

**This Schedule is intended to be divided up and used as follows:**

*Section 1: To be used as a checklist for Supplemental Inspections.*

*Sections 1 & 2: To be used together as a checklist for Annual Inspections.*

*Section 3: To be used as a checklist for the inspection after unusual events such as heavy landings, wheel-up landings, ground loops, or abnormal flight occurrences.*

**Section 1**

Job Number: \_\_\_\_\_ Date: \_\_\_\_\_

Glider Registration: ZK-G \_\_\_\_\_ Flight Manual Ref: AIR \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_

Serial Number: \_\_\_\_\_

**Is this glider subject to Supplemental Inspections?** YES NO

*(Reference MOAP Part 3)*

**Note**

*This inspection shall be a thorough functional and visual check of the entire glider and its components, assembly and installations. If this is part of an Annual Inspection, disassembly should be as necessary to ensure a detailed inspection of internal areas, such as removal of seat pans.*

*Initial*

1.1 Record TTIS from glider logbook \_\_\_\_\_ hours \_\_\_\_\_ total flights.

If this is a Supplemental Inspection, note date of Annual Inspection \_\_\_\_\_  
& ARA \_\_\_\_\_

1.2 Review and transfer existing defects from the DI Book/Tech Log to the Glider Logbook, and certify the Tech Log as required.

1.3 Check that any special inspection, modification etc required by an Airworthiness Directive (AD) that is either repetitive or issued since the last inspection has been carried out.

List below new ADs since the last inspection and transfer to the glider logbook:

_____	_____
_____	_____
_____	_____

Carry out all necessary work and certify same in the glider logbook.

1.4 Check glider manufacturer's Maintenance Manual (MM) for any specific maintenance required that is not covered by this schedule. Carry out the necessary work and list the applicable references below:

1.4.1 **Mandatory**, ref CAR 104.103(4): *(If the relevant MM page is stamped or denoted as "Approved by" the certifying authority of the State of manufacture, then the item must be considered mandatory.)*

_____
_____
_____

1.4.2 **Recommended**: *(If the relevant MM page is not stamped or denoted as "Approved by" the certifying authority of the State of manufacture, then appropriate inspection and consideration should be conducted.)*

_____
_____
_____

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	<i>Initial</i>
1.5 Inspections	
1.5.1 Cockpit general. Check:	
Placards & instrument markings – legibility & security	_____
Cockpit controls – correct colour coding	_____
Canopy – clean, any cracks stop-drilled, operation of locking & jettison, lube	_____
Seats & cushions – condition & security	_____
Seat &/or seat-back adjustment mechanism – operation	_____
Rudder pedal adjustment mechanism – operation	_____
Safety harness straps & stitching – wear &/or damage	_____
<i>(check Maintenance Manual life – usually 12 years)</i>	
Safety harness buckles & attachments – security & operation	_____
First-aid kit – security.	_____
1.5.2 Instruments. Check:	
Panel mounting – security	_____
Wiring & plumbing – condition and security	_____
Pitot & static ports, TE probes – obstructions	_____
Correct functioning.	_____
1.5.3 Radio & electrical systems. Check:	
Battery – condition & security	_____
Wiring, terminals, jacks, fuses, switches – condition, security & operation	_____
Speakers, radio, transponder, ELT, antennas – security & operation.	_____
1.5.4 Oxygen system. Check:	
Cylinder – security & condition	_____
Regulator – functioning	_____
Leak tightness.	_____
1.5.5 Ballast system. Check:	
Permanent or removable solid ballast – mounting security	_____
Water ballast controls & valves – correct operation, lube as necessary	_____
Water ballast bags – condition & security	_____
Vents – free of obstructions	_____
Any evidence of leaks (eg stains or corrosion).	_____
1.5.6 Braking parachute system. Check:	
Deployment mechanism – ease of operation	_____
Parachute – condition, & security of attachment	_____
Jettison mechanism – ease of operation	_____
Lube mechanisms as necessary & repack parachute.	_____

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	<i>Initial</i>
1.5.7 Tow release system. Check: (Reference GNZ AC 3-03 Glider Tow Releases)	
Nose hook &/or belly hook – security of attachment	_____
Hook mechanisms – clean, wear, corrosion, broken springs, lube as necessary	_____
Actuating system – security, wear, corrosion – specially round release knob	_____
Actuation under load – release force not excessive.	_____
1.5.8 Flying control systems. Check with glider rigged & de-rigged as necessary	
Rudder, elevator, aileron, flaps, airbrake, trim – full and free, backlash within limits	_____
Flap locking detents – wear	_____
Airbrakes – locking	_____
System rods, bearings, bushes, pins, bell-cranks, brackets, cables, swages, fairleads – security, wear & unrestricted operation, locking of turnbuckles & nuts	_____
Rudder adjustment S guides – particular attention to cable wear or broken strands	_____
Cable tensions (as applicable)	_____
Quick connectors – security, wear, operation of locking mechanism	_____
Lubrication – relube as necessary (not cables).	_____
1.5.9 Undercarriage & wheel brake. Check:	
Wheel-box & undercarriage assembly – clean	_____
Wheel mounting structure – security, signs of stress	_____
Retraction mechanism – operation, lube as necessary	_____
Doors – security, condition of retraction bungees or springs	_____
Wheel brake – operation, adjust as necessary	_____
Tyres (main & tail) – splits, cuts, bulges, inflation	_____
Oleo – condition & operation	_____
Skids – wear & security.	_____
1.5.10 Fuselage. Check:	
External skin – condition & damage	_____
Drain holes – clear	_____
Internal structure – bulkheads and support fittings to skin (particularly in cockpit area)	_____
Wing & tail plane attachments – security, damage, wear & corrosion.	_____
1.5.11 Flying surfaces. Check:	
External skins – condition & damage	_____
Structure – for damage as far as possible	_____
Control surface, flap, airbrake, & trim tab actuating horn brackets, hinges – security & wear, lube as necessary	_____
Mass balances – security	_____
Wing to wing, wing to fuselage & tail surface to fuselage attachments – security, wear & corrosion, lube as necessary	_____
Rigging play – with glider rigged, ensure no excessive play between components	_____
Detachable fairings & panels – security.	_____

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<p>1.6 Powered glider power-plant. If applicable, complete inspection to Appendix A.</p> <p>1.7 <b>If an Annual Inspection is due, go straight to Section 2;</b> otherwise, on completion of the Section 1 checklist, update the Supplemental Inspection panel on the TECH 19a form in the centre of the DI Book/Technical log.</p> <p>1.8 Enter a Release to Service statement in the glider logbook, using the Supplemental Inspection form shown below.</p> <p>1.9 To complete Section 1, sign here and file this checklist with the glider maintenance records.</p> <p>Name: _____ Signature: _____  <i>(Print)</i></p> <p>GNZ approval number: _____ Date: _____</p>	<p style="text-align: center;"><i>Initial</i></p> <p>_____</p> <p>_____</p> <p>_____</p>
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**Supplemental Inspection logbook entry (ref paragraph 1.8 above):**

<p><b>Glider registration ZK-</b> _____ <b>Job No</b> _____</p>
<p>A Supplemental Inspection was carried out in accordance with GNZ TECH 22, Section 1 at _____</p> <p>The maintenance recorded has been carried out in accordance with the requirements of New Zealand Civil Aviation Rule Part 43 and in respect of that maintenance the glider is released to service.</p> <p>Next inspection due at: Date _____ or _____ hours TTIS.</p> <p>Name: _____ Signature: _____</p> <p>GNZ number: _____ Date: _____</p>

**Annual Inspection logbook entry (ref paragraph 2.13 next page):**

<p><b>Glider registration ZK-</b> _____ <b>Job No</b> _____</p>
<p>An Annual Inspection was carried out in accordance with GNZ TECH 22, Sections 1 &amp; 2 at _____</p> <p>The maintenance recorded has been carried out in accordance with the requirements of New Zealand Civil Aviation Rule Part 43 and in respect of that maintenance the glider is released to service.</p> <p>Next inspection due at: Date _____ or _____ hours TTIS.</p> <p>Name: _____ Signature: _____</p> <p>GNZ number: _____ Date: _____</p>

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**Section 2** This section is to be used with Section 1 as a checklist for Annual Inspection.

*Essentially the physical inspections and work for the Annual Inspection are completed in Section 1, leaving Section 2 as a review of the status of additional mandatory inspections as required by Part 43 and the GNZ MOAP, and the carrying out of any inspections & tests that are due.*

		<i>Initial</i>
2.1	Radio station inspection – 2 yearly recommended	Next due date: _____
2.2	Altimeter system test – 2 yearly iaw Part 43 Appendix D	Next due date: _____
2.3	Transponder test – 2 yearly iaw Part 43 Appendix E	Next due date: _____
2.4	ELT test – annually iaw Part 43 Appendix F	Next due date: _____
	Replace batteries that are within 12 months of expiry	Main expiry date: _____
		Remote expiry date: _____
2.5	Oxygen system tests	
	Cylinder hydrostatic test – 10 yearly	Cylinder 1 next due date: _____
	(5 yearly if cylinder over 40 years old)	Cylinder 2 next due date: _____
	Regulator calibration test – 4 yearly	Regulator 1 next due date: _____
		Regulator 2 next due date: _____
2.6	Compass swing – 4 yearly	Next due date: _____
2.7	First aid & survival kit – check contents iaw GNZ AC 3-6	_____
2.8	Weight & balance – review CAA 2173 (in Flight Manual) & CAA 2102 (in logbook)	
	Do these reflect the current situation? YES _____ NO _____	_____
	If YES, record date of last weighing: _____	_____
	If NO, either recalculate weight & balance or weigh glider to determine new data, then complete a new CAA 2173 and cockpit placards.	_____
	If reweighing, also complete a CAA 2102 and record date carried out: _____	_____
2.9	Document review – ensure the Flight Manual is up to date per the revision status on CAA web site, the Airworthiness Certificate is valid, and the CAA 2129 matches the radio installation.	_____
2.10	Logbook review – ensure all required maintenance, including ADs, has been carried out since the last Annual Inspection. Record any discrepancies and carry out work:	
	_____	_____
	_____	_____
2.11	Annual Review of Airworthiness per Part 43 Subpart D - record due date: _____	_____
2.12	On completion of the Sections 1 & 2 checklists, issue a new Certificate of Release to Service on form TECH 19a and fix it in the centre of the DI Book/Technical log.	_____
2.13	Record any work done iaw Part 43.69 (eg if any components fitted or removed) and make a Release to Service statement in the glider logbook, using the appropriate form shown at the bottom of the previous page.	_____
2.14	To complete Sections 1 & 2, sign here and file this checklist with the glider maintenance records.	
	Name: _____ Signature: _____	
	(Print)	
	GNZ approval number: _____ Date: _____	

**Section 3** This section is to be used as a checklist for the inspection after unusual events such as heavy landings, wheel-up landings, ground loops, or abnormal flight occurrences.

*An aircraft which has been subjected to abnormal flight or ground loads may experience permanent structural distortion, fractures, skin buckling, delamination, joint failures etc.*

*It is not practical to lay down precise details of inspection requirements for every type of incident because of the wide variations in aircraft design and construction, and in the nature of the structural loads that may occur.*

*This section attempts to give guidance on the type of inspection necessary to determine the extent of any damage and should be read in conjunction with the manufacturer's Service Manual (if any).*

*Before conducting the inspection, the pilot involved should be consulted regarding the nature of the loads incurred. Great care is necessary when making inspections, since undetected defects can have catastrophic results. Although an aircraft may have a particular point that will usually indicate whether it has been subjected to abnormal ground loads, this should not be taken as the only indication and a full examination should be carried out.*

*If damage is found, the inspection must be extended to its logical conclusion, as loads sufficient to cause damage at one point may be expected to have caused damage elsewhere, particularly where there is a change in structural section.*

Job Number: \_\_\_\_\_ Date: \_\_\_\_\_

Glider Registration: ZK-G \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_

3.1 Heavy Landings or Ground Loops	Initial
3.1.1 Undercarriage. Check:	
Main wheel – hub cracks, axle bowing, tyre splits or bulges	_____
Main undercarriage structure – bent or cracked lugs or tubes, flaking paint at welds	_____
Retracting mechanism – operating force, locking up & down, damage around mechanism attachment points to structure	_____
Skids – attachment &/or local fuselage damage.	_____
3.1.2 Fuselage. Check:	
Entire fuselage structure, particularly the rear fuselage from the base of the fin to the rear wing mounting bulkhead, and the wing mounting bulkheads and load carry-through to the wheel box – damage (such as bent or cracked tubes, signs of flaking paint at welds or glue joints, splits in plywood skins of frames or longerons, failure of glued joints, compression or bending failure of wooden members, which is often very hard to detect), delamination or rupture of fibreglass, buckles in metal skins, sheared rivets etc.	_____
Wing and tail plane attachment fittings – damage and distortion	_____
Instruments and heavy equipment, such as oxygen bottles & batteries – security	_____
Canopy – cracks & damaged attachments, operation of locks	_____
Engine mounts – distortion and cracking, particularly at welded joints	_____
Engine compartment walls – cracking or delamination	_____
Engine retraction – normal cycle.	_____
3.1.3 Flying surfaces. Check:	
Signs of tip contact with ground or other objects – modify subsequent inspection accordingly	_____
Skins – ruptures, splits, buckles or delamination	_____
Attachment fittings and local structure – cracks, distortion, loose bolts etc	_____
Control surface hinges, horns, mass balance attachments – security, cracks, distortion	_____

Wing natural bending frequency – excite and check for discontinuities or asymmetry.	_____
3.1.4 Control systems. Check: All systems – bent or cracked tubes or brackets, loose bolts, abnormally taut or slack cables, smooth and unrestricted functioning.	_____
3.1.5 Certification – go to section 3.4.	
<b>3.2 Abnormal flight loads</b>	
3.2.1 All of the inspections detailed in 3.1.2 to 3.1.4 above apply: Fuselage Flying surfaces Control systems.	_____ _____ _____
3.2.2 Certification – go to section 3.4.	
<b>3.3 Gear up landings</b>	
<i>Do not lift the tail of the glider to lower the undercarriage as more damage can be caused as the nose of the glider is loaded, particularly with two-seaters. If the glider can not be otherwise lifted, it must be de-rigged before lowering the undercarriage.</i>	
3.3.1 The inspections detailed in 3.1.2 fuselage above apply, plus: Seats & side panels – remove and inspect bulkheads for damage, integrity of skin to bulkhead joints, seat mounts and harness attachment points, with particular attention to structural components immediately above the main point of contact with the ground. <i>(During gear up landings, GRP fuselages may distort and tear away from bulkheads but when at rest may return to their original shape, leaving little visible sign of damage.)</i> Belly hooks – check for foreign matter & security.	_____ _____ _____
<b>3.4 Certification</b>	
3.4.1 On completion of the appropriate Section 3 checklist, issue a new Certificate of Release to Service on form TECH 19a and fix it in the centre of the DI Book/Technical log.	_____
3.4.2 Record any repairs made and make a Release to Service statement in the glider logbook, using the form shown at the bottom of the page.	_____
3.4.3 To complete Section 3, sign here and file this checklist with the glider maintenance records.  Name: _____ Signature: _____ (Print)  GNZ approval number: _____ Date: _____	

<b>Glider registration ZK- _____ Job No _____</b>
An inspection was carried out in accordance with GNZ TECH 22, Section 3 at _____ after _____ (unusual event)
The maintenance recorded has been carried out in accordance with the requirements of New Zealand Civil Aviation Rule Part 43 and in respect of that maintenance the glider is released to service.
Name: _____ Signature: _____
GNZ number: _____ Date: _____

**Appendix A to Section 1 Powered glider power-plant**

Engine make: \_\_\_\_\_ Model: \_\_\_\_\_ Ser No: \_\_\_\_\_

Engine hours TTIS: \_\_\_\_\_ TSO: \_\_\_\_\_

Oil last changed at: \_\_\_\_\_ engine hours Plugs last changed at: \_\_\_\_\_ engine hours

Propeller make: \_\_\_\_\_ Model: \_\_\_\_\_ Ser No: \_\_\_\_\_

Propeller hours TTIS: \_\_\_\_\_ TSO: \_\_\_\_\_

	<i>Initial</i>
Inspect engine for oil, fuel & exhaust leaks, clean engine & compartment then check:	
Propeller – security, lock-wiring, condition of blades, play in shaft bearings	_____
Propeller brake mechanism & pads – wear	_____
Propeller pitch change mechanism – wear & and operation	_____
Propeller drive belt – wear, cracks, tears, & tension	_____
Engine mount rubbers – condition	_____
Engine nuts & bolts – tightness & locking	_____
Engine compartment – sidewalls for cracks & firewall for sealing	_____
Engine compartment door hinges, bungies, and cowls – condition & security	_____
Engine safety cable – condition & attachment security	_____
Accessories – condition & security	_____
Electrical components & connections – security, condition of wiring & ignition leads	_____
Fuel lines – chafing, kinks, & leaks, fuel cocks & drains for leaks, & correct operation	_____
Fuel tanks and filler caps – security, leaks, water contamination	_____
Fuel tank vents – free of obstruction	_____
Cooling baffles – security & cracking	_____
Cooling fins – cracks or damage, clean	_____
Exhaust system – security, cracking & corrosion.	_____
As required by engine manufacturer’s Maintenance Manual:	
Clean air filter	_____
Clean fuel filter	_____
Change oil and clean oil screen.	_____
Change spark plugs	_____
Check contact breaker points	_____
Lubricate cams	_____
Check ignition timing	_____
Check valve rocker clearance	_____
Check compressions & record _____	_____
Lubricate retraction and door mechanisms, starter motor gear-shaft bearing, propeller shaft spindle, propeller pitch change mechanism, & engine control linkages	_____
Check retraction mechanism for security and smooth operation.	_____
Run engine and adjust RPM as necessary.	_____
Record RPM      full power static _____ idle _____	_____
Record magneto drops if applicable      left _____ right _____	_____