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**MILITARY FLIGHT OPERATIONS  
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This directive supports DoD Instruction 5000.2, *The Defense Acquisition System*, May 12, 2003, DoD Instruction 6055.1, *DoD Safety and Occupational Health (SOH) Program*, 19 Aug, 1998, and implements the OSD *Military Flight Operations Quality Assurance (MFOQA) Process Implementation* Policy Memo dated 11 Oct 2005. MFOQA policy applies to all U.S. Air Force aircraft (manned and unmanned), including those of the Air National Guard (ANG) and U.S. Air Force Reserve (AFR). For this regulation consider Air National Guard as a MAJCOM. This publication does not apply to the Civil Air Patrol. 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 the appropriate functional's chain of command. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 37-123 (will convert to AFMAN 33-363), *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule located at <https://afrims.amc.af.mil>.

## **1. Purpose.**

1.1. MFOQA is the analysis and trending of aircraft flight performance and system data to proactively enhance combat readiness through improvements in operations, maintenance, training, and safety functions. MFOQA provides tools for commanders to: establish a baseline for normal operations; identify, mitigate, and monitor operational risks while detecting precursors to aviation mishaps; and identify operational inefficiencies. MFOQA gives capabilities to multiple levels and functional areas to improve and enhance mission-effectiveness through awareness of abnormal trends, continuous knowledge of aircraft systems performance, and insight into the effectiveness of procedures, policy, and aircrew training on actual mission accomplishment.

1.2. The MFOQA process is implemented through the use of enhanced aircraft flight data recorders, which also provide mission playback capability to aircrews for flight operations training and to maintenance crews for enhanced maintenance operations. However, the greatest benefit in lives and

resources saved will be seen through the identification of trends and anomalies through regular flight data analysis.

## 2. MFOQA Analysis Process Goals:

- 2.1. Mishap Reduction – Reduces the statistical rate of aviation mishaps by identifying risks, implementing effective control measures, and enabling continuous monitoring of risk mitigation.
- 2.2. Operational Efficiency – Improves aircrew training effectiveness, reduces aircraft downtime, and modifies operations to reduce consumption and increase system component life cycles.
- 2.3. Operational Readiness – Enhances war-fighting capabilities by preserving resources available for operational requirements and improving mission performance.
- 2.4. Assurance of Operational Safety, Suitability and Effectiveness (OSS&E) – OSS&E goals are supported by ensuring data requirements of all information users, including MFOQA, Aircraft Structural Integrity Program (ASIP), Engine Structural Integrity Program (ENSIP), Mechanical Equipment and Subsystems Integrity Program (MECSIP), and Avionics / Electronics Integrity Program (AVIP) are met, as defined in AFPD 63-14, *Aircraft Information Programs*, and its derivatives. The MFOQA data analysis process supports OSS&E through its analysis of flight maneuvers, identification of hazardous trends, and the implementation of mitigation measures.

## 3. Policy

3.1. Lead Commands and System Program Managers / Development System Managers will ensure MFOQA process requirements are incorporated into all legacy and new aircraft procurements unless waived by the Deputy Secretary of Defense.

3.1.1. Ensure aircraft developmental programs integrate data collection capabilities which enable MFOQA analysis prior to the Preliminary Design Review in the acquisition lifecycle.

3.1.2. Lead Commands, as assigned in AFPD 10-9, *Lead Command Designation and Responsibilities for Weapon Systems*, review current data collection capabilities for fielded aircraft using the fundamentals of AFPD 63-14, *Aircraft Information Programs (AIP)*, and its derivatives, to determine the suitability of the data for MFOQA analysis. When the implementation of MFOQA analysis is not technically or fiscally feasible, Lead Commands shall request a waiver to this directive, signed by no lower than the vice commander and vetted through the Air Force corporate process to the Deputy Secretary of Defense for approval, no later than 12 months following release of this publication.

3.2. The intent of Air Force MFOQA programs is to use de-identified, aggregate data to identify trends, mishap precursors, and the effectiveness of corrective actions. The analysis results and corrective actions will be used by the safety, operations, training and maintenance communities to improve flight operations and mission readiness.

3.2.1. As stated in OSD Policy Memo *Military Flight Operations Quality Assurance (MFOQA) Process Implementation*, dated 11 Oct 2005, “Data generated from the MFOQA process shall not be used for monitoring aircrew performance to initiate punitive or adverse action. In cases of suspected willful disregard of regulations and procedures, MFOQA data may be used for action. MFOQA data is factual information not covered by the privileged safety information procedures of DoDI6055.7, *Accident Investigation, Reporting and Record Keeping*.”

3.2.2. No written policy can usurp the UCMJ or public law; the AF legal community will advise commanders, on a case by case basis, what recorded data may be used for legal action.

**4. Responsibilities.** This policy establishes the following responsibilities and authorities:

4.1. The Secretary of the Air Force makes MFOQA policy, oversees MFOQA process development throughout the Air Force with the assistance of HQ AF/SE, and provides annual MFOQA updates to the Secretary of Defense.

4.2. The Air Force Deputy Chief of Staff, Air, Space and Information Operations, Plans and Requirements (USAF A3/5), will:

4.2.1. Certify the AF MFOQA policy and implementation guidance.

4.2.2. Ensure MAJCOMs establish requirements for materiel sustainment of data collection capabilities, and plan for MFOQA analysis process development and implementation.

4.2.3. Ensure MAJCOMs incorporate MFOQA products in Operational Risk Management (ORM) processes, and in aircrew training and operational procedures such as those found in MDS Vol III.

4.3. The Air Force Deputy Chief of Staff, Logistics, Installations and Mission Support (USAF A4/7) will ensure MFOQA products and capabilities are incorporated into maintenance trending, support, and aircraft life cycle management activities.

4.4. Aeronautical Systems Center (ASC) will act as a focal point and liaison for aircraft data acquisition compliance with AFPD 63-14, AFI 63-1401 Aircraft Information Working Group and Aircraft Information Management Plan processes, and AFH 63-1402 parameter requirements.

4.5. System Program Managers (SPMs) / Development System Managers (DSMs) responsible for aircraft development will support the Lead MAJCOMs in the effort to provide MFOQA capability on the aircraft for which they have engineering control. SPMs / DSMs will:

4.5.1. Ensure data collection capabilities meet AIP requirements during all new aircraft acquisitions and during modifications to fielded aircraft.

4.5.2. Ensure collaboration with DoD components on MFOQA development for Joint programs.

4.5.3. Integrate MFOQA data collection requirements and analysis results with the other system health monitoring equipment and analyses, such as ASIP, as part of the overall SPM / DSM effort to assure the OSS&E of the aircraft.

4.6. Headquarters Air Force Safety Center (HQ AFSC) will provide management and oversight of MFOQA program objectives and analysis capabilities. HQ AFSC will:

4.6.1. Beginning in FY12, fund the ground analysis sustainment, including technical support for hardware and software, and manpower requirements.

4.6.2. Provide MAJCOMs with required policy and educational resources to support the MFOQA concept of operations described in AFI 90-1301.

4.6.3. Conduct centralized, AF-wide MFOQA analyses across multiple platforms, while facilitating MFOQA compatibility and cross-communication between MAJCOMs, as well as Joint Service, foreign military, and civil aviation communities.

4.6.4. Provide annual MFOQA updates to the Secretary of the Air Force for submission to the Secretary of Defense. The updates should include the status of MFOQA implementation, major trends, initiatives, and recommendations for aviation safety improvements.

4.7. MAJCOMs will develop strategies to employ MFOQA in their unique operational and training environments. MAJCOMs will:

4.7.1. Ensure AFPD 63-14 data collection requirements are integrated into platforms under their responsibility as assigned by AFPD 10-9, advocate for resources to improve data collection capabilities, and submit waivers as required.

4.7.2. Implement MAJCOM-specific supplements to AFI 90-1301 that outline the command's organizational structure and processes supporting the MFOQA concept of operations.

4.7.3. Incorporate MFOQA products in ORM processes, and in aircrew training and operational procedures such as those found in MDS Vol III.

**5. Waivers.** The Lead Command, as identified in AFPD 10-9, shall submit requests for waivers to this policy. Waiver requests must be coordinated through the Air Force corporate process to the Deputy Secretary of Defense for approval.

MICHAEL W. WYNNE  
Secretary of the Air Force

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

DoDI 5000.2, *The Defense Acquisition System*, 12 May 2003

DoDI 6055.1, *DoD Safety and Occupational Health (SOH) Program*, 19 Aug 1998

AFPD 10-9, *Lead Command Designation and Responsibilities for Weapon Systems*, 8 Mar 2007

AFI 63-1201, *Life Cycle Systems Engineering*, 23 Jul 2007

AFPD 63-14, *Aircraft Information Programs*, 6 Feb 2001

AFI 63-1401, *Aircraft Information Programs*, 6 Feb 2001

AFH 63-1402, *Aircraft Information Programs*, 19 Mar 2001

AFPD 90-9, *Operational Risk Management*, 1 Apr 2000

AFI 90-1301, *Military Flight Operations Quality Assurance*, (Date TBD)

***Abbreviations and Acronyms***

**AFMC**—Air Force Materiel Command

**AFR**—Air Force Reserve

**AFSC**—Air Force Safety Center

**AIMP**—Aircraft Information Management Plan

**AIP**—Aircraft Information Program

**AIWG**—Aircraft Information Working Group

**ANG**—Air National Guard

**ASC**—Aeronautical Systems Center

**ASIP**—Aircraft Structural Integrity Program

**AVIP**—Avionics / Electronics Integrity Program

**DSM**—Development System Manager

**ENSIP**—Engine Structural Integrity Program

**MAJCOM**—Major Command

**MECSIP**—Mechanical Equipment and Subsystems Integrity Program

**MFOQA**—Military Flight Operations Quality Assurance

**OPR**—Office of Primary Responsibility

**ORM**—Operational Risk Management

**OSS&E**—Operational Safety, Suitability and Effectiveness

**SPM**—System Program Manager