

Appendix II — Aircraft Type Practical Experience and On-the-Job Training - List of Tasks

ED Decision 2019/009/R

Tasks are divided in categories of aircraft:

- A) aeroplanes
- B) sailplanes and powered sailplanes
- C) balloons and airships

A. SPECIFIC TASKS FOR AEROPLANES

Time limits/Maintenance checks

- 100 hour check (general aviation aircraft).
- 'B' or 'C' check (transport category aircraft).
- Assist carrying out a scheduled maintenance check i.a.w. AMM.
- Review Aircraft maintenance log for correct completion.
- Review records for compliance with Airworthiness Directives.
- Review records for compliance with component life limits.
- Procedure for inspection following heavy landing.
- Procedure for inspection following lightning strike.

Dimensions/Areas

- Locate component(s) by zone/station number.
- Perform symmetry check.

Lifting and Shoring

- Assist in:
 - Jack aircraft nose or tail wheel.
 - Jack complete aircraft.
 - Slings or trestle major component.

Levelling/Weighing

- Level aircraft.
- Weigh aircraft.
- Prepare weight and balance amendment.
- Check aircraft against equipment list.

Towing and Taxiing

- Prepare for aircraft towing.
- Tow aircraft.

Be part of aircraft towing team.

Parking and mooring

Tie down aircraft.

Park, secure and cover aircraft.

Position aircraft in dock.

Secure rotor blades.

Placards and Markings

Check aircraft for correct placards.

Check aircraft for correct markings.

Servicing

Refuel aircraft.

Defuel aircraft.

Carry out tank to tank fuel transfer.

Check/adjust tire pressures.

Check/replenish oil level.

Check/replenish hydraulic fluid level.

Check/replenish accumulator pressure.

Charge pneumatic system.

Grease aircraft.

Connect ground power.

Service toilet/water system

Perform pre-flight/daily check.

Vibration and Noise Analysis

Analyse helicopter vibration problem.

Analyse noise spectrum.

Analyse engine vibration.

Air Conditioning

Replace combustion heater.

Replace flow control valve.

Replace outflow valve.

Replace safety valve.

Replace vapour cycle unit.

Replace air cycle unit.

Replace cabin blower.

Replace heat exchanger.
Replace pressurisation controller.
Clean outflow valves.
Deactivate/reactivate cargo isolation valve.
Deactivate/reactivate avionics ventilation components.
Check operation of air conditioning/heating system.
Check operation of pressurisation system.
Troubleshoot faulty system.

Auto flight

Install servos.
Rig bridle cables Replace controller.
Replace amplifier.
Replacement of the auto flight system LRUs in case of fly-by-wire aircraft.
Check operation of auto-pilot.
Check operation of auto-throttle/auto-thrust.
Check operation of yaw damper.
Check and adjust servo clutch.
Perform autopilot gain adjustments.
Perform mach trim functional check.
Troubleshoot faulty system.
Check autoland system.
Check flight management systems.
Check stability augmentation system.

Communications

Replace VHF COM unit.
Replace HF COM unit.
Replace existing antenna.
Replace static discharge wicks.
Check operation of radios.
Perform antenna VSWR check.
Perform SELCAL operational check.
Perform operational check of passenger address system.
Functionally check audio integrating system.
Repair coaxial cable.
Troubleshoot faulty system.

Check SATCOM.

Electrical Power

Charge lead/acid battery.

Charge Ni-Cad battery.

Check battery capacity.

Deep-cycle Ni-Cad battery.

Replace integrated drive/generator/alternator.

Replace switches.

Replace circuit breakers.

Adjust voltage regulator.

Change voltage regulator.

Amend electrical load analysis report.

Repair/replace electrical feeder cable.

Troubleshoot faulty system.

Perform functional check of integrated drive/generator/alternator.

Perform functional check of voltage regulator.

Perform functional check of emergency generation system.

Equipment/Furnishings

Replace carpets

Replace crew seats.

Replace passenger seats.

Check inertia reels.

Check seats/belts for security.

Check emergency equipment.

Check ELT for compliance with regulations.

Repair toilet waste container.

Remove and install ceiling and sidewall panels.

Repair upholstery.

Change cabin configuration.

Replace cargo loading system actuator.

Test cargo loading system.

Replace escape slides/ropes.

Fire protection

Check fire bottle contents.

Check/test operation of fire/smoke detection and warning system.
Check cabin fire extinguisher contents.
Check lavatory smoke detector system.
Check cargo panel sealing.
Install new fire bottle.
Replace fire bottle squib.
Troubleshoot faulty system.
Inspect engine fire wire detection systems.

Flight Controls

Inspect primary flight controls and related components i.a.w. AMM.
Extending/retracting flaps & slats.
Replace horizontal stabiliser.
Replace spoiler/lift damper.
Replace elevator.
Deactivation/reactivation of aileron servo control.
Replace aileron.
Replace rudder.
Replace trim tabs.
Install control cable and fittings.
Replace slats.
Replace flaps.
Replace powered flying control unit.
Replace flat actuator.
Rig primary flight controls.
Adjust trim tab.
Adjust control cable tension.
Check control range and direction of movement.
Check for correct assembly and locking.
Troubleshoot faulty system.
Functional test of primary flight controls.
Functional test of flap system.
Operational test of the side stick assembly.
Operational test of the THS.
THS system wear check.

Fuel

Water drain system (operation).
Replace booster pump.
Replace fuel selector.
Replace fuel tank cells.
Replace/test fuel control valves.
Replace magnetic fuel level indicators.
Replace water drain valve.
Check/calculate fuel contents manually.
Check filters.
Flow check system.
Check calibration of fuel quantity gauges.
Check operation feed/selectors.
Check operation of fuel dump/jettison system.
Fuel transfer between tanks.
Pressure defuel.
Pressure refuel (manual control).
Deactivation/reactivation of the fuel valves (transfer defuel, X-feed, refuel).
Troubleshoot faulty system.

Hydraulics

Replace engine driven pump.
Check/replace case drain filter.
Replace standby pump.
Replace hydraulic motor pump/generator.
Replace accumulator.
Check operation of shut off valve.
Check filters/clog indicators.
Check indicating systems.
Perform functional checks.
Pressurisation/depressurisation of the hydraulic system.
Power Transfer Unit (PTU) operation.
Replacement of PTU.
Troubleshoot faulty system.

Ice and rain protection

Replace pump.
Replace timer.
Inspect repair propeller deice boot.
Test propeller de-icing system.
Inspect/test wing leading edge de-icer boot.
Replace anti-ice/deice valve.
Install wiper motor.
Check operation of systems.
Operational test of the pitot-probe ice protection.
Operational test of the TAT ice protection.
Operational test of the wing ice protection system.
Assistance to the operational test of the engine air-intake ice protection (with engines operating).
Troubleshoot faulty system.

Indicating/recording systems

Replace flight data recorder.
Replace cockpit voice recorder.
Replace clock.
Replace master caution unit.
Replace FDR.
Perform FDR data retrieval.
Troubleshoot faulty system.
Implement ESDS procedures.
Inspect for HIRF requirements.
Start/stop EIS procedure.
Bite test of the CFDIU.
Ground scanning of the central warning system.

Landing Gear

Build up wheel.
Replace main wheel.
Replace nose wheel.
Replace steering actuator.
Replace truck tilt actuator.
Replace gear retraction actuator.
Replace uplock/downlock assembly.

Replace shimmy damper.
Rig nose wheel steering.
Functional test of the nose wheel steering system.
Replace shock strut seals.
Replace brake unit.
Replace brake control valve.
Bleed brakes.
Replace brake fan.
Test anti-skid unit.
Test gear retraction.
Change bungees.
Adjust micro switches/sensors.
Charge struts with oil and air.
Troubleshoot faulty system.
Test auto-brake system.
Replace rotorcraft skids.
Replace rotorcraft skid shoes.
Pack and check floats.
Flotation equipment.
Check/test emergency blowdown (emergency landing gear extension).
Operational test of the landing gear doors.

Lights

Repair/replace rotating beacon.
Repair/replace landing lights.
Repair/replace navigation lights.
Repair/replace interior lights.
Replace ice inspection lights.
Repair/replace logo lights.
Repair/replace emergency lighting system.
Perform emergency lighting system checks.
Troubleshoot faulty system

Instruments

Troubleshoot faulty system.
Calibrate magnetic direction indicator.
Replace airspeed indicator.

Replace altimeter.
Replace air-data computer.
Replace ADI.
Replace HSI.
Check pitot static system for leaks.
Check operation of directional gyro.
Check calibration of pitot static instruments.
Compass replacement direct/indirect.
Functional check flight director system.

Surveillance

Troubleshoot faulty system.
Functional check weather radar.
Functional check doppler.
Functional check TCAS.
Functional check ATC transponder.
Check calibration of pressure altitude reporting system.

Navigation

Functional check inertial navigation system.
Complete quadrantal error correction of ADF system.
Check GPS.
Test AVM.
Check marker systems.
Functional check DME.

Oxygen

Inspect on board oxygen equipment.
Purge and recharge oxygen system.
Replace regulator.
Replace oxygen generator.
Test crew oxygen system.
Perform auto oxygen system deployment check.
Troubleshoot faulty system.

Pneumatic systems

Replace filter.
Replace air shut off valve.
Replace pressure regulating valve.

Replace compressor.
Recharge dessicator.
Adjust regulator.
Check for leaks.
Troubleshoot faulty system.

Vacuum systems

Inspect the vacuum system i.a.w. AMM.
Replace vacuum pump.
Check/replace filters.
Adjust regulator.
Troubleshoot faulty system.

Water/Waste

Replace water pump.
Replace tap.
Replace toilet pump.
Perform water heater functional check.
Troubleshoot faulty system.
Inspect waste bin flap closure.

Central Maintenance System

Retrieve data from CMU.
Replace CMU.
Perform Bite check.
Troubleshoot faulty system.

Airborne Auxiliary power

Install APU.
Inspect hot section.
Troubleshoot faulty system.

Structures

Assessment of damage.
Sheet metal repair.
Fibre glass repair.
Wooden repair.
Fabric repair.
Recover fabric control surface.
Treat corrosion.

Apply protective treatment.

Doors

Inspect passenger door i.a.w. AMM.

Rig/adjust locking mechanism.

Adjust air stair system.

Check operation of emergency exits.

Test door warning system.

Troubleshoot faulty system.

Remove and install passenger door i.a.w. AMM.

Remove and install emergency exit i.a.w. AMM.

Inspect cargo door i.a.w. AMM.

Windows

Replace windshield.

Replace direct vision window.

Replace cabin window.

Repair transparency.

Wings

Skin repair.

Recover fabric wing.

Replace tip.

Replace rib.

Replace integral fuel tank panel.

Check incidence/rig.

Propeller

Assemble prop after transportation.

Replace propeller.

Replace governor.

Adjust governor.

Perform static functional checks.

Check operation during ground run.

Check track.

Check setting of micro switches.

Assessment of blade damage i.a.w. AMM.

Dynamically balance prop.

Troubleshoot faulty system.

Main Rotors

Install rotor assembly.
Replace blades.
Replace damper assembly.
Check track.
Check static balance.
Check dynamic balance.
Troubleshoot.

Rotor Drive

Replace mast.
Replace drive coupling.
Replace clutch/freewheel unit
Replace drive belt.
Install main gearbox.
Overhaul main gearbox.
Check gearbox chip detectors.

Tail Rotors

Install rotor assembly.
Replace blades.
Troubleshoot.

Tail Rotor Drive

Replace bevel gearbox.
Replace universal joints.
Overhaul bevel gearbox.
Install drive assembly.
Check chip detectors.
Check/install bearings and hangers.
Check/service/assemble flexible couplings.
Check alignment of drive shafts.
Install and rig drive shafts.

Rotorcraft flight controls

Install swash plate.
Install mixing box.
Adjust pitch links.
Rig collective system.

Rig cyclic system.
Rig anti-torque system.
Check controls for assembly and locking.
Check controls for operation and sense.
Troubleshoot faulty system.

Power Plant

Build up ECU.
Replace engine.
Repair cooling baffles.
Repair cowling.
Adjust cowl flaps.
Repair faulty wiring.
Troubleshoot.
Assist in dry motoring check.
Assist in wet motoring check.
Assist in engine start (manual mode).

Piston Engines

Remove/install reduction gear.
Check crankshaft run-out.
Check tappet clearance.
Check compression.
Extract broken stud.
Install helicoil.
Perform ground run.
Establish/check reference RPM.
Troubleshoot.

Turbine Engines

Replace module.
Replace fan blade.
Hot section inspection/boroscope check.
Carry out engine/compressor wash.
Carry out engine dry cycle.
Engine ground run.
Establish reference power.
Trend monitoring/gas path analysis.

Troubleshoot.

Fuel and control, piston

Replace engine driven pump.

Adjust AMC.

Adjust ABC.

Install carburettor/injector.

Adjust carburettor/injector.

Clean injector nozzles.

Replace primer line.

Check carburettor float setting.

Troubleshoot faulty system.

Fuel and control, turbine

Replace FCU.

Replace Engine Electronic Control Unit (FADEC).

Replace Fuel Metering Unit (FADEC).

Replace engine driven pump.

Clean/test fuel nozzles.

Clean/replace filters.

Adjust FCU.

Troubleshoot faulty system.

Functional test of FADEC.

Ignition systems, piston

Change magneto.

Change ignition vibrator.

Change plugs.

Test plugs.

Check H.T. leads.

Install new leads.

Check timing.

Check system bonding.

Troubleshoot faulty system.

Ignition systems, turbine

Perform functional test of the ignition system.

Check glow plugs/ignitors.

Check H.T. leads.

Check ignition unit.

Replace ignition unit.

Troubleshoot faulty system.

Engine Controls

Rig thrust lever.

Rig RPM control.

Rig mixture HP cock lever.

Rig power lever.

Check control sync (multi-eng).

Check controls for correct assembly and locking.

Check controls for range and direction of movement.

Adjust pedestal micro-switches.

Troubleshoot faulty system.

Engine Indicating

Replace engine instruments(s).

Replace oil temperature bulb.

Replace thermocouples.

Check calibration.

Troubleshoot faulty system.

Exhaust, piston

Replace exhaust gasket.

Inspect welded repair.

Pressure check cabin heater muff.

Troubleshoot faulty system.

Exhaust, turbine

Change jet pipe.

Change shroud assembly.

Install trimmers.

Inspect/replace thrust reverser.

Replace thrust reverser component.

Deactivate/reactivate thrust reverser.

Oil

Operational test of the thrust reverser system.
Change oil. Check filter(s).
Adjust pressure relief valve.
Replace oil tank.
Replace oil pump.
Replace oil cooler.
Replace firewall shut off valve.
Perform oil dilution test.
Troubleshoot faulty system.

Starting

Replace starter.
Replace start relay.
Replace start control valve.
Check cranking speed.
Troubleshoot faulty system.

Turbines, piston engines

Replace PRT.
Replace turbo-blower.
Replace heat shields.
Replace waste gate.
Adjust density controller.

Engine water injection

Replace water/methanol pump.
Flow check water/methanol system.
Adjust water/methanol control unit.
Check fluid for quality.
Troubleshoot faulty system

Accessory gear boxes

Replace gearbox.
Replace drive shaft.
Inspect magnetic chip detector.

APU

Removal/installation of the APU.
Removal/installation of the inlet guide-vane actuator.

Operational test of the APU emergency shut-down test.

Operational test of the APU.

B. SPECIFIC TASKS FOR SAILPLANES AND POWERED SAILPLANES

Structures	Wooden/metal tube and fabric/composite/metallic
General activities	
Placards check or replace	X
Weighing, weight & balance sheet	X
Documentation of annual inspection, repair	X
Review records for compliance with airworthiness directives	X
Five annual inspections	X
Inspection after an occurrence	X
Dismantling/reinstallation of wings and empennages	X
Leveling and weighing	
Level the sailplane	X
Weighing, weight & balance sheet	X
Prepare a weight and balance amendment	X
Check the list of equipment	X
Flight controls and flight control systems	
Aileron, flaps: Removal — Balancing — Reinstallation	X
Elevator: Removal — Balancing — Reinstallation	X
Rudder: Removal — Balancing — Reinstallation	X
Rudder cable: Fabrication and installation	X
Elevator pushrod: Installation	X
Safeguarding of pins, screws, castellated nuts	X
Sealing of gaps	X
Electrical systems	
Electrical components, wiring: Removal — Installation	X
Batteries — Servicing	X
Avionics systems	
COM: Removal — Installation	X
NAV: Removal — Installation	X
XPDR: Removal — Installation	X
Antenna/antenna cable: Removal — Installation	X
Cabin equipment/systems	
Belts/safety harnesses: Removal — Installation	X
Oxygen system removal installation — Test	X
Canopy replacement or repair	X
Pitot/static system: Removal — Installation — Test	X
Flight instruments: Removal — Installation	X
Installation of approved equipment	X
Compass: Installation — Compensation	X
Tow release: Removal — Installation	X
Water ballast system: Removal — Installation — Test	X
Undercarriage: Removal — Installation	X
Brake system: Replacement of components	X

Structures	Wooden/metal tube and fabric/composite/metallic
Fuel — Engine — Propeller — Engine — Instruments	x
Refer to the tasks related to propeller, piston engine, fuel and control, ignition, engine indications and exhaust, which are contained in Table A ‘Specific tasks for aeroplanes’	
Verification and adjustment of folding system of powered sailplanes	x
Wooden structures/Metal tubes and fabric	
Inspection/testing for damages	x
Rib structure repair	x
Plywood skin repair	x
Recover or repair structure with fabric	x
Protective coating and finishing	x
Install patch on fabric material	x
Repair of fairings	x
Composite structures	
Laminate repair	x
Sandwich structure repair	x
Partial gel coat repair	x
Complete gel coating	x
Repair of fairings	x
Metal structures	
Crack testing	x
Repair of covering	x
Drilling cracks	x
Riveting jobs	x
Bonding of structures	x
Anti-corrosion treatment	x
Repair of fairings	x

C. SPECIFIC TASKS FOR BALLOONS AND AIRSHIPS

Tasks	Balloon			Airship	
	Hot air	Gas	Tethered gas	Hot air	Gas
General activities:					
Functionality test of aircraft (*)	x	x	x	x	x
Placards check or replace	x	x	x	x	x
Documentation annual inspection, repair, ADs, equipment (*)	x	x	x	x	x
Classification repair (*)	x	x	x	x	x
Weighing:					
Weighing and weighing report (*)	x	x	x	x	x
Servicing:					
Lubrication of controls when applicable			x	x	x
Cleaning envelope, basket, burner	x	x	x	x	x
Inspections:					
Eight annual inspections (covering at least 3 different types) (*)	x				
Five annual inspections (covering at least 2 different types) (*)		x			
Three annual inspections (covering at least 2 different types) (*)			x	x	
Two annual inspections (*)					x
Strength test of envelope fabric (*)	x	x	x	x	x
Flight control systems — Removal — Inspection — Reinstallation					
Control surface cable					x
Trim system					x
Safeguarding of pins, screws, castellated nuts (*)			x	x	x
Stick and pedals					x
Hydromechanical control systems			x		x
Ballonet control systems (*)			x	x	x
Electrical control systems			x		x
Valves (gas valve, turning vent, parachute or rip panel) (*)	x	x	x	x	x
Control and shroud lines and pulleys	x	x	x	x	x
Elevator – stabilizer (incl. balancing if applicable)					x
Rudder (incl. balancing if applicable)					x
Drag rope		x			
Electrical system:					
Removal – installation of electrical wires			x	x	x
Removal – installation of electrical components			x	x	x
Servicing of batteries	x	x	x	x	x
Communication system – Transponder:					

Tasks	Balloon			Airship	
	Hot air	Gas	Tethered gas	Hot air	Gas
Removal – installation of COM	x	x	x	x	x
Removal – installation of NAV					x
Removal – installation of XPDR	x	x	x	x	x
Installation of antenna	x	x	x	x	x
Replacement of antenna cable	x	x	x	x	x
Cabin – Equipments:					
Pitot / static systems – tubes removal - installation - replacement					x
Flight instruments removal - installation - replacement	x	x	x	x	x
Installation of an approved system	x	x	x	x	x
Magnetic compass installation - compensation					x
Fire extinguisher	x			x	x
Ballast - Replacement of:					
Water ballast (when applicable)					x
Sand/shot ballast (when applicable)		x	x		x
Valves - inspection and rigging of valves					x
Envelope:					
Inspection and repair of envelope panels/gores/seams	x	x	x	x	x
Inspection and repair of load tapes and attachment points	x	x	x	x	x
Inspection and repair of deflation system	x	x		x	
Inspection and repair of net		x	x		
Inspection and repair of mooring system			x		
Electrostatic conductivity test (if type is approved for hydrogen) (*)		x			x
Ballonet inspection and repair			x		x
Inspection and fabrication of a suspension cable or rope	x	x	x	x	x
Inspection and fabrication of a catena				x	x
Load ring/frame:					
Crack detection (welded and machined parts) (*)	x	x	x	x	
Heater system:					
Removal, inspection and re-installation	x			x	
Inspection and cleaning of vaporizer and filter (*)	x			x	
Inspection and replacement of hoses (*)	x			x	
Inspection and replacement of pilot flame ignition unit (*)	x			x	
Sealing of fittings (*)	x			x	
Pressure and leak test (*)	x			x	
Disassembly an assembly of fuel cell (*)	x			x	

Tasks	Balloon			Airship	
	Hot air	Gas	Tethered gas	Hot air	Gas
10-year inspection of fuel cell	x			x	
Basket/gondola:					
Removal, inspection and re-installation (as applicable)	x	x	x	x	x
Inspection and fabrication of a suspension cable or rope (*)	x	x			
Removal – installation of padding	x	x			
Removal – installation of belts - safety harness				x	x
Removal – installation of essential elements of the cabin	x	x	x	x	x
Inspection and fabrication of a basket wire	x	x	x		
Inspection of operational equipment and its fixation points	x	x	x	x	x
Crack detection and repair (welded parts and frames)	x	x	x	x	x
Landing gear:					
Removal, inspection and re-installation of wheels			x	x	x
Removal, inspection and re-installation of brakes					x
Removal, inspection and re-installation of shock absorber					x
Fuel – Engine – Propeller – Engine instruments systems:					
Refer to tasks in blocks for aeroplanes				x	x
Wood structure:					
Structure repair	x	x	x		
Protective coating					
Composite structure:					
Laminate repair			x		x
Sandwich structure repair			x		x
Metal structures:					
Crack detection (welded and machined parts)	x	x	x	x	x
Riveting jobs				x	x
Bonding of structures		x	x	x	x
Anti-corrosion treatment			x	x	x
Repair of fairings			x		x
Engine:					
Tasks for aeroplanes of comparable certification level				x	x
Exhaust system:					
Tasks for aeroplanes of comparable certification level				x	x
Propeller:					
Tasks for aeroplanes of comparable certification level				x	x

Tasks	Balloon			Airship	
	Hot air	Gas	Tethered gas	Hot air	Gas
Fuel system:					
Tasks for aeroplanes of comparable certification level				x	x
Hydraulic system:					
Tasks for aeroplanes of comparable certification level				x	x
Pneumatic system:					
Tasks for aeroplanes of comparable certification level				x	x
Winch system:					
Witness winch inspection			x		