VARA HF & FM Go-Box

Winlink / VARA digital messaging for EMCOMM • Duval County ARES

A complete VARA HF + VARA FM go-box lets you send/receive Winlink email and peer-to-peer messages over HF (long-haul/regional) and VHF/UHF FM (local). Prioritize simple, proven gear that boots fast and survives field conditions. License VARA for full speed.

HIGHLY RECOMMENDED RADIOS

All-in-One Options

Icom IC-7100 (HF+VHF+UHF)
Yaesu FT-991A (HF+VHF+UHF)
Simplifies cabling & power
Trade-off: less specialized performance on each band

VHF/UHF FM

Yaesu FTM-400 / FTM-500
Icom ID-5100 / IC-2730
Any mobile with 6-pin data port (prefer 9600-baud capable)
Alinco DR-135/435 • HT + Digirig

HF Primary

Icom IC-7300 (best overall)
• Built-in USB audio + CAT
• Excellent VARA HF performance
Yaesu FT-891 (compact alternative)
• Smaller footprint, 100 W

INTERFACE & COMPUTER

Sound Card / Interface

• Digirig Mobile / Digirig Lite (compact, popular)
• SignaLink USB (easy VOX, widely supported)
• Built-in USB on IC-7300 / FT-991A
• Prefer direct data-port connection for 9600/Wide mode

Computer & Software

• Windows 10/11 laptop or mini-PC (rugged preferred)
• Winlink Express (free) + VARA HF + VARA FM
• Purchase VARA license for full speed (recommended)
• Pre-install & test all software before deployment
• Carry USB drive with installers + configs as backup

POWER, FEEDLINE & ANTENNAS

Power System

• LiFePO4 12 V 20–40 Ah battery (Bioenno, Ampere Time, etc.)
• Anderson Powerpole distribution
• Fused leads on every radio
• Optional: 100 W solar panel
• Voltage monitor / low-voltage alarm
• Spare fuses & Powerpole tool

Feedline

• HF: RG-8X or LMR-240 (25–50 ft)
• VHF: LMR-240 or better (low loss)
• Minimum length 25 feet
• Quality PL-259 connectors
• Right-angle adapters as needed
• Coax seal / self-amalgamating tape
• Spare jumpers (3–6 ft)

Antennas

• HF: Portable NVIS dipole / inverted V or end-fed (80/40/30/20 m)
• Linked or fan dipole for multi-band
• VHF: 2 m J-pole or dual-band vertical
• Mag-mount + ground plane option
• Roll-up J-pole for rapid deploy
• Mast / painters pole + rope kit

PRE-DEPLOYMENT CHECKLIST

■ Radios power on & transmit into dummy load / known antenna
■ VARA HF + VARA FM licensed and open without errors
■ Winlink Express session connects to local gateway (or P2P tested)
■ Audio levels set (VARA VU meter ~ mid-scale on receive)
■ CAT / PTT control works reliably
■ Battery charged; voltage under load is healthy
■ All coax, adapters, and Powerpoles accounted for
■ Printed frequency list + gateway list in the box
■ Spare USB cable, fuses, and basic tools included
■ Windows updated and most current Winlink version
■ Verify all circuits to be utilized are operational prior to deployment.

GOAL: Reliable Winlink / peer-to-peer messaging when infrastructure fails

Test the complete station regularly. Document your exact cable and software configuration.

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