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## Flight Standardization Board Report

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Revision: 2  
Date: 02/21/2020

Manufacturer:  
**Airbus Canada Limited Partnership, Formerly Bombardier, Inc.**

Type Certificate Data Sheet (TCDS)	TCDS Identifier	Marketing Name	Pilot Type Rating
T00008NY	BD-500-1A10	CS100 A220-100	BD500
T00008NY	BD-500-1A11	CS300 A220-300	BD500

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## 1. RECORD OF REVISIONS

Revision Number	Section(s)	Page(s) Affected	Date
Original	All	All	02/08/2017
1	1, 3, 4.1 thru 4.4, 5, 7.3, Appendices 2, 3, 6 and 7	1 thru 6, 7, 15 thru 17, 21, 24, 25, 31 thru 34	04/09/2019
2	1, 4, 5, 8, 9, 12, 13, Appendix 2, 3, 4, 5, 6, 7, 8	1 thru 12, 14, 15, 16, 21, 22, 24 thru 35	02/21/2020

## 2. INTRODUCTION

Aircraft Evaluation Groups (AEG) are responsible for working with aircraft manufacturers and modifiers during the development and FAA certification of new and modified aircraft to determine: 1) the pilot type rating; 2) flightcrew member training, checking, and currency requirements; and 3) operational suitability.

This report lists those determinations for use by: 1) FAA employees who approve training programs; 2) FAA employees and designees who certify airmen; and 3) aircraft operators and training providers to assist them in developing their flightcrew member training, checking, and currency.

## 3. HIGHLIGHTS OF CHANGE

This purpose of this revision is to:

- a) Add Appendix 8, Required Navigation Performance Authorization Required (RNP AR) 0.3;
- b) Add the updated aircraft-marketing name Airbus A220-100 and -300;
- c) Incorporate Advisory Circular (AC) 120-118, Criteria for Approval/Authorization of All Weather Operations (AWO) for Takeoff, Landing, and Rollout; and
- d) Correct formatting and acronyms.

## 4. BACKGROUND

**4.1** The Transport Aircraft Long Beach AEG formed a Flight Standardization Board (FSB) that evaluated the Bombardier BD-500-1A10 and BD-500-1A11 aircraft as defined in FAA Type Certificate Data Sheet (TCDS) No. T00008NY. The evaluation of both aircraft was conducted during October and November 2016 using the methods described in the current edition of AC 120-53, Guidance for Conducting and Use of Flight Standardization Board Evaluations.

For simplicity in identification of the two models of C Series aircraft, the BD-500-1A10 will be referenced throughout this report as the “CS100,” and the BD-500-1A11 as the “CS300.”

The CS100 and CS300 are a two-pilot, medium-range, twin-engine aircraft powered by two ultra-high bypass, wing-mounted, turbofan engines. These aircraft are a new type design.

The CS100 is the initial Entry-Into-Service (EIS) model and the CS300 is nearly identical to the CS100, with a 12-foot stretched fuselage, more windows, larger brakes, and heavier weight. See Appendix 3, Differences Tables.

Each aircraft features Fly-By-Wire (FBW) technology controlled by dual sidesticks, Pratt and Whitney PW1500G Geared Turbofan Engines, and the widespread use of advanced-material surfaces and structures. The flight deck incorporates an integrated Rockwell Collins “Fusion” electronic flight instrument system (EFIS) with five large adaptive displays, an integrated electronic checklist (ECL), and dual Rockwell Collins flight management systems (FMS).

Pratt & Whitney PW1500G series engines power the CS100 in four different thrust ratings (PW1519G, PW1521G, PW1524G, and PW1525G). The CS300 can be ordered with the same engine combinations with the exception of the PW1519G version.

Both aircraft can be equipped with an optional single or dual Head-Up Display (HUD) system and optional dual tiller installation.

The CS100 is certified to a maximum of 133 occupants (including one pilot, one co-pilot, one observer, and three cabin crew) and the CS300 is certified to a maximum of 153 occupants (including one pilot, one co-pilot, one observer, and three cabin crew). Two pressurized cargo compartments are located under the cabin floor.

Maximum takeoff weight (MTOW) (certified) for the CS100 is 134,000 lbs. and for the CS300, it is 145,000 lbs.

- 4.2** In June 2018, the FSB conducted flight evaluations of a Build 8.0A avionics software upgrade in a CS300 aircraft. The software upgrade added a display unit (DU) Revisionary mode, Noise Abatement Departure Profile (NADP), Vertical Situation Display (VSD) and an optional satellite communications (SATCOM) system. The associated Airplane Flight Manual (AFM)/Flightcrew Operations Manual (FCOM) changes were found to be operationally suitable.
- 4.3** In June 2018, the FSB conducted flight evaluations of Category (CAT) II/III (IIIa and IIIb) approaches and autoland in a CS100 Level D full flight simulator (FFS) and a CS300 aircraft. The associated AFM/Airplane Flight Manual Supplement (AFMS)/FCOM changes were found to be operationally suitable.
- 4.4** In December 2018, the FSB conducted an evaluation of Future Air Navigation System 1/A+ (FANS 1/A+), which incorporated Controller-Pilot Data Link Communications (CPDLC) and Automatic Dependent Surveillance-Contract (ADS-C) in a CS100 Level D FFS. The associated AFM/AFMS/FCOM change, were found to be operationally suitable.

4.5 In June 2019, the FSB conducted an evaluation of RNP AR 0.3 in a CS100 Level D FFS and a CS300 aircraft. The associated AFM/AFMS/FCOM changes were found to be operationally suitable.

## 5. ACRONYMS

14 CFR	Title 14 of the Code of Federal Regulations
AC	Advisory Circular
ACFT	Aircraft
ACLP	Airbus Canada Limited Partnership
ADS-C	Automatic Dependent Surveillance-Contract
AEG	Aircraft Evaluation Group
AFCS	Automatic Flight Control System
AFM	Airplane Flight Manual
AFMS	Airplane Flight Manual Supplement
AH	Alert Height
AT	Autothrottle
AV	Audiovisual Presentation
AWO	All Weather Operations
CAT	Category
CBT	Computer-Based Training
CG	Center of Gravity
CPDLC	Controller-Pilot Data Link Communications
CPT	Cockpit Procedures Trainer
CSALP	C Series Aircraft Limited Partnership
DA	Decision Altitude
DH	Decision Height
DU	Display Unit
ECL	Electronic Checklist
EFB	Electronic Flight Bag
EFIS	Electronic Flight Instrument System
EIS	Entry-Into-Service
FAA	Federal Aviation Administration
FAF	Final Approach Fix
FANS 1/A+	Future Air Navigation System 1/A+
FBW	Fly-By-Wire
FCOM	Flightcrew Operating Manual
FDOS	Flight Deck Observer Seat
FE	Flight Engineer
FFS	Full Flight Simulator
FMS	Flight Management System
FSB	Flight Standardization Board
FSTD	Flight Simulation Training Device
FTD	Flight Training Device
HDD	Head-Down Display
HO	Handout
HUD	Head-Up Display

ICBI	Interactive Computer-Based Instruction
IFIS	Integrated Flight Information System
LVTO	Low Visibility Takeoff
MDR	Master Differences Requirements
MEL	Minimum Equipment List
MLG	Main Landing Gear
MRW	Maximum Ramp Weight
MTOW	Maximum Takeoff Weight
NADP	Noise Abatement Departure Profile
NAS	National Airspace System
NM	Nautical Mile
PF	Pilot Flying
PFCC	Primary Flight Control Computer
PFD	Primary Flight Display
PIC	Pilot in Command
PM	Pilot Monitoring
PTT	Part Task Trainer
RF	Radius to Fix
RIU	Radio Interface Unit
RNP AR	Required Navigation Performance Authorization Required
RVR	Runway Visual Range
SATCOM	Satellite Communications
SIC	Second in Command
SMGCS	Surface Movement Guidance and Control System
SU	Stand-Up Instruction
TC	Type Certificate
TCBI	Tutorial Computer-Based Instruction
TCCA	Transport Canada Civil Aviation
TCDS	Type Certificate Data Sheet
VMC	Visual Meteorological Conditions
VNAV	Vertical Navigation
V <sub>REF</sub>	reference landing speed
VSD	Vertical Situation Display

## 6. DEFINITIONS

These definitions are for the purposes of this report only.

- 6.1 Base Aircraft.** An aircraft identified for use as a reference to compare differences with another aircraft.
- 6.2 Current.** A crewmember meets all requirements to operate the aircraft under the applicable operating part.
- 6.3 Differences Tables.** Describes the differences between a pair of related aircraft and the minimum levels operators must use to conduct differences training and checking of crewmembers. Differences levels range from A to E.

- 6.4 Master Differences Requirements (MDR).** Specifies the highest training and checking differences levels between a pair of related aircraft derived from the Differences Tables.
- 6.5 Mixed Fleet Flying.** The operation of a base aircraft and one or more related aircraft for which credit may be taken for training, checking, and currency events.
- 6.6 Operational Evaluation.** An AEG process to determine pilot type rating, minimum crewmember training, checking and currency requirements, and unique or special airman certification requirements (e.g., specific flight characteristics and no-flap landing).
- 6.7 Operational Suitability.** An AEG determination that an aircraft or system may be used in the National Airspace System (NAS) and meets the applicable operational regulations (e.g., Title 14 of the Code of Federal Regulations (14 CFR) parts 91, 121, 125, 133, and 135).
- 6.8 Qualified.** A crewmember holds the appropriate airman certificate and ratings as required by the applicable operating part.
- 6.9 Related Aircraft.** Any two or more aircraft of the same make with either the same or different type certificates (TC) that have been demonstrated and determined by the Administrator to have commonality.
- 6.10 Seat-Dependent Tasks.** Maneuvers or procedures using controls that are accessible or operable from only one flightcrew member seat.
- 6.11 Special Emphasis Area.** A training requirement unique to the aircraft, based on a system, procedure, or maneuver, which requires additional highlighting during training. It may also require additional training time, specialized training devices, or training equipment.
- 6.12 Specific Flight Characteristics.** Maneuvers or procedures with unique handling or performance characteristics that the FSB has determined must be checked.

## 7. PILOT TYPE RATING

- 7.1 Type Rating.** The Bombardier CS100 and CS300 aircraft share the same pilot type rating, which is designated as **BD500**.
- 7.2 Common Type Ratings.** Not applicable.
- 7.3 Military Equivalent Designations.** Military aircraft that qualify for the BD500 pilot type rating (if any) can be found at [www.faa.gov](http://www.faa.gov/licenses_certificates/airmen_certification/) under “Licenses & Certificates,” “Airmen Certification,” “Online Services,” “Aircraft Type Rating Designators.” This webpage is kept up-to-date and can be found at [http://www.faa.gov/licenses\\_certificates/airmen\\_certification/](http://www.faa.gov/licenses_certificates/airmen_certification/).

## 8. RELATED AIRCRAFT

### 8.1 Related Aircraft on Same TCDS.

- Bombardier CS100/Airbus A220-100.
- Bombardier CS300/Airbus A220-300.

### 8.2 Related Aircraft on Different TCDS. Not applicable.

## 9. PILOT TRAINING

**9.1 Airman Experience.** Airmen receiving CS100 or CS300 initial type training will benefit from prior experience operating multiengine transport turbojet aircraft in accordance with part 91, 121, or 135. Additionally, a working knowledge of systems, such as automatic flight control systems (AFCS), autothrottle (AT), FMS, Integrated Flight Information System (IFIS), ECL, Electronic Flight Bag (EFB), HUD, and highly integrated avionics systems with electronic flight displays, is highly recommended. Pilots without this experience may require additional training.

### 9.2 Special Emphasis Areas.

9.2.1 Pilots must receive special emphasis ground training on the following areas:

- a) Principles of vertical navigation (VNAV), including the proper interpretation of VNAV Flight Mode Annunciations during climb, descent, and approach (Initial and Transition training).
- b) FBW system: Normal and direct modes and associated envelope protections or degradations (Initial, Recurrent, Upgrade, and Transition training).
- c) ECL usage during normal, abnormal, and emergency operations (Initial, Recurrent, Upgrade, and Transition training).

9.2.2 Pilots must receive special emphasis on and perform the following areas during flight training:

- a) Primary Flight Control Computer (PFCC) Direct Mode: Stall Prevention, Steep Turns, and either visual or instrument approaches ending with a landing in PFCC Direct Mode. This training can only be accomplished in an FFS (Initial, Recurrent, Upgrade, and Transition training).
- b) Manual flight of the aircraft with the minimal use of automation during takeoffs and landings (Initial, Recurrent, Upgrade, and Transition training).
- c) Appropriate use of speed selection modes and intervention (manual versus FMS speed) (Initial, Recurrent, Upgrade, and Transition training).
- d) Alternate methods of checklist usage (normal, abnormal, and emergency) in the event of deferral of the ECL by the minimum equipment list (MEL) (Initial, Recurrent, Upgrade, and Transition training).



**9.3 Specific Flight Characteristics.** There are no specific flight characteristics for either the CS100 or CS300 aircraft.

**9.4 Seat-Dependent Tasks.** Pilots must receive training in these seat-dependent tasks:

- a) HUD (left seat)<sup>1</sup>; initial, recurrent, upgrade, and transition training.
- b) HUD (right seat); initial, recurrent, and transition training.
- c) Tiller usage (right seat)<sup>2</sup>; initial, recurrent, and transition training.

**9.5 Regulatory Training Requirements That Are Not Applicable to the CS100 or CS300.**

Part 121 Appendix E:

- a) Turns with and without spoilers. Not applicable due to aircraft design.
- b) Tuck and Mach buffet. Demonstration of the aircraft's overspeed protection capabilities is an acceptable substitute.
- c) Operation of systems and controls at the Flight Engineer (FE) station. FE is not required for the operation of this aircraft.
- d) Runaway and jammed stabilizer. Not applicable due to aircraft design.
- e) Fuel jettisoning. Not applicable due to aircraft design.
- f) Recovery from specific flight characteristics that are peculiar to the airplane type. No specific flight characteristics are identified for either the CS100 or CS300.
- g) Zero Flap, Zero Slat, Abnormal Flap, or Abnormal Slat Approach. Due to system design, if the maneuver is conducted in an aircraft, a Slat/Flap Lever Position 1 approach to a missed approach will be used. If in the aircraft, circuit breakers must not be disabled and hydraulic systems must not be depressurized to create the failed condition. If the maneuver is conducted in an FFS, the approach must be continued to a landing.

**9.6 Flight Simulation Training Devices (FSTD).**

- a) The manufacturer's training program included aircraft systems integration training as an extension of and key component of ground training. The FSB evaluated this training in a Level 6 flight training device (FTD) and determined that the training as delivered was adequate; training offered in a lower level device would need further evaluation.
- b) HUD (single or dual installations) must be trained in a Level C FFS with a daylight visual display or Level D FFS in both day and night conditions. See Appendix 5, Head-Up Display (HUD), for more information.

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<sup>1</sup> HUD (single installation for the left seat or dual installation for both seats) are optional for the CS100 and CS300 aircraft. See Appendix 5 for pilot training and checking requirements for operators flying HUD-equipped C Series aircraft.

<sup>2</sup> Dual tiller installation in the CS100 or CS300 is optional. Tiller training from the right seat must include taxi and ramp operations that would be representative of airports with complex taxiways and congested ramps. Training to proficiency is acceptable.

- c) Low visibility CAT II/III approaches and Low Visibility Takeoffs (LVTO) must be trained in an FSTD approved for CAT II/III approaches and autoland training. See Appendix 7, Low Visibility CAT II, CAT III, and Autoland Operations, for more information.

**9.7 Training Equipment.** There are no specific systems or procedures that are unique to the CS100 or CS300 that require specific training equipment.

**9.8 Differences Training Between Related Aircraft.** Pilots must receive training in the differences from the CS100 to the CS300 or from the CS300 to the CS100, if applicable. The level of training is specified in Appendix 3.

## 10. PILOT CHECKING

**10.1 Landing from a No-Flap or Non-Standard Flap Approach.** The probability of flap extension failure, slats extension failure, or slats/flap extension failure on the CS100 or CS300 is extremely remote due to system design. Therefore, demonstration of a no-flap approach, no-slats approach, or no-slats/flap approach and landing during pilot certification or a part 121, § 121.441 proficiency check is not required.

**10.2 Specific Flight Characteristics.** There are no specific flight characteristics.

**10.3 Seat-Dependent Tasks.** Pilots must be checked in these seat-dependent tasks:

- a) HUD (left seat), if installed (initial, recurrent, upgrade, and transition checking). See Appendix 5 for specific checking requirements.
- b) HUD (right seat), if installed (initial, recurrent, and transition checking). See Appendix 5 for specific checking requirements.

**10.4 Other Checking Items.** Not applicable.

**10.5 FSTD.** HUD (single or dual installations) must be checked in a Level C FFS with a daylight visual display or Level D FFS in both day and night conditions. See Appendix 5 for specific checking requirements.

**10.6 Equipment.** There are no specific systems or procedures that are unique to the CS100 or CS300 that require specific equipment checking.

**10.7 Differences Checking Between Related Aircraft.** There are no differences checking required between the CS100 and CS300.

## 11. PILOT CURRENCY

There are no additional currency requirements for either the CS100 or CS300 aircraft other than those already specified in 14 CFR part 61 or 121. Meeting the currency requirements in the CS100 satisfies all currency requirements for the CS300, or meeting currency requirements in the CS300 satisfies all currency requirements for the CS100.

**11.1 Differences Currency Between Related Aircraft.** Not applicable.

## 12. OPERATIONAL SUITABILITY

The CS100 and CS300 are operationally suitable for operations conducted in accordance with parts 91 and 121. The FSB determined operational compliance by conducting an evaluation of Aircraft Serial Numbers 50005 (CS100) and 55002 (CS300) during a series of flights from November 9, 2016 through November 16, 2016. The list of operating rules evaluated is on file at the Transport Aircraft Long Beach AEG.

In addition, the FSB has determined that both the CS100 and CS300 are operationally suitable for HUD operations (single or dual HUD installations, LVTO) with HUD, CAT II approaches, and right-seat taxi operations with optional tiller installed.

See Appendix 4, Head-Down Display (HDD) – Reduced and Low Visibility Operations and CAT II Approaches, regarding training, checking, and currency determinations for aircraft with CAT II approach capability and optional HUD installations.

## 13. MISCELLANEOUS

**13.1 Flight Deck Observer Seat (FDOS).** The FDOS in the CS100 was evaluated during a 3.2-hour operational suitability flight conducted on November 10, 2016. The FSB has determined that the FDOS meets the requirements of § 121.581(a) and the current edition of AC 120-83, Flight Deck Observer Seat and Associated Equipment. In that the FDOS in the CS100 and CS300 are identical in design and location on the flight deck, this acceptance also applies to the CS300.

### 13.2 Landing Minima Categories.

- a) Reference 14 CFR part 97, § 97.3 – Both the CS100 and CS300 are considered CAT C aircraft for the purposes of determining “straight-in landing weather minima.”
- b) Circling approaches for the CS100 and CS300 are flown with the landing gear down, Flaps 4 or 5, and reference landing speed ( $V_{REF}$ ) +10 kts. The approach category and associated approach minima shall not be less than CAT C on a circling approach.

### 13.3 Emergency Evacuation.

- a) A full-scale emergency evacuation was successfully completed on the CS100 by Bombardier on December 14, 2014. The aircraft was configured with 133 passenger seats and three flight attendants. The demonstration complied with § 121.291(a).
- b) For the CS300, compliance with § 121.291(a)(1) and 14 CFR part 25, § 25.803 has been demonstrated by analysis in Bombardier Document Number RAQ-BA503-120. This analysis was based on a seating of 145 passenger seats with a single overwing exit per wing (two overwing exits per wing are optional on the CS300). The responsible Aircraft Certification office in New York has accepted this emergency evacuation analysis through the bilateral agreement with Transport Canada Civil Aviation (TCCA).

**13.4 Normal Landing Flaps.** CS100 and CS300 normal “final flap settings” per § 91.126(c) are Flaps 4 or Flaps 5.

**13.5 Aircraft History/Name Change.**

- December 17, 2015 – Initial Type Certification issued to Bombardier, Inc.
- October 2, 2017 – Bombardier, Inc. transferred Type Certification to C Series Aircraft Limited Partnership (CSALP).
- June 1, 2019 – CSALP transferred Type Certification to Airbus Canada Limited Partnership (ACLP).

The BD-500-1A10 marketing name is A220-100 and previously was CS100.

The BD-500-1A11 marketing name is A220-300 and previously was CS300.

**Dedication**

This FSB Report is dedicated to the memory of Eugene David Hartman, C Series FSB Chair 2010–2015.

## APPENDIX 1. DIFFERENCES LEGEND

### Training Differences Legend

Differences Level	Type	Training Method Examples	Conditions
A	Self-Instruction	<ul style="list-style-type: none"> <li>• Operating manual revision (handout (HO))</li> <li>• Flightcrew operating bulletin (HO)</li> </ul>	<ul style="list-style-type: none"> <li>• Crew has already demonstrated understanding on base aircraft (e.g., updated version of engine).</li> <li>• Minor or no procedural changes required.</li> <li>• No safety impact if information is not reviewed or is forgotten (e.g., different engine vibration damping mount).</li> <li>• Once called to attention of crew, the difference is self-evident.</li> </ul>
B	Aided Instruction	<ul style="list-style-type: none"> <li>• Audiovisual presentation (AV)</li> <li>• Tutorial computer-based instruction (TCBI)</li> <li>• Stand-up instruction (SU)</li> </ul>	<ul style="list-style-type: none"> <li>• Systems are functionally similar.</li> <li>• Crew understanding required.</li> <li>• Issues need emphasis.</li> <li>• Standard methods of presentation required.</li> </ul>
C	Systems Devices	<ul style="list-style-type: none"> <li>• Interactive (full-task) computer-based instruction (ICBI)</li> <li>• Cockpit Procedures Trainers (CPT)</li> <li>• Part task trainers (PTT)</li> <li>• Level 4 or 5 flight training device (FTD 4-5)</li> </ul>	<ul style="list-style-type: none"> <li>• Training can only be accomplished through systems training devices.</li> <li>• Training objectives focus on mastering individual systems, procedures, or tasks versus highly integrated flight operations or “real-time” operations.</li> <li>• Training devices are required to assure attainment or retention of crew skills to accomplish more complex tasks, usually related to aircraft systems.</li> </ul>
D	Maneuvers Devices	<ul style="list-style-type: none"> <li>• Level 6 or 7 flight training device (FTD 6-7)</li> <li>• Level A or B full flight simulator (FFS A-B)</li> </ul>	<ul style="list-style-type: none"> <li>• Training can only be accomplished in flight maneuver devices in a real-time environment.</li> <li>• Training requires mastery of interrelated skills versus individual skills.</li> <li>• Motion, visual, control-loading, and specific environmental conditions may be required.</li> </ul>
E	Level C/D FFS or Aircraft	<ul style="list-style-type: none"> <li>• Level C or D full flight simulator (FFS C-D)</li> <li>• Aircraft (ACFT)</li> </ul>	<ul style="list-style-type: none"> <li>• Motion, visual, control-loading, audio, and specific environmental conditions are required.</li> <li>• Significant full-task differences that require a high fidelity environment.</li> <li>• Usually correlates with significant differences in handling qualities.</li> </ul>

### Checking Differences Legend

Differences Level	Checking Method Examples	Conditions
A	None	None
B	<ul style="list-style-type: none"> <li>• Oral or written exam</li> <li>• Tutorial computer-based instruction (TCBI) self-test</li> </ul>	Individual systems or related groups of systems.
C	<ul style="list-style-type: none"> <li>• Interactive (full-task) computer-based instruction (ICBI)</li> <li>• Cockpit Procedures Trainers (CPT)</li> <li>• Part task trainers (PTT)</li> <li>• Level 4 or 5 flight training device (FTD 4–5)</li> </ul>	<ul style="list-style-type: none"> <li>• Checking can only be accomplished using systems devices.</li> <li>• Checking objectives focus on mastering individual systems, procedures, or tasks.</li> </ul>
D	<ul style="list-style-type: none"> <li>• Level 6 or 7 flight training device (FTD 6–7)</li> <li>• Level A or B full flight simulator (FFS A–B)</li> </ul>	<ul style="list-style-type: none"> <li>• Checking can only be accomplished in flight maneuver devices in a real-time environment.</li> <li>• Checking requires mastery of interrelated skills versus individual skills.</li> <li>• Motion, visual, control-loading, and specific environmental conditions may be required.</li> </ul>
E	<ul style="list-style-type: none"> <li>• Level C or D full flight simulator (FFS C–D)</li> <li>• Aircraft (ACFT)</li> </ul>	Significant full-task differences that require a high fidelity environment.

## APPENDIX 2. MASTER DIFFERENCES REQUIREMENTS (MDR) TABLE

These are the minimum levels of training and checking required derived from the highest level in the Differences Tables in Appendix 3. Differences levels are arranged as training/checking.

Related Aircraft ↓	Base Aircraft →	BD-500-1A10 (CS100)	BD-500-1A11 (CS300)
BD-500-1A10 (CS100)		Not applicable	B/A D*/C*
BD-500-1A11 (CS300)		B/A D*/C*	Not applicable

\* The asterisk denotes training and checking for the CS100/CS300 CAT II/III and autoland capabilities (see Appendix 7).

## APPENDIX 3. DIFFERENCES TABLES

### CS100 to CS300

This Design Differences Table from the CS100 to the CS300 was proposed by Bombardier and validated by the FSB on 11/14/16 and 11/15/16. It lists the minimum differences levels operators must use to conduct differences training and checking of flightcrew members.

FROM BASE AIRCRAFT: BD-500-1A10 (CS100)  TO RELATED AIRCRAFT: BD-500-1A11 (CS300)	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	Dimensions	<ul style="list-style-type: none"> <li>• Overall Length increased 12 ft, 3 in.</li> <li>• Nosewheel to Main Landing Gear (MLG) length is 50 ft.</li> </ul>	No	No	A	A
	Weights	<ul style="list-style-type: none"> <li>• Maximum Ramp Weight (MRW) increased to 146,000 lbs.</li> <li>• MTOW increased to 145,000 lbs.</li> <li>• Minimum flight weight is 80,000 lbs.</li> </ul>	No	No	A	A
	Cabin	Increased aircraft capacity to 153 occupants.	No	No	A	A



<b>FROM BASE AIRCRAFT: BD-500-1A10 (CS100)</b>  <b>TO RELATED AIRCRAFT: BD-500-1A11 (CS300)</b>	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	Cargo	Increased capacity.	No	No	A	A
	Limitations	<ul style="list-style-type: none"> <li>• Structural Weight Limits increased.</li> <li>• Center of Gravity (CG) Limits changed.</li> <li>• Design Maneuvering Speed changed.</li> <li>• Minimum speed changed with wing anti-ice inoperative above 30,000 ft.</li> <li>• Reduced fuel capacity.</li> <li>• Different engine variations (thrust ratings).</li> <li>• AFM demonstrated runway width increased to 150 ft.</li> </ul>	No	No	B	A
	ATA 9 Towing and Taxiing	Fuselage length increase results in larger turning radius.	No	No	A	A
	ATA 28 Fuel	Decreased fuel capacity.	No	No	A	A

<b>FROM BASE AIRCRAFT: BD-500-1A10 (CS100)</b>  <b>TO RELATED AIRCRAFT: BD-500-1A11 (CS300)</b>	<b>DESIGN</b>	<b>REMARKS</b>	<b>FLT CHAR</b>	<b>PROC CHNG</b>	<b>TRAINING</b>	<b>CHECKING</b>
	ATA 52 Doors	Two additional overwing emergency exits (optional).	No	No	A	A
	ATA 56 Windows	Additional windows due to increased length.	No	No	A	A
	ATA 71–80 Powerplant	Three engine thrust ratings choices vs. four on CS100 PW1521G-3, PW1524G-3, and PW1525G-3 (PW1519G-3 engine is not available on CS300).	No	No	A	A

This Maneuver Differences Table, from the CS100 to the CS300, was proposed by Bombardier validated by the FSB on 11/14/16 and 11/15/16. It lists the minimum differences levels operators must use to conduct differences training and checking of flightcrew members.

<b>FROM BASE AIRCRAFT: BD-500-1A10 (CS100) S/N 50005</b>  <b>TO RELATED AIRCRAFT: BD-500-1A11 (CS300) S/N 55002</b>	<b>MANEUVER</b>	<b>REMARKS</b>	<b>FLT CHAR</b>	<b>PROC CHNG</b>	<b>TRAINING</b>	<b>CHECKING</b>
	None	No Maneuver Differences.				

### CS300 to CS100

This Design Differences Table from the CS300 to the CS100 was proposed by Bombardier and validated by the FSB on 11/14/16 and 11/15/16. It lists the minimum differences levels operators must use to conduct differences training and checking of flightcrew members.

FROM BASE AIRCRAFT: BD-500-1A11 (CS300) S/N 55002	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
TO RELATED AIRCRAFT: BD-500-1A10 (CS100) S/N 50005	Dimensions	<ul style="list-style-type: none"> <li>• Overall Length decreased 12 ft, 3 in.</li> <li>• Nosewheel to MLG length reduced to 43 ft.</li> </ul>	No	No	A	A
	Weights	<ul style="list-style-type: none"> <li>• MRW decreased to 135,000 lbs.</li> <li>• MTOW decreased to 134,000 lbs.</li> <li>• Minimum flight weight is 77,000 lbs.</li> </ul>	No	No	A	A
	Cabin	<ul style="list-style-type: none"> <li>• Additional (optional) overwing emergency exits are not available.</li> <li>• Decreased aircraft capacity to 133 occupants.</li> </ul>	No	No	A	A

<b>FROM BASE AIRCRAFT: BD-500-1A11 (CS300) S/N 55002</b>  <b>TO RELATED AIRCRAFT: BD-500-1A10 (CS100) S/N 50005</b>	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	Cargo	Decreased cargo capacity.	No	No	A	A
	Limitations	<ul style="list-style-type: none"> <li>• Structural Weight Limits decreased.</li> <li>• CG Limits changed.</li> <li>• Design Maneuvering Speed changed.</li> <li>• Increased fuel capacity.</li> <li>• Different engine variations (thrust ratings).</li> <li>• AFM demonstrated runway width decreased to 100 ft.</li> </ul>	No	No	B	A
	ATA 9 Towing and Taxiing	Fuselage length is reduced, resulting in decreased turning radius.	No	No	A	A
	ATA 28 Fuel	Increased fuel capacity.	No	No	A	A
	ATA 52 Doors	Additional overwing emergency exit doors not available.	No	No	A	A
	ATA 56 Windows	Fewer windows due to decreased fuselage length.	No	No	A	A

<b>FROM BASE AIRCRAFT: BD-500-1A11 (CS300) S/N 55002</b>  <b>TO RELATED AIRCRAFT: BD-500-1A10 (CS100) S/N 50005</b>	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	ATA 71-80 Powerplant	PW1519G-3 engine available for CS100 only.	No	No	A	A

This Maneuver Differences Table, from the CS300 to the CS100, was proposed by Bombardier validated by the FSB on 11/14/16 and 11/15/16. It lists the minimum differences levels operators must use to conduct differences training and checking of flightcrew members.

<b>FROM BASE AIRCRAFT: BD-500-1A11 (CS300) S/N 55002</b>  <b>TO RELATED AIRCRAFT: BD-500-1A10 (CS100) S/N 50005</b>	<b>MANEUVER</b>	<b>REMARKS</b>	<b>FLT CHAR</b>	<b>PROC CHNG</b>	<b>TRAINING</b>	<b>CHECKING</b>
	None	No Maneuver Differences.				

### Build 8.0A Avionics Software Upgrade

This Design Differences Table for the CS100 or CS300 Build 7.5 to Build 8.0A Avionics Software Upgrade was proposed by Bombardier and validated by the FSB on 06/18/18 thru 06/26/18. It lists the minimum differences levels operators must use to conduct differences training and checking of flightcrew members.

FROM BASE AVIONICS: BD-500-1A10 (CS100) OR BD-500-1A11 (CS300) BUILD 7.5 SOFTWARE	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
TO RELATED AVIONICS: BD-500-1A10 (CS100) OR BD-500-1A11 (CS300) BUILD 8.0A SOFTWARE	ATA 22 Autoflight	CAT III A/B capability introduced AFMS 8.	No	Yes	D	C
	ATA 23 Communication	Iridium® SATCOM installed RS-034 ( <b>optional</b> ).	No	No	B	A
	ATA 31 Indications	Primary flight display (PFD) reversion function redesigned AFMS RS 034.	No	Yes	B	A
	ATA 34 Navigation	VSD introduced RS-034.	No	No	B	A
	ATA 34 Navigation	FMS-controlled NADP introduced RS-034.	No	Yes	B	A



## **APPENDIX 4. HEAD-DOWN DISPLAY (HDD) – REDUCED AND LOW VISIBILITY OPERATIONS AND CAT II APPROACHES**

### **1. BACKGROUND**

CS100 and CS300 aircraft are capable of reduced and low visibility taxi and takeoff in visibilities as low as 600 Runway Visual Range (RVR) using the HDD and for HDD CAT II approach operations.

Reduced and low visibility taxi, takeoff, and CAT II approach training, checking, and currency requirements using the HUD or the HUD LVTO function is found in Appendix 5, paragraphs 8 through 11.

### **2. PILOT TYPE RATING**

Not applicable.

### **3. RELATED AIRCRAFT**

HDD-reduced and low visibility training, checking, and currency requirements accomplished in a CS100 Level C FFS with daylight visuals, or Level D FFS or CS100 aircraft, satisfies the training, checking, and currency requirements for the CS300. HDD training, checking, and currency requirements accomplished in the CS300 Level C FFS with daylight visuals, or Level D FFS or CS300 aircraft, satisfies the training, checking, and currency requirements for the CS100.

### **4. PILOT TRAINING**

Pilot training requirements for low visibility operations (taxi, takeoff, and CAT II approaches) applicable to the CS100 or CS300 aircraft are defined in the current edition of Advisory Circular (AC) 120-118.

### **5. PILOT CHECKING**

Pilot checking requirements for low visibility operations (taxi, takeoff, and CAT II approaches) applicable to the CS100 or CS300 aircraft are defined in AC 120-118.

### **6. PILOT CURRENCY**

Pilot currency requirements for low visibility operations (taxi, takeoff, and CAT II approaches) applicable to the CS100 or CS300 aircraft are defined in AC 120-118.

### **7. OPERATIONAL SUITABILITY**

HDD-reduced and low visibility taxi, takeoff, and CAT II approaches were found to be operationally suitable when conducted in a CS100 or CS300 aircraft.

## **APPENDIX 5. HEAD-UP DISPLAY (HUD)**

### **1. BACKGROUND**

The HUD Qualification Program is generic in nature and should not be construed to dictate or limit the scope or content of the course of instruction. Operators with existing HUD training programs may continue to use their approved program or integrate elements of this sample HUD training program.

CS100 and CS300 aircraft may be equipped with an optional single or dual HUD installation. This appendix provides generic training, checking, and currency requirements for the operational use by operators of a single or dual HUD in all phases of flight.

Additional training and checking is required for operators conducting taxi and takeoff operations using the HUD for reduced and low visibility operations, LVTO function, and using the HUD for CAT II approaches (see paragraphs 8 through 11 of this Appendix).

### **2. PILOT TYPE RATING**

Not applicable.

### **3. RELATED AIRCRAFT**

HUD training, checking, and currency requirements accomplished in a CS100 Level C FFS with daylight visuals, or Level D FFS or CS100 aircraft, satisfies the training, checking, and currency requirements for the CS300. HUD training, checking, and currency requirements accomplished in the CS300 Level C FFS with daylight visuals, or Level D FFS or CS300 aircraft, satisfies the training, checking, and currency requirements for the CS100.

### **4. PILOT TRAINING – INITIAL, TRANSITION, AND UPGRADE (IF DUAL HUD INSTALLATION)**

The HUD pilot training is integrated in all CS100 and CS300 ground and flight training. The HUD could be a single or dual installation. Depending on the installation, both pilots would need to satisfactorily complete HUD training, checking, and currency requirements.

Additional training is required for operators to receive credit for low visibility operations (see paragraphs 8 through 11 of this Appendix).

The following training program is generic in nature and should not be construed to dictate what is included in the course of instruction. This training can be integrated in the initial aircraft training course. Each operator has his or her own unique requirements, route structure, fleet composition, and operations policies to consider in developing their training program. Therefore, what follows might be considered as a guide to an operator who is tailoring a HUD training program to fit his or her own needs.

**4.1 Initial or Transition Ground Training.** For air carriers, initial or transition training should be conducted in accordance with the applicable provisions of §§ 121.415, 121.419, 121.424, and 121.427, and the air carrier's operation specifications. For all operators, the initial ground training program should include the following elements:

- a) Computer-based training (CBT) or classroom instruction covering HUD operational concepts, crew duties and responsibilities, and operational procedures including preflight, normal, and non-normal operations.
- b) CBT or Classroom instruction on the HUD symbology and its interrelationship with airplane aerodynamics, inertial factors, and environmental conditions.
- c) A HUD pilot reference manual or equivalent material, which explains all modes of operation, the use of various HUD controls, clear descriptions of HUD symbology, and the incorporation of the HUD into existing crew procedures.

**4.2 Initial and Transition Flight Training:** For all operators, initial or transition flight training should be conducted in accordance with the applicable provisions of part 121 or 142. HUD familiarization and proficiency is integrated into the flight training program. For flight simulator training, approach training should be conducted with a sufficient final approach segment (e.g., final approach fix (FAF) or glideslope intercept) to adequately train HUD usage.

- a) Airwork. Emphasis should be placed on HUD symbology (i.e., flight path vector, flight path acceleration, airspeed cues, and the commonality with the HDD (the PFD)). Maneuver training should include stall prevention, steep turns, and unusual attitudes.
- b) Takeoffs. Sufficient number of HUD assisted takeoffs to the lowest authorized takeoff minima to show centerline control and crosswind conditions.
- c) Visual Approaches. Sufficient number of approaches to show HUD symbology and use in relation to glide path, centerline control, and crosswind conditions.
- d) Instrument Approaches. Sufficient number of precision and non-precision approaches, missed approaches, and landings to the lowest authorized weather minimums to show HUD symbology and to gain proficiency in HUD approaches.

## **5. PILOT CHECKING – INITIAL, TRANSITION, OR UPGRADE (IF DUAL HUD INSTALLATION)**

A pilot must demonstrate proficiency in HUD takeoffs, instrument approaches, missed approaches, and landings during an initial proficiency check required by § 121.441 and part 121 appendix F. Demonstration of HUD proficiency may be combined with any instrument approach, missed approach, or landing required by part 121 appendix F.

## **6. PILOT TRAINING – RECURRENT**

Selected ground and flight training elements from initial HUD training may be presented during HUD recurrent training. Procedures should be addressed in recurrent training.

## **7. PILOT CHECKING – RECURRENT**

A pilot must demonstrate proficiency in HUD takeoffs, instrument approaches, missed approaches, and landings during a recurrent proficiency check required by § 121.441 and part 121 appendix F. Demonstration of HUD proficiency may be combined with any instrument approach, missed approach, or landing required by part 121 appendix F.

## **8. PILOT TRAINING: HUD – REDUCED AND LOW VISIBILITY TAXI, TAKEOFF (LVTO), AND CAT II APPROACHES**

Pilot training requirements for low visibility operations (taxi, takeoff, and CAT II approaches) applicable to the CS100 or CS300 aircraft are defined in AC 120-118.

## **9. PILOT CHECKING: HUD – REDUCED AND LOW VISIBILITY TAXI, TAKEOFF (LVTO), AND CAT II APPROACHES**

Pilot checking requirements for low visibility operations (taxi, takeoff, and CAT II approaches) applicable to the CS100 or CS300 aircraft are defined in AC 120-118.

## **10. PILOT CURRENCY: HUD – REDUCED AND LOW VISIBILITY TAXI, TAKEOFF (LVTO), AND CAT II APPROACHES**

Pilot currency requirements for low visibility operations (taxi, takeoff, and CAT II approaches) applicable to the CS100 or CS300 aircraft are defined in AC 120-118.

## **11. OPERATIONAL SUITABILITY**

HUD-reduced and low visibility taxi, takeoff, and CAT II approaches were found to be operationally suitable when conducted in a CS100 or CS300 aircraft.

## APPENDIX 6. BUILD 8.0A AVIONICS SOFTWARE UPGRADE

### 1. BACKGROUND

In June 2018, the FSB conducted flight evaluations of a Build 8.0A avionics software upgrade in a CS100 Level D FFS and a CS300 aircraft. The avionics software upgrade added a change to DU Revisionary mode, NADP, VSD and an optional SATCOM.

In December 2018, the FSB completed the evaluation of a Build 8.0 avionics software upgrade in a CS100 Level D FFS with the addition of FANS 1/A+, which incorporated CPDLC and ADS-C functionality.

### 2. PILOT TYPE RATING

Not applicable.

### 3. RELATED AIRCRAFT

- BD-500-1A10 (CS100/A220-100)
- BD-500-1A11 (CS300/A220-300)

### 4. PILOT TRAINING

#### 4.1 Training Differences Level: B.

- 4.1.1 Experience/Prerequisite. Pilots should be familiar with the use of the Rockwell Collins Fusion Avionics Suite and the associated Radio Interface Unit (RIU).

#### 4.2 Special Emphasis Areas. Not applicable

**4.3 Ground Training.** The initial, transition, and upgrade ground training should include a thorough understanding of the use and any limitations associated with the new DU Revisionary mode, FANS 1/A+, CPDLC, ADS-C, VSD, NADP, and SATCOM.

**4.4 Flight Training.** The initial, transition, and upgrade flight training should include a thorough understanding of the use and any limitations associated with the new DU Revisionary mode, FANS 1/A+, CPDLC, ADS-C, VSD, NADP, and SATCOM.

### 5. PILOT CHECKING

Checking Differences Level: A.

### 6. PILOT CURRENCY

Not applicable.

### 7. OPERATIONAL SUITABILITY

**7.1** The new DU Reversionary mode, FANS 1/A+, CPDLC, ADS-C, NADP, VSD and SATCOM were found to be operationally suitable when the Build 8.0A avionics software upgrade is installed and operational in a CS100 and CS300 aircraft.

# APPENDIX 7. LOW VISIBILITY CAT II, CAT III, AND AUTOLAND OPERATIONS

## 1. BACKGROUND

In June 2018, the FSB conducted flight evaluations of CAT II/III and autoland operations in a CS100 Level D FFS and a CS300 aircraft. The CAT II/III operations were conducted to CAT II, CAT IIIa, and CAT IIIb minimums while incorporating the autoland functionality.

## 2. PILOT TYPE RATING

Not applicable.

## 3. RELATED AIRCRAFT

- BD-500-1A10 (CS100/A220-100)
- BD-500-1A11 (CS300/A220-300)

## 4. PILOT TRAINING

### 4.1 Training Differences Level: D

4.1.1 Experience/Prerequisite. Pilots should be familiar with the use of the Rockwell Collins Fusion Avionics Suite and the associated RIU.

**4.2 Special Emphasis Areas.** In conducting low visibility CAT II/III approaches and autoland operations, specified duties and procedures are assigned to both the pilot flying (PF) and pilot monitoring (PM). Therefore, the requirement for initial and recurrent training as defined below is applicable to both pilot in command (PIC) and second in command (SIC).

4.2.1 Ground Training. The initial, transition, upgrade, and recurrent ground training should include a thorough understanding of low visibility CAT II/III approaches and autoland operations. Pilots must receive special emphasis on the following areas during ground training:

- a) Decision height (DH), decision altitude (DA), and alert height (AH).
- b) LAND 2 (Fail Passive) versus LAND 3 (Fail Operational) requirements.
- c) CAT IIIa versus CAT IIIb approaches and autoland requirements.
- d) Down Mode, Up Mode, and Downgrade requirements.
- e) MEL requirements for CAT II and CAT III operations.
- f) Runway field length requirements.
- g) Surface Movement Guidance and Control Systems (SMGCS).
- h) Visual reference requirements.
- i) AFMS 8 – Category II and Category III, Autoland Operations.
- j) FCOM Supplement 8 – Category II and Category III, Autoland Operations.

4.2.2 Flight Training. The initial, transition, upgrade, and recurrent flight training should include a thorough understanding of low visibility CAT II/III approaches and autoland operations. Pilots must receive special emphasis on and perform in the following areas during flight training:

- a) DH, DA, and AH recognition and responses.
- b) LAND 2 and LAND 3 recognition and responses.
- c) CAT IIIa/IIIb approach and autoland recognition and callout requirements.
- d) Down Mode, Up Mode and Downgrade recognition and response requirements.
- e) SMGCS visual reference requirements and indications.

## **5. PILOT CHECKING**

Checking Differences Level: C.

## **6. PILOT CURRENCY**

There are no additional currency requirements for the BD-500-1A10 (CS100) or BD-500-1A11 (CS300) other than those already specified in part 61, 121, or 125.

## **7. OPERATIONAL SUITABILITY**

7.1 CAT II/III and autoland operations were found to be operationally suitable when installed and all required equipment is operational in a CS100 and CS300 aircraft.

## **APPENDIX 8. REQUIRED NAVIGATION PERFORMANCE AUTHORIZATION REQUIRED (RNP AR) 0.3**

### **1. BACKGROUND**

In June 2019, an FSB convened to determine operational suitability and evaluate training, checking, and currency requirements for conducting RNP AR 0.3.

RNP AR 0.3 approach capability is a standard feature of the Rockwell Collins Fusion software.

### **2. PILOT TYPE RATING**

Not applicable.

### **3. RELATED AIRCRAFT**

- BD-500-1A10 (CS100/A220-100)
- BD-500-1A11 (CS300/A220-300)

### **4. PILOT TRAINING**

#### **4.1 Training Differences Level: D.**

4.1.1 In conducting RNP AR approaches, specified duties and procedures are assigned to both the PF and PM. The requirement for initial and recurrent training is defined below and applicable to both PIC and SIC.

#### **4.2 Special Emphasis Areas.**

##### 4.2.1 Ground Training:

- a) Supplement 7: RNP – Authorization Required Operations.
- b) Required equipment to start and continue the RNP AR approach (MEL review and in-flight considerations).
- c) Missed approach procedures on Radius to Fix (RF) legs.
- d) Temperature compensation.
- e) Verification of missed approach RNP restriction of 1.0 nautical mile (NM).

##### 4.2.2 Flight Training:

- a) Manually flown approaches and missed approaches.
- b) Missed approach procedures on RF legs.
- c) Temperature compensation.
- d) In-flight equipment failure and contingency procedures (navigation signal, terrain, and other hazards).
- e) Speed constraints associated with an RNP AR approach.
- f) Energy management during approaches and missed approaches.



**4.3 Initial Ground Training.** Initial ground training programs must fully comply with the requirements of the current edition of AC 90-101, Approval Guidance for RNP Procedures with AR.

**4.4 Initial Flight Training.** Initial flight training programs must fully comply with the requirements of AC 90-101.

NOTE 1: RNP AR training in a Bombardier CS100/Airbus 220-100 satisfies the RNP AR training requirement in a Bombardier CS300/Airbus 220-300; and RNP AR training in a Bombardier CS300/Airbus 220-300 satisfies the RNP AR training requirement in a Bombardier CS100/Airbus 220-100 as long as differences training has been provided and documented.

NOTE 2: Flight training when conducted in the aircraft must be in visual meteorological conditions (VMC).

#### **4.5 Recurrent Training.**

4.5.1 Ground training must include, as a minimum, a review of “Pilot Procedures” and “Abnormal/Failures” as defined in AC 90-101.

4.5.2 Flight training must fully comply with the requirements of AC 90-101.

NOTE: Recurrent RNP AR training in a Bombardier CS100/Airbus A220-100 satisfies the recurrent RNP AR training requirement in a Bombardier CS300/Airbus 220-300; and recurrent RNP AR training in a Bombardier CS300/Airbus 220-300 satisfies the recurrent RNP AR training requirement in a Bombardier CS100/Airbus 220-100.

## **5. PILOT CHECKING**

### **5.1 Checking Differences Level: D.**

5.1.1 While conducting an RNP AR approach, specific duties and procedures are assigned to the PF and PM. Therefore, the requirement for initial and recurrent checking is applicable to both PIC and SIC.

5.1.2 Initial and recurrent RNP AR checking in a qualified FFS or Bombardier C Series/Airbus 220 aircraft must include as a minimum:

- a) Two RNP AR approaches: (flown as PF).
- b) One RNP AR approach flown to an RNP published missed approach.
- c) One RNP AR approach flown to a landing.
- d) One of the two RNP AR approaches must have RF legs.

5.1.3 The PM must be RNP AR current and qualified in accordance with this appendix for all checks with the exception of an initial qualification check.

NOTE: RNP AR initial or recurrent checking in a Bombardier CS100/Airbus A220-100 satisfies the initial or recurrent checking requirement in a Bombardier CS300/Airbus A220-300; and initial or recurrent RNP AR checking in a Bombardier CS300/Airbus A220-300 satisfies the initial and recurrent RNP AR checking requirement in a Bombardier CS100/Airbus A220-100) with RNP AR capability.

## **6. PILOT CURRENCY**

- 6.1** While conducting an RNP AR approach, specific duties and procedures are assigned to the PF and PM. Therefore, the currency requirement is applicable to both PIC and SIC.
- 6.2** PF and PM must have accomplished at least one RNP AR approach to either a missed approach or landing within the preceding 6 months.
- 6.3** The RNP AR approach must be accomplished in either an appropriately qualified FFS or Bombardier C Series/Airbus A220 aircraft.
- 6.4** Any checking under part 61, 121, or 125 that requires a demonstration of RNP AR approach competency accomplished within the preceding 6 months satisfies this currency requirement.
- 6.5** If the RNP AR currency requirements specified in this report are not met, then currency can be reestablished by completing the RNP AR training in subparagraph 4.5 and checking elements in subparagraph 5.1.2 of this appendix.

## **7. OPERATIONAL SUITABILITY**

The FSB has determined that RNP AR approach capability installed in the Bombardier C Series/Airbus A220 aircraft is operationally suitable under 14 CFR parts 91, 121, and 125.

\* An operational suitability determination and completion of RNP AR training and checking does not constitute an operational authorization. Operators should reference AC 90-101 for RNP AR application preparation and processing.