Astoria’s S.S. Great Northern: World’s Fastest Steamship
From the Collections: S.S. Great Northern toiletry kit

In 1915, newlyweds James and Mary Careher boarded the Great Northern in Flavel, bound for San Francisco and the Panama Pacific Exposition. Waiting in their cabin aboard ship to pamper them on what we hope was a romantic journey was this “Colgate’s Week End Package” toiletry kit, containing Colgate’s Ribbon Dental Cream; Cashmere Bouquet Talc Powder; Cashmere Bouquet Toilet Soap; and Colgate’s Cold Cream - all in original packaging. The kit’s dimensions are 4” wide x 1” high x 3” long. A label on the inside says: “Compliments of Great Northern Steamship Company; Operating The Twin Palaces of the Pacific; S.S. Great Northern - S.S. Northern Pacific.” CRMM 2010.41.1

On the Cover:
The steamship Great Northern in 1914, seen docking at a new pier and terminal building at Flavel, Oregon, four miles downstream from Astoria.

Photo courtesy John Russell
From the Wheelhouse

“Please continue to provide “lost art” courses. They are vital to our community.” – course critique, September 2018 Bronze Casting class

For two days, ten adult students from as far away as Idaho, and right here in Astoria, learned and practiced traditional bronze casting from Executive Director Sam Johnson and protégé Chuck Bollong, at the Barbey Maritime Center. Visiting the class midway through day 2, I was blown away by the students’ enthusiasm for learning this ancient art. Even more impressive was Sam’s obvious passion for his craft, and for passing it on, as he scurried from table to table, giving tips, correcting and assisting. The eager students learned how to make patterns for functional parts and decorative objects, mold patterns in specialized sand, and then make and pour molten bronze to make castings. Each student in turn donned protective gloves, picked up the heavy crucible from the furnace, and poured the over 2,000 degree F molten metal into their carefully crafted molds. The smiles which emerged when the students removed their castings, dunked them in water and scraped off the burnt sand, revealing their creations, were priceless. It is safe to say that the vision for the BMC as the experiential extension of the Museum, a place where maritime related arts, craft and knowledge are brought to life for new generations, is being realized. We are thankful to those who pursued the vision, and those whose generosity made it possible. Check out the wide variety of classes offered on our website – you don’t know what you’re missing!

Bruce Jones, Deputy Director

Corrections to the Summer 2018 issue:
The Editor thanks Mr. Michael Carlson, Secretary, U.S. Life-Saving Service Heritage Association http://uslife-savingservice.org/ for sharing his expertise and research in providing counterpoint and additional detail to our story “Mimi – An Avoidable Tragedy on the Nehalem Spit” in our last issue. The article relied heavily on newspaper accounts, written by one reporter shortly after the grounding, critical of Tillamook Bay Lifesaving Station keeper Captain Robert Farley’s initiative and courage. Carlson’s exhaustive review of the historical record provides ample evidence that the 1913 reporting unfairly and inaccurately savaged Farley’s sterling reputation, and that his rescue effort was in fact carried out professionally and competently. For more detail, the 1913 Annual Report of the U.S. Lifesaving Service can be found online, and searched for “Mimi”.

A photo of the CG-52 USS Bunker Hill was misidentified as the DDG-52 USS Barry. Thanks to Maritime Archaeological Society President and Navy veteran Chris Dewey for pointing out the error.
Remarkably, and unknown to most in the Pacific Northwest, Astoria was once home port to the fastest steamship in the world. The story of the Great Northern is not only one of unprecedented speed over more than 30 years of alternating passenger and military service, but an illustration of a uniquely maritime component of the railroading era of the early 1900s that brought tens of thousands of Scandinavian settlers to Oregon and Washington.

Minnesotan James Hill, known as the “Empire Builder of the Northwest,” completed his Great Northern Railway in 1893 covering a distance of more than 1,700 miles between St. Paul and Seattle. In the mid-1890s, Hill bought the Northern Pacific Railroad and its line running from Duluth to Tacoma out of bankruptcy, all the while focused on a dynamic plan to spur settlement (and growing freight revenues) along his rail lines.

In a speech at the 1905 Lewis and Clark Centennial Exposition in Portland, James Hill promised to bring ocean-going cargo vessels to the Rose City if Portlanders would deepen the channel of the Columbia River to 32 feet.

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Throughout the late 1890s and the first two decades of the 1900s, James Hill aggressively promoted settlement along his Pacific Northwest rail lines. Hill’s companies bought lands primarily from the federal government and operated promotional agencies in Germany and Scandinavia recruiting immigrants with the promise of cheap land and low passage costs. Hill also recruited Scandinavians to help build his rail lines. While building the Great Northern Railway to Seattle, he is reported to have said: “Give me Swedes, snuff and whiskey, and I’ll build a railroad through Hell.” In another version of the same quote, Hill is said to have boasted: “Give me enough Swedes and whiskey and I’ll build a railroad to Hell.”

Remarkably, James Hill keenly understood how promoting development of the rich natural resources of Oregon and Washington would drive the profits and value of his railroad empire, and he focused particularly on farming and lumbering. Hill sold close friend and St. Paul next-door neighbor Frederick Weyerhaeuser on the benefits of expanding the lumberman’s business to the Pacific Northwest. Then, in 1900, in what would be the largest timberland transaction in U.S. history for several decades, the Northern Pacific Railroad sold 900,000 acres of prime forest land in western Washington (part of its land grant holdings from the U.S. government) to Weyerhaeuser and a group of investors for $5.4 million or $6 per acre. This was the start of Weyerhaeuser Company, which became one of the nation’s premier wood products companies. In yet another example of his comprehensive approach, Hill’s railroads significantly dropped freight rates from the West Coast to the Midwest and helped spark a major expansion of logging and sawmilling throughout the Pacific Northwest.

In another promotional move, Hill was instrumental in founding the Northwest Development League, which included the states of Minnesota, North Dakota, Montana, Idaho, Washington, Oregon and the Territory of Alaska. He used this privately funded economic development organization to promote a region that he characterized as growing the “greatest profusion” of grain, fruit, cattle and timber in proportion to the population of the region compared to any other part of the U.S. In a speech to the league in 1912, Hill happily recounted the remarkable development progress throughout the Pacific Northwest. In his view, the building of the transcontinental railroads had been the engine that drove “the settlement of thousands of square miles of productive land,” as well as “the marketing of the greatest body of standing timber in North America.” Hill noted that western Washington had seen its population triple in the 20 years between 1890 and 1910. Indeed, census figures show that of the 232,000 Scandinavians living in the West in 1910, nearly 124,000 lived in Washington and 61% of that number had arrived during the 1880-1910 period. Undoubtedly, the Hill railroads were central to the influx of Scandinavian immigrants to Clatsop County during the same period.

At the end of his 1912 speech, Hill observed that the change in the territory from Minnesota to Oregon in the 60 years since the mid-1850s had been “unbelievable,” but he nonetheless predicted that “the transformation of the years to come will be even more striking and significant.” He urged a principled approach to developing the superior resources and industries of the Pacific Northwest and hoped that the Northwest Development League would “become a sovereign factor in the nation’s progress, as well as a clearinghouse for the activity and expansion of the chain of states that links the Father of Waters with the Western Sea.”
And now we turn to that maritime link which James Hill established in 1914 to carry passengers from Astoria to San Francisco in record time. With his keen eye for promotion, Hill wanted to extend his railroad south from Portland to San Francisco in time to provide transcontinental passenger service to the World’s Fair being held in San Francisco in 1915. When he was refused permission to extend his rail line southward, Hill’s Spokane, Portland and Seattle Railroad Company contracted with William Cramp & Sons Ship & Engine Building Company in Philadelphia to build two luxury passenger liners that would be dedicated to service between San Francisco and Astoria.

Knowing that the Southern Pacific’s competing passenger train, the Shasta Limited, made the run to San Francisco from Portland in “a little more than a day,” the SP&S shipbuilding contract with Cramp & Sons ordered two 525-foot long vessels capable of “a sustained speed of 23 knots” in ordinary weather for 24 hours. At 23 knots, these ships could cover the 575 miles between Astoria and San Francisco in just 25 hours, faster than the competing Southern Pacific train. This specification would be tested in a measured mile immediately after delivery. The contract was signed in April 1913 and required delivery of the first vessel by December 15, 1914 and the second by January 15, 1915 at a cost of $1.95 million each.

Because of the need for delivery of both vessels in time to carry passengers from Astoria to the 1915 World’s Fair, the contract included liquidated damages clauses imposing a penalty of $100 per day for each day beyond the specified delivery dates and an identical daily bonus for early delivery. The shipbuilder ultimately earned substantial bonuses, delivering the Great Northern on July 7, 1914 and her identical sister ship, christened the Northern Pacific, on October 17, 1914. In her sea trials, the Great Northern outperformed the contract specs, sustaining a speed of 23.995 knots over the measured mile with her boilers running at just 85% capacity. Remarkably, at such high speeds, there was no vibration in the passenger quarters. The Great Northern then headed south for her lengthy voyage to San Francisco and became the first passenger ship and the largest vessel of any kind at the time to pass through the newly completed Panama Canal.

At 23 knots, these ships could cover the 575 miles between Astoria and San Francisco in just 25 hours, faster than the competing Southern Pacific train.
While the two ships were under construction, the SP&S built a terminal for the two luxury steamships just inside the mouth of the Columbia River at the now forgotten town of Flavel, four miles downstream from Astoria at Tansy Point in what is now Warrenton and named after the famed Columbia River Bar Pilot, Captain George Flavel. The passenger ship pier at Flavel was 600 feet long with an 80-foot-wide single story terminal building. The city of Astoria was so grateful to Mr. Hill’s railroad for the new passenger service to San Francisco that the city commissioned the making of two clocks contained in a ship’s wheel and presented one to each of the two ships. Both are on display at the James J. Hill Center in St. Paul, Minnesota.

When the Great Northern and Northern Pacific began their service between Astoria and San Francisco in 1914, no passenger liner in the world could cruise at speeds of 23 knots. Both ships were outfitted with 478 first class, 106 second class and 200 third class cabins. The round trip passage from anywhere in the Willamette Valley to San Francisco and back was $38.40 in 1914-15. Brochures at the time advertised the service as follows: “Leave Portland in the morning by rail, 3 ½ hours to Flavel, sail after lunch; arrive in San Francisco next mid-afternoon.” Making this transit in 25 hours is comparable to the speeds of most modern cruise ships, which travel at speeds of 21 to 24 knots per hour. Only a few modern ocean liners, like Cunard’s Queen Mary 2, reach speeds of 28 to 30 knots.

This luxury cruise line service lasted just two years because, with the outbreak of World War I in 1917, both ships were commandeered into troopship service during the war. The Great Northern carried 3,400 troops on her first voyage to Brest, France in March 1918. On her fifth voyage, the ship set the first of what became multiple speed records, transiting from Ambrose Lightship to Brest and return in 14 days, 4 ½ hours. The vessel’s return trip from Brest on her eighth voyage was particularly eventful. It was a race across the Atlantic back to New York between the Great Northern, her sister ship Northern Pacific and the Leviathan, the former German ship Vaterland seized for U.S. troopship duty at the outbreak of the war. At some 900 feet, the Leviathan was very large and was thought to be the fastest ship in the world.

All three ships departed Brest on September 14, 1918, but the Great Northern ran into a gale and had to slow down. According to a diary penned by the Great Northern’s chief petty officer D.K. Romig, it “looked like the Leviathan would beat us as she could maintain her speed in almost any weather.” On September 16, 1918, the Great Northern “ran out of gale” and was “making 21 knots for the day.” Two days later, her speed had increased to an average of 22 knots. She arrived at Ambrose Lightship at 4 am on September 19, three hours ahead of the Leviathan.

Immediately after the armistice ending World War I, the Great Northern, then in New York, was assigned the important task of delivering documents to President Wilson, who had just departed Paris aboard the George Washington following the Paris Peace Conference. The plan was to deliver the documents in an at-sea rendezvous, but the Great Northern was so fast that the rendezvous took place only 300 miles off the French coast.

After handing off the documents, the Great Northern went on to Brest, picked up 3,000 troops and returned to New York and docked before the arrival of the George Washington. In the process, the Great Northern shattered by more than a day the transatlantic speed record of the Mauretania, making the round trip in 12 days, one hour and 35 minutes. This feat was accomplished despite the fact that the Great Northern’s round trip was 500 miles longer than the Mauretania’s record run from New York to Queenstown, Ireland and back. As a result, the President issued a special citation to the Great Northern commemorating her remarkable feat.

A commemorative U.S. Navy postcard noting the Great Northern’s status as the fastest transport in World War I. Also shown is Captain S. H. R. Doyle, who commanded the vessel in 1918 – 1919. CRMM 411-9369
Building the Twin Palaces of the Pacific

Laying the keel of the *Northern Pacific* at the massive Cramp & Sons shipyard in Philadelphia. The *Northern Pacific*'s keel was laid on September 23, 1913. The keel for the *Great Northern* was laid a day earlier on September 22, 1913.

CRMM 411-9410

The *Northern Pacific* under construction at the Cramp & Sons Philadelphia yard showing three of what would ultimately be five decks.

CRMM 411-9418
Huge floating crane carrying one of three Parsons steam turbine engines for installation on the Great Northern. Each of these engines weighed 197,000 pounds or 98.5 tons and was manufactured by Cramp & Sons under license from inventor Charles H. Parsons.
Building the Twin Palaces of the Pacific

The huge size of the rotor for each Parsons turbine engine installed aboard the S.S. Great Northern is shown above with a shipyard worker in the foreground. This photograph was taken just three weeks before the vessel’s launch on July 7, 1914. CRMM 411-9400

The stern of the Great Northern showing her home port of Astoria the day before her launch on July 7, 1914. Twelve boilers powered three steam turbine engines. Two of the three propellers can be seen in this photo. CRMM 411-9422
The bow of the *Great Northern* two days before her launch in Philadelphia. Shipbuilder Cramp & Sons numbered each of its ship hulls in succession. The *Great Northern* was No. 407 and the *Northern Pacific* was No. 408. Designed much like a yacht, the vessel’s hull lines were so fine that they were described as “like a carving knife on edge.” CRMM 411-9432
Aboard the S.S. **Great Northern**

The luxuriously appointed Colonial Dining Room aboard the *Great Northern* rivaled those of modern day luxury liners 100 years later.

CRMM 411-9341

*Great Northern* passengers dancing on the aft end of B deck.

CRMM 1972.8
Passengers getting settled in a first class cabin aboard the Great Northern. Note the door to a connecting parlor, bath and bedroom. CRMM 1972.8

The well-appointed observation parlor aboard the Great Northern. CRMM 1972.8
In a reported 20 round trip voyages during World War I, the Great Northern carried approximately 72,000 U.S. troops and, according to chief petty officer Romig, stood alone atop the transport service, “having landed more American troops per day per thousand tons, than any other troopship.”

The Great Northern’s military glory did not end with her troopship service. Following a lay up period in which she was “scrubbed, painted, polished from stem to stern,” the Great Northern relieved the U.S.S. Pennsylvania as flagship of the U.S. Navy at Guantanamo Bay, Cuba, becoming the first merchant ship to be so honored. Her selection was consistent with modernization efforts in the U.S. Navy where “it was decided in future naval warfare, the commanding admiral with his staff should never be in a combat ship, but behind the scenes of operations in a fast auxiliary.” Indeed, according to naval historian John Carrol Carrothers, the reason for the Great Northern’s selection as the Navy’s new flagship was her speed, specifically her ability to transit the run from New York to the Panama Canal in less than 100 hours. In her completely refurbished life, the vessel was renamed the U.S.S. Columbia. She was painted all white and had hundreds of pennants and signal flags flying from her rigging.

In another surprise, her service as the U.S. Navy flagship lasted for only five months. As the U.S. shipping industry expanded in the prosperous times of the early 1920s, Seattle’s H.F. Alexander, one of the West Coast’s largest shipowners, was in the market for a luxury passenger ship to name after himself and to head his fleet of ocean liners. In early 1922, he arranged to purchase the Great Northern’s sister ship, the Northern Pacific, from the U.S. government. But before the sale closed, fate intervened and on February 8, 1922 the vessel burned to the water line off Delaware Bay.

As it happened, the persistent H.F. Alexander was somehow able to secure an order from President Harding to retire U.S.S. Columbia and sell her to Admiral Line within a matter of weeks for a reported $1.25 million. According to Howard Ryan, a Seattle advertising executive who knew H.F. Alexander well, the shipping magnate “talked the President, or more specifically the Navy Department, out of her.”

Admiral Line then reconditioned the ship at a cost of approximately $500,000 with most of that related to the installation of first class accommodations for 675 passengers. The vessel left the shipyard in May 1922 with her hull painted the dark green color of Admiral Line with a white and gold streamline from bow to stern and white superstructure. She then began 15 years of service on a Seattle, San Francisco, Los Angeles run, departing from the Seattle terminal at 5 pm every Tuesday. Throughout the Roaring 20’s, the H.F. Alexander was extremely popular, featuring the Colonial Nite Club, a splendid orchestra that played during lunch, dinner and for dancing each evening, telephones in every cabin, a children’s playroom, a cocktail bar and a club room.

A remarkable incident in 1922 proved the H.F. Alexander had been well built. Just after midnight on July 9, 1922, the ship smashed into Cake Rock at full speed in the fog, more than 30 miles south of Cape Flattery off the Washington Coast. The photograph on page 16 shows the severe damage she sustained, the collision pushed her forefoot and forepeak back approximately 40 feet. The damage was far less severe than her captain had expected. As he stated to the Seattle Times two days after the collision:

“I will say positively that we withstood a shock that was greater than I thought any ship could stand and live. If I ever had tried to estimate what a blow would have done to this or any other ship previous to the accident, I would have unhesitatingly declared the ship would crumble up clear to the bridge. But you see that the H.F. Alexander just got her nose punched in.”
Repairs were made in just three weeks at Todd Shipyards in Seattle and cost nearly $250,000. Throughout her years in luxury passenger service on the West Coast, the H.F. Alexander picked up a new nickname for her impressive speed—Hot Foot. She continued earning profits for Admiral Line throughout the 1920s, but, when the Great Depression hit in 1929, seasons were shortened dramatically. Her service ended in 1936 when the Admiral Line closed its doors after years of financial difficulties. However, the vessel that began her life as the Great Northern and became first the U.S. flagship U.S.S. Columbia and then the H.F. Alexander was destined for one last chapter of military service. In 1942, she was purchased by the U.S. War Shipping Administration and renamed in honor of Major General George J. Simonds. She saw troop transport service in the Pacific immediately after Pearl Harbor and also ferried troops in support of the Normandy invasion on June 7, 1944. Two years later, the George S. Simonds was redelivered to the War Shipping Administration at Lee Hall, Virginia and became part of the laid up fleet on the James River. Her unique design ultimately brought about her demise. Too narrow to be converted into a cargo ship and too large to justify the cost of refitting as a passenger vessel led to the announcement in March of 1948 that she had been sold to Boston Metals Corporation to be scrapped.

In 34 years, perhaps no large vessel homeported for a time at the mouth of the Columbia River was more accomplished or had more nicknames. That list included not only Palace of the Pacific and Hot Foot, but also Galloping Ghost of the Pacific Coast and Greyhound of the Pacific.

Mike Haglund is a Portland attorney and current president of the board of trustees for the Columbia River Maritime Museum.

Special thanks to John Russell of Portland, who first suggested the Great Northern as a topic of interest and provided his 1964 college paper and a wealth of research materials on the subject.

**Great Northern** Speed Records

<table>
<thead>
<tr>
<th>Year</th>
<th>Voyage Details</th>
<th>Time/Days, Hrs., Min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1915</td>
<td>San Pedro to Honolulu</td>
<td>4 days, 6 hrs.</td>
</tr>
<tr>
<td>1915</td>
<td>Honolulu to San Francisco*</td>
<td>3 days, 18 hrs., 51 min.</td>
</tr>
<tr>
<td>1918</td>
<td>New York to Brest, France and return</td>
<td>14 days, 4 ½ hrs.</td>
</tr>
<tr>
<td>1919</td>
<td>Brest, France to New York and return**</td>
<td>12 days, 1 hr., 35 min.</td>
</tr>
<tr>
<td>1922</td>
<td>San Francisco to Honolulu</td>
<td>3 days, 18 hrs., 20 min.</td>
</tr>
<tr>
<td>1922</td>
<td>Honolulu to San Francisco</td>
<td>3 days, 17 hrs., 54 min.</td>
</tr>
<tr>
<td>1924</td>
<td>Seattle to San Francisco</td>
<td>37 hrs., 13 min.</td>
</tr>
</tbody>
</table>

*stood for 40 years until 1955  **beating Mauretania by more than one day
In August of 1922, early in the Great Northern's regular service as the H.F. Alexander between Seattle, San Francisco and Los Angeles, she struck Cake Rock, 30 miles south of Cape Flattery, while proceeding at full speed. The vessel is shown above undergoing repairs in Seattle. Photo courtesy John Russell
The Museum’s own pirate Haley Werst helps children make pirate boats as part of our Fridays on the Plaza summer program.

Photo by Kelly McKenzie

Columbia River Maritime Museum Education Department: Making a difference in young lives every day

The Museum’s influence continues to grow under the leadership of Education Director Nate Sandel, and with the infectious enthusiasm of Field Educator Kelly McKenzie. Together, they served over 15,000 students during the 2017-2018 school year!

- **Learning Labs** (on-site school programs) – 143 labs taught to 4,462 students
- **Shipboard Programs** (on-site and overnight programs) – 13 schools participated in 2018
- **Museum in the Schools** – FREE outreach program for grades K-5 – 412 programs taught to 9,739 students
- **Miniboat Program** – International Outreach and Partnership – 72 visits to 12 participating schools in Alaska, Oregon and Japan
- **Family Programs** – 10 days of on-site programming summer 2018

Portland students painting their Miniboat according to their own design.  
Photo by Nate Sandel

Field Educator Kelly McKenzie teaches a program on oil spills to a Beaverton class as part of the Museum in the Schools program.  
Photo by Nate Sandel
CRMM: New Members  5/1/18 - 9/12/18

Ensign
Ianey Derrah
Megan Hemmila
Kevin Henker
Steve Mangold
Richard Viich

Crew
Tamara Ames and Linda Whedon
Brandi Bednarik
Bill and Muffy Beeler
Jacob and Evie Benedict
Larry Benson and Tina Stotz
Robert and Karen Birdseye
John and Kellie Birkinbine
Glen and Karen Boring
Jeremy and Jessica Brackett
Harlan and Judy Bridenbaugh
Stephan and Marialena Brossard
Elizabeth Bunce
Mark Bunker, Jr., and Robin Cazier
Aref Burni and Nore Batoulia
J. Adam Buads and Susan Kalis
Dr. Mignon Cejalvo and Mr. Ed Banaga
Mickey and Angie Cereghino
Alex and Brenda Cole
Devon and Gretchen Cole
Gregory Daigle and Sandra Lamartine
Paul Daigle and Daniela Brod
Raymond and Aimee Davidsone
Benjamin and Andrea Diamond
Linda Dugan
Steve and Elizabeth Ericksen
Tim and Tracy Erickson
Andy and Jodi Frost
Phil and Patt Gentemann
Leslie Gilbert
Gary and Cindy Gillam
Wayne Gorsek and Erica Schnorf
Stephanie Hagel
Kraig and Ashley Hamar
John and Carla Hanson
Brandi Harris and Nancy Whittaker
Steve and Cambria Haydon
Chuck and Shannon Hays
Tim and Sue Hennessy
Bob and Joanne Hershman
Bob and Seana Hickey
Deryk and Allison Hiley
Professor Deckard Hodge and Dr. Carolyn Hardy
Alan and Sonya Jackson
Margaret Jeppesen
Mike and Angela Johns
David and Cindy Johnsen
Brian and Kelly Johnson
Dave and Stephanie Jones
Chris Kesting and Kim Pettinger
Paul Kilty and Kathy Janke
Kevin and Melissa Koehn
Gerald and Alanna Langlois
Alex Lazano and Amber Hull
Brian and Kristen Leman
Elisabeth Ringyard Lindstrom
Michael J. Lindstrom and April Sweeney
Erik and Tina Maki
Lisa Maki
Ralph and Betty Martin
Dinesh Mathew and Evelyn Shoop Mathew
Mel and Stacy Matsuda
Tarah McGregor and Shannon McGregor
Ed and Liz Meaney
Sherman and Cristina Meeds
Kristin Meira
Richard and Lindsay Moody
Ben and Laura Nunez
Justin and Pyper Powell
Lucas Pauk and Alicia Nelson
Alex and Kimberly Ramos
Jacob and Judith Redekop
Anja Reinberg and Scott Drew
Teri Reinsch-Cook and Kaity Cook
Bosco Reveille and Emalee Evans-Reveille
Barbara Russell and Rosi Van Winkle
John and Melanie Ryan
David and Mary Schmidt
Pete and Lauri Serafin
Dave and Betty Smith
Ken and Laura Smith
Tomas and Susan Smith
Ryan and Brooke Stanley
Leslie and Roni Starr
Katharine Stewart and Patricia Swanson
David and Jacqueline Stout
Gene Strong
Kevin and Kristine Sump
Greg and Shannon Swedenborg
Judy and Rachel Tamigniaux
Joyce Tegfeldt
Pete and Ashley Totoonchi
Paul and Sally Turchetta
Lynn Untz and Joanne Diefenbach
Philip and Teri Veazey
Kevin and Becky Ward
Joe and Karen Warren
TJ and Charity Weber
Chris and Mimi Williams
Pat and Julie Wilson
Robert and Colleen Wilson
Gabe and Mandy Winslow
Jeffrey and Theresa Wood
Nathan and Beth Wood
Michael and Caryl Wray
William Wurtz
Jack and Arlene Young

Helmsman
Robert and Gayle Brindley
Mathew and LaDessa Christensen

Boatswain
Krystal Cochran and Wendy Booth
Todd Davis
Todd and Kathleen Farmer
Karen Lovejoy
Mark and Lisa Prescotto
Paul and Donna Ruscher
April Smith

Pilot
Thomas and Sheila Winslow

Navigator
Robert Dorn and Kary Beckner

Business Member
Hyak Tongue Point LLC
Wacom Technology Corp.

Business Partner
Columbia River Pilots
Memorials  9/7/17 - 4/30/18

John William “Billy” Bader, Jr.
Billy Laird
Bennett and Elyse Shoop
Edward S. Beall
Mary and Earl Rogness
Jack Becvar
Kathy Johnson
Jane Borg
Joel and Mimi Feuerberg
Lori Lepore
Rusty Donaldson
Steve and Kathy Johnson
Thomas V. Dulcich
Donna Mary Dulcich
Ward and Lois Cook
Alan C. Goudy
Ken and Dean Kirk
Jerry Ostermiller and Lynne Johnson
Walter Gadsby, Jr.
Ward and Lois Cook
Alan C. Goudy
Ken and Dean Kirk

Willard Ivanoff
The Cameron Family
Bart Oja
Gordon and Carol Wolfgram
Esther K. Jerrell
Captain Fred B. Jerrell
Dennis Arne Larson
Bill Paschall and Vicki Steele
W. Louis Larson
Ward and Lois Cook
Alan C. Goudy
Ken and Dean Kirk

Melvin Maki
Erik and Tina Maki
Harold and Judy Berger
Arnold and Erica Curtis
Dolores Devlin
Trevor Herb
Eric Moore
James A. Ochal
Julie Rohrer
Angelina Schwenke:
“In loving memory of Melvin Maki from
Katie, Alina, Erin & Heidi”
Tracy Steward and Family

Kenneth F. Thompson
Dorothy Ward & Family
Rear Admiral Edward Nelson, Jr.
Jerry Ostermiller and Lynne Johnson
Gordon and Carol Wolfgram
Byron Pinkney
Diane Pinkney
George Siverson
Martin Nygaard
Bart Oja
Gordon and Carol Wolfgram

USS Knapp DD-653
Billy D. Brown, MM3
Richard Louis Munley, ME3
Howard Lee Wiseman, MM3

On the Back Cover: Underwater Robotics Lab students prepare to test the Remotely Operated Vehicle they built. Photo by Don Frank

Angelic Zephyr: The cargo ship faces the sunrise and Tongue Point.

Photo by Matthew R. Palmgren