USCG Auxiliary Monitoring Station Program - AUXMON
Methods and Procedures

The methods and procedures included in this document are for implementation of the USCG Auxiliary Monitoring Mission Program (AUXMON) as approved by the Coast Guard Communications Command COMMCOM and USCG Auxiliary. The purpose of this Methods and Procedures document is to enable Auxiliary Radio Facility operators, who are AUXMON participants, to meet the stated requirements of the Coast Guard while working within the defined mission as approved by the USCG Auxiliary. The approved mission defining document is “USCG Auxiliary Monitoring Station Program”, found on this webpage.

OVERVIEW:

The monitoring mission utilizes a group of volunteer monitoring stations, from within the ranks of the Coast Guard Auxiliary, who have current, approved HF radio facilities with a valid HF call sign. For the member participating as an Auxiliary Monitoring Station (AUXMONSTA), the program offers an exciting avenue of participation and provides needed support to the USCG Communications Command (COMMCOM), who has the responsibility for the full range of Coast Guard MF/HF Communications.

Participation by Auxiliary radio facilities in the Continental U.S., Alaska, Hawaii, Puerto Rico and Guam are welcome. Each monitoring station should be willing to monitor as many broadcasts as possible per day or per week with a minimum devotion of eight hours per month. Some broadcasts are lengthy and can last over an hour. Anomalies are reported to COMMCOM except in the case of COMMDET Kodiak, where reports are submitted directly to them. (See AUXMON Annex 1, on the Telecommunications “members only” web page, for contact information)

USCG Communications Command and COMMDET Kodiak broadcast Distress, Urgent, Safety, Weather, Navigational Aids, Hydrographic information, and ice conditions using Narrow Band Direct Printing (NAVTEX, SITOR), Facsimile (WEFAX) and computer generated voice (VOBRA) modes of transmission. Messages originating from COMMCOM and COMMDET Kodiak, are broadcast from remote transmitter sites. Vessels operating throughout the Northern Hemisphere depend on these broadcasts for ease and safety of passage. COMMCOM regards those who make use of this information to be important customers, who deserve the best service and product. Auxiliarists who participate in the AUXMON program are providing needed quality control for these Coast Guard broadcasts. A copy of the broadcast schedule is included in Annex 1. (See AUXMON Annex 1, on the Telecommunications “members only” web page).
INVOLVED TRANSMITTER SITES:

COMMCOM: Chesapeake VA – NMN
The following transmitter sites controlled by COMMCOM

<table>
<thead>
<tr>
<th>Location</th>
<th>Call Sign</th>
<th>NAVTEX ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>PORTSMOUTH, VA</td>
<td>NMN</td>
<td>F</td>
</tr>
<tr>
<td>BOSTON, MA</td>
<td>NMF</td>
<td>A</td>
</tr>
<tr>
<td>MIAMI, FL</td>
<td>NMA</td>
<td>G</td>
</tr>
<tr>
<td>NEW ORLEANS, LA</td>
<td>NMG</td>
<td>R</td>
</tr>
<tr>
<td>SAN JUAN, PR</td>
<td>NMR</td>
<td>E</td>
</tr>
<tr>
<td>CHARLESTON, SC</td>
<td>NME</td>
<td>C</td>
</tr>
<tr>
<td>PT REYES, CA</td>
<td>NMC</td>
<td>O</td>
</tr>
<tr>
<td>HONOLULU, HI</td>
<td>NMO</td>
<td>Q</td>
</tr>
<tr>
<td>CAMBRIA, CA</td>
<td>NMQ</td>
<td>C</td>
</tr>
<tr>
<td>SAN FRANCISCO, CA</td>
<td>NMW</td>
<td>W</td>
</tr>
<tr>
<td>GUAM (Western Pacific)</td>
<td>NRV</td>
<td>V</td>
</tr>
</tbody>
</table>

COMMDET KODIAK controls stations at:

KODIAK, AK                       | NOJ       | J and X   |
SHEMYA, AK                       |          |           |
COLD BAY, AK                     |          |           |
PT. HIGGENS, AK                  |          |           |
ST PAUL ISLAND, AK               |          |           |
NOME, AK                         |          |           |

EQUIPMENT REQUIREMENTS:

Monitoring Stations will be CG Auxiliary approved HF Facilities with radio equipment capable of receiving on 518 kHz in addition to MF/HF frequencies between 2 - 22 MHz, USB emission. The radio equipment should be equipped with a signal strength meter and bandwidth filtering of approximately 2.4-2.9 kHz for voice and WEFAX broadcasts, and 300 - 500 Hz for narrow band direct printing (NBDP) modes. Facilities desiring to participate should review the factory specifications of their radio equipment to ascertain whether any of the needed bands have been attenuated as part of their design. This is most common for frequencies below 1.7 MHz and can have serious negative effects on the ability of a radio to operate effectively on the 518 kilohertz NAVTEX channel.

The monitoring stations must also be equipped with a terminal unit or computer sound card and appropriate software that will decode, locally display and store in a format
suitable for internet distribution, the following two transmission modes:

WEFAX
NBDP (NAVTEX / SITOR)

Computers equipped with sound cards and supporting software provide an easy economical approach, to decode; NAVTEX, SITOR and WEFAX transmissions. Although the decision on what software used to decode the transmission is up to the AUXMONSTA, a common software package is, SeaTTY, which meets all program requirements.

STANDARDS OF QUALITY:

Generally, the monitoring stations will evaluate the transmissions for:

• Consistency with publicly published schedules (broadcast starts within three minutes of its scheduled time)
• Signal free from equipment caused distortion
• Signal density (signal strength) adequate to provide readable images/error free copy
• Inappropriate or incorrect content given the location and area of responsibility of the originating broadcast station.
• Determination if the transmission frequency is free and clear from adjacent frequency interference. If not, ascertain as accurately as possible the type and source of interference.

REPORTING DISCREPANCIES:

There are certain kinds of discrepancies or anomalies that should be reported immediately to COMMCOM by telephone, and followed up by email. Examples of such anomalies are failure to start a scheduled broadcast within 3 minutes of the scheduled time, serious differences in signal strength from “normal”, inability to decode a message (SITOR, NAVTEX or WEFAX) when the signal strength is “normal”, instances of more than one transmitter running at the same time on one frequency, radio interference, etc.

In some circumstances it may be difficult or impossible for the AUXMONSTA to determine the cause of the anomaly, but whenever situations like the above occur, it is better to err on the side of caution and report a problem immediately by telephone and follow-up by an email.
INITIAL VERBAL REPORT:

When initially calling COMMCOM, to report a discrepancy or anomaly, the operator must be prepared to verbally report the information listed below:

- Date / Time of scheduled broadcast, e.g. 151230Z DEC (where the 15 is the date (the UTC date) and the last four numbers are the time in UTC (Z time zone);
- The time (or time span) when the anomaly occurred if it did not apply to the whole broadcast;
- The window or dial frequency in kilohertz (e.g. 8414.8 kHz);
- Type of Transmission, i.e. NAVTEX, WEFA, SITOR, or VOBRA (Voice)
- A detailed description of the discrepancy
- Obtain the name and rate (e.g. OS2 Doe) of the person you speak to at COMMCOM. Note the time of the conversation, and include this information in the confirming email report that you send.

FOLLOW – UP EMAIL REPORT (Subject Line Formatting)

Because COMMCOM maintain a data base of discrepancy reports in a spreadsheet format, the subject line of the email message is a fixed format which is as follows:

SITREP n [and FINAL] – z-aaaaa ddhhmmZ mmm yyyy fffff.f kHz AUXMONSTA [station name]

Where: “n” equals the report number regarding a specific discrepancy. Usually this is a 1, but can be higher if a discrepancy is not corrected after the first report

“and FINAL” is appended to the SITREP n entry when the discrepancy reported has been corrected.

“z” is a single letter code for the “responsible” COMMSTA or COMMDET transmitting the specific broadcast (see page 2 under NAVTEX ID)

“aaaaa” is a multi-letter code that denotes they type of broadcast. Valid values are NAVTEX, WEFA, SITOR and VOBRA.

“ddhhmmZ mmm yyyy” is the standard Coast Guard formatted date for the scheduled beginning time of the broadcast being reported on. (e.g. 061735Z MAR 2016 for 1735 UTC on March 6th 2016).
“f is the DIAL frequency of the broadcast in kilohertz. For frequencies below 10,000 kilohertz, drop the leading zero(s). (E.g. 8414.8, not 08414.8 or 516.3 kHz, not 00516.3)

“Station name” is your station’s official call sign (E.g. AUXMONSTA NF00AB).

For Example:

SITREP 3 – O-VOBRA 130005Z DEC 2011 13089.0 kHz AUXMONSTA NF00AB

After the heading, formatted as outlined above: Include a detailed description of the discrepancy.

Address the email discrepancy report as per Annex 1. (See AUXMON Annex 1, on the Telecommunications “members only” web page).

**BROADCAST INFORMATION:**

**NAVTEX** The site for US Coast Guard NAVTEX operations is at [http://www.navcen.uscg.gov/?pageName=NAVTEX](http://www.navcen.uscg.gov/?pageName=NAVTEX). While common practice is to refer to the NAVTEX frequency as 518 kHz, the actual dial or window frequency using Upper Side Band is 516.3 kHz.

These transmissions are made on a 24/7/365 schedule. Minimum coverage during daylight hours is designed to be 200 miles from the transmitter location. Monitoring stations located on the coast at a distance of 150-200 miles from the transmitter sites are desired.

Stations along the coast that primarily monitor NAVTEX are encouraged to monitor HF broadcasts during the periods when NAVTEX is not being transmitted. See the schedule of broadcasts for times, and identifiers for the NAVTEX and other broadcasts.

**SITOR** Broadcasts are organized according to the area served by the station transmitting. There are two general groups of messages within a SITOR broadcast: Weather and “Hydro” messages. The weather forecasts are made up of a fixed set of products from the National Weather Service of NOAA. The specific forecasts to be broadcast are listed at: [http://www.nws.noaa.gov/om/marine/hfsitor.htm](http://www.nws.noaa.gov/om/marine/hfsitor.htm).

**WEFAX** Broadcasts are generally very long broadcasts and they originate from a more limited number of stations. The schedule and the specific products broadcast are listed
for the entire world in a document available at: 
http://www.nws.noaa.gov/om/marine/rfax.pdf. A very valuable document for understanding and interpreting WEFAX products is available at: 

**VOBRA** Voice broadcasts are generally created by using a computer generated voice, but occasionally a “live” broadcast will be made. Current VOBRA information is listed at http://www.nws.noaa.gov/om/marine/hfvoice.htm.

**MISSION REPORTING REQUIREMENTS:**

The AUXMON program requires the use of Form ANSC 7030 for the reporting of time and activity. One 7030 for each local time day. The mission start and stop times are to be reflect the total mission hours. If the missions goes past midnight local time, then it requires an additional 7030. The different missions are shown in the Remarks Section.

a. All AUXMON time is to be entered on the ANSC 7030 as mission 07D.

b. The only reporting form to be used for the AUXMON program will be the form ANSC 7030. Participants may use the electronic version of the form or submit the 7030 as a PDF via e-mail attachment. These forms can be found at http://forms.cgaux.org/email/a7030s.pdf

c. Fill in the form as follows:

Section I – Select “Radio”.
Enter “Division, Flotilla, and Mission Date”

Section II – In the “TIME” row, fill in the START and FINISH time of your AUXMON monitoring “watch”. A watch is defined as the time you enter your radio room to start monitoring to when you leave the room after completing a monitoring session. You should monitor as many broadcasts as you can during your watch. In the “MISSION” row click on the blank space in the “START” column. Select CG Support Missions and 07D

Section III - Location: Your home or mobile location

OPCON: COMMCOM – 20-32425

Facility Registration Number: Use your Radio Facility ID (in many cases this will be slightly different from your HF radio call sign)

Order Number – Leave Blank
Section IV – In the “LEAD” row enter your member number, last name and initials.

Section VI – Fill in with what you monitored during your AUXMON monitoring mission. It should look like this:

Remarks: **

AUXMON –0005Z NMC 518 KHz NAVTEX, 0130Z NMO 12 MHz SITOR, 0203Z NOJ 6 MHz VOBRA.

In the LOCAL NOTES (non-AUXDATA) box,

• enter the email address of your FSO-IS, followed by a comma (no space)
• enter the email address of the branch assistant for your area:
  COMMCOM: East or West
• Enter the DVC-RT email address. (See AUXMON Annex 1, on the Telecommunications “members only” web page).

This will send the E form to all three, FSO IS, BA- and DVC-RT. The PDF version should be sent to all three as an e-mail attachment

Fill in the “Date Submitted”, enter your name and report number.

The ANSC 7030 must be submitted daily for missions conducted that day.

If you are required by district policy to submit other forms, you may do that without sending them to the AUXMON program team. Regardless of what form your district may require, we will require the timely submission of ANSC Form 7030 (01-10) to account for your activity in the AUXMON program.

**AUXMON PROGRAM REQUIRES:**

“Completion of the USCG Auxiliary Activity Report – Mission ANSC 7030 is the authorized procedure for reporting of hours of activity on a particular mission, including AUXMON missions. For AUXMON missions the 07D Mission code must be used.”

Operator times reported on the ANSC Form 7030 must be recorded in local time, while all remarks on monitoring must reference “Zulu” time.

You are still required to report anomalies/discrepancies to COMMCOM by phone call with an email follow-up.
GLOSSARY:

COMMDET KODIAK - subordinate unit to the COMMCOM (NMN)

COMMCOM – Coast Guard Communications Command

COMMSTA – AUXILIARY Communications Station (Radio Facility)

FACILITY ID - Assigned by the Coast Guard District DIRAUX to a radio facility for asset tracking and is used to identify a radio facility. **THIS IS NOT YOUR RADIO CALL SIGN!**

HF CALL SIGN - Provided by the DVC-RT. Notice this **may** differ from the Facility ID

NAVTEX - Navigational Telex. Ships often have separate equipment to display these broadcasts (receiver and printer combination)

NBDP - Narrow Band Direct Printing. Also referred to as SITOR or AMTOR. Uses error correcting or redundancy to improve reliability.

VOBRA - Voice Broadcast Automation. Uses synthesized voice to produce a good quality voice broadcast from a data input.

WEFAX - Weather Encoded Facsimile.

FOR REFERENCE:

Example of (partial) NAVTEX Broadcast:

--------
ZCZC NE91 OFFN02 MID ATLANTIC STATES NAVTEX MARINE FORECAST NATIONAL WEATHER SERVICE WASHINGTON DC OCEAN PREDICTION CENTER/OCEAN FORECAST BRANCH 417 AM EST DEC 17 2005 COASTAL AND OFFSHORE WATERS FROM SANDY HOOK NEW JERSEY TO MURRELLS INLET SOUTH CAROLINA ...REFER TO COASTAL WATERS FORECAST FOR DETAILED INFORMATION IN COASTAL ZONE.... SYNOPSIS...LOW PRES OVER THE NORTHERN NEW ENGLAND WATERS WILL MOVE NE TODAY. A HIGH PRES RIDGE WILL BUILD E INTO THE WATERS TODAY...THEN SHIFT INTO THE N WATERS ON SUN. A DEVELOPING LOW WILL MOVE NE ACROSS THE SOUTHERN WATERS TONIGHT AND SUN...THEN PASS E OF THE AREA ON
MON. HIGH PRES WILL MOVE E OVER THE AREA MON INTO TUE. A LOW PRES TROUGH WILL MOVE SE ACROSS THE NORTHERN WATERS LATE TUE INTO EARLY WED...FOLLOWED BY ANOTHER COLD FRONT LATER ON WED.

SANDY HOOK TO FENWICK ISLAND...OUT TO 250 NM. TODAY...NW WINDS 15 TO 25 KT DECREASING TO 10 TO 15 KT. SEAS 8 TO 14 FT SUBSIDING TO 5 TO 10 FT...HIGHEST E. TONIGHT...WINDS NE TO N 10 TO 20 KT. SEAS 4 TO 8 FT..HIGHEST SE.
SUN...N TO NE WINDS 15 TO 25 KT. SEAS 4 TO 8 FT...HIGHEST S. AREAS OF RAIN DEVELOPING OVER SE PORTION. SUN NIGHT...WINDS NW 15 TO 20 KT. SEAS 3 TO 6 FT. MON...NW WINDS 20 TO 25 KT. SEAS 4 TO 9 FT. TUE...W WINDS 20 TO 25 KT. SEAS 4 TO 7 FT...EXCEPT BUILDING TO 6 TO 12 FT E OF 1000 FMS.
WED...WINDS NW AND DECREASING TO 10 TO 20 KT. SEAS 3 TO 5 FT...EXCEPT TO 5 TO 9 FT E OF 1000 FMS. FENWICK ISLAND TO CAPE HATTERAS...OUT TO 250 NM. ...GALE WARNING..

TODAY...N WINDS 10 TO 15 KT EARLY...THEN BECOMING NE 10 TO 20 KT...HIGHEST S. SEAS 4 TO 10 FT SUBSIDING TO 3 TO 8 FT...HIGHEST NE. TONIGHT...NE WINDS 15 TO 25 KT INCREASING TO 25 TO 35 KT LATE. SEAS 4 TO 8 FT BUILDING TO 5 TO 12 FT. HIGHEST WINDS AND SEAS SE. SCATTERED SHOWERS AND TSTMS DEVELOPING OVER SE PORTION.
SUN...N TO NE WINDS 15 TO 25 KT THROUGHOUT. SEAS 4 TO 6 FT NW AND 6 TO 13 FT SE. SCATTERED SHOWERS AND TSTMS...MAINLY OVER SE PORTION.

NNNN
ZCZC QA49 CCGD11 BNM 0776-11. CA-HAZARDOUS MISSLE OPERATIONS-HAZARDOUS MISSLE OPERATIONS WILL TAKE PLACE 010001Z-312359Z DEC 11, IN AN AREA BOUND BY THE FOLLOWING

COORDINATES:
32 33 00N 118 25 00W
32 35 00N 118 16 00W
32 35 00N 117 40 00W
31 55 00N 117 40 00W
31 55 00N 118 25 00W
32 33 00N 118 25 00W
MARINERS ARE ADVISED TO STAY CLEAR OF THIS AREA.

2. CANCEL BROADCAST AT TIME//010100Z JAN 12//
1. CA-SANTA MONICA BAY-EL SEGUNDO- HYPERION LIGHTED GONG BUOY

10 ES (LLNR 3420) HAS BEEN REPORTED EXTINGUISHED.

NNNN

BRK
ZCZC QA02
CCGD11 BNM D11 0802-11 1. CA-SAN DIEGO BAY CHANNEL LB 17 (LLNR-1630) WAS REPORTED DAMAGED AND EXTINGUISHED DUE TO A COLLISION.

NNNN
BRK