

BY ORDER OF THE COMMANDER



**927TH AIR REFUELING WING
INSTRUCTION 21-101**

12 DECEMBER 2003

Maintenance

FUNCTIONAL CHECK FLIGHT

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFD 21-1, *Air and Space Maintenance*, AF121-101, *Aerospace Equipment Maintenance Management*, AFI 13-201, *Air Force Air Space Management*, AFI 11-202 V3, *General Flight Rules*, T.O. 1-1-300, *Acceptance/Functional Check Flights and Maintenance Operational Checks*, T.O. 00-20-1, *Aerospace Equipment Maintenance Operational Checks*, and SANGBI 13-1, *Airfield Operations*. It establishes standard procedures for the accomplishment of all functional check flights (FCF). This instruction applies to all personnel assigned to the 927th Air Refueling Wing.

SUMMARY OF REVISIONS

This revision assigns additional responsibility for Function Checkflight (FCF) crew listings to the Operations Group Stan Evaluation section and when check flights will be accomplished. A bar (|) indicates revisions from the previous edition.

1. Responsibilities:

- 1.1. The provisions outlined herein are applicable to all personnel assigned or attached to the 927th Air Refueling Wing who have duties involving functional check flights (FCFs).
- 1.2. Quality Assurance will supervise all FCFs in accordance with the appropriate dash (-) 6 inspection requirements technical order, T.O. 1-1-300 and other pertinent directives.
- 1.3. Quality Assurance and the Operations Group Stan Evaluation section will maintain a current authorization listing of all FCF crews.
- 1.4. Job Control will maintain current aircraft status and advise Quality Assurance of aircraft approaching readiness of FCF.

2. Procedures:

2.1. Flight Crew Composition. The flight crew for all FCFs will be the minimum crew required consistent with the specific check required. Structure of the flight crew will be in accordance with T.O. 1-1-300, paragraph 5, and modified to include specialists to perform in-flight checks. Check flights will be accomplished without cargo and/or nonessential passengers.

2.2. 63rd Air Refueling Squadron (63 ARS) FCF crews. Requirements will be made known as far in advance as possible when requesting FCF crews from 63 ARS Operations section. The 927th Maintenance Group (MXG) Quality Assurance will coordinate with the FCF crew from the 63 ARS as to where the FCF briefing and debriefing will take place.

2.3. Clearances. When the FCF cannot be conducted in accordance with VFR conditions due to weather, the commander in accordance with T.O. 1-1-300, paragraphs 6b and 6c will determine the urgency of the mission.

2.4. Functional Check Flight area. All check flights will be accomplished along a route of flight approved by SANGBI 13-1 and appropriate controlling agencies and regulations. Any flight requirements outside this route will be cleared through Base Operations when the clearance is filed and will be noted in the remark section of the clearance. All air work such as actuation of emergency systems will be accomplished in the flight test zone and in accordance with T.O. 1C-135A-6CF-1, *Acceptance and/or Functional Check Flight Procedures Manual*.

2.4.1. Emergency Fuel Dump Areas:

2.4.1.1. Primary Area: Lower Lake Huron on a route located from Peck VORTAC 090-degree radial at 18 DME to the Peck VORTAC 130 degree radial at 18 DME at or above 5,000 feet AGL. Contact Cleveland Center for vectors and traffic advisories.

2.4.1.2. Secondary Area. Lake St. Clair on a route located from Selfridge TACAN 075 degree radial at 7 DME to the Selfridge TACAN 135 degree radial at 7 DME at or above 5000 feet AGL. Contact Selfridge approach control for vectors and traffic advisories.

2.4.2. Pilots will make every effort to adhere to these guidelines and those set forth in T.O. 1C-135(K)E(1)-1, Section III, depending on the nature of the emergency.

2.5. Inspection and Preparation of Aircraft Maintenance Records: The crew chief will provide the Quality Assurance Section with current maintenance form, AFTO Form 781, **ARMS Aircrew/Mission Flight Data Document**, when all maintenance, including preflight has been completed. Quality Assurance will review the records to determine that necessary maintenance and inspection was accomplished and required entries or transcriptions are complete.

2.5.1. Blank AFTO 781A, **Maintenance Discrepancy and Work Document**, will be attached to the FCF checklist (T.O. 1C-135A-6CL-1). All discrepancies discovered during the FCF will be recorded on these forms and will be kept with the FCF checklist. Upon completion of corrective actions, all uncleared discrepancies will be transcribed to the AFTO Form 781A for the aircraft. Quality Assurance will review the FCF checklist and the attached AFTO Form 781A for adequacy of corrective actions. After completion of the review, the checklist and AFTO Forms will be forwarded to the 927th Maintenance Group Documentation Section to be filed in the document file on the aircraft. Crew chiefs will be allowed a time period of forty-eight (48) hours for corrective

actions and/or transcribing of FCF discrepancies before forwarding FCF forms to Quality Assurance.

3. Functional Check Flight Crew Briefing:

- 3.1. Purpose and extent of the flight or functional check.
- 3.2. Previous maintenance problems and discrepancies recorded on the aircraft, system or equipment.
- 3.3. Individual crew member's FCF responsibilities.
- 3.4. Documentation requirements for the AFTO Form 781 series forms and the Dash (-) 6 FCF checklists, when applicable.

4. Functional Check Flight Procedures and Checklist:

- 4.1. T.O. 1C-135A-6CF-1, *Acceptance and/or Functional Check Flight Procedures*, will be used to conduct the FCF and T.O. 1C-135A-6CL-1, *Acceptance and/or Functional Check Flight Checklist*, for actual required readings and remarks. When FCFs are accomplished to test specific equipment or systems, only applicable portions will be used.
- 4.2. The completed checklist, aircraft forms and FCF information file will be returned to Quality Assurance by the flight crew upon completion of the FCF. During debriefing, the checklist and aircraft forms will be reviewed to determine if all requirements are accomplished. Each discrepancy discovered during the FCF will be documented on AFTO Form 781A.

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Commander