

Cconnections

THE CROWLEY MAGAZINE

ISSUE 1 2011

Anchors Aweigh

Setting Sail with
the Crew of the
Sunshine State



Introducing Crowley Solutions

To provide greater value to our customers with multifaceted marine and construction-related projects, we have established a Crowley Solutions enterprise. This Houston-based business group is now up and running, bundling Crowley services and assets with world-class project management skills to deliver turnkey marine solutions to a variety of customers, including those in the upstream energy and mining sectors.

We are moving away from simply making our marine assets available for project work and are looking at customers' overall project requirements to see what services and assets we can bring to the table – whether they be Crowley's or other third parties' – to provide comprehensive solutions.

We have established a Project Management Office (PMO) and are adding more Project Management Professionals (PMPs) to ensure we execute industry best practices and follow Project Management Institute principles to deliver results for our customers. By employing these principles, including work breakdown structure and resource leveling, our teams are able to create realistic schedules; effective plans with clear responsibilities and milestones; manage scope: identify problems when they are still small enough to solve, and transform ambiguous projects into ones that are focused, productive and deliver tangible results.

Crowley's portfolio of services, some of which include innovative transportation assets, can be a great resource for our PMO. These include:

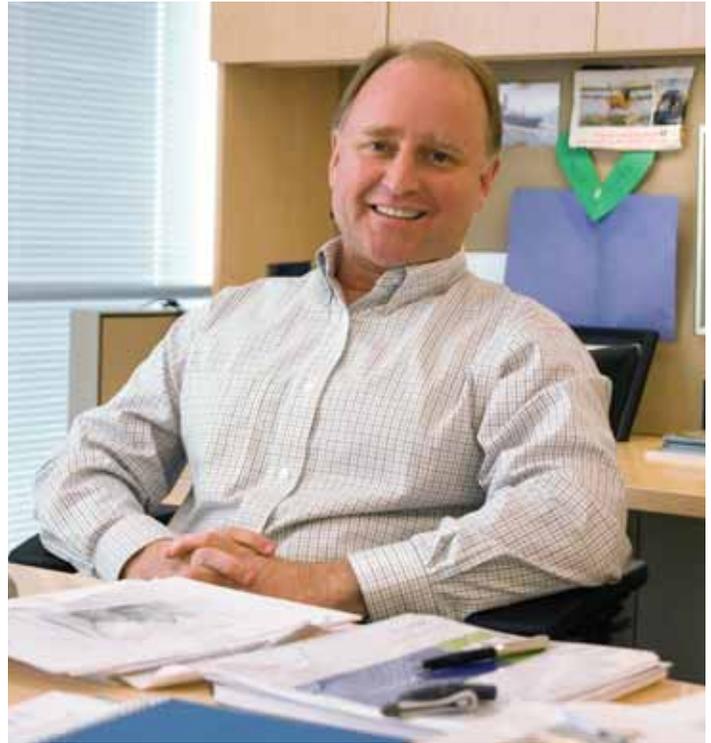
- Container, breakbulk and petroleum shipping
- Ocean towing and barge transportation
- Full service logistics, including specialized project cargo freight forwarding from our Jarvis International subsidiary
- Naval architecture, marine engineering and vessel design from our Jensen Maritime subsidiary
- Vessel construction management
- Vessel operational management
- Marine salvage, wreck removal and emergency response from our TITAN Salvage subsidiary
- Arctic all-terrain transportation
- Harbor ship assist and tanker escort

We executed a large-scale project last year where we brought together our liner shipping; logistics; naval architecture and marine engineering; marine contract services, and marine salvage, wreck removal and emergency response groups to help reopen the port and reestablish cargo operations in Port au Prince, Haiti, following the devastating earthquake there. And over the years, our work with upstream energy customers, whether their projects are offshore or onshore in remote locations, has typically taken us from a defined role to one of increased project management scope as we demonstrate our competence and professionalism.

Customers appreciate and value the fact that we can offer turnkey solutions that include planning, cost control, reporting and scheduling. And, serving as the single point of responsibility, we can align the efforts of designers, contractors, and third parties to project goals and standards. We can be most effective when involved in the conceptual phase of the project planning cycle when we can break down the uncertainties of large, complex programs to help reduce costs and improve schedule performance, quality, risk sharing, and staffing flexibility.

Needless to say we are very pleased to put some structure around our project management capabilities, and bring the necessary support to the new team from all Crowley business groups. The Crowley Solutions team is being led by Vice President Craig Tornga. Other senior team members include Michael G. Johnson, vice president of project management; Dorine Tessier, vice president, project support office; Joey Husband, vice president of business development, and Dan Crosby, director of finance. For further information, or a consultation, please contact Craig in Houston at craig.tornga@crowley.com, or +1 (281) 774-5410.

Sincerely,
Tom Crowley
Chairman, President and CEO



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On the Cover: With the city of Miami, Fla., outlined against a stunning sky, the *M/V Sunshine State* drifts in the Gulf Stream as it waits for berthing in Port Everglades, Fla.

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Anchors Aweigh

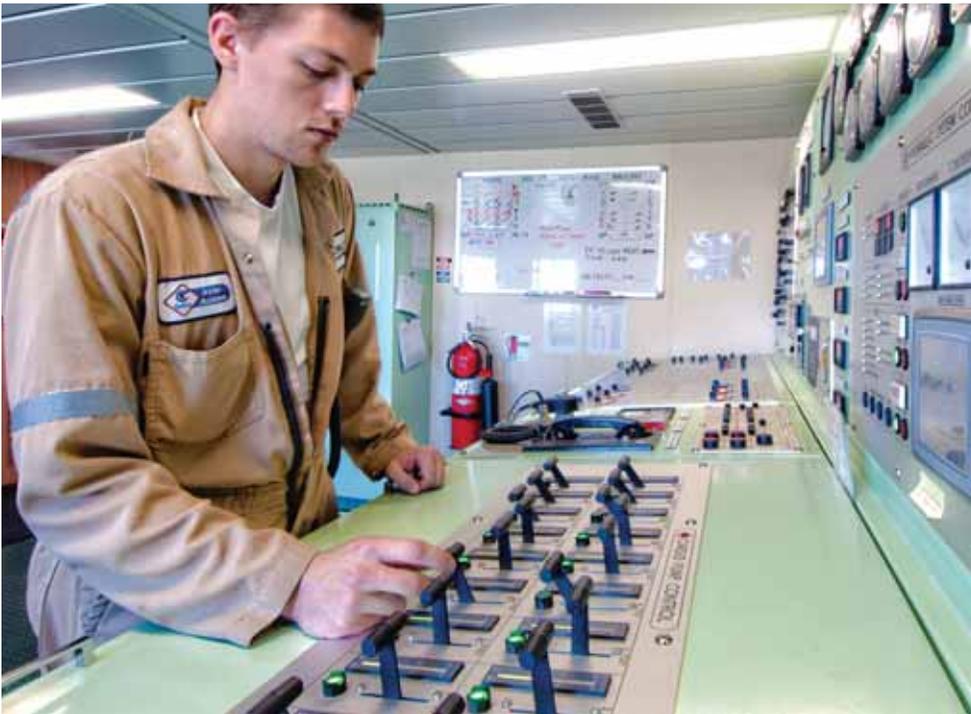
By Brian Gauvin



Crowley's technical services team manages the operations and crewing of five Jones Act tankers for American Petroleum Tankers LLC (APT). This is the story of the *M/V Sunshine State* as she makes a voyage between Pascagoula, Mississippi, and Port Everglades, Florida.



Anchors Aweigh



08/16/2010 (1830 hours)

9.2 nautical miles southeast of Port Everglades, Fla.

The western sky was exploding in biblical rays above the Miami skyline and flooding the tanker *Sunshine State* in a golden glow. The ship, bearing Florida's nickname, had basked in sunshine since leaving the Chevron Terminal at Pascagoula, Miss., two days earlier carrying petroleum products destined for Port Everglades. The 600-foot *Sunshine State* was aptly named.

The ship, delivered in December 2009, is one of five State class tankers owned by American Petroleum Tankers (APT), which had originated the building program at the General Dynamics NASSCO shipyard in San Diego, Calif. In order of delivery, they include the *Golden State*, *Pelican State*, *Sunshine State*, *Empire State* and *Evergreen State*.

08/14/2010 (1730 hours)

Two days earlier, Captain Dan Liziewski was on the port-bridge wing with Pascagoula Bar Pilot Captain Joseph Mosso. Able-bodied Seaman (AB) Ed Tennyson was on the helm, flanked by Second Mate Justin Eusepi and Cadet Pat Ferrell. Two harbor-assist tugs eased the ship from its slip at the Chevron Terminal in Bayou Cassott and out into the Mississippi Sound.

"Pascagoula is a nice little port," declared Captain Liwiewski by way of farewell as the ship slipped through Horn Pass (between Horn Island and Petit Bois Island) into the Gulf of Mexico.

At the sea buoy, a transit of 14 miles from the terminal, Captain Mosso descended the pilot ladder and boarded the pilot boat. The *Sunshine State*

entered the Safety Fairway, a shipping lane that navigates through the maze of oilrigs peppered over this section of the Gulf.

08/15/2010 (0800 hours)

Heading southeast in the Gulf of Mexico

The officers and crew slip into routines deeply embedded in a sailor's psyche – an effortless transition from port duties to work habits, safety practices and professional conduct that define a well-manned, well-run and efficient tanker operation at sea.

"I wear many hats," said Captain Liziewski, a captain since 1995. Liziewski also had the privilege of bringing out the first State class tanker, *Golden State*, in January 2009. Although the captain is on the bridge for port arrivals, departures, and any time there is a change from routine, the duties of a captain on a modern oil tanker are primarily administrative: filling out ballast water reports, fielding communications from APT, Crowley and the agent – and since September 11, 2001, providing the United States Coast Guard with detailed reports on arrivals and departures, the ship, the cargo and the crew.

Counterclockwise from far left: (1) On the bridge departing Pascagoula, Miss., Second Mate Justin Eusepi, Deck Cadet Pat Farrell, AB Ed Tennyson, Captain Dan Liziewski and Pascagoula Bar Pilot Captain Joseph Mosso Jr. at the window. (2) Third Mate Travis Diemert in the ship's cargo control room. (3) Third Mate Travis Diemert, Deck Cadet Pat Farrell, AB Ed Tennyson disconnecting eight-inch diameter hoses from manifold headers after loading premium, regular, jet and ultra low sulfur diesel fuels. (4) *Sunshine State* in Pascagoula.

"I'm fortunate because I have a really good crew. They were picked by the company to man a new ship and they show a real interest in keeping the vessel ship-shape."

– Chief Mate Chris Menezes, Crowley



“The focus is on safety and creating a safety-conscious culture. Crowley is serious about safety. They let you take the time to do things safely, which is not always the case with some companies.”

– Chief Engineer Victor Mull, Crowley

“A National Ballast Water Report is required for every port we enter and indicates where you loaded it, discharged it or changed it. It is strictly enforced because of the danger of introducing invasive species from one body of water to another. But my main responsibility is for everything about and aboard the ship.”

The bridge is manned in four-hour watches by Second Mate Justin Eusepi, and Third Mates Travis Diemert or Lane Frisbie, and one of three ABs, Henry Brown Jr., John McCray or Edward Tennyson.

“I’m the officer in charge of the navigational watch, said Eusepi. “I monitor our position and make sure that we’re following the proper passage plan. I also make sure that the equipment is operating correctly and monitor the Global Maritime Distress Safety System. The idea is to correct problems when they arise. Make sure we get from point A to point B safely and efficiently, and that we are standing a proper lookout to make sure we have a clear passage and that no one out there is in distress.”

This is the second voyage for Chris Menenzes as a chief mate, or mate as he is called onboard. The mate’s primary responsibility is to take load and discharge cargo efficiently and safely. To that end, he oversees the junior officers and the unlicensed deck crew that includes the three aforementioned seamen plus ABs Luis Fernandes and Edwin Rivera.

Most days the mate can be found in the cargo control room drafting a cargo plan and piping diagrams for either loading or discharging clean

petroleum products approaching 14 million gallons. The mate is also responsible for delegating the maintenance and deck duties to the bosun and deck crew.

“I’m fortunate because I have a really good crew. They were picked by the company to man a new ship and they show a real interest in keeping the vessel ship-shape.”

For the Chief Engineer Rohan Samuels, in his eleventh year with Crowley, the job is also primarily an administrative one. “If there is an issue below, I have to go down to the engine room, but mainly I’m here in my office keeping on top of the inventory of parts, fuel and submitting reports.

“I try to make sure unforeseen issues do not surprise us and deal with any issues while we’re in port so we don’t have to shut the ship down to take care of them. It’s planned maintenance.”

For First Assistant Engineer Michael Homan, the best thing about the ship is the space he has to work in. “I came from working on an integrated tug-barge where it was very tight as far as the engine room goes. On this ship we have room. Also the automation is a good thing.”

The engine room is fully automated. Crowley performs regular maintenance on the machinery from 0800 to 1700 every day. After 1700, Crowley remains on standby as a precautionary measure.

Victor Mull, who relieved Rohan Samuels after we had docked in Port



Everglades, went to sea as a steward 23 years ago and rose up through the ranks to become a chief engineer.

“Safety, safety, safety. That’s the biggest change in the marine industry that I’ve seen,” said Mull. “The focus is on safety and creating a safety-conscious culture. Crowley is serious about safety. They let you take the time to do things safely, which is not always the case with some companies.”

The bosun, Richard Wilson, who can most often be found at the paint locker on the starboard quarter, spends most of his time supervising and mentoring the deck crew. He leads the crew in the preparation of the ship for docking, cleaning, maintaining the equipment and rigging gear, and general maintenance such as the unrelenting chipping and painting of steel.

“Crowley uses all “green” cleaners. It took awhile to find green cleaners that really worked but we have them now. They’re citrus- or soy-based products and they work very well.”

“In port I’m responsible for cargo and security. Nowadays, there is a lot more attention paid to safety. The safety is incorporated into the design of the ship. One of the biggest improvements, especially for us because we’re in and out of port so often, is the pilot and accommodation ladder that’s operated by a winch onto a drum. We don’t like to lower and raise the ladder by hand because the fewer people we have working at the rail the better off we are. That’s a huge help and it’s much safer.”

08/15/10 (1030 hours)

Steam was rising into the face of the Chief Steward Josue Iglesia, who was vigorously stir-frying a huge pot of egg noodles. “I worked in New York restaurants for a long time,” he said, as he proudly poured soy sauce into

Counterclockwise from far left: (1) Oiler Donald Sullivan, First Assistant Engineer Michael Homan and Second Assistant Engineer Joseph Lamantia, in the engine room, cleaning and checking a spare main engine piston. (2) Joseph Lamantia, Michael Homan and Chief Engineer Rohan Samuels in the engine control room. (3) Right to left: Bosun Rick Wilson, assigning work to ABs John McCray, Eddie Rivera and Henry Brown Jr., who looks on from the paint locker. (4) The deck crew swab area around the smokestack in preparation for painting.



“Crowley uses all “green” cleaners. It took awhile to find green cleaners that really worked but we have them now. They’re citrus- or soy-based products and they work very well.”

– Bosun Richard Wilson, Crowley

the Chinese stir fry. “I mostly cook French and Italian dishes.” However, at lunch, the lo mien was best described as delicious.

08/16/10 (0400 hours)

Making the swing to the east around the Dry Tortugas and along the Florida Keys in the Straits of Florida

While crossing the Gulf, the *Sunshine State* was averaging 14 knots. Upon entering the Straits of Florida, at a point 21 nautical miles east of Loggerhead Key in the Dry Tortugas, the ship was making 15.4 knots. The Gulf Stream’s northward current was making its presence felt.

At 0530 hours, the day’s first sunburst rose in the eastern sky.

Second Mate Eusepi, awash in the rising sunlight flooding the starboard bridge-wing, was shooting an azimuth (the compass bearing relative to the true or geographic north of a point on the horizon) to determine the current magnetic compass variation.

There are no prescribed shipping lanes on the east coast of Florida. However, southbound traffic tends to stay close to shore while northbound traffic stays about 25 miles offshore, playing the Gulf Stream to its advantage.

“Outside is best because you’re not constantly changing course to avoid other vessels heading south,” explained Captain Liziewski.

The ship’s speed increased to 18.4 knots during the morning and at 1730 hours, off Biscayne Bay, the Miami skyline to the west was ablaze while a rainbow arced over a cruise ship to the east. At 1830 hours, the ship was 9.2 nautical miles southeast of Port Everglades.

On the bridge, Captain Liziewski ordered the vessel to drift in the Gulf Stream current while waiting for a petroleum berth at Port Everglades.

The bridge team had plotted a controlled overnight drift northward to a point 40 miles north of the port. Then the idea was to return to the point of origin under power and repeat the northward drift as many times as necessary until the ship was cleared to enter the port.

08/17/10 (0730 hours)

Drifting off of Del Ray Beach, north of Port Everglades.

The engines were fired up and the ship made its way south against the Gulf Stream, anticipating a berth in the early morning

08/18/2010 (0200 hours)

Start a slow turn to the outside, to stay out of traffic, putting the ship a little north of the pilot station. At 0220 hours, moving at half-speed, she was 3.5 miles off the sea buoy.

Electric bolts of lightning flashed above the Port Everglades skyline. On the bridge, the radio is being monitored to determine ship traffic that may interfere with a smooth entry into the port.

“We like to be in the neighborhood and ready when the harbormaster and pilot give the go-ahead,” said Captain Liziewski.

08/18/2010 (0300 hours)

Port Everglades Pilot Captain Dean Grant embarked via the starboard pilot ladder. Captain Leziewski and Third Mate Travis Diemert were the officers on the bridge. AB Henry Brown Jr. was at the helm.

“We need enough speed to buck the set, but not so much that once we pass the breakwater we are going too fast,” explained Captain Liziewski.



“Once we’re past the breakwater we cut the engine to dead-slow ahead – just enough to steer by. The stern tug acts as our brake.”

With the ship through the channel, its engines were slowed to dead-slow ahead and two harbor-assist tugs tied up alongside the vessel to help guide the vessel into Port.

“It’s like a slow-motion dance. Speed is not your friend. You want the ship to be under control.”

08/18/2010 (0406 hours)

The mooring lines were made fast and the ship was berthed safely at the petroleum dock.

“That was 18 minutes,” declared Captain Liziewski. “That’s not our best time, but it’s very good. The crew is top notch.”

08/18/2010

All day and most of the night was spent discharging cargo.

Captain Liziewski is impressed with the cargo system on the *Sunshine State*.

“For a product tanker loading and discharging and changing grades, it doesn’t get much better. The system is capable of loading and discharging nearly 14 million gallons (331,000 barrels) in 24 hours. This is voyage number 29. By the end of the month she will have made 31 trips in eight months, moving close to 42 million gallons (nearly one million barrels) a month. That’s very good productivity.”

08/19/2010 (1010 hours)

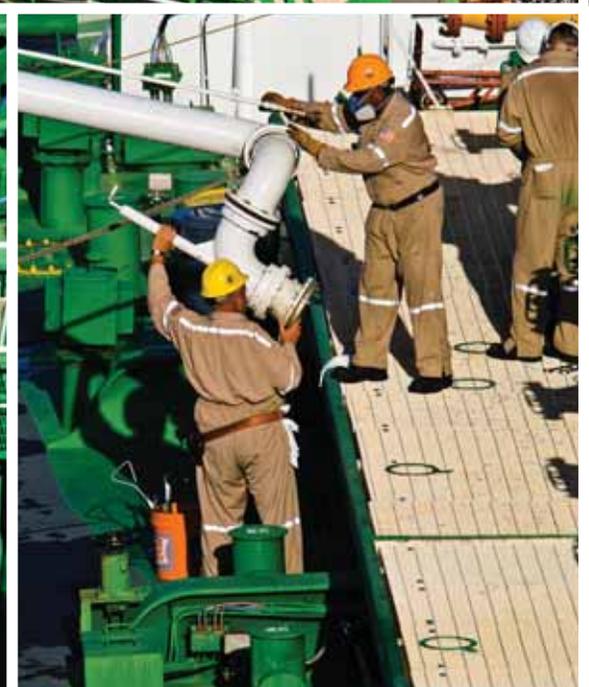
Port Everglades Harbor Pilot Captain Preston Shelton came aboard the *Sunshine State*. Assisted by two harbor-assist tugs, the ship slipped her lines and made the short passage through the entrance channel out of the harbor, dropped off the pilot and headed south for the tip of Florida, bound for Pascagoula.

“That wasn’t very exciting,” Eusepi said as we cleared the channel. “But that’s the way we like it.” [Connections](#)

Learn more about Crowley’s ship management capabilities at:

<http://www.crowley.com/shipmanagement>

Counterclockwise from far left: (1) Chief Steward Josue Iglesia preparing lo mein. (2) The *Sunshine State* is propelled by an 11,500 HP B&W 6S50 MC diesel engine. (3) Retrieving the mooring lines prior to departing Port Everglades, Fla. (4) The deck crew disconnect the loading arms after discharge operations are complete. (5) The *Sunshine State* outbound from Port Everglades.





Top: Ben Jensen (right) with clients Gunnar Ildhuso Sr. and Wilhelm Jensen.
Bottom: CCT trailer exiting the vessel's elevator after being lowered into its cargo hold.

The Golden Anniversaries

Crowley's Latin America Liner Services and
Jensen Maritime Achieve 50 Years of Service

By Amelia P. Smith

The Golden Years

Two thousand eleven is the 50th anniversary of service for two important and growing Crowley businesses.

The first, Crowley's Latin America liner service, originated in 1961 as Coordinated Caribbean Transport (CCT) under different ownership with the idea of establishing a strong and reliable ocean cargo transportation service primarily in the Caribbean Basin. Crowley acquired CCT in 1986 and operated the service under the names Crowley Caribbean Transport, Crowley American Transport and Crowley Liner Service, building the enterprise into the premier shipping service between the U.S. and Central America, the Dominican Republic, Haiti and Cuba.

The second, Crowley-owned Jensen Maritime Consultants, Inc., was founded by the late Ben F. Jensen as a one-man firm, designing work and fishing boats for the emerging West Coast marine industry. Today, Jensen has risen to international prominence in the fields of naval architecture and marine engineering.

Though diverse, the two businesses share a 50-year record of success and innovation that unites them during this anniversary year. In addition to this 50-year summary of each company, Crowley has made available commemorative publications that highlight each business' past, present and future, complete with rich photography. Please visit www.crowley.com and www.jensenmaritime.com to download and read these accounts in their entirety.

Central America

During the last half-century, Crowley and its predecessor company, Coordinated Caribbean Transport (CCT), have gone above and beyond to not only meet the needs of customers by shipping cargo between the United States and Central America, but to also develop equipment and methods to revolutionize the region's shipping experience. Crowley has

taken an unmistakable foothold in Central America, providing the various countries with a logistical means to develop and prosper.

It all began 50 years ago when CCT recognized that Central America could overcome its shipping problems only through the establishment of a strong and reliable ocean transport service and a common Central America market. To do this, CCT pioneered an innovative Roll-on/Roll-off (Ro/Ro) service between the U.S. and Central America. This unique service was the foundation of growth and the cornerstone of supplying goods to CCT's customers in the region. They expanded these services to Puerto Limon, Costa Rica, the following year. There, CCT financed and built a special pier to accommodate the country's first Ro/Ro vessel operations.

This development soon repeated itself in Honduras in 1969, Panama in 1972, Ecuador in 1974 and Peru in 1981. In the latter part of CCT's days, it also forayed into the Caribbean, serving the Dominican Republic, Haiti and Jamaica in the mid-1980s.

CCT also implemented a quick port-to-door service using trailers, a feature that allowed them to be loaded directly onto ships and unloaded quickly for transportation to inland destinations in Central America. So successful, the method is still used today by Crowley when providing inter-modal services for customers who would not otherwise have access to the ports on Central America's east coast.

The CCT team also took an unusual approach to how they handled apparel, or 807. The company realized that there was a great need for a dependable 807 service southbound to Central America, mainly for raw materials, and northbound for finished apparel. Years later, this dedication evolved to an entire team and specialized equipment and services devoted to the trade.

In 1986, Crowley acquired CCT and the company's name changed to Crowley Caribbean Transport – still under the acronym of CCT – to reflect the purchase. This was a major boon to Crowley's foray into con-



Crowley was the first carrier to operate at the Port Everglades' South Port container facility.

tainerized cargo (liner) services, which had only begun a few years prior, and the company was now able to serve a majority of the Western Hemisphere, adding to its already established and diversified business lines.

Crowley next moved to improve its Central America service line efficiency by moving operations from Miami to Lake Charles, La., and Port Everglades, Fla., at the end of 1986. The move to Port Everglades made them the first carrier to operate at the Port Authority's new South Port container facility, which was located even closer to major highways and intermodal routes.

The growth continued in February of the ensuing year when Crowley established a sister terminal near the Miami Free Trade Zone. This satellite site was primarily used for consolidating less-than-truckload (LTL) shipments into single loads, which increased LTL business by 30 percent. Also in 1987, Crowley acquired a fleet of 25 trucks to create a shuttle service between Port Everglades and Miami.

In 1993, Crowley fostered even more efficiency by consolidating CCT with its Puerto Rico service, Trailer Marine Transport (TMT), and its South America service, American Transport Lines, to form Crowley American Transport (CAT). That same year, Crowley expanded its services by offering services from Central America northward to Mexico. The services remained under that name until the turn of the century, when the company was renamed Crowley Liner Services. Today, employees and customers know the business line simply as a service of Crowley.

Crowley has worked hard to form relationships with the governments in Central America, stressing the importance of opening markets to American goods. As a result of its longstanding relationships with governments and the people, Crowley has provided vital expertise to businesses on both sides of the shipment. This investment led to further development of Central America's port terminals for which Crowley helped again by lending expertise and financial support – including the expansion of docks, ware-

houses and facilities. Crowley's excellent rapport with the governments of Central American nations is exemplified still today by the wide variety of conferences and expos attended, during which Crowley educates shippers on the importance of maintaining the markets of region, and teaches businesses how to improve the shipment process with the U.S.

Also key to developing relationships was the company's early decision to directly employ individuals residing in Central America, a practice that Crowley continues today. Crowley takes pride in its investment in local resources and relationships it has formed, currently employing more than 600 workers in Central America to facilitate the company's liner and logistics services.

A decade ago, Crowley expanded its logistics services to include Central America, providing customers with more complete solutions and to this day continues to open new facilities to serve Central America. These improvements have helped to relieve congestion, which have in turn increased efficiency and the gain in the market for U.S. goods.

In 2001, Crowley established a small shared services team to handle freight and accounting services and documentation. Today it has grown to more than 130 employees who handle the full process of documentation for the liner services business teams. The work performed by these employees is crucial to managing the continued growth and demand for services throughout the Caribbean and Central America regions. As a result, Crowley customers in Central America have direct contacts who speak their language and who can help to prepare any required shipping documentation.

Crowley now also implements its formalized *Speed to Market* philosophy that leverages Central America's proximity to the U.S. with multiple vessel sailings, a wide array of logistics services, continuous process improvement and operational excellence to address the expediting of cargo and simplification of the shipping process for customers.



Stratovolcano Volcán de Agua seen in the distance, as a CCT trailer travels through Antigua, Guatemala.



Above: Crowley loads bananas grown in Costa Rica for shipment to the United States. Below, left to right: Holman Hernandez, accounting specialist, logistics; Lourdes Aguilar, accounting assistant, liner services; Danissa Izaguirre, accounting specialist, liner services; former employee Damaris Antunez; and Juana Contreras, lead coordinator, accounting, liner services.

But perhaps the biggest change came about in the past several years as Crowley became ready to complement its reputed fast service with an increase in container volume – a decision that changed Crowley from a Ro/Ro service provider to a predominantly Lift-on/Lift-off (Lo/Lo) service. As Crowley looks to the future, it has plans to build new Lo/Lo vessels specifically designed for serving customers with such unique needs, which will maximize the effectiveness of its services to Central America into the next 50 years.

In the latter half of 2010, Crowley expanded its reach by offering logistics services between Central America and Mexico – yet another step towards reaching the goal of connecting Central America to the rest of the world and partnering with customers to provide best-in-class service.

Finally, as has always been the case, Crowley has the best interests of the people of Central America in mind. As a part of its company-wide philanthropy program, Crowley regularly supports the youth of Central America with Thomas B. Crowley Sr. Memorial Scholarships, and participates in charities throughout Central America. A resource when in need, Crowley has also been the first to respond to many natural disasters because of the company's unique capabilities to assist with a full suite of transportation and logistics services.

Crowley continues to expand its services and solidify its presence in the area through frequent weekly fixed-day direct sailings. Currently, Crowley offers three weekly fixed-day sailings to the Central American Northern Zone, which includes Guatemala, Honduras, Nicaragua and El Salvador, and two sailings per week the Southern Zone countries of Panama and Costa Rica.

For half a century, this is the way it has been in Central America. Crowley has gone above and beyond in its business practices and relationship building in the region, and continuously strengthened Central America's shipping and logistics industry by building efficient, state-of-the-art facilities, investing in people and providing support in various forms. As Crowley reflects on and celebrates the past 50 years of commitment and growth in Central America, it also continues to focus on the future, for what's best for the industry and people of Central America in the next 50 years.



Jensen Maritime

The 50-year success story of Seattle naval architecture firm Jensen Maritime Consultants features prominent chapters on talent, hard work and customer loyalty. Although the firm started small, Jensen has risen to international prominence in naval architecture and marine engineering. Along the way it molded the careers of several renowned naval architects and engineers, many of whom are still with the firm today. Jensen, now a Crowley subsidiary, is preparing for its next successful 50 years.

In 1961, Benjamin F. Jensen left his job as vice president of a successful Seattle shipyard to start a one-man firm, designing work and fishing boats for the emerging West Coast marine industry. He opened his firm in downtown Seattle and spent several years designing fishing boats for the local fleet.

In 1972, Jensen outgrew its space and moved to Seattle's Fisherman's Terminal. By that time the firm had grown to include a staff of 10 and almost all of the company's work centered on fishing vessels, with tugs and workboats filling in the gaps.

During the 1970s, Bristol Bay became the center of the biggest boom in the history of American fisheries, and the Bristol Bay king crab fishery went from a catch of nearly nothing to 13 million pounds in 1971. By 1980, the total catch accounted for 80 percent of the king crab catch in Alaska and the largest king crab harvest ever seen. During that time, more than 200 crabbers were built in Seattle – many of them Jensen's designs.

In time, Jensen began thinking about selling part of his company to a group of Norwegian investors and eventually did in 1981 to Maritime Technical Consultants Corporation. They changed the name of the company to Jensen Maritime Consultants, Inc. (Jensen). The Norwegian partners bought Jensen's stake in the company after his death a short time later, but employees gradually bought out the Norwegian owners.

The firm had enough small boat work to keep the staff busy, and the firm produced designs for their first big factory trawler, the *Northern Glacier*, delivered by Tacoma's J.M. Martinac in 1984, and the smaller factory trawler *Rebecca Irene* built at Eastern Shipbuilding in 1985. The company also began designing more tugboats and passenger vessels, and eventually

The *Viking Queen* (a 91' x 26' house aft fishing vessel) built by Flohr/Pacific Fishermen in 1967 for crabbing and salmon tendering.



Ben Jensen (center) with partners Tom Breiwick and Gil Nilson

The Golden Years

Jensen's Craig Savey, design drafter, and Sean Testa, naval architect, review the Ocean Class tug's design



moved into the workboat market, becoming a leader in tugboat design, as evidenced by its many years of excellent designs.

In 2008, Jensen was acquired by Crowley. Crowley saw the acquisition as a way to provide its technical services group with a marine engineering and naval architecture resource to enhance the company's existing capabilities, and Jensen saw the opportunity to have access to different areas of the marine field that wouldn't have been available to the company on its own, while still serving its existing clients.

"Jensen was a strategic acquisition that complemented several of our ongoing business concerns," says Crowley Chairman, President and CEO Tom Crowley. "Also important to us was our shared corporate culture and values, which has kept everyone aligned and focused on serving customers."

Jonathan Parrott, vice president, new design development, sees a lot of growth on the horizon. "Being part of Crowley opens a lot of doors." Parrott says Jensen is now working with oil & gas, heavy-lift and drilling companies and has jobs coming up on Russia's Sakhalin Island and Alaska's North Slope.

The company's line of tugboats is getting more exposure as well. Crowley operates two of Jensen's latest tugs on long term charter from Bay Delta Towing, and Jensen has participated with the in-house Crowley designers in the creation of several new boats.

The firm is also exploring international business. Though Jensen traditionally did not want to take on the added risks of doing business abroad, that all changed with Crowley's backing.

Jensen's affiliation with Crowley also brings a new series of engineering opportunities. The sealift engineering work used to be an infrequent line of business for Jensen, but since being acquired by Crowley, that kind of work is increasing steadily each year.

"Jensen has played, and will continue to play, an important role in the development of our marine solutions group," says Todd Busch, senior vice president and general manager of technical services. "Most of the projects we undertake, such as sealifts, have a naval architecture and engineering component. The addition of Jensen to the Crowley organization allows us to provide a single solutions source for customers looking for a turnkey operation. This added service offering also allows us to ensure safe and efficient operations very early in the design phase – something our customers expect from us."

Jensen's Johan Sperling, vice president, says that he sees great things in Jensen's future. "We're much more than we were before. We can now open doors to places where we previously had no access to and it has given us an opportunity to grow the company in directions we didn't think would be possible. There are no limits to what we can do with the support that Crowley has given us."

Thank you

As these Crowley businesses commemorate 50 years of leadership, growth and sustainability, they acknowledge that the success would not have been possible without outstanding employees, loyal customers and supportive communities. Crowley thanks those who have been involved in the growth of these enterprises. [Connections](#)

Full feature historical stories for Jensen and Crowley's latin america service can be found at:

<http://www.crowley.com/publications>



A model of sister vessels *Ocean Wave* and *Ocean Wind*, two of the first vessels of the new generation of deep-ocean, long-haul tugs built for Crowley.

DELIVERING GLOBAL SOLUTIONS

By Amelia P. Smith



With several international projects successfully underway, and more in the pipeline, Crowley is poised to soon become a leader in supporting the offshore energy and construction industry with its wide-ranging ship management capabilities. Here are just a couple of the success stories.

Delivering Global Solutions

In early April, the gargantuan Crowley-managed and state-of-the-art deep-water derrick pipelay vessel *Global 1200*, left Singapore and headed for Dubai, where a pipelay project was scheduled to begin in just a few weeks. The vessel, owned by Global Industries and under contract with the Dubai Petroleum Establishment (DPE), was fresh out of the shipyard and ready to undertake the mission. DPE's Al Jalilah platform and pipeline Engineering, Procurement and Construction (EPC) project, which included the design, construction and installation of an unmanned offshore wellhead platform and the laying of gas-lift and oil-production pipelines.

Not only is the vessel new (it was just delivered in late 2010) and the first of its kind, but its offshore capabilities now allow Global to offer deep-water pipelaying and construction services to energy companies worldwide. The company designed the *Global 1200* to lay pipelines of up to 60 inches in diameter and in water as deep as 3,000 meters (as well as shallower depths). It was also equipped with a 1,200-tonne capacity single-post crane installed on the aft side of the deck for conventional platform installation work. The deep-water stinger – the 100-meter downward-angled steel structure connected to the stern – is engineered in such a way that the long, concrete-coated, heavy, welded pipelines won't break as they slip from the ship into the water and make the long dive down to the sea floor.

Literally a city at sea, the vessel has an overall length of 162.3 meters and a width of 37.8 meters, large enough to house more than 260 people on board for months at a time. A helicopter pad serves as the crown atop a three-story deckhouse made up of two bridges, leisure areas (including a gymnasium, prayer room, movie theatre, cafes and more),

crew quarters and a multiple-bed hospital.

Because of its size, it was critical that the mammoth vessel be equipped with electric motors and propulsion, which gives a greater degree of control for dynamic positioning. These features also make her an environmentally friendly vessel, as does the on-board incinerator for waste control. Finally, the vessel has an enhanced Dynamic Positioning 2 (DP2) system that allows the vessel to maintain its position at sea within one meter, a necessity in offshore pipeline construction.

In short, with one technologically advanced vessel, the live-in crew aboard the *Global 1200* can efficiently install offshore platforms, build and lay pipelines, install subsea infrastructure associated with oil and gas production and decommission offshore facilities in deep or shallow waters worldwide.

But Global needed a special team to manage it.

Crowley at the Helm

With such a technically advanced ship, Global needed the *Global 1200* to be built and to operate without error. The success of the first mission was especially critical, as it would prove to the industry that the unique vessel was capable of handling such specialized construction projects. All eyes were on it.

Global made the crucial decision to bring Crowley's ship management team on board, largely because of the company's safety culture and because of its "solid reputation in the industry, background in preventative maintenance and its philosophy on operating vessels," said Global's Worldwide Marine Director Grant Johnson.



A view of the *Global 1200*'s stern as the stinger guides the welded pipeline off the vessel and into the water.

“As Global takes on ever more challenging projects in the deep water,” he continued, we require enhanced vessel capabilities, as well as engineering and project management expertise, to successfully execute projects. Working safely is key to our success and Crowley’s safety culture aligns perfectly with Global’s.”

Crowley created the *Global 1200*’s International Safety Management (ISM) program, supplying the on-board health, safety and environmental (HSE) officer and medical personnel. Other services included providing full ship management for all technical and vessel operations, and hand-picking each member of the specialized marine crew and training them to operate the specialized vessel. And before she was ever put in the water, Crowley provided the technical expertise while she was under construction and offered support during the shipyard and owner sea trials.

Crowley’s Paul Varghese, director, contract operations, ship management, has helped to develop the company’s offshore construction and energy team from the ground up. He was instrumental in the ship’s technical development – from ensuring that all appropriate documentation was in place to begin the project, to creating a maintenance program and spares inventory (a stockpile of extra parts in the event something were to break on the vessel offshore), to managing the marine crew training – in an industry where down time is not acceptable and inventory, maintenance plans and crew training drive success. This has helped to develop a good rapport with Global.

“We took our relationship with Global very seriously,” said Crowley’s Kyle Durden, vessel manager. “It was important that we were prepared to keep the ship running and to provide the best possible service at all times.”

“We require enhanced vessel capabilities, as well as engineering and project management expertise, to successfully execute projects. Working safely is key to our success and Crowley’s safety culture aligns perfectly with Global’s.”

**– Grant Johnson,
Worldwide Marine Director, Global**

Establishing positions like Durden’s is another reason that Crowley’s ship management program stands apart from the rest. His position focuses solely on the *Global 1200* – so much so that he is permanently stationed in the Global office, representing Crowley in person and forming real relationships to strengthen the partnership.

“Having Kyle in our office every day during the project proved to be a key resource for us,” said Johnson. “He invoked confidence in the team



A *Global 1200* technician welds the long line of pipe together before it is positioned on the ocean floor by the Crowley crew.

Delivering Global Solutions



A Dynamic Positioning (DP) system operator working on the sophisticated DP bridge of the *Global 1200*, ensuring that pipes are laid perfectly on the sea floor from the stern of the ship.



The *Global 1200* during a sea trial off the coast of Singapore.

“The sea trial was a complete success ... We lived up to Global’s expectations and we did our job safely.”

– Kyle Durden, Crowley

and came up with solutions to problems. The relationships that he formed with the Global staff were so close that our team didn’t see him as a Crowley employee. It worked very well.”

Singapore Sea Trial

Before heading to Dubai for the start of the DPE project, the *Global 1200* first spent two weeks in a pipelay sea trial off the coast of Malaysia that allowed the crew and construction team to practice operating the brand-new vessel and its advanced equipment. Though the trial was performed in only 40 meters of water and didn’t include the construction and installation of a platform, it was realistic enough to predict how she would perform in Dubai.

The 177-person construction team and 37 marine crewmembers on board worked around the clock throughout the trials, welding together nearly a kilometer of 32-inch diameter cement-coated pipe. The long line of connected pipe was then eased down the stinger and deep under the surface to test the various vessel systems.

With Crowley navigating the ship and working the DP2 and thruster systems, they had to work closely with the construction crew to precisely route the underwater pipelines according to the approved plan. As the final step, the long line of underwater piping was retrieved and cut apart, marking the successful execution of the test project.

During the trial, safety was a priority and the project was completed without injury.

“The sea trial was a complete success,” said Durden. “There were a couple of minor equipment failures that we were able to overcome, but we proved that the equipment and vessel could operate successfully. We lived up to Global’s expectations and we did our job safely.”

The *Global 1200* and her crew were ready for Dubai.

Global 1200 Gains a Sister Ship

Shortly after the success of the sea trials, Global announced that it wanted Crowley to also manage a nearly identical ship, the *Global 1201*, for similar projects.

“The *Global 1200* and *1201* are the crown jewels of the Global fleet,” said Johnson. “For the *1200*, Crowley brought a top-notch marine crew and vessel safety program to the table. Their technical expertise helped to overcome some of the challenges we faced early on and it was only logical to bring them on board for the *1201*.”

Construction on the vessel had already begun in Singapore and the vessel is now tentatively scheduled for delivery this year. Crowley once again is offering technical expertise in the shipyard and will assist with the upcoming sea trials.

“The *1200* and *1201*, along with their marine crews, will be available for deep-sea construction projects anywhere in the world,” Durden explained. “Offshore sites like Brazil, West Africa and Southeast Asia are

all likely places – each ideal for construction and pipeline work. There’s a lot of potential with these vessels. It’s going to be very interesting to see where they end up.”

Deep-water Pipelaying in Dubai

With a successful sea trial behind them, Crowley navigated the *1201* into the Arabian and Laccadive Seas, sailed south of India and through the Gulf of Oman, and entered the Persian Gulf and arrived in the waters off the coast of Dubai. The two-week voyage covered over 3,600 nautical miles at a speed of more than 11 knots. Safety was the priority.

Compared to the sea trial in Singapore, this project was a massive undertaking. During the nearly two-month endeavor, more than 54 km of concrete-coated piping – comprised of 27 km each of 12-inch oil-production pipes and 6-inch natural-gas pipes – were laid in depths of up to 49 meters, 43 nautical miles offshore.

Durden admitted that it was a technically challenging and complex project. “The volume of material and people involved were astounding,” he said. “It was important that Crowley had the vessel ready to operate and that the equipment was continually reliable. We made that a priority.”

The project officially kicked off in late April 2011. The workers and marine crew lived on board for the duration of the project, and worked shifts around the clock to eliminate project delays. In the dark the ship looked like a massive arena at sea, ablaze with lights to allow the crew to work through the night.

The first step was for the construction crew to install the pre-fabricated platform, the structure that houses the equipment responsible for pushing the product from the wellhead down the long lengths of underwater piping. The installation began by first lowering the jacket, or substructure, to the seabed and securing it with driven piles, and then setting and securing the topsides, or superstructure, in place. The installation involved several lifts totaling over 300 tonnes.

On board was a conveyor system that used automated welding to seal sections – each 12.2 meters in length – of pipe together to form one continuous line of pipe. The pipes were coated with concrete to help to maintain negative buoyancy – weighing it down to stay on the sea floor – and to protect the pipeline from dropped objects or other hazards. After one welded section was approved for quality, the pipe was shifted down the conveyer and onto the stinger and a new piece was welded to its end; this was repeated. As the line of pipe continuously lengthened, the stinger cradled it into the water and placed it precisely on the sea floor.

For each length of pipe that was lowered into the water, the marine crew moved the vessel forward the same distance using the DP2 system and thrusters, and the process was repeated. The measurements were nothing but exact; any error could have damaged the pipes that were already under strain from the pull of the pipe tensioners and their own weight.

After eight weeks of non-stop work, the project ended as a success. Crowley completed its mission for Global, and the company is preparing her for her next project. While the details have yet to be announced, one thing is for sure: Crowley will continue to be at the helm.

The Offshore Energy and Construction Industry Takes Notice

Shortly after the *Global 1200* sea trial success, Crowley began to receive requests from other industry leaders for offshore, international ship management work. Of those included a request for management of a unique, self-propelled jack-up barge, considered to be the largest work-over platform (by dimension). A contract with a large, foreign petroleum company has it committed for a year around the waters off the coast of Mexico enhancing existing oil-production platforms.

The self-elevated barge, now fully managed by Crowley, is supported by

Delivering Global Solutions

three legs, each 280 feet in height, and is driven by a self-propelled system that averages speeds of six to eight knots. The legs are each lowered and raised by 10 powerful hydraulic motors – so powerful, in fact, that they're capable of being activated in less than eight minutes. The vessel can house up to 50 crewmembers and workers on board, and is complete with all the creature comforts to accommodate long-term stays.

As with any offshore project that uses such a technically advanced vessel, safety continues to be Crowley's top priority. The company's inherent safety culture has been the glue that has secured the vessel's success so far.

"Our ability to work domestically as well as internationally is a huge advantage for those we serve," said Crowley's Mike Golonka, general manager, ship management. "Another benefit is our capability to offer custom service options that allow our customers to select which of our services – vessel services, project management, risk and legal, and more – they want for each program or ship. Each customer and project is different. We understand that and we're flexible."

The Future

With several offshore construction and energy projects on the horizon, Crowley is primed for success in the coming years.

"Our management of these vessels represent yet another big push for Crowley into offshore energy," said Golonka. "We intend to go above and beyond on these projects, which will send a clear message to the industry that we are more than capable of handling even more ship management jobs like this. It's an exciting time."

And so the industry has come to rely on Crowley, putting its trust in the company's capabilities. For Golonka and his team, that's just fine. Because it's only the beginning of what Crowley can do. [Connections](#)

“Another benefit is our capability to offer custom service options that allow our customers to select which of our services – vessel services, project management, risk and legal, and more – they want for each program or ship. Each customer and project is different. We understand that and we're flexible.”

– Mike Golonka, Crowley

Learn more about Crowley's ship management capabilities at:

<http://www.crowley.com/shipmanagement>

The Crowley-managed jack-up barge leaving the shipyard on its way to the Gulf of Mexico.



An engineer operating a generator in the engine room of the jack-up barge.





This Crowley-managed, self-propelled, jack-up barge is the largest work-over platform by dimension and works in the Gulf of Mexico to enhance oil-production platforms.

Doing What You Love, Loving What You Do

By Amelia P. Smith

Employees of Crowley know that their work here is more than just a job – it's a way of life. Countless employees have committed to Crowley for their entire careers, and many have worked their way up the corporate ladder. Read on to learn about how Crowley created such a culture and to enjoy a few employee stories.



As a family-owned and operated company, Crowley is focused on the success of its people. As a core value, Crowley seeks to recognize individual contributions, provide coaching development opportunities and promote employee achievement and accountability. From an employee's first interview to their first days as a new hire, it is clear that a company culture embracing these ideas is in place. Crowley truly believes that talented employees are the key to making a great company.

To keep its people engaged, motivated and skilled, professional development is top priority. In addition to training, the company offers a voluntary mentoring program, pairing personnel of different strengths and also offers the opportunity for motivated employees to move outside of their department. Crowley recognizes that by valuing and investing in its employees it creates a working environment comprised of teamwork and skilled people.

"We as an organization encourage our employees to take an interest in an area of the company that is different than where they started," said Tricia Pelger, director, human resources. "It contributes to a broadened and more knowledgeable worker."

In many cases this has proven to be one of Crowley's biggest strengths. Recently, Tom Crowley, company chairman, president and CEO, shuffled business-group responsibilities among the senior management team, placing the company leaders in new roles and giving them a better understanding of the synergies among and successes of Crowley's diversified businesses.

While company support is crucial to creating a career-oriented culture at Crowley, there is also personal motivation behind each employee who has made a career with Crowley. The desire to learn about Crowley's business and the drive to succeed professionally are common themes for

these employees. In short, they're here because they want to be here.

Tenure at Crowley averages around a decade, with many employees having 20, 30 or even more years with the company. With those years comes experience and amazing stories to tell. The narratives that follow are just a few of them.

Ketra Anderson

Director; Safety, Security, Quality and Environmental
Domiciled in Seattle, Washington
Joined Crowley in 1986

A native of Washington and a resident of Alaska for 25 years, Ketra began her career in 1986 with Crowley by answering an ad for a seasonal account supervisor position in the freight services department of the Kuskokwim Transportation Company in Bethel, Alaska. At the time, the transportation company was a joint venture between the Kuskokwim Native Corporation and Crowley, which together served the people living in Western Alaska villages with needed freight and supplies. After a year in the position, she was asked to help manage the department year round. She accepted the position and began acting as a liaison to Western Alaska villagers, helping them to apply and receive grant money from the State to pay for their freight.

In 1986, she was offered the full-time role of freight traffic manager, a job she accepted and loved.

"That was probably the most fun job I've ever had. I liked the business and organization involved. We would build loads on the barges and then offload them for the villagers ... it was a fun group to work in."

In 1988, Ketra followed her husband to Anchorage transferring her job within Crowley. In her new position she worked at the Port of Anchorage, shipping and receiving cargo for Pacific Alaska Lines.



Making a Career at Crowley

After a brief sabbatical to welcome her daughter, she was intrigued by an open position for a specialist in vessel operations with responsibility for travel and training seminars for the crew, an aspect she knew she would enjoy. She accepted the position and was later put in charge of crewing for Valdez and Western Alaska and for supporting the company's salvage efforts. In this position she was again able to help the people of rural Alaska by initiating the Section 29 program in support of the Alaska Native Utilization Act (ANUA), which assures that the employers who worked on the Trans-Alaska Pipeline project provided jobs and training opportunities to Alaska natives. With the support of the local Valdez office, and additional help from native corporations, Crowley vessel crews included 20 percent Alaska natives by the time Ketra was promoted to senior administrator in 2006.

Ketra found an opportunity to help Crowley employees through the company's safe work initiatives and naturally transitioned to the Safety, Security, Quality and Environmental (SSQE) department. During Ketra's early years in SSQE, Crowley acquired Service Oil and Gas, Yukon Fuel and Yutana Barge Lines. Though there were some challenges at first with the newly acquired companies, the position proved to be a natural fit since she already had established relationships with the people in the rural communities. Personally and professionally she has enjoyed seeing the safety culture evolve.

Her work ethic and dedication to the company gained her a promotion to manager SSQE in 2009, supporting worker safety and managing the company's auditing program. And in January of this year, Ketra was named director of SSQE.

Being part of the SSQE team has been exciting for Ketra because she has had the opportunity to see the team expand and improve processes for the corporation. She calls the team's work "building the legs" for the

company's safety culture. The idea of safety is more than a corporate value for Ketra; she reports that it has changed the way she views situations and others.

"What's interesting is the way living safely seeps holistically into your life," she explained. "When you live it and you're trying to get a movement going, it becomes all encompassing."

So much so that Ketra has been a Leading One Crowley facilitator for the past three years, a program she says is the best that the company has ever offered. Leading One Crowley promotes the embodiment of company values and the assumption of leadership and accountability among employees to help develop Crowley into an even greater company. Ultimately, she loves that it brings the safety culture home for both shoreside and marine employees, breaking down barriers in the process.

Ketra is appreciative of Crowley for encouraging and supporting her as she has taken various company and OSHA training, and earned an internal certification as an Environmental and Quality Management lead auditor and Skills Assessor through the Registrar Accreditation Board by Australia-based Quality Society of Australasia (RABQSA) International – one of the world's leading certification organizations. Crowley also supported her as she pursued and achieved an advanced degree in organizational leadership from Alaska Pacific University.

For Ketra, all her hard work is worth the reward of working for a company that cares about the safety of its employees. The company is filled with people that she trusts and appreciates, and she feels she is indebted to those who gave her the flexibility she needed as she grew her career.

"Good relationships here are key," she finishes. "It's nice that I've had the opportunity to move around so much and meet so many people. It's allowed me to build rapport by getting to know people from all areas of the corporation. I am grateful to be here."



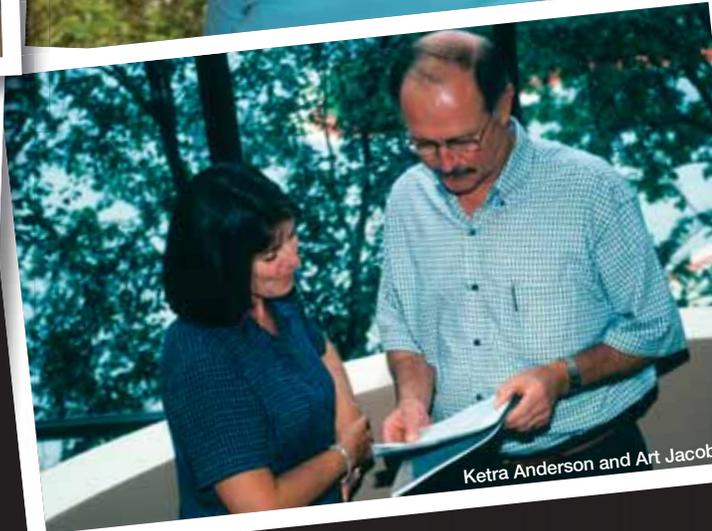
Ketra Anderson aboard 450-8 with Chief Mate Hoyt Ogle and AB Orin Ennes



Ketra Anderson



Stephanie Heilman and Ketra Anderson at Kotzebue, Alaska community event



Ketra Anderson and Art Jacobson

Enrique “Ricky” Figueroa

Director, Human Resources and Labor Relations

Domiciled in San Juan, Puerto Rico

Joined Crowley in 1992

With his father and grandfather having both worked for shipping companies in Puerto Rico, it was only natural that Enrique gravitated towards the industry. Though he had a full-time, stable position elsewhere and was taking night courses towards a bachelor’s degree, Enrique became interested in a temporary position working in the yard at Crowley’s (then Crowley American Transport, or CAT) Isla Grande terminal. At the young age of 22, he accepted the position knowing that the job had no guarantee of permanent work.

His time as a temporary worker was short as he was soon offered the position of yard supervisor. During the five years that he held the position, Enrique continued taking business courses and chipped away at a management degree. Those early years were also a crucial time of growth for the company as it began providing a new Lift-on/Lift-off cargo service to Central America to supplement the Roll-on/Roll-off service that had operated in the region since the 1960s.

“It was a very busy time,” said Enrique. “But it was also a very good experience because I was exposed many different kinds of cargo operations. It was where I learned the basis of the business.”

As Crowley grew, so did he. In 2000, he became vessel cargo operations supervisor, a position that allowed him to work closely with the union and gain an understanding and appreciation of the dynamics of the Crowley/union relationship.

In 2001 he was again promoted; this time to manager of stevedoring. With his nights once again free, he was determined to advance his career even more and enrolled full time in the InterAmerican University of

“Crowley is a good company and has always promoted growth. It’s not every day that someone can start as a yard supervisor and end up as a director. That creates loyalty.”

– Enrique “Ricky” Figueroa

Puerto Rico. Though he worked regular hours during the day for Crowley, he was a disciplined student and earned two bachelor’s degrees – one in management and another in human resources – in less than four years.

While performing his duties as manager and pursuing his degree, he found that he could also provide operational expertise to the sales and marketing teams at Crowley. He joined them on sales calls, where he was exposed to a new side of the business. He also began giving presentations that explained Crowley operations to potential customers. His practical experience won over many customers as he could easily talk about the company’s unmatched efficiencies and safety program, top-tier equipment, preventative maintenance program and staff of talented people – all based on his first-hand knowledge.

“If Crowley has been known for something,” explained Enrique, “it is



Orrin Ennis and Ketra Anderson aboard barge 450-8



Ricky Figueroa and Carl Nobles at Crowley's San Juan terminal



Ricky Figueroa



Ricky Figueroa and his family

Making a Career at Crowley

“At the end of the day it’s about being in love with what you do ... I enjoy what I do – no matter what – and I look for opportunities to do a great job every day.”

– Azucena Hernandez

the ability to create new processes and programs to continue improving. That is something that our customers also like and something that has impressed me as well.”

Crowley asked Enrique to contribute to a company facilities security plan – a new requirement after the September 11, 2001, attacks on the U.S. World Trade Centers. The plan would be eventually certified by the U.S. Coast Guard and documented the company’s preparedness plan for securing the port in the event of another terrorist attack. He became certified as a facilities security officer, a designation that gave him the authority to act as the alternate officer, a position of authority also certified by the Coast Guard, during a crisis.

Enrique began pursuing an advanced degree in law through his Alma Mater and in 2006 was promoted to materials manager. Studying at night and working during the day was not any less challenging the second time around, but Enrique hoped to help the company by providing an additional legal perspective.

In 2010, Enrique was promoted to his current position, director of human resources and labor relations, and also intends to take the bar exam this fall. He is now responsible for promoting company initiatives and administers the collective bargaining agreement with the union.

“I’ve been very fortunate in my career at Crowley,” Enrique said. “Crowley is a good company and has always promoted growth. It’s not everyday that someone can start as a yard supervisor and end up as a director. That creates loyalty.”

Azucena Hernandez

General Manager, Latin America services
Domiciled in San Pedro Sula, Honduras
Joined Crowley in 1983

At the age of 16, Azucena, a native of Honduras and both a Spanish and English speaker, was well on her way to becoming a bilingual secretary. Upon graduation, she accepted a job for a customer of Coordinated Caribbean Transport (CCT), a company Crowley later acquired, while many of her friends took positions directly with CCT. Over the next several years, her hard work and can-do attitude allowed her to secure a position as assistant to the company president. Though she enjoyed the position, she made a point to regularly ask her friends about open positions with CCT.

In 1983 she accepted a receptionist position at CCT, recognizing the potential career she could have with the company.

In 1986, Crowley acquired CCT and the company’s name changed to Crowley Caribbean Transport – still under the acronym of CCT. With the acquisition, Azucena became even more committed to learning the business and assumed roles of increasing responsibility. From receptionist, she moved to sales secretary and then sales coordinator. In these roles she coordinated high-volume northbound coffee shipments, and later



Ricky Figueroa and his family



Azucena Hernandez at community event



Ricky Figueroa



Azucena Hernandez (red jacket)

took on responsibility for southbound shipments, eventually managing both as the general coordinator for the department.

In 1991, CCT changed its name to Crowley American Transport (CAT) – moving its office space from Tegucigalpa to San Pedro Sula – and in the process created a three-person freight services department. The decision was made to put the very capable Azucena in charge as supervisor. By 1995, she was promoted to manager, working hard over the next decade to develop the department into a strong 14-person team highly focused on customer service. Her positive attitude won her coworkers' respect and gave her the opportunity to support other projects, which only provided her with more experience.

In 2005, Azucena sought new challenges and made a move to Crowley's operations team as manager of terminal operations. Though her primary responsibilities were to manage all of the Honduras terminal operations, she also had the opportunity to support the marine-operations team – splitting her time between the Port of Cortez on Honduras' northern coast and the inland city of San Pedro Sula. The advancement made her the first foreign female operations manager for the company.

"In that position, I managed Crowley employees, all contractor employees and over 100 vendors, which was intense but also very rewarding," she remembered. "And I learned a lot. That was a great experience!"

Her newfound knowledge took her to El Salvador in late 2006, where she was promoted to general manager (GM), for the liner services team. She moved her family and took the challenge with enthusiasm and commitment. In this role, she was responsible for supporting the very small offshore documentation team that complemented Crowley's Jacksonville, Fla., group. The 15-person team grew to more than 70 employees when the company's full freight services responsibilities were transferred to El Salvador. Again Azucena proved to be the right person to manage the expanded group.

She held the role until August 2010, growing the team to more than 130 employees, before Crowley offered her the chance to return to her home country and take on more responsibility as the general manager for Honduras. She accepted immediately and moved her family.

She credits her success at Crowley to having worked in a variety of departments. But she admits that her good attitude and commitment to the company and its customers has probably helped, too, claiming that she can't see herself working for any other company than Crowley. After all, it has given her stability in her professional life – something she's especially grateful for in a region of the world where such a thing isn't always guaranteed.

"At the end of the day it's about being in love with what you do," she said. "After all these years, I have never been unhappy with a position. I enjoy what I do – no matter what – and I look for opportunities to do a great job every day."

Todd Busch

Senior Vice President and General Manager, Technical Services
Domiciled in Jacksonville, Fla.

Joined Crowley in 1987

The son of a ship's pilot, Todd grew up near Anchorage, Alaska. One of his first jobs was a deckhand on a pilot boat in the waters of Valdez, dreaming of one day becoming a pilot himself. So when a temporary job working on tugboats for Crowley in Valdez became available in 1987, Todd jumped at the opportunity, hoping to build valuable experience. The job ended, but within a year, new positions opened and he was offered a full-time position with Crowley as a deckhand on tugboats.

Todd liked the travel that came with working on the harbor tugs. He was able to slip up and down the Alaska coastline, visiting Prudhoe Bay and Anchorage, days at a time. For a year or two this is what he did,

Claudia Kattan and Azucena Hernandez



Azucena Hernandez



Azucena Hernandez
meeting with freight services team



Left to right:
Azucena Hernandez, Mario Ramirez,
Pedro Nevarez and Carlos Molina

Making a Career at Crowley

ensuring that tankers and other vessels navigated the sounds safely.

During the next several years, he earned his mates and masters license. But, after he suffered an injury to his hand while working in Seattle's harbor, he had to work shoreside while it healed. As it turned out, the timing couldn't have been better. He had started a family and decided to look for office work that kept him closer to home. In 1994, he was offered a tug dispatcher in Seattle.

Dispatch proved to be another good fit. Always a problem solver, Todd liked the puzzle that dispatch offered up every day. He was quickly promoted to manager and moved to southern California. The new role brought new challenges. He discovered that he was good at the people-side of the business and enjoyed solving the unique problems that came with it. Always flexible, he stepped in for a salesperson while she went on leave and discovered that it too was a job that he could handle.

With his skills and knowledge of the company growing, Todd next took a position in 1997 as the manager for West Coast contracts and moved back to Seattle. The job put him in charge of employing company barges and gave him oversight for Crowley tugboats and emergency rescue services from California up the coast to Alaska. His role expanded to include international travel, calling on clients in Europe, South America, the Middle East, the Mediterranean and Asia, where he negotiated numerous contracts and generated new business for Crowley.

In 1999, he led the company to the award of its first big no-cure-no-pay salvage job, which is a high risk/high reward opportunity where the salvor takes the liability for the casualty and is not paid until the vessel and cargo is saved and damage to the environment is minimized. The bulk carrier *Irenes Vision* lost power in the tight shipping channel between Canada and the Puget Sound. Crowley dispatched tugs from Anacortes to save the ship from grounding, and Todd agreed to his first Lloyd's Open

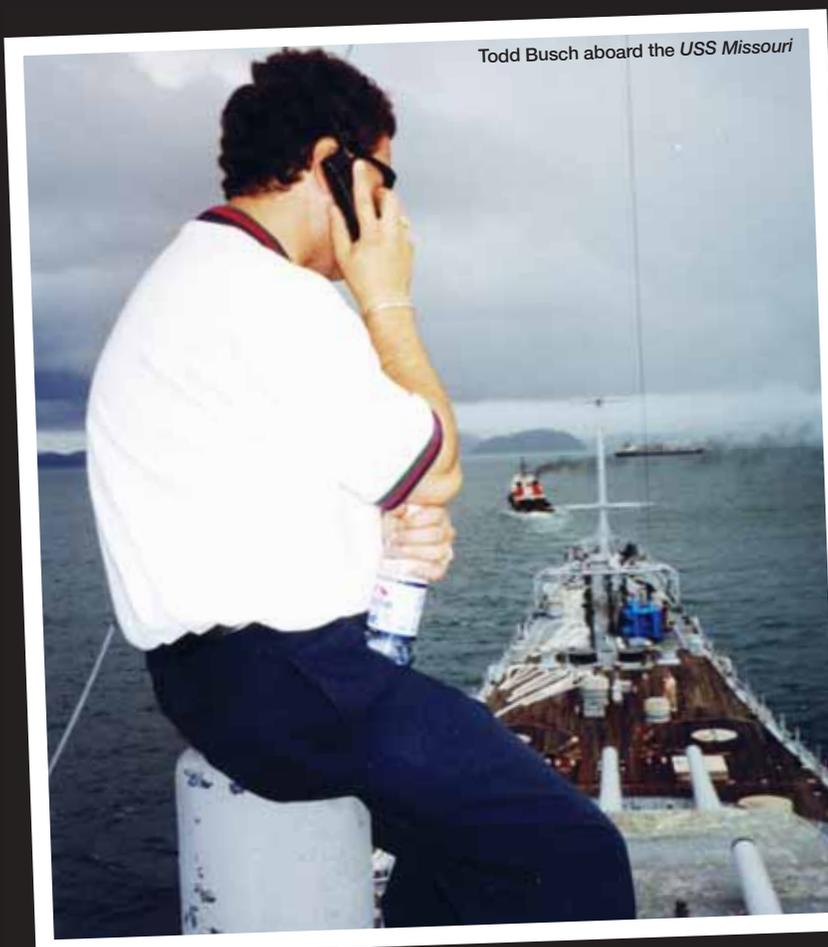
Form salvage contract. Though he admits the job had a huge learning curve, it paid off financially for the company, and he learned a great deal about salvage law and the U.K. system.

Around 2000, Todd was promoted to director of contract services. He continued to travel, building relationships with brokers the world over and gaining momentum for Crowley's ship-rescue towing program.

His clients grew to include government agencies. They relied on him and his team at Crowley for unusual cargo deliveries and towing of naval vessels. One of his first big projects included relocating the *USS Missouri*, a retired battleship, from Washington State to Pearl Harbor, Hawaii, for a memorial museum. The move required him to think creatively, an aspect he enjoyed. In the end, it was such a success that his team was awarded another big job, this time relocating the *USS Iowa* battleship from the U.S. East Coast to the West Coast. The project repeated itself with the *USS New Jersey*, and the government gained further confidence in Crowley. Todd continued earning jobs for the team, including the longest tow of a Navy vessel by a civilian company and the successful delivery of an oil platform in Cook Inlet, Alaska, from Korea.

Through all of this, Todd received support from Crowley for continuous leadership training and seminars at the Sloan School of Management and the Kellogg School of Management, as well as business courses at City University. He also participated in Crowley's mentor program, gaining valuable insight into managing people and businesses.

Then, in 2001, he managed one of the most significant salvage jobs of his career. A Japanese training vessel, the *Ehime Maru*, was accidentally struck by a U.S. Navy submarine and sunk in 2,000 feet of water off the coast of Hawaii. Nine Japanese crewmembers aboard were killed and the foreign government wanted the ship salvaged and the bodies returned for burial. Todd negotiated with the Navy to hire Crowley for the near shore



Todd Busch aboard the *USS Missouri*



Todd Busch (right)



Todd Busch (left)

work and clean up. Though the job hit him hard personally – being his first job involving the loss of life – it helped him to look at salvage as an international business in a human way.

In 2002, he was honored with the company's highest honor, the Thomas Crowley Trophy Award, for his exceptional leadership, embodiment of company values, and contributions.

Todd's involvement with the Marine Response Alliance LLC (MRA) from 2002 to 2009 gave him the opportunity to develop relationships with other salvage companies, including TITAN Salvage. In 2005, Crowley purchased TITAN and Todd made another move, this time to South Fla., as vice president of TITAN.

Following the move, he learned more about empathy and the art of managing people and was instrumental in driving home Crowley's safety culture and its importance in doing a job well, even on dangerous salvage jobs.

When a massive tsunami hit Indonesia, sending a cement ship crashing into the dock that served as Sumatra's commercial lifeline, TITAN worked to clear the port and restore the infrastructure. While in Indonesia, Todd saw giant air bags being used to lift damaged vessels and roll them away. No one in salvage was using the technique yet, and Todd saw an opportunity. TITAN immediately contacted the manufacturer in China and purchased the entire stock. As a result, TITAN was the first salvage company to use air bags for the removal of washed-ashore vessels.

A 2010 shift in responsibilities placed Todd in his current role as senior vice president and general manager of the company's technical services team in Jacksonville, Fla. In this role, Todd is responsible for setting the long-term and strategic goals of TITAN and Jensen Maritime Consultants, Inc., Crowley's naval architecture and marine engineering subsidiary; new vessel construction and shipyard management teams; ship

“That capability alone is incredible for a company like Crowley that needs efficiency in a high-risk business like petroleum distribution. I liked that, and I wanted to be a part of it.”

– Carly Remm

management, offshore tugs and barges, and government services. Under his leadership, each of these areas has seen growth.

As for the future? He says he looks forward to another 20 years at Crowley. “I feel very fortunate to be here and to have had all the opportunities at Crowley,” Todd said. “I’m having a great time and working hard to help the company grow.”

Carly Remm

Port Engineer

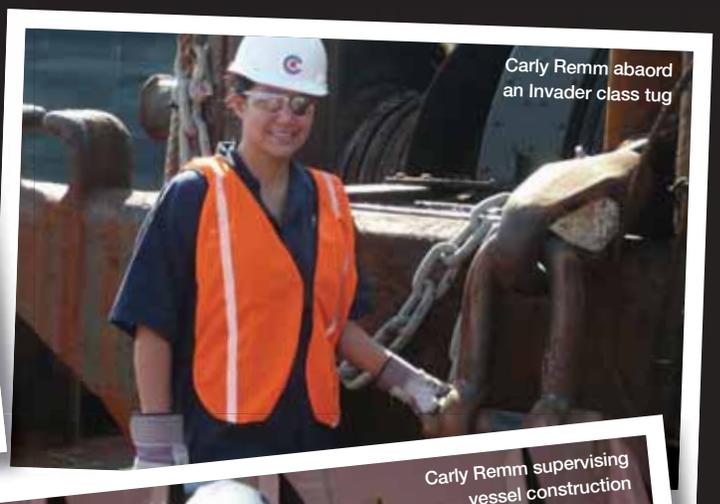
Domiciled in Jacksonville, Fla.

Joined Crowley in 2006

An alumna of the U.S. Merchant Marine Academy, Carly Remm always dreamed of sailing. Shortly after graduation in 2006, with a degree



Todd Busch receiving the Thomas Crowley Trophy



Carly Remm aboard an Invader class tug



Todd Busch (podium)



Carly Remm supervising vessel construction

Making a Career at Crowley

in marine engineering, she followed her passion and joined the Crowley team as trainee engine utility, for the company's liner services group. As a trainee, she was aboard a tugboat towing a triple deck barge as part of a regularly scheduled two-week voyage between Jacksonville, Fla., and Puerto Rico where she was responsible for the mechanical integrity of the tug. The only engineer aboard a vessel with a small crew of six, she built relationships quickly, and earned a full-time Crowley position not long after as trainee assistant port engineer.

The new position gave her the opportunity to learn about Crowley's marine businesses as a whole, a job she took eagerly. She learned about Crowley's shoreside operations and was able to delve deep into the company's liner services, marine services in Lake Charles and Seattle, and the Alaska petroleum distribution fleet. She visited these locations, as well as Charleston, S.C., to learn first-hand about the company's tugs, barges and petroleum services operations.

But it was in Pascagoula, Miss., where she learned about Crowley's articulated-tug barges (ATBs) and found her match. Taking on the maintenance for such unique vessels struck a chord with Carly, and as such, she spent three months assisting with the delivery of the new vessels learning everything she could. Carly found that ATBs are highly efficient because of the shoreside support they receive; operating productively and efficiently with a small crew of 10, unlike most other vessels that have crews of 21.

"That capability alone is incredible for a company like Crowley that needs efficiency in a high-risk business like petroleum distribution," she said. "I liked that, and I wanted to be a part of it."

At the end of her yearlong training program, Carly made the decision to stick with ATBs, and accepted her first management role with Crowley's

petroleum group as an assistant port engineer in Jacksonville, Fla. In the position, she took sole responsibility for her first tug-and-barge including the Invader-class tugboat, *Navigator*.

When the *Navigator* was retired in 2008, she was given responsibility for the ATB *Courage/650-5*, a vessel that she still manages today and fondly refers to as a "great vessel to operate." The vessel is on charter with BP to move petroleum from Houston to Tampa or Port Everglades, Fla., and back.

Within months of taking on the *Courage*, she also was given responsibility for managing the ATB *Resolve/650-3* for BP.

"Overall operating both has been challenging," she explained of the doubled responsibility in a few short months. "I really enjoy it."

To say Carly is dedicated and driven is an understatement. Women in her field make up less than 10 percent of the work force, a fact that she gracefully acknowledges and just as quickly shrugs off, refusing to see it as an obstacle. She simply focuses on doing her job well.

As for her dedication to Crowley, she respects that it's family owned and appreciates the opportunities and professional training offered which includes keeping her operating license current, a recent fuel-management course and others, along with a possible upcoming advanced degree.

Carly is thrilled with the rich experiences she's gained so far and sees herself working with Crowley and the evolving ATB fleet for a long time to come. 

Learn more about working at Crowley and the current opportunities at:

<http://www.crowley.com/careers>



President Bush and Carly Remm at her graduation



Carly Remm in front of one of Crowley's Puerto Rico liner service barges.



Carly Remm in the engine room of an Invader class tug



Carly Remm and her husband Chris



Innovation

It began in 1892, with Thomas Crowley's purchase of an 18-foot Whitehall rowboat, and continues today.

By Jenifer Kimble

You can call them Crowley's version of MacGyver. And while their tools of choice might be more sophisticated than duct tape, a Swiss army knife and a can of hairspray, the team has amazing talent for getting the job done while ensuring that Crowley's world-class safety culture not only remains intact but is exemplified. Who are they? Personnel, assembled project by project, from across various terminal and equipment maintenance and repair teams to form an Innovation Dream Team.

From the very beginning, Crowley has had its roots in innovation. After all, it was the forward-thinking, problem-solving skills of Tom Crowley himself that turned an \$80 investment in a Whitehall rowboat into a current day \$1.5 billion maritime force to be reckoned with. Crowley's slogan has long since been "Anything, Anywhere, Anytime, on Water," but the 'how' behind that statement is often a collaboration of talent, experience, critical thinking and sheer will to get the job done.

Take Crowley's liner services terminal personnel for example. They work behind the scenes to make sure that customer shipments are loaded and unloaded without a hitch. They also ensure that the terminals are in proper

working order, containers are effectively maintained and the company's world-class safety standards are met or surpassed. And, Crowley's terminal teams – to borrow a word from Walt Disney, create "innoventions" to solve problems, overcome challenges and improve operations.

Perhaps one of the earliest and most well-known examples of such an innovention was the creation of the now patented tattlecap. This plastic cap that fits on the lug nut of chassis or trailer wheels serves to prevent the removal of tires without detection. Before the tattlecap was introduced a tire swap replacing older tires with newer ones from the chassis or trailer, could go undetected and led to increased maintenance cost to keep the chassis roadworthy. But the tattlecap is a tamper-proof fastener with a locking cap that engages the underlying lug bolt and has a seal which surrounds the locking cap and the lug nut of the tire to be secured. This solution was the brainchild of two former Crowley employees who were asked to deal with the problem day in and day out. The tattlecap was patented by the company and accepted by trucking companies throughout the U.S. as a standard piece of deterrent equipment. At its peak, annual sales of the tattlecaps to outside companies approached a half million dollars.



As the company has transitioned its fleet to include more containers which can be stacked independently of their chassis instead of trailers that remain on their “wheels” at all times, Crowley employees at the Port Everglades, Fla., terminal stepped in to develop a solution to minimize damage to chassis as they are being removed from stacks within the yard in order to be reacquainted with their accompanying container. When removed from stacks, the chassis must be rotated and flipped to a position where they sit on their wheels before being mated with their container. There was a need for the rotation to occur without the wheels and landing gear ever touching the ground preserving tire integrity. Thanks to the ingenuity of employees in the maintenance shop, a device was developed using a forklift, Teflon padding, boat trailer wheels and a frame to complete the job. Because the machinery was developed using existing equipment, the company was spared the \$40,000 expense typically required to purchase equipment of this type. Andre Knowles, a mechanic in the trailer shop, worked with several employees in the power shop to build and design the device that has since become a standard piece of equipment in the Crowley container yards.



Several years ago, Crowley entered into a special service contract with the Panama Canal Railway Company (PCRC) to move up to 29 double-stack well cars from the end of the Florida East Coast Railway (FEC) track in Port Everglades to the beginning of the PCRC track in Manzanillo, Panama. Shipment of the cars continues today and has exceeded 150. Each of the units consists of five cars with wells capable of holding two 40-foot containers stacked. The size of the railcars required out-of-the-box thinking from the terminal’s maintenance crew. Getting the cars from the end of the track to the ship presented a challenge worthy only of Crowley people.

“The greatest challenge we face in these moves is not whether it can be done or not, but done using resources which Crowley already has in place to provide the customer a cost effective service,” said Michael Hopkins, vice president of operations, Port Everglades.

“We have transported five engines and 150 railcars to date,” remarked Knowles. “In addition to disassembling the cars, taking out the pins and removing the wheels and axles, the team also had to modify Crowley mafis to hold the rail cars. Each car is 67-feet long but the standard mafi is only 40-feet long.”

Top left: Brute mechanic Troy Alexander performs a brake adjustment within the company’s self-contained equipment repair shop. At left: Trailer mechanic Amos Smith completing welding repairs in-house. Below: Crowley bomb carts utilized for moving containers to the the crane for lifting onto the ship.



“We were originally asked to construct a dock that could service 15 pieces of equipment at a time, quite an improvement in and of itself. But our proposal was to put it in the middle of the terminal make it 20-feet wide, 110-feet long and able to service 45.”

– Andre Knowles, Crowley

Mechanics Stephan McLean, Robert Chung and Andre Knowles, outfitted a 40-foot mafi with brackets to hold the rail car in place while it was driven from the end of the rail line onto the dock and loaded aboard the vessel allowing this tricky move to become a reality. Mafis are specialized low-profile platforms with solid rubber wheels, primarily used for break-bulk cargoes on marine terminals and Ro/Ro vessels.

“We do projects day in and day out,” explained Knowles. “We’ve taken eight-foot wide mafis and converted them to 12-foot wide so that tracked equipment (large oversized items like bulldozers, etc), which the port doesn’t allow to drive on the asphalt, can be loaded onto ships. We’ve built portable ramps that back up to containers so that cargo from inside can be loaded and unloaded. We’ve done it all.”

The Port Everglades team also built permanent scaffolding to handle overhead repairs on containers. “About two years ago, we reviewed our frequency of overhead container repairs and decided that there had to be an easier and safer way to make the repairs,” said Jeff Brueggemann, maintenance supervisor. “At the end of the day, the guys making repairs were going up and down a ladder 10 to 15 times carrying tools for the job while someone stood below to help hold and move the ladder as needed.”

The maintenance team welcomed the challenge of developing a solution. The group of trailer mechanics became architects then builders as they developed plans and drawings and then physically constructed scaffolding that is now a mainstay in the department. This solution is not only a significant time saver when it comes to making roof repairs on containers, but it also received the thumbs up from Crowley’s safety department as it incorporated cross braces, waist-high top rails, and even a net that attaches when smaller containers are in for repair so the mechanic can’t fall backwards into the void space.

“Now all the repairs are done by one mechanic instead of being spread throughout the shop,” explained Brueggemann. “And in addition to repairs, we can quickly and easily fasten the tops (tarps) onto the open tops that come into the shop. A forklift sets it on top of the container and one man walks around the top using the scaffolding and fastens them. It’s a huge timesaver.”

One of the largest innovations to date was completed by a handpicked team led by Knowles. “When we are given a project, a team is assembled from different mechanics around the terminal,” explained Mark Kemp, manager maintenance. “We try to pick people with certain skills for the project but have to be sure that we aren’t leaving any of the maintenance teams in a bind. We can’t remove all of the mechanics from a specialized team and negatively affect the ongoing business of the company.”

In this case, the chosen team successfully built a portable USDA platform that greatly improved refrigerated cargo (reefer) operations and streamlined the inspection process. “The old USDA platform had space for 10 reefer units at a time; this new dock has space for 45,” explained Kemp.

Mechanic Joseph Lemke utilizing the permanent scaffolding built by the team to perform roof repairs on a Crowley container.

Knowles and his team took mafis that were being disposed of and connected them using chassis as a base. With a ramp on one end and stairs on the other end, the dock provides USDA inspection space for five times more containers than the previous solution allowing customer perishables to move more quickly through the clearance process and hit shelves while remaining at the peak of freshness. With some ships carrying 200 refrigerated containers at a time, the importance of a larger dock is immediately apparent.

“We were originally asked to construct a dock that could service 15 pieces of equipment at a time, quite an improvement in and of itself,” said Knowles. “But our proposal was to put it in the middle of the terminal make it 20-feet wide, 110-feet long and able to service 45.”



“Building the cold chamber was both a challenge and a learning experience for all of us. We are mechanics that had to quickly learn about USDA inspection requirements, fumigation and refrigerated cargo. At the end of the day it was an amazing team effort.”

– Jeff Brueggemann, Crowley

The dock not only provided for an increase in the sheer number of container slots available but changed the ship unloading process altogether. While the old dock was about a quarter of a mile from the ship, this new dock sits about 500 feet away. Its placement also means that equipment only has to travel in one direction – off the ship towards the inspection station where it is dropped then towards the gate and out to the customer.

Hopkins, who frequently assigns the projects to the groups in a prominent display of respect for the abilities, isn't the only one with confidence in these problem solvers. “Throughout the company, people know that if they need a project done they can call the maintenance staff at the Port Everglades terminal. We have people who have been in the business a long time and other Crowley locations know we will give them a good product,” Kemp continued.

In fact, the Port Everglades team has converted 20 bomb carts that are in operation at various Crowley terminals with Lift-On/Lift-Off operations

Mechanics Andre Knowles, Teryl King, Winston Fable and Anthony Jacobs; Mark Kemp, manager, specialized maintenance; Mechanics Denzil Peak, Mohamed Kaiume, Amos Smith and Ronel Eliacin.

throughout the U.S. and in Central America. The team took 40-foot long bomb carts, a substitute for chassis which are often in short supply, and converted them so that they can be used to transport the company's growing fleet of 45-foot-long, 102-inch-wide equipment to and from the dock during vessel loading and unloading. The ends of the carts were extended and plates were put in the middle to make them structurally sound. These “portable wheels” were used last year during the revival of cargo operations in Haiti following the earthquake and proved quite useful in moving containerized cargo ashore when chassis units simply weren't available for use.

But innovation isn't localized only to Port Everglades. In St. Thomas, Terminal Mechanic Raphael Morciglio (Papun) faced with a rough ride through the trailer parking area improvised using a forklift with a steel plate attached to level out crushed rock over a previously dirt-only lot. Crowley acquired the acre-large dirt lot to use for container/trailer parking and arranged for eight truckloads of used asphalt to be dumped thereon. Morciglio “paved” the lot using only his modified forklift saving the company the cost of having the lot paved by a third-party vendor. His innovation also improved a very persistent dust hazard, reducing it to a manageable level.





To answer the call of apparel shippers in Central America who needed their finer garments to arrive on hangers instead of folded and palletized, Crowley employees converted some of the company's 45-foot (102-inch wide) containers into garment-on-hanger, or GOH containers. Crowley employees in Port Everglades installed hanging bars across the top, and Guatemala employees stepped in to install the ropes from which garments are hung, making it fully functional for customers.

Perhaps the most recent display of innovation was in the development and building of the company's first Highly Mobile Actionable Pest (HMAP) Refrigerated Chamber. The HMAP was constructed at Port Everglades and allows perishable cargo entering South Florida that has been identified by the USDA as containing certain pests to be contained and prepared for fumigation while maintaining accurate refrigerated temperatures.

"Building the cold chamber was both a challenge and a learning experience for all of us," said Brueggemann. "We are mechanics that had to quickly learn about USDA inspection requirements, fumigation and refrigerated cargo. At the end of the day it was an amazing team effort. The trailer department really showed what they can do."

The project went from pipe dream to reality in only four months utilizing in-house talent and materials. Two 20-foot containers that were previously scheduled for disposal were used. The sides were cut away and they were anchored to the existing USDA inspection dock. The "reefer" department was engaged to ensure the temperature within the HMAP was maintained at 49-degrees during cargo transfers.

This HMAP allows cargo that would typically have been flagged by the USDA for return to its exporting country to be fumigated stateside. Previously, the cargo was set aside and would have to wait on the next south-bound sailing with available space. It would then make the trip home where it would sit waiting on fumigation in country. By the time the process was complete, it was very likely that the load would no longer be of high enough standard to return to the U.S. and enter the country's food chain.

These represent but a small sampling of the innovations the Crowley maintenance teams can be credited with through the years. In every case

Mechanic Raphael Morciglio (Papun) used a modified forklift with a steel plate attached to level out crushed rock over a previously dirt-only container parking lot.

Internal photo of Crowley's USDA approved cold chamber which has improved refrigerated container clearance operations and streamlined the process.

one thing is very clear. Crowley people work seamlessly together to not just get the job done but to shatter expectations along the way, exemplifying the spirit that has made Crowley a major player in the international maritime and logistics industry for so many years.

Steve Jobs, CEO and co-founder of Apple, has been quoted as saying, "Innovation distinguishes between a leader and a follower." While he was no doubt referring to the immeasurable success of his own company, he could have just as easily been addressing the 119 years of Crowley's history marked along the way with tremendous innovation by the company's cargo operations and terminal staff, which is no doubt destined to continue well into the future. **Connections**

Learn more about Crowley's innovation and successes at:

<http://www.crowley.com/success>



Historical Perspective

1976



Crowley has a long history of transporting even the largest and most unusual cargo anywhere it's needed, as seen in this 1976 photo, in which Crowley moved an offshore platform from Houston, Texas, to Bombay, India. Today, Crowley offers customers turnkey marine solutions – from complete project management to tug and barge transportation to full service logistics. In fact it's Crowley's full suite of services that make even the most difficult projects possible. When the project matters, so does the experience. That's why people who know count on Crowley.