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**Maintenance**

**FUNCTIONAL CHECK FLIGHT  
INSTRUCTIONS**

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This instruction implements AFRCI 21-101, AFPD 21-1, *Managing Aerospace Equipment Maintenance*, and outlines procedures for the 302d Airlift Wing (AW) Functional Check Flight (FCF) Program. It applies to all members of the 302 AW.

**SUMMARY OF REVISIONS**

This revision updates referenced paragraph numbers. A bar (|) indicates revision from the previous edition.

**1. General.** This instruction expands upon guidance provided by AFRCI 21-101, *Aircraft Maintenance Guidance and Procedures*; AFI 11-2C-130V3, *C-130 Operations Procedures*; T.O. 1-1-300, *Acceptance/Functional Check Flights and Maintenance Operational Checks*; and T.O. 1C-130E(H)-6CF-1, *Acceptance and/or Functional Check Flight Procedures*. All unit functions that support the FCF program should be familiar with the policies and procedures outlined in these instructions.

**2. Policy.** All 302 AW-assigned aircraft are required an FCF following each major isochronal inspection (ISO), and when directed by T.O. 1C-130A-6. The following instructions will be used to administer the FCF program.

2.1. Logistics Group Quality Assurance (QA) supervisor assigns an FCF Program Manager (PM). QA maintains a copy of all FCF-qualified aircrews as designated by the 302d Operations Group Commander (OG/CC).

2.2. The Plans, Scheduling and Documentation (PS&D) section will coordinate FCF requirements with QA and the 731 Airlift Squadron (AS).

2.3. QA will coordinate with the Production Superintendent and the aircraft crew chief to ensure that all ground operable systems required during the FCF are functionally tested during the preflight inspection.

2.4. When all mission-essential maintenance inspections are completed on the aircraft, the AFTO Form 781 series binder will be hand carried to QA for review by the PM. The forms are normally delivered to QA NLT 24 hours prior to scheduled takeoff or ground engine runs, whichever occurs first. In the case of a post-major ISO FCF, the forms must arrive NLT 48 hours prior to the scheduled FCF take-off time. The QA Supervisor or LG/CC may waive the 24/48-hour requirement under extenuating circumstances. In all cases, the AFTO Form 781 series will be thoroughly reviewed for adequacy of completed maintenance actions prior to release of the aircraft. The 781 forms must include all maintenance actions that caused the FCF to be generated.

2.5. QA will accomplish an Airworthiness Inspection IAW a locally developed checklist and notify the Dispatch/Debrief Section (DDS) when the aircraft is released for flight. QA is the OPR for this checklist. PS&D will coordinate with 731AS to establish a takeoff time.

2.6. The aircrew will schedule a briefing time with QA NLT two hours prior to scheduled takeoff.

2.7. At the pre-FCF briefing, QA will furnish the aircrew with a binder containing:

2.7.1. T.O. 1C-130E(H)-6CF-1, Acceptance/Functional Check Flight Procedures

2.7.2. 302 AWI 21-102

2.7.3. Acceptance and/or FCF checklist worksheet

2.7.4. T.O. 1-1-300, Acceptance/Functional Check Flights, Maintenance Operational Checks  
Aeronautical map depicting designated FCF area

2.7.5. Letter designating FCF-qualified aircrew members

2.8. The AFTO Form 781 series binder and Weight & Balance Handbook are reviewed and presented to the flight crew.

2.9. After completion of the FCF, QA will meet the aircrew and conduct a thorough mission debrief. After normal duty hours, QA or the flight line supervisor will debrief the crew. This procedure is utilized to ensure that all items requiring checks are completed and properly debriefed and documented. If any items or systems failed the FCF and require an additional FCF to verify aircraft safety or dependability, DDS will coordinate with PS&D to reschedule the aircraft for another FCF after all maintenance is completed.

2.10. All discrepancies discovered by the FCF crew will be documented on the AFTO Form 781A furnished by QA. The crew chief monitors the discrepancies on QA's AFTO Form 781A until they are cleared or deferred to the AFTO Form 781K. When corrective actions have been taken on discrepancies found during the FCF, the forms must be hand carried to QA for review. This is to ensure proper clearing actions have been taken and the FCF data is entered into the Quality Assurance Tracking and

Trend Analysis System (QANTTAS). QA will then forward the aircraft forms to PS&D for records action.

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Commander