

# FLIGHT SAFETY FOR THE CANADIAN ARMED FORCES



## **FOREWORD**

1. The A-GA-135-001/AA-001 Flight Safety for the Canadian Armed Forces (CAF) is issued by the Director of Flight Safety on the authority of the Chief of the Defence Staff. Up to date electronic copies of this publication shall be made available to personnel of units of the CAF in conducting or supporting air operations, including Unmanned Aircraft Systems (UAS). An up-to-date copy is available on the [DFS Intranet](#) under the Manuals tab.
2. The OPI for this publication is DFS 3 Prevention. The minimum review cycle for this publication is every three years with new amendments issued as required. Suggestions for amendments are to be forwarded through normal channels to the Director of Flight Safety, attention: [dfs.dsv@forces.gc.ca](mailto:dfs.dsv@forces.gc.ca).
3. The A-GA-135-002/AA-001 Occurrence Investigation Techniques is issued as a separate publication with limited distribution. DFS 2 is the OPI for this publication.
4. The A-GA-135-003/AG-001 Airworthiness Investigation Manual delineates the Airworthiness Investigative Authority's policies with details regarding standards, procedures and instructions for investigation interaction within the Department of National Defence and with persons, agencies, companies or authorities outside of the Department. It is issued electronically as a separate publication. DFS 2 is the OPI for this publication.

## **LIST OF AMENDMENTS**

This version of this publication replaces all previous versions of A-GA-135-001 / AA-001. The most recent official version of this publication is always accessible electronically on the [DFS Intranet](#) under the Manuals tab. All changes and modifications to this present version will be communicated by DFS and the details will be posted on the DFS Intranet.

**NOTE**  
A vertical line in the margin indicates recent significant changes made since the last change.

Amendment	Number	Date
<b>Original</b>	0	14 December 2018
<b>Change</b>	1	03 August 2020
<b>Change</b>	2	15 September 2021

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## **CHAPTER 1 – FLIGHT SAFETY PROGRAM DESCRIPTION**

References: A. A-GA-135-003/AG-001 Airworthiness Investigation Manual (AIM)

- B. B-GA-100-001/AA-000, National Defence Flying Orders
- C. A-GA-005-000/AG-001 DND/CAF Airworthiness Program
- D. B-GA-297-001/TS-000 Safety Orders for CF Air Weapons Systems
- E. A-GA-135-002/AA-001 Occurrence Investigation Techniques for the Canadian Forces

### **GENERAL**

1. The Flight Safety Program (FSP) is a program of accident prevention through safe behaviour, education, promotion and the investigation and analysis of matters concerning aviation safety. The Flight Safety (FS) badge is a visual reminder of the two distinct FSP activities of prevention (white) and investigation (black).
2. The FSP is a force multiplier for the Department of National Defence and the Canadian Armed Forces (DND/CAF). The FSP contributes to mission accomplishment by preventing accidental loss of aviation resources, while accomplishing missions within an acceptable level of safety.
3. FS prevention activities are detailed in this manual and include education, training, promotion, continuous monitoring of hazards and the provision of FS advice to the chain of command (CoC).
4. FS investigation activities are detailed in the Airworthiness Investigation Manual (reference A). All FS investigations are carried out under the authority of the Airworthiness Investigative Authority (AIA) and are conducted independently of the CoC.

### **DEFINITIONS**

#### **Aircraft**

5. Any machine capable of deriving support in the atmosphere from reactions of the air.

#### **Air Weapons**

6. Air Weapons are any ammunition, explosives and/or pyrotechnics suspended, launched, released or fired from an aircraft; it includes any aircraft store that interfaces with the air weapons system including bombs, missiles, torpedoes, flares, pyrotechnics, survival kit air droppable (SKAD) (excluding the SKAD dropped as cargo), chaff and flares, sonobuoys and airborne targets and banners. This applies to both live and inert weapons.

#### **Air Weapons System**

7. A system containing armament computers, mechanical, electromechanical and electronic components that is part of an aircraft's permanent equipment or installed as a

mission kit and is used to suspend, launch, release or fire ammunition/explosives and/or pyrotechnics in support of the mission being flown.

## **Flight Safety (FS)**

8. The state in which risks associated with flight activities, as well as those related to, or in direct support of air operations, are reduced and controlled to an accepted level.

### **FS Hazard**

9. An existing condition or activity that has the potential to pose a threat to FS. A hazard is the source, or cause of the risk.

### **FS Risk**

10. The potential outcome, often expressed in terms of projected likelihood and severity of its consequences, which could arise from a hazard and negatively impact FS.

### **FS Occurrence**

11. Any actual event, which involves the operation of a CAF or a military conveyance aircraft, including unmanned aircraft, or involves activities in support of flying operations, where FS is compromised. To constitute an occurrence, the event must have caused or had the potential to cause injuries to personnel or damage to materiel or property. Reporting FS occurrences is mandatory, including repetitive occurrences.<sup>1</sup>

## **Military Conveyance Aircraft**

12. A military conveyance aircraft is any aircraft, including a civilian registered aircraft that is operated by or on behalf of the DND, the CAF, or a visiting force.

## **Operating Unit**

13. An Operating Unit is a unit under whose authority a flight has been authorized in accordance with National Defence Flying Orders (reference B).

## **Preventive Measure (PM)**

14. A PM is an action that can be taken to decrease the likelihood or consequences of a FS risk, or neutralize a hazard.

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<sup>1</sup> Refer to the AIM (A-GA-135-003/AG-001) for reportable occurrences, aircraft damage and repetitive occurrences definitions.

## **Unmanned Aircraft (UA)**

15. An aircraft that does not carry a human operator and is operated remotely using varying levels of automated functions. The UA is the aircraft portion of the UAS.

## **Unmanned Aircraft System (UAS)**

16. A system whose components include the unmanned aircraft, the supporting network and all equipment and personnel necessary to control the unmanned aircraft.

## **GOVERNANCE**

17. As detailed in the DND/CAF Airworthiness Program (reference C), the Minister of National Defence (MND) directed the CDS, under subsection 4.3 (1) of the Aeronautics Act to assign Airworthiness Functions to appropriate authorities in the DND/CAF. Under this direction, the CDS delegated the Commander of the Royal Canadian Air Force (Comd RCAF) as the Airworthiness Authority (AA) for DND/CAF. Among the airworthiness functions assigned, the Comd RCAF is responsible for the oversight of the FSP across the full spectrum of DND/ CAF operations, at home and abroad.

18. Under amendments to the Aeronautics Act of 2014, the MND designated the Director Flight Safety (DFS) as the Airworthiness Investigative Authority (AIA) with the requirements for the AIA to fulfill the obligations listed in Part II of the Act. Further, under subsection 4.3 (1) of the Aeronautics Act the MND directed the Chief of the Defence Staff (CDS), to assign powers, duties and functions to the AIA that are necessary for the Airworthiness Program. One of these functions is for DFS to monitor the DND/CAF airworthiness program and advise the Comd RCAF on matters concerning aviation safety for all military conveyance aircraft, including all foreign military aircraft operating in Canada. Further, the AIA is responsible for the independent investigation of airworthiness-related occurrences and the regulation of the airworthiness aspects of the FSP, which are detailed in the AIM (reference A). All FS investigations are conducted on behalf of the AIA and are independent of the CoC. The AA is charged with ensuring that the AIA is not impeded in any way in the investigation of matters concerning aviation safety.

## **AIM OF FSP**

19. The aim of the FSP is to prevent accidental loss of aviation resources while accomplishing the mission at an accepted level of safety.

## **SCOPE OF FSP**

### **General**

20. The FSP is directed at military and civilian personnel involved in DND/CAF aviation and its contracted support elements. The DND/CAF shall conduct flying operations and related

supervisory and support activities in accordance with this publication. The FSP is applicable to and shall be implemented by:

- a. all DND/CAF operating units conducting flying operations;
- b. all DND/CAF units controlling flying operations including units providing air traffic control and air navigation services;
- c. all DND/CAF units supporting flying operations including units providing aircraft maintenance and logistics services;
- d. all DND/CAF contracted organizations conducting, controlling or supporting flying operations;
- e. contracted facilities where DND/CAF aircraft or engines are being manufactured,
- f. overhauled, inspected or repaired; and
- g. each level of command where flying operations are supervised or supported.

### **Air Weapons Safety (AWS)**

21. DFS has accepted oversight of air weapons safety (AWS) occurrences as part of the FSP. Every unit with an air weapons capability shall ensure that their FSP encompasses a vibrant Air Weapons Safety Program (AWSP).

22. FS occurrences involving air weapons shall be reported and investigated through the FSP. In general, any event involving an air weapon, from the moment that the air weapon is removed from an approved storage facility with the intent for loading onto an aircraft, until either the delivery of the air weapon to a target or its return to an approved storage facility, is considered as a FS occurrence and is reportable under the FSP.

23. Reference D remains the primary reference for AWS issues. The Airworthiness Investigation Manual (AIM) provides further details on FSP reporting requirements for FS occurrences involving air weapons, as well as guidance as to when reporting should be done under reference D.

### **UA and UAS**

24. UA are classified as aeronautical products and as such are subject to regulation under the DND/CAF Airworthiness Program (reference C). In addition, UA are authorized for flight under the National Defence Flying Orders (reference B). Therefore operation and control of UA falls within the scope of the FSP. Every unit with a UAS capability shall implement a FSP commensurate with the scope of UA activities of the unit.

25. FS occurrences involving UAS shall be reported and investigated through the FSP. The Airworthiness Investigation Manual (AIM) provides further details on FSP reporting requirements for FS occurrences involving UAS.

## **Air Cadet Flying Program**

26. The Air Cadet Flying Program (ACFP) must also comply with this publication. Specific arrangements and associated responsibilities are detailed at Chapter 2. The ACFP comprises the following sub-programs:

- a. The Air Cadet Gliding Program is a national program consisting of familiarization flights and glider pilot flying training; and
- b. The Air Cadet Powered Flight Program is a national program consisting of familiarization flights and pilot ab-initio flight training.

## **LOCAL FSP**

27. Units/Wings/Formations/Contractors shall implement a local FSP designed to meet their specific needs. This shall be documented, and should contain the following at a minimum:

- a. the endorsement of the Commanding Officer, which should be displayed in a prominent place within the unit;
- b. the concept of operations and description of the program;
- c. details of individual elements of the program, including interactions with other related safety programs;
- d. unit-specific FS processes and areas of interest; and
- e. sub-components of the program in annexes (e.g. ERP, AWSP)

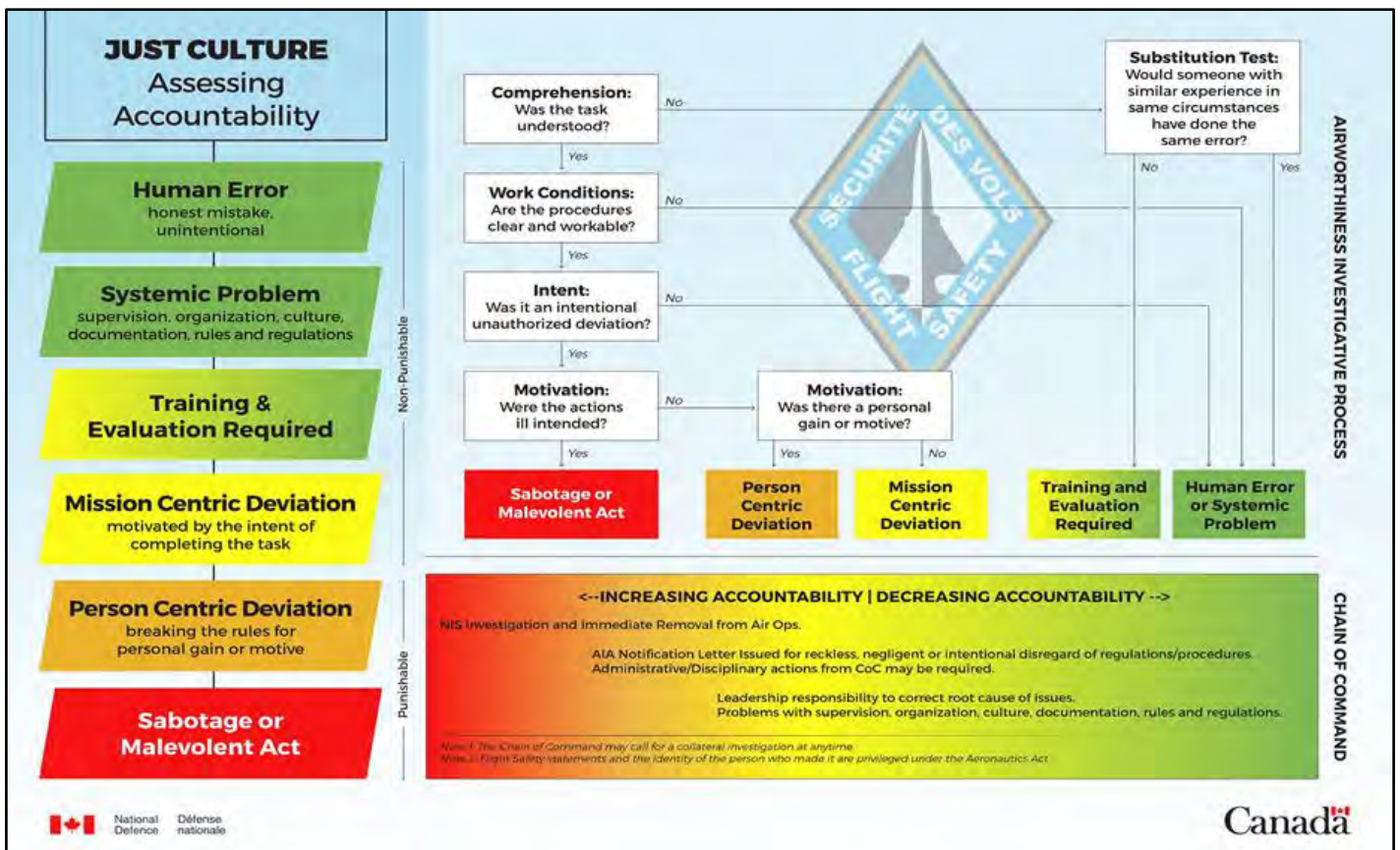
28. An example of a unit-level FSP is available on the [DFS Intranet](#) under the Administration tab.

## **FUNDAMENTAL PRINCIPLES OF THE FSP**

29. The FSP is based on the following five fundamental principles:

- a. the main principle is the prevention of occurrences. Although cause factors are assigned to occurrences, this is only done to assist in the development of effective PMs;
- b. personnel involved in conducting and supporting flying operations are expected to freely and openly report all FS occurrences and FS concerns;
- c. in order to determine the cause of occurrences such that appropriate, effective PMs can be developed and implemented, personnel involved in conducting and supporting flying operations are expected to voluntarily acknowledge their own errors and omissions;
- d. in order to facilitate free and open reporting and voluntary acknowledgement of errors and omissions, the FSP does not assign blame. Personnel involved in a FS occurrence are de-identified in the final report and the report itself cannot be used for legal, administrative, disciplinary or other proceedings; and

- e. the whole FSP is based on the primacy of having a “just culture.” A “just culture” lies between a non-punitive culture and one of sanction and punishment. Free and open sharing of critical safety information between managers and operational personnel, without the threat of punitive action, represents the basis of a reporting culture. Personnel are able to report occurrences, hazards or safety concerns as they become aware of them, without fear of sanction or embarrassment. However, while a non-punitive environment is fundamental for a good reporting culture, the workforce must know and agree on what is acceptable and what is unacceptable behavior. Negligence or wilful, deliberate deviations must not be tolerated by leadership. A “just culture” recognizes that, in certain circumstances, there may be a need for punitive action and defines the line between acceptable and unacceptable actions or activities.



**Just Culture Assessment**

**RESPONSIBILITY FOR FSP**

**Overall Responsibilities**

30. The Comd RCAF is responsible for FS policy in DND/CAF. FS policy is implemented by the chain of command through the establishment of a FSP by all organizations within the scope of the FSP.

## Management Responsibilities

31. Management responsibilities within the FSP are as follows:
- a. immediately ceasing activities that are deemed unsafe or where an unacceptable FS risk exists;
  - b. notifying higher authorities of unacceptable FS risks and the actions taken to mitigate them or of the need to seek additional resources to mitigate them;
  - c. reviewing and accepting/rejecting the FS risk as per the authority delegated from the Airworthiness Authority (AA), the Operational Airworthiness Authority (OAA) and the Technical Airworthiness Authority (TAA);
  - d. establishing the formation's / unit's FS risk control strategy;
  - e. measuring and reporting on the effectiveness of FS risk management activities within the formation / unit; and
  - f. promoting FS risk management activities at the formation / unit level.

## Individual Responsibilities

32. Personnel at every level are required to participate in and support the FSP. The success of the FSP is reliant upon a commitment to it by all personnel associated with DND/CAF flying operations. This commitment can only materialize if all personnel believe in the value of the program and understand that they have a responsibility to actively participate. In order to facilitate this, the individual shall be able to report any flight activity concerns and occurrences or propose better ways of doing business without fear of retribution.

33. Personnel are responsible for:
- a. immediately ceasing unsafe activities under one's direct control;
  - b. notifying their supervisor and the Flight Safety Officer (FSO) of the unsafe activity; and
  - c. formally identifying and reporting FS hazards and FS occurrences.

**NOTE**

It is the responsibility of each individual to cease unsafe activities, regardless of rank or position in the organization

## Training Establishment Responsibilities

34. All organizations and training establishments for which personnel will be exposed or involved with flying operations must ensure that appropriate training and exposure to the FSP be provided to their personnel. The training provided shall be proportional to the degree of projected exposure to flight operations, but shall cover as a minimum the key principles of "Just Culture" and the requirement to report FS hazards and occurrences.



## AIRWORTHINESS AND FS POLICY

### DND/CAF Airworthiness Program

35. The DND/CAF Airworthiness Program is based upon airworthiness management concepts used worldwide by military and civil airworthiness authorities, while being tailored to meet the unique needs of the DND/CAF. The Airworthiness Program contributes to aviation safety by influencing areas related to aeronautical products and their operation. The DND/CAF Airworthiness Program is mandated by the Minister of National Defence (MND) as detailed in Defence Administrative Orders and Directives (DAOD) 2015-0 and DAOD 2015-1 and amplified in DND/CAF Airworthiness Program (reference C). The elements of an effective airworthiness program consist of a full range of aviation activities including design, manufacture, maintenance, materiel support, facilities, personnel and operations.

36. The objective of the DND/CAF Airworthiness Program is to achieve and maintain an acceptable level of safety for military aviation, which is predicated on weighing the safety level desired against the cost and operational capability of the various aircraft fleets. The accepted level of safety varies for the fleet types and roles the aircraft assume because some safety levels for civilian aircraft types and roles are impractical for military operations. The “As Low as Reasonably Practical” (ALARP) principle for risk is primary in the pursuit of these levels of safety, meaning risk reduction is pursued, but must be weighed against financial and operational impacts of the initiatives. This matches the aim of the FSP to prevent accidental loss of aviation resources while accomplishing the mission at an acceptable level of safety.

37. A regulatory approach is the most common method employed to implement the concepts and principles of any airworthiness program. A regulatory approach means to control by rule and involves using regulations, orders, directives and standards to control airworthiness-related activities. A regulatory approach for controlling airworthiness activities has the following three distinct roles:

- a. Regulator. The regulator develops the airworthiness instrument (rules and standards) for the engineering, manufacture, maintenance, materiel support and operation of aeronautical products and ensures compliance (e.g. Transport Canada for civil aviation);
- b. Implementer. The implementer conducts the aviation activities associated with the engineering, manufacture, maintenance, materiel support and operation of aeronautical products (e.g. airlines, manufacturers and maintenance organizations for civil aviation); and
- c. Investigator. The investigator investigates airworthiness-related safety occurrences and aviation safety issues. The investigator is normally independent from the regulator and implementer. The investigator is also empowered to investigate the role that the regulator and implementer may have had in any aviation occurrence (e.g. Transportation Safety Board (TSB) for civil aviation). DFS is the designated AIA for this program and fulfils the investigator role as described.

38. Unlike civil aviation, where the airworthiness regulator, implementer and investigator are totally independent, the Aeronautics Act has assigned DND a self-regulating and self-investigating responsibility for airworthiness.

39. It is important to understand the relationship between the DND/CAF Airworthiness Program and the FSP. As stated in the Airworthiness Program documentation, “the FSP performs the vital role of providing an independent review and assessment of the suitability and effectiveness of the Airworthiness program, including its policies, standards and procedures”. The investigation activities of the FSP form the Airworthiness Investigation Program under the DND/CAF Airworthiness Program.

40. Within the Airworthiness Program, DFS is named as the AIA and charged with independently investigating all matters concerning aviation safety. Details of the powers delegated from the MND, using powers within the Aeronautics Act, to the AIA and then onward to all airworthiness investigations are laid out in the AIM. Of note, all activities carried out for FS investigations are carried out on behalf of the AIA/DFS. The FSP integrates the investigation portion of the DND/CAF Airworthiness Program within its activities which are detailed in the Airworthiness Investigation Manual (AIM) (reference A) and the investigation techniques outlined in Occurrence Investigation Techniques for the Canadian Forces (reference E).

## **Risk Management**

41. The identification/recognition of FS hazards is a responsibility shared by all DND/CAF personnel or supporting personnel. As promulgated in A-GA-005-000/AG-001 DND/CAF Airworthiness Program, overall responsibility for managing FS risks rests with COs, DND/CAF managers at all levels, and designated contractor representatives.

42. The Airworthiness Program employs an Airworthiness Risk Management (ARM) process which provides a logical and systematic framework to assess and pro-actively balance airworthiness risk against both mission accomplishment and available resources. The objective of the ARM process is to enhance military aviation capability by ensuring that risk is recognized, mitigated and accepted at the proper level within the command structure. The ARM process is invoked when the level of safety, accepted during the airworthiness clearance of an aviation product, cannot be maintained. A Record of Airworthiness Risk Management (RARM) is the key airworthiness document used to document and manage airworthiness risk.

43. As part of the airworthiness program, the CDS has delegated the AIA to monitor airworthiness activities and functions and to audit airworthiness processes and procedures to ensure aviation safety is not compromised. As part of this monitoring function, the TAA and OAA must keep the AIA up to date concerning all RARMs. While the AIA does not have an approval/acceptance function within the RARM process, the AIA may raise concerns on individual RARMs to the appropriate airworthiness authority and conduct assurance and oversight activities on the RARM process, as required.

NOTE

Involvement of a Division/Formation FSO in the development of a RARM does not fulfill the AIA monitoring requirement. Division/Formation FSOs are advisors to their respective commanders and are not included within the CDS Delegation letter as having a monitoring/audit role.

44. Due to the inherent dangers associated with operating military aircraft, a certain acceptance of FS risk is often required. It is also understood that high intensity operational activities may require the acceptance of higher levels of FS risk, compared to peacetime force generation activities. Risk management in the planning and execution of the DND/CAF mission is fundamental to safe operations. The ARM process provides a logical and systematic means of identifying and controlling safety risks in the decision-making process. In all cases, the decision to accept FS risk must be controlled, balanced and approved at the appropriate command level.

### **FS STRATEGIC PROCESSES**

45. A strategic level conceptual model of FS-related processes for the FSP is provided at Annex A. It describes in a comprehensive manner all the FS processes irrespective of the organizations responsible to execute them. Many organizations or activities contribute directly or indirectly to the processes described in the model's three management pillars in the form of Resilience Management, Risk Management and FSP Management. DFS is the champion of the FSP for the DND/CAF, and maintains close liaison with the organizations carrying out the strategic FS processes. DFS, as the AIA, is responsible to the Minister of National Defence (MND) for FS investigations.

46. Resilience and Risk Management represent the pillars to which most of the critical FS processes and activities gravitate. Resilience Management is considered a proactive form of accident prevention because it reduces the potential or severity of threats to air operations. Risk Management on the other hand is more reactive in that the associated activities are in response to newly identified hazards.

### **FS AGREEMENTS**

47. Canada/DFS is a signatory of several FS agreements at the national and international level. Implementation of these agreements is a key enabler to ensuring the CAF mandate is accomplished when operating CAF air assets at home/abroad or when foreign military air assets operate in Canada. The following paragraphs summarize the principal FS agreements in effect, and are available on the [DFS Intranet](#) under the STANAG/MOU tab.

### **NATO FS Standards**

48. DFS is a member of the North Atlantic Treaty Organization (NATO) Flight Safety Working Group (FSWG) which is responsible for maintaining the suite of NATO FS Standards entitled "Allied Flight Safety Publications (AFSPs)". Member nations agree to implement AFSPs via NATO Standardization Agreements (STANAGs). The following paragraphs summarize the AFSPs/STANAGs that Canada has agreed to implement and which are incorporated within the FSP. A link to these documents can be found on the [DFS Intranet](#) under the "Manuals" tab.

**AFSP 1.0 (Aviation Safety) / STANAG 7160**

49. AFSP 1.0 is the first in the AFSP suite of documents and sets out general policy and guidance on aviation safety principles, policies and procedures, in particular those aimed at accident prevention.

**AFSP 1.1 (Exchange of Flight Safety Information) / STANAG 3101**

50. The aim of this standard/agreement is to maintain point of contacts for FS organizations and establish procedures for the exchange of safety information peculiar to aircraft types, unmanned aircraft systems and missiles in current use by nations.

**AFSP 1.2 (Flight Safety Cooperation in Common Ground/Airspace) / STANAG 3102**

51. The aim of this standard/agreement is to establish the requirement for coordination of accident prevention matters when a detachment of one nation operates within or over the sovereign territory of another nation for 8 days or more, or when aircraft of two or more nations participate in combined/joint air operations within the sovereign territory of any NATO nation and/or “out-of-area” air operations.

**AFSP 1.3 (Safety Investigation and Reporting of Accidents/Incidents Involving Military Aircraft, Missiles and/or UASs) / STANAG 3531**

52. The aim of this standard/agreement is to establish procedures for the safety investigation and reporting of accidents/incidents of military aircraft, missiles and/or UAS which involve the equipment, property, facilities and/or personnel of two or more nations.

**AFSP 1.4 (Wildlife Strike Prevention) / STANAG 3879**

53. The aim of this standard/agreement is to standardize the measures to avoid collisions between wildlife and aircraft and the formats for the exchange of information on the presence of wildlife and wildlife strike reports.

**AFSP 2 (Aircraft Marshalling Signals) / STANAG 3117**

54. The aim of this standard / agreement is to standardize aircraft marshalling signals and the distinctive garment to be worn by aircraft marshallers.

**AFSP 3 (Planning and Conduct of Live Air Weapons Demos) / STANAG 3564**

55. The aim of this standard/agreement is to ensure that all factors affecting the safe conduct of any live air weapons demonstration with and without spectators are adequately studied and to specify responsibilities for the planning and conduct of such demonstrations.

**AFSP 4 (In-Flight Visual Signals) / STANAG 3379**

56. This aim of this standard/agreement is to establish in-flight visual signals and the essential procedures for using them.

**AFSP 5 (Flying and Static Displays) / STANAG 3533**

57. The aim of this standard/agreement is to establish basic safety procedures, regulations and responsibilities for flying and static displays, which involve aircraft of two or more nations.

## **AFSP 6 (Emergency Markings on Aircraft) / STANAG 3230**

58. The aim of this standard/agreement is to establish parameters for emergency markings on the outside and the inside of aircraft.

### **ICAO**

59. The International Civil Aviation Organization (ICAO) is a specialized agency of the United Nations, established by Member States to manage the administration and governance of the Convention on International Civil Aviation (Chicago Convention). ICAO works with the Convention's Member States and industry groups to reach consensus on international civil aviation Standards and Recommended Practices (SARPs) and policies in support of a safe, efficient, secure, economically sustainable and environmentally responsible civil aviation sector. SARPs provide the fundamental basis for harmonized global aviation safety and are used by ICAO Member States to ensure that their local civil aviation operations and regulations conform to global norms. SARPs are organized and issued by Annexes to the Convention.

60. To promote interoperability within global civilian airspace, DND/CAF aviation activities are generally aligned with ICAO SARPs/Annexes to the maximum extent possible. While DFS is not a signatory to ICAO, the FSP is broadly aligned with the following ICAO Annexes:

- a. Annex 13 - Aircraft Accident and Incident Investigation: Details activities following accidents and incidents wherever they occur.
- b. Annex 19 - Safety Management: Details safety management functions related to, or in direct support of the safe operation of aircraft.

### **National Agreements**

#### ***DFS/TSB Working Agreement***

61. FS investigations conducted by DFS follow a protocol similar to that of the TSB as prescribed by the Aeronautics Act. A working agreement exists between DFS and the TSB to provide direction for coordinated DFS/TSB investigations of transportation occurrences. This agreement can be found on the [DFS Intranet](#) under the STANAG/MOU tab.

#### ***Service Level Agreements***

62. Service level agreements have been signed between DFS and other departmental organizations mandated to support DFS during the conduct of investigations. These include agreements with the Quality Engineering Test Establishment (QETE), Defence Research and Development Canada – Toronto (DRDC Toronto), the Aerospace Engineering and Test Establishment (AETE) and the National Research Council of Canada (NRCC). A link to these agreements can be found on the [DFS Intranet](#) under the STANAG/MOU site.

### **FLIGHT SAFETY INFORMATION MANAGEMENT SYSTEM (FSIMS)**

63. FSIMS was developed to meet the safety information management needs of the FSP and facilitates FS data collection, analysis and exchange of FS information. FSIMS

development and policy is a DFS responsibility with training on the use of FSIMS provided by 1 CAD FSO as part of the FS Course (FSC).

64. The FSIMS is the primary tool used by the FSP to record FS information related to all reported FS occurrences and hazards. FSIMS also provides FSOs at all levels with an ability to track FS information and to develop, monitor and trend FS performance measures to evaluate the effectiveness of the FSP. The FSIMS database is restricted to individuals in active FS positions or working directly in support of the FSP. Individuals can request access to the FSIMS database by completing the “FSIMS Request Form” available on the [DFS Intranet](#) under the FSIMS tab. When the member transfers positions or is no longer involved with the implementation of the FSP program, an email shall be sent to DFS3 at ([dfs.dsv@forces.gc.ca](mailto:dfs.dsv@forces.gc.ca)) requesting their FSIMS account be de-activated.

65. For questions related to the administration of FSIMS (account access, technical issues) please contact DFS3 at ([dfs.dsv@forces.gc.ca](mailto:dfs.dsv@forces.gc.ca)). For general inquires related to FS occurrences, data input, correct HFACS classifications, or fleet specific issues, please contact a DFS desk officer.

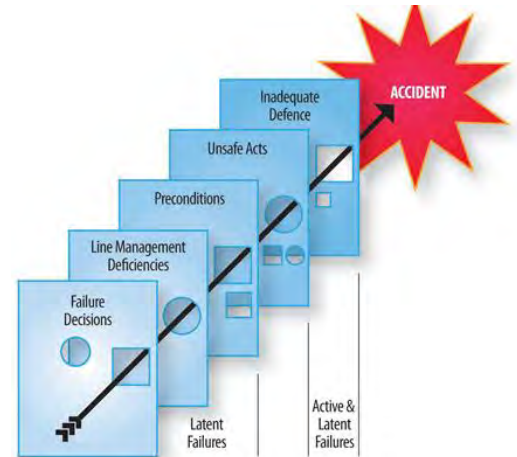
66. ICAO also maintains an Accident/Incident Data Reporting (ADREP) system for states to report accidents and serious occurrences. The main interface for entering/retrieving ADREP data is called European Coordination Centre for Accident and Incident Reporting Systems (ECCAIRS). For data comparison and to facilitate exchange of FS information with external civilian aviation safety organizations, FSIMS data may be broadly mapped to ICAO/ADREP/ ECCAIRS data. Annex B details the relationship between the FSP and the ICAO occurrence categorization system.

Annex A  
 Chapter 1  
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## ANNEX A – FS STRATEGIC BUSINESS MODEL

### Introduction

1. The strategic FS model provides a high level framework and describes the processes involved in the FSP. Accident prevention processes can be derived by inverting Reason’s Swiss Cheese model of Accident Causation. Accidents occur because weaknesses or “windows of opportunity” open and align in all levels of the operation, allowing a chain of events to cause an accident. Accidents can be prevented by adding layers of defences through resilience management and patching holes in these defences through risk/hazard management.



### FS Business Processes

2. Appendix 1 to this annex is a graphical depiction of the FS business processes. They are regrouped as follows:
- a. Resilience Management. Resilience management is the process of making the equipment, procedures and personnel resilient to accident-causing conditions, and thus protect operations from unknown hazards.
    - i. Equipment Resilience Activities. CAF airworthiness organizations employ tools and methods to ensure aircraft and related equipment are acceptable for the operations and flying environment. FS data is provided to improve Design, Modification, and Maintenance airworthiness on current and new aircraft so that the flying operations can better withstand unknown hazards.
    - ii. Procedures Resilience Activities. CAF flying procedures are monitored to ensure that air operations are being conducted in a safe manner. FS surveys are conducted, rules and regulations are reviewed, and periodic inspections are performed in order to continually improve all associated procedures.
    - iii. Personnel Resilience Activities. Personnel are trained to be capable of dealing with known and unknown threats to FS. Occurrences, hazards, trends, and many other forms of FS data are disseminated to all personnel involved with the support or conduct of air operations so they can better understand the situations and circumstances that can compromise FS. This is supported by a comprehensive awards program to encourage safe behaviour throughout the organization.
  - b. Program Management. The FSP provides the administrative framework for the Resilience and Risk Management processes. Program Management includes development of the FS Program, policies and procedures, relevant training and

education, and activities that provide feedback to the chain of command. Program Management does not directly prevent accidents, but supports Resilience and Risk Management in doing so.

- c. Risk Management. Risk management is the systematic process of identifying risks, assessing their implications, deciding on a course of action, and evaluating the results. Known risks are those that have been identified and analyzed. Unknown risks, by their nature, cannot be managed, and thus are addressed through resilience management.
  - i. Identify Hazards. The principle means of identifying hazards is through occurrence investigation, hazard reporting, and trend analysis. A comprehensive reporting system is required to track hazards from initial identification until resolution of any preventive measures.
  - ii. Investigate Hazards. Based on the preliminary information captured when the hazard or occurrence was reported, the nature of the hazard and its severity will be used to determine the level of the investigation and resources that should be employed.
  - iii. Analyze Risk. All available information is systematically reviewed to determine how often specified events may occur and the magnitude of their consequences. Commanders at all levels review investigations within their sphere of responsibility, the associated proposed PM, then make documented decisions on how they will address the hazards.
  - iv. Mitigate Risk. Hazards, whenever possible, are corrected by implementing one or more FS PM. It is critical that the various stages and levels of implementation be tracked and monitored to ensure complete staffing, either full implementation, partial implementation or no implementation (refusal). The latter two options must be endorsed at the proper level in the chain of command and supported by an appropriate record of Airworthiness Risk Management.

## **FS Information Flow**

3. Appendix 2 describes the interrelationship between the individuals involved in FS and the FS information flow. It represents the major types of information used for FS management (Hazards, Risk, PM, etc.) and the relationships that the entities have with each other as the data / information flows through the FS system.
4. The information model descriptors are:
  - a. Persons Involved in Air Operations. These personnel include aircrew, ground crew, maintainers, air traffic personnel, contractors, as well as any other Air Force, Navy, or Army personnel involved with flying operations. They are responsible for identifying and reporting any hazard to FS that they find.
  - b. FS Staff. FS Staff include Unit Flight Safety Officers (UFSOs), Wing Flight Safety Officers (WFSOs), Formation FSOs, Division Flight Safety Officers (Div FSOs), DFS Flight Safety Officers, and deputies at all levels. They are responsible for validating and investigating reported hazards, for analyzing the hazard risk potential and for proposing



possible PM. FSOs and their assistants (FS Non-Commissioned Members, FS Specialist (Weapons) (FS Spec (W), etc.) operate within a FS functional chain of command. As advisors to their respective supervisors, all tiers of FS (deployments, unit, wing, formation, division, contracted unit and DFS) work in a cooperative and functional Chain of Command IAW direction set in this publication.

- c. Chain of Command. Chain of command include unit commanding officers, wing commanders, formation commander, division commander, and supervisors at all levels. These persons are responsible for evaluating the hazards within their organizations, and either formally accepting the risk, or mitigating the risk by implementing PM. By extension, the senior management of contracted organizations have an equivalent chain of command.
- d. Action Agencies. Once the Chain of Command has confirmed the risks associated with certain hazards, they will task Action Agencies to complete PM. These Action Agencies will notify FS Staff when their assigned PM has been completed, as well as provide status reports along the way.

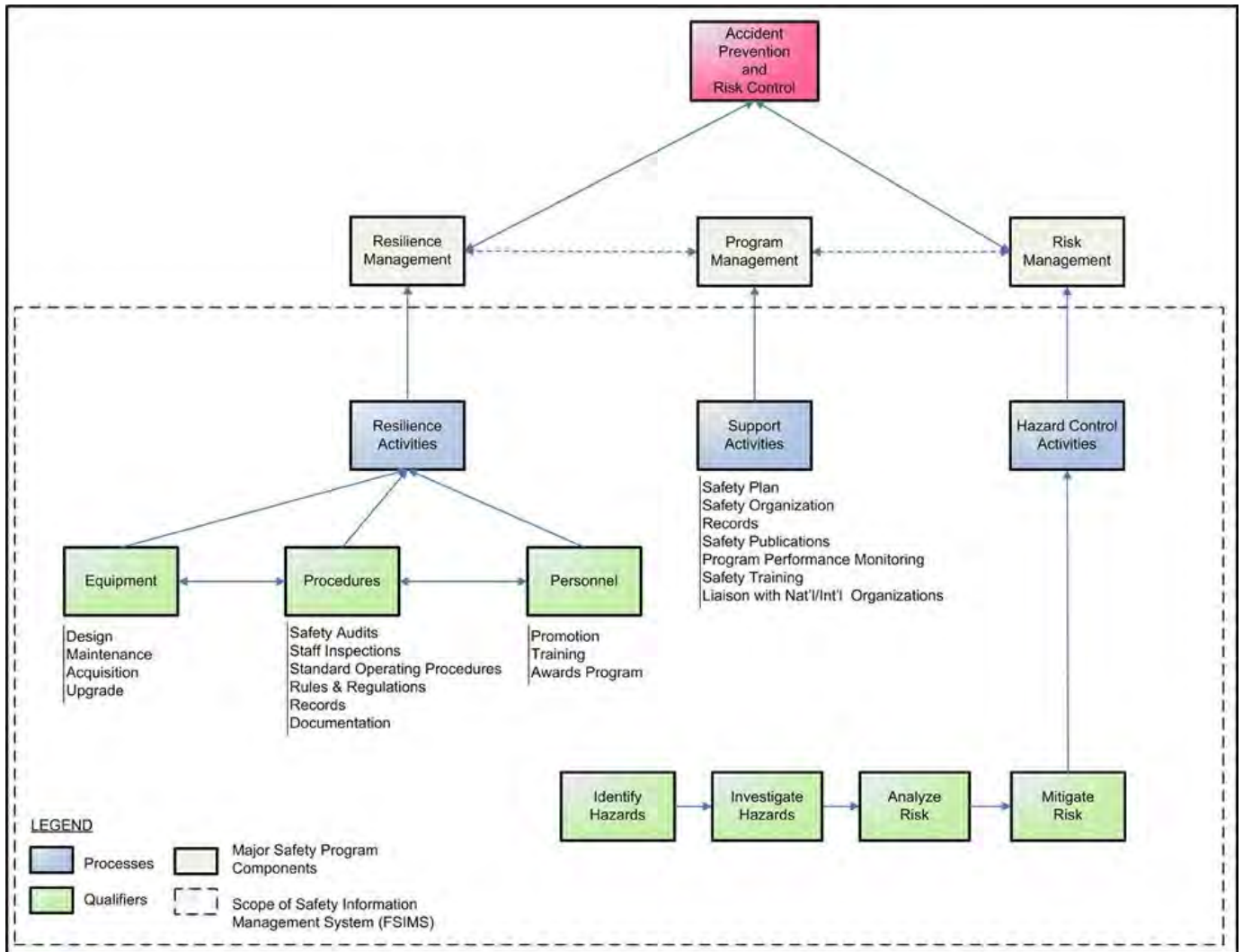
### **FS Business Model and FSIMS**

5. The FSP achieves the aim of preventing accidental loss of aviation resources while accomplishing the mission at an acceptable level of risk. This is done by managing the risks associated with air operations, and by making the organization resilient to unknown hazards. Some of the FS processes in the FS business model are the direct responsibility of the Airworthiness Investigative Authority while others are the responsibility of organizations and personnel directly and indirectly supporting air operations.

6. The FS Information Management System (FSIMS) supports the FSP by recording all factual data related to FS occurrences and hazards. It details investigation results including assigned cause factors, recommended PM and disposition of these PM. The collection of data and its systematic analysis helps in the prevention of accidents and the control of risk in a manner that is measurable.

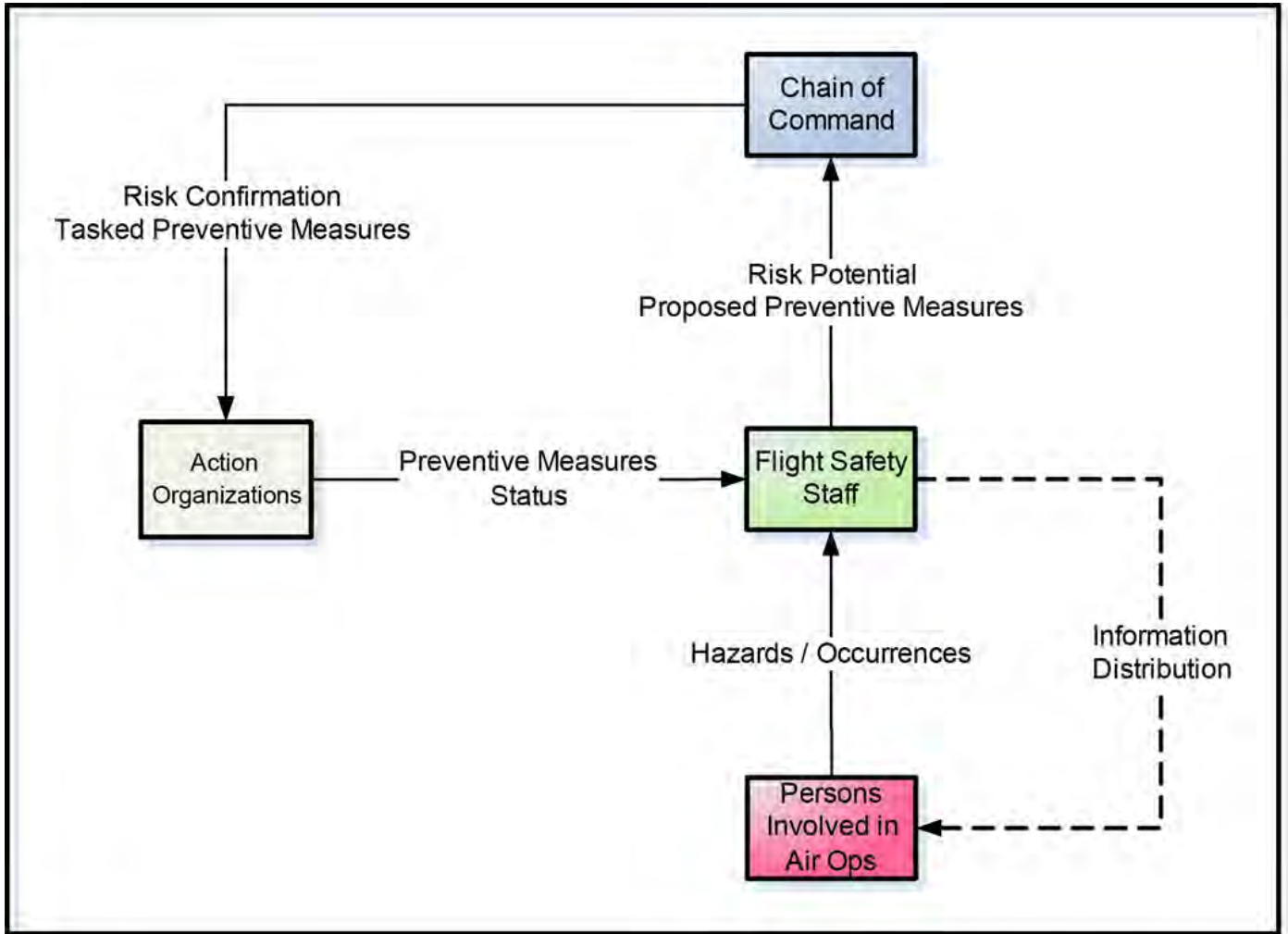
Appendix 1  
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**APPENDIX 1 – FS BUSINESS PROCESSES**



Appendix 2  
Annex A  
Chapter 1  
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**APPENDIX 2 – FS INFORMATION MODEL**



Annexe B  
 Chapitre 1  
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**ANNEX B – RELATIONSHIP BETWEEN FSP AND ICAO OCCURRENCE CLASSIFICATION SYSTEM**

1. For data comparison and to facilitate exchange of FS information with external aviation safety organizations, FSIMS data may be mapped to ICAO/ADREP/ECCAIRS data by considering the FS occurrence category and FS compromise level (FSCL) (see Airworthiness Investigation Manual, Chapter 5).
2. A summary table to convert FS occurrences to the ICAO classification system is provided below:
  - a. Accident (Occurrence Class: 100). Any FS occurrence classified as an accident (FS Occurrence category of “A”, “B” or “C”). Accidents are subject to mandatory reporting IAW ICAO Annex 13;
  - b. Serious Incident (Occurrence Class: 200). Any FS occurrence classified as an incident (FS Occurrence category of “D” or “E”) and having an FSCL of high or medium. ICAO, Annex 13 contains a non-exhaustive list of examples of serious incidents which is provided at Annex B, Appendix 1 for reference purposes. Serious incidents are subject to mandatory reporting IAW ICAO Annex 13; and
  - c. Incident (Occurrence Class: 300). Any FS occurrence classified as an incident (FS Occurrence category of “D” or “E”) and having an FSCL of low. Incidents are subject to voluntary reporting IAW ICAO Annex 19.

FS Occurrence Category	Flight Safety Compromise Level (FSCL)	ICAO Occurrence Class
A	High	100 Accident
B		
C		
D, E	High to Medium	200 Serious Incident
D, E	Low	300 Incident

**Relationship between FSP and ICAO Occurrence Classification Systems**

Appendix 1  
Annex B  
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## **APPENDIX 1 – EXAMPLES OF ICAO SERIOUS INCIDENTS**

1. The incidents listed below are typical examples of incidents that are likely to be serious. The list is not comprehensive and only serves as guidance to the definition of serious incident.
  - a. Near collisions requiring an avoidance manoeuvre to avoid a collision or an unsafe situation or when an avoidance action would have been appropriate;
  - b. Controlled flight into terrain only marginally avoided (near CFIT);
  - c. Aborted take-off on a closed or occupied runway;
  - d. Take-off from a closed or occupied runway with marginal separation from obstruction;
  - e. Landing or attempted landing on a closed or occupied runway;
  - f. Gross failure to achieve predicted performance during take-off or initial climb;
  - g. Engine fire or fire and smoke in the passenger cabin or cargo compartment, even though such fires were extinguished with extinguishing agents;
  - h. Event requiring the emergency use of oxygen by the flight crew;
  - i. Aircraft structural failure or engine disintegration not classified as an accident;
  - j. Multiple malfunctions of one or more aircraft systems seriously affecting the operation of the aircraft;
  - k. Flight crew incapacitation in flight;
  - l. Fuel quantity requiring the declaration of an emergency by the pilot;
  - m. Take-off or landing incidents such as runway undershoot or overshoot or running off the side of a runway;
  - n. System failure, weather phenomenon, operation outside the approved flight envelope or other occurrences that could have made controlling the aircraft difficult;
  - o. Failure of more than one system in a series of redundant systems mandatory for flight guidance and navigation; and
  - p. The unintentional, or as an emergency measure, the intentional release of a slung load or any other load carried external to the aircraft.

## **CHAPTER 2 – ORGANISATION**

### **GENERAL**

1. The accidental loss of aviation resources can be prevented if hazards are identified and, whenever possible, eliminated. The achievement of this objective requires an effective FSP that is proactive, adaptable, relevant and highly visible to all members of the organization. This, in turn, requires a dedicated staff of highly motivated, trained FS professionals to develop, revise and administer the FSP on behalf of the chain of command. In the case of airworthiness investigations, these professionals perform their duties on behalf of the MND through delegated responsibilities to the AIA. Therefore, FS professionals are required at all levels of the organization in order to optimize the effectiveness of the FSP.

### **DEFINITIONS**

#### **Accountable Executive**

2. A single, identifiable person having responsibility for the effective and efficient performance of a civilian contractor's FSP.

#### **FS Officer (FSO)**

3. The person officially appointed by the CO/Comd/Accountable Executive to implement and maintain an effective FSP on behalf of the CO/Comd/Accountable Executive.

**NOTE**

The term officer is not related to the rank held by the appointee. The FSO may be an officer, NCM/NCO or civilian as required.

**NOTE**

The FSO may also be authorized by the AIA to conduct independent investigations on behalf of the AIA in accordance with the Airworthiness Investigation Manual. This is a distinct role that is independent of any FS duties assigned by the CO/Comd/Accountable Executive

#### **FS Unit**

4. A FS Unit is any unit within the CAF or contracted by the CAF that is conducting or controlling flying operations or conducting aircraft support activities.

**NOTE**

Examples of RCAF FS Units include operational, training and maintenance squadrons, air traffic control units and contracted equivalents. Equivalent Army, Navy or CANSOFCOM organizations conducting or controlling flying operations or conducting aircraft support activities are considered FS Units.

## FS Formation

5. A FS Formation is any headquarters organization within the DND/CAF that oversees aviation activities of one or more FS Units within its area of responsibility.

### NOTE

Examples of RCAF FS Formations include the Air Staff, Air Divisions and Wings. Equivalent Army, Navy or CANSOFCOM organizations overseeing aviation activities are considered FS Formations

## FLIGHT SAFETY OFFICER (FSO) - GENERAL

### Assignment of FSO

6. Accident prevention is the responsibility of COs/Comds/Accountable Executives and involves monitoring the control, conduct and support of air operations. The CO/Comd/Accountable Executive shall put in place proper oversight of air operations within their area of responsibility by designating an FSO to oversee the FSP, including the Air Weapons Safety program (AWSP) as applicable, and to provide specialist advice on all matters concerning FS.

7. Candidates nominated for the Unit FSO position must be able to occupy the position for 18–24 months. Candidates nominated for the Wing/Formation FSO position must be able to occupy the position for a minimum of 36 months. There must also be a succession plan in place to ensure continuity in FSO positions.

### FSO Responsibilities - General

8. The CO/Comd/Accountable Executive normally assigns responsibility to their FSO for devising, revising, promoting and administering the Unit/Wing/Formation/Contractor FSP. In general, all FSOs are responsible for:

- a. consulting and being aware of the Unit/Wing/Formation/Contractor risk assessment criteria;
- b. immediately notifying the CO/Comd/Accountable Executive of any unsafe activities and unacceptable risks. In these cases the FSO must seek an order from an appropriate authority to cease the activity until the problem can be assessed and either resolved or mitigated to an acceptable level; and
- c. carrying out independent airworthiness investigation activities as detailed in the AIM and authorized by the AIA.

### FSO Access to CO/Comd/Accountable Executive

9. The FSO must have direct access to the CO/Comd/Accountable Executive. Although reporting directly to the CO/Comd/Accountable Executive, the FSO normally presents their observations or recommendations to the individual who has the authority to take corrective action. Recommendations prepared by the FSO must be constructive, well thought out and tactfully presented.

## **FSOs and Deputy FSOs (D/FSO) Position Requirements**

10. In order to provide FSP and AWSP advice to the CO/Comd/Accountable Executive, any person filling the role of a Unit, Wing, Formation or Contractor FSO or D/FSO is required to hold the appropriate security clearance, and to have attained the Basic Investigator (BI) 2 qualification through the formal RCAF FS course. In cases where an individual has not undertaken the FSC prior to their appointment, they should complete this training as soon as possible. See Chapter 7 for further details on training and currency requirements.

11. In order to provide expert advice to the CO/Comd/Accountable Executive on hazards and risks associated with the operation, the FSO should have in-depth experience in the related operational roles of the Unit/Formation and be familiar with the full spectrum of operations of the organization. Aircrew shall maintain flying currency wherever feasible.

### **Advisement of FSO and D/FSO Appointments**

12. On behalf of the CO/Comd/Accountable Executive, the FSO shall advise DFS/AIA and all relevant HHQ FSOs of FSO and D/FSO appointments and qualifications.

**NOTE**

When a FSO will be absent for an extended period of time, the FSO shall advise DFS/AIA and all relevant HHQ FSOs of the period of absence and who the interim FSO will be.

### **Limitations on FSO Secondary Duties**

13. The FSO is expected to be actively involved in the stewardship of the Unit/Formation FSP, as well as to maintain professional qualifications and categories commensurate with the role(s) of the Unit/Formation. In addition, the FSO will normally be authorized by the AIA to conduct independent investigations on behalf of the AIA. In order to carry out these functions unimpeded, the FSO should not be assigned additional secondary duties. If a CO/ Comd deems it necessary to assign additional secondary duties, then the CO/Comd shall request approval from the next higher Formation Commander. The request shall outline the circumstances, period required and any mitigation measures. The request and authorization shall be held on file by the FSO of the approving Formation Commander and shall be reviewed at least annually.

14. Furthermore, the FSO shall not be assigned duties that conflict with the fundamental principles of the FSP. Specifically, duties that could potentially require disciplinary actions to be taken are incompatible with the need to conduct independent, non-punitive investigations on behalf of the AIA.

### **Resources Assigned to Support the FSO**

15. In order to run an effective FSP, the FSO must be assigned sufficient FS trained personnel to carry out the full range of prevention and investigation activities during a normal workday. A succession plan is also required to ensure continuity in FS positions.

16. In addition, the FSO shall be provided sufficient technical/administrative/physical resources to perform required FS duties including:



- a. infrastructure (ex. office space, private interview area, equipment storage, training/classroom area);
- b. equipment (ex. computer/network, communication, crash kits); and
- c. transportation (when required).

17. The organization’s business plan should incorporate FS priorities and objectives with a suitable budget allocation to deliver on FS initiatives and requirements.

**ORGANIZATION - FS FORMATIONS**

18. Senior FS positions at Comd RCAF, 1 CAD, 2 CAD and Wing/Formation level are established at the rank of Captain/Lt(N) through Colonel/Capt(N). Table 1 below shows the designated FSO positions for various FS Formations. If no designation has been stated, the 1 CAD FSO will act as the Formation FSO.

<b>Organization</b>	<b>Designated FSO Position</b>
<b>Strategic level</b>	
CDS and Level 1 Organizations	DFS (NDHQ Staff Advisor For FS)
Comd RCAF	DFS
<b>FS Formations</b>	
1 Canadian Air Division (1 CAD) / CANR	1 CAD FSO
2 Canadian Air Division (2 CAD)	2 CAD FSO
Army / Navy Formation HQ	Designated FSO within HQ
Canadian Special Operations Forces Command (CANSOFCOM)	CANSOFCOM FSO
Wing / Base / Brigade	WFSO / BFSO / Brigade FSO
Cadets and Junior Canadian Rangers (CJCR)	CJCR FSO

**FS Formations and Corresponding Formation FSO**

**Strategic Level - DFS**

19. Overall, the CDS has delegated DFS to be responsible for the monitoring and oversight of the FSP for the CAF/DND. At the strategic level, DFS is also assigned to act as the National

Defence Headquarters (NDHQ) staff advisor for all FS matters, including the provision of FS advice to the CDS and to Level 1 organizations as required.

20. DFS is also the FSO assigned to the Comd RCAF. On behalf of the Comd RCAF, DFS shall:

- a. provide advice on all FS and Air Weapons Safety (AWS) matters;
- b. devise, implement and monitor the FSP and the AWSP as detailed in this publication;
- c. participate as a member of the Airworthiness Review Board (ARB) and the Airworthiness Advisory Board (AAB) (see Chapter 3);
- d. advise on the adequacy and suitability of policies, procedures and standards for AWS;
- e. collect, maintain and analyze FS and AWS statistics for prevention purposes;
- f. promote AWS awareness;
- g. monitor and facilitate follow-up action to all aviation safety occurrences;
- h. monitor the implementation of FS PMs;
- i. monitor and participate in an educational program for the training of FS personnel;
- j. produce and distribute educational and promotional material;
- k. recommend nominations for FS awards and approve, as applicable;
- l. represent the CAF at international FS conferences;
- m. conduct annual FS briefings at Units, Wings, and Contractor facilities;
- n. conduct formal FS Assurance Visits (FSAVs), prepare FSAV reports and track FSAV recommendations as detailed in Chapter 4; and
- o. participate in and/or conduct formal FSAVs of FS formations and FS units.

21. The CDS designates, on behalf of the MND, the officer holding the position of DFS to be the Airworthiness Investigative Authority (AIA). The AIA function is a distinct activity within the FSP and is carried out on behalf of the MND in order to carry out independent investigations as required by the Aeronautics Act. On behalf of the MND, DFS shall:

- a. independently investigate and analyse matters concerning aviation safety occurrences to identify safety deficiencies;
- b. delegate investigation responsibility to qualified personnel as required to conduct airworthiness investigations; and
- c. provide Class I investigation reports or other reports of interest to the MND and findings in relation to them.

### **1 Canadian Air Division (1 CAD) FSO**

22. The 1 CAD FSO is the FSO assigned to the Comd 1 CAD. On behalf of Comd 1 CAD, the 1 CAD FSO shall:

- a. provide the 1 CAD chain of command with specialist advice on FS matters;
- b. liaise with DFS on FS and AWS related matters;
- c. liaise with 1 CAD FS Wings/Formations and FS Units to monitor, advise and promote the FSP and the AWSP;
- d. advise on the adequacy and suitability of policies, procedures and standards for the FSP and the AWSP;
- e. promote safety practices within the Air Force by maintaining effective feedback loops amongst the 1 CAD Wings, 1 CAD HQ and Comd RCAF;
- f. on behalf of the AIA and as laid out in the AIM, ensure that all occurrences are reported and investigated, and that proper PM are identified to the chain of command;
- g. monitor the implementation of FS PMs;
- h. track and monitor the implementation of FS PMs assigned to 1 CAD;
- i. review FS and AWS occurrences;
- j. conduct formal FSAVs, prepare FSAV reports and track FSAV recommendations as detailed in Chapter 4;
- k. represent Comd 1 CAD at FS conferences and meetings; and
- l. conduct FS education by coordinating the administrative aspects of the Flight Safety Course (FSC), providing instructors for selected course serials, identifying FS training needs of Units/Wings/Formations/Contractors and ensuring sufficient numbers of trained FSOs/D/FSOs are available.

## **2 Canadian Air Division (2 CAD) FSO**

23. The 2 CAD FSO is the FSO assigned to the Commander of 2 CAD. On behalf of Comd 2 CAD, the 2 CAD FSO shall:

- a. provide the 2 CAD chain of command with specialist advice on FS matters;
- b. liaise with DFS on FS and AWS related matters;
- c. liaise with 2 CAD Wings (i.e. 15 Wg, 16 Wg, 17 Wg) to monitor, advise and promote the FSP and the AWSP;
- d. advise on the adequacy and suitability of policies, procedures and standards for the FSP and the AWSP;
- e. promote safety practices within the Air Force by maintaining effective feedback loops amongst 2 CAD Wings, 2 CAD HQ and Comd RCAF;
- f. on behalf of the AIA and as laid out in the AIM, ensure that all occurrences are reported and investigated, and that proper PM are identified to the chain of command;
- g. monitor the implementation of FS PMs;
- h. track and monitor the implementation of FS PMs assigned to 2 CAD;

- i. review FS and AWS occurrences;
- j. conduct formal FSAVs, prepare FSAV reports and track FSAV recommendations as detailed in Chapter 4;
- k. represent Comd 2 CAD at FS conferences and meetings; and
- l. conduct FS education by providing instructional expertise to the Flight Safety Course (FSC).

### **ARMY, NAVY, CANSOFCOM and Nat'I CJCR Formation FSO**

24. For Army, Navy and CANSOFCOM Formations, the appointment of a dedicated FSO will be commensurate with the scope of the formation's involvement in the support and oversight of aviation activities. On behalf of the Formation Comd, the assigned Formation FSO shall:

- a. provide to the Formation Comd and to members of the HQ, FS training and advice on FS matters;
- b. develop, devise, implement and monitor the FSP as detailed in this publication;
- c. act as the staff advisor for FS matters in the Formation HQ;
- d. track and monitor the implementation of FS PMs assigned to the FSO's Formation;
- e. liaise with DFS on FS related matters;
- f. liaise with the subordinate Units/Garrisons to monitor, advise and promote the FSP; and
- g. liaise with unit CO's to conduct Local (informal) FSAVs. (see Ch 4 para 17)

### **ARMY, NAVY, CANSOFCOM and Nat'I CJCR Formation Team Members**

#### ***Deputy Formation FSO - Appointment and Role***

25. For Army, Navy and CANSOFCOM Formations, the appointment of a Deputy Formation FSO will be commensurate with the scope of the formation's involvement in the support and oversight of aviation activities. Deputy Formation FSOs are employed as assistants to the Formation FSO (see para 26 above) and may act as the Formation FSO during the Formation FSO's absence. For military units, the Deputy Formation FSO may be an officer or an NCM of an appropriate rank, normally WO or above. Candidates nominated for Deputy Formation FSO positions shall complete the FS Course as soon as practicable and be able to occupy the position for 18-24 months.

#### ***Formation FS NCM - Appointment and Role***

26. For Army, Navy and CANSOFCOM Formations, the appointment of a Formation FS NCM will be commensurate with the scope of the formation's involvement in the support and oversight of aviation activities. The role of the Formation FS NCM is to provide specific FS expertise to the formation FSO and Deputy Formation FSO in order to help them administer

an effective FS Program (see para 26 above). Candidates nominated for the Formation NCM position shall complete the FS Course as soon as practicable and be able to occupy the position for 18-24 months.

### **Wing FSO (WFSO)**

27. On behalf of the WComd, the WFSO liaises with the flying units and all of the support functions of a Wing. It is the WFSO's responsibility to:

- a. advise the WComd on all FS and AWS matters;
- b. establish and implement a FSP and AWSP that encompass all aspects of Wing Operations;
- c. on behalf of the AIA and as laid out in the AIM, ensure that all occurrences are reported, appropriate occurrences are investigated and that proper PM are identified to the chain of command;
- d. liaise with unit COs to conduct local (informal) FSAVs;
- e. monitor all safety aspects of Flying Operations and Air Weapons Operations;
- f. monitor the implementation of PM's originating from the Wing's flying units;
- g. track and monitor the implementation of FS PMs assigned to the Wing;
- h. confirm that aircraft publications are up to date;
- i. develop methods for detecting hazardous conditions;
- j. be the focal point for all FS and AWS activities at the Wing;
- k. provide advice and assistance to the appropriate 1 CAD / 2 CAD staff officer;
- l. provide assistance to the ACFP FSO in accordance with the *Regions and Designated FSOs* table at annex A;
- m. review supplementary reports (SR) from lodger units;
- n. conduct FS continuing education activities with Unit/Wing FS personnel; and
- o. manage and track FS qualifications for Unit/Wing/Contractor FS personnel, including nominating FS personnel for attendance on the FSC.

### **Wing FS (WFS) Team Members**

#### ***Deputy Wing FSO (D/WFSO) - Appointment and Role***

28. One or more D/WFSOs shall be appointed as required (see para 15 above). The role of the D/WFSO is to assist the WFSO in administering an effective FS Program. D/WFSOs are employed as assistants to the WFSO and may act as the WFSO during the WFSO's absence. For military units, the D/WFSO may be an officer or an NCM of an appropriate rank, normally WO or above. Candidates nominated for D/WFSO positions shall complete the FS Course as soon as practicable and be able to occupy the position for 18-24 months.

**WFS NCM - Appointment and Role**

29. One or more WFS NCMs shall be appointed as required (see para 15 above). The role of the WFS NCM(s) is to provide specific FS expertise to the WFSO and D/WFSO in order to help them administer an effective FS Program. Candidates nominated for WFS NCM positions shall complete the FS Course as soon as practicable and be able to occupy the position for 18- 24 months.

**WFS Specialist Weapons (WFS Spec (W)) - Appointment and Role**

30. A WFS Spec (W) shall be appointed in any Wing utilizing air weapons. In accordance with the B-GA-297-001/TS-000, Safety Orders for the CF Air Weapons Systems, a Wing Air Weapons Officer (WAWO) is appointed at all units having an air weapons capability. The WFS Spec (W) should normally be the WAWO. The role of the Wing FS Spec (W) is to assist the WFSO on matters affecting Air Weapons Safety.

31. Complementary to their duties as the WAWO, it is the duty of the WFS Spec (W) to:
- a. develop the wing AWSP;
  - b. take the necessary actions to correct hazardous conditions;
  - c. advise on AWSP matters;
  - d. liaise with other Unit/Wing Air Weapons Officers (appointed IAW B-GA-297-001/ TS-000) on matters affecting the AWSP;
  - e. assist in the research and staffing of occurrence reports with air weapons implications;
  - f. assist the WFSO in the conduct of local (informal) FSAVs for matters involving the AWSP;
  - g. assist in implementing and conducting AWSP awareness training; and
  - h. participate as a member of the Wing FS Committee.

**Base/Brigade FSO**

32. A Base/Brigade FSO is the FSO appointed by a Base/Garrison/Brigade Commander of an army base which conducts or supports aviation operations. Base/Brigade FSO responsibilities and FS team members are similar to that for Wings and shall be commensurate with the scope of the Base/Garrison/Brigade’s involvement in aviation activities.

**ORGANIZATION - FS UNITS**

33. The Unit FSO (UFSO) should be of at least Captain rank, or in the case of civilian contractors, a mid-level manager. Table 2 below shows the designated UFSO positions for various FS Units, as well as the assigned WFSO if applicable.

Organization	Designated FSO Position
FS Units	

RCAF Flying Unit	UFSO
Deployed Unit/Sub-Unit (Detachment On-Board HMCS or Attached Air Assets to Land/Naval Forces)	Assigned FSO as per Tasking Order
AETE	UFSO / 4 Wing FSO
ATESS	UFSO / 8 Wing FSO
RCSU	Region FSO
Air Cadet Gliding School/Site	UFSO / Gliding Site FSO
Contracted Organization	Contractor FSO / Assigned WFSO Detailed on DFS Intranet under The “Operational Guidance” Tab
CANSOFCOM Unit	UFSO / CANSOFCOM FSO

**FS Units and Corresponding Unit FSO**

**UFSO Responsibilities**

34. The UFSO is responsible for:
- a. disseminating FS educational material;
  - b. administering FS Committee meetings;
  - c. conducting local (informal) FSAVs;
  - d. monitoring the Bird Strike Prevention Program;
  - e. highlighting hazardous conditions to the CoC for rectification or acceptance of risk;
  - f. advising on FS matters;
  - g. tracking and monitoring the implementation of Unit level PMs;
  - h. participating as a team member in formal FSAVs; and
  - i. conducting Class III and Class IV airworthiness investigation activities on behalf of the AIA in accordance with the Airworthiness Investigation Manual and as tasked by the Wing/Formation FSO.

## **Unit FS (UFS) Team Members**

### ***Deputy UFSO (D/UFSO) - Appointment and Role***

35. One or more D/UFSOs shall be appointed as required (see para 15 above). The role of the D/UFSO is to assist the UFSO in administering an effective FS Program (see para 36 above). D/UFSOs are employed as assistants to the UFSO and may act as the UFSO during the UFSO's absence. The D/UFSO may also act as the FS representative for a sub-unit. For military units, the D/UFSO may be an officer or an NCM of an appropriate rank, normally WO or above. Candidates nominated for D/UFSO positions shall complete the FS Course as soon as practicable and be able to occupy the position for 18–24 months.

### ***UFS NCM - Appointment and Role***

36. One or more UFS NCMs shall be appointed as required (see para 15 above). The role of the appointed UFS NCM(s) is to provide specific FS expertise and assist the UFSO and D/UFSO in administering an effective FS Program (see para 36 above). Candidates nominated for UFS NCM positions shall complete the FS Course as soon as practicable and be able to occupy the position for 18–24 months.

### ***UFS Specialist Weapons (UFS Spec (W)) - Appointment and Role***

37. A UFS Spec (W) shall be appointed in any unit utilizing air weapons. In accordance with the B-GA-297-001/TS-000, Safety Orders for the CF Air Weapons Systems, a Unit Air Weapons Officer (UAWO) and/or an Air Weapons NCM (AWNCM) are appointed at all units having an air weapons capability. The FS Spec (W) should normally be the UAWO and/or the AWNCM. The role of the Unit FS Spec (W) is to assist the UFSO on matters Air Weapons Safety.

38. Complementary to their duties as the UAWO/AWNCM, it is the duty of the UFS Spec to:

- a. develop the unit AWSP;
- b. take the necessary actions to correct hazardous conditions;
- c. advise on AWSP matters;
- d. liaise with other Wing/Unit Air Weapons Officer (appointed IAW B-GA-297-001/ TS-000) on matters affecting the AWSP;
- e. assist in the research and staffing of occurrence reports with air weapons implications;
- f. assist the UFSO in the conduct of local (informal) FSAVs for matters involving the AWSP;
- g. assist in implementing and conducting AWSP awareness training; and
- h. participate as a member of the Unit FS Committee.

### **Unit FSO for Assigned/Attached Air Assets**

39. The FSP shall be promulgated through local flying orders, operations orders, standing orders and equivalent regulatory documents.



40. Comds shall appoint a dedicated FSO (e.g. BFSO, ship FSO) and/or utilize FS personnel within attached flying units (e.g. Sqn/Detachment FSO) to provide FS expertise and advice. This is an over-arching requirement, separate from Unit/Wing programs and procedures that are specific to lodger or detached flying units and their chain of command.

41. For deployed operations, Comd 1 CAD will appoint an RCAF Wing to provide administrative support (e.g. FSIMS data entry) and quality control to the deployed unit for its FSP and occurrence handling. If more than one aircraft type is involved, Comd 1 CAD may designate additional wings to provide this technical support and assistance.

42. Aviation units or sub-units operating in a specific geographic region or on-board naval vessels shall ascertain that proper liaison is maintained and that a suitable emergency response plan is put in place, exercised and updated regularly.

### **Interaction with Other Organizations**

#### ***Aerospace Engineering Test Establishment (AETE)***

43. AETE, an ADM (Mat) unit, is accountable to Comd RCAF for their FSP. The AETE FSP is monitored by 1 CAD through 4 Wing. The flying and maintenance standards of AETE are the responsibility of 1 CAD, which exercises this supervisory role on behalf of Comd RCAF.

#### ***Aerospace and Telecommunications Engineering Support Squadron (ATESS)***

44. ATESS, an ADM (Mat) unit, is accountable to Comd RCAF for their FS Program. The ATESS FSP is monitored by 1 CAD through 8 Wing.

#### ***Air Cadet Flying Program***

45. The Air Cadet Flying Program, comprising the Air Cadet Gliding Program and the Air Cadet Powered Flight Program, must also comply with this publication. Specific arrangements and associated responsibilities are detailed at Annex A.

Annex A  
 Chapter 2  
 A-GA-135-001/AA-001

**ANNEX A - AIR CADET FLYING PROGRAM**

**FSP Responsibility**

1. The CAF responsibility for the FS aspect of the Air Cadet Flying Program (ACFP) is derived from the National Defence Act. The CAF is tasked with the control and supervision of the Cadets, and thus of the ACFP, specifically all Air Cadet gliding and powered flight operations, including familiarization flying.

**Investigation of Cadet Occurrences**

2. All assets under the ACFP are considered military conveyances in accordance with the CTAISB Act and the working arrangement between TSB and DFS (Military Group C aircraft). Therefore, all ACFP occurrences shall be investigated by DND. TSB must be notified following any occurrence that would require a coordinated investigation, using the procedures prescribed in the Working Agreement.

3. In view of the structure of the Air Force, certain FSOs from designated wings will act as FS advisors to the Regional Cadet Support Units (RCSU) Comds and the Regional Flight Safety Officers (RFSO). This working relationship will apply only when these personnel are performing FS duties associated with ACFP activities. The RCSU Comds and associated FSOs are listed in the table below.

Region	Region Comd	Supporting WFSO
Atlantic	RCSU Atlantic	14 Wing Greenwood
Eastern	RCSU Eastern	3 Wing Bagotville
Central	RCSU Central	8 Wing Trenton
Prairie	RCSU Prairie	17 Wing Winnipeg
Pacific	RCSU Pacific	19 Wing Comox

**Regions and Designated FSOs**

4. The RFSO will act as the FS advisor for each respective RCSU Comd with the support of their affiliated Wing FSO. The FS support to Air Cadet Glider program gliding sites will be promulgated on an annual basis by 2 CAD before the start of the annual Air Cadet Glider program.

**Duties and Responsibilities**

**DFS Responsibilities**

5. The DFS responsibilities for the national cadet program are as follows:

- a. advise on the implementation and monitor the effectiveness of the regional FS Program in cooperation with CJCR FSO and the Officer Commanding Regional Air Ops (OC Regional Air Ops);
- b. coordinate independent airworthiness investigations for aircraft occurrences and investigate as required;
- c. provide annual FS briefings to summer gliding schools;
- d. monitor incidents and the follow-up PM; and
- e. monitor FSAVs from all gliding sites.

## **2 CAD FSO Responsibilities**

6. 2 CAD FSO responsibilities for the National ACGP are listed below:
  - a. provide assistance to the CJCR FSO;
  - b. provide advice and assistance to Comd 2 Cdn Air Div on Air Cadet Flying Program FS matters; and
  - c. coordinate FSAV and execute ACFP FSAV schedule in cooperation with the CJCR FSO.

## **Support Wing Responsibilities**

7. The responsibilities of the supporting WFSO and responsibilities for the national ACFP are to:
  - a. provide FS assistance to ACFP activities at designated regions;
  - b. provide advice to OC Regional Air Ops on FS matters in cooperation with the ACFP RFSO;
  - c. monitor the safety aspects of flying operations in cooperation with the ACFP RFSOs;
  - d. provide assistance in the preparation and timely submission of initial and supplementary occurrence reports;
  - e. conduct biennial FSAVs of all designated flying sites in their respective regions in conjunction with the RFSO;
  - f. provide assistance to DFS and the RFSO in the event of an accident;
  - g. review ACFP occurrence reports for quality assurance; and
  - h. assist in the delivery of the Basic FS Course.

## **CJCR FSO Responsibilities**

8. The CJCR FSO responsibilities for the ACFP are as follows:
  - a. implement the CJCR Comd FS policy for the ACFP;
  - b. advise the Comd CJCR on the implementation, monitoring and the effectiveness of the ACFP FS Program;

- c. assist the AIA in ACFP accident investigation;
- d. provide advice and assistance to the 2 CAD FSO on ACFP FS matters.
- e. assist the 2 CAD FSO in coordinating ACFP FSAVs;
- f. provide advice and assistance to the CJCR Comd, RCSU CO and RFSOs on ACFP FS matters;
- g. provide advice and assistance to the support wings in monitoring all of ACFP flying operations in cooperation with the RFSOs;
- h. coordinating all ACFP FSC nominations; and
- i. coordinate all CJCR FS training opportunities.

### ***FSO Responsibilities***

9. Each RCSU will have an appointed Regular Force Regional FSO to oversee the Region's FS operations in order to provide sound advice on accident prevention and hazardous conditions. The RFSO will work with the OC Regional Air Ops to Execute the CJCR FS program. Also, at each gliding site, an FSO will be designated (Gliding Site FSO). In their proper chain of command, the FS staff responsibilities are as follows:

- a. advise the RCSU CO/Site Comd on all aspects of FS;
- b. report all incidents and accidents in accordance with A-GA-135-003/AG-001 (AIM);
- c. aid OC Cadet Flight Training Centre (CFTC) in the implementation of the unit FS Program; and
- d. monitor all aspects of the operation and advise RCSU CO of hazardous conditions.

### **Detection of Unsafe Procedures**

10. If, during the course of their duties, FS personnel detect any unsafe procedures/practices, they shall immediately notify the RCSU CO and the RFSO, who will immediately rectify the situation and advise of corrective actions taken. The Flying Site FSO/RFSO will keep the CJCR FSO/WFSO/BFSO informed of important FS matters.

### ***Incident Action***

11. In the event of an FS incident:
- a. FS personnel will file the initial occurrence report;
  - b. the Flying Site FSO/RFSO is responsible for investigating the incident and filing a supplementary report (SR) within 30 days. Distribution of the initial and the SR will be accomplished through the FSIMS as well as any other appropriate addressees;
  - c. the RFSO will maintain files of all the ACFP FS reports and monitor the reporting process;
  - d. the support WFSO will assist the RFSO with any investigations into air occurrences within their region of responsibility; and

- e. the RFSO will advise the RCSU CO on serious cadet flying occurrences as required.

**Accident Action**

12. In the event of an accident:

- a. the Flying Site FSO and/or the Site Commander shall complete the necessary action requirements and initiate reporting in accordance with a detailed Site specific Emergency Response Check List approved by the RCA Ops O;

**NOTE**

This requirement will differ from site to site depending upon whether the field is DND or TC, controlled or uncontrolled, etc

- b. the Flying Site FSO and/or the Site Commander shall ensure that the RFSO/CJCR FSO is contacted immediately;
- c. the RFSO must inform the OC Regional Air Ops and WFSO/BFSO;
- d. the OC Regional Air Ops must inform the appropriate RCSU; and
- e. Upon notification of an accident notification, the RCA Ops O/WFSO/BFSO will ensure the following organizations are notified (also see A-GA-135-003/AG-001 (AIM) Chapter 6, Annex A for notification chart):
  - i. DFS (via toll free number 1-888-WARN DFS/927 6337). Personnel requirements for an investigation will be coordinated by DFS and (NCA Ops O/CJCR DCOS Ops). DFS will provide investigative assistance and advice as required,
  - ii. the Canadian Forces Integrated Command Centre (CFICC), and
  - iii. the 1 CAD Combined Air Ops Centre (CAOC) have been notified and then will assist.

Annex B  
Chapter 2  
A-GA-135-001/AA-001

## **ANNEX B – CONTRACTOR FSP**

### **General**

1. Contractors form an important part of the DND aircraft maintenance philosophy and by extension, the preservation of DND assets during this unique activity. It is essential that each contractor develop a comprehensive FSP that takes into account the depth of maintenance and extends to flight line test and ferry flight activities.

### **Contractual Arrangements**

2. Contractors that fall within the scope of the FSP, as detailed in Chapter 1, shall be contractually mandated to comply with and participate in the FSP, including those locations where the National Defence Quality Assurance Region (NDQAR) is identified as the unit of ownership of the aircraft or engine.

3. A standardized FS Clause B4064C has been developed with Public Services Procurement Canada to enable the implementation of the FSP within each contracted organization.

### **Contractor FSO - General**

4. As per the requirements of Chapter 2, the accountable executive shall appoint a FSO at all contractor facilities where DND owned or controlled aircraft are maintained. Within the FSP, the contractor FSO holds a similar status and has the same responsibilities as a UFSO. Therefore, all the general requirements of an FSO and a UFSO, as detailed in Chapter 2, shall also apply to the contractor FSO.

5. If the contractor has implemented an ICAO compliant / Transport Canada (TC) approved Safety Management System (SMS), the safety manager appointed by the accountable executive, would also normally hold the position of contractor FSO.

### **Interface with WFSO**

6. All contractor FSOs will be assigned a WFSO to which they will report under the FSP. The contractor FSO and assigned WFSO shall maintain open communications to assist in the implementation of the contractor's FSP and to ensure that the contractor's FSP meets the requirements of this publication.

### **Interface with Safety Management Systems (SMS)**

7. It is realized that some portions of this manual are specific to DND organizations and therefore may require some interpretation for civilian application. Specifically, if the contractor has implemented an SMS, the SMS may be used to satisfy elements of the FSP. The contractor shall document how their SMS meets the requirements and intent of the FSP.

## **FS Occurrence Activities**

8. Notwithstanding use of an SMS to meet certain requirements of the FSP, FS occurrence reporting and investigation activities must comply with AIA directions as detailed in the A-GA- 135-003/AG-001 Airworthiness Investigation Manual (AIM).

9. The contractor FSO shall ensure that all FS occurrences involving DND aircraft/ engines are reported and investigated under the FSP, notwithstanding the fact that NDQAR Offices are identified as the unit of ownership. In that regard, the contractor FSO has the same reporting and investigation obligations as a UFSO. The contractor's role with respect to a FS investigation will normally be determined by the assigned WFSO.

10. The post-occurrence emergency response obligations of a contractor FSO are also similar to those of a DND/CAF FSO. However, it is recognized that the Airport Authority or other authorities may have areas of responsibility that supersede or overlap those obligations. Accordingly, the contractor FSO shall ensure that the intent of the post-occurrence requirements of this publication are addressed either by the company or by other authorities, and shall document those areas that are under direct contractor control and those areas that are the responsibility of another authority.

## **Contractors Co-Located with Units/Wings**

11. In order to promote synergies between military and civilian FS programs, contractors that are co-located with units/wings shall coordinate/integrate their FSP with their corresponding unit/wing FSP. To achieve this, the contractor FSO should normally be an integral part of their corresponding unit/wing FS team. The contractor shall document how FSP coordination/integration with their corresponding unit/wing is achieved.

## **CHAPTER 3 – PROVISION OF FS OVERSIGHT, FEEDBACK AND ADVICE**

### **INTRODUCTION**

1. It is a fundamental responsibility of personnel at all levels to make their concerns known to their leadership with respect to FS issues. The success of the FS culture can be measured in the willingness and active participation of personnel to voluntarily report FS concerns and hazards.

### **PROVISION OF AIRWORTHINESS PROGRAM OVERSIGHT AND ADVICE**

#### **General**

2. One of the primary responsibilities of the AIA is to monitor airworthiness activities and functions to ensure they comply with established regulations, standards and orders and to identify any deficiencies in the DND/CAF Airworthiness Program. The AIA is responsible to report this information to the AA.

3. One of the means that the AIA employs to accomplish part of this task is the process of monitoring and annual review of the information that is compiled in support of the Airworthiness Review Board (ARB) and the Airworthiness Advisory Board (AAB). Both of these review actions require that DFS/AIA and the support staff review various aspects of DND/CAF air operations in order to provide input to the boards. Additionally, the AIA and his staff provide input to the Annual Airworthiness Report.

#### **Annual Airworthiness Boards**

4. An integral part of the oversight requirement is accomplished through the AAB chaired by the AA and the ARB chaired jointly by the OAA and the TAA. The AAB provides a forum at which the AA receives updates on the Airworthiness Program and addresses issues of concern raised by the members. The discussions that take place in the AAB form the basis for the Annual Airworthiness Report from the AA to the CDS and MND concerning the Airworthiness Program. The ARB manages the interface between operational and technical airworthiness of each aircraft type and to confirm the airworthiness status of each fleet on the DND register (and civilian aircraft performing military missions for the DND/CAF). The AIA is a member of both the AAB and the ARB and prepares inputs from the AIA perspective on the Airworthiness Program for both boards.

#### **ARB Annual Airworthiness Report**

5. The TAA, the OAA and the AIA prepare Annual Airworthiness Reports (AAR) in support of the ARB process. The AAR outlines airworthiness activities that have occurred during the year as well as airworthiness concerns and their associated mitigation measures on each aircraft fleet in DND/CAF. During the ARB, each fleet will be reviewed by exception (i.e., only significant, contentious, or unresolved airworthiness issues will be discussed), while ensuring that an adequate level of consideration is conducted before a decision is made regarding the renewal of the Certificate of Military Aircraft Type Certification (CMATC) or Airworthiness Clearance.



6. The objective of the AARs prepared by the AIA is to provide a summary of the significant FS issues that have to be considered for the renewal of the CMATC or Airworthiness Clearance. AARs (Technical) prepared by the WSMs/AEOs and AARs (Operational) prepared by 1 Cdn Air Div A3 staff normally address the FS issues raised in the AIA AARs. They are forwarded to the AIA for review prior to ARB.

### **AAB Annual Airworthiness Report**

7. The AAB meets at least once per year to advise the AA on the state of the Airworthiness Program and to brief the future plans, accomplishments and milestones achieved in the previous year. In support of this activity, all of the Airworthiness Authorities (OAA, TAA and AIA), the AA support staff and the airworthiness advisors (i.e. the Aerospace Medical Authority and the Flight Test Authority) present annual reports and brief the AAB on updates for outstanding airworthiness issues.

8. The general concept for the AAB is that each airworthiness authority will produce an AAR. The chosen structure for the AAR follows the items of delegation stipulated in the Letter of Delegation to the AA. Under the leadership of the AA, the Airworthiness Coordination Cell will collect these reports and, combined with the discussions at the AAB, will produce an executive summary and cover letter for submission to the MND.

### **Other AIA Program Monitoring Roles**

9. Of note, the production of ARB/AAB reports does not limit the AIA in the means chosen to monitor the DND/CAF Airworthiness program; it merely documents this particular monitoring action. Several other activities that the DFS/AIA and support staff undertake play important roles in the Airworthiness Program and will continue to grow in importance as the support and operational relationships for DND/CAF grow within the private sector. These include but are not limited to:

- a. monitoring the risk management process;
- b. issuance of Airworthiness Investigative Clearances (see AIM, Chapter 17);
- c. FS assurance visits (FSAV) of contractors (see Chapter 4);
- d. monitoring of Technical Assistance Visit reports by TAA staff;
- e. monitoring of DND/CAF contracts and aviation projects;
- f. AIA visits to private sector contractors; and
- g. investigation of matters of safety brought to the AIA's attention.

## **PROVISION OF ADVICE BY UNIT/WING/FORMATION FSO**

### **General**

10. As stated in Chapter 2, the FSO has a specific duty to provide specialist feedback and advice to the CO/Comd/Accountable Executive on all matters concerning FS. This feedback/advice can be provided in many forms including formal FS Council / FS Committee meetings, formal / informal briefings, briefing notes, and/or informal discussions. This Chapter provides

additional guidance to FS personnel regarding the provision of specialist FS feedback and advice.

### **Intent**

11. In order to act on FS issues, the chain of command must be made aware of the concerns of their FS professionals. The intent of FS feedback is to provide an assessment to the applicable CO/Comd/Accountable Executive, in as objective a manner as possible, of the degree of safety regarding flight-related activities with the aim of making this information useful and relevant to the CO/Comd/Accountable Executive. Ideally, feedback should highlight the areas upon which the CO/Comd/Accountable Executive must focus to improve the safety of flying operations, and include specialist advice on measures that can be taken to improve safety.

### **Methodology**

12. Reporting to a CO/Comd/Accountable Executive may be done verbally or in writing. The latter is preferred in that it is more formal and provides the CO/Comd/Accountable Executive with documented examples that can be acted upon. This also allows the CO/Comd/Accountable Executive to acknowledge the report and indicate his/her intentions, if any, to address problematic issues.

13. It is the duty of the FSO to question, to warn and to suggest alternatives. As champions of FS, the FSO cannot shrink away from making subjective assessments, but we must recognize the need to more clearly quantify our assessments wherever possible. A careful balance must be achieved between the requirement to inform the chain of command and unnecessarily overstating the level of concern. By continually stating that there will be dire consequences if a particular measure is not taken, there is a risk that leadership will become inured to these warnings.

14. Similarly, operations must be periodically reviewed to ensure that more risk has not gradually been assumed over time due to the absence of occurrences. Judicious use of warnings and regular assessment of risk levels are required to prevent the gradual increase of risk.

15. The FSO will, at times, be in the position of advising non-Air Force COs. In these instances, it must be remembered that the CO/Comd/Accountable Executive may not be aware of the requirements of this manual or of their responsibilities under the Aeronautics Act. A tactful explanation of these requirements will be necessary in such situations. By raising the CO/Comd/Accountable Executive awareness of the basic principles of FS, these situations should be overcome. However, as these are valid, legal, regulatory requirements, the FSO must ensure that the CO/Comd/Accountable Executive is made aware of their responsibilities and, if required, must enlist the assistance of other FS personnel to ensure that these requirements are not violated.

## **FS PERFORMANCE INDICATORS**

### **General**

16. FS performance indicators should be developed and used to quantify to the chain of command the degree of safety of the Unit/Wing/Formation aviation activities and to highlight the level of risk at which operations are being conducted. FS indicators in a Unit/Wing/Formation should include, at a minimum, an assessment of the following areas:

- a. FSP documentation;
- b. FSP implementation;
- c. FS culture within the Unit/Wing/Formation;
- d. resources dedicated to the FSP; and
- e. ability to complete the various FS tasks in a timely manner.

17. The following paragraphs provide additional guidance for assessing the performance of selected elements of the FSP.

### **FS Indicators - Dedicated Resources**

18. In order to run an effective FSP, appropriate personnel, technical, administrative and physical resources must be provided to carry out the full range of prevention and investigation activities. Some key indicators to consider include:

- a. the existence of a succession plan to ensure continuity in unit FS positions;
- b. whether the incumbents have the proper qualifications, the appropriate background, the opportunity to build and effectively use FS experience, and any additional secondary duties are assigned in accordance with this order;
- c. adequate infrastructure and equipment (ex. offices, equipment storage, classrooms (if applicable), IT/IM hardware and software, crash kits);
- d. basic transportation (when required) and communication equipment (including IT resources);
- e. business plan incorporating FS priorities and objectives with a suitable budget to deliver or the commitment of the CO/Comd/Accountable Executive to support these initiatives; and
- f. budget allocation matching the business plan intent.

### **FS Indicators - Ability to Complete FS Tasks/Duties**

19. Other indicators that could assess whether the established FS positions are adequate to meet the mission and tempo of the organization are the extent to which FS tasks are being completed in a timely manner, with an assessment of:

- a. the status of occurrence investigations and reports;

- b. regularity of Safety Council meetings and the publishing of meeting minutes;
- c. degree of completion of safety measures recommended from FS investigations, surveys and follow-up actions from FS meetings;
- d. frequency and conduct of informal FS surveys and tours of facilities;
- e. frequency of review of unit and fleet FS occurrences;
- f. currency and relevance of promotional material posted on FS bulletin boards and made available to personnel via different media; and
- g. frequency of submission of nominations of suitable candidates for FS awards and suitable public and private recognition of deserving individuals.

### **FS Indicators - Stress Points**

20. Another indicator of the relative safety of a flying operation is the presence or absence of stress points. The presence of stress points that, in the opinion of the FSO, have significant impact on the safety of the unit's flying operation, must be quantified as accurately as possible and reported when observed. Care must be taken to ensure that the stress points reported actually do affect FS.

### **FS Performance Measurement / Feedback Matrix**

21. Performance measurement of the FSP may be reported through a balanced scorecard system or a matrix using a "traffic light" system (i.e. RED, YELLOW, GREEN) to indicate performance on the FS indicators assessed. As a minimum, a brief factual justification for items rated unsatisfactory or RED must be included in order to fully explain the situation leading to the RED assessment. Such a matrix shows at a glance where the FS staff believes there are concerns and where attention should be focused. The matrix should include objective criteria where possible, but given the nature of some of the issues within the matrix (culture, stress points), a subjective assessment is also required. Wherever possible, subjective assessments should be backed up with facts (statistics, trend analysis, statements from personnel) in order to lend more credence to the assessment. However, it is acknowledged that sometimes the best professional judgement of the FS staff and their "gut feel" will be all that is available. A suggested example of the FS Feedback matrix format is provided in Annex A.

### **FS COUNCIL**

#### **Purpose**

22. The FS Council is a primary formal FS feedback tool to enable Chain of Command oversight of current and emerging FS trends, developing concerns, "issues identified", to provide accountability to the PM implementation processes and to ensure the FSP remains relevant, visible and adaptable to changes.

### **Establishment of FS Council**

23. A FS Council shall be established either independently, or as part of an existing safety council. FS Council requirements will be met as follows:

- a. Comd RCAF – this function is satisfied by the Airworthiness Advisory Board (AAB);
- b. CAD/CANR Headquarters – this function is satisfied by attendance at the Comd's senior staff meetings; and
- c. flying units, detachments, or long-term deployments associated with flying operations, both domestic and abroad - regular, formal FS Council meetings are to be carried out.

### **General Membership**

24. The FS Council will be chaired by an individual who has executive authority (CO/Comd/Accountable Executive) since it is expected to inaugurate and delegate concrete PMs and to ensure tasks are completed in a timely manner. A FS Council shall include a qualified representative from each major agency involved in the control, conduct or support of air operations. It should normally include:

- a. the CO, Comd or manager of the formation responsible for flying operations, who shall be the Council chairperson;
- b. representatives of FS (WFSO, UFSO), operations, technical, support and medical services; and
- c. other representatives as required whenever the agenda for a meeting includes items relating to their specialties.

### **Wing FS Council Composition**

25. The Wing FS Council includes the following, or their equivalent:

- a. the WComd, who acts as the chairperson;
- b. the CO of each unit involved in flying operations, including lodger units;
- c. the Wing Logistics Officer (WLogO) or his equivalent;
- d. the CO AMS;
- e. the Wing Surgeon or Flight Surgeon;
- f. the Wing Air Traffic Control Officer (WATCO);
- g. the FOD Committee chairperson;
- h. the WFSO;
- i. the DWFSO;
- i. staff specialists (i.e. Air Weapons Officer and/or Air Weapons Safety Technical Member) whenever an agenda item requires their presence; and

- ii. additional members as deemed appropriate by the WComd (i.e. contracted support agencies, contracted maintenance groups, air traffic control services, co-located airport authority, airport managers, etc...especially in such cases as a particular military capability has been contracted out to civil organizations).

26. The WComd will designate who will act as the secretary.

### **Frequency of Meeting**

27. The Unit/Wing/Formation FSP must be periodically reviewed and reassessed to ensure it remains relevant and visible. Ideally, the FS Council should meet several times a year, but shall form not less than twice per year.

### **Conduct of Meeting**

28. The council should focus on the three pillars of the FS Program: promotion, education and analysis. The Council should examine and consider:

- a. action items from previous minutes;
- b. FSAV observations and recommendations;
- c. recommendations and PMs from FS and AWS occurrences;
- d. necessary corrective action;
- e. topical items related to present and upcoming operations;
- f. emerging trends, open hazard reports (HAZREPs), and local concerns;
- g. points derived from comparative statistical analysis (i.e. what happened last year over the same period);
- h. items for the next FS Council meeting;
- i. reports of subcommittees;
- j. awareness programs or remedial training on relevant safety issues; and
- k. clarifying and amending existing policies, orders, and/or procedures - or the establishment of new policies, orders and/or procedures - to permanently capture best practices and ways forward decided upon or directed during Council meetings; or
- l. associated follow on discussions and deliberations.

### **Additional Responsibilities**

29. The FS Council should also:

- a. monitor implementation of PMs within their authority; and
- b. recommend to higher authority measures beyond local capability and monitor the progress of such recommendations.

## **Recording and Distribution of Minutes**

30. Minutes of FS Council meetings shall be officially recorded. The WFSO is responsible for tracking the progress of action items. In addition, the Council should use the minutes of their meetings to direct necessary changes to the FSP and to track action items. An example of the minutes from a FS Council is available in Annex B.

31. A copy of the minutes shall to be sent to DFS 3 at (dfs.dsv@forces.gc.ca), and to the 1 CAD or 2 CAD FSO (as applicable). If the minutes are from a Unit, a copy shall also be sent to the WFSO. These copies should be sent simultaneously to the above addressees, so that there is minimum delay. The comments of each level may still be sent through normal channels. Distribution of the minutes to common users should also be considered. Minutes shall be transmitted electronically to accelerate delivery. Minutes shall be posted on FS boards.

## **FLIGHT SAFETY COMMITTEE**

### **Purpose**

32. In order to effectively advise the chain of command, information regarding FS, armament and explosive safety, foreign object debris/damage (FOD), FS trends, stress points, awareness, promotion, etc., should be shared among Unit and Wing FS personnel. It is the intent of the Unit/Formation FS Committee meeting that the information gathered from it be used to brief the chain of command at the previously described FS Council meeting. The following information is to be considered as guidance only, as the composition, frequency and conduct of these meetings will depend on the size of the Unit/Formation in question, and the impact of their operations on FS.

### **Committee Composition**

33. The FS Committee should be chaired by the senior FS qualified member of the Unit/Formation (UFSO, WFSO). The meeting should include a FS qualified representative from each Unit/Section of the Base/Wing, including any contractor FS Rep or affiliate FS Officer trained and acting as a UFSO equivalent. The FS Committee should also normally include representatives from:

- a. FOD program;
- b. Bird Strike Prevention Program;
- c. Air Weapons Safety (AWS) Program; and
- d. other representatives as required, as they relate to FS (i.e. Canadian Army UAS Operations, Base support Units, ship's Flight Deck supervisors, etc...).

### **Frequency of Meeting**

34. The FS Committee should meet with equal frequency as, and just prior to, the FS Council meeting. Ideally, the timing of the FS Committee meeting should be such that it allows

adequate time to prepare the information gathered from it, including the minutes, to be presented at the FS Council.

### **Conduct of Meeting**

35. The Committee should examine and consider the following items, from all the applicable representatives:

- a. action items from previous minutes;
- b. FS statistics;
- c. FS trends;
- d. significant incidents since the last committee, including cause factors and recommended preventive measures;
- e. section/unit stress points (previously approved by Section/Unit Commanders);
- f. awards and other promotional items;
- g. educational information from the Committee Chair;
- h. awareness training on relevant safety issues; and
- i. items for the next FS Committee Meeting.



Annex A  
 Chapter 3  
 A-GA-135-001/AA-001




**ANNEX A – EXAMPLE FS FEEDBACK MATRIX**

Factor <sup>1</sup>	Description	Remarks
Manning	FS positions fully manned and trained?	
Program	Air Weapons Safety program fully documented in FS program?	
FS Resources	FS staff and offices fully resourced including funding for pd courses / seminars?	
Culture	Clear evidence of a fair and flexible reporting and learning culture in the unit?	
Tasks	Preventive Measures tracked until completion?	
Stress Points <sup>2</sup>	Stress Points Present?	
Overall Assessment	Overall assessment on how safe the unit is operating	

<sup>1</sup> Assessments factors may be added as required by the FSO, but they must include an explanation as to their intent.

<sup>2</sup> Any individual or overall factors assessed as RED must be accompanied by a suitable explanation and supporting documentation.

Colour code

-  Satisfactory
-  Cautious, should be resolved to return to a satisfactory state
-  Unsatisfactory, should be risk mitigated and resolved as soon as possible

Annex B  
Chapter 3  
A-GA-135-001/AA-001

## ANNEX B – FS COUNCIL MINUTES

### NG COMMANDERS FLIGHT SAFETY COUNCIL MEETING MINUTES 13 NOV 2020

Chairperson Col XXXX WComd  
Members LCol XXXX CO XXX  
WFSO

#### INTRODUCTORY REMARKS

1. Col XXXX opened the fall 2020 FS Council meeting at 1330 hrs, by reiterating that the value of the Flight Safety Program (FSP)...

#### DISCUSSION

2. PREVIOUS MINUTES. The WFSO reviewed follow-on actions items from the June 2020 meeting...

3. FLIGHT SAFETY STATISTICS. WFSO staff presented the following statistics which detail recent historic trends...

- a. Summary of Occurrences...
- b. Occurrence Rates per 10,000 hrs...
- c. Initial and PM Snapshot...
- d. Open Hazard Reports...
- e. Flight Safety Awards...
- f. Wing Air Weapons Officer Report...

#### NEW BUSINESS

4. FLIGHT SAFETY COURSE. The WFSO office has been proactive...

5. POINTS FROM THE WFSO OFFICE. Still no response to the ResF posting...

#### 6. UNIT STRESS POINTS

- a. XXX SQN: The DCO reported that they have many of the same maintenance...
- b. XXX SQN: The CO briefed the manning issues across the unit...

#### CLOSING REMARKS.

Col XXXX brought the meeting to a close by reiterating the challenges of reduced experience levels...

(Signature) Col. XXXX  
Wing Commander

## **CHAPTER 4 – FLIGHT SAFETY ASSURANCE**

### **GENERAL**

1. There is a requirement to monitor the FSP itself to ensure that the mandated elements are present and that the FSP is being properly implemented. This chapter provides guidance on the types and conduct of FS Assurance Visits (FSAVs) that are used to monitor the implementation of the FSP.

### **FS ASSURANCE VISIT (FSAV)**

#### **Overview**

2. FSAVs are conducted as part of the FSP monitoring function and shall be carried out at all Units, Wings, Formations, and Contractors that implement the FSP. FSAVs assess that all mandated FSP elements are present and assist in the identification of measures to correct any noted deficiencies. As such, the FSAV is conducted primarily to provide the chain of command with credible advice on implementing the FSP.

3. Additionally, FSAVs can provide an indication as to the health and effectiveness of the FSP. Unit COs/ Wing Comds/Formation Comds/Accountable Executives have found that FSAVs identify deficiencies that would have otherwise remained undetected until revealed as cause factors of FS occurrences.

#### **Types**

4. There are two types of FSAVs:
- a. Formal FSAV - Conducted by Higher Headquarters (HHQ) at FS Wings/ Formations and at participating FS contractors. Formal FSAVs shall be conducted at least once every two years; and
  - b. Local (informal) FSAV - carried out by the Unit/Wing/Formation FSO on FS units within their organization, including contractor operated units/sections. Local (informal) FSAVs should be carried out at least annually.

#### **Conduct of FSAV - General**

5. In order to be effective, FSAVs need to be carried out on a regular basis. While there is a minimum frequency for conducting each type of FSAV, they may be conducted more frequently to monitor and assist with a FS concern if required.

6. FSAVs should review all aspects of the FSP being implemented by the Unit/Wing/Formation/Contractor. This includes a review of the Air Weapons Safety Program (AWSP) at units having an air weapons capability. A checklist approach shall be used to ensure all aspects of the FSP/AWSP are considered during the FSAV. A sample FSAV Report Letter, and accompanying checklist for Unit/Wing/Formation/Contractor units and for the Air Cadet Flying sites/units are provided in Annexes A through C. These documents may be tailored for use according to the type of FSAV being conducted and the scope of the FSP being reviewed.

7. Informal questionnaires can be used effectively during FSAVs. One of the difficulties of taking a snapshot of a unit is the number of people one can meet. A simple informal questionnaire can be distributed prior to the FSAV and provides the FSAV team with a much broader reach. Technology, such as surveymonkey.com or slido.com, can also be helpful in getting accurate feedback. The questionnaire should be short, easy to complete, anonymous, and use questions that are objective in nature. The DFS3 Prevention team (dfs.dsv@forces.gc.ca) can help in developing the right questions. It is important to collate the results quickly and ensure effective feedback is provided to both the chain of command and to those who responded to the questionnaire. Keep in mind the importance of maintaining a “Just Culture” in which no one will be blamed for reporting. Ensure that reports stay anonymous and de-identified. Focus on the results, not the people reporting.

8. FSAV team members may receive conflicting information. The team must attempt to balance these inputs and must rationalize these inputs with the “big picture”. There are three basic tenets to conducting an effective FSAV: listen effectively, observe objectively and share all observations in an open and honest manner. The biggest challenge to overcome is the fact that an FSAV is a snapshot in time and it is difficult to receive feedback and insights from everyone. The FSAV team must be cooperative, understanding and helpful. All FSAV team members must understand that an FSAV is not an audit or formal assessment but merely a process to help the FS team and chain of command understand and improve their FS program.

9. There are a variety of formats available to provide the chain of command with credible advice and understanding, be it an informal verbal debrief or a more formal written report. Regardless of which method is utilized, it is essential to have a clear aim and a set structure that leads to a logical conclusion and recommendations.

10. FSAVs will generate both observations and recommendations for improving the FSP. To ensure these recommendations are completed, it is important that realistic target dates be established for each recommendation; moreover, recommendations must be affordable, achievable and based on common sense. Recommendations without an assigned target date for closure can cause the FSAV to become merely an event instead of a process, thereby greatly limiting any potential improvements or enhancements that could result from the operation. There are tremendous advantages to capturing the observations and recommendations in a written format. A written report, be it in point form or in full paragraph form, provides a clear delineation of the observations and recommendations. A sample FSAV Report Letter, and accompanying checklist for Unit/Wing/Formation/Contractor units and for the Air Cadet Gliding Program are provided in Annexes A through C.

## **Formal FSAV**

### ***Responsibility and Frequency***

11. Formal FSAVs shall be carried out at least once every two years for each Wing/Formation/Contractor participating in the FSP. Formal FSAVs may be carried out more frequently as required to address safety concerns or to provide additional assistance. Comds/Accountable Executives may also request a formal FSAV whenever they want to have an

outside view of their formation/company. The HHQs responsible for conducting FSAVs are as follows:

- a. Wing/Formation FSAV: 1 CAD FSO and 2 CAD FSO conduct formal FSAVs at their respective Wings. For Army, Navy and CANSOFCOM Formations, the Formation FSOs conduct formal FSAVs at Units falling under their respective Formations;
  - b. Contractor and Deployed Operations FSAVs: DFS conducts formal FSAVs for each contractor participating in the FSP and for deployed operations; and
  - c. Air Cadet FSAV: 2 CAD FSO conducts formal FSAVs for the RCSUs.
12. 1 CAD FSO also conducts formal FSAVs at units accountable to Comd RCAF for their FSP (e.g. AETE, ATESS). These FSAVs may be coordinated with FSAVs to the unit's designated FS Wing.
13. As part of its responsibility to provide monitoring and oversight of the FSP, DFS retains the authority to conduct or participate in formal FSAVs at any Unit, Wing or Formation.

#### ***Notification/Preparation***

14. The Wing Comd/Formation Comd/Accountable Executive of the organization should be notified in advance of a formal FSAV. The following are the recommended timelines for preparation for a formal FSAV:

- a. initial staff check for timings with Wing Comd/Formation Comd/Accountable Executive 4–6 months before survey;
- b. request for FSAV team member participation 2–4 months before survey;
- c. FSAV directive to Wing Comd/Formation Comd or Accountable Executive 1 month before survey; and
- d. initial brief to FSAV team members by team lead 1–2 weeks before survey.

#### ***Team Composition***

15. The team lead is drawn from the HHQ FS organization responsible for conducting formal FSAV (i.e. DFS or 1 CAD FSO). The FSAV team lead determines the FSAV team composition based on the scope of the FSP/AWSP to be reviewed. A formal FSAV may contain up to 12 team members which may include:

- a. desk officer(s) from DFS and 1 CAD FSO;
- b. WFSO from a Wing having similar aircraft/roles (e.g. formal FSAV of 4 Wg may include 3 Wg FSO on team);
- c. assigned WFSO for Contractor FSAV;
- d. air weapons safety rep;
- e. maintenance reps (e.g. A4 Maint rep for Wing/Formation FSAV and DGAEPM rep for Contractor FSAV);
- f. ATC rep; and

- g. other members as required.

### **Formal FSAV Reports and Feedback**

16. The formal FSAV report and feedback process will consist of three distinct phases:
  - a. the first phase is that the FSAV team lead will provide a verbal debrief, at the end of the FSAV, to the host Unit CO/Wing Comd/Formation Comd/Accountable Executive. The debrief should include all significant findings and observations as well as any analysis from items such as survey questionnaires;
  - b. the second phase is a written report from the FSAV lead to the host Unit CO/ Wing Comd/Formation Comd/Accountable Executive. The FS Report Letter (Annex A) with accompanying FSAV Checklist (Annex B or C) will include the FSAV Teams observations, significant findings, and recommendations. Any recommendation will include the name of the Action Organization responsible for reviewing and potentially implementing the recommendation. Templates of the FS Report Letter and FSAV Checklists are available on the [DFS Intranet](#) under the Administration tab. The written report should be staffed and distributed within one month of the FSAV completion date. For contracted organizations, the written report will be staffed through the contracting authority; and
  - c. the third and final phase of the formal FSAV process is for the host Unit CO/ Wing Comd/Formation Comd/Accountable Executive to provide written feedback to the FSAV lead regarding the acceptance and implementation of each FSAV recommendation for which they are the action organization. FSAV leads are responsible to track the status and closure of each FSAV recommendation. A copy of all formal FSAV reports shall be sent to DFS 3 at (dfs.dsv@forces.gc.ca)

### **Local (Informal) FSAV**

#### **Conduct**

17. A local (informal) FSAV shall be carried out by the Wing/Formation FSO on FS units, including contractor units, located locally on their Wings. For FS Units not co-located with their Wing/Formation, the Wing/Formation FSO may direct the UFSO to conduct the local (informal) FSAV. The local FSAV team will normally be led by the local Unit/Wing/Formation FSO as applicable.
18. A local FSAV should follow the same methodology as a formal FSAV, but may be done on a more informal basis according to local procedures. The local FSAV shall review all aspects of the FSP and AWSP at least once annually, but does not need to be completed all at once. For example, a Wing with four FS Units may decide to visit one unit every three months on a rotating basis. Local FSAVs may be conducted more frequently as required to address safety concerns or to provide additional assistance.
19. Local FSAV teams are generally smaller than for a formal FSAV, but should normally include FS personnel from the host unit. FS personnel from units external to the host unit may also be used to conduct or participate in the FSAV to provide a fresh view and to encourage an invaluable exchange of ideas.

20. In addition to conducting an annual local FSAV, unit FS teams should also informally visit each section regularly throughout the year to promote the FSP, maintain awareness of developing FS issues and develop a positive relationship with unit personnel. Further, whenever someone joins the FS team, be it at the wing or unit level, they shall visit all sections within their purview within one month of assuming their duty to familiarize themselves with the FSP implementation, issues and personnel at each unit.

21. When there is a change of command, a local FSAV of the Unit /Wing/Formation/ Contractor shall be conducted as soon as practical to provide the incoming Unit CO/Wing Comd/Formation Comd/Accountable Executive with an updated FS health check of the unit.

Annex A  
Chapter 4  
A-GA-135-001/AA-001

## ANNEX A – FSAV REPORT LETTER

1016-24 (DFS 2-5)

OCTOBER 2020

DISTRIBUTION LIST

FLIGHT SAFETY ASSURANCE VISIT  
OP XXXX - 12 SEPT - 18 SEPT 2020

REFERENCES: A. A-GA-135-001/AA-001 FLIGHT SAFETY FOR THE CANADIAN ARMED FORCES  
B. FLIGHT SAFETY ASSURANCE VISIT CHECKLIST - SEPT 2020 (ENCLOSED)

1. A FLIGHT SAFETY ASSURANCE VISIT (FSAV) WAS CONDUCTED AT OP XXXX (CITY, COUNTRY) AS PART OF THE CANADIAN ARMED FORCES FS PROGRAM (REF A). THIS VISIT WAS INTENDED TO MEASURE THE LEVEL OF PARTICIPATION IN THE DND/CAF FS PROGRAM, THEIR PREVENTION ACTIVITIES AND THEIR ABILITY TO REPORT AND INVESTIGATE FS OCCURRENCES. THE VISIT WAS ALSO AN OPPORTUNITY TO IDENTIFY DEFICIENCIES THAT WOULD HAVE GONE UNDETECTED UNTIL REVEALED AS THE CAUSES OF OCCURRENCES.
2. DETAILS OF THE OBSERVATIONS AND RECOMMENDATIONS MADE DURING THE FSAV ARE ATTACHED (REF B). IN GENERAL, THE MAINTENANCE PRACTICES ARE DEEMED SOUND, AND THE TF XXXX HAS A VERY GOOD SAFETY CULTURE. THAT BEING SAID, THERE WERE OPPORTUNITIES FOR IMPROVEMENT IDENTIFIED REGARDING THE FS PROGRAM. FROM THE RECOMMENDATIONS MADE, THE FOLLOWING IS THE MOST SIGNIFICANT ITEM: INVESTIGATION FILES / DOCUMENTS WERE FOUND IN UNSECURE PROT B FILE FOLDERS. THESE FILES NEED TO BE PROPERLY SAFEGUARDED / LOCKED TO PROTECT PRIVILEGED INFORMATION AS PER THE AERONAUTICS ACT.
3. THE ATTACHED FSAV CHECKLIST ALSO IDENTIFIES RECOMMENDATIONS OF A LESS CRITICAL NATURE COVER- ING THE ENTIRE SPECTRUM OF FS ACTIVITIES. ALL RECOMMENDATIONS SHOULD BE CONSIDERED AND ADDRESSED TO FURTHER IMPROVE AND ENHANCE OP XXXX FS PROGRAM.
4. TO FACILITATE FOLLOW-UP, IT WOULD BE GREATLY APPRECIATED IF MY STAFF RECEIVE FEEDBACK ON ACTIONS TAKEN REGARDING THESE OBSERVATIONS AND RECOMMENDATIONS AND THEIR ANTICIPATED COMPLETION DATES. IF THERE ARE ANY QUESTIONS OR CONCERNS WITH THIS REPORT, PLEASE FEEL TO CONTACT EITHER MYSELF AT 613-992-XXXX OR LCOL XXXX AT 613-992-XXXX.

I.M. REPORTING  
MAJOR  
1 CAD FS

ENCLOSURE: 1

DISTRIBUTION LIST

ACTION



Annex B  
 Chapter 4  
 A-GA-135-001/AA-001

**ANNEX B – UNIT/WING/FORMATION/CONTRACTOR (FSAV) CHECKLIST**

\*Blank FSAV checklist template can be found on the [Flight Safety Intranet](#) under the Administration tab.

ORGANIZATION : OP XXXX

FSAV DATE: 12-18 SEPT 2020

REQUIREMENT (REQ): MET= REQUIREMENT MET, PM= PARTIALLY MET, NM= NOT MET

#	Description	Req	Observations	Recommendation
<b>Flight Safety Program</b>				
1.	WRITTEN FSP: <input checked="" type="checkbox"/> DOCUMENTATION UPDATED AND CURRENT <input checked="" type="checkbox"/> FUNCTIONAL, ADEQUATE, COMPLETE, ACHIEVABLE <input checked="" type="checkbox"/> AWARENESS, PARTICIPATION	M	- FSP VERSION 1.3 DATED 28 MAR 2019, IS CURRENT - GOOD AWARENESS AND PARTICIPATION IN FS PROGRAM	
2.	COMD'S/DIRECTOR'S FS PHILOSOPHY: <input checked="" type="checkbox"/> ALIGNS WITH FUNDAMENTAL PRINCIPLES OF FSP <input checked="" type="checkbox"/> COMMITS NECESSARY RESOURCES FOR IMPLEMENTATION <input checked="" type="checkbox"/> DOCUMENTED, CURRENT, SIGNED <input checked="" type="checkbox"/> VISIBLE ENDORSEMENT, EMPLOYEE AWARENESS <input checked="" type="checkbox"/> MANNING OF FS SECTION IS APPROPRIATE	M	- COMD FS PHILOSOPHY IS PUBLISHED - SUFFICIENT RESOURCES ARE COMMITTED AND AVAILABLE FOR THE IMPLEMENTATION AND EXECUTION OF THE FSP - MANNING IS APPROPRIATE.	
3.	SUB-UNIT/SUBCONTRACTOR OVERSIGHT: <input checked="" type="checkbox"/> FSP AWARENESS, PARTICIPATION	M	- GOOD AWARENESS AND PARTICIPATION IN FS PROGRAM	
4.	FS COUNCIL: <input checked="" type="checkbox"/> FREQUENCY, ATTENDANCE <input checked="" type="checkbox"/> AGENDA ITEMS <input checked="" type="checkbox"/> MINUTES / RECORD OF DISCUSSIONS	M	- GOOD ATTENDANCE, AND FREQUENCY OF MEETINGS - RODS ARE AVAILABLE	
5.	INTERFACE WITH OTHER SAFETY PROGRAMS <input checked="" type="checkbox"/> FSP INTERFACE WITH OTHER SAFETY PROGRAMS (EX. OCCUPATIONAL HEALTH AND SAFETY, GENERAL SAFETY, FALL RESTRAINT) <input checked="" type="checkbox"/> ALSE O TRAINED <input checked="" type="checkbox"/> FSP INTERFACE WITH CAF UNIT / WING PROGRAMS IF	M	- YES, INCLUDES AIR WEAPONS SAFETY, EXPLOSIVE SAFETY, AND LASER SAFETY.	

	APPLICABLE (EX. RAMP SAFETY, SNIC)			
6.	<p>OCCURRENCE REPORTING PROCESS:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> PROCESS USED</li> <li><input checked="" type="checkbox"/> RECORDS / FILING SYSTEM</li> <li><input checked="" type="checkbox"/> LINK TO FSIMS / FSP</li> <li><input checked="" type="checkbox"/> PROTECTION OF PRIVILEGED INFORMATION</li> <li><input checked="" type="checkbox"/> PROTECTION OF FS INFORMATION</li> </ul>	<b>PM</b>	- INVESTIGATION FILES WERE FOUND UNLOCKED IN A DESK DRAWER.	- IT IS RECOMMENDED THAT THE UNIT FS TEAM ENSURE THAT INVESTIGATION FILES/DOCUMENTS ARE PROPERLY SAFEGUARDED.
7.	<p>HAZARD REPORTING PROCESS:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> PROCESS USED</li> <li><input checked="" type="checkbox"/> RECORDS / FILING SYSTEM</li> <li><input checked="" type="checkbox"/> LINK TO FSIMS / FSP</li> <li><input checked="" type="checkbox"/> HAZARD REPORT PROMOTION</li> <li><input checked="" type="checkbox"/> AVAILABILITY OF BLANK FORMS</li> <li><input checked="" type="checkbox"/> FOLLOW UP PROCEDURE</li> </ul>	<b>PM</b>	- ONLY THE OCCURRENCE FORM (CF215) WAS AVAILABLE ON THE FS BOARD.	- IT IS RECOMMENDED THAT THE UNIT FS TEAM ENSURE THAT THE HAZREP FORM (DND2484) IS MADE AVAILABLE ON THE FS BOARD.
<b>Flight Safety Officer (FSO) / Contractor FSO</b>				
8.	<p>KNOWLEDGE AND EXPERIENCE:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> PROFESSIONAL KNOWLEDGE</li> <li><input checked="" type="checkbox"/> EXPERIENCE LEVEL</li> <li><input checked="" type="checkbox"/> UNDERSTANDING OF FS ROLE AND FSO MANDATE</li> <li><input checked="" type="checkbox"/> ADDITIONAL SECONDARY DUTIES</li> </ul>	<b>M</b>	- TEAM HAS A WIDE VARIETY OF FS EXPERIENCE / KNOWLEDGE - FSO HAS NO SECONDARY DUTIES	
9.	<p>ACCESS TO COMD/DIRECTOR:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> DIRECT ACCESS</li> </ul>	<b>M</b>	- ACCESS TO CO IS UNRESTRICTED AND ENCOURAGED	
10.	<p>ACCESS TO BRANCH AND SECTION HEADS:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> DIRECT ACCESS</li> </ul>	<b>M</b>		
11.	<p>TRAINING:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> FS COURSE QUALIFICATION</li> <li><input checked="" type="checkbox"/> IIC / BI CERTIFICATION</li> <li><input checked="" type="checkbox"/> ADDITIONAL FS RELATED COURSES (EX. SAFETY MANAGEMENT, INVESTIGATION)</li> </ul>	<b>M</b>		
12.	<p>RELATIONSHIP WITH PERSONNEL:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> FSO / FS NCM WELL KNOWN / VISIBLE</li> <li><input checked="" type="checkbox"/> FS TEAM WELL KNOWN / VISIBLE</li> </ul>	<b>M</b>		
13.	<p>ACCESS TO PUBLICATIONS / RESOURCES:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> DFS WEBSITES (INTRANET AND INTERNET)</li> <li><input checked="" type="checkbox"/> FS PUBLICATIONS (FS MANUAL, AIM)</li> </ul>	<b>M</b>		

	<input checked="" type="checkbox"/> AOIS/CFTOS FOR ALL DND AIRCRAFT <input checked="" type="checkbox"/> HAZARD REPORTS, LESSONS LEARNED <input checked="" type="checkbox"/> PROMOTIONAL MATERIAL (EX. SAFETY MAGAZINES, POSTERS, VIDEOS)			
14.	ACCESS TO FSIMS: <input checked="" type="checkbox"/> DWAN ACCESS <input checked="" type="checkbox"/> FAMILIARITY WITH TOOL, HANDBOOK	<b>M</b>		
<b>Pre-Occurrence / Prevention Activities</b>				
15.	FS COMMITTEE: <input checked="" type="checkbox"/> FREQUENCY, ATTENDANCE <input checked="" type="checkbox"/> AREAS OF CONCERN, TREND ANALYSIS, STRESS POINTS	<b>M</b>		
16.	FS TRAINING TO PERSONNEL: <input checked="" type="checkbox"/> FREQUENCY, ATTENDEES, TRACKING <input checked="" type="checkbox"/> FORMAT, TOPICS	<b>M</b>		
17.	INTERNAL FSAV S: <input checked="" type="checkbox"/> SCOPE <input checked="" type="checkbox"/> FREQUENCY <input checked="" type="checkbox"/> USE OF EXTERNAL RESOURCES <input checked="" type="checkbox"/> REPORT DISTRIBUTION, FOLLOW-UP ACTION	<b>M</b>	- INTERNAL FSAV CONDUCTED 10 AUG 2020	
18.	INFORMAL PERSONAL VISITS TO SECTIONS: <input checked="" type="checkbox"/> REGULAR AND FREQUENT <input checked="" type="checkbox"/> INCLUDES NON-FLYING UNITS/SECTIONS	<b>M</b>	- FREQUENT INFORMAL VISITS BY FSO	
19.	FS BRIEFINGS <input checked="" type="checkbox"/> FREQUENCY AND VENUE <input checked="" type="checkbox"/> TOPICS <input checked="" type="checkbox"/> USE OF EXTERNAL SMES FOR BRIEFING <input checked="" type="checkbox"/> USE OF LESSONS LEARNED FROM SIMILAR FLEETS, CONTRACTORS, EXTERNAL AGENCIES <input checked="" type="checkbox"/> PRE-DEPLOYMENT FS BRIEFS COMPLETED (IF APPLICABLE)	<b>M</b>		
20.	FLIGHT SAFETY BOARDS: <input checked="" type="checkbox"/> LOCATION AND VISIBILITY <input checked="" type="checkbox"/> EFFECTIVENESS <input checked="" type="checkbox"/> UP TO DATE <input checked="" type="checkbox"/> METHODS OF DISPLAY	<b>M</b>	- VERY GOOD FS BOARD IN THE MAIN OPS BUILDING	
21.	FS AWARDS PROGRAM: <input checked="" type="checkbox"/> EFFECTIVENESS, VISIBILITY	<b>M</b>	- GOOD USE OF THE FS AWARDS PROGRAM	

	<input checked="" type="checkbox"/> DND FS AWARD PROGRAM		(GOOD SHOW, FOR PRO)	
22.	FEEDBACK TO THE CHAIN OF COMMAND: <input checked="" type="checkbox"/> FEEDBACK METHOD / REPORTS <input checked="" type="checkbox"/> FREQUENCY	<b>M</b>		
23.	FEEDBACK TO WING: <input checked="" type="checkbox"/> FEEDBACK METHOD / REPORTS <input checked="" type="checkbox"/> MUTUAL EXCHANGES OF INFORMATION (EX. MAINT ALERTS)	<b>M</b>		
24.	SPECIFIC FS AREAS OF CONCERN: <input checked="" type="checkbox"/> FOD, HOUSEKEEPING, TOOL CONTROL, MALA, CREW QUALIFICATIONS, CREW REST, ETC.	<b>M</b>	- MALA USED ON EVERY FLIGHT / MISSION - FRMS BEING USED	
<b>Post-Occurrence Activities</b>				
25.	EMERGENCY RESPONSE PLAN: <input checked="" type="checkbox"/> COMPLETE, UPDATED AND CURRENT <input checked="" type="checkbox"/> LOCATIONS HELD (COMMAND POST, OFFICES) <input checked="" type="checkbox"/> DATE LAST TESTED <input checked="" type="checkbox"/> WARNING SYSTEM (WARN -DFS) <input checked="" type="checkbox"/> TRANSPORT TO ACCIDENT SITE <input checked="" type="checkbox"/> PHOTOGRAPHER AVAILABILITY	<b>M</b>	- ERP VERSION 3.5 DATED 10 JUNE 2020 - ERP READILY AVAILABLE ON THE FS BOARD FOR ALL TO CONSULT - WARNING SYSTEM TESTED ONCE A WEEK	
26.	ADEQUACY OF EMERGENCY RESPONSE EQUIPMENT <input checked="" type="checkbox"/> COMMUNICATIONS (EX. CELL PHONE, RADIOS) <input checked="" type="checkbox"/> DIGITAL CAMERA <input checked="" type="checkbox"/> FLUIDS SAMPLING EQUIPMENT <input checked="" type="checkbox"/> PPE <input checked="" type="checkbox"/> SITE SECURITY EQUIPMENT	<b>M</b>	- ALL EQUIPMENT AVAILABLE	
27.	ACCIDENT INVESTIGATION SUPPORT <input checked="" type="checkbox"/> CONTROL OF WRECKAGE / SITE <input checked="" type="checkbox"/> LIAISON WITH SUPPORTING WFSO <input checked="" type="checkbox"/> IMPOUNDING RECORDS (ELECTRONIC, PAPER) <input checked="" type="checkbox"/> QUARANTINE PROCEDURES	<b>M</b>	- IMPOUNDING AND QUARANTINING PROCEDURES VERY WELL EXPLAINED IN THE ERP ANNEX	
28.	INCIDENT INVESTIGATION: <input checked="" type="checkbox"/> COMPLETENESS AND QUALITY OF REPORT <input checked="" type="checkbox"/> CONTROL OF REPORT <input checked="" type="checkbox"/> COORDINATION WITH WFSO <input checked="" type="checkbox"/> INDEPENDENT FROM COC	<b>M</b>		
29.	CAUSE FACTOR ASSESSMENT:	<b>M</b>		

	<input checked="" type="checkbox"/> CORRECT ASSIGNMENT OF CAUSE TYPES (PERSONNEL, MATERIEL, ENVIRONMENT, OPERATIONAL, FOD, UNDETERMINED)			
30.	HUMAN FACTORS ANALYSIS AND CLASSIFICATION SYSTEM (HFACS): <input checked="" type="checkbox"/> ACTIVE FAILURES CAPTURED <input checked="" type="checkbox"/> LATENT CONDITIONS IDENTIFIED	<b>M</b>		
31.	PREVENTIVE MEASURES (PM) AND ANALYSIS: <input checked="" type="checkbox"/> PM DEVELOPMENT PROCESS <input checked="" type="checkbox"/> PM PRE-COORDINATION <input checked="" type="checkbox"/> PM PUBLICATION PROCESS <input checked="" type="checkbox"/> PM FOLLOW-UP AND TRACKING <input checked="" type="checkbox"/> PM CLOSING PROCESS	<b>M</b>	- VERY RAPID IMPLEMENTATION OF LOCAL LEVEL PMS	
<b>AIR WEAPONS SAFETY PROGRAM (AWSP)</b>				
32.	WRITTEN PROGRAM: <input checked="" type="checkbox"/> INTEGRATED WITHIN FS PROGRAM (REPORTING, PREVENTION, EDUCATION, PROMOTION) <input checked="" type="checkbox"/> EFFECTIVENESS <input checked="" type="checkbox"/> ENCOMPASSES ALL AIR WEAPONS ACTIVITIES FROM READY-USE STORAGE TO TARGET OR RETURN TO READY-USE STORAGE <input checked="" type="checkbox"/> CURRENT <input checked="" type="checkbox"/> AIR WEAPONS SAFETY COMMITTEE	<b>M</b>	- LAST AWSP COMMITTEE MEETING HELD 29 AUG	
33.	ESTABLISHED AWS O/AWS NCM: <input checked="" type="checkbox"/> APPOINTED <input checked="" type="checkbox"/> TRAINED AND QUALIFIED <input checked="" type="checkbox"/> MEMBER OF UNIT FS COMMITTEE <input checked="" type="checkbox"/> MEMBER OF AIR WEAPONS SAFETY COMMITTEE	<b>M</b>		
34.	SAFETY SURVEY: <input checked="" type="checkbox"/> ANNUAL INFORMAL SURVEY CONDUCTED <input checked="" type="checkbox"/> EFFECTIVENESS (FOLLOW-UP, CORRECTIVE ACTIONS)	<b>M</b>		
35.	TRAINING: <input checked="" type="checkbox"/> AIR WEAPONS SAFETY INDOCTRINATION AND AWARENESS TRAINING CONDUCTED AT UNIT INCLUDING ALL FLIGHT LINE SUPPORT STAFF	<b>M</b>		

	<p>(FIREFIGHTERS, FUEL TENDER DRIVERS, MILITARY POLICE)</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> ANNUAL AWS TRAINING</li> <li><input checked="" type="checkbox"/> ANNUAL AIRCREW FAMILIARIZATION TRAINING</li> <li><input checked="" type="checkbox"/> LOAD CREW TRAINING</li> <li><input checked="" type="checkbox"/> WEAPONS LOAD OFFICER TRAINING</li> <li><input checked="" type="checkbox"/> CONVOY TRAINING, ARM/DE-ARM TRAINING</li> <li><input checked="" type="checkbox"/> RECORDS SYSTEM EXISTS TO DOCUMENT TRAINING</li> </ul>			
36.	<p>ADMINISTRATION</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> UNIT AIR WEAPONS SOPS CURRENT AND AVAILABLE</li> <li><input checked="" type="checkbox"/> APPLICABLE PUBLICATIONS AVAILABLE AND CURRENT TO ENHANCE UNIT AWS PROGRAM</li> <li><input checked="" type="checkbox"/> DEPLOYMENT SOPS INCLUDE AIR WEAPONS REQUIREMENTS (MANPOWER, EOD, PROCEDURES, EQUIPMENT)</li> <li><input checked="" type="checkbox"/> AWS REPRESENTATIVE APPOINTED FOR UNIT HOSTING DEPLOYMENTS / EXERCISES</li> <li><input checked="" type="checkbox"/> EMERGENCY RESPONSE PLANS INCLUDE AWS CONSIDERATIONS INCLUDING EVACUATION DISTANCES FOR APPLICABLE AIR WEAPONS</li> </ul>	<b>M</b>		
37.	<p>OPERATIONS:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> ABSOLUTELY NO MAINTENANCE OR NON OPERATIONAL ACTIVITIES CARRIED OUT ON AIRCRAFT IN THE ARMED STATE</li> <li><input checked="" type="checkbox"/> UNIT SOP'S DETAILING MAINTENANCE ACTIVITIES THAT MAY BE UNDERTAKEN ON LOADED AIRCRAFT ARE COVERED IN LOCAL ORDERS</li> <li><input checked="" type="checkbox"/> ARMING / DE-ARMING AREAS DESIGNATED AND APPROVED</li> <li><input checked="" type="checkbox"/> LOCATION AND NUMBER OF ARMING / DE-ARMING AREAS DESIGNATED AND APPROVED</li> <li><input checked="" type="checkbox"/> CHECKLIST USED FOR ACCEPTANCE CHECKS ON AIRCRAFT WITH AIR WEAPONS LOADED</li> <li><input checked="" type="checkbox"/> LOADED AIRCRAFT RECOVERY PROCEDURES ENSURE DIRECT ROUTING TO DE-ARMING AREA</li> <li><input checked="" type="checkbox"/> AIRCRAFT LOADED WITH FORWARD FIRING WEAPONS POINTED AWAY FROM POPULATED AREAS</li> </ul>	<b>M</b>		

	<ul style="list-style-type: none"><li><input checked="" type="checkbox"/> EMERGENCY JETTISON AREAS IDENTIFIED IN FLYING AND AIR WEAPONS ORDERS</li><li><input checked="" type="checkbox"/> PILOT'S HANDS VISIBLE DURING ARMING / DE-ARMING OPERATIONS</li><li><input checked="" type="checkbox"/> LOADING / UN-LOADING AREAS ARE DESIGNATED, APPROVED, AND LICENSE IS VALID</li></ul>			
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Annex C  
Chapter 4  
A-GA-135-001/AA-001

### ANNEX C – AIR CADET GLIDING PROGRAM FSAV CHECKLIST

ORGANIZATION : XXXX REGION

FSAV DATE: 12-18 SEPT 2020

REQUIREMENT (REQ): MET= REQUIREMENT MET, PM= PARTIALLY MET, NM= NOT MET

#	Description	Req	Observations	Recommendation
<b>Accident Prevention Program</b>				
1.	FS PUBLICATIONS <input checked="" type="checkbox"/> INCIDENT / ACCIDENT REPORTS <input checked="" type="checkbox"/> MAGAZINES <input checked="" type="checkbox"/> POSTERS <input checked="" type="checkbox"/> FLASHERS <input checked="" type="checkbox"/> MEMORANDA <input checked="" type="checkbox"/> BULLETINS <input checked="" type="checkbox"/> DISTRIBUTION <input checked="" type="checkbox"/> METHOD OF DISPLAY	M	- VISIBLE THROUGHOUT BUILDING	
2.	FS MULTI-MEDIA <input checked="" type="checkbox"/> FILMS AND VIDEOS	M	- AVAILABLE IN OFFICE	
3.	FS BRIEFINGS <input checked="" type="checkbox"/> FREQUENCY <input checked="" type="checkbox"/> SEASONAL <input checked="" type="checkbox"/> EFF ECTIVENESS	M		
4.	STANDARD OPERATING PROCEDURES (SOPS) <input checked="" type="checkbox"/> DISPLAY <input checked="" type="checkbox"/> CURRENT / ADEQUATE <input checked="" type="checkbox"/> ALL READ AND SIGNED	M		
5.	PUBLICATIONS <input checked="" type="checkbox"/> AMENDMENTS <input checked="" type="checkbox"/> AVAILABILITY	M		
6.	FACILITIES DISPLAY <input checked="" type="checkbox"/> AIRFIELD LAYOUT <input checked="" type="checkbox"/> LOCATION	M	- PRESENT IN BOARDROOM	
7.	MARSHALLING SIGNALS AS PER SOPS <input checked="" type="checkbox"/> COMPLIANCE WITH ORDERS <input checked="" type="checkbox"/> POSTER DISPLAY	M		
8.	RADIO PROCEDURES <input checked="" type="checkbox"/> STANDARDIZATION	M	- ATF UNICOM 123.0 NOTED	
9.	AIRCREW <input checked="" type="checkbox"/> QUALIFICATIONS	M		



	<input checked="" type="checkbox"/> PROFICIENCY <input checked="" type="checkbox"/> CURRENCY			
10.	OPERATIONS <input checked="" type="checkbox"/> LAUNCH CONTROL <input checked="" type="checkbox"/> SCHEDULING <input checked="" type="checkbox"/> DUTY TIME LIMITATIONS <input checked="" type="checkbox"/> FLYING TIME LIMITATIONS	M	- DUTIES DETAILED PER SOP	
11.	PUBLICATIONS FOR AIRCRAFT AND EQUIPMENT <input checked="" type="checkbox"/> CHECKLISTS <input checked="" type="checkbox"/> AVAILABILITY <input checked="" type="checkbox"/> USE OF PRE-TAKE-OFF AND LANDING CHECKLIST <input checked="" type="checkbox"/> AIRCRAFT OWNER'S MANUAL <input checked="" type="checkbox"/> AIRCRAFT HANDOVER <input checked="" type="checkbox"/> CHECKLIST HANDOVER <input checked="" type="checkbox"/> LOCATION	M		
<b>Glider Operations-General</b>				
12.	CHECKOUTS <input checked="" type="checkbox"/> THOROUGH <input checked="" type="checkbox"/> REALISTIC <input checked="" type="checkbox"/> SIMULATED ROPE BREAKS <input checked="" type="checkbox"/> AS PER SOPS	M		
13.	MEDICAL <input checked="" type="checkbox"/> VALID <input checked="" type="checkbox"/> RESTRICTIONS <input checked="" type="checkbox"/> HAZARDS POSED BY ILLNESS <input checked="" type="checkbox"/> PROCEDURES TO ENSURE THAT AIRCREW CANNOT FLY WHILE MEDICALLY UNFIT	M	- ALL AIRCREW MEDICALS CHECKED AND VALID	
14.	PUBLICATIONS <input checked="" type="checkbox"/> ON-TIME DISSEMINATION AIP <input checked="" type="checkbox"/> VFR SUPPLEMENT <input checked="" type="checkbox"/> AMENDMENTS DISTRIBUTED	M		
15.	BRIEFINGS <input checked="" type="checkbox"/> LOCATION <input checked="" type="checkbox"/> REQUIREMENT TO ATTEND <input checked="" type="checkbox"/> NUMBER PER DAY <input checked="" type="checkbox"/> SPECIAL REQUIREMENTS <input checked="" type="checkbox"/> CURRENT WEATHER <input checked="" type="checkbox"/> OPS CONDITIONS <input checked="" type="checkbox"/> EMERGENCY PROCEDURES	M		
16.	LAUNCH CONTROL OFFICER (LCO) <input checked="" type="checkbox"/> QUALIFICATIONS <input checked="" type="checkbox"/> RESPONSIBILITIES	M	- QUALIFIED PERS ASSIGNED	
17.	LAUNCH PERSONNEL <input checked="" type="checkbox"/> DUTIES UNDERSTOOD <input checked="" type="checkbox"/> ADHERENCE TO SOPS	M	- IAW SOP	

18.	WEATHER / WIND LIMITATIONS <input checked="" type="checkbox"/> DAYLIGHT VFR ONLY <input checked="" type="checkbox"/> 90° CROSSWIND LIMITS <input checked="" type="checkbox"/> Z-33 8 KNOTS / 10 MPH <input checked="" type="checkbox"/> SCOUT 15 KNOTS / 17 MPH <input checked="" type="checkbox"/> L-19 10 KNOTS / 11 MPH <input checked="" type="checkbox"/> 15 KTS / 17 MPH FO R STDS / CHECK PILOT CONDUCTING TRAINING ONLY <input checked="" type="checkbox"/> GUSTS NOT GREATER THAN 10 KNOTS OR 12 MPH	M		
19.	GLIDER MOVEMENTS <input checked="" type="checkbox"/> SUPERVISION <input checked="" type="checkbox"/> SUFFICIENT PERSONNEL <input checked="" type="checkbox"/> BY HAND WHEN BACKWARDS <input checked="" type="checkbox"/> BY VEHICLE WHEN FORWARD	M		
20.	GLIDER PARKING AS PER SOPS <input checked="" type="checkbox"/> DISTANCE BETWEEN GLIDERS <input checked="" type="checkbox"/> ALIGNMENT AND DIRECTION <input checked="" type="checkbox"/> PARKED CONFIGURATION <input checked="" type="checkbox"/> SPOILERS EXTENDED <input checked="" type="checkbox"/> LOW WING INTO WIND <input checked="" type="checkbox"/> TIE-DOWN AS PER SOPS	M	- EXCELLENT DISTANCE - TIEDOWNS IN GOOD SHAPE	
21.	VEHICULAR TRAFFIC <input checked="" type="checkbox"/> CONTROL OF MOVEMENT	M	- ONLY UNIT VEHICLE PERMITTED ON FIELD	
22.	SPECTATORS <input checked="" type="checkbox"/> SUPERVISION	M		
23.	PILOT LOG BOOKS <input checked="" type="checkbox"/> MAINTAINED AND UP TO DATE <input checked="" type="checkbox"/> LOG BOOK CERTIFICATION FOR PROFICIENCY AND QUALIFICATIONS	PM	- TWO LOG BOOKS FOUND NOT UP TO DATE (BOTH PILOTS STILL QUALIFIED AND PROFICIENT)	- UNIT TO MODIFY SOP'S TO ENSURE THAT ALL LOG BOOKS ARE KEPT UP TO DATE
<b>Glider Operations-Emergency Procedures</b>				
24.	OCCURRENCE RESPONSE PLAN <input checked="" type="checkbox"/> EFFECTIVENESS <input checked="" type="checkbox"/> WARNING SYSTEM <input checked="" type="checkbox"/> TRANSPORT TO SITE <input checked="" type="checkbox"/> PHOTOGRAPHER / CAMERA <input checked="" type="checkbox"/> PERSONNEL KNOWLEDGEABLE OF PLAN	M		
25.	GRID MAPS <input checked="" type="checkbox"/> AVAILABLE AND CURRENT <input checked="" type="checkbox"/> UNDERSTOOD BY DRIVERS	M		
26.	ACCIDENT ALARM SYSTEM <input checked="" type="checkbox"/> SERVICEABLE / EFFECTIVE	M		
27.	VEHICLES TO ACCIDENT SITE <input checked="" type="checkbox"/> RULES GOVERNING VEHICLE MOVEMENT	M		

	<input checked="" type="checkbox"/> CONTROL OF VEHICLES BY TOWER <input checked="" type="checkbox"/> MARKINGS <input checked="" type="checkbox"/> CURRENT WEATHER <input checked="" type="checkbox"/> OPS CONDITIONS <input checked="" type="checkbox"/> EMERGENCY PROCEDURES			
28.	ACCIDENT RESPONSIBILITIES <input checked="" type="checkbox"/> RECOVERY OF WRECKAGE <input checked="" type="checkbox"/> WRECKAGE GUARDS <input checked="" type="checkbox"/> WRECKAGE SCHEMATIC <input checked="" type="checkbox"/> ACCIDENT TRAILER AND ACCIDENT SITE EQUIPMENT	M		
29.	NOTIFICATION TO <input checked="" type="checkbox"/> LOCAL FIREFIGHTERS <input checked="" type="checkbox"/> LOCAL POLICE / RCMP <input checked="" type="checkbox"/> CAF FS PERSONNEL	M		
30.	AVAILABILITY OF AMBULANCE <input checked="" type="checkbox"/> RESPONSE TIME <input checked="" type="checkbox"/> CAPABILITY	M	- CITY AMBULANCE 7 MIN RESPONSE TIME	
31.	FIRE EXTINGUISHERS <input checked="" type="checkbox"/> SPOT CHECKS IN HANGARS, FLIGHT LINE, AIRCRAFT AND WINCH <input checked="" type="checkbox"/> UP TO DATE <input checked="" type="checkbox"/> KNOWLEDGE OF USE	M		
32.	EMERGENCY PROCEDURES <input checked="" type="checkbox"/> KNOWLEDGE AND PRACTICE <input checked="" type="checkbox"/> TAKE-OFF ABORT <input checked="" type="checkbox"/> EMERGENCY RELEASE <input checked="" type="checkbox"/> NON-RELEASE <input checked="" type="checkbox"/> ROPE / CABLE BREAK <input checked="" type="checkbox"/> OFF-FIELD LANDING	M		
<b>Air Services</b>				
33.	BIRD STRIKE <input checked="" type="checkbox"/> RECORDS	M	- INCORPORATED IN CF215 AND ON FIELD	
34.	AIRFIELD CONDITION <input checked="" type="checkbox"/> RAMPS, TAXIWAYS, RUNWAYS, LIGHTING, APPROACHES, OVER-RUN AREAS, IN-FIELD AREAS <input checked="" type="checkbox"/> METHOD OF DISSEMINATING PREVIOUSLY DISCUSSED INFORMATION TO USERS	M	- FIELD CHECK COMPLETED	
35.	WEATHER SERVICES <input checked="" type="checkbox"/> ACCESS TO CURRENT AND FORECAST CONDITIONS <input checked="" type="checkbox"/> INFORMATION DISPLAYED <input checked="" type="checkbox"/> INFORMATION UPDATED, E.G. USE OF PIREP S	M	- INTERNET AND PHONE IN AIRPORT BUILDING	

36.	CONTROL TOWER <input checked="" type="checkbox"/> COMMUNICATIONS WITH ALL GLIDER OPERATIONS <input checked="" type="checkbox"/> LOCAL GLIDING PROCEDURES <input checked="" type="checkbox"/> VISIBILITY OF ENTIRE GLIDER OPS AND TRAFFIC PATTERNS <input checked="" type="checkbox"/> TOWER CONTROL OF GLIDERS AND TOW AIRCRAFT <input checked="" type="checkbox"/> TOWER CONTROL OF VEHICLES ON AIRFIELD	M	- NOT APPLICABLE	
<b>Maintenance and Servicing</b>				
37.	RELATIONSHIP WITH FSO <input checked="" type="checkbox"/> MUTUAL EXCHANGES OF INFORMATION	M		
38.	FS PUBLICATIONS <input checked="" type="checkbox"/> POSTER DISPLAYS <input checked="" type="checkbox"/> "SAFETY COMMENT" FORMS AVAILABILITY AND USE <input checked="" type="checkbox"/> AIRCRAFT ACCIDENT SUMMARIES	M		
39.	USE OF INTAKE DUCT PLUGS (SEASONAL) <input checked="" type="checkbox"/> TOW PLANES	M		
40.	FOD PROGRAM <input checked="" type="checkbox"/> AIRFIELD INSPECTIONS <input checked="" type="checkbox"/> NO LOOSE EQUIPMENT IN COCKPITS	M		
41.	FLIGHT TESTING <input checked="" type="checkbox"/> APPROVED PERSONNEL <input checked="" type="checkbox"/> CHECKLISTS USED	M		
42.	MAINTENANCE ADMINISTRATION <input checked="" type="checkbox"/> EQUIPMENT INSPECTIONS <input checked="" type="checkbox"/> SNAGS RECORDED <input checked="" type="checkbox"/> AIRCRAFT TECHNICAL LOGS UP TO DATE <input checked="" type="checkbox"/> CORRECTIVE ACTION ON SNAGS <input checked="" type="checkbox"/> STORAGE CONDITIONS <input checked="" type="checkbox"/> CLEANLINESS OF AIRCRAFT AND HANGAR	M		
<b>Safety Systems</b>				
43.	LIFE SUPPORT EQUIPMENT <input checked="" type="checkbox"/> PROPER TYPE <input checked="" type="checkbox"/> WELL MAINTAINED <input checked="" type="checkbox"/> STORAGE <input checked="" type="checkbox"/> INSPECTIONS VALID	M		
44.	PERSONNEL-ISSUE AS PER SCALE OF ISSUE	M		

	<input checked="" type="checkbox"/> USERS FITTED AND BRIEFED ON EQUIPMENT CARE AND HANDLING PROCEDURES FOR OVERDUE EQUIPMENT			
45.	EMERGENCY LOCATOR TRANSMITTER (ELT) AND PERSONAL LOCATOR BEACON (PLB)  <input checked="" type="checkbox"/> AVAILABILITY <input checked="" type="checkbox"/> USAGE	M		
46.	ACCIDENT RESPONSE  <input checked="" type="checkbox"/> EQUIPMENT <input checked="" type="checkbox"/> AVAILABILITY <input checked="" type="checkbox"/> USAGE	M		
47.	ACCIDENT RESPONSE EQUIPMENT  <input checked="" type="checkbox"/> FIRST AID KIT <input checked="" type="checkbox"/> DISPOSABLE CAMERA <input checked="" type="checkbox"/> RESCUE KNIFE (HARNES CUTTER) <input checked="" type="checkbox"/> TWO FIRE EXTINGUISHERS <input checked="" type="checkbox"/> VEHICLE CAPABLE OF TRANSPORTING EQUIPMENT AND PERSONNEL CLOSE TO ACCIDENT SITE <input checked="" type="checkbox"/> ACCIDENT AXE <input checked="" type="checkbox"/> FIREFIGHTER'S COMBINATION TOOL <input checked="" type="checkbox"/> TWO WOOL BLANKETS	M		
<b>Training</b>				
48.	SUPERVISOR TRAINING  <input checked="" type="checkbox"/> FREQUENCY	M		
49.	LOCAL SURVEYS  <input checked="" type="checkbox"/> REGULAR AND SYSTEMATIC <input checked="" type="checkbox"/> ADEQUACY OF CORRECTIVE ACTION <input checked="" type="checkbox"/> USE OF FSO RESOURCES	M	- LAST LOCAL SURVEY WAS CONDUCTED AT THE END OF JULY	
50.	GLIDING SCHOOL LECTURES AS PER DIRECTIVES  <input checked="" type="checkbox"/> LESSON PLANS <input checked="" type="checkbox"/> ADEQUACY <input checked="" type="checkbox"/> ACCORDING TO SYLLABUS <input checked="" type="checkbox"/> TRAINING AIDS	M		
<b>Air Tow Launch Procedures</b>				
51.	AIR TOW LAUNCH CREW  <input checked="" type="checkbox"/> NUMBER OF CREW THREE (3) MINIMUM <input checked="" type="checkbox"/> BRIEFED ON OPERATION <input checked="" type="checkbox"/> UNDERSTAND DUTIES	M		
52.	POSITION OF SIGNALLERS	M		

	<input checked="" type="checkbox"/> WINGMAN <input checked="" type="checkbox"/> TOW AIRCRAFT SIGNALER 45° AHEAD OF AIRCRAFT, 50 FT. FROM TAKE-OFF PATH, FACING WINGMAN AND AIRCRAFT			
53.	TOW ROPE ATTACHMENT PROCEDURE  <input checked="" type="checkbox"/> ONLY WHEN GLIDER READY <input checked="" type="checkbox"/> ROPES AS PER SOPS <input checked="" type="checkbox"/> CONDITION OF ROPE CHECKED	M		
54.	PRE-TAKE-OFF CHECKS  <input checked="" type="checkbox"/> BACK RELEASE AND FORWARD RELEASE CHECKED AT START OF DAILY OPERATIONS <input checked="" type="checkbox"/> AS PER CHECKLIST	M		
55.	SIGNALS  <input checked="" type="checkbox"/> VERBAL AND HAND SIGNALS <input checked="" type="checkbox"/> USAGE AS PER SOPS <input checked="" type="checkbox"/> CLEAR AND UNDERSTOOD	M		
56.	TOW AIRCRAFT HANDLING PROCEDURE  <input checked="" type="checkbox"/> TAKE-OFF AND CLIMB AS PER SOPS <input checked="" type="checkbox"/> 15° TO 20° OF BANK <input checked="" type="checkbox"/> RELEASE DESCENDING LEFT TURN <input checked="" type="checkbox"/> ROPE DROP IN DESIGNATED AREA <input checked="" type="checkbox"/> LANDING CLEARANCE OF TRAILING TOW ROPE	M		
<b>Winch Launch Procedures</b>				
57.	WINCH LAUNCH CREW  <input checked="" type="checkbox"/> NUMBER IN CREW (4 MINIMUM) <input checked="" type="checkbox"/> BRIEFED ON OPERATION <input checked="" type="checkbox"/> UNDERSTAND DUTIES <input checked="" type="checkbox"/> CERTIFIED WINCH OPERATORS		- NOT APPLICABLE	
58.	WINCH CABLE AND ATTACHMENT  <input checked="" type="checkbox"/> CONDITIONS CHECKED <input checked="" type="checkbox"/> ONLY WHEN GLIDER READY <input checked="" type="checkbox"/> MULTIPLE WINCHES: CORRECT CABLE INSTALLED <input checked="" type="checkbox"/> DOWNWIND GLIDER LAUNCHED FIRST		- NOT APPLICABLE	
59.	WINCH LAUNCH SIGNALING  <input checked="" type="checkbox"/> PROPER SIGNALS USED <input checked="" type="checkbox"/> EASILY SEEN BY CREWS <input checked="" type="checkbox"/> CORRECT USAGE		- NOT APPLICABLE	
60.	SIGNALS  <input checked="" type="checkbox"/> MECHANICAL <input checked="" type="checkbox"/> VERBAL AND HAND SIGNALS		- NOT APPLICABLE	

	<input checked="" type="checkbox"/> CLEAR AND UNDERSTOOD <input checked="" type="checkbox"/> USAGE AS PER SOPS			
61.	TAKE-OFF AND CLIMB  <input checked="" type="checkbox"/> TECHNIQUE <input checked="" type="checkbox"/> INITIAL CLIMB SHALLOW <input checked="" type="checkbox"/> SAFETY ALTITUDE: 200 FEET AGL <input checked="" type="checkbox"/> SAFETY SPEED: 50 MPH <input checked="" type="checkbox"/> MAXIMUM CLIMB SPEED: 69 MPH		-	NOT APPLICABLE
62.	CLIMB CONTROL PROCEDURE  <input checked="" type="checkbox"/> YAW TO REDUCE POWER <input checked="" type="checkbox"/> RELEASE IF TOO SLOW		-	NOT APPLICABLE
63.	CABLE BREAK PROCEDURE  <input checked="" type="checkbox"/> GLIDER IN FLYING ATTITUDE <input checked="" type="checkbox"/> NON-RELEASE SIGNALS AND PROCEDURE		-	NOT APPLICABLE
64.	CABLE RETRIEVING  <input checked="" type="checkbox"/> SIGNALS <input checked="" type="checkbox"/> ORIGINATED BY WINCH OP <input checked="" type="checkbox"/> MAXIMUM SPEED OF 15 MPH TO LAY OR RETRIEVE CABLE		-	NOT APPLICABLE
<b>Auto Launch Procedures</b>				
65.	AUTO LAUNCH CREW  <input checked="" type="checkbox"/> NUMBER IN CREW (4 MINIMUM) <input checked="" type="checkbox"/> BRIEFED ON OPERATION <input checked="" type="checkbox"/> UNDERSTAND DUTIES <input checked="" type="checkbox"/> CERTIFIED VEHICLE DRIVER AND OBSERVER		-	NOT APPLICABLE
66.	AUTO TOW CABLE AND EQUIPMENT  <input checked="" type="checkbox"/> AS PER SOPS		-	NOT APPLICABLE
67.	CABLE ATTACHMENT  <input checked="" type="checkbox"/> ONLY WHEN GLIDER READY		-	NOT APPLICABLE
68.	AUTO TOW LAUNCH  <input checked="" type="checkbox"/> FROM RUNWAY OR HARD SURFACE		-	NOT APPLICABLE
69.	POSITION OF SIGNALERS  <input checked="" type="checkbox"/> LAUNCH VEHICLE OBSERVER IN PLACE		-	NOT APPLICABLE
70.	SIGNALS  <input checked="" type="checkbox"/> VERBAL AND HAND SIGNALS <input checked="" type="checkbox"/> CLEAR AND UNDERSTOOD <input checked="" type="checkbox"/> USAGE AS PER SOPS		-	NOT APPLICABLE
71.	TAKE-OFF AND CLIMB  <input checked="" type="checkbox"/> TECHNIQUE <input checked="" type="checkbox"/> INITIAL CLIMB SHALLOW		-	NOT APPLICABLE

	<input checked="" type="checkbox"/> SAFETY ALTITUDE: 200 FEET AGL <input checked="" type="checkbox"/> SAFETY SPEED: 50 MPH <input checked="" type="checkbox"/> MAXIMUM CLIMB SPEED: 69 MPH			
72.	CLIMB CONTROL PROCEDURE <input checked="" type="checkbox"/> YAW TO REDUCE POWER <input checked="" type="checkbox"/> RELEASE IF TOO SLOW		- NOT APPLICABLE	
73.	CABLE BREAK PROCEDURE <input checked="" type="checkbox"/> GLIDER IN FLYING ATTITUDE <input checked="" type="checkbox"/> NON-RELEASE SIGNALS AND PROCEDURE		- NOT APPLICABLE	
74.	CABLE RETRIEVING <input checked="" type="checkbox"/> PARACHUTE NOT DRAGGED		- NOT APPLICABLE	



## **CHAPTER 5 – FSO PREVENTION AND MONITORING ACTIVITIES**

### **GENERAL**

1. There are a number of aviation-related safety programs that are the responsibility of the Chain of Command to implement and are governed under various RCAF policy and regulations. These include such programs as Wildlife/Bird Strike Prevention, Snow and Ice Control (SNIC), Ramp Safety, Foreign Object Damage (FOD) prevention, Tool Control, Fatigue Risk Management System (FRMS), and General Safety.
2. While these programs do not necessarily fall under the direct control of the FSP, they form an integral part of the overall CAF safety program and can have a significant impact on FS. Therefore, the FSO is required to maintain awareness of these safety initiatives and programs as part of their monitoring function of the overall safety profile of their respective organizations. This chapter provides guidance to the FSO on interfacing with these complementary safety programs.

### **WILDLIFE ENVIRONMENT MANAGEMENT**

3. Detailed information on CAF airfield environment management procedures are provided in the Operations Manual for Aerodrome Wildlife Control (CFACM 2-813). This publication as well as a link to the Allied Flight Safety Publication (AFSP) 1.4 Wildlife Strike Protection can be found on the [DFS Intranet](#) under the Manuals tab.
4. Additionally for civilian aviation, Transport Canada and the The Bird Strike Association of Canada operate websites on wildlife control. These websites provided information and access to bird strike data. The [DFS Intranet](#) provides links to these two programs under the links tab.

### **BIRD STRIKE PREVENTION PROGRAM**

#### **Aim of Program**

5. The aim of any Bird Strike Prevention Program is to minimize bird hazards to aircraft operating from DND airfields.

#### **Objectives**

6. The Bird Strike Prevention Program must have at least four objectives:
  - a. management of the environment;
  - b. dispersal of birds;
  - c. education of aircrew; and
  - d. reporting bird strikes and near misses.
7. Birds constitute a significant hazard to aircraft. The vast majority of bird strikes occur within five miles of an aerodrome. A comprehensive Bird Strike Prevention Program shall be implemented to reduce their impact.

8. The key element of a good Bird Strike Prevention Program is the establishment of an effective Unit bird and animal control committee. Although bird and animal control is an ATC responsibility, FSOs must play an active role.

9. The Bird Strike Prevention Program strives to manage the environment around the airport. The objective of the plan is to make the airfield unattractive to birds. Studying the birds that inhabit the environment of the airport will suggest measures that can be taken to make the airport unattractive to them. Some measures are obvious such as draining wet areas and cutting down trees. Others, such as changing ground cover or using chemicals, are more complex. Each airport has its own study and improvement plan, which must conform to environmental constraints.

10. Successful measures to modify an airport habitat require the advice of an ornithologist. Almost every DND airport has been surveyed. Reports are available through the FSO or DFS. If a new survey is required, the Wing can request NDHQ/DGRPP (Director General Realty, Policy and Plans) to arrange a Bird Hazard Survey in conjunction with the Canadian Wildlife Service.

### **Information on Birds**

#### ***Reporting Bird Activity***

11. Pilots shall advise air traffic control and other aircraft of any significant bird activity.

12. Aircrew shall report to their FSO each time they experience a bird strike or near miss. Form CF 215 – FS Occurrence Information Sheet shall be used to provide the required information and the FSO will ensure that the information collected, is entered in the FSIMS database.

**NOTE**

All sections of the CF215 should be completed to the maximum extent possible when reporting a bird strike. This will supply information necessary for better analysis of bird strike hazards and corresponding prevention activities.

#### ***Identification of Bird Type***

13. Accurate identification of bird remains provides invaluable information for an effective Bird Strike Prevention Program. Local expertise (bird watcher groups, ornithologists, wildlife specialists) should be used whenever possible to identify bird remains. Annex A contains a list of regional offices of the Canadian Wildlife Service.

### **FOREIGN OBJECT DAMAGE (FOD) COMMITTEE**

14. Each unit associated with flying operations must establish a FOD committee in accordance with C-05-005-P10/AM-001. This committee should be set up as a sub-committee of the FS Committee.

## **PARTICIPATION OF FSO TO OTHER SAFETY COMMITTEES**

15. The FSO shall serve on safety committees dealing with issues that impact the safe conduct of flying operations (such as Wildlife/Bird Strike Prevention, SNIC, FOD) and send a representative to General Safety committee meetings to determine if items discussed have any potential impact to FS.

Annex A  
Chapter 5  
A-GA-135-001/AA-001

## **ANNEX A – REGIONAL OFFICES OF CANADIAN WILDLIFE SERVICE**

### **Atlantic Region**

Canadian Wildlife Service and Environment Canada  
63 East Main Street  
P.O. Box 1590  
Sackville, New Brunswick E0A 3C0

### **Quebec Region**

Canadian Wildlife Service and Environment Canada  
1141, route de l'église, 9th Floor  
C.P. 10 100  
Sainte-Foy, Quebec G1V 4H5

### **Ontario Region**

Canadian Wildlife Service and Environment Canada  
49 Camelot Drive  
Nepean, Ontario K1A 0H3

### **Western and Northern Region**

Canadian Wildlife Service and Environment Canada  
Room 210, 2nd Floor  
4999 - 98th Avenue  
Edmonton, Alberta T6B 2X3

### **Pacific and Yukon Region**

Canadian Wildlife Service and Environment Canada  
P.O. Box 340  
Delta, British Columbia V4K 3Y3

## **CHAPTER 6 – PROMOTION**

### **GENERAL**

1. The objective of FS promotion is to facilitate the maintenance of a strong and committed FS culture within all organizations that conduct or support DND/CAF flying operations. Active and visible FS promotion is designed to engender full participation in the FSP at the tactical, operational and strategic levels and is an excellent way to achieve the program's objectives with a relatively small investment. The CAF FSP uses a series of briefings, FS publications and awards as the main mechanisms for promotion.

### **PROMOTIONAL BRIEFINGS**

#### **DFS Annual Briefing and Attendance**

2. The DFS annual briefing, commonly referred to as the “road show,” is one of the main FS promotion activities. It is conducted under the authority of the Comd RCAF, normally delivered in person by DFS and the DFS Chief Warrant Officer, and aims to brief all military and civilian personnel subject to the FSP. The DFS annual briefing is a command led activity and should be understood by every level of the Chain of Command as an opportunity to pause in order to discuss FS issues and concerns specific to their community or geographic region. It is expected that all personnel will attend and participate fully. The leadership must also be visibly seen at the briefing to reinforce the FSP and provide their full support.

3. The objective of the DFS annual briefing is to remind all personnel of the requirement for and the importance of the FSP. In addition, this briefing is used to update personnel on new FS concepts as well as to identify key lessons learned through the analysis of occurrences over the previous 12 to 18 months. Although the briefing will be focused on DND/CAF Units, and Formations, the briefing will also be presented where possible to deployed formations or out of country organizations. The visits also allow DFS to see first-hand how the FSP is implemented at each FS Unit/Formation and to seek feedback on improving the FSP.

#### **FSO Briefings**

4. Each FSO is mandated to conduct regular briefings on FS subjects pertinent to the units' activities and aircraft operated. The revision of occurrences of interest shall be done as required and as soon as possible with all persons involved in flying operations. FSIMS reports should be used to the maximum extent possible to pass information of interest. FS Flash and Debriefing shall be briefed to personnel.

#### **FS Briefing Content**

5. FS briefings must be relevant to the audience, informative, current and interesting. Graphs, when used, shall be well labelled and easy to understand. When statistical data are included, their source and the method used to obtain them should be pointed out.

## PROMOTIONAL MATERIAL

### CAF FS Publications

#### ***Flight Comment Magazine***

6. The CAF FS magazine, Flight Comment, is produced up to four times a year in both, digital and print form to ensure maximum circulation. Flight Comment strives to provide relevant, interesting and timely FS information to all personnel involved in air operations. The magazine is also a forum for anyone wishing to present an article or other media, such as posters or sketches, on any issue related to FS. Ideas may be submitted to DFS 3 at (dfs.dsv@forces.gc.ca) DFS reserves the right to edit all submissions for length and content. In addition to the hard copy publication, current and historical Flight Comment magazine may be viewed and downloaded at [flightcomment.ca](http://flightcomment.ca).

#### ***Flight Safety Posters***

7. FS posters are released periodically throughout the year and are used to visually promote FS concerns or summarize FS procedures. Each issue of Flight Comment magazine will generally include one FS poster and are designed to appeal to the broad RCAF audience. Posters can also be released separately and can be created specifically to highlight an individual unit's concerns. Historical copies of FS posters are available for viewing on the [flightcomment.ca](http://flightcomment.ca) website. Should a unit wish to reprint and distribute any of these posters, the unit can contact DFS 3-3 to obtain a high resolution digital copy of the specified poster.

#### ***Flash Bulletin***

8. A one or two page bilingual electronic bulletin titled Flash is released by DFS on an "as required" basis to highlight critical FS information. Typically, Flash originates from issues identified during the investigation of a serious occurrence or from reported hazards posing serious threats to air activities. The bulletin usually dictates immediate corrective actions to reduce the threat of an identified hazard. Each new release is posted on the [DFS Intranet](#) under the Publications tab, with back-issues archived.

#### ***Debriefing Pamphlet***

9. An electronic pamphlet, titled Debriefing, is produced as required to highlight important FS concerns or issues. Debriefing is similar in format to Flash and the content covers current FS trends, threats and issues. Each new release is posted on the [DFS Intranet](#) under the Publications tab, and back issues are archived.

### Other FS Periodicals

10. FS information is available from a myriad of FS magazines produced by national and foreign government departments as well as civilian companies and safety organizations. These periodicals contain a wealth of relevant and interesting FS information that can be used to raise the level of FS consciousness. All members of the FS team are encouraged to regularly review these publications for items of interest. An updated list of appropriate periodicals can be found on the [DFS Intranet](#) under the Links tab.

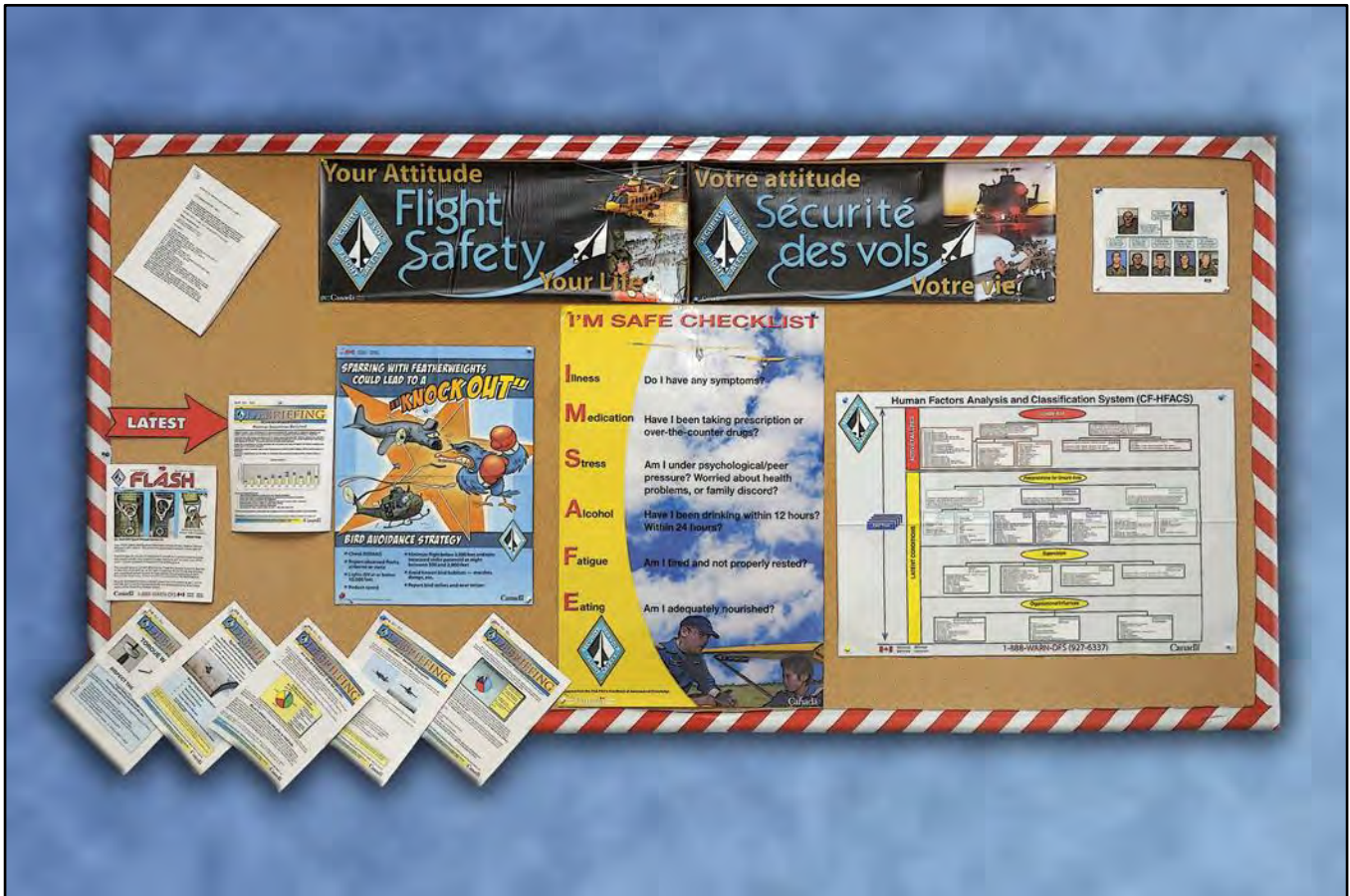
**Other Media**

**Websites**

11. DFS maintains comprehensive [Intranet](#) and [Internet](#) websites that provide training and information on relevant FS topics, including links to investigation reports, other FS sites, FS templates and FS periodicals.

**Notice Boards**

12. Dedicated FS notice boards are an effective method of transmitting FS information. The purpose of FS notice boards is to remind personnel of the goals and impact of the FS Program. To do this, FS notice boards should be strategically placed in high-traffic areas and should focus solely on relevant FS matters including, but not limited to, the Debriefing newsletter, the Flash bulletins, awards and pertinent FS/air weapons safety occurrences. To be effective, FS notice boards should be prominent enough to be easily seen from a distance. The board should be bordered by red and white alternating stripes (minimum of 5 cm/2 in), as depicted in figure 1. Displaying the pictures of those personnel in the unit assigned to FS positions is strongly recommended



**Sample FS Notice Board**

## **Posting of Supplemental Report (SR) In a Public Location**

13. Posting of a SR in a public location (examples: on FS notice boards or the Defence Wide Area Network (DWAN)) for the promotion of FS is allowed as this contributes to improve the FS reporting culture while enhancing FS processes. Notwithstanding, care must be taken to screen the reports before posting. The following guidelines shall be followed:

- a. Only completed reports are posted;
- b. A diligent review of the SR by senior unit FS staff shall be done to ensure:
- c. personnel cannot be identified.
- d. no cockpit voice recorder (CVR) transcripts information is provided.
- e. no medical information or witness statements are included.
- f. blame is not assigned to a specific individual.
- g. a caveat is included in each report stating: "Flight Safety incident reports are produced under the authority of the Minister of National Defence (MND) pursuant to section 4.2(n) of the Aeronautics Act (AA) and in accordance with A-GA-135- 001/AA-001 – Flight Safety for the Canadian Armed Forces. They are prepared solely for the purpose of accident prevention and shall not be used for legal, administrative or disciplinary action".

## **AWARDS**

### **Objective**

14. Awards are an excellent way of recognizing actions performed in the spirit of the FSP that are worthy of recognition by peers and the whole of the CAF. Originators and reviewing authorities must give careful thought to which form of recognition would be most appropriate.

15. In order to qualify for a FS award, the action(s) of the nominee(s) must exceed the standard of professional conduct expected of our personnel or be outside the scope of duties relative to their qualifications and position.

### **Timeliness of Awards**

16. To be most effective, the FS nominations shall be staffed in a timely manner and the awards should then be awarded ideally within 120 days after the event took place.

### **Informal Staffing**

17. Before submitting a formal nomination, a UFSO can informally query DFS 3 by email regarding a potential nomination. The e-mail shall provide a brief but detailed description of the actions warranting consideration for a FS award and the type of award being considered. DFS 3 will review the case and advise the unit on its merits. This response is preliminary and the final decision will rest with the formal nomination by the unit as per the processes described below.



## **Types of Awards**

18. The FS awards available through the CAF include the Good Show, the For Professionalism, the Wing/Formation Commander's FS Commendation, the DFS Commendation and the SICOFAA award.

### ***Good Show Award***

19. The Good Show award is given for an outstanding action or series of actions that averted in extremis a serious accident or reduced its severity. The actions of the individual(s) nominated are such that without their involvement an aircraft would have been lost or much greater injuries or damages would have been sustained. A Good Show will be awarded when one or more of the following conditions have been met by an individual, crew or team:

- a. actions directly prevented loss of life or loss of an aviation resource;
- b. actions directly reduced the severity of an accident in terms of damages and/or injuries;  
or
- c. actions demonstrated outstanding perseverance, skill, knowledge, judgment or situational awareness to identify or rectify a critical hazard that would have, in all probability, lead to an accident or loss of aviation resources.

20. Normally, DFS will forward the nominations of recipients of the Good Show award to the Directorate of Air Personnel Management (RCAF Recognition) for consideration of a Comd RCAF Commendation.

### ***For Professionalism Award***

21. The For Professionalism award recognizes acts that may not qualify for the Good Show award yet reflects a superior professional attitude that averted an aircraft accident or significantly reduced the threat posed by a hazard. Acts in the completion of normal duties may qualify if clearly indicative of commendable extra effort. A For Professionalism award will be awarded when one or more of the following conditions have been met by an individual, crew or team:

- a. actions demonstrated superior skill or perseverance in identifying and rectifying a significant hazard to FS; or
- b. actions exhibited a superior display of skill, knowledge, situation awareness or judgment that resulted in an important contribution that enhanced significantly FS.

### ***Wing/Formation Commander's FS Commendation***

22. A Wing/Formation Commander's FS Commendation could be given for an action that does not warrant a Good Show or a For Professionalism but is worthy nonetheless of recognition. In the event that an individual has not been endorsed beyond Wing/Formation level, it is anticipated that the individual would still be recognized with a Wing/Formation Commander's FS Commendation.

### ***DFS Commendation***

23. The DFS Commendation recognizes outstanding professional long-term performance and dedication in the field of FS. The DFS Commendation is awarded to deserving individuals who, through their actions, have contributed significantly to enhance the capability of the FS Program across the CAF and who emulates the values and ethos promoted by the Program.

### ***SICOFAA Award***

24. Canada is a member of the international aviation association called Sistema de Cooperación entre las Fuerzas Aéreas Americanas. This Spanish designation means System for the Cooperation of the Air Forces in the Americas (SICOFAA). Each year SICOFAA provides member countries with an opportunity to nominate a deserving unit within their individual air force. This unit must have demonstrated the highest level of dedication to the furtherance of FS and, by their actions, been an exceptional example to others. The intent is to acknowledge a concerted effort over a period of time. The unit or formation must have developed, implemented and performed at a high level of FS efficiency or have a FS Program that is:

- a. innovative;
- b. proactive;
- c. comprehensive;
- d. effective; and
- e. enthusiastically embraced by all members of the FS team.

### **FS Awards Staffing Procedures**

#### ***FS Award Nomination***

25. The FS award nomination shall be prepared using the nomination form contained in Annex A and the [DFS Intranet](#) under the Awards tab. The nomination shall refer to the FSIMS number of the FS occurrence or hazard that was mitigated. In addition, the nomination shall be accurate and well researched by the originating unit and must include background information, relevant facts and circumstances which will provide the review team with a complete picture of what took place and why the nominee(s) unequivocally deserves the award. Additional supporting information may also be attached.

26. The nomination must include the citation text to be included on the award certificate, should the award be approved. The citation text shall be succinct and avoid using highly technical terms understandable only to professionally trained personnel. The citation text must describe the explicit actions and related facts demonstrating why the individual(s) is/are deserving of a FS award. Poorly written narratives in terms of incomplete storyline or weak syntax will be returned to the unit. The FSO is encouraged to use the awards published in Flight Comment as examples. Although flexible, the recommended citation text length for the FS award certificate is as follows:

- a. Good Show and For Professionalism awards: between 400 and 500 words; and
- b. SICOFAA award: a minimum of 500 words and a maximum of 700 words.

### ***Submission and Approval of FS Award Nominations***

27. FS Award nominations shall be staffed by the UFSO and endorsed by the Unit CO, the Wing/Formation FSO, and the Wing/Formation Commander. Completed Good Show and For Professionalism nominations shall be submitted electronically to DFS 3. An electronic Word copy of the citation text shall be attached, along with a scanned/electronic copy of the nomination form with endorsement signatures. The submission shall include any document supporting the nomination (examples: photographs, technical references, preventive measure actions/proposals, etc).

28. DFS3 will review the nomination for completeness and coordinate review by DFS staff. If endorsed by DFS, Good Show scrolls will be co-signed by the Comd RCAF and DFS and For Professionalism scrolls will be signed by DFS.

29. The SICOFAA FS award staffing originates at the Unit, Wing or Fomation level after DFS 3 issues a call letter for nominations in the fall. DFS will review all nominations and select one to be presented to the Comd RCAF for approval. The Comd RCAF presents the submission to SICOFAA during the spring meeting and upon endorsement, the Comd RCAF will present the award to the deserving Unit/Wing/Formation at a suitable time and venue.

### ***Refusal of FS Award Nomination***

30. In the event a FS award nomination is not endorsed, DFS will contact the Wing Comd/ Formation Comd to inform them that the nomination was not supported. In some cases, DFS might recommend other forms of recognition, as appropriate.

### ***Presentation of FS Award***

31. The signed FS scrolls will be sent directly to the unit for presentation. Each unit is responsible to organize the presentation of the FS award. When possible, it is advisable to coordinate the presentation with a visit from the 1 or 2 CAD Comds, the Comd RCAF, DFS or the 1 CAD FSO as appropriate for the award presented. To enhance the visibility of the FS Program, the presentation shall be made in front of all unit members. Publication of the presentation in the base or local community newspaper or forum is strongly encouraged. As well, DFS will send a FS coin as described at para 34 to any recipients of a FS award.

### ***Photograph of FS Award Recipient(S)***

32. The nominating unit is responsible to provide DFS with a quality high resolution (at least 1 megabyte) photograph of the recipient(s) that is representative of the FS citation (example: suitable picture of recipient in front of aircraft, maintenance stand, console, etc.). Framing should focus on the individual alone and special care shall be taken regarding the lighting, contrast and focus. A qualified Image Technician, when available, shall be tasked to take the picture. Ideally, the photograph should be sent along with the nomination or as soon as possible afterwards, and shall be emailed directly to DFS 3.

### ***Publication of FS Award***

33. The citation and recipient's picture a Good Show, For Pro, DFS Commendation or SICOFAA award will be published in Flight Comment and posted on the [DFS Intranet](#) under the Awards tab as soon as practical after having been presented.

## FS Coin

### **Coin Description**

34. The FS coin is made of pewter and shows on one side an elevated side face replica of Group Captain R.D. “Joe” Schultz (1922-2011), considered the pioneer of the CAF FS Program. The opposite side shows the DFS relief crest overlaying multiple red maple leaves engraved with a relief rectangle displaying a unique serial number.



FS Coin

### **FS Coin Distribution**

35. The FS coin is used to recognize a notable contribution to the FS Program by an individual's particular actions or noteworthy dedication and conveys DFS' appreciation to a worthy recipient that exemplifies the values of the FS Program. As such, all recipients of any FS award as described above will be handed a FS coin. The coin is also awarded on a discretionary basis by DFS. Nomination of an individual for a FS coin can be submitted electronically by the UFSO through the WFSO to the DFS CWO for consideration. A short narrative should explain the individual's contribution to the FS Program.

### **FS Coin Registry**

36. The DFS CWO will maintain a registry of all coin recipients and the following information will be recorded:

- a. Recipient's name and rank;
- b. Coin serial number;
- c. Date of award; and
- d. Reason why the coin was awarded.

Annex A  
 Chapter 6  
 A-GA-135-001/AA-001

**ANNEX A – FLIGHT SAFETY AWARD NOMINATION FORM**

Flight Safety Award Nomination					
FSIMS Occurrence #:					
Unit at Time of Occurrence:					
Nominee(s)					
Rank	Name	First Name	Initial(s)	SN	Occupation
Type of Award Recommended	Good Show		For Pro		Other (Specify)
Technical Documents Attached (As Applicable):					
Citation Language	English				
	Français				
Event Description: (Short Narrative Justifying Nomination)					

Flight Safety Award Nomination	
Rank, Name, Initials, Position	Date
<b>Proposer:</b> Comments:	
<b>Section Head:</b> Supported/Comments:	
<b>UFSO:</b> Supported/Comments:	
<b>Unit CO:</b> Supported/Comments:	
<b>Wing/Formation FSO:</b> Supported/Comments:	
<b>Wing/Formation Commander:</b> Supported/Comments:	

Nomination to be sent electronically from WFSO to DFS3 by e-mail. Recommended text for award citation to be attached to nomination as a word file as per directions provided in A-GA-135-001/AA-001, Chapter 6.

An electronic copy of this form is available on the [DFS Intranet](#) under the Awards tab or by email at [dfs.dsv@forces.gc.ca](mailto:dfs.dsv@forces.gc.ca).

## **CHAPTER 7 – EDUCATION AND TRAINING**

### **GENERAL**

1. FS education is one of the fundamental elements of the FS Program. All personnel who are involved in flying operations or the support of flying operations must not only be aware of the FS Program, they must have a solid understanding of the program's objectives, principles and basic processes. This therefore requires a robust formal and informal education program.
2. The teaching of specific skills and knowledge is essential in achieving the aim of preserving aviation assets necessary to conduct the missions of the CAF. Thus FS education is the responsibility of all personnel.

### **FS COURSE (FSC) AND FS QUALIFICATION**

3. All personnel selected for FS positions require formal training on the FSC in order to execute their duties and responsibilities as FS professionals. This training is delivered by 1 CAD FS staff. Upon successful completion of the FSC, the candidate will receive the FS qualification (course code AKYZ). This FS qualification is also one of the pre-requisites for being certified as a FS investigator as detailed in the Airworthiness Investigation Manual (AIM).

### **INVESTIGATOR CERTIFICATION**

4. Under the requirements of the CF Airworthiness Program, all investigators must be accredited in order to conduct FS investigations. The Airworthiness Investigation Manual (AIM) describes a formal system establishing two levels of basic investigators (BI 1 and BI 2) and three levels of investigators in charge (IIC 1, IIC 2 and IIC 3). The qualification level (1, 2 or 3) determines the investigation activities in which an IIC or BI can participate. The AIM specifies the standards and qualifications for these FS investigators.

### **AIR WEAPONS SAFETY AWARENESS TRAINING**

5. Aircrew personnel working directly with air weapons shall receive air weapons systems familiarization training and instruction on the operational and safety requirements for weapons- loaded aircraft in accordance with B-GA-297-001/TS-000, Safety Orders for CF Air Weapons Systems.
6. Air weapons awareness training is applicable to personnel who are regularly exposed to the hazards of air weapons such as maintenance officers, aircraft technicians, aircrew, fuel bowser drivers or those personnel who may have to respond to an air weapons occurrence, such as firefighters or security personnel. This training is required to ensure that those working with or around air weapons possess the knowledge required to perform their duties safely and effectively. This training shall be conducted in accordance with B-GA-297-001/TS-000, *Safety Orders for CF Air Weapons Systems*.
7. The training will be included in Unit or Wing familiarization briefings and should encompass, but not be limited to the following:

- a. recognition of the air weapons used at the unit and the dangers associated with them, including the precautions to be taken in the vicinity of the weapons;
- b. recognition of air weapons warning signs, placards, flags and banners that indicate danger areas and hazards;
- c. danger areas into which personnel shall not enter unless authorized;
- d. armament operations which could impinge on the daily routine of the unit i.e. conveying air weapons along regular traffic routes or closing some part of the unit when a particular air weapons operation is in progress; and
- e. persons to contact if air weapons safety information is required.

### **JUST CULTURE TRAINING**

8. A “Just Culture” lies between a non-punitive culture and one of sanction and punishment. Free and open sharing of critical safety information between managers and operational personnel without the threat of punitive action, represents the basis of a reporting culture. Personnel are able to report occurrences, hazards or safety concerns as they become aware of them, without fear of sanction or embarrassment. However, while a non-punitive environment is fundamental for a good reporting culture, the workforce must know and agree on what is acceptable and what is unacceptable behavior. Negligence or wilful deliberate deviations must not be tolerated by leadership. DFS has created a training package that can be included in Unit or Wing familiarization briefings entitled, “Introduction to the Canadian Armed Forces Flight Safety Just Culture” It is available for download from the [DFS Intranet](#) under the Training tab.

### **SPECIALIZED INVESTIGATOR TRAINING**

9. DFS and 1 CAD FSO investigators undergo additional advanced investigator training. FSOs are encouraged to get additional investigative and FS training as their responsibilities, budgets and COs permit. A list of additional courses is available on the [DFS Intranet](#) under the Links tab.

### **CRASH SCENE HAZARD MANAGEMENT**

10. On 21 January 2016, DFS introduced an updated approach to Crash Scene Hazard Management. This approach is rooted in the risk management process recommended by the International Civil Aviation Organization (ICAO) and is designed as a comprehensive yet straight-forward evidence-based approach to managing crash scene hazards. This approach is now being taught during the initial FS Course (FSC) and incorporates Bloodborne Pathogens (BBP) training (See para 11 below) All FS personnel involved in FS or a FS accident investigation shall review the Airworthiness Investigation Manual (AIM) Chapter 7 Crash Scene Hazard Management and the four videos available in the “Personal Protection” section on the [DFS Intranet](#), under the Training tab.



## **OTHER SAFETY COURSES**

11. A variety of other safety courses have links to, or application within, the FS education and training program. Courses such as Human Performance in Military Aviation (HPMA) contribute directly to the aims of the FS Program. Courses for other established safety programs also offer opportunities for education/training in FS. These courses include General Safety, Laser Safety, Nuclear Radiation Safety, Electro Magnetic Radiation Safety, Ramp Safety, and On Scene Comd Emergency Response.

## **INFORMAL EDUCATION AND TRAINING**

12. FS education/training is achieved through both formal and informal means. Informally, FS publications, magazines, bulletins, videos, posters, web-based materials, FS briefings, aviation conferences and seminars, including those from other militaries and civilian organizations such as Transport Canada, are all resources that may be used in FS education. This list is not exhaustive, so Air Force personnel are encouraged to actively seek materials and information from numerous sources in order to broaden their FS knowledge. Links to the FS Programs and materials can be found on the [DFS Intranet](#), under the Links tab.

13. One of the most effective but often overlooked methods of FS education is the passing of lessons learned from leaders and experienced personnel to those with less experience. The FSO should encourage and afford opportunities to facilitate the exchange of information between unit personnel.

## **FS PROFESSIONAL DEVELOPMENT**

14. It is anticipated that commanders and managers will provide all FS staff with timely opportunities to enhance their professional knowledge and to interact with local and regional FS organizations like TSB, TC, airport authorities and regional aircraft operators. Participation in relevant FS and aviation conferences / seminars on an annual basis is encouraged.

## **ABBREVIATIONS**

AA: Airworthiness Authority  
AAB: Airworthiness Advisory Board  
AAR: Annual Airworthiness Report  
ACGP: Air Cadet Gliding Program  
ACPP: Air Cadet Powered-Flight Program  
ADM (Mat): Assistant Deputy Minister (Materiel)  
ADREP: Accident/Incident Data Reporting  
AETE: Aerospace Engineering Test Establishment  
AFSP: Allied Flight Safety Publication  
AGL: Above ground level  
AIA: Airworthiness Investigative Authority  
AIM: Airworthiness Investigation Manual  
ALARP: As Low as Reasonably Practical  
ALSE: Aviation life support equipment  
AOC: 1 Canadian Air Division Air Operations Centre  
AOI: Aircraft Operating Instructions  
ARB: Airworthiness Review Board  
ARM: Airworthiness Risk Management  
ATESS: Aerospace and Telecommunications Engineering Support Squadron  
AWS: Air Weapons Safety  
AWSO: Air Weapons Safety Officer  
AWSP: Air Weapons Safety Program  
BBP: Bloodborne Pathogens  
BFSO: Base Flight Safety Officer  
BI: Basic Investigator  
CAD: Canadian Air Division  
CANSOFCOM: Canadian Special Operations Forces Command  
CDS: Chief of the Defence Staff  
CAF: Canadian Armed Forces  
CAOC: Combined Air Operations Centre

CFAO: Canadian Forces Administrative Order  
CFICC: Canadian Forces Integrated Command Centre  
CFIT: Controlled flight into terrain  
CFMO: Canadian Forces Medical Order  
CFTO: Canadian Forces Technical Order  
CJOC: Canadian Joint Operations Command  
CMATC: Certificate of Military Aircraft Type Certification  
CO: Commanding Officer  
CoC: Chain of Command Comd: Commander  
Comd RCAF: Commander RCAF  
CTAISB: Canadian Transportation Accident Investigation Safety Board  
CVR: Cockpit voice recorder  
DAEPM: Director Aerospace Equipment Program Management  
DAOD: Defence Administrative Orders and Directives  
D Cadets: Director Cadets  
DFS: Director/Directorate of Flight Safety Div  
FSO: Division FSO  
DND: Department of National Defence  
DRDC: Defence Research and Development Canada  
ECCAIRS: European Coordination Centre for Accident and Incident Reporting Systems  
ESR: Enhanced Supplementary (flight safety investigation) Report  
FOD: Foreign Object Debris/Damage  
FS: Flight Safety  
FSAV: Flight Safety Assurance Visit  
FSC: Flight Safety Course  
FSCL: Flight Safety Compromise Level  
FSI: Flight Safety Investigation  
FSIR: Flight Safety Investigation Report  
FSO: Flight Safety Officer  
FSIMS: Flight Safety Information Management System  
FS Spec (W): Flight Safety Specialist (Weapons)

FSP: Flight Safety Program  
HAZMAT: Hazardous Materials  
HAZREPs: Hazard Reports  
HFACS: Human Factor Analysis Classification System  
HHQ: Higher Headquarters HQ: Headquarters  
IAW: In accordance with  
ICAO: International Civil Aviation Organization  
IIC: Investigator-in-charge  
IFR: Instrument Flight Rules  
IR: Initial (Flight Safety Investigation) Report  
MND: Minister of National Defence  
NATO: North Atlantic Treaty Organization  
NCO/NCM: Non Commissioned Officer/Member  
NDHQ: National Defence Headquarters  
NDQAR: National Defence Quality Assurance Region  
NMAC: Near mid-air collision  
NRCC: National Research Council of Canada  
OAA: Operational Airworthiness Authority  
OPI: Office of Primary Interest  
PDI: Persons with a direct interest  
PM: Preventive measure  
PPE: Personal Protective Equipment  
QETE: Quality Engineering Test Establishment  
QR&O: Queen's Regulations and Orders  
RARM: Record of Airworthiness Risk Management  
RCSU: Regional Cadet Support Unit  
Reg FSO: Region FSO (Cadets)  
RCAF: Royal Canadian Air Force  
RCA Ops O: Regional Cadets Air Operations Officer  
SARP: Standards and Recommended Practices  
SICOFAA: System for the Cooperation of the Air Forces in the Americas

SOP: Standard Operating Procedures  
SMS: Safety Management Systems  
SR: Supplementary (Flight Safety Investigation) Report  
STANAG: NATO Standardization Agreement  
Sqn: Squadron  
TAA: Technical Airworthiness Authority TC: Transport Canada  
TSB: Transportation Safety Board of Canada  
UA: Unmanned aircraft  
UAS: Unmanned aircraft system  
UAWO: Unit Air Weapons Officer  
UCR: Unsatisfactory Condition Report  
UFS: Unit Flight Safety  
UFSO: Unit Flight Safety Officer  
VCDS: Vice Chief of Defence Staff  
VFR: Visual Flight Rules  
WAWO: Wing Air Weapons Officer  
WComd: Wing Commander  
WFS: Wing Flight Safety  
WFSO: Wing Flight Safety Officer  
Wg: Wing