Recommended AUXNET Radios & Antennas

USCG AUXILIARY, FIRST DISTRICT SOUTHERN REGION
AUXILIARY COMMUNICATIONS TEAM (ACT)

APRIL 2020

DID YOU KNOW:

- DISR’s AUXNET channels are programmed into “gold side” USCG radios?
- When you use AUXNET channels you cannot be heard by civilian boaters?
- Auxiliarists are encouraged to use AUXNET for any official purpose?
- AUXNET radios can be used in cars, boats, aircraft, as fixed stations, and as portables?
- DISR COMMS can support your equipment selection and installation and can program recommended radios at no cost to you?

AUXNET Radio -- Your perfect partner on patrol

This is the third edition of Recommended AUXNET Radios & Antennas released by the DISR Auxiliary Communications Team (ACT). This edition features a second recommended mobile radio, an improved portable, a super-flexible mobile antenna, a grounding solution for fixed installations, and base station antennas.

ACT evaluates radios and manufacturers in order to produce this list of recommended two-way equipment. We have negotiated special pricing, obtained permissions for your purchase of otherwise prohibited wideband radios, and purchased the equipment to program these radios at no charge to you.

We at ACT are committed to providing you with robust and reliable communications, with twelve repeaters on the air.

Just like the Auxiliarists that they support, AUXNET’s repeaters are Always Ready. Make one your faithful partner on patrol.

UNITED STATES COAST GUARD AUXILIARY, DISTRICT ONE SOUTHERN REGION
April 2020
The AUXNET Mobile or Fixed Radios

Two mobiles are now on the D1SR recommended list — the model F5021 and the new F5061. Both radios are suitable for use as a mobile radios, fixed station radios, or as a second VHF radio aboard vessel facilities. But, the F5061’s front panel can be detached from the main unit, making it a two-piece unit, a great advantage on boats where mounting space is limited.

(If you use either radio on your vessel facility you still need a dedicated 25 watt marine VHF radio as your primary radio.)

ICOM F5021-51

Features:

- 136-174 MHz
- 50 watts transmit power
- 4 watts audio power, front-mounted speaker
- 128 channels, 8 zones
- Scan with priority scan
- Backlit LCD display and keys
- Meets military robustness standards
- Specially modified for wide band operation on the marine and weather channels

The ICOM F5021 is GSA priced at $247.86, purchase directly from ICOM. See instructions on page 3.

ICOM F5061

Features:

Identical to the F5021 except

- 512 channels, 128 zones
- LCD display of up to 24 characters
- Optional two-piece mount

The ICOM F5061 is GSA priced at $376.50, purchase directly from ICOM. See instructions on page 3.

For two-piece mounting, order the RMK3-01 Separation Kit, $69.08, along with one of the following Separation Cables:

- OPC-607, 6’, $35.77
- OPC-609, 9’, $34.51
- OPC-726, 16’, $40.79
- OPC-608, 26’, $47.69
The AUXNET Portable Radio

The ICOM model F1000S-RC is the new D1SR recommended portable radio. Increased battery life and totally protected from dust and submersible in up to 3’ of water for 30 minutes.

- 800 mW audio power
- 128 channels, 8 zones
- Scan with priority
- Backlit LCD display
- Compact and lightweight
- Meets military robustness standards, and is rated IP67 for dust and sand ingress
- 1575 mAh Li-Ion battery provides 14 hours of operating time
- Antenna
- Desktop charger
- Belt clip
- Specially modified for wide band operation on the marine and weather channels.

The ICOM F1000S-RC is priced at $213.35, purchase directly from ICOM.

(If you use this radio on your vessel facility you still need a dedicated 25 watt marine VHF radio as your operational vessel’s primary radio. Also, a portable radio will not perform as well as a high-powered mobile radio.)

Features:
- 136-174 MHz
- 5 watts transmit power

SPECIAL NOTE

The D1SR COMMS Team has made special arrangements with ICOM to provide us with radios and software necessary for you to operate on the Marine Band wide band channels. These items are federally controlled and unavailable to others, including ICOM dealers.

Buying from ICOM

We’ve made arrangements for you as a Coast Guard Auxiliarist to be able to purchase from ICOM at GSA contract pricing, with no tax or shipping charges. When you’re ready to make your purchase, pricing can be confirmed by calling ICOM at 425-450-6090 or by email to govsales@icomamerica.com. Prices are subject to change without notice.

“AUXNET is a support, training, logistics and administrative network internal to the Auxiliary. It does not replace marine VHF as the District’s primary Command, Control and SAR medium for patrol or related operations.”
ICOM Portable Radio Accessories

Genuine ICOM accessories and parts will ensure the proper operation of your ICOM radio.

Spare battery, 1485 mAh, Li-lon, model BP279, $43.93.

Mobile charger, includes desktop charger (BC213, $37.65), vehicle charger bracket (MB130, $52.08), and 12 VDC power cable (CP23L, $21.96).

Speaker microphone, waterproof, with audio jack, model HMHD717WP, $69.03.

Mobile charger does not include radio.

Programming your ICOM Radio

D1SR has “Qualified Programmers” throughout the District to program your ICOM two-way radio. They have the software and cables needed to install the most recent code plug.

To find your closest Qualified Programmer, contact any ACT member.
Fixed Radio Power Supply

You must add a power supply to the ICOM F5021 or F5061 to use them or other mobile radios as a Fixed Radio.

The Samlec SEC-1223-IC3 power supply will provide 23 amps of 12 volt DC power. The mobile radio slides into the top portion of the power supply, making for a neat, professional installation.

Price is $120.25 from TESSCO.

Buying from TESSCO

You can purchase from TESSCO as an Auxiliarist at special pricing. Contact Jason Ferguson at TESSCO’s Federal Markets group, 410-229-1585.
Recommended AUXNET Radios

APRIL 2020

UNITED STATES COAST GUARD AUXILIARY, DISTRICT ONE SOUTHERN REGION

AUXNET Mobile Antennas

First select either the 5/8 wave length (48” tall) or the 1/4 wave length (22” tall) antenna. The 5/8 wave antenna can increase your transmit power and requires less metal surface area than does the 1/4 wave antenna to work properly.

- MWV1322HDS, 5/8 wave antenna, $41.73 from Comark.
- MWV1365S, 1/4 wave antenna, no tuning required, $45.71 from Comark.

Next, choose a mount — the three most popular are the hole mount, the trunk-lip mount, and the magnetic mount.

- NMO58U-NC, $11.37 (from Comark) hole-mount with 17’ cable, PL-259 ships loose, Comark will attach it to the cable at no charge upon request.
- RG magnetic mount (from Comark) with 12’ cable, and attached PL-259 connector, $24.49.
- Trunk-lip mount (from Comark) with 17’ cable, model TM8U is chrome, $22.57, or model BMTC-NC is black, $25.95. PL-259 ships loose, Comark will attach it to the cable at no charge upon request.

The hole mount is the best installation solution, but will require you to drill into your vehicle’s roof or trunk. The magnetic mount can be quickly placed when needed, but it can also be stolen, and the cable is prone to damage by your door or trunk repeatedly closing on it. The trunk-lip is a good compromise for a permanent installation without drilling, but water leakage into the trunk can be an issue.

- MBM-C-NC mirror-mount (from Comark) with 17’ cable, $27.72. PL-259 connector ships loose, Comark will attach it to the cable at no charge upon request.

The mirror-mount (right) easily connects to railings and pipes and will allow you to use the 5/8 wave antenna as a marine antenna.

- The most popular vehicle antenna is the 1/4 wave antennas.
- The most common vehicle antenna mounts are the hole mount, trunk-lip mount, and the magnetic mount.
- The 5/8 wave vehicle antenna can be adapted for marine use with a mirror-mount.
AUXNET Mobile Antennas (continued)

If you drive an SUV you’re understandably concerned about your roof-mounted antenna being damaged when it hits obstructions, particularly in underground garages. STICO has the answer with its Flexi-Whip antenna.

The Flexi-Whip bends when it hits an obstruction, then bounces right back to its original shape. And if it doesn’t, STICO will replace the antenna. Tunable in frequency from 136 MHz to 1 GHz, models are available as antenna only (you provide the mount), hole mount with cable and connector, or magnetic mount with cable.

- STIROOF-FT-NITI-M 1/4 wave antenna, no mount, no cable, $38.95 from TALLEY. (For this antenna, make sure to choose an antenna mount from the preceding page, unless you are replacing an existing antenna.)
- ROOF-FT-NITI, 1/4 wave antenna, hole mount, complete with 17’ of antenna cable (choose PL295, mini UHF, BNC, TNC, SMA, or N connector), $77.25 from TALLEY.
- MGNT-FT-NITI, 1/4 wave antenna, magnetic mount, 17’ of antenna cable (choose PL259, mini UHF, BNC, TNC, SMA, or N connector), $74.10 from TALLEY.

- Super-flexible 1/4 wave mobile antennas.
- Wideband to cover the AUXNET, Marine, and Weather channels.
- Available without antenna mount, or with a hole mount or a magnetic mount.
- Guaranteed for life by the manufacturer.

The Flexi antenna is flexible enough to be twisted into a loop, then return to its original shape.

Buying from Talley

You can purchase items as an Auxiliarist from Talley at special pricing. Go to www.talleycom.com and login using coastguardaux@talleycom.com. Enter password Talley1 and you can place your credit card order. Or call Larry Feige at 800-949-7079, ext. 1065.
MORAD has modified their military-grade antennas to operate on AUXNET channels.

The MORAD fold-down antenna consists of:

- VHF-HD-SPECIAL 9124 antenna, $137.60.
- 9076 polished fold-down mount, $49.60.
- 9072 (gold) or 9073 (white) adapter, $28.80.

The 9124 antenna can be used as a building antenna by ordering an 8’ gold anodized mast for $58.40; you don’t need the fold-down mount or adapter for fixed building use.

The MORAD mast-mount antenna consists of:

- VHF-DELUXE-SPECIAL 9123 antenna, $108.
- 9057 stainless mast bracket, $8.

The MORAD deck-mount antenna consists of:

- VHF-DELUXE-SPECIAL 9123 antenna, $108.
- 9055 (silver) or 9056 (white) through-deck mount, $31.20.

Regardless of antenna, you will need enough antenna cable to connect the antenna to your AUXNET radio. Each end of the cable needs a PL-259 connector. Custom cables are available from Talley. Fixed station grade RG-8 cable with connectors is CXTC08C, and lighter weight RG-58 cable with connectors is CXTC5AC. In either case you need to specify the cable length you need in feet.

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Buying from MORAD

We’ve made arrangements for you as a Coast Guard Auxiliarist to purchase directly from MORAD at the discount prices shown. Call them at 866-929-5971.
**Vertex VX900V Spare Parts**

Knobs, side covers, and belt clips are available from Motorola at 800-814-0601

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<th>Part Description</th>
<th>Part Number</th>
<th>Price</th>
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<td>Side cover (includes screws)</td>
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More than 400 Vertex VX900V portable radios have been distributed in D1SR as cache radios.
Vertex VX900V Batteries and Chargers

Single-unit battery charger, TWC1VX3, $31.90

Rechargeable battery, BP3627LI, $39.00

Mobile single-unit charger, TWC1M-VX3, $47.90

Six-unit charger, TWC6M, $289.00

Chargers and batteries are available from Power Products
Larry Sanders, Sales Director
800-529-1618 ext. 122
Base Antenna Grounding

You need to ground your outdoor antenna’s cable prior to its entering your house. The process is easier than you might imagine.

1. Install a ground bar on an exterior wall near where your cable will enter the house.
2. Run a ground wire (at least #6 gage) up to your antenna mount. Connect one end to the mount using a pipe clamp and the other end to the ground bar.
3. Run a ground wire (at least #6 gage) to your house’s existing ground rod. If the rod is too far away, drive a new one into the ground near your ground bar. Connect one end of the ground wire to the ground rod and the other end to the ground bar.
4. Bole a surge arrester onto the ground bar. Connect two lengths of antenna cable to the arrester, one running up to the antenna and the other into your radio.
5. Use butyl and electrical tape to weatherproof the surge arrester.

TESSCO has set up a bundled package consisting of a 6” x 8” ground bar, an IS-50UX-C0 PolyPhaser surge arrester with UHF female and female ends, a 1” pipe clamp, and weatherproofing kit for $158.73 excluding shipping.

The rest of the material (lugs to attach the ground wires to the ground bar, the ground rod and cable connector, and the #6 ground wire) is easy to obtain from your local electrical supply house.

You can purchase from TESSCO as an Auxiliarist at special pricing. Contact Jason Ferguson at TESSCO’s Federal Markets group, 410-229-1585.
A word from the DSO-CM...

Your D1SR Communications Team works hard to design, develop, and maintain a reliable and robust series of repeaters that can be depended on by Auxiliary surface, air, and land assets for both daily activities and emergency operations. We also have a large cache of deployable two-way equipment in all public safety bands to support both the “gold” and the “silver” sides of the house. We are proud of our efforts that have resulted in without question the first and foremost AUXNET network in the country, and have been modeled at the national level!

We have developed training for users of cache radios, and we have designated Qualified Programmers throughout D1SR who can program radios from our recommended list.

You can be assured of continued improvements and growth as we evaluate additional radio channels, new repeater sites, and new features.

I welcome your comments and encourage you to participate in your Auxiliary radio system.

Andy Ely  DSO-CM, District One Southern Region

D1SR’s Communications Team

Please feel free to contact any member of the D1SR COMMS Team, a unique group of experienced Auxiliarists and communicators who are committed to help get and keep you on the air!

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                                Greg Miller
                                Michael Balch
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Members without listed email addresses can be contacted using their information on AUXOFFICER.