Sixty years ago on 18 September 1954 the first SOSUS facility, NAVFAC Ramey, was commissioned below the cliff of an Army Air Field at the end of the island of Puerto Rico. The base was named Ramey in honor of Brigadier General Howard K. Ramey. Today we recognize that commissioning date as the “Birth of The System” – the birth of SOSUS and the IUSS. With nearly 300 in attendance, the Integrated Undersea Surveillance System (IUSS) commemorated its 60th anniversary during a celebration held on 20 September 2014 at the Waterside Marriott in Norfolk, Virginia. The celebration was hosted by the Integrated Undersea Surveillance System CAESAR Alumni Association (IUSSCAA). We host these anniversaries every 5 years to honor the service of those Cold War warriors as well as today's undersea surveillance warfighters.

I thought you might enjoy excerpts from an article written by Kevin Copeland, Commander, Submarine Force Atlantic Public Affairs office:

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Vice Adm. Michael Connor, Commander, Submarine Forces, was the featured speaker. “I want to thank all of you for your service in support of undersea surveillance around the world,” said Connor. “As a community, you do more than many know and others take credit for your hard work. When it was first suggested over 60 years ago as a means of exploiting contemporary oceanographic findings and state-of-the-art technology for wide-area undersea surveillance, the Sound Surveillance System was an audacious concept. Its successful implementation was one of the most impressive engineering feats. As the world situation evolves, it is important to note the role each of you have played in our nation's continued success. Our Navy can adapt and design new systems and alter our way of doing business to meet modern challenges as they arise. What can never be replaced is the type of Sailors it takes to carry out our mission.”

IUSS provides the U.S. Navy with its primary means of submarine detection, both nuclear and diesel. The integrated system is made up of fixed, mobile, and deployable sensors that provide vital tactical information to anti-submarine warfare forces.

Retired Navy Rear Adm. Gretchen S. Herbert, whose last assignment was as Commander, Navy Cyber Forces at Joint Expeditionary Base Little Creek-Fort Story, Virginia Beach, Virginia, was a guest speaker. During her early assignments, she served within the Integrated Undersea Surveillance System at Naval Facility Bermuda; at Commander, Oceanographic Systems Atlantic; and at Naval Ocean Processing Facility, Dam Neck, Virginia Beach, Virginia.

"Each of our personal experiences and careers in IUSS were unique," said Herbert. "Some of us served only a handful of tours with SOSUS/SURTASS, while others began their careers at the start of the Cold War and saw the IUSS grow, shrink, and change as our mission and contributions to science and National Security changed over the ensuing decades. But we all shared a common thread - the knowledge that we were investing our time, energies and intellect to a mission that had silent but far-reaching impact to our National Security. Our experiences shaped us...not only during our time in the IUSS, but for the years and careers that followed."

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By all accounts the 60th Anniversary weekend was a resounding success. I wanted to take a moment here to recognize the dedicated shipmates who coordinated the event: A huge Thank You and BRAVO ZULU to CAPT Paul Heim, USN (Ret); CAPT Kathy Donovan, USN (Ret); LCDR Christine Buswell, USN (Ret); Mrs. Pat Szewczak; LCDR Steve Rose, USN; OTCM Ed Smock, USN (Ret); OTCM Mike Moseler, USN (Ret); STGC Greg Clarkson, USN (Ret); and OTCM Paul Banks, USN (Ret).

Today the IUSS CAESAR Alumni Association stands at 699 active members with 78 new and returning members in the last 12 months. We have an archive of approximately 550 former members. Please check our membership listing on the IUSSCAA website (iusscaa.org) or your new Membership Directory to determine your own membership status.

Sadly, we list 357 IUSS shipmates in our Memorial Section, with 31 names added in the past year alone. See that listing at the end of this newsletter and on our website, which is updated monthly.

The IUSS CAESAR Alumni Association Board continues to be staffed and run by Jack Holdzkom (membership and database management), Russ Lownie (Webmaster) and I (Director and Treasurer). Additionally, Ellis Sutter and Dick Rentner provide necessary editing and formatting of our annual Cable newsletter. I am pleased to introduce the newest member of our Board of Directors, OTACS Nick McConnell, USN (Ret) who will be joining us at the end of this year. Nick’s roles are still being defined but we look forward to a fresh set of eyes and new ideas. The IUSSCAA is still in need of assistance in the form of a database manager to take over that role. If you are interested in assisting please contact Jack Holdzkom or myself for details.

Finally, I wanted to provide an endorsement for a book recently published by one of our members, CAPT William “Bill” Manthorpe, USN (Ret), “A Century of Service – The U.S. Navy on Cape Henlopen, Lewes, Delaware: 1898-1996”. The book contains several chapters outlining the role of NAVFAC Lewes, Delaware in the national defense as well as the history of the IUSS that I found very well written. Bill’s descriptions with firsthand accounts from operators are among the best regarding our System that I have found in open source literature. An advertisement for his book can be found elsewhere in this newsletter.

On behalf of the IUSSCAA Board of Directors I wish you a safe and happy holiday season and wonderful, healthy New Year in 2015.

All the best, Jim
What a weekend!!!!!!!!!!!!!!!!!!! The 60th Reunion Gala was a fun time. I tried to tell everyone that was involved in setting up the event that it was "The best one ever". I'm sure I missed someone so I think it's appropriate that the entire community know the folks behind the successful event.

CAPT Jim Donovan chaired the committee and was supported by CAPT Kathy Donovan, LCDR Christine Buswell, Mrs. Pat Szewczak, LCDR Steve Rose, OTCM Mike Moseler, STGC Greg Clarkson, OTMC Paul Banks, Former Commodore CAPT Paul Heim and OTCM Ed Smock. What a job these folks did in making this a tremendously successful event. I'm sure I speak for the community when I say BZ for a job well done.

I think I am correct or very close to being correct when I say there were ~287 folks that signed up to attend and I believe, with only a couple of exceptions, everyone came.

It all began on Friday morning with a fun golf tournament at NAS Oceana. The golf tournament was punctuated by low flying jets and aero acrobatics: an assortment of jets and prop-driven planes that were practicing for a weekend air show featuring the Blue Angels. (Leave it to the committee to arrange a diversion from some of the worst golf I've ever seen). After the tournament, we all enjoyed food and beverages to complement a social atmosphere of stories, stories and more stories. BZ to Mike Moseler for a fun start to the weekend.

Later that Friday, everyone congregated at the Marriott Waterside for a "Happy Hour". If memory serves, it was planned to run from about 6-9 PM. Well, it started about an hour early and when Irv DeMatties and I left at midnight, there were still lots of folks "telling the news". I would really like to "Shout out" a few folks here but the facts are, there were so many old friends in attendance that it would be a crime to leave someone out. So, suffice to say, it was a wonderful evening and a golden opportunity to catch up with old and dear friends. I heard comments like "Man, I have not seen you in 30 years, 40 years and in the most extreme case, 48 years"!!!!!!!!!!!! Fellow members of the community, I want to tell you that it was a special time, created by a few, and enjoyed by the masses.

Saturday (Daytime) was personal time. Saturday night however was a time when everyone donned their glad rags (especially Barry "Black Beard" Millard in his "Class A Pirates" uniform) and congregated for a wonderful meal and more social time. OTCM George Widenor, OTACS Mike Weir and Mr. George Miller receiving the prestigious
CAPTAIN JOSEPH P. KELLY award highlighted the evening. BZ to these three for earning their well-deserved awards. The organized events left about 2-3 hours of social time in the evening, primarily spent on picture taking and other means of capturing the magic. BZ to Commodore Paul Heim for his deft handling of the Emcee duties. He kept it light and moving right along in an attempt to preserve that precious social time. Nice job Commodore!!!

Pat and I left on Sunday morning with the intent of going to the mountains. Throughout Sunday, the conversation between us centered on what a wonderful two days it had been. Since arriving home, I have been in contact with a number of fellow attendees and everyone is saying things like "What a high" and "have not been able to talk about anything else" or "man I wish that could have lasted a bit longer"!!!!

The facts are that it was a well-planned event, equally well executed and extremely well attended (considering our ages) which meshed into a perfect equation for creating another set of spectacular IUSS memories.

Pat and I had fun Folks. Thanks for the memories.

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What a beautiful job summarizing the weekend, John. I looked forward to attending the 60th for several months, and I was not disappointed. From the moment I spotted Ed Smock at the airport Thursday evening until the Monday morning cab ride back to the airport, I characterize the entire weekend as FANTASTIC!! The only thing I can add to your summary is the fine tour of the operations spaces on Sunday afternoon. My thanks to those active duty personnel who very graciously opened their "house", and gave generously of their time.

This was the best weekend I have had in many, many years. The people, the pride, the memories, the stories (most true), the life-long friendships; a special BZ to those putting this all together!

Jim & Kathy: I came away from our weekend with mixed emotions. So very humble to have received the Kelly Award. Inspired by the time I spent with so many shipmates. Impressed with the strides our "system" has made through the application of new technologies. Deeply concerned about the ability to develop future "acousticians" given the current personnel rotation practices. Delighted with the active duty folks who "presented" during our Sunday afternoon tour.

Final thought - this weekend doesn't happen without you two. Jim, I think you know how I feel about your career. Saturday night, under the cloud of a little VO, I tried to tell you how very proud of you I am. I hope my feelings came through loud & clear. But there is a whole other level of your presence that needs to be appreciated. You and Kathy seem the perfect pair, in the right place, at the right time. You both so brilliantly and comfortably bridge the past with the future, the old with the young, and senior Navy leadership with watchstanders. Our community benefits enormously from your ability to comfortably (appears at least) represent our community to flag-level leadership. The way you wear the Good Conduct Medal with pride transmits the subtle message to junior enlisted that while you are no longer one of them, you have been, and empathize with their issues and concerns.

You and Kathy are outstanding ambassadors for our community. This weekend doesn't happen without you two. Just think about who might replace the energy you two provide. The leadership. The presence. The passion. There isn't an official requirement for a "Mr. & Mrs. IUSS". But in my mind, you two are filling that role. I do not believe that I am alone in those thoughts.

Jim, Kathy - please accept my sincere appreciation for who you are, and what you do.
CAPT Joseph P. Kelly Award
For
Lifetime Achievements In the IUSS

2014 RECIPIENTS

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Mr. GEORGE E. MILLER

As presented at the IUSS 60th Anniversary celebration of 20 September 2014. Citation reads as follows:

“Mr. Miller began his career in SOSUS/IUSS in 1960, qualifying and serving as a Watch Officer at NAVFACs Pacific Beach and San Nicolas Island, and then as the Operations Officer at NAVFAC Adak. In 1963, he went to work for the Office of Naval Intelligence (ONI) as a civilian acoustic analyst. Where, because of his technical knowledge and ability, he served in a “final authority” technical capacity for the next thirty years.

During the period from 1964 to 1992, George Miller, more than any other single individual, was responsible for the evolution of acoustic data analysis from a disorganized field of often conflicting assessments to a scientifically-rigorous, empirically-based discipline. That discipline enhanced the credibility of IUSS as a unique source of operational and technical intelligence on the threat that foreign submarines represented to the security of the United States.”

MR. MILLER was not present. CAPT James Donovan accepted the award on his behalf.
As presented at the IUSS 60th Anniversary celebration of 20 September 2014. Citation reads as follows:

“Master Chief Widenor’s entire naval career beginning in November 1959 to his retirement 22 years later was dedicated to the Integrated Undersea Surveillance System (IUSS). Following retirement, he worked as a SAIC contractor in support of the Readiness Training Facility at Centerville Beach from 1981 until 1984.

During his 22-year career he identified weaknesses in target location and tracking accuracy then designed a tilting, backlit plot which was installed on the watch floor. His efforts were instrumental in the development and publication of additional volumes to the Surveillance Training and Operations Procedures (SURTOPS) Manual. In addition, the qualification program he developed combined with Reader, Plotter, and Supervisor Courses became the foundation on which the SURTOPS Qualification Program was launched.

Master Chief Widenor’s undersea acoustics training and qualification programs, coupled with his innovative solutions to IUSS plotting techniques and procedures, had a profound impact on current and future IUSS success in undersea warfare.”
 OTACS MICHAEL D. WEIR, USN (Ret)

As presented at the IUSS 60th Anniversary celebration of 20 September 2014. Citation reads as follows:

“Mr. Weir has been working within the SURTASS, SOSUS, and IUSS community for more than 46 years. Serving the country as a Sailor, civilian, and government contractor, he has provided the IUSS community with superb knowledge and invaluable insight that can only be gleaned through decades of work and dedication to the IUSS mission.

His complete understanding of Integrated Common Processor (ICP) architecture has been pivotal in the training and development of a phenomenally efficient watch organization as well as in continued flawless operation of the IUSS suite. He has been a key part in the research and development of the next generation of hardware and software and his contributions since 1968 have been vital in the maintenance, upkeep, and development of ICP. His superb leadership, technical acumen, and life-long contributions have had and continue to have a global strategic impact within the IUSS community.”

OTACS MIKE WEIR RECEIVES THE CAPT JOSEPH P. KELLY AWARD FROM VADM MICHAEL J. CONNOR, COMMANDER, U.S. SUBMARINE FORCES
I’ve been asked to fill in for Mr. Ed Smock and provide you with comments regarding IUSS and its links to US Naval history. My name is Chuck Gagnon. I presently work for a small naval engineering firm, Marine Acoustics Inc. We support the Navy in various aspects and various endeavors. It’s tough to fill in for Mr. Smock. His 60 years in the business casts a long shadow compared to my mere 44. He wasn’t able to be here today and it’s an honor to stand in his stead.

Before I start with dates, ships’ names, locations, and personnel, I’d like to say thank you to all you active service members and civil servants out there. Your service to the nation and its allies is part of a long history filled with honor, dedication, brotherhood, and selflessness. You may have heard the term “Six degrees of separation” which is the theory that everyone is six or fewer steps away, by way of introduction, from any other person in the world, so that a chain of “a friend of a friend” statements can be made to connect any two people in a maximum of six steps.

I would say that in our business, that theory is probably much fewer than six degrees of separation. An STS2 out on the USS OHIO is probably linked to someone in this room. An AW3 crewing on a P-8 in Asia is probably linked to someone in this room. Our degrees of separation are far fewer than regular folks creating a brotherhood woven with trust, reliance, and inter-dependent. That uniqueness makes each of you a much needed key in a very large gear set. Whether you are in supply, admin, operations, maintenance, or security, each of you are part of an immense machine entrusted with protecting the nation, its people and our fellow shipmates.

So how did we get here? Here in this building called Naval Ocean Processing Facility. That story is a bestseller filled with intrigue, history, spies, and futuristic thinking. Our origins begin with the submarine, which in my opinion is the deadliest and most capable platform out there. I’m not taking anything away from the surface or air community. Their function and tasking is different.

I take you back, back to the dark days of WWII. Thankfully we had global and futuristic thinkers like President Roosevelt. He knew we’d have to join the war effort if the Axis was to be defeated and did what he could to prepare the nation. He just didn’t know where we’d be attacked but it was probably going to take an attack to put us into the war. By December 1941, the Navy had 350 major combatants and an equal number under construction. Much of the construction was to support our future allies. At its peak at the end of the war, the U.S. Navy was operating 6,768 ships on V-J Day in August 1945, including 28 aircraft carriers, 71 escort carriers, 23 battleships, 72 cruisers, over 232 submarines, 377 destroyers, and thousands of amphibious, supply and auxiliary ships.

In the earliest days of the war, Japan won many victories at sea. Outgunned at sea, with our big guns lying at the bottom of Pearl Harbor, the American strategy for victory required a slow retreat or holding action against the Imperial Japanese Navy until the much greater industrial potential of the US could be mobilized to launch a fleet capable of projecting Allied power to the enemy heartland. In the Atlantic, right here off Virginia Beach, tankers were seen from shore burning, having been torpedomed by German submarines. In NY, a German submarine placed a group of saboteurs on our shores. On the path to Europe, convoys were harassed and many merchant marines lost their lives transporting valuable war assets. The average for 1942 was 33 Allied ships sunk each week. Most of these sinkings were by German U-boats. Over 9,000 merchant marines lost their lives and another 12,000 were wounded. Less than 2% of the U.S. Navy was in submarines yet they managed to sink over 50% of all enemy ships. Our victory didn’t come without losses. We lost 52 submarines in WWII. The Japanese lost 128 submarines. By the end of the war, their remaining submarines were mostly non-operational. The German Navy lost between 700 and 800 submarines in WWII. Before the war’s end, 650 convoys were attacked and the U-boats hit 2,788 ships (1,664 of these were British). Employing extensive prefabrication and production line techniques, German shipyards achieved a monthly completion rate of 28 Type XXI submarines in December 1944.

By the way, if you’re interested in what a German Type XXI submarine looks like, just step out into the passageway and there is a photo of the U-2513 on the bulkhead. It was captured at the end of the war and we reviewed its technology. The Soviets did the same thing. U.S. naval intelligence in 1948 believed that the “Soviets may approach German submarine building success in five years…..and surpass it in ten.”

We were now facing a Cold War with the Soviet Union. Political leadership in America had fresh memories of the impact that the German submarine force had on the Allied war effort in the Atlantic. That leadership realized how much damage our submarine forces had dealt to the Japanese surface and replenishment forces. Science had progressed our understanding of underwater acoustics; in particular our understanding of the deep sound channel.
By early 1950, the Navy had come to believe that Soviet submarines posed the greatest threat to America’s security and approached the Committee on Undersea Warfare, an academic advisory group for suggestions on studying the problem. The result was Project Hartwell; a series of MIT-organized technical meetings attended by top-level scientists and naval officers during the first half of the year. In 1951, a young Navy Lieutenant named Joe Kelly was assigned as the project officer for Project Jezebel. CAPT Kelly retired in 1973 and is referred to as the “father of SOSUS.” In 1954, we commissioned the first NAVFAC (Naval Facility at Ramey AFB, in Puerto Rico. NAVFAC Ramey was the first of 25 facilities constructed worldwide to process ocean acoustic data and search for threat submarines.

Some of the highlights from our sixty-year history include:

- In the early sixties the Mercury space program capsules carried an explosive charge, which they would set off when the capsule splashed down. The NAVFACs would locate the origin point of the explosion and the fleet would steam to the area at full speed.

- In March of 1962, a nor’easter called the Ash Wednesday storm wiped out the NAVFAC at Cape May, NJ. The array was re-terminated at Lewes, DE.

- In June of 1962, NAVFAC Barbados detected a Soviet nuclear submarine operating near the Iceland-Faroes Gap. This was the first SOSUS detection of a Soviet nuclear sub.

- In October 1962, NAVFAC Grand Turk detected a Soviet diesel submarine during the Cuban Missile Crisis.

- In 1963, USS THRESHER (SSN 593) sank off New England with a loss of all hands (129).

- In March 1966, NAVFAC Keflavik, Iceland was commissioned.

- In March 1968, SOSUS helps to locate the Soviet K-129, a Golf diesel submarine lost northwest of Hawaii. Soon we’ll try to raise her with a vessel named GLOMAR EXPLORER.

- In May 1968, SOSUS helps to locate the wreck of USS SCORPION (SSN 589) lost with all hands (99) 400 nm southwest of the Azores.

- In December 1969, the first civilian analyst billet was established at COSL and filled by Mr. Ernest Castillo, III (first CO of NAVFAC Keflavik).

- In September 1970, the Ocean Systems Technician (OT) rating becomes effective.

- On October 01, 1972, Joint Canadian Forces/US Navy operational manning commenced at NAVFAC Argentia, Newfoundland.

- In April 1974, NAVFAC Brawdy, Wales was commissioned.

- On 29 February 1980, Naval Ocean Processing Facility Dam Neck was commissioned.

- On 20 March 1980, USNS STALWART (T-AGOS 1) arrived at NAB Little Creek to begin T&E of the SURTASS subsystem.

- In July 1987, NAVFAC Whidbey Island, WA was commissioned.

- On 15 March 1991, the Official explanation of Oceanographic System mission was changed from original cover (oceanographic research in support of ASW) to actual undersea surveillance for detection of threat submarine contacts.

- On 18 August 1995, Joint Maritime Facility St Mawgan was commissioned.

- On 01 October 1997, the OTA and OTM ratings were disestablished. Sonar Technicians once again took the watch.

There were many other highlights; sunken submarines and ships to locate, downed aircraft to look for, and many contributions to science. Like many of the sailors who came before you and retired, we’ve retired many sensors and nearly all the shore facilities. But in many ways, this facility, NOPF Whidbey Island, and Commander Undersea Surveillance are more capable than the system was in its heyday. I remember one watch in the late 1970’s where the degree of separation between the President and me was only four people. On another occasion there were four people between the Secretary of State and me. If you want to hear those stories, you’ll need to catch me on the watch floor.

So as you stand duty, stand straight and remember all those who came before you. They’ve placed their names in the historical archives, now it’s your turn. Thank you for the opportunity to speak with you today and have a great birthday!
GETTING READY – 1953

The cable layer USS NEPTUNE (ARC 2) was built for the Army in Wilmington, DE and launched in August 1945 as the USACS William H. G. Bullard, named after Rear Adm. William H. G. Bullard, USN. In 1953, she was activated by the Navy to support the SOSUS program. She first went to the Bethlehem Steel Co. in Baltimore, MD for a number of modifications that included new cable drums 15-feet in diameter, bow sheaves 12-feet across, replacing steam-powered with electric cable machinery, adding precision navigation instrumentation, and installing a helicopter platform over the fantail. She was commissioned on 1 June 1953 as a regular Navy ship USS NEPTUNE (ARC 2), with CDR. Robert A. Bogardus in command, and began a lengthy career of array and cable installation and repair.

In 1973, NEPTUNE transferred to the Military Sealift Command (MSC), was re-designated T-ARC-2, and continued operations with a mostly civilian crew. She was extensively modernized in 1982 by General Dynamics Corp. in Quincy, MA, and that work included new turbo-electric engines. It is said that NEPTUNE and sister-ship ALBERT J. MYER were the last ships in the Navy to operate using reciprocating steam engines.

NEPTUNE performed cable repair duties all over the world until 1991, when she'd been in service for some 38 years. During her career, she received a Navy E ribbon in 1988.

Inactivated in 1991, she was placed in the James River reserve fleet near Ft. Eustis, VA. She was eventually dismantled and recycled by International Shipbreaking Ltd of Brownsville, TX, in late 2005.
INITIAL CONTACT – 1954

“The Beginning" - think-about-it, the real “Initial Contact"

• “To do what you do - for the first time - when it had never been done before.”

• We had no experience, no reference material, no pub library, no STIC, no ONI, no N2, no QA, no experts to call upon, (experts like you…you were not yet invented)..."we had nothing", no previous grams to look at, "We knew nothing"…

• We did not know what made the lines, the spacing, how they got to the paper; we were taught harmonics in reference to music, and we had to think about every line, what could be making it? And, develop a theory about its origin…

• We did not know "on board machinery"- the platform.

• We had never heard of a "ratio" - we had to discover and define them.

• Every day from day one there was a new signature that "no one" had ever seen before…

• "Grams" were not yet on aircraft, surface ships or submarines (not for many years).

• All of you should be very proud of what you do and have done for SOSUS/IUSS. You are members of the finest family the Navy has ever had… And, never forget,

• "The System" is not the equipment, it is "The People"

• I will always be grateful for having the opportunity to have been in on it from the start.
In 1954 the Sound Search Course 572, commonly called the "Green Door", was established at Fleet Sonar School, Key West, FL. The course name was originally classified confidential and its content was secret. I graduated with orders to NAVFAC Shelburne, Nova Scotia and proud of my achievement, I mailed my graduation certificate to my parents in Belle Vernon, Pa. Within days, a Navy detail was on my parents’ doorstep, demanding the certificate back. They said it was confidential because of the course name. This episode scared the heck out of my Mom and Dad. My service record was actually stamped confidential from then on. This really caused a stir of suspicion when I later reported to the USS WEATHERFORD (EPC 618) in 1957.

The first 5 women assigned to the System, Royal Canadian Navy (RCN) WRENs, were in my class. Their LPO was Leading WREN Leola MacDonald (future Mrs. Ed Smock, married 2 March 1957 - Shelburne). And yes, I have trained my relief; my son Keith currently has thirty years with IUSS working as a Navy contractor on SURTASS, Submarine and Fixed systems. Another son, Mark builds submarines at Newport News Shipbuilding - (don't want to run out of submarines to look for).

On 1 Apr 1955, NAVFAC Shelburne, Nova Scotia, was commissioned as a "Joint RCN/USN Oceanographic Research Station. The first Commanding Officer was LCDR R.R. Ellis, RCN, who was also appointed as OIC Joint RCN/USN Oceanographic Research Station. The Naval Facility was in the command, for administrative purposes, of LT Earnest Lowen, USN. The facility was manned by both RCN-USN personnel on an approximate 40-60 ratio. The RCN primarily employed personnel in the service areas, while the USN provided employment in the operations field. On 1 Nov 1959, the RCN assumed complete responsibility for the operation and manning of the station, with a USN liaison officer remaining in complement (LT Ernie Castillo, USN). In 1968 when Canada went to the combined services concept, HMCS Shelburne became Canadian Forces Station (CFS) Shelburne.
One of the duties outlined for the watch when NAVFAC Guam was commissioned in 1968 was Emergency Beach Guard. If a B-52 aircraft returning to Andersen AFB from strike missions in North Viet Nam had to ditch along the beach, the NAVFAC watch had standing orders to render assistance as necessary.

One of the STGs in the original crew was a young man named Robert John Koutelis, Jr. “Bob” had attended A-school and Green Door training with our class, was a good friend, and a certified Senior Life Guard. When we arrived on Guam he became one of the base lifeguards at the pool near the EM club on NAVCOMMSTA Finegayan. He loved that job and was a really dedicated life saver. As such, he was a senior member of the beach guard team.

As any NAVFAC Guam sailor knows, the approach to the reef on Ritidian Point Beach creates a real break that produces a perfect surfing wave, but which occasionally breaks on the main reef when the surf is high. The beach was constantly being invaded by Air Force personnel/dependents who relished rubber-boat surfing those waves.

The beach area was off-limits to that activity due to dangerous rip currents that were observed during array-cable termination activities in 1968. Although it was against regulations, these Air Force fellows would continually boat-surf the big waves after storms up north.

Two weeks prior to the arrival of the COSP ORI Team for Guam’s first inspection in November 1969, the Section Beach Guard was activated when three Andersen Air Force personnel/dependents, surfing the break off Ritidian beach, were dumped and thrown onto the reef. Only two were visible when the Beach Guard arrived on scene to commence lifeline recovery. Bob Koutelis was the no. 1 man on the line and proceeded to establish a lifeline to the men being rolled around and injured on the coral reef.

During that initial effort Bob apparently stepped into a hole in the reef and was sucked into it. When he dropped out of sight the watch team (STs, ETs, and RMs) pulled away on the lifeline to recover him. He was brought back to the beach and CPR was initiated. Medics from NAVCOMMSTA arrived and tried to resuscitate Bob, but were unsuccessful. The three Air Force personnel were never found.

STG3 Bob Koutelis was the first NAVFAC Guam sailor killed in the line of duty. He was a great fellow - unselfish, light-hearted, and friendly to everyone.

Bob was posthumously awarded the Navy and Marine Corps Medal, the second highest non-combat decoration awarded for heroism by the United States Department of the Navy.

November 9th as Bob Koutelis Day

by Russ Oberlander, OT1, USN (Ret)

On November 9, 1969, on the Island of Guam, two rubber boats were observed in the rough waters in a restricted area between the NAVFAC TE-Building and Admin Building. Suddenly one of the boats flipped over, dumping its three occupants into the sea. STG3 Bob Koutelis, an excellent swimmer and a lifeguard, volunteered to swim out to help them. He knew time was short and he was the most qualified person there. Bob drowned that day while trying to save them.

My wife Mary Lou heard me tell the story of Bob’s heroism many times, and years ago I had promised that if I ever got close to his home town I would try to connect with his family. I wanted to make sure they got the whole story from someone who was there. In August 2014, Mary Lou and I left New York, on our way to Iowa to spend a few days with friends. We had planned our route so that we would go through Peoria, IL, where the Koutelis family lived.

We managed to connect. Mark Koutelis told us he was only 9 years old when two Navy men brought the news that his big brother had drowned. Mark remembered that his Dad took Bob’s death so hard that, in the following years, they were never allowed to discuss it. For 45 years the family had never realized what a hero Bob was, in that he died while trying to save the lives of others.

In his memory, I will always think of November 9th as Bob Koutelis Day.
Assignment COMOCEANSYSLANT 1971 – 1975

by Dick Rentner, CWO4, USN (Ret)

After leaving NAVFAC Nantucket in 1962 and surviving almost eight years on two different ships, I never thought I would get a chance to return to the Oceanographic System. But in 1971, I was due to transfer off the USS BELKNAP (DLG 26) in October and, while having one of our 4th of July’s Virginia Beach area “NAVFAC Nantucket mini-reunions” at our home, a friend, Stan Kloc, recommended that I try to get duty at COMOCEANSYSLANT where he then worked. I first met Stan when he came down to NAVFAC Grand Turk in 1957 with the inspection team and I was an SOG3 stationed there. The next time we met was when I was transferred to NAVFAC Nantucket in 1958 where he was the WECO Rep. Stan could tell many stories about the Navy and the System and was a great guy to have as a friend. He flew Navy fighter planes in the Pacific during WWII and after the war he worked for Western Electric/Bell Labs. He was a laugh a minute and knew all the ins and outs of the SOSUS equipment. He must have put in a few good words for me at COSL, because in October of 1971 I left the Belknap as a CWO2, Operations Technician, and reported for duty at COSL. It was great being back in the System and in contrast to shipboard life, exciting things happened every day.

Preparing for the morning brief to the Commodore was the most memorable happening that occurred during my indoctrination as a Staff Watch Officer. The CINCLANT brief, even though it was basically the same brief just delivered to our Commodore, was even more nerve wracking because of all the brass gathered in one room. The CINCLANT briefing was held on the second floor across the street and what puzzled me was that almost anyone could ascend the outside stairway and enter the briefing room. My first time at this presentation was with a COSL group of about 5 officers and even though I wasn’t on CINCLANT’s clearance list yet, we surprisingly just walked in. Years later I would remember this lack of security and think, the spy John Walker was stationed here earlier and could have done the same thing and he might have even brought some “friends” with him.

Standing the watch sometimes became a nightmare when CINCLANT himself would show up in civilian clothes often about 1am, with his dog, and “request” a brief from the Watch Officer. He did that just often enough to keep everyone on his or her toes. Unfortunately for the watch section, it usually occurred right after the OTs had a playful skirmish with the RMs, for example putting the IBM punch card chads in the bunny tubes, which then blew these tiny specs all over the room.

I remember having to print out a multitude of reports to be ready for the day workers at 8am. The printout was accomplished with the most unusual printer I had ever seen. This noisy old impact printer, situated in the middle of the huge display room, was comprised of about 132 thin bars, each with the entire alphabet, numbers and symbols embossed on them. Each bar would simultaneously rise up to the desired height for the required digit in that column and print one entire row at a time through an inked ribbon. It was fast and noisy and broke down very often. Soon after I reported aboard, a remarkable “ball” printer replaced it and the noise was somewhat diminished, and the reliability improved. The “ball” was miraculous with its superfast spinning and tilting, which moved horizontally back and forth across the sheet of paper lining up the selected digit and pouring the ink coated ribbon onto the page. Downtime was less even though the ball had a tendency to break into pieces quite often. Changing the ball was simple compared to replacing one of the bars on the old printer, and thankfully it could be done by one of us on watch instead of waiting for a day-worker maintenance person to arrive.

Reports were printed on sheets of paper of the endless tear-off type, and the first and last sheet of each report printed was usually blank and considered scrap and was thus discarded in a paper box, along with the miscued or undesired SECRET printouts. Someone once had the great idea that the blank “scrap” sheets could be placed in a separate “Project Day Care” box and donated to the local Day Care Center so the kids could draw pictures with their crayons. After many months of doing this “feel good” project it was discovered that “secret” pages were being displayed on the walls of the Day Care Center because there was always someone who did not check the discarded page before putting it in the box! The project no longer “felt good” and was in turn “discarded”. Fortunately, the person or persons responsible for this breach of security could not be pinpointed, so no one was reprimanded other than the one who came up with the idea and delivered the goods. I wonder if John Walker frequented the Day Care Center.

For the watch stander, COSL had some magnificent equipment. Previously the NAVFACs analyzed their raw Lofargrams and reported data by filling out paper forms. The forms would be submitted to the RMs to type onto Punched Tape and then transmit that data to COSL via their Teletype machine. COSL would receive the data on their Teletype machine, printouts would be read by the Watch Officer, and IBM punch cards made and fed into a computer. Selected raw data could also transmitted and reproduced on COSL Lofargrams, but that capacity was limited.

At that time the Lofagram equipment was in the process of being removed and replaced by equipment consisting of a square shaped scope. Raw data could be analyzed on the scope and simultaneously fed to computers for correlation. Written reports from the NAVFACs would also appear on the scope and if desired the operator could just touch that entry on the screen with a “light pen” and then type a response. Also, a paper printout of the written data could be produced. Technology had improved the SOSUS immensely, compared to the 1960s.
There were always the collateral duties that we were all required to perform. The burn run to the city dump was the most disgusting of the collateral assignments. It consisted of two enlisted and one officer; the junior officer on the Day Watch was usually assigned this task. All the burn bags were dragged down the elevator to a Navy van and then driven to the city dump. The brown paper burn bags were about 8 feet long and usually stuffed full with grams, printouts, and improperly disposed half eaten sandwiches, banana peels, apple cores, etc. Many bags broke open due to the enormous weight, dumping their contents in the passageways, in the elevator and in the van. The bags were taken down the back elevator and placed inside a walk-in van. During my first time on this assignment, the van’s two rear doors had to be forcibly closed because of the large amount of bags. I had heard that sometimes the rear doors of the decrepit van would open while on the road to the city incinerator and a bag or two would fall out onto the roadway. To avoid this, I checked and double-checked the doors before leaving.

Rumor had it that the base security knew when the burn run departed and they had a unit follow the van to the dump and of course would report any breach of security. We would all be at Captain’s Mast if anything went wrong. After arriving at the city dumping station, it was a long wait for what seemed like hours in a line of garbage trucks that had to back up the long high ramp to dump their loads. When it was our turn we could drive forward up to the drop off station at the top because of our smaller vehicle size. Each bag then had to be thrown by hand into the huge chasm of burning trash. It was smelly, noisy, and extremely hot; and also rough on the uniforms. The two enlisted with me lived on CINCLANT compound, so they took time to go to their quarters and shower and change clothes before returning on watch. I had to smell like burned garbage the rest of the day. When I arrived at my home that evening, even my dog wouldn’t go near me.

After surviving several months standing chaotic day watches, stressful eve watches, and excruciatingly long mid watches, I was finally assigned to the Analysis Shop. It was a very loose group, and almost everyone took off their winter blue jackets and worked in just their long sleeve white shirts. I remember clearly the first morning I was in the Analysis Shop. I was included in an “in shop” brief for the Analysis Officer being held by an outwardly knowledgeable man. I had seen him several times before, in shirtsleeves, during day watches but we had not been introduced. This day he was marking contacts with a black grease pencil on the horizontal plotting table and describing in detail what he “knew” was happening in the Atlantic Ocean. I thought for sure he must be a civilian expert, but then learned he was OT2 Green. Occasionally OTC Maultsby would also add some substantial comments. The Analysis Division staff had developed a pattern that YANKEE submarines were following, not only on a specific time schedule but also in an exact looping track through the ocean. We coined this pattern with the acronym TOPSY, meaning Tracks Of Patrolling Submarine-YANKEE. Although fulfilling a very minor part, I will always be proud to have been involved in this development.

Analysis of individual signatures was also our objective and we had nicknames for almost all of the deploying units, such as Sinusoidal Sam. I had chosen this name because this YANKEE displayed a signature that oscillated periodically with a fixed frequency.

At COSL the excitement never let up. It seemed almost every day there was something happening that would require the Duty Analyst to be called in to clarify something or analyze a reported contact. One night around 11:00pm I was called at home and told I was needed immediately. Of course there was never any reason given on the phone due to the nature of our business. When I arrived, the Watch Officer told me to report to the Analysis Shop, which seemed very unusual. When I opened the Analysis Shop door I was surprised to see three Marines, two enlisted and an officer. The officer informed me that they had been making their rounds of the building and found the main door to COSL open and they then proceeded to check every door in the COSL passageway and only found one unlocked. The cypher lock on the Analysis Door wasn’t functioning properly the last few days and this day of all days it didn’t lock securely. The two Marines were sitting at the two desks in the first room, identifying and logging in papers marked “Confidential” they had found in the “IN” box on the secretary’s desk. The officer was just snooping around, looking at pictures of submarines hanging on the bulkhead. If they had looked further into the unsecured back room they would have found a multitude of “Secret” papers lying around. After about another 30 minutes the officer said he had enough data to make his report and the three of them departed. I then fed the Analysis Officer’s tropical fish in their tank and left for home. Nothing ever came of the incident other than speeding up the replacement of the cypher lock. But then, the fish got an extra meal and I did lose half a night’s sleep.

Things had certainly changed quite a bit within SOSUS during my time aboard ship. I left the SOSUS as an SO1 in 1962 for Class B & C schools in Key West to get additional Sonar and MK114 Fire Control training and, hopefully, increased advancement opportunities. Advancing to Master Chief and selection to the Warrant Officer Program fulfilled this quest. In 1962, when I left SOSUS, it had not yet detected a Soviet submarine and we didn’t even know what a Soviet diesel submarine signature would look like. By the time I returned to the system in 1971 a whole range of different types of Russian submarines were being tracked all through the Atlantic.

After almost 8 years on ships, returning to the System and duty at COSL was like being stationed in paradise. I was reunited with many previous shipmates and also made a multitude of new friends. The work hours from 6am to 3:30pm allowed me to come home every day and spend more time with my family. I only made one inspection trip, to NAVFAC Bermuda, and one special purpose trip, to NAVFAC Keflavik in my 4 years at COSL.

In May of 1975, I was transferred to NAVFAC Keflavik, which turned out to be a different type of paradise.
It began in October of 1962 while stationed at the U.S. Naval Facility, Coos Head, Oregon. This was to be my final assignment of a four-year enlistment - with an EAOS of 13 January 1963. I had recently met my wife-to-be, Linda Zumwalt, of North Bend Oregon, had just bought my first car, a 1954 Chevy, and was spending my final tour in a fisherman's paradise. Suddenly, a world-shattering event would change all of this!

The Soviet Union had clandestinely built ballistic missiles sites in Cuba, 90 miles from the United States, as confirmed by photographs taken by U-2 aircraft. On Monday, October 22nd, the U.S. Strategic Air Command went to DEFCON 2 while all our other military forces were placed in DEFCON 3; which meant, amongst other criteria, all military personnel were involuntarily extended on active duty until further notice. Wednesday morning I was single out and told to report to the Commanding Officer. My mind began racing with thoughts of what this could be about. After a few of minutes of trivial conversation about hunting, the C.O. told me that BUPERS had issued orders for my transfer to NAVFAC Adak, Alaska, which wasn’t even operational yet. He assured me that I would like it there as the hunting and fishing were unsurpassed. He then dropped the bomb and said I would be transferred in one week. I left his office in total shock. What was I going to tell Linda? What would I do with my newly purchased car? When would I ever see either of them again? Later that evening I asked Linda if I could leave my car with her while I was in Adak, and of course she said yes. I don’t know if her sudden look of happiness was because this meant I intended to return to Oregon or that she now had a car.

On 14 November, I reported in to Adak and was informed that the Facility was being brought on line early due to the concern that the Soviets might deploy submarines out of Petropavlovsk because of the Cuban crisis. The equipment was ready except for one small glitch: the bearing determination was a complete mess! Nothing was where it should be, possibly because the MDL wasn’t working properly. Fortunately, a senior WECO engineer named Sam Miller arrived, resolved the problem, and had everything working within a couple of days.

Initially, there were only five of us Sonarmen at the NAVFAC and as a slick-armed SO02, I was the senior one. A watch bill was developed to provide 24/7 coverage with a standard four-section watch, one person in each section. As the Leading Petty Officer, I was assigned as the only "day worker", on call around the clock providing relief when needed. On December 1st, 1962 U. S. Naval Facility, Adak was officially commissioned, with LCDR Hines at the helm. For the next 30 days I never left the NAVFAC complex. I slept in a bunk in the ET spaces and all my meals were brought in. More Sonarmen gradually began reporting in and were added to the sections.

Just as suddenly as it started, it all ended when Soviet Premier Nikita Khrushchev agreed to remove the missiles from Cuba. The mandatory extensions were cancelled and, shortly thereafter, orders were cut for my transfer to Treasure Island for separation. I departed Adak on 19 December, my shortest PCS tour ever, 30 days, and was soon back in Oregon to celebrate Christmas with Linda and her family. On January 2nd, 1963, at 1000 hours, I was separated from the Navy and Linda and I were married at 1900 that same day! Two weeks later, we packed our 1954 Chevy (my sea bag secured atop by two half-hitches) and left for my hometown of Warrensburg, NY with $250 for gas, meals, and lodging. We arrived at our destination with the total sum of 50 cents to our name.

Following a nine-month hiatus, I decided to reenlist in the Navy and my SOSUS/IUSS career began anew. During the next 19 years Linda and I chalked up 12 sets of PCS orders, racked up thousands of miles of travel, and added 3 daughters and a granddaughter to our family. After my retirement from the Navy in 1981, I went to work at TRW at McLean, VA in support of IUSS. I worked there 3-1/2 years as a Logistics Engineer in development of Logistic Support Plans for IAP II, ABF, TDP and other subsystems.

Linda and I have been abundantly blessed by a wonderful, caring family and are fortunate to have met some of the finest men and women our nation has to offer, many of whom became life-long friends. We are both happily retired now and enjoy life in the beautiful Adirondack Mountains of New York that we first came to as a young married couple back in January of 1963.

I count this miniscule period in 1962 of my military career as one of my most memorable times that also helped shape my life in ways I could never imagine. I still wonder to this day: was it the car or me that made her smile that Wednesday evening in Oregon?
Really Ancient History:
The First Norwegian Sea Array: A UK Installation in 1955

By Bruce Rule – GS (Ret)

The following information was extracted from unclassified literature that discusses mid-1950 UK efforts to assess the feasibility of long-range passive acoustic detection of submarines in the Norwegian Sea by a multi-hydrophone (12) array laid north of Unst, the northernmost of the Shetland Islands. Bottom line: the Unst array proved ineffective at significant ranges against quiet PORPOISE-Class British submarines. What was not known then was that Soviet diesel and nuclear submarines were extremely noisy compared to PORPOISE units. At ONI, we knew about the Unst installation and had heard that a long-range detection of a Soviet nuclear submarine was reported to have occurred, but ONI never received any Unst data.

By 1952 there appeared to be two promising techniques, the US Project JEZEBEL and the UK CORSAIR, for detecting submarines at long ranges (up to 100 miles) by novel processing of the signals from a long array of hydrophones sited on the seabed. As well as employing novel processing techniques, the postulated systems were equally novel in that they would exploit the (fairly recently observed) low audio frequencies emanating from submarines, i.e., they were listening sonars, commonly known as passive.

The US system employed a narrowband technique using frequency analyzers capitalizing on the discrete frequencies radiated, whereas the UK system grew from an idea of applying a technique developed by Sir Martin Ryle (a radio astronomer at Cambridge University) for detecting weak radio emissions by correlation of the signals from widely separated antennae, over a wide frequency band.

The US concept development went under the project name of JEZEBEL, which evolved into an airborne sonobuoy system, and SOSUS. The UK initiative became known as CORSAIR, and actually reached the stage of having a RN operational sonar allocation of Type 191.

In all events things moved very rapidly. The senior naval staff viewed a seabed-sited long-range detection and location system to be a force-multiplier, relieving naval and air units from constant patrols, thus allowing them to concentrate on the prosecution of a target or targets.

The US JEZEBEL system developed quickly with the Bell Telephone Laboratories, Murray Hill, New Jersey, under contract to the USN via ONR, to produce the acoustic signal-processing portion based on their research of frequency analyzers for telephonic work.

The Admiralty Research Laboratory (ARL) assessed the UK CORSAIR technique in 1952 at the Admiralty Experimental Station (AES) at Perranporth, located on the north Cornish coast. The assessment was highly successful, demonstrating ranges of the order of 100 miles. This was a spectacular improvement over previous methods of passive listening with the enormous tactical advantage that the target had no clue that it was detected.

In some haste, two inter-linked UK initiatives were launched circa 1953. The first was the establishment of a CORSAIR listening shore-base on the coast of Northern Ireland at Portballintrae, in a strategically important area, with the hydrophone array looking north across shipping lanes. From the outset, the intention of the underwater system was to provide a nominal course and speed of detected submarines such that mobile units could be directed to intercept the target. Unfortunately the sound propagation conditions were so poor that ranges of only a few miles were obtained, making it impossible to carry out adequately the sort of operational investigations for which the station was envisaged. The title of Admiralty Marine Physical Station signifies the specific purpose of the short-lived Portballintrae installation, which was shut down and the site cleared by May 1955.

The second initiative involved staff at Her Majesty’s Underwater Detection Establishment at Portland (HMUDE - the equipment development arm of naval R & D) where it was assigned the sonar outfit type number 191. The project included the design and construction of hydrophone arrays to be sited on the seabed.

ARL propagation studies continued at AES Perranporth with special purpose arrays being installed in the summer of 1954 for trials to assess different methods of siting the hydrophones, in the wake of the disappointing performance from the installation in Northern Ireland. During the trials a detection range of 70 miles was achieved against a snorkeling submarine, and the first test of CORSAIR detection was made against a UK silenced submarine, HMS/M SCOTSMAN. By this time, two major reductions in radiated noise from engines and propellers had been made and assessed by ARL, and were being carried forward into the design of the PORPOISE class of diesel-electric submarines.

When it became clear that detection ranges of the order of a hundred miles or more were conceivable in deep water, interest turned to siting arrays off the northern tip of the Shetlands, looking north into deeper water. ARL’s overarching task to determine the system design parameters for the operational system continued. Several propagation trials were carried out (1954-5) in order to assess the likely system performance in this area, and to choose the most suitable site for the hydrophone arrays.
In the summer of 1955 the ARL experimental array 1200 feet long consisting of hydrophones spliced into a cable was laid 40 miles out to sea and connected back to a new shore station, AES Unst. A further ARL array (hydrophone pair) was laid 7 miles to the west of the main array. These arrays posed many problems both in design and laying. The US was invited to participate in the forthcoming trials by providing prototype JEZEBEL array and narrowband processing equipment, for comparison purposes. An array of eight hydrophones was temporarily laid in shallow water on account of apparent defects. In July 1956 the array was re-laid in its intended position in 350 fathoms but slowly became virtually unusable (5 of the 8 hydrophones were unserviceable), and in August the main UK array was raised and repaired, citing that the watertight integrity of the junction box containing control logic had failed.

Most of the shore-based equipment (array signal processing and display) had been installed in the main laboratory of AES Unst by May 1956; such was the haste that the new laboratory was still incomplete the following year. In July 1956, staff from the Bell Telephone Laboratories in America (under contract to USN-ONR for Project JEZEBEL) installed recording equipment and a LOFAR analyzer. Due to problems with the arrays and repeated delays onshore the main ARL trials were concentrated into the period from September 1956 to February 1957.

Many trials were carried out using this installation (in the above period), the most important being a series of exercises (called THERMOSTAT I to III) to determine the detection performance of the system against a conventional snorkeling submarine and an investigation of the effect of spacing between receivers on “correlation loss.”

It became apparent from these trials that the high hopes for such a system in this area were not to be realized for two reasons. First, the detection ranges were only in the order of 50 miles instead of some hundreds of miles as had been hoped. This dramatically reduced the expected area of coverage and consequently the time taken by a submarine to transit through it. It thereby reduced the likelihood of the submarine snorkeling during its transit and being detected and subsequently prosecuted. Second, the amount of interference from fishing vessels was far greater than considered.

Nevertheless preparations were already well underway for the prototype operational (Sonar 191) array to be laid by HMUDE. As a result of the propagation and correlation loss measurement both by HMUDE and ARL, the 191 array was positioned some 22 miles further north (70 miles from shore). Signals from all 12 hydrophones were brought back individually to the shore, so that the array could be electronically steered to form 40 beams covering a 180 degree arc, centered on a north-south line. The ensuing CUDE led trial (THERMOSTAT IV) of the system was undertaken from 27 November to 6 December 1957 and showed that a range of 70 miles could be expected against a conventional snorkeling submarine to the north of the array, and about 43 miles inshore of the array. Interference from fishing vessels was again extremely heavy, which greatly exacerbated the interpretation of the trials records. Following the trial, the Sonar 191 installation at Unst was re-designated Sonar 191X (experimental and unique) and handed-over to ARL.

In the wake of the Sonar 191 trial undertaken by HMUDE staff, it was concluded that this (CORSAIR) concept of fixed shore-based passive listening systems would be ineffectual against the evolving quieter submarines as typified by the UK PORPOISE class; mainly due to resilient mounting of the engines together with improved propeller design. These submarines while snorkeling radiated about 3% of the noise power radiated by earlier submarines. Consequently the whole of the advantage offered by passive long array techniques using broadband or narrowband processing was nullified, and detection ranges were once again back to a few tens of miles, at best.

The equipment at AES Unst was put on a “care and maintenance” basis and the principal HMUDE staff involved were reassigned to more pressing active sonar work for the UK’s nuclear-powered submarines. Likewise most of the ARL staff moved onto active sonar studies. Fortuitously ARL’s parallel work that commenced in 1954 on submarine-borne long range passive sonar was continued. By 1957, ways were being considered for the inclusion, in a submarine, of one of the signal processing techniques used at AES Unst. This cross-correlating equipment known as DICE was used successfully at AES Unst in the key exercise NIGHTSHADE, the operational assessment of prosecuting land-based CORSAIR detections using aircraft.

The legacy of the work that culminated in the systems and styles of signal processing evaluated at AES Unst was principally twofold; Processing for the Type 186 array was developed under Project SOAP, the follow-on to Project DICE. This together with ARL’s further self-noise reduction of the P-boats fed into the O-boats (and retrofitted in the Ps) proved highly successful and led to Sonar outfit Type 2007 produced by HMUDE for the submarine fleet; ARL work continued to investigate off-board long arrays leading to fleet-wide passive towed array systems. Early towed array trials utilized the prototype Sonar 2007 processing produced under ARL’s Project SOAP.

Whilst the end of Project CORSAIR had been reached, this was by no means the end of AES Unst. For reasons yet to be established, there was renewed interest over the period 1960-63 followed by another quiet spell until 1968. Finally, all interest in ARLE Unst (its name from 1969 - standing for Admiralty Research Laboratory Extension Unst) ceased in the 1970s.
* New Members


**MR. DAVID BARR, Ex-USNR** – Santa Clara, CA. Served at NAVFAC Adak 1964-65 as OWO and 1970-72 as XO, COSP Treasure Island 1965-66 and NAVFAC Midway 1968-70 as OPSO. David is a retired CPA.


**ET1 JASON BONNOUGH, USN** – Virginia Beach, VA. Active duty Electronics Technician served at NOPF Dam Neck 2008-11. Obtained IUSS specialty device.


**MR. JON CHADWICK, Ex-USN** – Virginia Beach, VA. Served at NAVFACs Brawdy and Centerville Beach, JMF St Mawgan, and NOPF Dam Neck. Currently serving as a civilian Security Manager at NOPF Dam Neck.


**CWO3 DAVE COLLINS, USN (Ret)** – St Stephens CH, VA. Served at NAVFACs Coos Head, Cape Hatteras, and Barbados, COSL, COSP, USS GARCIA (FF 1040), USS CONOLLY (DD 979), and NOPF Ford Island.

**MR.傑克 CONKLIN, Ex-LT, USN** – Marietta, GA. Served at NAVFAC Bermuda 1968-71.

**OTC RUSSELL CRUSE, USN (Ret)** – Nevada, IA. Served at NAVFACs Cape Hatteras, Argentia (2 tours), Ramey (Punta Borinquen), Brawdy, and Guam from 1967 until 1985 from Reader to Watch Officer “and everything else in between”. Married to Sheila (48 years and counting) with 2 adult children, 7 grandchildren, and 1 great grandson. Retired from owner/operator Triangle Bowling Lanes (8 lanes). Work part-time for County Auditor as Election Equipment Tech. Active member with American Legion.

**STCM (SW) JOEL CUZZORT, USN (Ret)** – Ponte Vedra Beach, FL. Served at NAVFACs Pacific Beach 1959-61 and 1966-68, San Nicolas Island 1961-62, and Adak 1962-66. Completed Sonar “B” School, SQS-23 Sonar and MK 114 UBFCS Schools in Aug 69. Received 0434 System NEC which, unfortunately, disqualified me for the long awaited OT rating. Retired after 25 years as an STCM/SW, in Mar 83. Completed BS degree in Workforce Development, while still on active duty. Continued to work for two engineering service companies, and the local electric utility as a Senior Engineering Technician and fully retired in 2002.


*OTMCS JIMMY EPPINETTE, USN (Ret) – Columbia, TN. Served at FSS Key West, NAVFACs Keflavik and Adak, COSL, and on board USS EDWARD MCDONNELL (FF 1043).

*NCCM (AW) TERRENCE FAHEY, USN (Ret) – Virginia Beach, VA. Served as System Career Counselor at COMOCEANSLANT 1986-89.


*MR. MILTON FONTENOT, Ex-SOO2, USN – Covington, LA. Served at FSS Key West 1959-60, NAVFAC San Nicolas Island 1960-61, and NAVFAC Pacific Beach 1961-62. Milton is a part time sports writer, high school baseball & softball umpire, and account manager for an Anheuser-Busch Budweiser distributor.


*LCDR BECKY HARPER, USN (Ret) – Burke, VA. Served at NAVFAC Brawdy 1991-93 and Commandeer Task Force Twelve (CTF-12) 1993-96.

MS. JULIANNE HART (EMBLER) Ex-OTA1, USN – Sun City Center, FL. Served at NAVFACs Brawdy 1881-82 and Keflavik 1982-83, COSL 1982-88, and NAVFAC Adak 1988-91. I stayed in Alaska after separating in 1991, moving from Adak to Anchorage. I spent most of those years building roads as a construction laborer around the state. This summer I retired from the labor union and moved to the Tampa area to be near family.

*MR. WAYNE HAY, USN (Ret) – Williamsburg, VA. Served as Project Caesar Team Leader at NWSY, Cheatham Annex, in Williamsburg, VA since 2003.


*OTACS PETE KALVIG, USN (Ret) – Virginia Beach, VA. Served in the IUSS from 1983 to 2003.

*OTM1 WALTER KISSINGER, USNR (Ret) – Santee, CA. Served at NAVFACs Centerville Beach 1968-70 and 1974-76, Argentia 1970-71, Adak 1972-74, and Midway Island 1976-78. Following transfer to the Naval Reserve in 1980 Walter was activated for Operation DESERT STORM to Saudi Arabia in 1991 and retired in 1992. He retired from the US Postal Service after 24 years in 2009. Have been working for the San Diego Padres baseball organization for the last 10 years. Getting paid to watch baseball … Life is good!

*MR. ROGER KITTREDGE, Ex-OT1, USN – El Dorado Hills, CA. Served at NAVFAC Midway 1973-78.

*MR. LAWRENCE LAMPING, Ex-OT3, USN – Kane, PA. Served at NAVFACs Cape Hatteras 1970-71 and Bermuda 1971-73. Self-employed off-road trucking contractor [Logger]. Happily married many years, 2 children, long-time school board member/president, NRA life member, hunter and outdoor type.

*MR. GLENN LaPOINTE, Ex-CF – Regina, Saskatchewan, Canada. Served at CFS Shelburne, NS 1989-91. I am currently a Quality Assurance analyst for CGI. I also act in the film industry and have many TV and film credits.


*MR. WILLIAM and MRS. CHRISTINA LIPPA, WEC/AT&T – Gibsonville, NC. William served at WEC/AT&T Technologies/Lucent Technologies, Guilford Center, Greensboro NC 1978-1999 as an Engineering Associate. Conducted acoustic surveys aboard USNS NEPTUNE (T-ARC 2), USNS KINGSPORT (T-AG 164), USNS AEOLUS (T-ARC 3) and equipment calibration/data recording at NAVFACs Cape Hatteras, Bermuda, Argentia, Adak, Pacific Beach, Coos Head, Centerville, Barbers Point, Midway, NOPF Dam Neck, and CFS Shelburne. My father (W. F. Lippard, Sr.) was a WEC/Resident Engineer from 1967-1979. He was at NAVFACs Grand Turk, Cape Hatteras, Bermuda, and CFS Shelburne. He passed away in November 1980. After taking early retirement from Lucent Technologies in 2001, I have been working as an Oracle Database Administrator. Currently working for LabCorp in Burlington, NC. Christina was a secretary at WEC/AT&T/Lucent working on IUSS for several years. She worked in the Special Projects office and in the department that did processing for the Long Term Noise program. The couple has been married for 32 years.
*STGC (SW) KEITH LOHSE, USN (Ret) - Camden, NC. Served at NOPF Dam Neck 1998-2002. Currently Program Manager Technology Services Group, Engility Corporation, VA Beach, VA. Keith is a doctoral student University of Phoenix, Grad Date 2016.

*MRS. ERIN LUDWIG, Ex-OTA2 – Virginia Beach, VA. Served on decommissioning crew at NAVFAC Centerville Beach 1994. Naval service 1990 – 97. Separated after the rate merger. I am still an active duty Navy spouse, now a stay-at-home Mom to two boys. Our family enjoys kayaking, camping, and anything outdoors. We are soon headed to finish out our military adventure in Patuxent River, MD and are planning a move to Minnesota after my husband's retirement.


*MR. GEORGE MILLER, GS (Ret) – Gold Beach, OR. Served at NAVFACs Pacific Beach, San Nicolas Island, and Adak. Also served at ONI - for nearly 30 years analyzing IUSS data.


*MR. THOMAS MOUGHAN, Ex-OTA, USN – Leicester, MA. Served at NAVFACs Keflavik 1985-86 and Brawdy 1986-88. Currently Police Officer in Massachusetts specializing in fatal motor vehicle accidents and firearms training. Married with two teenage daughters and recently joined the Keflavik and Brawdy Facebook groups. I'm looking to reconnect with some friends from those days.


*MR. MICHAEL PERNAR, Ex-OT2, USN – Ivyland, PA. Served at NAVFAC Keflavik 1981 and NOPF Dam Neck 1982-84. Mike is self-employed in Real Estate. Married for 23 years, he has two children.


*MR. MICHAEL PICKETTE – Papillion, NE. Chief, Maritime ISR & Special Programs, HQ USSTRATCOM.

*MR. PAUL PIERCE, Ex-OTA2, USN – Asheville, NC. Served at NOPF Dam Neck and NAVFAC Argentia 1984-92. Works for USPS.


*MR. GUS REGO, Ex-DS, USN – Panama City, FL. Served at NAVFAC Brawdy 1983-86 as a data systems technician.

*OTAC ALVIN “CHUCK” RICHARDS, USN (Ret) – Salem, OR. Served at NAVFACs Centerville Beach 1984-87, Adak 1987-90, and Keflavik 1994-96. Currently I am retired and a Custom Knife Maker. My wife Kim is a registered nurse. Have 3 grandkids with one on the way.


*OTAC ALVIN “CHUCK” RICHARDS, USN (Ret) – Salem, OR. Served at NAVFACs Centerville Beach 1984-87, Adak 1987-90, and Keflavik 1994-96. Currently I am retired and a Custom Knife Maker. My wife Kim is a registered nurse. Have 3 grandkids with one on the way.


*LT JAMES ROSE, USNR (Ret) – Hyannis, MA. Served at NAVFAC Argentia 1973-75.

*STG1 ABIGAIL RUSSELL, USN – Virginia Beach, VA. Currently on active duty serving at SUBTRAFAC Learning Site Dam Neck. Previously served at NOPF Dam Neck 2009-13. Married with three daughters.


*OTM1 LAUREL SOHNS DAVIS, USN (Ret) – Mountain View, AR. Served at NAVFACs Centerville Beach 1977-79, Keflavik 1980-83, and Brawdy 1988-89. Also served at COSL 1983-87, NOPF Dam Neck 1990-93, and ASWTRACENLANT 1994-97. My daughter Kelley Sohns is in the Army; currently at Fort Leonard Wood, MO. Son Jack Sohns was in the Army and is now working at Lowes in Colorado Springs, Colorado. I am currently employed as a "Home Care Aide" and enjoy it very much. Very actively involved in church.


*MR. FRANCIS TATE, Ex-USN – Martins Creek, PA. Served at NAVFAC Brawdy 1981-83 and USS KINKAID (DD 965) 1983-86.

*ETC DOUGLAS TIBBLES, USN (Ret) – Anacortes, WA. Served at NAVFACs Eleuthera 1971-74 and Pacific Beach 1974-76.

*MR. THOMAS WALKER, USNR (Ret) – Viera, FL. Served at NAVFACs San Salvador 1968-69 as an ET2, and Bermuda 1968-72 as an ET1.

*OTAC SAM WARD, USN (Ret) – Louisa, VA. Served in the IUSS from 1972 to 1996 at FSS Key West, NAVFACs Keflavik, Barbers Point, Argentia, and Cape Hatteras, REDTAFAC Centerville, NOPFs Ford Island and Dam Neck.


*OTM1 RUTH-ELLEN WILSON, USNR (Ret) – Elizabeth City, NC. Served at NAVFAC Adak 1988-91 and NOPF Dam Neck 1991-95. I left active duty as an OTM1 but stayed in the IRR. I completed courses for retirement points and finally completed 20 years and retired as a reservist, May 2014. I also completed a BS in Industrial Technology in 2008 and work in Logistics for TCOM, LP, where we make Aerostats (tethered blimps), usually for the military.

*MR. WILLIAM WINGO, Ex-OT2, USN – Coppell, TX. Served at NAVFACs Brawdy 1974-76 and Pacific Beach 1976-78.


*MR. JOHN ZEIGLER, Ex-OT2, USN – Secaucus, NJ. Served at NAVFACs Bermuda 1972-74 and Antigua 1974-75. Took over family food business in 1976 and retired in 2010. John has two daughters: a teacher and a lawyer. He also has one beautiful grandson, one great son in law, and one "love of my life". He’s building his eighth small boat and sailing his 37ft sail boat. Member of the US Coast Guard Auxiliary.
Cedar Tree Books is proud to announce the publication of *A Century of Service: The U.S. Navy on Cape Henlopen, Lewes, Delaware: 1898-1996*, by retired naval intelligence officer William H. J. Manthorpe, Jr.

This new book is an extremely well documented history of the little known association of the Navy with Cape Henlopen and the citizens of Lewes, Delaware. It reviews and illustrates each naval installation that was on the cape and describes their operations and technology. It tells the story of the life and work of the officers and sailors who served there and of the people of the city of Lewes who supported them.

Beginning at the turn of the 20th Century when Naval power was a major force in the world and moving through all of the Wars that our country has fought, this volume contains a wealth of research that will enlighten those who have served and those who have vacationed nearby, never realizing the important role that Cape Henlopen and Lewes, Delaware has played in our nations defense.

We believe that *A Century of Service: The U.S. Navy on Cape Henlopen, Lewes, Delaware: 1898-1996* will become a best seller and a “must read” for anyone interested in Delmarva’s unique culture and social history.

Bill Manthorpe’s work “is timely, given the forthcoming centennial of the U.S. Navy Reserve . . . this is an important regional history that should have a place on library shelves up and down the Delaware Valley!”

*David F. Winkler, PhD., Naval Historical Foundation.*
In Memoriam

We regret to report the passing of the following 31 “shipmates” from our IUSS Community, whose names have been added to our website IN MEMORIAM page since the November 2013 issue of THE CABLE. Sadly, that page now contains 357 names. The full list may be viewed at www.iusscaa.org.

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Compiled by Jack Holdzkom, OTCM, USN (Ret)
**IUSS / CAESAR**

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<td>Deputy Director - OTCM Jack Holdzkom, USN (Ret)</td>
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**Address for the**

**IUSS/CAESAR ALUMNI ASSOCIATION**

664 Rosaer Lane  
Virginia Beach, VA 23464

Email Address:  
jim_donovan53@yahoo.com

*Remember to visit our website:*  
www.iusscaa.org