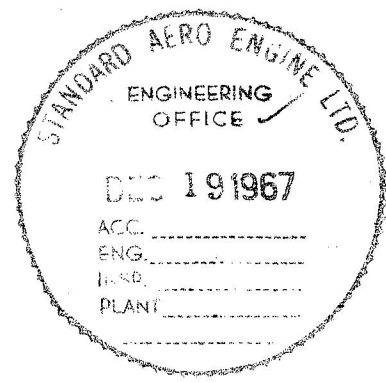


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EO 05-45B-7

ROYAL CANADIAN AIR FORCE



MAINTENANCE SCHEDULE PRIMARY INSPECTION EXPEDITOR 3

REVISION
NOTICE

LATEST REVISED PAGES SUPERSEDE
THE SAME PAGES OF PREVIOUS DATE
Insert revised pages into basic publication.
Destroy superseded pages.

ISSUED ON AUTHORITY OF THE CHIEF OF THE DEFENCE STAFF

29 JAN 62
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LIST OF RCAF REVISIONS

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FOREWORD

This schedule has been prepared as a guide to ensure that defects are discovered and corrected before malfunctioning or failure occurs.

In order to arrange inspection requirements as nearly as possible according to the manner in which work will be divided and assigned the requirements in each section of the schedule are divided into groups. A group title indicates either a functional system or a group of related components.

Additional information relating to this schedule and the recording of the Primary Inspection may be found in EO 00-15-1 and EO 00-15-10.

The Primary Inspection period for (Expeditor) aircraft is 7 days.

INSTRUCTIONS

It is the responsibility of all personnel to report any unserviceable item or assembly and make the necessary entry in the Change of Serviceability and Rectification Record (Form L14-1B).

The Primary Inspection Certificates (Section 3 of Form L14-1) and Before Flight Inspection Certificates (Section 4 of Form L14-1) will be signed by Technicians qualified in accordance with EO 00-50-7.

A Visual Inspection includes checking for all types of wear, damage, corrosion, security, chafing, in fact for the complete physical well-being of the particular item in addition to cleanliness.

A Functional Inspection of an item includes the actual operation of an item through means of manual manipulation or actual engine run-up whichever is applicable to ensure as far as possible that the item or service in question operates in a serviceable manner.

Unless otherwise specified any lubrication required shall be in accordance with EO 05-45B-2 (Refer to EO 45-1-2 for correct type lubricant and to EO 45-1-4 for NATO or other equivalent).

An external source of electrical power or APU must be used when carrying out inspection.

SECTION 1

AIRFRAME TECHNICIAN

PRIMARY INSPECTION

NOTE

Read and adhere to the instructions on pages i and ii of this schedule.

UNDERCARRIAGE

- UC 1 Undercarriage, undercarriage retraction gear and wheels; visual.
- UC 2 Landing gear, attachment fittings secure and locked.
- UC 3 Main undercarriage oleo legs; visual. Ensure valve dust caps are installed. Clean the exposed portion of the pistons with a clean rag saturated with the specified hydraulic fluid.
- UC 4 Brake actuating cylinders and lines; visual. Brake puck indicators within limits.
- UC 5 Main tires; visual. Ensure correct tire pressure by gauge.
- UC 6 Main undercarriage retraction slide tubes and slide assemblies; visual. Lubricate. Ensure full limit of slide assembly down travel.

CAUTION

Special attention to ensure that the slide tubes are not distorted or plating peeling.

- UC 7 Oleo drag leg; visual, and correct pressure. (50 psi to drag strut).

COCKPIT AND CABIN

- CO 1 Control column; visual. (Especially at weld above the band). Ensure that full and free movement of the aileron and elevator control is obtained.
- CO 2 Rudder controls, brake pedals and brake push rods; visual. Ensure full and free movement of the rudder is obtained.
- CO 3 Operate the elevator, rudder and aileron tabs to ensure that full and free movement is obtained. Verify that the positions of the tabs agree with the readings on the indicators.
- CO 4 Brakes for correct and firm operation. Operate parking brake. Fluid level of the brake reservoir to within 1-1/2" to 2" of top of reservoir, If amount of fluid required is excessive, carry out thorough check of systems for leaks.
- CO 5 Operate the flaps electrically and manually, ensuring they agree with the indicator. Inspect for proper contact of the down limit switch.

COCKPIT AND CABIN (Cont'd)

- CO 6 Ensure that undercarriage clutch emergency release pedal cover is serviceable and in safety position.
- CO 7 Crew and passenger seats adjustment mechanisms; visual and functional.
- CO 8 Cockpit and cabin windows; visual. Clean with warm soapy water and a soft cloth.
- CO 9 Anti-icer system; visual and functional. Replenish anti-icer tank.
- CO 10 Navigators' tables; visual.
- CO 11 Astrodome; visual. Clean with warm soapy water and a soft cloth.
- CO 12 Ensure that the emergency exit is secure and release button is "SAFE" and correctly positioned.
- CO 13 Clean cabin and lavatory. (Ensure waste can contains a solution of disinfectant).
- CO 14 Control lock mechanism, for serviceability and stowage function.

FUSELAGE

- FU 1 Fuselage skin; visual.
- FU 2 Ensure the nose compartment door hinge is secure; loose articles are properly stowed and the door properly closed and locked.
- FU 3 Fuselage cowlings, fairings, fillets and belly panel; visual.
- FU 4 Main door and lock; visual and functional. Lubricate.
- FU 5 Remove fuselage belly panel and inspect brake lines, master brake cylinder and linkage, flap and undercarriage mechanism, control cables and general structure; visual.
- FU 6 Nose fuel tank vent line for obstruction; visual.

TAIL UNIT

- TA 1 Tailplane, elevators, fins, rudders and trim tabs; visual.
- TA 2 De-icer boots; visual. (Ref. EO 05-1-2AA).
- TA 3 Tail cone and outer covering; visual.
- TA 4 Bulkhead #13; visual.
- TA 5 Tail wheel tire; visual. Ensure correct tire pressure by gauge.

TAIL UNIT (Cont'd)

- TA 6 Tail undercarriage oleo, slide tube and slide assembly; visual. Lubricate. The tail wheel must be in the trail position in order to check for correct oleo extension. The exposed portion of the oleo piston is to be cleaned with a clean rag saturated with the specified hydraulic fluid.



Special attention to ensure that the slide tube is not distorted and is properly lubricated and clean.

- TA 7 All inspection plates, doors, fairings and hinges; visual.
- TA 8 Grounding wire; visual. Ensure it makes contact with the ground.
- TA 9 Tail wheel locking mechanism; visual and functional. Thoroughly clean the tail wheel locking mechanism, and lubricate sparingly with Bryco dry graph lube.

MAINPLANE

- PL 1 Mainplane skin; visual.
- PL 2 De-icer boots; visual (Ref. EO 05-1-2AA).
- PL 3 Flaps; visual. Ensure correct alignment of the flap trailing edge with the flap fillet at the inboard aft end of the flap.
- PL 4 Ailerons and trim tabs; visual. Ensure the angle for fixed tabs does not exceed 20°.
- PL 5 Engine nacelle fairings, all inspection plates and doors; visual.
- PL 6 Cabin heating system flexible hose particularly where it passes through ribs or near sharp metal objects; visual.

GENERAL

- GE 1 Ensure that all loose articles are properly stowed; visual.
- GE 2 All panel fasteners; visual. Ensure that they coincide with the witness marks when in the secured position.
- GE 3 Clean aircraft.

SECTION 2

AERO ENGINE TECHNICIAN

PRIMARY INSPECTION

NOTE

The engine cowlings are to be removed to accomplish the Primary Inspection. Read and adhere to the instructions on pages i and ii of this schedule.

PROPELLER

- PR 1 Propeller; visual.
- PR 2 Anti-icer slinger ring, nozzles and feed lines; visual.
- PR 3 Propeller feathering oil system; visual.

COCKPIT AND CABIN

- CO 1 Ignition switches; visual and functional. Ensure switches are in the OFF position.
- CO 2 Ensure mixture control levers are in the idle cut-off position.
- CO 3 Priming pump; visual and functional.
- CO 4 Throttle and mixture controls; visual and functional.
- CO 5 Propeller constant speed control; visual and functional.
- CO 6 Carburettor hot and cold air intake shutter controls; visual and functional.
- CO 7 Oil cooler shutter controls; visual and functional.
- CO 8 Fuel contents gauge; visual and functional, by operating switch.
- CO 9 Oil by-pass controls; visual and functional.
- CO 10 Cross feed and fuel selector valves; visual and functional.
- CO 11 Cowl gill flaps and controls; visual and functional.
- CO 12 Cockpit and cabin heat controls; visual and functional.
- CO 13 Anti-icing system; visual and functional. Ensure fluid flow at the propellers.
- CO 14 Oil shut-off control, visual and functional. (Replace safety wire, using wire Specification QQ-W-343, NSN 6145-21-808-0683).

POWER PLANT

- PP 1 Engines; visual. Particularly at the cylinder base flanges.
- PP 2 Spark plugs and cylinder joints; visual.
- PP 3 Visible HT leads and spark plug connections; visual.
- PP 4 Engine flexible controls at the firewall and engine; visual.
- PP 5 Fuel and oil system pipe lines and unions; visual.
- PP 6 Engine rear casing and accessories; visual.
- PP 7 Exhaust and cabin heating system particularly at welded joints; visual.
- PP 8 Carburettor and oil cooler intakes free from obstruction and foreign objects.
- PP 9 Engines and nacelle panels; visual. Ensure that the front of the crankcase vent line protrudes three-eighths to one-half inch beyond the cowling and that the bevel faces aft.
- PP 10 Oil tank filler caps; visual. Replenish the oil tanks.
- PP 11 Drain a small amount of fuel from each fuel filter to ensure extraction of water and/or sediment.
- PP 12 Engine nose section at thrust nut; visual.

MAINPLANES

- PL 1 Fuel and oil system pipe lines and unions; visual.
- PL 2 Fuel tank filler caps, visual. Replenish fuel tanks.
- PL 3 Drain a small amount of fuel from the sump of each fuel tank to ensure the extraction of any water and/or sediment.

GENERAL

- GE 1 Remove any dirt or surplus oil.
- GE 2 Ensure that no tools or rags are left lying on the engines.
- GE 3 Cowlings and fasteners; visual. Ensure that they coincide with the witness marks when in the secured position.

SECTION 3

INSTRUMENT TECHNICIAN

PRIMARY INSPECTION

NOTE

See that all electrical switches are in the "OFF" or "NORMAL" position. Read and adhere to the instructions on Pages i and ii of this schedule.

COCKPIT AND CABIN

- CO 1 Wind the clock and set it to the correct time.
- CO 2 Check the zero setting of the rate of climb indicators.
- CO 3 Check and adjust the altimeter setting. Ensure that altimeters indicate aerodrome height when the corrected barometric pressure (altimeter setting QNH) is set on the subsidiary scale. (This includes the altimeter on the navigator's instrument panel).
- CO 4 Stand-by compass for bubbles and discolouration of liquid; visual.
- CO 5 Compass deviation cards; visual.
- CO 6 Manifold pressure gauges read approximately the barometric pressure of the day.
- CO 7 Gyro instruments caged properly and leave in the caged position.
- CO 8 Cylinder head temperature reading against the temperature of the day.
- CO 9 With the master switch "ON" check the reading and operation of all electrical temperature gauges. Ensure that the thermometer, direct acting, free air reads the temperature of the day.
- CO 10 Electrical gyro horizon, turn and slip indicators and the gyro quick erection system; visual and functional.

CAUTION

Gyro should not be running during opening or closing of instrument panel.

- CO 11 Fuel contents gauge; visual and functional.
- CO 12 Flap position and elevator trim tab indicators; visual and functional.
- CO 13 Check gyrosyn compass for slaving operation of annunciator, synchronization of G4B indicator and repeaters in API and second navigator's position.

COCKPIT AND CABIN (Cont'd)

- CO 14 Heating elements of the pitot heads; functional. The pitot heat is to be left on for as short a time as possible.
- CO 15 De-icer tank gauge for correct reading.
- CO 16 Instrument panel; visual. Shock mounting for resiliency.
- CO 17 Instruments; visual. Clean the glasses.
- CO 18 Navigator's instrument panel and instruments; visual, clean the glasses. Shock mounting for resiliency. Air position indicator and air mileage unit; functional.
- CO 19 B3 driftmeter and mount; visual.
- CO 20 B5 drift recorder and mount; visual.
- CO 21 Sextant suspension and astro compass bracket; visual.
- CO 22 Check all instrument range and creep markings for correct location and application, Ref. EO 20-1-2A.

FUSELAGE

- FU 23 Pitot head and mast; visual.
- FU 24 Outside air temperature bulbs; visual.
- FU 25 Static vent holes; visual.
- FU 26 Pitot head covers to be internally inspected for loose threads, dirt, etc.

SECTION 4

ELECTRICAL TECHNICIAN

PRIMARY INSPECTION

NOTE

See that all electrical switches are in the "OFF" or "NORMAL" position. Read and adhere to the instructions on pages i and ii of this schedule.

COCKPIT

- CO 1 All navigation, landing and general lighting circuits; visual; and functional.
- CO 2 Inverter failure and fuel warning lights; visual and functional. Remaining warning lights visual and functional on press-to-test only.
- CO 3 Switches, circuit breakers and lamps; visual.
- CO 4 Ammeters and electrical lead-ins; visual.
- CO 5 All rheostat knobs; visual.

MAINPLANES

- PL 1 Check batteries in accordance with EO 40-5A-2, Part 6.
- PL 2 Test battery voltage on load (minimum 22 volts).

NOTE

Frequency of servicing as per EO 40-5A-2, Part 6, will depend on temperature and operating conditions and is to be at the discretion of unit CTSO.

UNDERCARRIAGE

- UC 1 Ensure undercarriage limit switches and actuators are clean and dry.

SECTION 5

COMMUNICATIONS AND RADAR TECHNICIANS (AIR)

PRIMARY INSPECTION

NOTE

Under no circumstances are telecom equipments to be operated during refuelling or immediately thereafter. Upon completion of inspection ensure that all switches are in the OFF position. Read and adhere to the instructions on pages i and ii of this schedule.

ANTENNAE

ANT 1 All antennae; visual.

ANT 2 Static wick discharges; visual. Ref. EO 35AC-1ASA3-2.

COCKPIT CABIN AND FUSELAGE

CO 1 All installed telecom equipment, interconnecting wiring, tuning knobs, etc; visual.

CO 2 Spare fuses and lamps; visual. Ensure correct value.

CO 3 Using external power (or with engines running) carry out a functional check on the following equipment checking the points indicated.

VHF

- (a) Noise level.
- (b) Strength, readability and sensitivity.
- (c) Muting action.
- (d) Proper function of all controls.

UHF

- (a) Noise level.
- (b) Strength, readability and sensitivity.
- (c) Muting action.
- (d) Proper function of all controls.

COCKPIT CABIN AND FUSELAGE (Cont'd)

COMMAND

- (a) Noise level.
- (b) Strength, readability and sensitivity.
- (c) Proper adjustment of tuning and alignment controls.
- (d) All controls; functional.
- (e) Smooth operation of flexible tuning drives.

RADIO COMPASS

- (a) Noise level on all bands
- (b) Smooth operation of flexible tuning drives.
- (c) Strength, readability, sensitivity and homing on each band
- (d) Check all modes of operation.
- (e) Change over relay.
- (f) Lighting.
- (g) Smooth operation of indicator.
- (h) Repeat (a) to (g) for rear control if installed.

INTERCOM

- (a) Strength and readability.
- (b) Noise level.
- (c) All controls; functional.
- (d) Headsets and microphones; functional.
- (e) Press to talk switches; functional.
- (f) Both sides of isolation amplifier; functional.
- (g) Both speakers; functional.

COCKPIT CABIN AND FUSELAGE (Cont'd)

ILS

Using test sets - I - 173A and TS-170/ARN:

- (a) Aural reception.
- (b) Visual indication.
- (c) Flag alarm.
- (d) Lighting.
- (e) All controls; functional.

MARKER BEACON RECEIVER

- (a) Test the receiver using test set 24.
- (b) Check illumination of lights.

IFF

- (a) Check all modes using UPM-8 test set and Radome MX1342.

TACAN

- (a) Check using TS 5028/ARM 501.

CO 4 Ensure that all frequency cards are correct, legible, and free from damage.

SECTION 6

SAFETY EQUIPMENT TECHNICIAN

PRIMARY INSPECTION

NOTE

Read and adhere to the instructions on pages i and ii of this schedule.

COCKPIT AND CABIN

- CO 1 Parachute stowage; visual.
- CO 2 Emergency equipment containers; visual. Ensure seals are intact.
- CO 3 Emergency equipment properly stowed.
- CO 4 All safety harnesses; visual and functional.
- CO 5 First Aid Kit; visual.
- CO 6 Engine fire extinguisher selector; visual and functional.
- CO 7 Engine fire extinguisher discharge indicator, and the witness wire (lead sealed) on the pull operating handle for safety; visual.
- CO 8 Engine fire extinguisher blow out discs on the lower forward side of fuselage; visual.
- CO 9 Forced landing and emergency instructions; visual.
- CO 10 Portable fire extinguisher; visual.
- CO 11 Portable fire extinguishers, lead seals; visual.

GENERAL

- GE 1 Crash axe; visual.

SECTION 8A

MUNITIONS AND WEAPONS TECHNICIAN

PRIMARY INSPECTION

- 1 Check the Aircraft Maintenance Record Forms L14-1, L14-1A and L14-1B.

COCKPIT AND CABIN

- 2 Ensure that the signal pistol is unloaded, clean, serviceable and secure; lubricate as necessary, refer to EO 30-65ED-2, Section 4, Group "A", paras. 3 to 6.
- 3 Check the signal cartridges supply and replenish as necessary with appropriate type and colour.
- 4 Check the stowage of the pistol and cartridges for damage and security.

GENERAL

- 5 Make the necessary entries and sign the Aircraft Maintenance Record Form L14-1.

