

28 JULY 2003



Maintenance

**PROCEDURES FOR FUNCTIONAL CHECK  
FLIGHT, OPERATIONAL CHECK FLIGHTS,  
AND HIGH SPEED TAXI**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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OPR: 926 MXG/MXQ  
(CMSgt Randal B. McGee)  
Supersedes 926 FWI 21-130, 28 July 1998

Certified by: 926 MXG/CC  
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This instruction implements AFD 21-1, *Air and Space Maintenance*, and establishes procedures for, and applies to those personnel in 926th Maintenance Group (926th MXG), 926th Maintenance Squadron (926 MXS), 926th Aircraft Maintenance Squadron (926 AMXS) and the 926th Operations Group (926 OG), 706th Flying Squadron (706 FS) concerned with the planning, execution and documentation of Functional Check Flights (FCF) Operational Check Flights (OCF) and High Speed Taxi (HST) checks for the 926th Fighter Wing (926 FW).

### **SUMMARY OF REVISIONS**

This revision consolidates and implements guidance contained in AFI 21-101, *Aerospace Equipment Maintenance Management*; Technical Order (T.O.) 11A-1-33, *Handling and Maintenance of Explosive Loaded Aircraft*; T.O. 1-1-300, *Acceptance/Functional Check Flights and Maintenance Operational Checks*; T.O. 00-20-1, *Aerospace Equipment Maintenance General Policies and Procedures*; T.O. 1A-10A-6CL-2, *Functional Check Flight Checklist*; T.O. 1A-10A-6CF-2, *Functional Check Flight Procedures Manual* and applicable dash six (-6) and dash one (-1) T.O.s. It is advised to read this instruction thoroughly to review changes implemented. A (I) indicates revisions from the previous edition.

**1. General.** The 926th Maintenance Group/Quality Assurance (926 MXG/MXQ) will be the office of primary responsibility for all FCF, OCF, and HST matters. 926 MXG/MXQ is the single point of contact (POC) for scheduling and completion of all FCFs, OCFs, and HSTs. This duty will be assigned within MXQ, by the Chief of MXQ.

### **2. FCF Requirements, Procedures, and Responsibilities:**

2.1. FCF Requirements:

2.1.1. As specified in the -6, after all Phase inspections or at the discretion of the 926th Maintenance Group Commander (926 MXG/CC) or 926th Operations Group Commander (926 OG/CC).

## 2.2. Pilot Requirements:

2.2.1. Normally, the number of FCF pilots will not exceed four. The 926 OG/CC will select pilots to perform FCF duties, and list them on a letter of authorization.

2.2.2. The check-out program (**Attachment 1**) for all FCF pilots will consist of:

2.2.3. A comprehensive briefing by the FCF officer in charge (OIC) or designated alternate on the following:

2.2.3.1. AFI 21-101 and any applicable Command supplements.

2.2.3.2. 926 FWI 21-130.

2.2.3.3. T.O. 1-1-300.

2.2.3.4. T.O. 00-20-1.

2.2.3.5. T.O. 1A-10A-6, *Scheduled Inspection and Maintenance Requirements*.

2.2.3.6. T.O. 1A-10A-6CL-2, *Functional Check Flight Checklist*.

2.2.3.7. T.O. 1A-10A-6CF-2, *Functional Check Flight Procedures Manual*.

2.2.4. Full FCF profile in a Cockpit Procedures Training (CPT) or Multi-Task Trainer (MTT), if available.

2.2.5. A chased mission, flying the complete FCF profile, with an instructor-qualified FCF pilot. Both airplanes will be fully mission capable and neither aircraft will require an actual FCF.

2.2.6. A six-month currency will be established to ensure pilot knowledge of all FCF procedures. Any pilot whose currency expires will review the documents listed in paragraph 2.2.3. above, with the FCF OIC or designated alternate, prior to flying an FCF. Complete Section 1 of **Attachment 1**.

2.2.7. The need for a FCF may occur during a deployment or at a deployed location. If qualified 926 MXG/MXQ personnel and/or a qualified FCF pilot are not available to comply with the procedures established in this instruction, then the deployment Mission Commander (MC) will contact the 926 OG/CC for approval authority. If the 926 OG/CC is not available, the 926 FW/CC will be contacted for approval authority. An FCF will not be flown until the appropriate approval authority has given authorization. Furthermore, the Mission Commander (MC) will ensure the following:

2.2.7.1. On-site personnel will communicate with qualified 926 MXG/MXQ personnel to ensure that all regulatory requirements have been met prior to an FCF being flown.

2.2.7.2. The most qualified pilot available is selected to fly the FCF profile. Before flight, ensure this pilot communicates with a qualified FCF pilot concerning all requirements of the FCF and the associated documentation.

## 2.3. Procedures and Responsibilities:

2.3.1. Prior to flight:

2.3.1.1. 926 MXG/AMXS will:

2.3.1.1.1. Deliver completed aircraft forms, with exceptional release signed, to 926 MXG/MXQ with adequate time for forms review prior to scheduled take-off.

2.3.1.1.2. Coordinate with 926 MXG/MXQ to ensure aircraft configuration is in accordance with (IAW) the Form F and other applicable documents. Aircraft configuration for FCFs will normally be with no external stores loaded and 9500 lbs. of fuel (fuselage full, wings balanced). The gun will be empty, with sufficient ballast plates and/or dummy ammo carried to ensure the aircraft center of gravity (cg) is within FCF limits, IAW T.O. 1A-10A-5, *Basic Weight Checklist and Loading Data*, and weight and balance requirements. Configurations other than the above require approval from MXG/MXQ.

2.3.1.2. 926 MXG/MXQ will:

2.3.1.2.1. Review aircraft forms and engine data to determine what FCF requirements exist and that corrective actions have been completed.

2.3.1.2.2. Inform 706th Fighter Squadron Operations Scheduling (706 FS/DOS) that an FCF is required, and coordinate to schedule all required support of the mission.

2.3.1.2.3. Coordinate with 926th Maintenance Operation Flight, Plans and Scheduling (926 MOF/MXFD) and the Maintenance Operations Center (MOC) to include the flight in the daily flying schedule.

2.3.1.2.4. Ensure the designated FCF Check Sheet ([Attachment 2](#)) is completed and signed prior to flight.

2.3.1.2.5. Track the six-month FCF currency established in this instruction for all FCF qualified pilots.

2.3.1.3. 706 FS Operations will:

2.3.1.3.1. Reserve the FCF airspace for the period from take-off to landing. This will normally be W453, but could be W59 or as filed on a DD Form 175, **Military Flight Plan**.

2.3.1.3.2. Add the FCF to the flying schedule as coordinated with MXQ and MXFD.

2.3.1.3.3. File the appropriate New Orleans Louisiana Stereo Flight Plan or DD 175 IAW normal procedures.

2.3.1.3.4. Confirm weather requirements; any deviation from minimum weather requirements must be approved by 926 OG/CC or 926 FW/CC.

2.3.1.4. The FCF Pilot will:

2.3.1.4.1. Accomplish all required items in FCF Check Sheet.

2.3.1.4.2. Sign the local clearance form and receive a Supervisor of Flying (SOF) briefing IAW 706 FS procedures.

2.3.1.4.3. Report to 926 MXG/MXQ for briefing prior to each FCF.

2.3.1.4.4. Confirm weather and airspace requirements for the mission. If weather minimums are not met, 926 OG/CC or 926 FW/CC approval is required for mission continuation.

2.3.2. During Flight:

2.3.2.1. The SOF will support the FCF pilot by monitoring the common radio frequency (normally UHF channel 1) and provide any assistance.

2.3.2.2. The FCF pilot will:

2.3.2.2.1. Coordinate with Air Traffic Control (ATC) to use airspace as required by the FCF profile.

2.3.2.2.2. Fly the FCF profile IAW T.O. 1A-10A-6CF-2, or as briefed, based on the requirements of that mission and complete all portions of the mission possible.

2.3.3. Postflight:

2.3.3.1. 926 MXG/MXQ will:

2.3.3.1.1. Debrief the pilot IAW the FCF briefing checklist. If the flight will terminate after duty hours, 926 MXG/MXQ may provide the FCF briefing check sheet to the appropriate 926 MXG/AMXS personnel.

2.3.3.1.2. Review the AFTO Form 781A, **Maintenance Discrepancy and Work Document**, for correctness and ensure all applicable portions of the -6CL are completed prior to being processed.

2.3.3.2. 926 MXG/AMXS will:

2.3.3.2.1. Provide any specialist, as requested, to attend the mission debrief.

2.3.3.2.2. Debrief the pilot IAW the FCF Check sheet, if 926 MXG/MXQ personnel are unavailable.

2.3.3.2.3. Debrief all discrepancies and input all discrepancies in Core Automated Maintenance System (CAMS).

2.3.3.3. The FCF pilot will:

2.3.3.3.1. Ensure that all applicable forms are completed and all applicable discrepancies are fully and completely debriefed with 926 MXG/AMXS, 926 MXG/MXQ, and any applicable specialists.

2.3.3.3.2. Complete all applicable portions of the -6CL, to include the pilot's signature, prior to aircraft release.

### 3. OCF Requirements, Procedures, and Responsibilities.

3.1. OCF Requirements:

3.1.1. When an Operational Check is listed as a -1 or -2 requirement or at the discretion of the 926 MXG/CC or 926 OG/CC.

3.2. Pilot Requirements:

3.2.1. OCFs will be flown by experienced aircrews (not required to be an FCF qualified aircrew).

3.3. Procedures and Responsibilities:

3.3.1. Prior to flight:

3.3.1.1. 926 MXG/AMXS will:

3.3.1.1.1. Deliver completed aircraft forms with exceptional release signed to 926 MXG/MXQ with adequate time for forms review prior to scheduled take-off.

3.3.1.1.2. Coordinate with 926 MXG/MXQ to ensure aircraft configuration is IAW the Form F and other applicable documents. Aircraft configuration and fuel requirements for OCFs will differ depending on the OCF requirement.

3.3.1.2. 926 MXG/MXQ will:

3.3.1.2.1. Review aircraft forms and engine data to determine what OCF requirements exist and that corrective actions have been completed.

3.3.1.2.2. Inform 706 FS/DOS that an OCF is required and coordinate to schedule all required support of the mission.

3.3.1.2.3. Coordinate with 926 MOF/MXFD and MOC to include the flight in the daily flying schedule.

3.3.1.3. 706 FS Operations will:

3.3.1.3.1. Reserve the OCF airspace for the period from take-off to landing. This will normally be W453, but could be W59 or as filed on a DD Form 175, **Military Flight Plan**.

3.3.1.3.2. Add the OCF to the flying schedule as coordinated with 926 MXG/MXQ and 926 MOF/MXFD.

3.3.1.3.3. File the appropriate New Orleans Louisiana Stereo Flight Plan or DD 175 IAW normal procedures.

3.3.1.4. The OCF pilot will:

3.3.1.4.1. Report to 926 MXG/MXQ for briefing prior to each OCF.

3.3.1.4.2. Confirm weather and airspace requirements for the mission. If weather minimums are not met, 926 OG/CC or 926 FW/CC approval is required for mission continuation.

3.3.2. During Flight:

3.3.2.1. The SOF will support the OCF pilot by monitoring the common radio frequency (normally UHF channel 1) and provide any assistance.

3.3.2.2. The OCF pilot will:

3.3.2.2.1. Coordinate with Air Traffic Control (ATC) to use airspace as required by the OCF profile.

3.3.2.2.2. Fly the OCF profile based on the requirements of that mission and complete all portions of the mission possible.

3.3.3. Postflight:

3.3.3.1. 926 MXG/MXQ will:

3.3.3.1.1. Debrief the OCF pilot. If the flight will terminate after duty hours, 926 MXG/AMXS may debrief the OCF pilot.

3.3.3.1.2. Review the AFTO Form 781A for correctness and ensure all applicable opera-

tional checks of the OCF are completed prior to being processed.

3.3.3.2. 926 MXG/AMXS will:

3.3.3.2.1. Provide any specialist, as requested, to attend the mission debrief.

3.3.3.2.2. Debrief the pilot, if 926 MXG/MXQ personnel are unavailable.

3.3.3.2.3. Debrief all discrepancies and input all discrepancies in CAMS.

3.3.3.3. The FCF pilot will:

3.3.3.3.1. Ensure that all applicable forms are completed and all applicable discrepancies are fully and completely debriefed with 926 MXG/AMXS, 926 MXG/MXQ, and any applicable specialists.

3.3.3.3.2. Complete all applicable operational checks, to include the pilot's signature, prior to aircraft release.

**4. High Speed Taxi (HST) Policy. NOTE:** It is the 926 FW/CC's policy that HST checks will not be performed unless requested by the 926 OG/CC or the 926 MXG/CC. In the event a HST check is required, normal FCF procedures will be followed IAW this regulation and with the following additional requirements:

4.1. Substitute the HST Check sheet ([Attachment 3](#)) for the FCF Check Sheet.

4.2. Compute brake energy limits and delay taxi from hot brake area until the ground cooling time has expired and brakes have been inspected.

4.3. If more than one HST is required/requested, the HST profile will be annotated. An additional brake inspection and brake energy cooling time will be required prior to the second HST at the approach end.

4.4. Aircraft configuration will be the same as an FCF except fuel load will be reduced to 3000 pounds balanced in the fuselage tanks. This would allow a pilot to have sufficient fuel to orbit and cool the brakes and/or divert if aircraft becomes airborne (intentionally or unintentionally). Weather requirements remain the same as FCF and a dry runway.

**5. Adopted Forms:** AFTO Form 781A and DD Form 175.

Randall G. Falcon, Colonel, USAFR  
Commander

**Attachment 1**

**FCF / HST INITIAL/RECURRENCE CHECK-OUT CHECKLIST**

**FOR (Name/Unit):**

<b><u>ITEM</u></b>	<b><u>DATE</u></b>	<b><u>INITIALS</u></b>
<b>A1.1. Comprehensive briefing on:</b>		
<b>A1.1.1. AFI 21-101</b>		
<b>A1.1.2. 926 FWI 21-130</b>		
<b>A1.1.3. T.O. 1-1-300</b>		
<b>A1.1.4. T.O. 00-20-5</b>		
<b>A1.1.5. T.O. 1A-10A-6</b>		
<b>A1.1.6. T.O. 1A-10A-6CL-2</b>		
<b>A1.2. CPT/MTT (if available/required)</b>		
<b>A1.3. Chased FCF profile (if required)</b>		

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FCF OIC/ALTERNATE

Attachment 2

FUNCTIONAL CHECK FLIGHT CHECK SHEET

PREFLIGHT

A2.1. Date: \_\_\_\_\_ Aircraft Tail Number \_\_\_\_\_ Report Control \_\_\_\_\_ JCN \_\_\_\_\_

A2.2. Reason for FCF: \_\_\_\_\_

A2.3. All applicable maintenance actions complete and properly documented.

A2.4. Pilot review applicable portions of:

A2.4.1. 926 FWI 21-130

A2.4.2. T. O. 1-1-300 (ACF/FCF and Maint Operational checks)

A2.4.3. T. O. 00-20-1 (Inspection Flight Reports)

A2.4.4. T. O. 1A-10A-6

A2.4.5. T. O. 1A-10A-6CL-2

A2.4.6. T. O. 1A-10A-6 CF-2 (FCF Checklist # \_\_\_\_\_)

A2.4.7. Tape # \_\_\_\_\_)

A2.4.8. FCF profile: Full / Partial (brief description of profile) \_\_\_\_\_

A2.4.9. FCF Special Interest Items up to SII # \_\_\_\_\_.

A2.4.10. AFTO Form 781 write-ups since impoundment/grounding.

A2.4.11. Reviewed CAMS/Flight Controls AFTO Form 95/Weight and Balance Form F.

A2.5. Pilot briefed by applicable specialist on:

A2.5.1. Specific problems and discrepancies that require the FCF.

A2.5.2. The corrective action taken.

A2.5.3. Any unusual factors or findings relevant to the FCF.

A2.6. 926 MXG/CC or 926 OG/CC Functional Check Flight authorization:

\_\_\_\_\_  
926 MXG/CC or 926 OG/CC Signature

A2.7. I certify that I have reviewed and been briefed on the above items, and that I have checked the weather, NOTAMS, emergency alternate airfield status, FCF current and qualified, and a SOF is on duty for the FCF.

FCF Pilot Printed Name	Signature
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**A2.8.** The above pilot has been briefed on the above items and is FCF current.

926 MXG/MXQ Printed Name	Signature
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**POSTFLIGHT**

**A2.9.** After the FCF, the pilot will be debriefed in the normal debriefing area. A Quality Assurance debriefer will be present. All entries will be made in the AFTO Form 781 and the T.O. 1A-10A-6CL-2.

**A2.10.** 926 MXG/MXQ will collect the -6CF-2/-6CL-2/Tape from the pilot.

**A2.11.** The FCF reason and results will be entered in the FCF log.

**A2.12.** This completed checklist will be filed with 926 MOF/MXFD.

**A2.13.** QANTTAS data entered.

Accomplished by: \_\_\_\_\_

926 MXG/MXQ Printed Name	Signature
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**Attachment 3****HIGH SPEED TAXI CHECK SHEET**PREFLIGHT

**A3.1.** Date: \_\_\_\_\_ Aircraft Tail Number \_\_\_\_\_ Report Control # \_\_\_\_\_

**A3.2.** Reason for HST: \_\_\_\_\_

**A3.3.** All applicable maintenance actions complete and properly documented.

**A3.4.** Pilot review applicable portions of:

A3.4.1. 926 FWI 21-130

A3.4.2. T. O. 1-1-300 (ACF/FCF and Maintenance Operational checks)

A3.4.3. T. O. 00-20-5 (Inspection Flight Reports)

A3.4.4. T. O. 1A-10A-6

A3.4.5. T. O. 1A-10A-6CL-2

A3.4.6. T. O. 1A-10A-6CF-2 (FCF Checklist # \_\_\_\_\_)

A3.4.7. Tape # \_\_\_\_\_)

A3.4.8. HST profile: (brief description of profile)

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A3.4.9. FCF Special Interest Items up to SII # \_\_\_\_\_.

A3.4.10. AFTO Form 781 write-ups since impoundment/grounding.

A3.4.11. Takeoff Data Card indicating highest speed and stopping distance.

**A3.5.** Pilot briefed by applicable specialist on:

A3.5.1. Specific problems and discrepancies that require the HST.

A3.5.2. The corrective action taken.

A3.5.3. Any unusual factors or findings relevant to the HST.

**A3.6.** 926 MXG/CC or 926 OG/CC High Speed Taxi authorization:

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926 MXG/CC or 926 OG/CC Printed Name

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Signature

**A3.7.** I certify that I have reviewed and been briefed on the above items, and that I have checked the weather, NOTAMS, emergency alternate airfield status, FCF current and qualified, and a SOF is on duty for the HST.

FCF Pilot Printed Name	Signature
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**A3.8.** The above pilot has been briefed on the above items and is FCF current.

926 MXG/MXQ Printed Name	Signature
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**POSTFLIGHT**

**A3.9.** After the FCF, the pilot will be debriefed in the normal debriefing area. A Quality Assurance debriefer will be present. All entries will be made in the AFTO Form 781 and the T.O. 1A-10A-6CL-2.

**A3.10.** 926 MXG/MXQ will collect the -6CF-2/6CL-2/Tape from the pilot.

**A3.11.** The HST reason and results will be entered in the FCF log.

**A3.12.** This completed checklist will be filed with 926 MOF/MXFD.

**A3.13.** QANTTAS data entered.

Accomplished by: \_\_\_\_\_

926 MXG/MXQ Printed Name	Signature
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