

# Internal - Orders and Directives

## AFO 8008-0 Fatigue Risk Management System for the Royal Canadian Air Force

### Identification

**Date of Issue** 2016-06-23 (date approved)

**Application** This document is an order that applies to members of the Canadian Armed Forces (CAF) and a directive that applies to civilian employees of the Department of National Defence (DND) who are posted, deployed, attached, or seconded to establishment positions in the Royal Canadian Air Force (RCAF) command and the Chief of the Air Force staff.

**Approval Authority** This AFO is issued by the Commander RCAF under the authority of QR&O 4.12 and CFOO 9954 and by the Chief of the Air Force Staff under the authority of QR&O 3.20.

**Enquiries** Director Air Readiness

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### Definitions

**Fatigue Counter Measure (FCM)** Any tool, practice, or procedure, including medication, which is used for fatigue risk mitigation. This includes Pharmacological Fatigue Counter Measures (PFCMs) and Standard Fatigue Counter Measures (SFCMs).

**Fatigue Risk Management System (FRMS)** A multi-layered approach to preventing fatigue and managing risk which is command-driven and inclusive of air and ground personnel.

**Mission Acceptance – Launch Authority (MALA)** A formalized, checklist-based tool which supports decision-making (DM) processes.

**Pharmacological Fatigue Counter Measure (PFCM)** Any medication which promotes sleep, alertness, and/or manipulation of circadian rhythms and which is used for fatigue risk mitigation.

**Standard Fatigue Counter Measure (SFCM)** Any tool, practice, or procedure, excluding the use of medication, which is used for fatigue risk mitigation.

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## **Policy Direction**

### **Context**

In the RCAF, fatigue is a known threat that degrades operational effectiveness, Flight Safety, and the retention of trained personnel across all communities.

Successful delivery of airpower effects requires a pan-RCAF approach to fatigue management that optimizes safe and effective operations.

### **Policy Statement**

Comprehensive fatigue management is recognized at all levels of command as being a critical operational enabler.

In order to optimize safe and effective air operations, the RCAF maintains a robust FRMS which is suited to military aviation, leverages existing Canadian Armed Forces (CAF) Risk Management (RM) processes, and is executed through the Chain of Command (CoC).

As a complement to the FRMS, the RCAF employs a MALA process for both domestic and deployed RCAF flying operations. MALA supports DM processes and ensures mission-related RM and risk acceptance at the appropriate level of authority. MALA integrates FRMS fatigue status inputs, assuring consideration of fatigue in the DM and RM cycle.

### **Governance**

The RCAF FRMS is governed as a component of the DND/CF Airworthiness Program. Regular reporting on FRMS through the DND/CF Airworthiness Program Executive Airworthiness Review Board process assures continuous improvement through data analysis. The RCAF FRMS is also subject to review by the Director of Flight Safety (DFS) through the audit mechanisms of the DFS program.

### **Guiding Principles**

The RCAF FRMS is:

- Process-based;
- Responsive to the Chain of Command;
- Inclusive of all personnel, air and ground;
- Science-based and data-driven; and
- Fully-integrated into RCAF DM processes.

### **FRMS Overview**

The RCAF FRMS is designed upon a “top-down bottom-up” approach. The centralized FRMS framework provides the “top-down” structure, guidance and tools to assure a standardized approach to fatigue across the RCAF. Within the standardized framework, the various RCAF communities develop fatigue risk control measures from the “bottom-up,” to accommodate their unique operational needs.

### **Risk Management**

The standard CAF RM process is applied to fatigue, and involves the

## Process

cycle of:

- Hazard identification;
- Hazard assessment;
- Control measure development;
- Control measure implementation; and
- Supervision and review to ensure control measure effectiveness.

This RM cycle is undertaken as fatigue hazards are identified. Control measures are developed and responsibility for control measure implementation and supervision is assigned. This process is documented.

Control measures may be standardized (pan-RCAF), customized (community- or site-specific), or individualized (person-specific).

## Layers of Defence

RCAF FRMS control measures are based on the principle of "defence in depth." Each RCAF unit documents the fatigue control measures in place, organized according to the six layers of defence:

**Education**: through fatigue training and culture building tools.

**Scheduling**: through scheduling practices and fatigue prediction tools to optimize workload-personnel balance and sleep opportunities.

**Sleep Quality**: through sleep hygiene training, judicious use of PFCMs, treatment of sleep disorders, and infrastructure optimized for sleep.

**Workplace/Mission Design**: through appropriately risk managed workplace infrastructure and mission design optimized for maintaining alertness.

**Alertness Maintenance**: through fatigue monitoring practices and the use of FCMS, including SFCMS and PFCMs.

**Reporting and Feedback**: through ongoing data collection and analysis to drive continuous program improvement.

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## Authorities and Accountabilities

### DG Air Rdns

Responsible for coordination of RCAF FRMS policy development activities.

### Comd 1 CAD

Responsible for:

- Coordinating MALA development and deployment;
- Coordinating Flying Operations Manual amendments related to fatigue; and
- Directing FRMS activities within 1 CAD units, including documentation and reporting.

**Comd 2 CAD**

Responsible for:

- Coordinating development and deployment of RCAF FRMS training packages; and
- Directing FRMS activities within 2 CAD units, including documentation and reporting.

**D Air CBM**

Responsible for:

- Coordinating the identification of RCAF FRMS financial requirements; and
- Budgeting RCAF FRMS in the RCAF Business Plan.

**D Air Rdns and Plans**

Responsible for:

- Developing and maintaining electronic RCAF FRMS toolbox as a repository for FRMS tools and resources; and
- Coordinating RCAF FRMS reporting as part of the DND/CF Airworthiness Program, including performance metrics.

**DFS**

Responsible for:

- Coordinating development and deployment of fatigue awareness and culture building tools;
- Coordinating development and deployment of fatigue hazard reporting and investigation training for Flight Safety personnel; and
- Coordination/provision of DFS FRMS Subject Matter Expert (SME) support.

**RCAF Surg**

Responsible for:

- Coordinating development and promulgation of technical guidance to CF Health Services Group Health Care Providers (HCPs) to manage fatigue and sleep-related disorders, in the context of RCAF operations; and
- Coordinating development and promulgation of technical guidance to CF Health Services Group HCPs and RCAF Commanders on the use of PFCMs to optimize safe and effective operations;
- Regulating and monitoring the use of PFCMs by RCAF personnel; and

- Coordinating and providing oversight of fatigue SME support from the CF Environmental Medical Establishment/Defence Research and Development Canada.

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## References

### Source References

- Air Board Minutes, 30 Mar 2016
- [B-GJ-005-502 FP-000 \(Nov 2007\) – Risk Management for CF Operations](#)

### Related References

- [AFO 8000-0 Air Doctrine Governance](#)
- [RCAF Flight Operations Manual](#)
- [A-GA-005-000/AG-001 DND/CF Airworthiness Programme](#)
- [S.E. Lerman, et al. "ACOEM Guidance Statement: Fatigue Risk Management in the Workplace." Journal of Occupational and Environmental Medicine. Vol 54. No. 2 \(Feb 2012\).](#)
- [M. Moore-Ede. "Evolution of Fatigue Risk Management Systems: The 'Tipping Point' of Employee Fatigue Mitigation." CIRCADIAN White Papers.](#)