

TCCA Update

14th TSO Workshop, 19-20 September 2018

Oliver Rusch

Program Manager, Procedural Standards
Aircraft Certification Standards
Transport Canada Civil Aviation

Michel Provencher

A/Program Manager, Aircraft Design Standards
Aircraft Certification Standards
Transport Canada Civil Aviation



Outline

- Transport Canada Organization
- CAN-TSO Minimum Performance Standards
 - *Airworthiness Manual* Chapter 537 (AWM 537)
- Updates
 - NPA 2018-004 to AWM 537
 - NPA 2018-XXX (anticipated) to CAR 521
 - Agreements with U.S. and E.U.
 - List of Common CAN-TSO and ETSO Standards
 - Reciprocal acceptance with FAA and EASA

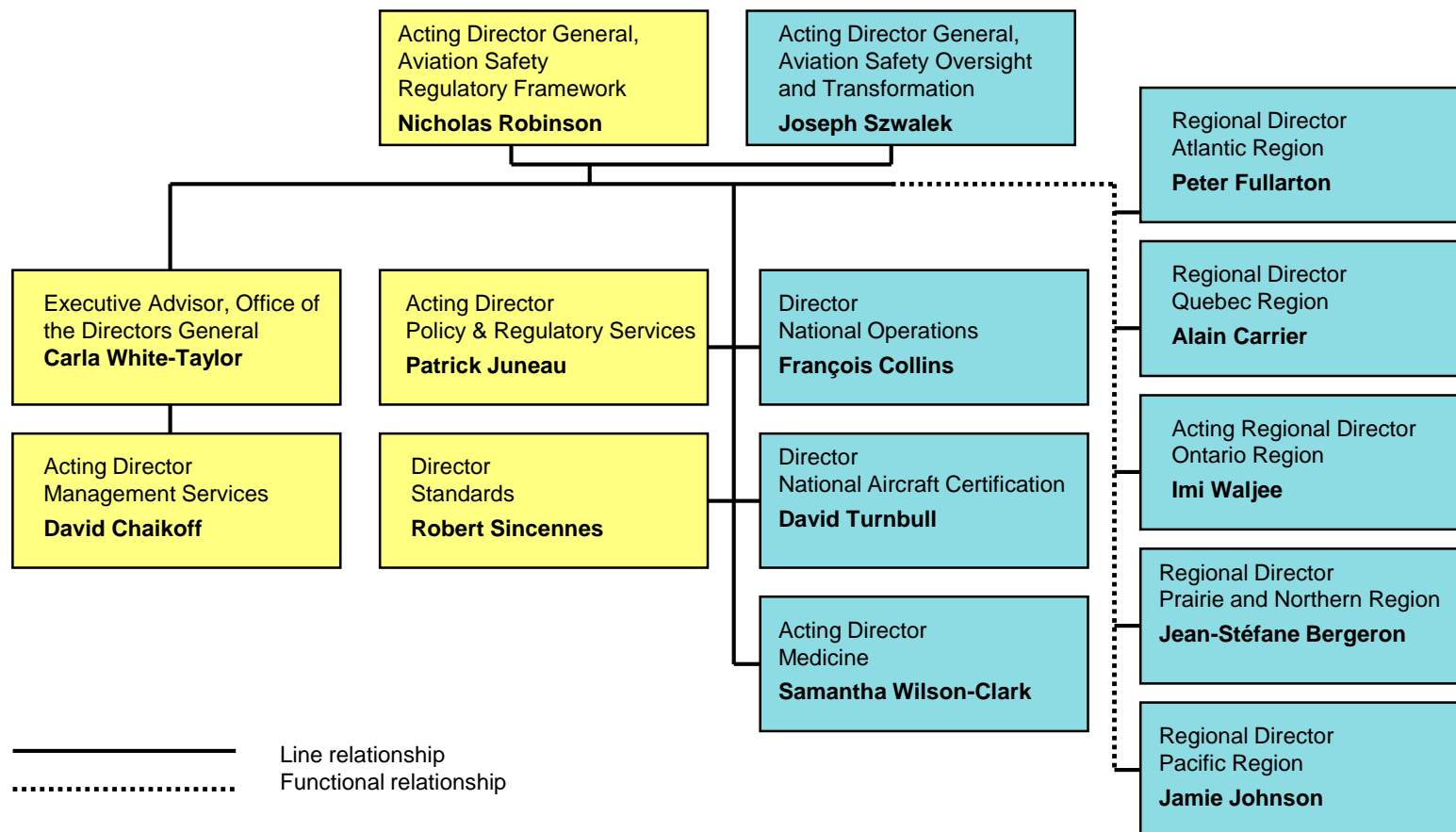
Transport Canada Organization



- HQ in Ottawa
- Five Regional Offices
- Modes Include:
 - Air
 - Road
 - Marine
 - Rail



TCCA Organizational Chart



CAN-TSO Minimum Performance Standards

- Applicable Canadian Technical Standard Orders (CAN-TSOs) to obtain a CAN-TSO Design Approval are specified by CAR 521.06(a) as those contained in AWM 537.
- Separate manufacturing approval is required under CAR 561.
- Source code for CAN-TSOs:
 - Index 1: FAA TSOs
 - Index 2: EASA ETSOs (ETSO-2C5XX series only)
 - Index 3: TCCA unique CAN-TSOs
- AWM 537 is amended periodically via Notices of Proposed Amendment (NPA)
 - Adoption by static reference of FAA TSOs and EASA ETSOs through our NPA process may introduce a delay before it becomes effective in AWM 537.

NPA 2018-004

Anticipated Change 537-17 to AWM 537

New dynamic incorporation by reference

- **Index 1** Any Technical Standard Order (TSO) issued by the Administrator of the Federal Aviation Administration (FAA) is equally adopted by the Minister as a Canadian Technical Standard Order (CAN-TSO) on the effective date of the TSO and remains effective until it is amended or revised, superseded or cancelled, as may be done from time to time.
- **Index 2** Any European Technical Standard Order (ETSO) introduced by the European Aviation Safety Agency (EASA) into Certification Specification, CS-ETSO European Technical Standard Orders, Subpart B Index 2, is equally adopted by the Minister as a Canadian Technical Standard Order (CAN-TSO) on the effective date of the corresponding CS-ETSO amendment and remains effective until it is amended or revised, superseded or cancelled, as may be done from time to time.
- **Index 3** consists of those CAN-TSOs that have been developed by TCCA and issued pursuant to CAR 521.106(b)

NPA available in the CARAC Activity Reporting System at the following web address:

- <http://wwwapps.tc.gc.ca/Saf-Sec-Sur/2/npa-apm/crs.aspx> NPA

CAR 521 – Current Rulemaking

- NPA 2018-XXX (anticipated)
 - Follows Advance NPA 2014-001.
 - Include ~95 proposals for broad amendments to CAR 521.
- Significant re-work to be proposed for Division III to further align with 14 CFR part 21 subpart O, in some cases IR-21 subpart O, e.g.:
 - Refer to CAN-TSO design approvals as being for “articles” rather than for “parts and appliances”;
 - Replace concept of “certification basis” for a CAN-TSO DA, with “article meets its CAN-TSO”;
 - Refer to CAN-TSO as “minimum performance standards” rather than “standards of airworthiness”;

CAR 521 – Current Rulemaking

- Retain 521.107(b) DDP, but align criteria with IR 21.A.608 for direct read-across (was already similar, but not the same);
- Retain 521.104 “Effective period of application”;
- Introduce “approval for deviation”; and
- For CAN-TSO DA in respect of an APU:
 - For initial approval, redirect applicant to procedures for type certificate, substituting “type certificate” with “CAN-TSO design approval”; “aircraft engine” with “APU”;
 - For design changes (DAH or third party), redirect to corresponding procedures for changes to type design, substituting “change to the type design of an aircraft, aircraft engine or propeller” with “change to the approved design of an APU”.

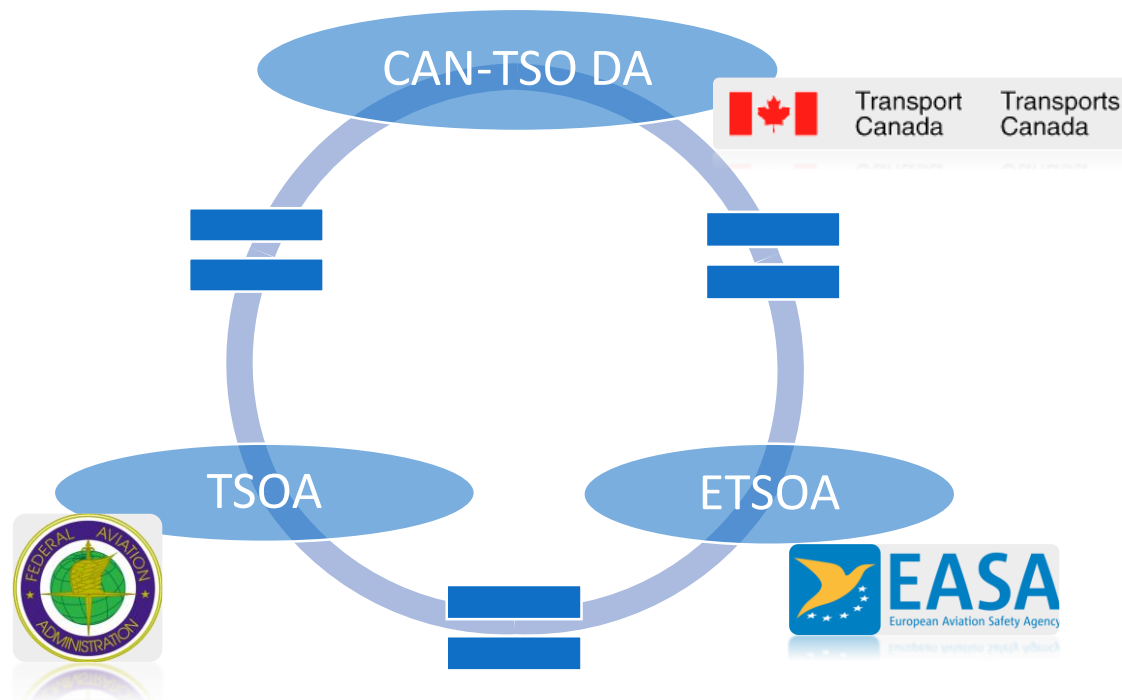
Update – Agreements with U.S. and E.U.

- Canada-European Union Agreement on Civil Aviation Safety
 - The Agreement was signed on 6 May 2009.
 - The Technical Implementation Procedures (TIP) and the Common TSO list were signed on September 20, 2011.
 - The List of Common CAN-TSO and ETSO Standards was last revised in September 2016.
 - TCCA is currently reviewing the Sep 2016 listing and plans for an update in 2018
 - Future plans are to include all ETSO's / CAN-TSO's in the Common List
 - Including all index 2 ETSOs (e.g. ETSO-2CXXX)

Update – Agreements with U.S. and E.U. (...)

- Reciprocal acceptance of TSOA's
 - Implementation Procedures for Airworthiness have been updated in September 2015 (Revision 2)
 - TCCA accepts “Common List” ETSOA's into Canada without the need for application or validation - reciprocity from EASA
 - TCCA accepts all FAA-TSOA's into Canada without the need for application or validation - reciprocity from FAA
- Notes on acceptance:
 - **TSO approval ≠ installation approval**
 - Information necessary to integrate a TSO article into an aircraft may be reviewed as part of the higher level design approval project
 - Canadian applicants cannot apply for an FAA LODA or EASA ETSOA

Intended Equivalency Between EASA, FAA & TCCA TSO Articles



FAA-TCCA IPA: <http://www.tc.gc.ca/eng/civilaviation/standards/implementation-procedures-airworthiness.html>

EASA-TCCA TIP: <http://www.tc.gc.ca/eng/civilaviation/standards/int-3969.htm>

FAQs: https://www.faa.gov/aircraft/air_cert/international/media/tsoa-etsoa-reciprocal-acceptance-faqs.pdf

Contact Information

Transport Canada Standards Branch (AART)		
Robert Sincennes Director Standards Branch	robert.sincennes@tc.gc.ca	(613) 991-2738
Blake Cheney Chief Aircraft Certification Standards	blake.cheney@tc.gc.ca	(613) 773-2738
Michel Provencher Acting Program Manager Aircraft Design Standards	michel.provencher@tc.gc.ca	(613) 773-8258
Eric Lucas Program Manager International Arrangements	eric.lucas@tc.gc.ca	(613) 773-8290
Oliver Rusch Program Manager Procedural Standards	oliver.rusch@tc.gc.ca	(613) 462-1149
Alexandre St-Arnaud Senior Engineer Procedural Standards	alexandre.st-arnaud@tc.gc.ca	(613) 773-8287

Thank you for your time!



Any Questions?