

7.13 - ICE PROTECTION EQUIPMENT (Figure 7.13.1)

Ice protection equipment is as follows :

- Pneumatic deice system for inboard, central and outboard wing and for stabilizers : "AIRFRAME DE-ICE"
- Propeller electrical deice system : "PROP DE-ICE"
- Windshield electrical deice system : "L.WINDSHIELD" and "R.WINDSHIELD"
- Electrical heating system for both pitots and for the stall warning sensor : "PITOT 1 HTR" and "PITOT 2 & STALL HTR"
- Turbine air inlet deice systems : "INERT SEP"

Deicing check and control panel is located on the lower L.H. side of the instrument panel.

WING AND EMPENNAGE DEICING

A pneumatic deice system assures protection of wing leading edges, horizontal stabilizer, elevator horns and vertical stabilizer. The system automatically cycles when "AIRFRAME DE-ICE" switch is set to "ON". The 67-second cycle breaks down in two inflation cycles :

- a first cycle induces inflation of leading edges deicer boots in horizontal stabilizer, elevator horns, vertical stabilizer and wing inboard section,
- the second cycle induces inflation of leading edges deicer boots in wing central and outboard sections.

During each inflation cycle, one of the two corresponding warning lights located above "AIRFRAME DE-ICE" switch, remains illuminated.

Wing leading edge icing inspection light - see Chapter 7.8 Paragraph "EXTERIOR LIGHTING".

PROPELLER DEICING

Propeller deicing is accomplished through electrical heating of blade roots. This system operates cyclically and alternately on two opposite blades at the same time. Each cycle is 180 seconds long. The system operation is correct when green warning light located above "PROP DE ICE" switch illuminates. The cycles continue as long as the switch remains set to "ON".

WINDSHIELD DEICING

The windshields are deiced electrically by imbedded heating resistors. The system includes a controller and two heat probes imbedded in each windshield. They are operated by "L.WINDSHIELD" and "R.WINDSHIELD" switches.

When the switch is positioned to "ON", the controller supplies the heating resistors, the windshield temperature is monitored by probe # 1. When the temperature reaches 45°C (113°F), the controller cuts the electrical supply to the heating resistors and resumes supply when the temperature falls below 30°C (86°F). The cycle continues as long as the switch remains set to "ON".

In the event of failure by probe # 1, the controller receives the temperature data from probe # 2. The electrical supply to the heating resistors is cut when the windshield temperature reaches 56°C (133°F). In that case, the windshield is no longer heated, the pilot can reset the system by setting the switch to "OFF", then to "ON".

A green light located above "L.WINDSHIELD" and "R.WINDSHIELD" switches goes on when the heating resistors are being supplied.

HEATING OF PITOTS AND STALL WARNING SENSOR ("PITOT 1 HTR" AND "PITOT 2 & STALL HTR")

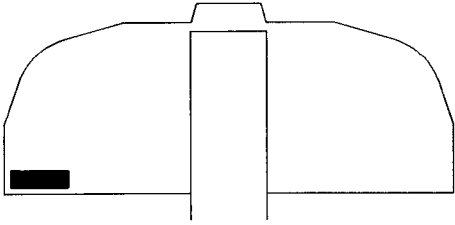
The two pitots, which supply airspeed indicators and the stall warning sensor are electrically heated. This deice equipment must be used even during flight into non-icing conditions ; in that case ("PITOT 1 HTR", "PITOT 2 & STALL HTR" switches set to "ON") when "PITOT 1", "PITOT 2" or "STALL HTR" are lit, corresponding probe heating has failed.

NOTE :

Correct operation of the audible stall warning may be altered by severe or prolonged icing.

TURBINE AIR INLET PROTECTION

Operation and description are set forth in Chapter 7.6 Paragraph "ENGINE AIR INLET".



I4300001AAAAA8000

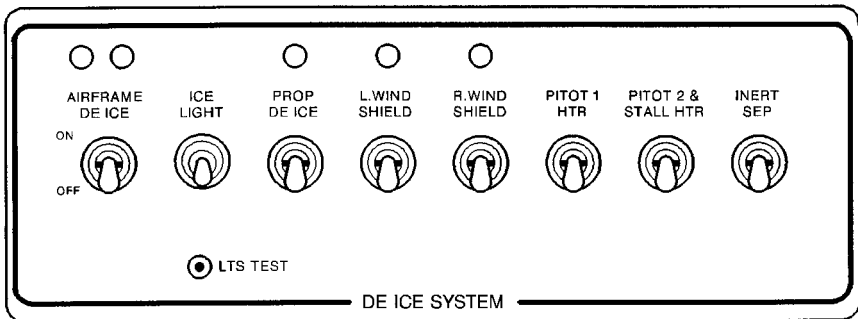


Figure 7.13.1 - DEICING CONTROL AND CHECK PANEL