

**canadair  
challenger**

OPERATING MANUAL  
PSP 601A-6

SECTION 15

LIGHTING

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SECTION 15

LIGHTING

1. GENERAL (Figures 1 and 2)

The aircraft lighting system comprises interior lighting and exterior lighting. The interior lighting consists of the flight compartment, the passenger cabin and the service compartment lighting. The exterior lighting consists of recognition/taxi and landing, navigation, anti-collision, wing ice inspection and emergency lighting.

2. FLIGHT COMPARTMENT LIGHTING (Figures 3 through 5)

A. Floodlighting

Nine fluorescent lights, installed below and along the glareshield, provide panel floodlighting. The panels provided with floodlighting and the location of their floodlighting controls are as follows:

Centre instrument panel (refer to Figure 3)

Pilot's side console (refer to Figure 4)

Pilot's instrument panel and side panel (refer to Figure 4)

Copilot's side console (refer to Figure 5)

Copilot's instrument panel and side panel (refer to Figure 5)

B. Integral Lighting

The integral lighting is controlled by four dimmer switches, one located on each of the following panels:

Pilot's instrument lighting panel (refer to Figure 4)

Copilot's instrument lighting panel (refer to Figure 5)

Centre instrument panel/pedestal lighting panel (refer to Figure 3)

External/cabin/miscellaneous lighting panel (refer to Figures 6 and 7)

C. Digit Display Intensity (Figure 3)

The intensity of the digit display readouts for the control panels in the centre pedestal is controlled by the DIGITS OFF-BRT control on the centre instrument panel/pedestal lighting panel, located on the centre pedestal.

D. Map Reading Lighting (Figures 1 and 3)

The map reading lighting consists of two incandescent lights, one on either side of the overhead panel. The left reading light is controlled by the MAP LIGHT LH switch on the cabin lighting panel. The right reading light is controlled by the MAP LIGHT RH switch on the cabin lighting panel.

E. Circuit Breaker Panel Lighting (Figures 3, 4 and 5)

Integral lighting for CBP-A and CBP-B is controlled by the INST OFF-BRT knob on the centre instrument/pedestal lighting panel, located on the centre pedestal.

Integral lighting for CBP-C is controlled by the INST OFF-BRT knob on the pilot's instrument lighting panel, located on the centre pedestal.

Integral lighting for CBP-D is controlled by the INST OFF-BRT knob on the copilot's instrument lighting panel, located on the centre pedestal.

3. PASSENGER CABIN LIGHTING

A. Dome and Boarding Lights (Figure 6)

Lighting for the passenger cabin consists of dome and boarding lights, located at the passenger/crew entrance door. The dome light is controlled by the DOME switch on the overhead lighting panel.

The boarding light is controlled by the BOARDING switch on the overhead lighting panel, or by a switch beside the entrance door.

B. Cabin Signs (Figure 7)

The NO SMOKING and FASTEN SEAT BELT cabin signs are controlled by the NO SMKG and SEAT BLTS switches on the door warning and cabin signs control panel on the centre pedestal. The switches have three positions: ON/OFF/AUTO. In the AUTO position, both signs light up automatically for any of the following conditions:

Cabin pressure is low

LDG GEAR lever is to DN

TEST switch on the landing gear control panel is pressed

The FASTEN SEAT BELT sign also comes on if the flaps are moved from the 0-degree position.

4. SERVICE COMPARTMENT LIGHTING (Figure 6)

There are five lights in the service compartments: one in the underfloor avionics bay, three in the rear fuselage compartment bay, and one in the nose landing gear well. The service lights are controlled by the SERVICE light switch on the overhead lighting panel. The service lights in the underfloor avionics bay and the rear fuselage equipment bay can also be controlled by switches located in the bays.

5. EXTERIOR LIGHTING

A. Recognition/Taxi and Landing Lights (Figures 2 and 6)

One recognition/taxi light and one landing light are mounted in the leading edge of each wing close to the fuselage, and two landing lights are located in the bulkhead of the nose compartment.

The control switches for the recognition/taxi and landing lights are on the overhead lighting panel. The RIGHT LANDING LTS and LEFT LANDING LTS switches control both the landing and taxi lights on the corresponding side. The RECOG/TAXI LT switch controls the taxi lights on both sides. The NOSE LANDING LTS switch controls the two landing lights in the nose compartment.

B. Navigation Lights (Figures 2 and 6)

The navigation lights are controlled by the NAV switch on the overhead lighting panel. There are two navigation lights: one green light on the right wing tip and one red light on the left wing tip.

C. Anti-Collision Lights (Figures 2 and 6)

One anti-collision light is located with each navigation light assembly. The anti-collision lights are controlled by the ANTI COLLISION switch on the overhead lighting panel.

D. Wing Ice Inspection Lights (Figures 2 and 6)

Two wing ice inspection lights are located above each wing, one on the left and one on the right side of the fuselage. The lights are controlled by the WING switch on the overhead lighting panel.

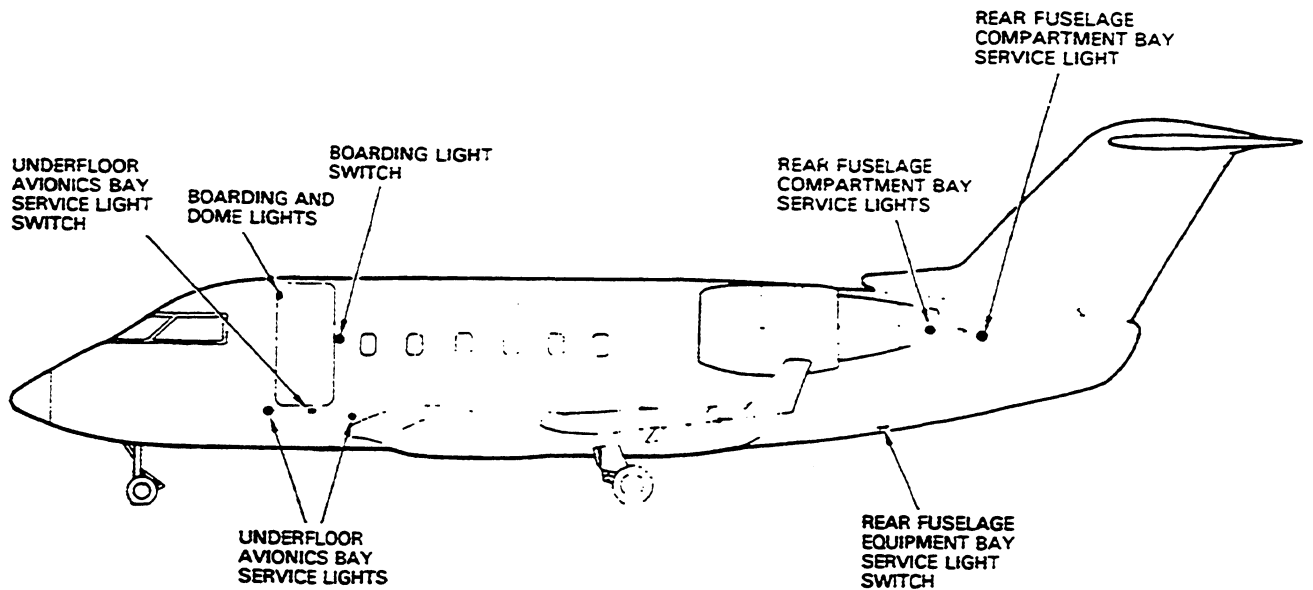
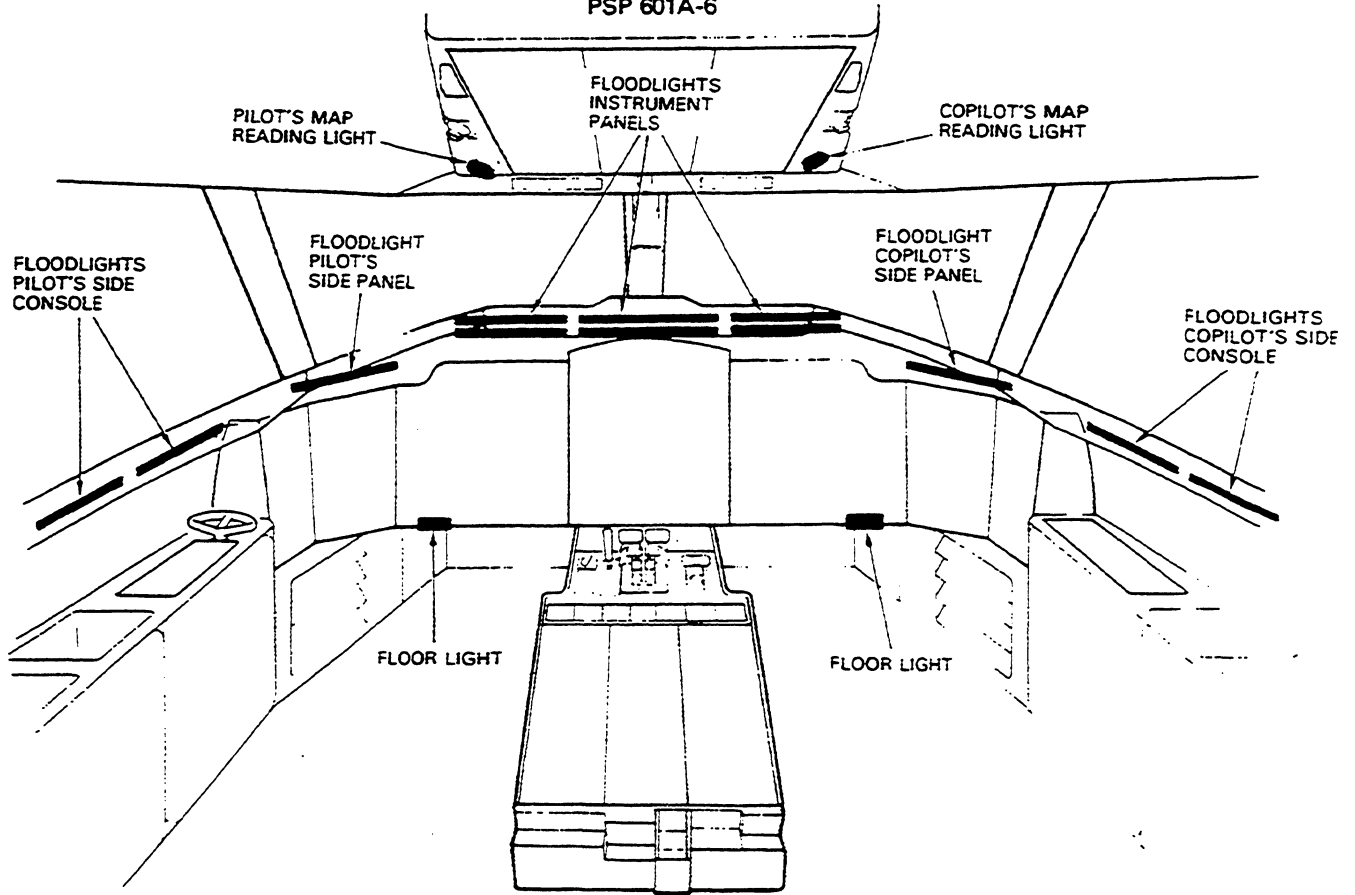
E. Emergency Lights (Figures 2 and 7)

Four emergency lights are provided for use during emergency evacuation of the aircraft. Three overwing floodlights are located on the right side of the fuselage and a ground floodlight is located forward of the passenger/crew entrance door. Power for the lights is supplied by two emergency batteries.

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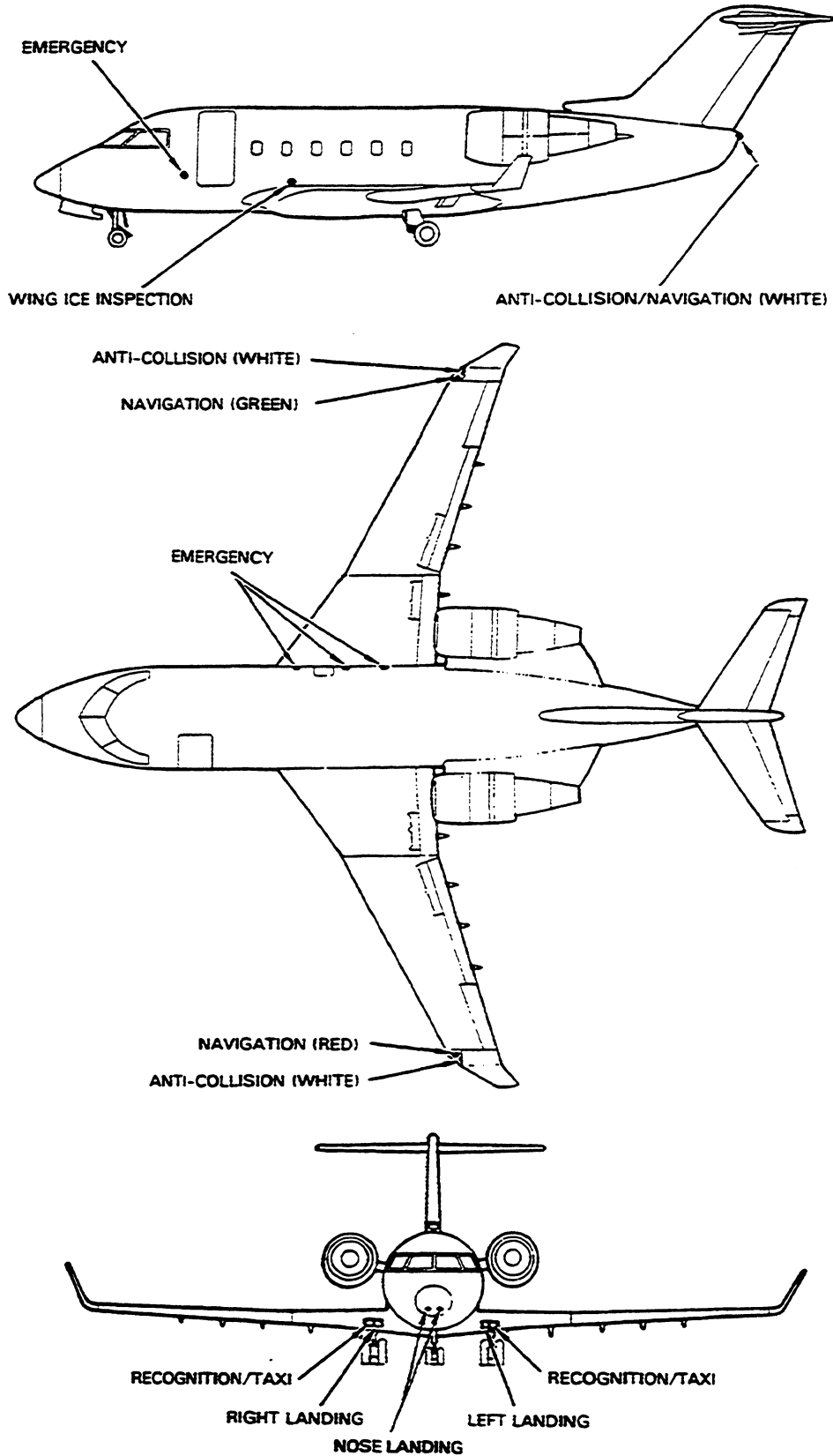
The lights are controlled from the emergency lighting panel by a three-position switch, ON/OFF/ARM. Two lights, EMER LTS ON and EMER LTS OFF, on the emergency lighting panel, show the status of the emergency lights (refer to Figure 7).



Interior Lights Location  
Figure 1

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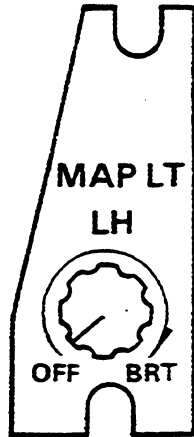
**Exterior Lights Location  
Figure 2**



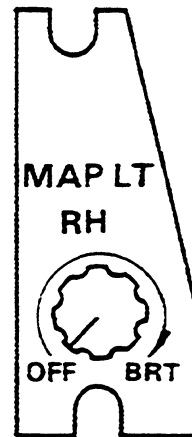
PILOT'S MAP LIGHTING PANEL

COPILOT'S MAP LIGHTING PANEL

MAP LIGHT LH CONTROL  
Controls the intensity of the pilot's map reading light.



MAP LIGHT RH CONTROL  
Controls the intensity of the copilot's map reading light.



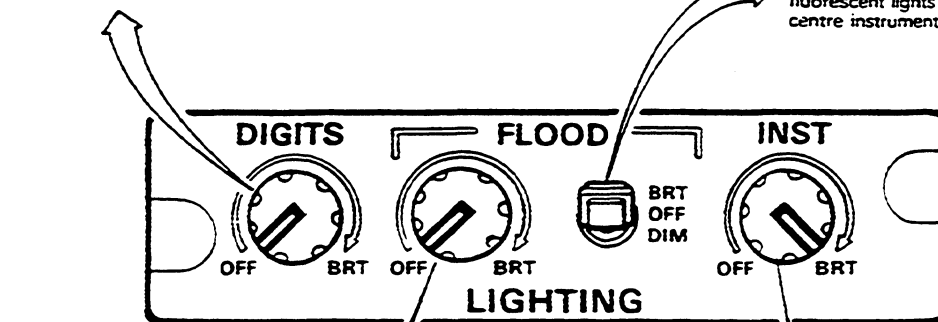
OVERHEAD PANEL

DIGITS CONTROL

Controls the intensity of digit displays on the centre pedestal control panels.

FLOOD SWITCH

Three-position switch controls one of two fluorescent lights for the centre instrument panel.



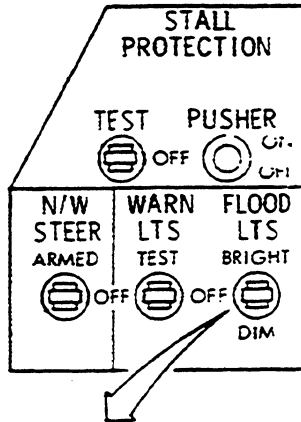
FLOOD CONTROL

Controls one of two fluorescent lights on the centre instrument panel.

INST CONTROL

Controls the panel and instrument integral lighting on CBP-A and CBP-B, centre instrument panel and centre pedestal.

CENTRE PEDESTAL



**FLOOD LTS SWITCH**

Three-position switch controls the fluorescent lights for the pilot's side console panel.

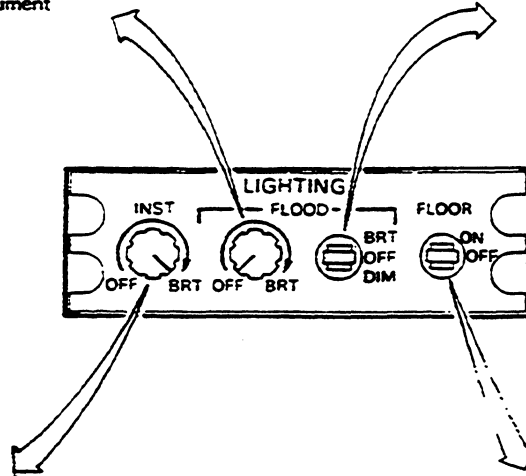
**PILOT'S SIDE PANEL**

**FLOOD CONTROL**

Controls one of two fluorescent lights for the pilot's instrument panel.

**FLOOD SWITCH**

Three-position switch controls one of two fluorescent lights for the pilot's instrument panel and the single light for the pilot's side panel.



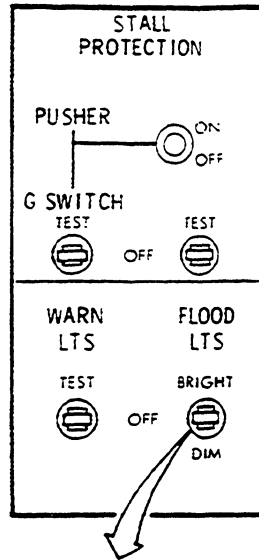
**INST CONTROL**

Controls the panel and instrument integral lighting on CBP-C and the pilot's facia panel, side instrument panel, instrument panel, side console panel and glareshield.

**FLOOR SWITCH**

Controls the pilot's floor light.

**CENTRE PEDESTAL**



**FLOOD LTS SWITCH**

Three-position switch controls the fluorescent lights for the copilot's side console panel.

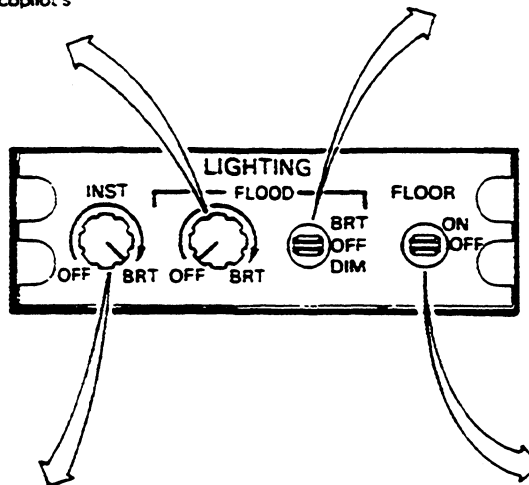
**COPILOT'S SIDE PANEL**

**FLOOD CONTROL**

Controls one of two fluorescent lights for the copilot's instrument panel.

**FLOOD SWITCH**

Three-position switch controls one of two fluorescent lights for the copilot's instrument panel and the single light for the copilot's side panel.



**INST CONTROL**

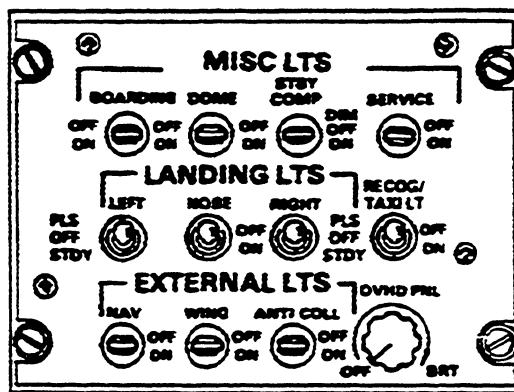
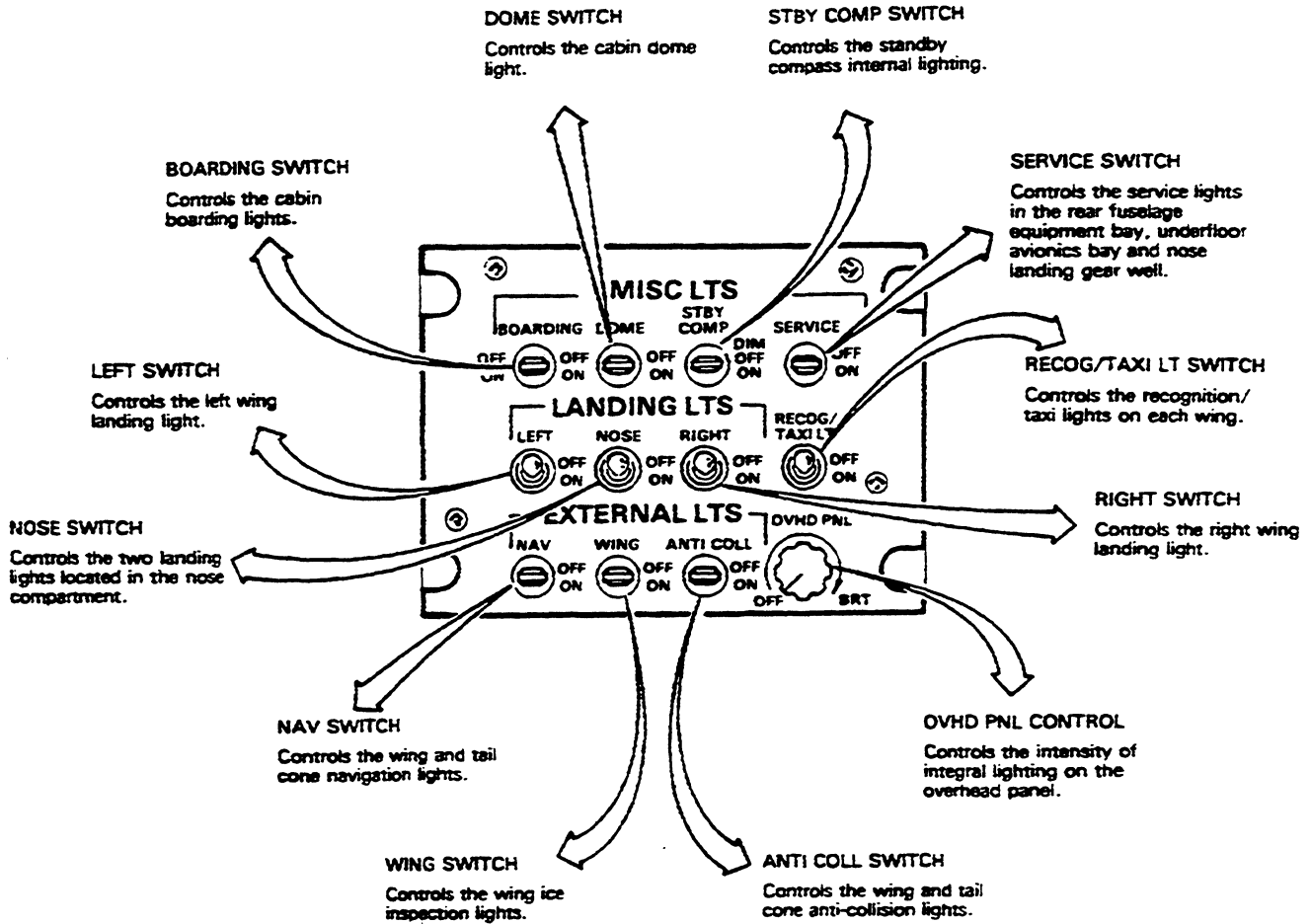
Controls the panel and instrument integral lighting on CBP-D and the copilot's facia panel, side instrument panel, instrument panel, side console panel and glareshield.

**FLOOR SWITCH**

Controls the copilot's floor light.

**CENTRE PEDESTAL**

Copilot's Lighting Controls  
Figure 5



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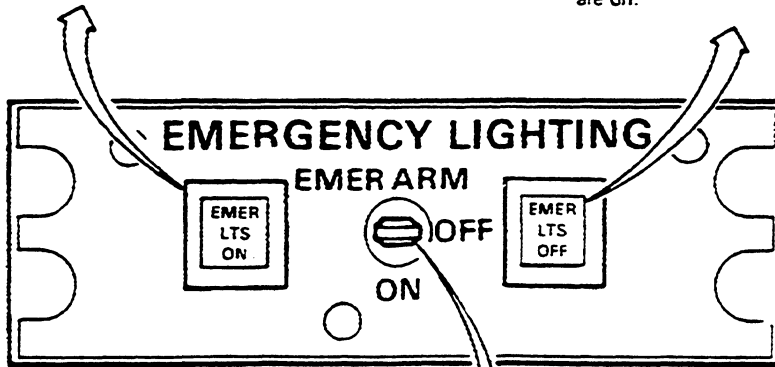
OVERHEAD PANEL

**EMER LTS OFF LIGHT**

Indicates that the emergency lights are off.

**EMER LTS ON LIGHT**

Indicates that the emergency lights are on.

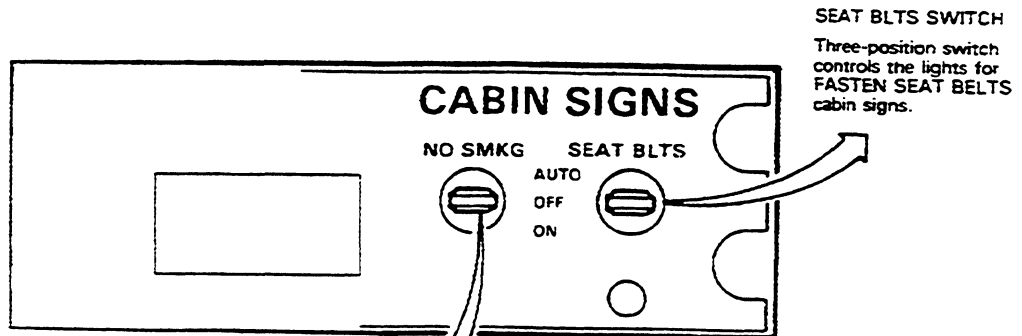


**COPILOT'S SIDE PANEL**

**EMER ARM SWITCH**

Controls the three overwing floodlights, the ground floodlight.

**ARM** - If essential power is lost, the emergency lights come on automatically and are powered by the emergency batteries.



**SEAT BLTS SWITCH**

Three-position switch controls the lights for FASTEN SEAT BELTS cabin signs.

**NO SMKG SWITCH**

Three-position switch controls the light for the NO SMOKING cabin signs.

**CENTRE PEDESTAL**