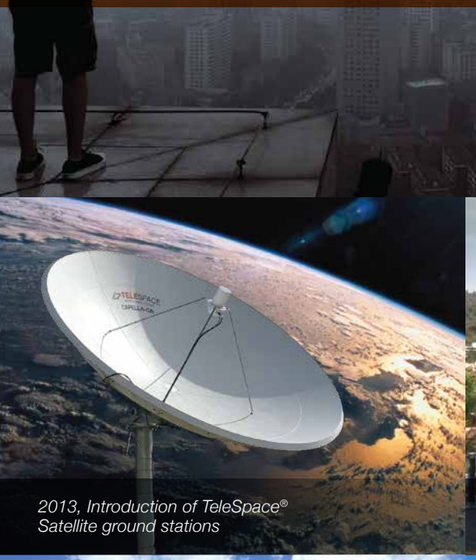
S C X
Weather Radar and Remote Sensing Solutions
When you engage with EEC, you get more than prediction.
You get protection.
EEC
PROTECTING PEOPLE AND ASSETS®
eecweathertech.com

EEC - A History Of Innovation

In 1971, a group of radar engineers formed a company in south Alabama. Their dream was to develop and manufacture affordable, high quality meteorological radar systems and market them to the world.

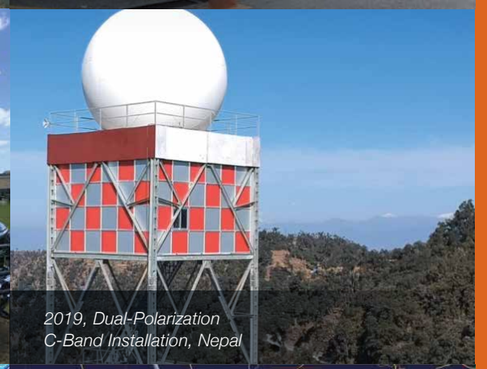
With corporate headquarters based in Enterprise, Alabama, they called their new company Enterprise Electronics Corporation, now known as EEC.



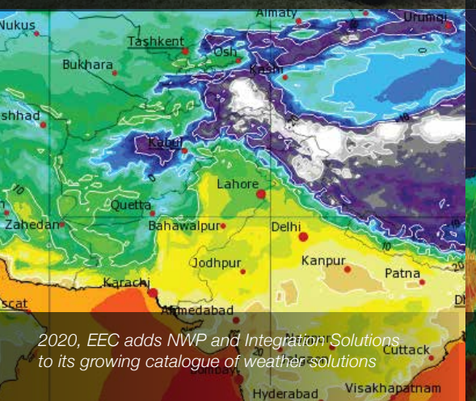
2013, Introduction of TeleSpace® Satellite ground stations

2016, Mobile Ranger-X5® In Brazil

2018, EEC wins Emmy Award for work on the StormRanger mobile Doppler weather radar truck



2019, Dual-Polarization C-Band Installation, Nepal



2020, EEC adds NWP and Integration Solutions to its growing catalogue of weather solutions

2023, EEC implements solid-state transmitters in several C-Band weather radar contracts

1971
Enterprise Electronics Corporation is founded.

1974
160 EEC WSR74 Radars were chosen to replace the existing United States weather radar system.

1980s
EEC's Digital Video Integrator Processor (DVIP) adds the Digital Colorizer and becomes the industry standard for displaying color rainfall levels.

1981
EEC introduces the world's "first" commercial Doppler weather radar system.

1988
First PC-based weather radar display called *RADSYS* was developed.

2005
Simultaneous Dual-polarization (SIDPOL®) technology became commercially available.

2012
The world leader in weather radar with a presence in over 90 countries. Ground-breaking *Ranger®* X-Band released.

2013
EEC *TeleSpace® Satellite Ground Stations* formed.

TELESPACE
Satellite Ground Stations From EEC

2015
EEC TeleSpace delivers the world's 1st commercially provided operational GOES-16 Satellite Groundstation to United States Naval Research Laboratory – Monterey.

2017
EEC introduces its *Endurance®* product line of fully solid-state radar systems.

2018
EEC becomes the first-ever commercial weather radar supplier to win an Emmy® award.

2019
EEC introduces the compact, economic *Maverick* X-Band weather radar system.

2020
EEC TeleSpace introduces the 1st 3.0m OBERON-XLS Polar Orbiting Satellite Groundstation for meteorological and defense satellites.

2021
EEC celebrates 50 years in business.

2023
EEC leads the way in weather monitoring innovation, implementing solid-state transmitters in several C-Band weather radar contracts.

The Markets We Serve

EEC's remote sensing systems are a vital, life-saving technology to the millions of people and assets threatened by severe and extreme weather across the globe each year. Being able to plan and act based on accurate weather radar forecasts provides a large return on investment. EEC's innovative solutions have helped the various industries we serve to adapt to an increasingly complex, fast-changing, and interconnected world by improving efficiency and mitigating risk & losses.

"Early warning systems save lives and assets worth at least ten times their cost. Just 24 hours warning of a coming storm or heat wave can cut the ensuing damage by 30 percent, and spending $800 million on such systems in developing countries would avoid losses of $3-16 billion per year."

UN Global Commission on Adaptation - Adapt Now: A Global Call for Leadership on Climate Resilience, September 2019

Broadcasting
Provide TV and other digital media services unique and graphically appealing local area meteorological nowcasting and warning products, as well as customized mobile radar solutions.

Aviation
Provide airport area forecasting products (wind shear, microbursts, gust fronts, hail, severe weather alerts) to minimize air travel and ground operations safety risk and comply with international requirements.

Hydrology
Provide large area flood forecasting, emergency service flood warnings, water resource management, agricultural forecasting tools, and hydroelectrical energy resource management.

Meteorology
Provide large area meteorological forecasting and nowcasting, multiple emergency service severe weather warnings, data contribution to numerical weather prediction models, meteorological research, and support of military operations.

Future Focus

Building upon and combining its core strengths in the areas of in-house design, manufacturing, production, and intellectual property, EEC will maintain its position as a market leader, complementing our high-performance meteorological radar systems with the ability to provide direct broadcast satellite ground stations, NWP systems, and other integrated solutions to governments, academic institutions and commercial enterprises on every continent of the globe.

Technology - Develop innovative solutions in the areas of signal processing, solid-state system design, smart sensing, cloud computing, big data analytics, and other emerging technologies to enhance the capabilities and performance across our line of early warning systems, while reducing overall system maintenance and life-cycle costs for our clients.

Client Support - Strengthen client engagement and relationships through efficient communication, collaboration, and knowledge sharing, using live and virtual environments.

Adaptation - Build more resilient adaptation models into our operations and supply chains to continue to respond effectively and efficiently to present and future market needs.

Global Presence - Gain global presence and install new systems by harnessing our experience and proven ability to successfully complete turnkey projects in challenging areas and remote locations affected by climate change and extreme weather.

Strategic Partnerships - Increase cooperation and strategic partnerships with meteorological institutions and research centers worldwide to develop new algorithms and data sources to assist in the development of new impact-based and artificial intelligence-based weather forecasting models and tools.

Sustainability - Focus on new technologies, initiatives, and business models that solve real sustainability and environmental challenges within our organization and the industries we serve, according to UN Global Compact principles.

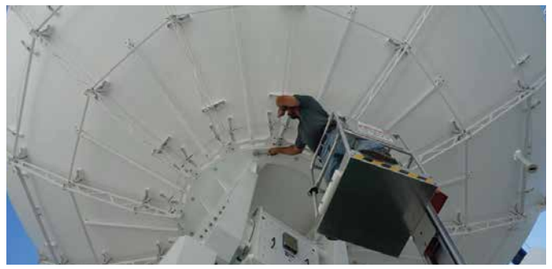
Turn Key Solutions

End-to-End Solutions

For over 50 years, creating turn key remote sensing systems has been an important EEC advantage. Even today, your EEC weather radar and satellite groundstations are designed by EEC, manufactured by EEC, and installed by EEC. Plus your key personnel are trained by EEC.

Engineering and Design

From designing mammoth Klystron S-Band radar systems to pioneering a fiber-optic link for transporting huge amounts of dual-polarization data, our own EEC engineering staff develops the hardware that keeps EEC at the leading edge of technology. At the same time, EEC's in-house software engineers make our systems highly accurate yet practical, by creating the analytical and display tools that quickly turn raw data into dynamic displays.



Manufacturing

To ensure our products perform up to the most stringent engineering specifications, we make our own components – from tiny printed circuit boards to huge antennas. In-house manufacturing also gives us the flexibility to vary a configuration to meet your exact specifications.

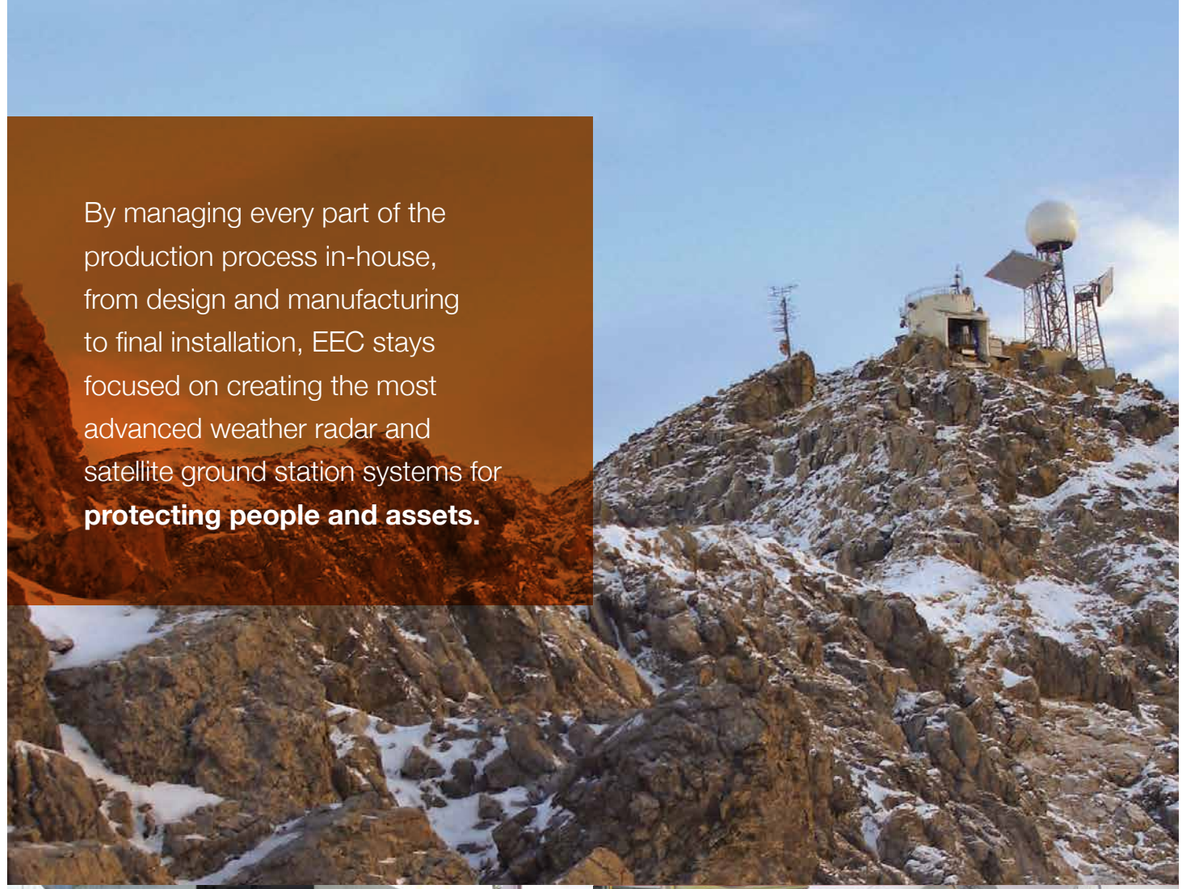
Installation

A well chosen installation location can make all the difference. That's why we help you determine the most optimal site. We install your system to maximize performance whether it's located in a river valley near a major city or on a mountain top overlooking the deserts of North Africa.

Integrated Solutions

EEC also offers integrated weather systems comprising design, implementation, training, and support services. EEC integrates existing & new weather data and customizes high resolution WRF numerical weather prediction (NWP) solutions. These form the basis of critical severe weather nowcasting and forecasting for flood events, safety of life and property, aviation operations, and a wide range of industrial applications. EEC also customizes & installs GTS message switching & WMO Information Systems (WIS) in accordance with WMO procedures and protocols.

By managing every part of the production process in-house, from design and manufacturing to final installation, EEC stays focused on creating the most advanced weather radar and satellite ground station systems for **protecting people and assets.**



Implementation & Training

Site for Success

EEC weather radar systems and satellite ground stations are powerful and precise instruments. To achieve their maximum potential, they need to be sited and installed correctly, and staffed with well-trained personnel. EEC will guide you through the process, providing comprehensive site surveys and full installation services anywhere in the world. We will also train your key personnel to make the most of your system's capabilities with customized training either on-site or at our facility. EEC will be with you throughout the entire process.

Commissioning

When we execute a detailed site survey, the final location is based on finding the spot that will allow your radar and/or satellite ground station system to get the best results – no matter how remote or inaccessible that area may be. Then it's up to us to get the entire system to that site and properly installed. That includes supplying power to the site, connecting all the equipment together, and testing all systems to make sure everything operates according to specifications.

Training

Every EEC weather radar system and satellite ground station provides the technology to generate very detailed and sophisticated information. Taking full advantage of that potential requires a commitment to learning how the system works, how to interpret its output, and how to keep it properly maintained. And to be truly effective, all of that information must be presented in the context of your specific geography, climate and weather challenges. To help you unlock the potential of your EEC radar and/or satellite ground station systems, our meteorologists will train your personnel either on-site or at our facility in Alabama.

System Upgrades

EEC's sustainable system design focuses on modularity, with a future vision for uncomplicated, swappable component upgrades. Our in-house engineering teams and strategic partners continue to enhance our technology and scale future performance without altering the current base radar and computing platforms used. This helps keep our systems relevant and extends their useful life for years, in benefit of both our customers and the environment. EEC provides comprehensive software and hardware upgrades for both legacy EEC systems and systems from other manufacturers.

Why Choose EEC

Worldwide Recognition

EEC has manufactured, delivered, and installed over 1,100 weather radars and over 200 satellite receiving systems in over 100 countries worldwide; more than all our competitors combined. Our successful global sales track record in every continent provides us with instant recognition for providing innovative solutions that meet our clients' needs in a timely, effective and efficient manner.

Problem Solving Expertise

At EEC, we know the market and understand the industry. We are experts at identifying and solving problems across multiple requirements and customized specifications. Decades of valuable hands-on field experience by our hardware and software teams, combined with the core agile principles of value, unity, simplicity, transparency, and adaptability, lead the way for EEC's unique and strategic approach to providing creative solutions and scientifically-proven algorithms to solve our client's most difficult challenges.

Effective Collaboration

Multi-disciplinary collaboration is deeply embedded into EEC's corporate culture. Our dedicated engineering, project management, manufacturing, computer software development, and logistics & support teams all regularly collaborate, both internally and with our clients, as part of our project implementation process. EEC's strategic relationships with high-level meteorological research institutions have extended these efforts, facilitating implementation of the latest and most innovative technologies into our products.

Exceptional Quality

EEC has been ISO 9001 certified without a break in certification coverage since 1987. EEC prides itself on our long history and application of ISO 9001 standards for manufacturing and delivering the highest quality weather radar systems in the world.

Performance Excellence

EEC has been providing unsurpassed weather radar and satellite receiving systems engineering and manufacturing services for over 50 years. We make it a priority to work closely with our clients to understand and meet the vision, sustainability, and unique goals of each project. We highly value and appreciate the strong relationships we have built with our clients over the years. This level of commitment EEC has made to the industry will guarantee the successful implementation of your radar system, and that our exceptional customer service and after-sales support will meet or surpass all expectations during project execution, and beyond.

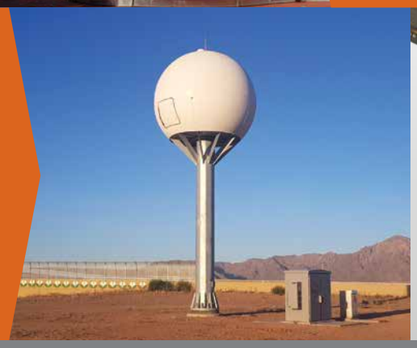
Our Product Lines

Radar Systems

EEC's Doppler Weather Radar systems provide customers with the most options available on the market today. From S-Band to C-Band to X-Band, EEC arms users with the perfect solution to meet your remote sensing needs. EEC's Defender and Endurance® product lines come with a variety of magnetron, klystron and solid-state-based transmitters, at various power output levels in dual polarity configurations.

Defender Series
S, C & X-Band systems
with Magnetron &
Klystron Transmitters

Endurance® Series
100% Solid-State
S, C & X-Band Systems



TeleSpace® Satellite Systems

Our TeleSpace product line completes the picture with an integrated system of hardware and software for the collection, processing, analysis, display, and distribution of data from meteorological, environmental, and defense satellites.

TELESPACE
Satellite Ground Stations From EEC

EEC TeleSpace 6.5m Capella-GR GOES-E and GOES-W antennas at NASA Huntsville

3.0 m OBERON-XLS Antenna

TeleSpace Lines

OBERON-XLE/XLS Groundstations
Receive satellite data from NOAA, Suomi-NPP, MetOP, Aqua, Terra, FY3, DMSP, Saral, and WSF

Capella-GR Groundstations
Receive satellite data from GOES-East and GOES-West

eTeleCast Groundstations
Receive satellite data from EUMETCAST, GEONETCAST and HIMAWARICAST

Proteus
EEC Satellite Visualization & Analysis Software

Our Software Puts You in Control

Making it easy to extract, display, and interpret useful weather information in ways that you never thought possible - that's the whole idea behind our powerful suites of weather radar and satellite receiving control and data display software.

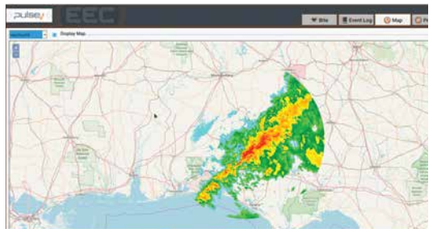
Weather Radar Control and Data Processing Software

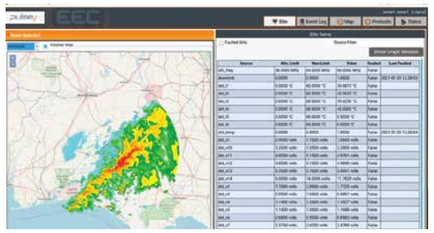
Powerful Tools Give You New Ways To Look At The Weather

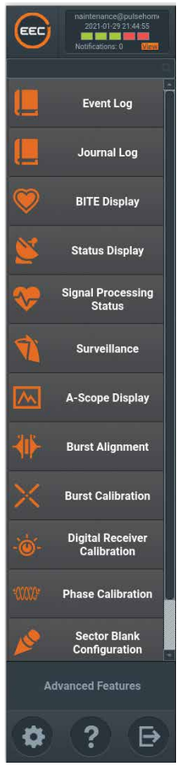
When you take control of EEC's display software, you have the power to easily observe and interpret phenomena previously hidden within the data, set alerts to automatically warn when certain conditions are detected, animate and manipulate data to compare different "what if" scenarios, organize and retrieve all of your information through a built-in database management system, and many other sophisticated meteorological tasks. EEC's software suite is both powerful and easy to use because, like all of our other products, it was designed and created by EEC's own engineers.

Since it interfaces seamlessly with our processors and displays, our engineers built in the most powerful and comprehensive set of features for weather analysis possible – including custom algorithms tuned for each radar band we manufacture.

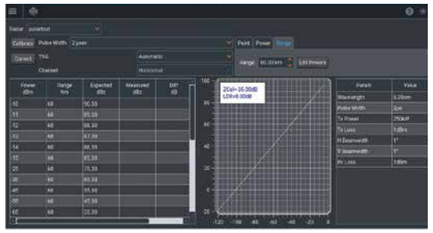
EEC's analysis and visualization software puts you in control with unmatched flexibility and ease of use, and seamless integration into all EEC systems.

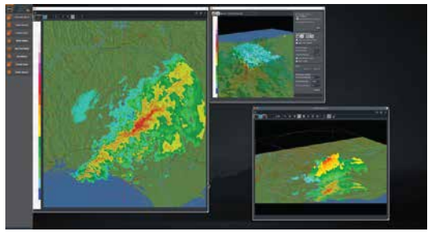






Easy to Access Maintenance Tools





Pictured: High-Resolution Data Presentations

EEC's next-generation software suite for radar control, processing, and display enables all products to be viewed with configurable data layers and maps with dynamic resolution, and provides a web interface for product visualization and status monitoring on varied devices. Our software has a rich set of radar meteorological products that provide many types of analysis tools to the user. The standard product set, provided with every license, is based on the familiar, traditional radar products and is intended to give a meteorologist a full set of tools for general forecasting assistance using meteorological radar data. The other available modules use a mix of advanced algorithms intended for specific purposes, including Severe Weather Events, Aviation, and Hydrology.

eTeleCast from EEC

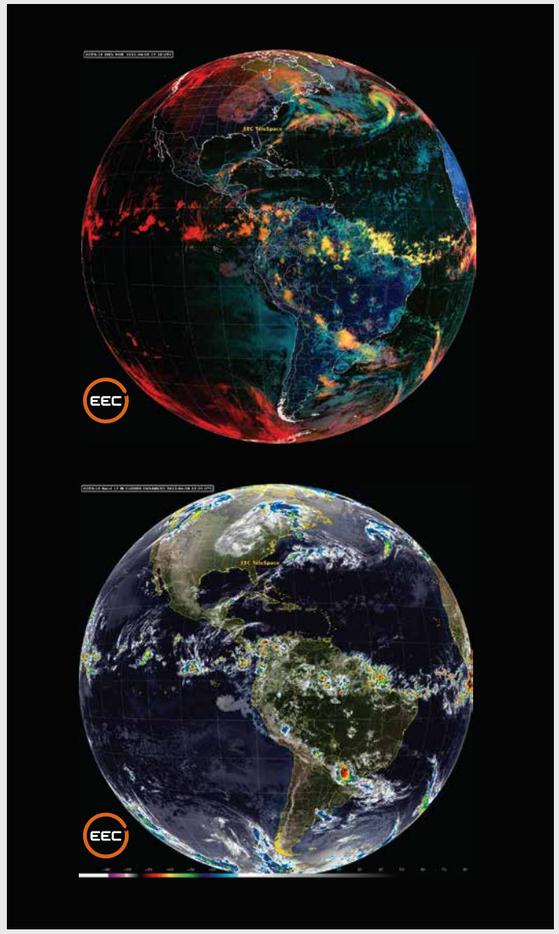
Automatic Reception, Decryption, Decompression, Archiving, Output and Processing of EUMETCast, GEONETCast-Americas, and HIMAWARICast Data.

2.4m eTeleCast Groundstations, Angola International Airport

Visualize And Analyze Re-broadcast Data

The eTeleCast ground station receives pre-processed geostationary data from communications satellites, providing a solution where direct broadcast reception is either not possible or not needed. With its multiple antenna and receiver options, eTelecast is suited for different dissemination services, geographical locations and service requirements. Both Ku-Band and C-Band DVB-S2 transmissions are supported.

The eTeleCast ground station seamlessly integrates with our powerful Proteus visualization and analysis software. A wide variety of standard data interchange output formats are available, including GeoTIFF, JPEG, netCDF and HDF5.



Multiple input and output data formats are processed. Data can be automatically sent to many destinations:

- TV stations
- Multimedia displays
- Public weather forecasts
- Large scale public displays
- Weather forecasting backdrops
- Websites
- Multiple output formats - JPEG, KLM, GeoTIFF

OBERON-XLE/XLS

Robust, turnkey remote sensing solution, tailored for over 160 applications spanning ocean, land, and atmospheric analysis.

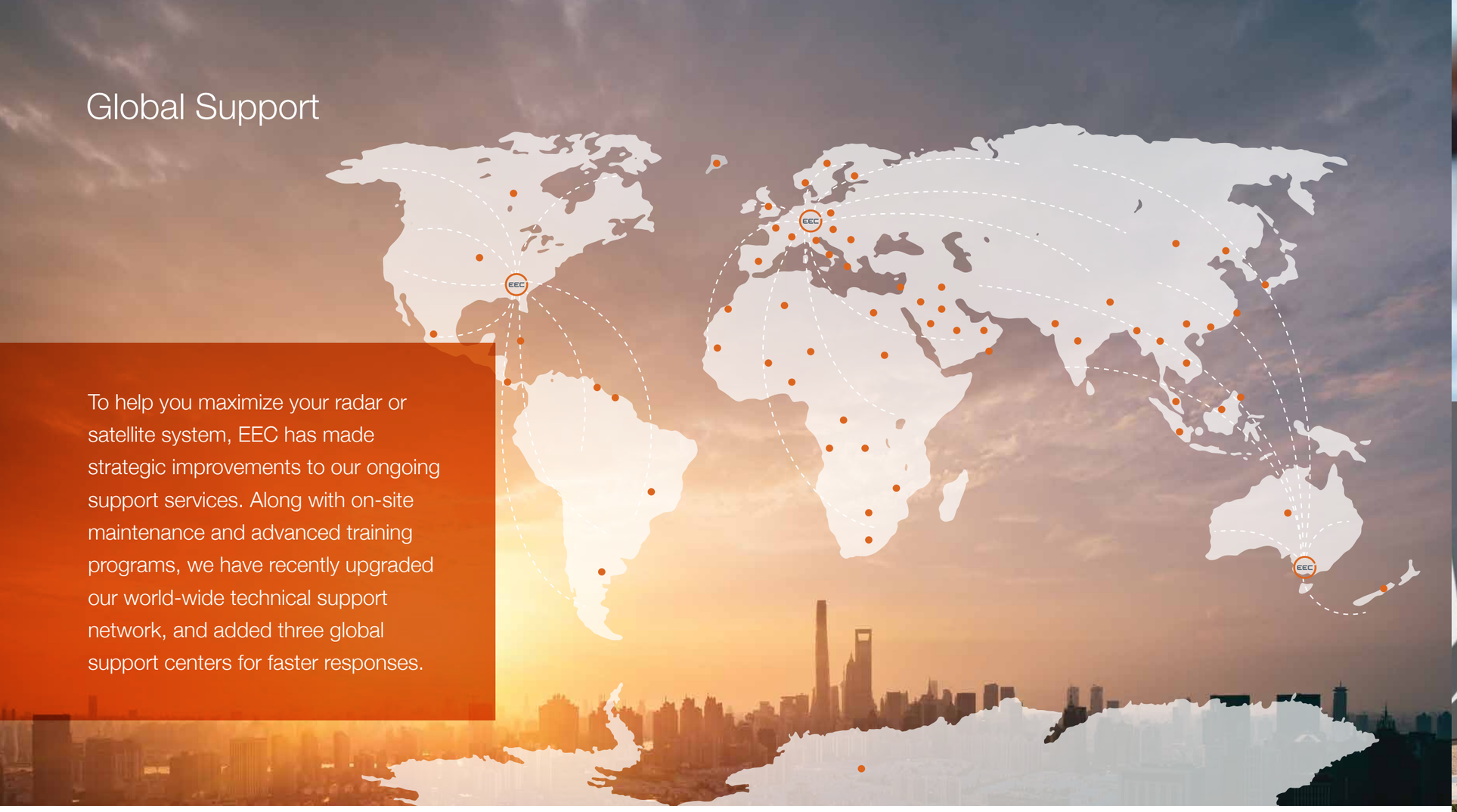
The OBERON series of ground stations gives you the tools you need to collect data from a wide range of polar-orbiting environmental satellite systems, including those operated by NASA, NOAA, US Department of Defense and EUMETSAT.

The OBERON generated products cover land, sea, air and space, providing the highest-quality imagery and sounding data profiles for use by meteorological, oceanographic, and disaster-relief agencies, as well as military and research organizations.

Integrated software offers both high- and low-resolution options for the collection and processing of X-,L and S-Band data.

From manufacturing and engineering to final installation and training, the OBERON-XLE/XLS ground station is a turn-key system created specifically to deliver the complete picture from meteorological, environmental and military direct-broadcast satellites.

Global Support



To help you maximize your radar or satellite system, EEC has made strategic improvements to our ongoing support services. Along with on-site maintenance and advanced training programs, we have recently upgraded our world-wide technical support network, and added three global support centers for faster responses.

Worldwide Technical Support

Your EEC remote sensing system represents a significant investment in time, people, and money. That is why we have upgraded our technical support centers to give you 24/7 live telephone support. No matter what time of day or from where you are calling, you can talk to a trained, courteous EEC representative to help you solve the issue.

On-site Maintenance

Our customized training programs teach your personnel how to perform routine care and calibration of your systems. To augment existing maintenance programs, many customers also take advantage of our annual support and preventive maintenance plans. If the remote sensing system has internet connectivity, we can check it via our remote diagnostic capabilities. And finally, should you encounter a bigger issue, we can send a factory trained technician directly to the site to diagnose and correct the problem.

Advanced Training

The forward-thinking technology available in an EEC remote sensing system is capable of producing advanced information which exceeds the current needs of most users. Should your requirements specify this level of information, or your installation utilizes some of our most sophisticated equipment, we offer optional enhanced training in the use and maintenance of these features. In addition to operations and maintenance training, EEC also provides basic, intermediate and advanced courses in radar meteorology, satellite meteorology and image interpretation.

Three Support Centers

EEC has remote sensing system installations in over 110 countries on every continent. To fully support all of these sites, we have opened fast response service centers in Bonn, Germany; Melbourne, Australia; and at our headquarters in Enterprise, Alabama. By placing these service centers in strategic positions around the globe, we can respond to you quickly and efficiently.

Global Support Contact Information

Email: support@eecweathertech.com

Telephone: +1 334.347.3478, Ext.233

Facsimile: +1 334.308.0124

Customer Support (after hours):

Telephone: +1 334.347.3478, Ext. 555

Since 2019, EEC has been committed to the UN Global Compact corporate responsibility initiative and its principles in the areas of human rights, labor, the environment and anti-corruption.

WE SUPPORT

UN GLOBAL COMPACT

PROTECTING PEOPLE AND ASSETS®

Enterprise Electronics Corporation
128 S. Industrial Blvd., Enterprise, AL 36330, USA
p: +1 334.347.3478 | f: +1 334.393.4556
sales@eecweathertech.com

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