Technical Arrangement
Between
Civil Aviation Administration of China
And
Transport Canada Civil Aviation
For
The Validation
Of
Supplemental Type Certificate SA12-34 Issue 1
Issued To
AeroMechanical Services Ltd.
For
AFIRS 228 Automated Flight Information Reporting System
Installation
On
Bombardier CL-600-2C10, CL-600-2D15, CL-600-2D24

Original Issue

Civil Aviation Administration of China
Aircraft Airworthiness Certification Department

By:

Director General
Date: 2012.06.18

Transport Canada Civil Aviation

By:

Director, Standards (AART)
Date: JUN 06 2012

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1.0 PURPOSE

This Technical Arrangement (TA) defines the working relationship between Transport Canada Civil Aviation (TCCA) and the Civil Aviation Administration of China (CAAC), to facilitate the CAAC validation of Transport Canada supplemental type certificate SA12-34 issued to AeroMechanical Services Ltd. for the AFIRS 228 Automated Flight Information Reporting System Installation on the BOMBARDIER CL-600-2C10, CL-600-2D15, CL-600-2D24 (CRJ 700/900) series aircraft, the validation of subsequent design changes, and to address continued airworthiness activities.

2.0 OBJECTIVES

This TA is intended to accomplish the following objectives:

(a) to define the working procedures under the respective responsibilities of each Authority:

(i) for the STC validation process including issuance of a validated STC by the CAAC; and

(ii) for subsequent post validation activities.

(b) to minimize redundant inspections, tests, demonstrations, evaluations, and approvals.

3.0 CAAC REQUIREMENT

The requirement for this TA stems from paragraph 21.29 of CCAR 21 – *Certification Procedures for Civil Aviation Products and Parts.*

4.0 DURATION

This TA becomes effective upon signature by both CAAC and TCCA. It will remain in effect for the duration of the validation activities and as long as post validation activities are taking place.

5.0 COMMUNICATION

(1) The Aircraft Airworthiness Certification Department of CAAC (CAAC-AAD) and the Standards Branch (AART) of TCCA are responsible for the administration of this Technical Arrangement (TA). TCCA Standards Branch (AART) will work in conjunction with the Aircraft Certification Division - Prairie and Northern Region identified in Appendix 1 that has geographical jurisdiction over the holder of this STC.

(2) All communications between CAAC-AAD and TCCA related to the activities of this TA will be made in the English language or Chinese language accompanied by an English translation. The contact points for CAAC-AAD and TCCA are provided in Appendix 1 of this TA. Unless otherwise specified, TCCA shall be copied of all correspondence between AeroMechanical Services Ltd. and CAAC related to the activities of this TA.

(3) Any disagreement regarding the interpretation or application of this TA will be resolved by consultation between the CAAC-AAD and TCCA. Every effort should be made to resolve differences at the technical level. Issues that cannot be satisfactorily resolved at the technical level should be expeditiously raised to the attention of the responsible contact points of TCCA and CAAC-AAD on a progressive level until an agreement or resolution is reached.

6.0 VALIDATION ACTIVITIES

6.1 General

TCCA and CAAC recognize that AeroMechanical Services Ltd.:

(a) is the primary source for providing the technical support to CAAC-AAD for purposes of this TA. When requested, TCCA may provide necessary assistance and support within its regulatory functions and resource capacity.
(b) is responsible for demonstrating compliance with the CAAC-AAD certification basis.

6.2 Certification Basis

(1) The subject of the CAAC validation is Transport Canada SA12-34 Issue 1, as approved on April 30, 2012.

(2) The Transport Canada certification basis for this STC is defined on the STC document.

(3) The CAAC certification basis for purposes of the validation of the Transport Canada SA12-34 Issue 1 and issuance of a CAAC-validated supplemental type certificate (VSTC) is the same as that of the Transport Canada STC SA12-34 Issue 1 plus any Additional Technical Conditions (ATCs) notified. CAAC-AAD will notify in writing both to TCCA and AeroMechanical Services Ltd. of any ATCs necessary for the CAAC validation.

6.3 Findings of Compliance

(1) CAAC-AAD will perform its own findings of compliance for the purpose of its validation activity. However, CAAC may elect to recognize or accept findings of compliance by TCCA for those requirements that they have a similar or common interpretation.

(2) CAAC-AAD may request assistance from TCCA in findings of compliance for those ATCs identified under paragraph 6.2(3), except those requirements or airworthiness standards where TCCA has not acquired sufficient understanding to make a finding of compliance on behalf of CAAC.

6.4 Issuance of Validated Type Certificate

CAAC will issue its own corresponding VSTC once it has determined that the type design complies with the CAAC certification basis established under section 6.2(3).

6.5 Approval of aircraft flight manual supplement

Aircraft flight manual supplements, if any, will be approved by TCCA on behalf of the CAAC-AAD and will be in accordance to the CAAC approved type design.

7.0 POST VALIDATION ACTIVITIES

Design change approval:

a) Design changes that result in the re-issuance of the TCCA SA12-34 Issue 1, which will constitute the basis for the issuance of the CAAC-VSTC under this TA, will have to be validated by CAAC by applying a certification procedure similar to that described in paragraph 6.0.

Note: Design changes include repair designs.

b) All other design changes approved by TCCA or its appropriately-authorized delegate and in compliance with CAAC validation basis will be considered approved by CAAC.

8.0 CONTINUED AIRWORTHINESS SUPPORT ACTIVITIES

(1) When the service experience in China indicates the existence of an unsafe condition associated with the design or manufacturing of the subject STC, CAAC will promptly notify TCCA of such information. When such information is provided, TCCA will promptly analyze this information in coordination with the STC holder and will notify CAAC, where appropriate, of any action it deems necessary.

(2) In accordance with ICAO Annex 8, *Airworthiness of Aircraft*, TCCA will promptly notify CAAC of any mandatory continuing airworthiness information related to the subject STC that TCCA has found necessary for the continuing airworthiness and safe operation of affected aircraft.

(3) TCCA, upon request, will assist CAAC in establishing procedures deemed necessary by CAAC for maintaining the continuing airworthiness of the aeronautical product covered by this STC.

APPENDIX 1: POINTS OF CONTACT for TCCA SA12-34 Issue 1

CAAC	TCCA
Aircraft Airworthiness Certification Department **Director, Aircraft Certification Division** 155 Dongsi Street West Beijing 100710 People's Republic of China Phone: 86 10 64092331 Fax: 86 10 64033087	**Administration-related:** **National Headquarters** Director–Standards (AART) 330 Sparks St., 2nd Floor Place de Ville, Tower C Ottawa, Ont. KIA 0N5 Canada Phone: +1 613 991 6477 Fax: +1 613 952 3298 **Certification-related:** **Prairie and Northern Region** Associate Director, Operations (RAC) Airport Corporate Centre 800 - 1601 Airport Road, NE Calgary, Alberta T2E 6Z8 Canada Phone: +1 403-292-5226 Fax: +1 403-292-6709

Transport Canada Transports Canada

Department of Transport

Supplemental Type Certificate

This approval is issued to:

AeroMechanical Services Ltd.
200W, 1144 - 29th Avenue N.E.
Calgary, Alberta
Canada T2E 7P1

Number: SA12-34
Issue No.: 1
Approval Date: April 30, 2012
Issue Date: April 30, 2012

Responsible Office:	Prairie and Northern
Aircraft/Engine Type or Model:	BOMBARDIER CL-600-2C10, CL-600-2D15, CL-600-2D24
Canadian Type Certificate or Equivalent:	A-131
Description of Type Design Change:	AFIRS 228 Automated Flight Information Reporting System Installation

Installation/Operating Data, Required Equipment and Limitations:

Installation of the AFIRS 228 system must be in accordance with AeroMechanical Services Ltd. ("FLYHT"), Installation Instructions 151-0060, Rev. --, Transport Canada (TCCA) approved 26 April 2012, or later TCCA approved revisions.

Operation of the AFIRS 228 system must be in accordance with AeroMechanical Services Ltd. ("FLYHT"), Airplane Flight Manual Supplement 155-0007, Rev. --, TCCA approved 20 April 2012, or later TCCA approved revisions.

Maintenance of the AFIRS 228 system must be in accordance with TCCA accepted AeroMechanical Services Ltd. ("FLYHT"), Instructions for Continued Airworthiness 153-0061, Rev. --, dated 24 April 2012, or later TCCA accepted revisions.

Definition of Type Design Change: AeroMechanical Services Ltd. ("FLYHT") Master Document List 121-0070, Rev. --, TCCA approved 26 April 2012, or later TCCA approved revisions.

(See Continuation Sheet)

Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.

Dah Fong Kuan
For Minister of Transport

Canada

Airworthiness Limitations:
TCCA approved Airworthiness Limitations specified in Part I of TCCA accepted AeroMechanical Services Ltd. ("FLYHT"), Instructions for Continued Airworthiness 153-0061, Rev. --, dated 24 April 2012, or later TCCA accepted revisions, are mandatory.

Basis of Certification: As per Type Certificate Data Sheet A-131 with the addition of FAR 25.853 at Amendment 25-116, FAR 25.869(a) at Amendment 25-113 and FAR 25.981 at Amendment 25-102.

— End —

Transport Canada
Transports Canada

Ottawa, Ontario
K1A 0N8

Your file *Votre référence*

Our file *Notre référence*
RDIMS # 7603384

June 6, 2012

Mr. Zhang Hongying
Director General
Aircraft Airworthiness Certification Department
Civil Aviation Administration of China
155 Dongsi Street West
Beijing 100710
Peoples Republic of China

Subject: Technical Arrangements (TAs) for the CAAC Validation of Type Certificate A-131 Issue 43 for Bombardier Models CL-600-2D24 and CL-600-2E25 and Supplemental Type Certificates SA12-33 Issue1, SA12-16 Issue 2, SA12-34 Issue 1, C-LSA12-010/D Issue 1, SA12-24 Issue 2, and SA11-69 Issue 1

Dear Mr. Zhang Hongying,

Please find attached seven original signed TAs regarding CAAC's validation of the following Type and Supplemental Type Certificates:

1) Type Certificate A-131 Issue 43 for Bombardier Models CL-600-2D24 and CL-600-2E25;
2) SA12-33 Issue 1 Issued To Flying Colors Corp For Installation, Tow Bar Stowage Provisions On Bombardier CL-600-2B19
3) SA12-16 Issue 2 Issued To Bombardier Inc. For Installation, Aircraft Completion Modifications On Bombardier BD-700-1A10, BD-700-1A11
4) SA12-34 Issue 1 Issued To AeroMechanical Services Ltd. For AFIRS 228 Automated Flight Information Reporting System Installation On Bombardier CL-600-2C10, CL-600-2D15, CL-600-2D24

Canada

5) C-LSA12-010/D Issue 1 Issued To Flying Colors Corp. For Installation, Complete Custom Aircraft Interior On Bombardier CL-600-2B19 S/N 8106
6) SA12-24 Issue 2 Issued To Bombardier Inc. For Installation of Class 2 Electronic Flight Bag System On Bombardier BD-700-1A10, BD-700-1A11
7) SA11-69 Issue 1 Issued To Bombardier Inc. For Installation, Structural Provisions for Shower Drain Feedthrough On Bombardier BD-700-1A10, BD-700-1A11

It is understood that the CAAC now requires these signed TAs to start a validation project. TCCA requests notification from the CAAC when each of the subject design approvals has received validation by the CAAC.

Please sign all originals and send one original back to Transport Canada at the following address:

Oliver Rusch
Transport Canada (AARTC)
Aircraft Certification Standards
330 Sparks Street, Tower C, Floor 4
Ottawa, Ontario, Canada K1A 0N8

Sincerely,

Aaron McCrorie
Director, Standards
Civil Aviation