WASHINGTON — Chile recently ordered 30 response boats that will be used to patrol its nearly 4,000-mile coastline through the U.S. Coast Guard’s Foreign Military Sales (FMS) program. This is the second largest purchase by one nation in Coast Guard history. To accommodate optimal funding arrangements for the Chileans, the boats will be delivered over the course of four years.

Chile’s geography “spans almost every climate imaginable, from deserts up north to glaciers in the south, which means they need some durable boats,” noted Yael Handel, Coast Guard FMS project manager.

The Chilean Navy plans to use the Coast Guard’s FMS program to purchase 30 response boats total: 19 44-foot Arch Angel fast response boats and 11 25-foot Defender-class response boats from SAFE Boats International based in Port Orchard, Wash.

Chile is the Coast Guard’s largest cash-paying FMS customer, as the Chileans use their own funding to purchase these boats, whereas many countries receive grants from the U.S. State Department to make such purchases.

The Chilean Navy previously purchased six 44-foot motor lifeboats through the excess defense article program in 2000; four Defender-class boats for $1 million in 2006; and one additional Defender and one Arch Angel for $1.3 million in 2008.

“The Chileans were very pleased with performance of these boats, whose missions were essentially harbor security and fisheries protection. Chile had a problem with poaching. Chilean sea bass is very popular—lots of people love it. They found early on that the Defenders, with their speed and maneuverability, were adept at interdicting the poachers,” explained Coast Guard Office of International Acquisition Chief Tod Reinert. “Word spread quickly, such that the mere presence of a Defender in a fishing area was enough to ward off any illegal fishing activity. These boats proved to be a great deterrent, and no one would even try to poach the fish.”

Current Contract

On Feb. 8, 2010, the Coast Guard awarded a firm fixed-price contract worth $18.5 million to SAFE Boats International for 23 of the 30 Chilean boats: 10 Defender-class boats, 11 standard Arch Angels and two self-righting Arch Angels. The self-righting Arch Angels, known as special-purpose craft/near-shore lifeboats, are used by the U.S. Coast Guard in severe weather conditions or near surf zones because of their ability to automatically return to an upright position should the boat be broadsided by a large wave, for example.

The Chilean Coast Guard, which is part of the Chilean Navy, will use the self-righting Arch Angels to perform search and rescue missions, while “the standard Arch Angels will be
optimized for interdictions. They will perform the same port security and fisheries protection missions as the Defender-class boats but on a larger platform with a little bit more range,” Reinert explained.

According to Reinert, technical requirements changes and a delay in developing a workable, multi-year contracting strategy caused the price to escalate beyond the available FMS case funding authority. Chile has requested an amendment to the FMS case that will allow them to add additional funds to purchase the remaining boats.

The Coast Guard has submitted this request to the Navy International Programs Office (IPO). Upon receipt of Navy IPO approval, the request to formally amend the case will go to the Chilean government for review and acceptance. Once funded, the Coast Guard will contract for the remaining seven boats, which will include one Defender, two standard Arch Angels and four self-righting Arch Angels.

On Feb. 9, the day after the contract was awarded, six Defender-class boats were delivered to Chile at the SAFE Boat factory. Chile is responsible for transportation and shipping. “Once the contract was awarded, the vendor was able to modify the hulls already in production to be the exact specification that the Chileans wanted. That’s how they were able to make that delivery so quickly, which is extremely unusual,” Handel noted.

The next delivery will take place in September 2010, when two standard Arch Angels and two self-righting Arch Angels are scheduled to be delivered.

Looking Ahead

The Chilean Navy has also expressed an interest in purchasing six additional lifeboats through the Coast Guard’s FMS program. “We’ve been working with them in an official capacity over the past year to help them decide what boat best meets their needs,” Reinert explained. “They’ve narrowed the field to either the 47-foot motor lifeboat from Textron or additional self-righting Arch Angels from SAFE Boats. Their decision is expected in mid-2010.”

The current Chief of Naval Operations for the Chilean Navy, Adm. Edmundo González Robles, visited the Coast Guard’s National Motor Lifeboat School in Ilwaco, Wash., last year to research what boats they should purchase. “The fact that a four-star admiral came out here to visit the boats himself tells me that these are important assets to the Chilean Navy,” Reinert noted.

“Her Excellency established a pretty strong relationship with Chile’s procurement office in Washington, D.C.,” Reinert said. Chile’s relationship with the Coast Guard began back in November 2000 when now-retired Rear Adm. César López Pérez decided to purchase six excess motor lifeboats that had been decommissioned. At the same time, Chile established a complementary FMS case for training at the National Motor Lifeboat School.

With one exception, the reactivation of an ex-U.S. Navy oiler, all Chilean Navy FMS boat procurements have been conducted through the U.S. Coast Guard. “The Chileans like the relationship they’ve developed by buying boats through the U.S. Coast Guard,” Reinert explained. “They trust us to do the procurement right, and they like fostering that mil-to-mil relationship that is continued through training at our facilities and, also, by sending our teams down there to train them.”

“From a leadership standpoint, there’s been a good relationship between the flag ranks—Rear Admiral [Wayne] Justice [then head of the Capabilities Directorate] has a strong relationship with Admiral González,” Reinert concluded. “There are a lot of ties with the U.S. Coast Guard—and not just because of FMS acquisition—that tend to support this U.S. security cooperation program between the United States and Chile.”
A Look Behind the Scenes at How Rescue 21 Arrived at Coast Guard Sector San Francisco

By Michael Valliant

By the time dignitaries and Coast Guard leadership gather for a final acceptance ceremony, more than 200 people over a period of two to three years will have had a hand in bringing Rescue 21 to a Coast Guard sector. Sector San Francisco, which conditionally accepted Rescue 21 this month, is learning what goes into the methodical process of delivering Rescue 21’s expanded capabilities.

Rescue 21 is the Coast Guard’s advanced direction-finding communications system. Its primary purpose is to better locate mariners in distress to save lives and property at sea and on navigable waterways. Rescue 21 also serves as the Coast Guard’s command-and-control communications system to manage and direct sector assets across the spectrum of missions.

To date, Rescue 21’s services are covering the entire U.S. Atlantic seaboard and significant parts of the Pacific coastline. By the time the production and implementation of this major acquisition is complete, Rescue 21’s updated VHF radio communications system will replace the National Distress Response System (NDRS) that has been in use since the 1970s.

What does the process of bringing the Rescue 21 system online look like and in particular, what goes into delivering Rescue 21 to a sector like San Francisco?

“Rescue 21 begins with a picture of the area we need to cover,” said Gene Lockhart, acting Rescue 21 Project Manager. “We have an operational requirement that the system must be able to receive a one-watt signal from VHF radios, two meters above the surface, at a distance of 20 nautical miles. That’s our fundamental requirement.”

The first step is to create a detailed survey plan based upon the established site survey process. This involves coordination among Coast Guard headquarters, the Project Residence Office (PRO), the prime contractor and the sector. Once the survey plan is developed, surveyors are dispatched with an eye for identifying towers that are tall enough, strong enough and have enough space available to accommodate the Rescue 21 equipment.

“Our No. 1 project risk is finding towers with adequate height and space,” Lockhart said. “Our preference is to find existing towers, because over the long term that is less expensive to the Coast Guard. In a worst case condition, we have to build our own.”

One of the considerations when using existing towers is that there can’t be any competing systems on those towers or nearby towers operating in the assigned Rescue 21 maritime frequency bands. Building a new tower is often more complicated as numerous permitting, local stakeholder and environmental considerations, such as National Environmental Policy Act requirements, must be addressed.

To further compound the process, there is no set number of towers required. It is different for every sector, though the average number of towers is six. A case in point is San Francisco, which requires nine towers. Sault Saint Marie, Mich., in the Great Lakes region, will need a record 19 towers to go active in the fall of 2011. What determines how many towers a sector needs?

“It is completely dependent upon what characterizes the operational area,” said Lockhart. “It’s the layout of the area, the topography, the elevations and urban obstructions. San Francisco is quite an interesting place—you’ve got a lot of all of it.”

In San Francisco, each of the tower sites illustrates the ingenuity required to secure tower space. In the Sacramento area, Rescue 21 shares a tower that rises to roughly 2,000 feet with local television stations. The structure’s height allows the Rescue 21 equipment to be placed high enough to cover a large portion of the expansive delta. Another tower is being constructed at San Francisco’s treasured Presidio National Park, where it was determined that 150-foot tower would be allowed to provide coverage for the area immediately surrounding the Golden Gate Bridge.

Lengthy Process

Rescue 21 has been years in the making. Currently, the Coast Guard’s headquarters team is in production mode, having completed the planning for all sectors. They are now conducting the survey process for the sectors that have yet to receive Rescue 21 and determining which tools to use from their toolboxes—the basic site design, the equipment layout and the shelters.

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The build-up of those pieces occurs with General Dynamics, the project’s prime contractor, who readsies the components for a factory acceptance test at the PRO in Scottsdale, Ariz. The system is then shipped and installed on the towers and at the sector. It is a thorough, well choreographed process.

At this point, a team of engineers and operators from headquarters and the PRO visit the sector and each of the tower sites and Coast Guard stations to ensure that all of the Rescue 21 equipment is in place and working properly. These visits culminate in a witnessed regional system acceptance test. At the same time, training is provided to sector and station watchstanders to acquaint them with Rescue 21’s advanced capabilities, in particular the direction-finding system.

With this step completed, the Coast Guard declares conditional acceptance and the sector officially starts achieving “beneficial use” of Rescue 21. The legacy NDRS system continues to operate in tandem with Rescue 21 for approximately 30 days, after which it is turned off and removed, except in those areas where additional tower sites are under development. Final acceptance is achieved once all tower sites are completed, remaining issues resolved and legacy equipment removed.

Coast Guard headquarters then declares that the sector has gone from deployment to full operations and sustainment status and turns its attention to the next sector. Finally, the legacy NDRS system continues to operate in tandem with Rescue 21 for approximately 30 days, after which it is turned off and removed, except in those areas where additional tower sites are under development.

Mission execution begins here.