

**BY ORDER OF THE COMMANDER  
439TH AIRLIFT WING**

**439TH AIRLIFT WING INSTRUCTION 21-101**



**24 JUNE 2010**

*Incorporating Change 1, 29 OCTOBER 2013  
Certified Current on 30 August 2013*

**Maintenance**

**FUNCTIONAL/OPERATIONAL CHECK  
FLIGHT AND HIGH SPEED TAXI CHECKS**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements Air Force Policy Directive (AFPD) 21-1, *Air and Space Maintenance*, and AFI 21-101, *Aircraft and Equipment Maintenance Management*. It establishes procedures for the control of the functional/operational check flight (FCF/OCF) and high speed taxi programs. It applies to the 439th Operations Group Commander (439 OG/CC), Airfield Management, Command Post, and all Maintenance Group (439 MXG) work centers. 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 Disposition Schedule (RDS) located at <https://www.my.af.mil/gcss-af61a/afrims/afrims/>. 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 to 439 MXG/MXQ, 350 Hangar Ave., Box 21, Westover ARB, Chicopee, MA 01022.

**SUMMARY OF CHANGES**

This interim change revises 439AWI21-101 by adding the statement, “Enter data into FCF feature in QANTTAS for tracking purposes.” This statement is to be placed in between the statements “maintain a copy of AF Form 2400 for deficiency and trend analysis” and “If the FCF was unsuccessful, this coordination will be re-accomplished in its entirety” to attachment 2; C-5 Functional Check Flight Coordination Checklist.

**1. General.** The 439th Maintenance Group Quality Assurance (439 MXG/MXQ) and the applicable Aircraft Maintenance Squadron or Maintenance Squadron superintendent will

evaluate aircraft maintenance activities to determine if a Functional Check Flight (FCF) or Operational Check Flight (OCF) is required before returning an aircraft to regular service. Aircraft being recovered from cannibalization status, isochronal inspections, Contract or Depot Field Team, or other major repair will be evaluated to determine if a FCF or OCF is required based on the type and degree of maintenance performed.

## **2. FCF.**

2.1. FCFs will be conducted as determined by requirements in Technical Order (T.O.) 1-1-300, *Acceptance/Functional Check Flights and Maintenance Operational Checks*, 1C-5A-6, *Aircraft Scheduled Inspections*, and as directed by the 439th Maintenance Group Commander (439 MXG/CC).

2.2. Westover ARB aircrews are not qualified to perform FCFs. When it becomes necessary to accomplish an FCF at Westover, the 439 MXG/CC will coordinate with Robins AFB, GA to schedule it.

2.3. The 439 MXG/MXQ Office and the applicable maintenance flight chief will serve as the focal point to brief the FCF aircrew on matters concerning the discrepancies and/or conditions prompting the necessity of the FCF.

2.4. The 439 MXG/MXQ will utilize the FCF Checklist (Attachment 2) and maintain an information file for briefing aircrews, ensure aircraft Weight and Balance (W&B) documents are reviewed prior to FCF, and document all FCF / OCF in Quality Assurance Tracking and Trend Analysis System (QANTTAS).

## **3. OCF.**

3.1. OCFs will be conducted as determined by requirements in applicable Time Compliance Technical Orders 1C-5A-2 and 1C-5A-6, or as directed by the 439MXG/CC.

3.2. The 439 MXG/MXQ Supervisor and the applicable maintenance flight chief will serve as the focal point for contact between the Maintenance Group and the Operations Group to discuss requirements of OCFs. On the day of the OCF a member of the 439 MXG/MXQ office will brief the OCF aircrew on the requirements for the OCF and/or conditions prompting the need for the OCF.

3.3. The Maintenance Group Plans Scheduling and Documentation (PS&D) Supervisor will provide the 439 OG a minimum of 24 hours notification to ensure a smooth transition and for scheduling the most qualified aircrew to complete the required checks. The PS&D supervisor will also coordinate and schedule OCFs with the 439 OG/CC.

3.4. The 439 OG, Standardization/Evaluation section, will assign a qualified aircrew to accomplish the required OCF and will meet, if necessary, with the 439 MXG/MXQ Supervisor to discuss the requirements of the OCF.

4. **High Speed Taxi-Checks.** Westover does not perform high speed taxi checks.

ROBERT R. SWAIN, JR., Colonel, USAFR  
Commander

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

AFPD 21-1, *Air and Space Maintenance*

AFI 21-101, *Aircraft and Equipment Maintenance Management*

T.O. 1-1-300, *Acceptance/Functional Check Flights and Maintenance Operational Checks*

T.O. 1C-5A-6, *Aircraft Scheduled Inspections*

T.O. 00-20-1-WA-1

AFMAN 33-363, *Management of Records*

AF Form 847, *Recommendation for Change of Publication*

AF Form 2400, *Functional Check Flight Log*

Attachment 2

C-5 FUNCTIONAL CHECK FLIGHT COORDINATION CHECKLIST

Figure A2.1. C-5 Functional Check Flight Coordination Checklist.

ALL PURPOSE CHECKLIST		PAGE 1	OF 2	PAGES
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA C-5 FUNCTIONAL CHECK FLIGHT COORDINATION CHECKLIST		OPR	DATE	
NO	ITEM <i>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph.)</i>			
	<p>____ Upon notification from AMXS/MXS, review applicable MDS-6 series T.O. to ensure maintenance condition necessitates a Functional Check Flight (FCF).</p> <p>____ Coordinate activation of the FCF crew from the 339th Flight Test Squadron (FTS) at Warner-Robbins AFB, GA with Plans and Scheduling and the 337 OG FCF ORE.</p> <p>____ 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.</p> <p>Establish a point of contact for each of the following agencies:</p> <p>____</p> <p>____ 337th Operations Group Standardization/Evaluation FCF ORE 413-557-3177 (DSN 589).</p> <p>____ 439th Maintenance Group Plans and Scheduling 413-557-2765 (DSN 589).</p> <p>____ Applicable squadron's Maintenance Superintendent (also coordinate availability of maintenance technician or lead technician for briefings).</p> <p>____ Assigned Weight and Balance personnel from MXQ.</p> <p>____ Schedule date, time and location for crew briefing. Briefing should include:</p> <p>____ Purpose of flight and previous maintenance problems and discrepancies recorded on aircraft or engines that directly relate to the FCF.</p> <p>____ Review aircraft weight and balance records.</p> <p>____ Review of the 781 series forms (including pertinent previously transcribed forms).</p> <p>____ Provide all crew members with an FCF (MDS-6CL) checklist for the flight.</p>			

AF IMT 2519 (Continued).				
ALL PURPOSE CHECKLIST				
		PAGE	OF	PAGES
NO	ITEM <i>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph.)</i>			
	<p>____ Schedule a preflight for approximately 24-48 hours prior to the FCF.</p> <p>____ Ensure proper documentation as to the purpose of the FCF is entered into the 781A's IAW T.O.00-20-1-WA-1.</p> <p>____ Attend maintenance debrief after the flight.</p> <p>____ Annotate all pertinent information on AF Form 2400, Functional Check Flight Log.</p> <p>____ Maintain a copy of AF Form 2400 for deficiency and trend analysis.</p> <p>____ Enter data into FCF feature in QANTTAS for tracking purposes.</p> <p>____ If the FCF was unsuccessful, this coordination will be re-accomplished in its entirety.</p>			