



U.S. COAST GUARD AUXILIARY MONITORING STATION PROGRAM

INTRODUCTION

As part of the United States' effort to meet International agreements regarding the Global Maritime Distress and Safety System (GMDSS), the U. S. Coast Guard (USCG) broadcasts Weather Facsimile (WEFAX); Voice Broadcasts (VOBRA); Urgent Marine Information Broadcasts, using Narrow Band Direct Printing (NAVTEX); and Ice Information, using Ship Telex Over Radio (SITOR) messages and WEFAX.

Recreational, governmental and commercial vessels within the United States' (U.S.) 200-mile territorial limit must be able to receive those transmissions error-free to help ensure the safety of life and property at sea.

The USCG regards the end users of the broadcasts as its customers and considers itself in a provider/customer relationship. Therefore, maintaining a high standard of broadcast quality for the broadcasts (the product) is important to the USCG. Customer satisfaction is dependent upon timely, quality data that is received aboard a vessel in a readable and error-free format.

The USCG is responsible to provide a sufficient signal density throughout the 200-mile territorial limit to ensure a receivable signal by its customers using commercial-off-the-shelf (i.e., average) receiving equipment.

Currently, the only mechanisms available to the USCG to gauge the effectiveness of their broadcasts are

- 1) self-monitoring on a limited basis, when and where possible, from USCG fixed and ship stations (as operations permit); and,
- 2) feedback from its customers, which usually only comes in when a problem exists.

Neither mechanism affords the USCG the reliable and proactive (preemptive) means of quality control it needs or desires.

PURPOSE

The purpose of this program is to provide a new mission for the U.S. Coast Guard Auxiliary (USCGAUX) in support of the USCG, as authorized by existing regulations.

MISSION

The USCGAUX will support the USCG's efforts to help ensure USCG GMDSS HF/MF broadcasts meet quality standards by monitoring and reporting the quality of received broadcasts across a wide area.

The USCGAUX will utilize a select group of members with the desire, technical expertise and equipment to monitor the USCG GMDSS broadcasts (with an emphasis on the WEFAX, SITOR and NAVTEX broadcasts) to ensure the broadcasts meet the USCG's quality standards.

Broadcasts will be monitored for:

- 1) Consistency with publicly published schedules;
- 2) Signal distortion and density (strength);
- 3) Frequency interference;
- 4) other technical details.

The USCG desires to have this mission performed daily, covering as many scheduled broadcast hours each day as possible. Some broadcasts are lengthy and last over an hour. Ideally, the mission would be performed 365 days per year. Even without such coverage, detection and reporting of quality problems has high value to the USCG.

This mission has been requested by the appropriate representatives at USCG Headquarters (CG-62); USCG CAMSLANT; and USCG CAMSPAC, after its initial suggestion by CAMSLANT. Modifications to the initial CAMSLANT request have been made, after consultations with CG-62 and CAMSPAC, in order to meet the needs of all concerned.

COVERAGE METHODOLOGY

Ideally, the USCG desires properly equipped and experienced USCGAUX members at fixed locations in coastal regions, within a 25-mile distance inland from the Atlantic, Gulf, Pacific, Hawaiian, or Alaskan coasts to monitor the broadcasts on a regular (e.g., daily or weekly) basis.

To help ensure that enough USCGAUX members are recruited to fulfill the mission and to provide even better coverage, the Auxiliary Monitoring Station program is open to

- 1) USCGAUX members at fixed sites with the proper equipment, skills, and commitment, located within a 200-mile distance inland from the Atlantic, Gulf, Pacific, Hawaiian, or Alaskan coasts; these fixed sites might or might not also be USCGAUX fixed land radio facilities;
- 2) USCGAUX members, owning or otherwise authorized aboard, USCGAUX operational vessel facilities or land mobile radio facilities which are

properly equipped to monitor the broadcasts, and operate within the 200-mile territorial sea or up to 200-miles inland from the Atlantic, Gulf, Pacific, Hawaiian, or Alaskan coasts.

With omni-directional antennas used to transmit the broadcasts, the 200-mile distance inland closely (but not exactly) simulates reception from vessels at sea in the 200-mile territorial coastal area. It is the best/only alternative to being able to perform the monitoring mission exclusively at sea.

MONITORING METHODOLOGY

Potential USCGAUX participants must be willing and able to commit to performing the mission by monitoring at least one of the three non-voice (WEFAX, SITOR and NAVTEX) broadcasts at least once weekly. Fixed and mobile participants must also be willing and able to monitor at least one voice broadcast (VOBRA) weekly, if equipped for VOBRA reception.

This monitoring methodology will not be sufficient to catch all individual broadcast quality issues in real-time, but will catch systemic quality issues promptly.

If received broadcasts meet the USCG quality standards, AUXMONSTAs report the quality of each broadcast monitored via a weekly summary report (in a specific format, and sent in a manner to ensure its receipt by e-mail, no later than each Monday morning, EST) to the USCGAUX Branch Chief, Response Telecommunications Coast Guard Support (BC-RTS) or the designated Branch Assistant.

If any broadcast fails to meet the required quality standard, the AUXMONSTA is expected to report the problem immediately to the appropriate USCG Communications Area Master Station (CAMS), utilizing e-mail, with a copy to the USCGAUX Branch Chief, Response Telecommunications Coast Guard Support or the designated Branch Assistant. When the use of e-mail is not practical (such as aboard a vessel) or the reporting would be delayed significantly, the report may be made via telephone to the CAMS, followed up by an e-mail copy of the report as soon as practical, thereafter.

Whenever a broadcast fails to meet the required quality standard, a copy of the broadcast text, image or audio (as applicable) should be sent via the Internet (as a text, audio or image file), Fax (text or image), or on a CD/DVD (any file format) via Priority Mail to the USCGAUX Branch Chief, Response Telecommunications Coast Guard Support or the designated Branch Assistant, as soon as possible, if at all possible, so it may be used to diagnose or correct the problem.

A listing of authorized AUXMONSTAs will be maintained by the USCGAUX Branch Chief, Response Telecommunications Coast Guard Support or the

designated Branch Assistant and regularly provided to each CAMS, as a means to verify the identity of the reporter and validity of any report.

MISSION ORDERS AND REPORTING

The Auxiliary Operations Policy Manual COMDTINST M16798.3 (series) applies to this operational support mission. Approved individuals performing this mission at fixed locations shall be considered “assigned to duty”. Any movement of an USCGAUX facility (vessel, land mobile radio) requires patrol orders to be issued pursuant to the Auxiliary Operations Policy Manual.

In the event there is a specific need to have this mission performed to assist the USCG in resolving a specific problem, or to determine the nature, extent or validity of a reported problem (e.g. a “call-out” situation), orders may be issued by the appropriate USCG command, in accordance with existing policies and regulations.

Hours performing this mission would be reported and entered in AUXDATA via an ANSC-7030 (Mission Activity Report), using Category “07D” – Other Missions - Operational Support unless otherwise directed by national AUXDATA staff.

MEMBER APPLICATIONS

USCGAUX members possessing the desire, time, required equipment, and skills necessary to perform this mission shall make a simplified application via e-mail to the USCGAUX Branch Chief, Telecommunications Coast Guard Support (BC-RTS) or the designated Branch Assistant.

The application shall contain an accurate listing of receiving equipment (antenna, receiver, decoder, recording device); platform type (fixed, mobile, vessel); location (latitude/longitude coordinates); day(s) and timeframe(s) expected to be committed to performing the mission; along with point of contact data (Member number, name, telephone number, e-mail address, etc.) and an informal, brief outline or statement of the member’s training and experience, which indicates the member’s ability to properly perform the mission.

USCGAUX receiving stations selected for this mission would be (informally) termed, “Auxiliary Monitoring Stations” (AUXMONSTA). The designation would be made via e-mail and not require additional, more formal paperwork or additional burden on either the member, District or National staff (including USCG and USCGAUX personnel).

TRAINING

The USCGAUX Branch Chief, Response Telecommunications Coast Guard Support (BC-RTS) or the designated Branch Assistant shall provide training

material regarding quality standards to apply and how to apply the standards, based on the needs of the USCG.

SPECIFIC EQUIPMENT AND SKILL REQUIREMENTS

Fixed and mobile (non-vessel) AUXMONSTAs must be equipped with the capability to receive and decode one or more of the GMDSS non-voice broadcast modes, and should be able to receive the voice broadcasts. Additionally, an AUXMONSTA must be able to send copies of broadcasts which fail to meet the USCG's required quality standards via the Internet (as a text, audio or image file), FAX (text or image), or on a CD/DVD (any file format) via Priority Mail.

Surface facility (vessel) AUXMONSTAs must be equipped with the capability to receive and decode one or more of the GMDSS non-voice broadcast modes. While the ability to receive the voice broadcasts and be able to send copies of broadcasts which fail to meet the USCG's required quality standards via the Internet (as a text, audio or image file), Fax (text or image), or on a CD/DVD (any file format) via Priority Mail, is desired, given the space limitations on most small boats, there is no requirement to do so.

SITOR, NAVTEX and WEFAX (image) broadcasts can be decoded, stored and sent via e-mail utilizing a terminal unit (TU); computer sound card; a receiver/decoder designed for the specific task, or other device that enables mission completion. Voice broadcasts can be stored and sent as sound files.

Internet e-mail access is essential for reporting, administrative use, and distribution of training materials.

PROGRAM POINT OF CONTACT

The Point of Contact (POC) for this program is: USCGAUX Branch Chief, Response Telecommunications Coast Guard Support (BC-RTS)