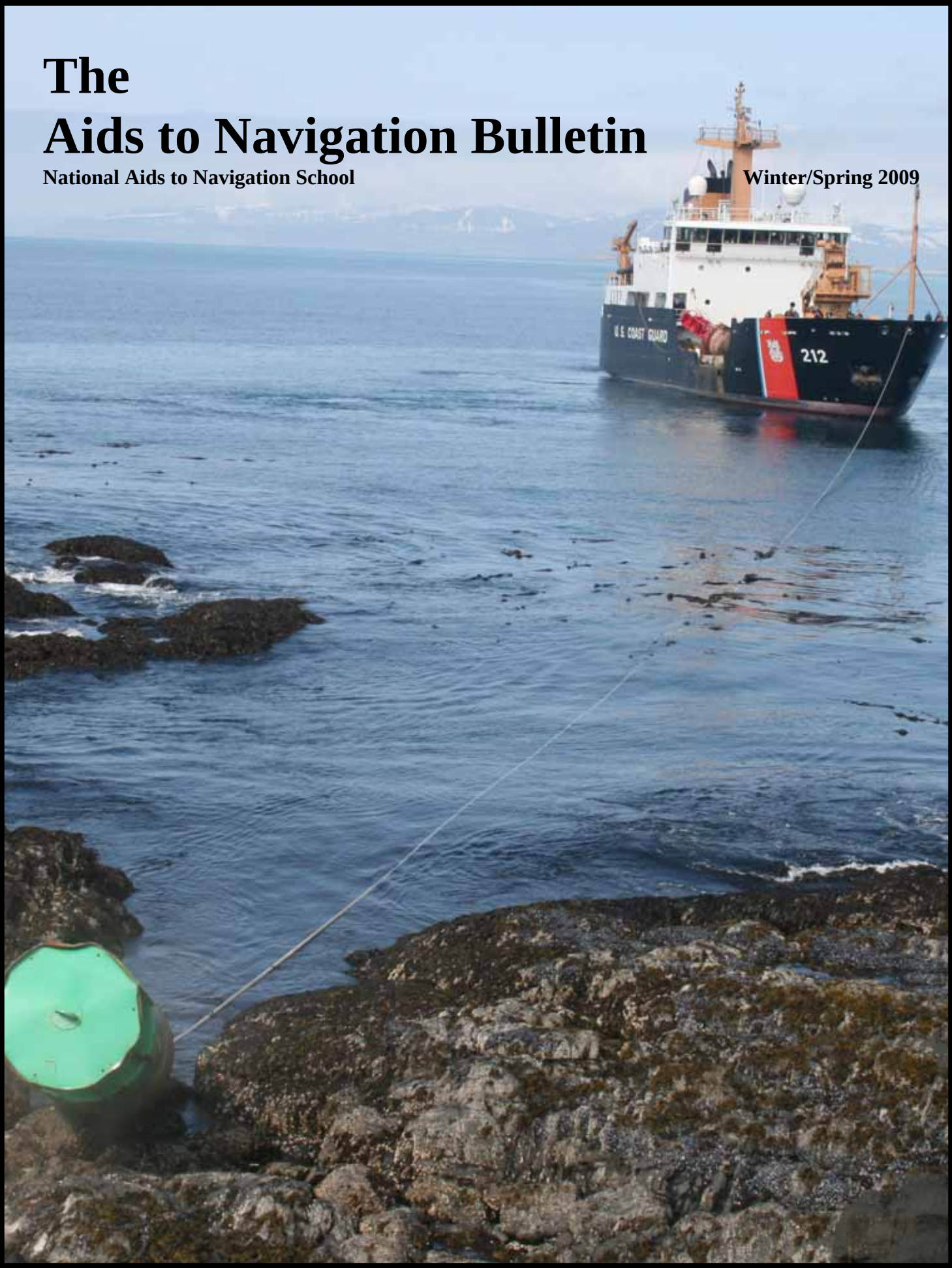
The
Aids to Navigation Bulletin

National Aids to Navigation School **Winter/Spring 2009**



National Aids to Navigation School
US Coast Guard Training Center, Yorktown, Virginia

AtoN systems of the United States and its territories are established, operated, and maintained by the Coast Guard to assist mariners in locating their position and to warn of nearby dangers and obstructions. This is done for the benefit of commercial vessels, recreational boaters, and to support the operations of the Armed Forces. Title 14 of the US Code makes this a responsibility of the Coast Guard.

The Bulletin is published to support the individuals and units involved in providing a reliable AtoN system for the mariner. The Bulletin seeks to meet the following objectives:

- To provide a means of circulating job skill information among AtoN technicians,
- To increase the professionalism and knowledge of all AtoN personnel,
- To act as a channel for information flow amidst the AtoN servicing units, Sector Office staffs, District Office staffs, Headquarters staffs, and units, and
- To publish articles and photographs about people, units, or events which may be of general interest to the AtoN community.

To satisfy these objectives, it's necessary for all who read the Bulletin to take an active part in determining its contents. If you have found a "better way" or performed a unique evolution, share it with other people in the AtoN field. Submissions are welcome in any form. Articles and images may be submitted electronically to the editor via email at tracy.m.speelhoffer@uscg.mil or mailed to:

AtoN Bulletin Editor (tnaton)
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End of Highway 238
Yorktown, VA 23690-5000

Electronic submissions are preferred. Please keep photographs in original electronic form, and send them as separate files; do not imbed or copy them into word documents.

The articles contained herein are non-directive and non-record material. They are published for informational purposes only.

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IN THIS ISSUE . . .

USCGC JOSHUA APPLEBY (WLM 556) steams past the Key West entrance buoy. Photo contributed by CWO Justin Vandenheuvel.

On the Cover: USCGC HICKORY (WLB 212) recovers West Cape Shoal Buoy 1 (1CR), which broke free of its mooring during a storm and washed up on the rocks of Fox Island on the South side of the Alaska Peninsula. Upon arrival at the site, HICKORY sent a shore team to attach a hawser and pry the buoy loose using 4x4's and pry bars. In all, the buoy traveled thirty yards down the rocks to the shore where it was re-floated and recovered. *Photo contributed by LTJG Colby Schlaht, USCGC HICKORY*

Current Status of the Major Aids Courses

by EM1 Carlos Negron, NATON School

Hello AtoN Community; I wanted to take this opportunity to fill you in on all of the great changes taking place in the Major Aids Section of NATON. As some of you may be well aware, technology changes very quickly and in the AtoN world this is no different. The implementation of LED beacons throughout our waterways has changed the face of AtoN forever. As technology continues to improve so must we. This is why we are taking a long hard look at all of our courses and implementing changes as needed. Right now our Differential Beacon, Solar Power Lighthouse and AC Lighthouse courses are being reviewed and updated for the 21st century. This means new equipment, a revised curriculum and possibly a change in the length of the courses. Speaking of new equipment, we will soon have in our classroom the brand new VLB-44. This beacon is a high performance optic which has already replaced the VRB- 25 in some areas.

"Expect the VLB-44 to use up to 1.25 amps per tier. Therefore, an 8 tier lantern will have a maximum current consumption of 10 amps. Voltage drop between the battery and lantern shall not exceed 0.35 volts. Use of a low voltage drop kit to increase the wire size between the lantern and charge controller, CAT V Load Center or Solar Distribution Box may be necessary. To prevent excessive voltage drop, keep the wire run between the junction box and the lantern as short as possible (2-3 feet). Consult with the Solar Design Manual, COMDT M16500.24" (Vega Industries Technical Data).

You can check out more information on the VLB-44 at Vega Industry's web site: http:/ www.vega.co.nz

The intent is to integrate this new piece of equipment into the revised course. The professional staff at Training Center Yorktown's Performance Systems Branch is working diligently with our subject matter experts in order to bring about these changes. This will ensure that all of our students get the most updated information, with the best tools for the right amount of instructional time. Our goal is to provide excellent service to our students so they have all of the tools necessary to perform their duties. As the year progresses I will bring more updates, until then…

…Keep the lights shining!

Cape Cod Canal Breakwater Light 6

by SN Kevin Burt, ANT Woods Hole

With a focal plane 43' above the waterline, Breakwater Light 6 stands at the eastern entrance to Cape Cod Canal as mariners travel from Cape Cod Bay to Buzzards Bay. The structure is located approximately ¼ of a mile down a jetty, off of Scusset Beach, and has recently undergone major renovations.

In late July 2008, the Lighthouse Maintenance Group from ANT Woods Hole, MA removed the roof of the structure that covered the 35 watt VRB-25. Found standing on only one stanchion, the roof made of fiberglass and ¼ inch steel angle iron was greatly deteriorated. The fiberglass was cracked due to sections of rust that flaked off. Ready to fall, this roof posed danger to the light it housed as well as to the personnel who serviced it. Additionally, several people fish along the jetty and could have also been injured had the roof collapsed. Once removed, EMC Whalen, DC1 Schafer and EM2 Carrington had the daunting task of carrying this 450 lb roof across the rock jetty.

DC1 Schafer spearheaded the efforts to custom-make a new cover and hand-crafted this piece from aluminum. DC1 began by taping copy paper together to create a template. Without a metal shop and with limited tools such as a sawzall, drill, measuring devices and a TIG welder, the construction of the new roof began. Unable to work on-site, DC1 needed to use the measurements he took from the base of the structure and create this piece at the unit. Several days of fabrication ensued, with the end result being a new octagonal shaped roof measuring six feet in diameter. With pieces fabricated separately, this four-sectioned roof, weighing a fraction of the original, was far easier to transport and place on the top of Light 6. The total cost of the project came in around $1000, versus the tens of thousands more it could have required had it been contracted out.

Once the roof was affixed to the structure, other members of the ANT repainted the entire fiberglass structure, giving it a fresh, bright red appearance. Visitors of Scusset Beach are able to walk down the jetty and see this light up close as well as the 15 35-watt solar panels located next to the light.

EUREKA! USCGC ASPEN Discovers a Piece of Heavy History

by LTJG Jayna McCarron, USCGC ASPEN (WLB 208)

CDR Wittrock, CO of ASPEN,, with the Historian of the Humboldt Bay Maritime Museum at the anchor's new display spot by the town lighthouse

March 13th started out as a routine day for CGC ASPEN, just standard buoy ops outside the quaint town of Eureka, California. This begs the question though, is buoy tending ever really "routine?" As ASPEN was relocating one of the entrance buoys in the bay, there was a little snag while uncovering the sinker; actually, it was an 1100 pound snag.

Humboldt Bay LBB 5 was pulled up on deck with an ancient anchor entangled in the mooring chain. Sensing that this was an exceptional find, ASPEN brought the anchor onboard and notified the Humboldt Bay Maritime Museum about the discovery. After some research, the historians determined the anchor to be an Admiralty Patterned Stream Anchor. This design was originated in the 1800's when the stock of an anchor was bent back and found to give better bottom penetration in soft areas. In the 1840's the Royal Navy began using this style until switching to the Troutman Anchor in the 1860's. The Illustrated Marine Encyclopedia states that the stream anchor was used in calm weather as a temporary hold for a variety of vessels. This was a preferred anchorage method because it was faster than raising the main anchors that weighed almost twice as much as the lightweight stream anchor.

The anchor sees daylight after more than 100 years at the bottom of the bay

CDR Wittrock addresses the crowd at Eureka's Maritime Expo

The Humboldt Bay Maritime Museum's interest in the relic drove them further into the books to find out who lost the anchor so many years ago. Sailing vessels transporting fur were the most likely candidates for using the stream anchor in the Humboldt Bay area during this era. Records showed that there were twenty shipwrecks near the bar that were possibilities. The pool was narrowed down further to six candidates: the Collaroy lost in 1899, the Fidelity lost in 1889, the Edward Park lost in 1880, the Laura Pike lost in 1876, the T. H. Allen lost in 1862 and the Success lost in 1860. This information led researchers to believe the anchor had been at the bottom of the bay for at least 109 years. It is speculated that the winter storms of late 2007 and early 2008 caused shifting of shoal areas and allowed the anchor to be recovered during this particular buoy evolution.

To celebrate the induction of the anchor into the museum's care, a ceremony was held on stage at Eureka's Maritime Expo on September 27th. During the presentation, CDR Steven Wittrock, Commanding Officer of ASPEN, said to the crowd, "we are happy to return this artifact to the maritime community that lost it over a century ago and restore this anchor to such appreciative citizens." The anchor was placed on permanent display outside the town's lighthouse for public viewing.

These events go to show just how versatile buoy tenders are. The multi-mission platform is growing in diversity; adding archeology to its long list of operational capabilities and extending its commitment to excellence.

Bringing the anchor on deck

Buoy Tender in the Arctic

by LTJG Ian Hanna and LTJG Tim Brown, USCGC SPAR (WLB 206)

Breaking ice near Icy Cape, Alaska

From August 18 to September 28, 2008, SPAR embarked on a historic 5,600-mile voyage that brought the ship and her crew to the far reaches of the Alaskan Arctic. As part of D17's Operation Salliq efforts, SPAR conducted waterway surveys in the coastal communities bordering the Chukchi and Beaufort Seas. Salliq (pronounced sul-luck) is an Inupiaq Eskimo word meaning "the most northerly open ice free water as indicated by a dark sky." SPAR's trackline took her north from Kodiak to Demarcation Point at the Alaska/Canada border, then along the Arctic coast stopping in the villages of Kaktovik, Barrow, Wainwright, Point Lay, Point Hope, Kivalina, Kotzebue, Little Diomede, Nome, and Gambell. SPAR also stopped at the famous Prudhoe Bay oilfields and at the Red Dog Mine Portsite, home of the nation's largest zinc and lead mines. A crucial part of the waterway survey process was outreach to the Arctic native corporations, tribal leaders, and local governments in these remote villages and towns. The meetings helped to reestablish ties with the Arctic peoples who have had little interaction with the Coast Guard since the 1970's.

Members of SPAR's crew conduct community service at the Diomede Village School

Navigating and operating a buoy tender in the Arctic is a significant challenge. There are no piers available to a WLB north of Nome, so SPAR was forced to spend 28 straight days underway or at anchor without mooring to a pier (7 days over the published WLB endurance limit). Food stores were flown into the LORAN Station at Port Clarence by an Air Station Kodiak C-130 and lightered by small boat to the cutter anchored offshore.

Fuel was taken from a commercial barge passing by that happened to have some extra diesel left over from the annual heating oil and generator fuel delivery to the North Slope. The nautical charts and navigational information in the Arctic are severely outdated, with the hydrographic information on many of the charts dating from the 1940's and 50's. In several instances, we anchored on charted land when in reality the ship was several hundred yards offshore in 40-50 feet of water. SPAR has developed a portable hydrographic survey system that is carried on both small boats (see "Taming Extreme AtoN at the End of the World," Spring 2007 AtoN Bulletin). The system was used extensively to enhance safety when approaching anchorages off of the Arctic villages. A National Oceanic and Atmospheric Administration (NOAA) Commissioned Corps officer trained in hydrography accompanied SPAR on this Arctic patrol, to assist with bottom surveying and the collection of corrections to the Coast Pilot and NOAA charts.

This patrol was truly the trip of a lifetime. Crew members had the opportunity to attend the northernmost football game in the world as the Barrow High School Whalers took on the Valdez Buccaneers. SPAR's crew worked on the electrical distribution system of Diomede village, and helped with other community service projects on several other stops. We observed at close hand the subsistence lifestyle of the Arctic, primarily whaling, fishing and hunting. Subsistence foods provide up to 80% of the food supply for an Arctic villager. While whaling is outlawed in most parts of the world, it is a way of life for the Inupiat and Yupik Eskimo peoples of the Alaskan Arctic. They have a phenomenal understanding of the ocean, ice, and animals honed over centuries surviving in this unforgiving land. Even the smallest changes in whale migrations caused by vessel traffic or ice coverage are noted and intuitively understood.

We rounded out the trip working buoys and shore lights at Adak Island and False Pass. As if our trip wasn't exciting enough, we intercepted a drifting NOAA weather buoy at 0200 on the morning we returned to Kodiak at the conclusion of our 42 day trip. As we returned home to start writing WAMS reports about our trip, HICKORY departed Homer to conduct a similar mission in the Norton Sound region around Nome. We could not have finished our trip without the support of HICKORY and the D17 staff, or the guidance of the Coast Guard's true Arctic experts on HEALY. Thanks to them, we have the distinct privilege of counting ourselves among the few who have smelled dead whale carcass, encountered whalers, seen polar bears and the northern lights, anchored on charted land, and ventured to the far North.

BM3 Hawkins gets his bearings at the U.S./Canadian border in the Arctic near Demarcation Point, Alaska

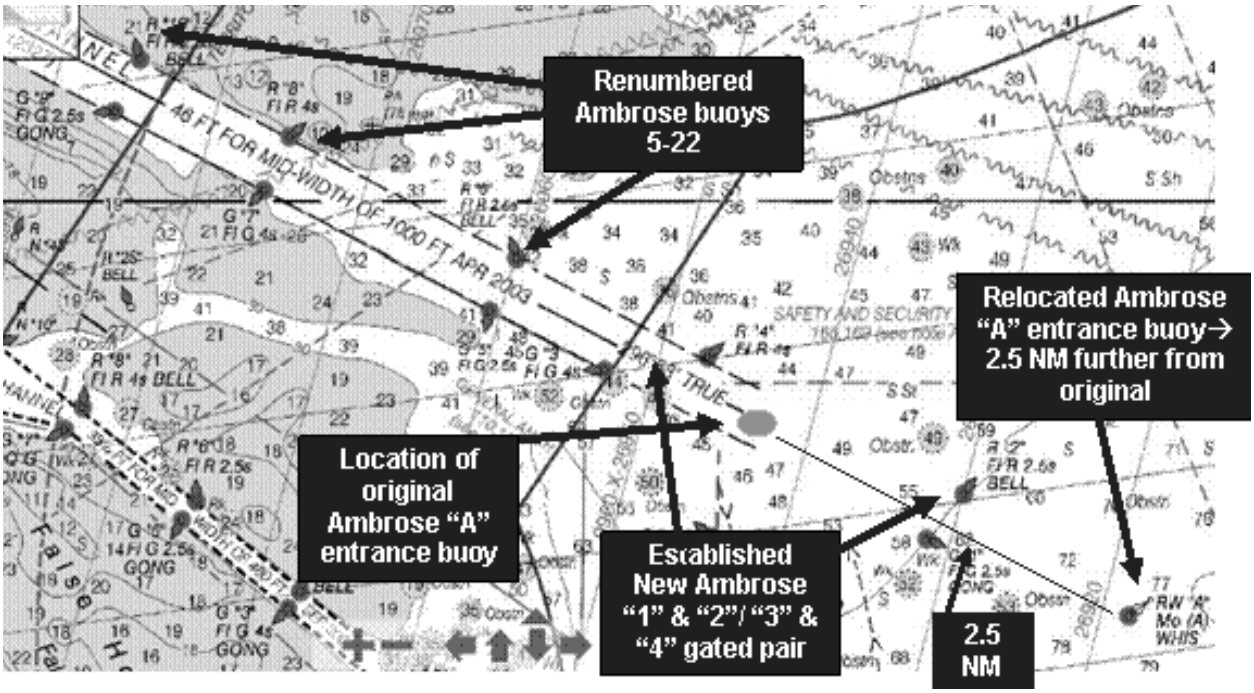
JUNIPER, KATHERINE WALKER and ANT New York Extend New York's Ambrose Channel

by ENS Beau Belanger, USCGC Juniper (WLB 201)

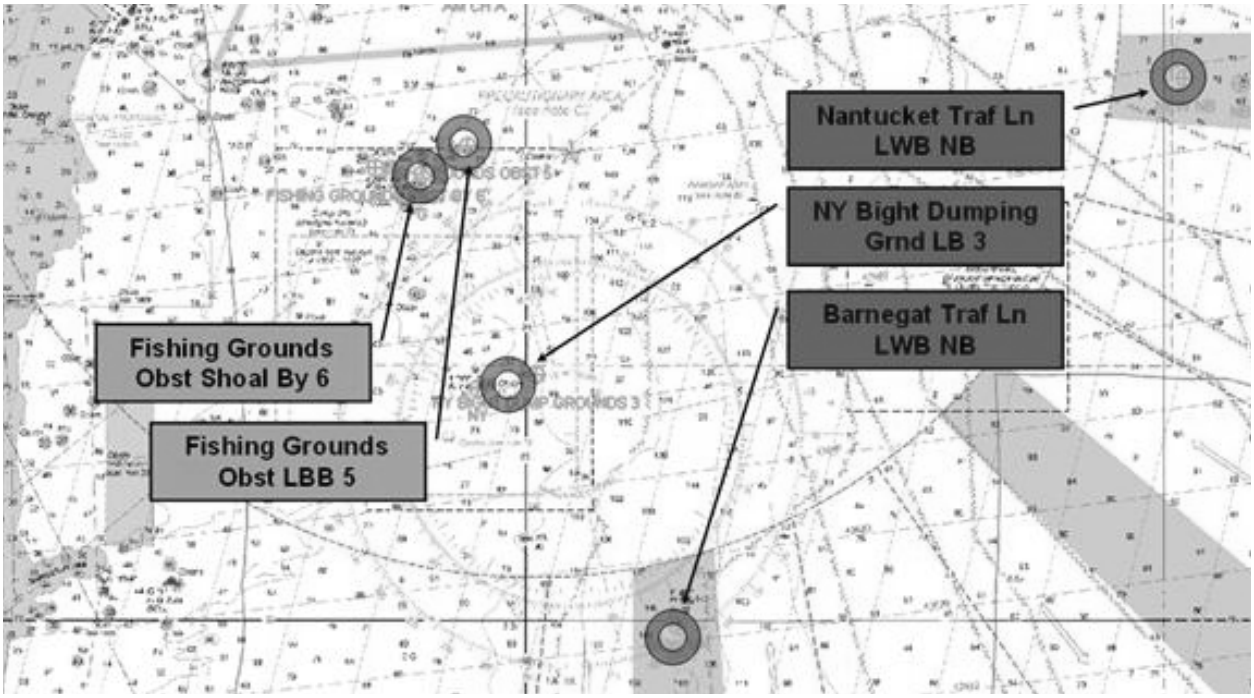
For 41 years the entrance to New York's Ambrose Channel has been marked by an Ambrose Light Tower, guiding vessels to the 3rd busiest waterway in the United States. Before the tower, the Ambrose Lightship marked the entrance since 1908. However, on July 28, 2008, the tower, damaged by a recent allision, was fully removed. With the help of divers and commercial tugs Sea Wolf, Sea Bear and Miss Yevett, the tower was disestablished. The cost to maintain the tower coupled with the compound damage done by vessel collisions on three separate occasions spurned its disestablishment.

The most recent allision occurred in November 2007 when the tanker Axel Spirit severely damaged the tower's stanchions, rotating light and anchorage. The demolition of the Ambrose Light Tower marked a new era for the Ambrose Channel, which had been largely unchanged since 1899. With the combined on scene efforts of JUNIPER, KATHERINE WALKER, and ANT New York, over 40 aids to navigation were established, relocated or renumbered to extend the Ambrose Channel 2.5 nautical miles beyond its original reaches. The most prominent changes within the channel were the disestablishment of the tower, the establishment of four new buoy gates, and the relocation of the "A" entrance buoy and 11 other buoys within the Ambrose area (see diagrams below).

New Entrance to Ambrose Channel



Relocation of Surrounding Buoys



The Ambrose Extension Project was a four-month undertaking that required extensive planning. The original plan to improve the channel consisted of dredging it to depths of 45 ft to 52 ft so that larger container ships could enter New York Harbor. However, to accomplish this, the channel also needed to be extended 2.5 NM due to the shallower depths outside the original channel. At this point, the Coast Guard became a key player in the project and ATONORDER 01-08-064 was drafted. To extend the channel, new buoys needed to be established and the entrance buoy needed to be pushed further out. The changes spread out into the precautionary area and traffic separation scheme, requiring five additional buoy modifications. These buoys included the Fishing Grounds 5 and 6, NY Bight Dumping Ground 3, and the Nantucket and Barnegat traffic lane buoys.

In order to renumber the entire Ambrose Channel, establish 2 new gated pairs, and move the required buoys, a coordinated effort between ANT New York, KATHERINE WALKER and JUNIPER was needed. The project break-down called on ANT New York to renumber the buoys within the channel that otherwise stayed the same. At the same time, JUNIPER would reposition the Ambrose RW "A" entrance buoy, establish Ambrose gated pair 1 and 2, disestablish Ambrose 2A and 3A, and relocate the approach buoys surrounding the precautionary area. KATHERINE WALKER was to establish gated pair 3 and 4 and relocate Ambrose 1A, 11A, 12A, 5 and 6. Due to the importance of the waterway and the high volume of commercial traffic utilizing the channel, the work needed to be completed as quickly and seamlessly as possible. The week of 20-24 October was chosen to get the work done.

October 20th dawned with JUNIPER on scene at the Ambrose "A" entrance buoy seeing 30 kts of wind, 2.5 kts of current, and 5-8 ft swells. Though weather conditions weren't ideal, the units were able to proceed. JUNIPER pressed through the weather to reposition the Ambrose "A" entrance buoy while KATHERINE WALKER made her way to establish the 3 and 4 buoys. Simultaneously, ANT New York began renumbering the buoys further up the harbor. With precise coordination, outstanding flexibility and unwavering dedication, the team was able to complete the monumental project in a mere three days' time.

The changes made to Ambrose Channel were greatly appreciated, for the most part, by local mariners. The Sandy Hook Pilots were especially grateful and commented on the vast improvement the project made to the waterway. On the other hand, other mariners expressed the "if it's not broken, don't fix it" mentality. However, Ambrose now provides mariners with a deeper, longer channel that can be more easily and safely navigated through, which will ultimately help to decrease the number of mishaps and money spent on maintenance. In the long run, the Ambrose extension project will be remembered for its positive improvements to one of the world's busiest waterways.

The project inspired the following song to get into the holiday mood created by SN Harrison Flynn, SN Terrence Daignault, and LTJG Jeannette Green

The 12 Days of Ambrose

by SN Harrison Flynn, SN Terrence Daignault, and LTJG Jeannette Greene

On the first day of Ambrose my Captain gave to me… A BMC yelling at me.

On the second day of Ambrose my Captain gave to me… Two lighted buoys, and a BMC yelling at me.

On the third day of Ambrose my Captain gave to me… Three concrete sinkers, two lighted buoys, and a BMC yelling at me.

On the fourth day of Ambrose my Captain gave to me… Four nice Carmanahs, three concrete sinkers, two lighted buoys, and a BMC yelling at me.

On the fifth day of Ambrose my Captain gave to me… Five shots of chain, four nice Carmanahs, three concrete sinkers, two lighted buoys, and a BMC yelling at me.

On the sixth day of Ambrose my Captain gave to me… Six scrapers scraping, five shots of chain, four nice Carmanahs, three concrete sinkers, two lighted buoys, and a BMC yelling at me.

On the seventh day of Ambrose my Captain gave to me… Seven shiny swivels, six scrapers scraping, five shots of chain, four nice Carmanahs, three concrete sinkers, two lighted buoys, and a BMC yelling at me.

On the eighth day of Ambrose my Captain gave to me… Eight grumpy riggers, seven shiny swivels, six scrapers scraping, five shots of chain, four nice Carmanahs, three concrete sinkers, two lighted buoys, and a BMC yelling at me.

On the ninth day of Ambrose my Captain gave to me… Nine solar panels, eight grumpy riggers, seven shiny swivels, six scrapers scraping, five shots of chain, four nice Carmanahs, three concrete sinkers, two lighted buoys, and a BMC yelling at me.

On the tenth day of Ambrose my Captain gave to me… Ten sheets of retro, nine solar panels, eight grumpy riggers, seven shiny swivels, six scrapers scraping, five shots of chain, four nice Carmanahs, three concrete sinkers, two lighted buoys, and a BMC yelling at me.

On the eleventh day of Ambrose my Captain gave to me… Eleven runny noses, ten sheets of retro, nine solar panels, eight grumpy riggers, seven shiny swivels, six scrapers scraping, five shots of chain, four nice Carmanahs, three concrete sinkers, two lighted buoys, and a BMC yelling at me.

On the twelth day of Ambrose my Captain gave to me… Twelve buoy critters, eleven runny noses, ten sheets of retro, nine solar panels, eight grumpy riggers, seven shiny swivels, six scrapers scraping, five shots of chain, four nice Carmanahs, three concrete sinkers, two lighted buoys, and a BMC yelling at me.

Editor's Note: Busted! Don't even TRY to tell me you weren't just singing along with the JUNIPER crew!

JUNIPER establishes the Ambrose Channel "1" Buoy

Implementation of GAPPS

by LTJG Timothy Dolan, USCGC KUKUI (WLB 203)

SNBM Jason Ruffenach assists SN Richard Macaraeg in servicing the light on Apra Harbor Entrance LB 1

This past summer, KUKUI spent 6 weeks in and around Guam serving as the primary offshore search and rescue unit for the Western Pacific while SEQUOIA was dry docked in Yokosuka, Japan. During this period, KUKUI patrolled the outer boundaries of the U.S. and Commonwealth of the Northern Marianna Islands (CNMI) Exclusive Economic Zones, conducted several High Interest Vessel (HIV) escorts, led search and rescue and debris recovery efforts for a downed B-52, and carried out aids to navigation maintenance in Guam and the Northern Marianna Islands. Amongst many other things, KUKUI's deployment was significant because it marked the first operational use of the GPS Autonomous Point Positioning System (GAPPS) since it was implemented as an official positioning source by the Coast Guard on 14 July 2008.

The Fourteenth District Area of Responsibility (AOR) is amongst the largest in the Coast Guard, yet it has only three Differential Global Positioning System (DGPS) beacons. Two beacons are located on the Big Island of Hawaii at Pahoa and Upolu point and the third is located at Kokole point on Kauai, Hawaii. While the beacons provide full coverage for the main Hawaiian Islands, areas such as the Northern Marianna Islands, Midway Atoll, Johnston Atoll, and American Samoa fall well outside of their 265 nautical mile range. To be precise, Apra Harbor, Guam is approximately 3360 nautical miles from Kokole Point (the nearest DGPS beacon site).

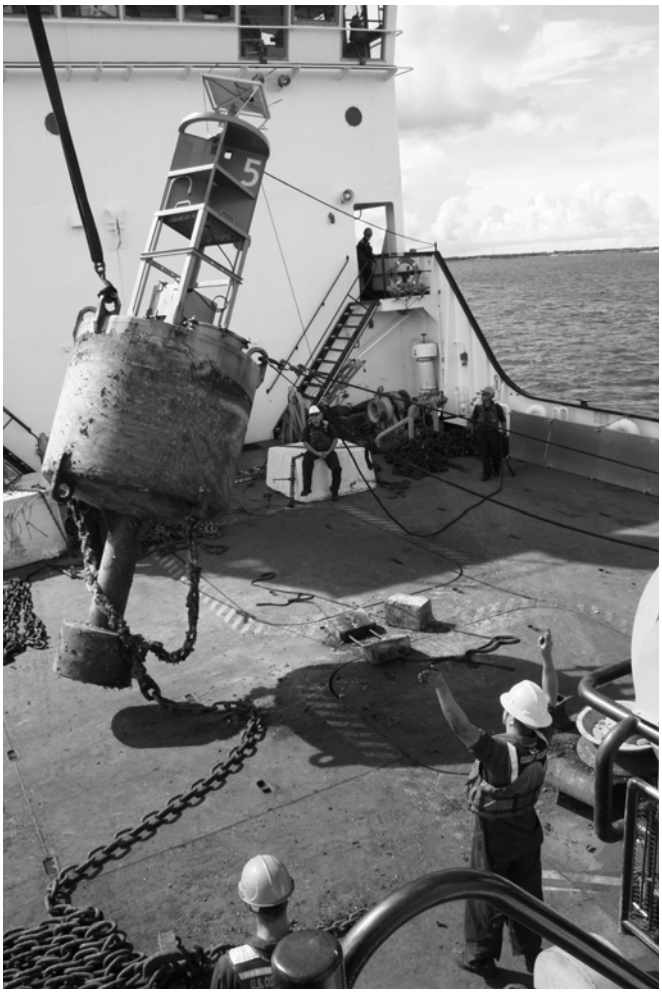
BM3 Joseph Noreikas lowers Apra Outer Harbor LB 5 as KUKUI prepares to reset the aid on station

Up until recently, the Coast Guard relied upon the Tender Deployable DGPS (TDDGPS) to obtain a differential GPS correction in areas outside the range of an established DGPS beacon. The TDDGPS worked on the premise that a

portable antenna set up on nearby land could be used to correct for errors in global positioning data received by satellites. Although the TDDGPS worked, it proved to be problematic because the portable antenna had to be positioned stationary on land, it had to be positioned in sight of the cutter, and proper set up typically took 3 to 4 hours. To remedy these issues, the Coast Guard looked into using a new system known as GAPPS.

BM3 Joseph Noreikas puts Apra Outer Harbor LB 5 at the stbd rail

Leading up to KUKUI's deployment, GAPPS was still in a prototype and testing phase. As such, KUKUI's use of GAPPS to position 15 buoys in Guam, Saipan, Tinian, Rota, and Kwajalein marked the first operational use of GAPPS since it was implemented as an official positioning source. Although GAPPS requires use of a quick and simple correction sheet to account for the 109.36 yard error associated with a GPS fix, the new system is much more user friendly, takes up less space, and requires significantly less time for setup. In essence, having GAPPS is like having your own differential site on the bridge.



On a truly multi-mission platform, GAPPS significantly enhances the operational capabilities of the unit whether it is working aids to navigation with the cutter, the small boat, or the dive team.

BM3 Joseph Noreikas directs the movement of Apra Outer Harbor LB 5 as it is shifted across the buoy deck

ANT Sitka Teaches Valuable Survival Skills

by BM1 Derrick Borel, ANT Sitka

In Sitka Alaska, surviving nature's elements is a way of life. Local schools start teaching children survival skills and techniques in elementary school. Each year, ANT Sitka, along with many other volunteers, spends several days with third and fifth graders. We spend several days going over cold water survival, wilderness survival techniques, shelter building, and how to make fires from cold, wet wood. A few days later, the team spends about three days working with the third graders, focusing on cold water survival.

Members of the ANT, along with other volunteers from the local community, show the kids the proper methods of donning life jackets, boarding life rafts, and donning cold water immersion suits. This includes a day in the harbor where the kids get the opportunity to practice what they have learned over the last few days in the warm waters of the school pool. During the harbor swim, members from ANT Sitka spend several hours in the 45-50 degree water while the kids float around them in their immersion suits.

With the main industry in Sitka being fishing and the remote location of the town, the only way in is to fly, hike, or ferry. The odds of children having to spend a few nights in the woods or falling into the water during a fishing trip with mom and dad are better than slim, so the skills that they learn could save their lives or their families' lives. Each member of the ANT goes through a week long wilderness survival school to teach them the techniques of survival in the event that something may happen. On several occasions, ANT members have had to use their skills when out hunting in the local area and the weather picked up, or the helicopter that was scheduled to pick them up at an aid was diverted or could not get back due to weather.

The members of ANT Sitka feel that the training they are providing to the students is valuable and could very well save a life someday.

ANT Sitka's Changing Missions

by BM1 Derrick Borel, ANT Sitka

A few months back, Aids to Navigation Team (ANT) Sitka received the CG 41328 from Air Station Sitka. Upon receipt of this platform, the members of ANT Sitka overhauled the boat, putting in two new engines, scrubbing the bilges, painting the interior and completing general maintenance that had been neglected for several years. Before the 41328 arrived, ANT Sitka had only seven people assigned to the unit; now the unit is billeted for 13. The purpose of the 41 is to provide Air Station Sitka with a training platform. Before the 41, ANT Sitka only flew with Air Station Sitka to service aids in Southeast Alaska; now we help train the flight mechanics and the rescue swimmers on a weekly basis. On average, we spend between 10-15 hours a week conducting hoist exercises and being a standby platform for the helicopter crews. All of this, and ANT Sitka is still able to maintain a 100% aid availability rating and stay ahead of AtoN maintenance.

Since the arrival of the 41, ANT Sitka has also received the 26' TANB. This has also changed the mission of the ANT. Before the 26' TANB, ANT Sitka had only two buoys, which we worked from a 23' UTL. Now the unit is able to assist other units in Southeast Alaska by helping to disestablish aids that are not needed in the winter months. In October 2008 a crew ferried the boat to Juneau, AK to assist CGC ELDERBERY in removing the Mendenhall Bar Buoys from service for the coming winter. With the addition of the 26' TANB, ANT Sitka is able to increase the range of operations and jobs that this prior "Flying ANT" can perform, including search and rescue (SAR).

With the new boats and new crew, ANT Sitka was able to assist Sector Juneau in executing four SAR cases during the fall of 2008. These cases included saving one person who fell off the side of his boat while fishing. The members of ANT Sitka came across the person in the water while out conducting training on the boats. There were no other boats around to assist the person, and he was not wearing a lifejacket or cold water survival clothing. ANT Sitka will still be known as the "Flying ANT;" however, the addition of these assets make every person assigned to the unit better versed in all aspects of the boat forces community.

Coast Guard Units in Hawaii Save Energy While Saving Lives

by PA3 Angela Henderson, District 14 Public Affairs

Merry's Point Light standing tall at the entrance to Pearl Harbor

A growing concern in the United States is the impact of rising energy prices on households and the economy. Gas prices have reached record highs. It seems that everything from toothpicks to televisions has become too expensive. The U.S. Coast Guard takes pride in its ability to save people and the environment, so why not help save energy costs for taxpayers? The Fourteenth Coast Guard District, which encompasses 12.2 million square miles and has its headquarters in Honolulu, is joining the overall Coast Guard initiative to "go green."

"The world is constantly changing, and the Coast Guard is doing its best to help protect the marine environment, recycle and use less energy," said Senior Chief Petty Officer David Garrett, the officer in charge of Aids to Navigation Team (ANT) Honolulu.

Fourteenth District crews are tasked to develop, establish, operate, and maintain 443 aids to navigation. The aids to navigation system helps recreational and commercial mariners determine their position, enjoy safe passage on the water and avoid obstructions. The system is vigilantly maintained by crews on three 225-foot Seagoing Buoy Tenders, located in Honolulu and Guam, an Aids to Navigation Team (ANT) from Honolulu, and personnel at the district's waterways management branch.

The Coast Guard has long utilized solar technology to provide mariners with safe and reliable waterways. In June 2007, The U.S. Coast Guard Maritime Short-Range Aids to Navigation Strategic Plan was released and set a course for implementing various technologies that would provide the best service for mariners while ensuring the best return for the taxpayer. One of the main requirements of the plan was to introduce and require certain lighted aids to use a light-emitting diode (LED), about the size of a wall clock, instead of the longstanding traditional lanterns.

The traditional lanterns are made, for the most part, of fiberglass, metal, mechanical parts and plastic. The LED, in contrast, is made of metal and a hard plastic, with no mechanical parts, which makes the light more durable, said Petty Officer 3rd Class Brian Guevara, a boatswain's mate at ANT Honolulu.

The conversion of commercially-powered aids to navigation to an LED solution has the potential to reduce monthly utility costs by approximately $500 per light as well as save time and labor, said Garrett. Every dollar saved helps when the overall cost to taxpayers for servicing these aids is realized. For example, it costs roughly $4,500 per hour for a buoy tender to go out to sea to service an aid, which does not take into account member benefits and fuel, among other costs. "We often send a team out by boat or vehicle to replace a single lamp on a traditional lantern," said Petty Officer 1st Class Kate Bogle, a marine information specialist at the district's prevention division.

The cost of the lamps is yet another factor. The traditional lantern lamps usually last one or two years; however, the LED lights can last 10 years, said Bogle. "The LEDs, which operate on solar power, will help eliminate the reliance on shore power and will also reduce unnecessary and dangerous trips to secluded lights," said Bogle.

Garrett said the time saved by not having to make unnecessary trips will allow buoy tender crewmembers to devote more time to other important work, including protecting the environment, search and rescue and law enforcement.

The process of changing over to LEDs has already begun. On May 28, 2008, Maui's McGregor Point Light became the first light in Hawaii to receive this LED technology and be removed from the grid. Merry's Point Light at Pearl Harbor was the first to be converted on Oahu from lantern to LED on Sept. 11, 2008. The third light on the list to swap over to LED is the Lahina Lighthouse on Maui. "I take great pride in ensuring that these lights function properly. Saving taxpayers' dollars makes me even happier," said Guevara.

Thousands of recreational and fishing vessels, cargo and cruise ships transit through the district's ports and waterways. The Coast Guard helps to ensure the maritime transportation system flows smoothly and effectively – without breaking the bank.

BM3 Brian Guevara, BMCS David Garrett and SN Jason Lindbom of ANT Honolulu hold an LED at Diamond Head Lighthouse

News from the BDTT

by BM1 Christopher Wilcox, NATON School

Buoy Deck Supervisor Course

As some of you may have heard, the ANC-BDS (Buoy Deck Supervisor) course has gone exportable. The biggest change is instead of the training primarily focusing on basic rigging, it will now cover the core fundamentals required to earn the certification of BDS. Like our current Construction Tender and River Tender non-resident courses, the new BDS course will utilize a voluntary host cutter. It will be held four times a year at various WLBB/WLB/WLM homeports with a maximum capacity of twelve students per class. The new course will be a very full five days long. The training will consist of a couple of days of classroom and lots of hands on. Students will be taught many things including advanced rigging and inspection fundamentals, special operations, proper oxy/acetylene techniques, and buoy chain management. Students will also install both Electroline fittings and epoxy poured sockets. The most important portion of the week will be the last two days, when the students will work on deck perfecting their BDS skills, including crane angles, the proper use of crossdecks and inhaul winches, and personnel management and safety. Each student will be afforded the opportunity to complete at least one buoy evolution.

The pilot course was held the week of 05 January, the host cutter being CGC FRANK DREW. Speaking of FRANK DREW, we would like to send out our most sincere thanks to the crew of the FRANK DREW for their hospitality and participation with special thanks to CWO4 Etiemble and BM1 Greer; they were most gracious hosts. The course was a learning experience for the BDTT as well as the students. Being that this was the pilot course, we asked each student to spend some extra time on their course evaluations. We received excellent feedback from them, feedback that will be used to better the course. The first three and a half days were spent between the classroom and the cutter, with the last day and a half spent on the buoydeck going through complete buoy evolutions with each student breaking in as BDS while the rest of the class filled in as riggers.

The BDS course has traditionally been offered to our ANT's, especially those with a BUSL. We will continue this policy with the new exportable course. Although the buoy deck evolutions are different, there will be many topics covered that will be extremely beneficial to those at an ANT. Some of these relevant topics will be the installation of end fittings such as the Electroline (fiege) and epoxy poured socket, outfitting a buoy, the inspection process of wire rope, slings, and rigging hardware as well as sound rigging practices. We're looking forward to seeing all of you up and upcoming BDS candidates at one of our new classes.

Synthetic Slings

BMC Jason Wyglendowski just completed some interesting research on synthetic slings. Unlike new chain and wire rope slings, a newly manufactured synthetic sling is not required to be proof tested. Why is this? When synthetic slings are manufactured they are usually done so in lots. Say Slingmax is making one hundred slings out of the same spool of polyester fiber. They are only required by American Society of Mechanical Engineers (ASME) standards to proof test 10% of the slings manufactured from that lot. There is an exception to the rule. If you have a custom-made synthetic sling made for your unit, it must be proof tested by the manufacturer and a certificate of inspection must be provided. What is a "custom-made synthetic sling?" A typical example would be a synthetic sling that is manufactured with additional hardware, say for example a hook and master link. If you're not sure, contact any of the members of the BDTT. Just remember, Coast Guard standards still require you to proof test all of your slings, including synthetics, biennially to 200% of the WLL (Working Load Limit).

While we're on the topic of synthetic slings, here is some additional information regarding new synthetic slings versus new wire rope or chain slings. A wire or chain sling is considered in service as soon as it comes aboard your unit. A synthetic sling is considered in service when you first break it out. In other words, if you buy a new synthetic sling and store it in a cool dry place for a year before placing it in service, the biennial proof test clock doesn't start to run until the day it's placed in service.

One last note; it's rarely cost effective to proof test an old synthetic sling. Make certain that you compare the price of a new synthetic sling with the cost of a proof test. In almost every case it will be more cost effective to take the old sling out of service and replace it with something new.

Special D9 BDTT Visit

The Buoy Deck Training Team recently completed a marathon three-week trip to the Great Lakes to provide training to BRISTOL BAY, MOBILE BAY and BUCKTHORN. In the past the BDTT has only worked with the WLB, WLM, and WLBB classes of cutters. Working with these legacy cutters provided us the chance to work buoys "the old fashioned way." It was a great learning experience for all of us, and we were able to obtain some great video footage that will be used to update the training material that we present to the entire AtoN fleet. The welcome that we received from all three of these fine cutters was top shelf. We are all greatly appreciative of the hard work that the crews put into our visit and all the knowledge and experience they shared with us. Stay warm this winter and watch out for the mysterious Yetti (aka BMC Wyglendowski) frolicking across the ice. I have heard there have been numerous sightings in all your homeports.

As always, if you ever have any questions shoot us an e-mail or give us a call; CWO Merrill and the rest of the team always look forward to hearing from you.

Close Call on the Buoy Deck

by SN Sean Tully, USCGC ALDER (WLB 216)

Hello All! Greetings from the mighty USCGC ALDER! I thought I would take some time out of my day to put a story to paper. Not only to do that, but to relay an event to you all that will help us remember that the work we do in this hazardous field is not always a walk in the park. From the buoy decks of the Juniper Class 225' or the faithful 140,' or indeed any asset, we have all heard about mishaps or accidents happening. But have you ever been a part of one? I can tell you that I have.

It didn't happen the way one may think. There were no *rough seas*, no *gales blowing*, and no *rogue waves.* It was a calm, seventy degree summer afternoon off the shores of beautiful Sturgeon Bay, WI. The hard working deck force, myself included, were making the buoy deck ready for the deployment of a foam buoy equipped with a new carmanah. As things go when setting up the buoy deck, we followed our AtoN checklist to a "T." The port side cross deck was run out and placed through a snatch block. Slings and taglines were brought out on deck for deployment of the buoy; the crane was broken out and made ready. And finally, at least the last thing I took part in breaking out for that evolution, was the in-haul chain.

This procedure was an incidental part of every AtoN deployment or retrieval I had ever worked on; or so it seemed at the time. At this particular point in time, one of the riggers on deck would be called upon to remove the locking hook from a piece of line hanging from the guard rail in front of the in-haul roller. By locking hook, I mean the shurlok hook on the bitter end of the in-haul chain that attaches to buoy chain during a retrieval or deployment.

Well, I was that rigger, fully prepared to remove said hook from the piece of synthetic line it was hanging from. The line was five-eighths in circumference with a tensile strength of approximately 12,000 lbs, so needless to say, it was pretty strong stuff. I stood there, ready to grab the hook and fake out the chain as it was paid out to us. The BDS gave the hand signal to come "in" on the in-haul winch. As soon as he did this, I heard someone else behind me shout "NO!!!" and then heard something that sounded much like a gunshot.

Not knocked off of my feet, but rest assured windless; I held my right side and began screaming obscenities. My BM1 ushered me right up to the BDS and then straight to the corpsman. It was hard to breathe for 10 minutes or so and my right side hurt a lot! From what I could see from pictures later on my side looked like a moderately bruised piece of meat.

Within minutes, the corpsman and I were med-evaced off of the ship and taken to the nearest emergency room in Sturgeon Bay by one of the Junior Officers from the crew of the MOBILE BAY. The check-in process took a matter of minutes and I was taken to a bed. They immediately took blood and urine samples from me. Afterwards, two IV's were placed on my arms and my blood count was monitored for four hours while I was on pain medication. All of these pro-

cedures were done to verify that I wasn't bleeding internally.

Thank God, I was not! I was spared that agony. I was saved! Saved by a Type 3 Personal Flotation Device. By a life jacket and the strobe inside of the right lower pocket. The strobe was still wrapped in its parachute line but shattered into four pieces. If I had not been wearing the required safety gear that day, my predicament would have been a whole other story, and probably not such a lucky one.

I'm still here, still strong, and still working AtoN. And proud of it! This story is to remind us that in any part of any evolution or job that we do, when safety is involved we **cannot** take those procedures for granted. Every part of every evolution, no matter how small or insignificant it may seem, **is important.** I think it's safe to say I'm proof of that.

A Note from the Buoy Deck Training Team

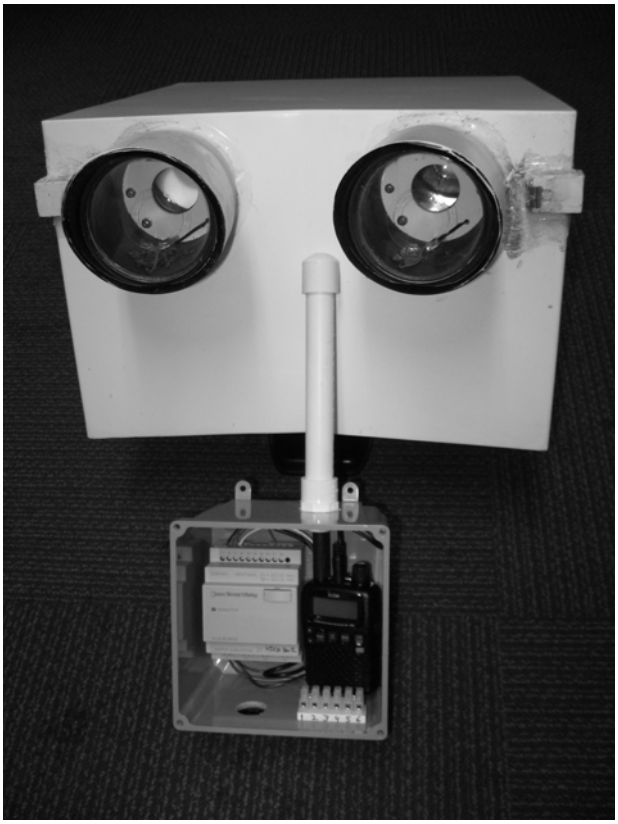
by BMC Jason Wyglendowski, NATON School

This is a fine example of how a small, mundane task can turn deadly in a flash! We in the Buoy Tender fleet do things like this many times a day and think very little about it. How many times have you stood directly in front of the in-haul/cross deck winch while the hook was slacked so you could remove it from its tether? The only thing at that point keeping you from a possible injury is someone pulling the lever in the correct direction.

The moral of the story is to always keep your guard up; stay out of the "I have done this a thousand times" state of mind. We in the AtoN fleet do an outstanding job of keeping each other out of harm's way. That said, if you do something enough times, you're bound to run into issues; just continue to use common sense and the training you have been given. Lastly, never, ever get complacent when it comes to safety and following proper procedures.

Radio Controlled Fog Detectors – A Needed Upgrade

by SN Sarah Cashwell, STANT Muskegon



The VM-100 (top) and the Radio Unit (bottom)

The days of light keepers standing watch and monitoring the slightest mood changes of the vast seascapes have long since become a time-honored memory of the past. As the 1970's gave way to the 1980's, the VM-100 Fog Detector was created. This useful invention is a microprocessor-controlled meteorological instrument capable of measuring visibility through the atmosphere by using the "back scattered light principle" (VM-100 Fog Detector Technical Manual). Though extremely useful, the fog detector proved to have a problematic existence. Routine maintenance is needed and eleven tools are required in order to assemble and install this complex twenty-two pound instrument. Soon the Coast Guard would upgrade this equipment. In the spirit of the theory "Work smarter, not harder," we founded the Radio Activated Fog Detector.

There is an excellent Aids to Navigation Team at STANT Muskegon. The area of responsibility that the Muskegon staff oversees includes thirteen fog signals located throughout a two-hundred mile range on the west coast of Michigan, from Frankfort to Michigan City, IN. Three of the fog signals are radio controlled, while the other ten have the original VM-100 Fog Detectors. In 2008, all fog horn discrepancies we received arose from the VM-100's; no repairs were needed on the new Radio Activated Fog Detectors. In the Station Muskegon Calendar Year 2008 Discrepancy Response Report, the problems that arose from the fog detectors included a myriad of discrepancies such as decommissioning due to pier head icing and a series of false reports. Because of the amount of discrepancies associated with the VM-100 Fog Detectors compared with the radio controlled units (RCU's), which have yet to cause a discrepancy, it is evident that the RCU's are a very convenient and safe option for navigational instruments. It is the priority of the Coast Guard to uphold the highest standard of safety and quality for those that need navigational assistance, which is why this station continues upgrading the fog detectors with the more reliable Radio Activated Fog Detectors. In light of the pros and cons of the RCU in comparison with the stand alone VM-100 Fog Detector, it is not hard to see which instrument is preferred for regulatory use.

The Radio Unit

The desired outcome of any aid to navigation is a dependable means of assistance to the common mariner. The stand alone VM-100 provides assistance to the mariner, but it may not always detect fog when fog is, in fact, visible. The reason for a discrepant VM-100 can range anywhere from dirty optics to faulty calibration. The Radio Activated Fog Detector gives mariners the choice of if and when to utilize this form of navigational help, but unfortunately it cannot be used if the mariner does not possess a VHF radio. The Radio Controlled Fog Detector is designed to activate foghorns by keying the very common VHF radio five times while on channel 79a, which then activates the FA-232 or ELG-300 sound signal, which can be heard for up to a half mile for a single FA-232 and 4 nautical miles for an ELG-300/04. By using the VHF method, this aid is activated for a period of thirty minutes, after which the activated assistance automatically shuts off. The radio unit itself is a new and convenient form of navigational collaboration in which maintenance is minimal and extremely basic; assembly or repair of the unit only requires one screwdriver. The only vital form of maintenance required is the annual removal of any accumulated dust and an inspection to confirm that all connections are, in fact, tight and not corroded.

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As today's modern navigational equipment improves and the digital age continues to evolve, the same intent remains today. Throughout the Coast Guard from shore to shore, a new genre of improved instruments continues to protect and assist the mariners of the 21st century. Though the stand alone VM-100 Fog Detectors have proven to offer adequate guidance, the Coast Guard has created an innovative alternative to the sometimes inconvenient fog detectors. This new and improved instrument is known as the Radio Activated Fog Detector. The Coast Guard and common mariners agree that this new change is both beneficial and productive. I believe that when it comes to protecting the seafarer from the adversities of fog, this new technological advance has proven to be one of the more ingenious creations in the field of Aids to Navigation.

LED Complete: A New Standard for Lighted Aids

by ENS Keith Robinson, USCGC FIR (WLB 213)

As Coast Guard Aids to Navigation units work toward completing the transition from incandescent lanterns to the newer LED lights, USCGC FIR offers some observations from the past years of its own transition. FIR recently completed the transition to LED lanterns on all of its lighted aids in the Pacific Northwest. FIR's lighted aids now bear either Carmanah, Sealite, or Tideland lanterns, each used to meet the different requirements of its location.

The Carmanah lantern is the most commonly found lantern in FIR's area of responsibility. Because many of FIR's aids are found within rivers and restricted waterways where a nominal range of three nautical miles is more than adequate, Carmanah 702-5's are the ideal solution. As self-contained units, Carmanahs are easy to install and service, and offer fewer points of failure than other options which require external batteries, solar panels, and electrical connections. The Carmanahs are also incredibly durable and offer a great solution to water intrusion; a definite requirement in the Pacific Northwest. Carmanahs are limiting, however, in that they are not authorized for use on quick-flashing red aids or safe-water markers flashing Morse alpha in our AOR because they cannot hold enough charge for these characteristics. Carmanahs are also currently limited to use on aids with nominal ranges of three or four nautical miles.

Sealites offer a good alternative for these aids because solar batteries have enough amp hours to handle the power requirements of the more demanding light characteristics. Even with their external batteries, Sealites run on significantly less amperage than an incandescent light, requiring only one or two batteries versus the six to twelve required of their predecessors. Sealites also offer good protection against water intrusion because they have only a single access to the lantern for the electrical connection, which is protected by a stuffing tube. Unlike the Carmanah, however, Sealites have external solar panels, batteries, and electrical connections, each of which is an additional source for potential failure. All of the different parts also increase the maintenance time for the aid.

Tideland lanterns share many operational similarities with the Sealites; both are capable of powering the more demanding light characteristics, both have external batteries and solar panels, and both use less amperage than traditional incandescent lanterns. Tidelands, however, have an open underside. In the wet climate of the Pacific Northwest, this creates a problem with water intrusion. FIR has noticed that even in the relatively calm and protected locations within its AOR, Tidelands are susceptible to water intrusion which increases the likelihood of a discrepant aid.

All LED lanterns, however, are more efficient, durable, and effective than incandescent lanterns. In 2006, FIR had 11 Carmanahs and 301 solar batteries installed on its aids; presently, FIR has 87 Carmanahs and only 82 solar batteries on its aids. This is a decrease of 219 lead acid batteries in less than two years. FIR also noticed a significant decrease in discrepancies,

allowing for the completion of other missions. Already in fiscal year 2009, FIR has conducted 309 hours of law enforcement operations, more than the total 304 law enforcement hours conducted in all of fiscal year 2008. Even with the drastic improvement in lantern efficiency and the reduction in maintenance time, there has been no decline in performance; in fact the opposite is true. LED lanterns are in some cases brighter than their incandescent counterparts and FIR has received reports of discrepant lanterns when the only problem was an incandescent bulb amidst the brighter LED's. Regardless of the type of LED lantern used, there is a significant and visible benefit to the new technology.

USCGC SHACKLE (WYTL 65609) Photos

Thanks to BMC Joseph Butkovic for these great shots of SHACKLE using a barge from ISD South Portland to rebuild an aid in the Merrimack River. Quite a change from the normal work of a 65'!

Carmanah Lanterns "Under Cover"

by BM1 Dale Janetka, USCGC WILLOW (WLB-202)

Have you ever heard the expression, "Never wake a sleeping baby?" How about trying to wake up a sleeping Carmanah lantern? Transitioning a Carmanah from day-to-night and night-to-day multiple times isn't as easy as it sounds. At night, the challenge is rigging a source of artificial light that is effective enough to "wake up" the Carmanah, but without blinding the bridge. Likewise, during the day, darkness needs to be simulated by covering the Carmanah with anything from a box to a hard hat. Of course, this usually happens while battling seas and winds, resulting in a cover that only lasts for a few seconds before flying away, as the Minor Aid Tech sadly watches from the top of the buoy.

After walking around the ship and looking at all of our custom-made covers throughout the decks, I thought it would be worthwhile to see if our source of supply that designs and manufactures all of those covers could make something that would work on the Carmanahs. Indeed they could. After discussing our application and our environmental concerns with Jeff from Fit N' Stitch, based out of North Kingstown, RI, he designed a prototype and brought it to the ship, and it was the perfect tool for the job. There are two sizes, small and large; the small fits the 701 and the large fits the 702, 702-5 and 704-5. They are made of a black, waterproof Cordura® material and have a drawstring along the bottom with plastic buttons that cinch tight, keeping the cover from flying off. To make programming easier, there is a section towards the top where the Cordura® is replaced with a piece of clear plastic, allowing a remote control to be used for programming without the hassle of removing the cover. In addition, there is a Cordura® flap held down with hook and loop tape that protects the clear plastic and to allow for complete darkness when transitioning the Carmanah. At $55.00 each (April 2008), these covers have proven to be a worthwhile investment and have definitely simplified the transitioning process. They are also nice as a "quick fix" to cover flashing Carmanahs on buoys that are sitting on the buoy deck after being retrieved.

Jeff from Fit N' Stitch can be reached at (401) 294-3492. The company address is 3666 Quaker Lane, North Kingstown, RI 02852.

In conclusion, if you choose to invest in some Carmanah covers from Fit N' Stitch for your AtoN unit, I hope you find them as useful as we did.

The Importance of Light List Verification with I-ATONIS

by Ms. Marie Sudik, NAVCEN

ATON units regularly add the following verification remark to their APR's:

REMARKS

SCHD: VERIFIED LL/CHART/I-ATONIS/CP. PULLED BUOY ON DECK TO CONDUCT INSPECTION AND MOORING. FOUND CHAFE DOWN 10/32" (35%) FOR AN A/W OF 18%. REPLACED 35' OF CHAFE WITH 1 1/2" CHAIN. SIGHTED SINKER, SET BUOY BACK ON STATION, LWP.

The requirement for this remark originates in the ATON Positioning Manual, page 7-4:

b. Remarks. The remarks section shall be used to record any additional information necessary to verify or validate the aid's position. At a minimum the following items will be entered if not previously recorded:

(1) Aid On or Off Station when found.

(2) Light List verification.

(3) ATONIS verification.

(4) Chart verification.

(5) Reason for AtoN visit.

c. Signatures.

(1) Prepared by. This line shall be signed by the individual completing the form.

(2) CO/OINC. This line shall be signed by the Commanding Officer or Officer-in-Charge.

Purpose of CO/OinC signature is to verify:

(a) APR complete.

(b) Aid on station.

(c) Aid adequately marks hazard/channel.

(d) Light List/ATONIS/Chart have been verified.

This verification is critically important beginning with the 2009 Light List. For years, the USCG relied on another federal agency, the National Geo-Spatial Intelligence Agency (NGA) to provide the USCG with a file that the USCG used to print the Light List. Verification was important in the past because there were two databases (NGA's Light List database and USCG's I-ATONIS) at two different agencies maintained by different staffs so sometimes data "diverged."

Beginning in 2009, the USCG will produce the Light List from I-ATONIS. The 2009 Light List will display data directly from I-ATONIS, including the exact assigned position as stored in I-ATONIS for all aids. Therefore, I-ATONIS, and a Light List that is updated on a regular basis, will provide more reliable data. When you do the verification once the 2009 Light List is printed, if there is a difference, it is critical to alert the district to the data disparity.

Checking the chart is critical, too. For the past several years, we have been sharing I-ATONIS data with the National Oceanic and Atmospheric Administration's National Ocean Service (NOAA-NOS). They use ***your*** I-ATONIS data to update their charts (paper, raster, and electronic).

If you are wondering what the 2009 Light List will look like, you can go into I-ATONIS and run one yourself (CLICK Reports/Publications/Light List and select a range of LLNR's or run the entire publication). Excerpts from the 2008 and 2009 Light Lists are shown on this page and the next for comparison.

2008 Light List

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
	CHESAPEAKE BAY (Virginia) - Fifth District						
	CHESAPEAKE BAY ENTRANCE (Chart 12221)						
	Chesapeake Channel						
7030	Cape Henry Buoy 1	36 55 02 N 75 58 00 W				Green can.	
7035	*- Lighted Bell Buoy 2C*	36 57 19 N 75 58 22 W	**Fl R** 2.5s		4	Red.	
7040	*Cape Henry Wreck Lighted Buoy 2CH* 250 yards, 225° from last reported position of wreck. Marks wreck of CHILORE.	36 57 33 N 76 00 46 W	**Q R**		4	Red.	

2009 Light List

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
	CHESAPEAKE BAY (Virginia) - Fifth District						
	CHESAPEAKE BAY ENTRANCE (Chart 12221)						
	Chesapeake Channel						
7030	Cape Henry Buoy 1	36-55-02.430N 075-57-59.945W				Green can.	
7035	- *Lighted Bell Buoy 2C*	36-57-18.528N 075-58-22.246W	Fl R 2.5s		4	Red.	
7040	*Cape Henry Wreck Lighted Buoy 2CH* 250 yards, 225° from last reported position of wreck. Marks wreck of CHILORE.	36-57-33.327N 076-00-46.052W	Q R		4	Red.	

The USCG is a significant source of data for the mariner. Continuing diligent data entry and data verifications will result in accurate and reliable data for our customers.

Aid Folders

by BM1 Rudolph Patten, NATON School

Anybody who has been through a class at NATON knows that we talk a lot about the concept of due care. Due care is the level of care a reasonable person would use in similar circumstances. And for AtoN purposes, this means that if the Coast Guard has decided to establish an aid to navigation in a particular waterway, we have an obligation to maintain that aid to the best of our ability. Of course, that concept applies to numerous aspects of an aid. But regardless of which aspect applies to you (positioning, light tech, etc.), one of the most important things to ensure is that your level of care is properly documented. A properly formatted aid folder is your best and most efficient means of documenting your due care.

An aid folder is the hard copy information for each aid that you have responsibility for. It should contain the entire history of the aid. All of the information about the servicing and positioning of an aid should be in the folder. Any other information that would be helpful for someone who has never visited the aid to determine what to expect on a visit to that aid should be included. The aid folder is a legal record and should be treated as such. Keep in mind when you're filing forms in your aid folder, they may very well be reviewed by a court if that aid is involved in a maritime incident. The aid folder should be reviewed before every visit to ensure current forms are still accurate and to review past servicing information.

The unit with the primary responsibility for an aid should have the most complete and comprehensive aid folder. Units with secondary or discrepancy responsibility may or may not keep a folder depending on the needs of the units and requirements of the district. Your district will

also maintain their own version of an aid folder and will determine what they require copies of for their records.

Something to consider…if you have to search through hundreds of randomly placed documents to locate the information you need for a visit, your mission is going to be much more difficult. You want to keep your aid folders well organized and uniform. If you have to keep more than one folder for an aid, do it. If your folder looks like the Los Angeles phone book, put the most recent, relevant documents in a "current" folder and put the rest of the documents in one or more folders that you can keep in an archive at your unit. A little effort now will make life much easier later.

The format of an aid folder is very important. The formatting of the folders for each of your aids should be virtually identical. Formatting decisions for aid folders are left up to individual districts due to the differing needs of each district. The formatting requirements for your district's aid folders should be found in your district's SOP.

My intent is to have each district's aid folder format posted on the NATON Resources webpage soon. So check the site often. The following are *excerpts* from District 5 and District 7's SOP's to show different ways aid folders are formatted (**MAKE SURE YOU CHECK YOUR OWN DISTRICT'S SOP**).

District 5 SOP

Units shall maintain a six-part folder as the official record for each aid assigned.
To ensure consistency, all aid folders shall be organized as follows:

Part	Title	Documents Included
1	Structural documents	Photographs, Diagrams, and Schematics.
2	Aid Servicing Information	IATONIS FIDs, SANDS forms, Buoy Mooring selection sheets, and Other aid servicing documents.
3	Aid Positioning Records	Aid Positioning Records.
4	Miscellaneous Aid Information	Accuracy Classification, DRF I, SIF sheets, Old Grids, and Solarization Cards.
5	Correspondence	Operation Orders, CG 3213 & 3213a, and Letters.
6	Message Traffic	Discrepancies, Corrections, Broadcasts, Status Reports, and Seasonal Relief.

Battery Recovery: Copies of the site survey and recovery documentation for every AtoN site surveyed should be kept in the permanent aid record at the servicing unit and District office.

Discontinued Aid Files: The unit may destroy the file of a discontinued aid after 8 years. District will maintain their record at least 3 years after the aid is discontinued.

District 7 SOP

Active aid files or those for aids temporarily discontinued will be maintained by servicing units and CGD7 (dpw).

Units working aids primarily assigned to another unit will ensure the primary servicing unit and CGD7 (dpw) receive any newly generated documents for file, in accordance with the listed requirements below.

The primary servicing unit is responsible for maintaining at a minimum the following items in a 6 part/section aid service file folder to be organized as follows:

Section 1 MESSAGE TRAFFIC
Discrepancy messages, Correction messages, Broadcast notice to mariners, Discrepancy updates, Aid establishment/disestablishment/changes in characteristic, CASREPs/CASCORs, Post-grounding messages

Section 2 AID SERVICING INFORMATION
IATONIS forms, Aid worksheets/aid service reports, SolarCalc computations, Solar Power service report cards, Buoy mooring selection worksheets, PMS feedback reports, Future worklists, SIF

Section 3 AID POSITIONING INFORMATION
Grids, Accuracy classification worksheet, Aid Positioning Records (APR's), Sounding Charts, Chartlets, NAD 27/NAD 83 conversion information/datum, Conversion information

Section 4 AID INFORMATION
DRDG Part I, DRDG Part II, Lease agreements, Aid Photos, Chart Section, Obscure arc/Sector verification, Bird nest removal permit, Points of contact address/phone #s, Aid blueprints, Documentation on temporary aids, Documentation on dragging for downed structures

Section 5 CORRESPONDENCE
Incoming/outgoing letters, SSMRs and supporting photos, CG3213 and 3213A Aid to Navigation Operation Request, AWO, Incident Documentation Reports, including logs, equipment list, time, people, boats, vehicles, photos, Phone call summaries

Section 6 HISTORICAL INFORMATION
Sub cable test records, Corps of engineers dredge reports, Divers receipts, Environmental issues, Hazardous materials information, CEU Lighthouse inspection report, Lighthouse maintenance contracts, Advertisement from Local Notice to Mariners, Mariner comments, General correspondence.

BRAIN TEASERS!

by BM1 Jennifer Zercher, NATON School

Need something a little more challenging than Lighthouse Mania? I have just the thing, Brain Teasers! *Editor's Note: The number for EAP is provided, just in case these brain teasers drive you over the edge. (Emer: 24/7 1-800-222-0364)*

1. What do the words below have in common? **ADAM CLAIM GALL BUOY FOND RAMP** *Hint: Each can be followed by the same word to form a new word*	2. Which of the following words is the odd-one-out? **IBIS IBEX ORYX SIKA ZEBU** *Hint: All are living*
3. Take the letters **ERGRO.** Put three letters in front of it, and the same three letters behind to form a common English word.	4. What do the following words have in common? **BACK BREAK DISH RAIN UNDER** *Hint: Each can be followed by the same word to form a new word*
5. What do the following words have in common? **RED BASS BUTTON COTTON DOG** *Hint: Each can be followed by the same word to form a new word*	6. Can you spot anything at all remarkable about this list of words? **FLUFF IRAQI ROBIN SANTA TOTAL** *Hint: First and Last in sequence*

WOW! Who in the world would be cruel enough to make these up? I'm sorry you don't have the many hours you spent on these back; maybe your CO/OinC will take pity and give you special libo to rest your brain. So I'll be kind enough to give you the answers:

1. ANT 2. IBIS is a bird, the others are mammals 3. UND (underground) 4. WATER 5. WOOD 6. The first letter, in sequence, of each word spells FIRST and the last letter spells FINAL

National Aids to Navigation School

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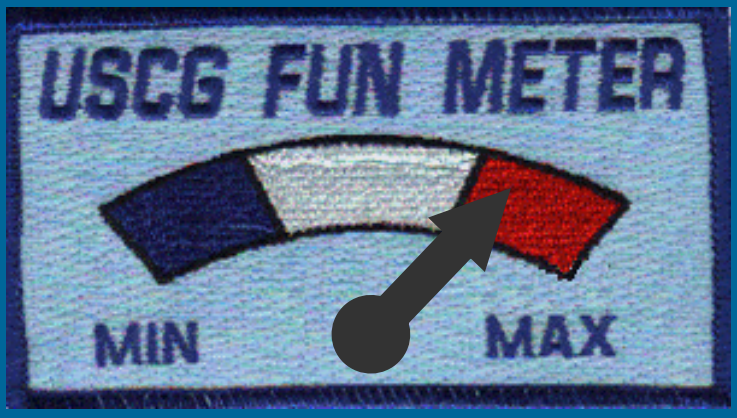

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