

Section 3.2 - Typical Maintenance Tasks

Time limits/Maintenance Checks
100 hour check (general aviation Air System)
Assist in carrying out a scheduled Maintenance check IAW AMM
Review Air System 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 Air System nose or tail wheel
Jack complete Air System
Sling or trestle major component
Levelling/Weighing
Level Air System
Weigh Air System
Prepare weight and balance amendment
Check Air System against equipment list
Towing and Taxiing
Prepare Air System for towing
Tow Air System
Be part of Air System towing team
Parking and Mooring
Tie down Air System
Park, secure and cover Air System

Parking and Mooring (cont'd)
Position Air System in Maintenance dock
Secure rotor blades
Placards and Markings
Check Air System for correct placards
Check Air System for correct markings
Servicing
Refuel Air System
Defuel Air System
Carry out tank to tank fuel transfer
Check/adjust tyre pressure(s)
Check/replenish oil level(s)
Check/replenish hydraulic fluid level(s)
Check/replenish accumulator pressure(s)
Charge pneumatic system
Grease Air System
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

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Air Conditioning (cont'd)
Replace vapour cycle unit
Replace air cycle unit
Replace cabin blower
Replace heat exchanger
Replace pressurisation controller
Clean outflow valves
Check operation of air conditioning/heating system
Check operation of pressurisation system
Troubleshoot faulty system
Autoflight
Install servos
Rig bridle cables
Replace controller
Replace amplifier
Replacement of autoflight LRUs (fly-by-wire Air System)
Check operation of auto-pilot
Check operation of auto-throttle/auto-thrust
Check operation of yaw damper
Perform auto-pilot gain adjustments
Check auto-land system
Check flight management systems
Check stability augmentation system
Troubleshoot faulty system
Communications
Replace VHF comms unit
Replace HF comms unit
Replace existing antenna
Replace static discharge wicks
Perform antenna VSWR check

Communications (cont'd)
Check operation of radios
Perform Selcal operational check
Perform operational check of passenger address system
Functionally check audio integrating system
Repair co-axial cable
Troubleshoot faulty system
Electrical Power
Charge lead/acid battery
Charge NiCad battery
Check battery capacity
Deep-cycle NiCad 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
Functional check of integrated drive/generator/alternator
Functional check of voltage regulator
Troubleshoot faulty system
Equipment/Furnishings
Replace carpets
Replace crew seats
Replace passenger seats
Check inertia reels
Check seats/belts for security
Check ELT for compliance with regulations
Check emergency equipment

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Equipment/Furnishings (cont'd)
Repair toilet waste container
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/warning system
Check cabin fire extinguisher contents
Install new fire bottle
Replace fire bottle squib
Inspect engine fire wire detection system(s)
Troubleshoot faulty system
Flight Controls
Inspect primary flight controls & related components IAW AMM
Inspect extending/retracting flaps & slats
Replace horizontal stabiliser
Replace spoiler/lift dumper
Replace elevator
Deactivation/reactivation of aileron servo control
Replace aileron
Replace rudder
Replace/adjust trim tabs
Install control cable and fittings
Replace slats
Replace powered flying control unit
Replace flaps
Replace flap actuator

Flight Controls (cont'd)
Rig primary flight controls
Adjust trim tab
Adjust control cable tension
Check control range & sense direction of movement
Check for correct assembly and locking
Functional test of primary flight controls
Functional test of flap system
Operational test of the side stick assembly
Operational check of the trimmable horizontal stabiliser
Trimmable horizontal stabiliser system wear check
Troubleshoot faulty system
Fuel
Water drain system (operation)
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
Replace filter(s)
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)
Re/De-activation of fuel valves (transfer, defuel, refuel, x-feed)
Troubleshoot faulty system

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Hydraulics		Indicating/Recording Systems (cont'd)	
Replace engine driven pump		Replace master caution unit	
Check/replace case drain filter		Perform flight data recorder data retrieval	
Replace standby pump		Implement ESD procedures	
Replace hydraulic motor pump/generator		Inspect for HIRF requirements	
Replace accumulator		Start/stop electronic instrument system procedure	
Check operation of shut-off valve		BITE test of central fault display interface unit (CFDIU)	
Check filters/clog indicators		Ground scanning of central warning system	
Check indicating systems		Troubleshoot faulty system	
De/Pressurisation of hydraulic system			
Power transfer unit operation		Landing Gear	
Troubleshoot faulty system		Build up wheel	
Ice and Rain Protection		Replace main wheel	
Replace pump		Replace nose wheel	
Replace timer		Replace steering actuator	
Inspect/repair propellor de-ice boot		Replace shimmy damper	
Test propellor de-ice system		Rig nose wheel steering	
Inspect/test wing leading edge de-icer boot		Functional test of nose wheel steering system	
Replace anti-ice/de-ice valve		Replace shock strut seals	
Install wiper motor		Replace truck tilt actuator	
Check operation of system(s)		Servicing of shock strut	
Operational check of pitot probe ice-protection		Replace brake unit	
Operational check of TAT ice protection		Replace brake control valve	
Operational test of wing ice protection system		Bleed brakes	
Operational test of engine intake ice protection (engine running)		Replace broken fan	
Troubleshoot faulty system		Test anti-skid unit	
Indicating/Recording Systems		Change bungees	
Replace flight data recorder		Adjust micro switches/sensors	
Replace cockpit voice recorder		Charge struts with oil and air	
Replace clock		Test outbrake system	
		Replace rotorcraft skids	

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Landing Gear (cont'd)
Replace rotorcraft skid shoes
Check/test emergency blowdown
Troubleshoot faulty system
Lights
Repair/replace rotating beacon
Repair/replace landing lights
Repair/replace navigation lights
Repair/replace interior lights
Repair/replace ice inspection lights
Repair/replace emergency lighting system
Perform emergency lighting system checks
Troubleshoot faulty system
Navigation
Calibrate magnetic direction indicator
Replace airspeed indicator
Replace altimeter
Replace air data computer
Replace VOR unit
Replace ADI
Replace HIS
Check pitot static system for leaks
Check operation of directional gyro
Functional check of weather RADAR
Functional check of doppler system
Functional check of TCAS
Functional check of DME system
Functional check of ATC transponder
Functional check of flight director system
Functional check of inertial navigation system

Navigation (cont'd)
Complete quadrantal error correction of ADF system
Update flight management system database
Check calibration of pitot static instruments
Check calibration of pressure altitude reporting system
Check marker systems
Compass replacement direct/indirect
Check Satcom
Check GPS
Test Air System vibration monitor (AVM)
Troubleshoot faulty system
Pneumatic Systems
Replace filter
Replace air shut off valve
Replace pressure regulating valve
Replace compressor
Recharge desiccator
Repair/replace pipes and hoses
Adjust regulator
Check for leaks
Troubleshoot faulty system
Vacuum Systems
Inspect vacuum system IAW AMM
Replace vacuum pump
Check/replace filters
Adjust regulator
Recharge desiccator
Troubleshoot faulty system
Central Maintenance System
Retrieve data from Central Maintenance Unit

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Central Maintenance System(cont'd)	Wings (cont'd)
Replace Central Maintenance Unit	Replace integral fuel tank panel
Perform BITE check	Check incidence/rig
Troubleshoot faulty system	Propeller
Airborne Auxiliary Power	Assemble prop after transportation
Install APU	Replace propeller
Inspect hot section	Replace governor
Troubleshoot faulty system	Adjust governor
Structures	Perform static functional checks
Sheet metal repair	Check operation during ground run
Composite material repair	Check track
Treat corrosion	Check setting of micro switches
Apply protective treatment	Assess/dress out damage IAW AMM
Doors	Dynamically balance prop
Inspect passenger door IAW AMM	Troubleshoot faulty system
Rig/adjust locking mechanism	Main Rotors
Check operation of emergency exits	Install rotor assembly
Test door warning system	Replace blades
Remove/install passenger door IAW AMM	Replace damper assembly
Inspect cargo door IAW AMM	Check static balance
Troubleshoot faulty system	Check track
Windows	Check dynamic balance
Replace windshield	Troubleshoot faulty system
Replace direct vision window	Rotor Drive
Replace cabin window	Replace mast
Repair transparency	Replace drive coupling
Wings	Replace clutch/freewheel unit
Skin repair	Replace drive belt
Replace tip	Install main gearbox
Replace rib	Overhaul main gearbox

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Rotor Drive (cont'd)
Check gearbox chip detectors
Tail Rotors
Install rotor assembly
Replace blades
Troubleshoot faulty system
Tail Rotor Drive
Replace gearbox
Replace universal joints
Overhaul bevel gearbox
Install drive assembly
Check chip detectors
Check/install bearings and hangers
Check/service/install flexible couplings
Check alignment of drive shafts
Install and rig drive shafts
Rotorcraft Flight Controls
Install swashplate
Install mixing unit/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

Power Plant (cont'd)
Repair cowl
Adjust cowl flaps
Repair faulty wiring
Assist in dry monitoring check
Assist in wet monitoring check
Assist in engine start (manual mode)
Conduct Leak checks
Troubleshoot faulty system
Piston Engines
Remove/install reduction gear
Check crankshaft run-out
Check compression
Extract broken stud
Install helicoil
Perform ground run
Establish/check reference RPM
Troubleshoot faulty system
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 faulty system
Fuel and Control – Piston
Replace engine driven pump

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Fuel and Control – Piston (cont'd)
Adjust automatic mixture control (AMC)
Adjust automatic boost control (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
Functional test of FADEC
Troubleshoot faulty system
Ignition Systems - Piston
Change magneto
Change ignition vibrator
Change plugs
Test plugs
Check HT leads
Install new HT leads
Check timing
Check system bonding
Troubleshoot faulty system

Ignition Systems - Turbine
Perform functional test of ignition system
Check glow plugs/ignitors
Check HT leads
Check ignition unit
Replace ignition unit
Troubleshoot faulty system
Engine Controls
Functional check of engine indicating systems
Replace engine instrument(s)
Replace oil temperature bulb
Replace thermocouple(s)
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
Operational test of thrust reverser system
Oil
Change oil
Check filter(s)

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Oil (cont'd)
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
Turbocharger – Piston
Replace power recovery turbine (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 Gearboxes
Replace gearbox
Replace drive shaft
Check/inspect magnetic chip detector

Auxiliary Power Unit
Remove/install APU
Remove/install inlet guide-vane actuator
Operational test of APU
Troubleshoot faulty system

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