

COURSE TITLE:

Bombardier Challenger 604 Pro Line Fusion Operator Training.

Operator Level 1

TARGET AUDIENCE:

Students which have basic knowledge of aircraft avionics systems and experience operating the Challenger 604.

DESCRIPTION:

This course provides aircrew the training necessary to operate the Pro Line Fusion Avionics System in the Challenger 604.

OBJECTIVES:

1. Identify all Collins Aerospace system and subsystem components and identify their operational characteristics.
2. Understand the features and theory of operation of all Collins Aerospace systems and subsystems.
3. Perform normal and abnormal flight operations using the Collins Aerospace avionics system.

COURSE LENGTH:

5 Days

TRAINING DEVICES:

1. Challenger 604 Pro Line Fusion Desktop Trainer

TRAINING MATERIALS:

1. Student Guide (Electronic)

523-0825401

Publications, Training, and Logistics Services

REFERENCES:

Document Name	Part Number	Edition	Revision	Date
Bombardier Challenger 604 Pro Line Fusion® FMS V1.4 Operator Guide	523-0825299	2	0	3/3/2020
Bombardier Challenger 604 Pro Line Fusion® Flight Management System Quick Reference	523-0825302	1	0	10/12/2018

COURSE OUTLINE:

0. Welcome & Introductions

- A. Introductions
- B. Policies and Procedures
- C. Course Registration
- D. Course Description
- E. Course Material
- F. Schedule
- G. Course Objectives
- H. Evaluation
- I. Critique

1. System Overview

- A. Introduction
- B. Flight Deck Layout

2. Adaptive Flight Display (AFD)

- A. Introduction
- B. Theory of Operation
- C. Graphical User Interface (GUI)
- D. Primary Flight Display (PFD)
- E. Multifunction Display (MFD)

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F. Reversion

G. Care and Cleaning

3. Cursor Control Panel (CCP) and Multifunction Keyboard Panel (MKP)

A. Introduction

B. Cursor Control Panel (CCP)

C. Multifunction Keyboard Panel (MKP)

4. Integrated Flight Information System (IFIS)

A. Introduction

B. Data Link Graphical Weather

C. XM Graphical Weather

D. Electronic Charts

E. Enhanced Maps

5. Automatic Flight Control System (AFCS)

A. Introduction

B. System Operation

6. Communication, Navigation, and Surveillance

A. VHF Radios

B. HF Radios

C. Satellite Communication

D. Datalink

E. Navigation Radios

F. Flight Management System

G. Transponder and TCAS

7. Data Loading

A. Introduction

B. Data Load Process

C. Application License Manager

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8. Summary

- A. Summary
- B. Questions

EQUIPMENT TYPE:

Equipment	Nomenclature	Part Number
Equipment #1, such as CDU-7000	Nomenclature #1, such as Control Display Unit	Part Number #1, such as 822-##-####
ADC-850E	Air Data Computer	822-0842-421
ADC-850E	Air Data Computer	822-0842-621
ADF-462	Automatic Direction Finder	622-7382-101
AFD-3700	Adaptive Flight Display	822-3065-001
AFDR-3700	Adaptive Flight Display Runtime	810-0346-003
AIS-ACP3V	Avtech Audio Control Panel, Triple VHF	856-0073-030
AIS-ACPDV	Avtech Audio Control Panel, Dual VHF	856-0073-020
AIS-REU	Remote Electronics Unit	856-0073-010
ALT-55B	Radio Altimeter	622-2855-011
APCT-3700	Airframe Parameter Configuration Table	810-0422-401
APM-5000	Aircraft Personality Module	822-2195-001
ATF-3510	Advanced Terrain Functions	810-0391-001
ATN-6200	ATN CPDLC Key (Link 2K+)	810-0187-001
CCP-3500	Cursor Control Panel	822-2754-010
CHTX-3500	Charts Extension Key	810-0476-001
CMU-4000	FANS 1/A and Link 2k+	822-1739-704
CSU-4100	Configuration Strapping Unit	822-1364-002
DCU-4002	Data Concentration Unit	822-0179-017

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DLCA-6500	Data Link Communications Application	810-0315-360
DLWX-3500	Data Link Weather Key	810-0353-001
DME-442	Distance Measuring Equipment	622-7309-101
ECDA-6000	Emulated Control Display Application	810-0233-120
ECDA-6000	Emulated Control Display Application	810-0233-100
ECH-3500	Electronic Charts Key	810-0361-001
ECU-3000	External Compensation Unit	822-1200-996
EICAS-6000	Engine Indication Crew Alert System	810-0245-4B0001
ERU-4000	EICAS Routing Unit	822-0845-001
FAN-6200	FANS ATC Data Link Key (CPDLC)	810-0186-001
FCC-4006	Flight Control Computer	822-0809-810
FCP-4003	Flight Control Panel	822-0182-001
FDSA-6500	Flight Display System Application	810-0234-4B0001
FMSA-6010	Flight Management System Application	810-0163-4B0001
FSA-6000	File Server Application	810-0072-304
FSAX-3500	Outboard Enhanced Maps and Graphical Weather Key	810-0354-001
GPS-4000S	Global Positioning System, SBAS	822-2189-100
GPS-4000S	Global Positioning System, SBAS	822-2189-004
GPS-4000S	Global Positioning System, SBAS	822-2189-010
HF-9031A	HF Transceiver	822-0101-002
HF-9041	HF Antenna Coupler	685-0350-002
HPA-901A	High Power Amplifier	822-0953-001
ICC-4007	Integrated Card Cage	822-0781-001
IEC-4000	IAPS Environmental Controller	822-0288-001
IMAT-3700	Integrated Modular Avionics Table	810-0352-101a

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IMS-3500	Information Management System	822-2999-201
IMSA-3500E	Information Management System Application	810-0414-201
IOC-4100	Input/Output Concentrator	822-1362-710
LDU-4000	Lamp Driver Unit	622-9822-001
LHP-4000	Lightning/HIRF Protection	822-0287-702
LHP-4000	Lightning/HIRF Protection	822-0287-701
LHP-4001	Lightning/HIRF Protection	822-0332-702
LHP-4001	Lightning/HIRF Protection	822-0332-701
LTN-101	Inertial Reference Unit	856-0075-010
MKP-3500	Multifunction Keypad	822-2568-010
MSU	IRU Mode Select Unit, Dual	856-0075-020
OCM-4100	Option Control Module	822-1463-200
OCM-4100	on Control Module (Exp FDR)	822-1463-214
ODLA-3500	Onboard Data Loader Application	810-0345-1R0001
OMSA-6000	Onboard Maintenance System Application	810-0106-350
OMST-6000	Onboard Maintenance System Tables	810-0099-4B0001
OVL-3500	Enhanced Map Overlays Key	810-0360-001
PMA-6000	Protocol Manager Application	810-0192-040
PWR-4000	Power Supply Module	622-9945-021
RAC-870	Radio Altimeter Converter	622-7209-002
RDC-4002	Remote Data Concentrator	822-1533-001
RFU-900	Radio Frequency Unit	622-8849-100
RNP-6000	RNP AR ≥ 0.3 Key	810-0201-001
RTA-4114	Weather Radar, 14"	822-2255-001
RTA-854	Receiver Transmitter Antenna	622-8440-003

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RTSA-6000	Radio Tuning System Application	810-0048-702
RTU-4220	Radio Tuning Unit (Dual HF, external disable)	822-0730-468
SDU-906-4	Satellite Communications Data Unit	822-0312-101
SKP-3500	Single Knob Panel, Baro	822-3163-010
SLZ7960	AOA Transmitter	856-0077-010
SSM-4000	Servo Switching Module	822-0782-001
SVL-4000	Servo, Linear Actuator	622-9968-002
SVO-85A	Primary Servo	622-4404-101
SVO-85A	Primary Servo	622-4404-001
SVO-85B	Primary Servo	622-5027-101
SVO-85B	Primary Servo	622-5027-001
TDR-94D	Diversity Mode S Transponder, ADS-B Out	622-9210-501
TTR-2100	TCAS Receiver / Transmitter	822-2911-001
TTR-921	TCAS Transmitter / Receiver	822-1293-033
USB Adapter	Wireless USB Network Adapter	983-9844-112
VHF-4000	VHF Comm Transceiver - 8.33kHz, Data Link	822-1468-390
VHF-422B	VHF Comm Transceiver	622-7293-121
VHF-422B	VHF Comm Transceiver	622-7293-101
VHF-422C	VHF Comm Transceiver	822-1115-001
VHF-422D	VHF Comm Transceiver	822-1116-001
VID-3500	Standard Analog Video Key	810-0392-001
VIR-432	VHF Navigation Receiver	622-7194-201
VSDK-3500	Vertical Situation Display Key (Advanced)	810-0113-001
WX-1000E	Lightning Detection System Processor	856-0072-010

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WXRK-4001	Weather Radar Key-Multiscan Mode w/ Turb	810-0267-001
XMWK-3500	XM Weather Key	810-0355-001
XMWR-1000S	SXM Weather Receiver	822-3365-001