

OPERATIONAL MANUAL

M-2000C LISTENER FOR WINWING MCDU

Project: WWCduDcsBiosBridge

Module: DCS Mirage 2000C

Revision: 1.0

1. SYSTEM DESCRIPTION

1.1 Overview

This implementation utilizes the WinWing MCDU hardware to replicate the functionality of the Mirage 2000C's **Caution Light Panel (CPL)** and **Navigation Control Panel (PCN)**. It interfaces with DCS World via DCS-BIOS to provide a consolidated "Heads-Down" status display.

1.2 Display Partitioning

The MCDU screen is vertically divided into two dedicated functional zones:

1. **CPL Area:** Upper section (Lines 0-9).
2. **PCN Area:** Lower section (Lines 12-13).

2. CAUTION LIGHT PANEL (CPL) LOGIC

The first 10 lines of the display function as a dynamic "**ECAM Style**" caution display, aggregating status lights that are normally scattered on the cockpit's lateral panels.

2.1 Display Format

- **Layout:** Alerts are organized into **3 columns**.
- **Capacity:** Up to **30** simultaneous cautions and advisories can be displayed.
- **Color Coding:**
 - **RED**: Critical Warnings (e.g., HUILE, FEU, HYD.S).
 - **YELLOW**: Cautions and Status messages (e.g., BATT, CANOPY).

Note: For a complete definition of each warning text, please refer to **Pages 28 to 30** of the *Mirage 2000C Chuck's Guide*.

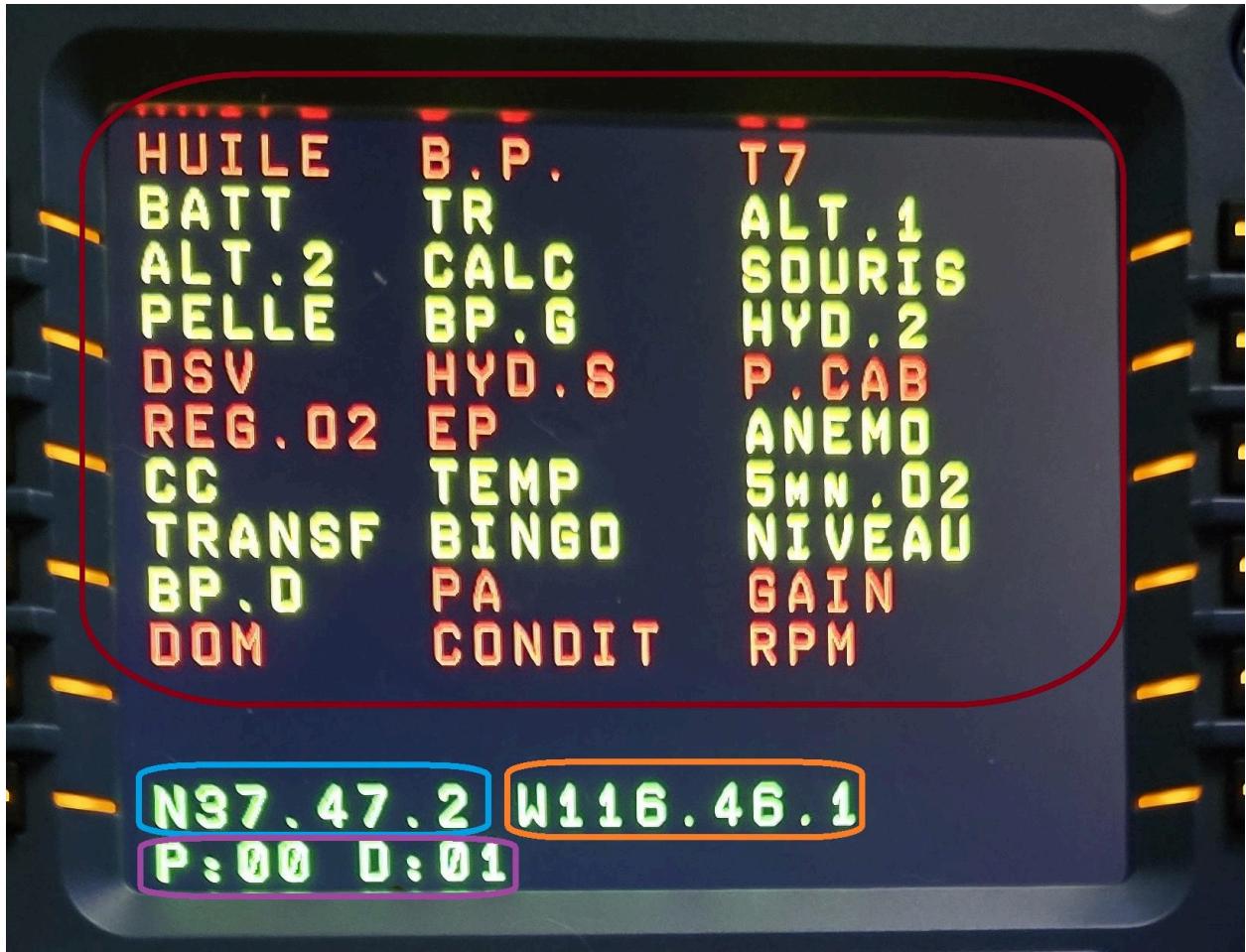


Figure 1: Layout of the Caution Panel (Top) and PCN Data (Bottom)

3. NAVIGATION CONTROL PANEL (PCN) LOGIC

The bottom two lines are reserved for the Inertial Navigation System (INS) data repeats.

3.1 Data Fields

- **Left Data Field:** Displays the value from the Left PCN window (typically Latitude or Heading).
- **Right Data Field:** Displays the value from the Right PCN window (typically Longitude or Distance).
- **PREP / DEST:** Displays the currently selected waypoint index for:
 - **P:** Preparation Waypoint
 - **D:** Destination Waypoint

4. STATUS INDICATORS (LEDS)

The physical LEDs located above the MCDU screen are mapped to critical INS status lights to provide immediate visual feedback without reading the screen.

4.1 LED Mapping Matrix

MCDU LED	Color	M-2000C Function	Condition
IND	Yellow	ALN (Alignment)	Illuminates when the INS alignment is in progress.
RDY	Green	PRET (Ready)	Illuminates when the INS alignment is complete and ready.
FAIL	Yellow	N.DEG (Nav Degraded)	Illuminates in case of significant heading error or system failure.



Figure 2: Physical LED mapping on the WinWing MCDU
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