

Sector Columbia River, in which Rescue 21 became active in 2008, maintains a network of more than 10 radio towers along the Oregon and southwest Washington coastline

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he towers also include transceivers capable of operating on other channels, including Channel 22A, which the Coast Guard uses for safety broadcasts.

When a mariner calls in distress, one of the towers receives the signal, for example the one on top of Megler Mountain north of Chinook, Wash. The tower's direction-finding capabilities creates a line of bearing to the location of the call.

Inside a Rescue 21 operator booth at one of the Coast Guard's command centers, the call pops up on a computer screen, telling watch standers which tower the signal is coming from and showing it on a map. The position of the call is triangulated using a signal from another tower receiving the signal, say, one in Bay Center, Wash., or Cape Meares.

"It takes out the human error," said Hannah Silverman, an operations specialist with the Coast Guard who works with Rescue 21. "It takes maybe two seconds to find a location."

With the old National Distress and Response System, in use since the 1970s, Silverman said boaters had to do a long count, counting from one to 10 and back, before the Coast Guard could ensure a location. The Coast Guard used to radio other boats in the area to ensure they heard the transmission, creating a range ring, Silverman said, a process subject to whether mariners are keeping a good watch, which is not always the case.

Another advantage of Rescue 21's direction-finding technology is it can locate hoax callers, who cost the Coast Guard thousands for each search on a false alarm.

Blanketing the country

Sector Columbia River, in which Rescue 21 became active in 2008, maintains a network of more than 10 radio towers along the Oregon and southwest Washington coastline stretching from Copalis Beach, Wash., to Rocky Prairie north of Brookings. The network of Rescue 21 stations also follows the Columbia upriver as far as Wallula, Wash., near its confluence with the Snake River.

The system casts a communications net at least 20 nautical miles out, helping ensure that boaters in distress can reach the Coast Guard for assistance.

Rescue 21 now covers more than 41,000 miles of coastline on the Pacific and Atlantic seaboard, Hawaii, Gulf of Mexico, Great Lakes, Guam, U.S. Virgin Islands, Puerto Rico and Northern Mariana Islands.

The only areas left to receive Rescue 21 coverage are the Mississippi and Ohio River valleys and Alaska.



Lt. j.g. Alex Martfeld

25, PEA RIDGE, ARK.

What do you do in the Coast Guard and how did you end up in that position?

"I'm an MH-60J pilot in my first flying assignment after flight school in Pensacola, Fla. I graduated from the Coast Guard Academy in 2012 and am thrilled to be flying here in the Pacific Northwest.

What is the most interesting thing about your job?

"Flying search and rescue on the beautiful Oregon Coast and working with all of the different units is definitely the most exciting part of my job so far. It's amazing to fly down to Tillamook to work with a boat crew and then up the river here for something else and then up to Grays Harbor to work with that crew.

What do you like most about Astoria?

"My favorite part of Astoria is the setting. The area is full of awesome opportunities to see the outdoors. The town itself has great food as well and the people are very friendly. It's hard to narrow it down to just one specific thing!"

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