



## ABOUT US

MFOQA is “big data.” At a fraction of the cost of post-mishap investigation, MFOQA provides a proactive means to identify hazardous trends and mitigate them before loss of life, equipment and resources vital to national security. The U.S. Air Force currently collects data from more than a dozen fleets and multiple variants of aircraft. Whereas, investigative safety focuses on analysis, MFOQA focuses almost entirely on routine, everyday successful missions to establish a baseline of normal operations. Every month AFSEC analyzes approximately 6.5 terabytes of data from over 22,000 flights performed by more than 2,600 aircraft. Former Air Force instructor and evaluator pilots under contract with AFSEC examine the flight data to detect mishap precursors and produce monthly reports for aircrew, operational leaders and safety officers.



Find us on AFSAS:  
<https://afsas.safety.af.mil>  
Pubs & Refs  
Homepage  
MFOQA / ASAP / LOSA



**GET IN TOUCH!**



[afsec.prosef@us.af.mil](mailto:afsec.prosef@us.af.mil)



DSN 263-2607  
Comm (505)853-2607

# MFOQA



## Military Flight Operations Quality Assurance

Military Flight Operations Quality Assurance is the analysis of routine flight data to detect, measure and mitigate hazards, while promoting the proper use of data for safety. It's about safety without the mishap! This two-decade old aviation safety initiative is overseen by the Air Force Safety Center at Kirtland Air Force Base, New Mexico.

# Protection

Numerous aircrew protections exist to promote the proper use of data used for MFOQA. The MFOQA process entails aggregating data from multiple flights before processing the data through customized software, and searching for trends that point to unsafe conditions that could lead to a mishap.

**DoDI 6055.19** and **DAFI 91-225** clearly state that data collected for analysis generated from these programs (MFOQA, ASAP, LOSA) “shall not be used for monitoring personnel performance to initiate crew qualification downgrade or decertification, or to take adverse personnel action, including non-judicial.” In cases where MFOQA, ASAP, or LOSA indicates, “an intentional disregard for safety, or that an intentional false statement has been made, the analysis or report no longer falls in the proactive aviation safety arena...” and action may be taken by the commander.

That means if an aircrew mistake is uncovered during data analysis, punitive action will not be taken against the crew. On the other hand, if the data analysis identifies unusual activity that appears to intentionally violate regulations, commanders may use the information to conduct an investigation.



# Requirements

- High quality and quantity of recorded parameters
- Data translation key (different for each fleet)
- Routine access to unclassified flight data

# Way Forward

DoDI 6055.19 directs the establishment of the MFOQA process in all DoD aircraft and DAFI 91-225 further elaborates on Air Force requirements. The MFOQA program plans and budgets for one new fleet a year pending technical capabilities, acquisition schedules, and MAJCOM priorities. The guidance allows an exclusion from the MFOQA implementation requirement for those aircraft where cost-benefit analysis determines the program is not cost effective.

# Who are we?

MFOQA falls under the Aviation Safety Division, Engineering Branch at the HQ Air Force Safety Center. AFSEC funds and provides contracted manpower to the lead MAJCOMs to execute and tailor their MFOQA programs.



# Benefits

- Learning the latest hazards at a specific location or hazards facing similar airframes and missions across the globe
- Validating effectiveness of tactics, training, and procedures by measuring what actually happens out in the system
- Comparing actual versus calculated aircraft performance data
- Providing training insight on how well flights are following mission profiles
- Learning where mishap precursors like unstable approaches and go-arounds are most likely to occur
  - Detecting exact parts of profiles where over/under-loads, over-speeds, and over-temps are most likely to occur
- Measuring variations in mission accomplishment in order to optimize processes
  - Assessing whether a procedural or syllabus change has improved operations or made things worse
- Working with you to customize analyses