



# Advisory Circular

**Subject: Safety Management System Implementation Procedures for Airport Operators**

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## 1.0 INTRODUCTION

This Advisory Circular (AC) is provided for information and guidance purposes. It may describe an example of an acceptable means, but not the only means, of demonstrating compliance with regulations and standards. This AC on its own does not change, create, amend or permit deviations from regulatory requirements, nor does it establish minimum standards.

### 1.1 Purpose

This AC has been developed with a dual purpose. The first is to provide information to airport operators who are required to implement a safety management system (SMS), and the second is to provide information that will assist organizations with the selection and appointment of an accountable executive.

### 1.2 Applicability

This AC applies to airport operators who are required to implement an SMS in accordance with Section 107.02 of the *Canadian Aviation Regulations* (CARs), and to appoint an accountable executive in accordance with Section 106.02 of the CARs.

### 1.3 Description of Changes

Appendix B, entitled, Gap Analysis Form, has been removed. It is now a Records Document and Information Management System (RDIMS 4005701) document that has undergone minor editorial changes. All other changes are minor and of an editorial nature.

## 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 6 of the *Canadian Aviation Regulations* (CARs)—*Accountable Executive*;
- (b) Part I, Subpart 7 of the CARs—*Safety Management System Requirements*;
- (c) Part III, Subpart 2 of the CARs—*Airports*;
- (d) Staff Instruction (SI) SUR-001 Issue 02, 2009-02-06—*Safety Management Systems Assessment and Program Validation Procedures*;
- (e) Transport Publication (TP) 13521—*Flight 2005 – A Civil Aviation Safety Framework*; and
- (f) Transport Canada, Records Document and Information Management System (RDIMS) Document No. 4005701— *Template - SMS Assessment Protocol Framework – GAP Analysis*.

(2) RDIMS documents are for internal use only.

### 2.2 Cancelled Documents

Not applicable.

### 2.3 Definitions and Abbreviations

The following definitions and abbreviations are used in this document:

- (a) **Accountable executive:** an individual appointed by the certificate holder to be responsible for operations or activities authorized under the certificate, and accountable on behalf of certificate holder for meeting the requirements of the regulations (CAR 106.02).
- (b) **CAR:** Canadian Aviation Regulations.
- (c) **CARAC:** Canadian Aviation Regulation Advisory Council.

- (d) **LAA:** local airport authority.
- (e) **Office of Primary Interest (OPI):** the office responsible for the regulatory oversight of an organization. In the case of airport operators, it is Transport Canada Regional Office, Aerodromes and Air Navigation Division.
- (f) **RDIMS:** Records Documents and Information Management System.
- (g) **SMS:** Safety Management System.
- (h) **TCCA:** Transport Canada Civil Aviation.

### 3.0 BACKGROUND

- (1) In *Flight 2005: A Civil Aviation Safety Framework for Canada*, Transport Canada Civil Aviation (TCCA) committed to the implementation of SMS in civil aviation organizations. Safety management is a principal element of a sound aviation management program, and a prime factor in the achievement of the goals set out in *Flight 2005*: the reduction of accidents and incidents, and an increased level of public confidence in Canada's air transportation system. The aim is to improve safety through proactive management rather than reactive compliance with regulatory requirements.
- (2) TCCA, through the *Canadian Aviation Regulation Advisory Council (CARAC)*, has developed a series of rule changes to introduce the regulatory requirements for SMS in civil aviation organizations. Rules affecting airport certificate holders in Part III, Subpart 2 of the CARs will come into force in 2008. This AC will provide information for the implementation of all the proposed SMS regulations.
- (3) Safety management involves organizational as well as cultural change. In this regard, TCCA believes that a phased-in approach to SMS implementation is appropriate, providing a manageable series of steps for organizations to follow. Four implementation phases have been identified; each phase involves the introduction of specific SMS components and elements. Exemptions will be issued to permit the phased implementation approach.
- (4) It is important to remember that the implementation of SMS depends on the date the regulations come into force. The exemption and the four implementation phases are all predicated on the date of publication of the regulations. Please refer to the Regulatory Affairs Division Web site, [www.tc.gc.ca/CivilAviation/RegServ/Affairs/menu.htm](http://www.tc.gc.ca/CivilAviation/RegServ/Affairs/menu.htm), or the SMS implementation Web site, [www.tc.gc.ca/CivilAviation/SMS/implementation.htm](http://www.tc.gc.ca/CivilAviation/SMS/implementation.htm), for further information on when specific regulations are expected to come into force.

### 4.0 NEW ENTRANTS

- (1) Organizations applying for an airport certificate on or after the date the SMS regulations come into force must incorporate all the SMS components and elements as part of their initial application for certification. Existing certificate holders or new entrants, whose application is dated and accepted by TCCA prior to the date the SMS regulations come into force, will have the opportunity to utilize an exemption.
- (2) Post-certification audits for new entrants will be scheduled by the applicable TCCA Office of Primary Interest (OPI), and will include an assessment of the SMS.

### 5.0 SAFETY MANAGEMENT SYSTEMS FRAMEWORK

- (1) TCCA has developed an SMS framework that is outlined in Table A. The framework lists six components and corresponding elements.
- (2) **Table A**—This table is included for information purposes, and as a reference for Phases 1 through 4.

Table A—SMS Framework		
Component	Element	Phase
Safety management system	Compliance document, gap analysis, project plan	1
1. Safety management plan	1.1 Safety policy	2
	1.2 Non-punitive reporting policy	2
	1.3 Roles, responsibilities and employee involvement	2
	1.4 Communication	2
	1.5 Safety planning, objectives and goals	2
	1.6 Performance measurement	2
	1.7 Management review	2
2. Document management	2.1 Identification and maintenance of applicable regulations	2, 3, 4*
	2.2 SMS documentation	2, 3, 4*
	2.3 Records management	2, 3, 4*
3. Safety oversight	3.1 Reactive processes	2
	3.2 Proactive processes	3
	3.3 Investigation and analysis	2
	3.4 Risk management	2
4. Training	4.1 Training, awareness and competence	2, 3, 4
5. Quality assurance	5.1 Quality assurance	4
6. Emergency preparedness	6.1 Emergency preparedness and response	4**

**Note:**

\* The document management and training components are common to all phases and are implemented as they apply to the other components or elements in that phase.

\*\* Emergency planning is currently a stand-alone regulation in Part III of the CAR. In the context of an SMS, it will be necessary for airports to align the airport emergency plan (AEP) with their SMS. TCCA expects this initiative to be implemented during Phase 4, if required.

**6.0 EXEMPTION**

- (1) Upon publication of the SMS regulations in the Canada Gazette, Part II, TCCA will issue an exemption effectively delaying the requirement for existing airport certificate holders to comply with these new rules. The exemption will provide all the information needed for organizations to determine who is affected by the SMS regulations, and when they are required to comply with the stated conditions.

**Note:**

Refer to the Regulatory Affairs Division Web site, [www.tc.gc.ca/CivilAviation/RegServ/Affairs/menu.htm](http://www.tc.gc.ca/CivilAviation/RegServ/Affairs/menu.htm), for official copies of exemptions.

- (2) The initial implementation of SMS only applies to airport certificate holders listed in subsection 302.500(1) of the CARs. Another exemption will be issued later to bring the remaining airport certificate holders into compliance with SMS regulations.
- (3) The exemptions will specify that affected organizations must implement an SMS in accordance with the stated conditions. The implementation of the SMS requirements is divided into four phases, with each phase having specific requirements, as detailed below.
- (4) TCCA's experience with SMS implementation activities has demonstrated that cultural, as well as organizational, change is required to successfully implement an SMS. This takes time, resources

and experience. As such, organizations are strongly advised to take full advantage of the exemption program.

## **7.0 IMPLEMENTATION PHASES**

### **7.1 Phase 1**

- (1) During this phase, and no later than the time specified by the Minister in the exemption, certificate holders are required to complete a copy of the compliance document (Appendix A) and forward it to their OPI. Completion of the compliance document satisfies the requirements of paragraph 106.02(1)(c) of the CARs and is an essential element of the SMS implementation process because it ensures that all affected organizations are aware of their regulatory responsibility.
- (2) The compliance document identifies the accountable executive and, once completed, will confirm that the individual accepts the responsibilities of their position. It also identifies the person within the organization who is responsible for implementing the SMS, and contains a statement committing the organization to implementing that system. In some organizations, the accountable executive and the person responsible for implementation of the SMS may be the same person.
- (3) In addition to completing the compliance document, affected organizations will:
  - (a) conduct a gap analysis of the organization's existing systems in comparison to the CAR SMS requirements; and
  - (b) develop a project plan that clearly demonstrates to their OPI how the organization will implement their SMS, based on the requirements of the exemption and the results of the gap analysis.
- (4) The project plan is subject to acceptance by TCCA. To be effective, the project plan must include milestones for critical items, such as dates for development and submission of policies and procedures, training of staff, and review by TCCA. These milestone dates are important, as principal inspectors use them to plan their implementation responsibilities and commitments. As it is acknowledged that project plans require some flexibility, TCCA may agree to changes, provided they do not permit extension beyond the time limitations of any phase. Last-minute changes made to the plan may not be accommodated by TCCA due to workload or other priorities.
- (5) The compliance document, gap analysis and project plan shall be completed and submitted as a package within the time limitations specified in the exemption. TCCA will review the submission and provide a response within 90 days. TCCA's acceptance of the compliance document will indicate that a review of the gap analysis has been completed and the project plan has been accepted.

### **7.2 Phase 2**

During this phase, and no later than the time specified by the Minister in the exemption, certificate holders must demonstrate to the satisfaction of TCCA that they have the following SMS components and elements documented and in place:

- (a) the safety management plan component (including all elements);
- (b) the following elements of the safety oversight component:
  - (i) reactive processes;
  - (ii) investigation and analysis; and
  - (iii) risk management.
- (c) training for personnel assigned duties under the SMS that are relevant to the components and elements referred to in (a) and (b);

- (d) documented policies and procedures that are relevant to the SMS components and elements referred to in (a), (b) and (c).

### 7.3 Phase 3

During this phase, and no later than the time specified by the Minister in the exemption, in addition to meeting the requirements of Phase 2, certificate holders must demonstrate to TCCA that they have the following elements of the safety oversight component documented and in place:

- (a) proactive processes;
- (b) documented policies and procedures that are relevant to (a); and
- (c) training for personnel assigned duties under the SMS that are relevant to (a).

### 7.4 Phase 4

During this phase, and no later than the time specified by the Minister in the exemption, in addition to meeting the requirements of Phase 3, certificate holders must demonstrate to the satisfaction of TCCA that they have the following components and elements documented and in place:

- (a) quality assurance;
- (b) emergency preparedness and response (update emergency plan to include SMS components as required);
- (c) training for personnel assigned duties under the SMS that are relevant to the components and elements referred to in (a) and (b); and
- (d) documented policies and procedures that are relevant to the SMS components and elements referred to in (a), (b) and (c).

## 8.0 GAP ANALYSIS AND PROJECT PLAN

- (1) Phase 1 of SMS implementation requires affected organizations to conduct a gap analysis of their system(s) to determine which components and elements of an SMS are currently in place, and which components or elements must be added or modified to meet the regulatory requirements. The review involves comparing the SMS requirements found in Parts I and III of the CAR against the certificate holder's existing systems. Part 1 of the CARs, *General Provisions* contains several requirements that are common to all civil aviation organizations, and must be included in the analysis. Any additional SMS requirements are found in Part III of the CARs.
- (2) This AC was developed to assist organizations conduct their gap analysis. It lists all the SMS components and elements, and includes criteria linked to the appropriate regulation or standard.
- (3) A comprehensive gap analysis form is referred to in RDIMS document #4005701. The form combines the information contained in Staff Instruction (SI) SUR-001, Issue 02, Appendix B – *Expectations and Scoring Criteria*, as well as the applicable references to the regulations and standards for Parts I and III. Organizations can use this format as a template to conduct their gap analysis, or they can create their own, provided they refer to SUR-001, Appendix B for the appropriate criteria for each component and element.
- (4) Each gap analysis question is designed for a “yes” or “no” response. A “yes” answer indicates the organization already meets the criteria for that particular SMS component or element. A “no” answer indicates that a gap exists between the stated criteria and the organization's policies, processes or procedures. If the response is “yes,” the next column of the gap analysis form is used to indicate precisely where (in company documentation) the requirement is addressed. If the response is “no,” the same column is used to indicate how or where the policy, process or procedure will be further developed to bring the organization into compliance with the requirement.

- (5) Once the gap analysis is complete and fully documented, the items identified as missing or deficient will form the basis of the project plan. Organizations may format their project plan to suit their individual needs; however, a spreadsheet format or MS Project type layout is recommended for ease of viewing and tracking. Each item will be reviewed to determine how the organization will create or modify policies, processes or procedures to incorporate the required SMS components and elements. Components and elements can be grouped into larger projects and assigned to project manager(s) who will oversee the development and implementation of that project. Each component, element or project should be assigned milestones, including a termination date, to ensure that completion does not fall outside the time limits published in the exemption. Appendix B provides an example of a project plan, with suggested headings to assist organizations in the development of their plan.
- (6) Once completed, the compliance document, gap analysis and project plan must be submitted to the OPI no later than the time specified in the exemption. These documents will be reviewed in accordance with the requirements of the exemption and the applicable SMS regulations and standards.
- (7) Circumstances that necessitate change(s) to the project plan must be communicated as soon as possible to the assigned OPI for acceptance, and to ensure timely submission of required material. Periodic progress reporting is a key component of this process.

## **9.0 ACCOUNTABLE EXECUTIVE**

- (1) Coincident with the introduction of SMS regulations, organizations are also required to appoint an accountable executive. The accountable executive is a single, identifiable person within each organization who will discharge the certificate holder's responsibilities, and in particular, lead the necessary cultural change. It is imperative that the correct person be identified as the accountable executive, and that the individual understands and accepts the roles and responsibilities associated with that position. This is not intended to be a position title without accountability.
- (2) Appendices C and D provide a flow chart and series of questions, respectively, to assist with the selection process. The flow chart identifies several organizational structures that will lead to a corresponding accountable executive. Once this person is determined, the questions following the flow chart will confirm the selected person is the correct choice. All questions must receive a "yes" answer for the candidate to be acceptable. Should any of the questions result in a "no" answer, the selection process must start again with a new candidate. The organizational structures included in Appendix C are intended to cover the majority of situations that will be encountered. Should there be an organizational structure that does not result in the clear selection of an accountable executive, an appropriate candidate will be selected in consultation with TCCA. The nomination of the accountable executive will be validated during the next inspection, or SMS validation or assessment.

### **Note:**

*Regulations requiring the appointment of an accountable executive are separate from those requiring an SMS. Information on the accountable executive is included here to offer organizations a comprehensive package for implementing their SMS and selecting their accountable executive.*

## **10.0 MULTIPLE CERTIFICATE HOLDERS**

- (1) Certificate holders with multiple airport certificates may choose to implement a single SMS. This format is optional and will allow the SMS to be designed to accommodate the regulatory requirements of all airport certificates held by a single organization. This will ensure that the SMS will be a fully integrated system, and not separate systems operating independently of each other.

- (2) This is not to imply that the regulatory requirements within each certificate will be combined. Each certificate must continue to comply with its regulatory requirements; however, all certificates can be subject to a single SMS.

#### **11.0 OPTING OUT OF THE EXEMPTION**

- (1) Certificate holders that do not take advantage of the exemption(s) must be in full compliance with the applicable SMS regulations within 30 days of publication in the *Canada Gazette*, Part II. Certificate holders should contact their OPI as soon as possible to ensure their programs, including approved documentation, are compliant with the applicable SMS requirements. Certificate holders that are found to be non-compliant following an assessment will be subject to normal administrative action.
- (2) Due to the anticipated increase in workload expected with SMS implementation, TCCA's priority will be directed toward those organizations that utilize the exemption and phased implementation method. As such, organizations are strongly encouraged to take full advantage of the exemption.

#### **12.0 GUIDANCE MATERIAL**

TCCA has published additional guidance material to assist organizations with their SMS program. This information is available on the TCCA Web site at [www.tc.gc.ca/civilaviation/SMS/menu.htm](http://www.tc.gc.ca/civilaviation/SMS/menu.htm)

#### **13.0 CONTACT OFFICE**

For more information, please contact the:

Chief, Aerodrome and Air Navigation Standards Division (AARTA)

Phone: 613-998-9855  
Fax: 613-998-7416  
E-mail: [CAIRS\\_NCR@tc.gc.ca](mailto:CAIRS_NCR@tc.gc.ca)

Suggestions for amendment to this document are invited, and should be submitted via the Transport Canada Civil Aviation Issues Reporting System (CAIRS) at the following Internet address:

<http://www.tc.gc.ca/wcms-sgcw/civilaviation/cairs-755.htm>

or by e-mail at: [CAIRS\\_NCR@tc.gc.ca](mailto:CAIRS_NCR@tc.gc.ca)

“Original Signed by D.B. Sherritt, Dated 2009-06-05”

D.B. Sherritt  
Director, Standards  
Civil Aviation



**APPENDIX A—COMPLIANCE DOCUMENT**

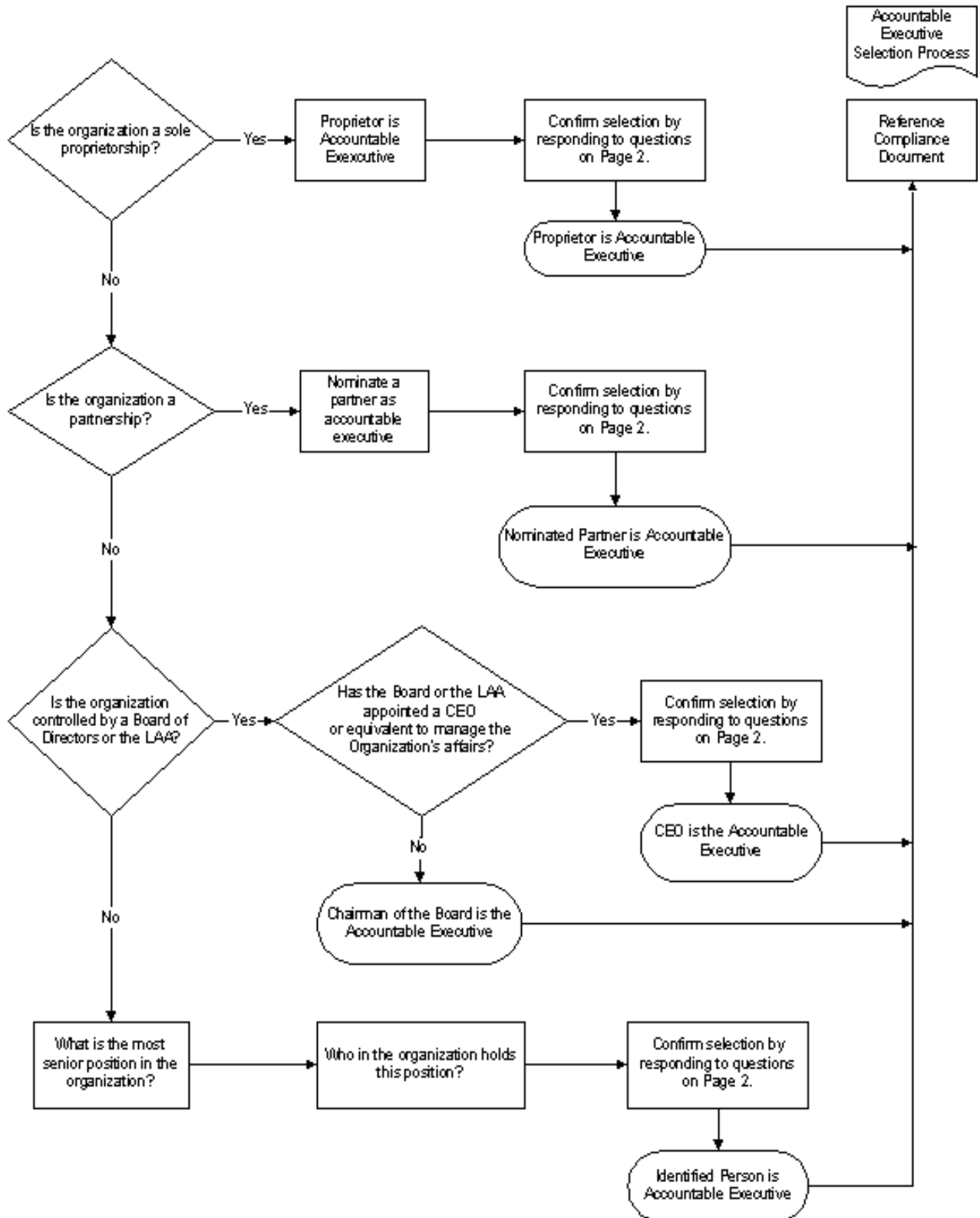
- (1) Part 1 of this form may be used to satisfy the notification and acceptance requirements of paragraphs 106.02(1)(b) and (c) of the CARs. Organizations required to implement an SMS will also complete Parts 2 and 3 of this form.
- (2) This compliance document, or a similarly worded form, the gap analysis and the project plan must be submitted to the organization’s principal inspector for review within the time specified in the exemption.

<b>Part 1</b>						
<p>A flow chart and question list are included as Appendices C and D of this AC. They can be used to assist an organization in identifying the accountable executive. The chart and questions are designed to ensure that a person, and not a position, is identified as the accountable executive.</p> <p>I, _____, declare myself to be the accountable executive for                  (name, position title and signature)</p> <p>_____</p> <p>(name on certificate[s])</p> <p>for the following certificates:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;"><input type="checkbox"/> approved maintenance organization</td> <td style="width: 33%;"><input type="checkbox"/> air operator</td> <td style="width: 33%;"><input type="checkbox"/> manufacturer</td> </tr> <tr> <td><input type="checkbox"/> air traffic services</td> <td><input type="checkbox"/> flight training unit</td> <td><input type="checkbox"/> airport</td> </tr> </table>	<input type="checkbox"/> approved maintenance organization	<input type="checkbox"/> air operator	<input type="checkbox"/> manufacturer	<input type="checkbox"/> air traffic services	<input type="checkbox"/> flight training unit	<input type="checkbox"/> airport
<input type="checkbox"/> approved maintenance organization	<input type="checkbox"/> air operator	<input type="checkbox"/> manufacturer				
<input type="checkbox"/> air traffic services	<input type="checkbox"/> flight training unit	<input type="checkbox"/> airport				
<b>Part 2</b>						
<p>Implementing the safety management system will be the responsibility of</p> <p>_____</p> <p>(provide name and position title)</p>						
<b>Part 3</b>						
<p>As accountable executive, I am committing</p> <p>_____</p> <p>(company name)</p> <p>to implement a safety management system as identified in the attached project plan.</p> <p>Signed: _____</p> <p style="text-align: center;">Accountable Executive <span style="float: right;">Date</span></p> <p>In accordance with the conditions of the exemption, the information contained in this document, the gap analysis and the project plan have been reviewed. Acceptance by Transport Canada Civil Aviation indicates agreement with the attached project plan.</p> <p>Signed: _____</p> <p style="text-align: center;">(For the Minister of Transport) <span style="float: right;">Date</span></p>						

**APPENDIX B—SAMPLE PROJECT PLAN**

Component or element (identified by the gap analysis)	Regulatory reference	Due date	Project manager	Project status update (recommended)	Description of required changes
Develop and document a safety policy that is appropriate to the size and complexity of the organization.	Add applicable reference.	Select a due date that will coincide with the terms of the exemption.	As assigned.	Select a status update that is mid-way to the due date.	<ul style="list-style-type: none"> <li>– develop appropriate safety policy text</li> <li>– amend applicable company documents</li> <li>– communicate policy to staff</li> </ul>
Ensure that the safety policy states the organization's intentions, management principles and commitment to continuous improvement.	Add applicable reference.	Select a due date that will coincide with the terms of the exemption.	As assigned.	Select a status update that is mid-way to the due date.	<ul style="list-style-type: none"> <li>– develop appropriate safety policy text</li> <li>– amend applicable company documents</li> <li>– communicate policy to staff</li> </ul>
Safety policy approved by the accountable executive.	Add applicable reference.	Select a due date that will coincide with the terms of the exemption.	As assigned.	Select a status update that is mid-way to the due date.	<ul style="list-style-type: none"> <li>– accountable executive to endorse safety policy in applicable company documents</li> </ul>
Ensure the safety policy is promoted by the accountable executive.	Add applicable reference.	Select a due date that will coincide with the terms of the exemption.	As assigned.	Select a status update that is mid-way to the due date.	<ul style="list-style-type: none"> <li>– establish methods for accountable executive to promote the safety policy</li> <li>– amend applicable documents</li> </ul>
Develop periodic review of safety policy.	Add applicable reference.	Select a due date that will coincide with the terms of the exemption.	As assigned.	Select a status update that is mid-way to the due date.	<ul style="list-style-type: none"> <li>– develop procedures for periodic review</li> <li>– amend applicable documents</li> </ul>

**APPENDIX C—ACCOUNTABLE EXECUTIVE FLOW CHART**



**APPENDIX D—ACCOUNTABLE EXECUTIVE SELECTION QUESTION LIST**

