LAA FACTORY-BUILT GYROPLANE
CHECK FLIGHT SCHEDULE – FBG/FT-1

Registration: **G-**…….. Aircraft Type:……

Instructions to the Check Flight Pilot
For safety and legal reasons flight must at all times be within the Conditions of the Permit to Fly. This schedule is to be completed by recording values in spaces indicated or otherwise responding to the questions appropriately, and adding any relevant comments. Please enter data using the same units as used on the Permit to Fly documents. Any anomalous results are unacceptable and must be investigated and resolved prior to signing and returning this Check Flight Schedule. The prime source of information is the aircraft POH, and in the event of conflict the POH should be taken as overriding.

Check Pilot Experience Requirement
The minimum experience requirement required to perform this Check Flight is a qualified pilot with 250 hours on gyroplanes, including 5 hours P1 within the last twelve months. Also acceptable is any currently qualified gyroplane instructor who is qualified to instruct on the type in question, irrespective of hours held.

Check Pilot's Pre-Flight Declaration (*delete as appropriate)

Insurance requirements satisfied:…….. YES/NO*

Permit Flight Release Certificate signed (if required):…… YES/NO/Not required*

Total hours in gyros:..... hours in last 12 months:…… Current Instructor:…YES/NO*

Check Flight Results
Use this space to record any unsatisfactory features discovered on the Check Flight, and the manner in which the issue(s) has been resolved. Do not complete the Post-Flight Declaration below unless or until any unsatisfactory features have been resolved. Please add any other comments regarding the Check Flight that you think useful to make and/or otherwise state SATISFACTORY:

.....

Check Pilot's Post-Flight Declaration

Date of Check Flight:…….. Base field used:……

I hereby certify that I have check flown this aircraft and the data and comments recorded in the following schedule accurately and wholly reflect the results I obtained. In my opinion, subject to my comments above, this aircraft performs satisfactorily and shows no adverse or abnormal characteristics.

Print Name:..... PPL No:……

Signed:..... Date:……

CHECK FLIGHT SCHEDULE

LAA Factory-Built Gyroplanes

FBG/FT-1

1. Introduction

It is assumed that the routine operation of the gyroplane serves as a continuing check on the function of all normal controls. If any special device or control is fitted, which is not in use on every flight, it must be carefully checked in the course of the functioning tests which are included in this schedule.

The Check Flight must be carried out by a pilot experienced on the type. Should there be any query about the Check Flight or its results, the LAA Engineering Dept may be consulted.

2. Loading

The gyroplane must be loaded as close to MAXIMUM WEIGHT as possible. A briefed observer should be used if available but passengers should not be used in lieu of ballast.

Aircraft empty weight (refer to weight schedule): _____ lb/kg

Pilot Weight: _____ lb/kg Obs/Ballast Weight: _____lb/kg

Fuel contents: _____ lb/kg

Take-off weight: _____lb/kg

If Max Weight not achieved explain why:

_____

_____

3. Pre-flight Information

Air temp: _____deg.C Surface wind: _____/_____

4. Pre-flight Inspection

Carry out all normal pre-flight inspection procedures, commenting on the following:

Seat, Safety Harness and Nacelle:	Sat/Unsat
Cyclic controls - freedom, travel, condition:	Sat/Unsat
Rudder system - freedom, travel, condition:	Sat/Unsat
Throttle controls - freedom, travel, condition:	Sat/Unsat
Placarding: legibility and accuracy:	Sat/Unsat
Propeller condition:	Sat/Unsat
Rotor pre-spin mechanism (if fitted):	Sat/Unsat

5. Start-up

Check for any difficulty or abnormality on start-up. Check ignition for any sign of rough running at idling and check for dead cut.

Comment: _____

_____

Stable idling rpm: _____

Engine Test rpm: _____

Carb Heat Test (if fitted) rpm drop: _____

Dual ignition (if fitted) rpm drop: Left _____ Right _____

VP Prop test (if applicable): _____

Wheel Brake/s hold gyro up to: _____ rpm (engine)

With the engine warmed up and all temperatures stabilised, check and record the following at engine test rpm and again at take-off:

	rpm	T.O.	Limitation
Engine rpm			
Manifold pressure			
Engine Oil temp			
Engine Oil Pressure			
Cylinder Head temp			

Wheel Brake/s (taxying): Sat/Unsat

Wheel Brakes from Rear Cockpit: Sat/Unsat

Throttle response (taxying): Sat/Unsat

Rudder/Steering response (taxying): Sat/Unsat

Tendency to Nose wheel shimmy? _____

Best Turning Radii approx: _____

6. Take-Off

Carry out a normal take-off in accordance with Pilots Handbook procedures.
Record the following:

Wheel Brakes: Sat/Unsat

Pre rotator: Sat/Unsat

Rotor spin up: Sat/Unsat

Acceleration: Sat/Unsat

Unstick & climb out: Sat/Unsat

General comments (Include max rotor rpm achieved at what engine rpm. Note wind speed through the disc. Comment on vibration levels experienced)

_____

_____

6.1. Performance and Handling

Make a careful assessment of the performance and handling characteristics under the conditions listed below. DO NOT attempt to exceed the boundaries of the known and safe 'Flight Envelope' for the particular machine.

6.2 Performance Climb

With the altimeter set to 1013 mb, climb at maximum engine power (with prop set to "Climb" /fine) at the optimum climb speed for the machine for 3 mins with zero sideslip (string central). When a stable, yaw free heading has been achieved, in conditions as calm as possible, record the following:

Time min.	Alt. Ft.	OAT deg C / F	IAS kts/ mph	Rotor RPM	CHT deg C / F	Eng Oil Temp	Eng Oil Press	Engine RPM	MAP
0.00									
0.30									
1.00									
1.30									
2.00									
2.30									
3.00									

N.B. To achieve scheduled performance, ensure correct Flight Manual/POH configuartion is used.

Delete or insert instrument units (i.e. mph) as appropriate. Obtain OAT from Meteorological Office if no gauge fitted.

Comment on the rate of climb, engine temperatures etc., should they appear in any way abnormal for the engine/machine in question.

_____

_____

6.3 Cruise

With normal cruise power stabilised (and prop set up for cruise), trim the gyroplane for straight and level flight and then record:

IAS		kts/mph
Altitude		feet (1013 mb)
OAT (if known)		deg C / F
Stable engine temp, CHT		deg C / F
Stable engine oil temp		deg C / F
Stable engine oil pressure		
Average engine rpm		
MAP		
Pitch trim set for		kts/mph
Rudder trim tab needs adjustment?		
Left/Right rudder needed?		
Rotor tracking error (Estimate any split)		(2 inches max)
Vibration level		
Can a positive rate of climb be achieved with prop fully coarse and full throttle?		

6.4 Steep Turns

Carry out steep turns (AOB dependant on type but normally 45°) in both directions with engine at full power. Check the controls for normal response, travel and position, noting general vibration levels.

Control response: _____

Control position: _____

Vibration levels: _____

Estimated bank angle (max): _____

Maximum 'g' recorded (if meter fitted): _____

6.5 Maximum and Minimum Speed

At a safe altitude, (with prop set up for cruise) increase airpseed to the placarded V_{NE}. Check control response turning up to 10 °AOB and note vibration level. Slow (setting prop to climb/fine) to Vmin or $V_{mc(power\ on)}$ if faster. Record:

Altitude: _____ feet (1013 mb)

OAT: _____ deg C / F

Placard $V_{NE:}$ _____ kts/mph

Manifold Pressure (if known): _____

Engine rpm: _____

Rotor rpm: _____

Acheived speed _____ kts/mph

Control response: _____ Sat/Unsat

Vibration level: _____

Min speed (level flight): _____ kts/mph

Engine rpm: _____

Manifold Pressure: _____

6.6 Descent at Idle Power

From a height of not less than 2000 ft AGL, in a suitable area, reduce progressively the engine rpm to idle and record the following in the ensuing glide, which should be at the reommended airspeed for the particular machine.

Comment on speed, attitude changes and controllability on entry;

_____

Vibration levels: _____

IAS: _____ kts/mph

Medium turns: _____ Sat/Unsat

Rotor rpm: _____

Engine rpm: _____

6.7 Descent at $V_{MC(Power\ Off)}$

From a height of not less than 2000 ft AGL, in a suitable area, from an Idle Power (prop fine) descent, reduce progressively the aircraft speed to $V_{MC(Power\ Off),}$ ensuring the aircraft can be yawed in each direction using the rudder pedals. Commence recover to power on climbing flight by 1000 ft AGL. NB: This test is carried out at Idle rpm; the engine is not required to be stopped.

Vibration levels: _____

IAS: _____ kts/mph

Approx Yaw Rate: _____left _____ right

Rotor rpm: _____

Engine rpm: _____

7. Functioning Tests

Check the following items at appropriate time during the flight, where applicable.

ASI	Sat/Unsat
Altimeter	Sat/Unsat
Engine rpm tachometer	Sat/Unsat
Engine Oil Pressure gauge	Sat/Unsat
Engine Oil Temperature gauge	Sat/Unsat
Rotor rpm tachometer	Sat/Unsat
Compass (check headings if possible)	Sat/Unsat
Fuel contents gauge	Sat/Unsat
Carburettor hot air system	Sat/Unsat
Rotor brake	Sat/Unsat
Drift Indicator	Sat/Unsat
Radio	Sat/Unsat
Landing gear	Sat/Unsat
Variable Pitch Prop	Sat/Unsat

Any other gauge/system including all avionics, list below:

_____ Sat/Unsat

_____ Sat/Unsat

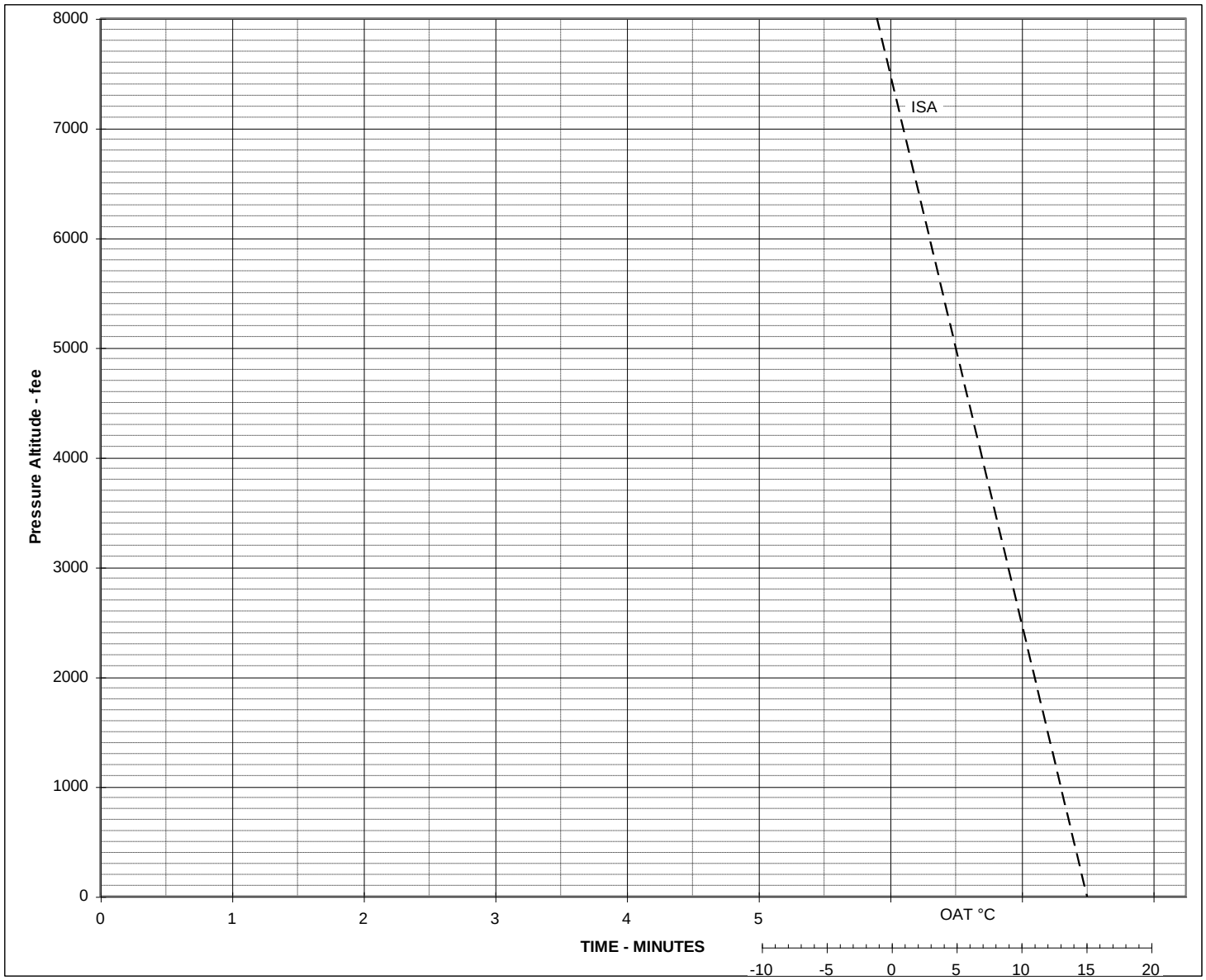
_____ Sat/Unsat

On touchdown, check that the landing gear functions correctly and, in particular, that there is no nose-wheel 'shimmy'. Sat/Unsat

Estimated landing run, after touchdown _____ feet/metres

8 Post Flight Fuel shut off control Sat/Unsat

9 Rate of Climb Graph See following page.



AIRCRAFT TYPE
REGISTRATION
DATE OF TEST

Mean Weight	_____ Kg/lb
Mean Altitude	_____ feet
Mean OAT	_____ °C
SCHEDULED ROC	
Basic	_____ ft/min
Correction	_____ ft/min
Correction	_____ ft/min
Final SROC	_____ ft/min
Observed ROC	_____ ft/min
Difference from Scheduled	_____ ft/min (Observed ROC minus Final SROC)