

Rensselaer and the Libery and Victory Ships

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February 10, 2011
Tampa, Florida

It's a great pleasure to be here aboard ship and in the sun. Winter has not been kind to us northeasterners, increasing the temptation to experience more of your infernal/ eternal traffic lights and tropical storms.

Today I'd like you to join me as I discuss:

1. A few brief notes about a boat and a steamer named *Rensselaer*.
2. A short lesson on how to differentiate a WWII Liberty ship from a Victory ship
3. A concise introduction to two of the individuals who made those ships possible,
4. A to-the-point view of the lasting impact of their ship construction efforts
5. A succinct biographical sketch of the Institute's namesake the *Rensselaer Victory*.

In 1822, during the construction of the Erie Canal, Amos Eaton, who would become the first Senior Professor and Co-Founder of the Rensselaer School, traveled from Albany to Buffalo to explore the geology along the canal and to bring the results back to the school's other "Co-Founder to be," the Patroon Stephen Van Rensselaer. Eaton was accompanied by a budding artist whose name was James Eights.

After the trip Eights created a series of engravings. They are essentially "tourist pictures" of the new canal. They were published as part of Eaton's geological map of the canal prepared for Van Rensselaer and completed in April of 1824, just seven months before the founding of the Rensselaer School. One of Eight's illustrations from the report showed the entrance to the Canal, a canal boat, and Van Rensselaer's home, among the largest private dwellings in America. (It would later be moved to Williamstown Massachusetts and serve as a fraternity house). A more careful look at the boat in the Eights picture reveals its name to be the *S. Van Rensselaer*. We don't know if such a boat existed. Perhaps Eights named it to honor the Patroon who had "bank-rolled" Eaton's trip. In any case, as far as I can tell, this is the first example of a boat named the *Rensselaer* that has anything to do with RPI.

In 1909 the Hudson Navigation Company introduced two new Hudson River steamers-- the *Rensselaer* and the *Trojan*, sister boats of 2,000 tons. Was the Rensselaer named for the city of Rensselaer, for the Patroon, or for the Institute? I do not know. However, the *Rensselaer* featured a beautiful large sterling silver clock in the Salon. It was purchased for the ship by Palmer Ricketts, Rensselaer's legendary Director and President.

So, what about Victory ships? Today we'll be seeing a Victory right here "in the flesh," so I don't plan to tell you much about the kind of things engineers and naval architects might think are "cool." We'll let the docents do that. However, it's important to understand how Victory ships came to be.

There were the two major kinds of American-built cargo ships used in World War II-- the Liberty and the Victory. The Liberty ships were first built in 1941 and Victory ships were first built in 1944. As the early action of the war raged in Europe, the United States faced the need to supply its allies by sea and to be prepared for the possibility of America's entry into the conflict. German U-Boats were playing havoc with allied shipping and the country faced a critical shortage of cargo ships. The result was the emergency fleet program, which introduced the Liberty ship. The *SS Patrick Henry*, the first Liberty ship, was launched at Baltimore. These vessels became known as Liberty ships after President Roosevelt, christened the *Patrick Henry*, by quoting the famous Virginian, "Give me liberty, or give me death." We should note here that it took 244 days to build the *Patrick Henry*. In all, 2,571 Liberty Ships were constructed between 1941 and 1945, making them the largest class of ships ever built worldwide. Today, there are only two unaltered survivors of the class, *SS Jeremiah O'Brien* in San Francisco and *SS John Brown* in Baltimore. They have been designated National Historic Landmarks. Liberties were produced under the direction of U.S. Maritime Commission, later under the War Shipping Administration.

A Liberty ship's maximum speed was 11 knots, making her easy prey for submarines, so early in 1942, the War Shipping Administration commissioned a design for a faster vessel, with more a modern steam plant, better trim and stability, stronger hulls, and other improvements. Victory ships were strengthened to avoid fractures in hull plates and ship sides, a problem that sometimes plagued the Liberties. In April 1943, the type was introduced as the "Victory Ship," and production commenced. In addition, Victory ships were designed specifically to allow for easy modification after World War II into other types of cargo carriers, special uses and even passenger ships. Production line techniques were used to build both types of vessels.

Both Liberty and Victory class ships were important to America's war efforts. The U.S. merchant fleet played a major role in winning the war, transporting an estimated 85 percent of the troops, ammunition and supplies used to support Allied war effort. Victory ships also played a significant role during the Korean War and the Vietnam War, transporting thousands of refugees to freedom and carrying material, equipment and ammunition.

After World War II Victory ships were at the forefront of the resurgence of the United States as a world economic power. For example, they carried American goods around the world in support of the Marshall Plan. Private firms chartered hundreds of them and hundreds more were sold or leased to foreign countries for use as freighters and some were converted for passenger service.

Here ends the Liberty vs. Victory lesson!

My friend and host, Rob McIntosh, likes cars so, let's talk about cars. Let's talk about small cars. In spite of what we see today on television, small cars are not new. One type of beauty from the post war years was called the Henry J., after Henry J. Kaiser. Henry J. Kaiser was born just a few miles from the capital district in Sprout Brook, New York near Canajoharie in 1882. Incidentally, James Eights, (remember James Eights the artist), may have been born in or near Canajoharie as well. Henry Kaiser worked as an apprentice photographer early in his life, and

was running a company by the age of 20. He moved to Washington State in 1906 where he started a construction company that fulfilled government contracts.

In 1914 he founded a road-paving company, one of the first to use heavy construction machinery. His firm expanded significantly in 1927 when it received a contract for building 200 miles of a road across Cuba. In 1931 Kaiser was one of a consortium of contractors that built the Hoover (Boulder) Dam on the Colorado River, and the Bonneville and Grand Coulee Dams on the Columbia River as well as the Naval Air Station in Corpus Christi, Texas. These projects enabled the Kaiser firm to develop a reputation for the use of reinforced concrete and concrete structures.

Kaiser's company had never built a ship. But in 1940 he partnered with Todd Shipyards to try his hand at ship building. By 1945, Kaiser controlled seven shipyards and produced 1,490 ships. The press began calling Henry Kaiser, "Sir Launchalot."

From almost the beginning of Kaiser's enormous industrial success, one of his "right hand men" was Clay Patrick Bedford, a Rensselaer Civil Engineering graduate of the Class of 1924. Bedford was born in Benjamin, a dot on the map in Knox County deep in the heart of Texas.

Later Clay Bedford's family moved to Dunsmuir, a railroad town in Northern California near Mt. Shasta and the Oregon border. Earlier, Clay's father, Thomas Archibald Bedford, had attended Texas Christian University and later took correspondence courses. Once in California, Tom Bedford began to work on planning roads, an experience that led him to come east to RPI. We are not sure at this point if Mr. Bedford took or taught a course (s) at RPI in the fast-expanding field of reinforced concrete.

During his secondary school years, Clay Bedford's mother was ill in Dunsmuir, so he headed south to attend high school in Oakland at Oakland Technical High School. While studying there he lived in a boarding house. Clearly, his father's experience in Troy led Clay to enroll at Rensselaer. Clay's father suggested he seek a job with Kaiser, because of Kaiser's reputation for integrity in road construction. In 1925 fresh from the "Tute," Bedford began his association with Kaiser and Affiliates as a draftsman and engineer. Clay went on to achieve great success with the company in heavy construction of roads, power dams, airfields, shipbuilding, automobiles, and aircraft.

At Kaiser Paving Company, Bedford spent two years doing paving jobs around California, Next he went to Cuba to work on Kaiser's road project and by 1930, he had risen to general superintendent for 200 miles of the Cuba National Highway. Then he was project manager on some pipeline construction projects. Next, he served as superintendent of transportation for the consortium of Six Companies that built at Hoover Dam. The Kaiser-led consortium turned to building Bonneville Dam and named Bedford general superintendent in 1934. After completing that job in four years, he moved to the Grand Coulee project, where he again became general superintendent. By the way, at the time, Grand Coulee was the largest concrete structure ever built.

In 1940, the Kaiser organization next moved Bedford to Corpus Christi, Texas, to supervise construction of a new naval air station. When Todd and the Six Companies secured the contract to build cargo ships for the British, Kaiser recalled Bedford to California to take charge of building and then operating shipyards. Clay Bedford was not yet 40 years of age and had never seen a ship launched. However, he accepted this great challenge. At their peak under Bedford's direction, Kaiser's four shipyards at Richmond, California employed 90,000 individuals. In a five-year period he supervised the production of 727 ships. As head of the shipyards, Clay Bedford hit on the idea of building ships in prefabricated sections using assembly line techniques.

This idea led to the construction at the Richmond Shipyard of a fully completed Liberty Ship, the *Robert E Peary*, in 4 days and 15 hours and 29 minutes, an astounding feat even today. Let me remind you, the first Liberty required 244 days to complete. The *Peary* brought Bedford a level of international reputation and honors at the time. In addition, he received various patents for prefabrication and welding methods used in shipbuilding at the Kaiser Shipyards.

Bedford had a ship building team of about 15. Imagine the logistical nightmares these men faced--labor, training, housing, medical care, procurement, design changes, breakdowns, shortages of key parts, transport, and on and on and on! Building Liberty and Victory ships was not only an engineering marvel, but it made enormous contributions to Post War America and beyond. Thousands of female and black workers were recruited to do skilled jobs that prior to the war would have been almost always filled only by white men. This integration of the workforce proved to be a major spark as the nation moved toward the Civil and Women's Rights movements to come.

The women workers became known as Rosie the Riveters. They were immortalized by Norman Rockwell, who used the pose of Michelangelo's Isaiah in the Sistine Chapel as a model. Last month the *New York Times* noted the passing of the model for a famous poster. There is now a national park at Richmond that is focused of Rosie and here colleagues, The Rosie the Riveter WW II /Home Front National Park.

Kaiser's experience with building dams in remote locations served his team well as they coped with their needs for labor and housing. The challenge of housing shipyard workers was partially met by creating the first Local Housing Authority in the United States, the Richmond Housing Authority. Its first project was Atchison Village seen here in a concept drawing. In addition, several thousand other spaces were created for the Richmond Yard's workers. The need for health care of the workers and their families led to Kaiser's establishment what we now know as Health Maintenance Organizations (HMO's). Today, one of the largest is Kaiser Permanente.

Let us now turn to the Victory ship the *Rensselaer Victory*. When I started my research, I said it myself that this should be easy because, surely the Institute made a big fuss over the ship's launching and voyages. Certainly there are a number of references to it in the Archives. Wrong!! Curiously, prior to the development of the idea to hold today's event, only two *Rensselaer Victory* items existed in the Archives at Folsom Library. They are a cover of the Alumni News dated March, 1945 and inside the magazine, this tiny article.

Victory Ship Is Named for RPI

Pictured on the front cover is the 10,500-ton Victory Ship S. S. Rensselaer Victory named for Rensselaer Polytechnic Institute. The 455-foot vessel was launched February 16 by the California Shipbuilding Corporation at Terminal Island and is now being outfitted.

The ship is the fourth to be launched of a fleet of 14 which will carry the names of American universities and colleges.

Mrs. Louis E. Misippo, wife of Calship's general superintendent of machinery, christened the vessel. Her niece, Mrs. Jane Nygaard, was matron of honor. Joseph A. Omdal, of Calship's public relations department, was master of ceremonies. RPI alumni in the region were present.

A large framed picture of the RPI campus, taken from the air and provided by RPI, will be hung in the ship.

A framed picture of the campus seems like a come-down from the sterling silver clock on the Steamboat *Rensselaer*! I should not have been surprised that there was so little campus fuss about the *Rensselaer Victory*. There was a full scale world war on and little time in Troy for such frivolities as a ship launching.

While the article states there were to be 14 college and university ships, the truth is that 150 Victories were named for educational institutions. I thought about this! Imagine the person in charge naming Liberty and Victory ships sitting with a Almanac and a history book picking names for hundreds and hundreds of ships.

For example, Liberties were named for both of Stephen Van Rensselaer's fathers-in-law, Phillip Schuyler and Williams Patterson; for the man who was President of the Rensselaer School and Union College at the same time, Eliphalet Nott; not to mention baseball players, opera singers, poets and painters, black, Latino, and Native Americans.

Victory ship naming was somewhat better organized. The first Victory ship, the *SS United States Victory*, was launched on February 28, 1944, and the next 34 Victory ships were named for each of the Allied nations participating in World War II. The subsequent 218 were named after small American cities (big cities were reserved for cruisers), the next 150 Victories after educational institutions (including traditional black colleges); the balance received miscellaneous names.

S.S. Rensselaer Victory # 767 (Type VC2-S-AP2) was built for U.S. War Shipping Administration at Kaiser's California Shipbuilding Corporation, or Cal Ship, located at Terminal Island in Los Angeles. The ship we are on today, the *American Victory*, is a younger sister of the *Rensselaer Victory*. They were built in the same place and launched 97 days apart. At its height, Cal Ship employed 40,000 people. Immediately after the war, the yard was abandoned. The *Rensselaer Victory's* keel was laid on December 22, 1944. She was launched February 16, 1945 and commissioned on the ides of March that same year. She had spent 56 days on the shipway, 27 days being commissioned in the water, for a total of 83 days. She was not a record breaker.

All indications are that the *Rensselaer Victory* (unlike the *American Victory*) was fitted out as a troop ship. The war in Europe was winding down and the invasion of Japan was anticipated, so a great demand for moving troops was anticipated. I was unable to find the *Rensselaer Victory's* war records, (apparently they have all been destroyed). In any case, her service would have been brief. The war in Europe ended in May and the fighting against Japan ended in August, so if the ship saw action it was over about a five month period. Perhaps she was used to "Bring the Troops Home."

I wrote these last words last Wednesday morning. That afternoon this email arrived. "Googling for photos of the *"Rensselaer Victory"*, I came across your website. I wish my Dad were alive to know of the celebration, he passed away in 2006. He returned from 3 years in Europe, WWII on her. He had been in the 45th Inf. Div, landing at Anzio, fighting up Italy. In the S. Invasion of France, August '44. Feet frozen in the Vosges Mts. Shortly before they got to Germany. Evacuated to England. Some photos below.....he came back on the *Rensselaer Victory* early in 1946. Thanks for honoring the memory of the ship, and those who sailed on her!"
Wallace Craig, Midland, Texas"

In 1947 *Rensselaer Victory* was sold to a Dutch firm NVS and renamed *Molenkerk* (Mill Church). How appropriate for the ship to continue to have a Dutch name. We have a number of images of the *Molenkerk* as she operated between Holland, Africa and the Indian Sub-Continent. In addition here is a model of the ship. In one of the curiosities of the Internet, there is a complete listing of all of her voyages, the names of the crew on each voyage, a Morse Code recording from the ship, and even a sort of blog written by one of the crew during one of her voyages.

In 1961, she was sold to a Taiwanese firm, Way-wiser Navigation, and renamed *Hwa Lee*. (No Dutch connection here.) Then, still in control of Way-wiser, she was renamed again, this time with a curious new moniker, *Harriet Victory*. My guess is she may have been operating as a Vie Nam War charter and a name in English sounded better. In 1970 she went to the scrap yard at Kaohsiung, Taiwan.

Many of the *Rensselaer Victory's* sister ships and Liberty Ships remained here in America. In the fall of 1960, I began my first real job as a traveling admissions officer for Washington College in Maryland. I had just come out of the army. The first thing I'd purchased was a camera. My first admissions recruiting trip that fall took me to Westchester County. On the first day of that trip in the late afternoon, I took images of Liberty and Victory ships anchored in rafts in the Hudson River below the Bear Mountain Bridge waiting to return to action.

Let us now return to Clay Bedford. After the war Bedford became vice president in charge of manufacturing for the Kaiser-Frazer Corporation. At Willow Run, Michigan, he produced 750,000 vehicles that some leading auto makers said were too far ahead of their time. My dad's ugly brown Kaiser had push buttons for inside door handles. Bedford became executive-vice president of the company in 1949.

During the Korean War era, Clay Bedford was called to Washington. Here's what Time Magazine had to say about contributions in an article in September of 1951.

“Scarcely three months ago, the worst bottleneck in the defense production was machine tools. But by last week, machine-tool makers had gotten, in rapid succession, super-priorities on metals and tools, the authority to reach far and wide for labor, and a 12% price boost. As a result, they were well launched on a 400% production expansion. The man who broke the bottleneck was Clay Bedford, 48, a production-engineering expert on loan from Kaiser-Frazer Corp. (Secretary of Defense) Charlie Wilson brought him to Washington last May (at no salary) as his production troubleshooter, because he knew that Clay Bedford was the production brain behind just about every one of Kaiser's most spectacular projects.

Last week Charlie Wilson swore Bedford in as head of the Production Executive Committee, gave him power to ride herd on the whole defense program. A few hours later, Bedford took off on a tour of West Coast aircraft and ordnance plants, hunting new bottlenecks to unclog.”

After the Korean War Bedford was elected president of Chase Aircraft Co., Inc., which later became Kaiser Aerospace & Electronics Corporation, producing components for the missile and aircraft industries and electronic navigation gear. In 1967, he was elected to the Kaiser Industries board.

Bedford also gave leadership and encouragement to the needs and problems of Rensselaer. He endowed the Houston Citizenship Award, which recognizes the graduating senior who is “The First Citizen of the College,” and established the Thomas. A. Bedford Prize in memory of his father. It is awarded to the outstanding graduate student in Civil Engineering. Clay Bedford was

appointed a Trustee of Rensselaer in 1952. He spearheaded the development of the Darrin Communications Center, which helped improve classroom design, teaching aides, use of faculty, and methods of academic planning. The building's large auditorium (308) is named for Mr. Bedford. His son and his son's son are both graduates of Rensselaer. Clay Bedford passed away in 1991 at Paradise Valley, Arizona.

Isn't our society strange? We brag about American technology, but know little about the great men and women who have enabled that technology to work for us. Clay Bedford spent his life making the dreams of Henry Kaiser into reality. How many other Rensselaer graduates have labored long and hard in the service of industry, but have been overshadowed by the company president or CEO.

A check of some web sites claiming to honor historic figures related to communities and institutions in Clay Bedford's life reveals the following: Benjamin, Texas names Ernest Tubb, the country music hall of Famer who lived there with his family in the 20s. Dunsmuir, California cites Alexander Dunsmuir, the town's founder, and Ron McLeod, who owns Dunsmuir's oldest continuous business, Dunsmuir Hardware. It also touts visits by Clark Gable, Claudette Colbert and Babe Ruth in the 30's. Oakland Technical High School names singer Tony Martin, base-stealer Rickey Henderson, 49er quarterback John Brodie and the recording artists Pointer Sisters on their list of famous persons. None of these sites mentions Clay Bedford.

This kind of thing makes me so happy and proud to be part of the Rensselaer Alumni Hall of Fame effort. At least there, the women and men who are often undervalued by our society are given the kind of recognition they deserve. Their lives are truly inspiration to generations of Rensselaer graduates to come.

Here's to Old RPI.

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Carl Westerdahl, February 10, 2011