17 Nov 92

Mr. Gene Ori
Office of the Secretary
Office of Aircraft Services
United States Department of the Interior

Dear Mr. Ori,

1. Find attached the hard core tasks which we at WR-ALC feel are required to maintain airworthiness on our C-130 aircraft. Note the aircraft application for each task is annotated following each task number. Those indicating C-130A only or all C-130 aircraft should be accomplished on C-130A aircraft. Those indicating any other Mission Design Series C-130 aircraft should be omitted from a C-130A maintenance program.

2. If we can be of further assistance, please let us know.

3. Point of contact for Program Depot Maintenance (PDM) at WR-ALC is Hugh Nelson, WR-ALC/LBLRT, DSN [redacted]

[redacted]
Hugh Nelson
C-130 Aircraft Equipment Specialist

OPTIONAL FORM 99 (7-90)
FAX TRANSMITTAL
# of pages ▶ 9
To Larry Brosius
Dept./Agency
Fax #
From Hugh Nelson
Phone #
Fax #
NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

92 NOV 23 P1:55

1. 1B1: C-130A AIRCRAFT ONLY. LOWER OUTER WING RISERS, PER T.O. 1C-130A-36, INSPECTION OW-11. VISUAL INSPECTION OF OUTER WING DRY BAYS FOR PREVIOUS REPAIRS.

JUSTIFICATION: AC-130A DADTA INDICATES THIS AS A FATIGUE SENSITIVE AREA. AIRCRAFT AGE, FLIGHT HOURS, AND MISSION PROFILE (LOW LEVEL) DICTATE THAT THIS INSPECTION CONTINUE SO THAT THE STRUCTURAL INTEGRITY OF THE AIRCRAFT CAN BE MAINTAINED. INSPECTION AND REPAIR OF THIS AREA IS BEYOND FIELD LEVEL CAPABILITIES. THE CURRENT PDM INTERVAL FOR THESE AIRCRAFT IS 36 MONTHS. THIS IS APPROXIMATELY TO THE RECOMMENDED INSPECTION INTERVAL. THE CONTINUED INSPECTION OF OUTER AND CENTER WING AREAS IDENTIFIED IN THE C-130A DADTA AS FATIGUE SENSITIVE AREAS IS NECESSARY TO ENSURE THE STRUCTURAL INTEGRITY OF THE AIRCRAFT.

(2) 1B2: C-130A ONLY. OUTER WING CENTROID RISERS PADS AND RISERS PER T.O. 1C-130A-36, INSPECTION OW-22.

JUSTIFICATION: PREVIOUS PDM FINDINGS DICTATE THAT THIS INSPECTION CONTINUE SO THAT THE STRUCTURAL INTEGRITY OF THE AIRCRAFT CAN BE MAINTAINED. REPAIR OF THIS AREA IS BEYOND FIELD LEVEL CAPABILITY. THE CONTINUED INSPECTION OF OUTER AND CENTER WING AREAS IDENTIFIED IN THE C-130A DADTA AS FATIGUE SENSITIVE AREAS IS NECESSARY TO ENSURE THE STRUCTURAL INTEGRITY OF THE AIRCRAFT.

3. 1B3: ALL C-130 AIRCRAFT EXCEPT C-130B'S. OUTER WING EXTERNAL FUEL TANK PYLONS AND PYLON FITTINGS PER T.O. 1C-130A-36, INSPECTIONS OW-19 AND OW-20. VISUAL INSPECTION ALSO PERFORMED.

JUSTIFICATION: BECAUSE OF THE REQUIREMENT TO REMOVE THE PYLONS AND TANKS ON ALL PDM AIRCRAFT FOR ONE REASON OR ANOTHER (I.E., PAINT/DEPAINT OR FOAM REPLACEMENT), THEY ARE INSPECTED FOR DEFECTS WHILE THE AREA IS ACCESSIBLE. DEFECTS FOUND DURING PDM AND THE C-130 DADTA DICTATE THAT THIS INSPECTION MUST CONTINUE. DEFECTS FOUND ON OLDER C-130 AIRCRAFT DICTATE THAT THIS INSPECTION BE ACCOMPLISHED ON C-130H (78-0805 AND SUBSEQUENT) AIRCRAFT.

(4) 1B4: C-130A ONLY. VISUAL INSPECTION OF OUTER WING DRY BAY ACCESS DOORS AND ACCESS DOOR FLANGES.

JUSTIFICATION: PREVIOUS PDM FINDINGS DICTATE THAT THIS INSPECTION CONTINUE SO THAT THE STRUCTURAL INTEGRITY OF THE AIRCRAFT CAN BE MAINTAINED. REPAIR OF THIS AREA IS BEYOND FIELD LEVEL CAPABILITY. THE CONTINUED INSPECTION OF OUTER AND CENTER WING AREAS IDENTIFIED IN THE C-130A DADTA AS FATIGUE SENSITIVE AREAS IS NECESSARY TO ENSURE THE STRUCTURAL INTEGRITY OF THE AIRCRAFT.

(5) 1B5: ALL C-130 AIRCRAFT. WING TRAILING EDGES. VISUAL INSPECTION OF WING TRAILING EDGE SKIN PANELS AND PANS.

JUSTIFICATION: TRAILING EDGE PANELS ARE SUBJECTED TO SEVERE ACOUSTIC, HEAT, AERODYNAMIC, AND VIBRATION LOADS. THESE LOADS CAUSE FATIGUE CRACKS AND HELP SPEED UP CORROSION. THE EXTENT OF REPAIRS REQUIRED EVERY PDM IN THIS AREA IS BEYOND FIELD LEVEL CAPABILITIES. TO MAINTAIN THE AERODYNAMIC PERFORMANCE OF THE AIRCRAFT THIS INSPECTION MUST CONTINUE. DEFECTS FOUND ON OLDER C-130 AIRCRAFT DICTATE THAT THIS INSPECTION BE ACCOMPLISHED ON C-130H (78-0805 AND SUBSEQUENT) AIRCRAFT.

(6) 1B6: ALL C-130 AIRCRAFT. COMPLETE AND THROUGH INSPECTION OF FUEL SYSTEM COMPONENTS AND VISUAL INSPECTION OF OUTER WING INTEGRAL FUEL TANKS (C-130A ONLY)

FOR CORROSION AND LEAKS.

JUSTIFICATION: ON OLDER WINGS THIS INSPECTION IS REQUIRED TO REPAIR FUEL LEAKS AND FUEL SYSTEM DEFECTS THAT REQUIRE ENTRY INTO FUEL TANKS AND ARE REQUIRED TO ENSURE THE INTEGRITY OF THE INTEGRAL FUEL TANKS. ON THE NEWER WINGS FUEL FOAM IS BEING REPLACED AND INSPECTION OF BELL TANKS AND THE FUEL SYSTEM IS REQUIRED TO ENSURE IT IS OPERATIONAL WITHIN T.O. LIMITS AND THAT NO DAMAGE HAS OCCURRED DURING FOAM REPLACEMENT. DEFECTS FOUND ON OLDER C-130 AIRCRAFT DICTATE THAT THIS INSPECTION BE ACCOMPLISHED ON C-130H (78-0805 AND SUBSEQUENT) AIRCRAFT.

7. 1B7: ALL C-130 AIRCRAFT. REMOVE CARGO ALL CARGO FLOOR PANELS AND VISUALLY INSPECT CARGO FLOOR PANELS, CHINE PLATES, AND UNDER FLOOR STRUCTURE FS245-737.

JUSTIFICATION: THIS INSPECTION REQUIRES THE SHORING OF THE AIRCRAFT AND REMOVAL OF ALL FLOORBOARDS, WHICH IS NOT DONE IN THE FIELD BECAUSE OF THE TIME INVOLVED IN ACCESSING THE AREA AND THEN IN CORRECTING DEFECTS. EXPERIENCE HAS SHOWN THIS AREA TO BE PRONE TO CORROSION AND THE PROBLEM INCREASES AS THE PLANE AGES. TO ENSURE THE STRUCTURAL INTEGRITY OF THE AIRCRAFT HIS INSPECTION MUST CONTINUE. DEFECTS FOUND ON OLDER C-130 AIRCRAFT AND ACI RESULTS FROM C-130H (78-0805 AND SUBSEQUENT) ACFT DICTATE THAT THIS INSPECTION BE ACCOMPLISHED ON C-130H (78-0805 AND SUBSEQUENT) AIRCRAFT.

8. 1B8: ALL C-130 AIRCRAFT. DETAILED VISUAL INSPECTION OF FLIGHT DECK FLOOR, FLIGHT DECK CHINE PLATES, BREAKER PANELS, AND JUNCTION BOXES.

JUSTIFICATION: REMOVAL OF COMPONENTS IS NECESSARY TO PERFORM THOROUGH INSPECTION OF CHINE PLATE. IN THE FIELD THE CHINE PLATE IS ONLY INSPECTED IF DETERIORATED FLOOR BOARDS ARE FOUND AND THEN IT IS ONLY A PARTIAL INSPECTION OF THE EASILY ACCESSIBLE AREAS. THIS INSPECTION IS REQUIRED TO ENSURE THE STRUCTURAL INTEGRITY OF THE AIRCRAFT AND PREVIOUS PDM FINDINGS ALSO DICTATE THAT THE INSPECTION CONTINUE. THE INSPECTION AND REPAIR OF THIS AREA IS VERY TIME CONSUMING AND BEYOND FIELD LEVEL CAPABILITIES. AREA IS PRONE TO CORROSION DUE TO ITS LOCATION. DEFECTS FOUND ON OLDER C-130 AIRCRAFT DICTATE THAT THIS INSPECTION BE ACCOMPLISHED ON C-130H (78-0805 AND SUBSEQUENT) AIRCRAFT.

9. 1B9: ALL C-130 AIRCRAFT. VISUAL INSPECTION OF ALL EXTERIOR SKIN PANELS.

JUSTIFICATION: AREA CAN BE MORE THOROUGHLY INSPECTED AT PDM WHILE AIRCRAFT IS DEPAINTED. PREVIOUS PDM FINDINGS AND MAINTAINING AIRCRAFT STRUCTURAL INTEGRITY DICTATE THAT THIS INSPECTION CONTINUE. THE TIME AND SKILLS REQUIRED TO PERFORM THE INSPECTION, TO CORRECT DEFECTS, AND TO DEPAINT/PAINT THE ENTIRE AIRCRAFT IS BEYOND FIELD LEVEL CAPABILITIES. DEFECTS FOUND ON OLDER C-130 AIRCRAFT DICTATE THAT THIS INSPECTION BE ACCOMPLISHED ON C-130H (78-0805 AND SUBSEQUENT) AIRCRAFT.

10. 1B10: ALL C-130 AIRCRAFT. REMOVAL OF FS 737-800 FUSELAGE SIDE SKIN PANELS, DEPAINT OF AREA AND VISUAL INSPECTION OF URINAL AREA.

JUSTIFICATION: THIS AREA IS HIGHLY SUSCEPTIBLE TO CORROSION DUE TO ITS LOCATION. AIRCRAFT PRIOR TO 83-0486 HAVE URINALS THAT DRAIN OUTSIDE THE AIRCRAFT. THESE DRAIN LINES HAVE A TENANCY TO LEAK AND URINE IS SPLASHED ONTO THE AIRCRAFT STRUCTURE IN THIS AREA. THIS AREA IS ALSO INSPECTED IN THE FIELD BUT NOT AS THOROUGHLY AS IN DEPOT. A LOT OF DISASSEMBLY OCCURS AT DEPOT IN ORDER TO INSPECT THIS AREA THOROUGHLY. PREVIOUS PDM FINDING DICTATE THAT THIS INSPECTION MUST BE PERFORM TO ENSURE THE STRUCTURAL INTEGRITY OF THE AIRCRAFT. THE MAGNITUDE OF THE

INSPECTION AND REAPER OF THIS AREA IS BEYOND FIELD CAPABILITIES. DEFECTS FOUND ON OLDER C-130 AIRCRAFT DICTATE THAT THIS INSPECTION BE ACCOMPLISHED ON C-130H (78-0805 THRU 82-0045) AIRCRAFT. AIRCRAFT 83-0046 AND SUBSEQUENT HAVE SELF CONTAINED URINALS AND FLUSH TOILETS AND WILL BE INSPECTED IN THIS AREA AS AN ACI TASK.

11. 1B11: ALL C-130 AIRCRAFT. VISUAL INSPECTION OF FS 737 LOWER LONGERON END FITTING.

JUSTIFICATION: THIS AREA IS HIGHLY SUSCEPTIBLE TO CORROSION DUE TO ITS LOCATION. AIRCRAFT PRIOR TO 83-0486 HAVE URINALS THAT DRAIN OUTSIDE THE AIRCRAFT. THESE DRAIN LINES HAVE A TENANCY TO LEAK AND URINE IS SPLASHED ONTO THE AIRCRAFT STRUCTURE IN THIS AREA. THIS AREA IS ALSO INSPECTED IN THE FIELD BUT NOT AS THOROUGHLY AS IN DEPOT. A LOT OF DISASSEMBLY OCCURS AT DEPOT IN ORDER TO INSPECT THIS AREA THOROUGHLY. PREVIOUS PDM FINDING DICTATE THAT THIS INSPECTION MUST BE PERFORM TO ENSURE THE STRUCTURAL INTEGRITY OF THE AIRCRAFT. THE MAGNITUDE OF THE INSPECTION AND REPAIR OF THIS AREA IS BEYOND FIELD CAPABILITIES. DEFECTS FOUND ON OLDER C-130 AIRCRAFT DICTATE THAT THIS INSPECTION BE ACCOMPLISHED ON C-130H (78-0805 AND SUBSEQUENT) AIRCRAFT.

(12) 1B12: ALL C-130 AIRCRAFT. VISUAL INSPECTION OF FS 1041 LOWER LONGERON END FITTING.

JUSTIFICATION: THIS AREA IS ALSO INSPECTED IN THE FIELD BUT NOT AS THOROUGHLY AS IN DEPOT. A LOT OF DISASSEMBLY OCCURS AT DEPOT IN ORDER TO INSPECT THIS AREA THOROUGHLY. PREVIOUS PDM FINDING DICTATE THAT THIS INSPECTION MUST BE PERFORM TO ENSURE THE STRUCTURAL INTEGRITY OF THE AIRCRAFT. THE MAGNITUDE OF THE INSPECTION AND REPAIR OF THIS AREA IS BEYOND FIELD CAPABILITIES.

(13) 1B13: ALL C-130 AIRCRAFT. INSPECT HORIZONTAL STABILIZER ATTACH FITTINGS PER T.O. 1C-130A-36, INSPECTION F-34.

JUSTIFICATION: THIS AREA IS ALSO INSPECTED IN THE FIELD BUT NOT AS THOROUGHLY AS IN DEPOT. A LOT OF DISASSEMBLY OCCURS AT DEPOT IN ORDER TO INSPECT THIS AREA THOROUGHLY. PREVIOUS PDM FINDING DICTATE THAT THIS INSPECTION MUST BE PERFORM TO ENSURE THE STRUCTURAL INTEGRITY OF THE AIRCRAFT. THE MAGNITUDE OF THE INSPECTION AND REPAIR OF THIS AREA IS BEYOND FIELD CAPABILITIES.

(14) 1B14: ALL C-130 AIRCRAFT. REMOVAL OF ALL FLIGHT CONTROLS, VISUAL INSPECTION OF ALL COMPONENTS, AND RERIGGING OF FLIGHT CONTROLS.

JUSTIFICATION: THIS AREA IS ALSO INSPECTED IN THE FIELD BUT NOT AS THOROUGHLY AS IN DEPOT. A LOT OF DISASSEMBLY OCCURS AT DEPOT IN ORDER TO INSPECT THIS AREA THOROUGHLY AND TO PAINT AND WEIGH AND BALANCE THE FLIGHT CONTROLS. PREVIOUS PDM FINDING DICTATE THAT THIS INSPECTION MUST BE PERFORM TO ENSURE THE STRUCTURAL INTEGRITY OF THE AIRCRAFT. THE MAGNITUDE OF THE INSPECTION AND REPAIR OF THIS AREA IS BEYOND FIELD CAPABILITIES. DEFECTS FOUND ON OLDER C-130 AIRCRAFT DICTATE THAT THIS INSPECTION BE ACCOMPLISHED ON C-130H (78-0805 AND SUBSEQUENT) AIRCRAFT.

15. 1B17: C-130A ONLY. INSPECTION OF CENTER WING BOX BEAM PER T.O. 1C-130A-36, INSPECTIONS CW-1, CW-5, AND CW-8.

JUSTIFICATION: AC-130A DADTA INDICATES THIS AS A FATIGUE SENSITIVE AREA. AIRCRAFT AGE, FLIGHT HOURS, AND MISSION PROFILE (LOW LEVEL FOR AC-130A AIRCRAFT)

25. 1B30: C-130A ONLY. INSPECT OUTER WING PANELS PER T.O. 1C-130A-36, INSPECTIONS OW-32, OW-37, OW-38, AND OW-38A.

JUSTIFICATION: PREVIOUS PDM FINDINGS, AIRCRAFT AGE, FLIGHT HOURS, AND MISSION PROFILE (LOW LEVEL FOR AC-130A AIRCRAFT) DICTATE THAT THIS INSPECTION CONTINUE SO THAT THE STRUCTURAL INTEGRITY OF THE AIRCRAFT CAN BE MAINTAINED. INSPECTION AND REPAIR OF THIS AREA IS BEYOND FIELD LEVEL CAPABILITIES.

(26) 1B31: ALL C-130 AIRCRAFT. INSPECT MAIN LANDING GEAR (MLG) SHELF BRACKETS AND MLG BEAMS PER T.O. 1C-130A-36, INSPECTION F-21. INSPECT MLG TRACKS FOR WEAR.

JUSTIFICATION: PDM FINDINGS DICTATE THAT THIS INSPECTION CONTINUE. THE MAGNITUDE OF THE TASK REQUIRES THAT IT BE ACCOMPLISHED AT PDM. DEFECTS FOUND ON OLDER C-130 AIRCRAFT DICTATE THAT THIS INSPECTION BE ACCOMPLISHED ON C-130H (78-0805 AND SUBSEQUENT) AIRCRAFT.

27. 1B32: C-130A ONLY. INSPECT CENTER WING PANELS PER T.O. 1C-130A-36, INSPECTIONS CW-9 AND CW-21. VISUALLY INSPECT CENTER WING FORWARD AND REAR SPAR ASSEMBLIES, CWS 220 LEFT TO CWS 220 RIGHT.

JUSTIFICATION: PREVIOUS PDM FINDINGS, AIRCRAFT AGE, FLIGHT HOURS, AND MISSION PROFILE (LOW LEVEL FOR AC-130A AIRCRAFT) DICTATE THAT THIS INSPECTION CONTINUE SO THAT THE STRUCTURAL INTEGRITY OF THE AIRCRAFT CAN BE MAINTAINED. INSPECTION AND REPAIR OF THIS AREA IS BEYOND FIELD LEVEL CAPABILITIES. THE CONTINUED INSPECTION OF OUTER AND CENTER WING AREAS IDENTIFIED IN THE C-130A DADTA AS FATIGUE SENSITIVE AREAS IS NECESSARY TO ENSURE THE STRUCTURAL INTEGRITY OF THE AIRCRAFT

28. 1B34: N/A TO C-130A AIRCRAFT. APPLICABLE TO SPECIFIC C-130 AIRCRAFT LISTED IN T.O. 1C-130-1274. INSPECT CENTER WING FORWARD AND REAR SPAR ASSEMBLIES PER T.O. 1C-130A-36, INSPECTION CW-22. REMOVE UPPER WING TO FUSELAGE FAIRINGS FS 477-517 AND 597-617. VISUALLY INSPECT FWD AND AFT SPAR ASSEMBLIES FROM CWS 84 LEFT TO CWS 84 RIGHT.

JUSTIFICATION: THESE AIRCRAFT HAVE CENTER WING STRUCTURE MADE OF, TO VARYING DEGREES, 7075-T6 AL AND WERE PART OF THE LAST CENTER WING REPLACEMENT PROGRAM FOR C-130 AIRCRAFT. WE HAVE BEEN INSPECTING FROM CWS 84 TO 220 LEFT AND RIGHT, MADE ACCESSIBLE BY REMOVAL OF CENTER WING LEADING EDGES, FOR MANY YEARS AND HAVE FOUND CORROSION. IN FY 92 AIRCRAFT 64-0514 THE WING TO FUSELAGE FAIRINGS WERE REMOVED FROM CWS 84L TO 84R. SEVERE CORROSION WAS FOUND ON BOTH THE FORWARD AND REAR CENTER WING SPAR ASSEMBLIES. THE ADDITIONAL INSPECTION BETWEEN CWS 84L AND 84R IS REQUIRED TO ENSURE THE STRUCTURAL INTEGRITY OF THE AIRCRAFT. PDM FINDINGS AND DADTA DICTATE THAT THE INSPECTION CONTINUE. THE MAGNITUDE OF THE TASK IS BEYOND FIELD LEVEL CAPABILITIES.

29. 1B35: C-130A ONLY. INSPECT OUTER WING DIAGONAL BRACES PER T.O. 1C-130A-36, INSPECTION OW-36.

JUSTIFICATION: THESE ARE THE OLDEST OUTER WINGS IN THE C-130 FLEET. THEIR AGE, FLIGHT HOURS, MISSION PROFILE (LOW LEVEL FOR AC-130A AIRCRAFT), AND PAST PDM FINDINGS DICTATE THAT THIS INSPECTION CONTINUE. THE MAGNITUDE OF THE INSPECTION IS BEYOND FIELD LEVEL CAPABILITIES.

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS WARNER ROBINS AIR LOGISTICS CENTER (AFMC)

FROM: WR-ALC/LB
265 Ocmulgee Ct
Robins AFB GA 30198-1647

20 MAY 1993

SUBJ: C-130A Aircraft Inspections to Assure Airworthiness

TO: Mr Thomas C. Accardi
Director of Flight Standard Service
Federal Aviation Administration
800 Independence Ave SW
Washington DC 20591

1. The USAF has developed, over the past 35 years of operation of the C-130A, an integrated maintenance plan to assure the continued airworthiness of the aircraft. These inspection tasks are shown in the table listed below:

TASK	INTERVAL
FIELD - PREFLIGHT	BEFORE FIRST FLIGHT OF THE DAY
FIELD - TRUFLIGHT PART I	BETWEEN FLIGHTS
FIELD - TRUFLIGHT PART II	AFTER LAST FLIGHT OF FLYING PERIOD
FIELD - HOME STATION CHECK	NOT TO EXCEED 180 CALENDAR DAYS
FIELD - ISOCHRONAL	360 DAYS
FIELD - SPECIAL INSPECTIONS	BASED ON FLYING HRS AND SPECIFIC COND
DEPOT - PDM	42 MONTHS

2. The above maintenance and inspection tasks provide a complete spectrum of inspections of critical areas. The C-130A is currently using the Isochronal for accomplishing the scheduled maintenance inspections, servicing systems, and small structural repairs. The Programmed Depot Maintenance (PDM) covers those areas that must be accomplished at depot due to equipment, skills, special tools/fixtures, and facilities. PDM interval on a C-130A is 42 months +/- 3 months.

3. The PDM inspection is the inspection that opens the aircraft up; the indepth structural inspection for corrosion fatigue cracks, stress corrosion cracks, etc. Failure to accomplish the PDM part of the USAF maintenance plan for the C-130A will result in a unairworthy aircraft.

4. We strongly recommend that those C-130A aircraft that are operated in civilian use, under the rules and regulations of the FAA, be required to accomplish the entire C-130A maintenance plan, which includes PDM, to assure the continued airworthiness of the aircraft.

5. Point of contact is Jim Peale, WR-ALC/LBE, Commercial [redacted].

[redacted]

STANLEY T. BISHOP
Colonel, USAF
C-130 System Program Director