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FOSS

Tow Bitts

Scott Clements

The Emma Foss is alongside the barge Columbia Boston, approaching the Motiva Port Arthur Refinery in Texas. At left is Seabulk Towing's Nike, serving as an assist tug.

REFINERY PROJECT "A CORNERSTONE" FOR FOSS MARITIME

Foss subsidiary Constellation Maritime is completing a contract to carry oil-production modules in as many as 10 tows from Maine to Texas in support of a $7 billion expansion project that will create the largest refinery in the United States. The refinery also will be among the largest in the world.

The *Emma Foss*, operated by Boston-based Constellation, began the first trip on March 26, towing a 1,500-ton load aboard the barge Columbia Boston. The 26-day voyage ended April 21 at the Motiva Port Arthur Refinery. *Continued on page 6*

ALWAYS SAFE

INSIDE Tow Bitts

Changes are Always a Challenge; Cultural Change is even Tougher

Even the smallest changes in our daily lives can make us uncomfortable. So making a more profound change, such as the cultural shift regarding safety we are implementing at Foss Maritime, can be far more discomforting and challenging.

Gary Faber

We work in an industry that has historically focused on getting the job done and has accepted the notion that injuries are sometimes part of the price of doing business. Going forward at Foss, that attitude is no longer acceptable. Our goal is zero injuries, and we believe we can achieve that if everyone in the company takes responsibility for the safety of their co-workers.

In an article on page 4, our vice president in charge of the safety and quality areas, **Frank Williamson**, introduces his staff and discusses some of the programs they are overseeing that already have had a positive impact on our safety statistics.

However, because we are asking our people to re-think their basic approach to their jobs, implementing this safety culture requires that we break the traditional chain-of-command principles. I am communicating directly with mid-level managers on safety—something I wouldn't do in our normal operations—to give them the confidence and guidance they need to take the program forward.

Without the direct involvement of senior management, the program might stagger to a halt.

There may be times when employees encounter circumstances in the normal course of their work that cause them to question their safety values. It is important that we all hold ourselves and each other to the highest standards of safe and ethical behavior for our people, vessels and business practices.

Is this emphasis on safety incompatible with our goal of operating a sound business and returning a profit to our owners? Absolutely not.

At Foss, we believe in sustainability and the triple bottom line: planet, profit and people. We already have a reputation as an industry leader in protecting the planet through development of new technologies and sound environmental processes.

We also have what I believe is a well-deserved reputation as a solid, well-run and profitable company.

With regard to the third leg of the stool—our people—we are known as a good place to work, a company that takes care of its people and where a number of families boast several generations of careers.

The least we can do is send them home safe at the end of the day.

President and Chief Operating Officer

Tow Bitts

Printed on Recycled Paper

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Health, Safety, Quality, Legal and Risk Department Commit To Achieving Foss' Zero-Injury Zero-Trace Mission

By Frank Williamson

Members of the Foss safety team are, from left, **Sue Evanson**, **Colette Lowe**, **Al Rainsberger**, **Cindy Leahy**, **Margaret Shephard**, **Frank Williamson**, **Ron Sykes**, **Merridith Chumbley** and **Jim Peschel**.

As vice-president, health, safety, quality and general counsel, my complete focus is on ensuring that Foss operates at all times in a safe, environmentally responsible and ethical manner.

I am reminded on a daily basis that **Mike Garvey**, one of our owners, has challenged all Foss employees to create a company where we would want our own children to work. I can state unequivocally that we have built our safety, environmental and ethical culture to a high level and will continue to improve in these areas, and I would be proud to have my daughter and son work at Foss in the future.

My vision moving forward is to bring Foss in line with the world-class safety and environmental stewardship cultures of the leaders in the industry. This goal will be achieved through my personal interaction with our customers and other industry leaders, and an open exchange of information and ideas to enhance all of our safety and environmental awareness programs.

I have a solid support team reporting to me who are fully engaged in assisting our operations group in achieving this crucial mission: **Al Rainsberger**, director health and safety; **Jim Peschel**, manager quality assurance; **Merridith Chumbley**, operations health and safety manager; **Ron Sykes**, shipyard health and safety coordinator; **Sue Evanson**, claims manager; **Margaret Shephard**, claims adjuster; **Cindy Leahy**, claims coordinator; and **Colette Lowe**, claims assistant.

All are experienced professionals in their respective fields who share my vision and commitment to the safety of every Foss employee and protection of the environment in which we operate. Every one of us works under the same driving principle: our efforts are centered on serving the marine and shipyard employees that provide the services to our customers that keep Foss thriving and growing as a company. We will continue to recognize that crucial undertaking for our support group.

Any assessment of Foss' success must begin with analysis of the status of our safety culture. If our employees, whether they be marine, shipyard or support services staff, are returning home after their work shift in as good, or better, condition that they were when they arrived at their job site, we have met our fundamental commitment to provide a safe workplace.

I am extremely pleased to report that we continue to reduce our injury rates, both in the recordable and lost-time categories, to historical lows. There is no doubt in my mind that we can achieve the zero lost-time injury status we are seeking and maintain that admirable safety record into the future. We are not there yet, but the foundation is laid, the commitment and belief of every Foss employee is clear, and with a focus on a behavioral-based safety program we have the tools to reach the goal and maintain a zero loss status.

The safety, quality and claims teams are all ready, willing and able to address any questions, comments or thoughts on improving our programs. At the end of the day, we are all working together to protect the safety of every Foss employee. There is no room for hesitation or reluctance in this area. I welcome visits from any employee, customer or industry peer, or will meet with them at their location, to discuss our program in greater detail. We can only continue to improve our program if we maintain an openness to new ideas and are flexible in adjusting our tactics when appropriate.

Hand in hand with our commitment to a safe workplace is our zero-trace goal. *Continued on page 4*

Continued from page 3

Foss' position as an industry leader in the environmental stewardship movement was well documented in the last issue of *Tow Bitts*. Our health, safety, and quality team plays an important role in the improvement in our development of sound policies and solutions to environmental problems we face. As with the serious obligation to send our employees safely home to their families, we also recognize the importance of the environmental legacy to our children. Our team will continue the tireless pursuit of establishing Foss as the zero-trace maritime industry leader.

Rounding out the full-service scope of health, safety, quality, legal and risk issues handled by my department is the claims team. Their involvement in loss control is crucial. Along with a reduction in injuries and incidents, we have an obligation to injured employees to ensure that they receive the best medical care possible and that they have an opportunity to return to gainful employment as soon as possible after the incident.

The claims group meets that obligation with professional and efficient handling of every claim, with an added hands-on approach that comes with having an in-house claims staff. Unlike the impersonal, mechanical, treatment that injured employees face when dealing directly with insurance companies, our employees are able to work efficiently and in a positive interaction with our Foss claims representatives.

> "We have built our safety, environmental and ethical culture to a high level, and will continue to improve in these areas"
>
> **Frank Williamson**

The vision and commitments I have described above are exemplified in the progression of Foss' *Always Ready* trademark, which I have proudly looked to as a powerful statement of service to our customers throughout my 15 years at Foss. Our current motto is *Always Safe, Always Ready*.

This change was not undertaken lightly or as an afterthought. To the contrary, this was a conscious statement of our safety culture driven by our President and COO **Gary Faber** to remind every Foss employee every day that safety, environmental stewardship and ethical behaviors must be our guiding principles to achieve our company mission. Under my leadership, the health, safety, quality, legal and risk department will continue to do everything within our power to support this mission.

Ernie Rodriguez

HYBRID AT WORK

The world's first hybrid tug, the Carolyn Dorothy, assisted the Evergreen containership Ever Ethic into its berth recently at Seaside Terminal at the Port of Los Angeles. The tug, which Foss calls its "Green Assist™" hybrid, was built at the Foss Rainier Shipyard in Oregon and entered service in late January. ***Scott Merritt****, Foss senior vice president for operations, said the hybrid tug has been a welcome addition to the Southern California ship-assist fleet and has been performing impressively while serving alongside conventionally powered Dolphin-Class tugs.*

ShipMate Plus Moves Safety Program to Marine Group; Behavioral Approach has Reduced Injuries in Shipyards

By Meagan O'Shea

Members of the implementation team at work were, from left, leverman **James Mosing**, Behavioral Sciences Technologies consultant **Paul Angelo**, and deckhand **Bernie Taylor**.

Throughout Foss, the company continues to work toward the vision of providing an incident-free workplace where injuries are not accepted as the cost of doing business. One critical aspect of this push to zero injuries is implementation of a behavioral-based program for marine operations.

In June, in the San Francisco Bay Region, leverman **James Mosing**, Chief Engineer **Tony O'Neil**, tankerman **Tom Tynan**, and deckhands **Bernie Taylor** and **Carl Turner** came together to discover the fundamentals of behavioral-based safety and kick off the program for our mariners.

Over a three-day process, **Paul Angelo**, a safety consultant with Behavioral Sciences Technologies, **Al Rainsberger**, director of health and safety, and **John Marcantonio**, marine assurance manager, trained the implementation team on the theory behind behavioral-based safety.

After the introductory training, the implementation team identified critical behaviors that can result in injuries, developed the process, and established a training program for other Bay Area mariners.

During the discussion, the implementation team realized that behavioral-based safety is all about being a "Good Shipmate." As a result, they decided to name the marine program "ShipMate Plus" and designed a symbol that builds upon unity and communication.

"We couldn't be more pleased with the results of the initial implementation sessions for ShipMate Plus," said **Frank Williamson**, vice-president health, safety and general counsel. "There is no higher priority throughout the Foss organization than doing everything possible to ensure that our employees go home after every work shift in as good, or better condition, than when they began the shift.

"The behavioral-based program has made our shipyard operations safer than ever, and I am confident that it will bring the same excellent results in our marine operations," Williamson said.

"It is important to understand," he continued, "that this is not a new program for Foss. Our shipyards have a mature behavioral safety program in place and the Marine Assurance Group and Health, Safety and Quality teams have been working on developing the program for our marine operations for nearly two years. We took the extra time to get it right."

The members of the implementation team were equally impressed with the initial stages of the process. Tankerman Tynan explained, "This process is non-threatening and contains no names and no blame. The data that is collected will be used to help us identify trends that we need to focus on."

Taylor shed light on ShipMate Plus by saying, "It all starts at the deck-plate level and is controlled and managed by employees."

Marcantonio explained that behavioral-based safety is different from other safety programs because it is a "process for our crew members." He went on to state, "This fits nicely into our existing safety processes. In 2008, we focused on 'safety before the job' with Job Safety Analysis. ShipMate Plus focuses on 'safety during the job' and gets the crews involved."

One of the team's initial concerns was that the program would be "just another flavor of the month for safety." Yet Rainsberger explained, "This is more than a program. This is a grassroots movement for all crew members.

O'Neil summed up ShipMate Plus. "At first, I was resistant, but now, I understand. This is peer-to-peer and is all about us. We have always passed on our experiences with our shipmates. This process is about formalizing that sharing. It's about worker pride."

ShipMate Plus will be introduced throughout the fleet over the coming months. The San Francisco and Southern California regions will be up and running on the Shipmate Plus by the end of 2009.

Foss will follow with implementation in the Marine Transportation division and the Pacific Northwest and Columbia-Snake River regions.

The *Emma Foss* transits the Sabine River with the barge *Columbia Boston* and its cargo in tow, on the way to the Motiva Port Arthur Refinery in Texas.

CORNERSTONE REFINERY PROJECT (*Continued from cover*)

"This is essentially a cornerstone job for Constellation and the Foss organization," said Constellation President **Marc Villa**. "Modular construction is the way the world is going, and refineries, mines and industrial plants all over the world will be built this way in the future."

Steel fabricator Cianbro built a factory to produce the modules on the site of an old paper mill on the Penobscot River near Bangor, Maine. Cianbro (pronounced CHIN-bro) is building more than 50 modules weighing up to 700 short tons each.

"Within a year, they went from thinking about this project to having a factory built," said **Bob Manning**, Constellation operations manager, who was in Port Arthur to welcome the Emma Foss on completion of the first tow.

Scott Clements, Cianbro site manager at the module construction plant, said the company has about 500 people working on the project, a boon to a Maine economy that has been hit hard by a downturn in the paper industry.

He said Cianbro is in the module construction business "for the long haul," adding, "We're talking with other potential clients weekly and we've done tours of our plant with several clients."

The Port Arthur Refinery is operated by Motiva Enterprises LLC, a joint venture between Saudi Refining and Shell Oil Company. The expansion will double its crude throughput to 600,000 barrels a day.

Foss Senior Vice President Global Services **Vince Godfrey** said the Foss organization's experience in providing marine transportation services to world-class, complicated construction projects was a key to winning the business.

"The local knowledge and support from Constellation also was important and was singled out by the customer, the local pilots and the U.S. Coast Guard," Godfrey said.

Cianbro's Maine facility is one of four yards building modules for the refinery. Others are in South Carolina, Texas and Mexico.

Manning said Foss has been providing invaluable support in the effort.

Northwest Regional Operations Manager **Paul Gallagher**, a native of Maine and graduate of Maine Maritime Academy with local contacts, was instrumental in landing the project and setting it up.

Marine Transportation Operations Manager **Doug Pearson** and Rigging Supervisor **Joel Altus** helped with rigging solutions. Foss Marine Transportation Port Capt. **Chris Springer** helped oversee the loading operations in Maine.

Under a separate contract, Foss division Harbor Marine Group (HMG) is preparing stow plans, load-out ballast plans, and is performing deck strength analysis for the Maine, South Carolina and Mexico moves.

HMG Director **David Dumont** said a 12 to 16-foot tidal range at the Maine site made loading challenging. The loading plan, he said, ultimately is using that tide to its advantage, by moving modules onto the barges on the rising tide, so the weighted barges drop as the tide comes up, canceling each other and reducing the need for ballasting.

For the Motiva project, HMG has adapted deck strength analysis and ballasting plans originally used by Foss in the Sakhalin Island sealift.

"We dusted those off and jumped right in," Dumont said. Ballast pumps also came from the Sakhalin job.

Constellation is expected to complete the last tow to Port Arthur in May 2010.

Crewmembers on the *Emma Foss* during the first tow were Capt. **Tom Toolis**, Mates **Steve Cluett** and **Richard Wickenden**, Engineer **Peter Machon** and Able-Bodied Seamen **Dom Costeira** and **Joe Trupiano**.

The crew for the return trip was Capt. **Steve Cluett**, Mates **Paul Vitale** and **Ross Robinson**, Engineer **Paul Terrell** and ABs **Dom Costeira** and **Chris Strothman**.

The shallow-draft Constellation tug *Lynx* assisted the barge while it was loaded in the river. The crew included Capt. **Steve Borland**, Mates **Chris DeModena** and **Ross Robinson**, Engineer **Andy Mathieson**, and AB **Fred Fox**.

Constellation hired **Al Warner** (who assisted Foss in the Sakhalin sealift) to supervise ballasting. Constellation's **Jon Wood** and **Phil Hoysradt** will be the ballasting masters in the future.

FOSS

Foss Mariners Use 'Job Safety Analysis' to Help The Company Toward its Goal of Zero Injuries

Before leaving the dock to rescue two people from a small plane that crashed into the Columbia River, Capt. **Michael Davis** paused and thought about the safety issues involved in approaching the sinking aircraft with the pilot launch *Arrow 2*.

In a less dramatic situation, but with a similar approach to safety, Foss Bay Area employees are looking at ways to prevent back strains and other injuries before they implement a mandatory program to physically inspect all their heavy, synthetic towlines.

And throughout the company's marine operations, deck officers and crewmembers are assessing every job they do, deciding whether a Job Safety Analysis (JSA) should be performed, and, when necessary, examining and mitigating the hazards they face before they start.

Over the past two years, Foss has designed new procedures for JSAs, trying to get it right for the mariners. "The JSA process is critical in Foss' push to zero injuries" said **Kent Salo** of the Foss Marine Assurance Group, who is overseeing the JSA program. "Whether our mariners are about to begin a barge shift or splice a line, they're assessing the job and looking for the safest way to do it."

As part of the new program, the Marine Assurance Group is maintaining a "library" of JSAs that marine personnel can access through their on-board computers or on the company's intranet portal. Salo said that over time, the library will become an increasingly valuable resource as it grows and begins to encompass the breadth of jobs in the industry.

Response to the new program has been positive from many Foss captains and managers.

Bay Area Port Capt. **John Butcher** said he believes the JSA program has helped his region's personal injury numbers drop significantly.

Pacific Northwest Capt. **Shawn O'Connor** said that he has used JSAs with positive results. Recently, when doing a barge move that he was unfamiliar with, he and his crew were able to quickly identify hazards based on the experiences of other captains recorded in the library.

Pacific Northwest Capt. **Henry "Scooter" Rochon** believes that JSAs are particularly valuable when doing unusual jobs and when working outside his normal waters.

Southern California Capt. **Scott Culver** notes that much of the ship work in the Los Angeles/Long Beach harbor is performed in tight waterways, and reviewing JSAs written by other captains and stored in the library "broadens your perspective and might help you pick up on something new."

San Francisco Bay Capt. **Jim Halloran** added that he uses the JSA as a safety tool all the time. He recently did a job that needed a great deal of planning; he used the JSA format to discuss the job cycle with the customer and his crew. It helped establish an agreement on how the job would be completed safely and on time.

Columbia River Capt. **James "Bim" McCoy** said when he fills out a JSA form it provides a mental note for him to be more cautious and aware of the identified hazards.

Marine Transportation Port Capt. **Chris Springer** said the JSA process has become a routinely utilized risk analysis and hazard recognition tool in the MT fleet. "It is evident by the improvement in our safety statistics that the crews are utilizing the JSA process," he said.

John Marcantonio, Marine Assurance Manager, said sharing safety information through the JSA program "enables us to harness the best practices of our people."

As for Capt. Davis' analysis of the dangers of rescuing the plane crash victims on the Columbia on April 24, he determined that it would be dangerous to touch the plane with the bow of his launch because that might drive down the already sinking plane. So he carefully maneuvered the launch without touching the plane. The two passengers, who had been standing on a wing, were taken onto the launch safely and successfully by Davis and assistant launch operator **Fred Snaza** with assistance from Capt. **Chuck Dobbins**, a river pilot.

In preparation for a tandem tow to Kodiak Alaska, Foss managers review the JSA program with the crew of the *Sidney Foss*. Pictured left to right are Marine Assurance Officer **Kent Salo**, Chief Mate **Eric Watson**, Captain **Steve Robertson**, Able-Bodied Seaman **Dennis Howell** and Marine Transportation Port Captain **Chris Springer.**

Photos and story on Arrow 2 rescue, page 14.

The Reasons Why Safety Is Our Number-One Core Value

By Al Rainsberger
Director, Health and Safety

Safety can mean a variety of things to our well being. Safety does need to be both personal and visible. I would like to share the many reasons why safety is our number-one core value at Foss.

Al Rainsberger,
Director, Health and Safety

Every employee should go home safely to their families after the work shift is complete. We stress the essential elements of working safely through our training, knowledge and experience. We communicate safety through policies and procedures, job safety analysis and lessons learned about situations that could end up as a potential risk.

We all need to identify work tasks that need to be evaluated for safety and planned out for safe completion. Make good decisions on how you plan to proceed with the next step of a task. The most valuable resource that we have is you, our skilled mariners and craft mechanics.

Safety needs to be visible through clear marking of high hazard equipment and machinery. When you are seen working safely by co-workers, they take note and will follow your good example. If you see something that does not look like a good safety practice, take ownership of the situation until it is resolved.

Safety is important to our customers. Our historical safety experience can make the difference on obtaining future work as early as the bidding process. Safety can also be a factor to our customers if our safety experience does not meet their expectations, and we are not allowed to bid the job.

We have made good progress in reducing our safety incidents and injuries but still need to continually improve. And the best ideas to improve safety could come from our employees, the ones that are daily providing services to our customers be it internal or external.

We have been through some trying economic times this past year that we have little control over. But we all have control of our own personal safety and the safety of our co-workers.

That is why safety is important to all of us. We have much at stake for our well being, for our families, and our future as well. Thank you for taking the time to communicate and stress the importance of safety at Foss.

Editor's Note: this is the first in a series of columns on safety by the company's safety representatives.

FOSS GETTING READY FOR TWENTIETH SEASON AT RED DOG

Foss is preparing for its 20th season lightering ore at the Red Dog Mine in the Alaskan Arctic and is sending four tugs, two barges and 59 people northward in mid-June.

Red Dog Manager **Paul Wooden** said he expects a normal year, with the ice clearing and enabling the start of operations by July 1. The goal is to move 1.3 million tons of ore from the mine to 22 to 25 ships and complete the season by early fall.

The tugs are the *Stacey Foss, Sandra Foss, Iver Foss* and *Jeffrey Foss*. As in the past, Foss will use the specialized ore lightering barges *Noatak* and *Kivalina* to carry the ore from the shallow-water port to bulk carriers anchored offshore.

The ore barge *Noatak*, towed by the Pacific Escort, passed through the Ballard Locks on June 5 on the first leg of its trip to Alaska. The *Stacey Foss* and *Sandra Foss* took the *Noatak* and its sister, the *Kivalina*, on the voyage to the Arctic.

Foss Named Environmental Business of the Year By Port of Seattle and Local Chapter of Propeller Club

Foss Maritime Company—whose 'green' initiatives have earned it national and international recognition—has been honored in its home waters, winning the Port of Seattle's and Propeller Club's Marine Environmental Business of the Year award at the 2009 Seattle Maritime Festival luncheon May 14.

Top environmental, maritime industry and federal and state government officials were part of the committee that chose Foss, which edged out four other companies for the prestigious honor.

"Environmental stewardship is a core value of our company," said **Gary Faber**, Foss president and COO. "To win the Marine Environmental Business of the Year award, here in Puget Sound where our company was established more than a century ago, is a great honor for all of us at Foss.

"At Foss our core values are supported by our commitment to continual improvement—in health and safety, compliance, quality and also environmental stewardship. Our customers and the industry have come to expect this commitment from us."

The committee recognized Foss for its commitment to reducing its carbon and emissions footprints and adhering to the principles of sustainability in its operations.

The award selection committee consisted of representatives from People for Puget Sound, the federal EPA, the Washington state Department of Ecology, the Puget Sound Clean Air Agency, the Puget Sound Pilots and *Pacific Maritime Magazine*. The award was presented by **Gael Tarleton**, Commissioner, Port of Seattle.

Among Foss' many recent environmental accomplishments are construction of the world's first low-emissions hybrid tug and switching the entire fleet to ultra-low sulfur diesel fuel.

EFFORT TO WIN ENVIRONMENTAL CERTIFICATION LINES UP WITH FOSS GOAL TO LEAVE 'ZERO TRACE' FROM OPERATIONS

In a two-year effort involving dozens of marine and shoreside employees, Foss is working toward ISO 14001 environmental certification as part of its push for continual environmental improvement and operations that leave "zero trace" on land and in the water and air.

Foss is currently ISO 9001 certified for "Quality" programs, and began ISO 14001 implementation of environmental programs in 2008.

With the help of **Frank Williamson**, **Susan Hayman**, **Jim Peschel**, **Ross McDonald** and numerous others, Foss began the initiative by identifying the environmental, legal and other requirements of the company and reviewing compliance.

The company then formed an ad hoc committee including representatives from operations, engineering, quality, and facilities to identify as many areas as possible where Foss impacts air, land and water.

Once the more than 90 impacts were documented, another smaller group went through each and determined its significance, rating them in categories such as regulatory compliance, impact to humans, impact on the environment, probability of occurrence and several others. The top 15 percent were identified as significant.

To achieve ISO 14001 conformance, each significant "aspect" is controlled, generally by regulations or some form of operational, engineering or administrative controls by the company.

For example, to reduce spills Foss has a legal obligation to report the spill, operational controls in tow plans to minimize spills, engineering controls throughout the vessel maintenance routines to prevent them from occurring, and administrative controls such as vessel-specific fueling procedures.

Foss started the process in the Pacific Northwest region, and began rolling out the new environmental program to other regions in April, beginning with Southern California.

As part of the program, **James Cauvier**, regional buyer in Long Beach arranged to have a recycling container located at Pier 49, and he is currently working to encourage recycling by making the transition easy for both marine and shoreside operations.

James Cauvier, Southern California regional buyer, deposits the first battery into the new recycling bin at Pier 49.

Foss will also be working with the Port of Long Beach to review current environmental programs and foster collaboration toward Foss' overall goal of "zero trace" to the environment.

Foss Completes Two Dozen Bulky Tows Over Two Years In Support of Hood Canal Bridge Replacement Project

Overcoming challenges created by weather, tide and the sheer bulk of the pieces, Foss this spring successfully completed its two-year role in the replacement of the eastern section of Washington's Hood Canal floating bridge.

The job culminated May 18, as the tugs *Pacific Star* and *Andrew Foss* worked in foggy conditions to inch a 600-foot, 51,100-ton draw span into position, enabling crews from Kiewit-General to link it with two roadway sections Foss placed earlier.

The draw span was one of the last pieces in a long and complex construction puzzle. The state began planning for replacement of the bridge in 1997, and construction started at remote Northwest locations soon after that.

With all the pieces ready to go, the state shut down the old bridge on May 1. Foss tugs then removed the tired old bridge in four sections and replaced it with the three new ones while Kiewit-General replaced two trusses (towed up from the Columbia River by Foss). The bridge re-opened the first week of June.

"A lot of time and effort was put into how we would do this job," said Pacific Northwest Port Captain **Steve Kimmel**, who coordinated the company's involvement in the project. "The fact that we have successfully completed it is a credit to the many professional mariners who worked on it."

Kent Werle, marine operations planning manager for Kiewit-General, said Foss crews did "an outstanding job" towing and positioning the pontoon assemblies.

"The Foss commitment to safety and quality was evident in the way the massive and unusual pontoon assemblies were handled with absolutely no damage," Werle said. He added that all Foss crewmembers "made a personal effort to do a good and safe job and showed a high degree of skill and professionalism."

The *Sidney Foss*, in the lead, and the *Shelley Foss* move the east draw span of the Hood Canal Bridge up Puget Sound near the north end of Bainbridge Island on May 17. The tow measured 600 feet long, weighed 51,100 tons and drew 31.5 feet. Because of its bulk the tugs couldn't move the tow faster than about 2 knots.

The *Andrew Foss*, foreground, and the *Pacific Star* nudge the draw span into position on May 18, as the fog closed in on Hood Canal.

Since early 2007, Foss has completed about two dozen separate tows to position bridge components for fabrication, assembly and placement. Nearly all of the tugs in the Puget Sound fleet have been involved at one time or another.

In two tows in February and June of 2007, the company transported the new bridge's 20 concrete anchors, each 29 feet tall and weighing more than 1,000 tons, to the bridge site from Seattle's Todd Pacific Shipyard, where they were built in a drydock.

Then Foss made 13 separate tows of pontoons from their construction site at Concrete Technology in Tacoma to Todd for fabrication. Foss also towed a pontoon — stored in Port Gamble since the west side of the bridge was re-built in the 1980s — to Seattle to be refurbished and back to Port Gamble.

Prior to the bridge closure, Foss

towed two of the three floating replacement sections to Port Gamble to await placement. Meanwhile, the Portland-based tug *Howard Olsen* made two tows from the Columbia River with bridge parts, including two new trusses, each 280 feet long and weighing 800 tons.

Kimmel said there were numerous challenges in the final removal-and-replacement phase of the project.

Not the least of those was the fact that the old pontoons had no cleats, so tow lines had to be attached to straps fixed to roadway-support columns. The old pontoons were handed off to Seaspan tugs and taken to British Columbia for use in a marina construction project.

Extracting the two new floating roadway sections from their moorings in Port Gamble at night was also a challenge. The Port Gamble channel is only 300 feet wide, Each of the roadway sections is 900 by 60 feet, and one of them has a 180-foot "T" on one end.

Care also had to be taken to make sure that the tugs were carrying the proper amount of fuel, ensuring that their tires were at the right height to push against the pontoon decking, not against the pontoon walls.

The project was delayed twice by unusually blustery spring weather, and tidal currents dictated where the tugs would be positioned when they were placing the new roadway sections.

Also, anchor buoys close to the bridge limited the area for maneuvering the big pieces, according to Kimmel.

"Our crews and equipment performed very well under what were often difficult circumstances," he said.

The *Pacific Star* and *Andrew Foss* were the key tugs in the placement of the three new bridge sections in May.

Crewmembers were: *Pacific Star*, Capts. **Doug Hajek** and **Dave Corrie**, Second Capts. **Lars Hadlund** and **Scott McKinley**, Engineers **Tim Melton** and **Rich Easly** and Deckhands **Ken Kovatch** and **Greg Phillips**; *Andrew Foss*, Capts. **Ross Springer** and **Loren Stout**, Second Capts. **Doug Bezona** and **Dan Warrick**, Engineers **Bryan Morris** and **Ken Corbin** and Deckhands **Bob Cook**, and **Tim Collins**.

Mike Skalley writes about Foss work on the original Hood Canal bridge, ***page 23.***

FOSS ADVENTURERS

These two bright-eyed sons of Foss employees took a turn at the wheel of the 133-foot schooner Adventuress on Friday, April 10, as a group of employees and guests went out for an afternoon sail on Elliott Bay in Seattle. Foss is a corporate member of Sound Experience, the non-profit, educational foundation that owns the 96-year-old boat. The Foss sailors hauled up sails, sang sea chanteys, drank cocoa and otherwise enjoyed a light-air sail on the wood-hulled vessel. The boys in the photo are ***Alex Hill****, left, son of Vice President Harbor Services* ***David Hill****, and* ***Finn Lea****, son of Pricing Director* ***Leiv Lea****.*

New SoCal Barge Completes Foss Double-Hull Fleet; Christening was Held May 15 at Port of Long Beach

Foss Maritime, which already had the largest double-hull tankbarge fleet on the West Coast, is now exclusively double-hull. The milestone was reached with the delivery of the *FDH 35-5* to Southern California on March 19 from Orange Shipbuilding in Orange, Texas.

With the arrival of the barge, which went into service April 8 and was christened May 15, Foss retired its last single-hull tankbarge, the *WT-30*. Foss now has four double-hull barges on San Francisco Bay and three in the Los Angeles/Long Beach harbor.

"We're really proud of the fact that we now have an entirely double-hull fleet for the state of California," said Southern California Tankbarge Manager **Ron Costin**.

Unique to the FDH 35-5 is its ability to carry marine gas oil in a tank system segregated from the tanks holding heavy bunker fuel. Demand by ship operators for low-sulfur marine gas oil, the equivalent of No. 2 diesel, is expected to increase with the advent of new California environmental regulations this summer.

"This opens up a whole new market and service for us," Costin said.

The Rev. **Henry Hernando**, left, of the International Seafarer's Center, gives the invocation at the christening of the *FDH 35-5* on May 15 in Long Beach. Others, from left, are sponsor **Madeleine Russo**, her husband **Tony Russo** of Chevron Global Marine Products, and Foss Southern California Tankbarge Manager **Ron Costin**.

Except for capacity, the FDH barges are identical. However, Costin said the Southern California barges are equipped with vapor processing systems.

All of the barges have enclosed and comfortable control areas for tankermen and computerized gauging systems that show tank levels and measure amounts delivered. Tankermen also can produce computerized bills of lading for customers that are neat, accurate and include volume and temperature corrections.

The barges also are equipped with high-performance mooring winches and plasma mooring lines.

KABOOM!

A demolition team used four 150-pound charges to blow the bottom out of the 50-year old, 380-foot hopper dredge Canadian Challenger and scuttle the ship 50 miles off the Washington coast on Feb. 18. The Jeffrey Foss towed the old ship from Tacoma to Port Angeles, where the explosives were loaded, and then to the offshore demolition site. Foss worked with Global Diving and Salvage on the job for customer Schnitzer Steel. The federal Environmental Protection Agency issues permits for scuttlings like this one, and requires that all oil and other pollutants be removed from the ships before they are sunk.

TOP MARINER

***Gary Schaffer**, right, was presented a Foss Top Mariner award by Senior Vice President Operations **Scott Merritt** on April 17 in Long Beach. Schaffer won the award for his work on the hybrid tug project and is currently chief engineer on the vessel, the Carolyn Dorothy. Schaffer was credited with putting in long hours while the tug was tested and its systems were refined early this year on Puget Sound and in Southern California. Southern California Port Engineer **Jerry Allen** said of Schaffer, "His attitude, abilities and work ethic are exceptional."*

SOCAL TOUR FOR HIGH SCHOOLERS

*A group of students from a class in transportation and logistics at Cabrillo High School in West Long Beach toured Foss' newest double-hull tankbarge, the FDH 35-5, and checked out the launch Piper Inness at the company's Southern California headquarters on April 1. Southern California Tankbarge Manager **Ron Costin**, at right in the hard hat, led the tour. The kids interacted with a number of Foss employees, including tankbarge crewmembers **Randy Miller**, **John Carlin Jr.**, **Jason Pieniazek** and **Daniel Zufferey**, and Piper Inness crewmembers **John Mayer** and **Allison Williams**. "It was very rewarding to see how the crews showed their professionalism in dealing with the students and their pride in working for Foss." Costin said.*

Foss Crew Hears Screams, Jumps into Launch And Rescues Two From Crashed Airplane Near Astoria

A Foss captain and assistant launch operator, with help from a Columbia River pilot, rescued two people from a small plane after it crash landed into the river about 50 yards from shore on April 24.

Michael Davis

Fred Snaza

Capt. **Michael Davis** and assistant operator **Fred Snaza** were in the Foss office at about 4:30 p.m. when they heard screams outside and noticed the crash near the Astoria Maritime Museum. They enlisted the help of Capt. **Chuck Dobbins**, a river pilot, and headed out on the Foss pilot launch *Arrow 2*.

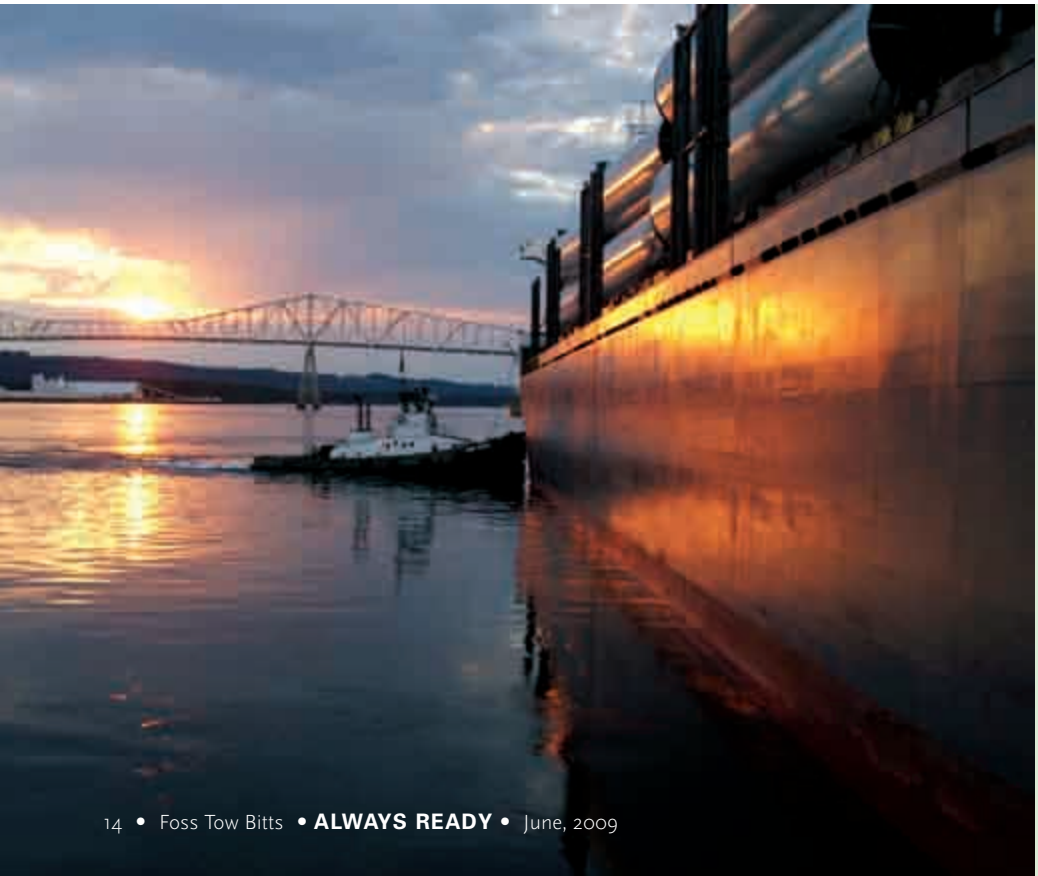
"It took about five minutes to get to the plane," Davis said in his report of the incident. "There were two people crawling out of the cockpit and onto the wing. The first thing we did was throw them life jackets and instructed them to get them on right away."

On board the plane, according to *The Daily Astorian* newspaper, were former Astoria Mayor **Edith Henningsgaard Miller** and her son, **Bill Henningsgaard**, who had been piloting the aircraft.

The captain carefully positioned the launch to get the two on board. Their injuries were not believed to have been serious.

The two passengers stood on the wing of the plane as the Foss pilot launch *Arrow 2* came alongside.

ALWAYS READY



SUNSET ON THE COLUMBIA

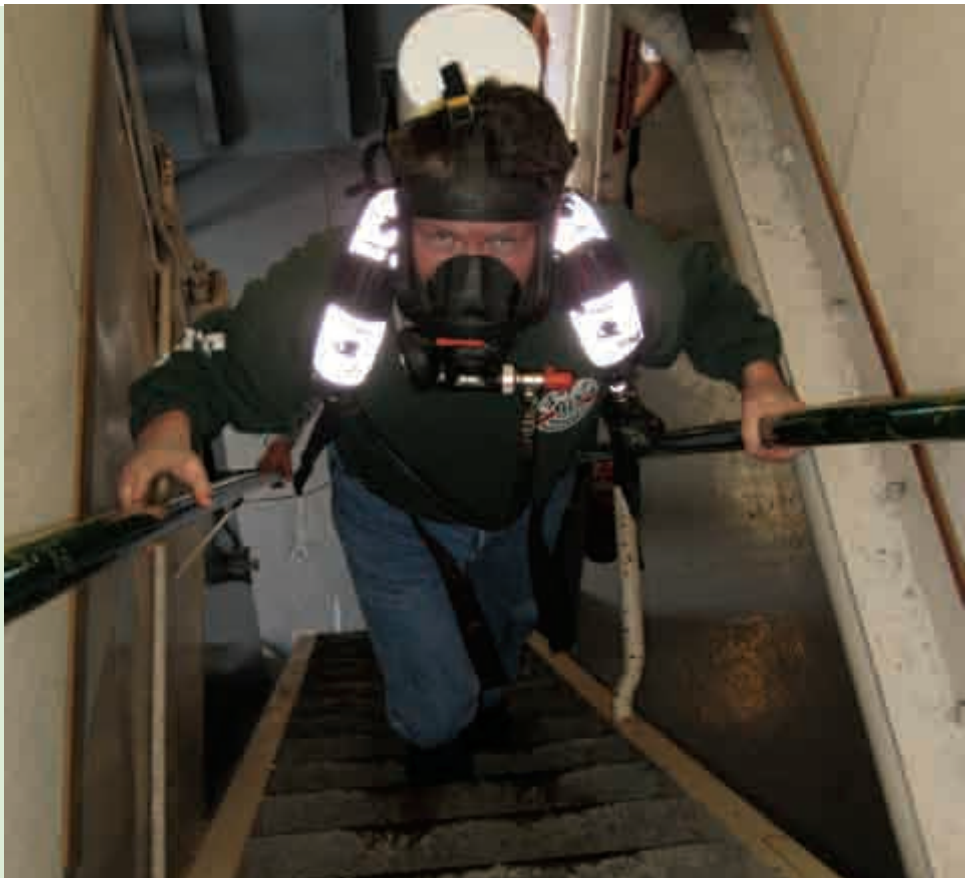
The Foss tug Cap Evans assisted a ship at the Port of Longview recently as the sun set behind the Lewis and Clark Bridge over the Columbia River. The ship was carrying windmills, which are a growing source of electric power in the Pacific Northwest.

Dan Riser

SPILL DRILL ON THE BAY

San Francisco Bay tankermen and crewmembers of the two tugs that most frequently handle the Bay's four bunkering barges held a spill-response drill on April 6 at the company's offices in Richmond. Tankbarge manager ***Walt Partika*** *led the drill, in which the crews launched a boom boat from the FDH 26-2, deployed 650 feet of boom, and practiced joining two sections of boom. In addition to the FDH 26-2, the three Foss double-hulled barges on the Bay are the FDH 35-1, FDH 35-2 and FDH 26-1. The tower tugs that work with them are the Point Fermin and Point Vicente. Below, left, Engineer* ***Gary Rymel****, left, and Tankerman* ***John Crocket*** *attach two pieces of boom. Below, right, Engineer* ***Mel Jackson*** *(in the stern) and Capt.* ***Paul Ritter*** *tow boom into position.*

Laura Rosenberg



Laura Rosenberg

TRAINING FOR EMERGENCIES

Capt. ***Whit Olson*** *donned a mask and tank to ascend a stairway on Barge One, Foss headquarters in Richmond, Calif., on March 25. Olson and the rest of the crew of the tug America received nearly a full day of training on use and maintenance of the Self Contained Breathing Apparatus (SCBA). The tug carries SCBA equipment as part of its firefighting and hazardous materials response capability, said Bay Area Administrative Port Captain* ***Laura Rosenberg****. The crewmembers learned how to inspect the equipment, wear it properly, clean it and recharge it.*

Bottom Job on Fuel Barge That Serves Remote Alaska

A repair job on a sister company's fuel barge, which started out with reports of a few problems with bottom plating, grew into a five-month project completed in late April by Foss Shipyard.

Project Manager **Dave Palmer** said the barge *OB-5*, owned by Delta Western, Inc., is used to deliver fuel to remote communities in Western Alaska, many of them upriver. Delta Western is owned by Saltchuk Resources, which also owns Foss parent company Marine Resources Group.

When the yard realized in early January that the job would take more time than originally thought, the 175-by 44-foot, 220-ton barge was rolled on heavy-lift trailers onto the tarmac at Foss Terminal. Shipyard workers replaced about 90 percent of the *OB-5's* bottom plating.

On April 13, the barge was rolled back into drydock, where it was sandblasted and painted before being floated and returned to the customer.

Bill Fiamengo was the ship repair superintendent on the job.

The barge *OB-5* is moved into drydock after undergoing replacement of about 90 percent of its bottom plating at Foss Terminal.

NAVIGATING FOSS TERMINAL

A worker takes a break to watch as the hull of a 58-foot limit seiner was towed through the Foss Terminal in Seattle to the the water's edge on April 21. The 80-ton hull, owned by Anchorage-based Hat LLC, was built in the terminal beginning last October and was launched on April 22 by the Foss 300 derrick. Hat owner ***Neil Anderson*** *said the hull will be joined with its house, under construction at another yard on the Ship Canal, and the boat should be ready to go by mid-summer. It will be based in Dutch Harbor and will fish for Salmon, Black Cod and Gray Cod.*

ACT Barge Proves Ideal for Colombia Chopper Delivery

Foss subsidiary America Cargo Transport (ACT) used the ocean-going tug *Justine Foss* and a high-ceiling cargo barge in April to successfully deliver five new Blackhawk military helicopters from Savannah to Colombia, where they will be used by government forces to fight insurgents.

Safely delivering the shrink-wrapped combat aircraft required careful ballasting at the discharge port, according to **Jim Greenke**, ACT supercargo global. *Justine* crewmembers worked with Greenke to ensure that the offloading ramp was nearly perfectly level to avoid damage to instruments on the underbellies of the helicopters.

Greenke said the 400-by-105-foot ACT barge *American Trader* proved ideal for the job. Its 21-foot-high covered area enabled the helicopters to be loaded without being taken apart. Re-assembly in Colombia would have been time-consuming and also would have meant extensive testing before the helicopters could be flown.

The Colombian government is to receive 10 more of the aircraft to help in its battle against the FARC (Fuerzas Armadas Revolucionarias de Colombia). ACT hopes to handle those deliveries as well, from Sikorsky Aircraft Corp.

A Colombian dockworker stands by as a shrink-wrapped Blackhawk helicopter is unloaded in Santa Marta, Colombia.

Members of the *Justine's* crew were: Capt. **Samuel Nelson**, Mate **Charles Hammer**, Training Mate **Steven Winter**, Chief Engineer **Charles Russell**, Able-Bodied Seamen **Robert Wingle** and **Charles Still**, Cook **Mark S. Phillips** and Ordinary Seaman **Jacob Blackson**.

MILESTONE FOR RAINIER SHIPYARD; FIRST NON-TUGBOAT COMPLETED

By Meagan O'Shea

On May 4, the Foss Rainier Shipyard launched the line-handling boat *Lucy Foss*, built to service Chevron's El Segundo Moorings in Southern California.

"As with the construction of the hybrid tug, this is a major milestone for our Rainier Yard," said **Tim Stewart**, new construction manager, Rainier Shipyard. "The *Lucy Foss* is the first non-tugboat built at this facility."

Due to weight restrictions at the shipyard, the *Lucy Foss* was moved down the main street in Rainier to Teevin Brother's Log Yard for launching—another first for the Rainier yard. The move took four hours and a team of eight Foss workers and eight workers from Northwest Structural Movers to safely transport the 65-foot-long hull 2.3 miles.

Noteworthy deck features included on the *Lucy Foss* at the request of the customer include an easily deployable oil boom on an aft reel and mooring lines for ships on a forward reel. The extremely maneuverable boat has a wheelhouse designed for good visibility, especially looking down to the aft working deck.

"To continue our effort of environmental stewardship, we made all possible equipment electrical instead of hydraulic to dramatically reduce the chance of a spill," said **Dan Cole**, engineering project manager.

Vada Stewart

The *Lucy Foss* arrived in Southern California the first week of June and will be christened June 23.

Totem Ocean Trailer Express, Inc. (TOTE)

THE COMPANY

TOTE operates a fleet of roll-on, roll-off cargo ships between the ports of Anchorage and Tacoma. Established in 1975, the company is owned by Seattle-based Saltchuk Resources, which also owns Foss parent company Marine Resources Group. TOTE ships carry freight and cargo of all kinds loaded in both enclosed and flatbed highway trailers. The vessels also carry new and used cars, trucks and recreational vehicles. In addition to its ocean service, TOTE provides overland highway and intermodal connections throughout greater Alaska, the Lower 48 States and Canada.

The TOTE cargo ship *Midnight Sun* gets a water cannon salute from the *Henry Foss* upon its first arrival in Tacoma on April 19, 2003.

TOTE'S FLEET

In 2003, the company completed construction of two new Orca Class ships at National Steel and Shipbuilding Company in San Diego. The ships, the *M.V. Midnight Sun* and *M.V. North Star*, are 839 feet long, 118 feet in beam, and are capable of sailing at over 24 knots. The ships can carry 600 FEU (forty-foot equivalent) trailers and 220 automobiles, and can easily accommodate 53-foot trailers. The vessels are powered by state-of-the-art, fuel-efficient, reduced-emissions diesel electric power systems, and they have won numerous awards in recognition of outstanding environmental achievement.

TOTE also still owns two of the three, older, Ponce Class Ships, which served the Alaska community for 25 years. Since leaving their regular routes to Alaska, one ship was sold to a sister company and the other two have been involved in charter arrangements, including running between the Mainland and Hawaii for Matson Navigation and serving the Military Sealift Command in support of the war in Iraq.

JOINT VENTURE WITH FOSS SUBSIDIARY

Since April 2007, two of the Ponce Class vessels have been working in a joint venture with Foss subsidiary America Cargo Transport carrying military and commercial cargo between ports on the U.S. Gulf and East Coasts and the Middle East. The principal customer is the U.S. Army's Surface Deployment and Distribution Command.

TERMINALS FACILITIES

TOTE's terminal at the Port of Anchorage is minutes away from major highway and rail connections. Recent renovations at the terminal include an automated trailer gate, new lighting, pavement and a new yard layout. More improvements are planned with a comprehensive Port expansion project. TOTE also has an office in Fairbanks to coordinate delivery of freight throughout the interior and to the North Slope and has a trailer terminal in Kenai to serve the Kenai Peninsula and Seward.

In Tacoma, TOTE operates a terminal that was renovated in 2003 to accommodate the company's new Orca Class vessels. The gate includes a computer Terminal Operating System and lanes are equipped with cameras and intercom pedestals to help speed transactions. As part of its plan to redevelop the Blair Hylebos peninsula, the Port of Tacoma is planning to relocate TOTE's operations and build a new terminal for the company.

LEADERSHIP

Bill Deaver is president and chief operating officer of Totem Ocean Trailer Express, Inc. and is responsible for all activities associated with cargo shipping operations between Tacoma and Anchorage as well as charter vessel operations. He joined TOTE in 2000 and was promoted to his current position in 2004. During his 37-year ocean cargo transportation career, Deaver has held numerous management positions with Maersk- Sea-Land and Sea-Land Service. He has held positions in Korea, the Republic of China, the Philippines, Canada, Hong Kong, Ireland, as well as the states of Alaska, California, Georgia, and Washington.

Charity Golf Tournament Already Fully Booked

Sixty foursomes (240 golfers) have already reserved their places at the tenth annual Towboat Invitational, a charity tournament scheduled for July 27 at The Golf Club at Newcastle.

Foss is one of the original founders of the Towboat Invitational and, over the years, Sause Bros., followed by Harley Marine, have joined as title sponsors. The golf tournament has contributed more than $1 million to the Heart Institute at Virginia Mason and the Boys and Girls Club of Southwestern Oregon, including a record $299,000 last year.

Foss Executive Assistant **Laurie Zuvich** is the principal organizer of the tournament, which this year will include the golf competition, a reception, dinner and live and silent auctions. She credits Foss' Harbor Services department for its teamwork in producing a first-class event. Legwork has included creating the logo, soliciting for auction items and sponsorships, and tending to the many details of event planning.

"The purpose of our golf tournament is to build camaraderie with customers and vendors while at the same time raising money for these worthy charities," said **David Hill**, Foss vice president, Harbor Services. "The generous support of participants enables these worthwhile organizations to maintain their traditions of excellence.

"We have funded research and new equipment for The Heart Institute at Virginia Mason and have provided funding for educational, recreational and social activities for youth from disadvantaged circumstances," Hill said.

Due in part to the company's involvement with the Towboat Invitational, Foss has earned the title of "Legacy Sponsor" at Virginia Mason.

Bagpiper **Colin MacRae** performed as the sun went down at last year's tournament. A bagpiper is scheduled to be on hand again this year. Photo by Michael Thomas for Team Photogenic © 2008.

SEVENTY-FIVE-TON LIFT

The Foss 300 derrick launched a new boat on June 5 for Lake Washington Ship Canal neighbor Kvichak Marine Industries. Kvichak project manager ***Scott Weiler*** *said the 86-foot catamaran will work as a large-debris collection vessel for the Army Corps of Engineers on San Francisco Bay. Capable of more than 27.5 knots, the new boat will enable the Corps to speed up its response to debris reports. The vessel is also designed to serve as a command-and-control center.* ***John Tarabochia*** *was the crane operator, with* ***Steve Imhoff*** *as engineer and* **Jim Mossman** *as rigger.*

Another Great Day at the Races

David Hundley, Louis-Dreyfuss Corp.

Three Foss tugs participated in this year's annual tugboat races Saturday, May 9, on Seattle's Elliott Bay, and it was a great day for guests and crews alike. The Shelley Foss, shown in the photo above with a water salute and the skyline in the background, finished second in Class B. The brother tugs Wedell Foss and Henry Foss, right, finished third and fourth, respectively, in Class A. In the photo below, the Wedell Foss churns northward along the Seattle waterfront. The races are staged as part of the Seattle Maritime Festival, sponsored by the Propeller Club of Seattle.

Peter G. Kim, Total Terminals International

William Sutton

Capt. Budd Turner was Best Known For Service on Harbor Tug Shelley Foss

Budd William Turner, a senior Foss captain best known for his many years of Puget Sound service on the *Shelley Foss*, died at his home in Chehalis, Wash., on May 8.

Capt. Turner, 76, retired from Foss in 1998 after 43 years of service with the company. He was a graduate of Stadium High School in Tacoma and served in the U.S. Navy.

Senior Customer Service Representative **John Lewis** joined the company in 1978 and recalled that Turner was then captain of the *Martha Foss*, towing logs from Neah Bay to Port Angeles. Alternating as skipper on the *Martha* at the time was **Carl Engstrom**, now a Puget Sound Pilot.

Turner also skippered the *Myrtle Foss*, making up log tows both for Port Angeles and into Puget Sound. He also was master of the *Oswell Foss*, towing logs around Tacoma, and worked for many years on the day boats in the Tacoma Harbor.

Turner was born in Puyallup on Oct. 29, 1932.

He is survived by his wife, **Patricia Turner**, sister, **Donel Pim**, son, **Scott W. Turner**, daughter, **Katherine Larson**, **Anna Quigley**, friend of the family for 36 years, grandchildren, **Kristina**, **Blake**, **Tresa**, **Dakota**, **Nicholas**, **Patrick** and **Katlyn**, one great-grandson, **Johnny**, and nieces **Mondi**, **Kim** and **Vickie**.

Capt. **Budd Turner** at the controls of the *Shelley Foss* in 1989.

Memorial contributions may be made in Turner's name to Curtis/Boistfort Ambulance Fund or to the Youth Maritime Training Association.

FUTURE TUGBOAT ANNIE?

***Paul Gallagher** and his daughter **Maeve**, holding a model tug that bears her name, were among those who participated in the "Take Our Daughters and Sons to Work" program on April 23 at Foss in Seattle. Companies all over the country participate in the program, which aims to give kids an enriching educational experience and make them aware of future opportunities.*

FOSS

BORLAND NAMED TO YMTA BOARD

Justin Borland *of the Foss Human Resources Department has been named to the executive board of the Youth Maritime Training Association. He succeeds Marine Personnel Coordinator* ***Monte Crowley*** *on the governing body of the group, which has long had close ties with Foss Maritime.*

Borland joined Foss in April 2008 and is the company's recruit, retain and development coordinator. He is a 2007 graduate of Western Washington University, where he earned a bachelor's degree in human resource management.

Justin Borland

Lauren Grasdahl

BALLARD STUDENT WINS FOSS SCHOLARSHIP; ONE OF FIVE WINNERS IN YMTA COMPETITION

Lauren Grasdahl, a senior at Ballard Maritime Academy at Ballard High School in Seattle, is the winner of a $3,000 scholarship sponsored by Foss Maritime as part of the Norm Manly Youth Maritime Training Association (YMTA) Scholarship program.

Grasdahl will enter California Maritime Academy in the fall and will study Marine Transportation. Her goal is to pilot a Washington State ferry or coastal tugboat.

She was raised in the Puget Sound area and enjoys boating, fishing and tide pooling. She has been a leader among her peers and a strong advocate and recruiter for the Ballard Maritime Academy.

Norm Manly, for whom the scholarship program was named, retired three years ago as Foss marine personnel supervisor. He is a former president of YMTA and is known for his support for youth maritime education.

The program annually presents five scholarships, funded by donations from companies and the Seattle maritime community, to students who have demonstrated strong leadership skills and are model students with a passion for working on boats and on the ocean.

PEOPLE NEWS

NEW EMPLOYEES

Brian Householder
Sr. Business Analyst/SAP Solution Consultant

Kim Harztell
Manager, IT Services

PROMOTIONS

Colette Lowe
HR Assistant to Claims Assistant

Michael O'Connor
Manager, Line Services to Director, Labor Relations

RETIRED

Victor Rebane
PNW Deckhand/Engineer

PASSINGS

Capt. Budd Turner
Retired PNW Captain

SATISFACTION GUARANTEED

The only way to beat your competition consistently is to outservice them.

— From Satisfaction Guaranteed By Byrd Baggett

Original Hood Canal Bridge was Controversial, and Engineers Expressed Doubt about its Design

By Mike Skalley

On August 12, 1961 when the original Hood Canal bridge opened for traffic, thousands of spectators sat in a five-mile traffic backup waiting to cross the brand-new bridge. At the time of opening it was the world's longest bridge of its type, with the floating portion consisting of 23 separate concrete pontoons stretching for 6,520 feet across the waters of Hood Canal.

Planning for the bridge had taken the better part of a decade, but it was still a source of controversy. There were engineers who expressed doubt about its design and location since the floating pontoon section was the first of its kind to be built on salt water, and subject to tidal variations of up to 18 feet. Due to the depth of Hood Canal, 340 feet in places, installing supports for a more conventional bridge would have been very complicated and too expensive. The original cost of the four year project was $26.6 million.

The bridge was built for the Washington Toll Bridge Authority by a consortium of four major contractors with the combined name of Morrison-Kaiser-Puget Sound-General.

The first involvement of Foss tugs and barges occurred during the summer of 1959 when the 350 horsepower, 60 year-old *Catherine Foss* towed Foss gravel scows between the Glacier Sand & Gravel pit at Steilacoom to the bridge site. The gravel was being used for ballast in each of the 42, 550 ton anchors which would be used to hold the pontoons in place. During the summer, the *Catherine* and the five barges delivered 45 loads, totaling 25,000 tons of sand and gravel.

Foss' second phase of the operation took place over the span of two years. This phase was the towing of the 23 pontoons from the fabricating plant at the Puget Sound Bridge and Dredge facility on the Duwamish River to Port Gamble Bay for storage until the contractors were ready for the placement at the bridge site. The 23 pontoons averaged 360 feet in length.

Foss tugs installed the 928-foot west drawspan of the Hood Canal bridge in 1961, above photo, and then removed the east drawspan, right photo, as part of the bridge renovation 48 years later, on May 7, 2009. The tugs in the historic photo are: upper left, *Leslie Foss*, out of site pushing on the upper end, *Carol Foss*, upper right, *Andrew Foss*, lower right, *Wedell Foss* and lower left, *Pacific* (later the *Edith Foss*). At right, the 6,600 horsepower tractor tug *Pacific Star*, foreground and the *Shelley Foss* handle the removal.

Washington DOT

On the morning of July 6, 1961, five Foss tugs, the *Carol Foss, Leslie Foss, Andrew Foss, Wedell Foss* and the *Pacific* (later the *Edith Foss*), towed the 1,230 foot west drawspan, consisting of four already joined pontoons and one sliding pontoon into position (see photo) during an early morning slack tide. The newly placed pontoons, named I, J, K, L and LL contained a mechanism which allowed one pontoon (LL) to slide into the larger pontoons. In the photo the sliding pontoon (LL is nested within the stationary pontoons (I, J, K, and L). This same procedure was repeated a week later on the east side, which, when completed allowed for up to 600 feet of open water for marine traffic when the sliding pontoons are retracted.

With the anchoring of the final pontoons in late July of 1961, Foss' participation was over, and only the final electrical work by the contractors was required before the grand opening on August 12.

Now nearly 48 years later Foss tugs once again looked after the needs of commuters and tourists to the Olympic Peninsula during the replacement of the east half of the Hood Canal bridge.

660 W. Ewing St.
Seattle, WA 98119

MORNING ARRIVAL IN PORT GAMBLE

The Foss tug Howard Olsen entered Port Gamble, Wash., on Saturday, March 7, towing a barge carrying a truss for the new Hood Canal bridge. Foss division Harbor Marine Group planned ballasting and other technical aspects of the move. The tug sailed through strong winds and a snowstorm during the two-day trip from Vancouver, Wash, where the truss was built. An article and more photos of Foss' involvement with the bridge project appears on page 10. A "Look Aft" column on the company's work on the original bridge appears on page 23.