

**NOT "BUSINESS AS USUAL" FOR CG AUXILIARY TELE-COMMUNICATIONS**

*By Bill Scholz, DVC-OT*

The year 1999 was a watershed in Maritime Communications. Over the 80 or so years since the sinking of the Titanic, in 1912, the technology of wireless telecommunications had grown by leaps and bounds. From spark gap to Morse code to single sideband to satellite and digital communications, the effectiveness and speed of communication has doubled every few years. In 1999, these changes culminated in the creation of the Global Maritime Distress and Safety System (GMDSS).

Keeping pace with those changes, U. S. Coast Guard and U. S. Coast Guard Auxiliary communications also changed. Fueled by technologies and by outside influences, such as the 9/11 attacks and Katrina, both the USCG and the Auxiliary have struggled to keep up with the changing communications. Issues such as security, speed, and interoperability have required response efforts resulting in Rescue 21, contingency planning for communications, and Digital Selective Calling. For many years, Auxiliary telecoms have

lagged behind these developments; but in only the past few months, the position of running to catch up has changed, dramatically!

The most recent change is the inception of an entirely new High Frequency Contingency Communications program. For several years, when the USCG was part of the Department of Transportation, an HF communications program was in place. In this program, the Auxiliary shared some HF channels with the Office of Emergency Transportation. While providing an opportunity to be active in the HF arena, the program did little to support the USCG and, in addition, did not really encourage wide scale participation by Auxiliarists.

For a wide variety of reasons, the USCG has recently recognized the need for two major capabilities that it did not have. These are places where the Auxiliary can make a major contribution: **Contingency Comms** and **Interoperability**.

Briefly, these two are defined as: **Contingency Comms** – the provision of communications capability for command and control in situations where normal tools (VHF, CG HF, cell phones,

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satcom, etc.) are not available; and **Interoperability** – the tools and procedures that tie various agencies together into a single radio net involving all appropriate responders.

As a result, in August of this year (after many months of conversations, negotiations and planning) the Spectrum Management Division of the Coast Guard Telecommunications Group (CG-62) approved the exclusive Auxiliary use of 33 high frequency channels for the provision of contingency communications for both the USCG and the Auxiliary.

This approval was achieved with the full backing and support of the Chief Director of the Auxiliary (G-PCX). Since that time, the National Telecommunications Division staff, as well as District Staff Officers for Communications,

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have been scrambling to identify and "stand up" stations around the country that could provide those contingency communications services. We are pleased to announce that, by the time you read this, some four or five Districts (at a minimum) will be actively "on the air".

This is just the beginning of a revolution in communications for the Auxiliary. Several programs are either underway or in advanced planning stages. The **AUXMON** program is an example of a program that had its start in D5 SR, working with the CAMSLANT station in Chesapeake, VA. This program has a cadre of Auxiliary communications stations that provide monitoring and quality control services for the voice, weather fax, and NAVTEX broadcasts from the CAMSLANT stations in VA, Miami, Boston, Georgia and New Orleans. It will soon be extended to the CAMSPAC stations in Alaska, Seattle, California, Hawaii and Guam.



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A second example is the Digital Selective Calling program where the Auxiliary is working in conjunction with both the USCG and the GMDSS Task Force (an interagency organization) to provide educational and monitoring services to the recreational and commercial maritime communities.

A third communications program offers a completely new look at the Auxiliary's use of and allocations in the VHF spectrum, including the development of regional organizations for VHF communications, both operational and contingency.

A fourth program centers on the use, within HF and VHF, of digital modes for communication and for propagation testing and analysis. These new modes will provide for the transfer of "record traffic" (that is, traffic in which an exact copy of what is sent must be received); for the use of a tool called "automatic link establishment" (ALE) to connect between two stations on the most effective frequency at any point in time; and the use of various digital

modes that will facilitate the transmission and exchange of images such as digital pictures in "real time".

Last, but certainly not least, is "**interoperability.**" The USCG (like all other first responders) faces the huge problem of establishing an ad hoc and fluid capability that allows all responding agencies to talk among and between themselves as they react to an event in real time. The Auxiliary is undertaking to solve the problem by several approaches. One is the creating, implementing and staffing of a cross-link tool that will facilitate real time communications between otherwise disparate agencies. Another approach is entering into memoranda of understanding or agreement between the USCG (and Auxiliary) and other organizations which, themselves, can provide interagency communications. Finally, the Auxiliary can (and will) provide a test bed for both hardware and procedures for interoperable communications.

The problem of dealing with different radio "styles", "cultures", and procedures is often overlooked when considering interoperability. This goes far beyond the

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matter of solving technology problems by throwing money at them and recognizes the fundamental concern created by the fact that different agencies use the radio in different ways.

There are two other significant issues that are being dealt with by your Telecommunications Division National Staff. The first is the need for a truly national communications network to meet the needs of the USCG in the event that contingency operations are required. This network must be a combination of hardware, people and organizations that can meet the needs of all USCG forces. It will be made up of fixed and mobile stations and is designed to be a completely integrated network using both VHF and HF channels, voice and digital modes. Its primary function is to provide both contingency and operational communications linking all Auxiliary assets and members from the individual to Flotillas, to Divisions, Districts, Areas

and National coordinating bodies.

The second issue is that, because of the changes in mission, technologies, and tasks for telecommunications, the current AUXCOM syllabus and examinations are seriously out of date. The Chief Director's office has asked that major changes be made to content, training, and currency requirements. That process has begun with the creation of initial drafts of an entirely new structure. The new structure will follow the Personal Qualification Standard (PQS) model and, like the Boat Crew Program, it will have multiple levels in response to the need for advanced qualifications and for recognition of Telecommunications as a specialty.

So, in summary ... "this is not your father's telecommunications". We have an opportunity to reinvent telecommunications as a critical part of Auxiliary operations and to follow the USCG's lead in advancing our capabilities. It will be a huge challenge with much work required of us all. However, the payoff is also huge. This is truly the opportunity of a lifetime as far as the CG Auxiliary telecommunications program is concerned.

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**JAMMER SENTENCED**

*By Bill Scholz, DVC-OT*

In October of 2004, an individual in Southern California, who had been harassing the VHF and UHF amateur radio communities on the air, made the mistake of willfully interfering with emergency communications being carried out between a sailing vessel and a U. S. Coast Guard Auxiliary comms station. The Auxiliary station (CGAR Upland 1) was responding to a request from (then) Coast Guard Group Los Angeles to assist by taking the guard for a vessel on a two-meter amateur repeater because the Group communications center did not have the capability. The intentional interference by the

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### JAMMER SENTENCED

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individual was reported to the USCG and to the Federal Communications Commission (FCC).

Ultimately the individual was arrested and brought to trial on both felony and misdemeanor charges arising from the incident. Bill Scholz, then the DSO-CM for District 11 SR, was the operator of CGAR Upland 1 and testified at the trial representing the USCG and the Auxiliary. The defendant was found guilty by a jury on all counts.

### MAKING THE SWITCH TO ETHANOL BASED (E10) FUEL

*By COMO Gary Taylor, DVC-OS*

There has been a lot of talk in the boating community about the new ethanol blended fuel known as E10. Ethanol is starting to replace MTBE, as a fuel additive used to increase the oxygenation of standard gasoline to make it burn cleaner and lower emissions. Here are a few recommendations,



based on several articles found in major boating magazines over the last few months, for you to consider the next time you fill up!

- ♥ Hold off on refueling until your tanks are nearly empty when switching fuels
- ♥ When making the switch to E10, stick to one supplier for your fuel.
- ♥ If you have a vessel that has a fiberglass tank, you need to have your tank inspected regularly.
- ♥ Pay close attention to any unusual engine noise or

change in performance.

- ♥ Fuel filters should be checked frequently and regular tune ups should be done (Use your SAMA!).
- ♥ Do not allow fuel to sit in your tank for periods greater than 90 days.

For the latest information on this topic keep your eyes open for articles in any of the major boating magazines, where the experts are. Share their experiences and knowledge on this subject. To read this article in its entirety, visit <http://cgauxsurfaceops.us/E10.htm>.

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