



**ELSAT 2000—an essential building-block for Net Centric Warfare (NCW) operations**

Adopted by most advanced military organizations as the cornerstone of contemporary warfare, NCW mandates the creation of an operational environment in which commanders and decision makers, whether positioned at command posts or with the maneuvering forces, are able to share multimedia information—Voice, Data & Video, in order to compile the most relevant and accurate situational awareness picture.

The ELSAT 2000 satellite on-the-move system is an essential component in any tactical communication system supporting Net Centric Warfare, for it is the most reliable way to ensure that essential tactical information—whether voice, data or video—can be disseminated, in real-time, to forces in motion, regardless of the nature of the terrain in which they are operating and their geographical location.

**Technical Specification**

Antenna performance and data rates		General	
Receive (forward link)	>45 Mbps	Frequency range	Receive: 10.95-11.7 and 11.7-12.75 GHz
Transmit (return link)	>4 Mbps (using ext. BUC)		Transmit: 14.0-14.5 GHz
Tracking system is based on RSSI & Gyros		Tracking speeds	Up to 450/S
			Accelerations: 1800/S2 in azimuth and elevation
Antenna physical characteristics		Power Consumption	Less than 19 Watt (Excluding BUC)
Diameter	55 cm	Military Rugged –Mil STD (EMI/RFI/Environmental)	
Height	18 cm		
Weigh	12 Kg		



**ELSAT-2000**

Satellite On-The-Move System

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## ELSAT-2000

### Satellite On-The-Move System

Maximizes operational effectiveness, C2I and situational awareness of both military and homeland security organizations

#### On-the-move Triple Play Communication

- ◆ TELEFUNKEN RACOMS' ELSAT 2000 Satellite On-The-Move system is the ideal solution for the operational needs of armed forces and homeland security (HLS) organizations which require real-time video streaming, video/phone conference and data communications to and from deployed locations, no matter how remote or rugged.
- ◆ The system's low profile array antenna is easily mounted on any vehicle—military or otherwise—and automatically turns to acquire the designated satellite signal. It maintains pointing via automatic tracking and control of the azimuth, elevation and polarization angles while the vehicle is in motion.
- ◆ ELSAT 2000 enables decision makers, commanders and field units, of both military and HLS organizations, to maximize command and control effectiveness and situational awareness, whether operating locally or globally.

#### A flexible solution for a variety of operational needs

- ◆ Providing the flexibility of both one and two-way communications units, ELSAT 2000 enables armed forces and HLS organizations to tailor a solution according to their specific operational needs:
  - **Two way communications unit (both transmit and receive)** for key personnel who need to both receive video, voice and data information from the field and send out C2I commands, conduct video conference sessions, etc.
  - **Low cost one-way communications unit (receive only)** suffice for personnel who need only to receive voice, data and video information from upper echelons and other units.

#### ELSAT 2000's main benefits and features

- ◆ **Fast, automatic signal acquisition**  
After emerging from a point of blockage—tunnel, bridge underpass etc., the ELSAT 2000 antenna automatically seeks and re-establishes the satellite link.
- ◆ **Reliable satellite communications in all weather**  
Elsat 2000 integrates with the TELEFUNKEN RACOMS' advanced SATCOM modem solutions to maximize communication quality and reliability while minimizing jamming in harsh weather conditions.
- ◆ **Highly rugged, MIL-STD unit**  
All system's components are ruggedized to sustain extreme weather and the severe shock and vibrations which characterize driving in difficult terrain.
- ◆ **Highly flexible System**  
Elsat 2000 is compatible with Ku-band satellite and supports most SCPC satellite modems and VSATs.
- ◆ **Low profile minimizes vulnerability**  
The system's antenna has the lowest profile of any existing SOTM antennas—an essential feature in battle situation where a high profile antenna can mark the vehicle as a high value target and create difficulties in air transport.
- ◆ **User-friendly system**  
ELSAT 2000's auto satellite tracking and in-motion, hands-free operation enable the vehicle crew to focus solely on the mission and efficiently transmit and receive the information needed for mission-success.
- ◆ **A cost-effective solution**  
Utilizing COTS resources, the system provides a highly cost-effective solution.
- ◆ **Fast & easy installation**  
The antenna is easily installed on almost any type of vehicle—on a luggage rack, a flat roof or under a roof with false ceiling.
- ◆ **Vehicle-powered system**  
The system's power requirement are met with any vehicle's standard 12/24V DC power supply.

#### Examples of military applications

- ◆ ELSAT 2000 is the ultimate solution for providing deployed units with triple-play communications—video, voice and data—covering unlimited kilometers. **For example:** Video from Reconnaissance Units (B) is transmitted to both DHQ (A) and approaching Tank Battalion (C); Tank Battalion receives C2I information and commands from DHQ.

#### Examples of Safe City, HLS and crisis management applications

- ◆ ELSAT 2000 enables highly reliable communications, ensuring that even in extreme crisis situations—floods, earthquakes, etc.—when telephony and cellular communications networks fail, crisis managers and First Responders will be able to communicate. **For example:** Crisis Management Center provides C2I instructions to deployed Ambulances, Police units and Fire-fighters (D) and receives video and data footage from disaster scene. Coast Guard vessels (E) are provided with reliable voice and data communications that span unlimited miles.

