TELESPACE

Satellite Ground Stations From EEC

CAPELLA-GR

GOES-R GROUND STATION

High performance systems designed to meet the increased data volume of the next generation of GOES satellites

REMOTE SENSING

Capella-GR is ready for GOES-R. Are you?

Scheduled to launch in early 2016, the new GOES-R satellites will generate an exponentially larger amount of data than the current GOES series. Our Capella-GR ground stations are designed to handle this massive influx of high quality data.

The new generation of the GOES series will render current hardware and software obsolete. The time to begin integrating Capella-GR is now.

EEC's Capella-GR ground station provides meteorologists, oceanographers, government and military agencies, and research organizations with the tools they need to observe, collect, and process data from all GOES-R satellites, depending on their location and the system configuration that fits their specific needs.

GOES-R—the Geostationary Operational Environmental Satellite-R Series—represents a giant leap forward in weather satellite technology. The satellites will broadcast exponentially higher-resolution data products than the current series, providing improved resolution, increased coverage, and advanced lightning detection among other enhancements. This upgrade will result in more accurate weather forecasting, climate condition monitoring, and ecosystem management, as well as better tracking of solar and space weather hazards.

This all-new technology will render current hardware and software obsolete, affecting more than 400 GOES monitoring stations in the Western Hemisphere. Don't be caught unprepared for this radical change in the dissemination and analysis of weather and environmental data. The time to begin integrating the Capella-GR ground station into your existing systems is now.

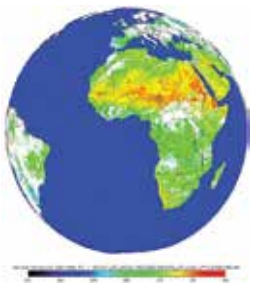
CAPELLA-GR ADVANTAGES

- Three antenna sizes: 3.7m, 5m & 6m
- Powerful processing system to handle the dramatic increase in data over the current GOES series
- 42 inch display coupled with PROTEUS satellite data visualization and analysis software

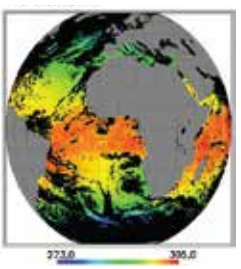
APPLICATIONS

- Storm Detection and Tracking
- Fire Monitoring
- Air Quality
- Coastal And Ocean Monitoring
- Hurricane Forecasting
- Rainfall and Flood Monitoring
- Land Cover Observations
- Volcanic Ash Detection
- Lightning Detection
- Severe Thunderstorm Prediction

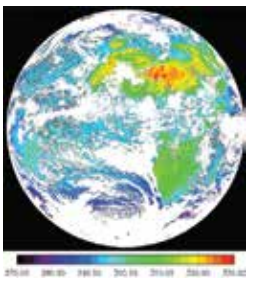
PRODUCT EXAMPLES



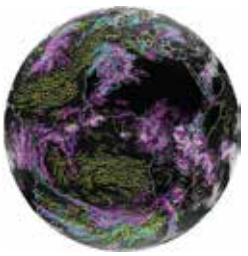
Land Surface Temperature



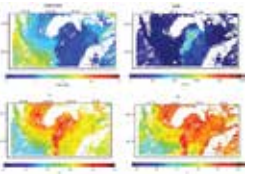
Sea Surface Temperature



Clear Sky Mask



Derived Winds



Atmospheric Profiles

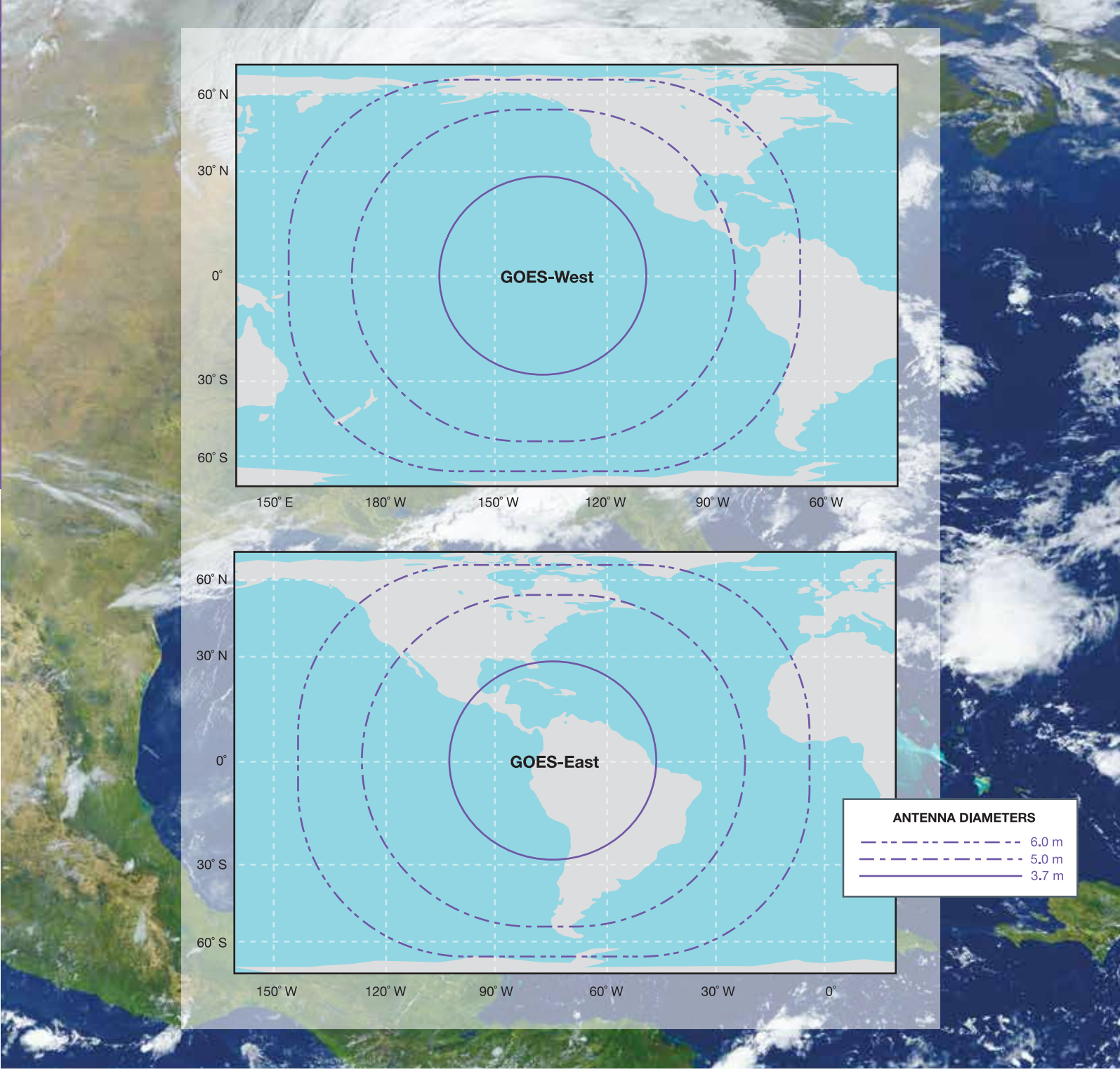


Image: NASA/NOAA GOES Project

EEC OFFERS THREE ANTENNA SIZES: 3.7m, 5m, 6m

TYPICAL CAPELLA-GR CONFIGURATION

ANTENNA

DVB-S2 DEMODULATOR

PROCESSING & VISUALIZATION WORKSTATION RUNNING PROTEUS SOFTWARE

A NEW GENERATION OF SATELLITE REQUIRES A NEW GENERATION OF GROUND STATION.

CAPELLA-GR End-Product List

ABI - BASELINE PRODUCTS

Cloud & Moisture Imagery (KPP)
Radiances*
Aerosol Detection (Including Smoke & Dust)
Aerosol Optical Depth
Volcanic Ash: Detection & Height
Cloud Optical Depth
Cloud Particle Size Distribution
Cloud Top Phase
Cloud Top Height
Cloud Top Pressure
Cloud Top Temperature
Hurricane Intensity
Rainfall Rate / QPE
Legacy Vertical Moisture Profile
Legacy Vertical Temperature Profile
Derived Stability Indices
Total Precipitable Water
Clear Sky Masks
Downward Shortwave Radiation : Surface
Fire / Hot Spot Characterization
Land Surface (Skin) Temperature
Sea Surface Temperature
Reflected Shortwave Radiation: TOA
Snow Cover
Derived Motion Winds

ABI - FUTURE PRODUCTS

Aerosol Particle Size
Aircraft Icing Threat
Cloud Type
Ozone Total
Visibility
Cloud Ice Water Path
Cloud Layers / Heights
Cloud Liquid Water
SO_2 Detection
Low Cloud And Fog
Upward Longwave Radiation: Surface
Convective Initiation
Enhanced “V” / Overshooting Top Detection
Tropopause Folding Turbulence Prediction
Upward Longwave Radiation : TOA
Absorbed Shortwave Radiation: Surface
Downward Longwave Radiation: Surface
Flood / Standing Water
Ice Cover
Snow Depth (Over Plains)
Surface Albedo
Surface Emissivity
Vegetation Fractions: Green
Vegetation Index
Currents
Currents: Offshore
Sea And Lake Ice: Age
Sea And Lake Ice: Concentration
Sea And Lake Ice: Motion
Probability Of Rainfall
Rainfall Potential

SEISS

Energetic Heavy Ions*
Magnetosphere Electrons And Protons: Low Energy*
Magnetosphere Electrons And Protons: Medium & High Energy*
Solar & Galactic Protons

GLM

Lightning Detection: Events, Flashes & Groups*

EXIS

Solar Flux: EUV*
Solar Flux: X-Ray*

SUVI

Solar Imagery: UV*

MAGNETOMETER

Geomagnetic Field*

** Included In GRB*

Front Cover Image: NASA/NOAA GOES Project

PROTECTING PEOPLE AND ASSETS™

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