Emergency Communications/Oil, Gas and Utility Field Communications – The Trekker Flyaway

The Situation

The burgeoning use of the Internet has created a need for rapidly and easily deployable "virtual offices" that can provide voice, data and fax capability to a relatively large team, for all manner of commercial applications.

Disaster relief, oil exploration and military logistics support are examples of applications requiring more easily deployed multichannel SATCOM earth terminals of the "USAT" (Ultra-Small Aperture Terminals) variety – an antenna diameter of 1.2 meters or less.

The Solution

Advances in satellite equipment technology have made possible the design of a low-cost, highly portable SATCOM terminal supporting worldwide deployment of a virtual office – the "Trekker" Flyaway SATCOM terminal. Efficient voice compression algorithms and statistical multiplexing allow access to full duplex voice, data and fax capability, using a minimum of transponder bandwidth. This in turn lowers recurring costs.

The terminal can operate at C- and/or Ku-band and is highly scalable. In its simplest configuration, a 64 kbps aggregate rate supports up to four 8 kbps voice channels and a data channel utilizing the remaining bandwidth. More bandwidth can be provided for data by employing 4.8 kbps voice compression. Increasing the aggregate rate to 512 kbps allows the addition of efficient high-speed Internet access with an Ethernet hub to support a LAN. ISDN access can be provided, and a PBX is available for efficient utilization of the voice trunks. The 512 kbps aggregate configuration can support a team of up to thirty people, each with a telephone and personal computer connected to a LAN offering Internet access. In addition, video conferencing capability is provided. The terminal can be configured for full or no redundancy, depending on the customer's requirements.

The basic terminal is easily deployed in a helicopter or light plane.



Benefits

- Ultra Light/Compact for ease of transport and reduced transportation costs.
- Low on-going satellite bandwidth costs.
- Fast implementation. Set-up in 30 Minutes.
- Voice/Fax/Data/Internet(IP)Service.
- Video conferencing.
- C- and/or Ku-band operations.
- 90 cm or 1.2 m Versions.

