



# Supplementary Staff Instruction

**Subject: National Aircraft Certification (NAC) Branch Procedures for Producing Airworthiness Directives (ADs)**

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## 1.0 INTRODUCTION

### 1.1 Purpose

- (1) The purpose of this document is to outline National Aircraft Certification (NAC) Branch procedures for developing Airworthiness Directives (ADs). The majority of the document describes the process of producing new Canadian ADs, while later sections deal with the processes of revising ADs and producing non-standard AD types.

### 1.2 Applicability

- (1) This document applies to Transport Canada Civil Aviation (TCCA) personnel.

### 1.3 Description of Changes

- (1) Not applicable.

## 2.0 REFERENCES AND REQUIREMENTS

### 2.1 Reference Documents

- (1) It is intended that the following reference materials be used in conjunction with this document:
- (a) Part I, Subpart I of the *Canadian Aviation Regulations (CARs)* – [General Provisions – Interpretations](#);
  - (b) Part V, Subpart XXI of the CARs – [Airworthiness – Approval of the Type Design or a Change to the Type Design of an Aeronautical Product](#);
  - (c) Part VI, Subpart V of the CARs – [General Operating and Flight Rules – Aircraft Requirements](#);
  - (d) [Standard 507.04](#) of the CARs;
  - (e) [Standard 625](#) of the CARs;
  - (f) Civil Aviation Directive (CAD) QUA-002, Issue 03, 2011-02-21 – [Civil Aviation Document Framework](#);
  - (g) Staff Instruction (SI) QUA-003, Issue 03, 2011-02-21 – [Civil Aviation Document Development Procedures](#);
  - (h) Supplementary Staff Instruction (SSI) QUA-XXX, Issue 01, 2012-XX-XX – [NAC Procedures for the Development of Alternative Means of Compliance \(AMOCs\)](#);
  - (i) RDIMS [105280](#) – Guidance document – *Continuing Airworthiness Risk Management Process*;
  - (j) RDIMS [6216799](#) – Guidance document – *The Document Quality Review Checklist*;
  - (k) RDIMS [XXXXXXX](#) – Guidance Document – *TCCA/FAA Terminology Guidelines for Transport Airworthiness Directives*;
  - (l) *The Transport Canada Plain Language Guide*, located at: <http://tcinfo.tc.gc.ca/communicationsgroup/services/publications-creative-services/plainlang.htm>; and
  - (m) Form 26-0804E – [The Aviation Terminology and Linguistic Services Request Form](#).

## 2.2 Cancelled Documents

- (1) Not applicable.

## 2.3 Definitions and Abbreviations

- (1) The following **definitions** are used in this document:

- (a) **Aviation Terminology and Linguistic Services Division:** The division of TCCA (hereafter referred to as: "Linguistic Services") responsible for translating documentation from English to French and vice versa. The division's routing symbol is AARCD.
- (b) **Client Address and Distribution List Information System (CADLIS):** A common and centralized address and distribution-list database, which allows the Safety and Security group to distribute information among stakeholders and business partners in a timely and efficient manner.
- (c) **Continuing Airworthiness Web Information System (CAWIS):** A national, mainframe computer-based information system that provides all Aircraft Certification, Maintenance & Manufacturing, and Airworthiness offices with access to complete and current airworthiness data on all Canadian registered aircraft, thereby enabling the airworthiness of the Canadian fleet to be monitored. CAWIS also serves as a project initiation/tracking system, and a repository for various projects undertaken and documents produced (e.g. ADs).
- (d) **Multimedia Products and Services (MPS) Division:** The division of the Management Services branch of TCCA that acts as the central distribution point for all TCCA publications, including ADs.
- (e) **Office of Primary Interest (OPI):** The group or individual responsible for coordinating the development and maintenance of new and existing documentation used to deliver the products and services under the Civil Aviation Program on behalf of the accountable manager. For the purpose of this document, the term OPI is used to refer to the corrective action engineer responsible for drafting an AD.
- (f) **Safe Condition:** An inherent condition, wherein the level of safety implicit in the type certification basis of an aeronautical product is maintained.
- (g) **Unsafe Condition:** An inherent condition that, if left uncorrected, would likely lead to a safety level lower than that intended by the basis of affected aeronautical products' type certification.
- (h) **May:** is a means of expressing permission or freedom of choice.
- (i) **Shall:** is a means of expressing a command, imperative form and no other choice of action.
- (j) **Should:** is a means of expressing persuasion or advice, desired choice or wish. This can be interpreted as an informal request.

- (2) The following **abbreviations** are used in this document:

- (a) **AD:** Airworthiness Directive
- (b) **AMOC:** Alternative Means of Compliance
- (c) **CAA:** Civil Aviation Authority
- (d) **CAR:** Canadian Aviation Regulation
- (e) **CAW:** Continuing Airworthiness

- (f) **ICAO:** International Civil Aviation Organization
- (g) **MCAI:** Mandatory Continuing Airworthiness Information
- (h) **NAC:** National Aircraft Certification
- (i) **PA:** Publication Assistant
- (j) **SB:** Service Bulletin
- (k) **SDR:** Service Difficulty Report
- (l) **SME:** Subject Matter Expert
- (m) **SSI:** Supplementary Staff Instruction
- (n) **TCCA:** Transport Canada Civil Aviation
- (o) **TCH:** Type Certificate Holder

### **3.0 BACKGROUND**

#### **3.1 Airworthiness Directives (ADs)**

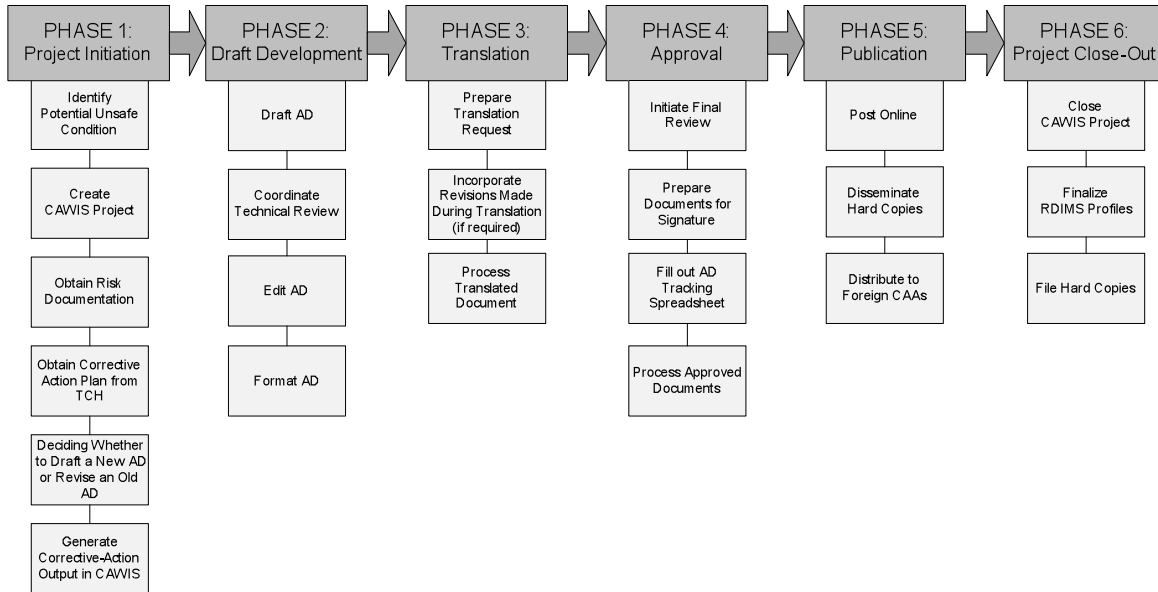
- (1) Canadian Aviation Regulation (CAR) 101.01 defines an Airworthiness Directive (AD) as an instruction issued by the Minister of Transport or a civil aviation authority (CAA) responsible for the aeronautical type design, which mandates a maintenance or operation action to ensure that the aeronautical product conforms to its type design and is in a condition for safe operation. They take the form of Mandatory Continuing Airworthiness Information (MCAI) documents, and mandate actions to restore an acceptable level of safety to aeronautical products in which an unsafe condition has been identified.
- (2) Situations that may warrant an AD include:
  - (a) An unsafe condition has been identified in an aeronautical product;
  - (b) An unsafe condition has not been verified, but there is reason to believe that it exists or is likely to come into existence in an aeronautical product;
  - (c) An existing AD (foreign or Canadian) needs to be cancelled or amended; and
  - (d) To accomplish a goal related to aviation safety, at the discretion of the Minister of Transport.
- (3) Each AD must clearly identify:
  - (a) The unsafe condition;
  - (b) All aeronautical products affected by the unsafe condition;
  - (c) Actions required to restore affected aeronautical products to an acceptable level of safety;
  - (d) Compliance timeframes for the required corrective actions; and
  - (e) The Effective Date of the AD.
- (4) As per CAR 605.84, no person shall conduct a take-off or permit a take-off to be conducted in an aircraft that is in the legal custody and control of the person— other than an aircraft operated under a special certificate of airworthiness in the owner-maintenance or amateur-built classification – unless the aircraft meets the requirement of any ADs that affect it.

## 4.0 THE STANDARD AD DEVELOPMENT PROCESS

### 4.1 Process Overview

- (1) AD development consists of six (6) general phases, each of which involves a number of steps and tasks. The process is illustrated in Figure 1 and in Appendices A and B.

**Figure 1 – Standard AD Development at a Glance**



### 4.2 Roles and Responsibilities in AD Development

- (1) *Corrective Action Managers* (CAW Division) shall appoint a corrective action engineer with appropriate expertise to act as office of primary interest (OPI) for the development of the AD.
- (2) *The Chief, CAW* (CAW Division) shall:
- Approve the risk documentation that summarizes the level of risk presented by a potential unsafe condition;
  - Approve any Type Certificate Holder (TCH) documentation to be mandated within an AD; and
  - Approve all acceptable ADs by signing them on behalf of the Minister of Transport.
- (3) *The OPI* (CAW Division) shall:
- Analyze a potential unsafe condition to determine if it warrants corrective action;
  - Judge the acceptability of the TCH's proposed corrective action plan;
  - Draft the AD in consultation with appropriate subject matter experts (SMEs); and
  - Provide external stakeholders with an advanced copy of the AD, as required.
- (4) *The Editor* (Administrative Services Division) shall:
- Proofread the AD for spelling, grammar, and standardization of writing;
  - Review AD terminology for deviation from the accepted TCCA/FAA Terminology Guidelines; and

- (c) Verify the accuracy of the translated AD.
- (5) *The Publication Assistant (PA)* (Administrative Services Division) shall:
  - (a) Format the AD to a common look and feel; and
  - (b) Coordinate the translation and distribution of the AD.
- (6) *The Engineering, Flight Test and any other applicable divisions* shall, upon request, advise the OPI on their respective areas of expertise as related to the unsafe condition.
- (7) *The TCH of the affected aeronautical product(s)* shall:
  - (a) Submit for approval the corrective action required to rectify the unsafe condition; and
  - (b) Request that TCCA mandate a piece of documentation they have produced by referencing it within an AD.

## 5.0 PHASE 1: PROJECT INITIATION

- (1) The Project Initiation Phase refers to those steps that come before the drafting of the AD, through which the need for one is identified.
- (2) The CAW Division bears primary responsibility for this phase. Consultation with the TCH of the affected product(s) is required.
- (3) Key tasks within the Project Initiation Phase include:
  - (a) **Identifying a Potential Unsafe Condition** in an aeronautical product;
  - (b) **Creating a CAWIS Project** to track the investigation of the potential unsafe condition;
  - (c) **Obtaining Risk Documentation from the TCH**, and judging its acceptability;
  - (d) **Obtaining a Corrective Action Plan from the TCH** and judging its acceptability;
  - (e) **Deciding Whether to Draft a New AD or Revise an Old AD**, once the need for an AD is realized; and
  - (f) **Generating an AD Output in CAWIS** to track the development of the AD.

## 5.1 Learning of a Potential Unsafe Condition

- (1) All corrective action projects undertaken by the CAW Division begin with that division receiving word of a deficiency in an aeronautical product. Common sources of such information include:
  - (a) Service Difficulty Reports (SDRs) submitted by aircraft owners/operators and TCHs;
  - (b) Safety communications from the Transportation Safety Board (TSB); and
  - (c) Airworthiness documentation from foreign CAAs.
- (2) When TCCA receives such a report, an individual from the CAW Division is assigned to act as OPI in its analysis. In their preliminary investigation, the OPI will judge whether or not the report indicates a potential unsafe condition.

## 5.2 Creating a CAWIS Project

- (1) If the report indicates a potential unsafe condition, then the OPI must launch a project in the [CAWIS Project Tracking System \(PTS\)](#) to coordinate further investigation.

**Note:** *It is necessary to create a CAWIS Project to track these investigations so that all decisions that stem from them are properly documented. As a guideline, a CAWIS Project will be required to*

*monitor any project/investigation that can be reasonably expected to take three (3) hours or more to complete.*

- (2) For more information on how to start a new CAWIS Project, consult the CAWIS PTS module's online Help system.

### **5.3 Obtaining Risk Documentation from the TCH**

- (1) Every AD must be justifiable, and all decisions related to it must be defensible. For this reason, before any AD can be produced, an assessment of the risk levels presented by the potential unsafe condition must be documented.
- (2) Risk documentation may take a variety of forms. It may be as simple as a single paragraph summarizing the potential unsafe condition and possible consequences. If necessary, it may be an in-depth documentation of a lengthy, formal Risk-Assessment process.
- (3) It is the TCH's responsibility to assess and document risks in this fashion, and to present that documentation to the Chief, CAW. The Chief must approve of the TCH's risk documentation before it can be used as a basis to produce an AD.
- (4) If the Chief, CAW does not approve of the TCH's assessment or documentation of the risks associated with the potential unsafe condition, then the TCH may be asked to reassess.
- (5) On rare occasions, the CAW Division may launch their own risk assessment, and produce their own risk documentation from it. However, this should only be done if the TCH proves unable to produce risk documentation of their own that is acceptable to the Chief, CAW.

#### **5.3.1 Deciding if an AD is Warranted**

- (1) At this point in the process there is still no guarantee that an AD will be produced, as ADs are just one available form of corrective action. Other possible outcomes of a risk assessment include:
  - (a) The publication of a Civil Aviation Safety Alert (CASA);
  - (b) The publication of a FeedBack article;
  - (c) The initiation of a fleet campaign by the TCH; and
  - (d) The decision that no corrective action is presently required.
- (2) Risk assessments are complex procedures, and the main focus of this SSI is on AD development going forward from the point where the decision to produce an AD has been made. However, as a very general guideline as to when an AD is warranted, see Appendix C.

### **5.4 Obtaining a Corrective Action Plan from the TCH**

- (1) As per CAR 521.356, if corrective action is required to correct a deficiency, the TCH of the affected aeronautical product shall submit to the Minister for approval the corrective action required to rectify the unsafe condition – i.e. the corrective action plan.
- (2) Although it is the TCH's responsibility to develop the corrective action plan, that plan must be approved by the Chief, CAW before it can be mandated within an AD. Extensive collaboration may be required before concurrence on the corrective action plan is reached.
- (3) The TCH's corrective action plan must clearly establish the following three (3) things:
  - (a) The **applicability** of the AD;
  - (b) Specific **corrective actions** to be mandated; and
  - (c) **Compliance timeframes** for owners/operators of affected aeronautical product(s).



**Note:** *During consultation with external stakeholders such as TCHs, it is important to follow the agreed-upon routing. "Ad hoc" approaches to communicating with external stakeholders could give an unfair economic advantage to certain parties, and so should be avoided.*

#### **5.4.1 Establishing Applicability**

- (1) Applicability refers to who will ultimately receive the AD. It refers to which aeronautical products the AD will affect.

#### **5.4.2 Establishing Corrective Actions**

- (1) Corrective actions refer to the procedures that owners/operators of affected aeronautical products will be required to comply with to restore an acceptable level of safety to those products.
- (2) There are two (2) general categories of corrective action that may be judged necessary:
  - (a) Terminating action (a modification or replacement, that will correct the unsafe condition); and
  - (b) Interim actions (repetitive procedures, such as inspections, that will mitigate risks).
- (3) Every effort should be made to develop terminating action in each AD, but it is recognized that this is not always possible. As a guideline, terminating action will generally be required in an AD if any of the following conditions exist:
  - (a) The consequence of the unsafe condition could be catastrophic;
  - (b) There is a high probability that the unsafe condition will develop in the fleet;
  - (c) The inspection area is particularly difficult to access; or
  - (d) The reliability of inspections is questionable.
- (4) Some specific examples of corrective actions that may be mandated by an AD include:
  - (a) Additional inspections (initial and/or subsequent);
  - (b) Replacement or modification of components;
  - (c) Operational limitations (e.g. maximum weight or maximum speed); and
  - (d) Changes to AFMs and the Airworthiness Limitations of the maintenance manual.

**Note:** *Corrective actions should be chosen to reduce risk levels to, or as close as possible to, the levels that were accepted during the affected product's type certification. Higher levels of safety can only be imposed if compliance will be cost neutral.*

#### **5.4.3 Establishing Compliance Timeframes**

- (1) Compliance timeframes refer to how much time affected owners/operators should be allowed to comply with the corrective actions.
- (2) The engineering assessment to determine compliance timeframes must take the following considerations into account.
  - (a) Urgency of the Unsafe Condition – The level of risk to affected aeronautical products must be balanced against the time needed to comply with the required corrective actions.
  - (b) Parts Availability – The time required for manufacturers/vendors to provide necessary replacement parts must be taken into account.
  - (c) Practicality of Performing the Required Tasks – The feasibility of complying with the corrective actions must be taken into account (e.g. a monthly visual inspection may be practical, but a monthly eddy current, ultrasonic, or X-Ray inspection may not).

- (d) Impact of Required Actions on Existing Maintenance/Overhaul Schedules – Compliance times should be chosen to avoid conflicting with normal maintenance schedules when possible, so as not to impose unnecessary burdens on owners/operators.
- (e) Need for a “Phase-In Period” – Established to preclude aeronautical products that have already exceeded the threshold from being grounded unnecessarily.

**5.4.4 Mandating TCH Documentation in an AD**

- (1) TCHs produce many forms of documentation. Some contain detailed instructions on corrective actions (e.g. repairs, inspections). Examples include, but are not limited to:
  - (a) Service Bulletins (SBs);
  - (b) Repair Drawings (RDs);
  - (c) Repair Engineering Orders (REOs);
  - (d) Airworthiness Limitations (AWL); and
  - (e) Flight Manual Procedures.
- (2) The TCH’s corrective action plan may include any of the above document types.
- (3) Every effort should be made to avoid the need to provide detailed descriptions of corrective actions within the AD. Therefore it is strongly preferred that the corrective action be published by the TCH in the form of one of the above-listed document types.
- (4) The Chief, CAW, must approve of the TCH document before it can be used as the basis for a corrective action plan.

**5.5 Deciding Whether to Draft a New AD or Revise an Old AD**

- (1) Once it has been determined that an AD is required, the OPI must check existing ADs to see if one of them addresses the same unsafe condition. If one does, then it may make more sense for the OPI to revise that existing AD than it would for them to draft a new one from scratch.
- (2) The decision of whether to revise an AD or draft a new one should be based primarily on the differences between the AD being drafted and the applicable existing AD. The following table provides a *guideline* as to when a new AD should be drafted and when it may be more appropriate to revise an existing one.

Create a new AD when...	Revise an existing AD when...
The scope and/or applicability of the AD has substantially changed	An existing AD needs to be cancelled or superseded
The unsafe condition affects an aeronautical product referenced on a different type certificate than that affected by a previous AD	A minor change in applicability is to be introduced
	Compliance timeframes have changed
	The frequency of subsequent procedures has changed

**Note:** For procedural details on revising ADs, see Section 12.0.

**5.6 Generating an AD Output in CAWIS**

- (1) As soon as it is determined that an AD is required, the OPI must generate a new AD Output through the CAWIS Project that they created to monitor their initial investigation (see Section 5.2).

**Note:** *The CAWIS AD Output must be created before the AD can be drafted because CAWIS will always generate the Output using the most up-to-date version of the AD template.*

- (2) To create an AD Output in CAWIS, the OPI must:
  - (a) Access the CAWIS Project associated with the investigation of the unsafe condition (CAW Investigation, Accident Investigation, or whatever that project type may be);
  - (b) Access that CAWIS Project's "Corrective Action" tab;
  - (c) Select: "Airworthiness Directive" from the drop-down list of corrective-action types in the table beneath the word: "Type"; and
  - (d) Click: "Add".

**Note:** *If, for any reason, no CAWIS Project exists to generate the AD Output through, the OPI shall create one at this point. If a related CAWIS Project exists but has a different OPI, then the OPI for the AD Output can be changed manually in CAWIS.*

- (3) A new CAWIS AD Output will open to the "Publication Properties" screen.
- (4) The CAWIS AD Output will determine the outcome of the corrective action project. It will contain features specifically tailored to coordinating the development of a document (in this case an AD). Included among these features is a customizable "**Routing and Distribution**" checklist (found through the tab of the same name), which allows stakeholders to:
  - (a) Specify what tasks related to the AD's development must be completed, what order they must be completed in, and who is responsible for their completion;

**Note:** *Stakeholders can be added to or removed from the Routing and Distribution checklist at any point in the project.*

- (b) Enter comments related to assigned tasks that they just completed;

**Note:** *All stakeholders in the process should leave a comment upon completing any task they were assigned, even if that comment is only: "Ok," so that will be clear at a glance that their task has been completed.*

- (c) Determine the progress of the AD's development at a glance; and
  - (d) Indicate completion of tasks and route the action to the next stakeholder on the checklist by clicking the "**Notify Next**" button.
- (5) "**Notify Next**" must be clicked many times over the course of any AD's development, due to the number of steps and stakeholders involved. *Not all instances in which this must be done are specifically identified in this SSI.* It should be assumed that any time action passes from one stakeholder to another (i.e. one individual performs one task, and then a different individual performs the next), the first must have indicated completion and Notified Next in the CAWIS AD Output for the transition to have taken place.

**Note:** *"Notify Next" should only be clicked by the stakeholder responsible for a given task's completion. Stakeholders should never Notify Next on behalf of other stakeholders.*

## **6.0 PHASE 2: DRAFT DEVELOPMENT**

- (1) The Draft Development Phase refers to those steps between the identification of the need for an AD and when the final draft AD is ready for translation.
- (2) The CAW and Administrative Services Divisions share responsibility in this phase. Consultation with the TCH and other SMEs may be required.
- (3) Key tasks within the Draft Development Phase include:

- (a) **Drafting the AD** or AD revision;
- (b) **Coordinating a Technical Review** of the draft AD;
- (c) **Editing the AD** for clarity and standardized terminology; and
- (d) **Formatting the AD** in accordance with TCCA's standardized look and feel.

## 6.1 Drafting the AD

### 6.1.1 AD Contents

- (1) The elements of an AD, their order, and the information contained therein are summarized below. See Appendix D for a completed example.

**Note:** Elements that are marked with <sup>0</sup> will only be filled out under certain conditions. Elements that are marked with <sup>+</sup> require information that will not be available yet, and so should be left blank until a specified later time.

- (a) **AD Number<sup>+</sup>** – The official alpha-numeric identifier of the AD. *Will only be available once the PA has prepared the documents for final approval.* See Section 8.3 for the numbering convention and instructions on how this number is obtained.
- (b) **Subject** – A brief phrase describing the hazard being identified.
- (c) **Canadian Type Certificate Data Sheet** – The Type Certificate number of the state of design (or “N/A” if not applicable) for the affected aeronautical product.
- (d) **ATA Chapter** – Two-digit code.
- (e) **Effective Date<sup>+</sup>** – The date on which the AD becomes effective (YYYY-MM-DD). As a general guideline, the Effective Date should be estimated at a minimum of two (2) weeks after the Issue Date of the AD to account for possible delays in printing or shipping (unless an Emergency AD).
- (f) **Affected ADs<sup>0</sup>** – Identification of any ADs that will be cancelled or replaced by the current AD. When required, this paragraph should always be phrased: *“This AD supersedes/cancels AD CF-YYYY-NN, issued on YYYY-MM-DD*
- (g) **Applicability** – a list of all aeronautical products affected by the AD, as identified by:
  - (i) The name of the TCH (consistent with the wording used in the aeronautical product's Type Certificate, whenever possible); and
  - (ii) The aeronautical product's name, model, series, mark, part number, and serial number.
- (h) **Compliance** – The timeframe within which the corrective actions described in the AD must be complied with, using the words: *“As indicated below, unless already accomplished”* (on the condition that a more in-depth description of the timeframe is included in the “Corrective Action” section).
- (i) **Background** – A description of the unsafe condition. This should be kept as brief as possible without sacrificing clarity.
- (j) **Corrective Action** – A description of the actions that must be taken to bring affected aeronautical products into compliance with the AD – including, where appropriate:
  - (i) A specific compliance timeframe (expressed in air time, flight cycles, days, weeks, months, or a similar term of reference) for both initial procedures (those to be carried out immediately) and subsequent procedures (those to be carried out later, often on a repetitive basis); and

- (ii) A reference to the TCH documentation in which the required corrective actions are described (if applicable).
- (2) The Corrective Action section of an AD may also contain some or all of the following three information types as subsections – “TCH Documentation Reference,” “Ferry Flight Permit,” and “Spares Affected.”
- (a) **TCH Documentation Reference**<sup>0</sup> (optional subsection of Corrective Action) – When referencing a TCH document such as an SB in an AD, it is important that:
    - (i) The TCH document and procedures therein are referred to *specifically* (e.g. “*Accomplish visual inspection of the elevator push rod in accordance with [TCH name] Service Bulletin XXX No. YY, dated YYYY-MM-DD,*” is preferable to: “*Accomplish inspection as per Service Bulletin XXX*”); and
    - (ii) Future revisions to the TCH document that may affect the validity of the AD are taken into account by adding the line: “*...or later revision approved by the Chief, Continuing Airworthiness, Transport Canada, Ottawa,*” after each reference to the TCH Document.

**Note:** *By signing an AD, the Chief, CAW approves that the technical documentation referenced in that AD rectifies the unsafe condition.*

- (b) **Ferry Flight Permit**<sup>0</sup> (optional subsection of Corrective Action) – Permission for owners/operators of aircraft that would otherwise be grounded by an AD to utilize a Ferry Permit to fly their aircraft to a location where the required corrective actions can be complied with. When included, this section should be phrased: “*The aircraft may be flown to a location where the requirements of this directive can be accomplished, subject to [list conditions].*” Though additional conditions may be imposed at the discretion of the Chief, CAW, no passengers may be carried.

**Note:** *This information may be provided so that the owner/operator may utilize a Flight Permit in accordance with CAR 507.04 and their organization’s procedures.*

- (c) **Spares Affected**<sup>0</sup> (optional subsection of Corrective Action) – The AD may require a statement to the effect that no “demodification” (i.e. return to a pre-AD configuration) of affected aeronautical products is permitted, so as ensure that the level of risk to the fleet decreases progressively during the compliance timeframe of the AD. For example, if the corrective actions mandated by the AD include the removal or replacement of a component, then the following statement should be included under the title “Spares Affected”: “*As of the Effective Date of this Directive, it is prohibited for anyone to install [removed or replaced component].*”
- (d) **Authorization** – The signature block wherein the Chief, CAW (or delegate) will ultimately sign the AD into effect on behalf of the Minister of Transport.
- (e) **Contact** – The name of the OPI, the phone number of the CAW Administrative Assistant, and the email address: [ADs@tc.gc.ca](mailto:ADs@tc.gc.ca).

### 6.1.2 Saving the Draft AD in RDIMS

- (1) When the OPI has completed their first draft of the AD, they must save that draft as a new document in RDIMS. The document’s RDIMS profile must be filled out as follows.
  - (a) **Name:** “*Airworthiness Directive [appropriate title].*”

**Note:** *Total characters in the “Name” field cannot exceed 126.*
  - (b) **Description:** List of aeronautical products affected by the AD (by model name)

**Note:** *The Project Number will be added to the description field by the PA at a later point, but for now this field should only list the aeronautical product models affected by the AD.*

- (c) **Author:** First and last name of the OPI
- (d) **OPI:** AARDG (routing symbol for CAW)
- (e) **Security:** 1
- (f) **Language:** ENG (for English);
- (g) **Cross Reference:** Nothing at this point (though this field will ultimately contain a cross-reference to the AD's translation)
- (h) **Classification:** A 5014-4 U
- (i) **Access:** AARD read only, with full access to:
  - (i) Any internal SMEs that the OPI intends to consult for technical feedback; and
  - (ii) The following Administrative Services personnel:
    - (A) Jeremie Laviolette;
    - (B) Alain Périard;
    - (C) Christina Bourque;
    - (D) Vickie Bigelow; and
    - (E) Marc Caouette.

## 6.2 Coordinating a Technical Review

- (1) The OPI must arrange for the draft AD to be reviewed for technical accuracy by appropriate internal and external SMEs. As a minimum, this must include the SMEs indicated in the CAWIS Routing and Distribution checklist.
- (2) All reviewers shall ensure that Track Changes is active during their revisions. The OPI should not reject any suggested change without a valid reason. Any disagreements that result from an SME's feedback are the OPI's responsibility to resolve – either through discussion with the SME or, if that fails, through escalation to progressively higher levels of management.
- (3) The OPI shall use the Routing and Distribution checklist in the CAWIS AD Output (see Section 5.6) to coordinate the routing of the document during its review. If any reviewer proposes significant enough changes to the document, then that checklist may need to be adjusted to give appropriate stakeholders a chance to confirm that they still support the document's contents.

### 6.2.1 Obtaining Internal Feedback

- (1) The first stage of technical review is aimed at building internal consensus. The OPI should seek feedback on the draft AD from appropriate SMEs from some or all of the following:
  - (a) CAW personnel, including:
    - (i) The manager, In-Service Evaluation; and
    - (ii) The manager, Accident/Incident Investigation;

**Note:** *The manager of the above-listed sections must notify appropriate personnel within their section as required.*
  - (b) Engineering;
  - (c) Aircraft Evaluation Group (AEG);
  - (d) Operations;
  - (e) Flight Test; and

- (f) Transport Canada regional offices (ROs).
- (2) Each internal reviewer should save a copy of the AD to their desktop and revise it as appropriate with Track Changes on. They must then save it as a new version in RDIMS. Version comments should identify who reviewed each version.
- (3) Each internal reviewer must indicate completion and Notify Next in CAWIS upon completing their review. The action will return to the OPI each time this is done.

**Note:** *While indicating completion of their review in the CAWIS AD Output, each internal reviewer shall leave a comment in the AD Output's Routing and Distribution checklist, even if their comment is simply: "Ok." This will make the progress of the internal review easier to determine at a glance.*

- (4) After addressing all internal feedback, the OPI must save the result as a new version in RDIMS (version comments: "ALL INTERNAL FEEDBACK RECEIVED AND DISPOSITIONED").

### **6.2.2 Obtaining External Feedback**

- (1) After the internal review is complete, the OPI must email a copy of the revised AD to the TCH so that they can ensure that they still support its contents. Under certain circumstances, the OPI may wish to consult with other external SMEs as well, such as:
  - (a) Aviation special interest groups (SIGs);
  - (b) Operators of the affected aeronautical product(s); and/or
  - (c) Foreign CAAs.
- (2) Once the draft AD has been reviewed and commented on by the TCH and/or other appropriate external organization, the marked-up copy/copies will be returned to the OPI via email. The OPI must then:
  - (a) Save each marked-up draft as a new version in RDIMS, with a version comment that identifies the organization that reviewed it;
  - (b) Action all feedback in each marked-up document; and
  - (c) Save the revised AD as a new version in RDIMS *again* (version comments: "ALL FEEDBACK RECEIVED AND DISPOSITIONED").

### **6.3 Editing the AD**

- (1) The Editor is the next stakeholder in the AD's development. This individual will save a copy of the latest version of the AD to their desktop and then edit it for spelling and grammar with Track Changes on.
- (2) The Editor must work to bring the AD into compliance with the following documents:
  - (a) [The Document Quality Review Checklist](#);
  - (b) [The Transport Canada Plain Language Guide](#);
  - (c) [The Canadian Style: A Guide to Writing and Editing](#); and
  - (d) *TCCA/FAA Terminology Guidelines for Transport Airworthiness Directives (see Appendix F).*

**Note:** *The Editor should only suggest changes that are necessary to enhance the effectiveness of the document. Sweeping changes should be avoided where possible, especially if the AD is based on an SB or other text supplied by an outside party such as a TCH.*

- (3) The Editor shall discuss their changes with the OPI. If the OPI objects to any change suggested, they are responsible for raising and resolving the issue during that discussion.

- (4) Once the OPI and the Editor are both satisfied with the text of the draft AD, the Editor must save their marked-up copy as a new version in RDIMS *twice*, so that a record of their changes will remain even if the latest version is subsequently altered.
- (5) The document will then be circulated among the following stakeholders in the following order:
  - (a) The Manager, Administrative Services;
  - (b) The OPI;

**Note:** *The OPI should ensure that the approved final version of the TCH's documentation (e.g. SB) has been received before review of the AD continues.*

  - (c) The Chief, CAW;
  - (d) The OPI (for concurrence of changes); and
  - (e) The Editor (for verification of changes).
- (6) Each reviewer will have a chance to review and suggest changes to the document. Each must discuss their changes with the OPI. The Chief, CAW must approve of the draft AD before it can proceed to translation.

**Note:** *If any reviewer makes sweeping changes to the document, then they may need to add the OPI and then themselves to the Routing and Distribution checklist again, so that the document is re-routed and the OPI gets a chance to confirm their support of the changes.*

- (7) Once all reviewers are satisfied with the AD's contents, the Editor must:
  - (a) Conduct a final review of the revised document; and
  - (b) Save the AD with all changes/comments visible as a new RDIMS version (version comments: "THIS VERSION SENT FOR FORMATTING").

#### **6.4 Formatting the AD**

- (1) Once the AD has been edited, the action will pass to the PA. This individual will:
  - (a) Delete all comments and accept all changes in the document (if any are present); and
  - (b) Ensure that the document is structured and formatted in accordance with TCCA's standardized look and feel (see Section 6.1.1 for accepted formatting of ADs).
- (2) The PA must then save the AD in RDIMS twice, so that their revisions will be maintained in the earlier version even if the later version is subsequently altered (version comments: none for the first save; "TRANSLATION COPY" for the second).
- (3) While in RDIMS *the PA shall remove access rights for all but the Administrative Services Division*. If the OPI or any other stakeholder from outside of this division would like any changes made to the document after this point, they will have to request that the Editor implement them in RDIMS.

#### **7.0 PHASE 3: TRANSLATION**

- (1) During the Translation Phase, the AD is translated so that a copy exists in English and French.
- (2) The Administrative Services and Linguistic Services Divisions share responsibility for this phase.
- (3) Key tasks involved in the Translation Phase of AD development include:
  - (a) **Preparing a Translation Request** and emailing it to Linguistic Services; and
  - (b) **Processing the Translated Document** once it is returned from Linguistic Services.



## 7.1 Preparing the Translation Request

- (1) The PA must save a copy of the latest version of the AD to their desktop. The file name should be the AD's Project Number (obtained when the OPI created the original CAWIS Project – see Section 5.2).
- (2) The PA must then send an email to [Linguistic Services](#) that contains:
  - (a) A completed [Translation Request Form](#);
  - (b) The copy of the AD that they just saved to their desktop;
  - (c) An RDIMS reference to the AD template in the destination language;
  - (d) The subject: “*Translation Request: [Project No.]*”;
  - (e) A CC to: The Editor, The PA, and the NAC Executive Assistant; and
  - (f) The note: “*Please reply all when returning translation,*” in the body of the email.
- (3) While indicating completion of this task in the CAWIS AD Output, the PA should change the BF date in the appropriate comment box in the Routing and Distribution checklist to the date on which translation is expected to be accomplished.

## 7.2 Making Revisions during Translation

- (1) Should the OPI wish to make any changes to the AD while it is being translated, they must:
  - (a) Save a copy of the latest version of the AD to their desktop;
  - (b) Make the required adjustments with Track Changes on; and
  - (c) Ensure that all changes to the English document are incorporated into the translation in one of the following ways once it has been received from Linguistic Services:
    - (i) Have the Editor incorporate all changes made to the English text into the French document (if the OPI's revisions are minor); or
    - (ii) Have the PA request a retranslation from Linguistic Services (if the OPI's revisions affect a significant portion of the document).
- (2) If it becomes necessary to request a retranslation, then the PA shall do so in the same way that they submitted the original translation request (see Section 7.1). All areas of the document that the OPI has revised must be clearly marked so that Linguistic Services knows to translate only those areas.

## 7.3 Processing the Translated Document

- (1) The PA must review the translation to ensure that it is properly formatted. They must also delete the word “*ébauche*” (draft) from the new French document.
- (2) The translation must then be saved as a new *file* in RDIMS. Its RDIMS profile should be filled out as the English AD's was (see Section 6.1.2), but in the appropriate language and with the following differences.
  - (a) **Author:** first and last name of *the PA* (not the OPI)
  - (b) **OPI:** AARDA (not AARDG)
  - (c) **Language:** FRC for French (Not ENG for English)
  - (d) **Access:** Full access ONLY to AARDA staff
  - (e) **Cross Reference:** RDIMS number of the English SSI

- (3) The PA must then do the following to the *English* AD:
  - (a) Remove the word “DRAFT” from the header of page one (1);
  - (b) Save the document as a new version (version comments: “TRANSLATED COPY”); and
  - (c) Add the RDIMS number of the French version to the Cross Reference field in RDIMS.

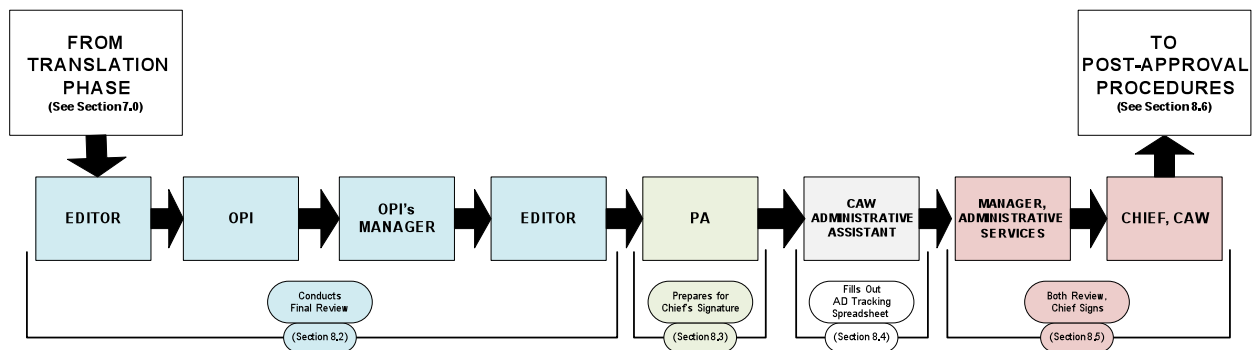
## 8.0 PHASE 4: APPROVAL

- (1) The Approval Phase consists of a final round of review, and ends when the Chief, CAW, signs the ADs to indicate final approval for publication.
- (2) Personnel from the CAW and Administrative Services Divisions collaborate during this phase.
- (3) Key tasks in the Approval Phase of AD development include:
  - (a) **Initiating the Final Review** of the AD;
  - (b) **Preparing for the Chief’s Signature** by obtaining an AD Number and Working File;
  - (c) **Filling Out the AD Tracking Sheet** at RDIMS [7066713](#); and
  - (d) **Obtaining Final Approval**, as indicated by the Chief, CAW’s signature.

### 8.1 Initiating The Final Review

- (1) Once the AD has been translated and the translation has been saved in RDIMS, a final round of review will take place. The stakeholders involved in this review, the order in which they act, and the tasks they must perform are summarized in Figure 2 and the following sections.

**Figure 2 – Final Review Procedures**



### 8.2 Continuing the Final Review

- (1) The first three (3) stakeholders in the final review process illustrated in Figure 2 – the **Editor**, the **OPI** and the **OPI’s manager** – must proofread the document in both languages.
- (2) During their first of two (2) reviews in this process, the Editor must proofread the translated AD to verify its accuracy.
- (3) The OPI and the OPI’s manager will then each have a final opportunity to review, comment on, and suggest changes to the document in both languages. The action will then pass back to the **Editor** so that any changes suggested by the OPI and/or the OPI’s manager can be implemented.

### 8.3 Preparing for the Chief's Signature

- (1) The **PA** is responsible for completing the following administrative tasks to prepare the documents for the Chief, CAW's signature:
  - (a) Obtaining an AD Number;
  - (b) Verifying the format of the documents; and
  - (c) Creating an AD Working File.

- (2) The AD Number is the unique alpha-numeric code by which the documents will be identified and distinguished from other ADs. AD Numbers adhere to the following naming convention:

<b>CF-YYYY-NN-RX</b> ▲   ▲   ▲   ▲ (1) (2) (3) (4)	(1) = Country code (CF for Canada) (2) = Year AD becomes effective (3) = Distinguishing number (sequential) (4) = Revision number ('R' remains constant; 'X' is sequential). <i>Omitted unless the AD is a revision</i>
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- (3) To claim an AD Number, the PA must access the "AD Log Sheet" (RDIMS [6916499](#)) and fill out the first unclaimed row as follows.
  - (a) **AD Number:** The next unclaimed AD Number (as per the numbering convention described above)
  - (b) **Product & Subject:** Identification of affected aeronautical products and a very brief summary of the unsafe condition
  - (c) **Author:** First and last name of the OPI
  - (d) **Issue Date:** The date on which the ADs are expected to be disseminated
  - (e) **Type:** The AD type

**Note:** *The AD type should only be specified if it is a non-standard AD being developed. See Section 11.0 and subsections for information on non-standard AD types.*

- (4) The PA must save their changes to the AD Log Sheet in RDIMS after claiming the next AD Number.
- (5) Next, the PA must open and make the following adjustments to the ADs:
  - (a) Add the AD Number and the Effective Date into the appropriate sections of the ADs;

**Note:** *The Effective Date should be estimated at two (2) weeks after the Issue Date.*

  - (b) Adjust the font size (no lower than 9.5 points) and/or paragraph spacing (no lower than 3 points) in an attempt to ensure that:
    - (i) The Authorization and/or Contact section(s) are not alone on the final page; and
    - (ii) The AD is an even number of pages; and
  - (c) Modify the signature block in both documents to contain the correct name (*if an actor/delegate will be signing the ADs on the Chief, CAW's behalf*).
- (6) The PA must then make the following changes in RDIMS:
  - (a) Save both documents as new versions (version comments: "FINAL REVIEW"); and
  - (b) Move both documents into the RDIMS Public Folder entitled: "YYYY CANADIAN AIRWORTHINESS DIRECTIVES" (where "YYYY" is the current year).

- (7) Finally, the PA shall prepare the “AD Working File” – the file folder in which hard copies of the AD must be presented to the Chief, CAW for signature. To prepare the AD Working File, the PA must:
  - (a) Print a “clean” (i.e. free of comments and marked changes), double-sided copy of both the English and French AD;
  - (b) Add the printed copies of the AD to an orange manila file folder; and
  - (c) Staple an “AD tracking sheet” (found in the AARDA Folder) to the cover of the Working File.

#### **8.4 Filling Out the AD Tracking Spreadsheet**

- (1) Once the PA has claimed an AD Number and prepared the AD Working File, the action will pass to the CAW Administrative Assistant. This individual must fill out the first unclaimed row of the AD Tracking Spreadsheet located at RDIMS [7066713](#) with the appropriate information about the AD under development.
- (2) The fields of the AD Tracking Spreadsheet must be filled out as follows.
  - (a) **AD Number/RDIMS:** The AD Number and RDIMS Number of the AD under development
  - (b) **Issue Date:** The date on which the ADs are expected to be disseminated
  - (c) **Manufacturer:** Name of the TCH of affected aeronautical products
  - (d) **Model:** The specific aeronautical product models affected by the AD
  - (e) **Summary/Corrective Action:** The title of the AD
  - (f) **Number Affected:** The number of Canadian aircraft expected to be affected by the AD
  - (g) **Comments:** As appropriate

*Note: The AD Tracking Spreadsheet is not a bilingual document. The CAW Administrative Assistant can complete its fields in English only, and needs only provide the English document's RDIMS Number.*

- (3) Once the CAW Administrative Assistant has filled out the appropriate row of the spreadsheet as described above, they shall save their changes to the spreadsheet.
- (4) The ADs are now ready to be submitted for final approval.

#### **8.5 Obtaining Final Approval**

- (1) The final two (2) stakeholders in the final-review process are:
  - (a) The **Manager, Administrative Services;** and
  - (b) The **Chief, CAW.**
- (2) Both stakeholders will review the AD in both official languages. If they would like any changes made, they are responsible for having the Editor implement them.
- (3) If the documents are acceptable, then both reviewers shall sign the tracking sheet stapled to the cover of the AD Working File. The Chief shall also sign both ADs within their signature blocks.

#### **8.6 Processing the Approved Documents**

- (1) After the Chief, CAW has signed both ADs, the PA must add the following information to the appropriate fields of the CAWIS AD Output, and then save that Output:
  - (a) The AD Number; and

- (b) The anticipated Issue Date.
- (2) The PA must then make the following changes to the latest version of both ADs in RDIMS:
  - (a) Enter the text: “*ORIGINAL SIGNED BY / ORIGINAL SIGNÉ PAR*” (as it appears in this document) into the signature blocks of the ADs, followed by the name of the Chief, CAW, or delegate; and
  - (b) Save both ADs as new versions in RDIMS (version comments: “SIGNED VERSION”).
- (3) The ADs are now ready for publication and distribution.

## 9.0 PHASE 5: PUBLICATION

- (1) The Publication Phase refers to the steps involved in distributing the finalized and approved ADs.
- (2) The Administrative Services Division bears primary responsibility for this phase.
- (3) Key tasks in the Publication Phase of AD development include:
  - (a) **Online Posting** of the AD to the TCCA AD website;
  - (b) **Hard-Copy Distribution** to owners/operators of affected aeronautical products; and
  - (c) **Distribution to Foreign CAAs**, as per TCCA’s responsibilities under ICAO Annex 8.

### 9.1 Online Posting

- (1) TCCA makes all of their ADs available online at: [www.tc.gc.ca/cawis-swimn](http://www.tc.gc.ca/cawis-swimn). This process is described in the following sections.

#### 9.1.1 Preparing the AD Web Version

- (1) Both ADs must be converted into a series of image files before they can be posted online. To this end, the PA must:
  - (a) Export the *English* document to their desktop in PDF format (see below for file name);
  - (b) Open the English PDF they just created;
  - (c) Take a “Snapshot” of the body text of the first page of the English PDF (from just above the first line of text to just below the last);

**Note:** *Instructions on exporting Word files to PDF and using the Snapshot tool can be found in the Help systems of MS Word and Adobe Reader, respectively.*

- (d) Open MS Paint;
  - (e) Paste the copied page of the AD into the new paint file; and
  - (f) Save the paint file to their desktop in JPEG format (see below for file name).
- Note:** *Because the default format for Paint files is BMP, the PA must manually change the destination format to JPEG while saving.*
- (2) If the English AD is more than one page long, then tasks (c) through (f) must be repeated for each page after the first.
  - (3) When each page of the English AD has been saved to the PA’s desktop as a JPEG, the PA must repeat all of the tasks described in this section for the French AD.
  - (4) The appropriate file names for all image files discussed in this section are listed below.

Image File:	English File Name:	French File Name:
PDF of entire AD	"[AD No.]-E.pdf"	"[AD No.]-F.pdf"
JPEG screenshots	"[AD No.]-E#.jpg"***	"[AD No.]-F#.jpg"***

\*\*\* # = The page number of the AD

### 9.1.2 Creating a CAWIS AD File

- (1) The AD module in CAWIS is used to prepare ADs to be posted online.
- (2) The PA must create a new AD File by clicking the "Airworthiness Directives" link on the left side of that module's homepage, and then clicking: "New." The AD Properties Screen will appear in a new floating window (see Appendix E).
- (3) The PA must then complete the fields of the AD Properties Screen as follows.
  - (a) **AD Number** (near top-left of screen) – The AD Number of the English AD
  - (b) **Year** – The current year
  - (c) **Country** – Canada
  - (d) **Entry Date** – Today's date
  - (e) **Issuing Authority** – Transport Canada (AARDG)
  - (f) **AD Subject** – Should be taken directly from the corresponding section within the AD
  - (g) **Issue Date** – The date on which the ADs are expected to be published
  - (h) **Effective Date** – The date on which the AD becomes effective (should be estimated at two weeks after the Issue Date)
  - (i) **Applicability** – A list of aeronautical products affected by the AD
  - (j) **Compliance** – The timeframe within which the required corrective actions must be complied with.
- (4) The PA must also ensure that the checkbox marked "New Format" is NOT checked, and then click "Save" to save the newly-created AD File.
- (5) The PA must then load the *English-language screenshots* they created (see Section 9.1.1) to the AD File as follows:
  - (a) In the Corrective Action section of the AD Properties screen, click: "Upload" → "Browse";
  - (b) Find and select the screenshot of the first page of the English AD ("[AD No.]-E1.jpg");
  - (c) Click "New Content" to upload the selected image;
  - (d) Place their cursor in the corrective action box;
  - (e) Select the image and click: "Insert"; and
  - (f) Repeat steps (a) through (f) for every subsequent page of the AD.
- (6) The PA must then upload the *English-language PDF* as follows:
  - (a) In the "PDF Attachment" section, click: "Upload" → "Browse";
  - (b) Find and select the PDF version of the English AD ("[AD No.]-E.pdf"); and
  - (c) Click "Upload."

- (7) Once the JPEGs and the PDF of the *English* AD have been loaded to the AD File, the same must be done to the *French* JPEGs and PDF. To this end, the PA must:
- Click: “Français” (at the bottom of the AD Properties screen);
  - Load the French image files in the same way as the English (see above); and
  - Save the AD File.

### 9.1.3 Verifying the AD Web Version

- The PA should return to the “Airworthiness Directives” screen in CAWIS, click: “Recent,” and make sure that the AD File they just created appears at the top of the list that generates. They should then access the AD File, click “Display” and verify that the images loaded properly and look acceptable. The Editor will then review the images as well.
- If the Editor or the PA notices any problems with the images, then the PA may need to create new image files as described in Section 9.1.1. The following file names should be assigned to the replacement image files if this should become necessary.

Image File:	English File Name:	French File Name:
New PDFs	“[AD No.]-E1.pdf”	“[AD No.]-F1.pdf”
New JPEGs	“[AD No.]-E1#.jpg”**	“[AD No.]-F1#.jpg”**

\*\* # = The page number of the AD

- When both the PA and the Editor are satisfied with the appearance of the images, the PA shall:
  - Add the comment: “AD Uploaded” to the Routing and Distribution checklist of the CAWIS AD Output;
  - Photocopy both signed hard copies of the AD; and
  - Replace the original signed copies in the Working File with the photocopies.

**Note:** The PA will need the original signed copies to submit a printing request (see Section 9.2.7).

### 9.1.4 Making the AD Live to Web

- The Technical Assistant must arrange for the AD web version to be posted to the AD website by:
  - Accessing the CAWIS AD File;
  - Checking the “Make Live to Web” box; and
  - Saving and closing the AD File.
- The Technical Assistant must then stamp the English photocopy with: “*Uploaded*”, and then return it to the top of the AD Working File in a protective plastic sleeve.

## 9.2 Hard-Copy Distribution

- Current TCCA procedure involves sending a hard copy of each AD in both English and French to appropriate recipients.

**Note:** TCCA will begin to phase out paper delivery of ADs as of April 2012. However, until this transition is complete, the accepted practice is as described in this and the following sections.

- The number of recipients of any AD – i.e. the number of copies that must be printed – is always a product of three (3) distribution lists:
  - The “MPS List” (see Section 9.2.1);

- (b) The “CADLIS List” (see Section 9.2.2); and
- (c) The “CAWIS List” (see Section 9.2.3).

### 9.2.1 Obtaining the “MPS List”

- (1) The **MPS List** refers to the number of copies that Multimedia Products and Services (MPS) will keep for their records after they distribute the AD to the other recipients.
- (2) *The MPS List always consists of ONE (1) contact.* It requires no calculation or searching to determine, and remains constant from one AD to the next.

### 9.2.2 Obtaining the “CADLIS List”

- (1) The **CADLIS List** encompasses those individuals and organizations that have asked to be sent a copy of *all* TCCA-produced ADs. This list is not dependent on the AD’s contents, but it will change over time as contacts are added/removed.
- (2) To obtain the CADLIS List, the PA must:
  - (a) Access the “Publication Properties” screen of the Client Address and Distribution List Information System (CADLIS);
  - (b) Select form TP 7245E (mailing labels for recipients on the CADLIS List);
  - (c) Click: “Create Labels” → “OK” → “Open”; and
  - (d) Name the document being saved to their desktop: “**CADLIS[AD No.].docx**”.
- (3) The document “**CADLIS[AD No.].docx**” contains a shipping label specific to each recipient on the CADLIS List. The PA must count these labels and record the total in the appropriate field of the AD tracking sheet.

### 9.2.3 Obtaining the “CAWIS List”

- (1) The **CAWIS List** encompasses the unique SIGs *and* owners/operators of the aeronautical product(s) affected by the AD. It is dependent on the applicability of the AD being published.
- (2) To obtain the CAWIS List, the PA must:
  - (a) Access the “Publication Properties” screen of the CAWIS AD Output; and
  - (b) Click: “Add” → “Only SIGs” → “Search” → “Find Owners”.
- (3) The two (2) values that combine to form the CAWIS List will appear on screen, and should be recorded on the AD tracking sheet:
  - (a) The number of registered owners/operators of the affected aeronautical product(s); and
  - (b) The number of unique SIGs affected by the AD.

### 9.2.4 Formatting the CAWIS Shipping Labels

- (1) The PA must perform the following tasks in the CAWIS AD Output in order to obtain shipping labels specific to each SIG and owner/operator included in the CAWIS List:
  - (a) Click “Save List” → “Get Label Data” → “Save”; and
  - (b) Name the document being saved to their desktop: “**CAWIS[AD No.].docx**”.
- (2) The PA must then make the following adjustments to “**CAWIS[AD No.].docx**”:
  - (a) Perform a Mail Merge (in the “DM” tab, click: “Start Mail Merge” → “Use Current Document” → “Get Data” [to close RDIMS pop-up] → “Cancel” → “Merge” → “Merge”);
  - (b) Delete all section breaks from the document;
  - (c) Select all contents of the document;



- (d) In the “Layout” tab (under “Table Tools”), change the value of the “Height” field to two (2);
- (e) Click anywhere within the body of the document to de-select its contents;
- (f) In the “Page Layout” tab of Word:
  - (i) Open the “Page Setup” window;
  - (ii) Navigate to the “Margins” tab of the “Page Setup” window;
  - (iii) Change the value of the “Top” and “Bottom” fields both to 0.5; and
  - (iv) Click “OK”; and
- (g) Save these changes.

### 9.2.5 Entering Number of Copies to Print

- (1) Once the PA has obtained the CADLIS List, the MPS List, and the CAWIS List, they will be able to specify the total number of copies of the AD that must be printed.
- (2) The PA must populate the fields in the “Number of Copies to Print” section of the CAWIS AD Output with the appropriate values that they recorded on their hard-copy tracking sheet, as illustrated in Figure 3.

Figure 3 – Specifying the Number of ADs to Print

- (3) After populating the Number of Copies to Print fields as illustrated above, the PA must:
  - (a) Click: “Tracking Sheet” → “Print” in the CAWIS AD Output; and
  - (b) Retrieve the printout and place it in the AD Working File as a record.
- (4) The PA is now ready to request that the ADs be printed in the required quantity.

### 9.2.7 Submitting a Print Request

- (1) To request printing of the ADs, the PA must send an email to [L’Imprimerie Vincent](#) based on the *Printing Request Template* located in the AARDA folder. This email must contain:
  - (a) A completed *Printing Request Form*;
  - (b) The document: “**CADLIS**[AD No.].docx” (shipping labels for the CADLIS List); and
  - (c) The document: “**CAWIS**[AD No.].docx” (shipping labels for the CAWIS List).
- (2) The PA shall print a copy of the email after sending and add it to the AD Working File as a record.
- (3) The PA must then place the following documents into a protective plastic sleeve, and then place that sleeve into the grey box in front of **Alain Périard**’s desk:
  - (a) The *original* signed copy of each AD (not the photocopies, which must remain in the Working File for the time being); and
  - (b) The print-out of the completed *Printing Request Form*.

- (4) The PA must then call **Marque Eggett** at L’Imprimerie Vincent (613-794-8187), and advise him that the ADs are ready for pickup.
- (5) After printing the shipping labels and ADs in the requested quantity, L’Imprimerie Vincent shall return the signed originals to the PA for filing, and send the copies to MPS for distribution.

### **9.3 Emailing Foreign CAAs**

- (1) The PA disseminates the AD among foreign CAAs via an email based on the template located in the AARDA public folder. The following adjustments must be made before the email can be sent:
  - (a) The default OPI name (“Robert Farinas”) must be replaced with the correct name;
  - (b) The PDFs attached to the template must be replaced by the PDFs of the ADs being distributed; and
  - (c) The default AD Number in the subject line and body text must be replaced with the correct AD Number.
- (2) The PA then sends the email to:
  - (a) Himself/herself;
  - (b) The manager, Administrative Services (CC only); and
  - (c) Each CAA email address listed (BCC *only*).

**Note:** *It is necessary to BCC all CAA recipients as opposed to sending to them directly because these organizations do not want their email addresses publicized. To include these addresses in the “To” or “CC” field, where they would be visible to all recipients, would violate the Privacy Act.*

- (3) Once the email has been sent, the PA must retrieve it from their “Sent Items” folder in Outlook (where all recipients *will* be visible), print a copy and add it to the AD Working File.
- (4) The PA must then save a copy of this email to the appropriate folder in RDIMS, ensuring that the “Final Document” box within the RDIMS profile is checked while doing so.

## **10.0 PHASE 6: PROJECT CLOSE-OUT**

- (1) The Project Close-Out Phase refers to those administrative tasks that must be performed after the AD has been approved and distributed, to indicate completion of its development.
- (2) The PA bears sole responsibility for this phase.
- (3) Key tasks involved in the Project Close-Out Phase of AD development include:
  - (a) **Closing the CAWIS Project and AD Output** associated with the AD;
  - (b) **Finalizing the RDIMS Profiles** of both the English and the French version of the AD; and
  - (c) **Storing Hard Copies** of the ADs for future reference.

### **10.1 Closing the CAWIS Project and AD Output**

- (1) The PA must indicate completion in CAWIS by closing the CAWIS AD Output. To do this, they must:
  - (a) Access the AD Output from the “[Information Programs](#)” screen in CAWIS; and
  - (b) Change the value of the “Status” field from “Open” to “Closed”.
- (2) The PA should then verify that all stages of the project have been completed by performing the following actions within the Routing and Distribution tab of the CAWIS AD Output:

- (a) Click: "Show All Stages"; and
- (b) Ensure that the check mark in the "Action" column is on the last row of the checklist.
- (3) If the check mark is not in the last row, then the PA must check each row between where the check mark is and the bottom. In each empty row they find, they should enter their initials in the comment box and then Notify Next.
- (4) Once the PA reaches the last row, they must:
  - (a) Type: "Ok, Closed, [date], [their initials]," into the comment field;
  - (b) Click "Notify Next" one more time; and
  - (c) Save and close the CAWIS AD Output.
- (5) While it is the PA's responsibility to close out the CAWIS AD Output, it is the OPI's responsibility to close out the original CAWIS PTS Project through which the AD Output was created. To close the CAWIS PTS Project, the OPI must:
  - (a) Access the PTS Project in CAWIS;
  - (b) Type the comment: "AD issued" into the "Details" field;
  - (c) Perform any one (1) of the following tasks:
    - (i) Change the value of the "Percent Completed" field to 100;
    - (ii) Change the value of the "Status" field from "Open" to "Closed"; or
    - (iii) Enter the current date into the "Date Completed" field; and
  - (d) Save and close the CAWIS Project.

## 10.2 Finalizing RDIMS Profiles

- (1) The PA must finalize both of the ADs' RDIMS profiles by performing the following tasks:
  - (a) Adding the Project Number to the beginning of the Description field (before the list of models to which the AD applies);
  - (b) Altering the Name field so it reads: "Airworthiness Directive [AD No.] [Title]";
  - (c) Checking off the "Final Document" box (bottom-left corner); and
  - (d) Saving these changes.

**Note:** *Once the ADs have been saved with the "Final Document" box checked, no further changes will be possible.*

## 10.3 Storing Hard Copies

- (1) The PA shall place the AD Working File into an accordion binder labelled with the AD Number. This folder is then filed in the BBS room so that CAW staff will have access to the AD and related documentation in the event that:
  - (a) Information regarding the AD is needed or requested at a later date;
  - (b) A request for an exemption or Alternative Means of Compliance (AMOC) is submitted (see RDIMS [7047064](#)); or
  - (c) The AD needs to be updated (see Section 12.0).

## 11.0 NON-STANDARD AD DEVELOPMENT

- (1) The process described up to this point has been specific to the development of *new Standard ADs*. The procedural differences involved in producing other types of AD, and what phase of development those differences apply to, are summarized in the following sections.

### 11.1 Equipment ADs

- (1) Equipment ADs reference items that may be found on aircraft rather than type certified aeronautical products. For example, an Equipment AD may reference a component such as a fire extinguisher or an Emergency Locator Transmitter (ELT) in which an unsafe condition has been identified.
- (2) The procedural differences between producing an Equipment AD and producing a Standard AD are summarized below.

**Draft Development:** The Applicability section will not reference type certified aeronautical products. Instead it will identify affected components, using the words: “*Installed on, but not necessarily limited to, [list known affected aeronautical products].*”

**Publication:** These ADs are not distributed in hard copy, due to the impossibility of knowing what equipment is installed on which aircraft. They are only uploaded to the AD website, which aircraft owners/operators are expected to check frequently for ADs that may affect them.

### 11.2 Emergency ADs

- (1) Emergency ADs are produced when events require TCCA to respond more quickly than usual (10 days or fewer, as a general guideline).
- (2) The procedural differences between producing an Emergency AD and producing a Standard AD are summarized below.

**Project Initiation:** These ADs are generally produced in response to a need for urgent mitigation of the unsafe condition.

**Draft Development:** As much emphasis as possible should be placed on direct forms of communication during all phases of development, to accelerate the completion of the AD.

The Effective Date can be as little as 48 hours after the Issue Date (as opposed to two weeks for Standard ADs). In certain circumstances, the Effective Date of these ADs may even just be: “Upon receipt.”

**Translation:** The translation-request email must be sent with “High Importance,” have the word “Emergency” in the subject line, and be sent with additional CCs to Marc Caouette and Guy Houdin.

Translation can be accomplished in approximately 24 hours.

**Approval** While filling out the AD Log Sheet to claim the AD Number, the PA must type the word “EMERGENCY” into the “Type” column.

While filling out the AD Tracking Spreadsheet, the CAW Administrative Assistant should provide the worldwide total of affected owners/operators (not just the number of Canadian owners/operator) into the “Number Affected” column.

While filling out the AD Tracking Spreadsheet, the CAW Administrative Assistant must specify that it is an Emergency AD under development within the “Comments” column.

**Publication:** The “Emergency AD” box in the CAWIS AD File must be checked before the web version of the AD is created.

### 11.3 Security Sensitive Information ADs

- (1) Security Sensitive Information ADs are produced to identify security vulnerabilities in aeronautical products, which could become safety concerns if exploited before corrective action is taken.
- (2) The procedural differences between producing a Security Sensitive Information AD and producing a Standard AD are summarized below.

**Project Initiation:** These ADs are produced in response to security vulnerabilities in aeronautical products, as opposed to traditional airworthiness concerns.

Foreign ADs of this type are sent directly to the Chief, CAW.

**Draft Development:** These ADs are considered Protected A, as opposed to Unclassified. This must be reflected in the documents’ RDIMS profiles.

These ADs are circulated for review by the Chief, CAW, on a strict need-to-know basis, using Public Key Infrastructure (PKI) encryption software to safeguard transmission.

**Publication:** These ADs are not posted online, nor are they sent to the individuals/organizations on the “CADLIS List” (see Section 9.2.2). They are distributed only to owners/operators/organizations that are directly affected by the information contained in the AD.

Hard copies destined for foreign CAAs and TCCA ROs must be sent via fax, not email. A covering letter shall be sent in advance, to inform recipients that they will be receiving an AD shortly that contains security sensitive information. The AD itself is not sent until a later date and time (which should have been specified in the covering letter).

## 12.0 UPDATING EXISTING ADS

- (1) The process by which existing ADs are updated (i.e. revised, cancelled or superseded) is summarized in the following sections.

### 12.1 Revising an AD

- (1) As stated in Section 5.5, one of the first decisions that must be made during AD development is whether it makes more sense to draft a new AD or to revise a similar existing AD.
- (2) The procedural differences between revising an AD and producing a new one are summarized below.

**Project Initiation:** See Section 5.5 for guidelines on when it is more advisable to revise an old AD than to draft a new one.

**Draft Development:** The OPI should make changes to a copy of the most recent previous version of the AD with Track Changes on. These changes must be left visible until

after the Chief, CAW, has approved the revised document.

Each reference to an initial procedure that has not changed from the original AD must be followed by the words: “*unless already accomplished,*” to prevent owners/operators from unnecessarily repeating steps.

Any changes to affected aeronautical products’ supporting documentation (e.g. AFMs) that were mandated in the previous version of the AD but are no longer required must be rendered null and void by the text of the revision. (e.g. “*The placard restricting the airspeed to 320 knots IAS required by the previous issue of this Directive is no longer required and must be removed.*”)

Revised ADs must contain the word “REVISION” in the “Name” field, and cross-references to the older ADs on which they are based (in both languages) in the “Cross Reference” field of their RDIMS profiles.

Each AD revision must clearly identify the reason for the revision.

**Translation:** The email by which the PA requests translation from Linguistic Services must have a copy of the most recent previous *French* version of the AD attached. All areas that have changed since that version’s release must be marked with a change bar so that Linguistic Services knows to retranslate only those areas of the document

**Publication:** Prior to posting the revised AD online, the PA must access the CAWIS AD File of the original AD, ensure that the “AD Cancelled By” box is checked, type the AD Number of the revision into the adjacent “AD Number field,” and then save those changes.

**Project Close-Out:** Revised ADs are not filed in their own accordion binders. Each AD revision is stored in the accordion binder of the original AD that it was based on.

## 12.2 Superseding or Cancelling an AD

- (1) In cases where the release of an AD will render a pre-existing AD obsolete, the new AD should make reference to the old within the “Affected ADs” section.
- (2) The wording used should be: “*This directive supersedes/cancels AD CF-YYYY-NN, issued on YYYY-MM-DD.*”

If the old AD is only being cancelled, then the new AD must identify:

- (a) The original (cancelled) AD;
- (b) The specific requirements of the original AD that are being rendered null and void; and
- (c) The reason for the cancellation.

## 13.0 INFORMATION MANAGEMENT

- (1) ADs and supporting documentation are maintained in four (4) formats:
  - (a) In RDIMS;
  - (b) Online;
  - (c) In hard copy; and
  - (d) In CAWIS.

- (2) Appropriate RDIMS naming conventions are summarized in [SI QUA-003](#). The procedure for saving an AD to RDIMS is described in Sections 6.1.2 and 7.3. The subject file classification for ADs is: **A 5014-4 U**.
- (3) ADs are posted online at the TCCA website ([www.tc.gc.ca/cawis-swimn](http://www.tc.gc.ca/cawis-swimn)). See Section 9.1 and subsections for a description of how this is done.
- (4) A signed hard copy of every AD in both official languages is filed in the BBS room at TCCA HQ.
- (5) CAWIS will serve as a portal through which the AD and all documents and decisions related to its development can be accessed, even after the corresponding project has been closed out. For more information on how CAWIS is used to coordinate and record an AD's development, see Sections 5.2, 5.6, and 9.1.2.

#### **14.0 DOCUMENT HISTORY**

- (1) Not applicable.

#### **15.0 CONTACT OFFICE**

For more information, please contact the:

Chief, Continuing Airworthiness Division (AARDG)

Phone: [613-952-4356](tel:613-952-4356)

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David Turnbull  
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*Transport Canada documents or intranet pages mentioned in this document are available upon request through the Contact Office*