

## Industry pioneer Bellingham Marine marks its 50th year

## Soggy boxes and pink concrete...

by Robert Wilkes

There are two pieces of wisdom that apply when reading articles about industry pioneers: history is written by the winners; and when winners write history, events that appear inevitable in hindsight were not at all inevitable at the time.

With that in mind, you might think a story about Bellingham Marine, the largest marina builder in the world, would start with a Cinderella debut and march relentlessly forward to everlasting glory and acclaim.

The real story is different. Soggy boxes nearly sank the company's fledgling marina business and with it, perhaps, its whole concept of concrete floating docks. Were it not for a few believers (and more than a few well-timed engineering changes) we might never have heard of Bellingham Marine.

To learn the genesis of its modern concrete floating marina system we interviewed the man who was there from the beginning, Pete Gaasland. Gaasland worked on many of the company's foundation projects and is the former owner of Bellingham Marine. He still keeps an office on the waterfront in Bellingham, not far from Bellingham Marine's world headquarters but sold the company to Japanese and Canadian interests in 1995. He continues to have business interests in the area and commutes between the Pacific Northwest and his other home in Sun Valley, Idaho.

In 1958 Pete Gaasland was just out of college and ready to learn the family business. As he tells it, the company did not seek to build marinas; the marina business came to them.

Concrete floating pontoons had been developed and installed by Pontona (now SF Pontona) at a marina in Stockholm, Sweden as early as 1935 but the concept was not widespread. It took the creative genius of a

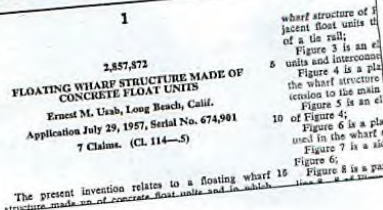
Californian named Ernie Usab to introduce this type of product to North America and he designed and patented the first concrete floating dock in the USA. He was an original thinker but not much of a marketer or businessman. He realised he could invent concrete dock concepts but couldn't build or sell them, so he licensed his design to companies he thought could.

An early licensee was a Seattle shipbuilding company named MARCO, builders of large steel commercial fishing boats. Shipbuilding can be a cyclical business and MARCO reasoned that docks might be a profitable complement to shipbuilding. As it turned out, building docks was far more difficult than they first thought. They started work on a small project near the Canadian border, and they wanted out.

"MARCO called us," Gaasland recalls, "and asked, 'How would you like to build concrete docks for marinas?'" Gaasland's company, then called Bellingham Builders Supply, was the largest supplier of construction concrete in Whatcom County, a picture-post-card blend of seaport, lakes and mountains 100 miles north of Seattle. "They gave us a sub-license," explained Gaasland, "and we finished the project."

Soon after, the Port of Seattle was in planning for an ambitious new 1,500-slip marina at Shilshole Bay. John Kelly, MARCO's chief engineer, was a consultant to the Port for this important project. Kelly had seen the concrete

## United States Patent Office



floating dock concept at MARCO and he believed in it. He convinced others at the Port to specify concrete docks.

"We were the only company in the area that was making them," said Gaasland, "so we won the contract. Of course, MARCO had a financial interest in our getting the job. We had a royalty agreement with Marco and Marco got to do all the engineering. The Shilshole job put our company in the marina business and set a new industry standard."

Shilshole opened in 1958. Flash forward a

half century and history repeats itself: Bellingham Builders Supply's original floats have been replaced over the past few years with new ones manufactured by... Bellingham Marine. As with most marinas of that era, Shilshole's layout and slip mix had become outdated. Bellingham Marine worked with the port authority to revitalise the marina and provide a layout that would accommodate today's boating environment.

While researching this article I visited Shilshole as the renovation was wrapping up. The first thing I noticed when I saw the original floats tied alongside new floats was the colour. The old floats were decidedly pink; new floats, by contrast were almost gleaming white. Why pink floats?

Gaasland may be one of the few people still around who could answer that question. He was working at the plant supervising the mixing of the concrete and performing the quality assurance tests on the floats during manufacture.

"The concept of floating concrete docks was still new," Gaasland said. "Our strategy was to improve buoyancy by building the floats with lightweight concrete, 95 to 98 pounds per cubic foot (1,537 kg/cm). By comparison, normal concrete weighs about 150 pounds per cubic foot (2402 kg/cm). We became overnight experts in lightweight concrete. We found an expanded shale on Saturna Island, one of the Gulf Islands in British Columbia, we could use as an aggregate. It was called saturnalite and it looked like popcorn." And, of course, it was pink. It made the floats a dusty rose colour.



Pete Gaasland: "The Shilshole job put our company in the marina business and set a new industry standard."

The effort to make lightweight concrete resulted in pink floats seen in this marina in Oregon.





An archive view of the early manufacturing process shows expanded polystyrene being fitted into forms.

We now come to the near-fiasco of the soggy boxes - and back to our visionary inventor, Ernie Usab. Floating concrete docks proved to have something in common with many other advances in technology. Consider the first airplane. Orville and Wilber Wright intentionally designed their flying machine with neutral stability. As any pilot knows, positive stability is the right answer. The Wrights warped the wings to bank, we now use ailerons. Most surprising, the contraption was built backwards, with the tail in front.

But it flew. The first to invent gets the lion's share of the credit, but those that add that *sine qua non* to the original design are indispensable to making it practical. More often than not, we never know their names. Usab's design worked. It was solid, stable and floated wonderfully - lightweight concrete or not.

His design called for buoyancy to be achieved by means of an air pocket in the centre of the float. To get the pocket, a large cardboard box was set into the forms as the concrete was poured. As a means of strengthening the box against the weight of the concrete, the boxes were stuffed with a corrugated egg-crate material intended for structural support.

"I was a kid out of college with my finance



Very long piles were used to handle extreme tidal variations in Alaska.

degree," said Gaasland. "I was expected to learn the business from the ground up. My job was to conduct quality control tests for concrete operations, but I was also put to work making those boxes. I assembled them, stuffed them with courses of egg-crate material, taped the corners and shellacked them as a barrier against moisture. I can laugh about it now. One by one they all took on water and the cardboard turned to mush."

The necessity of removing moisture from the cavity was anticipated in Usab's design, and an inspection hole was added through which to pump the float dry if necessary. Good plan - but it didn't work. "The cardboard mush would clog the pumps," said Gaasland. "It was a mess. It took an enormous amount of work, but we finally got all the goopy cardboard out of the floats. We later found a viable solution that prevented cavities from filling with water. Most of those original floats served the Port of Seattle for 50 years."

In spite of the initial problem of soggy boxes, Shilshole Bay Marina was an instant success. It immediately acquired a legendary 10- to 15-year waiting list, with no relief until Bellingham Marine built the Elliot Bay Marina near the heart of the City of Seattle in 1991.

But that was later. At the time, enthusiasm for concrete floating docks waned considerably after the soggy box episode. There was a serious lull in the company's marina work. It all might have ended right there.

Fortunately, there were still believers. The project that settled the issue was at Westport, a destination sport fishing centre on Washington's Pacific Coast. Someone on the development team at Westport had faith and believed that concrete flotation was the future. To the surprise of many, floating concrete docks were specified in the request for proposal. "We were the tenth bidder out of ten," recalls Gaasland, "but the only one bidding concrete docks. We won the job, and we got a second chance to modify the Usab design and do it right."

Bellingham introduced expanded polystyrene (EPS) as the core material for the project at Westport. As we now know, it is a perfect material for the purpose. EPS adds strength, is structurally and biologically stable, and streamlines the manufacturing process.

After the success of Westport, it was apparent that concrete flotation was the wave of the future, and Bellingham Builders Supply was the company to go to. As the company's skill and reputation for building marinas became established, its management team transitioned the company out of other lines of business to become exclusively the marina builders they are today. "We were not sorry to leave the price-sensitive, highly competitive builder supply business," Gaasland added with a smile.

Other key innovations were achieved in that early development period. "We perfected the through-rod system," said Gaasland, "to attach the walers. It's much stronger and more reliable than the embedded studs in the original design, and it became a key component in the successful waler system that connects floats."

Lightweight concrete was jettisoned for the Westport project. "We eventually went to middle weight or even standard-weight concrete," Gaasland said. "We learned there were better ways to get the strength, stability and the buoyancy needed for a rock-solid platform and a good freeboard."

Eventually, Usab sold his patent to a New York company. Alarmed at ever-increasing royalties, Bellingham bought the patent. "It was costly," Gaasland relates, "but after a couple of jobs we paid for it." In time the patent ran out. "Our best defense was our product. Our docks were more credible than anyone else's. That has continued to work well for us," he noted.

Later, once firmly established in the marina industry, the company changed its name to Bellingham Marine Industries, often shortened to BMI. In 1980 the name was simplified to Bellingham Marine, but the BMI acronym has stuck and is still used...by customers but especially within the company.

In the years that followed, Bellingham Marine continued to grow and win contracts in the United States, including several in Alaskan towns whose economies are highly dependent on the fishing industry. The Director of Waters and Harbors determined that a fire at the wooden docks would be catastrophic and ordered them replaced. Bellingham Marine spent several years replacing wooden docks in good condition with concrete floats. The lessons learned in Alaska included dealing with ice and enormous tidal changes. The experience toughened the crews and the engineering of the floats.

## Global markets

During the 1980s Bellingham Marine expanded into international markets by licensing its technology to companies around the world. The first licensees were based in Australia, New Zealand and Japan. Nishida Tekko Corp. of Japan became a Bellingham Marine licensee serving customers in Japan, China, Taiwan and Korea.

The Southeast US and the Caribbean are important markets for marinas, prompting Bellingham Marine to acquire its most successful domestic licensee, Florida Floats, headed by Phil Greenman. The acquisition brought new talent, strong management and extensive technical experience. Many of the Florida Floats staff, including Greenman,

Shilshole Marina in Seattle as seen today.



are still with Bellingham Marine. Further expansions and acquisitions were made and the company now has plants and offices throughout the US and abroad.

In 1995, Pete Gaasland sold Bellingham Marine to a consortium of investors led by Mitch Taylor of Vancouver, BC. The new ownership group included the company's Japanese licensee Nishida Tekko. Mitch Taylor was a successful entrepreneur in his own right. "Mitch was a great teacher," said Everett Babbitt, president of Bellingham Marine. "He brought a timely and unique mix of management styles. He helped us see issues from the developer's point of view, as a business case. Mitch taught us how to become partners with our customers."

The entrepreneurial ownership team searched for a growth strategy in an industry where its customers build a marina every 40 or 50 years. "We had to expand geographically," said Babbitt. "We were not going to grow by staying in markets where we were comfortable. We had to go anywhere and everywhere in the world."

There was opportunity 'down under'. Bellingham bought its licensee in Australia in 1996 and purchased the assets of its licensee in New Zealand in 1998. The expansion strategy continues into new continents. European and Southeast Asia Divisions were established. Both took on major projects in their first year. Port Forum in Barcelona, Spain and a major marina

in Penang, Malaysia were completed in 2004.

That same year, Septeck Emirates was established as a licensee and was granted the rights to produce Bellingham Marine's products in the Middle East. In 2005, the company added Bellingham Marine Mexico to its list of international global locations. An office in Costa Rica is the latest addition to the company's growing list of worldwide locations.

## Joining Ambassadors International

Bellingham Marine was acquired by Ambassadors International, a publicly traded company based in Newport Beach, California in 2006. The two companies had already enjoyed a long working relationship.

Ambassadors International's three business groups are the Cruise Group, the Travel and Events Group, and the Marine Group. Bellingham Marine is the largest company in the Marine Group. In addition to marina construction, the Marine Group offers shipyard and marina consulting services.

Needless to say, the company is proud of its long heritage. Everett Babbitt, president, has been with the company since 1984. "What I enjoy most about working here is the amazing problem-solving skills of the people," said Babbitt. "We're an international company now, and we've learned how to share ideas and technology from all over the world. It's an unexpected benefit of our worldwide growth strategy."

*Robert Wilkes writes about the marina industry from his home in Bellevue, Washington, USA.*

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