

**BY ORDER OF THE COMMANDER
910 AIRLIFT WING**

910 AIRLIFT WING INSTRUCTION 21-106

14 FEBRUARY 2013



Maintenance

**FUNCTIONAL CHECK
FLIGHT/OPERATIONAL CHECK FLIGHT
PROCEDURES**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms identified within this publication are available for downloading or ordering on the Air Force (AF) e-Publishing website at <http://www.e-publishing.af.mil/>

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: 910 MXG/MXQ

Certified by: 910 AW/CC
(Brian E. Dominguez, Brig Gen, USAFR)

Supersedes: 910 AWI 21-106, 13 April 2010

Pages: 6

This instruction implements Air Force Instruction (AFI) 21-101, *Aircraft and Equipment Maintenance Management* and Air Force Reserve Command (AFRC) SUP_1, AFI 11-401, *Flight Management*, AFI 11-206, *General Flight Rules*, Technical Orders (T.O.s) 1-1-300, *Maintenance Operational Checks and Check Flights*, IC-130H-1, *Flight Manual*, IC-130E(H)-6CL-1, *FCF Checklists*, IC-130E(H)-6CF-1, *Acceptance and Functional Check Flight Procedures*, IC-130A-6, *Aircraft Special Inspections and Maintenance Instructions* and 00-20-1, *Aerospace Equipment Maintenance Inspection, Documentation, Policies, and Procedures*. It provides a standard procedure for the accomplishment of all aircraft functional check flight (FCF), and operational check flight (OCF) requirements. It applies to all 910 Airlift Wing personnel having duties involving Functional Check Flight (FCF's) and OCF's. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847 directly to 910 MXG/MXQ at Youngstown Air Reserve Base, Vienna, Ohio. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afirms/afirms/afirms/rims.cfm>

.

SUMMARY OF CHANGES

This revision incorporates numerous grammatical changes, corrected and updated office symbols, and includes processing guides, and clarified documentation procedures.

1. Definition:

1.1. A Functional check flight (FCF) is a flight that occurs after inspections, maintenance or acceptance of aircraft to assure the aircraft is airworthy and capable of accomplishing the mission. Conditions that create the requirement to accomplish the FCF/OCF are defined per Technical Order 1C-130A-6 or a decision exercised by commanders.

2. Responsibilities.

2.1. The Maintenance Group Commander (MXG/CC), through Quality Assurance (MXQ), will provide supervision and accomplish administration of all functional check flights (FCF) and/or operational check flights (OCF).

2.2. Maintenance Supervision (Pro-Super/ISO Flight Chief) informs the Plans and Scheduling Office of any FCF /OCF requirements due to maintenance performed or aircraft acceptance. Plans and Scheduling will then coordinate the FCF/OCF with the Quality Assurance Office. Quality Assurance notifies the 910 Operations Group Commander (OG/CC) or representative of the FCF/OCF requirement, date and time of FCF/OCF and aircrew briefing.

2.3. The OG/CC is responsible for reviewing and ensuring qualified aircrews are performing the FCF/OCF.

3. Procedures.

3.1. Per T.O. 1-1-300, FCF/OCF will be conducted using the minimum aircrew required to perform check flight duties or accomplish in-flight requirements. Check flights will be accomplished without cargo and nonessential passengers.

3.2. Weight and Balance: Department of Defense (DD) Form 365-4, *Weight and Balance Clearance Form-F Transport*, will be accomplished for each flight by the loadmaster.

3.3. Inspection and Preparation of Aircraft Maintenance Records: After the aircraft preflight has been accomplished, approximately two hours prior to FCF/OCF aircrew briefing, the aircraft crew chief will provide Quality Assurance the present and transcribed AFTO Form 781A, *Maintenance Discrepancy and Work Document*. Quality Assurance will review the records to determine that the necessary maintenance and inspections have been accomplished and required entries or transcription have been completed.

3.4. Fuel Load: Standard fuel load for FCF's is 28,000 pounds. The aircraft commander will determine if more or less fuel will be required for the planned flight profile.

3.5. Scheduling of FCF/OCFs: After being informed of the FCF/OCF requirement, the Plans and Scheduling office will schedule the FCF/OCF after coordinating with the Operations Group. After the FCF aircrew has been scheduled, Plans and Scheduling will confirm the date and time with Quality Assurance.

4. Functional Check Flight (FCF)/Operational Check Flight (OCF) Crew Briefs: Prior to the flight engineers preflight, the aircraft commander, co-pilot, navigator (if required), flight engineer and loadmaster will report to Quality Assurance to review the forms and the planned flight profile. Quality Assurance will brief all maintenance discrepancies that are pertinent to the FCF/OCF crew prior to release of the aircraft. Quality Assurance will provide the aircrew with the FCF/OCF checklist for review prior to flight.

5. Control and Accomplishment of FCF/OCF.

5.1. The FCF flight profile will be planned to accomplish checks of those aircraft systems marked in the T.O. 1 C-130E(H)-6CL-1 checklist. Quality Assurance will number the FCF checklist TO IC-130E(H)-6CL-I consecutively, using the last two digits of the current year followed by a dash and a number starting with "01" for the first FCF accomplished for the year. Numbering will continue in this order until the end of the calendar year (i.e., 00-01, 00-49, 0070).

5.2. When OCFs are accomplished to check specific equipment or systems, only applicable portions of the checklist will be used. OCFs will be flown by experienced aircrews (not required to be an FCF qualified aircrew) and will be accomplished following the same maintenance criteria as FCFs.

5.3. Each crew member will carefully evaluate each FCF checklist (T.O. IC-130E(H)-6CL-I) item relative to crew position, record all discrepancies discovered on the AFTO Form 781A, and sign the "Discovered By" block per TO 00-20-1. All discrepancies found must be annotated in the aircraft forms in detail to assist in the maintenance action. Quality Assurance will assign job control numbers to discrepancies discovered during FCF.

5.4. High-speed taxi checks may be accomplished instead of FCFs with coordination of OG/CC and MXG/CC approval, provided conditions in AFI 21-101 Para. 8.18 are met (Ref: LCL-910AW-10-1). Only FCF crews shall perform high-speed taxi checks as per AFI 11-2C-130V3.

6. Completion of the FCF.

6.1. Upon completion of the FCF, the aircrew will return the completed checklist (TO IC-130E(H)-6CL-I) and the aircraft forms to Quality Assurance. Quality Assurance will debrief the aircrew, review the checklist and aircraft forms for accuracy, and ensure all required AFTO forms have been completed. If the aircraft commander has determined that all aircraft systems have met the criteria in TO IC-130E(H)-6CL-1, the aircraft commander will release the aircraft. Once the aircraft has been released, Quality Assurance will forward the checklist to Plans & Scheduling to be filed in the aircraft document file. Quality Assurance will also update the FCF/OCF log and keep a copy of the checklist to be filed. If the aircraft commander does not release the aircraft, maintenance and aircrew will discuss the discrepancies and appropriate maintenance action will be taken prior to the aircraft being scheduled for another FCF/OCF.

6.2. Quality Assurance will review the Air Force Technical Order (AFTO) Forms 781A, after corrective actions for FCF discrepancies are complete.

6.3. Aircraft Disposition on Completion of FCF: In the event additional maintenance or flight checks are necessary, the aircraft will be returned to the Production Superintendent through Quality Assurance.

6.4. FCF aborts: All ground aborts result in a non-release. An aircraft may be released for flight if a malfunction occurs during an FCF which is not related to the condition generating the FCF and the original condition checks good.

7. Transient Aircraft Requirements.

7.1. The owning organization provides the FCF aircrews to accomplish the FCF otherwise all rules apply to the transient aircraft as it would to a unit C-130 aircraft.

BRIAN E. DOMINGUEZ, Brig Gen, USAFR
Commander, 910 Airlift Wing

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 11-206, *General Flight Rules*, 22 October 2010

AFI 11-401, *Flight Management*, 10 December 2010

AFI 21-101, *Aircraft and Equipment Maintenance Management*, 16 August 2011
AFRCSUP_1
Aircraft and Equipment Maintenance Management, 13 January 2011

T.O. 1-1-300, *Acceptance/Functional Check Flight and Maintenance Operational Checks*, 15 March 2012

T.O. 1C-130H-1, *Flight Manual*, 3 December 2011

T.O. 1C-130E(H)-6CL-1, *FCF Checklists*, 19 February 2010

T.O. 1C-130E(H)-6CF-1, *Acceptance and Functional Check Flight Manual*, 31 January 2006

T.O. 1C-130A-6, *Aircraft Special Inspections and Maintenance Instructions*, 15 April 2012

T.O. 00-20-1(AFRCSUP), *Aerospace Equipment Maintenance Inspection, Documentation, Policies, and Procedures*, 8 February 2011

Adopted Forms

AFTO 781A, Maintenance Discrepancy and Work Document

AF 847, Recommendation for Change of Publication

DD 365-4, Weight and Balance Clearance Form-F Transport

Abbreviations and Acronyms

AF—Air Force

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFRC—Air Force Reserve Command

AFRIMS—Air Force Records Information Management System

AFTO—Air Force Technical Order

AW—(910) Airlift Wing

DD—Department of Defense Form

DOD—Department of Defense

FCF—Functional Check Flight

MOC—Maintenance Operations Center

MXG/CC—Maintenance Group Commander

MXQ—Quality Assurance

OG/CC—(910) Operations Group Commander

OCF—Operational Check Flight

OPR—Office of Primary Responsibility

RDS—Records Disposition Schedule

T.O—Technical Order