A Case-Based Mobile Satellite Internet System

Go where cell access is not available. The Toughsat Flyaway mobile satellite system is easily transported and deployed by one person for highspeed connectivity using Commercial Grade iDirect from any location. With an integrated wireless access point, this satellite solution can become a multi-user hotspot in minutes. And with Dual Matrix service, you can choose from one of two satellites with a touch of a button (North America only).

Our Flyaway bracketing allows the Toughsat to be easily mounted on the ground, or on top of any vehicle roof rack, even rental vehicles. With the largest case length under 62”, the Toughsat flyaway can easily fit into most SUV or other vehicle cargo areas. Power requirements are minimal and can be supplied by a mini-inverter from a vehicle power port, or from a portable generator.

Our VoIP phone service is optimized for satellite communication and many are often unaware they are speaking over a satellite link. At $49.95 a month which includes 1000 free minutes, phone service is viable at any location. The Toughsat Flyaway Case - Portable Cost Effective Communications

Toughsat Flyaway Features:

- One Operator Simplicity - No Certification Required
- Single Source Provider for Equipment, Service and Support
- Ground Mounting and Roof Rack Mounting (Fly-and-Drive)
- Commercial Grade iDirect Service - Global Network
- Creates Wi-Fi hotspot in 3.5 minutes automatically
- Dual Matrix Service - Two satellites for redundancy
- Ideal for VoIP phone service - Very low latency
- Shippable - Under UPS-FedEx-DHL limits (.98m system)
- Low power usage - 90 watts average (150 watts max draw)
- Works in extreme environments. Hot-Cold-Rain-Snow
- Manufactured and supported by Ground Control
- Available in .98 meter or 1.2 meter dish sizes
- 24-7 U.S based support & nationwide field technicians
The Flyaway is easily setup by one person

**GENERAL FEATURES**

- Manufactured by Ground Control.
- One-button operation.
- Requires little or no training to operate.
- No certification or licensing to operate.
- Dish peaking accuracy is within 0.1 degrees with near zero play.
- Typical seek time to find and lock on satellite is 3.5 minutes.
- Establishes a self-contained local area network with one button.
- Establishes a wireless access point and wiring to computers is optional.
- System is not affected by magnetic distortions to lock on any satellite.
- Operates globally in both hemispheres.
- 6 watt transmitter with 8 Watt optional.
- Operates in high winds.
- Modular design - components easily replaced if problems occur.
- Operational in temperatures of -60° F to 140° F at 100% humidity.
- No software to install.
- No fan required - Operates silent.
- Autostow safety features if rig is moved or computer control is not required.
- One-button operation.
- Dish parameters and firmware updates.
- Networking Overrides for IP Address, Subnet Gateway address, DNS

**Wireless 1RU ACU (Dish Controller)**

- The front of the ACU has buttons for Deploy, Stow, Stop, Sat 1 and Sat 2.
- Dual Matrix - Redundant satellite service
- Integrated wireless 4 port router.
- No fan required - Operates silent.
- Browser accessible interface screen.
- Intuitive Interface screens controls.
- Establishes a self-contained local area network with one button.
- System is not affected by magnetic distortions to lock on any satellite.
- Operates globally in both hemispheres.
- 6 watt transmitter with 8 Watt optional.
- Operates in high winds.
- Modular design - components easily replaced if problems occur.
- Operational in temperatures of -60° F to 140° F at 100% humidity.
- No software to install.
- No fan required - Operates silent.
- Autostow safety features if rig is moved or computer control is not required.
- One-button operation.
- Dish parameters and firmware updates.
- Networking Overrides for IP Address, Subnet Gateway address, DNS

**Diagnostic & Updating**

- Lifetime free firmware upgrading with easy one-button updates with active Ground Control account.
- System provides accurate technical diagnostics without dispatching a technician to rig site.
- Remote access into system from Ground Control for performance tuning and troubleshooting.
- System provides historical log of events for accurate diagnostics

**MAIN CASE Specifications**

- Toughsat (Same for both .98 and 1.2 systems) Compatible with Toughsat XP or SP
- External Dimensions 61.25” x 21.75” x 16” (155.6 x 55.24 x 40.64 cm)
- Weight .98 dish (loaded) 149 lbs (67.59 kg) Under shipping weight limits
- Weight 1.2 dish (loaded) 160 lbs (72.57 kg)

**DISH & BAG Specifications**

- Reflector Types .98 Meter Dish .12 Meter Dish 0.98 or 1.2 square meter effective area
- External Dimensions .98 Meter Dish 39” x 4” depth (99.06 x 10.16 cm)
- External Dimensions 1.2 Meter Dish 48” x 5” depth (122 x 12.7 cm)
- Weight (both systems) 98m- 26 lbs (11.79 kg), 1.2m 35 lbs (15.88 kg)

**RACKMOUNT CASE (6U)**

- External Dimensions (same for both .98 and 1.2) 21.75” x 24.75” x 14” (55.24 x 62.86 x 35.56 cm)
- Weight 33 lbs (14.97 kg)
- Components ------------ Dish Controller, iDirect Router, Power Conditioner
- Cable Run 25 (7.6 Meters) watertight, 50’ and 100’ runs available

**BRACKETING & DOLLY BAG**

- External Dimensions 63” x 8” x 8” (158 x 20 x 20 cm)
- Weight 28 lbs (13 kg)
- Other Components ------------- Hardware and tools

**DISH ROTATION**

- Azimuth 410°
- Elevation 165°
- Polarization +80°

**RF INTERFACE**

- Transmit Power 6 watts BUC
- Receive Frequency Range 950-1450 mhz

**ENVIRONMENT**

- Max Operational Temperature (at 100% humidity) Operational -20° F to 140° F (-28° C to 60° C)
- Max Survival Temperature (at 100% humidity) -60° F to 160° F (-51° C to 71° C)

**POWER REQUIREMENTS**

- Dish Controller & Dish Motors (Via 120 VAC) 15 watts (can be turned off after pointing)
- iDirect Evolution X5 Series Router 75 watts

**SATellite NETWORK - iDirect (Flyaway may be used with any Ku-Band provider & satellite router)**

- Satellite Router (optional) iDirect Evolution X5 Series Router
- Max Download Varies. Dependent on location
- Max Upload Varies. Dependent on location
- Public (Static) IP Address Included
- DHCP Yes. Wireless or 4 port Ethernet
- NAT Supported by included router
- Wireless Security WPA (TKIP) WPA2 (AES) + WEP 64 and 128bit
- Firewall Supported by included router
- Port Mapping & Port Triggers Supported by included router
- QoS, ToS, MAC Address Clone, RIP v1 RIP v2 Supported by included router
- Networkable clients machines Unlimited
- Wireless Cisco Linksys wireless router “G”

**Ground Control**

GroundControl.com

The Flyaway is easily setup by one person

Toughsat TS2 ACU (Antenna Control Unit)

One button operation with Dual Matrix Service for the ultimate in redundant satellite communications.