ATTACHMENT 28

AIRWORTHINESS GROUP CHAIRMAN'S FACTUAL REPORT

LAX-02-GA-201

4-140. INSPECTION CW 21, CENTER WING LOWER SKIN PANEL LAP JOINTS, CWS 220 TO 220 L/R. (See figures 4-20 and 4-21.)

4-141. INSPECTION EQUIPMENT.

EQUIPMENT OR MATERIAL	MODEL OR TYPE	MANUFACTURER	VENDOR CODE
Eddy Current Inspection Unit	*ED-520	Magnaflux	37676
Probe, General Purpose, 1/8" Diameter	*P/N 6100-1/8-S-BNC	Ideal Specialties	23910
Probe, Shielded-High Sensitivity Pencil	VM200	VM Products	
90 Degree, Shielded-High Sensitivity	VM202A	VM Products	
Probe, Right Angle 1/8" Diameter	*P/N 6100-1/8-RA-BNC	Ideal Specialties	23910
Test Block Aluminum	Furnished with Eddy Current Unit		
*Or equivalent			

4-142. PREPARATION OF AIRCRAFT PRIOR TO INSPECTION.

a. Refer to Section II of this manual and TO 33B-1-1 for safety precautions to be observed during nondestructive inspection.

b. Remove aft nacelle fairing.

c. Clean areas along fasteners on skin lap joints for eddy current inspection.

4-143. INSPECTION PROCEDURE.

a. Calibration. Refer to Section II of this manual for calibration procedure of the ED-520 instrument with a surface probe. Check calibration for proper sensitivity using the standard calibration block. A minimum of 150 meter units should be obtained when passing over the slot.

b. Inspection No. 1.

(1) With meter properly calibrated, place probe on skin exterior and set meter at approximately 350 units.

(2) Move probe to edge of fastener and scan around the fastener. If the VM 100PSS probe is used, less constant edge distance is required as when using the 1/8 inch probe.

(3) Scan around all fasteners in the skin lap areas including skin to spar cap. Fastener pattern and number of panels vary on different serial number aircraft. (See figure 4-20, item 1.)

(4) Scan along edge of skin panels at lap joints.

(5) Any meter deflection 150 meter units or higher shall be considered a crack.

(6) Mark and report all cracks.

c. Inspection No. 2. (To be performed only if doubler exists)

(1) If doubler exists scan around the edges of doubler for cracks emanating in covered wing panel. (See figure 4-21, item 2.)

(2) If crack emanating beneath the doubler is found, gain access to the dry bay area and eddy current inspect (with shielded or regular 1/8 inch probe) the panel and stringers in suspected areas for cracks.

(3) Mark and report all cracks.

4-144. BACK-UP NDI PROCEDURE.

a. Any defect indication found by eddy current inspection may be confirmed with optical magnification (10X glass) or by fluorescent penetrant. Use the penetrant method if defect is not obvious using the optical method. If using fluorescent penetrant, use Type I, Group VII, Method C technique in accordance with TO 33B-1-1 with a minimum penetrant dwell time of 30 minutes. Paint removal is required for localized area for either of the confirmatory inspections.

b. Mark all defects found.

4-145. ACCEPTANCE REJECTION CRITERIA.

a. Any cracks exceeding repair limitations in TO 1C-130A-3 require prime ALC engineering disposition.

b. Repair cracks per TO 1C-130A-3.

4-146. RESTORATION OF AIRCRAFT.

a. Replace all finishes removed for inspection per TO 1C-130A-23.

b. Replace engine nacelle fairing.

c. Perform safety checks as required.

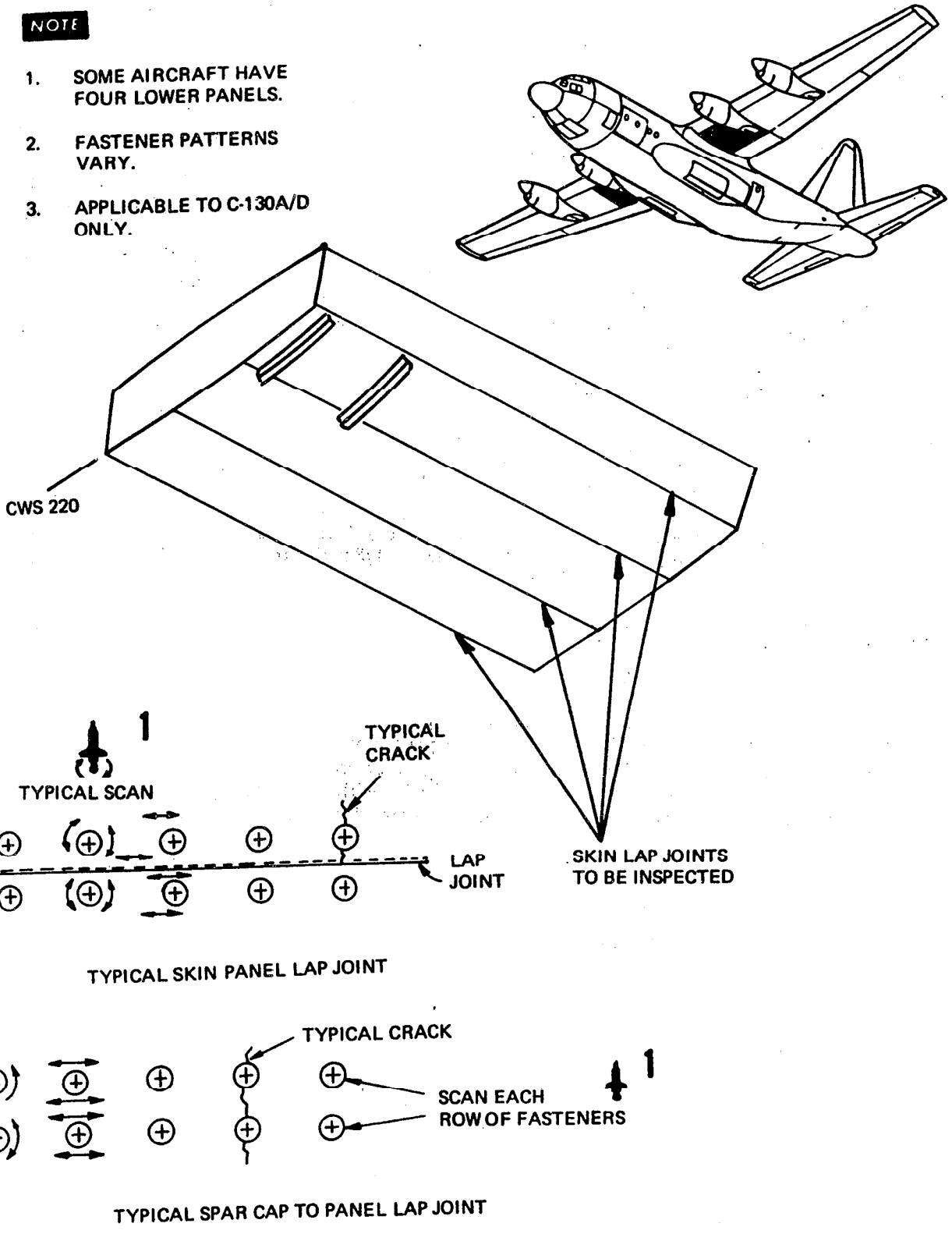
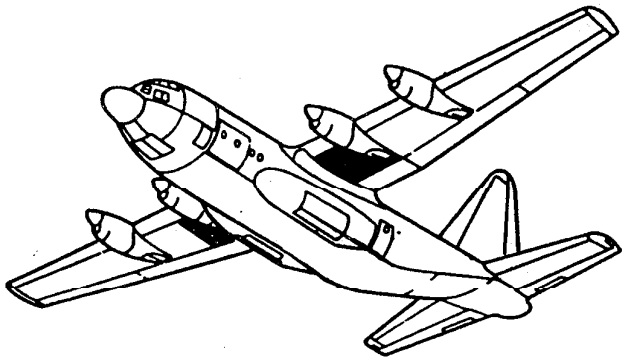
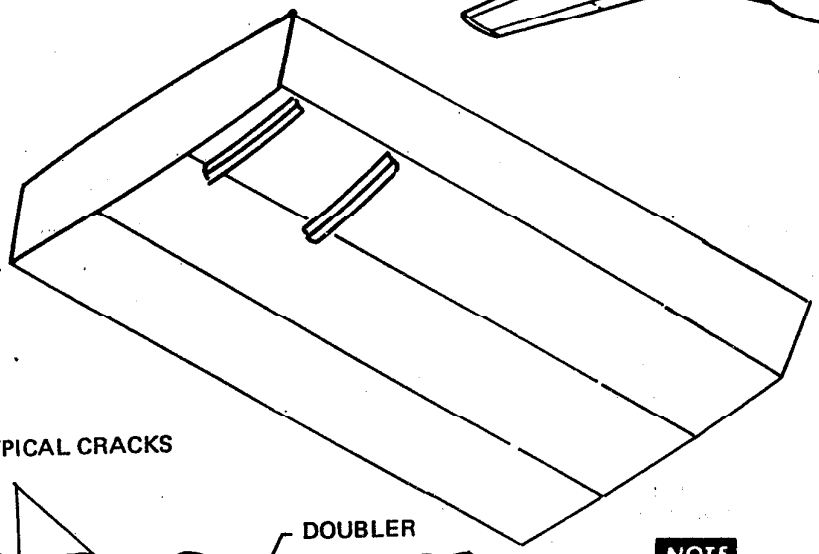


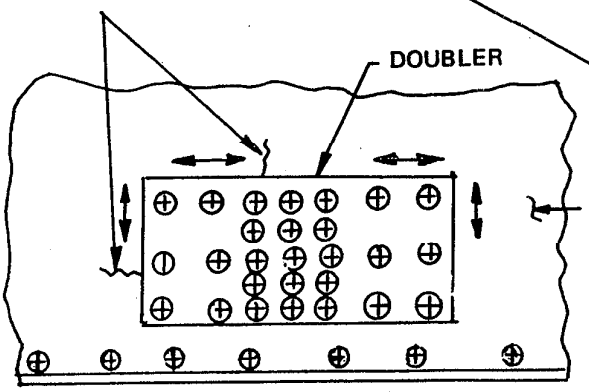
Figure 4-20. Inspection (No. 1) Of Center Wing Lower Skin Panel Lap Joints

NOTE

INSPECT EDGES OF DOUBLER(S) ON WING PANEL(S) (BETWEEN CWS 220 TO 220 L/R).







NOTE

1. IF CRACK IS FOUND COMING OUT OF DOUBLER, GAIN ACCESS TO THE DRY BAY AREA AND INSPECT STRINGER(S) AND WING PANEL(S) IN SUSPECTED AREA(S).
2. DOUBLER MAY BE INSTALLED OVER PANEL LAP JOINT. IF SO SCAN AROUND EDGES OF DOUBLER.

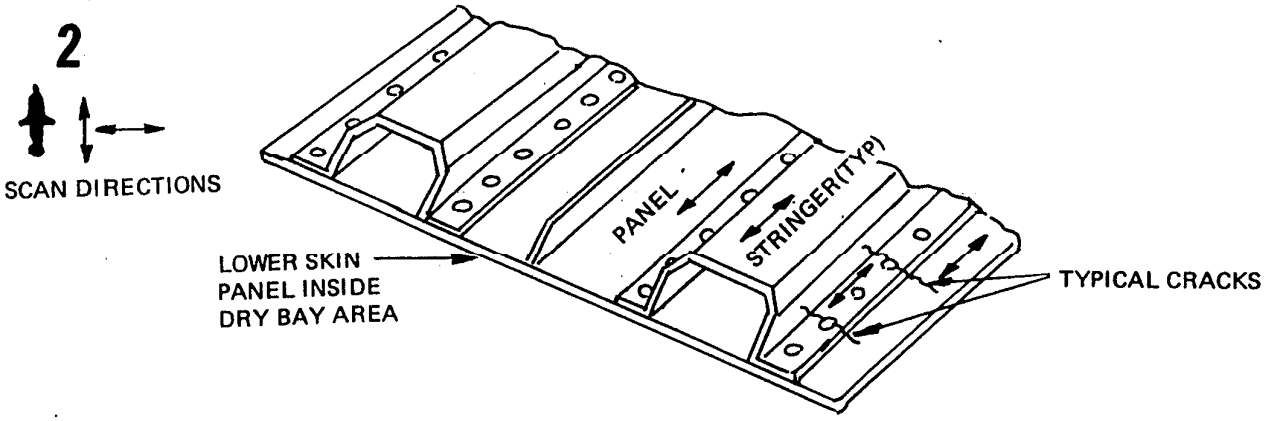


Figure 4-21. Inspection (No. 2) of Center Wing Lower Skin Panel Lap Joints

4-147. RESTORATION OF AIRCRAFT AFTER INSPECTION.

a. Clean inspection area of penetrant inspection materials and restore finishes removed.

b. Replace rainbow fitting fairing.

4-148. INSPECTION CW 22, CENTER WING UPPER FWD AND AFT, AND LOWER FWD AND AFT SPAR CAPS CWS 84.3 TO CWS 220 LEFT AND RIGHT. (See Figure 4-22).

NOTE

Prior to performing any part of this inspection, gain access to one dry bay and perform an eddy current conductivity test on all four spar caps to determine heat treatment of alloy.

HEAT TREATMENT	% IACS
7075-T6	30.5 - 34.5%
7075-T73	37-43%

This inspection is for 7075-T6 spar caps only.

4-149. INSPECTION EQUIPMENT.

EQUIPMENT OR MATERIAL	MODEL OR TYPE	MANUFACTURER	VENDOR CODE NR.
10X Glass	—	—	—
Eddy Current Inspection Unit	*ED-520	Magnaflux Corp	37676
General Purpose Surface, 1/8 inch Diameter	*PN 6100-1/8-S-BNC	Ideal Specialties	23910
Probes, 1/8 in Dia, 11 in Length: straight 90°	VM200-11 VM202A-11	VM Products VM Products	
Ultrasonic Thickness Gage Unit	*Branson 103	Branson Instrument	
*OR EQUIVALENT			