On May 15th the new Friends of the Battleship Board met in the Captain’s cabin to begin anew the task of revitalizing the organization and making the Friends a more up-to-date and proactive group. The Friends is a non-profit organization whose membership fees are used to support exhibits, interpretation, educational programs, artifact acquisition, and restoration projects.

The Friends welcomed 11 new members to the Board of Directors as well as welcoming back several past board members. An election was held for new officers (see page 2).

With a new Board in place we began discussing new ways to make the Friends a more active and involved organization. Discussions were held on forming new committees for recruiting new members, bringing in former members, fundraising and Friends’ programming. The energy in the room was electric and the board all shared a newfound enthusiasm to grow the Friends and find new and innovative ways to support the organization’s mission.

Work has begun on forming a budget for 2010-11. We are working closely with the Museum Department and their specific needs and requests such as a new exhibit case to showcase collections and/or conservation on some specific artifacts.

The board is also looking long term to establish a reserve fund to support higher priced projects such as the wonderful scale models of other ships named North Carolina. The commissioned models were made possible through the generosity and membership of the Friends of the Battleship. The board is looking forward to taking on the challenges of making the

Information about the Friends will soon be on the Battleship’s website (“Get Involved”) and we have just launched a new Facebook page: Friends of the Battleship North Carolina. We encourage all Friends’ members to visit these pages and keep up with all the latest developments.

Wishing you fair winds and following seas

Frank Glossl
This submarine knows she is a “tarheel gal.” Teak from the Battleship appears everywhere. Paintings and photographs of the NORTH CAROLINAS abound. Even the crew’s mess, the Tarheel Grill, is full of North Carolina connections.

The tarheel gal just added jewels to her legacy crown: the water pitcher and tray from the 1908 Armored Cruiser NORTH CAROLINA 120-piece silver service. Commanding Officer CDR Wes Schlauder, son of a submarine officer, is very proud of the submarine service and the legacy that his submarine has inherited. He was most anxious to have the Battleship return the silver to the submarine. The silver was aboard prior to the boat’s commissioning in Wilmington, May 2008, and then removed upon going into dry dock.

With the sub out of dry dock and heading to Pearl Harbor to serve with the Pacific Fleet, CDR Schlauder asked that the beautiful silver pieces be returned on loan.

On the afternoon of June 17th the officers and crew of USS NORTH CAROLINA stood in formation pier side at the sub base in New London, CT, ready to participate in a brief ceremony. CDR Schlauder, Dave Stryker, a former submarine officer and son of ship’s beloved executive officer, Admiral Joe Stryker, and I made remarks about the proud legacies of ships named NORTH CAROLINA, the silver service’s history, and the ties with the Battleship. The crew smiled, checked out the silver, and returned to the important work of getting their boat ready for business, ready to create their part of the proud legacy. Hoo-Yah! Kim Sincox

Silver Pieces Return to SSN 777

Friends of the Battleship Board Members

Chairman: John Whitley, Wilmington
Vice-Chairman: Frank Glossl, Leland
Treasurer: Helen Harrington, Erwin NC
Secretary: Jane Anderson, Wilmington
Susan Mason Carter, Raleigh
John Carter, Wilmington
Joe Corbin, Wilmington
Randy Drew, Wilmington
Thomas Edwards, Willow Springs
G. David Heath, Wilmington
+Bill Oakley, Wilmington
Vernon Porterfield, Kissimmee, FL
Jim Rhinehart, Wilmington
Ronnie Rhodes, Wilmington
Don Slawter, Leland
Mike Wortham, Huntersville NC

We Want You!

In October three (3) seats will be available on the Friends’ Board. If you are interested in serving (and are a Friends’ member) please send an email to John Carter for more information and an application form: j.carter@ctwilmington.com

+term ends fall 2010
**Carolina Living History Guild To Visit BB55**

On Saturday, August 14th, the Carolina Living History Guild will visit the Battleship. They will have displays highlighting the Ship-of-the-Line *North Carolina* and the CSS *North Carolina* during the Civil War. Displays will include steam engineering, ironclad ship construction, navigation, naval small arms (artillery), and the “arts of the sailor.”

Guild members will discuss the vast differences between the 1824 ship-of-the-line and the newly constructed Confederate ironclad gunboat, and how these differences highlighted the change in naval and military technology in the 1860s.

The Guild will be located in the auditorium in the Visitor’s Center. (Friends’ members admitted free!)

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**Life Long Learning Programs**

The Museum Department will offer three life-long learning programs in the winter of 2011:

- Hidden Battleship—January 15
- Firepower Program—February 19
- Power Plant Program—March 19

These programs are an opportunity to see compartments off the regular tour route and learn more about them from interpreters. Each program is organized into small groups. *Hidden Battleship* tours the bow section (officers’ country), all of 3rd deck, an engine room, and up the fire control tower.

*Firepower* explores each weapon system from bottom to top as well as how the Ship controlled gunfire during battles. *Power Plant* offers classroom presentations followed by in-depth reviews inside the ship. Detailed information about each program will be sent to Friends’ members. (Join today!)

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**Ghost Ship 2010**

Attention Friends members! October 5th will be your night to experience Ghost Ship. See our ghosts and goblins before all our other guests. *This is Friends’ Member Benefit Only.* Your membership card must be shown for admission.

And would you like to volunteer for Ghost Ship or our children’s program, Batty Battleship, this year? Details on how to join in on these spook-tacular events may be found on the Ghost Ship Facebook page

OR contact

Danielle Wallace, Programs Dept., 910-251-5797 ext. 3024.

*Right: Goblin Doug Sincox*
The Quad 1.10 Gun Mount

The 1.1-inch gun was developed in the 1930s in response to the Navy’s need for an effective anti-aircraft weapon. It was not available in quantity until 1940 and became the standard weapon on large ships. The liquid cooled gun in a quad mount had a 600 rpm rate of fire (150 rpm per barrel), and a muzzle velocity of 2600 feet per second. The maximum range of the weapon was 7400 yards and the maximum altitude for antiaircraft use was 19,000 ft. The effective range of the weapon was 3000 yards (1.5 miles). The projectile weighed .917 lbs and had a super-sensitive contact fuze designed to be activated by the thin skin of an aircraft and detonate inside the wing/fuselage. Tracers self destructed at about 3000 yards. A self destructing round assisted the gunner’s aim, reduced the incidence of friendly fire casualties, and presented a more visible deterrent to enemy pilots.

The Navy was pleased with the projectile, but the guns had a tendency to jam. In the Battle of the Eastern Solomons (August 1942), the NORTH CAROLINA action report recorded 50 jams and 164 rounds fired. By comparison, in the same battle, the ship fired 8641 rounds of 50 caliber and 7425 rounds of 20mm. The ship’s 1942 Battle Directive dictated that the 5-inch mounts engage attackers on level bombing runs and torpedo attacks. The Machine Gun Battery (1.1”/50cal/20mm) was to engage dive bombers.

The 1.1-inch mounts were originally located (port and starboard) below Spot 1 on the O-5 level of the forward superstructure, and (port and starboard) below Spot 2 on the O-3 level of the aft superstructure. NORTH CAROLINA currently has one 1.1-inch mount on display where 40mm mount #1 was located on the starboard side abeam Turret II. An interesting feature of the 1.1-inch mount is that in addition to being able to depress/elevate (-15 to +110 degrees) and train (360 degrees), the guns could also slew 30 degrees side to side. It was thought this feature would be helpful in tracking a dive bomber at high elevation angles. A platform was added so the loaders could feed the guns when the barrels were depressed as this raised the back of the guns up higher than the loaders could conveniently reach. At the other extreme, loading and firing the gun when it was elevated to 110 degrees (20 degrees past the vertical) must have been a challenge. One wonders if the trainer and pointer had seatbelts to keep from falling out of their seats.

We had about four 1.1 guns and they were very faulty in their recoil and ejection system so that it required a great effort on the part of the gunner’s mates to keep them firing.

John E. Kirkpatrick, Air Defense Officer
The gun fired ammunition in clips of eight weighing 34 lbs (the clip itself weighed 10 lbs). By comparison, the Bofors quadruple-barreled 40mm gun fired clips of four that weighed 20 lbs.

The 1.1-inch clip went into a pair of cradles for each barrel. The cradles rocked side-to-side such that they fired from one clip while the loader replaced the other and then they shifted the cradle to fire from the new clip. The clips had to be removed when they were empty, as opposed to the 40mm system where the much smaller clip stripped off the rounds automatically and fell out the bottom of the gun.

One source commented on the close proximity of the guns in the 1.1-inch mount, deducing that the loaders couldn’t help but interfere with each other.

On the 40mm quadruple mount the barrels were mounted as two pair with enough space around the guns for four loaders to work.

Crew on the 1.1-inch mount was similar to the general arrangement that was later used on the 40mm mount: mount captain, pointer, trainer, sight-setter, right & left cradlemen, right & left loaders plus six passers and a repairman for a total of 15. The repairman was possibly a testimonial to the gun’s reliability.

The Mark 44 director for the 1.1-inch mount enabled the man aiming and firing the gun to operate away from the gun’s smoke and vibration. (These optical directors were located where the Mark 51 directors for 40mm Mounts 5&6 and 9&10 are currently located.) The ship’s 1942 Battle Directive called these Directors Sky 5, 6, 7 & 8. That naming methodology was abandoned when additional 40mm mounts included many more gun directors.

The ship stored its 1.1-inch ammunition in four magazines and two ready service/clipping rooms. The magazines are on the third deck. The ready service/clipping compartments were located between the mounts in the forward and aft superstructures and hoists connected them to the magazines. (The lower end of one hoist is behind the ladder going down to Engine Room #4.) A total of 55,332 rounds were stored in the four magazines (10,800 rounds in the magazine). Total ammunition on board for the 1.1-inch mounts was probably over 70,000 rounds with about 15,000 rounds stored in the upper level clipping rooms ready for immediate use. The Battleship’s sixteen 1.1-inch mounts were removed in November of 1942 when the ship returned to Pearl Harbor for repairs following a torpedo strike. The mounts were replaced by ten Bofors quadruple-barreled 40mm guns which fired a projectile weighing twice as much. The mounts weighed about the same, facilitating one-for-one replacement with the 1.1-inch mounts. (Five more 40mm gun mounts were installed in November 1943.)

The 1.1-inch guns were rushed into service before all the technical issues had been resolved and were replaced by the Bofors 40mm gun on most major combatants as the better guns became available. The 1.1-inch gun reliability problems were eventually resolved and the guns continued in service on smaller ships till the end of the war. By then, even the more capable 40mm Bofors had been rendered obsolete by the kamikaze.

Next issue: the Oerlikon 20mm Autocannon.

Ken Rittenmeyer

Credits: Website www.navweaps.com; Battleship Archives; US Naval Weapons by Norman Friedman, Conway Maritime Press, 1983; and Battleship North Carolina by Captain Ben Blee, USN (Ret.).
Deck Work

In June, the Maintenance Department returned the anchor chain skid plates and anchor chains to their rightful places on the fos’cle. Repairs were made to the deck last summer.

The Battleship has two Baldt Patent anchors, each weighing 25,883 pounds. The anchor chain runs through the hawse-pipe to storage in the deep chain locker. The chains were 170 fathoms long each or 1,020 feet. Normally, an anchor hangs on each side of the bow. The Ship’s port (left side) anchor hangs in its normal position. Our starboard (right side) anchor is here due to bad weather in 1960.

The Ship originally carried a spare anchor stowed in a recess in the main deck. It was removed in October 1942 when the Ship was repaired following a torpedo hit.

The Bitter End...the absolute end of a piece of cable, especially the last link of anchor chain in the chain locker

Entrance Receives A Facelift

Visitors to the Battleship are now welcomed by a bright blue awning, which also gives shade during the summer months. Inside the newly painted lobby colorful banners explain the Ship’s admission prices, annual events and opportunities for rentals. A full banner describes our Friends of the Battleship program. Be sure to notice our facelift on your next visit!
In Place Hull Repairs

After long deliberation and review, the USS NORTH CAROLINA Battleship Commission formally convened on May 31, 2010 and unanimously voted to begin significant hull repairs to the ship in Wilmington. Per the state’s agreement and contract with the U.S. Navy, the state is mandated to maintain the ship. The ship was last dry-docked in 1946 and is in need of hull repairs.

Following significant research by the staff of the Battleship, the Commission agrees to the following:

- To conduct on-site repairs by using new cofferdam technology;
- To use U.S. Navy proven paint and maintenance procedures;
- To replace and/or repair the steel hull plates;
- To replace the "through hull fittings" blank flanges;
- To do underwater hull cleaning and painting;
- To remove approximately 1.5 million gallons of contaminated oily water from the ships tanks to protect the river from possible contamination.

The long term maintenance plan to be conducted in Wilmington versus dry-dock in Charleston or Norfolk will save approximately $16 million dollars and can be carried out while the ship remains open to the public.

Development of a plan to fund these repairs over the next several years is the next priority. The USS NORTH CAROLINA Battleship Commission will undertake a fundraising campaign to raise as much money as possible toward the cost of these repairs gearing primarily from private contributions.

As the ship is in good shape and not in need of emergent repair, the Commission along with Battleship staff feels that it is critical to start planning now. In the fall of 2010, the Battleship NORTH CAROLINA will begin starboard bow repairs as template/test case with a cofferdam.

Holiday Visitors to the Battleship

Mike Resser and Richard Perry from the Battleship’s Living History Crew opened the Executive Officer’s office to the public from June 29th to July 6th. In addition to interpreting the duties of the Exec’s office personnel, they handed out typed, personalized “liberty cards.” The cards are reproductions of ones in the ship’s collections. They issued 1,291 liberty cards!

They kept track of where our guests were visiting from: 41 states, Puerto Rico and the District of Columbia were represented along with six foreign countries: Bolivia, Canada, France, Mexico, Northern Ireland, and Romania.

What states were missing? Alaska, Hawaii, Idaho, Mississippi, North Dakota, Rhode Island, South Dakota, Vermont, and Wyoming.

If you know someone who lives there send them an invitation to visit the Battleship!
Friends of the Battleship NORTH CAROLINA is a non-profit organization and your membership is used to support exhibits, interpretation, educational programs, artifact acquisition, and restoration projects. The Battleship receives no funding from federal, state or local governments for its operations. Membership benefits: Free Admission for One Year; 10% discount in the Ship’s Store; Discounts on special programs/tours; and the electronic Scuttlebutt newsletter. To join please send this form with check payable to the Friends of the Battleship NORTH CAROLINA or call 910-251-5797 with your Visa or Mastercard information.

Name:
Address:
City/State:
E-Mail Address:
Phone:

Enlistment Level:

Lieutenant (jg), Individual 35.00
Lieutenant, 2 Individuals 45.00
Lt. Commander 75.00
Two adults. Benefit includes bringing children or grandchildren under 18 years of age.

Commander 150.00
Lt. Commander benefits plus 5 guest passes
I choose to receive five guest passes ______
I choose to not receive any guest passes ______

Captain 300.00
Lt. Commander benefits plus 10 guest passes
I choose to receive ten guest passes ______
I choose to not receive any guest passes ______

Commodore 500.00
Recognition signage in the Visitors Center and 25 guest passes
I choose to receive 25 guest passes ______
I choose to not receive any guest passes ______

Admiral—please call for details

Total Enclosed:

Friends of the Battleship NORTH CAROLINA is a non-profit organization and your contribution is tax deductible as allowed by law. Guest passes have a value of $10 each.