DON'T ROW – THROW THE OARS AWAY:
OUTBOARD MOTORING IN AMERICA: THE FIRST FIFTY YEARS
Part II: From a Depression Era Struggle for Survival to Postwar Booming Sales and Innovation
By Ken Kaumeyer, Curator of Estuarine Biology

The 1930s were difficult times in America. The depressed economy left individuals with little money to spend on such luxuries as recreational boating. The outboard manufacturers struggled to survive by consolidation, by offering inexpensive motors, and by diversification into other product lines.

Prior to his death in 1933, Ole Evnurude had agreed to merge Elno with Evinrude and the Lockwood Motor Company. The new company, called Outboard Motors Corporation, was carefully managed to avoid the depression era demise of Johnson, enabling the new company in 1935 to purchase Johnson from bank creditors. Now, with the Johnson engineering expertise and patents, the larger company – called Outboard Marine and Manufacturing Corporation (OMMC) – was set to dominate the industry for many years. The name Outboard Marine and Manufacturing Corporation never caught on, and the name was changed to the Outboard Marine Corporation (OMC), which survived until the firm went bankrupt this year.

The three firms comprising the Outboard Marine Corporation still operated semi-independently and continued to offer their motors under the original Johnson, Evinrude, and Elno labels. OMC offered numerous low-priced, small horsepower outboards in the late 1930s, designed to boost sales as the nation recovered financially from the depression years. Among them were the 0.5 horsepower Mate ($34.50) and the 0.5 horsepower Elno Cub that sold for $29.50. These motors, which only weighed ten pounds with a full tank of gas, were more of a novelty than a useful motor. They ran poorly due to cost-cutting efforts to hold the price down, and were so under-powered that a light breeze would push a boat backward even at full throttle.

Another unusual economy motor of the 1930s was the Clarke Troller. These little motors were only twenty inches long, and were unusual in that the piston, carburetor, and spark plug were located under the water near the prop. They were started by tilting the motor out of the water and wrapping the starter cord around a pulley located on the propeller. After starting, the motor was tilted back into the water and away you went, usually for about two feet before the under-powered little motor quit. These motors are extremely rare today, most likely because many were “float tested” by launching them over the water as far as possible, along with a burst of profanity. If they did not float, then the problem was solved and you went looking for a new motor.

Outboard companies also increased profits by producing lower-priced motors under another label for such firms as Sears Roebuck and Co., Montgomery Ward, and Western Auto. This practice of “badge engineering” for private brand distribution had been done since the early days of outboard production, but it became an important revenue source for struggling manufacturers in the late 1930s, continuing for many years. Elgin, Waterwich, Wizard, Sea King, Hiawatha, and Firestone motors are a few that were produced this way.

One such firm, Thor, produced very low-cost motors for Montgomery Ward under the Sea King label. These small, stamped-steel motors had the unfortunate distinction of running very poorly, if at all, and quickly rusting in salt water. Customer complaints led Montgomery Ward to send the motors back and cancel their order. Thor went bankrupt and closed its factory in Cedarburg, Wisconsin.

At this time a young entrepreneur, Carl Kiekhaefer, was looking for a location in which to produce magnetic cream separators for the dairy industry. He bought the defunct Thor factory in 1939. While cleaning out the building, he found the rejected outboards, and needing cash, rebuilt them so they would run, by removing parts from other manufacturers’ motors without their permission. A skeptical Montgomery Ward agreed to try them again, and they sold well. Kiekhaefer did not plan to continue building outboards, but when orders poured in for more, he

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GODFATHER OF SOUL JAMES BROWN TO PERFORM AT CALVERT MARINE MUSEUM

On Saturday, September 1, Ralph's Dodge-Jeep and Cumberland & Erly, LLC, present Waterside 2001: James Brown in concert at 7:30 p.m. at the Calvert Marine Museum Washington Gas Pavilion. Witness the "Godfather of Soul" under the stars for a performance you won't want to miss. Tickets go on sale at midnight on August 8 on phone charge at 1-800-787-9454, and during museum hours at the Museum Store. Tickets are $45 for premium and $35 for reserved. All sales are final - rain or shine. For more information, please call 410-326-2042, extensions 16, 17, or 18, or visit the museum's website at www.calvertmarinemuseum.com. See the insert in this issue for advance ticket information.

Sponsors for Waterside 2001 include: Ralph's Dodge-Jeep; Cumberland & Erly, LLC; Solomons Landing; Coors, Coors Light, & Killians; RadioShack; Century 21; Comcast; WKIK Country 102.9; Mom's in the Kitchen; 98.3 STAR FM; Colonial Printing; Holiday Inn Select; SMCRO; Birchmere; Bay Weekly; and Main Message Center.

DRIVE IN STYLE WITH A CMM LICENSE PLATE!

Drive in style when you order your Calvert Marine Museum license plate. Funds raised from sales support the recently opened Cove Point Lighthouse. The license plate program, which began in April, started with an auction of early plate numbers. Nine CMM members participated in the bidding, with the #1 plate going for $350.00. Bidding raised nearly $1,000 for Cove Point Lighthouse. Plates are available for $45 each by calling Debbie at 410-326-2042, extension 16. Please be prepared to provide your Maryland driver’s license number and tag number(s). We ask our members to remember that all purchase requests must be forwarded to the Motor Vehicles Administration; processing can take from six to eight weeks before your new plates are mailed.

Help Calvert Marine Museum and show your support to the world by ordering today. Any plate price over $25 is a tax-deductible gift when made out to the Calvert Marine Museum Society, Inc. For more information, call Debbie at 410-326-2042, extension 16.

CRADLE OF INVASION 2001

In 1942 the United States Navy established its first amphibious training base at Solomons to meet the urgent demands of World War II. The base trained thousands of marines, soldiers, and coast guardsmen who saw action throughout Europe and the Pacific. Although the base closed in 1945, its presence in Solomons changed the town forever.

The museum's Cradle of Invasion event on August 10 to 12 will commemorate this little known, but highly important training facility, and all of the men and women who served there. There are varied activities during this event, including trips on the liberty ship John W. Brown, a golf tournament, a USO show, cruises on the Wm. B. Tennison, a dinner dance, and a fashion show - all of these require tickets. Other events include a WWII Veterans Breakfast, free tours aboard the John W. Brown, living history camp, exhibits, lectures, weapons demonstration, and a free concert. Many details appear in the calendar in this issue, but a full schedule and information packet can be requested from Karen Stone at 410-326-2042, ext. 32, or by e-mail at edcur@calvertmarinemuseum.com.
Year End Appeal Donors – 2000

The boards of the Calvert Marine Museum and the Calvert Marine Museum Society, the director, and the museum’s staff thank the following 243 donors to the 2000 Year End Appeal for their contributions of over $14,800.

This support enables the museum to continue its work on the opening of the Cove Point Lighthouse.
Among the boats exhibited at the Chesapeake Antique Engine Meet in April was this one by the Whirlwind Boat Company. Pictured are Lucy and Ed Hewitt. Ed was one of the company's founders. CMM photo by Bob Hall

County Commissioner Linda Kelley and CMM education department staffer Bob Boxwell were part of the "Living History Evening: Three Hundred Years of Maryland Fashion" in the museum lobby on March 14. CMM photo by Bob Hall

The Chesapeake Antique Engine Meet on April 21 and 22 gave attendees an opportunity to preview the outboard motors now exhibited on the mezzanine balcony of the maritime history hall. CMM photo by Bob Hall

Country music legend Waylon Jennings appeared on the museum's Washington Gas Pavilion on the evening of June 2. The concert, attended by nearly three thousand devoted fans, brought in funds to support museum programs. CMM photo by Bob Hall

Spring Activities at CMM

A highlight of the Family Disc Theodore Too, a friendly tug
A Miocene Baleen whale fossil was discovered by Paul Murdock in early June in Calvert Cliffs. Here Hammond Hobbs (left), paleontology curator Stephen Godfrey (center), and assistant curator Scott Werts (right) help move the large fossil encased in the traditional “plaster jacket” for protection during transport. Others assisting, but not pictured, were: Bill Counterman, John Redick, Christy Visaggi, Mike Foley, and Pam Platt. CMM photo by Pam Platt

A concert in front of the CMM Woodshop entertained those attending Family Discovery Day on May 5. CMM photo by Bob Hall

Workers from Zahnisers Yachting Center, assisted by volunteers and staff, place one of the original screw piles from the Drum Point Lighthouse into the boat basin for protection prior to preservation. Note the auger-like blade at the end of the screw pile. This is one of four piles recovered from the original site of the lighthouse at Drum Point through efforts of local residents. CMM photo by Robert Hurry
abandoned the idea of producing cream separators, and Mercury Marine was born. Mercury would eventually become a leading innovator in the outboard industry, but its emergence as a powerful corporation would be delayed by the upcoming war.

By 1940 the outboard industry was recovering from the depression era, offering new smooth-running outboards, designed primarily as fishing and rowboat motors. Further outboard development, however, would have to wait until the end of World War II.

THE SECOND WORLD WAR

Anticipating the war, American corporations began converting their production to defense work in 1940. Following American entry into World War II, the War Production Board banned production of leisure products made of aluminum, which was desperately needed for the war effort. With civilian manufacture of outboards halted, Johnson, Evinrude, and Mercury scrambled for defense work. Initially, much of the work was awarded to Johnson, and that company built many critical aircraft parts, pumps, magnetos, and other equipment. Powerful pontoon boat motors were also built, used to ferry supplies in support of combat operations or to hold lashed pontoons in place so that tanks and heavy equipment could cross. Thousands were used in Germany late in the war, while smaller Johnson motors were used in beach assaults.

Evinrude reduced its workforce and struggled until defense orders finally came in for outboards. They modified their four-cylinder model 460 into the famous Storm Boat Motor. These engines propelled waves of attacking troops across German rivers – over 300,000 in one day crossing the Rhine River. Outboard motors were used extensively in the South Pacific and Southeast Asia theaters, as troops attacked Japanese forces. Inflatable rafts with outboard motors were also dropped to downed pilots and bomber crews, saving over seven hundred lives.

The Second World War nearly bankrupted the young Kiekhaefer Corporation. Barred from producing Mercury outboards, and lacking the name recognition and lobbying pull of Johnson and Evinrude, Carl Kiekhaefer had difficulty obtaining defense contracts. Essentially out of business, he finally secured a contract to produce military chainsaws, but had to borrow money to produce them. By 1943, the firm was in better financial shape, and began producing various military outboards, pumps, drone aircraft engines, in addition to the chainsaws. The strain from constant financial pressure early in the war, as well as frustration with endless government red tape, caused Carl Kiekhaefer to become extremely suspicious of competitors, and hardened him for the post-war battle with the Outboard Marine Corporation for dominance of the outboard motor industry.

As the end of the war approached, outboard manufacturers began planning for resumption of peacetime production, and were soon to experience a huge pent-up demand for recreational boating.

AFTER THE WAR – RECREATION, INNOVATION, AND MORE POWER

Outboard manufacturers faced a daunting task in 1946. Material shortages from the wartime persisted, the industry needed time to retool, and a large public demand created long waiting lists for motors. As there had been no time to design new outboards during the war, the companies initially produced slightly modified versions of their prewar lines. When aluminum again became readily available, the stage was set for a remarkable surge in engineering innovation within the industry, with a rapid expansion of recreational boating in America. The large public demand for outboards fueled intense corporate competition, and this in turn spurred on new engineering advances through the 1950s.

The entire maritime industry changed dramatically during this time. After the war, a prewar emphasis on producing small fishing motors shifted to family-oriented recreational activities, with faster, bigger boats and motors. The development of boat trailers also greatly increased interest in boating. Access to the water had been fairly limited, as one had to carry a motor to a facility that rented boats, or use small car-top boats, or own waterfront property. The development of low-cost boat trailers suddenly opened up the nation’s waterways to most everyone, and the public demand grew. Fiberglass was another development that accelerated the rapid expansion of recreational boating. During the war, military research developed the technology as an alternative to wood and steel for small vessels. It was now possible to mass-produce boats in an infinite number of sizes, styles, and colors.

The late 1940s and early 1950s saw the development of features that greatly simplified the operation of recreational outboard boats. Prior to this time, motors were often balky to start, required fine tuning to make them run smoothly, and did not have a transmission, or neutral. The result was that after starting, the operator had to look backward and adjust the motor while the boat raced forward. This was somewhat cumbersome with the larger motors, often taking a minute or so to get them running smoothly, while looking at the motor instead of the direction of travel. In 1949 Johnson introduced the first motors with a forward-neutral-reverse transmission and a remote gas tank. Public demand for these motors was so great that Johnson went into round-the-clock production for four years to fill orders. Boats and motors were now colorful, fast, and easy to operate.

This large postwar demand for outboard motors sparked intense competition among the manufacturers during the 1950s. Outboard Marine Corporation (Evinrude and Johnson) battled Kiekhaefer Mercury for dominance, but numerous smaller manufacturers such as Gale (a division of Johnson), Chris-Craft, Chrysler, Lauson, Martin, Muncie, Oliver, and Scott-Atwater, also were producing motors. The competition was so intense and secretive that Carl Kiekhaefer, who developed a deep mistrust of his competitors during World War II, purchased ten thousand acres completely surrounding Lake Conlin near St. Cloud, Florida, to test new Mercury motors. The facility was
called “Lake X,” and its location was kept a closely guarded secret. Kiekhaefer, always concerned about “enemy spies,” often tested the motors himself.

Mercury joined Johnson and Evinrude as the industry leaders during the 1950s. The Mercury motors became very popular, as they were streamlined, powerful, stylish, and could be ordered in almost any color. At Lake X, Mercury secretly developed a new 60-horsepower in-line six-cylinder motor, which was introduced in 1957. This caught Johnson and Evinrude by surprise, as their largest motors produced only 35 horsepower. They were forced to design bigger motors quickly.

This new Mercury motor had one serious problem: Carl Kiekhaefer had it designed without a transmission. To put the motor in reverse, the operator had to pull back on the controls, which momentarily shut off the motor. Pulling farther back on the lever restarted the motor in the opposite direction, producing reverse thrust. The idea was a disaster, as a weak charging circuit caused a boat’s battery to run down and frequently fail to restart the engine. The result was a lot of boats smashing into docks with a dead motor. These motors, nicknamed “Dockbusters,” were fitted with a conventional transmission after a few years.

The 1950s have been referred to as the “outboard age of innovation.” Competing manufacturers developed larger, more powerful, and easier-to-operate motors in response to public demand. By the end of the decade, most of the technology in use today had been developed. The changes in motors after that time have primarily been refinements of innovative designs of the fifteen years immediately after World War II.

To summarize our outboard story: the first outboards were cantankerous, unreliable, heavy, and produced little power. No one in his right mind would have taken Bess Evinrude’s advice to throw away the oars. Today, with refined, easy-to-operate outboards, boating is more than a sport, it is a way of life for many. It provides adventure, family relaxation, and a release from the stress of modern life. Many of us who grew up around the water and take boating for granted, do not realize how the inventions of a very few individuals, such as Bess and Ole Evinrude, the Johnson brothers, and Carl Kiekhaefer, have affected our lives.

The museum has just opened a new temporary exhibit, “Outboard Motoring In America: The First Fifty Years,” which documents the development of this industry between 1909 and 1959. Sixty of the early motors are on display, along with paintings, advertisements, racing boats, and other artifacts from the period. Outboard motors and the resulting recreational boating industry undoubtedly have contributed significantly to the maritime history of our region, certainly affecting the Solomons of today. Please stop by the museum and see these wonderful old motors that have had such an impact on our lives.

**Important Summer Camp Notice ~2002**

We must update our mailing list. A new list is being compiled and no one is on it yet. If you want to receive a registration form for Summer Camp 2002, you must call 410-326-2042, ext. 41, no later than December 15, 2001.
The Volunteer Recognition Event

By Leslie King, Volunteer Coordinator

With a day that resembled Pooh’s Blustery Day, the annual CMM Volunteer Recognition Reception was held at the Cove Point Lighthouse. Despite months of preparation and several frantic prayers from the volunteer coordinator, it is up to those who help put on functions and those who attend to make the most of any situation. And that truly can be said for this year’s event. With the wind making itself known and overcast skies, everyone seemed to enjoy this new addition to the museum community, the reception, and the awards ceremony.

With the museum’s recent acquisition of the Cove Point Lighthouse, not many have had the opportunity to enjoy the facility, especially in a party atmosphere. What better way to honor our volunteers than to have this special event be one of the first at this new location? It was also a pleasure to have two Calvert County Commissioners attend - John Douglas Parran and Robert Swann, who is also on the museum’s Board of Governors. Other board members who showed their support of our volunteers were John Cook, John Ford, Buddy Loffler, and George Tilghman.

Director Doug Alves presided at the awards ceremony in front of the porch of the keeper’s dwelling. The first presentation went to volunteers who had worked a hundred hours or more during the 2000 calendar year. These were (hours follow the name) Paul Adams, 257.5; Janet Addiss, 166; Dave Aldridge, 223; Betty Bailey, 127.75; Doris Berry, 156.5; Paul Berry, 925; Robert Bohn; 121.5; Rick Brice, 418.5; Lori Cole, 100; Fran Damerell, 109; Linda Densmore, 210.5; Mike Ellwood, 225; Doris Fisk, 178.5; Richard Gould, 413.5; Dan Grosso, 152.5; Bob Hall, 347; George Halvosa, 120; Liz Halvosa, 186.5; Darryl Hansen, 132.5; Philis Hurley, 167; Dede King, 132; Frank King, 133; Mary Konrad, 117; Bill Lake, 615.5; Al Lavish, 270; Zelma Margelos, 132; Buck McClellan, 104.5; Kay McClellan, 101; Annie Michnowicz, 115.5; Shirley Mihursky, 124; Don Miller, 222; Pat Miller, 196; Marge Noel, 190.5; Laura O’Neill, 356; Gale Parks, 379; Hazel Pinkerton, 180.5; Pam Platt, 298.75; Bill Poffenbarger, 175.5; Sandy Roberts, (Continued on Page 7)