C Series

Paperless Operation in Single Aisle

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IATA Conference - Paperless Aircraft Ops
Montreal, Nov 13-15
AGENDA

1. BOMBARDIER
2. C SERIES
3. PAPERLESS FOR FLT OPS
4. PAPERLESS FOR MAINTENANCE
5. QUESTIONS
BOMBARDIER - EVOLUTION OF MOBILITY

THE WORLD'S ONLY MANUFACTURER OF PLANES AND TRAINS.
INNOVATION IS PART OF OUR DNA
BOMBARDIER, THE EVOLUTION OF MOBILITY

Q Series  CRJ Series  C Series

OVER 7,000 COMMERCIAL AND BUSINESS AIRCRAFT IN SERVICE

LEARJET  CHALLENGER  GLOBAL
MARKET LEADER BELOW 150 SEATS

A UNIQUE PORTFOLIO OF CHOICE TO ADDRESS SPECIFIC MARKET NEEDS

- HIGH CAPABILITY
- HIGH PRODUCTIVITY
- COST LEADERSHIP
- DEPENDABILITY
- RIGHT-SIZING
- MAINLINE CAPABILITY
GLOBAL CUSTOMER BASE

OVER 3,400 AIRCRAFT ORDERS WITH 250 OPERATORS

North America
- Air Canada
- PSA Airlines
- SkyWest
- Jazz
- United Airlines
- MCS
- Endeavor Air
- Delta

Latin America
- Star Peru
- Latam
- Avianca
- Taca Airlines
- Sky Regional
- American Airlines

Africa
- TunisAir
- Ethiopian Airlines
- South African Airways

Europe
- Air France
- Iberia
- Lufthansa
- Hop!
- SAS
- British Airways City Line
- LOT

Russia/CIS
- UTair
- Rossiya
- Azal
- Utair

Asia Pacific
- Air New Zealand
- Air China
- PAL Express
- Skippers

Middle East
- Royal Jordanian
- Qatar Airways
- Garuda Indonesia

Lessors
- Investec
- Global Aviation Capital
- Avolon

Liveries represent a sample of Bombardier operators as of June 30th, 2016
SUCCESSFUL ENTRY INTO SERVICE

19 AIRCRAFT IN SERVICE

OVER 21,000 REVENUE FLIGHTS

OVER 2 MILLION PASSENGERS

UP TO 17 FH/DAY PER AIRCRAFT

UP TO 10 LEGS/DAY

As of October 2017
CONTINUING THE MOMENTUM

2017

- Korean Air First C Series Delivery
- SWISS First CS300 Delivery
- Wireless IFE (Panasonic) In-Seat Power System (Astronics)
- 10th C Series Delivery in Q1
- LCY Steep Approach Certification and Validation

2018

- CS100/300 Certification by CAAC

TIMELINE NOT TO SCALE
18 C Series delivered as of September 2017
EXPANDING GLOBAL PRESENCE

1st OPERATOR IN ASIA

DELIVERY H2 2017

READY FOR EIS WITH ON-SITE SUPPORT

CERTIFIED BY KOREAN CIVIL AVIATION
CONTINUING THE MOMENTUM

ETOPS 120/180min Type Approval

Ku-band Connectivity/Wireless IFE

Extreme Cold Weather (-54°C) Certification

2018

CAT III Autoland Certification

Required Navigation Performance (RNP) AR Certification

Panasonic eXConnect / Ku-Band Connectivity

2019

Timeline not to scale
THE FUTURE OF LCY & CHALLENGING AIRPORTS
CS100 STARTED COMMERCIAL FLIGHTS INTO LCY ON AUG 8TH

LARGEST AIRCRAFT @ LCY

275% MORE RANGE

25% MORE SEATS

LARGEST AIRCRAFT @ LCY

275% MORE RANGE

25% MORE SEATS

2,200 NM

CERTIFIED

Runway Length 3,934 ft. (1,199 m)
C SERIES HAS IMPRESSIVE RANGE COVERAGE FOR NORTH AMERICA

CS100 – 108 PAX
3,100 NM

CS300 – 130 PAX
3,300 NM

Notes:
- Still air range figures, Pax + Bag at 225 lbs, 85% annual en route winds, airfield temperature ISA+15C, En route temperature at ISA, 100 nm diversion, 45 min hold at 15,000 ft, 5% Contingency, 100% LF
A CLEAN-SHEET DESIGN WITH STATE-OF-THE-ART TECHNOLOGIES

ADVANCED MATERIALS
Up to 13,000 lbs lighter, rights-sized design

BEST-IN-CLASS CABIN COMFORT
19in. wide seats
1 roller-bag per passenger

ADVANCED FLIGHT DECK & FLY-BY-WIRE
3-day reduction pilot training
Full Fly-by-wire: 3 axis, 2 modes

ELECTRIC BRAKES
Improved dispatch reliability vs. hydraulic brakes

PUREPOWER® PW1500G ENGINE
Highest efficiency without compromise

FLIGHTLINK: AIRCRAFT HEALTH MANAGEMENT SYSTEM
Advanced diagnostics capability,
Maximum aircraft availability
UNRIVALLED PASSENGER EXPERIENCE

50% LARGER WINDOWS

19 INCH-WIDE SEATS

1 ROLLER BAG PER PAX
A COCKPIT DESIGNED BY PILOTS FOR PILOTS
ELECTRONIC CHECKLIST (ECL)

- First single aisle aircraft with integrated sensed electronic checklist
- Normal and Non-normal checklist available
- ECL Database is an LSAP that can be customized by the airlines
Interactive graphical flight planning allows on screen flight path modifications.
Replacement of Paper Airport Charts
ELECTRONIC FLIGHT BAG SOLUTIONS

• C Series equipped with dedicated power outlets for each pilot to support airline portable devices

• Modular line fit solution offered depending on airline needs:
  + Dual Class 2 EFB 12.1” multi-touch display
  + Aircraft Information Server (AIS) for airline specific software
  + Terminal Wireless Connectivity (TWLU)
  + Crew Wireless Connectivity (CWLU) for crew portable devices
  + ACARS Connectivity (accessible via crew devices)

• Use Case: Swiss integration of electronic logbook using C Series EFB architecture and connectivity

• Alternate EFB configuration under evaluation to include only AIS and Connectivity. No display installation. Crew devices as sole EFB interface
• Flight deck solution combines automatic TR updates, user control of content and aircraft serial number-specific information into one application.
• Can be Integrated with pilot Evernote account
ELECTRONIC FAULT ISOLATION MANUAL (EFIM)

- Replaces paper Fault Isolation Manual
- Use Existing FIM + Field Experience
- Advantages:
  - Web based via Bombardier portal
  - Captures experience as it happens
  - Integrated with technical publications
  - Only the most relevant solutions are presented for consideration
  - Faster troubleshooting in the field
IN SUMMARY

CS100 & CS300 AIRCRAFT CERTIFIED BY TRANSPORT CANADA, EASA AND FAA

SUPPORTING SWISS & AIRBALTIC ENTRY INTO SERVICE AND PREPARING FOR EIS WITH KOREAN AIR

C SERIES IS A CLEAN-SHEET DESIGN - REMOVES CONSTRAINTS IMPOSED BY THE PAST LEGACY

NEW AIRCRAFT: LOT’S OF GROWTH POTENTIAL TO FURTHER DRIVE TOWARDS PAPERLESS OPERATIONS
BOMBARDIER