



# **FLYAWAY** **COMMUNICATIONS PACKAGE** **QUICK REFERENCE GUIDE**

Version 1 – 4 02 June 2008




## **Process Overview**

Successful data and voice connectivity is dependent on following these steps and instructions carefully. The following is a summary of the necessary steps. Detailed instructions begin on page 3 of this guide.

1. Select location for setup and unpack of key system components (UPS, AVL satellite terminal, System Router, and laptop computer).
2. If power source is available, setup the UPS.
3. Unpack and setup AVL Satellite Terminal
4. Setup the System Router (Linksys RV082).
5. Setup the laptop computers.
6. Establish data (internet) connection via AVL satellite network:
7. Setup standard telephone connectivity.
8. Setup the 10/100 Switch (optional).
9. Setup USB hub (optional).
10. Setup printer/FAX/scanner (optional).
11. Setup VTC (optional).
12. Setup webcam (optional).
13. Setup digital camera (optional).
14. Making national and international phone calls via standard telephone set. (Note: If there is an ISDN phone available, it can be attached directly to the BGAN terminal ISDN port during initial Ethernet connection and will be functional after BGAN terminal is registered on the BGAN network.)
15. Using the Motorola Push To Talk (PTT) cellular phone.

<b>Qty</b>	<b>Description</b>	<b>Qty</b>	<b>Description</b>
3	Computer, Panasonic Laptop, Model CF19	1	USB Hub, Belkin Hi-Speed USB 2.0
3	CD Drive, Panasonic CD-RW/DVD Drive	1	Printer/FAX/Scanner, HP Officejet 6310
3	Battery, Panasonic Laptop, spare	1	UPS, Powersure PSP500VA/300W w/cables
3	Laptop Stylus Pen, Panasonic	1	Power Strip
3	Common Access Card (CAC) Reader	2	Cell Phone w/PTT, Motorola i706/i506
1	System Router, Linksys RV082	1	UHF Radio, ICOM IC F80 DT
1	10/100 Switch, 24 Port, Netgear JFS524NA	1	VHF Radio, ICOM IC F70 DT
1	Satellite Terminal, AVL w/ System Switch (Cisco 2811)	1	Generator, Honda EU1000
1	Web Cam, Logitech Notebook Pro	1	Tactical Comm Bridge, Link TCB-406
1	GPS, Pharos GPS-500	5	Cables, Cat 5, 50 ft, gray
3	Telephones, AT&T Trimline White	2	Cables, Cat 5, 75 ft, gray
1	VTC, Tandberg 150MXP	1	Cables, Cat 5, 100 ft, gray
1	Card Reader, Blackbox USB 2.0	5	Cables, Cat 5, 6 ft
1	Camera, Canon PowerShot SD750	3	Cables, Telephone RJ-11, 50 ft
1	Battery, Canon NB-4L, spare	3	Cables, Telephone RJ-11 6 ft
1	Camera Memory Card, Secure Digital, 2GB	8	4x4 Breakout Module, Leviton
		16	Patch Cords, 4-8 inch, RG-45 to RG-45

**Note: ICP-CP cases are referenced herein as CPx-y, where x is the kit number and y is the case number.**

Step	Description	Step	Description
	<p><b>NOTE: DO NOT APPLY POWER TO SYSTEM COMPONENTS UNTIL INSTRUCTED TO DO SO.</b></p>		
1.	<p><b>Setting Up The UPS</b></p> <p>a. Remove the PowerSure PSP uninterruptible power supply (UPS) from case labeled CPx-3. Connect the UPS power cable to available power source.</p>		
			
	<p>b. The UPS is configured with 4 orange colored receptacles with both battery backup and surge protection, and 2 black receptacles with surge protection only. It is recommended that the provided power strip be connected to one of the black receptacles, then laptops be connected to the power strip. The AVL satellite terminal should be connected to one of the orange receptacles.</p>		
2.	<p><b>Setup AVL Satellite Terminal</b></p> <p>a. Assemble the satellite terminal in accordance with Chapter 4 (Assembly) of the CNIC FlyAway Kit User Guide.</p> <p>b. Using one of the gray, 50 foot Cat 5 Ethernet cables located in case CPx-2, connect one end to the port labeled as Port 2 (Ethernet ports, bottom row, 3<sup>rd</sup> from right) on the AVL Satellite Terminal system switch. The other end will be connected to the System Router as instructed in Step 3.</p>		
			<p>c. If the MTN Network Operations Center (MTN NOC) was not notified prior to deployment, call the MTN NOC facility at <b>954-538-4074</b> with following information:</p> <ul style="list-style-type: none"><li>i. Identify your site as FlyAway 1 or FlyAway 2 as appropriate.</li><li>ii. Inform NOC that system is coming online and request access to MTN network.</li><li>iii. Identify point of contact name, phone number, and location.</li></ul>
		3.	<p><b>Setting Up The System Router</b></p> <p>a. Remove the System Router from lower compartment of case labeled CPx-2. Connect the router power cable to one of the orange UPS receptacles using power cable provided.</p>
			
			<p>b. Connect the other end of the Cat 5 Ethernet cable from the AVL Satellite Terminal system switch (Step 2) to the Ethernet (rightmost) port on the front of the System Router</p>
			

#### 4. Setting Up The Laptop Computers

- a. Remove the power strip, cables, etc. from the lower compartment of case labeled CPx-2.
- b. Connect power strip to power source.
- c. Remove the Panasonic laptop labeled QRT1 from upper compartment of case labeled CPx-1. Connect the power adapter to the power connector, located on the left side of the laptop. Connect one end of the power cord to this adapter; connect the other end to the power strip.



- d. Connect one end a gray Cat 5 Ethernet cable to the network port on the left side of the laptop. Connect the other end to Ethernet port 1 on the front of the System Router of Step 3.
- e. Remove the CD ROM drive and USB cable from upper compartment of equipment case labeled CPx-1. Connect one end of the USB cable to the CD ROM. Connect the other end to the USB port on the left side of the laptop.
- f. Remove the Common Access Card (CAC) reader from the upper compartment of equipment case labeled CPx-1. Two type of CAC readers are used:
  - i. If the CAC reader is a PCMCIA card, open the card slot compartment on the front left side of the laptop and insert one of the CAC readers into one of the PCMCIA Type II PC slots.



PCMCIA

- ii. If the CAC reader has a USB interface, connect the attached cable to the USB port on the USB port on the laptop. (**Note: If the CD ROM is already connected, the USB Hub must be installed prior to connecting the CAC reader. See Step 8.**)



USB

Using the CAC reader is discussed in Step 16.

- g. Apply power to the laptop using the slide switch on the right front. After the laptop has started, login by clicking on "User" and when asked for a password, enter either "user" or "Password1" (depending on which system you have) without the quotes.
- h. If desired, repeat Step 4 for the remaining two laptop computers. Use Ethernet ports 2 and 3 on the System Router of Step 3.

#### 5. Establishing An Internet Connection

- a. Ensure the AVL Satellite Terminal is functioning properly and on the MTN network
- b. Make sure the computer is properly connected to the network:

- i. On the AVL Satellite Terminal system switch, ensure the LED labeled port 2 is ON.
- ii. On the System Router, ensure the LED labeled “Internet” and LED next to the Ethernet port to which the computer is connected are ON.
- c. Launch the web browser by double clicking on the desktop icon entitled “Internet Explorer”. The CNIC web page is set as the default page and should appear. (Note: connection speed is a function weather, satellite terminal orientation, etc. and may take a while for page to display.) If not, try entering a different web site such as **www.google.com** or **www.navy.mil**.
- d. If unable to connect to any web site, double check that all cables are correctly connected, the appropriate link LEDs are illuminated (Steps 2 - 4), the satellite terminal is registered on the MTN network (Step 2).

## 6. Setting Up The Standard Telephones

**(Note: the AVL Satellite Terminal is provisioned with 15 telephone lines/numbers in support of standard telephone devices. The telephone numbers for each line is contained in Table 2 at the end of this guide.)**

- a. Remove one of the white standard phone sets from the upper compartment of case CPx-2. Connect one end of the RJ-11 connector to the phone set; connect the other end to the top, leftmost RJ-11 jack on the AVL Satellite Terminal system switch. If desired, repeat for additional standard phone sets using adjacent RJ-11 jacks on the AVL Satellite Terminal system switch. Note: the fax line (see Step 12) can also be connected to one of these adjacent RJ-11 jacks.

- b. If desired, a remote extension to a telephone bus can be achieved as follows:

- i. Connect one end of one of the RG-45 to RG-45 patch cords to one of the phone ports on the AVL Satellite Terminal system switch.
- ii. Connect the other end to one of the Leviton 4x4 Breakout Modules.



- iii. Connect the desired length of telephone extension Ethernet cables (gray, Cat 5) to the “IN” port of the connected Leviton 4x4 Breakout Module and run the cable to the desired location.
- iv. Connect the other end of the telephone extension Ethernet cable to the “IN” port of a second Leviton 4x4 Breakout Module.
- v. Connect one end of a RJ-11 connector to the phone set; connect the other end to one of the ports on the Leviton 4x4 Breakout Module.
- vi. Repeat this process for each separate run of up to four phone lines per telephone extension Ethernet cable.

## 7. Setting Up The 10/100 Switch (optional)

The 10/100 Switch provides an additional 24 data network connections.

- a. Remove the 10/100 Switch from lower compartment of the case labeled CPx-1 and place in a central location. Connect the switch power cable to the power strip using power cable provided.



- b. Connect one of the Cat 5 Ethernet cables to any available Ethernet ports on the front of the System Router (Step 3). Connect the other end to the first port on the 10/100 Switch.
- c. Connect IP devices to the remaining ports on the 10/100 Switch.

#### 8. Using The USB Hub (optional)

Note: the hub is intended to be used on the main laptop to provide USB ports for additional equipment (e.g. printer, webcam, card reader, etc.).



- a. Remove the hub from case CPx-2. Plug the power adapter into the surge suppressor.
- b. Plug the DC connector into the DC power jack found on the side of the hub.

**(Note: the hub may function without the power supply depending on devices connected; only 1 or 2 ports will be functional without power.)**

- c. If the CD ROM drive is already connected, disconnect from the laptop and reconnect to one of the ports on the USB hub. Connect the flat end of the provided USB cable into the USB port on the laptop; connect the other end to the mini connector on the hub.

#### 9. Setting Up The Printer (optional)

- a. Remove the HP OfficeJet 6310 from case labeled CPx-3. Connect the included power adapter to the power port on the right rear (as viewed from the rear) of the printer. Connect the other end to one of the orange receptacles located on the UPS in Step 1.



- b. Connect the included USB cable to the USB port on the right rear (as viewed from the rear) of the printer. Connect the other end to the USB port of the laptop labeled QRT1, or to the USB hub if installed. (NOTE: if QRT1 is not available, the printer may be connected to laptop QRT2. In either case, the printer is a shared resource for the other laptops via the local area network.

#### **Attach paper trays and load paper.**

Insert the bottom tray into the printer. Slide the paper adjuster over to the left. Insert plain white paper, then move the paper adjuster to the edge of the paper. Attach the top (output) tray. Make sure to hook the top edge of the tray into the gray latches, then lower into place. Pull out and flip over the tray extender.

#### **c. Installing Printer Cartridges.**

Turn printer on by selecting the power button on front of the printer. Open the print cartridge door by lifting up the top lid of the printer. The print cartridge carriage will move to the right. Remove

protective tape from both print cartridges. Hold the tri-color cartridge with the label facing up. Place the tri-color cartridge in the front of the LEFT slot marked with the green label. Push the cartridge firmly into the slot until it snaps into place.

Repeat the process to install a black cartridge in the RIGHT slot marked with the black/orange label.

d. **Align Print Cartridges**

Close the print cartridge door. A message appears that the device is ready for alignment.

Make sure plain, white paper is loaded; then press **OK** after each of the messages to start the process. The alignment page is printed. Check the status on the display. Press **OK** to complete the process.

Alignment is complete when the page is printed correctly.

10. **Setting Up The VTC Equipment (optional)**

- a. Remove the mobile video teleconference (VTC) equipment (Tandberg 150 MXP) from upper compartment of case labeled CPx-2. Connect the included power adapter to the power port on the bottom, right side of the VTC equipment. Connect the other end one of the orange receptacles located on the UPS in Step 1.



Connect one end of a CAT5 Ethernet cable to the network port labeled LAN 1 (bottom, middle) of the Tandberg 150 MXP). Connect the other end to Port 0 (Ethernet ports, bottom row, 1<sup>st</sup> from right) on the AVL Satellite Terminal system switch. When all cables are connected and power is applied, the VTC will present the opening screen.



b. **Configure the VTC Equipment.**

i. **Basic Settings.**

1. Press the Settings key on the keypad to open the on screen menu. Select General Settings press OK (✓).
2. Press OK in the Language field and select English from the list.
3. Enter ICP-CPx VTC in the system a name field. Entering letters work like on a mobile phone, e.g. press the key that corresponds to your desired letter. Press the key as many times as necessary to get the correct letter or number.
4. Make sure the AutoAnswer field is set to OFF.
5. Make sure Maximum Call Length is set to 0.

ii. **Setting Static IP Address Parameters.**

1. Press the Settings key on the keypad to open the on screen



menu. Select Network Settings, press OK.

2. Highlight IP Settings, press OK.
3. Highlight IP Address, press OK.
4. Enter the VTC IP address (see Table 1) for FlyAway 1 or FlyAway 2 as appropriate, press OK.
5. Enter IP Subnet Mask address, press OK.
6. Enter Default Gateway address (see Table 1), press OK.
7. Highlight DNS Settings. When message “**Attention. Do you want to save settings?**” appears, select OK.
8. Enter DNS Server 1 and DNS Server 2 addresses (see Table 1).
9. Press Down Arrow key to highlight the Save icon, press OK.
10. Select Cancel key (X) to go back to Network Menu
11. Select Cancel key to go back to Administrator Settings
12. Select Cancel key to go back to Man Screen.

Using the VTC equipment is discussed in Step 14.

## 11. Making Phone Calls With the AVL Satellite Terminal

**(Note: This ICP-CP telephone/fax number can be found in Table 2 at the end of this guide, and on the CNIC Portal, Emergency Communications section.)**

- a. **Making A National Phone Call**  
Make sure white phone set is connected to the AVL Satellite Terminal system switch and the AVL Satellite Terminal is functioning on the MTN network. Dial 1, then area code followed by 7 digit telephone number.

- b. **Making An International Phone Call**  
Make sure the phone set is connected to the AVL Satellite Terminal system switch and the AVL Satellite Terminal is functioning on the MTN network. Dial 1, followed by desired international telephone number.

## 12. Sending/Receiving Faxes

- a. **Sending a FAX from the OfficeJet 9201**  
Connect one end of the RJ-11 telephone cable to the Line 1 (fax) port on right (as viewed from the rear) of the OfficeJet 9201; connect the other end to one of the RJ-11 jacks on the AVL Satellite Terminal system switch.

Load originals print side up into the document feeder tray. If you are sending a single-page fax, such as a photograph, you can also load your original print side down on the glass.

Enter the fax number (1 + area code + phone number) by using the keypad

(Note: to redial the last number dialed, press **Redial/Pause** button.)

Press **Start Fax Black** button.

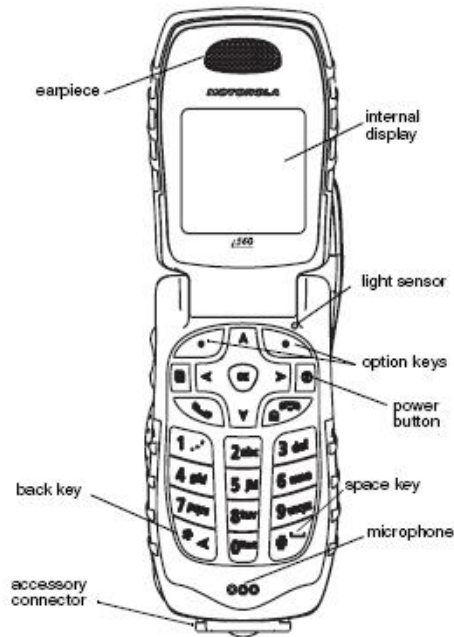
- b. **Receiving a FAX from the OfficeJet 9201**








**(Note: This ICP-CP telephone/fax number can be found in Table 2 at the end of this guide, and on the CNIC Portal, Emergency Communications section.)**

- i. Make sure printer/fax is connected to the AVL Satellite Terminal system switch and the AVL Satellite Terminal is functioning on the MTN network.



13. **Using The Motorola Cellular/PTT Phone**



-  **Power Button**
-  **Navigation Button**
-  **OK Key**
-  **Menu Key**
-  **Option Key - selects the option appearing above it on the display**
-  **Send Key**
-  **End Key**

**1. To power the phone on:**

- a. Open the flip. Press the Power Button. (As the phone connects to the network, a connecting message will be displayed.)

**2. To Power the phone off:**

- a. Open the flip.
- b. Press and hold the Power Button.

**3. Finding the Phone Number:**

- a. Press the Menu Key.
- b. Scroll to **“My Info”**.
- c. Press the OK Key.
- d. Scroll to see the information:  
Line 1 and Line2 are the phone numbers.  
**Direct Connect** is the number others use to contact this phone via Push To Talk (PTT) walkie-talkie service.

**4. Making Calls**

Two types of calls are available: digital cellular phone calls and Direct Connect long-range, digital walkie-talkie (PTT) calls.

**a. Digital Cellular Phone Calls:**

With the flip open:

- i. Enter the number to call in standard format (e.g. dial 1, then area code followed by 7 digit telephone number)
- ii. To place the call, press the Send Key
- iii. To end the call, press the End Key.

**b. Digital Direct Connect (PTT) Calls:**

(Note: every Direct Connect number has three parts - area ID, network ID, and member ID - with an asterisk between each part. For example: 999\*999\*9999. When placing a Direct Call, you must enter the whole number including the asterisks.)

With the flip open:

- i. Enter the Direct Connect PTT number (Note: remember to include the asterisks).
- ii. Press and hold the PTT button on the side of the phone. Begin



## 11. Help

Displays quick guide on system use.

## 12. Call Register

Displays list of latest calls.

## 13. Administrator Settings

Opens settings menu.

## 14. Privacy

Prevents local camera image from being sent. Key is lit when camera is off.

## 15. Volume

## 16. Microphone (Mic) Off

Turn local microphone on/off. Use to mute outgoing audio.

## 17. Headset

Activates headset if available.

## 18. Arrow Keys and OK

Used to navigate menus. Press OK to select menu items

## 19. Speaker

Toggles speaker on/off.

## 20. Cancel

Backs up one step in menu system. Also deletes characters in an input field.

### a. Making VTC Calls

**Note: Both inbound and outbound VTC calls are supported. VTC calls must be established via a VTC bridge site (MTN network). The VTC bridge site can then establish a VTC connection to a remote site.**

- i. The TANDBERG 150 system should only be used to place video (VTC) calls. For video calls, choose Place Video Call in the call menu.
- ii. Press the green key on the keypad to open the Call menu.
- iii. Dial a video IP number manually. The call format is standard IP address dot notation. (**Note: use the star as separator, e.g. 12\*34\*56\*78**)

- iv. Press the green key on the keypad or move the orange selector down to the Place Video Call icon and press OK to start the video call.



When dialing manually, toggle between ABC/abc by pressing the # button on the keypad and between abc/123 by holding the # button for one second. Use a star as separator in IP addresses. If a system is registered on a gatekeeper or border controller with DNS support, there are several ways to call into the system:

1. <IP address>
2. <164>
3. <H.323 ID>
4. <H.323 ID>@<domain>
5. <E.164>@<domain>

### b. Ending Calls

- i. Press the red key on the keypad.

## 15. Scheduling A VTC (optional)

Video conferences are scheduled via the MTN NOC a minimum of 2 hours and maximum of 2 days prior to desired conference time. Conferences scheduled less than 2 hours in advance will be subject to availability.

- a. Call the MTN NOC facility at **954-538-4074** with following information:
  - i. Identify your site as CNIC FlyAway 1 or FlyAway 2.

- ii. Identify need for video conference with Norfolk NOC.
  - iii. Time and duration of video conference.
  - iv. Identify the Tandberg 150 as type of equipment being used.
  - v. Identify site interface Ku, AVL Satellite Terminal.
  - vi. Identify point of contact name and phone number for call back.
- b. The MTN NOC will schedule the bridge facility and call provided POC phone number within 30 minutes to confirm the scheduled event.
  - c. Fifteen minutes prior to scheduled event, MTN NOC will call both end users to facilitate the scheduled event.
  - d. After conference has ended, call the MTN NOC facility with confirmation that event has ended.

16. **Using the Common Access Card (CAC) Reader (optional)**

To use the CAC Smartcard reader, insert a CAC card into the slot of the reader. **Note: Use of a CAC card may require registration of the card with the specific software requiring its use (e.g. Microsoft Internet Explorer, Microsoft Outlook, etc.)**

CAC Smartcard reader functionality can be tested as follows:

- a. Open the Active Client user console by clicking the Start button, then selecting “All Programs”, followed by ActiveIdentity, ActiveClient, and User Console. The top of the ActiveClient screen should indicate that no “Card Is Detected”.
- b. Insert a CAC card. The top of the ActiveClient screen should display identity information for the card and the “Tasks” section should provide a list of

items for Smart Card, Personal, and Certificate Information.

**Note: Access to some information may require the Personal Identification Number (PIN) for the card.**

17. **Using The Digital Camera (Canon Powershot SD 750) (optional)**

a. **Taking Pictures**

- i. Press the power ON/OFF button on top of the camera.
- ii. Press the large round button on top to take picture.

b. **Transferring Picture To Computer With Memory Card Reader**

- i. Remove the memory card reader from case CPx-2. Connect the reader’s USB cable to the USB port on the laptop or a USB port on the USB hub if installed (see Step 8.).
- ii. Ensure the camera is powered off. Open the memory card slot/battery cover on bottom of camera and remove the memory card.
- iii. Insert the memory card into the appropriate slot on the memory card reader.
- iv. Right click on Start, then select Explore. Copy desired pictures from the memory card to the laptop.

18. **Using The Webcam (optional)**

a. **Setting Up The Webcam**

- i. Remove the webcam from case CPx-1. Connect camera’s USB cable to the USB port on the laptop or a USB port on the USB hub if installed (see Step 8.).
- ii. Launch Windows Live Messenger and login as follows:

Email address:

ICPCPx@hotmail.com

Password: icpcpx

(where x = kit number.)

- iii. Test webcam operation by selecting Tools, then Webcam Settings. The webcam video should be displayed in the Camera Settings window.

**b. Adding A New Contact**

- i. On the messenger menu, Click **Contacts**, then **Add A Contact**.
- ii. Enter contact's Instant Messaging Address, then select **Add Contact** button at bottom.

**c. Making A Video Call**

- i. On the messenger menu, Click **Actions**, then select **Video**.
- ii. Click **Start a Video Call**.
- iii. Select a contact, then click **OK**

**19. Configuring the System Router (optional)**

(Note: Proper system operation requires that the System Router have a static IP address for WAN 1. The following procedures should only be necessary should the System Router be replaced and an IP address modification be necessary.)

- a. Launch the web browser by double clicking on the desktop icon entitled "Internet Explorer".
- b. Enter the System Router default address 192.168.1.1 in the URL field.
- c. In the Login screen, enter "admin" (without the quotes) in the Username field, and "admin" (without the quotes) in the Password field. The System Summary screen should be displayed.
- d. Click on the Setup tab at the top of the page.
- e. Ensure the Dual WAN button is selected.

- f. In the WAN1 area, click on the pull down menu and select Static IP.
- g. Enter the System Router IP address (see Table 1) for FlyAway 1 or FlyAway 2 as appropriate.
- h. Enter the System Router Subnet Mask (see Table 1) for FlyAway 1 or FlyAway 2.
- i. Enter the System Router Default Gateway address (see Table 1) for FlyAway 1 or FlyAway 2 as appropriate. Enter the System Router DNS Server 1 and 2 (see Table 1) for FlyAway 1 or FlyAway 2.
- k. Click on "Save Settings" at bottom of page.

(Note: The System Router may have to be reset for new settings to take effect.)

**Table 1 - IP ADDRESS ASSIGNMENTS\***

	FlyAway 1		FlyAway 2		
Component	Address	Default Gateway	Address	Default Gateway	
<b>Non-Configurable</b>					
MTN LAN	208.114.115.56		208.114.115.64		
MTN Gateway	208.114.115.57		208.114.115.65		
<b>Configurable</b>					
DHCP1	208.114.115.58	208.114.115.57	208.114.115.66	208.114.115.65	<b>Mask: 255.255.255.248</b> <b>DNS 1: 216.7.159.195</b> <b>DNS 2: 209.244.0.55</b>
DHCP2	208.114.115.59	208.114.115.57	208.114.115.67	208.114.115.65	
System Router	208.114.115.60	208.114.115.57	208.114.115.68	208.114.115.65	
NMCI IAB	208.114.115.61	208.114.115.57	208.114.115.69	208.114.115.65	
VTC	208.114.115.62	208.114.115.57	208.114.115.70	208.114.115.65	

\* Each FlyAway system has two non-configurable and five configurable IP address assignments. Of the five configurable addresses, two are DHCP assigned and three are reserved static addresses as shown.

**Table 2 – TELEPHONE NUMBERS**

	FlyAway 1	FlyAway 2
Telephone Numbers	954-672-3610 thru 3624	954-672-3625 thru 3639

**Figure 1 - FlyAway Connection Diagram**

