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2006 Officers:

Don Hayden, President
(916) 485-1246
djhbooklover@yahoo.com

Vice-President **Vacant**

Edie Keister, Secretary
(916) 725-1852

George Foxworth, Treasurer
(916) 362-0178
gwfoxworth@sbcglobal.net

Brad Schall Member-at-Large (916) 408-4482
dschall@starstream.net

Carol Breiter , Member-at-Large (916) 729-7644
carolabreiter@aol.com

Bernardo Buenrostro,
Webmaster, (916) 670-7577
bernxbb@ix.netcom.com

Jim Middleton, Editor
9120 LaRiviera Dr.
Sacramento, CA 95826
(916) 363-8112
battlecryeditor@sbcglobal.net

Battle Cry deadline is 1:00PM Wed. two weeks before the regular meeting. Items can be given the editor by hand, mail or e-mail.

Battle Cry

Founded 1961,
Newsletter of the Sacramento Civil War Round Table
P.O. BOX 254702
Sacramento, CA 95865-4702
http://sacramentocwrt.com/

President's Message:

Thanks to George Beitzel for his excellent discussion of John Brown. I enjoyed learning more about the background of the man and appreciated George's presentation technique and his humor. We are fortunate to have so many members willing to bring light onto this inevitable tragedy of the American Civil War and to have also enjoyed the guest speakers who have enlightened us as well. As always, George has come through for us again and his and Joan's contributions are greatly appreciated.

The November conference is rapidly approaching and the program has been finalized awaiting the speakers' approval of the suggested topics. If any members wish to make suggestions feel free to contact any committee members, (Dennis Kohlmann, Fred Bohmfalk, Carol Breiter, myself, Paul Ruud, Bob Williams) or board members George Foxworth, Edie Keister, Bernie Buenrostro, Jim Middleton or Brad Schall. We are anticipating a good turnout and I would encourage any who have not attended one of these annual meetings to sign up. These are all superb speakers and represent the best in the field. Included in the newsletter each month will be a brief bio of one of the speakers. This month the subject is Craig Symonds who has been so kind to have spoken at several of the West Coast Annual Conferences and who has been most helpful in selecting and obtaining the best possible faculty for this one. We are looking forward to seeing him again.

Don't miss our meeting on July 14th when Ron Perisho will discuss Civil War Photography. Come early for dinner and social hour. See you there! -------**Don Hayden**

NEXT MEETING: July 12th at 7:00PM at the Hof Brau, El Camino & Watt Ave.
SEE UPCOMING PROGRAMS ON PAGE 3.

MINUTES
SACRAMENTO CIVIL WAR ROUND TABLE
JUNE 14,2006
HOF BRAU RESTAURANT, WATT AVENUE, SACRAMENTO

Attendance-34

Members-29

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RonPerisho
Paul Ruud
Brad Schall
Bob Williams
JohnZasso

Guest-5

Steve Bogart
Sharon Bogart
Victor Le
Mark Penning
Horst Penning
Robert Schroeder

1. Meeting started at 7:04. Guest were welcomed and introduced. Visiting from 81. Louis, friend and former secretary of the Round Table, Walt Bittle was welcomed. Also welcomed, was Susan Williams, who has moved to Oakland, but is still our Vice President. Gibson Ranch volunteers were thanked. "This day in Civil War History" was read.

2. Member George Beitzel, gave a great presentation on John Brown, accompanied with photos. Never a dull moment with that figure in history. Thank you George!

3. Raffle was held- meeting ended at 8:23.

4. Welcome new member Lowell Lardie!

Edie Keister
Secretary'

Treasurer's Report

The cash balance following the June 14, 2006 meeting was $1,548.72. Thanks to members and guests, the raffle brought in $61.00.

George W. Foxworth, Treasurer

Coming Programs 2006		
Month	**Speaker**	**Topic**
July 12th	Ron Perisho	Civil War Photography
August 9th	Don Hayden	Winfield Scott Hancock
September 13th	Thomas Brown	2nd Day at Chickamauga (as General Thomas)
October 11th	Paul Wagstaffe	Franks & Brits : Rebels & Yankees
November 10-12th	Conference	War on the Waters
December 13th	open	

Introducing Craig Symonds

One of the many pleasures we will enjoy at this fall's Civil War Conference is to be members of the audience when Craig helps us understand the War on the Water. The biographical information below was provided by Craig and makes it clear why he is in such demand as a speaker about the Civil War.

Dr. Craig L. Symonds is Professor of History Emeritus at the United States Naval Academy and Chief Historian at the USS *Monitor* Center at the Mariners' Museum in Newport News, Virginia. He retired from the U.S. Naval Academy in 2005. The first person ever to win both the Naval Academy's "Excellence in Teaching" award (1988) and its "Excellence in Research" award (1998), he also served as History Department chair from 1988 to 1992, and received the Superior Civilian Service medal on three occasions. He served as Professor of Strategy at the U.S. Naval War College in Newport, Rhode Island (1971-74) and at the Britannia Royal Naval College in Dartmouth, England (1994-95).

Symonds is the author of ten books, including prize-winning biographies of Joseph E. Johnston (1992), Patrick Cleburne (1997), and Franklin Buchanan (1999), as well as *The American Heritage History of the Battle of Gettysburg* (2001). His most recent book, *Decision at Sea: Five Naval Battles that Shaped American History* (2005), won the Theodore and Franklin D. Roosevelt Prize for Naval History. He is the editor of nine other books including *Charleston Blockade* (1976), *Recollections of a Naval Officer* (1985), and *A Year on a Monitor* (1987). He has published more than a hundred book chapters or articles in academic and popular journals.

He and his wife Marylou live in Annapolis, Maryland. They have one son and one grandson.

A Perspective on Monitors and Related Navy Matters

The headquarters organization of the U. S. Navy in the Civil War consisted of the Office of the Secretary, plus eight semiautonomous Bureaus. The Secretary's Office included Secretary Gideon Welles, Assistant Secretary Gustavus Fox, and Chief Clerk William Faxon; all competent administrators. The eight Bureaus and their leaders were: "Yards and Docks", RAdm Joseph Smith; "Ordnance", RAdm John Dahlgren; "Navigation and Hydrography", RAdm Charles Davis; "Equipment and Recruiting", RAdm Andrew Foote; "Construction and Repair", Chief Naval Constructor Mr. John Lenthall; "Provisions and Clothing", Pay-Director Mr. Horatio Bridge; "Medicine and Surgery", Chief Surgeon William Whelan; and, "Steam Engineering", Engineer-in-Chief Benjamin Isherwood.

In addition, a special ad hoc "Monitor" Bureau was established, under retired RAdm Francis Gregory and Engineer Alban Stimers, to interface with Inventor and Builder John Ericsson on this class of ironclad vessels .That office proved to be a troublesome anomaly. Though tasked with steam vessel responsibilities, it was not part of, nor answerable to, the Bureaus of Construction and Repair and Steam Engineering. This situation remained benign for a spell, but later ended in disaster, discussed herein.

There is no question but what the USS *Monitor* reflected many marvelous technological advances in the science and art of warship construction. Its success at the Battle of Hampton Roads, 9 Mar 62 was well recognized, as it should have been; but the resulting "ram mania" generated was probably not in the best interest of the Navy and the Country. Almost before the last shot was fired, a contract was in progress for the construction of ten more of these vessels, subsequently to be known as the "Passaic" Class. The wisdom of hindsight suggests that this should not have been done without additional review, including a more complete lessons learned session and a "breathing" spell (or as a third-grade teacher might say, a "timeout"). A much better mix would have been five new monitors plus five additional 16-gun broadside-type truly oceangoing ironclads, similar to the USS *New Ironsides*. That ship would possess some of the distinctive characteristics of the well-proven British HMS *Warrior* and the French *La Gloire*. (But, the *New Ironsides* was still under construction and not then available for operational comparison.) The only other broadside ironclad in the U.S. Navy's inventory was the massive USS *Dunderberg*, carrying four 15 inch and eight 11 inch guns, but she was not launched until 22 July 65.

Defects of the original *Monitor* were as follows: 1) Guns could not be fired directly forward, nor 30° right or left, due to location of the pilothouse; 2) Pilothouse communication with the gun turret was by messenger only; 3) 11 inch gun powder charge was limited to 15 lbs.(less than half normal) to prevent excessive recoil in the turrets; 4) Limited gun elevation inhibited firing at enemy shore positions; 5) Inadequate ventilations systems, temperatures rose to 140°F. in turret, perhaps even more in the engine room; 6) The low freeboard, flat hulled vessel was <u>not</u> seaworthy, notwithstanding statements by Ericsson to the contrary; 7) Leakage was excessive and drain pumping capacity inadequate; 8) Gun turret rotating operation was imprecise, which added to the, 9) Low cyclic rate of fire of 5 to 7 minutes per 11 inch gun; 10) Maximum speed was only 6 knots. In the ship's nine month lifespan, several modifications were carried out which corrected in a fashion some of the above deficiencies, but its foundering off the Cape Hatteras coast raised other questions about the integrity of its hull, in particular where it joined the armored deck overhang section. The recent recovery of most of that vessel's vital organs may possibly answer some of those questions.

The ten Passaic Class monitors (first one commissioned 25 Nov. 62) reflected certain improvements over their prototype. Blowers and pumps of larger capacity were

installed, hulls were designed along more conventional lines to modestly improve seaworthiness, and pilothouses were relocated atop the turrets. The new ships mounted a 15-inch Dahlgren in addition to the 11 inch like those on the *Monitor*. This provided increased firepower, but it further reduced the already low cyclic rate of fire. The turret armor was increased from 8 inches to 11 inches and the displacement by one-third to 1335 tons, but the same size engines were used (2 cylinder vibrating lever-type with 36" bore, 24" stroke). The added weight resulted in a further reduction in maximum speed and maneuverability. These changes, while eliminating some complications, added to others. The result was to focus debate to the basic merits or lack thereof of the low freeboard turreted ironclads. The main proponent was, of course, the inventor John Ericsson. He was supported by Fox. Those with serious reservations were many of the line officers who command the monitors, as well as Bureau Chiefs Lenthall and Isherwood who were given limited, if any, review roles in the unilateral operations of Ericsson and Stimers.

The USS *Passaic* under Capt Percival Drayton barely survived the same storm that claimed the *Monitor*. He had no use for the "contrivance". A few weeks later the peerless Capt John Rodgers took his ironclad, the USS *Weehawken*, through a similar gale while others had turned back to safety. He received a letter from Assistant Secretary Fox acknowledging this as "the bravest act of the war" stating that "it was more value to the navy than a victory". Simply surviving in a monitor was thereby judged as heroism. Certainly this was a complement to Rodgers, but not quite so complementary to Ericsson. It is noted that *Weehawken* foundered at her moorings some months later in a storm due to a coaling overload that tilted the ship forward such that leakage water could not reach the pump intakes located towards the stern.

The 7 April 63 naval attack on Charleston Harbor fortifications added no luster to the monitors' reputation. Seven Passaic-class monitors participated, along with *Keokuk* and *New Ironsides*. (See *Battle Cry* article of February 2005) Monitor shortcomings in this battle, the largest iron clad engagement to date, were that turrets were liable to jam if shots struck near the base or the pilot house above; flying bolt heads made the pilot house untenable; pilot house plating was not thick enough; side plating was stripped away and deck plating penetrated. Leakage problems persisted, as well as turret rotation impreciseness. Rate of fire remained low, averaging 6 minutes per round for the 11-inch guns and about twice that for the 15 inchers. In the period of the fight, the fleet fired 151 times, but received 439 hits from the forts. Conclusion was that the monitors' effectiveness against fortifications was questionable; but it should be kept in mind that the reason for these coastal warships was to counter rebel ironclads, not the demolition of fortifications. The 17 June 63 battle between the victorious USS *Weehawken* over CSS *Atlanta* attests to this latter.

The second generation of Ericsson monitors was known as the Canonicus Class (first one commissioned 7 April 64). These nine vessels were the ultimate development of the single-turret coastal monitor and were significantly improved over the Passaic Class. They were longer, more ship-like in hull design, had a somewhat greater freeboard; and, in the minds of many, qualified as being at least somewhat seaworthy; but the terms "oceangoing" and "monitor" never became synonymous. Length was 225 feet and displacement 2100 tons, although size varied slightly from ship to ship. Engines were larger (2 cylinder 48" bore 27"stroke), and propellers were 14 ft. diameter increased from 12 ft. Max speed was about 9 knots. Auxiliary steam engines for pumps, blowers, and turret machinery were powered by a separate boiler and newer-type condensers were installed. Turrets were strengthened around their base with an iron glacis ring, an improved water seal was inset, and the pilothouse and deck plate armor was increased. Two 15-inch guns were mounted, muzzles of which could be fully run out the gun ports. Certain of this Class saw service late in the war in the North and

South Blockading Squadrons and the Battles of Mobile Bay and Fort Fisher. USS *Tecumseh* was sunk 5 Aug 64 by a rebel mine in Mobile Bay near Fort Morgan in less than 30 seconds with a loss of 93 of her 114 crewmembers, entombed therein. The wreck is 35 feet deep, is said by divers to be in "amazingly good condition", is buoyed and protected as a "marine sanctuary". It is a unique time capsule and some day may be raised; but it is also a tomb which many believe should not be disturbed.

Notwithstanding their limitations and expensive maintenance the Ericsson monitors did possess extended service longevity. After the War, a number of both Passaic and Canonicus Class vessels remained as commissioned ships of the Navy. Significant modifications continued to be made up to and during the Spanish-American War. Service was mainly limited to coast and harbor defense. The last of the Passaics was sold for dismantling in 1904 and the last of the Canonicus' in 1908.

John Ericsson's final contribution was his design of the "monster" monitor, the USS *Dictator* which proved to be only partially successful; and, his limited role in the design of the Casco Class of light draft monitors, which was a total disaster. Ericsson intended the *Dictator*, and a never completed companion *Puritan*, to be oceangoing craft attaining 16 knots. At 314 feet by 50 feet and 4440 tons, the largest all iron ship built in the U.S. to that date, *Dictator* had a 24 foot inside diameter turret 15 inches thick with pilot house above, plus a surrounding and rearward hurricane deck; Guns remained 15 inch Dahlgrens, but with special carriages and recoil dampening devises. (20-inch guns had been planned for the *Puritan*). Motive power was a new variety of the Ericsson vibrating lever system with 100-inch bore and 48 inch-stroke, but herein was one of the major problems never fully overcome; the bearings kept burning out. Notwithstanding, she could still make 10 knots for short periods of time. Other flaws included limited boiler fire grate surface which reduced steaming capacity, plus a severe limitation on the amount of coal and other supplies she could carry and still remain above water.

Ericsson had apparently cut his displacement/buoyancy computations (basic to any ship hull design and particularly critical under low freeboard situations) a little too "close" in the case of this monster monitor. Had the Bureaus of Construction and Repair and Steam Engineering been asked to review his hull and engine designs, perhaps such errors could have been found and corrected. John Rodgers served also as the first captain of the *Dictator*. His displeasure with the ship's performance was manifest in his statement that while he was still convinced that Ericsson was a "genius", he was also an "obstinate fool". *Dictator* remained in the Navy, in and out of commission, until 1877 when sold for scrap. Cost to build this craft was $1,200,000 (1860 dollars). For comparison, ballpark cost estimates for the other monitors were: Original *Monitor*, $290,000; Passaics, $400,000; Canonicus', $600,000.

Similar flotation problems, but extremely more severe, were inherent in all of the proposed 20 light draft monitors of the Casco Class. Total cost in public funds for this fiasco was upwards to $10,000,000. Purpose of the proposed light draft turreted ironclads was to be able to navigate shallow southern rivers and back bays, and deliver a 15-inch punch to rebel gunboats and fortifications in those hard to reach locations. The catastrophic problem in this instance was not caused by John Ericsson, but rather by his associate and interface with the Navy, Alban Stimers. Ericsson had roughed out a first design for these ships, but then turned the work over to the egotistical Stimers, who was woefully unequal to the task. Stimers unilaterally made a number of design changes, which in most cases added more weight to the vessels. He had not bothered to inform Ericsson of these, however, nor, of course, Lenthall and Isherwood. Construction contracts for the 20 light draft monitors were let; and when the first one was launched some months later, it had a freeboard of less than three inches. That

was *without* turret, guns, ammunition, coal and other supplies on board. Fully loaded, it was estimated that the deck would have been well *below* the water line. Five of the hulls were finished without turrets, but with one gun mounted unprotected, to be used as spar torpedo boats. Attempts to raise the decks of a few others were made, but this proved unsatisfactory, killing any pretense of light draft and costly, up to $100,000 additional each in wasted public funds. None of the Casco Class saw service against the enemy and all were scrapped soon after the War. Stimers was reassigned, but not otherwise disciplined. Some historians submit that this massive blunder was perhaps the worst in the entire history of naval architecture.

In conclusion, a brief summary of the monitors' value plus some comments on the events, people and attitudes of the times surrounding them may be of interest. This material is derived largely from the very comprehensive book by Donald L. Canney.

Regardless of the claims of Fox and others, the true low-freeboard monitor as Ericsson envisioned it was not a legitimate ocean-going warship. The advantages of the monitor were its all around field of fire, low profile, the 15-inch guns, and a reasonably low draft. But these factors proved to be luxuries when firing at anchor against fortifications. Low profile did not prevent damages and turret disabling in short periods of time; the 15-inch guns, while firing a much larger projectile had no range advantage over the 11 inch, and was twice as slow in rate of fire. The monitors were much more successful in ship to ship action, where movement and maneuver made the turret, 15-inch guns and low profile a distinct advantage.

Two opposing views existed within the navy relative to the role and efficiency of Ironclads. The majority, supporting the Monitors, was led by Fox, Ericsson and Stimers. Whereas, a distinct minority supported Broadsides, such as the USS *New Ironsides.* This group included Lenthall and Isherwood. The latter simply felt that low freeboard monitors were unsuited for a cruising oceangoing navy --- and they were right.

Many large organizations over history have suffered from line versus staff feuds, and the US Navy of the 1860's was no exception; perhaps even with one extra embellishment. The line officers were, of course, the Squadron Commanders, Ship Captains and subordinates. Staff officers were the Bureau Chiefs and their subordinate officers which included: Surgeons, Chaplains, Steam Engineers, Ship Constructors, Professors, Paymasters, Hydrographers and Secretaries, among the uniformed personnel.

Particular tensions were extant with many of the senior line officers, now ship captains who had come up during the sailing era. They were reticent in learning to like steam engines in general and steam engineers in particular. The fact that they were dependant upon the engineers to operate their ships was particularly annoying to them, all of which led to the miseries of Engineer-in-Chief Isherwood and colleagues.

Benjamin Franklin Isherwood was an important contributor to the development of steam motive power, subsequently termed Thermodynamics*; and he, with his patron Chief Naval Constructor John Lenthall, were two of the unsung personages of the Civil War.

*Affectionately known to generations of mechanical engineering students at the University of Illinois, and probably elsewhere, as "Thermogodamics".

References:

1. "The Old Steam Navy, The Ironclads 1812-1885" Vol. 2 by Donald L Canney, 1990
2. "Monitors, The Men, Machines and Mystique" by Jerry Harlowe, 2001
3. "War, Technology and Experience aboard the USS *Monitor*" by D. A. Mindell, 2000
4. "Battles and Leaders" Vol. 1 Part 2, and "ORN's" S2V1

Bob Williams: 6-12-06

A Perspective on Monitors and Related Navy Matters

Graphics Page

John Lenthall

Benjamin Isherwood

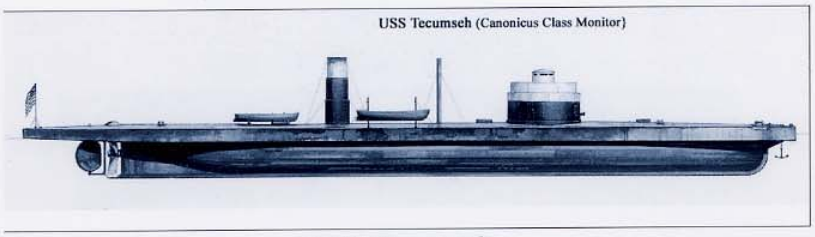
Gustavus Fox

John Ericsson

Alban Stimers

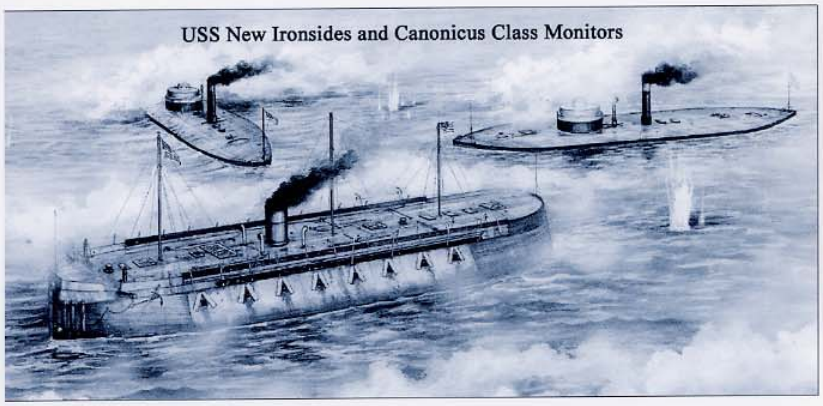
USS *Monitor*

USS *Weehawken*

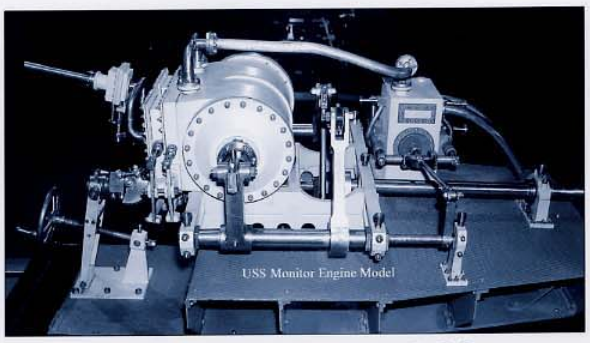


USS *Tecunseh*

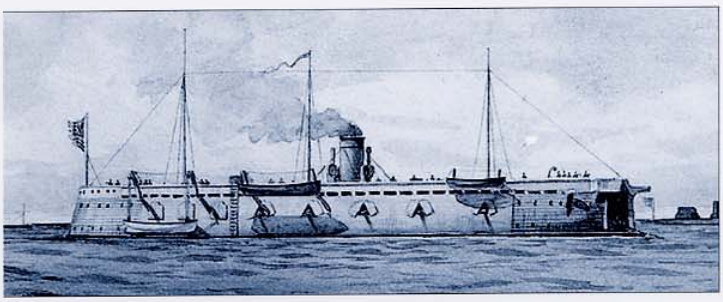
USS *Dictator*



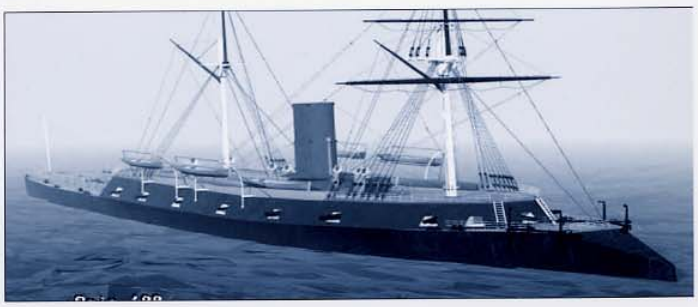
New Ironsides and Canonicus Class Monitors at Fort Fisher



Monitor Engine Model



USS *New Ironsides*



USS *Dunderberg*

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