

GVF TRAINING AND CERTIFICATION PROGRAM

GVF's award-winning program encompasses operation, installation, and maintenance of VSAT, marine, and mobile/SNG satellite terminals, in addition to general satcom theory. GVF training is a key part of **interference prevention**.

GLOBAL ACCESS

Students learn, practice, and demonstrate their knowledge and skills with online, interactive, simulator-driven training modules developed by SatProf, Inc. Courses are self-paced and available 24/7.

Hands-on skills testing and supplementary classroom sessions are supported by GVF Examiners and Regional Training Centers located in every major region of the world.

INTEGRATED TRAINING

The GVF curriculum can be integrated with your organization's own online and classroom training on a custom portal provided by GVF, to serve your staff and customers.

WHY CERTIFICATION?

Certification demonstrates and documents your commitment to peers, employers, customers, and competitors that you use industry-endorsed best practices. It will give you and your company a competitive advantage.

Certificate holders may appear in the *Certification Database* on the GVF training website.

FOR MORE INFORMATION AND TO REGISTER

www.gvf.org/training
gvfsupport@satprof.com

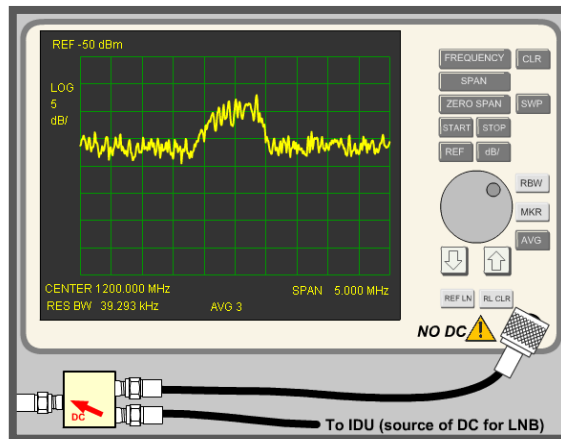
TRAINING CONTENT AND SERVICES BY



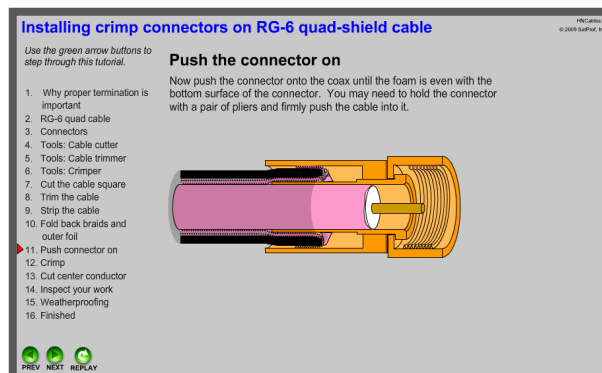
BR-9 (Rev Feb 2014)

GVF521 completes the knowledge training requirements for GVF Advanced Satcom Professional Certification.

The course covers issues that field technicians face, such as using a compass, calculating levels in dB, voltage drops, cable lengths, using a spectrum analyzer, grounding, basic IP networking, safety issues, and troubleshooting.



Students learn magnetic variation and practice compass skills with an interactive simulator.

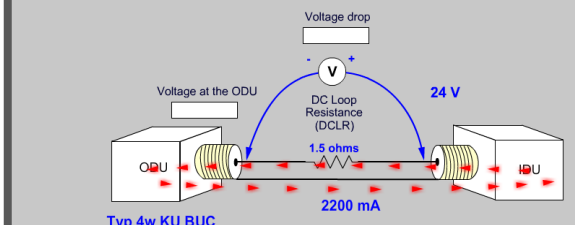


Correct connector attachment technique is taught with 3-D animations.

Voltage drop on cable

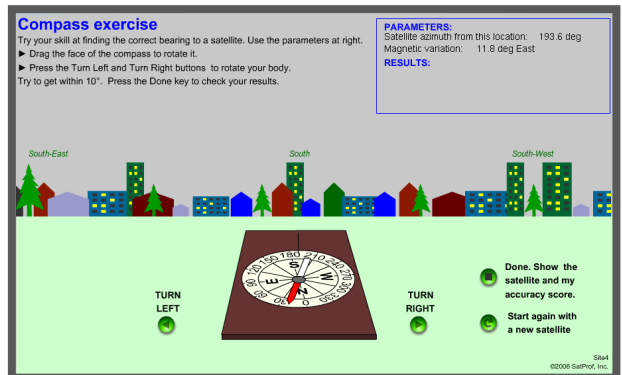
Now you try a different example.

Calculate the voltage drop and the voltage at the ODU.
Enter your answers in the boxes and click NEXT to check your results.



Ohms law and calculating voltage drip are explained with animation. Students practice their skills with interactive exercises.

A fully-functional spectrum analyzer simulator enables students to learn and explore the principles of C/N measurement. All analyzer controls are functional in the simulator.



SUMMARY: As the follow-on course to GVF510 (Core Skills) and GVF520 (Satcom Fundamentals theory), GVF521 covers the range of knowledge, techniques, and practical tips that every field technician and installer needs to know in order to perform a high-quality, reliable VSAT installation job. .

CONTENTS:

1. Learning system orientation.
2. Course introduction, including review of GVF Certification requirements.
3. Site survey and planning, including compass skills with interactive exercises, clearance calculations, antenna mounts, and safety issues.
4. IFL planning, including dB theory, cable loss calculations, DC loop resistance, voltage drop, return loss, and VSWR.
5. Tools and test equipment, including a real-time interactive spectrum analyzer simulator and tutorial on measurement of C/N.
6. Outdoor equipment assembly, including waveguide flange identification and mating, OMT port identification, and impact of antenna assembly errors.
7. IFL installation, covering building entry points, cable dressing, and review of crimp and compression connector attachment.
8. Grounding, including lightning discharge concepts, power grounding, and grounding techniques.
9. Peak and pol review, with a review of the accurate antenna pointing and cross pol alignment methods covered in GVF510 and interactive 3-D simulator exercises.
10. Carrier lineup and link test, reviewing mandatory and optional tests required before activating a VSAT for transmit.
11. Data networking, including Ethernet, IP addressing, routing, DHCP, DNS, NAT and the ping and tracert tools.
12. Safety, covering potential hazards to the technician and the public, proper equipment, and technique.
13. Troubleshooting and maintenance, including common and unusual problems, fade margin and sidelobe checks, interference, and preventive maintenance.
14. Finishing the job, covering review, pictures, and cleanup.

PREREQUISITES: Courses GVF510 and GVF520 .

DURATION: Approximately 300 pages, requiring 5-15 hours online study.

DELIVERY: Animated & interactive HTML/Flash, self-paced, on-line format. Requires Internet access while studying the course material. High speed access is preferred but is NOT required. Student's computer must have a current browser and the current version of the Adobe Flash player (free) installed.

LEARNING OBJECTIVES: Understand typical installation instructions and specifications. Describe practical configurations for VSAT indoor and outdoor hardware. Proper site selection and cable routing choices. Describe cable resistance & calculate DC voltage drops. Define splitter RF losses and calculate IF level changes through cables and splitters. Describe the proper mounting of VSAT antennas. Identify proper connector and cable entry waterproofing techniques. List the proper techniques and etiquette for activating a VSAT on a satellite. List the required tools for VSAT installation and describe their proper use. List the test equipment used for VSAT installation (VOM, signal meter, spectrum analyzer) and describe their proper use. Describe how a field technician should properly communicate with a customer. Troubleshoot basic IP networking problems using *ping* and *tracert*. Demonstrate correct technique for accurately pointing a VSAT antenna. Demonstrate correct technique for accurately aligning polarization in a VSAT antenna. Describe the proper installation of indoor equipment. Describe proper grounding technique for VSATs. List the key safety issues for VSAT field technicians. Describe troubleshooting methods for VSAT links. List the main preventive maintenance tasks for a VSAT.



www.gvf.org

GVF is the global association of the satellite communications industry. GVF is an independent, non-partisan and non-profit organization with 200+ members from every major region of the world.



www.satprof.com

SatProf administers GVF's training program, using simulator-based training to enable more than 8000 students worldwide to develop practical and interference-mitigating VSAT skills.