



## Weather Satellite Receiving System GOES GVAR, GeoSat<sup>®</sup> Series

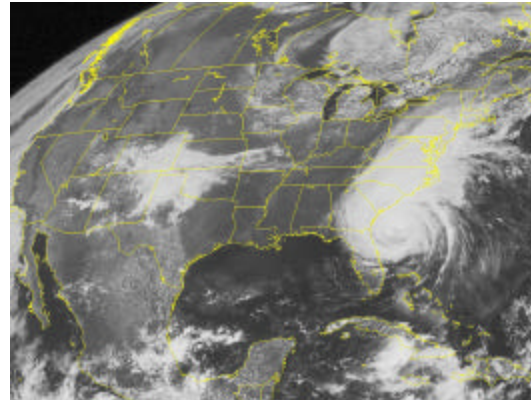
- **Receives real time GOES GVAR data**
- **Complete professional system**
- **Easy set-up and configuration**
- **Background ingestion and multitasking**
- **Runs on Windows 95/98, NT or 2000 OS**
- **Upgrades for GMS and METEOSAT**

The Morcom GeoSat Series Digital Earth Station is a satellite acquisition and processing system for the real-time reception and display of geostationary, high resolution images. The system is PC-based and operates in an interactive graphics environment. The system provides capability for full coverage of the GOES geostationary satellite (versions are available for reception of GMS and METEOSAT). The system is ideal for tracking weather systems and viewing meteorological developments accurately.

The GeoSat receives the data from the GOES satellite through the parabolic antenna and receiver module supplied with the system. The hardware is all integrated into a single high-quality PC-type workstation running Windows 95/98, NT or Windows 2000. In addition to the ingest software, the system is supplied with the MEGAVIEW 97<sup>®</sup> image processing software. This is a true 32-bit application that allows the user to do complete multitasking, including background image ingest.

MEGAVIEW 97 is a user friendly, customizable, icon-based application that has the following advanced features: Simple “click and drag” image pan and scroll, unlimited variable zoom in any window, synchronized zoom in multiple linked windows, automatically updated animation loops which are easy to setup, variable looping speed in any window, color image enhancement by pixel value or by temperature for infrared images, optional

color vs. temperature scale for each window, interactive temperature readout, histograms of user-selected image areas, gray scale stretch using histograms, image annotation, file export, and flexible printing.



Visual Image of North America (GOES GVAR)

Morcom offers a complete range of options for the GeoSat System, like state of the art mass storage systems (for backup and archiving), network interface adapter card (10/100Mbps Ethernet), Uninterruptible Power Supply system (UPS available for 110VAC or 220 VAC, 60 or 50 Hz), black and white or full color laser printer, and additional workstations if required.

**About Morcom:** Our company was founded in 1984 and our staff has over 25 years of experience designing, building, and installing satellite ground stations to receive images from the meteorological satellites. With numerous systems installed and operating all over the world, Morcom is known for its reliability and quality of the products we sell.

Morcom offers a wide range of satellite receiving ground stations for geostationary and polar orbiting satellites like HRPT and MODIS receiving systems.

**Our Warranty:** Morcom offers a one year warranty for this product. Our company supports this product with our worldwide service network.

# GOES GVAR, GeoSat Series System Components and Specifications

## Parabolic Antenna

Our 10 ft. (3.0 m) parabolic antenna has an intermediate ring design that optimizes the curve of the mesh between the ribs

Type: 4 section parabolic mesh antenna

Operating Frequency: 1.0-12.75 GHz

Diameter: 10 ft. (3.0 m)

Reflective Material: Rolled C/Ku mesh

F/D Ratio: 0.38

Feed: Prime focus quad feed support

Pole Size: 3.5" (8.9cm)

Focal Length: 45.6" (116.8 cm)

Gain at 4.2GHz: 40.2 dBi

Weight: 158 lbs (72 Kg.)



## BPSK Receiver

This receiving module is integrated into the workstation and is used for reception of the digital weather image transmissions. The receiver is fed the signal from the feed/downconverter.

Input Frequency Range: 136 to 145 MHz

Frequency Step Size: 25 KHz

IF Frequency/Bandwidth: 70 MHz/3 Mhz

BPSK Demodulator Type: Costas loop PLL

Input Level: -100 dBm to -60 dBm

Signal Strength Out: 0 to 3 VDC

Size: 13.7" x 5.0"

## Bit Synchronizer

For demodulation of the signal from the BPSK Receiver. This unit is also integrated into the workstation.

Data Input: data/clock RS-422 or TTL

Data Output: Separated data and clock

Buffer: Large FIFO buffer

Data Polarity: Selectable

Synchronization: Pattern detect

Size: Full size ISA board

Back Panel Connector: DB-37 female

## Integrated Feed/Downconverter IFD-1691

Receives the signals from the geosynchronous weather satellites. It is installed at the antenna.

Noise Figure: 0.8dB

Gain: 45 dB

LO Frequency: 1553.500 MHz

Output Freq.: 137.5 Mhz (1691 MHz in)

Input/Output Connector: Type "N"

Power: 12 to 15 VDC @ 500 mA

Weight: 2.2 lbs

Size: 6" dia x 1.5" housing and 8" flange



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