

## **CHAPTER 7 – OCCURRENCE REPORTING**

### **AIRWORTHINESS INVESTIGATION AND THE FS PROGRAM**

1. Chapters 7 to 11 of this manual deal with the airworthiness investigation of matters concerning safety as delegated to the AIA from the MND and outlined in the AIM (reference C). These investigation activities fulfil both a Flight Safety and an Airworthiness Program objective but are identical in their accomplishment. Because the FS Program predates the Airworthiness Program, all Flight Safety Investigation terms such as FSIR are retained, even though they are the product of airworthiness investigation activities too. Of note, all investigation activities are conducted on behalf of the AIA through a system of qualifications, certifications and authorizations within the FS Program's established structure. Annex C explains the AIA's requirements and conditions for all FS positions with the associated certifications to carry out such investigations.

### **PURPOSE OF REPORTING**

2. The purpose of FS reporting is to alert all concerned of circumstances that have resulted in or have the potential to cause damage to aircraft, air weapons or injuries to personnel. FS occurrence reporting and investigation allow appropriate PM to be identified and implemented by comd authorities.

### **DEFINITIONS**

#### **AIRCRAFT**

3. A machine capable of deriving support in the atmosphere from reactions with the air.
- a. CF Aircraft. Includes aircraft that have been accepted by the CF through purchase, loan or bailment. For FS purposes, aircraft belonging to the Air Cadet League of Canada and aircraft considered "military conveyance" as defined by the CTAISB Act. Aircraft under production for the CF are considered CF aircraft from the moment they leave the production line following final assembly, regardless of the actual acceptance date. This situation could be modified by contract provisions or special agreements.

#### **NOTE**

The CTAISB Act gives MND the responsibility for investigating occurrences involving military conveyances. A working agreement between DFS and TSB further articulates the generally accepted meaning of the CTAISB Act definition. While it is clear that civilian companies conducting day-to-day military contracted operations, such as contracted for pilot ab-initio and primary flight training for the CF are always considered military conveyances, there remain significant grey areas that can only be resolved on a case-by-case basis between DFS and TSB. When there is a significant occurrence involving a civilian air asset or civilian personnel, the WFSO should inform DFS so that the appropriate coordination with TSB can occur.

- b. Non-CF Aircraft: These are subdivided as follows:
  - (1) Non-CF military aircraft. There are two categories of non-CF military aircraft:
    - (a) Allied Military Aircraft. These are aircraft belonging to an allied military force. When the CF assumes quality-assurance responsibility for these aircraft during production, repair, modification or overhaul, they are considered CF aircraft from the moment they are accepted by the contractor until they leave Canada or are accepted for flight by an aircrew of the country of ownership.
    - (b) Non-allied Military Aircraft. These are aircraft belonging to a non-allied military force.
  - (c) Civilian Aircraft. This term is normally self-explanatory, but when a CF aircraft is lent or bailed to a civilian agency on a temporary basis, the CF continues to be involved.

**COLLATERAL INVESTIGATION**

4. This term applies to any investigation of an occurrence conducted by other than FS personnel or for purposes other than FS.

**FS AIRWORTHINESS INVESTIGATOR**

5. The airworthiness investigator is a FSO appointed by DFS/AIA who has received specialty training in aviation occurrence investigations. This airworthiness investigator is certified as qualified as delineated in the AIM and is authorized to conduct independent airworthiness investigations.

**FS PUBLICATIONS**

6. FS publications include all material published by DND for FS purposes, including posters, charts, booklets and the like, intended to assist FSOs and others in reporting procedures and cause factor assessment.

**FS REPORTS**

7. This term refers to all reports, whether oral or written, made under the authority of this manual.

**FS OCCURRENCE**

8. See definition at Chap 1

<p><b>NOTE</b></p> <p>The aircraft, its equipment or its operation must have contributed to the event for it to be classed as an air incident.</p>
--

<p><b>NOTE</b></p> <p>During paradrops, SAR Techs and their equipment are considered part of the aircraft until the SAR Tech or equipment has safely reached the ground or water.</p>
---

**NOTE**

The following events are FS occurrences: lightning strike, bird strike, emergency jettison, loss of cargo or slung load, inadvertent firing or hang up of airborne armament equipment or munitions, precautionary power plant shut-down, aircraft exceedence, near mid-air collision, malfunction of life-support equipment, crew member experiences an aeromedical problem, damage to civilian or military property, or any other event having accident potential.

**AIR FS OCCURRENCE**

9. An event involving a CF aircraft that occurs between the time the first power plant start is attempted with intent for flight and the time the last power plant or rotor stops. For a glide , the event took place from the time the hook-up is completed until the glider comes to rest after landing.

**GROUND FS OCCURRENCE**

10. An event involving a CF aircraft that occurs when there is no intent for flight, or when there is intent for flight but no power plant start has been attempted, or after the power plants and rotors have stopped.

**FS ACCIDENT**

11. An event in which one or more of the following occurred:
- a. a person is missing or receives fatal, very serious or serious injuries or illness (Black, Red or Yellow) as determined by a medical officer in accordance with CFAO 24-1. The aircraft, its equipment or its operation must have contributed to the event for it to be classed as an air accident; or
  - b. a CF aircraft is destroyed, missing or sustains very serious or serious damage.

**FS INCIDENT**

12. An event in which one or more of the following must occur:
- a. someone receives minor injuries (Green or Nil) as determined by a medical officer in accordance with C AO 24-1, or there is risk of injury;
  - b. a CF aircraft sustains minor damage; or
  - c. there is no injury or damage but accident potential did exist;

**NEAR MID-AIR COLLISION (NMAC)**

13. A NMAC situation is an unintentional pass between aircraft within 1000 feet or a situation wherein one or more aircraft had to manoeuvre aggressively to avoid a mid-air collision.

### **UNMANNED AIRCRAFT SYSTEM (UAS)**

14. A UAS is defined as any aircraft, including support and control elements, being part of a system designed or modified not to carry an on-board human pilot and operated through remote or self-contained automated control (ref A). As an aircraft system, a UAS must meet all applicable standards required of a conventionally crewed aircraft.

### **UNMANNED AIRCRAFT VEHICLE (UAV)**

15. A UAV is defined as a power-driven aircraft that is designed to fly without a human operator on board. The UAV is the aircraft portion of a UAS.

### **STAGE OF OPERATIONS**

16. This term refers to the task that is being attempted or performed at the time of an occurrence. To ensure consistency in statistical analysis, the stages of operation are categorized as follows:

- a. Parked: Power plants and rotors are stopped, and the aircraft is stationary or unintentionally in motion; chocks may or may not have been used. No action is in progress that is directly associated with any other stage of operation.
- b. Maintenance: Power plants are stopped and maintenance duties, including servicing, refuelling, inspection, modification, repair and arming, are being performed on the aircraft. Towing, loading and run-up are excluded.
- c. Towing: The aircraft is being positioned, or prepared for positioning, by towing, pushing or bear trap handling.
- d. Loading: The aircraft is being loaded or unloaded with cargo, passengers or crew or is being prepared for loading or unloading.
- e. Ground running: The aircraft is stationary or unintentionally in motion, with a power plant being started, running or being shut down. Temporary pauses in the taxi stage are not categorized as ground running.
- f. Taxiing: The aircraft is intentionally moving under its own power on land, a flight deck or water before the application of power for take-off or after the direction of the landing roll is changed to taxi. It also includes aircraft moving by intentional coasting with power plants stopped or taxi operations where there is no intent for flight. It does not include air-taxiing by helicopters.
- g. Take-off: Lasts from the time that power is applied for take-off until reaching 500 feet AGL or operating height, whichever is lower. For a deliberate touch-and-go landing, the take-off stage starts when power is re-applied.
- h. In flight: In flight lasts from the time the aircraft reaches 500 feet AGL or operating height, whichever is lower, until the landing phase is initiated. Helicopters are considered to be in flight when air-taxiing, slinging, hoisting, rappelling or hooking up or jettisoning loads. Occurrences involving paradrops are also included under this stage of operation.

- i. Landing: Landing lasts from the time the landing phase is initiated until the time the direction of the landing roll is changed to taxiing.

#### **HAZARD CONDITION**

17. Any actual or potential condition that results or can result in the degradation of the level of aviation safety.

#### **UNIT OF OCCURRENCE**

18. This term refers to the unit involved in the event or, in the case of an accident occurring at other than a CF wing or base, an appropriate unit close to the accident site.

#### **UNIT OF OWNERSHIP**

19. This term refers to the unit that has control and authority over the aircraft. For ground occurrences, the unit of ownership is the unit, wing, or base to which the aircraft is assigned in order to accomplish a specific operational or maintenance task. The only exceptions are:

- a. for aircraft that are undergoing depot-level maintenance at a contractor's plant, the appropriate NDQAR is the unit of ownership and ADM (Mat)/NDHQ is the headquarters;
- b. for new aircraft being produced for the CF, the applicable NDQAR assumes unit of ownership status from the moment that the aircraft leaves the production line following final assembly, regardless of the acceptance date;
- c. the provisions of subparagraphs above also apply to allied military aircraft that are being maintained or manufactured in Canada under a CF-supervised contract; and
- d. for other non-CF aircraft, the DFS shall make suitable arrangements.

#### **REQUIREMENT FOR REPORTING**

20. A critical requirement of the FS Program is that FS occurrences be reported. If all events that cause a potential or actual SoF compromise are reported, then emerging trends can be identified and analyzed. The analysis then allows appropriate PM to be devised and implemented. Comds must encourage personnel to report all occurrences and hazards.

#### **REPORTING INFORMATION LINKED TO OPERATIONS**

21. Reporting FS information is vital to the FS and Airworthiness Investigation Program. However, there will be times when operational security (OPSEC) and operational/time sensitive information could have effect on active operations. In these cases, the method and security associated with reporting must be adjusted to counter the possible negative effects that public release of information or knowledge of an occurrence could impart on non-friendly forces. For example, it may not be appropriate to transfer information in an unsecure manner on an occurrence for an air asset that is actively engaged in operations in a forward area since the knowledge of this event could be advantageous to enemy operations. For such circumstances,

reports must still be made in a timely but secure manner so as to preclude any advantages such knowledge might impart on these non-friendly forces. FS reports containing classified information shall only be transmitted to DFS by secure means in an encrypted message or e-mail as per Annex E of Chapter 9.

### **REPORTING RESPONSIBILITY**

22. Comd 1 Cdn Air Div and 2 Cdn Air Div retain responsibility for the reporting of all FS occurrences involving CF air assets. Comds of commands, formations, wings, bases, and units and managers of contracted organizations responsible for conducting or supporting air operations shall ensure that all FS occurrences, the applicable cause factors and PM are reported in accordance with the provisions of this manual. Comds shall ensure that all aircraft commanders, air vehicle operators and all other personnel supporting air operations are conversant with FS reporting procedures.

23. Injuries reported as part of an FS occurrence and under the authority of this manual must also be reported to the General Safety Program. It will require investigation by the appropriate authorities external to the FS Program in accordance with A-GG-040-001/AG-001.

### **HAZARD REPORTING**

24. Personnel at all levels must maintain vigilance for potential hazards within the work place. This could take the form of unsafe work habits, environmental conflicts, or management direction. When these hazards are recognised, personnel should be encouraged to report them to the FS representatives in their unit. The Hazard Report Form (Annex A) can be used to alert the FS System to potential problem areas. It is available in electronic format on the DFS website. This form may be submitted anonymously or it may be signed. When the unit FS NCM or Officer receives a Hazard Report it shall be assessed for its validity and possible PM to mitigate it. If the Hazard Report has been signed the person that submitted the report may be contacted for further clarification if desired

25. The hazard shall be treated the same way as an occurrence with respect to the responsibilities for tracking and closing, and the report will be closed only when the PM have been implemented or rejected by the appropriate authority. Once a hazard report has been closed, it is essential that the FSO report back to the individual who submitted the report (if identified) on the action taken or why, as applicable, PM could not be implemented. This all-important step is key if we are aiming to encourage open and honest reporting of hazards.

26. The Hazards Reporting Form at Annex A includes an identification of “Hazard severity and “Probability”, which will correspond to a level of risk in FSOMS. This level is identical to the risk matrix used for RARM. For all risks above “acceptable”, the hazard has to be reported up to the 1 Div FS office, as detailed in Chap 1 Annex B. To ensure adequate and timely visibility of all hazards at higher headquarters, it is critical that UFSO/WFSO input and release (i.e. “sent”) the hazard reports within FSOMS.

### **INITIAL INCIDENT REPORT**

27. The FSOMS is normally used to report a simple occurrence. If unable to access the FSOMS, a telephone call or a CF215 FS message report is to be submitted to the home unit for input to the database.

## INITIAL ACCIDENT REPORT

28. Immediately following an accident or serious occurrence (as per Ch 9 and Annex A and B), call DFS at 1-888-WARN DFS (927-6337) and the chain of command as appropriate (NDHQ CJOC and/or 1 Cdn Air Div AOC). An initial report (IR) must follow. See Annex B for Accident Notification Procedures. DFS shall be contacted as soon as possible for any accident (Occurrence category 'A' to 'C' and/or for any occurrence having a SFCL equal or greater than High).

## GUIDELINES FOR REPORTABLE OCCURRENCES

29. The following guidelines should be applied to ascertain if an event should be reported as an FS occurrence:

- a. Was there an accidental injury or illness to a person or damage to a civilian or military property or to a CF/DND operated aircraft as a result of CF/DND air operations?
- b. Was there potential for injury or illness to a person or potential for damage to a civilian or DND property or to a CF/DND aircraft as a result of CF/DND air operations?
- c. Could reporting the FS event generate a PM that may prevent a similar occurrence?
- d. If the answer to any of these questions is yes, then an FS occurrence report shall be filed

30. This concept can be directly applied to occurrences involving flight and support to flight operations; however, the concept is more difficult to apply where involvement in flight line operations is less obvious. If flight safety is not jeopardized, then the event should be reported as a general safety occurrence.

## FS REPORT CLASSIFICATION

31. FS reports and supporting documentation will normally be unclassified. However, some of the information contained in these reports and documentation is protected under the *Aeronautics Act*, the *Canadian Transportation Accident Investigation and Safety Board Act*, the *Canadian Human Rights Act* and the *Access to Information Act*. Therefore, FS information will not be released without the express authority of DFS.

### NOTE

FSOMS is not a classified system and shall not mix classified and unclassified data. In the case of a classified FS occurrence, the reporting unit shall provide the IR content relating to the classified FS occurrence over secure means. An electronic proformat form can be downloaded from the DFS Intranet website under tab Resources\ Administration. The details of the occurrence will not be entered into FSOMS. DFS will retain ownership of the occurrence until it is deemed declassified. When the occurrence is declassified, the details of the investigation will be uploaded in FSOMS by DFS. Ownership of the occurrence will then revert to the reporting unit/organizations.

## **OBLIGATION TO REPORT**

32. An FS occurrence IR is required for each separate event involving injury to personnel or damage to CF aircraft, air vehicles or support equipment, or when flight safety was affected. If two or more aircraft are involved in a single event, one FS report will normally be required.

### **OCCURRENCES INVOLVING NON-CF AIRCRAFT**

33. Regardless of the report(s) required by non-CF authorities, occurrences involving non-CF aircraft shall be reported as directed in this publication.

### **AIRCRAFT AT CIVILIAN CONTRACTORS**

34. FS occurrence reports are required for each occurrence involving aircraft where there is CF involvement during the periods specified as follows

- a. new aircraft (except when special arrangements exist): from the time a CF aircraft leaves the production line after final assembly
- b. aircraft on inspection, repair or overhaul: for the entire period an aircraft is at a civilian contractor facility; and
- c. allied military aircraft under a CF supervised contract: treat as a CF aircraft until it leaves Canada or is accepted by aircrew of the country of ownership.

### **CONTRACTED AIRCRAFT/FACILITIES**

35. Reports are required for each occurrence involving a non-CF aircraft when there is CF involvement. In the case of contracted training, operational flying or maintenance, the applicable contract or memorandum of understanding (MOU) will govern the organization's FS reporting requirement and clearly identify the extent of CF involvement:

- a. non-CF aircraft and facilities under contract to provide support to CF flying operations at or below the wing/base or unit level shall be included within the existing wing/base or unit FS program and will report FS occurrences under the authority of the applicable wing/base or unit comd;
- b. FS reporting by contractors providing support through NDQAR or equivalent third-line maintenance facilities shall report occurrences through an assigned wing FSO familiar with those contractor operations; and
- c. CF aircraft FS occurrences involving civilian aircraft, civilian facilities and civilian aircraft operating at military facilities in Canada shall be reported to the nearest TSB Regional Office. Near misses or similar occurrences involving civilian ATC units are to be reported to the NavCanada Regional Air Traffic Services Office, and a normal FS occurrence report is to be filed

### **OCCURRENCES INVOLVING PARACHUTISTS/RAPPELLERS**

36. SAR Tech Personnel. Occurrences involving SAR Tech personnel jumping from either CF aircraft or CF military conveyance aircraft will be classified as FS occurrences if the event took place during the jump exit, parachute descent or parachute landing. These occurrences will be filed against the tail number of the aircraft from which they jumped. Occurrences that transpire after the SAR Techs are safely on the ground are to be handled through the General



Safety Office .

37. Other Personnel. Parachute and rappel occurrences involving all other parachutists or rappellers who are jumping from either CF aircraft or CF military conveyance aircraft will be classified as FS occurrences only if the event took place while on board the aircraft or during the aircraft exit and if it is determined that the aircraft (and by extension the flight crew) or aircraft equipment used did contribute to the occurrence. On the contrary, the occurrence shall be reported through the General Safety Office .

NOTE

These events are logged according to the tail number of the aircraft involved in the occurrence.

**OCCURRENCES INVOLVING UAVs**

CATEGORIES OF UAVs

38. The categories described below represent guidelines only, especially in regard to maximum takeoff weight (MTOW) and may be adjusted for specific system types. The category in which a UAS resides shall be stated in the Type Certificate, Restricted Type Certificate, or the Specific Purpose Flight Permit. The UASs are divided into three categories according to the UAV MTOW as follows:

- a. Class 1: UAV with MTOW of less than 150kg (330 lbs). This classification comprises the following sub-categories:
  - (1) Micro: UAV weighing less than 1kg (2 lbs),
  - (2) Mini: UAV weighing from 1kg up to and including 15kg (2 lbs up to and including 33 lbs), and
  - (3) Small: UAV weighing greater than 15 kg to less than 150kg (33 lbs to less than 330 lbs);
- b. Class 2: UAV with MTOW of 150kg up to and including 600kg (330 lbs up to and including 1323 lbs) MTOW; and
- c. Class 3: UAV with MTOW is greater than 600kg (greater than 1323 lbs).

UAS OCCURRENCE REPORTING

39. UAVs, like any other CAF aircraft, are subject to the CAF FS Program. UAV FS reporting takes into consideration design, function, complexity and level of skill required for their operation and maintenance. Damage to a UAV component that is designed as consumable will not normally be reported using FSOMS. The following guidelines will apply to the reporting of UAV FS occurrences:

- a. Class 1:
  - (1) Micro: the following occurrences shall be reported:

- (a) injuries or potential for injury to personnel, and
- (b) violation of assigned airspace;
- (2) Mini: Report all occurrences as stipulated above and:
  - (a) Level of damage is at least very serious,
  - (b) Failed launch and recovery/capture,
  - (c) Uncommanded control input,
  - (d) NMAC; and
- (3) Small: Report all occurrences stipulated above and:
  - (a) Level of damage is serious or above, and
  - (b) Maintenance failures or related conditions affecting safety of flight;
- b. Class 2: Report all occurrences stipulated above; and
- c. Class 3: Exactly as per manned aircraft.

**NOTE**  
The Investigation Class and agency will be at the discretion of the AIA as per Annex B of Chapter 9.

**OCCURRENCES INVOLVING AIR WEAPONS SYSTEM**

40. Para 24 of chapter 1 explains the generic responsibilities accepted by DFS on behalf of the Air Weapons Safety Program. Any occurrence associated with an air weapon, and/or an air weapons system, from the time it is removed from ready-use magazine or unit A&E lock-up for operational use until its safe separation from the aircraft or return to a ready-use magazine or a unit A&E lock-up.

**NOTE**  
Ready-use A&E items have normally been removed from their ammunition containers and could have been assembled in various configurations, as needed for operational use. As qualified, they would be ready for use and as a result do represent a higher risk when handling them.

**NOTE**  
Given the cause of the malfunction of an air weapon cannot be established before an investigation takes place, the aircraft or aircraft weapon system would be quarantined, as required, to determine following investigation the requirements to complete a CF349 and/or a CF410.

- 41. Any occurrence involving an air weapon will be reported in the following manner:
  - a. FSOMS Report (CF215). A CF215 shall be filed through FSOMS for an weapons related occurrence where there was damage or a risk of damage to

aircraft, property or the air weapons system itself, or injury or a risk of injury to personnel. Examples include the following:

- (1) accidental functioning of an air weapons store,
- (2) inadvertent release or firing of an air weapons store,
- (3) hazardous malfunctioning (e.g. runaway gun, hang-up) or mishandling of an air weapon or air weapons system (e.g. maintenance performed on an unsafe air weapon, air weapons system not handled according to approved safety precautions, etc.), and
- (4) related weapon occurrence where approved safety procedures were not followed.

NOTE

The CF215 is not required for hand-initiated and manually deployed or released store occurrences where safety of flight, equipment or personnel was not compromised.

NOTE

For a malfunction such as a dud where there is no safety of flight compromise, the CF215 may be completed using the 'For Tracking Purpose Only' as per direction in this publication at Ch 9.

NOTE

The completion of a CF215 report replaces the requirement to file an Ammunition or Explosives Accident or Incident report as required by the Ammunition and Explosives Safety Program. The staff of the Director Ammunition and Explosives Regulation monitors FSOMS for related safety issues.

- b. Ammunition and Explosives Defect and Malfunction Report (CF410). A CF410 shall be filed by the armament authority I W A-GG-040-006/AG-002 for any defect and malfunction, regardless whether safety of flight is compromised or not and whether a CF 215 is filed or not. Examples include the following
- (1) malfunction of a deployed or released store (i.e. flare malfunction, bom malfunction, jammed gun, etc.),
  - (2) malfunction of ammunition, weapon or explosive,
  - (3) damage to an air weapons system or component; and
  - (4) the malfunction of a hand-initiated and manually deployed or released store (i.e. flare, signal smoke and marker), and

NOTE

The completion of a CF410 is mandatory and very important in order to document the malfunction or defect and assist in identifying trends and deficiencies of the item I W DAOD 3002-4. A-GG-040-006/AG-002 provides procedures for CF410 completion.

NOTE

While beyond the responsibility of the FS Program, the usage of air stores within Canadian Forces ranges shall be reported in the Canadian Forces Range Information System (CFRIS) as per CANFORGEN 104/11.

NOTE

The release and/or impact location of the malfunctioned store shall be recorded on the CF410 to aid Unexploded Ordnance (UXO) tracking and is especially important for stores deployed or released over and impacting non-DND property.

- c. Aircraft Unserviceability Report (CF 349). A CF 349 shall be filed when it is assessed the aircraft or aircraft system causes the weapon system malfunction (e.g. hang-up bomb or unexploded ordnance where aircraft system caused the weapon system malfunction).

## FS OCCURRENCE MANAGEMENT SYSTEM

- 42. To evaluate the effectiveness of their FS Programs, comds and FSOs at every level must maintain records of every FS occurrence and hazard involving their facilities, equipment and personnel. The FS Occurrence Management System (FSOMS) is the primary tool to assist this process and is useful for identifying trends.
- 43. The FSOMS was developed to meet the automated support needs of the CF FS Program. It provides FSOs at all levels with an ability to input, record and track FS occurrences.
- 44. FSOMS shall be used to record all FS occurrences. If unable to access the FSOMS or if the situation warrants immediate notification of a serious occurrence, the FS occurrence information shall be forwarded to an FSO by telephone, fax or CF msg using the CF 215 FS message form. Routine FS occurrences will be submitted to the home unit FSO for input to the FSOMS database. As FSOMS does not automatically inform comds of FS occurrence information, FSOs shall review FSOMS on a regular basis to ensure FS information has been distributed as required.
- 45. The unit of ownership is responsible for originating the FS report and ensuring it is entered in FSOMS. The unit of occurrence shall also ensure all additional reports related to the occurrence have been completed. In certain circumstances coordination between the unit of ownership and unit of occurrence may be necessary to ensure all pertinent FS information has been recorded. FSOMS development and policy is a DFS responsibility. The training of FS personnel on the use of FSOMS to input initial investigation data and hazard reports is the responsibility of 1 Cdn Air Div FS and will be delivered through the Basic FS Course.

## TRANSFER OF OWNERSHIP

- 46. In the case where a unit discovers and reports an occurrence that should be investigated by another unit, the reporting unit will liaise formally with the investigating unit and discuss transfer of the investigation. Upon agreement, the unit invited to investigate the occurrence will acknowledge acceptance of ownership by forwarding the correspondence

to DFS 2, cc DFS 3-2 (FSOMS Manager) and request official transfer of the investigation. If agreement on ownership cannot be reached, the reporting unit can request that DFS 2 decide which unit shall be responsible for the investigation. DFS 3-2 will ensure that any transfers be documented as appropriate and actioned in FSOMS.

## REPORT FORMS AND TAGS

### FS FORMS

47. The following FS forms can be downloaded from the DFS Intranet site under tab Resources\Administration:

- a. Flight Safety Occurrence Report Initial (CF 215). A CF 215 shall be submitted to a FSO within 12 hours of an occurrence involving the security of a Canadian Forces aircraft.
- b. Flight Safety Hazard Report ( DND 2484). A DND 2484 should be filed when personnel identifies any condition that has the potential to cause injury or damage during CAF air activities or support to the latter. This form is designed to track and record (through FSOMS) observations on hazardous conditions or deficiencies in the aviation system. A sample form can be found at Annex A.
- c. Report of Emergency Escape from Aircraft (DND 1056). A DND 1056 shall be submitted by every survivor who has abandoned an aircraft during an emergency situation, e.g. fire, ejection or bail-out
- d. Report of Emergency Landing/Ditching on Water (DND 724). A DND 724 shall be submitted for every emergency water landing (ditch).

### OTHER RELATED REPORT FORMS

48. The following reports and / or forms are often used by FSOs to ensure command authorities are properly advised of the circumstances surrounding an occurrence. The forms may be obtained through normal supply action.

- a. Report on Injuries or Exposure to Toxic Materials or Substances (CF 98). A CF 98 is used to report serious or very serious injuries and fatalities. In situations where FS occurrences involve injury to personnel, FSOs should ensure the unit General Safety Officer (GSO) is aware of the injury .

**NOTE**

Entry of the injury into the FSOMS database does not ensure either a CF 98 Report on Injuries or Exposures to Toxic Materials or Substances or CF 663 Accident Prevention Report is completed or medical authorities are aware of the injury and/or exposure.

- b. Coroner's Report. A copy of this report, if raised, shall be included with the medical report.

- c. Unsatisfactory Condition Report (UCR) (CF 777A). A CF 777A may be submitted to address conditions directly affecting the safety of flight. The report shall be submitted in accordance with C-02-015-001/AG-000. All FS UCRs shall be coordinated with the FSO.

**NOTE**

Where the occurrence investigation reveals deficiencies with aviation Life Support Equipment (ALSE), the FSO should ensure the Unit ALSE Officer is briefed of the ALSE issues. Entry of the occurrence into the FSOMS database does not ensure appropriate ALSE corrective actions have been taken.

- d. Significant Incident Report (SIR). This report should be filed when an aircraft occurrence will likely create public interest. DAOD 2008-3 – *Issue and Crisis Management* governs the production of an SIR.
- e. Ammunition and Explosives Defect and Malfunction Report (CF 410). A CF 410 shall be submitted for ammunition defects and malfunctions as per A-GG-040-006/AG-002 - *DND Ammunition Accident/Incident/Defect/Malfunction Reports And Disposal Requests*.
- f. Aircraft Maintenance Management Information System (AMMIS) (CF 349 and 543). To be submitted by first-line, second-line and third-line maintenance facilities as required. Maintenance documentation produced following an FS occurrence must be annotated as FS as per C-05-030-001/AG-001. This annotation will ensure that the FS investigation is prioritized and that the chain of evidence custody is preserved.
- g. ADDN Occurrence Report. This form is for ships at sea.

**AIRCRAFT ACCIDENT TAGS**

49. Tag NSN 9905-21-872-3060 is to be used by investigators to identify and quarantine items during the conduct of FS investigations.

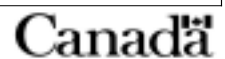
Annex A  
 Chapter 7  
 A-GA-135-001/AA-001

**ANNEX A – HAZARD REPORT FORM DND 2484**



**Flight Safety Hazard Report  
 Rapport de sécurité des vols - Situation dangereuse**

Ref: A-GA-135-001/AA-001  You can prevent aircraft accidents by reporting hazards. A flight safety (FS) hazard is any condition that has the potential to cause injury or damage. Please take a moment to complete this form. Pass the completed form to your FS staff as promptly as possible so this hazardous condition may be addressed <b>BEFORE</b> it causes an occurrence.  The report may be submitted <u>anonymously</u> to any Flight Safety Office or mailed to DFS directly. <b>Reports will be treated in the strictest confidence.</b> The voluntary inclusion of contact details will help the Flight Safety staff to follow up the investigation.		Référence : A-GA-135-001/AA-001  Vous pouvez prévenir les accidents d'aéronef en signalant les situations dangereuses. Une situation dangereuse en sécurité des vols (SV) est toute situation risquant de causer des blessures ou des dommages. Veuillez prendre quelques instants pour remplir le formulaire. Remettez-le dès que possible au personnel de la SV pour que cette situation dangereuse puisse être traitée <b>AVANT</b> que ne se produise un accident.  Le rapport peut être soumis de façon anonyme à n'importe quel bureau de la SV ou posté directement à la DSV. <b>Les rapports sont traités en toute confidentialité.</b> La mention volontaire des coordonnées du soumissionnaire permet au personnel de la SV d'assurer un suivi après enquête.		
<b>Contact info:</b> Director Flight Safety National Defence Headquarters Major-général George R. Pearkes Building 101 Colonel By Drive Ottawa ON K1A 0K2  E-mail: dfs.dsv@forces.gc.ca Phone: 1-888-WARN DFS / 1-888-927-6337		<b>Information pour communiquer :</b> Directeur - Sécurité des vols Quartier général de la Défense nationale Édifice Major-général George R. Pearkes 101, promenade Colonel By Ottawa (Ontario) K1A 0K2  Courriel : dfs.dsv@forces.gc.ca Téléphone : 1-888-WARN DFS / 1-888-927-6337		
Date reported (yyyy-mm-dd) - Date du signalement (aaaa-mm-jj)				
Name - Nom		Rank - Grade	Unit - Unité	Telephone - Téléphone
<b>Hazard description</b> ( <i>The hazard I observed is ...</i> ) <b>Description de la situation dangereuse</b> ( <i>La situation dangereuse que j'ai observée est ...</i> )   (Use additional sheet if needed – Utilisez une page additionnelle au besoin)				
<b>Hazard severity</b> ( <i>provide your personal evaluation of the potential consequences if this hazard materializes</i> ) ( <i>see reverse for definitions</i> ) <b>Gravité de la situation dangereuse</b> ( <i>fournissez votre propre évaluation des conséquences possibles si cette situation se produisait</i> ) ( <i>voir au verso pour les définitions</i> ) <input type="checkbox"/> Catastrophic Catastrophique <input type="checkbox"/> Hazardous Dangereuse <input type="checkbox"/> Major Importante <input type="checkbox"/> Minor Légère <input type="checkbox"/> Negligible Négligeable				
<b>Hazard probability</b> ( <i>provide your personal estimate of the likelihood of this hazard occurring</i> ) ( <i>see reverse for definitions</i> ) <b>Probabilité de la situation dangereuse</b> ( <i>fournissez votre propre estimation de la probabilité que cette situation se produise</i> ) ( <i>voir au verso pour les définitions</i> ) <input type="checkbox"/> Frequent Fréquent <input type="checkbox"/> Probable <input type="checkbox"/> Remote Faible <input type="checkbox"/> Extremely remote Très faible				
Suggestion solution – Solution suggérée				



Hazard definitions	Définition de situations dangereuses
<b>Severity</b>	<b>Gravité</b>
<b>Catastrophic:</b> All hazard conditions which would prevent continued safe flight and landing. Could result in death of the flight crew normally with loss of the aircraft.	<b>Catastrophique :</b> Conditions dangereuses qui pourraient nuire à la sécurité des vols et des atterrissages. Pourraient être une cause de mortalité de l'équipage de bord *accompagnée de la perte de l'aéronef, en général.
<b>Hazardous:</b> Hazard conditions that would reasonably be expected to result in a large reduction in safety margins or functional capabilities, including higher crew workload or physical distress such that crew may not be relied upon to perform tasks accurately or completely. Could result in death or major injury to aircraft occupants or major damage to an aircraft system. Could result in death or major injury to ground personnel or the general public.	<b>Dangereuse :</b> Conditions dangereuses qui risquent d'entraîner une diminution importante des marges de sécurité ou des capacités fonctionnelles, incluant d'accroître le charge de travail de l'équipage ou d'entraîner des souffrances qui pourraient empêcher l'équipage d'accomplir adéquatement ou entièrement ses tâches. Pourraient être une cause de mortalité ou de blessures graves aux occupants de l'aéronef ou de dommages graves à un système de bord. Pourraient être une cause de mortalité ou de blessures graves au personnel au sol ou au public en général.
<b>Major:</b> Hazard conditions that would reasonably be expected to result in a moderate reduction in safety margins or functional capabilities, including a moderate increase in crew workload or physical distress impairing crew efficiency. Possible physical distress, including injuries to occupants or minor damage to an aircraft system.	<b>Important :</b> Conditions dangereuses qui risquent d'entraîner une diminution modérée des marges de sécurité ou des capacités fonctionnelles, incluant d'accroître modérément la charge de travail de l'équipage ou des souffrances nuisant à son efficacité. Ces souffrances ou dommages pourraient consister en des blessures aux occupants ou des dommages mineurs à un système de bord.
<b>Minor:</b> Hazard conditions that would not significantly reduce aircraft safety, but would reasonably be expected to result in a slight reduction in safety margins or a slight increase in crew workload.	<b>Légère :</b> Conditions dangereuses qui ne réduiraient pas grandement la sécurité des vols, mais qui pourraient réduire légèrement les marges de sécurité ou la charge de travail de l'équipage de bord.
<b>Negligible:</b> No effect on safety. Negligible effect on safety margins.	<b>Négligeable :</b> Aucun effet sur la sécurité. Effet négligeable sur les marges de sécurité.
<b>Probability</b>	<b>Probabilité</b>
<b>Frequent:</b> Occurs continuously for the entire fleet or aircrew population.	<b>Fréquente :</b> Se produit continuellement dans toute la flotte ou pour tout le personnel navigant.
<b>Probable:</b> Occurs or likely to occur several times per year for the entire fleet or aircrew population.	<b>Probable :</b> Se produit ou susceptible de se produire plusieurs fois par année dans toute la flotte ou pour tout le personnel navigant.
<b>Remote:</b> Occurs or likely to occur one or more times per year for the entire fleet or aircrew population.	<b>Faible :</b> Se produit ou susceptible de se produire une fois ou plus par année dans toute la flotte ou pour tout le personnel navigant.
<b>Extremely remote:</b> Not expected to occur or likely to occur one or more times for the entire operational life of the fleet or aircrew population.	<b>Très faible :</b> Ne devrait pas se produire ou susceptible de se produire une fois ou plus pendant la durée de vie de toute la flotte ou pour le personnel navigant.

DND 2484 (02-2011)



Annex B  
 Chapter 7  
 A-GA-135-001/AA-001

**ANNEX B – ACCIDENT AND SERIOUS OCCURRENCE NOTIFICATION PROCEDURES**

TYPE OF OCCURRENCE	UNIT OF OCCURRENCE	WING *	DFS
<p>ACCIDENTS “A” TO “C” OR ANY OCCURRENCE WITH A SFCL OF HIGH OR EXTREME</p>	<p>NOTIFY WING OF OWNERSHIP BY FASTEST POSSIBLE MEANS. IF NOT PRACTICABLE, CALL 1-888-WARN DFS (927-6337).</p>	<p>IMMEDIATELY TELEPHONE DFS AT 1-888-WARN DFS (927-6337)</p>	<p>IF CIVILIAN INVOLVEMENT, NOTIFY TSB FOR A COORDINATED INVESTIGATION.</p>
		<p><b>FOR “A” AND “B” ACCIDENTS ONLY, IMMEDIATELY CONTACT AS APPLICABLE:</b></p> <ul style="list-style-type: none"> <li>• The Canadian Forces Integrated Command Centre Strategic Watch Officer 613-945-2643</li> <li>• if accident in Canada, the Canada COM Operations Desk: 613-945-2639/2417</li> <li>• If accident outside Canada, the Canadian Expeditionary Forces Command (CEFCOM) Operations Desk: 613-995-0454</li> <li>• The Canadian Special Operations Forces Command (CANSOFCOM) Desk: 613-998-4390 during working hours or after hours via Email CANSOFCOMOPS CANSOFCOM Ottawa-Hull@forces.gc.ca</li> <li>• 1 Cdn Air Div Combined Air Operations Centre (CAOC) Duty Watch Officer 204-833-2650.</li> </ul>	
	<p>IF OUTSIDE NORTH AMERICA OR EUROPE, NOTIFY THE NEAREST CANADIAN DIPLOMATIC OR FOREIGN LIAISON STAFF.</p>	<p>ENSURE DFS AND 1 Cdn Air Div FS ARE ADVISED AS SOON AS POSSIBLE. BRIEF DUTY OFFICERS AND CONFIRM DETAILS AS KNOWN.</p>	<p>IF FOREIGN MILITARY INVOLVEMENT, CONTACT APPROPRIATE FS ORGANIZATION.</p>
	<p>WITHIN 12 HOURS SEND AN FS INITIAL REPORT USING FORMAT AT ANNEX E, CHAPTER 9.</p>	<p>IF A FATALITY IS INVOLVED, NOTIFY THE LOCAL PROVINCIAL CORONER IN ACCORDANCE WITH CFAO 24-6.</p>	<p>TASK A FS INVESTIGATION.</p>
<p>FOLLOW CFAO 24-1 DIRECTIONS FOR CASUALTY REPORTING AND ADMINISTRATION.</p>			

**NOTE**

Cellular phones should not be used to transmit sensitive information such as crew injuries or fatalities.

\* Actions to be taken by the Supporting or Occurrence Wing as applicable.

Annex C  
 Chapter 7  
 A-GA-135-001/AA-001

**ANNEX C - AIRWORTHINESS INVESTIGATOR MATRIX**

AI POSITION	CONDITIONS REQUIRED TO CARRY OUT AIRWORTHINESS INVESTIGATION ACTIVITIES		
	QUALIFICATIONS (NORMAL UNLESS WAIVER ISSUED)	AIA AUTHORIZATION	OTHER REQUIREMENTS
UNIT FSO/FS NCM	BI 2 (ISSUED BY 1 DIV FSO)	AS PER AIM REGULATIONS AND POLICY	WHEN IN DESIGNATED POSITIONS OR TASKED (FOR FSI ACTIVITY BY AIA)
WING FS SUPPORT PERSONNEL	BI 2 (ISSUED BY 1 DIV FSO)	AS PER AIM REGULATIONS AND POLICY	WHEN IN DESIGNATED POSITIONS OR TASKED (FOR FSI ACTIVITY BY AIA)
CONTRACTOR FS PERSONNEL	BI 2 (ISSUED BY 1 DIV FSO)	AS PER AIM REGULATIONS AND POLICY	WHEN IN DESIGNATED POSITIONS OR TASKED (FOR FSI ACTIVITY BY AIA)
WING FSO/NCM	BI 2 (ISSUED BY 1 DIV FSO)	IIC 3 (ISSUED BY 1 DIV FSO)	WHEN IN DESIGNATED POSITIONS OR TASKED (FOR FSI ACTIVITY BY AIA)
DIVISION FS PERSONNEL	BI 2 (ISSUED BY 1 DIV FSO)	IIC 3 (ISSUED BY 1 DIV FSO)	WHEN IN DESIGNATED POSITIONS
DIVISION FSO	IIC 2 & BI 2 (ISSUED BY AIA)	IIC 2 (ISSUED BY AIA) BI 2 & IIC 2 (AIA DELEGATION)	AIA DELEGATION OF AUTHORIZATION
FSI TEAM MEMBERS (SEMI PERMANENT)	BI 2 (ISSUED BY 1 DIV FSO) BI 1 (ISSUED BY AIA)	AIA / SUPPORT AGENCY SERVICE LEVEL AGREEMENTS AND UPON INDIVIDUAL CERTIFICATION BY SUPERVISION LEVEL OF APPROPRIATE AUTHORITY	INDIVIDUALS IDENTIFIED IN FSI TASKING MESSAGE (FOR FSI ACTIVITY) AND CoC FROM SLAs
DFS INVESTIGATOR	BI 2 (ISSUED BY 1 DIV FSO) BI 1 (ISSUED BY AIA)	IIC 1, IIC 2 & IIC 3 (ISSUED BY AIA)	INDIVIDUALS IDENTIFIED IN FSI TASKING MESSAGE (FOR FSI ACTIVITY)
DFS REVIEW STAFF (SENIOR INVESTIGATOR AND CHIEF INVESTIGATOR)	BI 2 (ISSUED BY 1 DIV FSO) BI 1 (ISSUED BY AIA)	IIC 1, IIC 2 & IIC 3 (ISSUED BY AIA)	WHEN IN DESIGNATED POSITIONS OR TASKED (FOR FSI ACTIVITY BY AIA)
AIA/DFS		AIA (MND DESIGNATE)	WHEN IN DESIGNATED DFS POSITION