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**COURSE TITLE:** Pro Line 4 – CRJ200 Overview Operator/Maintenance Training

#### PREREQUISITES:

Students should have a basic knowledge of aircraft avionics systems and a working command of the English language. Students should be familiar with MS Windows® based Operating Systems.

#### PURPOSE:

This course provides training to familiarize operators and flight line maintenance personnel with the controls and displays associated with the operation of the CRJ200 Pro Line 4 system.

**OBJECTIVES:** Upon completing this course, the student should be able to:

- 1. Briefly describe the operation of the Control Display Unit (CDU).
- 2. Describe the normal configuration of the Primary Flight Displays (PFD), Multifunction Displays (MFD), and EICAS Displays (ED).
- 3. Describe the function of the control panels used for Display Reversion.
- 4. Describe the operation of the EICAS Control Panel (ECP).
- 5. Describe the Control Panels associated with Radio Tuning and audio monitoring.
- 6. Identify the typical Pro Line 4 aircraft system interface/system architecture.

#### COURSE LENGTH: 6 Hours

#### **REFERENCES**:

1.	Canadair Reginal Jet Avionics System Manual	523-0776286
2.	Pro Line 4 Avionics System for the CRJ-700/900/1000	
	Operator's Guide	523-0778692
3.	Collins FMS-4200 Flight Management System Pilot's Guide	523-0778363
4.	DLM-900/CMU-900 Data Link Management and Communications	
	Management Units Pilot's Guide	523-0780471

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### COURSE OUTLINE

- 0. Welcome & Introductions
  - A. Objectives

### 1. System Architecture

- A. Flight Control Mounted Switches
- B. Flight Control Panel (FCP)
- C. Master Caution/Warning Lighted Switches
- D. Primary Engine Indication and Crew Alerting System (EICAS) Display
- E. Secondary EICAS Display
- F. Multifunction Display (MFD)
- G. Primary Flight Display (PFD)
- H. Display Control Panel (DCP)
- I. Control Display Unit (CDU)
- J. Data Base Unit (DBU)
- K. Miscellaneous Test Panel
- L. Flight Control Mounted Switches
- M. Radio Tune Unit (RTU)
- N. EICAS Control Panel (ECP)
- O. Audio Control Panel (ACP)
- P. Weather Radar Control Panel (WXR)
- Q. YAW Damper Control Panel
- R. Stand-by Radio Tuning Panel
- S. Center Reversion Panel
- T. Compass Control Panel (CCP)
- U. Maintenance Switch

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### 2. Primary Flight Display (PFD)

- A. Introduction PFD
  - i. Description
  - ii. Operation
  - iii. Theory of Operation
- B. Introduction Air Data Reference Panel (ARP)
  - i. Description
  - ii. Operation
  - iii. Theory of Operation
- C. Introduction Flight Control Panel (FCP)
  - i. Description
  - ii. Operation
  - iii. Theory of Operation
- D. Summary/Test

#### 3. Multifunction Display (MFD)

- A. Introduction MFD
  - i. Description
  - ii. Operation
  - iii. Theory of Operation
- B. Introduction Display Control Panel (DCP)
  - i. Description
  - ii. Operation
  - iii. Theory of Operation
- C. Introduction Weather Radar Panel (WXP)
  - i. Description
  - ii. Operation

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- iii. Theory of Operation
- D. Summary/Test

### 4. Engine Indication and Crew Alert System (EICAS)

- A. Description
- B. Operation
- C. Theory of Operation
- D. Summary/Test

#### 5. Display Reversion

- A. Introduction MFD Reversion Panel
  - i. Description
  - ii. Operation
  - iii. Theory of Operation
- B. Introduction Center Reversion Panel
  - i. Description
  - ii. Operation
  - iii. Theory of Operation
- C. Summary/Test

### 6. Control Display Unit (CDU)

- A. Introduction CDU
  - i. Description
  - ii. Operation
  - iii. Theory of Operation
- B. Introduction Data Base Unit (DBU)
  - i. Description
  - ii. Operation
  - iii. Theory of Operation

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C. Summary/Test

### 7. Radios

- A. Introduction Radio Tuning Unit (RTU)
  - i. Description
  - ii. Operation
  - iii. Theory of Operation
- B. Introduction Stand-by Tuning Panel
  - i. Description
  - ii. Operation
  - iii. Theory of Operation
- C. Introduction Audio Control Panel (ACP)
  - i. Description
  - ii. Operation
  - iii. Theory of Operation
- D. Summary/Test

#### 8. Miscellaneous Controls

- A. Introduction Compass Panel
  - i. Description
  - ii. Operation
  - iii. Theory of Operation
- B. Introduction YAW Damper Panel
  - i. Description
  - ii. Theory of Operation
- C. Introduction Flight Control Switches
  - i. Description
  - ii. Operation

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- iii. Theory of Operation
- D. Introduction Miscellaneous Test Panel
  - i. Description
  - ii. Operation
  - iii. Theory of Operation
- E. Introduction Caution/Warning Lights
  - i. Description
  - ii. Operation
  - iii. Theory of Operation
- F. Summary/Test

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### EQUIPMENT TYPE:

EQUIPMENT	NOMENCLATURE	PART NUMBER
Electronic Flight Display	EFD-4076	622-9810-002 / 004 / 006 / 008 / 010 /012 /016
Air Data Reference Panel	ARP-4000	622-9819-004 / 104
Flight Control Panel	FCP-4002	822-0044-001
Weather Radar Control Panel	WXP-4120	622-9929-002
Weather Radar Control Panel (Turb)	WXP-4220	622-9932-002
EICAS Control Panel	ECP-4000	622-9821-002
Control Display Unit	CDU-4100	822-0021-002
Data Base Unit	DBU-4000	622-9865-002
Display Control Panel	DCP-4000	622-9812-002 / 006 / 008
Radio Tuning Unit	RTU-4000	622-9852-003 / 006 / 106 / 108 / 208