FIRST BOAT

TUESDAY, JANUARY 03, 2012

Getting Rescued With Rescue 21

Vin Pica explains how Rescue 21, the Coast Guard's communications technology for the 21st Century, is improving Safety of Life at Sea...

Guest blog by **Vincent Pica**
Chief of Staff, First District, Southern Region (D1SR)
United States Coast Guard Auxiliary

A digital selective calling VHF-FM marine-band radio. USCG photo by Petty Officer 2nd Class Brandyn Hill.

In 1787, Alexander Hamilton envisioned that “a few armed vessels, judiciously stationed at the entrances of our ports, might at a small expense be made useful sentinels of our laws.” Fast forward to today and I am sure that Alexander Hamilton would be astonished at the breadth, depth and intensity of duties carried out by the United States Coast Guard. A major expansion in our ability to conduct the missions and duties established by the Commandant of the United States Coast Guard is through “Rescue 21.”

This column is the update on what it is and where it is working.

Rescue 21 – What Is It?
Rescue 21 is the first major overhaul of the USCG communications system since the 1970s. Rescue 21 is replacing a wide range of aging, obsolete VHF-FM radio communications equipment:

- Workstations/consoles at about 270 Coast Guard facilities
- All remote transceiver sites, as well as the network connecting them to the facilities above
- Approximately 3,000 portable radios
- Direction finding capability greatly improved to +/- 2 degrees
- Communications coverage gaps in existing system greatly reduced

Further, it entails several, integrated capabilities:

- Direction-finding capability.
- Reduction of coverage gaps along the coast.
- Enhanced playback capability improving clarity of calls.
- Digital archiving of calls.
- Increased (and simultaneous) channel monitoring capacity, ensuring all calls get through.

Rescue 21 is "standing the watch," providing coverage of 34,912 miles of U.S. coastline.

Who Is Live and Who Is Next:
November 2005: First life saved using Rescue 21 system
December 2005: First Rescue 21 system commissioned, Group Atlantic City, NJ
December 2005: Group Eastern Shore (Maryland, Delaware and Virginia)
May 2006: Sector Mobile
June 2006: Sector St. Petersburg
December 2006: Sector Seattle and Group/Air Station Port Angeles
September 2007: Sector Delaware Bay
October 2007: Sector Long Island Sound
November 2007: Sector New York
January 2008: Sector Jacksonville
February 2008: Sector Hampton Roads
March 2008: Sector Miami
April 2008: Group/Air Station Astoria
May 2008: Sector Baltimore
June 2008: Group/Air Station North Bend
July 2008: Sector Portland
August 2008: Sector New Orleans
September 2008: Sector Key West
October 2008: Sector Houston-Galveston
December 2008: Sector Charleston
March 2009: Sector North Carolina
April 2009: Sector Boston
September 2009: Group/Air Station Humboldt Bay
October 2009: Sector Southeastern New England
November 2009: Sector Northern New England
December 2009: Sector Corpus Christi
2012: Full Operational Capability covering 42,000 nautical miles of coastline

Rescue 21 – How Does It Work?
Well, to start with, here is a list of all the equipment you need to be part of it:

1. a standard VHF radio
2. nothing else.

If it is a "DSC" radio, which will certainly help, but, bottom line, all you need to be able to call for help and have it responded to in 21st century fashion is a standard VHF radio…

Here's what happens:

1. You send your distress/May-day call. It is automatically recorded and digitized by the station receiving it.
2. Direction finding (DF) equipment from one or more high sites computes the direction from which the signal originated, or line of bearing (LOB). Recall reading about 400' radio towers being installed at USCG stations in the area? This is why.
3. Your distress audio and the LOB are sent to the closest Ground Center(s).
4. Appropriate resources (planes, helicopters, boats) are dispatched to respond immediately — even across regional boundaries. No turf wars in our surf. You're in danger. We're coming.

You might say, "Well, direction finding technology has been around for decades. What's the big deal?" While true and I've used it, this new digital technology is accurate to within +/- 2 degrees. Like a trusty pointer, USCG resources will fly down that Line Of Bearing – and find you.

Who knows, with Rescue 21 in place, what the future holds – but greater safety of life at sea is part of it. ***Editor's Note:*** Rescue 21 was in the news just a few weeks ago in an article which credited the system for helping to save the lives of four recreational boaters in California.

Oh, and one other thing that Rescue-21 does well… it quickly triangulates on false may-days too… From the Jacksonville, NC, Daily News, on March 10, 2010:

JACKSONVILLE -- A Holly Ridge man has agreed to pay nearly a quarter of a million dollars in restitution for false distress calls he made to the Coast Guard. Jeremy C. Fisher, 25, pleaded guilty in federal court to conspiring to make false distress messages. As part of his plea agreement, Fisher agreed to pay $234,111 restitution to the Coast Guard for all search and rescue costs associated with the hoax calls. William H. Yates, 22, of Sneads Ferry and Steven G. Medina, 21, of Onslow County, each pleaded guilty to one count of aiding and abetting false distress messages. Medina agreed to pay $233.48, and Yates agreed to pay $506.80 in restitution, according to a press release from U.S. Attorney George E.B. Holding. Fisher faces up to five years in prison followed by up to three years of supervised release. Yates and Medina each face up to six years in prison followed by up to two years' supervised release.

BTW, if you are interested in being part of USCG Forces, email me at JoinUSCGAux@aol.com or go direct to the D1SR Human Resources department, who are in charge of new members matters, at DSO-HR and we will help you "get in this thing…"