

# Civil Aviation Directive

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## 1.0 INTRODUCTION

# 1.1 Purpose

(1) The purpose of this document is to describe the national risk-based surveillance planning policy used by Transport Canada Civil Aviation (TCCA) to monitor the civil aviation industry for compliance with the regulatory framework and to ensure that TCCA continues to meet its domestic and international surveillance obligations.

## 1.2 Applicability

(1) This document applies to TCCA headquarters and regional personnel involved in the management or execution of the surveillance portion of TCCA oversight activities.

# 1.3 Description of Changes

(1) This document has undergone extensive revision and should therefore be considered a new document. Several new definitions have been added, roles and responsibilities have been added and policy and process in all areas have been updated and clarified.

#### 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) Staff Instruction (SI) SUR-009 National Planning Standards;
  - (b) SI SUR-001 Surveillance Procedures;
  - (c) SI QUA-008 Risk Management Process for Aviation Safety Activities;
  - (d) Staff Instruction (SI) SUR-005 Guidance on the Use of Risk Indicators in the National Aviation Safety Information Management System; and
  - (e) Records, Documents, and Information Management System (RDIMS) 7264635 Risk Profile Form – All Enterprises other than Airports and Heliports
  - (f) Records, Documents, and Information Management System (RDIMS) 7445004 Risk Profile Form – Airports and Heliports

## 2.2 Cancelled Documents

- (1) Not applicable.
- (2) By default, it is understood that the publication of a new issue of a document automatically renders any earlier issues of the same document null and void.

## 2.3 Definitions and Abbreviations

- (1) The following **definitions** are used in this document:
  - (a) Assessment: the surveillance activity conducted to evaluate effectiveness and level of compliance with the CARs;
  - (b) Enterprise: the holder of one or more TCCA issued certificate. For example, a company holds an Approved Maintenance Organization Certificate, an Air Operator Certificate, an Approved Training Organization Certificate and a Design Organization Authority. The term Enterprise is intended to denote that surveillance is conducted on the whole enterprise rather than on an individual certificate;
  - (c) **Process Inspection**: an in depth review of the processes utilised to produce an output;

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- (d) **Program Validation Inspection**: a process comprised of a documentation review and an on-site review of one or more components of a Safety Management System (SMS) or other regulated areas of an enterprise;
- (e) Safety Information: includes all information concerning safety collected by TCCA staff related to any enterprise. Sources of safety information include, but are not limited to, Civil Aviation Daily Occurrence Reporting System (CADORS) reports, Surface Difficulty Reports, routine communication with the enterprise, etc;
- (f) **Safety Risk Profile**: an in depth risk estimation of an enterprise following the principles of risk management detailed in Staff Instruction (SI) QUA-008;
- (g) **Service:** all oversight activities, other than surveillance activities, conducted at the request of the recipients, including the issuance of certificates, licenses, approvals or other authorizations by the Minister to enable activities regulated by the CARs; and
- (h) Surveillance: all oversight activities directly related to a enterprise's compliance with the applicable regulations and standards including, but not limited to, assessments, program validation inspections, process inspections, audits, company visits (formal or informal), ramp, cockpit, cabin or aircraft inspections, facility or shop visits, review and approval of company documentation, correspondence by any means, as well as any other activity that could be used to gather information related to a certificate issued by the Minister.
- (2) The following **abbreviations** are used in this document:
  - (a) **DGCA**: Director General of Civil Aviation;
  - (b) **NASIMS**: National Aviation Safety Information Management System;
  - (c) NCAMX: National Civil Aviation Management Executive;
  - (d) **OCAMX**: Operations Civil Aviation Management Executive;
  - (e) **PVI**: Program Validation Inspection;
  - (f) RDCA: Regional Director of Civil Aviation;
  - (g) **RDIMS**: Records, Document and Information Management System;
  - (h) **RDG**: Regional Director General;
  - (i) SIM: Surveillance Interval Matrix; and
  - (j) **SO3**: Strategic Outcome Three A Safe Transportation System.

# 3.0 BACKGROUND

- (1) The previous Surveillance Policy established a baseline surveillance interval for all TCCA enterprises, irrespective of the risk inherent to those operations. Where TCCA operational groups could not meet these intervals, they were required to document, through a risk assessment process, their decision to support a longer surveillance interval.
- (2) TCCA explored the use of a more robust risk-based decision making framework in order to move away from rigid surveillance intervals to ones that directly relate to the risk level of each enterprise subject to TCCA surveillance.
- (3) With the publication of the *Canadian Aviation Regulations* (CARs) introducing Safety Management System (SMS) in 2005, Transport Canada introduced a new method of surveillance. Staff Instruction (SI) SUR-001 details the new Civil Aviation surveillance methodology.
- (4) This new surveillance methodology, namely assessments and program validation inspections (PVI), is used when performing planned surveillance activities called for by the Surveillance

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Policy. This planned surveillance does not preclude other unplanned surveillance activities that may be required due to risk factors such as an increase in safety risk indicators or following a significant safety event.

#### 4.0 SURVEILLANCE POLICY

- (1) TCCA surveillance activities shall fall under two broad categories planned and unplanned, where unplanned surveillance includes all those surveillance activities conducted in response to an unforeseen event or issue (accident, incident, increase in an enterprise risk indicator level, etc.) and planned surveillance includes all those surveillance activities conducted at a predetermined interval in accordance with TCCA's approved surveillance plan.
- (2) Planned and unplanned surveillance shall be conducted in accordance with the surveillance procedures described in SI SUR-001.
- (3) A risk score shall be generated and maintained for each enterprise in accordance with SI SUR-005.
- (4) With regards to planned surveillance, TCCA shall:
  - (a) For each enterprise subject to surveillance, assign a safety risk profile and corresponding surveillance interval in accordance with the methodology described in Appendices A, B and C of this *Civil Aviation Directive* (CAD);
  - (b) Using the intervals assigned in (a), develop a surveillance plan in accordance with SI SUR-009; and
  - (c) Schedule its planned surveillance activities in accordance with the approved surveillance plan.
- (5) With regards to unplanned surveillance, TCCA shall:
  - (a) In accordance with SI SUR-005, keep the risk indicator module of NASIMS up to date and reflective of TCCA's current knowledge of enterprises;
  - (b) Monitor and analyse risk scores and trends to identify enterprises which may require unplanned surveillance; and
  - (c) Where unplanned surveillance is deemed necessary as a result of (b), or for any other reason, schedule the activity and conduct it in accordance with SI SUR-001.

## 5.0 ROLES AND RESPONSIBILITIES

- (1) The roles and responsibilities regarding the surveillance policy are described as follows:
  - (a) **SO3 Management Board** is responsible for:
    - (i) the annual approval of a national surveillance plan;
    - (ii) approving deviations from the approved surveillance plan, as recommended by NCAMX; and
    - (iii) the annual review of the national surveillance plan's performance.
  - (b) **RDGs and DGCA** are responsible for:
    - (i) the annual approval of surveillance plans for civil aviation operational groups under their area of control; and
    - (ii) the annual review of their surveillance plan's performance.

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- (c) **NCAMX** is responsible for
  - (i) reviewing and recommending to the SO3 Management Board, the approval of deviations from the approved surveillance plan;
  - (ii) reporting on the surveillance plan's performance to RDGs and the DGCA; and
  - (iii) performing periodic management reviews of the surveillance policy.
- (d) **Heads of operational groups** (RDCAs and applicable headquarters Directors) are responsible for:
  - (i) setting surveillance intervals in accordance with the surveillance policy;
  - (ii) preparing a surveillance plan for RDG or DGCA approval;
  - (iii) reporting any deviations or proposed deviations from the approved surveillance plan to NCAMX;
  - (iv) ensuring the risk indicator module of NASIMS is kept up to date for the enterprises they have been assigned.
  - (v) ensuring that enterprise risk information and risk scores are monitored, validated and analysed, at a minimum, on a monthly basis;
  - (vi) Identifying the need for, and the scheduling of, unplanned surveillance activities.
- (e) **Director, Standards** is responsible for:
  - (i) the maintenance of the surveillance policy; and
  - (ii) the development and maintenance of surveillance planning tools.

## 6.0 SURVEILLANCE INTERVAL INPUTS

- (1) An enterprise's surveillance interval shall be derived directly from its safety risk profile, which is determined using a combination of its Risk Indicator Level and Impact Value.
- (2) The safety risk profile of an enterprise shall be established by completing the Risk Profile form (RDIMS 7264635 Risk Profile Form All Enterprises other than Airports and Heliports, or RDIMS 7445004 Risk Profile Form Airports and Heliports).
- (3) Completed Risk Profile forms shall be saved in RDIMS, in accordance with the operational group's record management procedures.

#### 6.1 Risk Indicator Level

- (1) The Risk Indicator Level of an enterprise is generated using a combination of risk data collected by TCCA. This value provides a representation of the likelihood that risks are being managed by the enterprise.
- (2) The Risk Indicator Level of an enterprise is a relative value from 1 to 5, determined using:
  - (a) The Risk Indicator Number generated by NASIMS;
  - (b) Results of previous surveillance activities;
  - (c) Availability of safety information; and
  - (d) The presence of a SMS.
- (3) The methodology used to determine the Risk Indicator Level of an enterprise is described in Appendix A of this CAD.

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## 6.2 Impact Value

- (1) The Impact Value of an enterprise is generated by considering the size and scope of their operation. This value is a representation of the enterprise's impact on the aviation transportation system and on the public's confidence in this system.
- (2) Impact Value is a relative value from A to E, determined using:
  - (a) for all enterprises other than airports and heliports, the:
    - (i) number of certificates in different categories;
    - (ii) number of employees;
    - (iii) number of domestic bases;
    - (iv) number of aircraft;
    - (v) number of aircraft types;
    - (vi) type of operations; and
    - (vii) international operations.
  - (b) for an airport, the:
    - (i) number of certificates in different categories;
    - (ii) number of employees;
    - (iii) airport category;
    - (iv) reason for certification
    - (v) landing surface category;
    - (vi) runway code; and
    - (vii) rescue and firefighting services.
  - (c) for a heliport, the:
    - (i) number of certificates in different categories;
    - (ii) number of employees;
    - (iii) heliport classification;
    - (iv) reason for certification;
    - (v) type of approach path;
    - (vi) type of lighting; and
    - (vii) type of landing area.
- (3) The methodology used to determine the Impact Value of an enterprise is described in Appendix B of this CAD.

# 7.0 PLANNED SURVEILLANCE INTERVAL

- (1) The surveillance interval is determined by plotting both the Risk Indicator Level and Impact Value for the enterprise onto the Surveillance Interval Matrix (SIM). The intersection of the two values identifies the SIM value, which is used to set the surveillance interval.
- (2) The SIM and corresponding surveillance intervals are described in Appendix C of this CAD.

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(3) Surveillance intervals shall range from 1 year (high risk and/or high impact enterprises) to 5 years (low risk and/or low impact enterprises)

# 7.1 Adjusting Surveillance Interval

- (1) After having assigned an enterprise's planned surveillance interval in accordance with the methodology described in Section 6.0 of this CAD, RDCAs or Headquarter Directors may elect to modify the assigned interval by a maximum of one (1) year based on the following criteria:
  - (a) to reduce an interval:
    - (i) the initial assigned interval is more than one (1) year; and
    - (ii) available safety information concerning the enterprise supports a reduction by one (1) year.
  - (b) to extend an interval:
    - (i) the Risk Indicator Level of the enterprise is less than 5;
    - (ii) the initial assigned interval is less than five (5) years; and
    - (iii) the results of a modified or conventional risk assessment, in accordance with SI QUA-008, supports an extension by one (1) year.
  - (c) The decision to extend or reduce the initial assigned interval, the data supporting that decision, along with its corresponding risk based rationale, is documented and approved by the appropriate RDCA or Headquarter Director.
  - (d) If an enterprise's assigned planned surveillance interval changes (increased or decreased interval), a new risk assessment is required in order to continue applying the 1 year extension.

## 7.2 Non-Discretionary Surveillance Intervals

- (1) Surveillance intervals for TCCA enterprises that are authorized to perform work or to operate in accordance with an agreement or arrangement with a foreign State or civil aviation authority shall not exceed the maximum surveillance interval specified in that agreement or arrangement.
- Should an enterprise's surveillance interval assigned using the methodology described in Section 6.0 of this CAD be shorter than the one specified in an agreement or arrangement, the shorter interval shall be applied to that enterprise.
- (3) In the case of an enterprise with multiple certificates, the portion of the enterprise subject to an agreement or arrangement shall, except as described in 7.2(2) of this CAD, use a surveillance interval that is assigned in accordance with the agreement or arrangement, while the portion of the enterprise not subject to an agreement or arrangement shall use a surveillance interval that is assigned in accordance with the methodology described in Section 6.0 of this CAD.

## 7.3 Annual Review

- (1) Planned surveillance intervals shall be subject to an annual review, in conjunction with the surveillance planning procedures described in SI SUR-009.
- (2) At a minimum, this annual review shall be performed on any enterprise that:
  - (a) Has been subject to a PVI or an assessment in the past fiscal year; and
  - (b) Has experienced a change in Risk Indicator Number range (as defined in Appendix A), including either an increase or decrease in range.

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#### 8.0 ONE-TIME EXTENSIONS TO SURVEILLANCE INTERVALS

- (1) For those exceptional cases where a planned surveillance activity cannot be conducted within the interval assigned in accordance with this policy, Associate Directors of Operation / Chiefs may request a one-time extension to the interval by one (1) year. This extension does not modify an enterprises assigned surveillance interval, but provides relief to allow for the management of exceptional or unique resource issues.
- (2) One-time interval extensions shall be supported by a Modified Risk Assessment in accordance with SI QUA-008.
- (3) All requests for a one-time extension to a surveillance interval, including the results of the risk assessment, shall be documented and presented to NCAMX for review and approval.
- (4) One-time extensions shall not permanently amend the assigned surveillance interval. Once the surveillance activity is performed, the enterprise shall revert back to the surveillance interval assigned in accordance with Section 6.0 of this CAD.
- (5) One-time extensions shall not be granted if the enterprise's surveillance interval is already on a one year extension.

#### 9.0 CONTACT OFFICE

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

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## APPENDIX A— RISK INDICATOR LEVEL DETERMINATION

## 1.0 PROCEDURE

- (1) As detailed in Section 6.1 of this CAD, the Risk Indicator Level of an enterprise is generated using a combination of risk data collected by TCCA. The procedure for determining the relative value of each criterion is described in the sub-sections below, followed by the methodology through which relative values are combined and the Risk Indicator Level determined.
- (2) Each sub-section will provide a value that, when added together will provide the Risk Indicator Level.

#### 1.1 NASIMS Risk Indicator Number

- (1) Using a NASIMS Risk Indicator Number (RIN) maximum score of 1509, the generated RIN of the enterprise will fall into one of the following ranges which provide the corresponding values to be added to the summation used in determining the Risk Indicator Level:
  - (a) NASIMS RIN score of 400 500 = 1 point
  - (b) NASIMS RIN 501 602 = 2 points
  - (c) NASIMS RIN 603 800 = 3 points
  - (d) NASIMS RIN 801 1020 = 4 points
  - (e) NASIMS RIN 1021 or above = 5 points

#### 1.2 Surveillance Results

- (1) If the results of the last surveillance activity (PVI or Assessment) generated findings, apply the following values to the Risk Indicator Level value:
  - (a) Critical finding(s) or multiple major findings 2 points
  - (b) A single major finding 1 point
  - (c) Moderate finding **0 points**
  - (d) Minor finding **0 points**
  - (e) No findings **0 points**

## 1.3 Availability of Safety Information

- (1) This criterion is meant to determine whether safety information concerning the enterprise is available. If safety information is available, TCCA will have a greater understanding of the enterprise's operations and any underlying safety issues.
- (2) The availability of safety intelligence is determined by answering the following questions:
  - (a) Are there CADORs or other independent sources of safety intelligence available concerning the enterprise? (Yes/No)
  - (b) Is there safety intelligence available internal to the enterprise (e.g.: effective SMS Reporting system)? (Yes/No)
- (3) Where both answers to the above questions are No, add **1 point** to the final summation used to determine Risk Indicator Level

## 1.4 Safety Management System

- (1) Should the enterprise have a TCCA recognized SMS in place, applying the following values to be added to the summation used to determine Risk Indicator Level
  - (a) Yes subtract 1 point; and

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(b) No - **0 points**.

## 1.5 Determination of Risk Indicator Level

(1) Add the point values identified in Sections 1.1 to 1.4 of Appendix A of this CAD and determine the Risk Indicator Level using Figure 1 below.

Figure 1 - Risk Indicator Levels

Risk Indicator Level	Definition	
1	Few to no risk indicators. Very high likelihood that risks are being managed.	
2	Few risk indicators. High likelihood that risks are being managed.	
3	Some risk indicators. Moderate likelihood that risks are being managed.	
4	Elevated risk indicators. Low likelihood that risks are being managed.	
5	Significant risk indicators. Very low likelihood that risks are being managed.	

- (2) This represents the value to be plotted into the Surveillance Interval Matrix found in Appendix C.
- (3) Risk Indicator Level cannot be plotted outside the value of 1 to 5 on the Surveillance Interval Matrix. Therefore, if the calculation determines a value above 5, use a value of 5. If it is below 1, use a value of 1.

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## **APPENDIX B — IMPACT VALUE DETERMINATION**

## 1.0 PROCEDURE

(1) As defined in Section 6.2 of this CAD, the Impact Value of an enterprise is generated by considering the size and scope of their operation. This value is a representation of the enterprise's impact on the aviation transportation system and on the public's confidence in this system. Described below is the procedure to be used in calculating the Impact Value of an enterprise.

# 1.1 Impact Value calculation

(1) For an enterprise other than an airport or a heliport, using Figure 2 below, assign a value to each criterion.

Figure 2 – Impact Value Calculation for Enterprises Other Than Airports or Heliports

Criteria	Value
No make a set Constituent as in	1 Certificate = 1 point
Number of Certificates in different categories	2 Certificates = 2 points
amorem categories	3 Certificates or more = <b>3 points</b>
	1-10 employees = 1 point
Number of employees	11-50 employees = 2 points
	51 employees or more = <b>3 points</b>
Number of Domestic	2 Domestic Bases or less = 1 point
Bases with Facilities and/or	3-10 Domestic Bases = <b>2 points</b>
Equipment	11 Domestic Bases or more = 3 points
	3 Aircraft or less = 1 point (this includes AMO, ATO and ANS
Number of Aircraft	which operate no aircraft)
	4-10 Aircraft = <b>2 points</b>
	More than 10 Aircraft = <b>3 points</b>
N	1 or less Aircraft type = <b>1 point</b> (this includes AMO, ATO and ANS which operate no aircraft)
Number of Aircraft types	2-5 Aircraft type = <b>2 points</b>
	More than 5 Aircraft type = 3 points
	604, 406, 702 and associated 573, 561, 563 = 1 point
Type of Operations	703 and associated 573, specialized 573 = 2 points
	704, 705 and associated 573, 800 = <b>3 points</b>
International Operations	Yes = 2 points
international Operations	No = 0 points

(2) For an airport, using Figure 3 below, assign a value to each criterion.

Figure 3 – Impact Value Calculation for Airports

Criteria	Value
No week and at Contition to a in	1 Certificate = 1 point
Number of Certificates in different categories	2 Certificates = <b>2 points</b>
different categories	3 Certificates or more = <b>3 points</b>
Newskay of averlance	1-10 employees = 1 point
Number of employees	11-50 employees = <b>2 points</b>

	51 employees or more = <b>3 points</b>
Airport Category	Simple = 1 point
(based on ARASS	Complex = 2 points
definitions)	International = 3 points
December Cortification	Public Interest = 1 point
Reason for Certification (Based on CAR 302.01)	Built-up Area = 2 points
(2000 011 0711 002.01)	Schedule Service = 3 points
Highest Landing Surface	Non-instrument = 1 point
Category	Non-precision = 2 points
(Based on TP 312)	Precision = 3 points
Highoot Dunwoy Codo	Code 1 or 2 = <b>1 point</b>
Highest Runway Code (Based on TP 312)	Code 3 = 2 points
(50000 011 11 012)	Code 4 = 3 points
Airport Rescue and	Yes = 2 points
Firefighting Services	No = 0 points

(3) For a heliport, using Figure 4 below, assign a value to each criterion.

Figure 4 – Impact Value Calculation for Heliports

Criteria	Value	
No selected Opening and a selection	1 Certificate = 1 point	
Number of Certificates in different categories	2 Certificates = <b>2 points</b>	
different categories	3 Certificates or more = <b>3 points</b>	
	1-10 employees = 1 point	
Number of employees	11-50 employees = <b>2 points</b>	
	51 employees or more = <b>3 points</b>	
Halinant Olasaitiaatian	H3 = 1 point	
Heliport Classification (Based on STD 325.19)	H2 = <b>2</b> points	
(Basea on 01B 020.13)	H1 = 3 points	
December Contification	Public Interest = 1 point	
Reason for Certification (Based on CAR 305.02)	Built-up Area = 2 points	
(50000 011 07111 000.02)	Schedule Service or Precision Instrument Approach = 3 points	
	Multiple Approaches = 1 point	
Approach Path(s)	Approach Arc < 90° = <b>2 points</b>	
	Single Approach or Arc <10° = 3 points	
	None / day use only site = 1 point	
Lighting	STD 325 = <b>2 points</b>	
	TP 2586 = <b>3 points</b>	
Elevated / Roof Top	oof Top Yes = <b>2 points</b>	
Landing Area	No = 0 points	

(4) Add assigned values from each criterion detailed in Figure 2, 3 or 4, as applicable. Cross-reference this total value against Figure 5 below to determine the Impact Value (A to E).

Figure 5 – Impact Value

Summation value	Impact Value
<b>A</b> (6-7)	<ul> <li>Negligible impact on the transportation system.</li> <li>Less than minor injury and/or less than minor system damage.</li> <li>Personnel: No injuries.</li> <li>Operations: Minor operational contained release that does not significantly threaten the quality of life of humans and/or the habitat.</li> <li>Media attention: No media attention delay with no immediate costs.</li> <li>Equipment: No damage or minor technical delay with no immediate costs.</li> <li>Environment: Minor.</li> <li>Public confidence: No loss of public confidence.</li> </ul>
<b>B</b> (8-10)	Low impact on the transportation system.  Nuisance / Operating limitations / Use of emergency procedures / Minor incident.  Minor injury and/or Minor system damage.  • Personnel: First aid injury, no disability or lost time.  • Operations: May result in operating limitations, or emergency procedures; operational delay incurring relatively minimal costs.  • Equipment: Technical delay requiring grounding of aircraft and causing the operator to incur relatively minimal costs.  • Environment: Contained release that may reduce the quality of life of humans and the habitat. Full recovery period will be less than 5 years  • Media attention: Media attention that requires Briefing and/or Question Period notes and Minister's attention.  • Public confidence: May be lowered, but public accepts situation.
<b>C</b> (11-14)	<ul> <li>Moderate impact on the transportation system.</li> <li>Injuries to persons / Serious incident / Significant reduction in safety margins / Reduction in the capacity to cope with adverse operating conditions / Increase in workload.</li> <li>Personnel: Lost time injury or passenger injuries (i.e. broken bone), no disability. Difficult for crew to cope with adverse conditions.</li> <li>Operations: Operational delay requiring grounding of an aircraft and causing the operator substantial costs. May result in significant reduction in safety margins.</li> <li>Equipment: Technical delay requiring grounding of an aircraft and causing the operator relatively substantial costs.</li> <li>Environment: Small uncontained release that threatens lives of humans and the habitat with effects lasting up to 15 years</li> <li>Media attention: Media attention that elevates occurrence to High profile status requiring Minister's action and/or results in Parliamentary debates.</li> <li>Public confidence: Significantly lowered with high profile media coverage and numerous ATIP requests.</li> </ul>

Summation value	Impact Value
<b>D</b> (15-17)	High impact on the transportation system.  Necessitates modifications to TCCA program or system objectives.  Major damages to equipment / Death / Serious injuries / large reduction in safety margins / Physical distress or excessive workload such that the operation cannot be conducted safely, accurately or completely.  Severe injury and/or major system damage.  • Personnel: Disability or severe injuries. Crew extended because of workload or environmental conditions.  • Operations: Operational delay grounding air operator's fleet. May result in a large reduction in safety margins.  • Equipment: Technical delay grounding aircraft fleet causing substantial costs and long delays to return the aircraft to service.  • Environment: Moderate uncontained release that kills and/or threatens lives of humans and the habitat with effects lasting up to 30 years.  • Media attention: Media attention that initiates legal action against the Crown and/or public servants, Parliamentary debate.  • Public confidence: Decreased; significant reduction in travelling public flying on a particular aircraft type or airline.
<b>E</b> (18-20)	Extensive impact on the transportation system.  Necessitates a significant change to and/or revocation of portions of TCCA program or system objectives.  Equipment destroyed / multiple fatalities.  Results in fatalities and/or loss of the system.  • Personnel: Fatal injuries to personnel or passengers. Public exposed to life threatening hazard.  • Operations: Operational delay grounding all operating certificates for the subject aircraft/ engine/ major component. Removal of the operating certificate for subject aircraft/engine/major component or airline.  • Equipment: Loss of aircraft.  • Environment: Large uncontained release that kills and threatens lives of humans and the habitat with irreversible effects lasting for more than 50 years.  • Media attention: Media attention having severe repercussion for the Minister, and/or public servants.  • Public confidence: Public demonstrations organized against the Crown.

- (5) The descriptors provided above are meant to help differentiate between Impact Values and it is not necessary to have all descriptors to determine the level.
- (6) This represents the value to be plotted into the Surveillance Interval Matrix found in Appendix C.

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## APPENDIX C— SURVEILLANCE INTERVAL DETERMINATION

## 1.0 PROCEDURE

(1) Take the values determined for Risk Indicator Level and Impact Value for an enterprise using the procedures described in Appendixes A and B of this CAD and plot them on the Surveillance Interval Matrix provided below to determine the required surveillance interval.

Extensive Ε 1E 2E 3E 4E 5E High D **1D** 2D 3D 4D 5D **MPACT VALUE** Moderate C **1C** 2C **3C** 4C 5C Lo≪ 4B 5B В **1B** 2B **3B** Negligible Α **1A 2A 3A** 4A 5A 1 2 4 5 **Very Low** Low Moderate High Very High RISK INDICATOR LEVEL

Figure 6 - Surveillance Interval Matrix

(2) Based on the matrix above, the surveillance intervals are as follows:

Figure 7 - Surveillance Intervals

CIM Volue	Surveillance Interval	
SIM Value	Non-SMS Enterprise	SMS Enterprise
1A, 1B, 1C, 2A, 2B	5 year PVI	5 year Assessment
1D, 1E, 2C, 2D, 2E, 3A, 3B	4 year PVI	4 year Assessment
3C, 3D, 3E, 4A, 4B, 5A, 5B	3 year PVI	3 year PVI, 5 year Assessment
4C, 4D, 4E, 5C	2 year PVI	2 year PVI, 4 year assessment

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CIM Value	Surveillan	ce Interval
SIM Value	Non-SMS Enterprise	SMS Enterprise
5D, 5E	1 year PVI	1 year PVI, 3 year assessment