

Oral History Project

We are finally getting off top dead center on our **Oral History Project**. This topic has received much coverage in the past, has been the subject of numerous Klaxon articles over the years, but for some reason has met little progress. That is all about to change. A veteran oral historian, Mr. Fred Calabretta, oral historian and curator of collections at Mystic Seaport in Mystic, CT has agreed to give us some training and tutoring so we can begin a full bore collection of oral histories here at the Submarine Force Library and Museum.

Mr. Calabretta will actually be conducting some interviews, but most importantly he is also training us how to conduct interviews, types of questions to ask, how to keep conversation flowing, how to put an interviewee at ease, etc. We completed a 7 hour workshop on April 8 at which two members of the museum staff and three members of the association received valuable insight in the techniques of collecting oral history. Now we are in the process of contacting initial interviewees and embarking upon what is sure to be an exciting undertaking.

Where will the interviews be conducted? Whenever practical, we will be conducting the interviews right here at the Submarine Force Library & Museum. But we recognize not everyone lives within a reasonable traveling distance from the museum and will be making plans to accommodate distance interviews.

How will the interviews be conducted? Interviews will be conducted in a comfortable setting; here at the museum, as previously mentioned, whenever possible. We will be using state of the art electronic recording equipment to capture complete audio recordings and, where feasible, video of at least portions of the interviews. Audio will be transcribed and preserved in digital format. Video will be preserved in digital format (wave) as well. The idea is to create lasting maintainable records of these important histories.



This is an important project for several reasons; the primary being that an essential part of our mission at the Submarine Force Library & Museum is the preservation of submarine history. To the extent we can do that through first hand accounts we should pursue it with all the vigor we can muster. There is also a matter of urgency; our WWII heroes are leaving us for eternal patrol at an ever increasing rate and too soon they will all be gone. We need to capture as much as possible of what they can tell us while we still have a chance.



Submarine Force Library and Museum Association
1 Crystal Lake Road
Groton, CT 06349



PING is here...and we need your email address so we can send it to you!

We are now publishing an electronic newsletter, appropriately named **PING**. The name was chosen via an online contest on our Facebook page where fans were invited to submit names for the new newsletter. The winner received a \$50 gift certificate for merchandise in the Museum Store. We are currently planning to publish **PING** on a monthly basis.

Now the bad news; you are probably not receiving **PING** because we don't have a valid email address on file for you. Although we have solicited email addresses from members for years, the response has been very modest and, as a result, we have email addresses for less than half our members. It gets worse; of the email addresses we do have, over a third are no longer valid.

Here is the bottom line. We are pretty excited about **PING** and would like to see all of our members receive this wonderful new newsletter. But in order to do that we must have a valid email address. This is where you come in; if you want to receive **PING** please send us your email address and we will sign you up.

You can **get your email address to us** several different ways: you can fill out the slip in this issue of The Klaxon and **mail it** to us; you can **sign up on line** at ussnautilus.org or you can **sign up on our Facebook page** www.facebook.com/submarinemuseum (and while you are at it become a fan if you haven't already). Finally, you can even **call 860.448.0893** and leave a voice mail. If you use this last option, please speak very clearly and spell out the email, other wise we will probably get it wrong.



spring 2011

THE KLAXON

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From the Desk of the President

Here, finally, after long preparation and several false starts, is the premier issue of the new Klaxon. While we are still working out some of the kinks with respect to format details and timing of publication we wanted to get this issue into your hands so you can give us your feedback. We believe the new look is an improvement, but we are only part of the equation. Tell us what you think.

In this premier issue, we take a look at the loss of USS Scorpion which occurred 43 years ago this May. Mr. Bruce Rule, former lead acoustic analyst at Office of Naval Research, has done considerable work reanalyzing available acoustic data and other information related to Scorpion and is confident he knows the cause of the ship's tragic loss. His story is in this issue.

Spring is here and soon the busy season of the year will be upon us. As we did last year, the museum has a number of fun activities planned for kids during school breaks and throughout the summer season. To the extent possible we will be providing advance information on all events. We utilize our new

electronic newsletter PING to get that word out. PING is published monthly and goes out to everyone for whom we have a valid email address. So, if you don't want to miss out, take time now to make sure we have an up to date email address. We can be reached at: director@submarinemuseum.org.

If you are considering down sizing and are in doubt about what to do with your service related memorabilia, please contact us. Many of the non-personal items you have (plaques, hats, battle flags, etc.) would be welcomed additions to our collection. Although I know this is a touchy subject, please do not leave this decision (and problem) to your family members. I am in the process of doing just this as our Klaxon goes to press. Join me. My wife has already thanked me for cleaning out 'my stuff'.

Please plan on joining us at the 38th Annual Submarine Force Library & Museum Association Meeting to be held at the Museum on May 13, 2011. We hope to see you there.

(see details on page 3)



Submarine Force Library & Museum Association
1 Crystal Lake Road
Groton, CT 06349
800.343.0079

New The Klaxon!

Well, here it is! It's bold! It's color! It's new! It's The Klaxon re-engineered. We are confident you will find the new Klaxon format a welcome change from the old. Our marketing partners, Miranda Creative of Norwich CT, utilized their best graphic design talents to come up with the new look. We really like it and hope that our readers will enjoy it as well.



The Loss of USS Scorpion

May 22, 2011 marks 43 years since the tragic loss of USS Scorpion, the second of two U.S. nuclear submarine losses. To date, many theories have been put forth, but the Navy has never provided a definitive cause for Scorpion's loss. So, what did happen?

USS Scorpion, SSN 589, fifth ship of the Skipjack class was lost with all hands on May 22, 1968 while enroute back to her home port in Norfolk Virginia. Scorpion was due to arrive in Norfolk on 27 May. For hours after the scheduled time of arrival, anxious family members, friends and Navy officials awaited in the driving rain and wind for any appearance of the overdue ship. Gradually they all drifted home; word came out later that the sub was missing and on 5 June, after searching for nine days, the Navy declared the ship lost and its crew all dead.

The wreckage of the ship was located on 28 October, 1968, approximately 400 nautical miles south west of the Azores in water deeper than 10,000 feet. Initial photographs of the wreckage showed that the torpedo room, while largely intact, was sheared off from the rest of the ship; the operations compartment had disintegrated; fifty feet of the stern had telescoped into the pressure hull and the sail had been sheared off.

A Court of Inquiry COI was convened to attempt to determine what had caused the loss of Scorpion but failed to come to a definitive conclusion.

Over the years, beginning with testimony before the COI many theories have been expounded as to cause of the loss. An early theory, promoted by Dr. John P. Craven, then Chief Scientist for the Navy's Special Projects Office, was that Scorpion was lost due to explosion of one of its own MK37 torpedoes. The COI, in fact, although it did not draw any conclusion as to loss of Scorpion, did state as an opinion that a large explosion occurred external to the hull and was recorded as acoustic event number one. (More about the acoustic events later.) Dr. Craven has in later years distanced himself from the theory of a torpedo explosion causing loss of the ship.

There have been at least two books written postulating loss of Scorpion being caused by a Soviet torpedo either submarine launched or dropped from a helicopter.

There is even one far out theory which postulates that the propeller threw a blade while the ship was operating at high speed; the

imbalance of the shaft due to loss of the propeller blade then causing catastrophic failure of the propulsion clutch and shearing of the shaft and then the ejection of the shaft from the ship. Finally the resulting flooding through the shaft penetration caused the ship to sink.

All of these theories have been debunked either through lack of credible evidence for their support or by analysis of available photographic evidence and acoustic recordings which points in other directions.

So, what did happen? Mr. Bruce Rule of Louisville KY believes he knows the answer and has produced some documentation to validate his claim. As to his bona fides, Mr. Rule was, for over 40 years, lead acoustic analyst for the Office of Naval Intelligence. Please note, ONI was not involved in any of this analysis, rather Mr. Rule has performed detailed analysis pro bono of acoustic recordings that have been available in the public domain for over 40 years.

This article will present results and some discussion of his work without going into excessive technical detail. All of his notes are available in the Submarine Force Library for anyone who wishes to study further.

Mr. Rule bases his conclusion on analysis of Scorpion acoustic data and associated Navy documents over about a two year period of time. Included in this analysis were original Columbia University Hydroacoustic Station Canaries (CUHSC) and Sound Surveillance System (SOSUS) array 3141 detections of acoustic signals associated with the loss of Scorpion. According to Mr. Rule, exploitation of these recordings has provided important new information on the cause of the event and what did not cause the event.

According to Mr Rule's analysis the initiating events that resulted in the loss of Scorpion were two low order explosions contained within the pressure hull within a half second period at 18:20:44Z on 22 May 1968. He concludes based upon re-analysis of acoustic signals detected by multiple seafloor sensors on both sides of the Atlantic that the following occurred:

- "The initiating events responsible for loss of Scorpion were two explosions that occurred about 0.5 seconds apart at 18:20:44Z on 22 May and were contained within the pressure hull."
- "These explosive events prevented the crew from maintaining depth control. Scorpion sank to a depth of 1530 feet at which depth the

pressure hull and all internal bulkheads collapsed at 18:42:34Z in 0.1 seconds with a force equal to the explosion of 13,200 lbs. of TNT."

- "During the 111.6 second period when it was conjectured in 1968 that Scorpion had reversed course to deactivate a MK-37 torpedoes that had become active in its launch tube, the already-fragmented hull was sinking at about 12 knots with a displacement of no more than 100 feet from the vertical."
- "During the 200 second period following pressure-hull collapse, 17 additional acoustic events were detected. These events were produced by small, more pressure resistant structures that survived within the wreckage to collapse at greater depth. Six of these events were produced by the collapse of the Scorpion torpedo tubes at depths between 3400 and 4600 feet."

Mr. Rule also concludes there were no explosions external to the pressure hull from any source.

Mr. Rule attributes the initiating events discussed above to explosions in the ship's TLX-53-A main storage battery. Said assessment is based upon "examination and microscopic, spectrographic and X-ray diffraction analyses of recovered Scorpion battery material that confirm an explosion occurred" and "July 2008 re-analysis of the Scorpion "precursor" acoustic signals that identified these signals as explosions contained within the Scorpion pressure hull."

Detailed analysis of the recovered battery components showed that the battery explosions occurred before the battery well was flooded and therefore before hull implosion.

Therefore, Mr. Rule concludes that the initiating event resulting in loss of Scorpion was one, likely two, nearly simultaneous explosions in the ship's main storage battery. This resulted in loss of capability to maintain depth control and the ship slowly sinking until it reached a depth of 1530 feet, at which depth the hull imploded destroying the ship and instantly killing all hands onboard. No conspiracies, no Soviet attack, no torpedo hot run, but a tragic accident.

Mr. Rule has requested, in writing to CNO Admiral Gary Roughead in May 2010, that the Navy take action to declassify and release material related to loss of Scorpion so that this information may be available to the public. To date the material still has not been released.

Notice of ANNUAL MEETING

The 38th Annual Meeting of the Submarine Force Library and Museum Association will take place on Friday, May 13, 2010 at the Museum.

The museum doors will open at 5:00 pm and the meeting will commence at 5:45 pm. Nautilus will be open for tours until 7:00 pm. A reception will follow the short business meeting from 6:30 to 8:00 pm. All members in good standing are invited to attend and to bring a spouse or one guest.

Election of Association Officers for 2011 will be held during the short business meeting. Any member in good standing may submit nominations for the offices of President, Vice President, Secretary and Treasurer. Each nomination must identify the office for which the individual is being nominated and must include a written statement from the nominee indicating that he/she consents and will accept the nomination and serve if elected.

Nominations will close 72 hours prior to the commencement of the Annual Meeting. Submit nominations to CAPT Arne C. Johnson USN (Ret), 186 Jerry Browne Road, #1043, Mystic, CT 06355-3052.



Robert W. SAWYER

Lieutenant Commander, U. S. Navy Officer In Charge

Meet the new Museum Director/Officer in Charge of Historic Ship Nautilus. At a Change of Charge ceremony held at the museum on Tuesday April 5, 2011, LCDR Robert Sawyer relieved CDR Greg Caskey as Museum Director and Officer in Charge Nautilus. We welcome and look forward to working with LCDR Sawyer. We wish CDR Caskey all the best in his new assignment at Submarine Development Squadron Twelve.

Lieutenant Commander Robert Sawyer, a native of Pelham, Alabama, graduated from the United States Naval Academy in 1999 with a Bachelor of Science degree in Electrical Engineering. He completed training at the Naval Nuclear Power School in Charleston, South Carolina and the Nuclear Power Training Unit in Charleston, South Carolina.

After completing the Submarine Officer Basic Course, LCDR Sawyer reported in February 2001 to USS ALABAMA (SSBN 731 GOLD) in Bangor, Washington. While assigned to ALABAMA, he served as the Reactor Control Assistant, Damage Control Assistant, Quality Assurance Officer, and Assistant Engineer, completing five strategic deterrent patrols. In February 2004, he reported to the Naval Nuclear Power Training Command in Charleston, South Carolina, where he served as an instructor and division director for in the officer training department.

After completing the Submarine Officer Advanced Course, LCDR Sawyer reported in October 2006 to USS Annapolis (SSN 760) in Groton, Connecticut. He served as the Engineer Officer, completing one deployment to West Africa and the Mediterranean and later under-ice exercises. In May 2009, he was assigned to Commander Submarine Development Squadron Twelve, Tactical Analysis Group, in Groton, where he worked as the Torpedo and Torpedo Defense Action Officer until February 2011. LCDR Sawyer relieved as Officer in Charge of the Historic Ship Nautilus in April 2011.

LCDR Sawyer's decorations include the Navy and Marine Corps Commendation Medal (five awards), Navy and Marine Corps Achievement Medal, and numerous unit awards.

He is married to the former Anna Broman of Tullinge, Sweden. They reside in North Stonington, Connecticut, with their son Alex, and their daughters Vicki and Amanda.