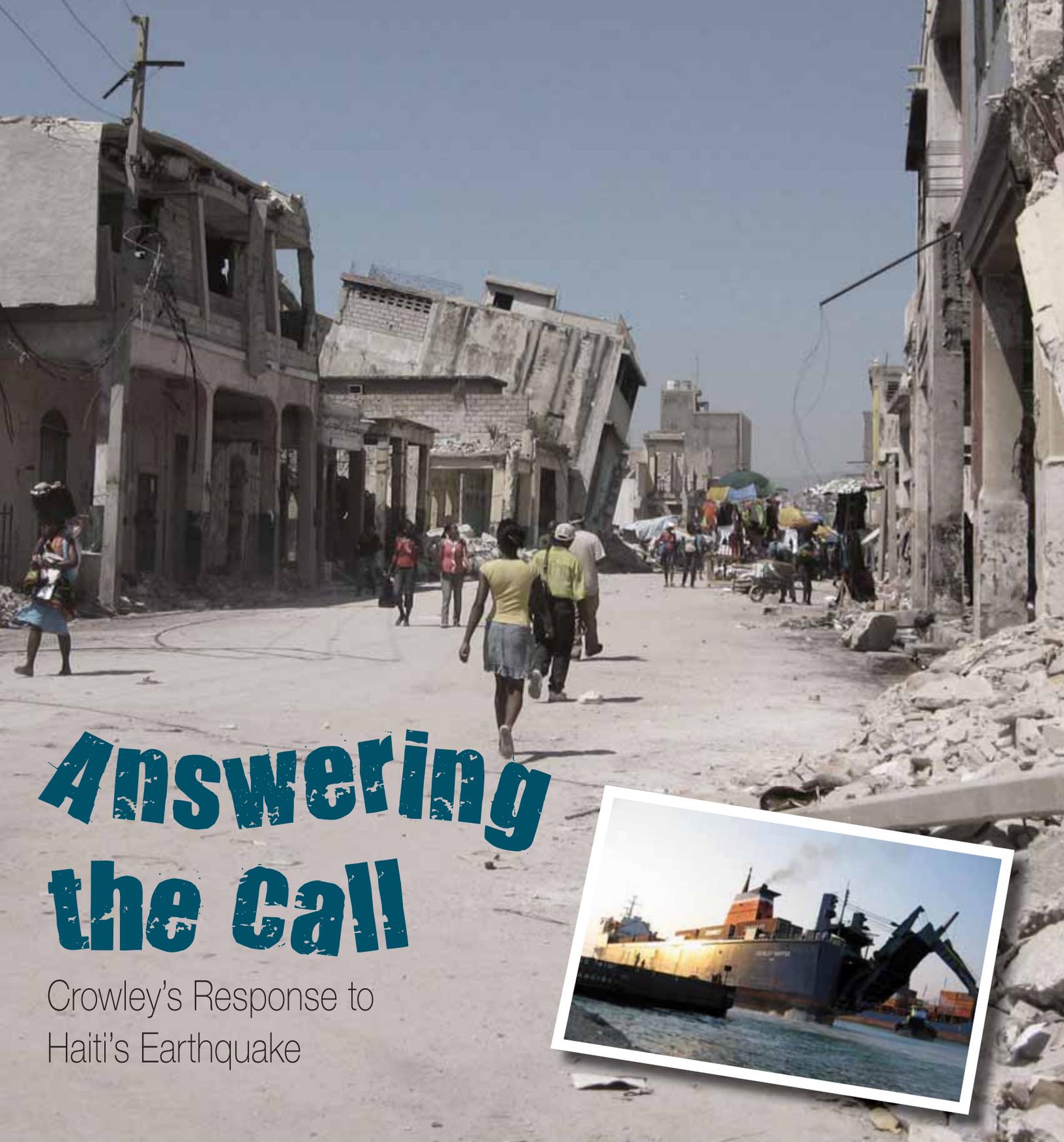


Connections

THE CROWLEY MAGAZINE

ISSUE 1 2010



Answering the Call

Crowley's Response to
Haiti's Earthquake



Memories of Molly

By Tom Crowley Jr.

This past March, I lost my stepmother, and Crowley Maritime lost a board member and one of its biggest supporters.

Molly Murphy Crowley, 71, of Piedmont, Calif., passed away March 21 surrounded by family at her Indian Wells, Calif. vacation home. She was the wife of my late father Thomas Crowley Sr., and a very important person in my life. She inspired those around her in many ways, perhaps none more so than the way she lived life to the fullest right up until the very end.

Molly was born Nov. 27, 1938 in Portland to Dorothy and Peter Murphy. The third of eight children, she attended grade school at St. Thomas More Catholic School, high school at Holy Child Academy in Portland, and college at Manhattanville College in Purchase, NY.

Molly was a successful businesswoman early in her career. She founded a residential real estate company in the 1960s in Portland with Wilma Caplan, which grew to be the largest residential real estate company in Oregon.

Away from work, Molly was a well known – some say legendary – competitive, amateur golfer in Oregon women’s golf circles. A fierce competitor, she won the Oregon Coast Amateur golf tournament many times and often contended for the Oregon State Women’s Amateur Championship. She remained an avid golfer late in her life.

She met my father on a ski vacation in Switzerland. The two claimed it was love at first sight and they were married for many years prior to his death in 1994.

My relationship with Molly took an interesting turn after my father died. I asked her to join the company’s board of directors. She had always shown great interest in the company and my father admired her business acumen. He would take her on business trips, and when the spouses would break off, Molly would stick with my dad and attend the meetings or visit the ships. I’ve received many emails from employees and industry comrades, recounting stories of Molly on the boats, at the terminals or even at meetings, which were typically members only. I guess no one had the courage to remind my father of this and he certainly did not care.

She remained extremely loyal to the company and its employees through the years.

Back in September of last year, Molly knew her remaining time on earth was short. At one of our board meetings she courageously stood up and told the board of her situation and told us that she would see us at the March meeting in Jacksonville. She said that was her goal and it would get her to March. Then she was off to Scotland to play golf with her friends.

As the March meeting approached, Molly, a pilot and avid flyer, began to tell people she intended to fly her plane to Jacksonville. When we tried to steer her to a commercial flight, we got silence. She would not even engage in the discussion. I was relieved to learn that someone convinced her to break the eight-hour flight in two with an overnight stay. She was thrilled when they found a hotel you could taxi the plane up to.

When she arrived in Jacksonville for the meetings, she had her oxygen in tow and all the board books we had sent her. She had read them all and was ready for the meeting.

We hosted two employee luncheons at which the board and senior leadership team served food to employees. This was the event where Molly lit up. For two days in a row, Molly stood at the head of the line and shook every employee’s hand, introducing herself to those that did not know her and greeting those that did. On the first day, our lunch was at the terminal and she met our longshoremen, our drivers, and our boat crews – shaking their hands with her right hand and holding her oxygen cart in her left.

It was an amazing site that I will never forget and that has left a lasting mark on the company. She was saying goodbye to the people that she respected and the company in which she had so much pride.



Molly with Tom, Christine, Clara and Bannon Crowley.



Molly's last trip to Jacksonville included serving lunch to Crowley employees at the Regency headquarters and the Talleyrand terminal.



Molly and Tom in Honduras for a board of director's meeting with Claudia Kattan, general manager.

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On the Cover: Within hours of the catastrophic earthquake that left Haiti's infrastructure in shambles and its people in a state of panic, Crowley sprang to action with a plan to carry relief supplies to those who needed them most.

Publisher
Susan Rodgers

Managing Editor
Jenifer Kimble
jenifer.kimble@crowley.com

Art Director
Daniel Mock
daniel.mock@crowley.com

Executive Editor
Mark Miller
mark.miller@crowley.com

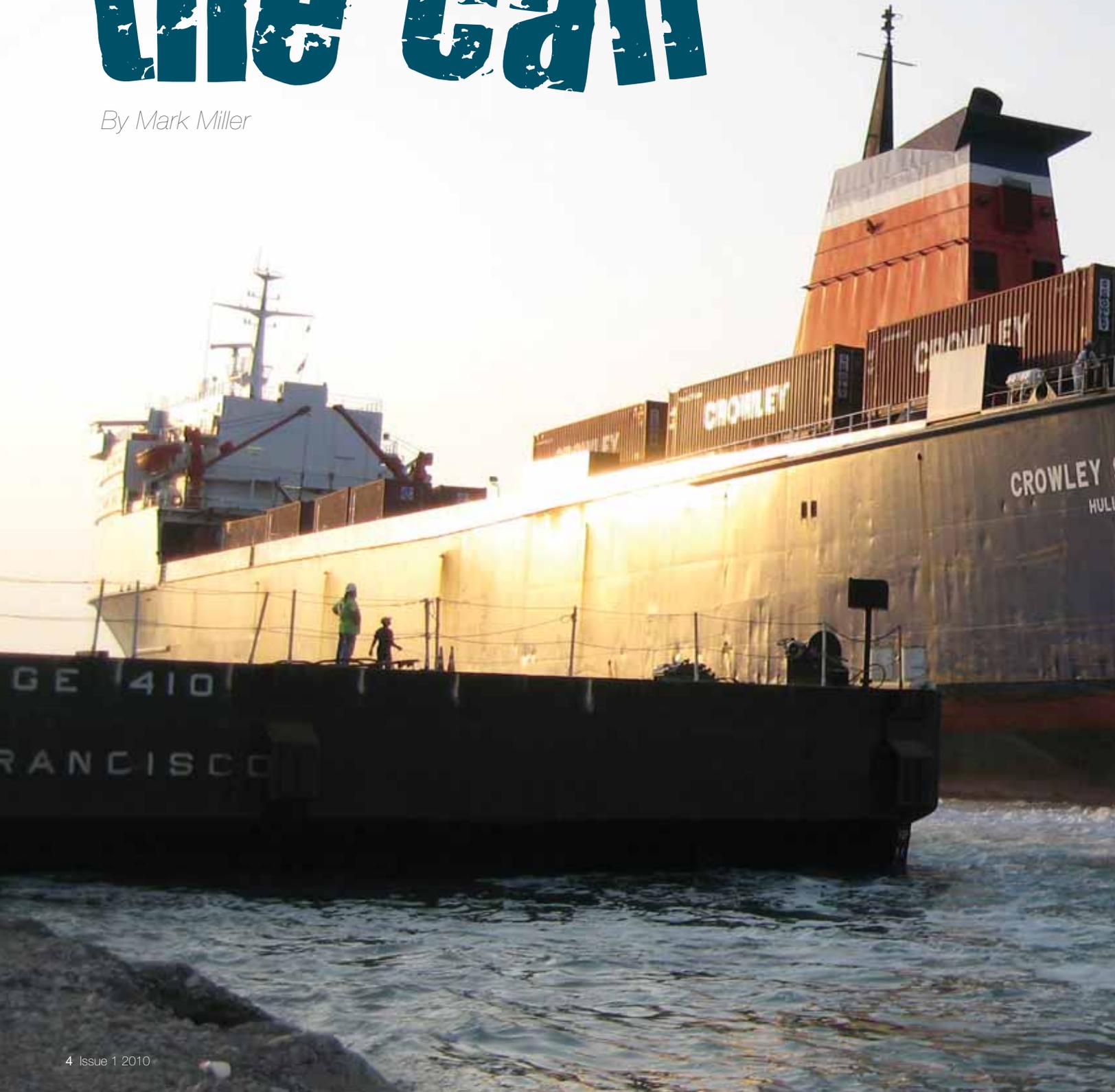
Staff Writer
Mabel Perez
mabel.perez@crowley.com

Contributing Writer
John Barry

CROWLEY
9487 Regency Square Boulevard
Jacksonville, Florida 32225
1-800-CROWLEY
(904) 727-2200
www.crowley.com

Answering the Call

By Mark Miller



News of the devastating earthquake in Haiti on Jan. 12 shook members of the Crowley organization to the core. The company had agents and customers in the developing country engaged in a growing trade with the United States, and the devastation and human suffering being broadcast on television were beyond belief.

Within hours of the quake, and after ensuring the well being of Crowley agents Jeff d'Adesky, of Enmarcolda S.A. in Haiti, and Jaak Rannik, of Agencies Navieras B&R in the Dominican Republic, and their immediate families, Crowley formed an incident management team to begin drafting an internal memo outlining the company's capabilities for providing assistance.

"There was an eagerness to respond, but we weren't sure what we would be asked to do," said Tucker Gilliam, Crowley general manager, Dominican Republic and Haiti. "There were so many question marks and uncertainties that we just planned for the worst case scenario and how to deal with it."

When the call came from the United States Transportation Command (USTRANSCOM), the government agency coordinating the U.S. response, on Jan. 15, the Crowley internal working memo became the basis for the whitepaper outlining how to restore the port and begin relief cargo shipments. It was quickly submitted to USTRANSCOM, reviewed and discussed by cross governmental teams including the White House and accepted as the best course of action. As the days and weeks went by, it was widely referenced simply as "The Crowley Plan."



“We pulled all our diverse resources together to offer an extraordinary package of services. Other companies could have done bits and pieces of this project, but we put it all together and we did it very quickly.”

– Jay Brickman, Crowley

The directive to Crowley from Vice Adm. Mark D. Harnitchek, Deputy Commander, USTRANSCOM, was: ‘We want you to think big. You are working against a stopwatch and not a calendar. And a day delay is a day lost,’ recalled Jay Brickman, Crowley’s vice president of government services.

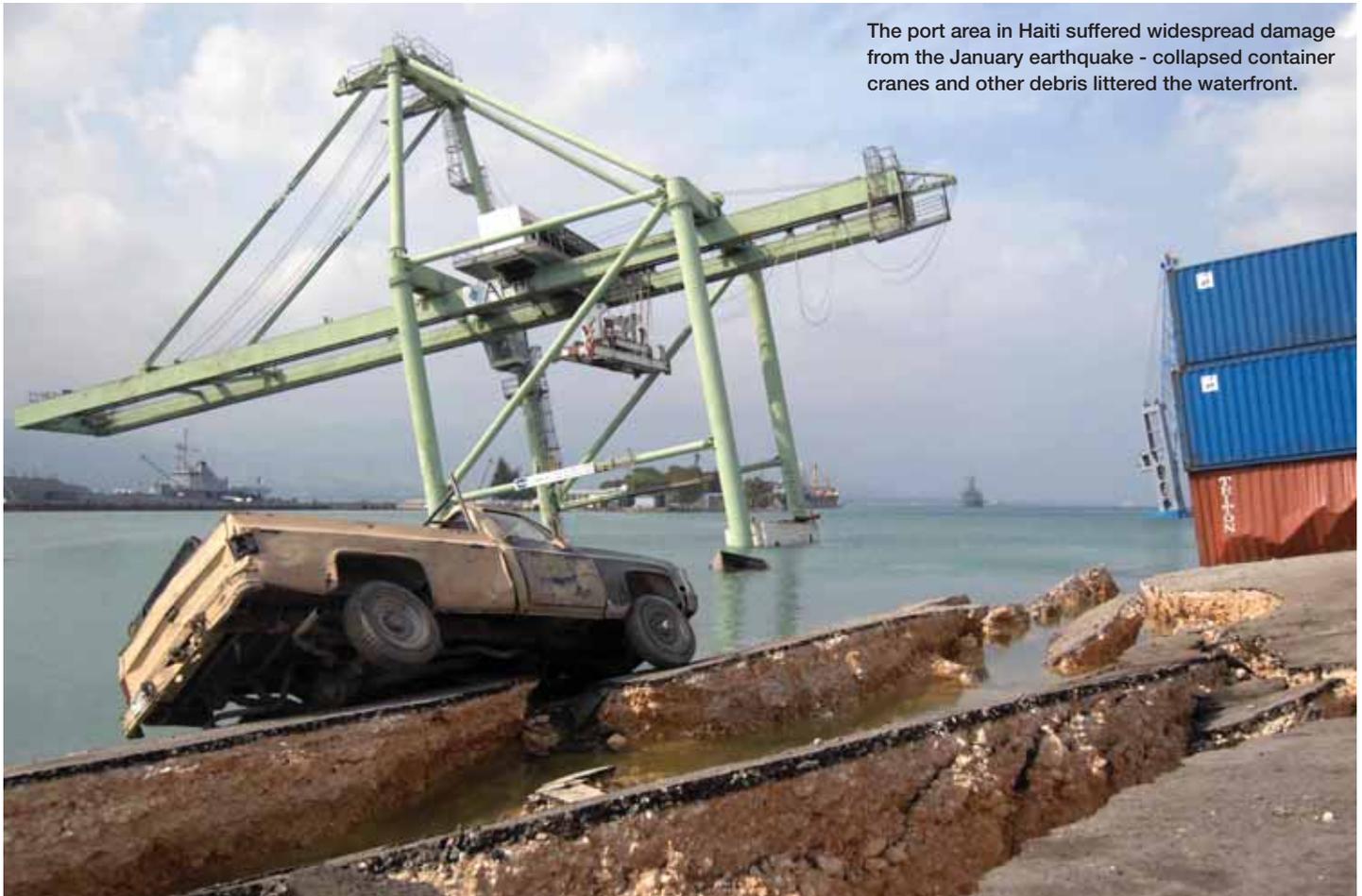
Survivors needed help and they needed it fast. Quickly marshalling the diverse expertise and resources within the Crowley organization, the wheels were set in motion to get relief supplies to the country and to get Port-au-Prince reopened. Docks had crumbled into the harbor taking with them two shoreside cranes, containers and other debris, rendering the port virtually unusable.

John Hourihan, Crowley senior vice president and general manager, Latin America, pulled together the company’s liner, logistics and marine services groups along with subsidiaries TITAN Salvage and Jensen Maritime Consultants, to work in concert with USTRANSCOM as the first responders. The groups surveyed the harbor in order to determine whether or not cargo could be delivered directly to Port-au-Prince, the most heavily populated and damaged area on the island. Within days, Crowley began

carrying relief cargo to Rio Haina, Dominican Republic and trucking it over the road to Haiti. They had also established a lightering operation (offshore ship-to-smaller ship cargo transfer) enabling cargo to be delivered across a beach directly into Port-au-Prince. At the same time, the company was providing warehousing, cargo consolidation and trucking in Miami and elsewhere in the U.S., all in support of the relief efforts.

Shortly thereafter, the Crowley team installed a 400-foot-long, 100-foot-wide, flat deck barge along with two Manitowoc 230-ton crawler cranes to serve as a makeshift floating dock for port cargo operations. A second dock barge was installed a couple of weeks later, and TITAN cleared the harbor of debris and other navigational obstructions – including a 300-metric ton collapsed gantry crane. Crowley transported more than 1,500 containers of relief supplies, delivering some via Rio Haina, but taking the majority directly into Port-au-Prince.

“We pulled all our diverse resources together to offer an extraordinary package of services,” said Brickman. “Other companies could have done bits and pieces of this project, but we put it all together and we did it



The port area in Haiti suffered widespread damage from the January earthquake - collapsed container cranes and other debris littered the waterfront.

(Right) Crowley's involvement with the re-establishment of cargo operations began with debris removal and offshore lightering operations then progressed to the use of single deck barges near shore as temporary piers.

very quickly.”

“I am extremely proud of everyone in the Crowley organization who had a role in the response,” said Tom Crowley, company chairman, president and CEO. “The way our employees put everything aside to answer the call and to do whatever had to be done to help was truly inspiring and showed Crowley at its best.”

Gilliam said he saw the Crowley spirit and ingenuity first hand. There were up to 100 employees working on the project at any given time.

“I think after the earthquake people around the country felt a bit helpless. They wanted to help, but didn't know how,” said Gilliam. “Our employees saw their work as a way they could help people who were suffering and see the tangible results of their long hours and weekend work.”

“Those first two weeks were crazy and pretty intense,” said LaSonya Hill, supervisor, customer service, whose team was tasked with handling all the bookings, coordinating equipment dispatch with the intermodal department, processing the bills of lading, generating the manifests, getting all the cargo moved on the vessels and then getting it released by Customs upon arrival in country.

“I came in that second Saturday (after the earthquake) and told my husband that I wouldn't be long – maybe an hour, and wound up staying from 11 a.m. to eight at night,” she said. “My husband Maurice, who works in Crowley's intermodal department, and my two boys (Cameron, 13 and Christian, 10) came into the office with me. Maurice discovered that Brian Bain (supervisor, inland operations) was overwhelmed dispatching loads for trucking and stayed to help him. I even got my boys involved sorting bills of lading.”

“The entire customer service team did a remarkable job,” Hill said. “In addition to working on Haiti relief, they had their regular customers and duties to tend to. Looking back, I think this has been a very good experience for everyone involved because we were working for a very good cause.”

Crowley's efforts were not lost on USTRANSCOM.

At a USTRANSCOM executive working group meeting Feb. 26, Brickman reported that Vice Adm. Harnitchek told meeting attendees: ‘In my entire career I have never seen a company respond the way Crowley did to Operation Unified Response – Haiti.’ And on March 17, General Duncan McNabb, commander of the USTRANSCOM, testifying before the House Armed Services Committee, said about the Haiti relief efforts: “The response of our commercial partners was equally impressive. Within days of the earthquake, our commercial partners were surveying the port to establish over-the-shore operations and moving container ships, vehicle



“The way our employees put everything aside to answer the call and to do whatever had to be done to help was truly inspiring and showed Crowley at its best.”

– Tom Crowley Jr.

“The response of our commercial partners was equally impressive. Within days of the earthquake, our commercial partners were surveying the port to establish over-the-shore operations and moving container ships, vehicle carrying vessels and lighterage to Haiti.”

**– General Duncan McNabb
Commander, USTRANSCOM**

carrying vessels and lighterage to Haiti.”

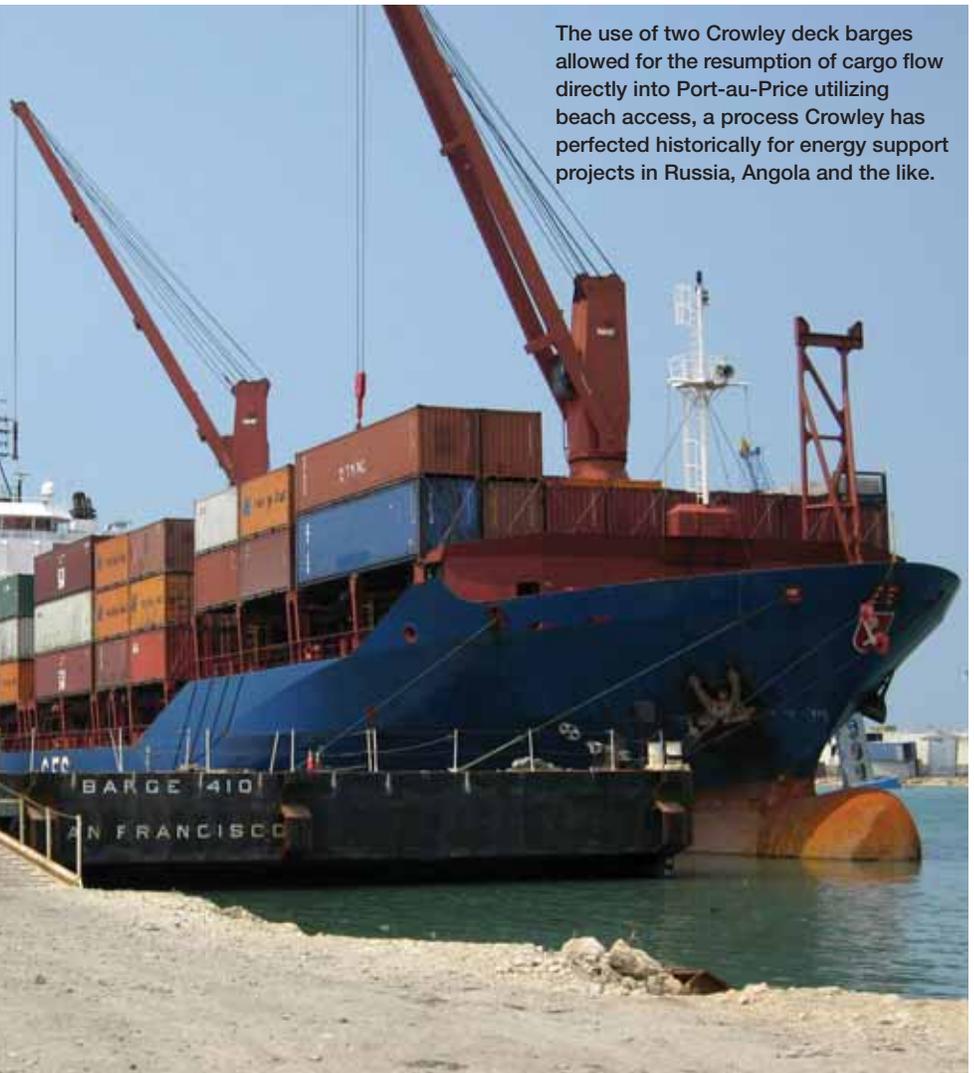
Reestablishing Cargo Flow

By Jan. 17, the 832nd Transportation Battalion had moved into Crowley’s Port Everglades, Fla. offices and begun to route relief cargo into the port. The Crowley container ship *Marcajama* sailed that night with 68 containers and arrived in Rio Haina three days later. Discharging 56 of the containers for trucking into Haiti. The remaining 12 containers were left on board the vessel and unloaded in Port-au-Prince via a lightering operation, which is a technique the company regularly uses to deliver fuel to shallow-draft ports in Alaska. Only in this case, instead of transferring fuel offshore from a larger vessel to a smaller vessel, 20-foot steel cargo containers were lifted by shipboard crane over the side of the *Marcajama* and onto a smaller vessel with a bow ramp for delivery over the beach, thereby bypassing the damaged docks.

The operation was deemed possible after a team from TITAN landed a seaplane in the port and surveyed the area for navigational obstructions and cargo landing locations.

Further contributing to the success of the operation was the work being done by Crowley’s logistics employees at the company’s Miami warehouse. They were receiving 53-foot trailers, removing their contents and repacking them into 20-foot ocean shipping containers that could then be trucked to Port Everglades and loaded onto Crowley ships.

Assured that the cargo lightering plan would work as advertised,



The use of two Crowley deck barges allowed for the resumption of cargo flow directly into Port-au-Price utilizing beach access, a process Crowley has perfected historically for energy support projects in Russia, Angola and the like.

(Right) Crowley's logistics warehouse in Miami regularly houses USAID cargo. The staff is well trained in short notice shipping of these relief cargoes to areas of the world that need them most.

USTRANSCOM increased cargo volumes directly into Port-au-Prince while also maintaining the flow into Rio Haina. On Sat., Jan. 30, the *Marcajama* departed Port Everglades for Jacksonville.

"We were prepared to handle about 270 loads at our Talleyrand terminal," said Brickman. "But on Saturday we got a call saying the number would be closer to 800 and that most of the loads were on Blount Island, about 10 miles from Talleyrand. That meant that Nancy Przybyslawski and her inland operations team had the weekend to obtain the needed trucking power while LaSonya Hill and her team did documentation for 800 containers to sail from Talleyrand on Sunday night. We opened the terminal, established cargo reception at the gate and brought our stevedores in. I really didn't think we'd do it, but somehow we did."

As of March, Crowley had handled more than 1,500 containers for USTRANSCOM, Food for the Poor, Catholic Relief Services and others, and 149 pieces of rolling stock cargo such as military vehicles for forces deployed in Haiti.

Flat Deck Barges as Piers

A key component of "The Crowley Plan" was the installation of two 400-foot-long, 100-foot-wide flat deck barges in Port-au-Prince to serve as temporary piers. Two Manitowoc 230-ton crawler cranes were also acquired



The vessels *Marcajama* and *Crowley Shipper* made cargo calls into Port-au-Prince delivering relief supplies and later commercial goods to assist Haiti with a continuation of trade and commerce.



“While we work with aid groups to respond to their long-range needs, we will also be focusing our attention on helping our customers get back on their feet.”

– Tucker Gilliam, Crowley

and placed on one of the barges to facilitate cargo discharge and loading.

The technique of using flat deck barges as docks to deliver cargo across exposed beachheads was something Crowley perfected over the years on the North Slope of Alaska, the Russian Far East and West Africa in support of energy companies’ oil and gas developments.

As the barges were being mobilized, Jensen Maritime Consultants, a Crowley naval architecture and marine engineering subsidiary based in Seattle, was designing the piling system needed to secure them.

“We made some assumptions about winds and currents and what types of loads would be accommodated to determine piling sizes and place-

ments,” said Sergio Fifi, Jensen naval architect. “We worked closely with TITAN who has prior experience installing piles, while others in our organization designed the ramp system.”

Before TITAN could drive the piles and install the barges, they had to remove navigational obstructions in the harbor, the largest and most hazardous being a 300-metric ton gantry crane, which was partially submerged and listing towards the harbor at approximately 15 degrees, blocking access to the northern dock. Using oxy/acetylene torches and a 300-ton capacity crane barge, under contract from Resolve Marine Group, TITAN removed the crane, piece by piece, from the collapsed pier. Large pieces were landed

What I Saw

By Paul Nave, Crowley project manager

Our team rode the tugboat *Sea Venture* to Haiti with the docking barge 410 and two cranes in tow. We lived on the tug until it departed on March 1.

This situation worked out pretty well for us as we had a relatively nice place to sleep, eat, and shower. We never got out of the port area during this time but I could see the city and hillsides through the binoculars and it was bad. Everywhere we looked was destruction, with numerous fires – some major, engulfing entire buildings – burning day and night. Pollution was everywhere in the air and water.

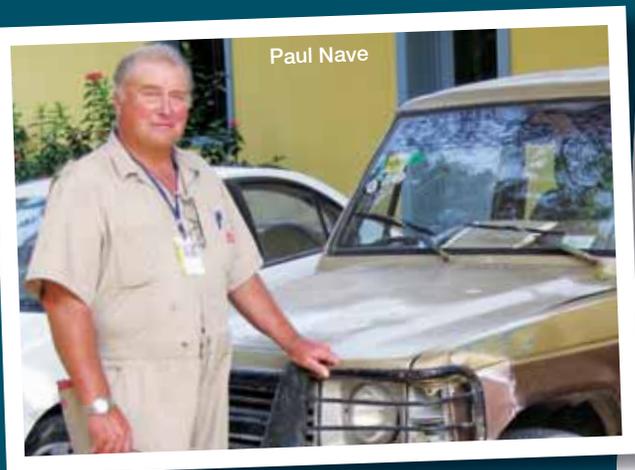
While moored alongside the barge waiting to get into position, local Haitian vendors would row out to us daily and try to sell items such as hand carvings, Cuban cigars, liquor, or whatever else they thought they could make a profit with. All these little boats were homemade wooden skiffs or just dug out logs. We saw several fishermen casting nets in the polluted waters trying to catch fish. There were also sail powered cargo boats departing and arriving with bails of cargo stacked everywhere. These cargo vessels were usually single-mast sailboats, steered by a single oar off the stern and crewed by two or three people. There was a car ferry that came and went about once a week between Port-au-Prince and an island

across the bay. It had very few if any vehicles on it, but was always jammed with perhaps 800-1000 people standing (there was not enough room to sit) making their way to and fro.

Cargo containers were drifting and sinking all over the bay. Local Haitians were coming out in rowboats and climbing onto and into the containers trying to salvage whatever was inside. The port itself was, as most have seen from photos, entirely collapsed. With all of the activities going on in the harbor and the military presence, it could have been a scene right out of a war movie.

Once we eventually got both barges into position and operational, the tug was ordered to return to Lake Charles, Lou. We needed to keep a presence in Haiti to oversee the operation and ensure the two cranes we had leased were operated correctly. So, I was asked to stay behind. Since I had never ventured outside of the port, I had no idea what to expect.

I had the agent take me out to see what was available for living ashore. The first thing that struck me was the severity of the destruction. The entire city was in ruins. It looked like it had been bombed. Virtually every building was damaged or totally collapsed. Streets were in shambles with



Paul Nave



Fires burned day and night destroying buildings.



on shore and then cut into smaller, truck-able pieces. A local Haitian company handled the processing and sale of the scrap metal.

Also included in the port recovery effort was the removal of submerged obstructions, including debris from an 800-foot area, along the 1,400-foot concrete northern dock, which had collapsed and become submerged in the harbor. Sunken containers, a 79-ton container reach-stacker, a tractor-trailer with 40-foot chassis, miscellaneous vehicles and several of the actual two-foot by two-foot concrete dock pilings were also removed. TITAN recovered an average of 32 tons of debris per day throughout the project with the heaviest piece weighing in at 80 tons.

While debris was being removed along the north pier to provide a mooring site for the Crowley barge *ATKA*, a second TITAN team, supported by the crane barge *MB1215*, under contract from Associated Marine Salvage, worked to prepare a second floating pier site for the Crowley barge *410* just north of the heavily damaged south pier.

The team installed piles and rock fill to safely moor each barge in place and provide a stable landing site for 300-ton capacity roll-on, roll-off ramps, which would also provide access for container trucks from the barges to the shore.

Once installed, Crowley established a team in Haiti to monitor the

rubble, trash, downed power lines and ruptured water and sewer lines. Yet there was a mass of humanity trying to carry on somehow. There were people with hand carts, wheelbarrows, baskets on their heads, three and sometimes four persons on a single motor scooter, all going in different directions. Entire streets were blocked by rubble, some on purpose, so that the people could live and sleep in the street rather than inside for safety. All open spaces such as parks and fields had been converted into camps, with solid wall-to-wall tents and shanties in which the people lived, ate, bathed and slept. Children were washing and playing in the open sewer manholes. I saw mothers bathing their babies in the drainage ditches, while alongside, pigs were eating garbage. It was almost overwhelming, especially the odors. The one you never forget is that of the remaining corpses' under collapsed buildings.

Virtually every government, church and school building in the city was destroyed. The banks were destroyed. People were doing banking on street corners, vendors were set up alongside the streets selling whatever was available, and trying to conduct business as usual.

There were two hotels in the city that were still standing and though damaged were partially operational. I moved into one, the Le Plaza, only to discover that their electrical power was being supplied by a diesel generator in the basement. To save fuel, they only would run it for 12 hours a day, so the room was very warm and full of mosquitoes. But it was OK and had

day-to-day operation of the two dock barges, as well as to ballast the barges as needed for cargo operations and perform maintenance on the cranes. Project Managers Paul Nave and Larry Smedley and Director of Contract Services Jim Van der Veen have all rotated in to manage this operation. (Nave's personal account accompanies this article.)

Up Next

The devastation in Port-au-Prince and some other areas of Haiti is immense. Food, water and housing are scarce. It will take years to clean up and rebuild and for the people there to return to some sense of normalcy.

"We're going to continue to look for ways to assist in the recovery effort," said Gilliam. "A lot of cargo, including construction equipment and temporary housing is going to be needed to support the cleanup and reconstruction."

"While we work with aid groups to respond to their long-range needs, we will also be focusing our attention on helping our customers get back on their feet," he said. "Textiles have been one of the bright spots in the Haitian economy and could be one of the economic engines to help lift them up." [Connections](#)

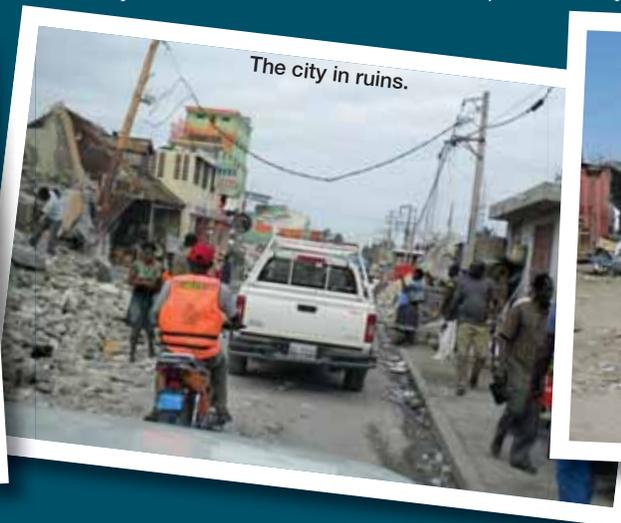
running water, and there was a buffet every morning and evening, so there was edible food. The hotel was packed with volunteer medical personnel from all over the world along with news journalists. A lot of the volunteers were camping in the hotel ballroom, on cots, in pup tents and on the floor. It was impressive to see what these people were trying to do on a voluntary basis. I felt guilty having a private room and bath, something they did not have. Sharing experiences with some of these people in the evenings about what they had seen during their days was humbling.

I stayed until March 11, and each day brought new experiences in dealing with daily life in a large population that had very little to begin with and less after the earthquake. It struck me as amazing that the Haitian people could carry on with daily life as well as they were, considering what they had gone through. I saw people dancing and laughing; kids playing in the streets, making kites out of plastic bags and flying them; people going to church in the streets, and commerce carrying on. Ten miles outside of town was an area virtually unscathed by the earthquake, where businesses and homes still were standing and open. Supermarkets, restaurants and gas stations were open for business and people were coming and going as normal.

Haiti will take years to rebuild, and my hope is that this is an opportunity for the country to perhaps change for the better. Better building codes and materials, new power grids and other utilities is what is needed and hopefully can now happen.



Haitian vendors row out daily and try to sell items.



The city in ruins.



Vendors attempting to conduct business as usual.

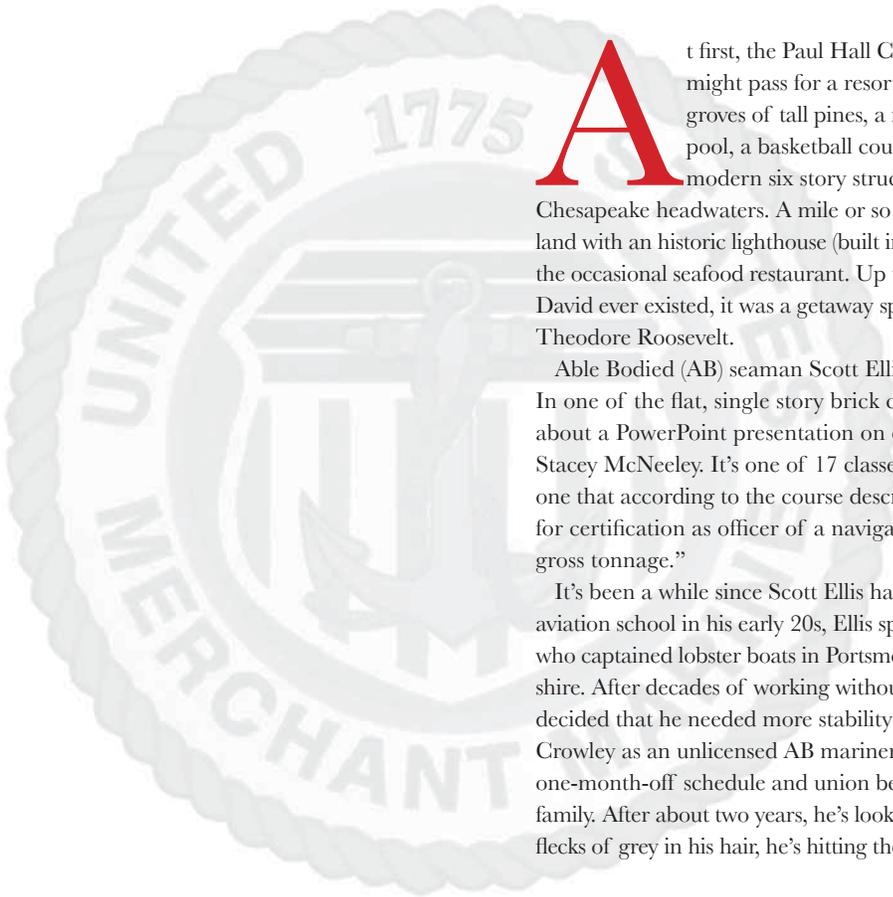


Able Bodied (AB) Seaman Scott Ellis is one of several Crowley mariners participating in the AB to Mate program after having met the requirements for what some consider a once in a lifetime opportunity.

Investing in our People & our Future

Helping experienced and career-oriented mariners reach new heights through the AB to Mate program.

By John Barry



At first, the Paul Hall Center for Maritime Training and Education might pass for a resort community. Its 60-acre campus boasts groves of tall pines, a marina, an arts and crafts shop, a swimming pool, a basketball court, and the Harry Lundeberg Center – a modern six story structure that looks out onto the sparkling Chesapeake headwaters. A mile or so down the road is Piney Point itself, a spit of land with an historic lighthouse (built in 1835), lined with beachside bungalows and the occasional seafood restaurant. Up through the early 20th century, before Camp David ever existed, it was a getaway spot for presidents, from James Madison to Theodore Roosevelt.

Able Bodied (AB) seaman Scott Ellis, though, hasn't come here for the view. In one of the flat, single story brick classroom buildings, he's scribbling notes about a PowerPoint presentation on electronic navigation, taught by instructor Stacey McNeeley. It's one of 17 classes he's taking in Crowley's intense program, one that according to the course description "satisfies the training requirements for certification as officer of a navigational watch on vessels of 500 or more gross tonnage."

It's been a while since Scott Ellis has been in a classroom. After a brief stint in aviation school in his early 20s, Ellis spent 19 years as a self-employed contractor who captained lobster boats in Portsmouth, on the northern coast of New Hampshire. After decades of working without benefits, up to 285 days a year, Ellis decided that he needed more stability and more time with his family. He joined Crowley as an unlicensed AB mariner in Philadelphia, where the one-month-on, one-month-off schedule and union benefits gave him more time to be with his family. After about two years, he's looking for an upgrade to mate. Now 42, with flecks of grey in his hair, he's hitting the books – on a full scholarship from Crowley.

“It’s great that Crowley is taking me into the workforce. It’s hard work. We’re learning a lot in a short amount of time.”

– Tom Hancock

The class – which includes four other Crowley employees and four mariners from other companies – files out into the tiny lounge for a coffee break. It looks like they need it. As Ellis makes clear from his description of the daily regimen, it’s not a party school. “The day starts at 7:30, the class goes until 3:30. Then you eat, and go upstairs to study. I usually go to bed at eleven.” He pauses. “There aren’t a lot of distractions around here.” He’s right. The nearest watering hole, outside of Lundeberg Center’s own bar, is a tiny sports bar, 10 miles up the road.

Last Friday, he concluded – and passed – a two-week course in Celestial Navigation. “There was a lot of trigonometry in that one,” he says, “and lots of formulas to learn.” This afternoon, they’ll take one makeup exam on terrestrial navigation, which they’re required to pass with an 80 percent score. Tomorrow morning they’ll be back in electronic navigation, charting a ship’s voyage in the simulator room. And on Friday, there’ll be a final exam on electronic navigation. Then, the following Monday, they begin a

course on cargo handling.

But there’s a good side. Each week, as Ellis completes his course, he moves one step closer to certification as a mate in charge of navigational watch. It’s a step that is enabled by Crowley’s AB to Mate scholarship program, which annually funds selected and experienced employees who want to upgrade their status and become eligible to work in the wheelhouse of Crowley-owned vessels.

Being chosen for the program isn’t a given. Individuals must have been employed by Crowley for a minimum of two years, have positive performance evaluations, a demonstrated safety record, and the ability to pass a preliminary math “refresher” course.

Like all others in the class, Ellis is no stranger to on-deck experience. As a lobster fisherman, he says he’s spent over a decade captaining boats. But to hone those skills to the high level required of officers on tugs and towboats, he needs to pass the complex certification process that current Coast Guard regulations require.

“I’m learning a lot,” he says. “You think you know it all, and then you come here and find out that you’ve been flying by the seat of your pants all these years.”

Without the Crowley AB to Mate program, this would be an upgrade that would be out of Ellis’ reach. He has a wife and three children. Each course runs from \$2,000 to \$3,000. “That’s over \$20 thousand in tuition alone,” he says. “That doesn’t say anything about room and board, or transportation. And, I’d have to take six months, probably more, off without any income.”

The Crowley AB to Mate program is designed to help experienced and career-oriented seamen like Ellis move upwards on their career trajectory. The deal is pretty simple. Either through a scholarship from the SIU’s training program or through Crowley directly, qualifying employees like Ellis have their tuition and room and board covered while they also continue to receive AB wages for the duration of the six-month program. In return for Crowley funding his education, Ellis has committed to work for Crowley for at least three years after getting his license.

The Birth of the Scholarship Program

Ira Douglas, currently Crowley’s director of marine personnel for the East Coast, was responsible for the administrative function of the program from 2006-2009, a position now held by Sarah Cross. He says that the scholarship was initiated as a joint effort by both



Crowley and the SIU to address a serious shortage in qualified mates for the tug industry.

The problem, Douglas says, was industry-wide, and could be traced largely to the institution of strict standards for upgrades. Up until 2001, a generation of mates had earned their positions in the wheelhouse by going ‘up the Hawsepipe’- accumulating sea hours and gradually learning the skills necessary to upgrade from AB until they could pass the required tests. It was a route to promotion that mariners could take on their own time and at their own pace. The Hawsepipe, says Douglas, had become virtually obsolete for towboat mariners by 2002. In 1995, the amended Standards of Training, Certification and Watchkeeping for Seafarers (STCW) convention eventually placed strict requirements that mandated, in addition to experience, completion of 26 approved training courses and over 70 assessments. By 2002, the requirements were fully in place, leaving any AB seamen seeking upgrade in a quandary.

“It is a burden that the traditional mariner can’t absorb,” says Douglas. “In addition to the direct cost of tuition, even after passing the Coast Guard exam, there could be several months lag time before getting a job.”

So the program came into being. Crowley, along with several other maritime companies, collaborated with the union to create the Paul Hall scholarship. For the first class, in August 2006, Crowley sent seven of its AB mariners to the school, choosing them out of about 30 applicants. The experiment proved successful, of that class, six got their licenses as mates. Since then, Crowley has sent 45 mariners to Piney Point; of those, 38 have gotten their licenses as mates.

Stacey McNeely – currently the primary instructor for Ellis and his classmates – has been an instructor at Piney Point for 10 years, after a decade-long career as a mariner. She says that the Paul Hall Center takes pride in the high success rate of its students, and she ascribes that to the Union’s concern for its members. “Other programs will take your money and give you the course, and if you pass it, fine, and if you don’t, that’s too bad, you have to take it again and pay for it again.”

The SIU, however, has a vested interest in giving its members whatever resources they need to make a successful upgrade. “This is part of their benefits package. So when I’m teaching them a course in terrestrial navigation,

(Right) While going through months of training at Piney Point, participants in the program spend time not only in a traditional classroom but also try their hand in several different simulator environments.



“I’m 36, and at a time when most people can’t afford it, they’re giving me a great chance to move up the ladder.”

– Richard Barnes

I want to make sure that when they walk out of here, they can do it on a ship.”

One of the resources provided by the SIU is the Thomas B. Crowley Sr. Education Center. In the initial year of the AB to Mate program, it became clear that some mariners were having a difficult time with the math required to meet Coast Guard standards for navigation. So now, the Thomas B. Crowley Center offers program participant students a three-day course in trigonometry and required math skills. Ellis took that course before entering the program, and says it helped considerably. The Thomas B. Crowley center also provides college-level courses for AB seamen who need class credits to finish their associate’s degree (AD).

Next Generation of Skilled Mariners

Ellis and his four Crowley classmates still have several weeks before completing the program. But so far, they have made it through some of the most difficult courses: celestial navigation, advanced firefighting, and terrestrial and coastal navigation. Once they pass, and receive their licenses, they will represent what may be the next generation of skilled maritime employees. Their stories are unique, but they all share the same dedication to their career that Crowley hopes to build on.

Thirty-nine-year-old Tom Hancock, joined the AB to Mate program from Anchorage, Alaska, where he lives with his wife and two children. He initially got his AD from the Uni-

versity of Anchorage Alaska (UAA), and after years on salmon boats, joined Crowley six years ago to work as an AB/cook on the company’s prevention and response tugs in Valdez. “I was impressed by their professionalism and safety record,” he says.

When he heard about the program, he says it was a difficult decision to make at first. “It was so far from where my family lives. The physical distance makes it a lot harder.” To ease the separation, he had them spend a week at Piney Point while he labored through one of his courses.

“I know the training will pay off,” he says, “It’s great that Crowley is taking me into the workforce. It’s hard work. We’re learning a lot in a short amount of time. I guess there’s no other way to do it.” He says he “definitely” plans to stick with Crowley for the foreseeable future, as mate, and possibly as master.

Mark Gaskill, at 52, got his start as a seaman in the 1980s, where he spent a decade or so scalloping. He has worked as an AB with tugs and Articulated Tug Barges (ATBs) since 1994. After joining Crowley in 2007, he waited until he was eligible “It’s the best thing that ever happened to me, as far as going to school or



Participants in the AB to Mate program step outside the classroom for training in scenarios such as advanced fire fighting.

(Right) Scott Ellis and Hubert Joseph worked aboard one of Crowley's Invader class tugs towing triple-deck barges between Jacksonville, Fla., and San Juan, Puerto Rico.

anything like that." He says that when he gets his new license after the course ends; he hopes to be working in the wheelhouse of one of Crowley's ATBs "wherever they send me."

Richard Barnes, 36, is also in his third year with the company. After spending a decade transporting paraxylene for various companies, he joined Crowley. A photograph of his ATB vessel, *Resolve* is hung in the hallway outside his classroom. His name is currently on the plaque next to it, with others of the crew, where he's listed as an AB. He hopes to change that, as soon as possible. "I want to go right to the top," he says. "This is the beginning. I want to keep on studying and upgrading, and one day be a master."

John Howard, from Pensacola, Fla., is an AB tankerman who's spent six years with Crowley, and, earlier, Allied Shipping. He says that as a mate, he expects to do cargo operations. "I'm 36, and at a time when most people can't afford it, they're giving me a great chance to move up the ladder." He says that he's also learning more about the navigation process than he ever had before. "You work the deck, and you don't know how much is involved in the wheelhouse work, how the radar systems work, how much we need to know. I'm learning from the bottom all over again."

Proof of Success

Getting to the level of captain isn't a given, but, Andrew Ashworth went through the AB to



Mate program on scholarship in 2007 starting his path to captain. After receiving his license, Ashworth quickly went up in the ranks – going through training, serving as second, then chief mate, and now captain of a tug in Lake Charles, La. "You have to want to work," says Ashworth. "But if you're willing to do it, the company will find a place for you." He notes that a lot of people don't recognize the opportunity that the industry provides. "It's an industry where someone can come in without a college education and have a good career, one that is secure and doesn't fluctuate as much as some other ones. I believe that a lot of people don't consider it."

For the moment, Ellis and his classmates are focusing on getting their licenses. But thanks to the AB to Mate program, Crowley and the SIU are inviting their best and brightest to grow long-term careers in the maritime industry. [Connections](#)

"It's an industry where someone can come in without a college education and have a good career, one that is secure and doesn't fluctuate as much as some other ones."

– Andrew Ashworth

The Paul Hall Center

For AB mariners like Conrad Abinuman, Jr., the Paul Hall Center, founded by the Seafarers International Union (SIU) in 1967 is an ideal location for this intensive, six-month program. Paul Hall Center offers the most comprehensive training for its union members in the U.S. It offers more U.S. Coast Guard-approved courses than any other maritime facility in the nation...and all in the same campus. The six-story Harry Lundeberg Center includes dorms (for cadets) and hotel rooms, which are used by AB upgraders, officers, and guests. It also includes a large cafeteria, a health spa, a bar, and a convention hall.

A few hundred yards away is the Paul Hall Library and Museum, a large, spacious building which includes a digital classroom, a library, and an archives room. The Paul Hall Library is the headquarters for the Thomas Crowley Sr. Education Center, which offers on and off-campus courses to help mariners complete their AD degrees, as well as courses in mathematics to assist with navigation classes. Down the road, adjacent to a nearby farm, is the Joseph Sacco Fire Fighting and Safety School, which offers the facilities for advanced safety and fire fighting training that is required for upgrading to officers.



Helping the Games Begin

By Mabel Perez



As thousands of athletes make the pilgrimage to Puerto Rico for the 2010 Central America and Caribbean Games this summer, Crowley will be busy working behind-the-scenes to deliver materials and goods needed just in time for the highly anticipated event.

The Games, slated to open on July 17, will feature 5,002 of the best athletes from 31 Central American, Caribbean and South American countries, competing in hundreds of competitions from 32 sports disciplines. As the official ocean carrier and a proud sponsor of both the 2010 Mayagüez Games and the Puerto Rico Olympic Committee (Comité Olímpico de Puerto Rico, COPUR), Crowley is playing an important role in promoting world-class sportsmanship and economic activity on the island.

And, it is the competitive spirit exhibited by the Games' diverse athletes that Crowley, who has been serving the Puerto Rico community for more than 50 years, and Central America and the Caribbean for nearly as long, can align with. As such, the company has worked closely with COPUR to

develop and promote an island-wide advertising campaign for the Mayagüez Games highlighting two record-setting athletes, Asunción "Cookie" Ocasio, 22, and Luis Felipe "Tingui" Vargas, 26. Crowley's sponsorship will also support the Committee through the 2012 London Olympic Games.

Ocasio, a taekwondo athlete from the small, coastal town of Patillas, Puerto Rico, has been practicing the sport since she was six years old and has won both national and international medals.

Vargas, who was born in Río Piedras, Puerto Rico, has practiced gymnastics since he was five years old and just like Ocasio, has earned numerous international awards and acknowledgements, making him the most decorated gymnast in Puerto Rico history.

The Central America and Caribbean Games have grown from their humble beginnings. In 1926, they were first held in Mexico City with the participation of just three countries, 269 athletes and nine sports disciplines.

This year, organizers expect more than 500,000 spectators throughout the course of the Games and more than 6,000 volunteers.

Crowley understands that this type of event helps boost not only the economy but also brings a sense of national pride when 700 Puerto Rican athletes compete for the Gold. The company's promotion of the event also highlights the talent of thousands of athletes from other Caribbean islands and Central America, which Crowley also serves. Wal-Mart, Coca-Cola, Serralles and McDonald's – all Crowley customers – are also sponsors.

"Being part of this historic event was important to us," said Roberto Lugo, Crowley vice president of Puerto Rico services. "Puerto Ricans are passionate about sports and, unlike politics where we all have different views, Games have the ability to bring people from all walks of life together. During the Games, we will all be cheering for our flag."

"Additionally, these Games will garner international attention and promote economic activity to the island, which is positive for small and large businesses alike."

Held every four years, the Games are overseen by the Central American and Caribbean Sports Organizations (CASCO) or ODECABE (Organización Deportiva Centroamericana y del Caribe). They are designed to prepare athletes for other sub-CAC-region games like the Continental Championships and the Pan American Games, which are held just one year before the Summer Olympics.

The July 17 opening ceremony will feature International, Puerto Rican superstars Olga Tañón, Kani García and Wisin & Yandel, among others,



“Our goal of bringing recognition to these talented, and world-class athletes is accomplished with support from companies such as Crowley.”

**– Dr. David E. Bernier
Puerto Rico’s Olympic
Committee President**

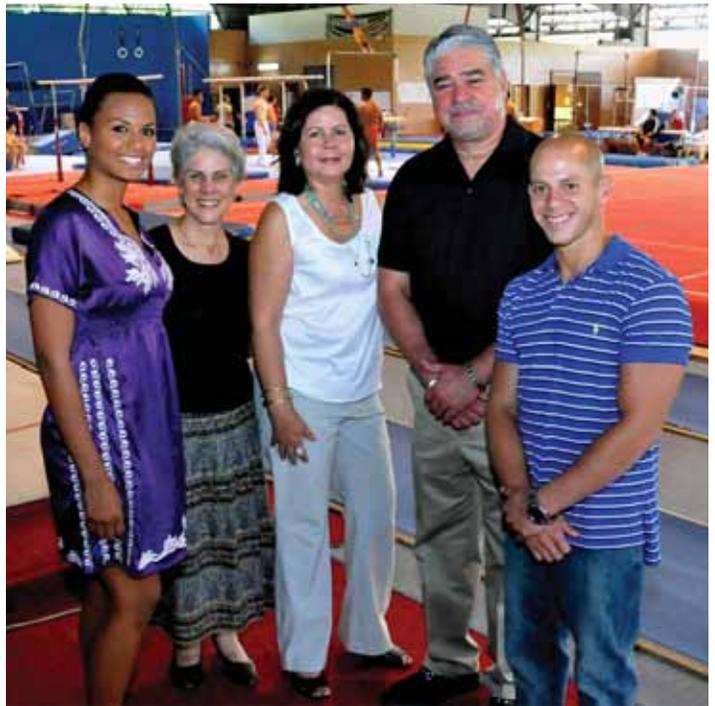
who will perform during an avant-garde style ceremony titled “A Calling, an Encounter” (Un Llamado, Un Encuentro).

Puerto Rico’s natural beauty will be featured throughout the ceremony and the subsequent Games through three distinct elements – the sun, the land and the ocean. With all of that international attention, Puerto Rico and other nations will have the opportunity to promote and celebrate their diverse cultural heritage.

“Showcasing the efforts and hard work our athletes achieve is fundamental to our organization,” said Dr. David E. Bernier, Puerto Rico’s Olympic Committee President. “Our goal of bringing recognition to these talented, and world-class athletes is accomplished with support from companies such as Crowley. Puerto Rico’s Olympic Committee feels extremely proud to have Crowley as part of our Olympic family.”

The following countries are participating in the Games: Puerto Rico, Mexico, Venezuela, Colombia, Dominican Republic, Guatemala, Panamá,

Ocasio said her biggest accomplishment was competing in her first Olympic Games of Beijing when she was 20. She had the best performance in the Puerto Rican delegation for the 2008 Games, placing 5th place in taekwondo.



(Left to Right) Taekwondo Athlete Asunción “Cookie” Ocasio, Rita Gonzalez, director of Crowley’s Puerto Rico human resources and labor relations, Iris Velazquez, Crowley labor relations representative, Roberto Lugo Jr., vice president of Crowley’s Puerto Rico services, and Gymnast Luis Felipe “Tingui” Vargas.

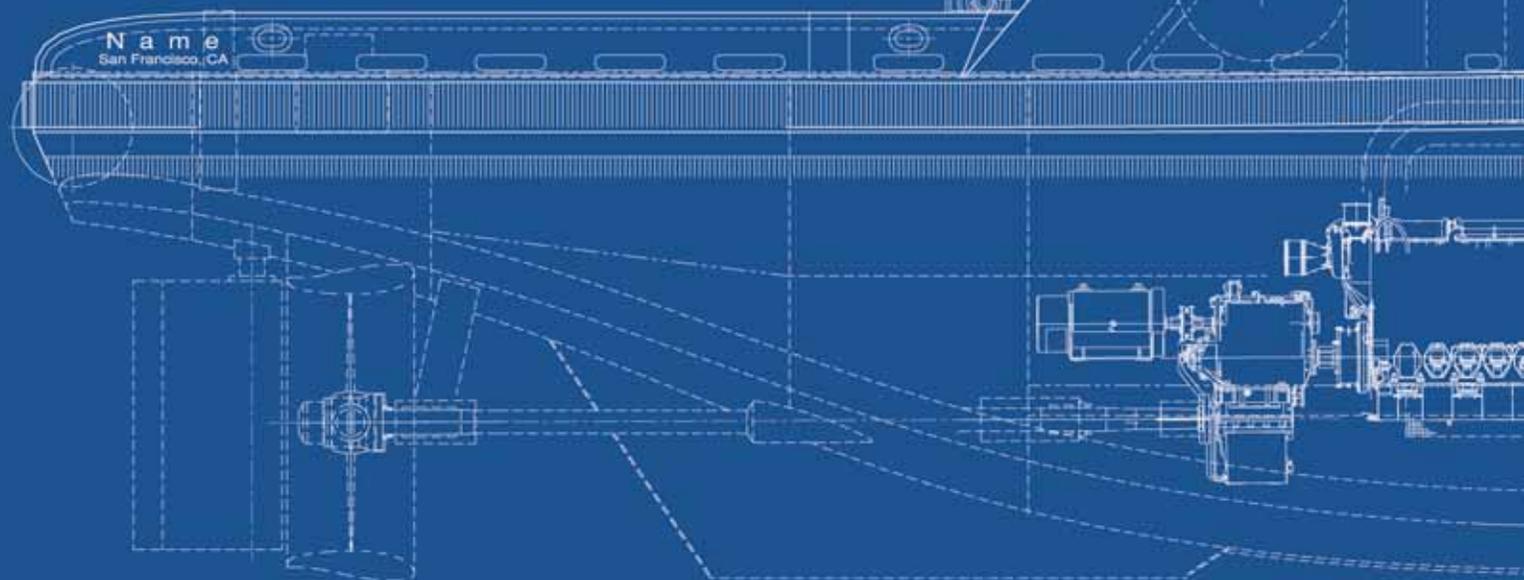
Trinidad & Tobago, Bahamas, El Salvador, Barbados, Costa Rica, Jamaica, Honduras, U.S. Virgin Islands, Nicaragua, Guyana, Haiti, Netherlands Antilles, Antigua and Barbuda, Aruba, Bermuda, Belize, Caiman Islands, Dominica, Grenada, British Virgin Islands, St. Lucia, St. Kitts, Surinam, St. Vincent and The Grenadines. Closing ceremonies are scheduled for Aug. 1 and will feature Puerto Rico passing the baton to Mexico, who will host the 2014 Central America and Caribbean Games in Veracruz. [Connections](#)



Design Build Deliver

Today's ideas,
tomorrow's vessels

By Jenifer Kimble



There's a great deal of satisfaction in turning an idea into reality, a new and perhaps innovative concept into something tangible, lasting and worthwhile. That's what Crowley's naval architecture and marine engineering group works to accomplish on a regular basis with both internal and external customers.

In a recession economy where manufacturing, shipbuilding, trade and financing endeavors have taken major hits, or are at least struggling, Crowley is sailing smoothly and prospering. Ed Schlueter, vice president, of the company's Vessel Management Services subsidiary, makes it sound simple, but making something look easy is often quite difficult, involves a lot of moving parts over large distances, and requires hard work and coordination.

“If you identify the need and give us the parameters, we'll develop the concept for the vessel utilizing the best talent available in the marine industry.”

– Ed Schlueter, Crowley



“We are a resource to each of the Crowley business units as well as to other third parties,” he says. “If you identify the need and give us the parameters, we’ll develop the concept for the vessel utilizing the best talent available in the marine industry.”

“Our petroleum distribution group in Alaska needed river tugs that could operate in three feet of water. Our petroleum transportation group needed 330,000-barrel articulated tug-barges (ATBs) with a service speed of 15-plus knots. Our energy support group needed large, flat deck, high-capacity barges to carry the larger platforms and topsides being used in deepwater exploration and drilling. Our contract services team needed new high-bollard-pull, ocean going tugs with a range of approximately 12,600 nautical miles at 15 knots free running for long-range, high-capacity ocean towing,” said Schlueter. “We have delivered, or are in the process of delivering, all of these vessels.”

Although the design and engineering group is a relatively small unit, its work is a crucial catalyst and component of the company’s business. Large investments of company capital require the utmost attention to every detail and heightened management focus to ensure the projects are completed on time and on budget.

Identifying Need

Long before the naval architects are engaged, the requesting party is hard at work researching need and performing a cost-benefit analysis to ensure adequate return on investment through use of information and pricing estimates supplied by the vessel management services group. This was recently the case with the high-bollard-pull Ocean Class tugs that the company recently announced it would begin constructing.

“It was not only our own realization that the timing was right for new tugs, but also the continuing recommendations and input from our energy customers and marine surveyors that got the ball rolling,” explained John Ara, vice president, contract services. “With our brand new fleet of heavy-lift barges, capable of carrying some of the world’s largest floating oil platforms, we saw the need for new, state-of-the-art, high-bollard-pull tugs.”

Extensive market analysis during the needs assessment phase showed that the Gulf of Mexico (GOM), Brazil and West Africa continue to be the premier sources for new oil and gas reserve development, and that expansion into deepwater (depths greater than 1,000 feet) has led to a production increase of nearly 80 percent in the last 10 years. Moving forward, industry experts estimate that the deepwater GOM will yield more than 56 billion barrels of oil, thrice as large as the 1970s Prudhoe Bay discovery.

“The twin 16,000-horsepower engines are designed to be located mid-ship in underwater pods for maximum efficiency. It will be the largest and fastest ATB in Crowley’s history.”

– Dave Longdale, Dakota Creek Shipyards

Rendering of the 330,000-barrel, Legacy-class ATB



Crowley saw that high-bollard-pull tugs could be utilized in these challenging segments of the market. Larger deck loads, deeper water, and project locations that are further offshore and with higher loop currents are prompting surveyors and customers to require larger tugs with bollard pull in excess of 120 tons for barge tows and rig moves. Crowley's contract services unit proposed that construction of these two high-bollard-pull tugs, for the GOM would be a first step in enhancing the tug fleet and would position Crowley to capture high-yield, high-horsepower work involving the company's new 400-foot by 105-foot heavy-lift series barges, along with rig moves and other ocean towing within energy producing regions.

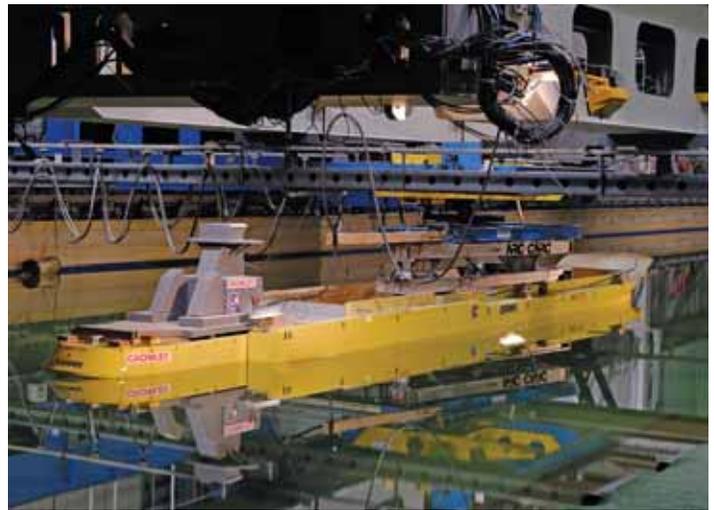
With this, the group began working with Crowley's naval architecture and vessel engineering group to develop initial plans for these new towing giants while the finance group got their marching orders to secure funding for the project.

It Starts with an Idea

Schlueter describes Crowley's group of naval architects and marine engineers as a "concept-to-deliver" operation. Crowley has delivered 57 vessels "on time and on budget" he says with several more in the hopper including the remaining two 185,000-barrel ATBs, three 330,000-barrel ATBs, one additional heavy-lift barge, and the two newly announced 11,000-horsepower ocean going tugs.

"We develop specifications based on the customer's requirements, which in many cases, but not always, is another Crowley business unit,"

(Top Right) To model test the 750-series ATBs, a five-foot tug model and a 25-foot model of the barge were mated and subjected to various runs in simulated sea states. **(Right)** Crowley places a project manager in the shipyards to oversee day-to-day operations associated with the vessel build. **(Below)** The first tug (*Legacy*) associated with the new 330,000-barrel ATBs is currently under construction and expected to be delivered in the second quarter of 2011.





“Jensen prides itself in creating buildable and operable tugs. We understand that even though a design looks good on paper it must deliver excellent performance while doing the job it was intended to do.”

– Jonathan Parrot, Jensen

said Schlueter. “We work with designers to develop and prepare the initial specifications and drawings and then bid the concept out to shipyards to get contract pricing.”

To develop the initial drawings and preliminary computer designs for use in the bid process, Crowley draws from an extensive list of naval architects, ship design firms and shipbuilders including the company’s recently acquired subsidiary, Seattle-based Jensen Maritime Consultants Inc., which has continued to become an added resource during the design of the new vessels.

“Jensen prides itself in creating buildable and operable tugs,” explained Jonathan Parrot, vice president, Jensen. “We understand that even though a design looks good on paper it must deliver excellent performance while doing the job it was intended to do.”

For those third parties who require naval architecture assistance but don’t have a need to “reinvent the wheel,” Jensen has stock drawings that can be modified to meet a customer’s needs. In the early 1990s the group designed its first tractor tug called *Tug Z*. This 94-foot, 4,000-horsepower tugboat design earned them the nickname “Little Tugboat Giant” and has continued to be a successful starting point for those maritime companies looking for something more off the shelf. The tug is designed to fill the niche tug market for harbor work, fireboats, and construction operations as well as

(Top Left) Jensen has successfully designed many tugs including the 100-ft long ice-strengthened *Valor* and *Vigilant*. (Left) Eric Blumhagen, senior naval architect and Sean Testa, naval architect for Jensen.



An Introduction to Jensen Maritime

Following the 2008 acquisition by Crowley, Jensen has become a valuable part of the vessel naval architecture and engineering process. Founded in 1961 by Ben Jensen, the group’s primary work has traditionally revolved around fishing fleets in Alaska and the Pacific Northwest. They designed the first U.S.-built factory trawlers and purpose built vessels for the king crab fishery.

Since the company’s early years, Jensen has designed tugboats. Their first design was built for a local company in 1968 and over the past 15 years, they have evolved into one of the leading tugboat designers in the U.S. Having completed over 50 different hull designs their portfolio is among the largest in the U.S. for ASD tugs. In fact, most tug providers in the U.S. have at least one Jensen-designed tug in their fleet. They are also well known by the U.S. Army Corp of Engineers and Washington State Ferries.

Since joining the Crowley family of companies, Jensen has grown to over 30 people. They have enjoyed some new sealift opportunities, including the transport of two new oil rigs for Parker and one to the North Slope for Doyon Drilling for which they conducted engineering studies for the tow, including stow plans, motion studies, sea fastening design, mooring arrangements, stability, tow resistance calculations and other engineering and stability aspects.

for coastal towing. It has been described as being just the right size, just the right power, environmentally sound, fuel efficient and versatile enough to accomplish most tug jobs while maintaining a low operating cost.

Model Testing – Final Drawings

Once drawings are completed and the shipyard is chosen, the testing phase begins. Model testing for the 750-series ATBs occurred two years ago in St. John's Newfoundland in a 450-foot water tank. A five-foot tug model and a 25-foot model of the barge were mated and subjected to various runs in simulated sea states for sea keeping and speed testing and to optimize design.

Those tests took a month to complete, Schlueter says. “The contract called for the ATB to be able to perform at 15 knots of speed at 85 percent horsepower. This ‘tank test’ assisted in defining the hull form to enable the vessel to meet the criteria.”

Once negotiation is complete and the construction contract has been finalized, the awarded shipyard will hire their own naval architecture firm to do final, detailed “nuts and bolts” drawings on which the actual construction will be based. This phase of the design encompasses detail of the steel size, final arrangements and hull line requirements to optimize performance. In the case of Crowley's Ocean Class tugs, Bollinger Shipyards has hired Jensen to perform this work.

In the Shipyard

After the shipyard is chosen and the detail design is complete, project management and oversight in the various shipyards is an important and valuable step in the delivery of the vessels. Crowley places on-site inspectors throughout the country where they have new builds underway.

These inspectors literally take up temporary residence at the shipyard and become the eyes and ears for Crowley as they ensure the quality of the project and send status reports back to Ray Martus, director of new construction in Jacksonville, Fla.

About 70 miles from Seattle, the three tugs for the 330,000-barrel, Legacy-class ATBs are taking shape in Anacortes, Wash., all under the watchful eyes of Cole Van Gundy, assistant port engineer for Crowley. Having completed Crowley's port engineer training program, Van Gundy was assigned the project and became Crowley's man on the ground for the construction process. Meanwhile, Crowley Project Manager Patrick Sperry, who came to Crowley in 2007 with considerable experience in new vessel construction, is managing the construction of their three tank barge mates at VT Halter Marine in Pascagoula, Miss. Nick Loeffler will be assigned as the on-site representative in Amelia, La. during the construction of the ocean-class tugs.

The tugs being built in Anacortes are “exceptional vessels,” explained Dave Longdale, Dakota Creek Shipyards general manager. “The twin 16,000-horsepower engines are designed to be located mid-ship in underwater pods for maximum efficiency. It will be the largest and fastest ATB in Crowley's history.”

The completion dates at Dakota Creek will mesh with the barge construction phase at VT Halter Marine in Pascagoula. Rick Zubic, vice president of marketing for Halter says the first barge is scheduled for completion in September 2011, with the next two in June 2012 and March 2013. The barges are 600 feet long, over 105 feet wide and will be

The *Julie B*, one of Crowley's new heavy-lift deck barges, was widened from 105 feet to 130 feet to accommodate oversized offshore energy production modules.



“We take a great deal of pride in providing technical vessel construction expertise with the same level of care and attention to detail to third-party customers as we do to our Crowley business units.”

– Todd Busch, Crowley

capable of carrying almost 14 million gallons of product on each voyage.

Zubic says the ATB units will be ocean-going and similar in size to Jones Act product tankers. “The barge project is on time and on plan,” he adds. Halter has worked with Crowley on ATB projects since 2001. “We’re very fortunate to have a customer like Crowley. They are good people and it’s a good relationship for both sides.”

Once the tugs are complete, they will undergo initial sea trials in Anacortes and will then be transported to Pascagoula where they will meet up with their barges for further testing and certifications as a complete ATB system.

Crowley provides shipyard supervision and construction oversight for other companies as well.

For example, in July 2009, Crowley was appointed construction manager for three tankers that were under construction at General Dynamics

Crowley was contracted to oversee the construction and management of five 331,000-barrel tankers for American Petroleum Tankers LLC. The *Evergreen State* shown here will complete the build program.

NASSCO San Diego for The Blackstone Group/American Petroleum Tankers LLC. Since assuming oversight, the *Sunshine State* has been delivered on time and on schedule and is now on long-term charter to Chevron USA Inc. The other two tankers, the *Empire State*, and the *Evergreen State*, which will be chartered to the Military Sealift Command, are scheduled for delivery this year under the watchful Crowley eye.

“We take a great deal of pride in providing technical vessel construction expertise with the same level of care and attention to detail to third-party customers as we do to our Crowley business units,” said Todd Busch, senior vice president and general manager of Crowley’s technical services group.

Special Requests

Naval architects and marine engineers at Crowley often have to think outside the box.

Consider Crowley’s 400-foot by 105-foot heavy-lift deck barges being built at the Gunderson Marine shipyard in Portland, Ore. Crowley already has seven of these barges with more on the way. They feature 25-foot side



shells and provide the capacity and deck strength to handle loads of up to 4,200 pounds per square foot.

In 2008, Crowley was asked by a customer to build a heavy lift barge similar to those under construction at Gunderson but 130-feet wide instead of 105-feet and in an accelerated time frame to accommodate their needs for an offshore energy project in the Gulf of Mexico. Because the Panama Canal could only accommodate vessels up to 106-feet wide, the group knew the build could not take place on the West Coast as transit through the canal would be impossible.

The solution? Take an existing heavy-lift barge and widen it at a shipyard in the Gulf. Crowley designed additional side sections of the barge in Portland, Ore., loaded them on the barge that was to be widened and brought the entire project to Mobile, Ala., for installation at Atlantic Shipyard. The widening project was skillfully managed by Crowley's Director of Project Management Jonathan Smith, who has also managed many projects, including tugs for the Oman and Kuwait Navy and special project cargo loading for vessels destined for Africa.

The Final Phase

After the completion of the vessel at the shipyard, it is put through a vigorous series of dock and sea trials before being delivered, certified and entering service. The trials measure the vessel's performance and ensure seaworthiness. Tests are conducted to measure speed, maneuverability, equipment and safety features.

Following successful sea trials and delivery to the operating company or

As part of the christening tradition, Suz Michel, Crowley's director of people development and learning, cracks the bottle on the side of barge 455-3 sending it into a lifetime of service.

business unit, comes the vessel christening. During this stirring ceremony, which dates back in the Americas to the late 1700s, a sponsor, traditionally female, is chosen by the company to welcome the vessel into service. Customers, industry friends, shipyard and company employees and other dignitaries are all invited to witness the fanfare.

Following an introduction of the vessel's capable crew and thanks given to those that worked long hours to bring the vessel to completion, the sponsor takes her place onboard the vessel. She is armed with protective gear, which includes gloves and glasses. She is then handed the champagne bottle. Following wishes for calm seas and fair winds she cracks the bottle on the bow of the vessel welcoming it officially into the fleet.

As the vessel begins its lifetime of service to Crowley's customers, the naval architecture group closes the book on another successful build and quickly turns its attention to one of the many others it is involved in as it strives to ensure that Crowley's fleet remains one of the most efficient, cost effective and technically advanced in the industry. [Connections](#)

Quick Facts

- Crowley's Vessel Management Services group has delivered over 50 vessels on time and on budget.
- Crowley has invested about \$800 million over the past few years, and is looking at spending another \$800 million over the next few years in adding new vessels to Crowley's fleet.
- The existing fleet of ATBs designed and built by this group can carry over 2 million barrels of petroleum product, those under construction will add an additional 1.3 million barrels of capacity.





Vigilantes del Estuario

Protegiendo nuestras aguas

Watchmen of the Estuary – Protecting Our Waters

Crowley and San Juan Bay Estuary partner to study and improve the health of Puerto Rico's waterways.

By Mabel Perez

Laura Roldan sometimes hears stories about Blasina Stream. Local residents of Carolina, Puerto Rico and nearby cities once flocked to the large stream to swim, fish, picnic and stroll along the lush green, scenic trail. Thousands of plant and wildlife species were abundant in the waterway.

The stream's brackish waters connected with other local streams and rivers before connecting with other waterways in the San Juan Estuary system. Today, the stream is void of all activity. Warning signs are posted throughout the abandoned park informing residents about dangerous water contamination. Gates that once welcomed visitors are padlocked and only accessible by local law enforcement officers.

Roldan is 16 and her home backs up the Blasina Stream. For as long as she remembers it has been closed.

"From my backyard the stream looks beautiful," Roldan said in a recent interview. "It isn't until you take a closer look that you realize what is really going on."

Roldan's story isn't unique. Each year, countless waterways around the globe are affected by pollution. And sometimes, as in the case of Blasina Stream, what lies under the surface is startling.

Taking a Closer Look, One "Vigilante" at a Time

In 2008, students and local residents were empowered to help when Crowley partnered with the San Juan Bay Estuary (SJBE) Program and founded the environmental program called "Vigilantes del Estuario" (Watchmen of the Estuary).

The community-based initiative, established to get students and local communities involved

in studying the health of local waterways and changing behavior to reduce pollution, was a straight-forward concept.

Initially as the program sponsor, Crowley purchased 10 sophisticated, limnological water-monitoring kits with tools to test dissolved oxygen, carbon dioxide, nitrate/phosphate, silica, pH and calcium/magnesium/total hardness.

These kits were then made available to approximately 200 students from 10 area schools and communities including, Congregación Mita School in Río Piedras, Dr. Charles Mohler School in Guaynabo, Saint John's School in San Juan, Sagrado Corazón Academy in Santurce, Manuel Elsburo School in Cantera, Martin Garcia Giusti School in Toa Baja, Pa' los Duros in Carolina, Corredor del Yaguazo in Cataño, Centro Sor Isolina Ferre in Caimito and Escuela del Deporte in San Juan.

Each school was assigned a body of water that is part of the San Juan Bay Estuary, within the Greater San Juan area. The San Juan Bay Estuary system includes San Juan Bay, the Condado Lagoon, the San Jose Lagoon, Los Corozos Lagoon, La Torrecilla Lagoon, and the Piñones Lagoon, as well as the interconnecting Martín Peña and San Antonio Channels and the Suarez Canal, among other rivers, creeks and streams.

The data collected by the students has proven to be a valuable resource to local and federal governmental agencies. After each school semester, students and program participants share their water quality findings with both the San Juan Bay Estuary Board and the Environmental Protection Agency's (EPA) Caribbean Division office. Once problem areas are identified, both students and environmental agencies work together to educate the public and provide real-life solutions to problems.

The data collected is critical to water conservation since the island's economy – specifically, the tourism industry – profits from beaches, waterways and eco-travel. The SJBE program is especially unique because it is the only one in the United States that is located in such a densely populated, highly industrialized and developed, yet ecologically sensitive tropical island.

Roberto Lugo, Crowley vice president of

“Crowley is part of Puerto Rico and it’s important to us that our waters are protected. The Vigilantes del Estuario program allows us to create awareness and encourage change and conservation.”

– Roberto Lugo, Crowley

Puerto Rico services, and Crowley executives considered ideas to get more involved in the community while educating the public about the environment. As a maritime company with a 56-year history and commitment in Puerto Rico, water seemed an obvious choice. After all, most products entering or departing Puerto Rico do so on water.

“Crowley is part of Puerto Rico and it’s important to us that our waters are protected,” said Lugo. “The Vigilantes del Estuario program allows us to create awareness and encourage change and conservation.”

The same year Crowley and the SJBE rolled out the Vigilantes program, Roldan and Ode-

maris Carrasquillo, both 16, and students of Maria Auxiliadora Catholic School, also began attending Jose Aponte de la Torre Specialized School of Science, Mathematics, Technology and Languages, also known locally as Pa’ los Duros. That’s where they met chemistry teacher Yiria Muñiz.

Muñiz was already teaching her students about conservation and the long-lasting impact human pollution has on ecosystems and waterways, when she was contacted by the SJBE program seeking students and community members to

The program includes efforts to educate San Juan residents about the dangers of dumping pollutants in storm drains.



“Thanks to Crowley and the tools they provided, I can get involved in this effort and educate residents about the condition of the waterway.”

– Laura Roldan

collect water quality samples and educate others about the current state of the Estuary.

She enthusiastically encouraged students in her chemistry classes to collect water samples to earn lab credit. Some students like Roldan and Carrasquillo even continued to participate on a voluntary basis after the semester was over.

“I’ve always been interested in the study of bodies of water and environmental stewardship. When I entered the program (Vigilantes del Estuario), I started collecting data not only for my class but also for science experiments and research for science fair projects. I am a resident of Carolina and I am very concerned about the waterway,” said Carrasquillo. “Once I began participating in collections I learned so many things that I didn’t know. That is why I chose to get involved in the program.”

The Vigilantes program is a positive one,

Crowley purchased water monitoring-kits so students could test various chemical levels in assigned bodies of water.

explained Muñiz. The majority of her students have never enjoyed the stream’s waters. The program allows them to not only learn about human impact to ecosystems but also piques their interest in finding solutions to help the environment. Currently, dissolved oxygen levels are at dangerous lows – enough to suffocate fish while nitrate and pH levels are also at dangerous levels. Students who collect samples meet Muñiz at the gate. A local law enforcement officer gives them access to enter the preserve.

“These students have been able to walk along the scenic trails. The flora and fauna of the stream is breathtaking yet no one can enjoy it because the contamination is so serious. Students actually have to wear bright, yellow hazardous materials jumpsuits to get near the water and collect samples,” Muñiz said.

Cleaner Water, One Drop at a Time

“When we were informed about Crowley’s interest in supporting the Estuary program, our

Executive Director Javier Laureano, immediately proposed a school-based program focused on monitoring water quality,” said Gladys Rivera, volunteer coordinator. “The support was immediate. Now in our second year, we see with pride how an idea turned into reality for the benefit of so many people in the Estuary community.”

Carl Soderberg, EPA caribbean division director, praised students for their hard work and dedication while highlighting the importance of environmental alliances between the public and private sectors. He also praised Crowley for getting involved.

“It’s very inspiring to see that there are students working directly with the Estuary, and seeing how the indexes change in each water system. I would also like to thank Crowley for their corporate support and for helping restore the quality of our waters,” Soderberg said.

The student-collected data is useful for reports which are later used in presentations and proposals to governmental agencies, in hopes of bringing attention to clean water initiatives and policy.

In addition to the kits, Crowley continues to back the program in other ways by assisting Vigilantes with events, and providing materials to continually promote the program within the community. Recently, Crowley and the SJBE expanded the program to include a grassroots educational campaign directed to residents of the greater San Juan area. Dozens of student volunteers, Crowley employees and SJBE staff



gathered in March to install educational markers warning against the dangers of dumping pollutants into storm drains in Condado, a popular tourist area of San Juan. The markers were placed on storm drains with the message “Don’t contaminate. It ends up at the beach.”

Event participants also distributed educational material and answered questions about water conservation in door-to-door visits to local homes and businesses. Their goal was specifically to educate residents about the importance of not dumping oils, paints, grease or other pollutants into storm drains. Storm drains lacking filtration systems in many cities means that any chemical or product dumped into the drains eventually makes it into local waterways and then to the beach.

According to Laureano, approximately 80 percent of contaminants that reach beaches, lagoons, rivers, streams and other bodies of water in the greater San Juan area arrive via the storm drains. Surprisingly, given that many parts of the Estuary look pristine, a monitoring study carried out by the U.S. Geological Service and Puerto Rico’s Environmental Quality Board, found that every water system in the Estuary has suffered some kind of pollution impact.

While all the waterways in the Estuary system have some form of contamination, all is not lost. There are scenic areas enjoyed by tourists and islanders alike. With continued support from Crowley, students and the community, the Estuary program can work to spread awareness and prevent future contamination.

Making an Impact and Providing Solutions, Locally

Every two weeks, as Roldan and Carrasquillo arrive at the padlocked gates of Blasina Stream and wait for the local law enforcement to open the gate, they reflect on the importance of education and conservation.

“The first time I went to the stream, I was impacted because I didn’t know what was going on, despite living so close,” said Roldan. “Thanks to Crowley and the tools they provided, I can get involved in this effort and educate residents about the condition of the waterway. I have also been able to take pictures of all the trash in the stream to show to my friends in school and tell them about conservation.”

Carrasquillo observes the wildlife in amazement. Despite the heavy pollution and almost unbearable living conditions, she sometimes sees fish, toads, frogs and even once a dolphin.

“We all need water,” Carrasquillo said. “And it’s sad to see so much contamination in the habitats of so many animals. I feel we should all get more concerned about this issue and get involved to not only find solutions and eliminate



all the pollution but also to prevent it.”

Speaking of the Vigilantes program, Muniz said, “The students are hooked. Monitoring the waterways has become an addiction.”

Both Roldan and Carrasquillo, who aspire to become environmental engineers, have also made presentations, conducted experiments and encouraged local governments to get involved. Their research has garnered them dozens of awards, accolades and recognition in Puerto Rico and on the U.S. mainland.

This summer, the students and their chemistry teacher will travel to the University of Vermont to participate in the STREAMS Program (Experimental Program to Stimulate Competitive Research). There they will share their knowledge and learn more about water contamination solutions. In 2009, they traveled to Reno, Nev. for the Intel International Science and Engineering Fair (Intel ISEF) and earlier this year to San Jose, Calif. for the same fair.

Roldan and Carrasquillo’s goal is to clean-up Blasina Stream, one day re-opening it to the public. They have researched all sorts of solutions from microbe-eating bacteria to installation of specialized filters in storm drains to prevent contamination from getting into the waterways in the first place.

Rita González, Crowley and Adelís Cabán, San Juan Bay Estuary (far right) hand out first place science fair certificates to Jashira Flores and Natalia Torres.

Rivera stressed that this sort of teamwork between students is an important aspect of the Vigilantes program and the Estuary program.

“The Vigilantes del Estuario has become a driving force in helping multiply our educational efforts because young people involved pass along the message to other youth and adults,” said Rivera. “Another important point is that it gives young people from different social and community circles an opportunity to exchange thoughts about the monitoring, allowing them to learn about different bodies of water and places that they otherwise wouldn’t have visited.”

This is exactly the type of effect Lugo and others at Crowley had hoped for.

“By providing these sophisticated, water monitoring kits, and offering continued support, these young people and their communities have been exposed to environmental challenges and conservation remedies,” Lugo said. “Young people are the future and it is important for us to invest in them and give them the necessary tools to learn and provide real-life solutions.” [Connections](#)

Quick Facts

- In 2008, Crowley partnered with the San Juan Bay Estuary (SJBE) Program to found “Vigilantes del Estuario” (Watchmen of the Estuary).
- To launch the program, Crowley purchased water-monitoring kits that measure dissolved oxygen, carbon dioxide, nitrate/phosphate, silica, pH and calcium/magnesium/total hardness.
- About 200 students from 10 San Juan area schools and communities participate in the program.
- Recently, the program was expanded to include a sewer marking campaign called “Don’t contaminate. It ends up at the beach”.

Historical Perspective

1956



Pacific Dry Dock and Repair, located on the Oakland, Calif., estuary, was incorporated as a separate Crowley business line in 1935. The shipyard, which the company later sold, was used for a mix of company-owned and government vessels. The *Sea Otter*, shown above, was originally built in 1956 and was later repowered to 2,150-horsepower in 1975. The tug was sold to Atlantic Service Supply S.A. of Panama in 1995.