

Welcome



- Welcome to the 2022 online Telecommunications Workshop – we will start on time
- Meanwhile, un-mute your microphone, turn your camera on and say hello to the rest of the group
- If you have any problems please call, text, or Email the course facilitator, [\(insert name\)](#) at [555.555.1212](tel:555.555.1212) or email@isp.com
- If you lose connectivity during the session, we suggest you restart your computer before re-entering the session



Telecommunications Workshop

2022

Telecommunications Division
Response Directorate

Auxiliary Telecommunications



Welcome








This workshop will:

- Discuss how Risk Management relates to Communications
- Highlight policies and procedures in practical Operations
- Review current communications programs and missions
- Discuss experiences in Communications and look for improvement



Ground Rules

This workshop is interactive, and should not be a Lecture

-  Ask Questions
-  Answer Questions
-  Share Experiences
-  Share Insights
-  A summary of opinions and feedback should be passed up the Chain of Leadership/Management.

Participate - Participate - Participate

Risk Management



2022 Risk Management Discussion



What Do You Need to Do?

Within Communications, all Elected Officers, Response Directorate, CM officers, Telecommunications Operator (TCO) and Communications Watch Stander (CWS) are required to take immediately and maintain RM/TCT training.

Complete the Introduction to Risk Management training course on AUXLMS, course 100202

This is a one-time training requirement to introduce the principals of RM and the critical human factors skills

Annually complete TCT refresher class

What is Risk Management



A **continuous**, systematic, process of identifying and controlling risk in all activities, according to a set of pre-conceived parameters, by applying appropriate management policies and procedures.

This process includes detecting hazards, assessing risk, and implementing and monitoring risk controls to support effective, risk-based decision-making.



Risk Management

The Risk Management (RM) Instruction includes:

- A 5-step process
- The PEACE and STAAR models
- Risk Assessment Matrix (RAM)
- Mandates the use of GAR 2.0
- Standardizes RM training for all communities (surface, air, shore)



Risk Management- cont.

- Coast Guard (including Auxiliary) operations are inherently complex, dynamic, potentially dangerous, and, by nature, involve the acceptance of some level of risk
- Risk Management is more than a form or a process
 - It is a mindset and awareness of **risk** and **reward** that can be used not only in your Auxiliary life but in everything that we do



Risk Management for Communicators

As Auxiliary Communicators, how do we use RM?

While standing a radio watch, can you help detect hazards, assess risk, and implement and monitor risk controls to support effective, risk-based decision-making?

Remember that you are a member of the same team as those you may be supporting.

Risk Management As A Way Of Life



- We continually make decisions based on how much risk we are willing to accept in personal life and in the Auxiliary
- By increasing our understanding of **Risk and Risk Management**, we will increase our performance and safety

Risk Management As A Way Of Life – cont.



We Take Steps To Mitigate The Risks

- Ask for Help
- Modify Our Plans
 - Change Our Start Time
 - Change Our Equipment
- Check Our Equipment



Providing First Aid - CPR

E.10. Emergency Medical Response

From AUXILIARY OPERATIONS POLICY MANUAL COMDTINST M16798.3E:

First aid training (beyond a basic awareness of emergency situations) is not a part of the Auxiliary boat or air crew or radio operator qualification process. Auxiliarists, while on orders (verbal or written) or while assigned to duty, can give first aid. In cases of boating emergencies, Auxiliarists shall advise the unit commander of any emergency medical situation. If unable to contact the unit commander, then seek guidance from competent medical authority.

NOTE



The Auxiliarist may only provide first aid that they are trained to give and which is within the scope of their assigned duties. For example, an Auxiliarist on an authorized patrol who is not CPR, qualified must not perform CPR but an Auxiliarist who is CPR qualified may..

Mishap Reporting



- ALL mishaps must be reported to the Order Issuing Authority (OIA) immediately
 - A Coast Guard mishap is defined as any unplanned, unexpected or undesirable event that causes injury, occupational illness, death, material loss or damage.
 - The Auxiliary wants any incident which causes a disruption or alteration of the mission reported.
 - This allows the mishap to become an education opportunity to be shared across the entire organization.
- Mishap reporting does not equal disciplinary action
 - This does not apply for flagrant disregard of the rules or reckless or foolhardy actions.
 - Incidents occur
 - Not reporting a mishap may lead to disciplinary action

Policies & Procedures



2022 Policy and Procedures Overview



Communications Governance

- AUX Operations Policy Manual (COMDTINST M16798.3 Series)
- Telecommunications Manual (COMDTINST M2000.3 Series)
- Radio Telephone Handbook – Tactics, Techniques, and Procedures (CGTTP 6-01.1 Series)
- Auxiliary Communications Program, Standard Operating Procedure, 21 March 2016

Concept Of Operations



CONCEPT OF OPERATIONS – CONOPS

- **Auxiliary Communications Program – Standard Operating Procedures** released on 21 March 2016, provides a foundation for the growth and development of current Auxiliary communications capabilities - while conveying to the US Coast Guard Auxiliary (CGAUX) and the US Coast Guard (CG), the role, assets, activities, operations, and overall policies of the Auxiliary Communication System (ACS)
- Communication officers at all levels, are responsible for maintaining an accurate radio communications resource availability list. (See: ICS Form 217A CG)
- ACP-SOP and many other helpful forms may be found on the National Auxiliary website. Go to **Directorates**, select **Response** from the top pull down menu. Then on the left side of the screen select **Regs & Procedures**, then **Telecommunications Docs**.

Authorized Operation of Radio Facilities



- Auxiliarists may offer their radios to be used as Auxiliary facilities. If accepted, a single facility identification for all radios at the facility (HF and VHF) used in the same service* will be assigned by DIRAUX or keyed from AUXDATA with DIRAUX approval
- DIRAUX must approve facilities and VHF callsigns which may be assigned by District CM Staff
- The DVC-RT issues all HF callsigns
 - * - a repeater or transportable station is an example of a different service from general fixed land VHF and HF

Authorized Operation of Radio Facilities - Cont.



In order to “Offer for Use” your radio equipment as an Auxiliary Radio Facility or to seek orders or operate as an Auxiliary Radio Operator you must be a “Qualified Auxiliarist”. You must have Telecommunications Operator (TCO) Qualification and have all currency requirements maintained or, be a qualified active-duty Communications Watchstander (CWS).

Completing AUXCOM prior to 2008-08-01 is also acceptable but TCO is recommended.

Authorized Operation of Radio Facilities - Cont.



Only Auxiliary communications staff, elected officers or an OIA may activate Auxiliary radio facilities under one or more of the following conditions:

(Discuss – How can each of these pertain to your AOR?)

- For a mission ordered or scheduled by the Coast Guard
- When necessary to handle valid distress traffic
- While conducting technical tests to determine a facility's capability (e.g., facility inspection)

Authorized Operation of Radio Facilities - Cont.



- When necessary to contact a Coast Guard unit to determine if Auxiliary help is required
- When conducting net drills
- For assisting in time of disasters or national emergencies
- When necessary to conduct authorized Auxiliary activities as assigned by appropriate Coast Guard unit, Auxiliary Operational Commanders or Staff officers

Reference: Operations Policy Manual, Annex 4.C.4

Authorized Radio Operators



- Complete the TCO PQS and be approved by DIRAUX
- Maintain currency in these:
 - Mandatory workshops, including communications
 - Blood-borne Pathogen training
 - Introduction to Risk Management
 - Risk Management TCT refresher
 - Auxiliary Core Training completed
- If currency is not maintained, member will be in REYR or REWK and operations not authorized until current.

Radio Basics



- In all radio communications, we are to act as professionals
- At no time shall we refer to ethnicity, race, gender, sexual orientation or religious affiliation in radio transmissions
- This is a zero-tolerance policy and must be strictly adhered to

Radio Basics - Cont.



- It is often not what you say, but how you say it that demonstrates your professionalism
- Brevity and accuracy support mission success and safety
- Remember, the public and other agencies “hear” you as the voice of the U.S. Coast Guard
- Practice and use proper radio procedures to achieve success, safety, and professionalism
 - (No “10” codes, no “Over and Out”, no “Roger WILCO”, no “five by five”, etc.)



Radio Basics - Cont.

REMEMBER:

- Always listen before transmitting and be sure you are on the correct channel (frequency) and no one else is talking
- Professional presentation – Voice of the Coast Guard
- Speak slowly, clearly and calmly– Must be understood the first time
- Use proper PROWORDS, avoid slang and jargon



Marine Channel 16

- Channel **16** is the international emergency/distress and calling channel
- **Monitor channel 16 whenever able (at least in scan mode) even if there is a specific reason to monitor another channel (regatta, SAR case, guard channel, etc.)**
- Encourage all boaters to monitor channel 16 when underway

Programs & Missions



2022 Communications Programs & Missions

Who is in Charge?



DIRAUX
Sectors/Stations
CG5IT
Contingency Commands
Auxiliary Leadership



Communications Operations

- VHF Radio Guard for AUX Vessels and Aircraft
- Watch Standing at Coast Guard Stations and Facilities
- HF Programs
 - HF Contingency Nets
 - HF Monitoring (AUXMON)
 - Communications Augmentation (AUGCOM)
 - SHARES
- Rescue 21 Contingency Support
- District and Sector Activities
- AUXSCOUT Program
- AUX VHF Operations – Our own space – **used for?**

VHF Communications



- 7 CG Auxiliary VHF frequencies are available for our use on radios with maximum allowed output power of 50 watts. (AUXNET) Work is being done to standardize these channels nationally.
 - Administrative support
 - Command and Control
 - Repeater – wide-area Auxiliary coordination
 - Training
 - Use away from the water ways
- VHF repeaters are allowed an output power of 100 watts
- Maximum output power on channels in the “Marine band” is 25 watts
- No power amplifiers allowed on VHF radios
- Cannot be “modified” amateur radios

VHF Communications - Cont.



- RDF (Radio Direction Finding) stations are authorized
- VHF handheld marine radios **MAY** be accepted as mobile facilities in special cases
- APRS (Automatic Packet Reporting System) is not authorized
- MMSI (Maritime Mobile Service Identity) numbers are not authorized for Auxiliary aircraft but can be registered to surface facilities.



VHF Repeaters

There are 56 Auxiliary VHF repeaters currently throughout the United States, most of which share common input/output frequencies, with varied Continuous Tone-Coded Squelch System (CTCSS) tone access. Most are unit owned. A national plan, for uniformity and interoperability across Districts, is in its final phase.

- Repeater requests (CG Form 6086) must be reviewed by CG Office of Spectrum Management before construction or implementation
- Maximum output power of 100 watts
- Frequencies must match the National Channel Plan

CG Station Radio Watchstanding



- Auxiliary Watchstanders at a CG station must complete the same training as active-duty CG watchstanders and stand a “board examination”
 - They must have received, or applied for, DO security clearance prior to being certified as a CG Watchstander
 - Watchstanders serve at the Station CO’s discretion
- AUXCOM or TCO/PQS are helpful and might be required at the discretion of the station CO/OIC

Coast Guard Watch Standing



The US Coast Guard has asked for Auxiliary members to become Coast Guard Communications Watchstanders (CWS).

What does a CG CWS do?



Common activities include:

- Monitor and answer the radios and phones
- Stand Guard for underway unit assets
- Keep radio logs and document SAR cases
- Give unit internal announcements - “Pipes”
- Assist and keep informed the unit command structure
- And more...

Watch Standing Requirements



Requirements:

- BQ qualified
- Passed TCO or AUXCOM prior to 8/1/2008 (varies per District)
- Current with AUXCT
- Taken ICS 100, 200, 700, 800
- DO Security clearance for CG Watchstander position

Next steps:

- Request approval through FSO-CM to your FC
 - CM/FC requests approval through Auxiliary Coordinator

Watch Standing Recruitment



You are interested in becoming a CWS and helping a CG Unit. What do you do?



Auxiliary Station Watchstander



Watchstanders at an Auxiliary Communications unit (ACU) must be certified as TCO or completed AUXCOM prior to August 1, 2008

- Must be TCO certified if the chief operator in a multiple-operator situation. Other operators must be under the supervision of the TCO.
- Other requirements might be required, on a District-by-District basis
- A radio watch requires that the station is actively manned, and the operator is ready for intervention

Vessel & Aircraft Guard



- Auxiliary Communications Units (ACUs) may be authorized by CG OIA to provide radio guard for AUX vessels and aircraft
 - ACUs may provide guard CG vessels when directed by an OIA.
- All AUX vessels and aircraft must maintain a radio guard with a land station or other designated AUX communications facility.
- Vessels under 60 feet – Every 30 minutes*
- Fixed wing, multi-engine aircraft – Every 30 minutes*
- Single-engine fixed wing and rotary wing aircraft – Every 15 minutes*
- Must report status of operations and present geographic location (aircraft may also report fuel status every 30 min)

*unless otherwise assigned by the command

Holding Guard



- When assuming “Guard”, you have taken responsibility for continuous monitoring of the vessel, aircraft or activity
- Communications schedules with the unit must be maintained
- If schedules are missed, a sequence of steps must be initiated to re-establish comms and determine condition of the monitored unit
- OIAs must be notified when comms are lost for a pre-determined period
- When standing watch for an asset, be sure that you have a clear understanding of the role you play, between them and the Order Issuing Authority (OIA) or command authority. Always be prepared to be proactive in Risk Management for yourself and the asset that's underway

Radio Communications Procedure-1



- As a watchstander at an Auxiliary radio station you receive a request to assist a civilian boater with getting a weather report for storms in the area. What do you do?
 1. Tell them to tune their radio to a weather station
 2. Tell them you are not a qualified weather observer
 3. Tell them what the National Weather Service predicts or what you have seen or heard on the weather channels

Radio Communications Procedure-2



- As a watchstander at an Auxiliary radio station you receive a request for assistance with a disabled vessel. What do you do?
 1. Ask if they are a subscriber of a Commercial Towing Company
 2. Report the disabled to the CG Station /Sector
- If Station/Sector okays it, then:
 1. Tell them you can put out a Marine Assistance Radio Broadcast (MARB)
 2. Relay the call to an Auxiliary boat in the area
 3. Other?

Radio Communications Procedure-3



- As a watchstander at an Auxiliary radio station you receive a MAYDAY call. What do you do?
 1. Get their location
 2. Get a count of number of persons aboard and description of vessel
 3. Get all details on nature of their distress
 4. Inform the CG station/sector if they have not heard the call.
 5. Relay the call to rescue facilities (CG / Auxiliary / law enforcement / commercial salvors /others) in the area
 6. Maintain comms with distressed vessel
 7. Maintain control of comms until relieved
 8. Other?

High Frequency (HF) Communications



HF serves as a platform for several missions:

- **HF Voice and Data Contingency Nets**
- **AUXMON** (Auxiliary *Monitoring* Mission) A quality control program for Coast Guard broadcasts
- **AUGCOM** Global Maritime Distress and Safety System (GMDSS) *monitoring* for digital and SSB voice distress calls (replaces the old SSB voice distress calls)
- **SHARES** – A DHS administered radio program coordinating a voluntary network of government, industry, and disaster response agency HF radio stations used for emergency communications

HF Communications – Radio Facilities



- Maximum power output 1000 watts on HF radios
- Usable for Auxiliary HF radio Nets
- 41 frequencies 2-23 MHz are available
- Radios must be able to transmit outside of Amateur bands
- Accommodates digital modes
- Supports CG contingencies and SHARES

Radios must meet NTIA (National Telecommunications & Information Administration) standards

HF Contingency Nets



- Many districts have established contingency nets of HF stations.
- Contingency nets are requested by districts or regions and coordinated through BC-RTC for approval by DVC-RT in coordination with CG Communications Command (COMMCOM)
- All nets provide contingency voice communications
- Many nets have capability to send digital message traffic
- Nets work closely with SHARES for regional operations
- Most nets practice on a schedule
- Net may be activated by DSO-CM on direction from the District or National Auxiliary chain, or from contingent commands.

AUXMON



- AUXMON stations monitor CG broadcasts to mariners on stations located on the East Coast, Gulf Coast and Pacific Coast
- The Coast Guard broadcasts are by HF voice, digital, and FAX
- Members monitor and report any problems to Communications Command (COMMCOM)
- HF radio equipment and special software is required to participate in the AUXMON program
- Additional AUXMON members are needed
- For application, please see:
<http://rdept.cgaux.org/documents/Comms/AUXMONApplicationsrs.pdf>

AUGCOM MISSION



- Directly supports the CG COMMCOM, Sectors and other CG Commands
- Provide active and passive monitoring of HF voice and DSC message traffic when potential outages of Coast Guard COMSTAs could occur.
- Aids response to GMDSS HF maritime services for sea area A-2
- Participants are a select group of qualified Auxiliary HF facilities and designated as Communications Augmentation Station (AUGCOMSTA)
- Requires marine sideband equipment and software to monitor DSC messages.
- Activated on specific orders from COMMCOM through National Telecomm Staff

SHARES (Shared Resources)



- Administered by Department of Homeland Security (DHS)
- This program provides the Federal emergency response community with a single interagency emergency message handling and frequency spectrum management system
- SHARES promotes interoperability between HF radio systems used by Federal departments and agencies and monitors applicable regulatory, procedural, and technical issues
- Auxiliary stations may be part of the SHARES network. Check the information on the [Telecommunications National Web site](#)

Rescue 21 Contingency Support



- Rescue 21 is the computer-based search and rescue and command and control system used by the Coast Guard active-duty stations
- Rescue 21 is highly reliable but may suffer outages if the remote facilities are damaged or out of service
- The Auxiliary has partnered with Coast Guard commands to provide contingency coverage for Rescue 21 outages (varies by district and sector)

Rescue 21 Contingency Support - cont.



- CG OIAs activate selected Auxiliary fixed and transportable facilities to cover gaps in coverage during R21 outages
- AUX stations provide nominal monitoring out to 15 or more nautical miles where practical
- Activated Auxiliary Communications Units (ACUs) hearing distress or urgency traffic without CG response report traffic to designated SAR controller.
- Receiving Auxiliary units respond only upon direction of the CG command

Auxiliary Radio Facilities



2022 Communications Facility Descriptions and Requirements

What Is A Facility?



A radio station that is offered for use of the Coast Guard by an Auxiliary member is called a radio facility. These may be:

- Fixed land station installed in a building
- Land mobile station installed in a vehicle
- Transportable station that can be taken from place to place, but not used until set up at a final location
- Repeater unattended base station that automatically repeats lower-powered mobiles and portables from its higher location with higher power
- Portable station that can operate from battery power while hand carried

Facility Acceptance



- To be accepted and certified as a facility, there are several steps that must be completed:
 - Enter the radio details on a 7004 Form, or directly to AUXDATA
 - Ensure those details are entered into AUXDATA on a facility input page
 - Submit the facility for inspection to a certified Radio Inspector
 - Pass the inspection and submit to DSO-CM
 - Inspector approves and forward to DIRAUX for approval
- Next slide illustrates this process

Facility Approval Flow

Facility application

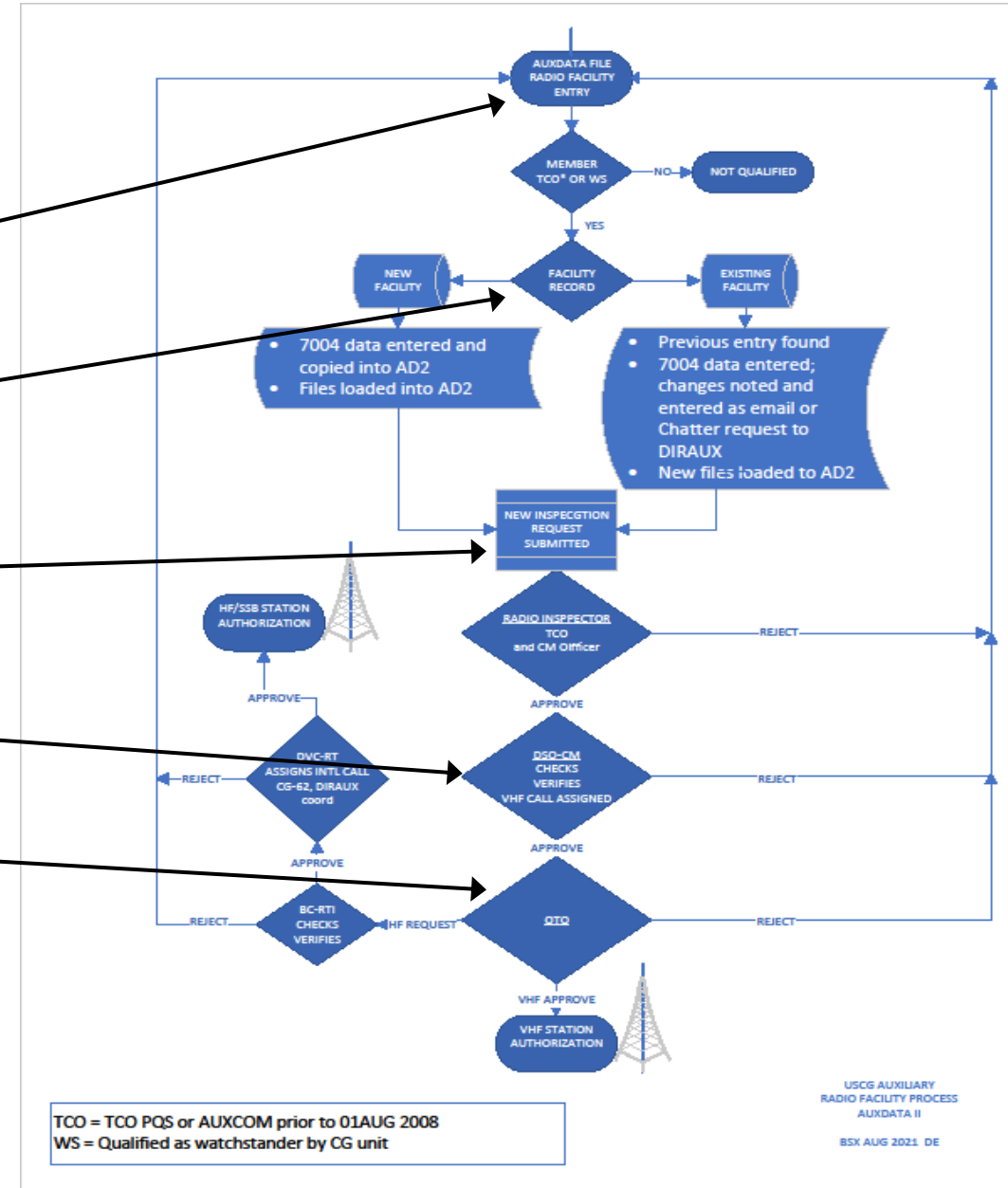
AUXDATA II File

Member applies for inspection

DSO-CM verifies

OTO/DIRAUX approve

- 1
- 2
- 3
- 4
- 5



TCO = TCO PQS or AUXCOM prior to 01AUG 2008
 WS = Qualified as watchstander by CG unit

USCG AUXILIARY
 RADIO FACILITY PROCESS
 AUXDATA II
 BSX AUG 2021 DE

Facility Inspection



Radio stations must be inspected to be accepted as facilities

- Facility inspectors must be:
 - Current National, District, Division or Flotilla communications staff officers
 - Current TCO-qualified or AUXCOM prior to 01/08/2008.
 - Or, TCO-qualified and assigned by DIRAUX as an inspector

Facility Inspection Requirements



- Inspectors must check all equipment in a station used for Auxiliary communications for safety and functional operation.
- Inspectors should check for:
 - Ability to receive and transmit on Auxiliary frequencies
 - Appropriate antenna connections
 - Proper equipment grounding
 - Maintenance of logbooks

Facility Detail



- DIRAUX may assign each asset, whether a vessel, aircraft or radio, a facility identification number (OPFAC #) e.g., For radios: **NMxxx** or **NFxxx**.
- AUXDATA II automatically assigns a Facility Record Number. (e.g., **F-xxxxx**)
- These identification numbers are for record keeping and searching only and are not a call sign.
- The facility identification/record number are entered when required in AUXDATA II forms

Facility Call Sign Issuance



- DIRAUX approves **VHF radio callsigns**, which may be assigned by DIRAUX or the District CM Staff
 - E.g., **“Auxiliary Boston Radio”**, where Boston signifies the geographic location. (See **Auxiliary Operations Policy Manual (AOPM)** for details)
 - DIRAUX does not issue Auxiliary **HF** callsigns
- Facility owners with both VHF and HF radios to submit must check both the VHF and HF/MF-SSB boxes and enter all radio information into AUXDATA II for submission through the chain for issuance of their **HF callsign**

Facility Call Signs



- VHF call signs
 - Fixed land stations - geographic location of the station (e.g., **Auxiliary Kingston Radio**). For several stations in Kingston, the next one is **Auxiliary Kingston 2 Radio**.
 - Mobile stations - either the flotilla name followed by an alphanumeric (e.g., **Auxiliary Miami Mobile 1**) or a district numbering scheme such as **Auxiliary Mobile 10-13 D**.
- HF call signs
 - Assigned by National Telecommunications; format **Nx###xx**, where x is a letter and # is a number.

Facility Land Facilities



- Fixed land facilities are permanently located in a fixed location either owned by the Auxiliary or in a residence or similar building, owned by the radio facility Auxiliary owner
- The location is FIXED and DIRAUX must authorize relocation of the radio facility via AUXDATA II entry using Form 7004 as a worksheet



Approved radio facilities may be referred to as an ACU

Mobile Radio Facilities



- Mobile radio facilities are usually mounted in vehicles and can be used while the vehicle is in motion
- Movement at the direction of the CG requires orders, usually via the AUXDATA II process
- They are not to be confused with TRANSPORTABLE radio facilities



Transportable Radio Facilities



A station which is transferred to various fixed locations but is not intended to be used while in motion. Examples are “go-kits” and trailers.



A transportable station should always be ready for emergency deployment, but is not used on a regular basis and is not used at a permanent location



Operations Under Orders



- Orders should be requested from an OIA when:
 - A radio facility is “holding guard” for, or communicating with, Auxiliary or Coast Guard facilities operating under orders
 - A radio facility or operator is being deployed to another location
- Orders may be issued via AUXDATA, verbally, or by mail or email, pending written follow-up

OIA Considerations



- When a **Mobile Radio Facility** is directed to move, orders are required. A Coast Guard OIA (order issuing authority) approves orders using AUXDATA II.
 - Orders may be issued verbally or by email, pending written follow-up
 - Auxiliary mobiles during their normal activities may operate when assigned to duty by applicable Auxiliary officers
- When a **Transportable Radio Facility** is directed to move DIRAUX approval is required
 - In those situations where an operator (TCO), under orders, travels from home to arrive at a Fixed Land ACU, they are not eligible for travel reimbursement. Depending on their ACU duty hours, relative to mealtime, they may request reimbursement for meals through the AUXDATA process

AUXSCOUT



- Auxiliary-Sea Scout Youth Development Program
- When involved with Sea Scouts observe all provisions of the current SOP

National Contact Information



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References



- For additional information on Telecommunications, please check the references available on the National Web Site Telecommunications area
 - Some documents contain PII or sensitive information and require a password that may be obtained from your DSO-CM
- [AUXMON Methods & Procedures](#)
 - [AUXMON Methods & Procedures Annex 1 AUXMON Station Application](#)
 - [AUXMON 7030 Mission Report Format](#)
 - [Auxiliary Radio Net Schedules](#)

 - [HF Frequencies](#)
 - [HF Registry](#)
 - [HF Contingency Net Plan Document](#)

 - [Repeater Registry](#)
 - [AUXMON Registry \(PDF\)](#)
 - [Auxiliary VHF Frequencies](#)





Responder Articles

- **The Response Directorate is always looking for articles for The Responder**
- **Submit articles To DVC-RT (David.Elliot@cgauxnet.us)**



Operations Workshop Debrief

- **What went right with today's workshop?**
- **What went wrong with today's workshop?**
- **What could be done better next time?**



Thank You For Your Participation

Any additional feedback on the content of this presentation may be sent to:

Division Chief – Education

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Roy Savoca
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DIR-R
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