



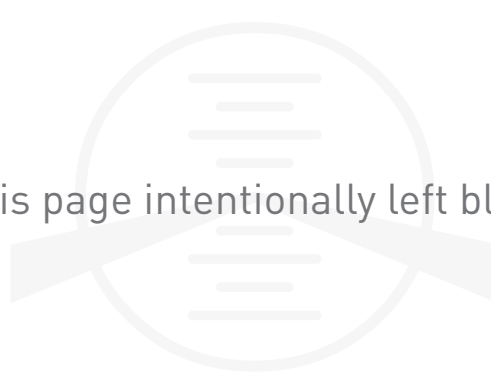
CL-350 TRAINING MANUAL

ENGINE INDICATION AND CREW ALERTING SYSTEM

15

AIRCRAFT SYSTEMS
TRAINING MANUAL

This page intentionally left blank



ENGINE INDICATION AND CREW ALERTING SYSTEM (EICAS)

The Engine Indication and Crew Alerting System (EICAS) serves as the primary interface between the aircraft systems and the flight crew, providing real-time monitoring of engine parameters and aircraft systems while delivering prioritized visual and aural alerts.

The system utilizes four liquid crystal adaptive flight displays (AFDs) to present critical information, with data concentrator units (DCUs) processing system inputs and generating appropriate crew alerts. The EICAS enhances flight safety through automatic system monitoring, integration of system information, color-coded visual presentation of operating limits, and standardized alert prioritization that enables crews to respond effectively to both normal and abnormal conditions.

I. INTRODUCTION

EICAS Specifications

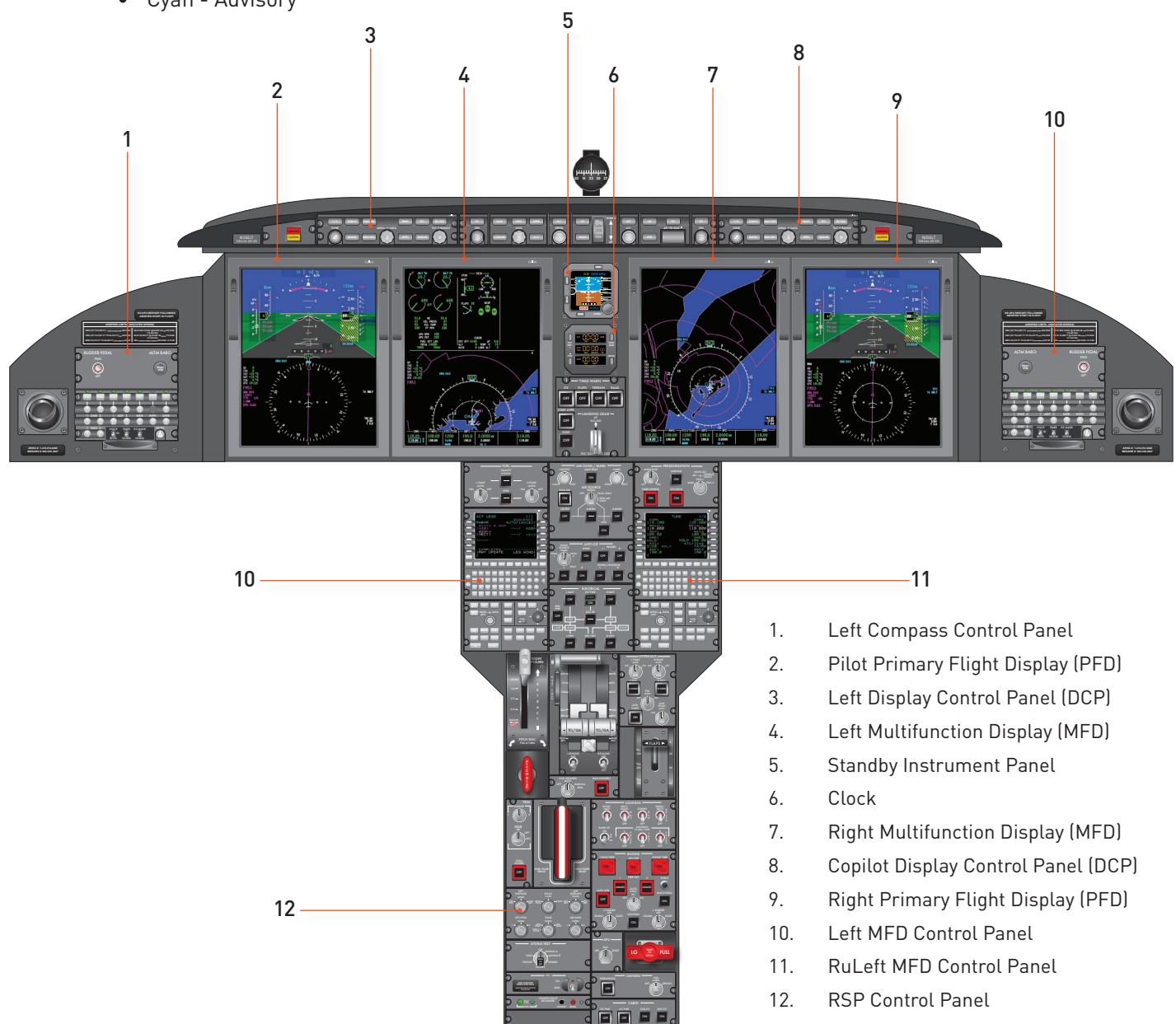
EICAS System Specifications

Parameter	Value
Display Type	Liquid Crystal Adaptive Flight Displays (AFDs)
Number of Displays	4 (2 PFDs, 2 MFDs)
Display Interchangeability	All four displays identical and interchangeable
Data Concentrator Units	2 (DCU A and DCU B)
Remote Data Concentrators	RDC with Channel A and B
MFD Control Panel Location	Center pedestal
Display Cooling	Cooling Fan + Cockpit air distribution system
CVR Recording Duration	2 hours
Maintenance Diagnostic Computer	Housed in IAPS Card Cage (ICC), but functionally separate from IAPS
Display Lighting Control	PFD/MFD knobs on COCKPIT LIGHTS pane on Left/Right side panels

The Challenger 350 utilizes a Quiet Dark Cockpit Philosophy for system indications. This philosophy dictates that under normal operation, indications remain quiet and dark when conditions are met for daylight, Visual Meteorological Conditions (VMC), non-icing conditions, and cruise flight.

Color logic is used to depict system values:

- Red – Warning condition or system limit exceeded
- Amber – Component or function failed or there is no flow, energy or pressure
- Green – Normal operation for digital values. Normal flow, energy or pressure in flowlines
- White – Normal status of component (pump, valve, etc.) or no flow through the flowline
- Magenta – Invalid or unknown data
- Cyan - Advisory





II. SYSTEM COMPONENTS

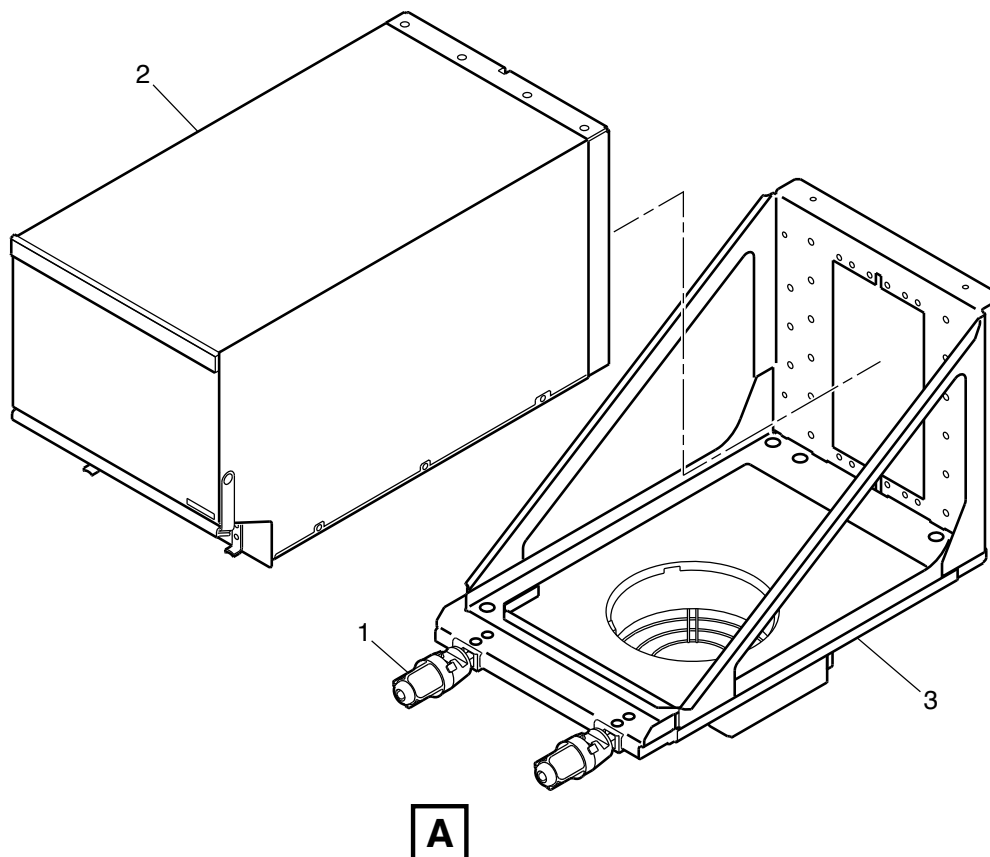
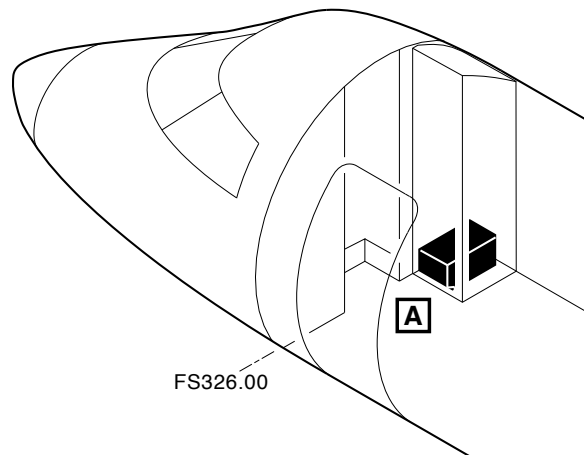
A. DATA CONCENTRATOR UNITS (DCUs)

DCU Functions:

- Process aircraft system inputs and sensor data
- Generate visual and aural crew alerts
- Prioritize messages by importance and occurrence
- Interface with display units and warning systems
- Provide redundancy through dual-channel architecture
- Support maintenance diagnostic functions

DCU Channels:

- A and B channels
- One channel dedicated to engine data conversion
- Second channel handles general aircraft systems
- Automatic switchover upon channel failure
- Cross-channel data sharing for redundancy



Data Concentrator Unit (DCU) – Removal/Installation

B. DISPLAY UNITS

Primary Flight Displays (PFDs):

- Located outboard on each pilot position
- Display flight instruments and navigation data
- Capable of composite display during reversion

Multifunction Displays (MFDs):

- Located inboard on each pilot position
- Left MFD displays engine indications, configuration, and CAS messages
- Right MFD displays synoptic pages and electronic checklist
- Both MFDs can display navigation or system synoptic information

C. CONTROL INTERFACES

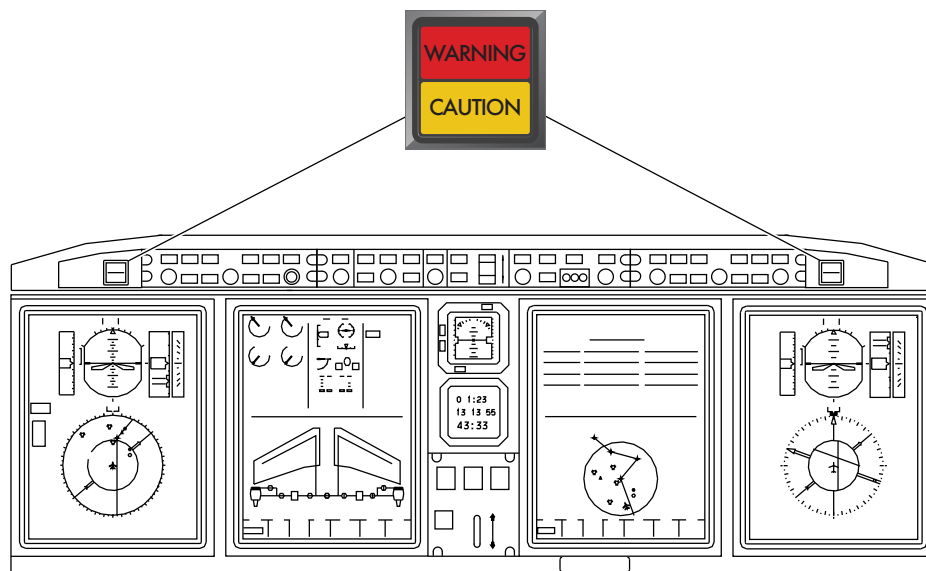
MFD Control Panel (MCP):

- Located on center pedestal
- CAS switch for message management
- CKLST switch for electronic checklist
- FRMT switch for display format selection
- Synoptic page selection switches



Master Warning/Caution Switches:

- Located on glareshield
- Dual switches for pilot and copilot
- Flash red for warnings with triple chime
- Flash amber for cautions with single chime
- Press to acknowledge. Flashing light and audio alerts and (where applicable) voice messages are reset. Gear warning aural is non-mutable.





III. ENGINE INDICATIONS

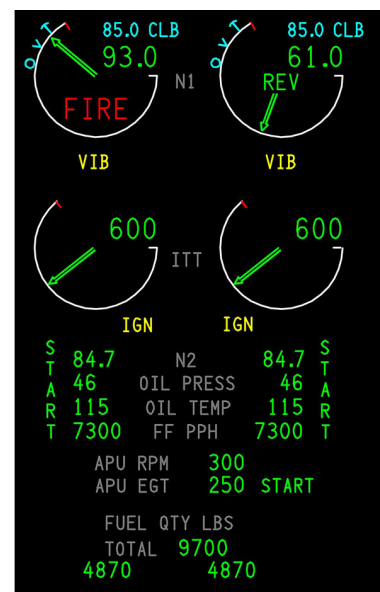
A. DISPLAYED PARAMETERS

Primary Engine Parameters:

- N₁ speed (%) - analog and digital display
- Interturbine temperature (ITT) (°C) - analog and digital
- N₂ speed (%) - digital only
- Oil pressure (psi) - digital only
- Oil temperature (°C) - digital only
- Fuel flow (lb/hr or kg/hr) - digital only

Conditional Displays:

- REV icons - displayed during thrust reverser operation
- VIB icon - displayed when vibration exceeds limits
- SYNC/MACH HOLD - displayed when mode selected
- IGN icon - displayed when ignitor operating
- START icon - displayed during engine start sequence



IV. CREW ALERTING SYSTEM (CAS)

A. MESSAGE PRIORITIZATION

The Crew Alerting System (CAS) provides visual and aural alerts during a malfunction. The CAS prioritizes messages by order of importance and order of occurrence.

Warning Messages (Red):

- Most urgent - require immediate action
- Displayed at top of CAS area
- Remain visible until problem resolved
- Cannot be cleared or hidden
- Accompanied by triple chime
- Master warning lights flash

Caution Messages (Amber):

- Require prompt action
- Displayed below warning messages
- Single chime alert
- Master caution lights flash
- Can be acknowledged

Advisory Messages (Cyan):

- Crew awareness required
- Displayed below caution messages
- May indicate automatic system activation
- Loss of redundancy notifications
- May have associated tone

Status Messages (White):

- Informational only
- Displayed below advisory messages
- Indicate manually selected system states
- No aural alerts

EICAS Message Priorities

Priority Level	Characteristics
Warning (W)	Red color, triple chime, flashing master warning lights
Caution (C)	Amber color, single chime, flashing master caution lights
Advisory (A)	Cyan color, may have associated tone
Status (S)	White color, information only

EICAS Color Logic

Color	Meaning
Red	Warning condition or system limit exceeded
Amber	Component/function failed or no flow/energy/pressure
Green	Normal operation for digital values, normal flow/energy/pressure
White	Normal status of component or no flow through flowline
Cyan	Advisory messages
Magenta	Invalid or unknown data

B. MESSAGE INHIBITION

Takeoff Inhibit:

- Activated above 80 knots
- Released at 400 ft AGL
- Most cautions and all advisories inhibited
- Prevents crew distraction during critical phase

Landing Inhibit:

- Activated below 400 ft AGL
- Released below 40 knots
- Selected messages inhibited
- Reduces workload during approach

Inhibited Message Display:

- Messages triggered during inhibit stored
- Displayed when exiting inhibit envelope
- Master warning/caution illuminates as appropriate

EICAS Inhibit Logic

Phase	Inhibit Parameters
Takeoff Inhibit Start	Airspeed above 80 kt and 400 ft AGL
Takeoff Inhibit End	Above 400 ft AGL
Landing Inhibit Start	Below 400 ft AGL
Landing Inhibit End	Airspeed less than 40 kt
Affected Messages	Some warnings, most cautions, all advisories
Inhibit Indicator	TO/LAND or TO only

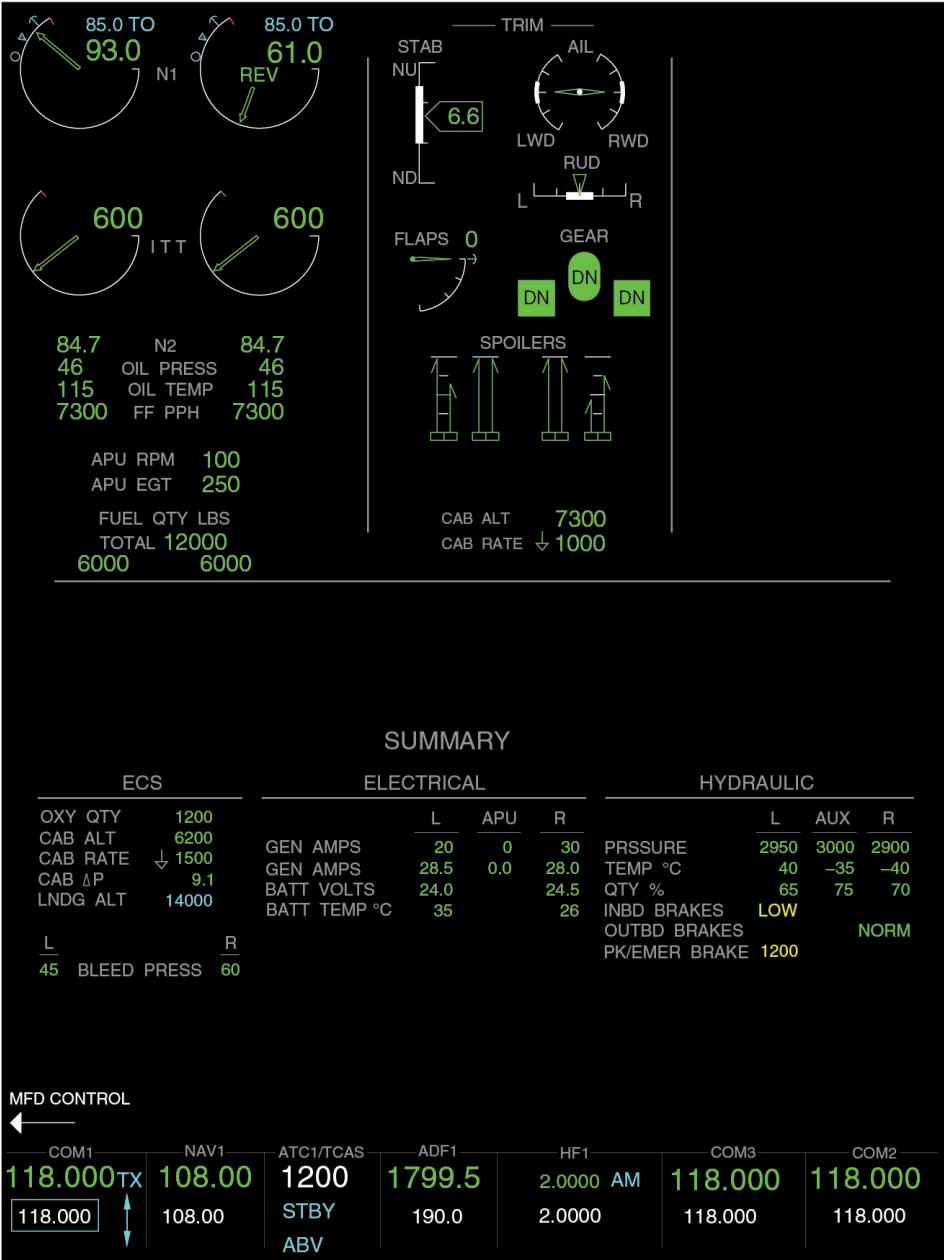


V. SYNOPTIC PAGES

A. SUMMARY SYNOPTIC

Displayed Information:

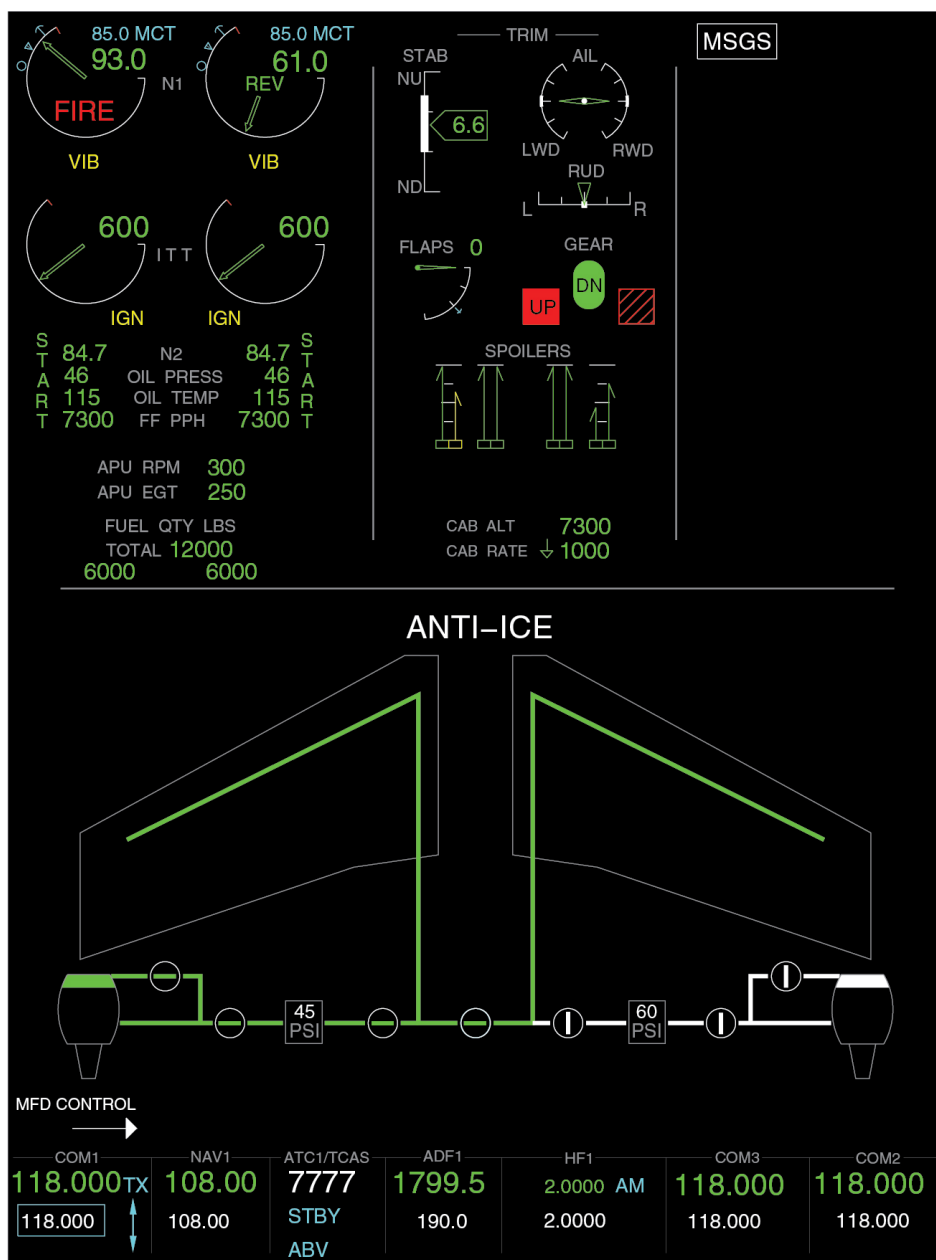
- Overview of multiple systems
- Default display on right MFD
- Quick system status assessment
- Available during display reversion



B. ANTI-ICE SYNOPTIC

System Displays:

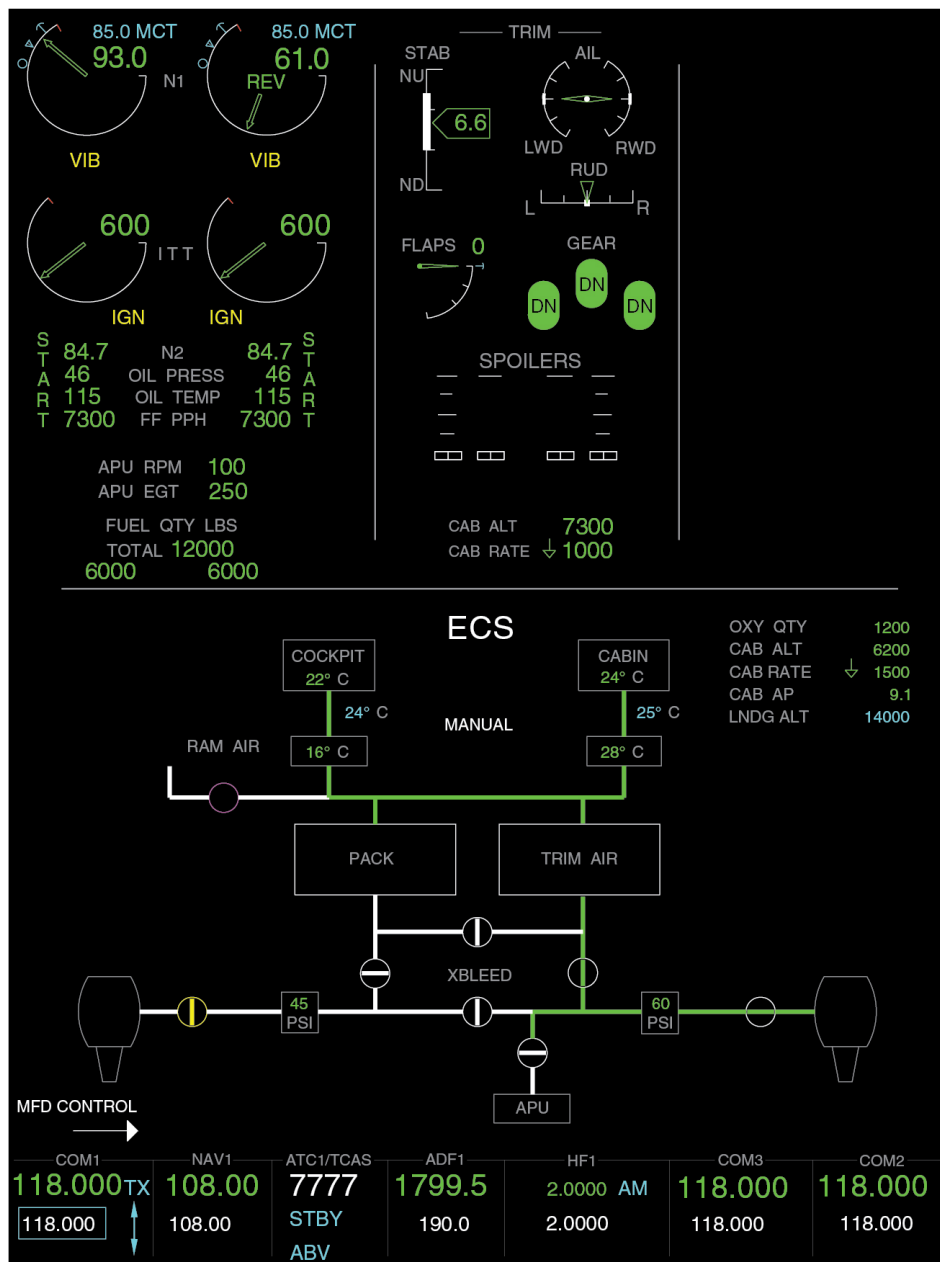
- Bleed air system status
- Wing anti-ice valve positions
- Engine anti-ice valve positions
- Temperature indications
- Flow path visualization



C. ECS SYNOPSIS

Environmental Control Displays:

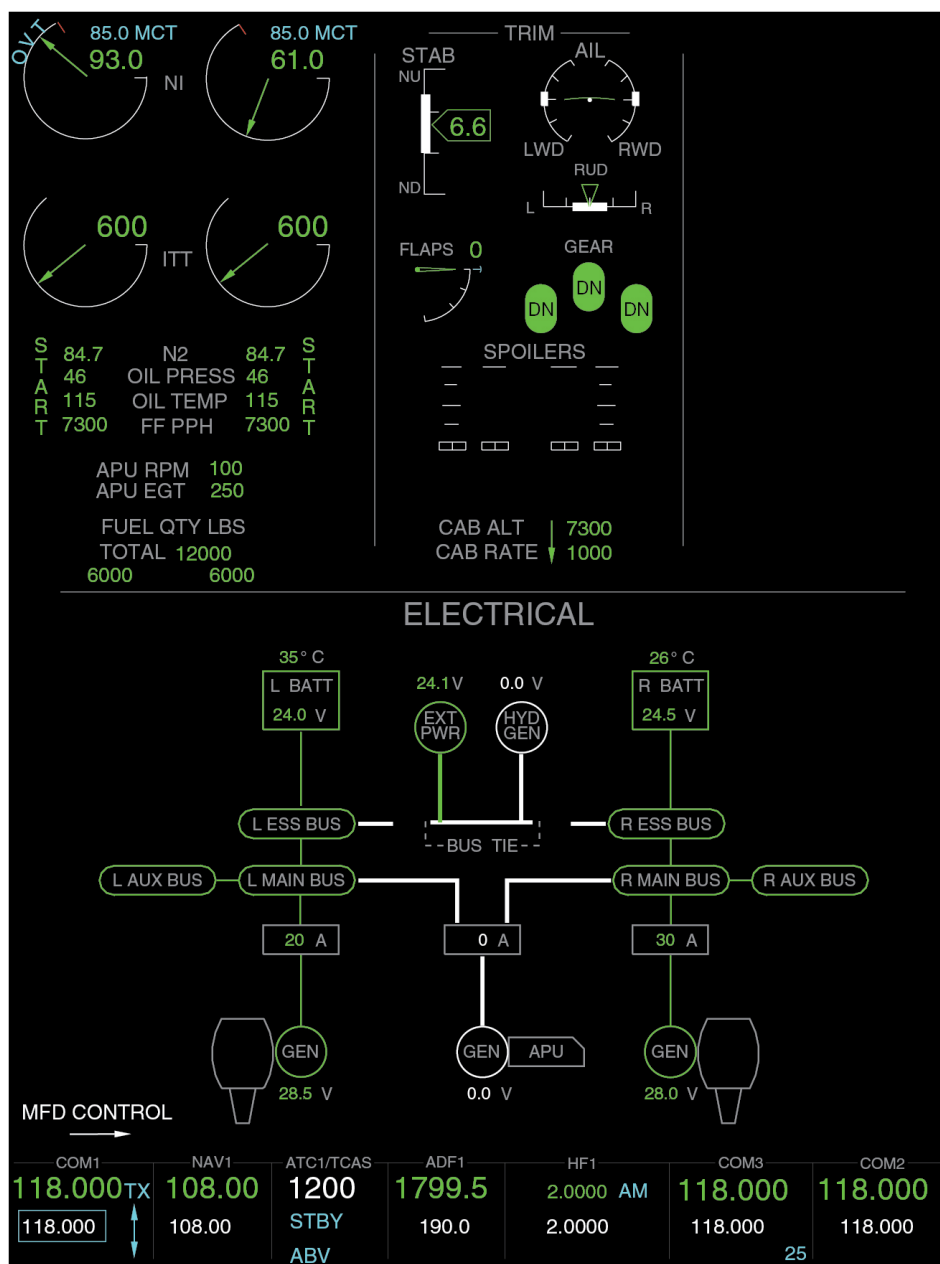
- Bleed air distribution
- Air conditioning pack operation
- Temperature zones and settings
- Pressurization parameters
- Ram air status



D. ELECTRICAL SYNOPTIC

Electrical System Display:

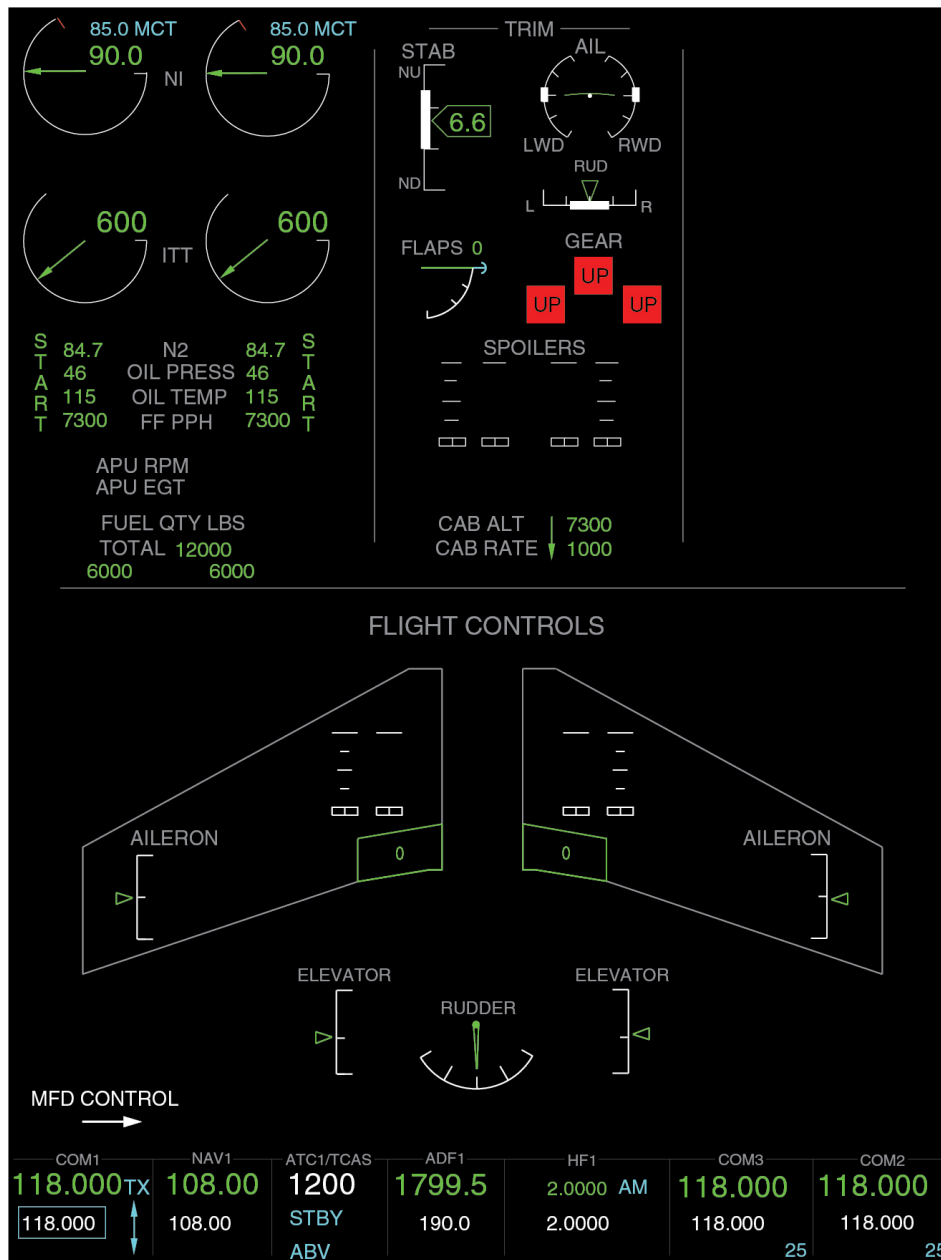
- Bus arrangement and status
- Generator status and output
- Battery status and charging
- External power availability
- Bus tie configuration



E. FLIGHT CONTROLS SYNOPTIC

Control Surface Positions:

- Aileron deflection
- Elevator deflection
- Rudder deflection
- Spoiler positions
- Trim settings

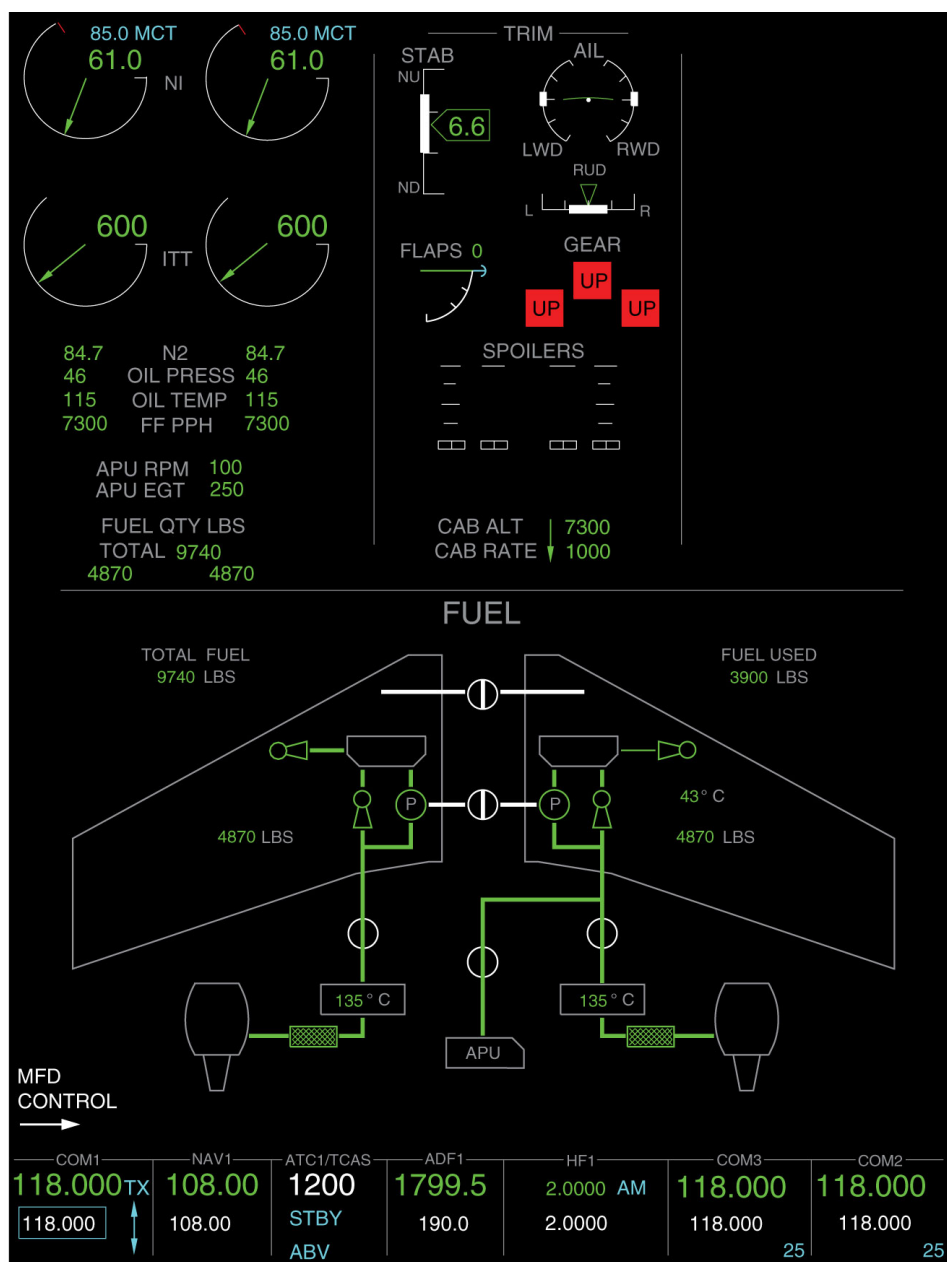




F. FUEL SYNOPTIC

Fuel System Display:

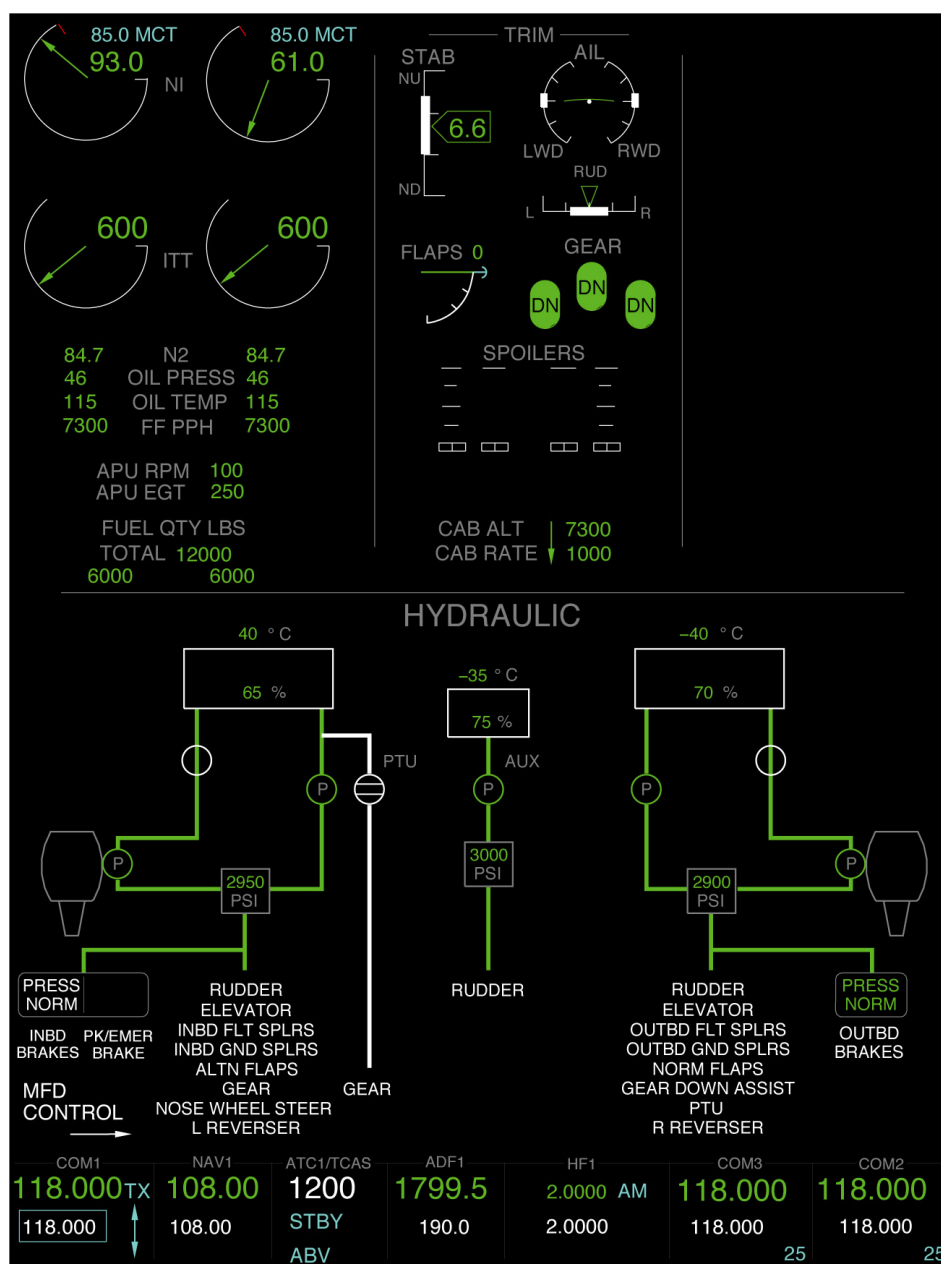
- Tank quantities
- Fuel temperature
- Pump operation status
- Valve positions
- Transfer status



G. HYDRAULIC SYNOPTIC

Hydraulic System Status:

- System pressures
- Reservoir quantities
- Pump operation
- Temperature indications
- PTU status





VI. SYSTEM TESTS

A. TEST PANEL

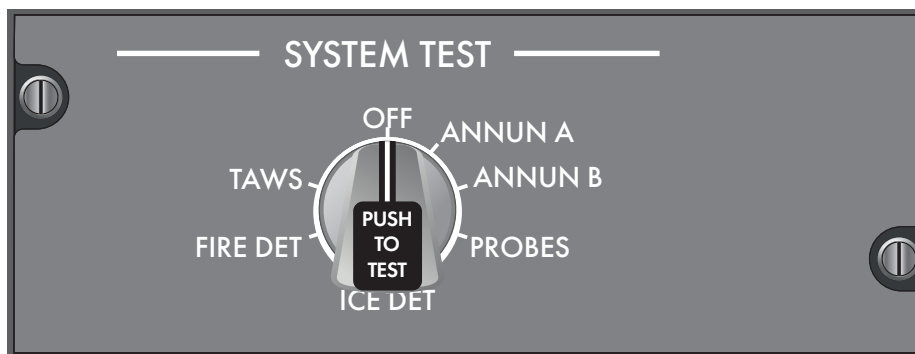
Available Tests:

- ANNUN A / ANNUN B test - verifies all CAS messages
- PROBES - tests air data probes and sensors
- STALL/RUD LIM - tests stall protection system
- ICE DET - tests ice detection system
- FIRE DET - tests fire detection and extinguishing
- TAWS - tests terrain avoidance warning system
- AUTO THROTTLE - tests autothrottle system (if installed)

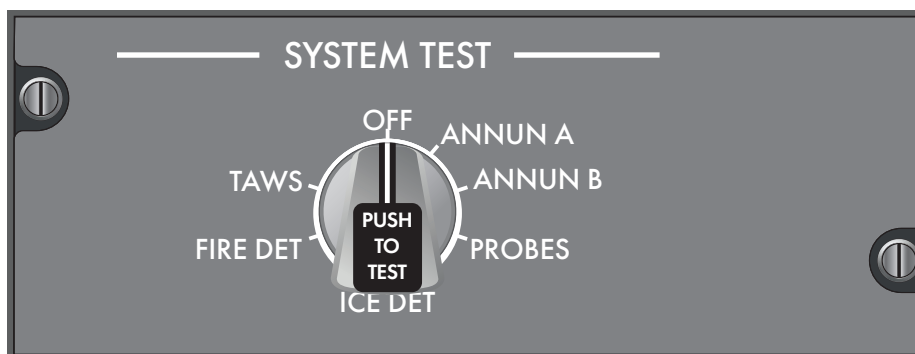
B. CAS TEST PROCEDURE

Test Sequence:

- Initiated by pressing ANNUN A or ANNUN B system test switch for 15 seconds
- Illuminates all panel lights
- Verifies aural warning generation
- Tests master warning/caution lights



Systems Test Control Panel Without AT System



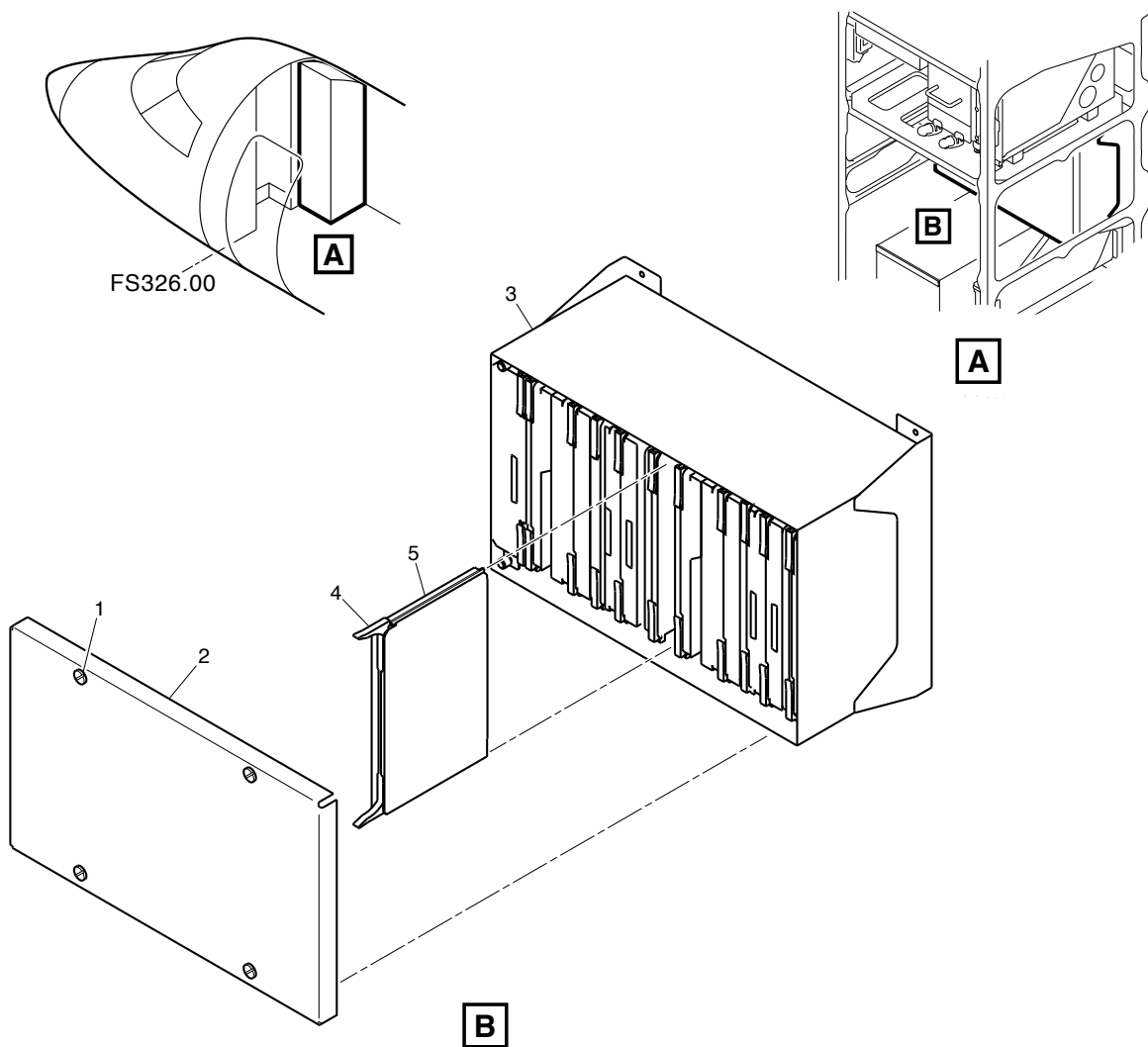
Systems Test Control Panel With AT System

VII. MAINTENANCE FEATURES

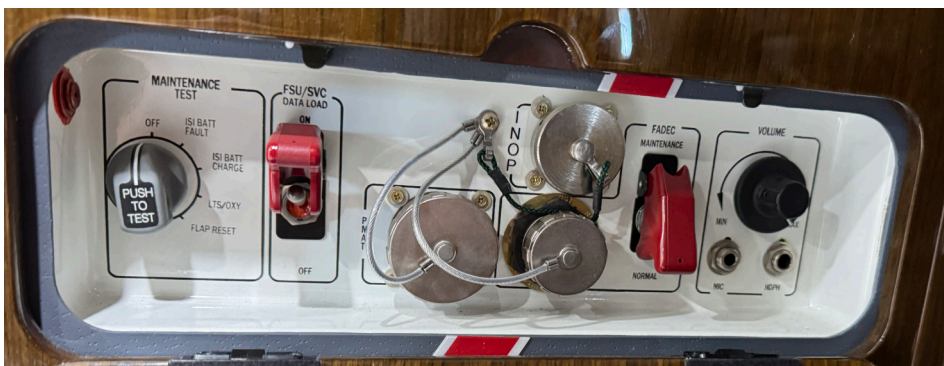
A. MAINTENANCE DIAGNOSTIC COMPUTER (MDC)

MDC Functions:

- Records engine parameters, trend monitoring, start counts, exceedances, TR deployments
- Stores LRU status information
- Captures fault codes
- Supports ground maintenance activities
- Enables data download for analysis
- Access via Right MFD (Press A/ICE+ECS+FUEL at the same time on CCP)



Maintenance Diagnostic Computer (MDC) – Removal/Installation



Portable Maintenance Access Terminal (PMAT)
MDC Interface, top of main cabin stairs, bottom of cabinet.

B. COCKPIT VOICE RECORDER (CVR)

CVR Specifications:

- Crash survivable design
- 2-hour recording capacity, starts as soon as power is applied to the aircraft
- Records cockpit audio environment
- Automatic overwrite of oldest data, must be WOW and parking brake set to manually erase
- Protected storage location
- Records Pilot/Copilot mics (mask, boom/handheld), Cockpit area microphone and Observer 3rd audio.
- Records for an additional 10 minutes after complete loss of normal aircraft power if equipped with a Recorder Independent Power Supply (RIPS)



VIII. AURAL WARNING SYSTEM

A. AURAL ALERTS

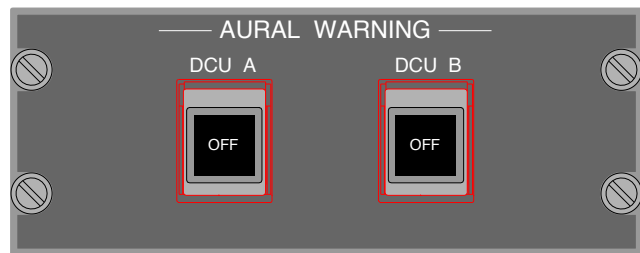
Warning Sounds:

- Triple chime - warning messages
- Single chime - caution messages
- Voice alerts - specific warnings
- Triple Chime + voice 'CONFIGURATION' configuration warnings
- Cabin/LAV call - Single chime + CAS Advisory

B. AURAL WARNING DISABLE

Disable Switches:

- Located on copilot aft bulkhead
- DCU A and DCU B switches
- OFF disables respective DCU aural
- Both OFF disables all EICAS aural
- Use only for system malfunction, or as directed by AFM (Gear Up/Unsafe Landing and Ditching)



IX. DISPLAY REVERSION

The reversion switch panel is located on the pilot's side of the center pedestal below the parking brake handle. This panel provides alternative methods for displaying EICAS information and selecting data sources when displays or systems fail.

A. REVERSION CAPABILITY

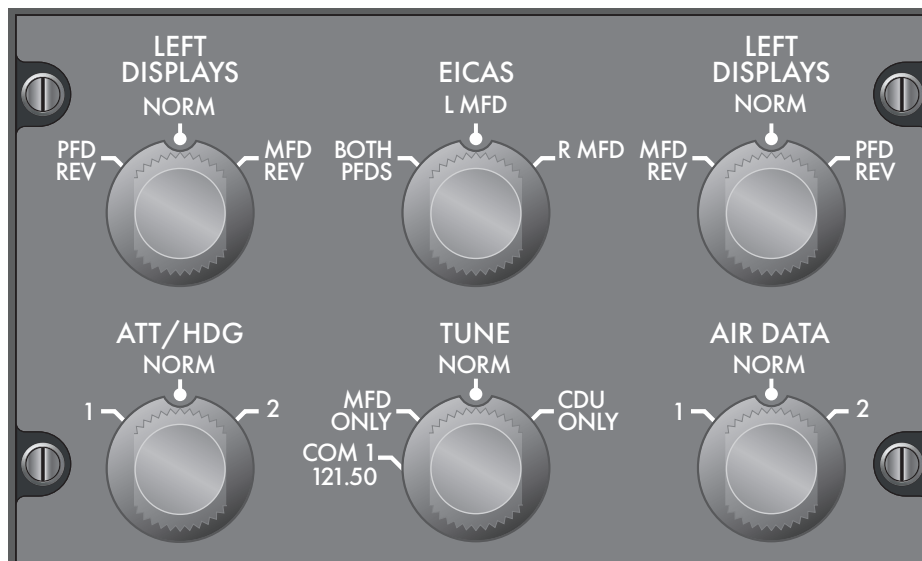
Display Failure Modes:

- PFD REV - displays composite on MFD
- MFD REV - transfers display to opposite MFD
- Maintains critical flight and engine information
- FRMT button accesses summary synoptic

B. COMPOSITE DISPLAY

Composite Format:

- Combined flight instruments and EICAS
- Reduced but essential information set
- Prioritized parameter display
- Maintains primary flight data



C. SWITCH FUNCTIONS

Left Displays Reversion Switch:

- **PFD REV** - Left PFD displays compressed format combining flight instruments and EICAS information. Left MFD is shut down
- **NORM** - Normal operation with Left PFD showing standard flight instruments and Left MFD displaying EICAS/navigation data
- **MFD REV** - Left PFD is shut down. Left MFD displays compressed format showing essential flight and engine information

EICAS Reversion Switch:

- **L MFD** - EICAS information displayed only on the Left MFD (normal configuration)
- **BOTH PFDs** - EICAS information displayed in compressed format on both PFDs. Used when both MFDs have failed or when maximum redundancy needed
- **R MFD** - EICAS information transferred to Right MFD. Used when Left MFD fails or for crew preference

Right Displays Reversion Switch:

- **MFD REV** - Right MFD displays compressed format with combined information. Right PFD is shut down
- **NORM** - Normal operation with Right MFD showing navigation/synoptic data and Right PFD displaying flight instruments
- **PFD REV** - Right MFD is shut down. Right PFD displays compressed format with essential flight and engine data

ATT/HDG Reversion Switch:

- **1** - All displays use IRS 1 attitude and heading data regardless of normal side allocation
- **NORM** - Displays use on-side IRS data (Pilot uses IRS 1, Copilot uses IRS 2)
- **2** - All displays use IRS 2 attitude and heading data for all flight instruments

Tune Reversion Switch:

- **COM1 121.50** - Emergency configuration. COM1 automatically tuned to 121.50 MHz emergency frequency
- **MFD ONLY** - Radio tuning enabled only through MFD controllers. CDU tuning capability disabled
- **NORM** - Normal dual tuning capability through both MFDs and CDUs as desired
- **CDU ONLY** - Radio tuning enabled only through CDUs. MFD tuning capability disabled. Primary mode during display failures

Air Data Reversion Switch:

- **1** - All displays receive air data from ADC 1 only. Used when ADC 2 fails
- **NORM** - Each display uses on-side air data (normal configuration)
- **2** - All displays receive air data from ADC 2 only. Used when ADC 1 fails

X. INTEGRATED AVIONICS PROCESSOR SYSTEM (IAPS)

A. SYSTEM DESCRIPTION

The Integrated Avionics Processor System (IAPS) represents a critical avionics architecture that consolidates multiple functional modules into an efficient mechanical package. This integration minimizes aircraft size, weight, and wiring complexity while significantly improving system reliability and maintainability. The IAPS serves as the central data processing and distribution hub for the aircraft's avionics systems.

Key Design Features:

- Physical consolidation of avionics functions into single card cage
- Redundant signal transmission architecture
- Independent power supplies for each processing channel
- ARINC 429 data bus reading and transmission capability
- Modular design supporting maintenance and upgrades
- Environmental control system for thermal management

B. IAPS COMPONENTS

Integrated Avionics Processor System Card Cage (ICC):

- Housing unit containing all IAPS components
- Located in right equipment rack
- Provides physical mounting and interconnection
- Includes cooling air distribution channels
- Houses FMCs, FGCs, and MDC (not part of IAPS itself)

Input/Output Concentrator Units (IOCs):

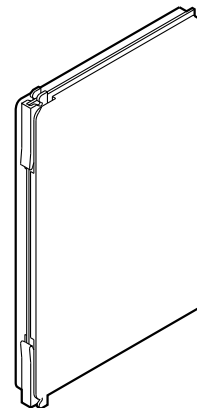
- Two independent IOCs (No. 1 and No. 2)
- Receive data words from external systems
- Transmit processed data to appropriate LRUs
- Route all display data to cockpit displays
- Provide ARINC 429 data processing and distribution
- Interface through ICC circuit card connections

IAPS Power Supplies:

- Dual independent 28 VDC power supplies
- Input from main DC busses
- Filtered and regulated power distribution
- No. 1 supply powers: No. 1 FGC, FMC, and IOC No. 1
- No. 2 supply powers: No. 2 FGC, FMC, MDC, and IOC No. 2
- Complete electrical isolation between channels

Integrated Avionics Processor System Environmental Controller (IEC):

- Independent temperature control system for ICC
- Dual ICC temperature sensors



INPUT/OUTPUT CONCENTRATOR UNIT (IOC)

C

- Two-speed cooling fans with automatic control
- Heat exchanger for thermal dissipation
- Two thermostats for redundant temperature monitoring
- Two transducer monitor circuits
- Maintains optimal operating temperature range

Control Strapping Units (CSUs) and Options Control Modules (OCMs):

- Configure IAPS operational parameters
- Set system strap settings
- Enable/disable optional functions
- Provide configuration management

C. SYSTEM OPERATION

Normal Operation:

- Automatic system initialization at power-up
- Continuous data acquisition from aircraft systems
- Real-time processing and distribution
- No pilot intervention required
- Transparent operation to flight crew

Data Processing:

- Multiple independent data transmission paths
- Each signal transmitted more than once for redundancy
- Cross-channel data validation
- Automatic error detection and correction
- Priority-based message handling

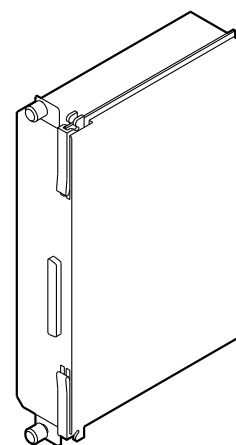
System Interfaces:

- Interfaces with all major avionics systems
- Provides data to EICAS displays
- Supports FMS operations
- Enables autopilot/flight director functions
- Interfaces with navigation systems

D. FAILURE MODES AND REDUNDANCY

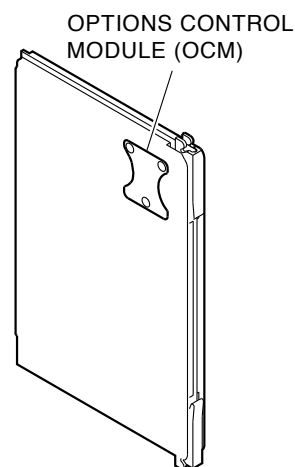
Single IAPS Failure (L or R):

- Automatic transfer to operative channel
- Requires manual FD transfer selection
- Tune reversion to CDU only
- Landing altitude source selection required
- Approach capability may be limited



ENVIRONMENTAL CONTROLLER (IEC)

F



CONFIGURATION STRAPPING UNIT (CSU)

E

Dual IAPS Failure:

- Extremely rare due to redundant design
- Basic flight instruments remain available
- Standby instruments provide backup
- Manual flight control maintained
- Land as soon as practical

E. IAPS MESSAGES**Caution Messages:**

- L (R) IAPS FAIL - respective IAPS channel failed

Advisory Messages:

- IAPS FAN FAULT - cooling system malfunction
- IAPS operational status indications

F. MAINTENANCE FEATURES**Built-in Test Equipment (BITE):**

- Continuous system monitoring
- Fault isolation to LRU level
- Diagnostic data storage
- Maintenance message generation

Line Replaceable Units (LRUs):

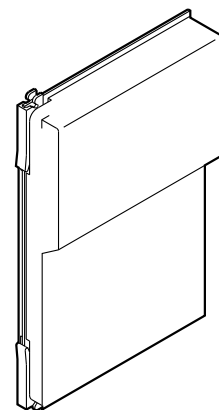
- Modular component design
- Quick disconnect capability
- No adjustment required
- Plug-and-play replacement

G. OPERATIONAL CONSIDERATIONS**Pilot Actions:**

- No normal operational actions required
- No pilot-controlled reversionary operations
- Monitor EICAS messages for failures
- Follow QRH procedures if failures occur

Dispatch Considerations:

- Single IAPS channel failure may be dispatchable
- Consult MEL for specific requirements
- Maintenance action required before next flight
- Performance limitations may apply



**INTEGRATED-AVIONICS PROCESSOR
SYSTEM (IAPS) POWER SUPPLY (PWR)**



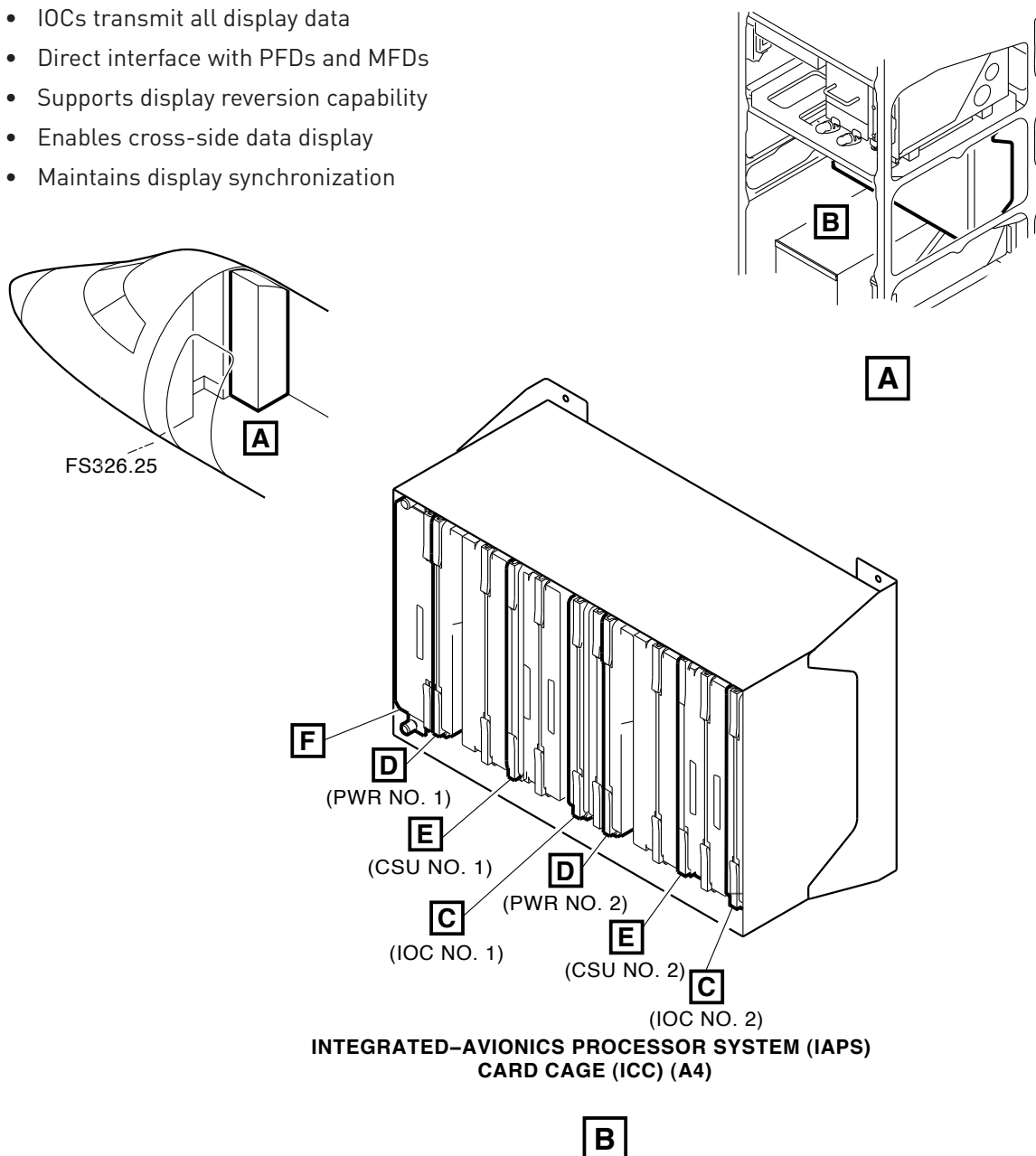
H. SYSTEM INTEGRATION WITH EICAS

EICAS Interface:

- IAPS provides processed data to DCUs
- Enables display of system parameters
- Supports CAS message generation
- Facilitates synoptic page displays
- Critical for EICAS functionality

Display Data Routing:

- IOCs transmit all display data
- Direct interface with PFDs and MFDs
- Supports display reversion capability
- Enables cross-side data display
- Maintains display synchronization



XI. OPERATIONAL CONSIDERATIONS

A. NORMAL OPERATIONS

System Monitoring:

- Continuous automatic monitoring
- No crew action required for normal ops
- Automatic alert generation
- Color changes indicate parameter status

B. MESSAGE MANAGEMENT

CAS Switch Functions:

- First press - removes caution/advisory/status
- MSGS icon displayed
- Second press - restores messages
- New messages appear above MSGS
- Warning messages cannot be hidden

C. DISPATCH CONSIDERATIONS

EICAS Messages and Dispatch:

- Messages that cannot be cleared must be reviewed
- Reference MMEL/MEL for dispatch eligibility
- GO/NO GO guide provides quick reference
- Most warnings are not dispatchable
- Caution and advisory messages may have MMEL implications

XII. ALL EICAS MESSAGES AND AUDIO (Chapter Refs are FCOM2)

EICAS WARNING MESSAGES				
Most warning messages are preceded by a triple chime, all voice alerts are continuous				
Message	Inhibits	Chap. Ref.	Aural Alerts	Voice Alerts
APU FIRE	—	5/9	Triple Chime	"APU FIRE"
APU OVERTEMP	TO/LAND	5	Triple Chime	None
L (R) BATT OVERHEAT	TO/LAND	7	Triple Chime	None
ESSENTIAL POWER ONLY	—	7	Triple Chime	None
L (R) BLEED LEAK	TO/LAND	2	Triple Chime	None
CABIN ALTITUDE	TO/LAND	2	None	"CABIN ALTITUDE"
CABIN DELTA P	TO/LAND	2	Triple Chime	None
CARGO SMOKE	—	9	Triple Chime	None
CONFIG AILERON TRIM	—	10	Triple Chime	"CONFIGURATION"
CONFIG AUTOPILOT	—	4	Triple Chime	"CONFIGURATION"
CONFIG FLAPS	—	10	Triple Chime	"CONFIGURATION"
CONFIG RUDDER TRIM	—	10	Triple Chime	"CONFIGURATION"
CONFIG SPOILERS	—	10	Triple Chime	"CONFIGURATION"
CONFIG STAB TRIM	—	10	Triple Chime	"CONFIGURATION"
GEAR	—	15	Triple Chime	"GEAR"
GEAR BAY OVHT	TO/LAND	9/15	Triple Chime	None
L(R) ENG OIL PRESS LOW	TO/LAND	18	Triple Chime	None
L (R) ENGINE EXCEEDANCE	—	18	Triple Chime	None
L (R) ENGINE FIRE	—	9	Triple Chime	"LEFT (RIGHT) ENGINE FIRE"
HYD PRESS LOW	—	13	Triple Chime	None
NORM BRAKES FAIL	TO	15	Triple Chime	"NORMAL BRAKES FAIL"
PACK LEAK	TO/LAND	2	Triple Chime	None
PARK/EMER BRAKE ON	—	15	Triple Chime	"CONFIGURATION"
PITCH DISCONNECT	—	10	Triple Chime	"CONFIGURATION"
L (R) PYLON BLEED LEAK	TO/LAND	2	Triple Chime	None
L (R) REVERSER UNSAFE	—	18	Triple Chime	None

EICAS WARNING MESSAGES

Most warning messages are preceded by a triple chime, all voice alerts are continuous

Message	Inhibits	Chap. Ref.	Aural Alerts	Voice Alerts
ROLL DISCONNECT	—	10	Triple Chime	"CONFIGURATION"
TRIM AIR LEAK	TO/LAND	2	Triple Chime	None
WING ANTI-ICE LEAK	TO/LAND	14	Triple Chime	None
L (R) WING OVERHEAT	—	14	Triple Chime	None

EICAS CAUTION MESSAGES

All caution messages are preceded by a single chime

Message	Inhibits	Chapter Ref.
AFCS MESSAGES FAIL	TO	4
AFT EQPT BAY DOOR	TO/LAND	1
AIR COND TEMP FAIL	TO/LAND	2
AIR COND TEMP HIGH	TO/LAND	2
AIR DATA 1 (2) FAULT	TO/LAND	11
L (R) AOA VANE HEAT FAIL	TO/LAND	14
AP HOLDING LWD	TO	4
AP HOLDING RWD	TO	4
AP HOLDING NOSE DOWN	TO	4
AP HOLDING NOSE UP	TO	4
AP STAB TRIM FAIL	TO	4
APU BLEED ALT LIMIT	TO/LAND	5
APU FIRE DET FAIL	TO/LAND	9
APU FUEL SOV FAIL	TO/LAND	12
APU GEN FAIL	TO/LAND	7
APU GEN OVERLOAD	TO/LAND	7
APU OIL PRESS LOW	TO/LAND	5
APU OIL TEMP HIGH	TO/LAND	5
APU OVERSPEED	TO/LAND	5
APU STARTER FAIL ON	TO/LAND	5
AT RETARD INHIBIT	TO	4

**EICAS CAUTION MESSAGES**

All caution messages are preceded by a single chime

Message	Inhibits	Chapter Ref.
AUTO PRESS FAIL	TO/LAND	2
AUX HYD TEMP HIGH	TO/LAND	13
L (R) BATT FAIL	TO/LAND	7
BATTERY BAY DOOR	TO/LAND	1
L (R) BLEED FAIL	TO/LAND	2
L (R) BLEED LOOP FAIL	TO/LAND	2
CABIN ALTITUDE	TO/LAND	2
CABIN PRESS FAULT	TO/LAND	2
CARGO DOOR	TO/LAND	1
CARGO SMOKE DET FAIL	TO/LAND	9
CPLT BRAKE FAULT	TO	15
DITCHING NOT AVAIL	—	2
EFIS COMPARATOR INOP	TO/LAND	3/11
EFIS MISCOMPARE	—	3/11
ELEC HYD GEN FAIL	TO/LAND	7
ELECTRICAL FAULT	TO/LAND	7
ELEVATOR SPLIT	—	10
EMER LIGHTS OFF	TO/LAND	16
EMER LIGHTS ON	TO	16
EMERGENCY EXIT	TO/LAND	1
L (R) ENG ANTI-ICE FAIL	TO/LAND	14/18
L (R) ENG DSPL MISCOMP	TO/LAND	18
L (R) ENG FUEL SOV FAIL	TO/LAND	12/18
L (R) ENG OIL PRESS HIGH	TO/LAND	18
L (R) ENG OIL TEMP HIGH	TO/LAND	18
L (R) ENGINE FLAMEOUT	—	18
L (R) ENGINE VIBRATION	TO/LAND	18
ENGINES FUEL BYPASS	TO/LAND	18
EQPT RACK TEMP HIGH	TO/LAND	2
L (R) ESS BUS FAIL	TO/LAND	7

EICAS CAUTION MESSAGES

All caution messages are preceded by a single chime

Message	Inhibits	Chapter Ref.
L (R) FADEC FAIL	TO	18
FD MODE CHANGE	TO	4
L (R) FIRE DET FAIL	TO/LAND	9/18
FIRE SYS FAULT	TO/LAND	9
FIREX APU SQUIB FAIL	TO/LAND	9
FLAPS FAIL	TO	10
FLAPS FAULT	TO	10
FLAPS NORM PRESS LOW	TO/LAND	10
FLT SPOILERS DEPLOY	TO	10
FLT SPOILERS FAIL	—	10
FLT SPOILERS FAULT	—	10
L (R) FUEL COLLECTOR LOW	—	12
L (R) FUEL EJECTOR FAIL	TO/LAND	12
FUEL IMBALANCE	TO/LAND	12
L (R) FUEL PRESSURE LOW	TO/LAND	12
L (R) FUEL PUMP FAIL	TO/LAND	12
FUEL QUANTITY FAIL	TO/LAND	12
FUEL QUANTITY LOW	TO	12
GEAR BAY DET FAIL	TO/LAND	9
GEAR DISAGREE	—	15
GEAR SYS FAIL	TO	15
L (R) GEN FAIL	TO/LAND	7
L (R) GEN OVERLOAD	TO/LAND	7
GND SPLRS NOT ARMED	TO	10
GND SPOILERS FAIL	TO	10
L (R) HYD PRESS LOW	TO/LAND	13
HYD PTU FAIL	—	13
L (R) HYD SOV FAIL	TO/LAND	13
L (R) HYD TEMP HIGH	TO/LAND	13
L (R) IAPS FAIL	TO/LAND	11

**EICAS CAUTION MESSAGES**

All caution messages are preceded by a single chime

Message	Inhibits	Chapter Ref.
ICE DETECTED	TO/LAND	14
ICE DETECTOR FAIL	TO/LAND	14
L (R) INBD BRAKE FAIL	TO	15
INBD BRAKE PRESS LO	TO	15
INBD BRAKES FAIL	TO	15
MACH TRIM FAIL	TO/LAND	10
L (R) MAIN BUS FAIL	TO/LAND	7
NOSE GEAR DOOR	TO/LAND	15
NWS FAIL	TO	15
NWS LIMIT EXCEEDED	TO/LAND	15
L (R) OUTBD BRAKE FAIL	TO	15
OUTBD BRAKE PRESS LO	TO	15
OUTBD BRAKES FAIL	TO/LAND	15
OXYGEN QUANTITY LOW	TO/LAND	8
OXYGEN VALVE CLOSED	TO/LAND	8
PACK FAIL	TO/LAND	2
PACK LEAK	TO/LAND	2
PACK LOOP FAIL	TO/LAND	2
PACK TEMP HIGH	TO/LAND	2
PASSENGER DOOR	LAND	1
PAX OXYGEN AUTO FAIL	TO/LAND	8
L (R) PITOT HEAT FAIL	TO/LAND	14
PFD X-TALK FAIL	TO/LAND	11
PARK/EMER BRAKE ON	TO	15
PK/EMER BRK PRESS LO	TO	15
PLT BRAKE FAULT	TO	15
PRI STAB TRIM FAIL	—	10
L (R) PROBE HEAT OFF	TO/LAND	14
L (R) REVERSER FAIL	TO	18
ROLL SPOILERS FAIL	—	10

EICAS CAUTION MESSAGES

All caution messages are preceded by a single chime

Message	Inhibits	Chapter Ref.
ROLL SPOILERS FAULT	—	10
RUDDER LIMITER FAIL	—	10
ROLL SPOILERS OFF	—	10
SEC STAB TRIM FAIL	—	10
SPOILERS FAIL	—	10
SPOILERS FAULT	—	10
STALL PROTECT FAIL	—	10
STALL PUSHER OFF	TO/LAND	10
L (R) START ABORTED	TO/LAND	18
L (R) STARTER FAIL	TO/LAND	18
L (R) STARTER FAIL ON	TO/LAND	18
STBY PITOT HEAT FAIL	TO/LAND	14
L (R) STBY STAT HT FAIL	TO/LAND	14
TRIM AIR FAIL	TO/LAND	2
TRIM AIR LOOP FAIL	TO/LAND	2
L (R) WINDOW HEAT FAIL	TO/LAND	14
L (R) WING A/I LOW TEMP	TO/LAND	14
L (R) WING ANTI-ICE FAIL	TO/LAND	14
L (R) WING A/I PRESS HI	TO/LAND	14
WING ANTI-ICE FAULT	TO/LAND	14
WING FUEL TEMP LOW	TO/LAND	12
L (R) WSHLD HEAT FAIL	TO/LAND	14
WOW FAIL	TO	15
XBLEED FAIL	TO/LAND	2
XPDR 1 FAIL	—	17
XPDR 2 FAIL	—	17
YAW DAMPER FAIL	TO/LAND	4



EICAS ADVISORY MESSAGES

Crew awareness - no immediate action required

Message	Inhibits	Chapter Ref.
ACARS MESSAGE	TO/LAND	6
AFIS MESSAGE	TO/LAND	6
AIR COND FAULT	TO/LAND	2
L (R) AOA CASE HEAT FAIL	TO/LAND	14
APU FAULT	TO/LAND	5
APU SHUTDOWN	TO/LAND	5
L (R) AUX BUS FAIL	TO/LAND	7
L (R) AUX BUS OFF	TO/LAND	7
AUX HYD PUMP FAIL ON	TO/LAND	13
AUX HYD SYS FAIL	TO/LAND	13
AT FAIL	TO/LAND	4
L (R) BLEED FAULT	TO/LAND	2
BLEED LOOP FAULT	TO/LAND	2
BRAKE FAULT	TO/LAND	15
CABIN ALT WARN HIGH	—	2
CABIN CALL	TO/LAND	6
CVR FAIL	TO/LAND	6
DATALINK ACARS	TO/LAND	6
DATALINK CPDLC ATN	TO/LAND	6
DATALINK CPDLC FANS	TO/LAND	6
DATALINK FAIL	TO/LAND	6
DATALINK FANS FAIL	TO/LAND	6
DCU FAN FAULT	TO/LAND	11
DCU FAULT	TO/LAND	11
DOWNLOAD FADEC	TO/LAND	18
ELECTRICAL FAULT	TO/LAND	7
L (R) ENG A/ICE FAIL ON	TO/LAND	18/14
L (R) ENG IGN FAULT	TO/LAND	18
L (R) ENGINE FAULT	TO/LAND	18
L (R) ENG FUEL TEMP LOW	TO/LAND	18

EICAS ADVISORY MESSAGES

Crew awareness - no immediate action required

Message	Inhibits	Chapter Ref.
L (R) ENGINE FUEL BYPASS	TO/LAND	18
L (R) ENGINE MINOR FAULT	TO/LAND	18
L (R) ENGINE OIL BYPASS	TO/LAND	18
L (R) ENGINE OIL CHIP	TO/LAND	18
L (R) ENG THRUST FAULT	TO/LAND	18
L (R) ENG VIBRATION FAIL	TO/LAND	18
ENGINE SYNC FAIL	TO/LAND	18
ENG MACH HOLD FAIL	TO/LAND	18
EQPT RACK COOL FAULT	TO/LAND	2
L (R) ESS BUS OFF	TO/LAND	7
FAX RECEIVED	TO/LAND	6
FD 1 (2) FAIL	TO/LAND	4
FDR FAIL	TO/LAND	6
FDR FAULT	TO/LAND	6
FIRE SYS FAULT	TO/LAND	9
FIREX BTL 1 (2) FAULT	TO/LAND	9
FIREX BTL 1(2) LOW	TO/LAND	9
FLAPS FAULT	TO/LAND	10
FLAPS RATE LOW	TO/LAND	10
FUEL GRAV XFLOW FAIL	TO/LAND	12
L (R) FUEL PUMP ON	TO/LAND	12
FUEL QUANTITY FAULT	TO/LAND	12
FUEL XFER FAIL	TO/LAND	12
L (R) HYD DC PUMP FAIL	TO/LAND	13
L (R) HYD ENG PUMP FAIL	TO/LAND	13
L (R) HYD SOV CLOSED	TO/LAND	13
IAPS FAN FAULT	TO/LAND	11
ICE DETECTED	TO/LAND	14
ICE DETECTOR FAULT	TO/LAND	14
LAV CALL	TO/LAND	6



EICAS ADVISORY MESSAGES

Crew awareness - no immediate action required

Message	Inhibits	Chapter Ref.
L (R) MAIN BUS OFF	TO/LAND	7
MANUAL PRESS FAIL	TO/LAND	2
MFD X-TALK FAIL	TO/LAND	11
NWS FAULT	TO/LAND	15
PACK COOL AIR FAIL	TO/LAND	2
L (R) PROBE HT CTRLR FAIL	TO/LAND	14
PROX SYS FAULT	TO/LAND	15
L (R) PYLON LOOP FAIL	TO/LAND	2
RAM AIR FAIL	TO/LAND	2
RDC FAULT	TO/LAND	11
RDC FAN FAIL	TO/LAND	11
ROAAS FAIL	TO/LAND	17
ROAAS NOT AVAIL	TO/LAND	17
ROAAS/RAAS FAIL	TO/LAND	17
ROAAS/RAAS NOT AVAIL	TO/LAND	17
RUDDER LIMITER FAULT	TO/LAND	10
SELCAL DATALINK	TO/LAND	6
SELCAL HF 1(2)	TO/LAND	6
SELCAL VHF 1 (2) (3)	TO/LAND	6
SPOILERS FAULT	TO/LAND	10
STAB TRIM FAULT	TO/LAND	10
STALL PROTECT FAULT	TO/LAND	10
L (R) STALL SHAKER FAIL	TO/LAND	10
STALL WARN BASIC	TO/LAND	10
STBY INST BATT FAULT	TO/LAND	7
TAT HEAT FAIL	TO/LAND	14
TAWS BASIC FAIL	TO/LAND	17
TAWS SYSTEM FAIL	TO/LAND	17
TAWS TERR FAIL	TO/LAND	17
TAWS TERR NOT AVAIL	TO/LAND	17

EICAS ADVISORY MESSAGES

Crew awareness - no immediate action required

Message	Inhibits	Chapter Ref.
TAWS WINDSHEAR FAIL	TO/LAND	17
TSS FAN FAIL	—	17
WING ANTI-ICE FAULT	TO/LAND	14
WING A/ICE LOOP FAIL	TO/LAND	14
WING SOURCE-XBLEED	TO/LAND	14
XPDR 1 FAIL	—	17
XPDR 2 FAIL	—	17

EICAS STATUS MESSAGES

Information only - no crew action required

Message	Inhibits	Chapter Ref.
AIR COND MAN TEMP ON	—	2
AIR SOURCE OFF	—	2
APU GEN OFF	—	7
AT IN TEST	TO/LAND	4
AT SERVO TEST	TO/LAND	4
AURAL WARN A (B) MUTED	—	3
AUTO APR OFF	—	18
L (R) BATT OFF	—	7
BLEED OFF	—	2
BUS TIE MAN OPEN	—	7
CARGO DOOR	TO/LANDING	1
DITCHING ON	—	2
ELECT HYD GEN ON	—	7
ELT ON	—	6
EMER DEPRESS ON	—	2
L (R) ENG ANTI-ICE ON	—	14
ENG ANTI-ICE ON	—	14
L (R) ENG FUEL SOV CLSD	—	12



EICAS STATUS MESSAGES

Information only - no crew action required

Message	Inhibits	Chapter Ref.
L (R) ENGINE SHUTDOWN	—	18
FIRE SYS IN TEST	—	9
FIRE SYS TEST OK	—	9
FUEL BALANCED	—	12
FUEL GRAV XFLOW OPEN	—	12
L (R) FUEL PUMP OFF	—	12
L (R) FUEL PUMP ON	—	12
FUEL XFER OPEN	—	12
L (R) GEN OFF	—	7
GND SPOILERS OFF	—	10
HYD PUMP NOT AUTO	—	13
L (R) HYD SOV CLOSED	—	13
IRS 1(2) IN ATT	—	11
MANUAL PRESS ON	—	2
NWS OFF	—	15
PACK ONLY	—	2
PARK/EMER BRAKE ON	—	15
PASSENGER DOOR	TO/LAND	1
PAX OXYGEN OFF	—	8
PAX OXYGEN ON	—	8
PITCH DISCONNECT	—	10
PROBE HEAT TEST OK	—	14
RAM AIR ON	—	2
L (R) REVERSER INOP	—	18
ROAAS OFF	—	17
ROAAS RCC 5 ON	—	17
ROAAS/RAAS OFF	—	17
ROLL DISCONNECT	—	10
ROLL SPOILERS OFF	—	10
RUD LIMITER IN TEST	—	10

EICAS STATUS MESSAGES

Information only - no crew action required

Message	Inhibits	Chapter Ref.
SEC STAB TRIM ON	—	10
STAB TRIM OFF	—	10
STALL PUSHER OFF	—	10
STBY INST OFF	—	11
TAWS FLAPS OFF	—	17
TAWS GS WARN OFF	—	17
TAWS TERR OFF	—	17
TRIM AIR ONLY	—	2
WING ANTI-ICE ON	—	14
WING/ENG ANTI-ICE ON	—	14
WING SOURCE-XBLEED	—	14
XBLEED OPEN	—	2
XPDRS IN STBY	—	17
YAW DAMPER OFF	—	4



MESSAGES/MESSAGE SOUNDS

Complete list of EICAS messages and their associated sounds

Message	Message Sound
AFT EQPT BAY DOOR	TONE
ALTITUDE ALERT	TONE
"APU FIRE"	VOICE MESSAGE
APU FIRE DET FAIL	TONE
APU FUEL SOV FAIL	TONE
APU GEN FAIL	TONE
APU GEN OVERLOAD	TONE
"AUTOTHROTTLE"	VOICE MESSAGE (for normal disconnect)
"AUTOTHROTTLE, AUTOTHROTTLE"	VOICE MESSAGE (continuous dual callout for auto disengage)
AUTOPILOT DISCONNECT	TONE
AUX HYD TEMP HIGH	TONE
LEFT (R) BATT FAIL	TONE
BATTERY BAY DOOR	TONE
LEFT (R) BATTERY OVERHEAT	TONE
"CABIN ALTITUDE"	VOICE MESSAGE
CARGO DOOR	TONE
CARGO SMOKE	TONE
CARGO SMOKE DET FAIL	TONE
"CONFIG AILERON TRIM"	VOICE MESSAGE
"CONFIG AUTOPILOT"	VOICE MESSAGE
"CONFIG FLAPS"	VOICE MESSAGE
"CONFIG RUDDER TRIM"	VOICE MESSAGE
"CONFIG SPOILERS"	VOICE MESSAGE
"CONFIG STAB TRIM"	VOICE MESSAGE
CPLT BRAKE FAULT	TONE
ELEC HYD GEN FAIL	TONE
ELECTRICAL FAULT	TONE
LEFT (R) ENG ANTI-ICE FAIL	TONE
LEFT (R) ENG DSPL MISCOMP	TONE
LEFT (R) ENG FUEL SOV FAIL	TONE

MESSAGES/MESSAGE SOUNDS	
Complete list of EICAS messages and their associated sounds	
Message	Message Sound
LEFT (R) ENG OIL PRESS HIGH	TONE
LEFT (R) ENG OIL PRESS LOW	TONE
LEFT (R) ENG OIL TEMP HIGH	TONE
LEFT (R) ENGINE EXCEEDANCE	TONE
"LEFT (RIGHT) ENGINE FIRE"	VOICE MESSAGE
LEFT (R) ENGINE FLAMEOUT	TONE
LEFT (R) ENGINE VIBRATION	TONE
ENGINES FUEL BYPASS	TONE
ELEVATOR SPLIT	TONE
EMERGENCY EXIT	TONE
EMER LIGHTS OFF	TONE
EMER LIGHTS ON	TONE
LEFT (R) ESS BUS FAIL	TONE
ESSENTIAL POWER ONLY	TONE
LEFT (R) INBD BRAKE FAIL	TONE
INBD BRAKE FAIL	TONE
INBD BRAKE PRESS LO	TONE
LEFT (R) FADEC FAIL	TONE
FIRE SYS FAULT	TONE
FIREX APU SQUIB FAIL	TONE
FLAPS FAIL	TONE
FLAPS FAULT	TONE
FLAPS NORM PRESS LOW	TONE
FLT SPOILERS DEPLOY	TONE
FLT SPOILERS FAIL	TONE
FLT SPOILERS FAULT	TONE
FUEL IMBALANCE	TONE
LEFT (R) FUEL COLLECTOR LOW	TONE
LEFT (R) FUEL PRESSURE LOW	TONE
LEFT (R) FUEL PUMP FAIL	TONE



MESSAGES/MESSAGE SOUNDS

Complete list of EICAS messages and their associated sounds

Message	Message Sound
FUEL QUANTITY FAIL	TONE
FUEL QUANTITY LOW	TONE
"GEAR"	VOICE MESSAGE
GEAR BAY OVHT	TONE
GEAR BAY DET FAIL	TONE
GEAR DISAGREE	TONE
GEAR SYS FAIL	TONE
LEFT (R) GEN FAIL	TONE
LEFT (R) GEN OVERLOAD	TONE
GND SPOILERS FAIL	TONE
GND SPLRS NOT ARMED	TONE
HYD PRESS LOW	TONE
LEFT (R) HYD PRESS LOW	TONE
HYD PTU FAIL	TONE
LEFT (R) HYD SOV FAIL	TONE
LEFT (R) HYD TEMP HIGH	TONE
"LEFT (RIGHT) ENGINE FIRE"	VOICE MESSAGE
LEFT (R) FIRE DET FAIL	TONE
LEFT (R) MAIN BUS FAIL	TONE
"NORMAL BRAKES FAIL"	VOICE MESSAGE
NOSE GEAR DOOR	TONE
NWS FAIL	TONE
NWS LIMIT EXCEEDED	TONE
LEFT (R) OUTBD BRAKE FAIL	TONE
OUTBD BRAKE PRESS LO	TONE
OUTBD BRAKES FAIL	TONE
"OVERSPEED"	VOICE MESSAGE
"PARK/EMER BRAKE ON"	VOICE MESSAGE
PARK/EMER BRAKE ON	TONE
PASSENGER DOOR	TONE

MESSAGES/MESSAGE SOUNDS	
Complete list of EICAS messages and their associated sounds	
Message	Message Sound
"PITCH DISCONNECT"	VOICE MESSAGE
PK/EMER BRK PRESS LO	TONE
PLT BRAKE FAULT	TONE
PRI STAB TRIM FAIL	TONE
LEFT (R) REVERSER FAIL	TONE
LEFT (R) REVERSER UNSAFE	TONE
MACH TRIM FAIL	TONE
"ROLL DISCONNECT"	VOICE MESSAGE
ROLL SPOILERS FAIL	TONE
ROLL SPOILERS FAULT	TONE
ROLL SPOILERS OFF	TONE
RUDDER LIMITER FAIL	TONE
SEC STAB TRIM FAIL	TONE
"SELCAL DATALINK"	VOICE MESSAGE
"SELCAL HF 1 (2)"	VOICE MESSAGE
"SELCAL VHF 1 (2) (3)"	VOICE MESSAGE
SPOILERS FAIL	TONE
SPOILERS FAULT	TONE
"STALL"	VOICE MESSAGE
LEFT (R) START ABORTED	TONE
LEFT (R) STARTER FAIL	TONE
LEFT (R) STARTER FAIL ON	TONE
TRIM CLACKER	TONE
VERTICAL TRACK ALERT	TONE
WING FUEL TEMP LOW	TONE
WOW FAIL	TONE



XIII. CIRCUIT BREAKERS

EICAS System Circuit Breakers

CB Name	Bus	Location
EICAS DCU A	LEFT ESS	CB1-D1
EICAS DCU B	RIGHT MAIN	CB2-D1
EICAS RDC A	LEFT ESS	CB1-D2
EICAS RDC B	RIGHT MAIN	CB2-D2
L IAPS	LEFT ESS	CB1-B6
R IAPS	RIGHT ESS	CB2-B6
L PFD	LEFT ESS	CB1-C3
L PFD HTR	LEFT MAIN	CB3-F6
R PFD	RIGHT MAIN	CB2-C3
R PFD HTR	RIGHT MAIN	CB4-F6
L MFD	LEFT ESS	CB1-C5
L MFD HTR	LEFT MAIN	CB3-F7
R MFD	RIGHT MAIN	CB2-C5
R MFD HTR	RIGHT MAIN	CB4-F7
FAN PWR 1	LEFT ESS	CB1-B2
FAN PWR 2	RIGHT MAIN	CB6-B2
RIU 1A	LEFT ESS	CB1-B5
RIU 1B/AURAL	LEFT ESS	CB1-B4
RIU 2A	RIGHT MAIN	CB2-B4
RIU 2B/AURAL	RIGHT MAIN	CB2-B5

XIV. EICAS MESSAGES

A. CAUTION MESSAGES

CAUTION MESSAGES

Timely crew awareness/action needed - Single chime

Message	Meaning	Inhibits
EFIS COMPARATOR INOP	EFIS comparator unable to compare one or more of the following parameters: altitude, airspeed, roll attitude, pitch attitude, heading, radio altitude, flight director, localizer or glideslope	TO/LAND
EFIS MISCOMPARE	There is a mismatch between the onside and cross-side data and accompanied by a PFD annunciation ALT, IAS, ROL, PIT, HDG, LOC, GS, RA, or FD	—
L (R) IAPS FAIL	The respective Integrated Avionics Processing System has failed	TO/LAND
PFD X-TALK FAIL	Communication between the PFDs has failed. REFs menu pages 1, 2 and 3 are not synchronized. The EFIS comparator will be inoperative and is unable to compare one or more of the following parameters: altitude, airspeed, roll attitude, pitch attitude, heading, radio altitude, flight director, localizer or glideslope	TO/LAND



B. ADVISORY MESSAGES

ADVISORY MESSAGES

Crew awareness required - May have associated tone

Message	Meaning	Inhibits
DCU FAN FAULT	The data concentrator unit fan is inoperative	TO/LAND
DCU FAULT	Channel A or B in the DCU has failed. The yaw damper may fail. The rudder travel limiter monitoring may be inoperative	TO/LAND
MFD X-TALK FAIL	Communication between the MFDs has failed, and cross side tuning will not be available	TO/LAND
RDC FAN FAIL	The remote data concentrator fan is inoperative	TO/LAND
RDC FAULT	The remote data concentrator channel A or B has failed with no loss of functionality	TO/LAND

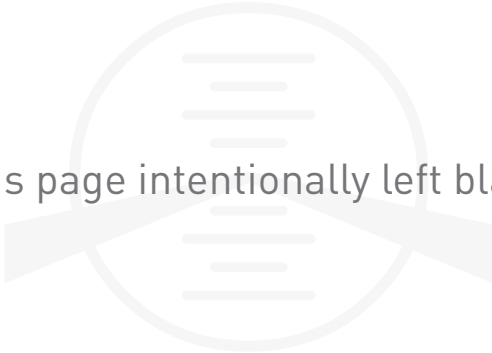
C. STATUS MESSAGES

STATUS MESSAGES

Information only - no crew action required

Message	Meaning
AURAL WARN A (B) MUTED	The respective AURAL WARNING DCU A or DCU B switch has been selected, muting all warnings through that channel

This page intentionally left blank





XV. EICAS QUIZ

1. What are the four levels of CAS message priority from highest to lowest?
 - A) Warning, Advisory, Caution, Status
 - B) Warning, Caution, Advisory, Status
 - C) Caution, Warning, Advisory, Status
 - D) Warning, Caution, Status, Advisory
2. What color is used for advisory messages on the EICAS display?
 - A) Amber
 - B) Red
 - C) Cyan
 - D) White
3. How many hours of cockpit voice recordings does the CVR store?
 - A) 1 hour
 - B) 2 hours
 - C) 3 hours
 - D) 4 hours
4. What happens when the CAS switch is pressed once?
 - A) All messages are cleared
 - B) Warning messages are hidden
 - C) Caution, advisory, and status messages are removed
 - D) The system performs a self-test
5. At what speed does the takeoff inhibit activate?
 - A) 60 knots
 - B) 70 knots
 - C) 80 knots
 - D) 90 knots
6. Where are the master warning/caution switches located?
 - A) Center pedestal
 - B) Glareshield
 - C) Overhead panel
 - D) Side console
7. What color indicates loss of data or invalid information?
 - A) Red
 - B) Amber
 - C) White
 - D) Magenta

8. Which MFD normally displays engine indications?
- A) Left MFD
 - B) Right MFD
 - C) Both MFDs
 - D) Neither MFD
9. What aural alert accompanies a warning message?
- A) Single chime
 - B) Double chime
 - C) Triple chime
 - D) Continuous tone
10. How many synoptic pages are available in the EICAS system?
- A) 5
 - B) 6
 - C) 7
 - D) 8
11. What philosophy does the Challenger 350 EICAS use for system indications?
- A) Dark and Quiet Cockpit
 - B) Quiet Dark Cockpit
 - C) Silent Cockpit
 - D) Minimal Display
12. Where is the MFD Control Panel (MCP) located?
- A) Overhead panel
 - B) Glareshield
 - C) Center pedestal
 - D) Side console
13. What does pressing the master warning switch accomplish?
- A) Clears the warning message
 - B) Silences aural alerts and stops light flashing
 - C) Initiates emergency procedures
 - D) Switches to backup display
14. At what altitude is the landing inhibit activated?
- A) 200 ft AGL
 - B) 300 ft AGL
 - C) 400 ft AGL
 - D) 500 ft AGL
15. What does the VIB icon indicate when displayed?
- A) Normal vibration
 - B) Vibration sensor failure
 - C) Vibration exceeds predetermined value
 - D) Vibration test in progress



16. Which display shows the summary synoptic by default?
- A) Left PFD
 - B) Right PFD
 - C) Left MFD
 - D) Right MFD
17. What is displayed when thrust reversers are deployed?
- A) REV icon in green
 - B) TR icon in amber
 - C) REV icon in white
 - D) TR icon in green
18. Where are the AURAL WARNING disable switches located?
- A) Center pedestal
 - B) Copilot aft bulkhead
 - C) Overhead panel
 - D) Glareshield
19. What happens to messages triggered during an inhibit period?
- A) They are permanently deleted
 - B) They are displayed when exiting the inhibit envelope
 - C) They are logged but never displayed
 - D) They override the inhibit
20. What test is NOT available on the test panel?
- A) CAS test
 - B) HYDRAULIC test
 - C) FIRE DET test
 - D) TAWS test

This page intentionally left blank

