DATA SERVICES

Globalstar is currently introducing a number of different wireless data services, bringing greater functionality and convenience to customers wherever they live, work or travel. The system's CDMA architecture is particularly well-suited to data communications, assuring users of high-quality, secure data connections for a variety of business and personal applications - on land, at sea, or in the air - at speeds similar to those currently offered by many wireless cellular services.*

- **Wireless Internet connectivity for PCs:** With an easy-to-use Globalstar data cable, users can quickly connect their personal computer to a Globalstar phone just as if they were plugging their PC into a conventional telephone wall socket. The computer then dials into the Internet, allowing the user to send and receive e-mail and other Internet-based data using normal browser and mail management software. This service is not only useful for travelers who want to have data access while on-the-go but also for users in remote fixed locations who have no other means of connecting their PC to the Web.

- **SCADA (Supervisory Control and Data Acquisition) data modem services:** Specially-designed Globalstar data modems can automatically send and receive data from distant locations, allowing customers to remotely monitor and manage equipment and infrastructure. For example, oil pipeline operators can install Globalstar modems at various points along a pipeline to monitor throughput, pressure, and temperature, and cargo fleet managers can regularly track the location of containers and vehicles. Short bursts of data can be sent and received at very low cost, making these systems far less expensive than manual monitoring or other satellite-based systems.

Globalstar data services are provided using either circuit-switched or packet-switched protocols, depending on locations.

- **Circuit-switched (asynchronous) data:** This service is similar to "dial-up" Internet service that people are most familiar with for their personal use. It establishes a dedicated circuit, essentially the same as a standard voice telephone connection, and can be used for normal Internet functions (e.g. e-mail, web browsing, etc.). To access the Internet, users dial into an Internet Service Provider (ISP) such as AOL or Compuserve, just as they normally would with a regular phone line connection.

- **Packet-switched data:** This service is a more efficient form of data transfer, similar to that used by DSL and cable modem connections. Users access Internet data in the same way as with circuit-switched connections and at roughly the same transfer speeds, but packet-switched connections require no ISP dial-up connection. Instead, the PC is connected directly to the Internet via the Globalstar phone.

- **Data speeds:** Globalstar's system architecture normally provides for 9.6 kbps transmission, which is lower than many hardwire systems such as traditional telephone lines or DSL services, but it is similar to speeds currently available over most cellular networks and is quite adequate for sending and receiving text-based information such as e-mail, financial data, etc. Globalstar's CDMA architecture is also scalable, so that higher speeds may be achieved by using multiple circuits in parallel. Multi-circuit modem units, with speeds up to 56 kbps are already commercially available, and prototype systems have already recorded speeds of 200 kbps. While such systems involve increased usage costs for individual users, they remain an economical option for industrial users and for situations where system resources would be shared by multiple users.

  Globalstar is also exploring ways to improve data transfer speeds even over individual circuits. A number of options are being considered, including the adoption of Qualcomm's HDR (high data rate) technology, which could provide 3-4 times the speed of current transfers.

** Not all features available in all locations. Check with your local Globalstar service provider.*

Globalstar™ Satellite Communication Services Above and Beyond℠

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