

## Appendix A

### NSF/NCAR GV Intercommunications System (ICS) Operating Instructions

#### Overview

The Intercommunications System (ICS) installed on N677F consists of eight (8) Audio Control Panels (ACP) and four (4) Interphone Control Panels (ICP). The ACP units are used to select desired audio sources to be coupled to either the headphones or speaker (cockpit only), and adjust incoming audio signal and outgoing audio side tone levels. The ICP units are provided as intercom/call station to station only via headset/boom mike inputs.

The ICS COM system has three nets: (1) Cabin Common, (2) Cockpit Local, and (3) Cabin Local.

#### Station Locations

ACP 1 / ICP 1 – Pilot LH 301  
ACP 2 / ICP 2 – Copilot LH 388  
ACP 3 / ICP 3 – Observer LH 546  
ACP 4 / ICP 4 – Cabin Station LH 497 and LH 738 (Baggage)  
ACP 5 – Cabin Station RH 301  
ACP 6 – Cabin Station RH 399  
ACP 7 – Cabin Station RH 497  
ACP 8 – Cabin Station RH 546 (ADS)

#### Normal ICS Operations

In order to communicate in the main cabin with the ACP and ICP units, use the Cabin Common Net. The following buttons should be illuminated:

- 1) HOT MIC
- 2) ICS Common

ICS Local provides two nets, one for the cockpit only and one for the cabin. This provides a second net for the cabin for ACP communication only. The ICP units cannot listen or talk on the Local Net. To use the Local Net, the following buttons should be illuminated:

- 1) HOT MIC
- 2) ICS LOCAL

The ICP unit can only transmit on the ICS Common Net.

In order to communicate with the cockpit, use the ICS Common Net. To call the cockpit, push and release the CALL button (an audio signal will be sent to the cockpit ICS Local Net). The cockpit will then switch over to the ICS Common Net for the communication. The Cabin ACP unit cannot monitor the cockpit communications over the cockpit ICS Local Net.

### **Other ICS Operations**

Communication over the VHF radio is available through the ACP units only. In order to communicate outside the aircraft on the VHF radio, the cockpit must first select the desired frequency. Select both VHF2 Audio and VHF2 Microphone. To use the VHF radio, the following buttons should be illuminated:

- 1) VHF2 Audio
- 2) VHF2 Microphone

To listen to VHF communication, select only the VHF2 Audio button. (**WARNING:** If both VHF2 Audio and Microphone are selected, the operator will be able to transmit outside the aircraft and any other station that has the VHF2 selected will be able to transmit as well, creating the ability to cause walkover communications.)

Communication over the SATCOM is available through the ACP units only. INMARSAT (SAT 1) or IRIDIUM (SAT 2) phone calls via the cockpit are available to all the ACP locations. Dialing is only available in the cockpit. To use the INMARSAT, the cockpit must dial the desired number and the following buttons should be illuminated:

- 1) SATCOM Audio
- 2) SATCOM Microphone

A quick push of the SATCOM Microphone button selects SAT 1 or the INMARSAT for communication. To speak, press the PTT switch on the fuselage ICS headset hanger to the down position.

To use the IRIDIUM, the cockpit must dial the desired number and the following buttons should be illuminated:

- 1) SATCOM Audio
- 2) SATCOM Microphone

An extended push (of approximately 4 seconds) of the SATCOM Microphone button selects SAT 2 or the IRIDIUM for communication. To speak, press the PTT switch on the fuselage ICS headset hanger to the down position.