

# FLIGHT DATA FILE

## Prelaunch Cockpit Checklist

### 37-2431-D *FireArc*

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**Flight Design and Dynamics Division**  
**Unofficial**  
**13 July, 3300**



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VEHICLE OPERATIONS DIRECTORATE

**PRELAUNCH COCKPIT CHECKLIST**  
**37-2431-D**

DRAFT  
13 July, 3300

PREPARED BY:

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John Dee  
Book Manager

APPROVED BY:

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Michael Juliano  
Project Director

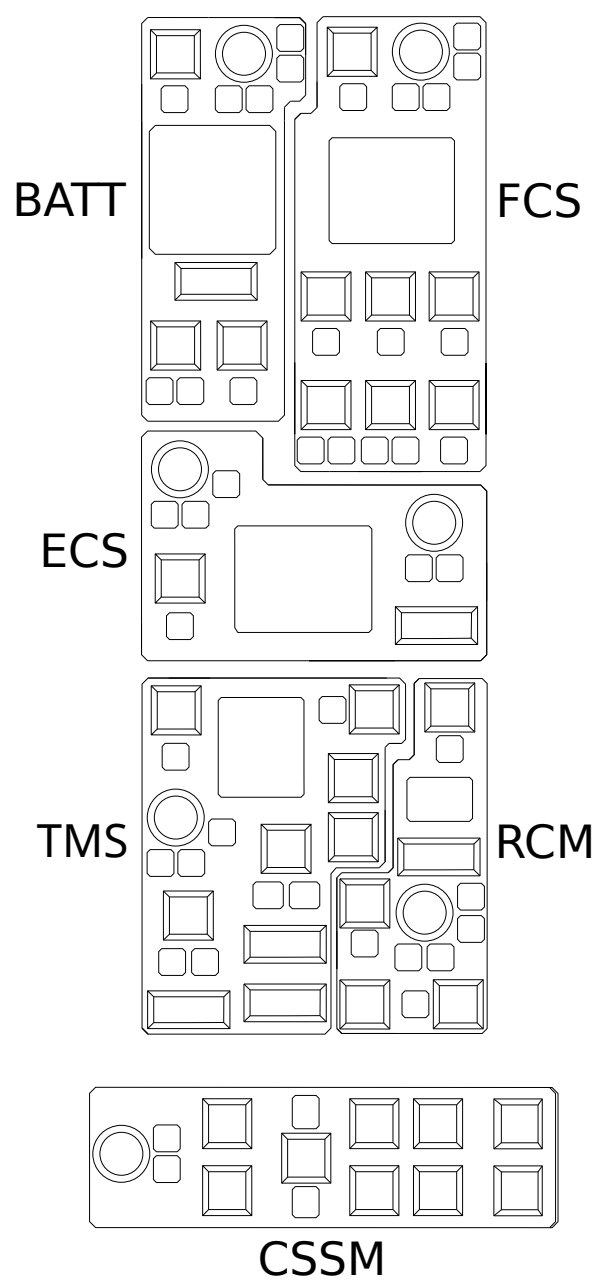


Figure 0.1: Left-side instrument panel

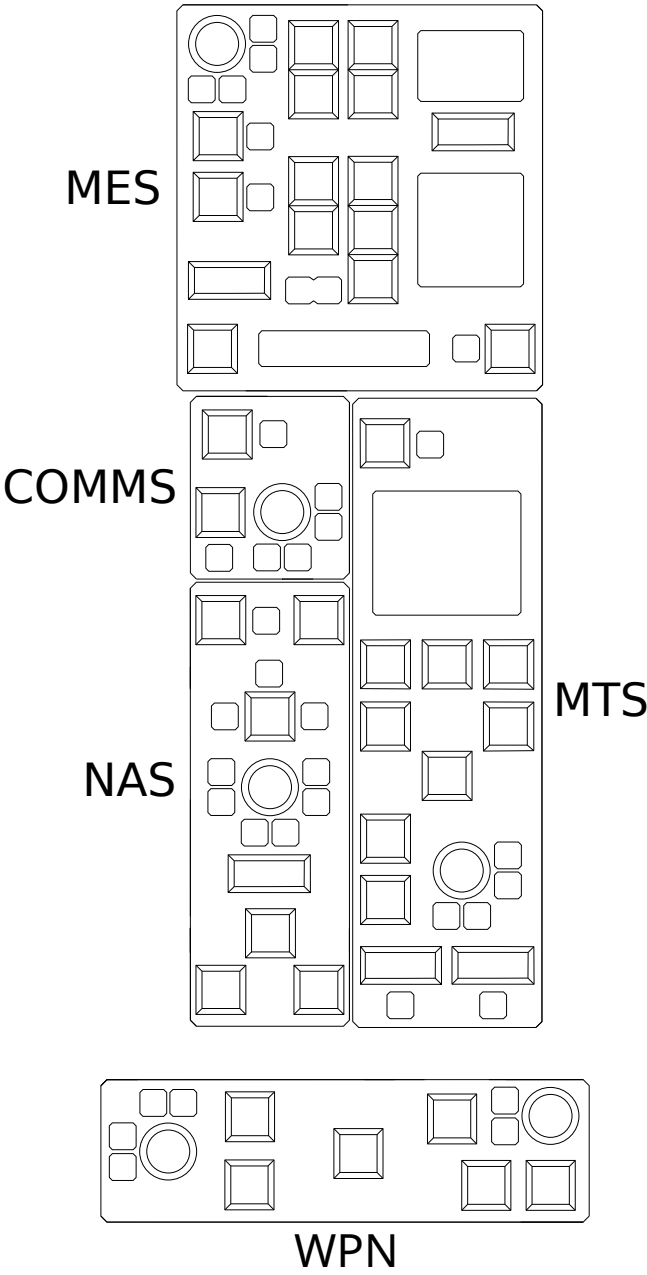


Figure 0.2: Right-side instrument panel

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PRESTART PROCEDURES

## **PRESTART PROCEDURES**

### **SEAT SAFING**

- CSSM      SEAT SAFE — ON

### **LIGHTING**

- CSSM      CABIN FLOOD LIGHT — OFF
- CSSM      INST LIGHT — ON

### **PRIMARY BUS POWER**

- ◇ BATT      SELECT set to SYS1
- BATT      POWER — ON
- ◇ ECS      BUS SELECT set to PRI
- ECS      POWER — ON
- ...Wait 4 sec for fault alarm, then...
- HMD      FAULT ACK — PRESS

### **BATTERY CHARGE**

- ECS      MAINT CUT-OFF — OFF
- BATT      RECHARGE — ON
- ◇ BATT      SELECT set to SYS2
- BATT      POWER — ON
- BATT      RECHARGE — ON

### **SECONDARY BUS POWER**

- ◇ ECS      BUS SELECT set to SEC
- ECS      POWER — ON
- ◇ ECS      DISTRIBUTION MODE set to BAL

### **FUEL CELL CHARGE**

- ◇ FCS      CELL SELECT set to SYS1
- FCS      POWER — ON
- ...wait for CORE TEMP rise to start, then...
- ◇ FCS      CELL SELECT set to SYS2
- FCS      POWER — ON
- ...wait for CORE TEMP rise to start



**THERMAL MANAGEMENT**

- TMS      LOOP ENABLE — ON
- ◇ TMS      LOOP SELECT set to SYS1
- TMS      LOOP PRESSURIZE — ON
- ◆ TMS      LOOP PUMP POWER set to ON
- ◇ TMS      LOOP SELECT set to SYS2
- TMS      LOOP PRESSURIZE — ON
- ◆ TMS      LOOP PUMP POWER set to ON

**STC DEPARTURE CLEARANCE**

- COMMS   SYSTEM ENABLE — ON
  - COMMS   TRANSMITTER ENABLE — ON
- Check in with STC  
...wait for STC check in acknowledge, then...  
Request departure clearance from STC  
...wait for STC departure clearance

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DEPARTURE PROCEDURES

## **DEPARTURE PROCEDURES**

### **ENGINE INITIALISE**

- ◇ MES ENGINE SELECT set to ENG1
- MES SYSTEM ENABLE — ON
- MES LENR ENABLE — ON
- MES CHAMBER PRE-HEATER — ON
- RCM SYSTEM ENABLE — ON
- RCM ENABLE ALL TANKS — ON
- MES FUEL SOURCE SELECT — ON
- ◇ FCS CELL SELECT set to SYS1
- FCS FUEL SOURCE SELECT — ON
- FCS REACTANT SOURCE SELECT — ON
- ◇ FCS CELL SELECT set to SYS2
- FCS FUEL SOURCE SELECT — ON
- FCS REACTANT SOURCE SELECT — ON

Request LENR initiation from STC

...wait for STC LENR initiation clearance

### **MAIN BUS INITIALISE**

- MES LENR FUEL CUT-OFF — ON
- MES LENR FUSE ENABLE - ON
- ◇ ECS BUS SELECT set to MAIN
- ECS POWER — ON
- ECS MAINT CUT-OFF — ON

### **MTS COLD GAS INITIALISE**

- MTS SYSTEM ENABLE — ON
- MTS FUEL SOURCE SELECT — ON
- MTS FUEL CUT-OFF VALVE — ON
- MTS FUEL INJECTOR ENABLE — ON
- MTS NOZZLE ALL ENABLE — ON

### **NAVIGATION INITIALISE**

- NAS SYSTEM ENABLE — ON

**SEAT SAFING**

◇ CSSM      FLIGHT MODE SELECT set to NORM  
FLIGHT

Announce to STC ready to depart