Transport Canada Transports Canada

# Staff Instruction

**Subject:** **Surveillance Quality Assurance Program**

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# 1.0 Introduction

## 1.1 Purpose

(1) This Staff Instruction (SI) describes the Quality Assurance Program as used by Transport Canada Civil Aviation (TCCA) personnel for the purpose of Process Control, Quality Control (QC) and Quality Assurance (QA) on surveillance activities conducted in accordance with SI SUR-001.

(2) This document outlines the QA Program as it relates to:

(a) process level Surveillance (PI);

(b) system Level Surveillance (PVI); and

(c) any other surveillance activity as determined by the Director of Standards.

## 1.2 Applicability

(1) This document applies to TCCA Headquarters and Regional personnel with the exception of Aircraft Certification.

## 1.3 Description of changes

(1) Removed all references requiring actions regarding the costing portion of the Surveillance Costing and QC Form, RDIMS 13319603;

(a) Collection of costing information on the referenced form is no longer required as the reporting up through Analysis and Occurrence Planning and Reporting (AOPR) and then the National Oversight Office (NOO) of costing information is no longer a requirement.

# 2.0 References and requirements

## 2.1 Reference documents

(1) It is intended that the most recent versions of the following reference materials be used in conjunction with this document:

(a) Civil Aviation Directive (CAD) QUA-011 - Civil Aviation Internal Quality Assurance;

(b) Staff Instruction (SI) SUR-001 - Surveillance Procedures;

(c) Staff Instruction (SI) SUR-029 – Writing Findings for Non-Compliance;

(d) Surveillance Folder, RDIMS 11933930;

(e) Surveillance Costing and Quality Control Form, RDIMS 13319603;

(f) Surveillance Quality Assurance Check Sheets, RDIMS 14114101;

(g) Regional Surveillance Quality Control Reporting, RDIMS 13931682;

(h) Surveillance Quality Assurance Review Reporting, RDIMS 14339589;

(i) Master Worksheet System Level Surveillance, RDIMS 13235920; and

(j) Master Worksheet Process Level Surveillance, RDIMS 13330794.

## 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) **Process Control (PC)**: The management of inputs and/or activities in a process to ensure a consistent output.

(b) **Quality Assurance (QA)**: a planned and systematic set of activities implemented in a quality system so that quality requirements are clearly established and defined processes are continually evaluated to verify compliance to these requirements.

(c) **Quality Control (QC)**: A subset of quality assurance designed to detect deficiencies in an output, rather than in the system as a whole.

(d) **Sampling**: A process through which a portion of a larger population is reviewed to determine the degree of compliance of said population.

(e) **Surveillance**: all activities directly related to TCCA evaluating an enterprise's compliance with applicable regulatory requirements including assessments, program validation inspections, process inspections and any other type of evaluation (targeted, in-flight, etc.).

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

(a) **ADO**: Associate Director, Operations;

(b) **AOPR**: Analysis, Occurrence, Planning and Reporting;

(c) **CA**: Convening Authority;

(d) **NACIS**: National Aviation Company Information System;

(e) **NOO**: National Oversight Office;

(f) **OMC**: Operational Management Committee;

(g) **PBC**: Program Business Committee;

(h) **PI**: Process Inspection;

(i) **PVI**: Program Validation Inspection;

(j) **SM**: Surveillance Manager;

(k) **TPEC**: Technical Programs and Evaluation Coordination; and

(l) **RDCA**: Regional Director, Civil Aviation.

## 3.0 Background

(1) The purpose of CAD QUA-017 was to outline the guiding principles and establish the minimum standards for QC of surveillance activities that will ensure a documented and nationally consistent approach when conducting quality control of the inspection of regulated enterprises in accordance with the process detailed in SI SUR-001 – Surveillance Procedures. Changes in the surveillance program detailed in SI SUR-001 have created the need for a different approach to QC and the addition of QA with respect to our surveillance activities. As such this SI has been created to address those requirements.

# 4.0 Roles and responsibilities

## 4.1 Director of Standards

(1) The Director of Standards is responsible for:

(a) the Surveillance Quality Assurance Program;

(b) determining which surveillance activities will be subject to the Surveillance Quality Assurance Program;

(c) directing changes within the Surveillance Quality Assurance Program as required; and

(d) providing direction to Standards Coordination regarding QA review.

## 4.2 Associate Director Operations (ADO)

(1) An ADO or RDCA will approve the development and amendment of a regional Master Surveillance Worksheet.

## 4.3 Convening Authority (CA)

(1) The CA:

(a) is accountable for the completion of the Process Control and Quality Control aspects of a surveillance activity; and

(b) ensures any deficiencies identified in the QC function are passed on to the Surveillance Manager and rectified.

## 4.4 Operational Management Committee (OMC)

(1) OMC:

(a) accepts and reviews the QA Review Report;

(b) analyzes the data contained within the report; and

(c) develops and implements corrective actions as required.

## 4.5 Regional Manager, Standards Coordination

(1) The Manager Standards Coordination:

(a) provides resources to the Director of Standards to carry out the QA Review;

(b) reviews the QC data collected by AOPR as part of the QA review;

(c) has the QA function and analysis carried out on sampled surveillance activities; and

(d) has the results of the review and analysis documented and reported to NOO, OMC and TPEC.

## 4.6 Surveillance manager (SM)

(1) The SM:

(a) ensures all applicable tasks on the Master Worksheet and Specialty Worksheets are actioned, and all supporting documentation is included on the worksheets in accordance with SUR-001;

(b) ensures the QC function is carried as required by the appointed individual; and

(c) rectifies any discrepancies found during the QC function.

### 4.7 Analysis and Occurrence Planning and Reporting (AOPR)

(1) AOPR:

(a) receives the Surveillance Costing and QC Form for completed surveillance activities in accordance with regional procedures;

(b) extracts the QC data and updates the Regional Surveillance QC Reporting Template where applicable; and

(c) provides the QC Reporting Template to Standards Coordination for the QA review.

### 4.8 National Oversight Office (NOO)

(1) The NOO:

(a) provides planning data to TPEC; and

(b) reports the analysis from the QA review to the OMC and the Program business committee (PBC).

## 5.0 Quality assurance program functions

(1) The program consists of the following elements:

(a) process control: ensures that the key steps of a surveillance activity have been performed in accordance with established procedures and the related outputs have been achieved and suitably documented;

(b) QC: ensures that key tasks and related outputs of a surveillance activity have been achieved in accordance with SI SUR-001 through a comprehensive review;

(c) QA: consists of an internal review of completed surveillance activities and QC procedures to confirm effectiveness of the functions; and

(d) continuous improvement: identifies and reports all compliant and non-compliant items discovered during the QC or QA functions and implements and manages the corrective measures.

## 6.0 Process control

### 6.1 General

(1) To ensure the consistency of the national surveillance program, process control steps have been identified for System Level and Process Level surveillance and are found in the individual Master Worksheets. All documents are available in RDIMS 11933930.

(2) The Master Worksheet together with the applicable Specialty Worksheets are to be used to record surveillance activities and to attest that key steps have been performed in accordance with SI SUR-001.

(3) Should a region wish to add additional process control steps, related to their business practices or administrative procedures, a regional Master Worksheet may be developed.

(4) ADO(s) must approve the development and all subsequent amendments to the regional Master Worksheets.

(5) For all regional Master Worksheets, the ADO(s) or their delegate:

(a) creates the regional document in a form and manner consistent with the Master worksheet;

(b) saves the document in the appropriate regional folder as a new document and indicates the region it is applicable to in the name; and

(c) ensures that the region is notified that a specific Master Worksheet is to be used during surveillance activities.

(6) With respect to the Master and any specialty worksheets, the SM is responsible for:

(a) the completion of all worksheets in accordance with SI SUR-001;

(b) ensuring all supporting evidence is recorded in a detailed, clear and specific manner;

(c) ensuring the Master Worksheet RDIMS number has been entered into the appropriate block in NACIS. (use the Note block under the Surveillance tracking tab for the specific surveillance activity); and

(d) ensuring the Surveillance Costing and Quality Control Form RDIMS number is entered into the Index of Records section of the Master Worksheet.

## 7.0 Quality control (QC)

### 7.1 General

(1) QC Checklists have been developed in order to verify compliance with SI SUR-001.

(2) Checklists reflect areas where a non-compliance to the SI may have a negative result on the outcome of a surveillance activity.

(3) Checklists are designed in such a manner as to remove subjectivity, using “Yes/No” criteria based questions.

(4) The QC questions cover a surveillance activity up to the surveillance report.

(5) The QC Checklists are located within the Surveillance Costing and Quality Control Form. The SM opens a form for each surveillance activity. The Surveillance Costing and Quality Control Form RDIMS number is added to the master worksheet in the Index of Records.

(6) The QC portion of the Surveillance Costing and Quality Control Form is the minimum reporting requirement with respect to QC.

(7) Should a region wish to add additional QC points, related to best practices or regional requirements, a regional Surveillance Costing and Quality Control Form may be developed.

(8) ADO(s) must approve the development and all subsequent amendments to the regional Surveillance Costing and Quality Control Form. The regions must report the minimum content in the same format as the national document.

(9) For all regional Surveillance Costing and Quality Control Forms, the ADO(s) or their delegate:

(a) creates the regional document in a form and manner consistent with the national Surveillance Costing and Quality Control Form;

(b) saves the document in the RDIMS 11933930 folder under the appropriate regional folder as a new document and indicates the region it is applicable to in the name; and

(c) ensures the region AOPR is notified that a specific Surveillance Costing and Quality Control Form should be used during surveillance activities.

### 7.2 Quality control procedure

(1) The QC function is carried out in accordance with the instructions found on the QC checklist.

Note: The QC function is required to be carried out and reported in accordance with the procedures documented in this SI. Any QC activity above and beyond the requirements of this SI are at the discretion of the region.

(2) Each Region shall determine who will perform the QC function. (Best practice is someone knowledgeable on SUR-001, and not directly involved in the activity undergoing the QC check).

(3) Prior to the surveillance report being sent, the person(s) performing the QC function are responsible to:

(a) perform a QC check on each of the listed items based on the criteria found in SI SUR-001 and SUR-029;

(b) record the results of the review on the form; and

(c) communicate the results of the QC review to the CA.

(4) Once notified, the CA:

(a) ensures that any deficiencies identified during the QC review are corrected;

Note: It is important to ensure that all deficiencies are corrected (as applicable) before the surveillance report is sent to the Enterprise. Although corrected, the initial discrepancy information must remain on the QC checklist.

(b) demonstrates to whoever performed the QC function the discrepancy was corrected; and

(c) signs the report and notifies the SM.

(5) Upon being notified the QC review is complete, the SM:

(a) sends the Surveillance Costing and Quality Control Form to AOPR in accordance with regional procedures.

### 7.3 Data collection and reporting

(1) AOPR will gather the data from the Surveillance Costing and Quality Control Form and populate the Regional Surveillance QC Reporting Form with the QC results.

(2) AOPR will continue to analyze QC data in accordance with regional procedures. If the analysis indicates an issue needing immediate attention, AOPR shall forward the issue to the applicable ADO for review.

## 8.0 Quality assurance (QA)

### 8.1 General

(1) The Director of Standards will request from each Regional Manager, Standards Coordination resources to conduct a QA review of completed surveillance activities. This review will also include a representative from National Operations.

(2) The team will meet to discuss the results of the QA review of sampled surveillance activities to determine the compliance and effectiveness of the QC function and compliance to SI SUR-001.

### 8.2 Quality assurance procedure

(1) Each regional Standards Coordination representative shall:

(a) prior to the review date, review the NOP Form provided by AOPR to determine the number of completed surveillance activities since the last review. (Lot size);

(b) determine the number of surveillance activities that are subject to a QA review using the sampling methodology from SI SUR-001. (Sample size);

(c) use the Measurement Canada random number generator application to enter the lot and sample size to determine the random samples; and

(d) match the list of completed surveillance activities from the report with the random number to determine which activities are subject to a QA review.

(2) After determining the number of activities to be subjected to a QA review, the Standards Coordination representative:

(a) reviews the data from the Regional Surveillance QC Reporting Form for the specific surveillance activities in the sample set;

(b) uses the appropriate QA check sheet and conducts a review of all samples for compliance to SI SUR-001; and

(c) records the results on the Surveillance Quality Assurance Review Reporting Form.

## 9.0 Quality assurance program review

### 9.1 Continuous improvement process

(1) After completion of the QA review, the Quality Assurance Program Review team collectively will:

(a) report on the compliance to SI-SUR-001 from the both the Regional Surveillance QC Reporting Form and the Surveillance Quality Assurance Review Reporting Form;

(b) report on the effectiveness of the QC process on the Surveillance Quality Assurance Review Reporting Form;

(c) report the levels of compliance of each QC point;

(d) indicate if the root cause of any non-compliance is guidance material, training or documentation; and

(e) provide the results of the QA Review to TPEC.

**Note**: A National Operations and Aircraft Certification representative will attend the QA Review described in this section in order to compare QC/QA results with the regions. Any issues or corrective action requirements that come out of the review pertaining to National Operations and/or Aircraft Certification will be carried out in accordance with their procedures.

### 9.2 Corrective measures

(1) Corrective actions for discrepancies found during the QA review will be accomplished by:

(a) TPEC if it is related to guidance, training or documentation; or

(b) OMC if it is related to any other cause.

## 10.0 Information management

(1) The surveillance team shall save all records from their surveillance activities in RDIMS in the applicable company files, except aircraft specific records, which shall be placed in the appropriate aircraft file.

(2) Inspectors are reminded that notes and other handwritten documents created during the surveillance process are official records and are to be preserved in the official files by scanning or paper profiling according to regional and divisional policies.

(3) All information management practices shall respect applicable privacy issues where appropriate.

## 11.0 Document history

(1) SI QUA-021, **Issue 01**, RDIMS 13000607 (E), 14397500 (F) — Surveillance Quality Assurance Program.

## 12.0 Contact us

For more information, please contact:
Technical Program Evaluation and Coordination Division (AARTT)
E-mail: TC.TPECDivision-DivisiondeTPEC.TC@tc.gc.ca

We invite suggestions for amendments to this document. Submit your comments to:
Standards Branch Documentation Services
E-mail: AARTDocServices-ServicesdocAART@tc.gc.ca

***Original signed by***

Stacey Mason
Director, Standards Branch
Civil Aviation
Transport Canada