exists.
 - **On the Ground** means authorised to takeoff provided the pilot is satisfied that no risk of collision exists.
 2. Steady Red:
 - **In Flight** means give way to other aircraft and continue circling.

- **On the Ground** means stop
3. Green Flashes:
- **In Flight** means return and land.
 - **On the Ground** means authorised to taxi provided the pilot is satisfied that no risk of collision exists.
4. Red Flashes:
- **In Flight** means airfield is unsafe. Do not land.
 - **On the Ground** means taxi clear of landing area in use.
5. White flashes:
- **In Flight** has no significance.
 - **On the Ground** means return to starting point on the airfield.





SECTION 4.02**RADIOTELEPHONY AND ADS-B****1. Radio Callsign**

References: Section 2.05 – Radio Operator Endorsement

Section 3.05 – Syllabus of Radio Operator Endorsement

Gyroplane radiotelephony callsigns shall consist of the aircraft type, ie gyroplane (or gyro), followed by the numerals of the gyroplane registration number. Callsigns should be expressed in “group form” where possible to reduce frequency congestion.

Examples:

For a gyroplane registered as G-001, the callsign will be:

“Gyroplane (or Gyro), zero, zero, one”

For a gyroplane registered as G-2145, the callsign will be:

“Gyroplane (or Gyro), twenty one forty five”

2. ADS-B Flight Identification

For gyroplanes fitted with ADS-B transmitters, the Flight Identification (FLTID) shall consist of the prefix “G” followed by the numerals of the gyroplane registration number. No hyphens, dashes, spaces or extra zeros are allowable.

Examples:

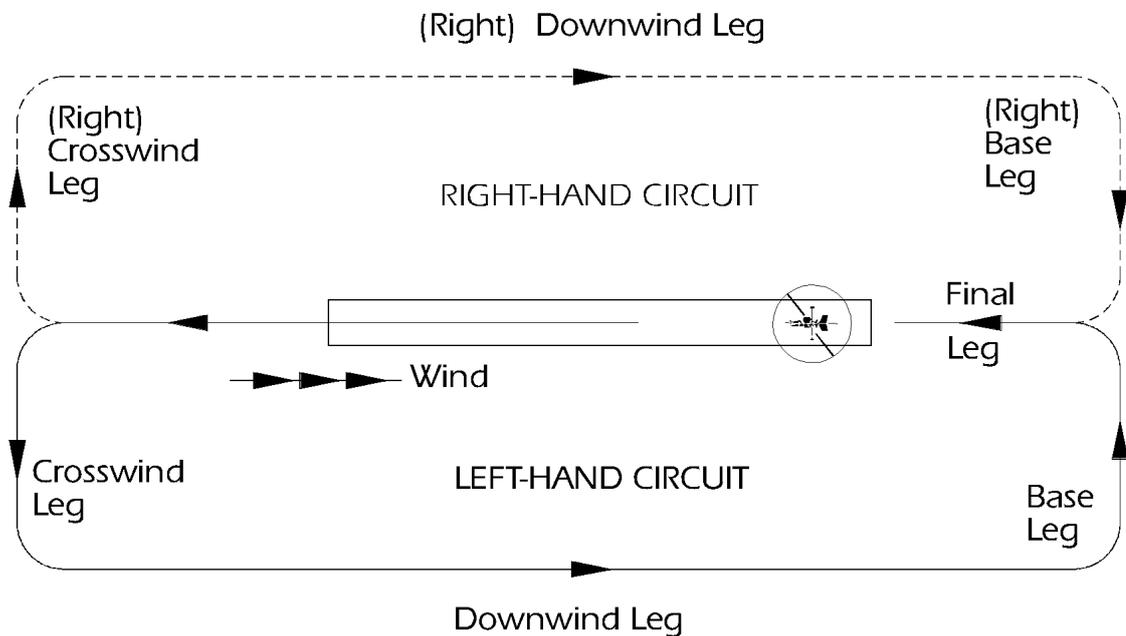
For a gyroplane registered as G-001, the FLTID will be “G001”.

For a gyroplane registered as G-2145, the FLTID will be “G2145”.

The 24-bit aircraft address code needed for ADS-B equipment installation may be obtained from the CASA Aircraft Registrar (Phone 131 757).



SECTION 4.03
TYPICAL CIRCUIT PATTERN



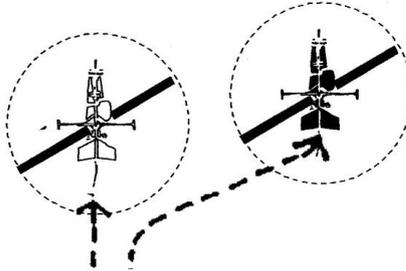
1. A left hand circuit must be flown unless CASA or the airport operator either require or permit right hand circuits.
2. Some airfields may have specific requirements regarding circuit direction. This is especially so at airfields where there are mixed gyroplane, ultralight, GA and glider operations. This information is included in ERSA for those airfields listed.
3. If specific requirements are not known, gyroplane pilots are required to contact the airfield operator for instructions prior to operating into or from the airfield.



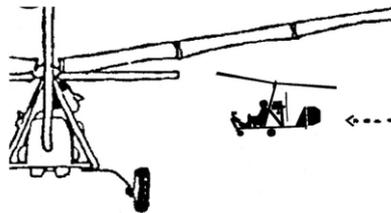
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SECTION 4.04**RULES OF THE AIR****OVERTAKING**

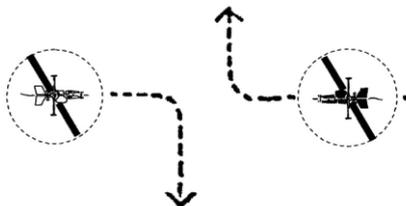
An overtaking aircraft shall move to the RIGHT of an aircraft being overtaken.

**GIVEWAY RULE**

When two aircraft are on converging headings at approximately the same height, the aircraft that has the other on its RIGHT shall give way.

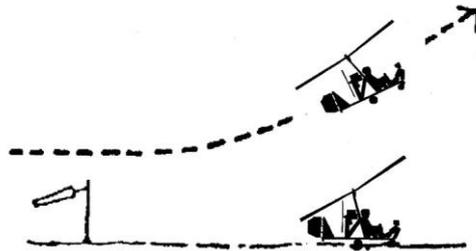
**COLLISION AVOIDANCE RULE**

When two aircraft are approaching head on, BOTH aircraft shall alter heading to the RIGHT.



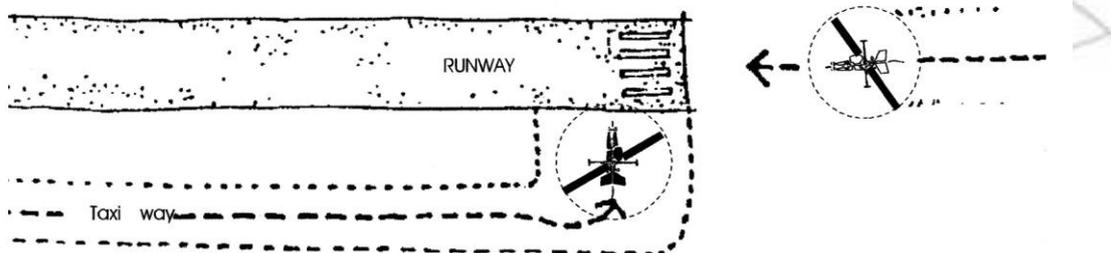
LANDING RULE

Aircraft occupying the runway have right of way. Go around if the risk of a collision exists.



TAKEOFF RULE

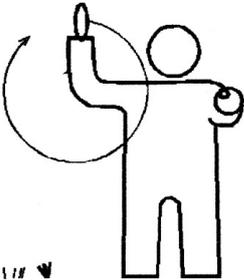
Aircraft taxiing in the vicinity of a runway must give way to aircraft on or approaching the runway.



SECTION 4.05

GROUND MARSHALLING DIRECTIONS

START ENGINE



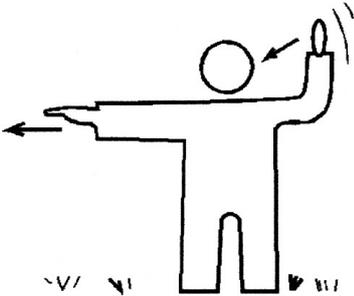
LEFT HAND POINTING TO SPECIFIC AIRCRAFT, RIGHT HAND MOVING IN A CIRCULAR MOTION AT HEAD LEVEL

MOVE AHEAD



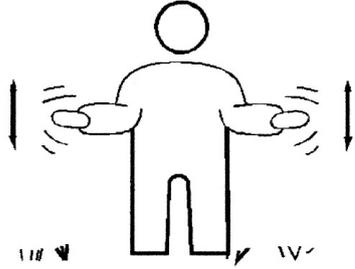
ARMS A LITTLE TO ONE SIDE
MOVED REPEATEDLY UPWARDS AND BACKWARDS

URNS



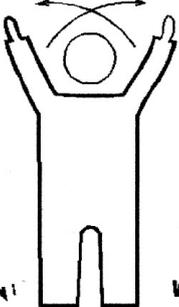
ARM POINTING TO DIRECTION OF TURN
OTHER HAND MOVED UP AND BACK.
SPEED OF MOVEMENT SHOWS RATE OF TURN.

SLOW DOWN



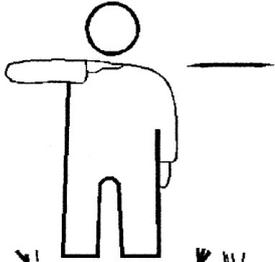
ARMS DOWN CLOSE TO SIDE
MOVED UP AND DOWN SEVERAL TIMES

STOP



ARMS REPEATEDLY CROSSED ABOVE HEAD.
THE RAPIDITY OF THE ARM MOVEMENT
SHOWS THE URGENCY OF THE STOP

CUT ENGINE



HAND LEVEL WITH SHOULDER
MOVED SIDWAYS ACROSS THE THROAT

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SECTION 4.06**AIRSPACE AND NAVIGATION****PILOT RESPONSIBILITIES**

CAOs 95.12 and 95.12.1 assume that all pilots can keep within the operating limitations specified, however cross country operations require more preparation before flight. Knowing where controlled or restricted airspace is located is only one of the many considerations. The following section is a synopsis of some of the basic information that a pilot should have available.

AIRSPACE CHARTS

ENROUTE CHART LOW (ERC-LOW): Essential for any VFR pilot planning a cross-country flight outside the areas depicted on a VTC. The ERC-LOW covers a large area with some airfields and geographical features shown. Its purpose is to show the relationship between those features and the various types of airspace, aeronautical aids and facilities, which are also shown. ERC-LOWs are not navigation charts and should not be used for plotting tracks.

EN ROUTE SUPPLEMENT (ERSA): Issued to list specific airspace limitations in more detail than that provided on the ERC or the VTC. Designed to be used in conjunction with the VTC and/or ERC

VISUAL TERMINAL CHART (VTC): Issued to show the area surrounding a Controlled Aerodrome in greater detail than is possible on an ERC. When operating in the vicinity of any Control Zone, the VTC should be used for navigation, and pilots must be completely familiar with the features on the VTC.

VISUAL NAVIGATION CHART (VNC): Scale 1:500,000 – wider coverage than VTC.

WORLD AERONAUTICAL CHART (WAC): Standard plotting and navigation chart for General Aviation. The scale is 1:1,000,000, ie ONE millimetre on the chart represents ONE kilometre on the ground. When navigating at relatively low speeds at 500 feet above the ground, WACs are not particularly useful, BUT for planning a flight, they are.

LEGENDS: Are the DECODE of symbols used on the respective Maps and Charts. Each ERC, VNC and WAC has a legend printed on the chart.

IMPORTANT SYMBOLS: On ERC and VTCs several RED symbols are used to indicate aeronautical activity. These are:

DOUBLE CROSS	Gliding activity, including aero-towing and winch launching of gliders.
W	Winch or auto-tow sport aviation operation. Launching cables may extend to 3000ft AGL.
PARACHUTE	Parachute Area. Avoid the areas if you are not familiar with the Drop Zones and the operation. Drop Zones often look like airfields. If you need to use a parachuting field, telephone first and take great care.
HANG GLIDER	Hang Glider Area. Shows approved operating height(AGL) or band of altitude (AMSL).
ULTRALIGHT	Significant ultralight area. Usually for ultralight flying training areas. Presently uses a hang glider symbol with “U” letter underneath.

AREAS TO BE AVOIDED

Airspace in which a potential hazard to aircraft operations may exist, and all areas over which the operations of civil aircraft may be restricted are promulgated as follows:

- a. **Prohibited Area.** Airspace within which the flight of aircraft is prohibited.
- b. **Restricted Area.** Airspace within which flight of aircraft is restricted in accordance with special conditions.
- c. **Danger Area.** Airspace within which activities dangerous to the flight of aircraft may exist at specified times.

These areas are shown on AIP aeronautical charts by boundaries outlined in red and containing the identification of the area as a letter and a number.

The letters allocated are:

P = Prohibited area

R = Restricted area

D = Danger area

and the number identifies the area.

Unless otherwise specified, vertical limits are promulgated as AMSL. The abbreviation “SFC” means the surface of the ground or water. “NOTAM” indicates that the vertical limits or hours of activation will be notified by NOTAM.

Flight within a prohibited area is not permitted in any circumstances.

Approval for an aircraft to fly within an active restricted area or airspace depends on the location of the airspace and the type of activity being conducted in that area or airspace, at the time. Pilots desiring access to a restricted area or airspace should request clearance from ATC. When clearance is granted, the flight must be conducted in accordance with the conditions and instructions specified by the ATC unit.

Approval for a flight within a danger area outside controlled airspace is not required.

CONTROL ZONE (CTR): A control zone is defined as “a controlled airspace extending upwards from the surface of the earth to a specified upper limit”. CTRs surround controlled aerodromes and are designated as Civil CTRs or Military CTRs. A Civil CTR is a CTR other than a military CTR administered by a civil air navigation service provider. A Military CTR is administered by the Australian Defence Force. Civil CTRs are operative only during the hours of the operation of the control tower. Pilots should plan their operations on the basis that CTRs are active unless NOTAMS state, or Air Traffic Services advise to the contrary.

CONTROL AREAS (CTA): Other than in Control Zones, controlled airspace is called a Control Area. Control Areas all have a LOWER limit (LL), which is shown as a height ABOVE MEAN SEA LEVEL (AMSL). A marking ‘LL3000’ means aircraft operating at an altitude of 3000ft AMSL are OUTSIDE controlled airspace. On ERC-LOW, controlled airspace is shown as blue tint, and the vertical ‘steps’ are shown as blue lines.

CERTIFIED AND REGISTERED AERODROMES: Formerly known as Government or Licenced aerodromes are shown on ERC-LOW and VNCs as a sun-shaped symbol. On VTCs, they are shown with a purple runway outline.

COMMON TRAFFIC ADVISORY FREQUENCY (CTAF): CTAFs are used in the vicinity of designated aerodromes. At CTAF aerodromes, the carriage and use of radio is not mandatory, but pilots of radio equipped aircraft are required to make standard broadcasts on the CTAF to enhance the see and avoid principals of collision avoidance. “in the vicinity of” means in airspace that is not controlled airspace within 10NM of an aerodrome and at a height that could result in conflict with operations at the aerodrome.



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SECTION 4.07

WEATHER AND FLIGHT INFORMATION

WEATHER FORECASTS

AREA FORECASTS (ARFORS): The Country is divided up into many Forecast Areas to enable the Bureau of Meteorology to give forecasts on a regional basis. Each AREA has a number reflecting the State Postcode, eg Victoria comprises Areas 30 and 32. An Area Map can be obtained from the Airservices website at <http://www.airservicesaustralia.com>. An Area Forecast is issued for operations at and below FL200 (20,000') and contain a statement of the general synoptic situation and forecast wind direction and speed at various altitudes, the lowest being 2000 feet. It also details expected weather conditions, including: cloud, thunderstorms, frontal weather, rain, etc. Information about fronts should be interpreted in conjunction with a Met Situation.

AERODROME FORECASTS: Aerodrome forecasts (TAF) are a statement of meteorological conditions expected for a specified period within a radius of 5NM of the aerodromes reference point.

ACTUAL WEATHER REPORTS

MET SITUATION: A short statement of the current trend of weather over the whole region, and particularly contains information on the whereabouts of any FRONTS which may be approaching, so as to obtain an indication of when the weather may change as per the Area Forecast.

METAR: Actual Aerodrome Weather Observation. It is invaluable in assessing the actual weather in the vicinity of your flight path or destination. METARS are issued every half-hour at many Certified and Registered aerodromes.

SIGMETS and AIRMETS: Advise pilots of SIGNIFICANT WEATHER phenomena including information on actual or forecast severe turbulence, thunderstorms, cyclones, heavy hail storms etc.

FLIGHT INFORMATION

'Flight Information' is the name given to a range of facts and forecasts used for Flight Planning. Pilots should consult ERSA and the Airservices website for the latest contact details to obtain the necessary flight information.

NOTAMS: Aviation activities of an abnormal nature are publicized in written form as Notices To Airmen (NOTAMS). Notam information includes notification of unusual intensity of everyday activities, for example, details of Hang-gliding Championships, notification of a change of facilities, or promulgated activities of a periodic nature such as Low-level Jet Routes. Activation of Restricted Areas and short-term changes to aerodrome information or radio frequencies are also issued by NOTAM.

LOW-LEVEL JET ROUTES: The military conduct training missions all over the country at LOW level. LJR's are those planned flight paths where jets of the Air Force fly at high speed and low level that is BELOW 500 FEET ABOVE GROUND LEVEL. Active LJR's are notified by NOTAM.

SOURCES OF WEATHER AND PRE-FLIGHT INFORMATION

Refer to ERSA or the Air Services website at www.airservicesaustralia.com

Weather information and NOTAM details are usually obtained on-line from the National Aeronautical Information Processing System (NAIPS) which is accessed through the Airservices website at the address above. The service is free but a user must register and be issued with a password to gain access. The forecasts from this source will be in aviation abbreviations. If assistance is required to interpret the abbreviations, go to website <http://www.airservicesaustralia.com/aip/pending/aip/general.pdf> . Navigate to Section GEN 2.2 – 26. For in depth information on Aviation Forecasts, from this website, navigate to GEN 3.5 – 3.



SECTION 4.08**ACCIDENT AND INCIDENT REPORTING****GENERAL**

1. Gyroplane accidents are classified as “vehicular” accidents and as such, the investigation into such an event is the responsibility of the local Police.

The Transport Safety Investigation Act 2003 does not prevent CASA or other authorities from investigating accidents, but it does give the ATSB’s investigation primacy over other Commonwealth and State legislation.

2. Gyroplanes operated under CAOs 95.12 and 95.12.1 are **NOT EXEMPTED** from the Transport Safety Investigation Act 2003 applicable to accident investigation.

DEFINITIONS**3. Occurrences**

- a. An Occurrence is any circumstance which has/or could have significance in the context of safety. This includes accidents, incidents, near misses, operational interruptions, defects or other circumstances which could have safety significance including Enforcement actions.

4. Accidents

- a. The death of, or a serious injury to a person on board the aircraft or in contact with the aircraft, or anything attached to the aircraft, or anything that has become detached from the aircraft;
- b. The aircraft is missing;
- c. The aircraft has suffered serious damage, or the existence of reasonable grounds for believing that the aircraft has suffered serious damage; or
- d. The aircraft being inaccessible and the existence of reasonable grounds for believing that the aircraft has been seriously damaged.

5. Incidents

- a. Injury other than serious injury, to a person on board the aircraft;
- b. Flight crewmember becoming incapacitated while operating the aircraft;

- c. Occurrences in which an inflight collision with another aircraft is narrowly avoided;
- d. Occurrences in which flight into terrain is narrowly avoided;
- e. Use of any procedure for overcoming an emergency;
- f. Occurrences that result in difficulty controlling the aircraft, including any of the following:
 - i) Aircraft system failure;
 - ii) Weather phenomenon;
 - iii) Operations outside the aircrafts approved flight envelope.
- g. Fuel exhaustion;
- h. Aircraft's supply of useable fuel becoming so low (whether or not as a result of fuel starvation) that the safety of the aircraft is compromised;
- i. Collision with an animal, including a bird.

6. Death or a serious injury does not include:

- a. Death or serious injury resulting from natural causes (except to a flight crew member); or
- b. Death or serious injury that is intentionally self-inflicted; or
- c. Death or serious injury that is intentionally caused by another person; or
- d. Death or serious injury suffered by a stowaway in a part of the aircraft that is not usually accessible to crew members or passengers after takeoff; or
- e. Death occurring more than 30 days after the occurrence that caused the death, unless the death was caused by an injury that required admission to hospital within 30 days after the occurrence.

Fatal injury – an injury resulting in death within 30 days of an accident is classified as a fatal injury.

Serious injury – an injury that requires, or would usually require, admission to hospital within 7 days after the day when the injury is suffered.

Minor injuries – not requiring hospital admission, treated by first aid or other simple measures, and did not significantly affect the health status of the individual.

Missing aircraft – an aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

Serious damage – in relation to a transport vehicle means:

- a. Damage that:
 1. significantly affects the structural integrity, performance or operational characteristics of the transport vehicle; and
 2. requires major repair or replacement of the affected component or components of the transport vehicle; or
- b. destruction of the transport vehicle.

OCCURRENCE REPORTING

7. In order to continue to promote the safe operation of rotorcraft in Australia ASRA is introducing a Safety Management System (SMS).
 - a. This is a systematic and integrated approach to safety which facilitates an improved safety performance. An SMS is based on the proactive identification and management of risks and hazards, and the continuous improvement of the performance through the communication and education of all members on safety related issues.
 - b. One key part of an SMS is occurrence reporting. This enables the accidents, incidents and near misses that happen out in the field to be communicated to ASRA staff, who in turn can provide safety recommendations, update procedures and share relevant information with other ASRA members to prevent a similar occurrence.
 - c. The ASRA Online Incident Reporting System, introduces an occurrence reporting system that is:
 - Paperless
 - Easy to use
 - Available from anywhere, anytime
 - Instantly notifies ASRA of any occurrence.
 - d. This system will allow patterns in occurrences to be identified in a timely manner, and information to be passed back to all members to hopefully reduce the likelihood and/or consequences of another similar occurrence. All members are encouraged to report occurrences so that ASRA has a greater

understanding of the risks and hazards present in the industry. It will provide a way for ASRA to proactively address safety issues and target areas which require ASRA resources.

- e. All reports will be handled in a strictly confidential manner and members will not face enforcement action as a result of reporting an occurrence unless an intentional violation has occurred.
- f. Whilst the online reporting facility is the preferred method of reporting, paper reports on the appropriate form will still be accepted into the foreseeable future. A paper report can be obtained from the Incident Manager.
- g. The Transport Safety Investigation Act 2003 requires that all reportable occurrences be reported to ATSB within given timeframes, detailed in the Act. ASRA and ATSB have agreed to integrate occurrence reports into the ATSB system such that this requirement is fulfilled automatically. All reports regardless of their seriousness will be reported to the ATSB through the ASRA Incident Manager.
- h. In addition to the above statutory requirements, the following categories of occurrences shall be reported to the ASRA Operations Manager and/or the ASRA Incident Manager by the quickest means available:
 - 1. Fatal accidents.
 - 2. Accidents causing serious injury.
 - 3. Accidents causing serious damage.
 - 4. Accidents in which in-flight structural failure is known or suspected.

CUSTODY AND REMOVAL OF GYROPLANE

- 8. When an accident occurs, the gyroplane immediately comes into the custody of the local Police and it **MUST NOT BE REMOVED** or otherwise interfered with except with the permission of a responsible officer of the Police.

However, this provision is waived temporarily when it is necessary to extricate persons from the wreckage or to protect the wreckage from further damage, or to remove it if it presents an obstruction or danger to other aircraft, other transport or to the public.

A Police officer will release the gyroplane from custody upon completion of the wreckage examination or in some cases of minor accidents, upon receipt of the accident notification message.

INVESTIGATION OF ACCIDENTS AND INCIDENTS

9. Investigation of fatal accidents may be conducted by the Australian Transport Safety Bureau (ATSB).

ASRA will investigate other accidents and incidents with the **SOLE** intention of preventing the **SAME** occurrence again and assessing the adequacy of the rules and procedures contained in this Manual. The ATSB will assist where possible, particularly in the area of structural failures. The Police have sole responsibility for investigations.

ACCIDENT INVESTIGATION REPORTS

10. ASRA Investigators are honorary persons appointed from time to time to assist in enhancing flight safety. They are authorised by ASRA to investigate and report on accidents and incidents. Their intent is not to victimise any individual, but to ascertain the facts surrounding the accident or incident for the ultimate benefit of ASRA members, and others involved in aviation activities.

It is incumbent upon all ASRA members to assist in these investigations as far as they are able.

CASA OFFICERS

11. In the case of an accident or incident where notification has been given, the investigating Police, ATSB, ASRA or CASA officers shall have free access to all relevant areas of the property, and all ASRA members shall assist them in any way possible.

ACCIDENT INVESTIGATION

12. Occurrence investigations are normally carried out by the ASRA Incidents Manager, however where he is unavailable, the ASRA Operations Manager may delegate and alternative person to conduct the investigation.

SECTION 4.09**SEARCH AND RESCUE****PURPOSE**

1. The purpose of the Search and Rescue (SAR) organisation is to provide assistance to aircraft in distress and to search for, provide aid to, and organise the rescue of survivors of aircraft accidents and forced landings.

RESPONSIBLE AUTHORITY

2. Airservices Australia is responsible for the provision of a SAR alerting and in-flight emergency response service. AusSAR is responsible for the conduct of SAR for registered aircraft that are reported missing or have crashed and ELT searches within the Search and Rescue Region (SRR) under Australian jurisdiction.

NOTE: Under the National Search and Rescue Plan, gyroplanes are considered to be “Unregistered Aircraft”, and as such, the responsibility for SAR for gyroplanes lies with the local State Police.

ORGANISATION

3. AusSAR has established an aviation Rescue Coordination Centre (RCC) in Canberra, which is responsible for the coordination of SAR efforts involving registered aircraft within the Australian SRR. The RCC may be contacted on telephone 1 800 815 257.

PROCEDURES

4. All ATS Units have been designated as alerting posts and are responsible for the declaration of the appropriate emergency phase. Three phases of emergency have been established. They are: Uncertainty Phase (INCERFA), Alert Phase (ALERFA) and Distress Phase (DETRESFA). The specific emergencies applicable to each phase may be found in the Australian AIP Section GEN 3.6.

PILOT NOTIFICATION

5. The efficacy of the SAR action by the local State Police is directly related to the amount and accuracy of details notified by the pilot-in-command. Whilst it is acknowledged that gyroplane pilots rarely file flight plans, or use flight notification or flight notes in association with ATS units, it is

incumbent upon gyroplane pilots to ensure that a responsible person is aware of their intended operation.

NOTE: For the purposes of this Section, a responsible person may be:

- a. The Duty Officer appointed in accordance with Section 4.01 of this Manual.
- b. A person who is capable of recognising and exercising their responsibility in the event that SAR action is required.

NOTE: Where a responsible person is not in attendance at the time of departure, it is recommended that details of the intended operation are written down and left in a safe, obvious place, such as on the dash of the pilot's vehicle, secured to the gyroplane trailer, in the gyroplane hangar or among easily accessible personal effects.

DETAILS TO BE NOTIFIED

6. Details to be notified include, but are not limited to:
 - a. gyroplane type and registration markings,
 - b. gyroplane colour and distinguishing markings,
 - c. details of the intended route to be flown, or area of operation,
 - d. expected duration of the sortie,
 - e. endurance on departure,
 - f. persons on board,
 - g. details of emergency signalling equipment carried e.g. ELT, personal strobe light, flares, mobile telephone etc.,
 - h. telephone numbers at intended intermediate landing sites,
 - i. expected time of arrival back at the point of departure.

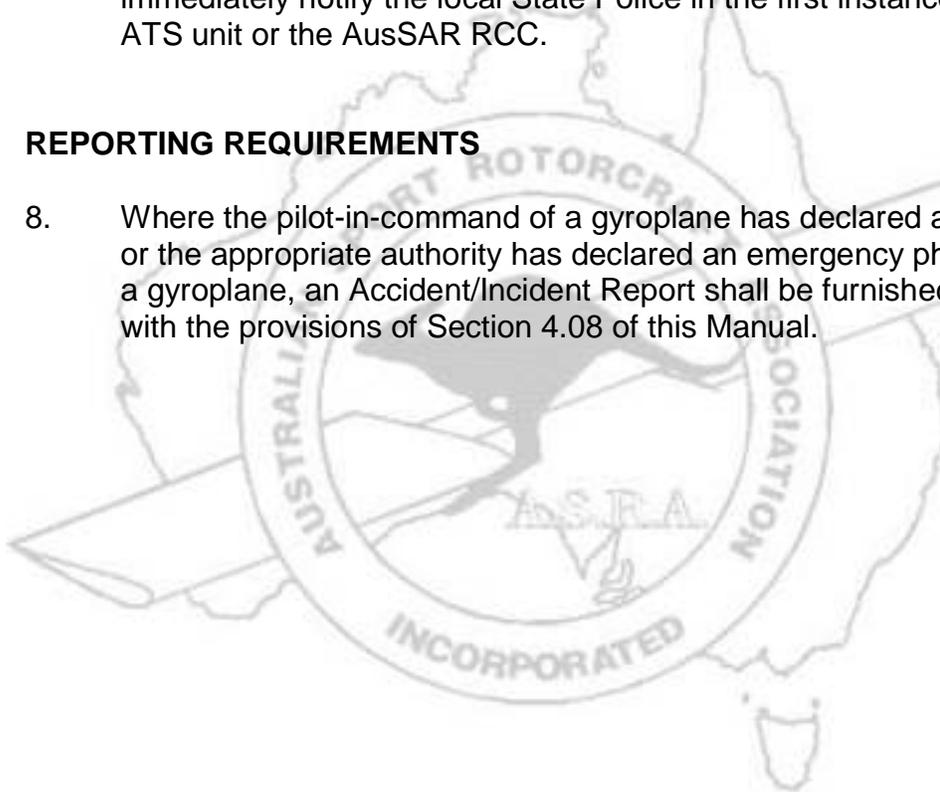
DECLARATION OF AN EMERGENCY

7. Where the safety of the gyroplane or its occupants is in doubt, the pilot-in-command shall declare an emergency using the applicable phraseology on the appropriate ATS or Flightwatch VHF frequency. Where there is doubt that the transmissions were received, the VHF emergency frequency 121.5 MHz shall be used. ELTs should also be activated if possible.

Where the responsible person referred to in paragraph 5 above becomes concerned for the safety of a gyroplane or its occupants, he shall immediately notify the local State Police in the first instance, the nearest ATS unit or the AusSAR RCC.

REPORTING REQUIREMENTS

8. Where the pilot-in-command of a gyroplane has declared an emergency, or the appropriate authority has declared an emergency phase relevant to a gyroplane, an Accident/Incident Report shall be furnished in accordance with the provisions of Section 4.08 of this Manual.

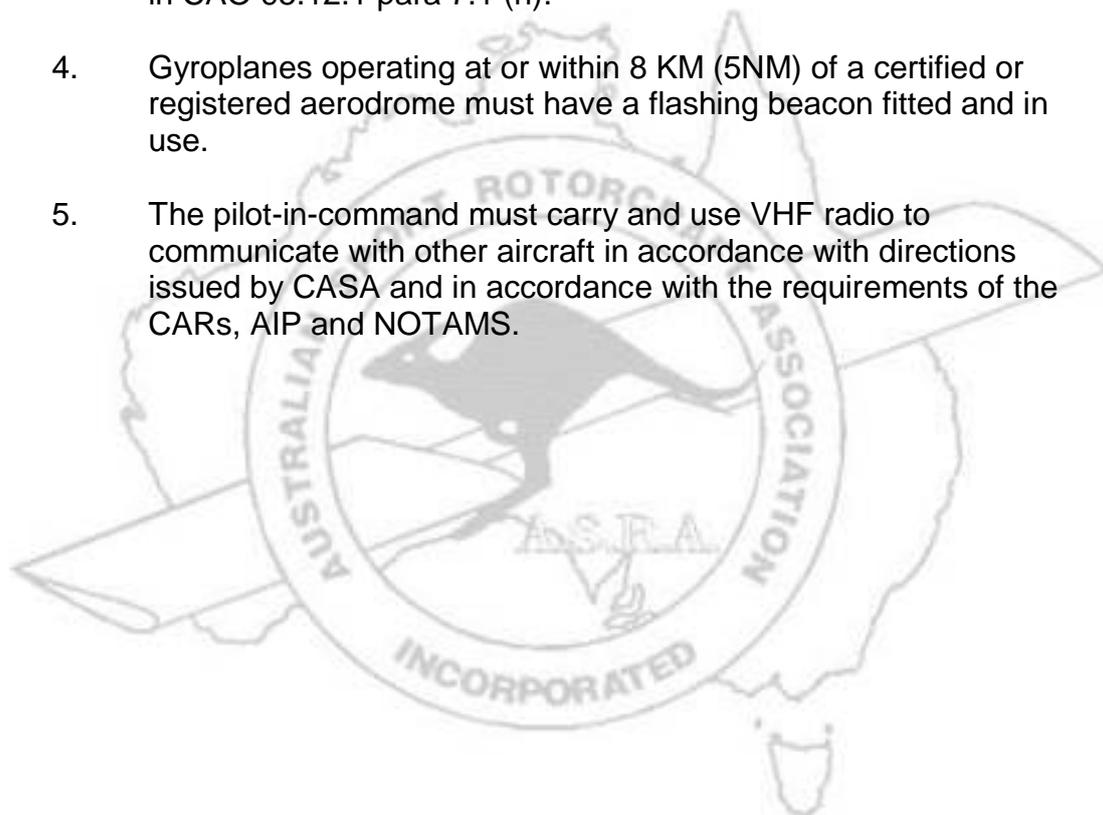




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SECTION 4.10**OPERATIONS AT AERODROMES**

1. The pilot-in-command of a gyroplane operating at or within 8 KM (5 NM) of a certified or registered aerodrome must be the holder of a valid ASRA Pilot Certificate endorsed with “Aerodrome”.
2. Gyroplanes that operate under CAO 95.12 must not be operated over a closely-settled area.
3. Gyroplanes that operate under CAO 95.12.1 must not be operated over a closely-settled area unless they are of a type that is specified in CAO 95.12.1 para 7.1 (h).
4. Gyroplanes operating at or within 8 KM (5NM) of a certified or registered aerodrome must have a flashing beacon fitted and in use.
5. The pilot-in-command must carry and use VHF radio to communicate with other aircraft in accordance with directions issued by CASA and in accordance with the requirements of the CARs, AIP and NOTAMS.





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SECTION 5.01**GYROPLANE REGISTRATION****GENERAL**

NOTE: In this Section, “gyroplane(s)” also means “gyroglider(s)”, unless specifically referenced.

1. Gyroplanes constructed and/or operated by members of the ASRA Inc. must be of a type defined in this section.
2. Existing Gyroplane registrations must be renewed annually by January 1st using ASRA Form F006 or renewed online.
3. Before the initial registration of a gyroplane, an ASRA Form F022A or F024A Registration Protocol must be submitted to the ASRA Registrar. Initial registration will be Provisional unless “type approved”.
4. Modifications to gyroplanes which may vary the stress levels or materials of rotating components and their attachments, or which increase the maximum all up weight of the gyroplane above that recommended by the gyroplane designer, must in all circumstances be assessed as satisfactory by a suitably qualified person. The ASRA Form F006 must be submitted to the ASRA Registrar or the online TA section completed with the details of the modifications.
5. Where the owner of a gyroplane is an ASRA Technical Advisor, he is excluded from providing the initial registration inspection, transfer of registration inspection or the approval of major modifications. This must be the responsibility of another ASRA TA.
6. All powered gyroplanes must have the following minimum instrumentation:
 - a. Airspeed indicator.
 - b. Altimeter.
 - c. Fuel indicator visible in flight.
 - d. Yaw indicator.

PROVISIONAL CATEGORY (Single or Two seat types)

1. Unless otherwise approved by the ASRA Operations Manager in consultation with the ASRA Technical Manager, types in this category are:
 - a. A non-factory built gyroplane type, or;
 - b. A factory built gyroplane that has not been issued with ASRA “type approval”
 - c. Types incorporating modifications which could affect normal flight characteristics, structural integrity or other airworthiness features of the type; or
 - d. Any example or type that an ASRA Inc. Technical Adviser determines should be provisional.
2. Gyroplanes flying in this category must conform with either the ASRA Basic or Compliant construction standards as applicable.
3. Undesirable characteristics, handling or airworthiness deficiencies, must be rectified before continuing with the test-flying program and the flight endurance test (E20 construction standards) must be re-started again from time zero.
4. Inspection schedules including pre-flight, daily and time dependent inspections recommended for the type, must be available to the pilot prior to the first flight
5. The Principle Constructor should provide the Technical Adviser with all the technical data relating to the construction and operation of the gyroplane.
6. Provisionally registered two seat gyroplanes are only permitted to be flown with a second person who is an ASRA member for the purpose of observing, checking or recording the flight characteristics of the gyroplane.

BASIC CATEGORY (Single seat types only)

1. Unless otherwise approved by the ASRA Operations Manager in consultation with the ASRA Technical Manager, types which may qualify for registration in this category are:
 - a. A single seat gyroplane of no more than 250kg empty weight that is registered in the Provisional Category and has successfully completed the flight endurance test (E20 construction standards), or 2 hours and a minimum of 30 landings for gyrogliders.

COMPLIANT CATEGORY (Single or two seat types)

1. Unless otherwise approved by the ASRA Operations Manager in consultation with the ASRA Technical Manager, types which may qualify for registration in this category are:
 - a. A gyroplane that has satisfactorily completed the minimum requirements of a Provisional Type for operations in the Provisional category, and has successfully completed the flight endurance test (E20 construction standards), or 2 hours and a minimum of 30 landings by gyro gliders, or
 - b. Serial built Gyroplanes that have been issued with an ASRA “Manufacturers Type Approval Number” (If 3 examples of which have operated in the Provisional category, and a minimum of 120 total type hrs logged of trouble-free operation then the flight endurance test (E20 construction standards) is no longer required. A verification flight to check integrity will be required.
 - c. A gyroplane that meets the LSA standard.
2. Only gyroplanes registered in this category may be used for flight training and passenger carriage operations.
3. Gyroplanes flying in this category must conform with the ASRA Compliant construction standards.

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SECTION 5.02**INSPECTION DURING CONSTRUCTION (NEW or SECOND-HAND GYROPLANES)**

Gyroplanes operated in accordance with this manual shall be maintained in accordance with the manufacturer's manual. Where no manufacturer's manual exists, the aircraft should be maintained in strict accordance with accepted procedures.

STAGE INSPECTIONS

1. Gyroplanes constructed by ASRA Inc. members must be assessed during their construction by authorised ASRA Inc. Technical Advisers.
2. All gyroplanes must undergo a minimum of 2 stage inspections during construction. It is the responsibility of the builder to request these inspections and to transport the gyroplanes to a place of inspection agreeable to the adviser. The initial inspection should be carried out at the first stage of construction to ensure the builder's knowledge of airworthiness principles and quality of workmanship.
3. A final inspection must be carried out on completion of the gyroplane after a certification by the builder that the gyroplane has been constructed in accordance with the designer's instructions. The final inspection must include tests on weight and balance before the gyroplane can be issued with an ASRA Inc. Type Certificate.

INSPECTIONS ON NEW OR RECENTLY PURCHASED GYROPLANES

4. When building or purchasing a gyroplane it is imperative that the aircraft be thoroughly inspected before flight is attempted. This is still necessary even if the last owner had just flown the machine. Inspection as per sections 5.05 and 5.06 of this manual should be carried out, as well as the following;
 - a. Check that the rotor head (or the top of the cheek plates) is mounted at an angle of 9 degrees to the level flight horizontal reference line (normally the keel). This will make the rotor head 0 degrees or horizontal with the joy-stick fully forward and 18 degrees with the joy-stick fully rearward.
 - b. Hang test the gyroplane from the teeter bolt with the pilot (or someone the same weight) buckled in the seat with helmet on, with half a tank of fuel and the joystick either held or

locked in the mid travel position. The gyroplane should balance between 9 and 12 degrees nose down measured on the keel or horizontal reference line. This balance allows the joy-stick to operate in its mid-range and any deviation from this range will mean that the joy-stick will be closer to one of its limits and full control may not be able to be maintained.

- c. The minimum rotor side to side tilt range for gyroplanes shall comply with the respective ASRA construction standards D100.
- d. Make sure that the head reaches all its stops before the joy-stick does.
- e. Check that the head control rods are free to pivot with the joy-stick in ANY position. If there is any binding in the swivel rod ends on the control rods, modifications must be made to allow extra clearance. In the case of a second-hand gyroplane, those rod ends must also be replaced.
- f. All rotor clearances must comply with the respective ASRA Construction Standards D102.
- g. Check that the rudder has full and free movement, operated from the rudder pedals.
- h. From the Gyroplane Logbook, check on the previous history of the machine, taking particular note of any past accidents, repairs, modifications and who performed any of the work.
- i. Have the gyroplane thrust tested. The minimum readings for safe flight must equal half the total weight of the machine and load. This is only a guide though because the size of the rotor disc and the parasite drag of the machine also affect the thrust available to fly.
- j. If in doubt, ask someone for advice as to any condition or flying ability of the machine. The best to ask are Technical Advisers, Instructors or those that have been flying regularly for at least 5 years. DON'T take the word of the person selling you the gyroplane. YOU will be the one flying it and YOU could be the one killed if something goes wrong.
- k. DON'T believe the person selling the machine about its fuel consumption, test it yourself before embarking on a cross-country.
- l. Ask an experienced pilot to test fly and trim your machine for you, and inform you of its flight envelope and of any peculiar flying characteristics.

SECTION 5.03**GYROPLANE REGISTRATION AND MARKINGS****REGISTRATION**

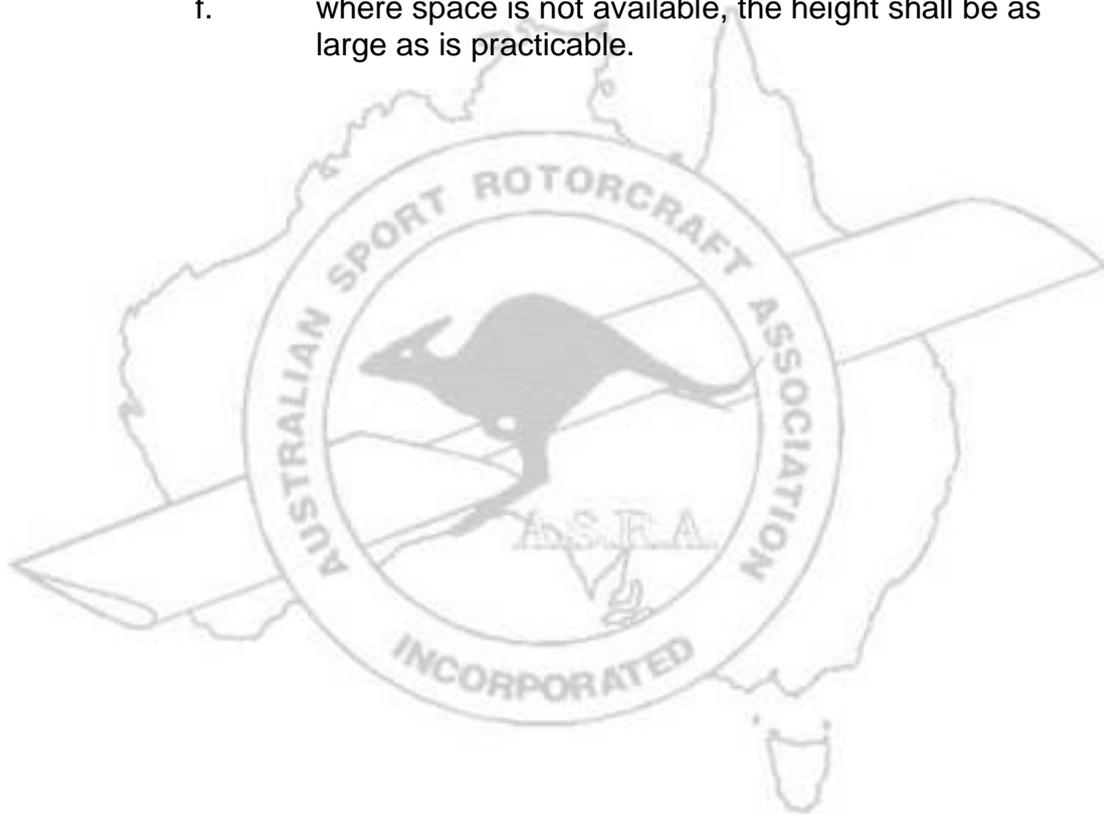
1. Gyroplane registrations and markings are issued by the ASRA Technical Officer or his delegate.
2. Gyroplanes operated in accordance with this Manual are required to:
 - a. have an ASRA Airframe Serial Number affixed to the cluster plate, or nearest visible location to the cluster plate on the airframe of the gyroplane; and
 - b. have a current ASRA Registration/Renewal Form; and
 - c. display ASRA issued gyroplane registration markings; and
 - d. not be flown unless the gyroplane is currently registered with ASRA.

NOTE: An Airframe Serial Number is unique to and remains with the gyroplane throughout its operational life. This allows the monitoring of the airworthiness and operational safety of the gyroplane and its components.

GYROPLANE REGISTRATION MARKINGS

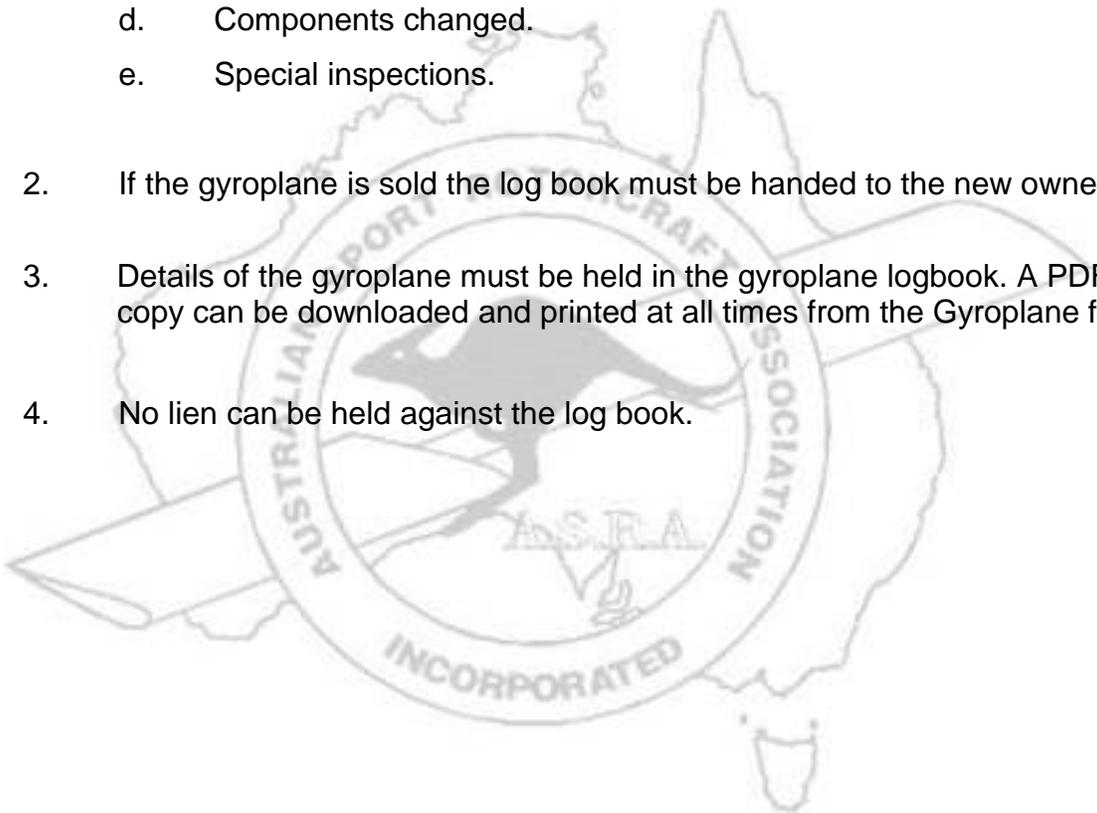
3. Gyroplane registration markings are the letter 'G' followed by either 3 or 4 numbers as assigned. They shall be displayed in accordance with CASR Part 45, a summary of which follows:
 1. The prescribed markings must:
 - a. be painted on the aircraft or be affixed to it by any other means that ensure an equivalent degree of permanence for the markings;
 - b. be legible and have no ornamentation;
 - c. be of a colour that contrasts with their background;
 - d. be clearly visible at all times; and
 - e. 2 sets of the aircraft's prescribed markings must be displayed horizontally, with one set on each side of the cabin, fuselage, boom or tail.
 2. The characters must be:
 - a. of the same height;

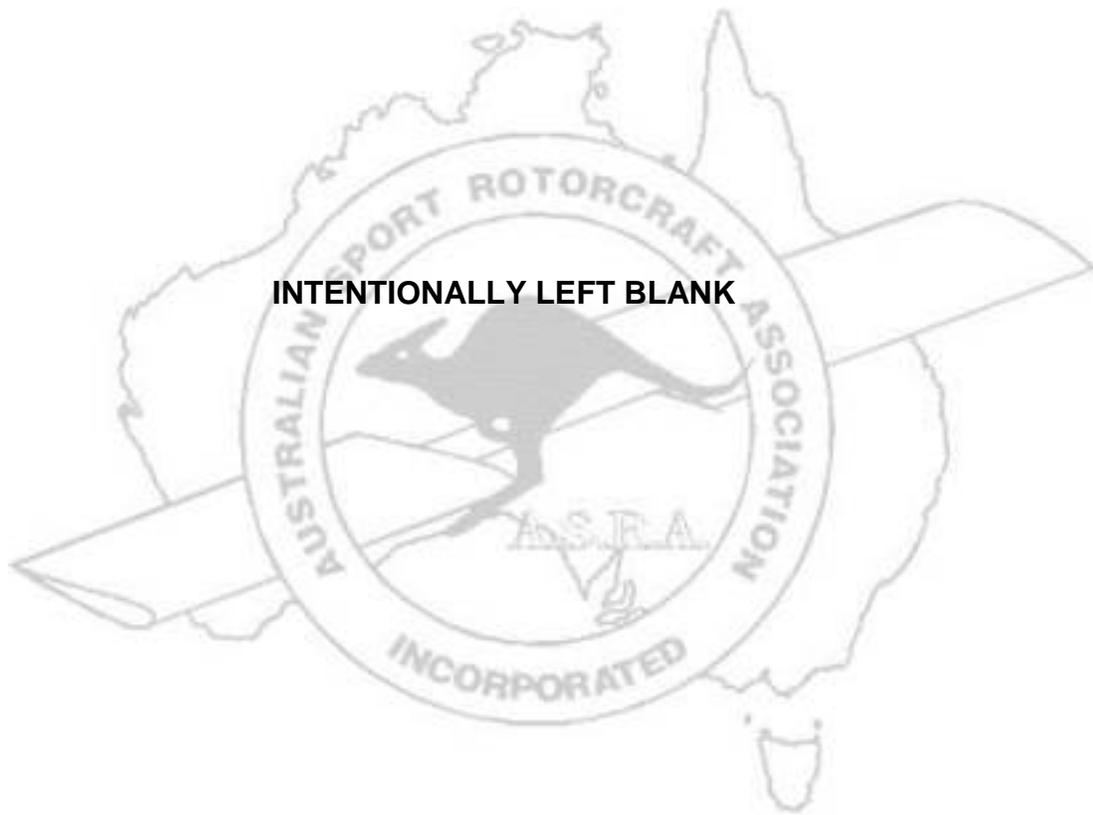
- b. not less than 75mm (150mm recommended);
- c. equal in width to two thirds of the character height except the numeral “1”, whose width must be equal to one sixth of its height, and the letters “M” and “W” which may be equal to their height;
- d. made up from solid lines that are one sixth as thick as the character height;
- e. positioned so that the space between any two characters is not less than one sixth of the character height; and
- f. where space is not available, the height shall be as large as is practicable.



SECTION 5.04**GYROPLANE LOG BOOK**

1. An aircraft log book must be kept and the following information entered:
 - a. Date and hours flown.
 - b. Maintenance carried out.
 - c. Modifications.
 - d. Components changed.
 - e. Special inspections.
2. If the gyroplane is sold the log book must be handed to the new owner.
3. Details of the gyroplane must be held in the gyroplane logbook. A PDF file copy can be downloaded and printed at all times from the Gyroplane file.
4. No lien can be held against the log book.





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SECTION 5.05

INSPECTION AFTER ASSEMBLY

1. After assembly inspection ask another experienced pilot to check your gyroplane, but avoid inspecting aircraft together because of the possibility of both missing the same defect.

IT IS TOTALLY YOUR RESPONSIBILITY TO DECIDE WHETHER THE AIRCRAFT IS AIRWORTHY AND PROPERLY PREPARED FOR FLIGHT EVEN THOUGH ANOTHER PILOT HAS CHECKED THE AIRCRAFT.





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SECTION 5.06**PRE-FLIGHT INSPECTION**

1. It is the pilots responsibility to carry out a pre-flight inspection prior to every flight operation and the pilot must ensure that the gyroplane being operated has a current registration and is airworthy. The following is an example only of the minimum items that require inspection during a 'pre-flight'
2. Make copies of your check-list and mark each item as it is checked. If you get distracted, start all over again - it could save your life! It is always good practice to start and finish your pre-flight at the same point each time.
3. The inspection should be carried out with the attitude that ANY aircraft is UN-AIRWORTHY until proven airworthy.

PRE-FLIGHT INSPECTION (Ignition OFF)**Rotor Blades**

- Attachment points- bolts and safety clips.
- Free Teeter and teeter bolt pinned.
- No scratches, nicks, dents or any other damage which would render the rotor blades unserviceable.

Mast and rotor head

- No cracks in mast, all bolts secure, free movement of head bearing with no play and both pivots free and no play.
- Clearance between rotors and pre-rotator top mount, and between rotors and propeller at full teeter.

Landing gear

- Axles and attachment points.
- Wheels and tyres.

Pilot Seat

- Attachment.
- Seat Belt.
- If seat tank check for fuel leaks.

Controls

- Travel and freedom (in the correct sense).
- Proof load - have someone hold the control surfaces whilst applying normal pressure on the controls.

Windscreen

- Secure and clean.

Fuel

- Fuel line for secure clamps.
- Check security and integrity of tanks.
- Check fuel level - tanks should have adequate fuel for every flight, plus 15 minutes reserve.
- Check fuel drain and test for water.

Engine

- Ignition off.
- Check pull starter.
- No loose bolts.
- No loose electrical connections.
- No loose spark plug caps.
- No loose or damaged parts.
- Throttle cable seated properly.
- Top of carburettor/s tight.
- No fuel leaks.
- No sediment in fuel filter.
- No oil leaks.
- Reduction gear secure - no oil leaks.
- Reduction belt drive - check for wear, proper tracking and correct tension.
- Exhaust and attachments secure.
- Pull propeller through and check for even compressions.
- Check water and oil levels where applicable.

Propeller

- No cracks, chips or nicks.

- Propeller bolts tight.

Tail Surfaces

- Check tail booms and braces.
- Check control cables.
- Check horizontal stabiliser and attachment points.
- Check fin and attachment points.
- Check rudder hinges and linkages.
- Check tubing for dents and distortions.
- Check cables for fraying, loose thimbles or kinks.
- Check rigging cables for tension.

Registration

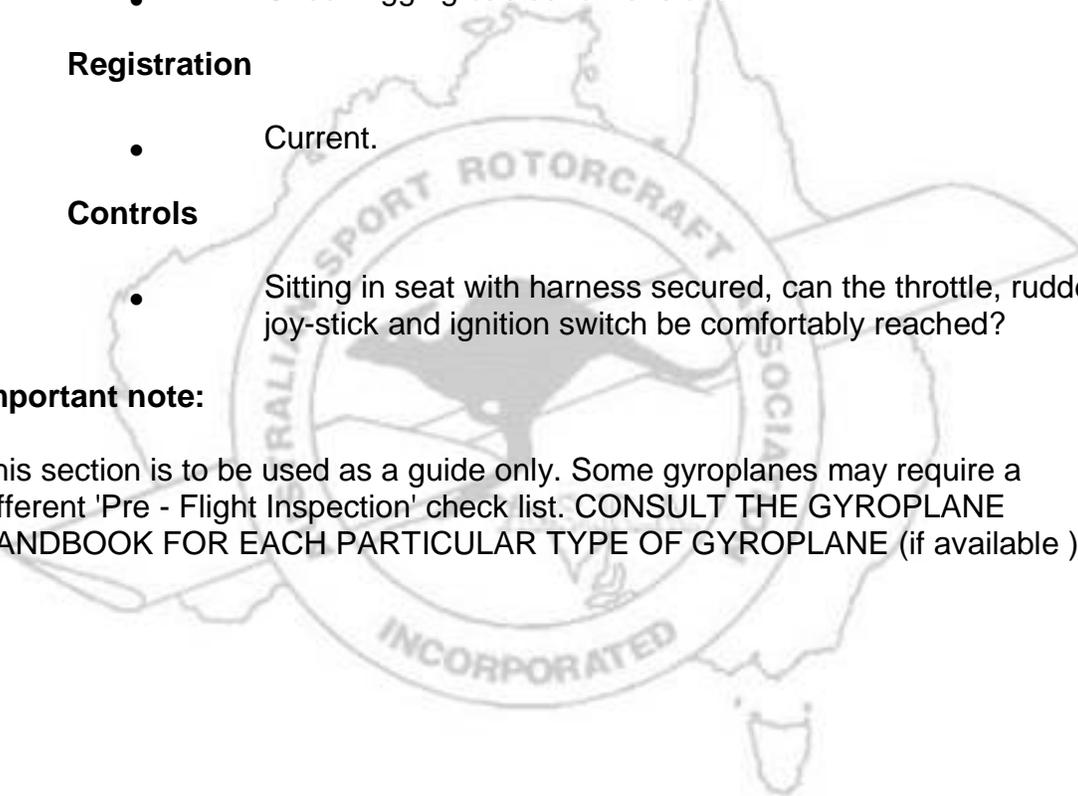
- Current.

Controls

- Sitting in seat with harness secured, can the throttle, rudder pedals, joy-stick and ignition switch be comfortably reached?

Important note:

This section is to be used as a guide only. Some gyroplanes may require a different 'Pre - Flight Inspection' check list. CONSULT THE GYROPLANE HANDBOOK FOR EACH PARTICULAR TYPE OF GYROPLANE (if available).





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SECTION 5.07**PERIODIC INSPECTIONS**

The following notes and maintenance schedules are generalised for use with varying construction details.

ENGINE

1. Spark plugs must be a type recommended by the manufacturer of the engine.
2. Care must be taken when adjusting a carburettor, it is a specialised job and can have a large effect on the power being developed.
3. Altitude can also affect the power available. When moving to a field with a different elevation it may be necessary to re-tune the carburettor.
4. We suggest that the engine be tuned by a qualified person.

PROPELLERS

5. Wooden propellers are easily damaged by stones and other hard objects, and can also be affected by climatic conditions and moisture. They must be inspected before every flight for cracks, scores, nicks, de-lamination and condition of leading edge. Minor repairs may be done by the owner (touch-up varnish or paint) but where the wood is damaged it is suggested that you seek the advice of an expert in that field. It may be necessary to remove the propeller from the hub periodically to fully inspect everything including all the bolt holes and the centre hole.
6. Composite propellers are not so easily damaged but they still have to be inspected before each flight. Check for leading edge damage, stress damage, and the centre hub for cracks. Check regularly for trueness of pitch and tension on main propeller bolts and pitch change bolts.
7. When re-installing propellers check for a good fit over centering boss and check condition of the thread on all bolts. Torque all bolts to recommended tension then check 'tracking' and pitch. Blades should track within 3mm of each other and pitch should be even. Start engine and check for any abnormal vibration. It is recommended to check tension on propeller bolts the first couple of hours after re-installing. With wooden propellers it is also advisable to check propeller bolt tension when going from humid conditions to dry conditions, e.g. a change of location or going from winter to summer.

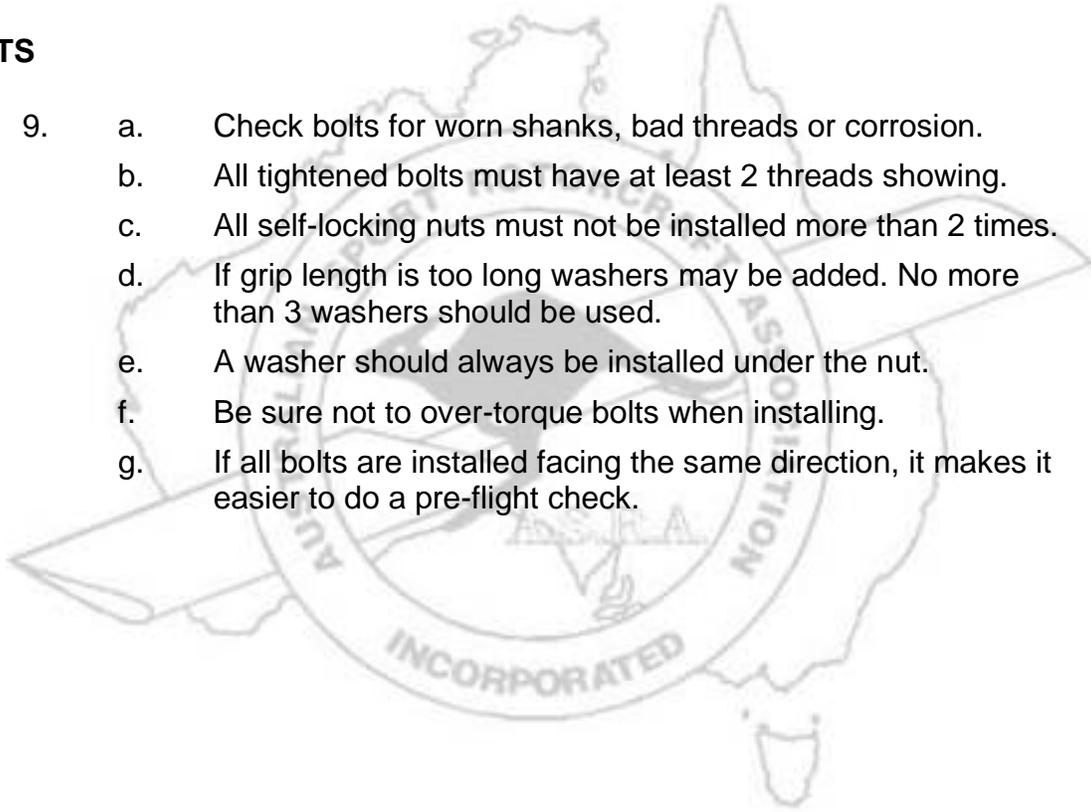
AIRFRAME

8. The airframe is mostly visually inspected externally. If closer inspection is required (e.g. for corrosion) then the component may have to be removed to be properly inspected. Surface corrosion may be removed with fine sand-paper (1200 grit) Damaged members should be replaced NOT repaired.

NOTE: ASRA Inc. requires that effective horizontal stabilisers be fitted to all new gyroplanes, as recommended by BASI and the CASA.

BOLTS

9.
 - a. Check bolts for worn shanks, bad threads or corrosion.
 - b. All tightened bolts must have at least 2 threads showing.
 - c. All self-locking nuts must not be installed more than 2 times.
 - d. If grip length is too long washers may be added. No more than 3 washers should be used.
 - e. A washer should always be installed under the nut.
 - f. Be sure not to over-torque bolts when installing.
 - g. If all bolts are installed facing the same direction, it makes it easier to do a pre-flight check.



SECTION 5.08**DEFECT REPORTING**

1. Details of any defect which develops in a gyroplane which, if uncorrected, would compromise the continued safe operation of the aircraft, shall be reported as soon as practicable to the nearest ASRA Inc. Technical Adviser, who will report it to the Operations Manager.
2. Upon receipt of a Defect Report the Association shall, where considered appropriate, inform the FACTS of the Defect Report to all registered owners of similar gyroplanes.
3. The Operations Manager, on advice, may ground a gyroplane until identified defects are rectified.





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SECTION 5.09**GYROPLANE DIRECTIVES**

1. Gyroplane and Airworthiness Directives requiring MANDATORY compliance by gyroplane owners may be issued as faults or defects become evident.
2. Failure to comply with the directives could result in the grounding of a gyroplane, and the possible de-registration of the aircraft until such time as compliance is completed.





SECTION 5.10**GYROPLANE MAINTENANCE****MAJOR REPAIRS - AIRCRAFT**

1. Any major repairs to a gyroplane must be carried out in accordance with the manufacturer's specifications and recommended procedures. In the absence of the manufacturer's specifications the major repair shall be carried out by, or under the supervision of, a specialist for the aircraft or a similar type of aircraft. An entry detailing the repair must be made in the Aircraft Log Book.

MAJOR REPAIRS - ENGINE

2. Any major repair to the engine of a gyroplane must be carried out in accordance with the manufacturer's specifications and recommended procedures. In the absence of the manufacturer's specifications the major repair shall be carried out by, or under the supervision of, a specialist for that type of engine. An entry detailing the repair must be made in the Aircraft Log Book. (A major repair to an engine is one which involves splitting the crankcase).

ALL OTHER REPAIRS

3. All other repairs may be carried out by the owner, in accordance with the manufacturer's specifications if applicable. An entry detailing the repair must be made in the Aircraft Log Book.
4. Where a major component is replaced on a "Like for Like Basis" e.g. Rotax 912ULS engine serial number 123456 is replaced with a Rotax 912ULS engine serial number 456789. This is regarded as "Other" repair and an entry detailing the repair must be made in the Aircraft Log Book. The ASRA Form F006 must be submitted to the ASRA Registrar or the online *Edit Gyro* section completed with the change of details.
5. A TA inspection is not required for a repair. However, in accordance with good practice, ASRA recommends that section 5.05 be performed.

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SECTION 5.11**GYROPLANE MODIFICATIONS****MAJOR MODIFICATIONS**

1. Any major modification must be approved by the aircraft manufacturer or a specialist for that or a similar type of aircraft. The modification must be carried out by, or under the supervision of, a person qualified and skilled to perform the work. An entry detailing the modification must be made in the Aircraft Log Book and signed by the repair authority. An ASRA Technical Adviser must inspect the aircraft and if satisfactory, the aircraft will be re-registered to Provisional Category. A gyroplane registration form must be completed and forwarded to the Registrar detailing the modifications or repairs completed.
2. The following constitute major modifications:
 - a. any change in the size or material or construction that may affect the integrity of the aircraft or the strength in any way of the mast, keel, engine mounts or rotors,
 - b. any change to the flight controls other than adjustments within the range specified by the manufacturer,
 - c. any change to the engine type, power, weight or thrust line or drag line,
 - d. any change to the tail type or size, or the addition of or the removal of a canopy or cowling.
 - e. any modification to the rotor head, including changes to the teeter stops that effect maximum teeter angle.

NOTE: An option previously approved in writing by the manufacturer for an identical gyroplane may be carried out in accordance with the manufacturer's instructions. If the modification affects any of the above components or systems, it must be inspected by an authorized person.

ALL OTHER MODIFICATIONS

All other modifications may be made by the owner.

NOTE: All modifications must be reported to the ASRA Inc. Registrar.



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AUSTRALIAN SPORT ROTORCRAFT ASSOCIATION INC

F002 Accident / Incident / Defect Report



ABN 53 412 417 012

*Circle as applicable

Report Title

Title of report:.....

*Reporter/Investigator Details

ASRA Membership Number: A.....

Name:.....

Contact Address:.....

.....

Phone:.....

Email:.....

Pilot

ASRA Membership Number: A..... (If ASRA Member)

Name:.....

Contact Address:.....

.....

Phone:.....

Email:.....

Additional Person 1

Involved as: *Student/Passenger/Witness

ASRA Membership Number: A..... (If ASRA Member)

Name:.....

Nationality: Australian Other:

Phone:.....

Email:.....

Additional Person 2

Involved as: *Student/Passenger/Witness

ASRA Membership Number: A..... (If ASRA Member)

Name:.....

Nationality: Australian Other:.....

Phone:.....

Email:.....

Gyroplane Details (Download PDF from ASRA DB.)

Registered with ASRA: *YES/NO
Registration Number: G.....
Manufacturer:.....
Model:.....
ASRA Approval Number:.....
Engine Type:.....

ELT Information

Manufacturer and Model:.....
Type: *Fixed/Portable
Location: Cockpit
Activation: *Automatic/Manual/Did not Activate
If it did not activate, why:

Occurrence

Type of Occurrence: *Accident/Incident
Purpose of Flight:
*Pleasure/Testing/Instructional/Dual/Solo/Supervised/Unsupervised/Passenger
Carriage/Public Display/TIF
Time (24hr format):.....
Time Zone:*UTC/AEST/AEDT/ACST/ACDT/AWST
Departure Location:.....
Intended/Actual Landing Location:.....
Location of occurrence:.....
Occurred during phase:*
Standing/Taxiing/Takeoff/Climb/Enroute/Manoeuvring/Descent/Approach/Landing
Airspace Designation:* A C D E G
Height/Altitude:.....FT

Flight rules, conditions and weather

Wind:.....
Visibility:.....
Precipitation:.....
Cloud (Type and Coverage):.....
Temperature:.....deg C
Flight Conditions: VMC/Daylight/Other

Description of Occurrence:.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

Effect on Flight: *None/Rejected Takeoff/Precautionary Landing/Engine Shutdown/Crashed

Did any damage occur:*YES/NO

Details:.....
.....
.....
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.....
.....
.....
.....
.....
.....

Were there any injuries: *YES/NO

Fatalities number:.....

Serious injury number:.....

Minor injury number:.....

Details:.....
.....
.....
.....
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.....

Wildlife Strike

Bird Species:.....

Number of small birds:.....

Number of medium birds:.....

Number of large birds:.....

Animal Species:.....

Animal Number:.....

AUSTRALIAN SPORT ROTORCRAFT ASSOCIATION
F003 APPLICATION TO FLY AT AN AIRSHOW



ABN 53 412 417 012

Pilot Name: Membership No:

Pilot Certificate No: Ratings: None Instructor Snr Instructor CFI

Medical Held: F11 Solo F10 passenger/Instructor CASA Medical

Total Gyroplane Pilot in Command Hours: Hours on Display Type:

Previous Display Experience (if applicable)

Location	Date	Location	Date	Location	Date

Gyroplane Type: Rego No: G Time in Service:

I hereby apply for approval to fly at an Airshow to be held at:
..... on (Date)

Description of display sequence:
.....
.....

Minimum Display Height: AGL. Maximum Display Height:AGL

I agree to comply with the applicable CASA regulations and orders, the ASRA Operations Manual and safety related directions given by the Air Display Organisers. I will not operate the Gyroplane in a manner that may bring discredit on ASRA.

Applicants Signature: Date:

Approved by Operations Manager: (Name)

Signature: Date:

LIMITATIONS:

1. Passenger carriage during display prohibited
2. Deliberate zero airspeed spinning prohibited
3. Vertical Descent Recovery to be completed by 300' AGL
4. Deliberate engine shut-down prohibited



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AUSTRALIAN SPORT ROTORCRAFT ASSOCIATION INC

F004 Flight Review



Applicant _____ Pilot's Certificate No _____ ABN 53 412 417 012

General format should consist of flight preparation, preflight, startup, prerotation, taxi, takeoff, climbout, circuit, approach, landing, takeoff, climb to 500 ft, conduct air exercises, poweroff to safe idle RPM overhead strip, landing poweroff to a full stop, taxi to shutdown, rotor braking, securing aircraft.

(Against each item enter ✓ if satisfactory ✗ if unsatisfactory)

<input type="checkbox"/> Pre-flight Inspection	<input type="checkbox"/> Start-up	<input type="checkbox"/> Pre-rotation
<input type="checkbox"/> Taxiing	<input type="checkbox"/> Takeoff	<input type="checkbox"/> Climb out
<input type="checkbox"/> Circuit Pattern	<input type="checkbox"/> Approach	<input type="checkbox"/> Power Off Landing
<input type="checkbox"/> Landing		

Exercises (300 to 500 Ft)

Exercise 1	Conduct a 360 Deg turn left followed by a 360 Deg turn right	
<input type="checkbox"/> Lookout	<input type="checkbox"/> Speed Held	<input type="checkbox"/> Altitude Held
Exercise 2	From cruise, conduct a smooth transition to flight behind the power curve, (gentle sinking, nose not too high) recover with minimal loss of altitude	
<input type="checkbox"/> Transition to behind power curve	<input type="checkbox"/> Flight behind power curve	<input type="checkbox"/> Recovery

Radio and Airmanship

<input type="checkbox"/> Use of Radio	<input type="checkbox"/> General Airmanship
<input type="checkbox"/> Video Supplied (<i>With prior approval from Training Officer</i>)	
Camera Operators Name _____	

Recommendation if Unsatisfactory	<input checked="" type="checkbox"/> Retest	<input type="checkbox"/> Remedial training	<input type="checkbox"/> Practice
Comments _____			
Instructor's Name _____			
Signature _____	Date _____	Membership No _____	

Notes

1. May be conducted by any current ASRA Instructor, or an Assistant Instructor approved by the Operations Manager.
2. In special circumstances (e.g. remoteness), with prior approval from the Training Officer, an acceptable video of the full flight may be presented.
3. Emphasis should be placed on smooth accurate flying, safety and airmanship.
4. Return completed form, with video if applicable, to the Training Officer at the address found on the front inside cover of the GYRO NEWS and on the ASRA website at www.asra.org.au



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AUSTRALIAN SPORT ROTORCRAFT ASSOCIATION INC

F006 GYROPLANE REGISTRATION, RENEWAL & TRANSFER FORM 2011-2012

*Only ASRA members may register a Gyro and a registered gyro
may not be flown if the current owner is unfinancial.*



ABN 53 412 417 012

ASRA Membership No: A	Gyroplane Registration No: G	Airframe Serial No:
Given Names: _____	Family Name: _____	
Address: _____	Phone No: _____	
Town: _____	State: _____	P/Code: _____
Email: _____		
<input type="checkbox"/> Annual Renewal with <u>no</u> changes Go to page 2, sign the signature and no changes box and submit fee. <input type="checkbox"/> Annual Renewal with changes Complete the whole form. Sign at the bottom of page 2 and submit fee. <input type="checkbox"/> New Registration Complete the whole form. Sign at the bottom of page 2 and submit fee.		
<input type="checkbox"/> Transfer: <input type="checkbox"/> Purchaser (Details below) or <input type="checkbox"/> Seller (Details below)		
Name: _____		Go to page 2, sign the signature box only.
Address: _____		Purchaser to submit fee. TA inspection is required.
Cockpit: <input type="checkbox"/> Open Frame <input type="checkbox"/> Semi Enclosed <input type="checkbox"/> Fully Enclosed Places: <input type="checkbox"/> One <input type="checkbox"/> Two Side by Side <input type="checkbox"/> Two Tandem Control System: <input type="checkbox"/> Conventional <input type="checkbox"/> Reverse Sense Overhead Aircraft Status: <input type="checkbox"/> Active <input type="checkbox"/> Inactive <input type="checkbox"/> Destroyed Empty weight including rotors: _____ kg MTOW: _____ kg Gyroplane Primary Colour: _____ Hang Test: _____ Degrees nose <input type="checkbox"/> down, <input type="checkbox"/> up Total Teeter Angle: _____ Degrees Manufacturer: _____ Model: _____ Model No: _____ Main Frame Material: _____ Size: _____ mm Mast Material: _____ Size: _____ mm Frame Plates Material: _____ Thickness: _____ mm Rudder Type & area: <input type="checkbox"/> Conventional <input type="checkbox"/> Tall Tail <input type="checkbox"/> Full Flying <input type="checkbox"/> Twin Tail <input type="checkbox"/> Tri Tail Rudder Area: _____ m ² Horizontal Distance from C of G: _____ m Pitch Stabiliser Location & area: <input type="checkbox"/> In propeller slipstream <input type="checkbox"/> Outside propeller slipstream Stabiliser Area: _____ m ² Horizontal Distance from C of G: _____ m Rotor Head Manufacturer: _____ Serial No: _____ Rotor Blade Manufacturer: _____ Hub Bar Length: _____ ft Propeller Manufacturer: _____ Serial No: _____ Diameter: _____ in Engine Manufacturer: _____ Type: _____ Engine No: _____ Engine Capacity: _____ cc Redrive Make: _____ Serial No: _____ Ratio: _____ : 1 Fuel Tank Manufacturer: _____ Capacity: _____ LTS		

Continue over

Mandatory Instruments	<input type="checkbox"/> ASI	<input type="checkbox"/> Altimeter	<input type="checkbox"/> Fuel Indicator	<input type="checkbox"/> Yaw Indicator
Compliant Gyroplanes Mandatory Instruments	<input type="checkbox"/> Hour Meter	<input type="checkbox"/> Oil Pressure (4 stroke)	<input type="checkbox"/> Engine tachometer	
	<input type="checkbox"/> Compass	<input type="checkbox"/> Volts (Battery Ignition)	<input type="checkbox"/> Temperature	
Significant Extras	<input type="checkbox"/> GPS	<input type="checkbox"/> Transponder	<input type="checkbox"/> EPIRB	<input type="checkbox"/> VHF <input type="checkbox"/> UHF

TO BE COMPLETED BY AN ASRA TECHNICAL ADVISER ON ALL NEW REGISTRATIONS, ALL TRANSFERS AND CHANGES TO COMPLIANT GYROPLANES ONLY.

I declare that I have inspected the above Gyroplane and checked that all the control movements are normal as specified in the applicable ASRA Inc. F022 or F024 registration protocols. The Gyroplane complies with all the compliance requirements and the Airworthiness Directives issued by ASRA. http://www.asra.org.au/AD_AA.htm I take no responsibility for any modifications carried out after this date unless approved by me. I do not take any responsibility for the accuracy of the owner or manufacturer's statements, or the manner in which the Pilot operates the Gyro. This is an Application for Registration or Renewal Form and is not indicative of the flight readiness or performance of this aircraft.

The Gyroplane qualifies for registration under the following category:

Basic (Provisional) Single Seat

Compliant Two Seat

If Compliant select one of the following:

Registration Protocols Form F 006 submitted Manufacturers Type Approved No: _____

Form correctly filled in Annual photo necessary to complete registration

Technical Adviser's Name: _____ Membership No: **A** _____

Signature: _____ Date: _____

Technical Adviser's Comments:

Owner's Signature: _____

I confirm there are no changes since last years registration

I do not wish to release my Gyroplane photograph to be used in any promotional material.

Date: _____ Side on photo supplied (Mandatory for all registrations)

Gyro Registration Fees (Tick appropriate box)	
<u>Existing members</u> Annual registration renewal	<input type="checkbox"/> \$35 (If paid before 31 st Dec 2011) <input type="checkbox"/> \$55 (If paid after 31 st Dec 2011)
<u>Transfer - Purchaser</u>	<input type="checkbox"/> \$35
<u>New Registration 2011-2012</u> (Applies after 1 st July 2011 & before 31 st Dec 2011)	<input type="checkbox"/> \$80 (includes Gyroplane maintenance logbook)
<u>New Registration 2012</u> (Applies after 1 st Jan 2012 & before 1 st July 2012)	<input type="checkbox"/> \$55 (includes Gyroplane maintenance logbook)

- Note:**
- 1 Return form and photo (digital or print) with payment to ASRA at PO Box 129 Buderim QLD 4556
 - 2 Please make a copy of this form to keep in the Gyroplane Maintenance Logbook

**AUSTRALIAN SPORT ROTORCRAFT
ASSOCIATION INC**

ABN 53 412 417 012

**Guidelines for completing the F010 Medical Examiner's
Certificate****Instructors and Passenger-carriers must comply with either:**

- A current Class 2 Aviation Medical Certificate (*please attach a photocopy*) OR**
- The standard set by the National Road Transport Commission & Austroads in their publication "Assessing Fitness to Drive 2003 for Commercial Vehicle Drivers Standard", and on their Website www.austroads.com.au**

The NRTC & Austroads Standard for Commercial Vehicle Drivers is made up of Appendix 2.2, 2.3 & 2.4 and a Medical Examiner's Certificate.**Applicants must:**

- make an appointment with a Doctor of your choice (advise the purpose of the visit as this examination requires extra time);
- complete Appendix 2.2 of the Commercial Vehicle Drivers Health Assessment prior to the medical examination;
- present Appendix 2.2 and ASRA's Medical Examiners Certificate (F010) to the Doctor;
- bring spectacles, hearing aids, etc with you to the examination.

Applicants are advised that Appendix 2.2, 2.3 & 2.4 are available from www.austroads.com.au should you wish to provide the forms for your Doctor.**Examining Doctor must:**

- have read and be familiar with Appendix 2.2, 2.3 & 2.4 of the NRTC & Austroads Standard for Commercial Vehicle Drivers;
- review Appendix 2.2 with the applicant and comment on any abnormality;
- complete Appendix 2.3 [& 2.4 if applicable] **and** the Medical Examiner's Certificate [F 010];
- please return the signed ASRA Medical Examiner's Certificate [F010] and App 2.4 if applicable, to the applicant.

AUSTRALIAN SPORT ROTORCRAFT ASSOCIATION INC



F010 - MEDICAL EXAMINER'S CERTIFICATE

ABN 53 412 417 012

I certify that I have examined *(applicant's name)* _____

In my opinion I consider that the applicant:

A Meets the medical criteria for a Driver Authority as set out in the *Medical Examinations of Commercial Vehicle Drivers, Assessing Fitness to Drive 2003*.

B Does not meet the medical criteria for a Driver Authority as set out in the *Medical Examinations of Commercial Vehicle Drivers, Assessing Fitness to Drive 2003*.

C Meets the criteria for a Drivers Authority (Conditional) to be issued on conditions outlined in the *Medical Examinations of Commercial Vehicle Drivers, Assessing Fitness to Drive 2003*, as set out below.

For 'C' please complete the following:
The applicant does not meet the criteria due to _____
[medical reason for not meeting criteria], but may be issued a Conditional Drivers Authority provided *[insert condition outlined in the Medical Examinations of Commercial Vehicle Drivers, Assessing Fitness to Drive 2003, Appendix 2.4]*

These conditions can be found on Page _____ *(insert page number)* of the *Medical Examinations of Commercial Vehicle Drivers, Assessing Fitness to Drive 2003*

Doctor's Name: *(please print)* _____ Date: _____

Doctor's Signature: _____
Address: _____

INDEMNIFICATION OF EXAMINING DOCTOR
In providing this report on whether the applicant meets or does not meet the criteria for a Driver Authority, as set out in the *Medical Examinations of Commercial Vehicle Drivers, Assessing Fitness to Drive 2003*, the doctor is indemnified from any civil or criminal action in relation to the report.

Applicant to complete: Family Name: _____
Given Name: _____
Date of Birth: _____
Membership No: _____

- Note 1 This medical certification must be undertaken at least every 4 years for persons under 40 years of age, and every 2 years for those over 40 years. Specific conditions may require more frequent certification and under certain circumstances **“for cause” examinations** may be required. See *Medical Examinations of Commercial Vehicle Drivers, Assessing Fitness to Drive 2003*, 3.5.9 page 23.
- 2 In the case of changes in any Medical condition please notify the **Registrar**.
- 3 If you are required to wear spectacles you must carry a spare pair, which is easily accessible in flight.
- 4 **Return the completed form to the ASRA Registrar, P O Box 666, Morisset NSW 2264**

**AUSTRALIAN SPORT ROTORCRAFT
 ASSOCIATION INC**



F011 - SOLO PILOT'S MEDICAL CERTIFICATE

ABN 53 412 417 012

The Medical standards for Pilots flying solo in Gyroplanes are equivalent to those required to obtain a Motor Vehicle Drivers Licence in Australia.

This declaration is to be completed by all members before flying as a pilot or student pilot in a gyroplane.

NOTE:

- Pilots who are unable to make this declaration must complete **Section B**.
- Pilots who intend to **instruct or carry passengers** must complete **ASRA Form F010 Medical Examiners Certificate**.

SECTION A

I certify that I have never suffered from the following:

Epilepsy, Fits, Severe Head Injury, Recurrent Fainting, Giddiness, Blackouts, Abnormally High Blood Pressure, Previous Heart Disease. I am not taking Insulin for the control of Diabetes.

I further agree that, in the event of my contracting or suspecting any of the above conditions, I will cease flying until I have obtained a Medical opinion that it is safe to continue flying.

Pilot's Name: _____
 (Please print)

Membership No: **A**

Signature: _____ Date: _____

Guardians Signature: _____
 (for persons under 18 years)

SECTION B MEDICAL EXAMINERS CERTIFICATE

I certify that I have examined the applicant

Name: _____ **DOB:** _____

and I further certify that to the best of my knowledge he/she is not suffering from any medical condition which would preclude him/her from complying with the NRTC Standards for Motor Vehicle drivers.

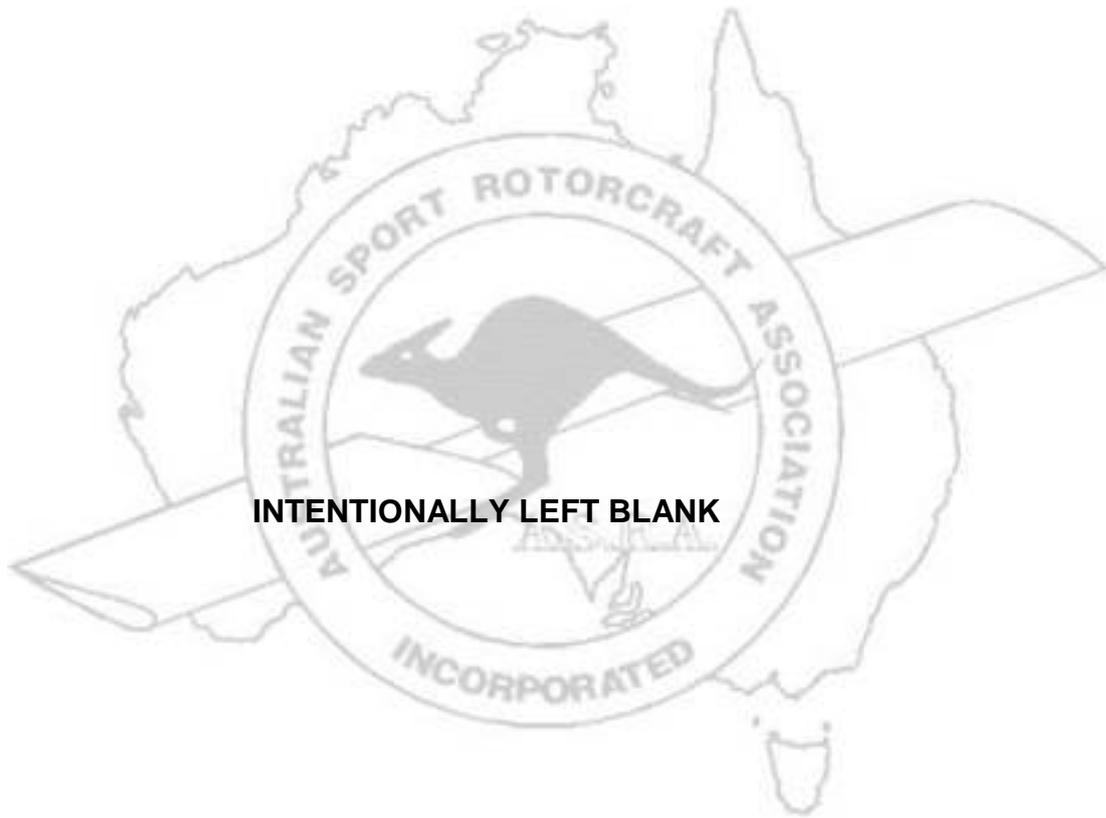
In my opinion he/she is (please tick the appropriate box)

Fit Unfit to fly **solo** in a Gyroplane.

Doctor's Name: (Please print) _____

Doctor's Signature: _____ Date: _____

- Note**
- 1 Minor illnesses, the donation of blood, some medications and certain prescribed drugs may make you temporarily unfit to fly.
 - 2 If you are required to wear spectacles you must carry a spare pair, which must be easily accessible in flight.
 - 3 Return the completed form to the ASRA Inc Registrar, at the address listed inside the front cover of the "GYRO NEWS" and on the ASRA website at www.asra.org.au



ABBREVIATIONS AND DEFINITIONS**ABBREVIATIONS.**

AGL	Above Ground Level
AIC	Aviation Information Circular
AIP	Aeronautical Information Publication
ALA	Aircraft Landing Area
AMSL	Above Mean Sea Level
ANR	Air Navigation Regulation
ARP	Aerodrome Reference Point
ASRA	The Australian Sport Rotorcraft Association Inc.
ATC	Air Traffic Control
ATSB	Australian Transport Safety Bureau
AUF	Australian Ultralight Federation
BAK	Basic Aeronautical Knowledge
CASA	Civil Aviation Safety Authority
CAO	Civil Aviation Order
CAR	Civil Aviation Regulation
CFI	ASRA Chief Flying Instructor
CTA	Control Area
CTAF	Common Traffic Advisory Frequency
CTR	Control Zone
ERC-L	En Route Chart – Low
ERSA	En Route Supplement Australia
FAI	Federation Aeronautique Internationale
FTF	Flight Training Facility
GA	General Aviation
GAAP	General Aviation Aerodrome Procedures
GFA	Gliding Federation of Australia
HF	High Frequency
HGFA	Hang Gliding Federation of Australia
IMC	Instrument Meteorological Conditions
ICAO	International Civil Aviation Organisation
LL	Lower Limit
MET	Meteorology or Meteorological
MHz	Megahertz
MTOW	Maximum Take-off Weight
NM	Nautical Miles
NOTAM	Notice To Airman
OCTA	Outside Controlled Airspace
OPSMGR	ASRA Operations Manager
PCA	Planning Chart Australia
PMI	Principles and Methods of Instruction Approved Course
QFE	An altimeter sub-scale pressure setting that indicates height above a ground reference
QNH	An altimeter sub-scale pressure setting that indicates height above mean sea level
PPL	Private Pilot Licence

SAAA	Sport Aircraft Association of Australia
UHF	Ultra High Frequency
UTC	Co-ordinated Universal Time
VFR	Visual Flight Rules
VHF	Very High Frequency
VMC	Visual Meteorological Conditions
VTC	Visual Terminal Chart
WAC	World Aeronautical Chart

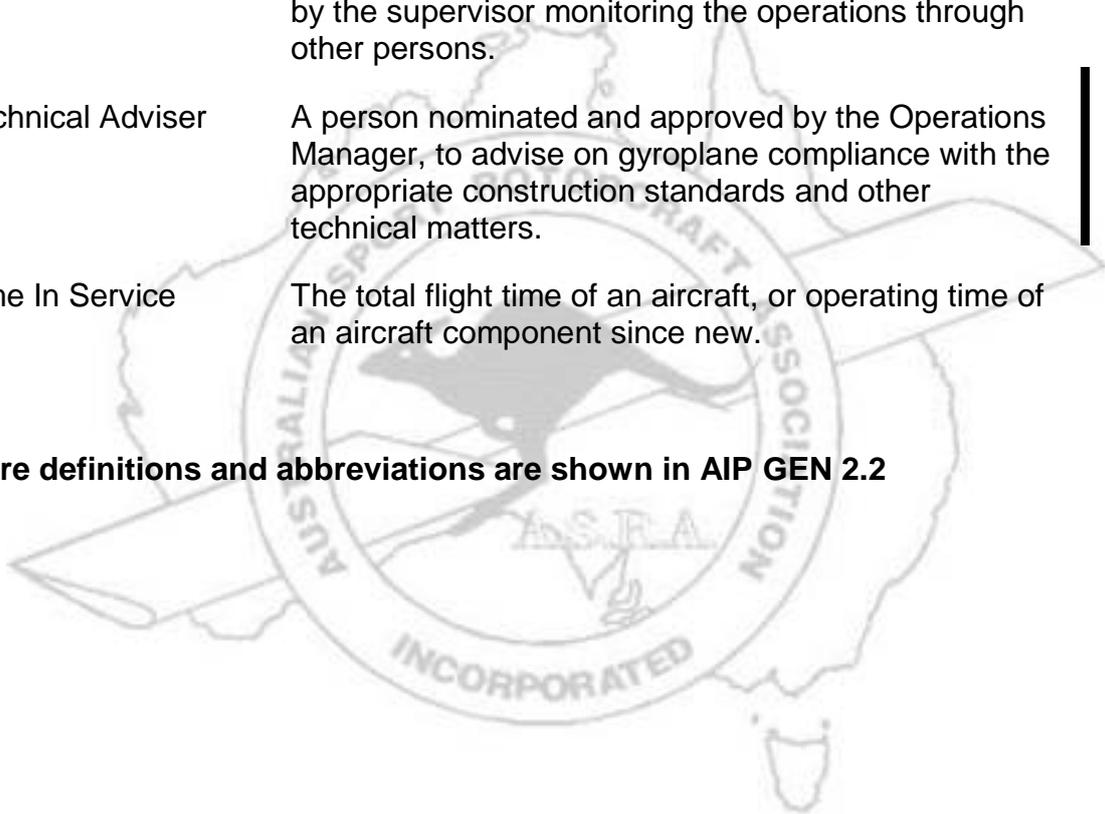
DEFINITIONS

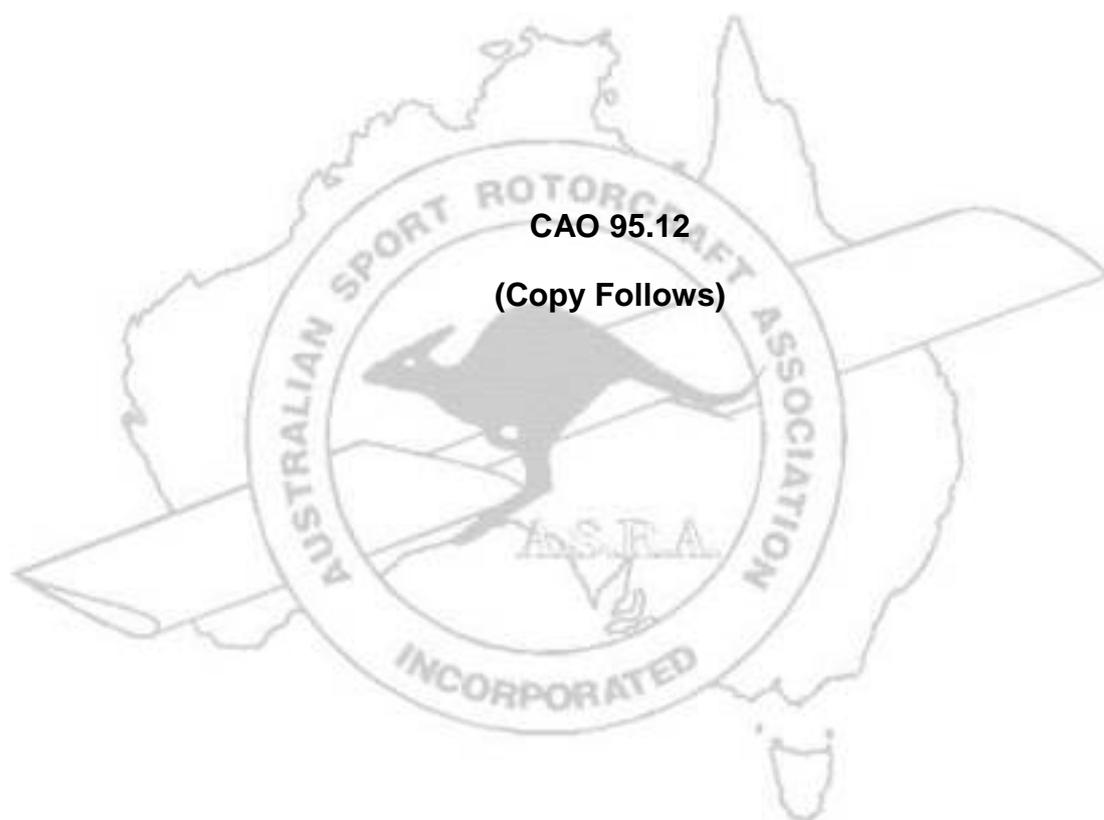
Association	The Australian Sport Rotorcraft Association Inc. or ASRA
Aircraft Log Book	Means the ASRA Aircraft Log Book, the Manufacturer's Aircraft Log Book or an Aircraft Log Book approved by CASA.
Approved or Approval	Means approved for a defined task by the Operations Manager on behalf of the Authority.
ASRA Medical Declaration	The declaration referred to in ASRA Form F011
ASRA Medical Examination Certificate	A certificate issued in accordance with ASRA Forms F 010 and F 011
Aviation Medical Certificate	A certificate issued under CAR 6.06 or 6.10.
Board	The elected body responsible for controlling and/or supervising the administration requirements on the Association.
CAO	A Civil Aviation Order issued by CASA under CAR 5 containing directives concerning airworthiness, maintenance and operations of aircraft.
CASR	A Civil Aviation Regulation made pursuant to Section 98 of the Civil Aviation Act 1988, containing regulations concerning the operation of aircraft.
CASA	Civil Aviation Safety Authority
CFI	A Chief Flying Instructor who has been recommended by the Operations Manager and approved by the Board to undertake control of Flight Training Facilities

	and conduct ground and flight training in gyroplanes. Unless specifically mentioned, it does not refer to a GA CFI, a GFA CFI or an AUF CFI.
Check flight	A flight conducted by an appropriately qualified or nominated person to assess a pilot's competency for a specific qualification.
Direct Supervision	The supervisor observes and checks the work being performed to ensure that it is being performed properly.
Flight check	A flight conducted by an appropriately qualified or nominated person to assess a pilot's competency for a specific qualification.
Flight Training Facility	A facility authorised by the Operations Manager to conduct ground and flight training of ASRA Student Pilots, Pilots and Pilot Instructors.
Flying School	See 'Flight Training Facility'
Gyroglider	A non-power-driven heavier than air aircraft, supported in flight by the reaction of the air on one or more rotors which rotate freely on substantially vertical axes.
Gyroplane	A power-driven heavier than air aircraft, supported in flight by the reaction of the air on one or more rotors which rotate freely on substantially vertical axes.
Gyroplane Instructor Manual	A manual compiled by the Training Officer and approved by the Operations Manager and the Board, containing information pertinent to the conduct of ASRA training activities.
Incident Registrar	A person appointed by the Board to receive reports of accidents and incidents concerning gyroplanes and to promote the safety awareness of all gyroplane pilots.
Liaison Officer	A person appointed by the Board to liaise with those bodies affecting the welfare of ASRA, as determined by the Board.
Operations Manager	A person appointed by the Board to oversee the operational standards for gyroplanes.
Operations Manual	The ASRA Operations Manual

Pilot Log Book	A system that is used to keep an accurate record of a pilot's aeronautical experience.
Registrar	A person appointed by the Board to keep a register of all gyroplane registrations, certificates, ratings and endorsements issued.
Secretary	The Secretary of the Australian Sport Rotorcraft Association Incorporated.
Supervision	The regular surveillance, assessment and correction of gyroplane pilot training operations and of persons engaged in those operations. Supervision may be 'direct' in the presence of the supervisor, or 'indirect' by the supervisor monitoring the operations through other persons.
Technical Adviser	A person nominated and approved by the Operations Manager, to advise on gyroplane compliance with the appropriate construction standards and other technical matters.
Time In Service	The total flight time of an aircraft, or operating time of an aircraft component since new.

More definitions and abbreviations are shown in AIP GEN 2.2





CAO 95.12

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Australian Government
Civil Aviation Safety Authority

**Civil Aviation Order 95.12 Instrument 2011
as amended**

made under subregulation 308 (1) of the *Civil Aviation Regulations 1988*.

This compilation was prepared on 4 December 2017 taking into account amendments up to *Civil Aviation Legislation Amendment and Repeal (Australian Technical Standard Orders) Instrument 2017*. It is a compilation of *Civil Aviation Order 95.12 Instrument 2011* as amended and in force on 30 November 2017.

Prepared by the Legal Advisory, Drafting and Contracts Section, Legal Affairs, Regulatory Policy & International Strategy Branch, Civil Aviation Safety Authority, Canberra.

Compilation No. 2.

1 Name of instrument

This instrument is the *Civil Aviation Order 95.12 Instrument 2011*.

2 Commencement

This instrument commences on the day after it is registered.

3 New Civil Aviation Order 95.12

Civil Aviation Order 95.12 is repealed and a new Civil Aviation Order 95.12 is substituted as set out in Schedule 1.

Schedule 1 Civil Aviation Order 95.12

Exemption from provisions of the regulations under the *Civil Aviation Act 1988* — gyroplanes having an empty weight not in excess of 250 kilograms

1 Application

This Order applies to single-place gyroplanes:

- (a) having an empty weight not more than 250 kilograms; and
- (b) used solely in private operations for the purposes mentioned in subparagraph 5 (c).

2 Definitions

In this Order:

Act means the *Civil Aviation Act 1988*.

aerial application operation has the same meaning as in regulation 137.010 of CASR 1998.

aerial mustering has the same meaning as in Civil Aviation Order 29.10 (CAO 29.10).

ASRA means the Australian Sport Rotorcraft Association Inc.

ASRA Operations Manual means a manual acceptable to CASA that is issued by the ASRA and contains the procedures and instructions necessary to ensure the safe operation of gyroplanes and also contains:

- (a) airworthiness, design and maintenance standards; and
- (b) aeronautical practices, test procedures and processes.

CAR 1988 means the *Civil Aviation Regulations 1988*.

CASR 1998 means the *Civil Aviation Safety Regulations 1998*.

closely-settled area, in relation to a gyroplane, means an area in which, because of:

- (a) man-made obstructions such as buildings and vehicles; and
- (b) the characteristics of the gyroplane;

the gyroplane could not be landed without endangering the safety of persons unconnected with the aircraft or damaging property in the area.

empty weight means the weight of a gyroplane including all items of fixed equipment, unusable fuel and undrainable oil but excluding all other items of disposable load.

gyroplane means a power-driven heavier-than-air aircraft supported in flight by the reaction of the air on 1 or more rotors which rotate freely on substantially vertical axes.

immediate family, in relation to a person, means the person's spouse, parents and children (if any).

Order means Civil Aviation Order.

pilot certificate means a valid gyroplane pilot certificate issued by the ASRA in accordance with the ASRA Operations Manual.

public road means a street, road, lane, thoroughfare or place open to, or used by, the public for passage of vehicles.

suitable landing area means an area in which a gyroplane, to which this Order applies, can be landed without endangering the safety, or damaging the property, of persons unconnected with the gyroplane.

3 Exemptions under regulation 308

Under regulation 308 of CAR 1988 and subject to compliance with subsection 4, CASA exempts gyroplanes to which this Order applies from compliance with Part 61 of CASR 1998 and the following provisions of CAR 1988:

- (a) Parts 4, 4A, 4B, 4C, 4D and 7;
- (b) subregulation 83 (1);
- (c) regulations 133, 139 and 157;
- (d) subregulation 163AA (2) and paragraph 166A (2) (f);
- (e) regulations 207, 208 and 230;
- (f) Division 4 of Part 13;
- (g) regulations 252 and 258;
- (h) regulation 322.

4 Licence not required

- 4.1 For section 20AB of the Act, a person is authorised to perform a duty essential to the operation of a gyroplane to which this Order applies without holding a flight crew licence if he or she complies with the conditions set out in subsections 5 and 6.
- 4.2 In spite of paragraph 4.1, a person who makes an airborne radio transmission on an aeronautical HF frequency must be authorised to transmit using an aeronautical radio under Part 61 or Part 64 of CASR 1998.

5 General conditions

The exemption given by subsection 3, in relation to a gyroplane, is subject to the following general conditions:

- (a) there must be clearly displayed in the gyroplane, in a position visible to the pilot when occupying the control seat, a sign stating that:
 - (i) neither CASA nor the ASRA guarantee the airworthiness of the gyroplane; and
 - (ii) the pilot operates the gyroplane at the pilot's own risk;
- (b) the gyroplane must not be used in aerial application operations;
- (c) the gyroplane must not be used for any purpose other than:
 - (i) the personal carriage of the pilot; or
 - (ii) the aerial inspection, conducted as a private operation, of stock, fencing or farm or pastoral equipment that is located on land owned by, or under the control of, the pilot or a member or members of the pilot's immediate family; or
 - (iii) aerial mustering conducted as a private operation, in accordance with CAO 29.10 or equivalent ASRA requirements, over land occupied by the owner of the gyroplane; or
 - (iv) flight training, conducted in accordance with Part 61 of CASR 1998, for aerial mustering;

Note Conduct as a private operation means that no remuneration must be received by the pilot of the aircraft or the owner (subregulation 2 (7) of CAR 1988).

- (d) the gyroplane must not be operated by a person as pilot in command unless the person:
 - (i) holds a valid pilot certificate; and
 - (ii) subject to the other conditions set out in this Order, operates the gyroplane in accordance with the privileges and limitations of that certificate;
- (e) subject to the other conditions set out in this Order, the gyroplane must be operated in accordance with the ASRA Operations Manual;
- (f) the gyroplane must be maintained in accordance with the maintenance standards set out in the ASRA Operations Manual.

6 Flight conditions

- 6.1 Subject to paragraph 8.5, a gyroplane to which this Order applies must be operated in accordance with the following conditions:
- (a) the gyroplane must be operated in accordance with the flight height and separation limitations in subsection 7;

- (b) the gyroplane must not be operated within 8 kilometres of a certified or registered aerodrome unless the pilot holds a valid pilot certificate endorsed for this type of activity;
- (c) subject to paragraph 6.2, the gyroplane must not be flown over a body of water at a horizontal distance from a suitable landing area of more than:
 - (i) the distance that the gyroplane can glide in case of engine failure; or
 - (ii) 25 nautical miles — if each occupant is wearing a life jacket and the aircraft carries a serviceable radiocommunication system and:
 - (A) an approved ELT, or an approved portable ELT, within the meaning of regulation 252A of CAR 1988; or
 - (B) a personal locator beacon that has been approved by CASA for use on such an aircraft;
- (d) the gyroplane must not be operated except in:
 - (i) Class G airspace; or
 - (ii) Class E airspace in V.M.C.; or
 - (iii) in accordance with paragraph 6.3 — Class A, B, C or D airspace;

Note Classes of airspace are defined in the *Australian Airspace Policy Statement*.

- (e) the gyroplane must not be operated at night;
- (f) the gyroplane must not be operated over a closely-settled area;
- (g) the gyroplane must not be operated in acrobatic manoeuvres;
- (h) if the gyroplane is fitted with radiotelephone equipment, the radiotelephone equipment must not be used by a person unless the person:
 - (i) for all transmissions — is authorised to transmit using an aeronautical radio under Part 61 or Part 64 of CASR 1998; or
 - (ii) only for transmissions using aeronautical VHF frequencies, but subject to paragraph 4.2 or are made in accordance with paragraph 4.2 — holds a valid certificate, issued by the ASRA in accordance with the ASRA Operations Manual relating to the operation of radiotelephone equipment;
- (i) the gyroplane must not be operated in aerial mustering unless the pilot has a low-level rating with an aerial mustering – gyroplane endorsement, or satisfies the equivalent requirements issued by ASRA and published in the ASRA Operations Manual.

6.2 In spite of the limit of 25 nautical miles mentioned in subparagraph 6.1 (c), a gyroplane to which that limit would otherwise apply may be flown between Tasmania and mainland Australia, in either direction by a longer route, if taking advantage of safer weather conditions.

6.3 A gyroplane may be flown inside Class A, B, C or D airspace only if all of the following conditions are complied with:

- (a) the gyroplane is approved under regulation 262AP of CAR 1988 for flights over closely-settled areas;
- (b) the gyroplane is fitted with an engine of a kind:
 - (i) mentioned in paragraph 6.1 of Schedule 1 to the Civil Aviation Amendment Order (No. R94) 2004 (also known as section 101.55 of the Civil Aviation Orders), as in force on 31 May 2016; or

- (ii) that CASA has approved as being suitable for use in an aircraft to which this Order applies;
 - (ba) the gyroplane is not subject to any conditions that would prevent the flight;
 - (c) the gyroplane is fitted with a radio capable of two-way communication with air traffic control;
 - (d) the gyroplane is flown by the holder of a pilot licence with an gyroplane category rating:
 - (i) issued under Part 61 of CASR 1998; and
 - (ii) that allows the holder to fly inside the controlled airspace;
 - (e) the pilot has a valid flight review for the class rating in accordance with Part 61 of CASR 1998;
 - (f) if the controlled airspace in which the gyroplane is operating requires a transponder to be fitted — the gyroplane is fitted with a transponder suitable for use in the airspace.
- 6.4 Aerial mustering operations must be conducted in accordance with CAO 29.10.

7 Provisions relating to flight height limitations and minimum distance requirements from roads, buildings and persons

- 7.1 Subject to paragraphs 7.2 and 7.3, a gyroplane to which this Order applies may be flown at a height of less than 300 feet above ground level over land owned by a person (including the Crown), only if:
- (a) the gyroplane is flying in the course of actually taking off or landing; or
 - (b) the gyroplane is flying over land that is owned by, or under the control of, the pilot; or
 - (c) the owner or occupier (including the Crown) of the land, or an agent or employee of the owner or occupier, has given permission for the flight to take place at such a height.
- 7.2 Except when taking off or landing, a gyroplane to which this Order applies that is flown at a height of less than 500 feet above ground level must be at a distance of at least 100 metres horizontally from:
- (a) a public road; or
 - (b) a person other than a person associated with the operation of the gyroplane; or
 - (c) a dwelling, except with the permission of the occupier.
- 7.3 When taking off or landing, a gyroplane to which this Order applies that is flown at a height of less than 500 feet above ground level must, during the take-off or landing, maintain a horizontal distance from a person or place referred to in subparagraph 7.2 (a), (b) or (c) that may be less than 100 metres but is:
- (a) enough to avoid endangering any person or causing damage to any property; and
 - (b) as far as possible from such a person or place, having regard to carrying out a safe take-off or landing.
- 7.4 A gyroplane to which this Order applies may only be flown at a height of more than 500 feet above ground level if the pilot holds a current gyroplane pilot certificate endorsed for that activity.

- 7.5 A gyroplane to which this Order applies may only be flown at a height of 5 000 feet above mean sea level or higher if it is equipped with serviceable radiotelephone equipment and the pilot is qualified to use it.
- 7.6 A gyroplane to which this Order applies may only be flown at a height of 10 000 feet above mean sea level or higher in accordance with an approval issued under paragraph 8.3.

Approval of flights not complying with flight conditions

- 8.1 A person who wants to fly a gyroplane to which this Order applies, otherwise than in accordance with the flight conditions set out in subsection 6, may apply to CASA for approval of the flight.
- 8.2 The application must:
 - (a) be in writing; and
 - (b) include details of the proposed flight; and
 - (c) be made at least 28 days before the proposed flight.
- 8.3 CASA may, in writing, approve the application.
- 8.4 The approval:
 - (a) must specify which of the flight conditions set out in paragraph 6.1 do not apply to the use, by the applicant, of the gyroplane in the proposed flight; and
 - (b) may specify conditions to be complied with in relation to the proposed flight.
- 8.5 If the proposed flight takes place in accordance with the approval (including any conditions specified in the approval in accordance with subparagraph 8.4 (b)), the use by the applicant of the gyroplane in the flight is not subject to the flight conditions specified in the approval in accordance with subparagraph 8.4 (a).

Notes to Civil Aviation Order 95.12 Instrument 2011

Note 1

The Civil Aviation Order (in force under the *Civil Aviation Regulations 1988*) as shown in this compilation comprises *Civil Aviation Order 95.12 Instrument 2011* amended as indicated in the Tables below.

Table of Orders

Year and number	Date of registration on FRLI	Date of commencement	Application, saving or transitional provisions
CAO 95.12 2011	15 April 2011 (F2011L00106)	16 April 2011 (s. 2)	—
CAO (Flight Crew Licensing) Repeal and Amendment Instrument 2014 (No. 1)	29 August 2014 (F2014L01177)	1 September 2014 (s. 2)	Sections 3 and 31 (Table A)
Civil Aviation Legislation Amdt & Repeal (ATSOs) Instrument 2017	FRL 30 November 2017 (F2017L01553)	30 November 2017 (s. 2)	—

Table of Amendments

ad. = added or inserted am. = amended rep. = repealed rs. = repealed and substituted

Provision affected	How affected
Heading	rs. F2014L01177
subs. 2	am. F2014L01177
subs. 3	am. F2014L01177
subs. 4	am. F2014L01177
subs. 5	am. F2014L01177
subs. 6	am. F2014L01177, F2017L01553

Table A Application, saving or transitional provisions

Sections 3 and 31 of Civil Aviation Order (Flight Crew Licensing) Repeal and Amendment Instrument 2014 (No. 1) read as follows:

3 Definitions

(1) In this instrument:

continued authorisation has the meaning given by regulation 202.261 of the *Civil Aviation Safety Regulations 1998 (CASR 1998)*.

new authorisation has the meaning given by regulation 202.261 of CASR 1998.

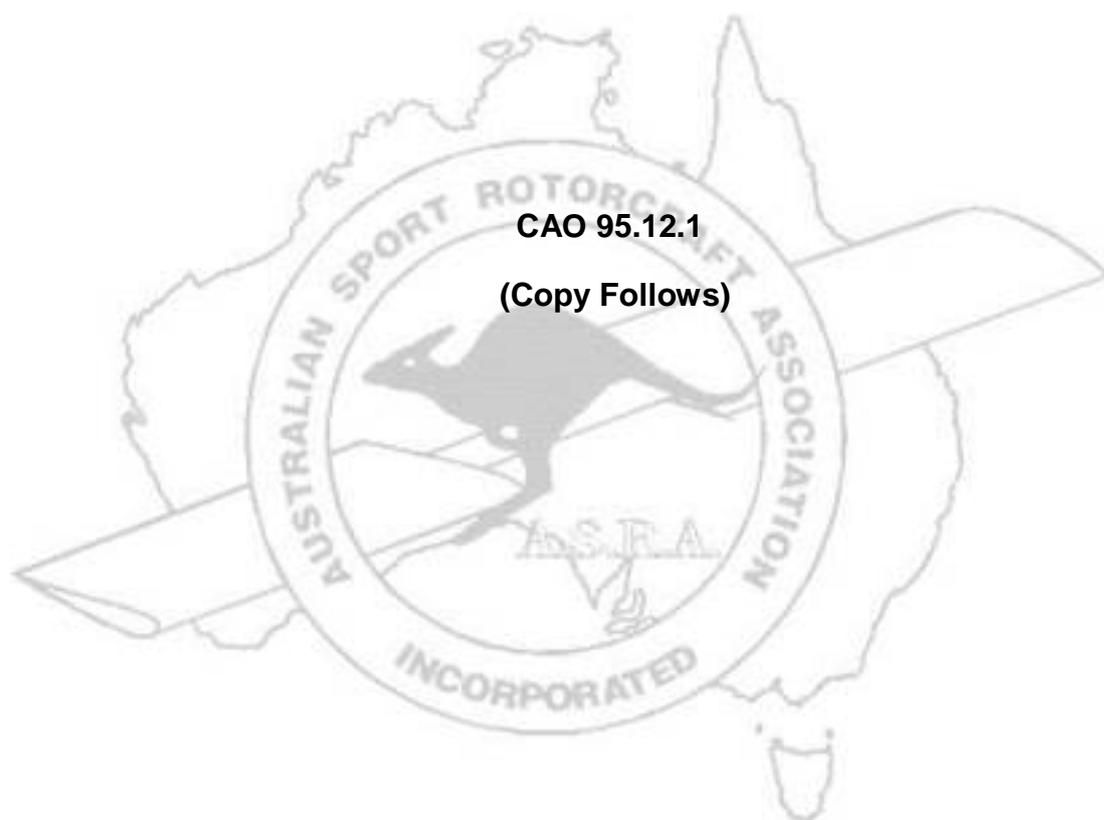
- (2) A reference in this instrument to a Civil Aviation Order identified by a specified number is taken to include a reference to the section of the Civil Aviation Orders with that number.

Note Some existing legislative instruments are referred to as a Civil Aviation Order followed by a number. Other instruments are referred to as a section of the Civil Aviation Orders. For consistency, in this instrument, all such instruments are referred to as a Civil Aviation Order followed by a number. For example, a reference to Civil Aviation Order 40.2.2 is taken to include a reference to section 40.2.2 of the Civil Aviation Orders.

31 Transitional — application of Civil Aviation Orders

The Civil Aviation Orders apply to a continued authorisation as if it were the equivalent new authorisation.





CAO 95.12.1

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Australian Government
Civil Aviation Safety Authority

**Civil Aviation Order 95.12.1 Instrument 2011
as amended**

made under subregulation 308 (1) of the *Civil Aviation Regulations 1988*.

This compilation was prepared on 4 December 2017 taking into account amendments up to *Civil Aviation Legislation Amendment and Repeal (Australian Technical Standard Orders) Instrument 2017*. It is a compilation of *Civil Aviation Order 95.12.1 Instrument 2011* as amended and in force on 30 November 2017.

Prepared by the Legal Advisory, Drafting and Contracts Section, Legal Affairs, Regulatory Policy & International Strategy Branch, Civil Aviation Safety Authority, Canberra.

Compilation No. 2.

1 Name of instrument

This instrument is the *Civil Aviation Order 95.12.1 Instrument 2011*.

2 Commencement

This instrument commences on the day after it is registered.

3 New Civil Aviation Order 95.12.1

Civil Aviation Order 95.12.1 is repealed and a new Civil Aviation Order 95.12.1 is substituted as set out in Schedule 1.

Schedule 1 Civil Aviation Order 95.12.1

Exemption from provisions of the regulations under the *Civil Aviation Act 1988* — 2-place gyroplanes and single-place gyroplanes certificated as light sport aircraft

1 Application

- 1.1 This Order applies to a 2-place gyroplane or a single-place gyroplane if:
- it has a maximum take-off weight not exceeding 600 kg; and
 - it has a single engine, a single propeller and a rotor disc loading no more than 20 kilograms per square metre; and
 - paragraphs 1.2 and 1.3 do not apply; and
 - it is designed and manufactured to a standard acceptable to the ASRA; and
 - it is registered with the ASRA.
- 1.2 This Order also applies to a 2-place gyroplane or a single-place gyroplane if:
- paragraphs 1.1 and 1.3 do not apply; and

- (b) it is a light sport aircraft manufactured by a qualified manufacturer as defined in regulation 21.172 of CASR 1998; and
 - (c) it is registered with the ASRA; and
 - (d) the owner holds a current special certificate of airworthiness for it.
- 1.3 This Order also applies to a 2-place gyroplane or a single-place gyroplane if:
- (a) paragraphs 1.1 and 1.2 do not apply; and
 - (b) it is a light sport aircraft to which paragraph 21.191 (j) or (k) of CASR 1998 applies; and
 - (c) it is registered with the ASRA; and
 - (d) the owner holds a current experimental certificate for it.

2 Definitions

In this Order:

Act means the *Civil Aviation Act 1988*.

aerial mustering has the same meaning as in Civil Aviation Order 29.10 (*CAO 29.10*).

ASRA means the Australian Sport Rotorcraft Association.

ASRA Operations Manual means a manual acceptable to CASA that is issued by ASRA and contains the procedures and instructions necessary to ensure the safe operation of gyroplanes and also contains:

- (a) airworthiness, design and maintenance standards; and
- (b) aeronautical practices, test procedures and processes.

CAR 1988 means the *Civil Aviation Regulations 1988*.

CASR 1998 means the *Civil Aviation Safety Regulations 1998*.

closely-settled area, in relation to a gyroplane, means an area in which, because of:

- (a) man-made obstructions such as buildings and vehicles; and
- (b) the characteristics of the gyroplane;

the gyroplane could not be landed without endangering the safety of persons unconnected with the aircraft or damaging property present in the area.

ELT means emergency locator transmitter.

gyroplane means a power-driven heavier-than-air aircraft supported in flight by the reaction of the air on 1 or more rotors which rotate freely on substantially vertical axes.

gyroplane flight instructor certificate means a gyroplane flight instructor certificate issued by the ASRA in accordance with the ASRA Operations Manual.

immediate family, in relation to a person, means the person's spouse, parents and children (if any).

Order means Civil Aviation Order.

person does not include a body corporate.

pilot certificate means a valid gyroplane pilot certificate issued by the ASRA in accordance with the ASRA Operations Manual.

public road means a street, road, lane, thoroughfare or place open to, or used by, the public for passage of vehicles.

suitable landing area means an area in which a gyroplane, to which this Order applies, can be landed without endangering the safety, or damaging the property, of persons unconnected with the gyroplane.

take-off weight, for a gyroplane to which paragraph 1.1 applies, means the total weight of the gyroplane when it begins to taxi before taking off, including the weight of the occupants, fuel, oil, recovery and personnel parachutes, flotation equipment, items of optional equipment, tools and baggage.

3 Exemptions under regulation 308

3.1 If the conditions set out in this Order are complied with, in relation to a gyroplane to which this Order applies, the gyroplane is exempt from compliance with Part 61 of CASR 1998 and the following provisions of CAR 1988:

- (a) Parts, 4, 4A, 4B, 4C, 4D and 7;
- (b) subregulation 83 (1) in respect of VHF equipment;
- (c) regulations 133, 139, 155 and 157;
- (d) subregulation 163AA (2) and paragraph 166A (2) (f);
- (e) regulations 207 and 208;
- (f) regulation 210 as far as advertising of flying training to qualify for a pilot standard specified in the ASRA Operations Manual is concerned;
- (g) Division 3 of Part 14;
- (h) regulation 252;
- (i) regulation 258;
- (j) regulation 322.

3.2 Except in the case of a flight that is to take place wholly within a radius of 50 miles from its departure point, a 2-place gyroplane to which this Order applies may be flown only if it carries:

- (a) an approved ELT, or approved portable ELT, as defined in regulation 252A of CAR 1988; or
- (b) a personal locator beacon that has been approved by CASA for use on such a gyroplane.

Note Regulation 252A of CAR 1988 does not apply to single-seat aircraft (see subregulation 252A (7) of CAR 1988).

4 Conditions on special certificate of airworthiness or experimental certificate

The exemptions given by subsection 3, for a gyroplane to which paragraph 1.2 or 1.3 applies, are subject to the following conditions:

- (a) the special certificate of airworthiness, or the experimental certificate, issued for the gyroplane stops having effect at the earliest of:
 - (i) the end of the validity period, if any, mentioned in the certificate; or
 - (ii) the suspension of the certificate, for the period of suspension only; or
 - (iii) the cancellation of the certificate; or
 - (iv) a modification being made to the gyroplane that was not authorised by the manufacturer; or

- (v) the gyroplane no longer complying with LSA standards as defined by regulation 21.172 of CASR 1998;
- (b) the holder must, on request by CASA or an authorised person, make the special certificate of airworthiness, or the experimental certificate, available for inspection by CASA or the authorised person;
- (c) the gyroplane must continue to be registered in Australia;
- (d) CASA or an authorised person may suspend or cancel the special certificate of airworthiness, or the experimental certificate, if CASA or the authorised person considers it necessary to do so in the interests of aviation safety;
- (e) if the special certificate of airworthiness, or the experimental certificate, stops having effect or is cancelled or suspended, the holder must, at the written request of CASA or an authorised person, surrender the certificate to CASA or the authorised person.

5 Licence not required

- 5.1 For section 20AB of the Act, a person is authorised to perform a duty essential to the operation of a gyroplane to which this Order applies, without holding a flight crew licence if he or she complies with the conditions set out in subsections 6 and 7.
- 5.2 In spite of paragraph 5.1, a person who makes an airborne radio transmission on an aeronautical HF frequency must be authorised to transmit using an aeronautical radio under Part 61 or Part 64 of CASR 1998.

6 General conditions

- 6.1 The exemptions given by subsection 3, for a gyroplane to which this Order applies, are subject to the following general conditions:
 - (a) there must be clearly displayed in the gyroplane, in a position visible to the occupants when occupying each control seat, a sign stating that:
 - (i) neither CASA nor the ASRA guarantee the airworthiness of the gyroplane; and
 - (ii) the occupants operate the gyroplane at their own risk;
 - (b) the gyroplane must not be used for any purpose other than:
 - (i) if operated by 1 person — the personal carriage of the pilot; or
 - (ii) flying training to enable a person to obtain a pilot certificate; or
 - (iii) the carriage of a second occupant in accordance with paragraphs 6.2 and 6.3; or
 - (iv) the aerial inspection, conducted as a private operation, of stock, fencing or farm or pastoral equipment that is located on land owned by, or under the control of, the pilot or a member or members of the pilot's immediate family; or
 - (v) aerial mustering conducted as a private operation, in accordance with CAO 29.10, over land occupied by the owner of the gyroplane; or
 - (vi) flight training, conducted in accordance with Part 61 of CASR 1998, for aerial mustering;

Note Conduct as a private operation means that no remuneration must be received by the pilot of the aircraft or the owner (subregulation 2 (7) of CAR 1988).

- (c) the gyroplane must not be operated by a person as pilot in command unless the person holds a valid pilot certificate and, subject to the other conditions set out in this Order, operates the gyroplane in accordance with the privileges and limitations of that certificate;
 - (d) if the gyroplane is being used for flying training, the person conducting the training must hold a valid gyroplane flight instructor certificate;
 - (e) subject to the other conditions set out in this Order, the gyroplane must be operated in accordance with the requirements of the ASRA Operations Manual;
 - (f) the gyroplane must be maintained in accordance with the maintenance standards set out in the ASRA Operations Manual.
- 6.2 For the purpose of registering a gyroplane with the ASRA as a 2-seat gyroplane, a pilot who holds a valid passenger carrying endorsement issued by the ASRA may operate the gyroplane while carrying an observer, if:
- (a) the gyroplane is provisionally registered with the ASRA; and
 - (b) the observer holds a valid pilot certificate or another qualification approved by the ASRA as suitable for evaluating the aircraft; and
 - (c) the flight, or series of flights, has been approved by the Operations Manager of the ASRA or a chief flying instructor or technical adviser appointed by the ASRA in accordance with the ASRA Operations Manual.
- 6.3 A pilot who holds a valid passenger carrying endorsement issued by the ASRA may operate a gyroplane that is registered with the ASRA as a 2-seat gyroplane for the purpose of carrying a non-paying second occupant.

7 Flight conditions

- 7.1 Subject to paragraph 8.5, the exemptions given by subsection 3, in relation to a gyroplane to which this Order applies, are further subject to the following flight conditions:
- (a) the gyroplane may be flown at a height of 5 000 feet above mean sea level or higher only if it is equipped with a serviceable radiocommunication system that the pilot is qualified to use;
- Note* When flying at or above 5 000 feet, pilots are expected to make radio broadcasts as set out in the AIP.
- (b) the gyroplane must not be flown at a height of more than 500 feet above ground level unless the pilot holds a valid pilot certificate endorsed for this type of activity and operates the gyroplane in accordance with the ASRA Operations Manual;
 - (c) subject to paragraph 7.3, the gyroplane must not be flown over a body of water at a horizontal distance from a suitable landing area of more than:
 - (i) the distance that the gyroplane can glide in case of engine failure; or
 - (ii) 25 nautical miles — if each occupant is wearing a life jacket and the aircraft carries:
 - (A) an approved ELT, or an approved portable ELT, within the meaning of regulation 252A of CAR 1988; or
 - (B) a personal locator beacon that has been approved by CASA for use on such a gyroplane;

- (d) the gyroplane must not be flown over, or within 8 kilometres of, a certified or registered aerodrome unless the pilot holds a valid pilot certificate endorsed for this type of activity and operates the gyroplane in accordance with the ASRA Operations Manual;
 - (e) the gyroplane must only be flown in:
 - (i) Class G airspace; or
 - (ii) Class E airspace in V.M.C.; or
 - (iii) in accordance with paragraph 7.4 — Class A, B, C or D airspace;
- Note* Classes of airspace are defined in the *Australian Airspace Policy Statement*.
- (f) the gyroplane must only be flown in V.M.C.;
 - (g) the gyroplane must only be flown during daylight hours;
 - (h) the gyroplane must not be flown over a closely-settled area, unless it is a gyroplane to which paragraph 1.2 applies;
 - (i) the gyroplane must not be flown in acrobatic flight;
 - (j) the gyroplane must not be operated in aerial mustering unless the pilot has a low-level rating with an aerial mustering – gyroplane endorsement, or satisfies the equivalent requirements issued by ASRA and published in the ASRA Operations Manual.
- 7.2 The radiotelephone equipment (if any) fitted to a gyroplane must not be used by a person unless the person:
- (a) for transmissions on VHF frequencies only — holds a valid certificate, issued by the ASRA in accordance with the ASRA Operations Manual, relating to the operation of radiotelephone equipment; or
 - (b) for all transmissions — is authorised to transmit using an aeronautical radio under Part 61 or Part 64 of CASR 1998.
- 7.3 In spite of the limit of 25 nautical miles mentioned in subparagraph 7.1 (c), a gyroplane to which that limit would otherwise apply may be flown between Tasmania and mainland Australia, in either direction by a longer route, if taking advantage of safer weather conditions.
- 7.4 A gyroplane may be flown inside Class A, B, C or D airspace only if all of the following conditions are complied with:
- (a) the gyroplane is certificated to the design standards specified in regulation 21.186 of CASR 1998 or is approved under regulation 262AP of CAR 1988 in respect of flights over closely-settled areas;
 - (b) the gyroplane is fitted with an engine of a kind:
 - (i) mentioned in paragraph 6.1 of Schedule 1 to the Civil Aviation Amendment Order (No. R94) 2004 (also known as section 101.55 of the Civil Aviation Orders), as in force on 31 May 2016; or
 - (ii) that CASA has approved as being suitable for use in an aircraft to which this Order applies;
 - (ba) the gyroplane is not subject to any conditions that would prevent the flight;
 - (c) the gyroplane is fitted with a radio capable of two-way communication with air traffic control;

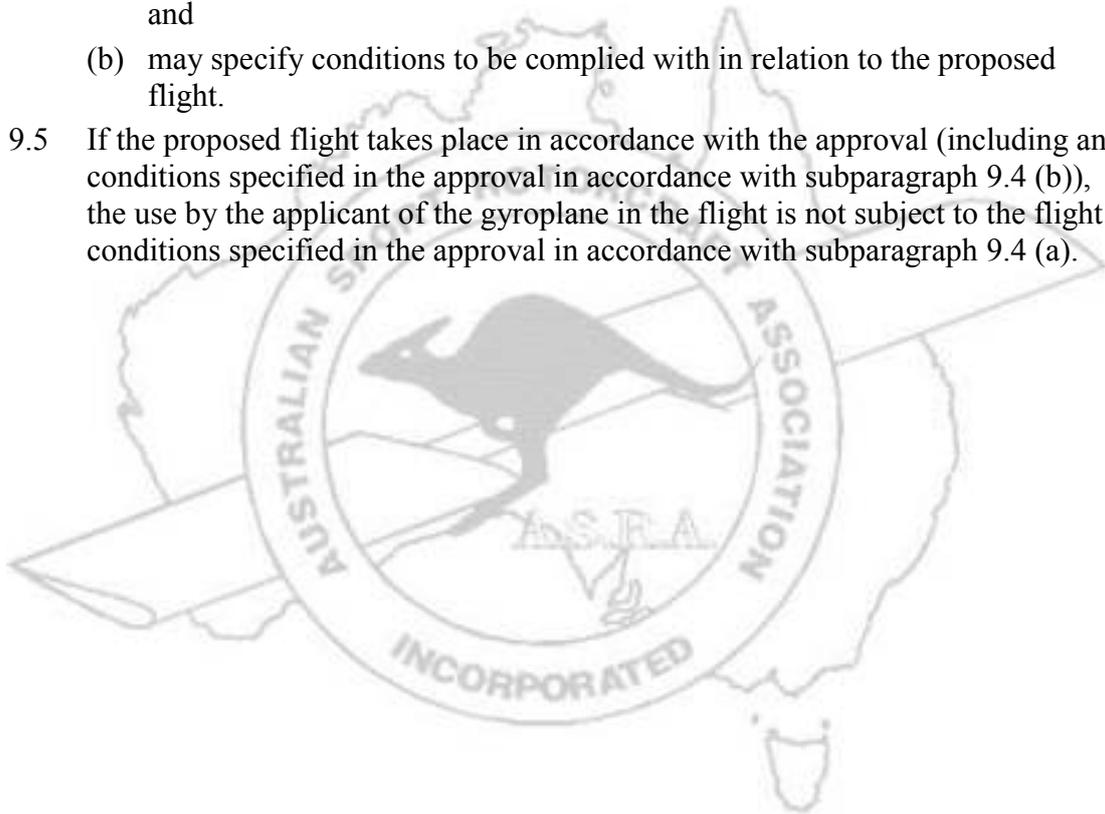
- (d) the gyroplane is flown by the holder of a pilot licence with an gyroplane category rating:
 - (i) issued under Part 61 of CASR 1998; and
 - (ii) that allows the holder to fly inside the controlled airspace;
 - (e) the pilot has a valid flight review for the class rating in accordance with Part 61 of CASR 1998;
 - (f) if the controlled airspace in which the gyroplane is operating requires a transponder to be fitted — the gyroplane is fitted with a transponder suitable for use in the airspace.
- 7.5 Aerial mustering operations must be conducted in accordance with CAO 29.10.

8 Provisions relating to flight height limitations and minimum distance requirements from roads, buildings and persons

- 8.1 Subject to paragraphs 8.2 and 8.3, a gyroplane to which this Order applies may be flown at a height of less than 300 feet above ground level over land owned by a person (including the Crown), only if:
- (a) the gyroplane is flying in the course of actually taking off or landing; or
 - (b) the gyroplane is flying over land that is owned by, or under the control of, the pilot; or
 - (c) the owner or occupier (including the Crown) of the land, or an agent or employee of the owner or occupier, has given permission for the flight to take place at such a height.
- 8.2 Except when taking off or landing a gyroplane flown at a height of less than 500 feet above ground level must be at a distance of at least 100 metres horizontally from:
- (a) a public road; or
 - (b) a person other than a person associated with the operation of the gyroplane; or
 - (c) a dwelling, except with the permission of the occupier.
- 8.3 When taking off or landing a gyroplane flown at a height of less than 500 feet above ground level must, during the take-off or landing, maintain a horizontal distance from a person or place referred to in subparagraph 8.2 (a), (b) or (c) that may be less than 100 metres but is:
- (a) enough to avoid endangering any person or causing damage to any property; and
 - (b) as far as possible from such a person or place, having regard to carrying out a safe take-off or landing.
- 8.4 A gyroplane to which this Order applies may only be flown at a height of more than 500 feet above ground level if the pilot holds a current gyroplane pilot certificate endorsed for that activity.
- 8.5 A gyroplane to which this Order applies may only be flown at a height of 5 000 feet above mean sea level or higher if it is equipped with serviceable radiotelephone equipment and the pilot is qualified to use it.
- 8.6 A gyroplane to which this Order applies may only be flown at a height of 10 000 feet above mean sea level or higher in accordance with an approval issued under paragraph 9.3.

9 Approval of flights not complying with flight conditions

- 9.1 A person who wants to fly a gyroplane to which this Order applies, otherwise than in accordance with the flight conditions set out in paragraph 7.1, may apply to CASA for approval of the flight.
- 9.2 The application must:
- (a) be in writing; and
 - (b) include details of the proposed flight; and
 - (c) be made at least 28 days before the proposed flight.
- 9.3 CASA may, in writing, approve the application.
- 9.4 The approval:
- (a) must specify which of the flight conditions set out in paragraph 7.1 do not apply to the use, by the applicant, of the gyroplane in the proposed flight; and
 - (b) may specify conditions to be complied with in relation to the proposed flight.
- 9.5 If the proposed flight takes place in accordance with the approval (including any conditions specified in the approval in accordance with subparagraph 9.4 (b)), the use by the applicant of the gyroplane in the flight is not subject to the flight conditions specified in the approval in accordance with subparagraph 9.4 (a).



Notes to Civil Aviation Order 95.12.1 Instrument 2011

Note 1

The Civil Aviation Order (in force under the *Civil Aviation Regulations 1988*) as shown in this compilation comprises *Civil Aviation Order 95.12.1 Instrument 2011* amended as indicated in the Tables below.

Table of Orders

Year and number	Date of registration on FRLI	Date of commencement	Application, saving or transitional provisions
CAO 95.12.1 2011	15 April 2011 (F2011L00614)	16 April 2011 (s. 2)	—
CAO (Flight Crew Licensing) Repeal and Amendment Instrument 2014 (No. 1)	29 August 2014 (F2014L01177)	1 September 2014 (s. 2)	Sections 3 and 31 (Table A)
Civil Aviation Legislation Amdt & Repeal (ATSOs) Instrument 2017	FRL 30 November 2017 (F2017L01553)	30 November 2017 (s. 2)	—

Table of Amendments

ad. = added or inserted am. = amended rep. = repealed rs. = repealed and substituted

Provision affected	How affected
Heading	rs. F2014L01177
subs. 2	am. F2014L01177
subs. 3	am. F2014L01177
subs. 5	am. F2014L01177
subs. 6	am. F2014L01177
subs. 7	am. F2014L01177, F2017L01553

Table A Application, saving or transitional provisions

Sections 3 and 31 of Civil Aviation Order (Flight Crew Licensing) Repeal and Amendment Instrument 2014 (No. 1) read as follows:

3 Definitions

(1) In this instrument:

continued authorisation has the meaning given by regulation 202.261 of the *Civil Aviation Safety Regulations 1998 (CASR 1998)*.

new authorisation has the meaning given by regulation 202.261 of CASR 1998.

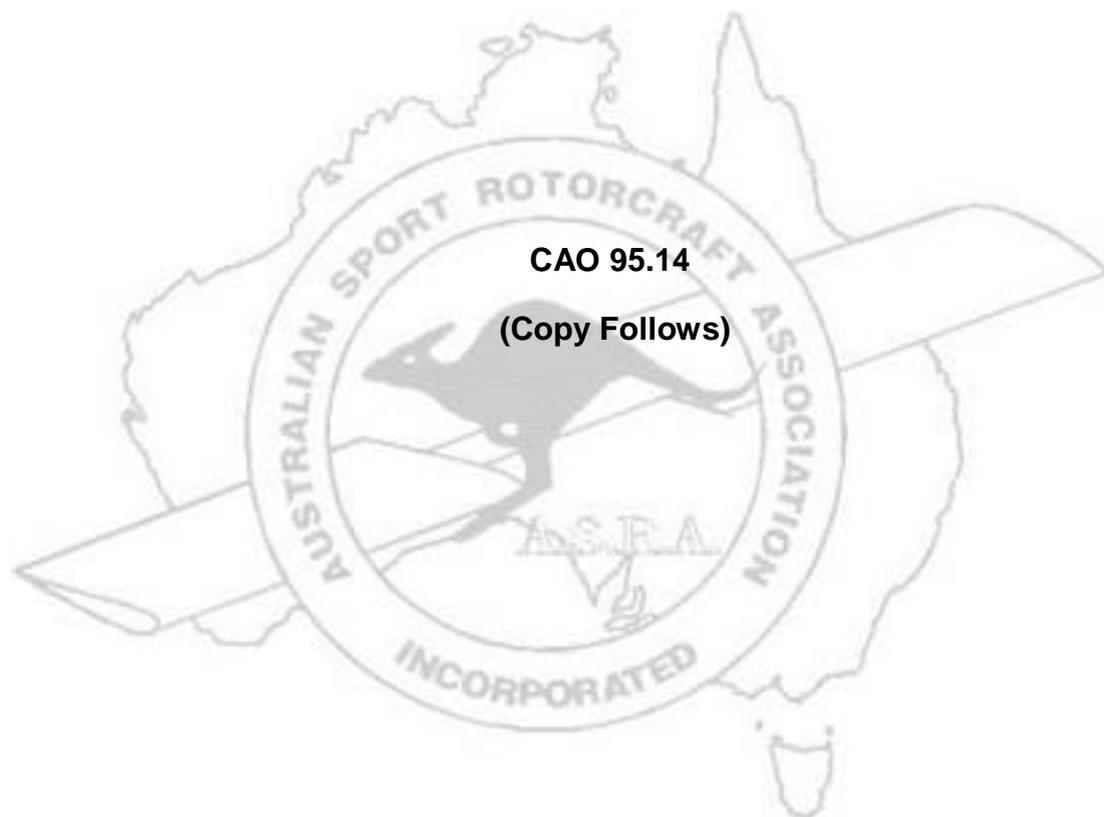
- (2) A reference in this instrument to a Civil Aviation Order identified by a specified number is taken to include a reference to the section of the Civil Aviation Orders with that number.

Note Some existing legislative instruments are referred to as a Civil Aviation Order followed by a number. Other instruments are referred to as a section of the Civil Aviation Orders. For consistency, in this instrument, all such instruments are referred to as a Civil Aviation Order followed by a number. For example, a reference to Civil Aviation Order 40.2.2 is taken to include a reference to section 40.2.2 of the Civil Aviation Orders.

31 Transitional — application of Civil Aviation Orders

The Civil Aviation Orders apply to a continued authorisation as if it were the equivalent new authorisation.





CAO 95.14
(Copy Follows)





Australian Government
Civil Aviation Safety Authority

**Civil Aviation Amendment Order (No. R68) 2004
as amended**

made under subregulation 308 (1) of the *Civil Aviation Regulations 1988*.

This compilation was prepared on 3 February 2015 taking into account amendments up to *Civil Aviation Order (Flight Crew Licensing) Repeal and Amendment Instrument 2014 (No. 1)*.

Prepared by the Legislative Drafting Section, Legal Branch, Legal Services Division, Civil Aviation Safety Authority, Canberra.

1 Name of Order

This Order is the Civil Aviation Amendment Order (No. R68) 2004.

2 Commencement

This Order commences on gazettal.

3 Replacement of section 95.14 of the Civil Aviation Orders

Section 95.14 of the Civil Aviation Orders is omitted and a new section substituted as set out in Schedule 1.

Schedule 1 Substitution of section 95.14 of the Civil Aviation Orders

Section 95.14

Exemption from provisions of the regulations under the *Civil Aviation Act 1988* — parasails and gyrogliders

1 Application

This section applies to parasails and gyrogliders.

2 Definitions

In this section:

gyroglider means a non-power-driven heavier-than-air aircraft supported in flight by the reaction of the air on 1 or more rotors which rotate freely on substantially vertical axes.

parasail means a parachute tethered to a point or vehicle on the ground or to a watercraft and deriving lift chiefly from aerodynamic reactions on flexible surfaces remaining fixed under given conditions of flight.

3 Exemption

- 3.1 If the conditions set out in this Order are complied with, parasails and gyrogliders are exempt from compliance with Part 61 of the *Civil Aviation*

Safety Regulations 1998 and the following provisions of the *Civil Aviation Regulations 1988*:

- (a) Parts 3, 4, 4A, 4B, 4C, 4D and 7;
- (b) subregulation 83 (1) in respect of VHF equipment;
- (c) Part 11 (other than regulations 140, 143, 144, 145 and 156);
- (d) Part 14.

3A Licence not required

- 3A.1 For the purposes of paragraph 20AB (1) (b) of the Act, a person is authorised to perform a duty essential to the operation of an aircraft to which this section applies without holding a flight crew licence if he or she complies with the conditions set out in subsection 4.

4 Conditions

- 4.1 Except with the permission in writing of CASA and in accordance with any conditions specified in the permit to minimize hazard to other aircraft or to persons or property on the ground or water, a person must not fly a parasail or gyroglider:
- (a) during the launching phase — within a horizontal distance of 100 metres from:
 - (i) any person who is not directly associated with the operation of the parasail or gyroglider; or
 - (ii) any person who is not behind an imaginary horizontal line that is at right angles with the initial direction of flight and touches the rearmost part of the parasail or gyroglider immediately before the launch starts; or
 - (b) at any other time — within a horizontal distance of 100 metres from:
 - (i) any person who is not directly associated with the operation of the parasail or gyroglider; or
 - (ii) an occupied building; or
 - (c) at a height of more than 300 feet above ground level; or
 - (d) within a horizontal distance of 4 kilometres from the boundary of a licensed aerodrome; or
 - (e) otherwise than in V.M.C. by day.
- 4.2 Where it is proposed to fly a parasail or gyroglider in circumstances other than those specified in paragraph 4.1 of this section, it shall be the responsibility of the person operating the parasail or gyroglider or his agent, to submit a written application specifying the details of the proposed operation to CASA not less than 28 days prior to the proposed flight(s).

Note Attention is directed to the fact that the exemption granted by this section does not confer on the operator of a parasail or gyroglider any rights as against the owner or occupier of any land on or over which the operations are conducted, or prejudice in any way the rights and remedies which a person may have in respect of any injury to persons or damage to property caused directly or indirectly by the parasail or gyroglider.

Notes to Civil Aviation Order 95.14

Note 1

The Civil Aviation Order (in force under the *Civil Aviation Regulations 1988*) as shown in this compilation comprises Civil Aviation Order 95.14 amended as indicated in the Tables below.

Table of Orders

Year and number	Date of notification in <i>Gazette</i> / registration on FRLI	Date of commencement	Application, saving or transitional provisions
CAO 2004 No. R68	23 December 2004 (F2005B00901)	23 December 2004 (s. 2)	
CAO (Flight Crew Licensing) Repeal and Amendment Instrument 2014 (No. 1)	FRLI 29 August 2014 (F2014L01177)	1 September 2014 (s. 2)	Sections 3 and 31 (Table A)

Table of Amendments

ad. = added or inserted am. = amended rep. = repealed rs. = repealed and substituted

Provision affected	How affected
s. 95.14	rs. CAO 2004 No. R68
Heading	rs. F2014L01177
subs. 3	rs. F2014L01177

Table A Application, saving or transitional provisions

Sections 3 and 31 of Civil Aviation Order (Flight Crew Licensing) Repeal and Amendment Instrument 2014 (No. 1) read as follows:

3 Definitions

(1) In this instrument:

continued authorisation has the meaning given by regulation 202.261 of the *Civil Aviation Safety Regulations 1998 (CASR 1998)*.

new authorisation has the meaning given by regulation 202.261 of CASR 1998.

(2) A reference in this instrument to a Civil Aviation Order identified by a specified number is taken to include a reference to the section of the Civil Aviation Orders with that number.

Note Some existing legislative instruments are referred to as a Civil Aviation Order followed by a number. Other instruments are referred to as a section of the Civil Aviation Orders. For consistency, in this instrument, all such instruments are referred to as a Civil Aviation Order followed by a number. For example, a reference to Civil Aviation Order 40.2.2 is taken to include a reference to section 40.2.2 of the Civil Aviation Orders.

31 Transitional — application of Civil Aviation Orders

The Civil Aviation Orders apply to a continued authorisation as if it were the equivalent new authorisation.



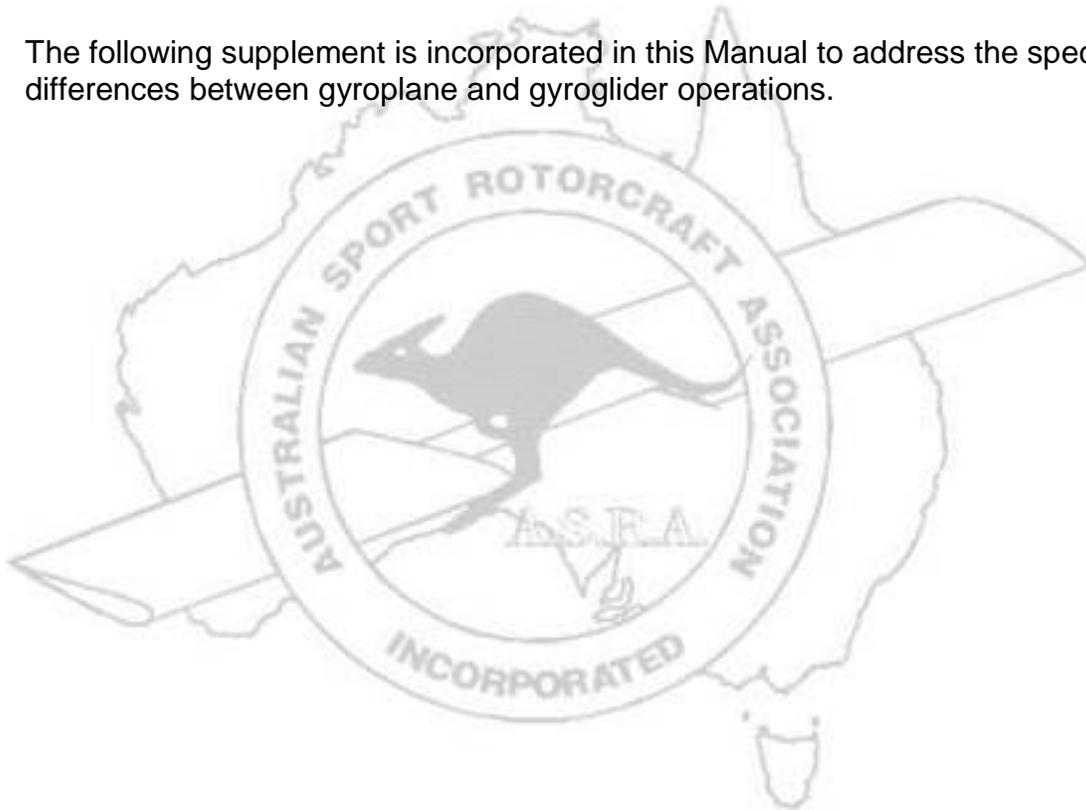
INTRODUCTION

It is recognised and accepted that gyrogliders can be used effectively as a training aid to assist students to become safe, efficient operators of gyroplanes, and has proved to be very effective in the club environment.

It is also recognised that flight training in gyrogliders is an aid to and does not replace, nor is it a prerequisite for, powered two seat flight training.

Gyrogliders are operated under CAO 95.14, and ASRA requires that its members operate gyrogliders in accordance with this Manual and its supplements.

The following supplement is incorporated in this Manual to address the specific differences between gyroplane and gyroglider operations.





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SECTION 1.01

STATEMENT OF DUTIES AND RESPONSIBILITIES

SENIOR INSTRUCTOR - GYROGLIDER

An ASRA Senior Instructor (Gyroglider) will undertake to carry out the following duties, for which he is responsible to the Operations Manager:

1. By his own influence and activities, positively influence the standards of certificate training and operational procedures in his local area.
2. Instruct, examine and recommend the issue of ASRA Certificates and Endorsements, but only for those Endorsements for which he is personally qualified.
3. Conduct Flight Reviews for the holders of ASRA Pilot Certificates endorsed with gyroglider.
4. Assess the readiness for, and authorise student pilots to undertake their first and subsequent solo flights in a gyroglider.
5. Ensure that the gyroglider to be used for flight training is kept in a clean and airworthy state, and ensure that the same gyroglider complies with the ASRA gyroglider requirements and is properly registered with ASRA.
6. Ensure that sufficient and regular solo in-flight practice is carried out, so as to maintain a high personal level of pilot competency and currency.
7. Enter details in the pilot's log book of endorsement and flight checks successfully carried out, and forward a duly completed copy of an Advice to Registrar form to the ASRA Registrar.
8. Maintain accurate student pilot training records, and provide statistics regarding hours flown and training carried out, as and when requested.

NOTE 1: A Senior Instructor (Gyroglider) is certificated by ASRA, and as such ASRA can suspend or cancel his certificates for failure to fulfill the obligations of these certificates as laid down in the ASRA Operations Manual.

NOTE 2: At no time is a Senior Instructor (Gyroglider) an employee or agent of ASRA by virtue of these certificates.



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SECTION 1.02

STATEMENT OF DUTIES AND RESPONSIBILITIES

INSTRUCTOR - GYROGLIDER

An ASRA Instructor (Gyroglider) will undertake to carry out the following duties, for which he will be responsible to the Operations Manager and an ASRA Senior Instructor (Gyroglider):

1. By his own influence and activities, positively influence the standards of certificate training and operational procedures in his local area.
2. Under the supervision of an ASRA Senior Instructor (Gyroglider), conduct theory instruction and examinations, and in-flight instruction for student pilots, and make recommendations to an ASRA Senior Instructor (Gyroglider) as to the readiness of a student pilot to undertake his first solo flight.

NOTE: An ASRA Instructor (Gyroglider) is **NOT** permitted to authorise a student pilot to undertake his first solo flight.

3. Conduct Flight Reviews for the holders of ASRA Pilot Certificates endorsed with gyroglider.
4. Ensure that the gyroglider to be used for flight training is kept in a clean and airworthy state, and ensure that the same gyroglider complies with the ASRA gyroglider requirements and is properly registered with ASRA.
5. Ensure that sufficient and regular solo in-flight practice is carried out, so as to maintain a high personal level of pilot competency and currency.
6. Enter details in the pilot's log book of endorsements and flight checks successfully carried out, and forward a duly completed copy of an Advice to Registrar form to the ASRA Registrar.
7. Maintain accurate student pilot training records, and provide statistics regarding hours flown and training carried out, as and when requested.

NOTE 1: An Instructor (Gyroglider) is certificated by ASRA, and as such ASRA can suspend or cancel his certificates for failure to fulfill the obligations of these certificates as laid down in the ASRA Operations Manual.

NOTE 2: At no time is an Instructor (Gyroglider) an employee or agent of ASRA by virtue of these certificates.



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SECTION 1.03

STATEMENT OF DUTIES AND RESPONSIBILITIES

GYROGLIDER TOW VEHICLE DRIVER

A Gyroglider Tow Vehicle Driver will undertake to carry out the following duties, for which he will be responsible to the pilot-in-command of the gyroglider:

1. Satisfy himself that the vehicle to be used for towing operations is in a serviceable condition, and has sufficient fuel plus reserves on board in order to complete the planned operation.
2. Ensure that there is nothing in the tow vehicle that could jeopardise the safe operation of the vehicle.
3. Satisfy himself that the towrope is securely attached to the tow vehicle.
4. Ensure that he has a thorough understanding of all signals that will be relayed to him from the pilot-in-command, and operate the vehicle in a manner consistent with the signals relayed by the observer and the pilot-in-command of the gyroglider.
5. Ensure that he is competent to execute any emergency procedures that could be encountered during the course of operations.
6. Where applicable, maintain a listening watch on the appropriate area or CTAF VHF frequency, and if necessary, terminate the operation if a conflict is possible between the gyroglider operation and the operations of other users, be they airborne or on the ground.

NOTE: The tow vehicle driver may not transmit on VHF Airband frequencies unless he is in possession of a valid ASRA Radio Operators Certificate.

7. Advise the pilot-in-command of the gyroglider of any methods that may assist in improving the standard or safety of gyroglider operations.



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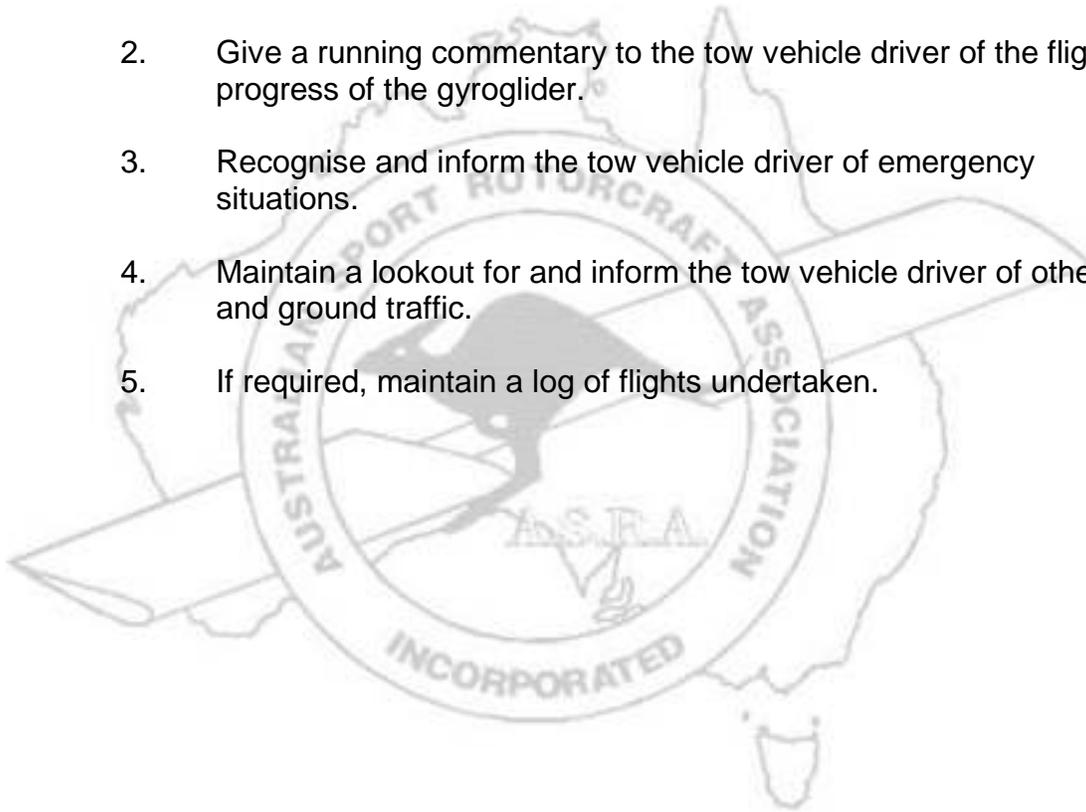
SECTION 1.04

STATEMENT OF DUTIES AND RESPONSIBILITIES

GYROGLIDER TOW VEHICLE OBSERVER

A Gyroglider Tow Vehicle Observer will undertake to carry out the following duties, for which he will be responsible to the pilot-in-command of the gyroglider:

1. Relay instructions initiated by the pilot-in-command of the gyroglider to the tow vehicle driver.
2. Give a running commentary to the tow vehicle driver of the flight progress of the gyroglider.
3. Recognise and inform the tow vehicle driver of emergency situations.
4. Maintain a lookout for and inform the tow vehicle driver of other air and ground traffic.
5. If required, maintain a log of flights undertaken.





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SECTION 2.01

FLIGHT CREW CERTIFICATE

GYROGLIDER ENDORSEMENT

REQUIREMENTS FOR ISSUE

1. Applicants for the issue of an ASRA Gyroglider Endorsement shall meet the following minimum requirements:
 - a. be the holder of a valid ASRA Student Pilot Certificate.
 - b. have logged a minimum of 2 hours of flight experience in a gyroglider including 50 takeoffs and landings, of which not less than 1 hour shall be directly supervised solo flight experience including 25 takeoffs and landings, and
 - c. pass a flight test in a gyroglider with an appropriately qualified ASRA Instructor.

LIMITATIONS

2. The holder of an ASRA Pilot Certificate endorsed with gyroglider may not:
 - a. Carry passengers in a gyroglider unless:
 1. he has been issued with an ASRA Passenger Carriage Endorsement; and
 2. he has logged a minimum of 20 takeoffs and landings in the gyroglider which will be used for the carriage of passengers; and
 3. during the last 90 days, he has completed at least 3 takeoffs and landings while flying as pilot-in-command, or while flying under the supervision of an appropriately qualified ASRA Instructor, of the gyroglider that is to be used for the carriage of passengers; and
 4. he complies with the medical standard specified in Section 2.01 of this Manual.

- b. operate aeronautical frequency VHF radio equipment in, or in connection with a gyroglider unless he holds a valid ASRA Radio Operator Endorsement.

PERIOD OF VALIDITY

3. An ASRA Gyroglider Endorsement shall remain valid only while the holder's ASRA Pilot Certificate is valid.



SECTION 2.02

FLIGHT CREW CERTIFICATE

INSTRUCTOR RATING - GYROGLIDER

REQUIREMENTS FOR ISSUE

1. An applicant for the issue of an ASRA Instructor (Gyroglider) Rating shall, unless approved by the Operations Manager:
 - a. be the holder of a valid ASRA Pilot Certificate endorsed for Gyroglider, Radio and Passenger Carrying where applicable;
 - b. have attained the age of 18 years;
 - c. comply with the medical standard specified in Section 2.01 of this Manual;
 - d. have undergone an Instructor Training Course which is recognised by ASRA;

NOTE: The ground course shall include an approved Principles and Methods of Instruction Course required for ASRA Instructors. Where a candidate has already gained this qualification, the requirement is waived.

- e. demonstrate to an appropriately qualified ASRA CFI, the Operations Manager or his nominee, his ability to give theory and in-flight instruction to persons undergoing training in gyrogliders.

NOTE: The level of competency required is to:

1. give theory lessons, pre-flight and post-flight briefings on any or all parts of the gyroglider flight training syllabus, with a first attempt accuracy of 90 percent.
2. accurately explain all aspects of the syllabus, with explanations adjusted to suit the individual.
3. demonstrate an ability to assess a student's understanding of syllabus subjects.

4. fly the gyroglider accurately and safely in each sequence, and recover from simulated student induced situations, to the satisfaction of the examiner.

AERONAUTICAL EXPERIENCE

2. Prior to undertaking an in-flight examination for the issue of an ASRA Instructor (Gyroglider) Rating, an applicant shall have not less than:
 - a. 5 hours flying experience in gyrogliders, and
 - b. 100 take-offs and landings in gyrogliders.

PRIVILEGES

3. An ASRA Instructor (Gyroglider) Rating authorises the holder to give theory and in-flight instruction in gyrogliders, where the holder is under the supervision of, and responsible to, an ASRA Senior Instructor (Gyroglider).

LIMITATIONS

4. The holder of an ASRA Instructor (Gyroglider) Rating shall:
 - a. conduct theory and in-flight instruction only under the supervision of an ASRA Senior Instructor (Gyroglider);
 - b. under the supervision of an ASRA Senior Instructor (Gyroglider), conduct Flight Reviews for the holders of ASRA Pilot Certificates endorsed with gyroglider:
 - c. not authorise the undertaking of a first solo;
 - d. not carry students in a gyroglider unless he has during the last 90 days, completed a minimum of 5 takeoffs and landings as pilot-in-command of a gyroglider.

PERIOD OF VALIDITY

5. Unless cancelled, suspended or extended by the Operations Manager, an ASRA Instructor (Gyroglider) Rating shall remain valid for a period of 2

years from the date of issue or renewal. The Operations Manager may give an extension of no more than 90 days.

REQUIREMENTS FOR RENEWAL

6. An applicant for the renewal of an ASRA Instructor (Gyroglider) Rating shall:
 - a. within 90 days prior to the expiry date of his rating submit to a flight check with an ASRA CFI, the Operations Manager or his nominee, and successfully demonstrate his competence and instructional ability;
 - b. comply with the medical standard specified in Section 2.01 of this Manual;
 - c. forward a renewal application, together with the Medical Certificate and the appropriate fee to reach the Registrar at least 21 days prior to the expiry date of the rating.

NOTE: Failure to renew an ASRA Instructor (Gyroglider) Rating by the due date means the rating is no longer valid, and the holder may not exercise the privileges of the rating until it is renewed.

ADDITIONAL REQUIREMENTS

7. ASRA Instructors (Gyroglider) will make all training records available to the Operations Manager, the Training Officer, an ASRA CFI, officers of CASA and Police Officers on demand.



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SECTION 2.03

FLIGHT CREW CERTIFICATE

SENIOR INSTRUCTOR RATING – GYROGLIDER

REQUIREMENTS FOR ISSUE

1. An applicant for the issue of an ASRA Senior Instructor (Gyroglider) Rating shall, unless approved by the Operations Manager:
 - a. be the holder of a valid ASRA Pilot Certificate, endorsed with an ASRA Instructor (Gyroglider) Rating;
 - b. comply with the medical standard specified in Section 2.01 of this Manual;
 - c. have been an ASRA Instructor (Gyroglider) for a period of at least 12 months.

AERONAUTICAL EXPERIENCE

2. Prior to undertaking an assessment for upgrading an ASRA Instructor (Gyroglider) Rating to an ASRA Senior Instructor (Gyroglider) Rating, a candidate, unless otherwise approved by the Operations Manager, shall:
 - a. have not less than 50 hours as pilot-in-command of gyroplanes; and
 - b. have not less than 25 hours flying experience in gyrogliders; and
 - c. have completed not less than 250 take-offs and landings in gyrogliders; and
 - d. satisfy an ASRA Senior Instructor (Gyroglider) approved by the Operations Manager, that he is capable of training and correctly assessing a student's readiness to undertake a first solo flight. This ability shall be demonstrated for at least 3 different students. (Pilots holding Senior Instructor (Gyroplane) Ratings issued by ASRA may be taken as meeting this requirement.)

PRIVILEGES

3. An ASRA Senior Instructor (Gyroglider) Rating authorises the holder to:
 - a. conduct theory and in-flight instruction in gyrogliders for the holders of ASRA Student Pilot and Pilot Certificates;
 - b. authorise the undertaking of first and subsequent solo flights in a gyroglider by the holders of ASRA Student Pilot and Pilot Certificates;
 - c. conduct endorsement training and testing, and recommend the issue of such endorsements in accordance with Section 2.03 of the ASRA Operations Manual, provided that he himself holds that endorsement;
 - d. conduct Flight Reviews for the holders of ASRA Pilot Certificates endorsed with gyroglider.

LIMITATIONS

4. The holder of an ASRA Senior Instructor (Gyroglider) Rating shall not:
 - a. conduct in-flight instruction unless he has, during the last two years, satisfactorily passed a flight check with an ASRA CFI, or another ASRA Senior Instructor (Gyroglider) approved by the Operations Manager; and
 - b. carry students in gyroglider unless he has during the last 90 days, completed a minimum of 5 takeoffs and landings as pilot-in-command of a gyroglider.

PERIOD OF VALIDITY

5. Unless cancelled, suspended or extended by the Operations Manager, an ASRA Senior Instructor (Gyroglider) rating shall remain valid for a period of two years from the date of issue or renewal. The Operations Manager may give an extension of no more than 90 days.

REQUIREMENTS FOR RENEWAL

6. An applicant for the renewal of an ASRA Senior Instructor (Gyroglider) Rating shall:

- a. within 90 days prior to the expiry date of his rating, submit to a check flight with an ASRA CFI, the Operations Manager or his nominee, and successfully demonstrate his competence and instructional ability;
- b. comply with the medical standard specified in Section 2.01 of this Manual; and
- c. forward a renewal application, together with the Medical Certificate and the appropriate fee, so as to reach the Registrar at least 21 days prior to the expiry date of the rating.

NOTE: Failure to renew an ASRA Senior Instructor (Gyroglider) Rating by the due date means that the rating is no longer valid and the holder may not exercise the privileges of the rating until it is renewed.

Where an ASRA Senior Instructor (Gyroglider) is located in a remote area where access to an ASRA CFI or approved person is difficult, the foregoing notwithstanding, the Operations Manager may approve in writing an alternative source of examination.

ADDITIONAL REQUIREMENTS

7. ASRA Senior Instructors (Gyroglider) will make all training records available to the Operations Manager, the Training Officer, an ASRA CFI, officers of CASA and Police Officers on demand.



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SECTION 3.01

SYLLABUS OF GYROGLIDER FLIGHT TRAINING

The following syllabus specifies the minimum standard that is required by ASRA Student Pilots. Qualifying numbers are used to indicate the degree of ability required for each individual item within a particular subject as follows:

CODES

- 1 Assisted by the Instructor, ability to perform the activity correctly.
 - 2 Ability to perform the activity correctly without assistance, under carefully supervised conditions.
 - 3 Without instructional assistance or supervision, ability to perform the activity correctly and adjust actions to cope with emergencies.
-

SYLLABUS

	Before Solo	Applicant for Pilot Cert
1. Gyroplane assembly	1	3
2. Preparation for Flight;		
a. Gyroplane documents	1	3
b. Pre-flight inspection	2	3
c. Briefing – Driver, Observer	3	3
3. Ground handling:		
a. Control of direction	2	3
b. Use of brakes (if fitted)	2	3
c. Rotor ground handling techniques	2	3
d. Pre takeoff checks	2	3
4. Operation of Controls		
a. Primary effects of controls	2	3
b. Effect of airspeed	2	3

	Before Solo	Applicant for Pilot Cert
c. Ancillary controls	2	3
(1) Trim	2	3
(2) Emergency tow release	2	3
5. Takeoff:		
a. Hand signals	3	3
b. Into wind	2	3
c. Cross wind	2	3
6. Straight and level flight:		
a. Hand signals	3	3
b. Control of attitude, altitude and direction	2	3
c. Instrument indications	2	3
d. Lookout and separation from other traffic	2	3
e. Recognition of and recovery from PIO (Demonstration prohibited)	2	3
7. Climbing:		
a. Hand signals	3	3
b. At recommended airspeed	2	3
c. Maximum rate	2	3
d. Maximum angle	2	3
e. Instrument indications	2	3
f. Lookout and separation from other traffic	2	3
8. Descending:		
a. Hand signals	3	3
b. At different speeds	2	3
c. Instrument indications	2	3
d. Lookout and separation from other traffic	2	3

	Before Solo	Applicant for Pilot Cert
9. Turning:		
a. Lookout and separation from other traffic	2	3
b. Level flight:	2	3
(1) Medium	2	3
c. Descending turns:	2	3
(1) Medium	2	3
d. Climbing turns	2	3
e. Instrument indications	2	3
10. Slow speed flight:		
a. Indications - Attitude	2	3
b. Instrument indications	2	3
c. Lookout and separation from other traffic	2	3
11. Approach and landing:		
a. Approach – Hand Signals:	3	3
b. Landing:		
(1) Normal	2	3
(2) Cross wind	2	3
12. Emergencies:		
a. Stopping	2	3
b. Tow vehicle/Tow rope failure	2	3
c. Tow rope release	2	3

13. Pre-Pilot Certificate flight test requirements:

A student shall not be flight tested for an ASRA Pilot Certificate (Gyroglider) until he has passed a written examination on Gyroplane Basic Aeronautical Knowledge and Flight Rules and Procedures. The examination will cover the subjects detailed in Section 3.04 of this Manual.



SECTION 4.01

HAND SIGNALS

The preferred method of communication is via radio, however the signals below must be fully understood and used in the event that radio is not available.

When initiated by the pilot-in-command, the signal will be acknowledged by the tow vehicle observer, and vice versa.





**POSSIBLE
CONFLICTING
TRAFFIC**



**MOVE CLEAR
OF LANDING
AREA**

