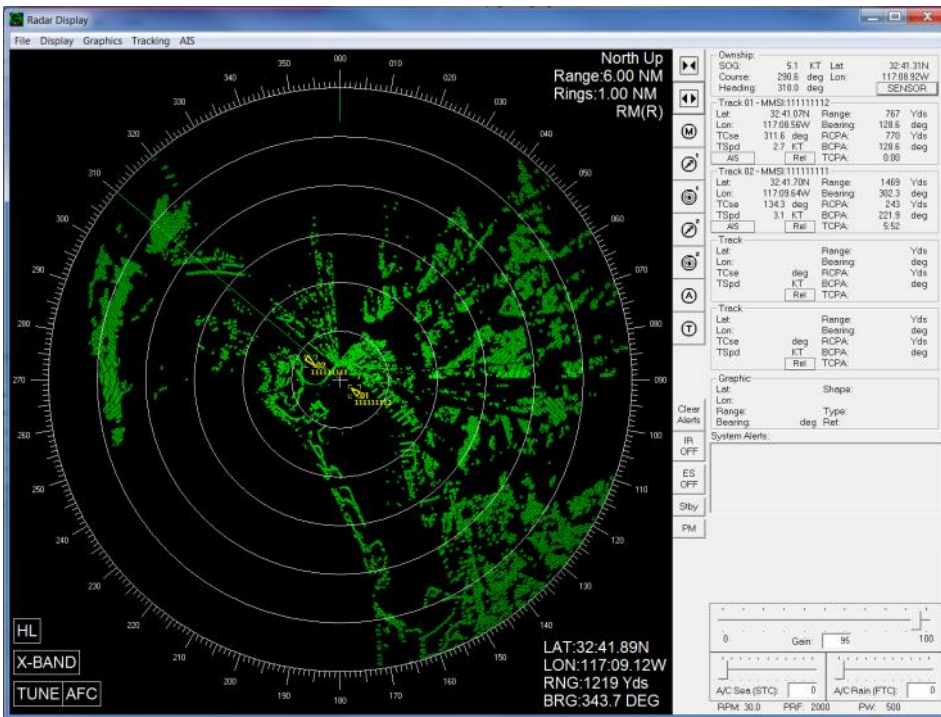


PCRadar ARPA Radar Display Emulator



Features

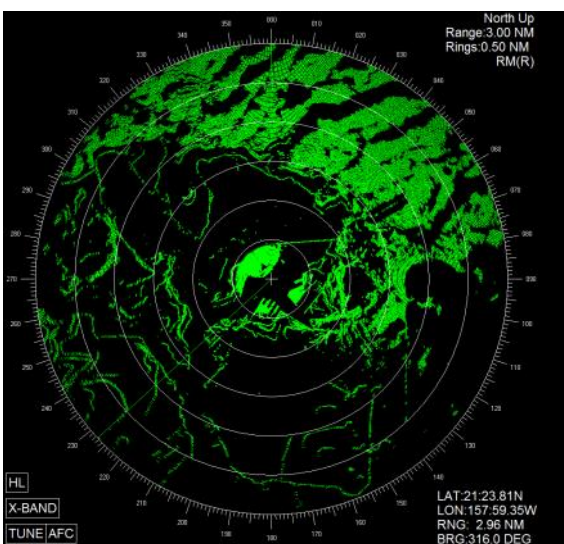
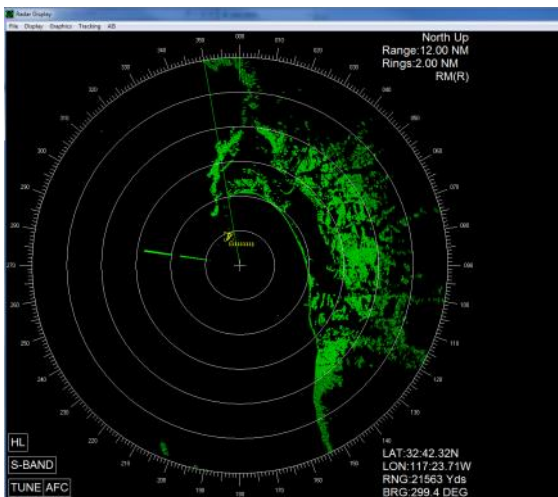
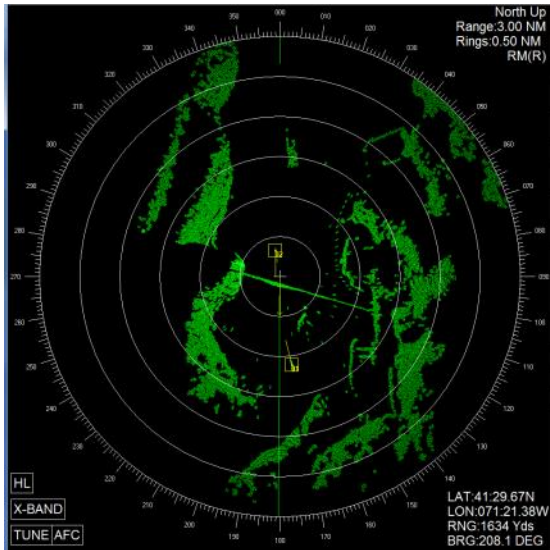
- > Windows-based radar emulation software
- > Simulates user interface of the SPS-73 Radar Display
- > 3D Realistic radar imagery
- > Full radar graphics support
- > User interface operates from trackball or touch monitor
- > IMO Compliant AIS support

The PCRadar is an established product in the Buffalo Computer Graphics' (BCG) family of successful PC-based radar emulators. PCRadar is a Windows-based application which emulates a generic ARPA radar display on a PC monitor. It is a powerful training tool to familiarize a student with the use of radar for ship navigation and collision avoidance.

The 3D radar image incorporates realistic simulation of land, targets, precipitation returns, sea clutter, and other effects seen on a real radar display. The radar's operational features include video controls (Gain, FTC, and STC), dual EBL & VRM, multiple presentation modes, graphics capabilities and range scaling. For ARPA support, PCRadar provides target acquisition & tracking, leading vectors & history trails, trial maneuvers and navigation points. PCRadar supports output for standard NMEA-0183 TTM & TLL messages.

The PCRadar user interface models the SPS-73 Radar Display, and was designed specifically for use by the US Navy and US Army in shipboard and shore-based training applications. PCRadar was developed using BCG's standard radar simulation engine, is compatible with our Maritime Simulation Tool (MaST), may be used in conjunction with our other radar simulators, and can be controlled through a simple network interface. PCRadar is available in a software-only package for installation on a customer's PC, or BCG offers Turn-key systems packaged in multiple configurations. These include a rack mounted chassis, a desktop computer, a laptop PC, or a deck stand console for a shipboard presentation.

SIMULATED RADAR IMAGES



PCRadar Features:

The PCRadar supports the primary operating features and modes of a real radar display. These include:

- ◆ STC, FTC, and Gain Control
- ◆ Heads Up, Course Up, and North Up Display Modes
- ◆ Relative or True Presentation
- ◆ Two Variable Range Markers (VRM)
- ◆ Two Electronic Bearing Lines (EBL)
- ◆ Manual Target Acquisition and Tracking
- ◆ Graphic Auto Acquisition Zones
- ◆ Ownship and Target Data Windows
- ◆ Radar Image Offset
- ◆ Track Histories
- ◆ True or Relative Vectors
- ◆ System Alerts
- ◆ Land Mask Zones
- ◆ Navigation Marks
- ◆ Trial Maneuvers
- ◆ Image Aging
- ◆ Daytime / nighttime color modes
- ◆ Continuous Cursor position display
- ◆ Simple Toolbar for accessing common features
- ◆ NMEA-0183 TTM & TLL output message support
- ◆ Control using the MaST, BCGUDP, HLA, or DIS Interface
- ◆ Receives and displays IEC Automatic Identification System (AIS) sentences
- ◆ Available as software-only or turn-key system
- ◆ Multiple PCRadar units may be controlled by a single instructor for individual or team training
- ◆ Scenario & Radar Databases are compatible with all BCG radar products

Contact BCG for information and pricing on our full line of Maritime Simulation products.

4185 Bayview Road ~ Blasdell ~ New York ~ 14219 ~ 716-822-8668 ~ www.bcgeng.com

RADAR CONTROLS

Trial Maneuver

Course: deg

Speed: KT

Draw Graphics

Zone Reference

Geo Stabilized OS Relative

Zone Shape

Circle Polygon

Zone Type

None Auto Initiation

Guard Zone Land Mask

Display Graphics Tracking AI

Compass Rose

Mode ▶

Range Scale ▶

Range Rings ▶

Heading Line ▶

North Marker

Units ▶

Image Aging...

Reset Image Aging

Enable Bell

Brilliance

Image Color ▶

Motion Mode ▶

Limits

AIS Settings...



QUICK ACCESS TOOLBAR

PCRadar offers a quick access toolbar (shown to the left) that provides the student operator with easy access to commonly used features. These features include:

- ◆ Zoom In / Zoom Out
- ◆ Display Mode (Heads UP, Course Up, North Up)
- ◆ Control of both EBLs and both VRMs
- ◆ Target Acquisition
- ◆ Trial Maneuvers

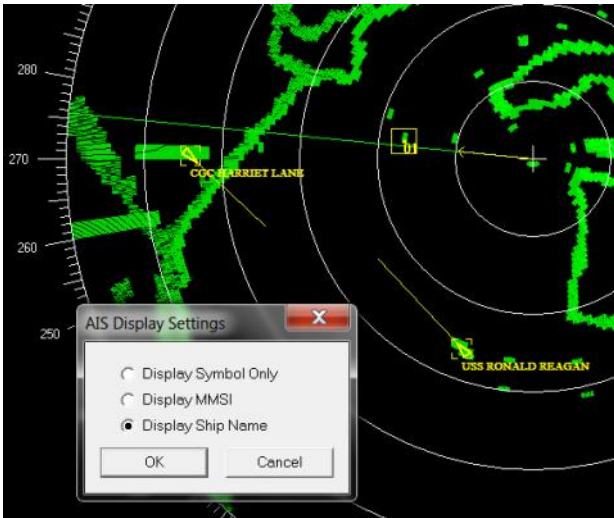
The Toolbar allows the user to more quickly learn the operation of the radar by simplifying the user interface.

LOW COST ALTERNATIVE TRAINING

Training which utilizes standard desktop PCs running Windows software is an economical path for many training facilities. PCRadar is offered as a preinstalled turn-key radar trainer including all computer hardware and software; or may be purchased as software-only ready to install and License on your own computer. Multiple PCRadar stations can be networked together in a classroom setting. Each student may be configured to operate as a single radar platform (all students see the same radar image) or as independent radar platforms (students see each other on the radar) operating in a common training environment. With both configurations, the student maintains independent control of his or her radar display and the operating settings. As with all BCG simulators, the instructor has full control of the simulated radar environment and what the student experiences.

AIS Target Symbols

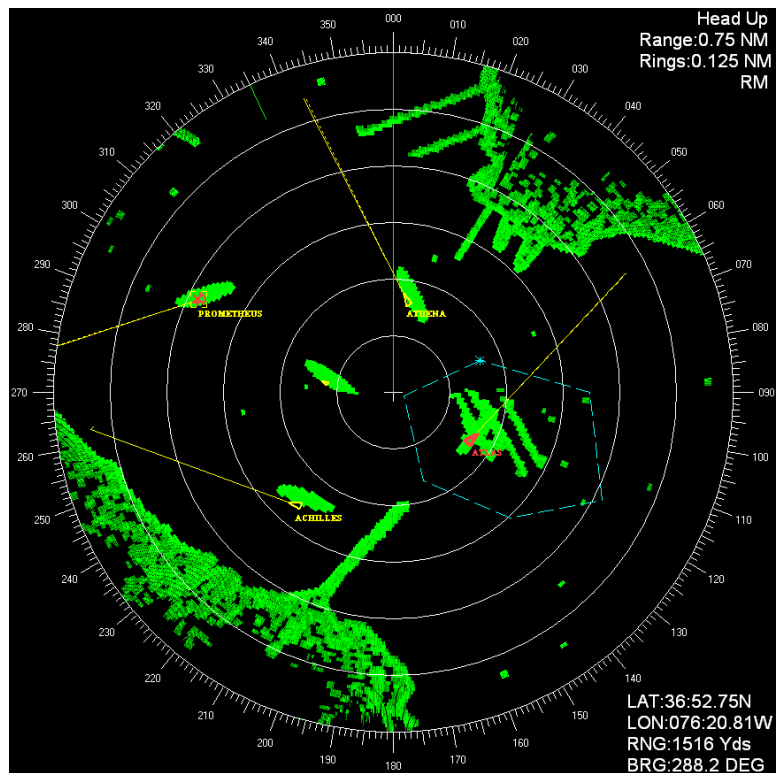
PCRadar supports the Automatic Identification System (AIS) Target Symbols package (shown at left). Compliant with the International Maritime Organization Guidelines for the Presentation of Navigation Related Symbols SN/Circ.243, the AIS Target Symbols enhance the recognition of vessels on the PCRadar display. The AIS Target Symbols are not masked by other ships or land masses, nor are they obscured by sea or rain clutter. By referencing the ROT flag at the tip of the heading vector, the user can quickly identify if a target is turning. Dangerous and lost targets are also easily detected with bold and red symbols.



```
AIS - MMSI:111111112
Name: USS BARRY
Call Sign: DDG-52
Status: Under way using engine
Lat: 32°41.1197' N
Lon: 117°08.6275' W
COG: 311.0°      SOG: 4.1 KT
Hdg: 311.0°     ROT: 0.0°/min
Brg: 113.7°     Rng: 803 Yds
RCPA: 602 Yds  TCPA: 156:05
Length: 228 m   Beam: 22 m
Destination: PEARL HARBOR
ETA:
Draft: 10.7 m
IMO Num: 0
Ant. Pos: F114 A114 P22 S0 m
Type: Vessel / Engaged in military
Sensor: GPS
Last seen: 14 DEC 19:04:02 Zulu
Accuracy: Low > 10m
```

PC Requirements:

- ◆ Windows XP, WIN7, WIN8, or WIN10
- ◆ Multi-core processor, >2GHz
- ◆ 2GB memory
- ◆ 500MB disk
- ◆ 100/1000 NIC
- ◆ USB for Trackball or Touch Screen Monitor
- ◆ RS232 Serial Port (for NMEA output)



To further enhance the training experience, BCG offers several different products which allow the student to control the motion of the Ownship. These conning solutions integrate seamlessly with PCRadar can be either software add-ons or full steering consoles. Contact BCG for additional information on Ownship steering controls as well as our other radar emulators.