



This document can either be filled out progressively as evaluation, testing and inspection is completed or may be filled-in at the completion of the said evaluation, testing and inspection by transferring data from contemporaneous testing records. Testing and inspection will need to be done in two parts. Form F022 part (a) must be completed and signed off before a Limited Flight Status Registration can be issued. This limited flight status is to allow the specified flight testing to be completed before a Full Flight Status Registration can be issued. The flight testing is recorded in Form F022 part (b)

The person whose initials and signature is affixed to this document is to be that of the person who is the **Principal Constructor**. If flight testing is undertaken by a person who is not the principal constructor, the principal constructor **MUST** satisfy themselves of the integrity and accuracy of the performance-related information entered into this document. Where in-flight performance figures are concerned, the principal constructor shall ensure the accuracy of the figures either by contemporaneously and accurately recording instrument readings radioed to him or her by the pilot undertaking the relevant sequence or by the recording of instrument readings by electronic means such as readouts, traces or even a simple video camera recording of the relevant instrument or instruments. The principal constructor is also personally responsible for the accuracy and integrity of all external observations (such as takeoff distance to 50' AGL, or landing distance from 50' AGL).

Form F022 is to be used in conjunction with the ASRA 'Construction Requirements for Compliant Gyroplanes (1st November 2008). This form does not replace form F006 Gyroplane Registration.

This form provides a means of recording that each test and inspection has been satisfactorily completed. A space is provided after each item for the tester's initials.

The **Principal Constructor** is the **ONLY** person entitled to initial the '**PC Initials**' boxes. Several sections have '**TA Initials**' boxes to the right of the principal constructor initials boxes. These 2nd boxes are **ONLY** to be used by ASRA Technical Advisers who are checking the integrity of the Principal Constructor's assertion made in that relevant sub-section. For the purposes of this document, the Principal Constructor and the countersigning Technical Adviser cannot be the same person.

Form F022 part (a) Construction and Testing before flight testing

Principal Constructor:

Some appendices are provided giving conversion information.

Gyroplane
Registration
No. **G**

Membership No. **A**
To whom the Gyroplane is registered

Airframe
Serial No.

Subpart B

Weight and Balance

		Initials	
		PC	TA
B10. Hang Test	° nose down		----
	Details of Hang Test entered into the Flight Manual		
B15. Maximum Selected Weight	kg.		----
	Maximum Weight entered into the Flight Manual		
B20. Empty Weight.	kg		----
	Empty Weight and conditions of test entered into the Flight Manual		
B25. Removable Ballast complies with C105			----

Subpart C

STRUCTURE

		Initials	
		PC	TA
C5(c). These requirements have been met			----
C15. Strength and Deformation requirements have been met			----
C20. Compliance has been shown by:			----

FLIGHT LOADS

		Initials	
		PC	TA
C25(b). Compliance with flight load factors has been shown by:			----
C30. Compliance with the limit manoeuvring load factors shown by:			----
C40 Yawing Conditions requirements have been met by:			----
C45 Engine Torque requirements met by:			----
C50 Side Load of Engine Mount requirements met by:			----

CONTROL SURFACES AND SYSTEM LOADS

		Initials	
		PC	TA
C55 Primary Control System requirements have been met by:			----
C60 Limit Pilot Forces requirements have been met by:			----
C65 Where applicable - Dual Control Systems requirements have been met by:			----
C70 Secondary Control Systems are satisfactory			----

STABILISING AND CONTROL SURFACES

C75 Control Surface Loading requirements have been met by:

Initials

PC	TA

GROUND LOADS

C85 Landing Gear - energy absorption requirements have been met by: Note the TA must witness the drop test

Initials

PC	TA

MAIN COMPONENT REQUIREMENTS

C90 Rotor Structure requirements have been met by:

Initials

PC	TA

C95 Fuselage, Landing Gear and Rotor Pylon Structures requirements met by:

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EMERGENCY LANDING CONDITIONS

C100 The emergency landing conditions requirements have been met by:

Initials

PC	TA

OTHER- LOADS

C105 The loads from single masses requirements have been met by:

Initials

PC	TA

Subpart D

Design and Construction

Initials

D10 The materials used are satisfactory

PC	TA

D15 Fabrication Methods are satisfactory

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D20 Locking of Connections is satisfactory

--	--

D25 The Protection of Structure is satisfactory

--	--

D30 Provisions for inspection is satisfactory

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D35 Provisions for Rigging and De-rigging are satisfactory

--	--

D40 Material Strength, Properties and Design Values requirements are met by:

--	------

D45 Fatigue Strength requirements are met by:

--	------

D50 Special Factors of Safety requirements met by:

--	------

D55 Casting Factor requirements met by:

--	------

D60 Bearing Factor requirements met by:

--	------

D65 Fitting Factor requirements met by:

--	------

D70 Cable Factor requirements met by:

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CONTROL SURFACES AND ROTORS

Initials

PC	TA

- D80 Rotor Blade drainage is satisfactory
- D85 Control Surface Installations are satisfactory
- D90 Control Surface Hinge requirements met by:

--	------

- D95 Mass Balance requirements met by:

--	------

- D100 Rotor Blade Clearance satisfactory
- D105 Rotor Head Bearings suitability determined by:

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CONTROL SYSTEMS

Initials

PC	TA
----	----

- D110 Controls movement satisfactory
- D115 Control stops are satisfactory
- D120 RESERVED
- D125 Trim System is satisfactory
- D130 Control System is satisfactory
- D135 Control System Design is satisfactory
- D140 Spring Device Installation and operation is satisfactory
- D145 Cable Systems are satisfactory
- D150 Requirements for Control System Joints met by:

--	--

COCKPIT DESIGN

Initials

PC	TA

- D155 The Cockpit layout satisfactory
- D160 The Cockpit View is satisfactory
- D165 The design of Windshields Windows and Doors is satisfactory
- D170 The layout and design of Cockpit Controls is satisfactory
- D175 The Flight Controls operate in the correct sense.
- D180 The suitability of the Seats and their supporting structure has been determined by:

--	------

- D185 The mounting and suitability of the Safety Harness(es) has been determined by:

--	--

- D190 The Protection from Injury requirements have been met
- D195 The Baggage Compartment requirements have been met by:

--	--

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- D200 The Emergency Exit requirements have been met
- D205 Cockpit Ventilation is satisfactory

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Subpart E - Powerplant

		Initials	
		PC	TA
E5	Powerplant Installation is satisfactory		
E15	The design of the Rotor Spin-up and Brake Systems is satisfactory		
	Limitations on the use of spin-up or brake systems have been entered into the Flight Manual		
E25	The Propeller Clearances are satisfactory		

FUEL SYSTEM

		Initials	
		PC	TA
E30	The Fuel System installation is satisfactory		
E35	The Fuel Flow requirements have been met		----
E40	The Fuel Quantity(s) have been determined and identified on fuel gauges		----
	The unusable fuel quantity has been entered into the Flight Manual		
E45	The integrity and surge characteristics of the Fuel Tanks is satisfactory		----
E50	A Fuel Tank Test was satisfactory		----
E55	The Fuel Tank Installation is satisfactory		
E60	The requirements for the Fuel Tank Sump have been met		
E65	The Fuel Tank Filler Connection location is satisfactory		
E70	The requirements for the Fuel Tank Vents have been met		
E75	The requirements for the Fuel Strainer or Filter have been met		
E80	The requirements for the Fuel System Lines and Fittings have been met		
E85	The requirements for the Fuel Valves and Controls have been met		

OIL SYSTEM

		Initials	
		PC	TA
E90	The suitability and capacity of the engine oil system has been determined by:		----
E95	The requirements for the Oil Tanks (if fitted) have been met		
E100	An Oil Tank Test was satisfactory		----
E105	The requirements for the Oil Lines and Fittings have been met		

COOLING

		Initials	
		PC	TA
E110(b)(c)	The requirements for the Cooling System installation have been met.		

EXHAUST SYSTEM

		Initials	
		PC	TA
E120	The requirements for the Exhaust System have been met		
E125	The requirements of the Exhaust Manifold Piping and Silencing system have been met		

POWERPLANT CONTROLS AND ACCESSORIES

- E130 The requirements for Controls Located in the Engine Bay have been met
- E135 The requirements for the Engine Ignition System have been met
- E145 The requirements for an Engine Cowling have been met

Initials	
PC	TA

Subpart F - EQUIPMENT

- F5 The requirements for Equipment Function and Installation have been met
- F10 The required Flight and Navigation Instruments are fitted
- F15 The required Powerplant Instruments are fitted

Initials	
PC	TA

INSTRUMENTS – INSTALLATION

- F25 Arrangement and Visibility of the navigation instruments is satisfactory
- F30 The requirements for the Pitot and Static Pressure Systems have been met
- F35 The requirements for the Powerplant Instruments have been met

Initials	
PC	TA

ELECTRICAL SYSTEMS AND EQUIPMENT

- F40 The requirements for the Installation and Battery Design have been met
- F45 The requirements for the Installation of Electric Cables and Equipment have been met
- F50 The requirements for the Installation of External Lights have been met

Initials	
PC	TA

MISCELLANEOUS EQUIPMENT

- F55 The requirements for the Installation of Airborne Radio and Radio Navigation Equipment have been met

Initials	
PC	TA

MARKINGS AND PLACARDS

- G30 The requirements for Placards and Markings have been met except for Airspeed limitations
- G35 The requirements for Power-plant instrument markings have been met
- G40 The Compass deviation placarding requirements have been met
- G45 The requirements for Fuel Quantity Indicator marking have been met
- G50 The requirements for Control Markings have been met
- G55 The requirements for Miscellaneous Markings and Placards have been met

Initials	
PC	TA

Subpart H - Propellers

DESIGN AND- CONSTRUCTION

- H5 & H10 The suitability and durability of materials used in propeller manufacture has been determined

by: _____

Initials	
PC	TA

NOTE: Upon completion of the inspection above, complete the Statutory Declaration below, have the Technical Adviser complete the statement on page 8 below, then forward these together with the appropriate fee to the ASRA Registrar whose current address is listed on the ASRA website at www.asra.org.au

AUSTRALIAN SPORT ROTORCRAFT ASSOCIATION INC

Statutory Declarations Act 1959 (Commonwealth).

COMMONWEALTH OF AUSTRALIA

Statutory Declaration

I,
(insert full name of Principal Constructor) (insert occupation)

of
(insert ASRA registered address of Principal Constructor)

do solemnly and sincerely declare that:

- (1) in placing my initials in the check box adjacent to each sub-section and now upon finally signing this my declaration I hereby attest that the materials, construction techniques, fittings, structural configuration, and overall design of the gyroplane I seek to register as a Limited Flight Status gyroplane, for the flight tests specified in the ASRA document Construction Requirements for Compliant Gyroplanes, has been carefully reviewed by me for compliance with the published standards;
- (2) the information contained in the narrative or comment portions of this record of testing and inspection has been acquired personally by me or under my supervision and I hereby attest that I have taken all reasonable steps to ensure its accuracy and reliability.

And I make this solemn declaration by virtue of the Statutory Declarations Act 1959, and subject to the penalties provided by that Act for the making of false statements in statutory declarations, conscientiously believing the statements contained in this declaration to be true in every particular.

Signature of Principal Constructor:

Declared at on the

day of Before me,
(signature of person witnessing declaration)

.....
(full name, professional address, and category of entitlement to witness declarations)

The Statutory Declarations Regulations provide for a statutory declaration under the *Statutory Declarations Act 1959* to be made before the following persons:

See next page

(1) a person who is authorised under a law in force in a State or Territory to practise as a member of any of the following professions:

- Chiropractor
- Dentist
- Legal practitioner
- Medical practitioner
- Nurse
- Patent attorney
- Pharmacist
- Veterinary surgeon

(2) any of the following persons:

- Agent of the Australian Postal Corporation who is in charge of an office supplying postal services to the public
- Australian Consular Officer, or Australian Diplomatic Officer, (within the meaning of the *Consular Fees Act 1985*)
- Bailiff
- Bank officer with 5 or more continuous years of service
- Building society officer with 5 or more years of continuous service
- Chief executive officer of a Commonwealth court
- Civil marriage celebrant
- Clerk of a court
- Commissioner for Affidavits
- Commissioner for Declarations
- Credit union officer with 5 or more years of continuous service
- Holder of a statutory office not otherwise specified in this list
- Judge of a court
- Justice of the Peace
- Magistrate
- Master of a court
- Member of the Australian Defence Force who is:
 - (a) an officer; or

(b) a non-commissioned officer within the meaning of the *Defence Force Discipline Act 1982* with 5 or more years of continuous service; or
(c) warrant officer within the meaning of that Act

- Member of the Institute of Chartered Accountants in Australia, the Australian Society of Certified Practising Accountants or the National Institute of Accountants
- Member of the Institute of Corporate Managers, Secretaries and Administrators
- Member of the Institution of Engineers, Australia, other than at the grade of student
- Member of:
 - (a) the Parliament of the Commonwealth; or
 - (b) the Parliament of a State; or
 - (c) a Territory legislature; or
 - (d) local government authority of a State or Territory
- Minister of religion registered under Division 1 of Part IV of the *Marriage Act 1961*
- Notary public
- Permanent employee of:
 - (a) the Commonwealth or of a Commonwealth authority; or
 - (b) a State or Territory or of a State or Territory authority; or
 - (c) a local government authority; with 5 or more years of continuous service who is not otherwise specified in this list
- Permanent employee of the Australian Postal Corporation with 5 or more years of continuous service who is employed in an office supplying postal services to the public
- Person before whom a statutory declaration may be made under the law of the State or Territory in which the declaration is made
- Police officer
- Registrar, or Deputy Registrar, of a court
- Senior Executive Service officer of the Commonwealth, or of a State or Territory, or of a Commonwealth, State or Territory authority
- Sheriff
- Sheriff's officer
- Teacher employed on a full-time basis at a school or tertiary education institution
-

ASRA TECHNICAL ADVISERS RECORD OF VERIFICATION F022 part (a)

I hereby certify that I have undertaken an examination of the gyroplane subject of this Record and have inserted my initials in the relevant check boxes (where applicable) as an indication that (as far as can be ascertained by visual and/or manual examination) the entry made by the Principal Constructor in the sub-section adjacent to the check box appears to be true and correct.

Signature of TA: **Date:**

Name of ASRA Technical Adviser:

Address and contact details:

.....
(Technical Adviser is to include a current email address)

Form F022 part (b) Flight and Performance Testing

Note: part (a) of this form must be completed and the gyroplane registered for limited flight status before commencing flight and performance testing.

Principal Constructor:

Evaluation Pilot: **ASRA Membership No. A**.....

Initials

PC	TA
----	----

B30. Rotor Speed Limits RPM Determined by:

..... Rotor speed limit entered into the Flight Manual

Initials

PC	TA
----	----

PERFORMANCE

B40. Take-off Distance Without Prerotator mtrs. With Prerotator mtrs.

..... The Take-off Distance entered into the Flight Manual

B45. Climb Rate Time taken to 1000' min.

..... The Climb Rate entered into the Flight Manual

B50. Glide Rate Indicated air speed kts. Rate of decent Ft/Min

..... The Glide Rate details entered into the Flight Manual

B55. Never Exceed Airspeed (VNE) determined as knots indicated airspeed

..... The (VNE) entered into the Flight Manual

B60. Minimum Controllable Speed for Level Flight (VMIN) as knots indicated airspeed

..... The (VMIN) entered into the Flight Manual

B65. Best Rate of Climb Airspeed (VY) determined as at knots indicated airspeed

..... The details of (VY) entered into the Flight Manual

B70. Landing Distance m at indicated air speed knots

..... The Landing Distance entered into the Flight Manual

B75. Maximum Operating Altitude established as Feet

..... The Maximum Operating Altitude entered into the Flight Manual

B80. Height/Velocity Envelope established as feet at knots indicated airspeed

..... Height/Velocity Envelope Graph entered into the Flight Manual

CONTROLLABILITY AND MANOEUVRABILITY

			Initials	
			PC	TA
B85 (a), (b) & (c). General Controllability and Manoeuvrability is satisfactory	.....			----
B85 (d) landing at maximum all up weight, with the engine at idle demonstrated	.....			----
The procedure for B85(d) recorded in the Flight Manual	.....		
B85 (e) pitch stability satisfactory	.....			----
B90 (a), (b) & (c). Longitudinal Lateral and Directional Control is satisfactory and control forces not exceeded.	.....			----
B90 (d) A maximum operating wind speed of	knots	has been established		----
A maximum cross wind speed of	knots	has been established		----
A maximum tail wind speed of	knots	has been established		----
The wind speeds established in B90(d) have been entered in the Flight Manual	.....		
B95. The Pitch Control Forces are satisfactory	.....			----

STABILITY

			Initials	
			PC	TA
B100. General stability is satisfactory			----
B105. Longitudinal Stability is satisfactory			----
B110. Lateral and Directional Stability is satisfactory			----
B115. Dynamic Longitudinal Stability is satisfactory			----

GROUND HANDLING CHARACTERISTICS

			Initials	
			PC	TA
B120. Directional Stability and Control is satisfactory	.....			----
B125. Taxiing control is satisfactory	.....			----
B125(b). The maximum taxiing speed over rough ground is	knots			----
The maximum ground speed on take-off is	knots			----
The maximum ground speed on landing is	knots			----
The ground speeds established in B125(b) have been entered into the Flight Manual	.....		

MISCELLANEOUS FLIGHT REQUIREMENTS

			Initials	
			PC	TA
B130. The gyroplane is free from excessive vibration.			----
D75 The Flutter and Resonance requirements met by:			----

Subpart E - Powerplant

			Initials	
			PC	TA
E10 Compatibility has been determined by:			----
E20 The Flight Endurance Test has been satisfactorily completed			----

COOLING

Initials

PC	TA
----	----

E110(a) The performance requirements for the Cooling System installation have been met determined by:

--	-------

Initials

INDUCTION SYSTEM

PC	TA
----	----

E115 The performance of the Air Induction system have been determined by:

--	-------

Initials

POWERPLANT CONTROLS AND ACCESSORIES

PC	TA
----	----

E140 The requirements for Propeller Speed have been met

--	-------

Subpart G

Initials

Operating Limitations and Information

PC	TA
----	----

G5 The Operating Limitations have been entered into the Flight Manual

--	--

G10 Air-speed limitations are stated in terms of indicated air-speed

--	--

G15 The requirements for Weight and Balance have been met

--	--

G20 Powerplant and Propeller Limitations have been determined

--	-------

Powerplant and Propeller Limitations have been entered in the Flight Manual

--	--

G25 The Gyroplane Flight Manual has been produced and a copy supplied to the ASRA Technical manager

--	--

Initials

MARKINGS AND PLACARDS

PC	TA
----	----

G30 The requirements for Placards and Markings have been met

--	--

G35 The requirements for Airspeed and Power-plant instrument markings have been met

--	--

NOTE: Upon satisfactory completion of parts (a) and (b) of this form, complete the Statutory Declaration below, have the Technical Adviser complete the statement on page 13 below, then forward these to the ASRA Registrar whose current address is listed on the ASRA website at www.asra.org.au

AUSTRALIAN SPORT ROTORCRAFT ASSOCIATION INC

Statutory Declarations Act 1959 (Commonwealth).

COMMONWEALTH OF AUSTRALIA

Statutory Declaration

I,
(insert full name of Principal Constructor) (insert occupation)

of
(insert ASRA registered address of Principal Constructor)

do solemnly and sincerely declare that:

(1) in placing my initials in the check box adjacent to each sub-section and now upon finally signing this my declaration I hereby attest that the materials, construction techniques, fittings, structural configuration, and overall design and performance of the gyroplane I seek to register as a Compliant Gyroplane has been carefully reviewed by me for compliance with the published standards;

(2) the information contained in the narrative or comment portions of this record of testing and inspection has been acquired personally by me or under my supervision and I hereby attest that I have taken all reasonable steps to ensure its accuracy and reliability; and

(3) the weight, speed, distance, altitude and any other performance figures inserted into this document are the result of carefully and accurately recorded multiple observations and I hereby personally attest to the reliability of those figures.

And I make this solemn declaration by virtue of the Statutory Declarations Act 1959, and subject to the penalties provided by that Act for the making of false statements in statutory declarations, conscientiously believing the statements contained in this declaration to be true in every particular.

Signature of Principal Constructor:

Declared at on the

day of Before me,
(signature of person witnessing declaration)

.....
(full name, professional address, and category of entitlement to witness declarations)

The Statutory Declarations Regulations provide for a statutory declaration under the *Statutory Declarations Act 1959* to be made before the following persons:

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- Dentist
- Legal practitioner
- Medical practitioner
- Nurse
- Patent attorney
- Pharmacist
- Veterinary surgeon

(2) any of the following persons:

- Agent of the Australian Postal Corporation who is in charge of an office supplying postal services to the public
- Australian Consular Officer, or Australian Diplomatic Officer, (within the meaning of the *Consular Fees Act 1985*)
- Bailiff
- Bank officer with 5 or more continuous years of service
- Building society officer with 5 or more years of continuous service
- Chief executive officer of a Commonwealth court
- Civil marriage celebrant
- Clerk of a court
- Commissioner for Affidavits
- Commissioner for Declarations
- Credit union officer with 5 or more years of continuous service
- Holder of a statutory office not otherwise specified in this list
- Judge of a court
- Justice of the Peace
- Magistrate
- Master of a court
- Member of the Australian Defence Force who is:
 - (a) an officer; or

- (b) a non-commissioned officer within the meaning of the *Defence Force Discipline Act 1982* with 5 or more years of continuous service; or
- (c) warrant officer within the meaning of that Act
- Member of the Institute of Chartered Accountants in Australia, the Australian Society of Certified Practising Accountants or the National Institute of Accountants
- Member of the Institute of Corporate Managers, Secretaries and Administrators
- Member of the Institution of Engineers, Australia, other than at the grade of student
- Member of:
 - (a) the Parliament of the Commonwealth; or
 - (b) the Parliament of a State; or
 - (c) a Territory legislature; or
 - (d) local government authority of a State or Territory
- Minister of religion registered under Division 1 of Part IV of the *Marriage Act 1961*
- Notary public
- Permanent employee of:
 - (a) the Commonwealth or of a Commonwealth authority; or
 - (b) a State or Territory or of a State or Territory authority; or
 - (c) a local government authority; with 5 or more years of continuous service who is not otherwise specified in this list
- Permanent employee of the Australian Postal Corporation with 5 or more years of continuous service who is employed in an office supplying postal services to the public
- Person before whom a statutory declaration may be made under the law of the State or Territory in which the declaration is made
- Police officer
- Registrar, or Deputy Registrar, of a court
- Senior Executive Service officer of the Commonwealth, or of a State or Territory, or of a Commonwealth, State or Territory authority
- Sheriff
- Sheriff's officer
- Teacher employed on a full-time basis at a school or tertiary education institution

**ASRA TECHNICAL ADVISERS RECORD OF VERIFICATION
Form F022 parts (a) and (b)**

I hereby certify that I have undertaken an examination of the gyroplane subject of this Record and have inserted my initials in the relevant check boxes (where applicable) as an indication that (as far as can be ascertained by visual and/or manual examination) the entry made by the Principal Constructor in the sub-section adjacent to the check box appears to be true and correct.

Signature of TA: **Date:**

Name of ASRA Technical Adviser:

Address and contact details:

.....
.....
(Technical Adviser is to include a current email address)