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Maintenance

C-17 AIRCRAFT CRITICAL TIRE INSPECTION

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This instruction establishes procedures and responsibilities for tire condition limitations on C-17A aircraft airlift missions. This instruction applies to all active duty and reserve maintenance units assigned to McChord Air Force Base.

SUMMARY OF REVISIONS

This instruction was revised to omit references to C-141B aircraft and clarify cut limitations based on mission requirements. Limited Critical Tire Inspections have been added to meet requirements established by the Maintenance Group Commander. **A bar (|) indicates a change since the last revision.**

1. A critical tire inspection (CTI) is a special inspection on C-17A tires with additional tire wear and/or cut limits that are more stringent than the applicable -6 requirements. These inspections are conducted on aircraft transiting locations or performing a specific mission where tire reliability is of the utmost importance to ensure mission accomplishment. CTIs are required for:

1.1. Primary Nuclear Airlift Force Missions (PNAF)

1.2. Aircraft transiting the following areas or performing the following missions:

1.2.1. Africa South America Pacific Coral Runs

1.2.2. Australia Former Soviet Union INF/START

1.3. Limited Critical Tire Inspections (LCTI) will be directed by the MXG/CC. LCTIs are less stringent than the CTI requirement, but maintain the emphasis on prolonging tire reliability at airfields with limited or no tire change capability. The limits in para **3.3.** are designed to increase tire reliability as mission requirements may dictate at locations or situations not addressed in para **1.1.** or para **1.2.** above. The MXG/CC will base the decision to perform LCTIs on airfield conditions and operational factors.

2. Critical Tire Inspection Procedures:

2.1. Production Supervisors will ensure a CTI/LCTI is performed on identified aircraft. Tires will be inspected and the results documented in accordance with this instruction and the references listed in **Attachment 1**. Any tire not meeting minimum inspection requirements will be documented in the AFTO Form 781A.

2.2. CTIs will be accomplished on both primary and backup aircraft. Required tire replacements will be accomplished on both aircraft in accordance with aircraft generation schedules. Any decision not to change affected tires on the backup aircraft will be made by the Maintenance Group Commander or their designated representative.

2.3. Aircraft Movement: If an aircraft is towed after a CTI is accomplished, another CTI will be performed and documented in the aircraft AFTO Form 781A.

3. Critical Tire Inspection Limits:

3.1. Prime Nuclear Airlift Force (PNAF) mission tire inspection limits:

3.1.1. **Cuts** – Tires with cuts that exceed one-half the embossed cut limit or cuts of more than ½-inch in length at the point of cord body penetration will be replaced prior to PNAF missions. If a sidewall cut extends into the cord body, the tire will be replaced as prescribed in T.O. 4T-1-3

3.1.2. **Wear** - Tires with a measurement of less than 3/32-inch depth over the full length of any 12-inch span of a tire tread will be replaced prior to PNAF missions.

3.2. Critical tire inspection limits for missions/locations identified in Paragraph. **1.2.:**

3.2.1. **Cuts** - Tire cuts with a depth of 1/32-inch or less than the embossed tire cut limit, will be replaced (Example: 8/32-inch cut on a tire with a 9/32-inch embossed cut limit need replaced). If a cut extends into the cord body of the sidewall, the tire will be replaced as prescribed in T.O. 4T-1-3.

3.2.2. **Wear** - Tires with a measurement of less than 3/32-inch depth over the full length of any 12-inch span of a tire tread will be replaced in accordance with the aircraft generation schedule.

3.3. Limited Critical Tire Inspection limits:

3.3.1. **Wear**- Tires with a measurement of less than 2/32-inch depth over the full length of any 12-inch span of a tire tread will be replaced in accordance with the aircraft generation schedule.

3.3.2. **Cuts**- Use the embossed cut limit on the tire.

4. Documentation:

4.1. The AFTO Form 781A, **Maintenance Discrepancy and Work Document**, will have a red dash symbol and the following entry in the discrepancy block: “Critical Tire Inspection (CTI)/Limited Critical Tire Inspection (LCTI) due.” When the inspection is completed, the discrepancy will be signed off with the following entry placed in the corrective action block for aircraft tires that pass the inspection: “CTI/LCTI complied with-tires within CTI/LCTI limits.” For tires that fail the CTI, the following entry will be entered in the corrective action block: “CTI/LCTI complied with-tires (specify number)

failed.” Documentation for tires not within CTI/LCTI limits will be annotated as separate 781A discrepancies and a reference to these discrepancies will be made in the originating CTI/LCTI write-up.

ROBERT R. ALLARDICE, Colonel, USAF
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Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 11-299, *Nuclear Airlift Operations*, November 1, 1999

T.O. 4T-1-3, *Inspection, Maintenance Instructions, Storage, and Disposition of Aircraft Tires and Inner Tubes*, May 18, 2001

T.O. 00-20-5, *Aerospace Vehicle/Equipment Inspection and Documentation*, May 1, 2000

62 AW WOP PART II, *Wing Operation Plan*, CY 2001

Abbreviations and Acronyms

AFTO—Air Force Technical Order

CTI—Critical Tire Inspection

LGLP—Logistics Group Logistic Plans and Scheduling

LCTI—Limited Critical Tire Inspection

PNAF—Prime Nuclear Airlift Force

T.O.—Technical Order