U.S. Coast Guard D1SR
Auxiliary Communications Team

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(BMC Ret.)
D1SR Communications Staff

MISSION:
• Support the National and District missions.
• Provide communications between Surface and Air and interoperability with port partners.
• Assist SECNY and SECLIS Command Centers, Electronic Detachments, and VTS with communications issues.
• Support the Sector Continuity of Operations plans.
• Maintain trained Auxiliary Communicators capable of using not only CG frequencies, but Amateur Radio Frequencies as well.
• Assist COMMCOM on D1SR deployments.

April 2020
Some of our Contingency Credentials

• COMMS Trailer was STANY’s radio room for 9 months after Super Storm Sandy
• Support of COMMCOM and MSRT at the past six UNGAs, the 2014 Super Bowl, and Pope Francis’ 2015 visit
• Served under COMMCOM orders as backfill COM-L at 2017 UNGA and MSRT orders as Communications Section Chief at the 2018 UNGA
• Served under orders as COM-L instructor at Yorktown’s Emergency and Disaster Management School
• Provided 12 encrypted portables to STAJB to link all Port Partners for the 2018 Memorial Day Air Show
• Provided 14 hours of CHAN 16 monitoring from 9 locations during the 2017 failure of Rescue 21 (within 21 minutes of notification)
D1SR ACT – Trailers
D1SR ACT – 14’ Communications Trailer

- On-board generated and shore-line electric
- Heat and air conditioning
- Two dispatch positions
- Computer and printer
- Encrypted USCG (VHF and UHF), UHF, 800 MHz trunked, Marine, and AUXNET mobile radios
- On-board AUXNET special event repeater
- TV monitor, computer, printer and copy machine

Being added 2020
- Weather station, Wi-Fi hotspot
- Permanent telephone and Internet wiring
- DC power system with automatic switch-over to battery

April 2020
D1SR ACT – Communications Trailer
D1SR ACT – 20’ Incident Management Trailer

- On-board generated and shore-line electric
- Heat and air conditioning
- Walled separate storage area
- Wide-screen TV and monitors
- Encrypted USCG VHF and Marine radios
- Extra antennas for portable base stations

Awaiting funding
- Conference tables and chairs
- Computers, telephones
- Permanent telephone and Internet wiring
- Weather station, Wi-Fi hotspot
D1SR ACT – 8’ Equipment Trailer

- FirstNet cellular gateway
- Tactical gateway
- Tactical HF antenna
- NEVIS HF antenna
- VHF Yagi antennas
- VHF 3 dB omni antennas
- 40’ antenna mast
- 50 encrypted VHF cache portables
- 10 UHF portables
- 10 700/800 portables
- Transportable VHF P25 digital encrypted repeater
- Transportable VHF AUXNET repeater
- Small generators
- Antenna cable of various lengths
- Antenna mounts and hardware
Portable Repeaters and Base Stations
• Available in VHF, UHF, 700/800 MHz
• Pelican transport cases
• Self-contained battery power
• Repeaters can be remote located
• Wire-line remote control

Portable Radios on every public safety band
• VHF
• UHF
• 700/800 MHz

Portable Radio Gateway
• Connects radio systems on any band, digital or analog, conventional or trunked
• Self-contained battery power
• 300’ reel for in-ship coverage
D1SR ACT – Contingency P25 Repeaters

Two P25 digital encrypted repeaters on NYC buildings
Two P25 digital encrypted “suitcase” repeaters
  • Coverage for Presidential visit, United Nations, and major contingency events
  • Coverage for USCG should they need to operate out of Rescue 21 range

April 2020
D1SR ACT – VHF Secure Radios

USCG VHF Secure Voice Portables
• 92 cache radios

April 2020
D1SR ACT – VHF Vertex Cache Radios

Analog Portable Radios

• Six caches of 6 portables with chargers strategically located throughout D1SR
• Three portables for each Division
• Three portables for each Flotilla
• One portable for each Aviation Facility
• One portable for D1SR staff, Division Commander and above
Regional Distribution of Equipment

- Equipment being sent to four D1SR ACT regional response locations
  - AUXNET Special Event Repeaters
  - Caches of VHF, UHF, and 800 MHz portables
- First equipment distribution has been made to SECNY North
  - One Special Event repeater kit
  - 6 VHF Vertex portables
  - 10 UHF Interop portables

AUXNET Special Event repeater kit, complete with power supply, duplexer, transport case (left), antenna (right), and antenna cable.
Support During Rescue 21 Outages

• The national Rescue 21 radio network is routinely taken off-line for software upgrades and scheduled preventive maintenance.
• During these outages, averaging one hour, twenty-six Auxiliarists have volunteered to provide monitoring of Marine Channel 16 in the Sector New York area.
• Annually, these Auxiliarists provided over 104 hours of active monitoring time during 12 scheduled callouts for coverage.
• These hours do not include administrative time for coordination or the preparation of logs and reports.
Communications Watchstander

• To stand watch at an Auxiliary communication facility, you must be Basically Qualified and complete the Telecommunications Operator PQS.

• To stand watch at a CG communications facility, you must complete all of the requirements of the CO or OIC of the CG unit.
  o Program is run by CG Station CO’s and trains fully qualified CG radio Watchstanders for relief of Regular personnel.
  o Training is hands-on at Station and in-keeping with “Communications Watchstander Qualification Guide”
  o Candidates are required to sit before a qualification board.
  o Regular watches are required to maintain proficiency.
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This is the perfect time to apply for Watchstander training. SECNY and SECLIS are both actively soliciting for Watchstanders.
**Communications Training & Courses**

**AUXCOM Specialty Course**
- Required for AUXOP Status
- Recommended for all interested in communications

**Telecommunications Operator (TCO)**
- Required for Radio Facility owners
- Derived from CG Watchstander and Seamanship manuals

**Communications Watchstander**
- Required for AUX watchstanders
- Required for watch standing at Stations and Sectors

April 2020
SECNY ACT – ACTION

• Accurate and timely information for SECNY on developing public safety and maritime situations that affect SECNY’s AOR.
• Started in April 2013 and is unique to Sector New York.
• Auxiliary members with extensive public safety backgrounds quickly evaluate unfolding situations.
• Auxiliarists are vetted by the SECNY Command Center specifically vetted. All are active or retired public safety professionals.

Statistics since April 2013:
• 9,649 hours providing real-time information and media downloads to SECNY.
• 2,676 incidents, 8,839 calls to SECNY and 1,090 hours of active time.
• ACTION was the initial source of information to SECNY in 84% of the incidents.
• 2,251 news releases and other written notifications.
• 3,922 people assisted, 509 injuries, 39 fatalities, 899 vessels, 23 animals, 30 vessel fires, 1,256 people in the water, 102 suicides, 10 pollution incidents, one POTUS related.
• Incidents involved 686 recreation vessels, 65 commercial vessels, 14 aircraft, and 22 ferries.

April 2020
• Auxiliary Radio Net – Independent VHF radio system (not in marine band)
  – Government frequencies exclusive to Auxiliary
  – Available for emergencies, training, special events
  – 3 simplex channels
  – 11 AUXNET repeaters in D1SR provide expanded radio coverage.
  – Deployable Special Event repeaters on a different channel then normal AUXNET repeaters
Auxiliary Business - Informal or formal information concerning Auxiliary events, procedures, activities, and programs.

Communications Training.

Disaster Communications (and to replace or augment normal telephone service)

DF Coordination.

Logistics and Movements - Coordination and direction of mobile station, vessel, aircraft, and personnel movements.

SAR Support - Supplement marine VHF coverage

Technical - development and testing the system.

Special Event - support of Coast Guard or Auxiliary special activities.
Coast Guard Auxiliary Communications

Fixed land stations (both VHF and high frequency), mobile stations, vessels, and direction finder stations that have been accepted by DIRAUX as radio facilities.

• D1SR has 76 land and 236 mobile member-owned radio stations
• Stations can receive CG operational orders, both reimbursable and non-reimbursable
• Stations must meet three requirements:
  o Equipment and installation
  o Owner qualification – TCO (or AUXCOM prior 2008)
  o Completion of ICS Courses 100 and 700
• Inspection by COMMS Officer who has TCO or AUXCOM
  o DIRAUX issues 3 year letter and miniature decal

April 2020
VHF Equipment

VHF Marine radio
- Auxiliary Vessels, Aircraft and Land Stations
- Marine channels that are reserved for Coast Guard use (21A, 23A, 81A, 82A, 83A, etc.)
- Training provided as part of boat crew or air observer program

AUXNET radio
- Approved for any Auxiliary purpose
- Auxiliary Vessels, Aircraft and Land Stations
- Government frequencies that cannot be accessed by public
- Special training provided by Auxiliary
- Both simplex and repeater

April 2020
High Frequency Radio

- Short-wave regional and coastal CGAUX network for long-range emergency traffic
- Integrated with other Districts and CG command
- Regular drills are held
- Typically amateur radio licensees

- Support programming radios
- Special discount pricing
### AUXNET Repeaters

<table>
<thead>
<tr>
<th>CHANNEL NAME</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOWE</td>
<td>Stowe, VT</td>
</tr>
<tr>
<td>LAKE GEORGE</td>
<td>Lake George, NY</td>
</tr>
<tr>
<td>ALBANY</td>
<td>Clarksville, NY</td>
</tr>
<tr>
<td>HIGHLAND</td>
<td>Highland, NY</td>
</tr>
<tr>
<td>HUDSON</td>
<td>Ossining, NY</td>
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<tr>
<td>NEW YORK CITY</td>
<td>New York City</td>
</tr>
<tr>
<td>SEWAREN</td>
<td>Woodbridge, NJ</td>
</tr>
<tr>
<td>SANDY HOOK</td>
<td>Sandy Hook, NJ</td>
</tr>
<tr>
<td>CENTRAL LI</td>
<td>Babylon, NY</td>
</tr>
<tr>
<td>EASTERN LI</td>
<td>Riverhead, NY</td>
</tr>
<tr>
<td>NEW HAVEN</td>
<td>New Haven, CT</td>
</tr>
<tr>
<td>NEW LONDON</td>
<td>New London, CT</td>
</tr>
<tr>
<td>SPECIAL EVENT</td>
<td>Multiple, Deployable</td>
</tr>
</tbody>
</table>

Coverage areas are not to scale.

April 2020
Remote Controlled Base Stations

Internet remote control of base stations
• Receive and transmit
• Volume up/down
• Channel changes
• Channel name display
• Runs over standard Internet
• Intention to control AUXNET repeaters from anywhere in D1SR

Telephone line remote control of base stations
• Receive and transmit
• Volume up/down
• Runs over inexpensive 4-wire telephone cable
• Provide control of two-way radios from a nearby remote location
  • COMMS Trailer nearby, radio control from a command post

March 2020
Linked AUXNET Repeaters

- Proof-of-Concept test sponsored by Motorola
- Four AUXNET repeaters (LA, NYC, Denver, Nashville)
  - Each repeater provides one channel for local coverage
  - Each repeater has a second channel linked to the other cities
- Test portables and mobiles provided to the four cities

TESTING SCHEDULED TO START LATE 2020
Linked AUXNET Repeaters

- Digital technology with improvements over analog
  - Better range
  - Better audio quality
  - Longer battery life
- Analog “backwards compatibility” for existing AUXNET repeaters
- Radio-to-Radio selective calling
- Radio-to-Radio text messaging
- Radios are WiFi capable
  - Radios can connect to the system through WiFi when they are beyond a repeater’s coverage area

TESTING SCHEDULED TO START LATE 2020
AUXNET Cellular/WiFi Access

- Second phase of the AUXNET linking
- Instant and secure communications between AUXNET repeaters and mobile devices (cell phones, tablets, and computers)

**TESTING SCHEDULED TO START SEPTEMBER 2019**