BY ORDER OF THE COMMANDER TRAVIS AIR FORCE BASE (AMC)



TRAVIS AIR FORCE BASE INSTRUCTION 21-201

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FUNCTIONAL CHECK FLIGHT/OPERATIONAL CHECK FLIGHT/HIGH-SPEED TAXI

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This operating instruction implements Air Force Policy Directive (AFPD) 21-1, *Air and Space Maintenance*, and Air Force Instruction (AFI) 21-101 and Air Mobility Command Supplement (AMCSUP) I, *Aircraft and Equipment Maintenance Management*, Applicable -6 Technical Orders. It standardizes procedures for managing effective Functional Check Flight (FCF), Operational Check Flight (OCF) and outlines procedures for a High Speed Taxi. This operating instruction pertains to all personnel attached or assigned to Travis Air Force Base. 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 847s from the field through Major Command (MAJCOM) publications/forms managers. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at https://www.my.af.mil/gess-af61a/afrims/afrims/. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. Major changes include: FCF procedures, Maintenance Squadron responsibilities, and Quality Assurance responsibilities. Additionally, attachments 2 thru 4 have been revised to ensure accuracy of the FCF process.

1. General.

- 1.1. The 60 Maintenance Group (MXG) Commander (CC) and 60 Operations Group (OG) CC have joint responsibility for effective management of the unit FCF program. The success of this program begins with cooperation between the Operations and Maintenance communities. Quality Assurance (QA) will work with the OG FCF Officer-In-Charge (OIC) to develop a viable program.
- 1.2. While OCFs are different in origin, the procedures established for conducting a FCF will be followed for the OCF as well. Documentation for the Operational Check Flight will be annotated as "OCF" on the AF Form 2400, *Functional Check Flight Log*.

2. FCF Procedures.

- 2.1. The 60 OG/OGV is the OPR for C-5, KC-10, and C-17 FCF flights at home station.
 - 2.1.1. The 60 OG/OGV will work with the local Travis Boeing Site Manager along with the Systems Group (SG) at Wright-Patterson AFB to schedule a C-17 FCF.
- 2.2. Crews will be appointed by the 60 OG/CC. FCF crew members will be highly qualified individuals from the following positions: OG/OGV evaluators, squadron evaluators Formal Training Unit instructors, or squadron flight instructors.
- 2.3. 60 OG/CC will brief the 349 OG/CC if 349th crew members are involved.
- 2.4. C-5 FCF functions are conducted by the 339 Flight Test Squadrons (FLTS) DOV, Warner-Robins AFB, GA or the 312 Airlift Squadron. Prior to requesting Warner-Robins aircrews to perform FCF, a crew activation letter must be provided to the 60 MXG Resource Advisor to provide an authorized fund-cite for the 339 FLTS.
- 2.5. All crew members will attend the debrief after completion of every FCF/OCF.

3. OCF Procedures.

3.1. OCFs occur when maintenance determines a condition exists that cannot be operationally checked out or troubleshot while the aircraft is on the ground, and does not meet the criteria for an FCF. OCF aircrews do not need to be FCF qualified to fly OCF missions, but they must be highly experienced as determined by the applicable squadron supervision.

4. High-Speed Taxi Checks.

4.1. Travis aircrews do not currently perform High-Speed Taxi checks for C-5, KC-10 and C-17 aircraft. In the event a High-Speed Taxi is required at Travis AFB the 60/349 OG/OGV Standardization/Evaluation Division (along with the local Travis Site Manager and the SG at Wright-Patterson AFB for C-17 aircraft) will develop the required checklist.

5. Maintenance Squadron Responsibilities.

- 5.1. Review the mission design series Dash-6 Technical Orders to ensure that any completed modifications or maintenance/repair actions necessitate an FCF/OCF.
- 5.2. Notify QA when aircraft requires an FCF/OCF.
- 5.3. Notify QA when aircraft is ready for Key Task Listing (KTL) inspection.

- 5.4. Document the FCF/OCF in the aircraft forms I.A.W. instructions in T.O. 00-20-1.
- 5.5 Configure the aircraft for FCF/OCF according to technical data and local directives.
- 5.6. Ensure a highly qualified individual as determined the applicable squadron supervision, who performed maintenance on the affected system attends both the initial FCF/OCF briefing and after flight debrief to provide any necessary inputs to flight activities.
- 5.7. If needed, supply a highly qualified individual as determined by the applicable squadron supervision for in flight operational checks.

6. 60/349 MXG Quality Assurance Responsibilities.

- 6.1. Conducts Quality Verification Inspection (QVI) on KTL item.
- 6.2. Establish a QA point of contact (POC) for the FCF/OCF.
 - 6.2.1 QA POC will contact 60/349 MXG/CC and inform them of the (FCF/OCF).
- 6.3. Establish a POC from each of the following offices:
 - 6.3.1. Operations Group Standardization/Evaluation (FCF/OCF OIC).
 - 6.3.2. Applicable Squadron Maintenance Supervision.
 - 6.3.3. Plans, Scheduling, and Documentation (PS&D).
 - 6.3.4. QA Weight and Balance (W&B).
- 6.4. Contact the aircrew to coordinate the sequence of events for the FCF/OCF.
- 6.5. Contact PS&D to schedule the FCF/OCF.
- 6.6. Schedule the date, time and location for FCF/OCF briefing. Attendees include: QA, AMXS supervision, FCF/OCF aircrew and a highly qualified individual who performed maintenance on the affected system.
- 6.7. Debrief all FCF/OCF aircrew with the appropriate debrief function using the FCF checklist and aircraft forms to ensure all requirements have been accomplished.
- 6.8. Annotate AF Form 2400 and forward copy to PS&D for inclusion in the aircraft jacket file.
- 6.9. Ensure all completed copies of the Dash-6CL is forwarded to PS&D.

7. Plans, Scheduling, and Documentation (PS&D) Responsibilities.

- 7.1. Coordinate the scheduling of the FCF/OCF with maintenance and applicable aircrew and post information to the weekly and monthly flying schedules in the 60 MXG database.
- 7.2. Convey all fund-site information from the 60 MXG Resource Advisor to the 339th Flight Test Squadron.

- 7.3. All required aircraft forms and pertinent FCF/OCF documents are filed in the aircraft jacket file.
- 7.4. Ensure AFTO Form 95, Significant Historical Data is annotated with FCF/OCF information.

DWIGHT C. SONES, Colonel, USAF Commander, 60 AMW

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFPD 21-1, Managing Aerospace Equipment Maintenance, 25 Feb 2003

AFI 21-101 and AMCSUP1, Aerospace Equipment Maintenance Management, 14 Feb 2011

T.O. 00-20-1 and AMCSUP1, Aerospace Equipment Maintenance Inspection, Documentation, Policy, and Procedures.15 July 2011

Adopted Forms

AFTO Form 95, Significant Historical Data

AF Form 2400, Functional Check Flight Log

AF Form 847, Recommendation for Change of Publication.

Prescribed Forms

N/A

Abbreviations and Acronyms

AFI-Air Force Instruction

AFMAN-Air Force Manual

AFPD-Air Force Policy Directive

AMCSUP-Air Mobility Command Supplement

CC-Commander

FCF-Functional Check Flight

FLTS-Flight Test Squadrons

KTL-Key Task List

MXG-Maintenance Group

OCF-Operational Check Flight

OG-Operations Group

OIC-Officer-In-Charge

OPR-Office of Primary Responsibility

POC-Point of Contact

PS&D-Plans, Scheduling, and Documentation

QVI-Quality Verification Inspection

QA-Quality Assurance

RDS-Records Disposition Schedule

SG-Systems Group

W&B-Weight and Balance

C-5 FUNCTIONAL CHECK FLIGHT COORDINATION CHECKLIST

- A2.1. Upon notification from AMXS/MXS, review applicable MDS-6 series T.O. to ensure maintenance condition necessitates a Functional Check Flight (FCF).
- A2.2. Ensure QVI is performed on KTL item by qualified QA inspector.
- A2.3. Coordinate activation of the FCF crew from the 339th Flight Test Squadron (FTS) at Warner-Robbins AFB, GA with PS&D and 60 OG FCF OIC.
 - A2.3.1 Complete an FCF Activation letter and hand carry it to the MXG Resource Advisor so a fund site can be released to the 339 FTS crew.
- A2.4. Establish a point of contact for each of the following agencies:
 - A2.4.1. 60th Operations Group Standardization/Evaluation FCF OIC 424-3647.
 - A2.4.2. 60th Maintenance Group PS&D 424-2286.
 - A2.4.3. Applicable squadron's Maintenance Superintendent (also coordinate availability of maintenance technician or lead technician for briefings).
 - A2.4.4. Assigned Weight and Balance personnel from QA. Review aircraft W&B records.
- A2.5. Ensure preflight is accomplished 24 hours prior to FCF.
- A2.6. Schedule date, time and location for crew briefing. Briefing should include:
 - A2.6.1. Purpose of flight and previous maintenance problems and discrepancies recorded on aircraft or engines that directly relate to the FCF.
 - A2.6.2. Review of the 781 series forms (including pertinent previously transcribed forms).
 - A2.6.3. Ensure proper documentation as to the purpose of the FCF is entered into the 781A's I.A.W. T.O. 00-20-1.
 - A2.6.4. Address any concerns that FCF crew or maintenance personnel may have.
- A2.7. Attend maintenance debrief after the flight. QA will ensure:
 - A2.7.1. Aircraft Commander signs of FCF discrepancy in 781A I.A.W T.O. 00-20-1 paragraph 5.4.1.2.1.
 - A2.7.2. Completed copy of -6CL is obtained from Aircraft Commander.
 - A2.7.3. All pertinent information is annotated on AF Form 2400.
- A2.8. Maintain a copy of AF Form 2400 for deficiency and trend analysis.
- A2.9. Forward a copy of AF Form 2400 and completed -6CL to PS&D.
- A2.10. If the FCF was unsuccessful, this coordination will be re-accomplished in its entirety.

KC-10 FUNCTIONAL CHECK FLIGHT COORDINATION CHECKLIST

- A3.1. Upon notification from AMXS/MXS, review applicable MDS-6 series T.O. to ensure maintenance condition necessitates a Functional Check Flight (FCF).
- A3.2 Ensure QVI is performed on KTL item by a qualified QA inspector.
- A3.3. Establish a point of contact for each of the following agencies:
 - A3.3.1. 60th Operations Group Standardization/Evaluation FCF OIC 424-1062.
 - A3.3.2. 60th Maintenance Group PS&D 424-2286.
 - A3.3.3. Applicable Squadron's Maintenance Superintendent (also coordinate availability of required maintenance technician or lead technician for the briefings).
 - A3.3.4. Assigned Weight and Balance personnel from QA. Review aircraft W&B records.
- A3.4. Ensure preflight is accomplished 24 hours prior to FCF.
- A3.5. Schedule date, time and location for crew briefing. Briefing should include:
 - A3.5.1. Purpose of flight and previous maintenance problems and discrepancies recorded on aircraft or engines that directly relate to the FCF.
 - A3.5.2. Review of the 781 series forms (including pertinent previously transcribed forms).
 - A3.5.3. Ensure proper documentation as to the purpose of the FCF is entered into the 781A's I.A.W. T.O. 00-20-1.
 - A3.5.4. Address any concerns that FCF crew or maintenance personnel may have.
- A3.6. Attend maintenance debrief after the flight. QA will ensure:
 - A3.6.1. Aircraft Commander signs of FCF discrepancy in 781A I.A.W T.O. 00-20-1 paragraph 5.4.1.2.1.
 - A3.6.2. Completed copy of -6CL is obtained from Aircraft Commander.
 - A3.6.3. All pertinent information is annotated on AF Form 2400.
- A3.7. Maintain a copy of AF Form 2400 for deficiency and trend analysis.
- A3.8. Forward a copy of AF Form 2400 and completed -6CL to PS&D.
- A3.9. If the FCF was unsuccessful, this coordinating sheet will be re-accomplished in its entirety.

C-17 FUNCTIONAL CHECK FLIGHT COORDINATION CHECKLIST

- A4.1. Upon notification from AMXS/MXS, review applicable MDS-6 series T.O. to ensure maintenance condition necessitates a Functional Check Flight (FCF).
- A4.2 Ensure QVI is performed on KTL item by a qualified QA inspector.
- A4.3. Coordinate activation of the FCF crew from Travis Boeing Site Manage, Systems Group (SG) at Wright-Patterson AFB with Plans and Scheduling and the 60 OG FCF OIC.
- A4.4. Establish a point of contact for each of the following agencies:
 - A4.4.1. 60th Operations Group Standardization/Evaluation FCF OIC 424-3647.
 - A4.4.2. 60th Maintenance Group PS&D 424-2286.
 - A4.4.3. Applicable squadron's Maintenance Superintendent (also coordinate availability of maintenance technician or lead technician for briefings).
 - A4.4.4. Assigned Weight and Balance personnel from QA. Review aircraft W&B records.
- A4.5. Ensure preflight is accomplished 24 hours prior to FCF.
- A4.6. Schedule date, time and location for crew briefing. Briefing should include:
 - A4.6.1. Purpose of flight and previous maintenance problems and discrepancies recorded on aircraft or engines that directly relate to the FCF.
 - A4.6.2. Review of the 781 series forms (including pertinent previously transcribed forms).
 - A4.6.3. Ensure proper documentation as to the purpose of the FCF is entered into the 781A's IAW T.O. 00-20-1.
 - A4.6.4. Address any concerns that FCF crew or maintenance personnel may have.
- A4.7. Attend maintenance debrief after the flight. QA will ensure:
 - A4.7.1. Aircraft Commander signs of FCF discrepancy in 781A I.A.W T.O. 00-20-1 paragraph 5.4.1.2.1.
 - A4.7.2. Completed copy of -6CL is obtained from Aircraft Commander.
 - A4.7.3. All pertinent information is annotated on AF Form 2400.
- A4.8. Maintain a copy of AF Form 2400 for deficiency and trend analysis.
- A4.9. Forward a copy of AF Form 2400 and completed -6CL to PS&D.
- A4.10. If the FCF was unsuccessful, this coordination will be re-accomplished in its entirety.