MARINERS' ADVISORY COMMITTEE
FOR THE BAY AND RIVER DELAWARE
MEETING
December 11th 2014 MINUTES

The Regular Quarterly Meeting of the Mariners' Advisory Committee for the Bay and River Delaware was held December 11th, 2014 at Ristorante LaVeranda Philadelphia. Captain Jon Kemmerley presided over the meeting. The meeting was called to order at 1100 hours and there were 45 members, associates and interested parties in attendance.

I. Welcome

Captain Jon Kemmerley welcomed members and guests.

II. Reading of the Minutes

Captain Steve Roberts moved that the reading of the September 2014 Minutes be approved. Captain Wayne Bailey seconded. All approved.

III. Report of the Treasurer

Standing in for MAC Treasurer Rick Iuliucci, Captain Kemmerley reported a balance of $16,703.04 and welcomed new members to the MAC.

IV. Army Corps of Engineers (ACOE)

Steve Farrell handed out and reported on the following information.

Philadelphia District Corps of Engineers
Project Status Update
Mariners Advisory Committee for the Delaware River and Bay
11 December 2014

Delaware River, Philadelphia to Sea & Main Channel Deepening

The annual maintenance dredging for the Delaware River, Philadelphia to the Sea was awarded to Norfolk Dredging Company on 15 August 2014 for a total cost of $9,501,000.00. New Castle Range was completed mid November. Marcus Hook is tentatively scheduled to start in late December and should be complete by the end of February.

The Reach A portion of the Delaware River Deepening, Tinicum Range, is nearly complete. The contractor is scheduled to drag a small area to remove the final shoal areas.

The Reach AA portion of the Delaware River Deepening, specifically Philadelphia Harbor Ranges of the Delaware River main channel located between the Walt Whitman and Ben Franklin Bridges including Beckett Street Terminal, has been awarded to Great Lakes Dredge and Dock Company for $25,376,872. Approximately 700,000cy of new work dredging is required to a depth of 45 feet MLLW plus 1-foot allowable over depth with placement into Ft. Mifflin Upland CDF. The contractor is approximately 60% complete in the Beckett street flare and is anticipated to be there until at least mid January. The navigation channel portion of the project will be dragged to remove final high spots in the next couple of weeks.

The Reach E portion of the of the Delaware River Deepening which includes approximately 1.8 million cubic yards of new work dredging to a depth of 45 feet MLLW plus 1-foot allowable over depth with placement onto Broadkill Beach Delaware has been awarded to Weeks Marine for an amount of $63,322,388. The contractor is scheduled to mobilize from January to March, with dredging operations commencing early March. The work will tentatively be starting on the lower end of the project.

The Dredge McFarland just completed 2 dredging tours on the Philadelphia to the Sea project. Lower Mifflin range and Horseshoe bend were dredged. The McFarland will now be in ready reserve status, ready to deploy if needed until the next scheduled tour. There are an additional 12 operational days remaining in FY15 for Philadelphia to the Sea for the McFarland. Specific dredging areas have yet to be determined.

Delaware River, Philadelphia to Trenton

The Hopper Dredge McFarland is scheduled to work the Philadelphia to Trenton project for 30 days between 1 June and 31 July. We are currently planning to maintain the 40' channel between Delair and Enterprise ranges.

US Coast Guard Basin

Maintenance dredging of 12-foot and 18-foot areas has been awarded to Cruz Construction for $2,956,469.00. Notice to Proceed was issued on 14August2014. 62,000 cubic yards of material is being dredged and placed at the Fort Mifflin disposal area. The contractor was scheduled to be completed this past Monday, December 8th.

The sunken scow should be recovered by the end of the month. COE safety submittals, CG review of recovery plan, and coordination with the FAA all need to be in place prior to any further recovery operations.

Wilmington Harbor

Cottrell Contracting Corporation was the low bidder. Cottrell was unable to bring a dredge to the project within the required timeframe, and subcontracted the project to Norfolk Dredge and Dock. There was a fatality on December 2 and the investigation is ongoing. Work will not commence until revised safety plans are approved by the COE. Once work starts again, it is anticipated that there are approximately 2 weeks of dredging remaining prior to moving to Marcus Hook Range.

Oakwood Beach (Elsinboro Township, New Jersey)

Oakwood beach nourishment bids were received on 04September2014. Great Lakes Dredge and Dock Company is continuing work on Oakwood Beach. Completion of dredging in Reedy Island range is anticipated for 20 - 25 December. Demobilization may continue into the new year. Ancillary work on the project will continue into next year.

Chesapeake and Delaware Canal

The bids for the Maintenance dredging for the C&D Canal were received on 10 September 2014. The contract was awarded to Norfolk Dredging Company. The maintenance dredging operation will include the canal proper up to Chesapeake City and the southern approach to the canal. There is a shoal in the reedy flare which will be removed by hydraulic dredging. It is anticipated that sand waves east of Chesapeake city will be removed with a bucket dredge. The dredging depths will vary between a depth of 35 to 38 feet MLLW plus 1-foot allowable over depth with an estimated quantity of 450,000cy of material. The Base Bid and option for this project is approximately $11.8 million.

Reedy Point Bridge Repairs are completed. Summit bridge still has support cables underneath. These should be removed by the end of next week.

NJ Intracoastal Waterway Cape May Ferry Channel:

The Dredge Fullerton moved to the NJIWW Cape May Canal Entrance in the vicinity of the Cape May Ferry this week. They will be there until 20 December. They will be removing a shoal between the inside ends of the jetties, just outside the terminal area. Work is being accomplished under a lease of plant maintenance dredging contract with Barnegat Bay Dredging Company. They will then be moving to an area of the NJIWW behind Avalon, NJ.

Captain Roberts and Steve Farrell discussed pipeline activity and the build up of the beach in front of the bulkhead in the area near Elsinboro/ Oakwood Beach. It was noted that this is a beach fill coastal protection project using Reedy Island as the "borrow area."

https://www.fbo.gov/index?s=opportunity&mode=form&id=dd20d33df1b79b07b31954308e323768&tab=core&_cview=0

http://www.nj.com/salem/index.ssf/2014/11/oakwood_beach_replenishment_in_elsinboro_finally_begins.html

Captain Waters and Steve Farrell discussed the flare at Reedy Point and noted that there is two weeks of actual dredging involved concentrating on shoaling on the southern half.

Captain Bailey inquired about C&D Canal dredging. It was reported that the plans are tentative but remain certain that the Reedy Island flare will be done hydraulically. Captain Kemmerley added that the pump-out station will be on the south section of Reedy Point jetty between the west side of the anchorage and the shoreline; well out of the way of ship traffic. Further discussion included the potential of one-way traffic during the work.

V. NOAA

Rachael Medley reported on the following distribution. She noted that Delaware Bay related chart 12304 was released in October. Additionally she reported on the NOAA Office of Coast Survey's November 28th 2014 Federal Register Notice which appears below:

Changes in Nautical Chart Catalog Format
The Office of Coast Survey is transitioning its nautical products to a wide range of digital formats and web mapping services to enable more frequent updating and allow easier uptake by users. With the end of lithographic printing of NOAA paper nautical charts in April 2014, we also stopped production of the five printed nautical chart catalogs which are created in the large paper format (35 inches by 55 inches). We have now transformed the chart catalogs into letter-sized documents that users can print at home. Downloads of the "print-at-home" chart catalog in PDF format are free from the Coast Survey Web site. An interactive chart catalog is also available on the Coast Survey Web site (nauticalcharts.noaa.gov) for users who prefer to point, click, and download their charts from online.

Coast Survey will consider making the front page of the large-format chart catalog. (We consider the reverse side, which lists chart agents, as obsolete and will not continue it.) Before making the decision, Coast Survey wants to know if demand remains for the large-format chart catalogs, and if users are willing to purchase these from commercial providers, such as NOAA-certified printing companies.

Coast Survey invites written comments about: (1) Maintaining the large-format paper catalog (with no reverse side) if they are available for purchase from commercial provider; (2) the new free "print-at-home" PDF chart catalog; and (3) the online interactive chart catalog on the homepage of the nauticalcharts.noaa.gov Web site.

12210	Chincoteague Inlet to Great Machipongo Inlet; Chincoteague Inlet	80,000	39	Jul-13
12211	Fenwick Inlet to Chincoteague Inlet; Ocean City Inlet	80,000	45	May-13
12214	Cape May to Fenwick Island	80,000	49	Nov-10
12216	Cape Henlopen to Indian River Inlet; Breakwater Harbor	40,000	29	Jun-12
12221	Chesapeake Bay Entrance	80,000	82	Feb-14
12222	Chesapeake Bay Cape Charles to Norfolk Harbor	40,000	54	Apr-13
12224	Chesapeake Bay Cape Charles to Wolf Trap	40,000	26	Aug-14
12225	Chesapeake Bay Wolf Trap to Smith Point	80,000	60	Nov-11
12226	Chesapeake Bay Wolf Trap to Pungoteague Creek	40,000	19	Aug-14
12228	Chesapeake Bay Pocomoke and Tangier Sounds	40,000	33	Oct-11
12230	Chesapeake Bay Smith Point to Cove Point	80,000	66	Apr-13
12231	Chesapeake Bay Tangier Sound Northern Part	40,000	30	Feb-14
12233	Potomac River Chesapeake Bay to Piney Point	40,000	38	Jan-14
12235	Chesapeake Bay Rappahannock River Entrance, Piankatank and Great Wicomico Rivers	40,000	34	Feb-14
12237	Rappahannock River Corrotoman River to Fredericksburg	40,000	28	Nov-13
12238	Chesapeake Bay Mobjack Bay and York River Entrance	40,000	41	Jul-14
12241	York River Yorktown and Vicinity	20,000	23	Mar-14
12243	York River Yorktown to West Point	40,000	14	Nov-09
12245	Hampton Roads	20,000	68	May-13
12248	James River Newport News to Jamestown Island; Back River and College Creek	40,000	44	Jan-14
12251	James River Jamestown Island to Jordan Point	40,000	24	Aug-13
12253	Norfolk Harbor and Elizabeth River	20,000	47	Apr-12
12254	Chesapeake Bay Cape Henry to Thimble Shoal Light	20,000	49	Aug-11
12255	Little Creek Naval Amphibious Base	5,000	18	Sep-14
12256	Chesapeake Bay Thimble Shoal Channel	20,000	18	Jan-14
12261	Chesapeake Bay Honga, Nanticoke, Wicomico Rivers and Fishing Bay	40,000	30	Dec-12
12263	Chesapeake Bay Cove Point to Sandy Point	80,000	56	Aug-12
12264	Chesapeake Bay Patuxent River and Vicinity	40,000	32	Jan-14
12266	Chesapeake Bay Choptank River and Herring Bay; Cambridge	40,000	31	Oct-13
12268	Choptank River Cambridge to Greensboro	40,000	11	Apr-08
12270	Chesapeake Bay Eastern Bay and South River; Selby Bay	40,000	36	Sep-13
12272	Chester River; Kent Island Narrows, Rock Hall Harbor and Swan Creek	40,000	32	May-13
12273	Chesapeake Bay Sandy Point to Susquehanna River	80,000	59	May-14
12274	Head of Chesapeake Bay	40,000	36	Sep-12
12277	Chesapeake and Delaware Canal	20,000	36	Oct-14
12278	Chesapeake Bay Approaches to Baltimore Harbor	40,000	79	May-14
12280	Chesapeake Bay	200,000	11	Feb-14
12281	Baltimore Harbor	15,000	55	May-14
12282	Chesapeake Bay Severn and Magothy Rivers	25,000	36	Jun-12

Charts shaded orange are tentatively scheduled to be released as a new edition within the next 3-4 months. Charts shaded blue were released as a new edition since the last meeting.

Chart	Title	Scale	Edition	Print Date
12283	Annapolis Harbor	10,000	29	Aug-14
12284	Patuxent River Solomons Island and Vicinity	10,000	17	Sep-14
12285	FOLIO SMALL-CRAFT CHART Potomac River-; District of Columbia	80,000	41	Mar-13
12286	Potomac River Piney Point to Lower Cedar Point	40,000	31	Oct-11
12287	Potomac River Dahlgren and Vicinity	20,000	19	Sep-14
12288	Potomac River Lower Cedar Point to Mattawoman Creek	40,000	21	Sep-13

12289	Potomac River Mattawoman Creek to Georgetown;Washington Harbor	40,000	50	Oct-10
12300	Approaches to New York, Nantucket Shoals to Five Fathom Bank	400,000	49	Jun-12
12304	Delaware Bay	80,000	47	Oct-14
12311	Delaware River Smyrna River to Wilmington	40,000	46	May-12
12312	Delaware River Wilmington to Philadelphia	40,000	56	May-12
12313	Philadelphia and Camden Waterfronts	15,000	53	Jan-12
12314	Delaware River Philadelphia to Trenton	20,000	33	Jun-12
12316	Intracoastal Waterway Little Egg Harbor to Cape May;Atlantic City	40,000	35	Oct-12
12317	Cape May Harbor	10,000	32	May-04
12318	Little Egg Inlet to Hereford Inlet; Absecon Inlet	80,000	45	Apr-10
12323	Sea Girt to Little Egg Inlet	80,000	26	Dec-12
12324	Intracoastal Waterway - Sandy Hook to Little Egg Harbor	40,000	35	Mar-12
12402	New York Lower Bay - Northern Part	15,000	12	Jun-12

Questions about NOAA's Products and Services in the Delaware Bay Region can be directed to Mr. Steve Soherr. Contact him at (301)713-2730 ext. 174 or via email at steve.soherr@noaa.gov

NOAA Navigation Services

The Office of Coast Survey has published a Federal Register Notice to request public comment on changes in the Nautical Chart Catalog Formats. The Office of Coast Survey is transitioning its nautical products to a wide range of digital formats and web mapping services to enable more frequent updating and allow easier uptake by users. With the end of lithographic printing of NOAA paper nautical charts in April 2014, we also stopped production of the five printed nautical chart catalogs which are created in the large paper format (35 inches by 55 inches).

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Written, faxed, or emailed comments are due by midnight, April 30, 2015.

Email comments to frank.powers@noaa.gov, or fax to 301-713-9312. Written comments may be mailed to Frank Powers, Office of Coast Survey, 1315 East-West Highway, #6254, Silver Spring MD 20906.

She added that if we have any survey requests to please contact her. They are the in the process of building a more robust database to prioritize where and when they are doing surveys which will be based on a whole host of factors such as economic impact and loss of property/or life. If you have areas that you'd like to see re-surveyed please contact her via email.

Darren Wright reported the following: We moved the Reedy Point air-gap sensor that was being blocked by some bridge work but that is now back and operational. Two stations damaged by Hurricane Sandy, the Brownshoal Current meter and Brandywine have not only been repaired but have also been upgraded.

Two new sensors coming include the Ben Franklin Bridge air gap whose permits and agreements are in place for a summer 2015 deployment, and the water level gauge on the Tacony Palmyra Bridge is being moved to Tioga Marine Terminal. This is in the design phase for a summer deployment as well.

There followed some discussion on the placement of the air gap sensor and noted that the equipment will come with the technology to have multiple points to work from if the physical sensor can't be placed directly above the center channel or at the east/center-east edge of the channel.

VI. Aids to Navigation USCG

Christopher Runt distributed this report and commented on the following:

Mariners Advisory Committee For the Bay & River Delaware Sector Delaware Bay Aids to Navigation Report 11 December 2014

Delaware River 45' Deeping Waterway Design Project: To date, D5 (dpw) has identified 150 buoys and ten ranges that require changes. Project will require two new ranges and affect 14 anchorages. Est. cost $22.6 mil (AC&I funded). D5 (dpw) will address waterway AtoN changes with primary users and pilots for their feedback.

Keystone Range: The range has been discontinued and we are in the process of developing a plan for the removal of the structures.

Fisher Point Range: No update available for the range realignment.

Devlin Lower Range Front Light: CGC SLEDGE is planning to rebuild the RF in December 2014. The RR optics will be converted from incandescent to LED in conjunction with the construction of the new RF. The dayboards will be removed and the light characteristics will change to Fl R 2.5(1) characteristic.

Baker Range: The structural condition of the range rear tower necessitates its reconstruction and relocation. The current Baker Range Front Light will be converted to the rear light and a new Baker Range Front Light will be constructed (see below). The project calls for LED optics and solarization, preserving the signal characteristics. The project, with a construction cost estimate of $3.7M has been submitted to and approved by Coast Guard Headquarters (not yet funded).

Pea Patch Island Dike Lt C: Rebuilt and relocated Pea Patch LT "C" while converting the optic to an LED and preserving its characteristics. Discontinued Pea Patch LT "D" with the completion of the work on the Bulkhead Bar Range

Salem River Range Rear Lt: D5 (dpw) has issued an OPORDER for discontinuing the Directional LT that was previously the RF. When the range was built the lateral aids were 100% buoys. Since then, the buoys have been replaced by JRIRS supported lateral aids. We have no plans for discontinuation of the light until there is a plan in place for either marking or removing the stone/concrete structure on which the structure is built.

Miah Maull Shoal Light: We have completed operational designs to convert the optic in this light to a solar powered LED lantern, to remove the 500mm lens and, at the request of the Pilots' Association, to retain the red sector. The RACON will be retained.
The solar power system has received New Jersey State Historic Preservation Officer concurrence. Coast Guard is preparing to execute an MOA between USCG and NJ SHPO outlining the means by which to divest of the 500mm lens.

Once the agreement is finalized and signed, the USCG can complete the optics upgrade. We anticipate that the final authorization and receipt of equipment will put the solarization of the light to middle to late spring 2015 at the earliest.

Elbow of Cross Ledge Light & Miah Maull Shoal Light: The submarine cable supplying electrical power from Fortescue to Elbow of Cross Ledge Light and then on to Miah Maull Shoal Light was severed. ANT Cape May temporally returned service to both lights by installing solar equipment. Solar power will not supply enough electrical power to the aids to power the sound signals nor the RACON on Miah Maull. ANT Cape May attempted to recover the cable by dragging for it and also through the assistance of divers from the Coast Guard's Dive Locker East with negative results. District Five and CEU Cleveland are attempting to speed the MOU with the NJ SHPO in order to permanently solarize both aids and install Mariner Radio Activated Sound Signal (MRASS).

Harbor of Refuge LT: We are planning for the installation of a MRASS unit which will eliminate the seasonal availability of the current sound signal and will make the signal available on demand to the user. MRASS is activated by the mariner keying the microphone on channel 83A five times within a ten second period. Each key of the mic should have approximately one second pause between key strokes. After activation the signal will sound for 30 minutes and then secure itself. MRASS has been installed on Cape May Canal West Entrance North Jetty Light 11 and Manasquan Inlet Light 3.

Port Mahon: The MAC had forwarded a request from Vane Brothers towing (under contract for fuel deliveries for Dover AFB) in reference to lighting the buoys in Port Mahon Approach Channel. We reviewed the channel and determined that due to water depths the only option would be 5x11 hulls, which are in critically short supply. Additionally the waterway review indicated fairly high rate of off station buoys. The charted depths indicate depths sufficient for fixed structures, and a proposal was recommended to Vane Brothers to establish three fixed lighted aids, discontinuance of Mahon River Light (located behind fuel pier), and discontinue several additional buoys. The recommendation was acceptable to the user and we have initiated the project design. The project will include changing three buoys to three new fixed lights (James River Ice Resistant Structures), discontinuance of Mahon River Light, discontinuance of four additional buoys, and repositioning/renumbering of the channel aids. Projected project start date is Spring 2015 and will potentially be accomplished in phases.

Example James River Ice Resistant Structures (JRIRS)

Dredging: Repositioned Tinicum Island Range Buoy 3T (LLNR 3310), Mifflin Range Lighted Buoy 1F (LLNR 3380), and Tinicum Island Range Lighted Buoy 5T (LLNR 3315) for dredging. Relocated the buoys back to their assigned positions following completion of the dredging on 27 Oct 2014.

Temporally discontinued Horseshoe Lower Lighted Buoy 33 (LLNR 3509) for dredging. The work was completed on 05 Dec; WILLIAM TATE will reestablish it once they return to the area.

Lighted Ice Radar buoys (LIRs): We hope to deploy six hulls this winter, all in the Upper Delaware River. Optics and batteries have been received by USCGC WILLIAM TATE, and the new buoy hulls are expected mid December. Three of the six will have some reduction in candela than the current buoys on scene due to power requirements of the LED optics, specifically for the Quick Flash. D5 dpw desires as much feedback as possible on how the buoys are performing, and what impact it has to shipping/night transits/etc over the course of the ice season. Please provide any and all comments to myself at the Sector or directly to D5 dpw.

Seasonal Aid Reliefs: ANT Philadelphia has completed their seasonal reliefs. ANT Cape May is approximately 85% complete with theirs and WILLIAM TATE began their reliefs in the Elk River during the first week of December and will move into the Delaware River/Bay when their work in the Upper Chesapeake is complete.

PROPOSAL TO ADD AIS SYNTHETIC AIDS TO NAVIGATION: We are proposing to add AIS Synthetic AtoN to the following aids in addition to the physical hull already on station:

Delaware Bay Approach Lighted Whistle Buoy CH (LLNR 1485)
New Castle Range Lighted Buoy 1N (LLNR 2720)
New Castle Range Lighted Gong Buoy 3N (LLNR 2740)
Chesapeake and Delaware Canal Junction Lighted Buoy CD (LLNR 2745)

Additionally, the following aids are being considered for AIS Synthetic AtoN in the region:

Chesapeake Channel Lighted Buoy 13 (LLNR 7105)
Chesapeake Channel Lighted Buoy 14 (LLNR 7110)
Chesapeake Bay Entrance Lighted Whistle Buoy CH (LLNR 405) Chesapeake Bay Southern Approach Lighted Whistle Buoy CB (LLNR 410) Chesapeake Channel Lighted Buoy 40 (LLNR 7240)
Chesapeake Channel Lighted Buoy 78A (LLNR 7682)
Upper Chesapeake Channel Lighted Buoy 45 (LLNR 8870)
Upper Chesapeake Channel Lighted Buoy 46 (LLNR 8875)
Upper Chesapeake Channel Lighted Buoy 47 (LLNR 8895)
Upper Chesapeake Channel Lighted Buoy 48 (LLNR 8900)
Elk River Channel Lighted Buoy 1ER (LLNR 8925)

There followed some discussion on solar panels and sensors.

Captain Kemmerley reported on a situation with District 5 on the proposed disestablishing 4 buoys on the Schuylkill River. Through a joint effort with the Maritime Exchange, AWO and Vane Brothers we were successful in retaining those buoys for the time being.

VII. Sector Delaware Bay

The COTP Kathy Moore began her report by referencing Jon's comments above and recognizing the importance of the MAC. She went on to report the following: (1) The Safety Zone following the capsized barge incident and salvage operations on the Christiana River, (2) the end of Hurricane Season and (3) the recent Ice Conference. In additional there will be Safety Zones for Marcus Hook Anchorage beginning in mid-January for dredging and for the upcoming New Year's fireworks.

She added that due to the heavy congestion in Marcus Hook Anchorage, Anchorage 10, off the Navy Yard, is in the works to be re-designated to be used commercially. This anchorage remains fairly shallow and would not be intended for deep draft vessels but she'd like to get it surveyed. She is waiting to hear back from AWO from their members to get their feedback as well. She does not anticipate any impediments in moving forward if the AWO members have no issues and if the survey returns favorable information.

Captain Moore asked the MAC to advise mariners, masters and operators that there have been propulsion or steering issues that were not immediately reported to the USCG. And there were times where the vessel continued to transit for, sometimes hours, after such an occurrence. While issues involving casualties allow for a 5-day written report deadline for submission, such issues require immediate notification.

VIII. Old Business

Wind Energy Update:

Captain Bill Broadley reported on his article in Professional Mariner. The article is printed here in it's entirety with permission from the author.

Broadley: Wind energy spatial planning will have impact on mariners

Nov 13, 2014 02:53 PM

BY CAPT. WILLIAM BROADLEY

The U.S. is gradually incorporating renewable energy sources for its future energy needs. We all have seen more and more solar panels on rooftops and wind turbines in fields as the availability and cost of these energy alternatives have become more and more economically viable. One of these renewable energy sources that has received a lot of attention in the past few years has been commercial development of wind energy using large wind turbines placed offshore along the East Coast. There has been successful development of wind energy turbines in some remote land areas and off the coast of Europe, which has proven to be an excellent alternative to conventional fossil fuel electrical generation.

Various coastal areas along the East Coast are in the process of becoming locations for several large-scale commercial wind turbine projects. It is an area with a lot of wind, it doesn't use large land areas — which are becoming less and less available — and it is close to very large population areas. Just how this development will affect navigation is of great concern to the professional mariner.

For commercial wind energy to be a viable alternative, it must be on a large scale. Small projects with only a few turbines are very expensive to build due to the cost of cable runs, manufacturing and use of specialized construction vessels. Wind energy developers want to develop large areas with many turbines to cut down on the per-

unit cost. The problem is that many of the areas that are suitable for this development are also areas that the professional mariner needs for access to and from our principal ports. This is complicated by the fact that building wind turbines in deeper water (over 100 feet in depth) is much more expensive than placing them in shallower waters.

The wind energy proponents make a strong case with many facts and figures as to how much energy is available and how many thousands of jobs will be created if they develop their goal of 53 gigawatts of power along the East Coast. Meanwhile, the tug/barge and ship operators make another strong case that they need complete and free access to all the coastwise areas, since diverting vessels to accommodate large-scale wind turbine projects will increase cost with added fuel and time. In between these conflicts is the U.S. Coast Guard, who is faced with the daunting task of developing a plan that everyone can work with and, most importantly, is safe. This project is part of an ongoing process called ACPARS (Atlantic Coast Port Access Route Study).

One of the most contentious areas is off the Maryland coast. As originally proposed, the location was right in the way of the approach to the Delaware Sea Lane. This is the main approach to the Delaware Bay and River, one of the major ports in the country, and the home of several major large oil refineries that supply petroleum products for the entire Northeast area. This WEA (Wind Energy Area) is relatively small as compared with other proposed areas with only 79,706 acres, but still capable of producing 875 megawatts or 2,943 GWh (gigawatt hours) annually. This area is significant, as it is among the first to be leased and many of the principles that will be used here will be used in other WEAs. The developer of this area will

present a definite proposal as to the number and position of turbines in the near future. This proposal will be published in the Federal Register with a time available for written comments.

The proposal may look similar to what is described in the attached chartlet. You will note that 175 turbines are spaced at slightly over a half-nautical-mile separation — which is eight times the turbine's diameter — along east/ west and north/south lines. This is to take the best advantage of the prevailing northwesterly and southwesterly winds, minimizing the wake effect caused by each turbine diminishing the output of the next downwind turbine. This is as presented by NREL (National Renewable Energy Laboratory) in its assessment published in a June 2013 technical report.

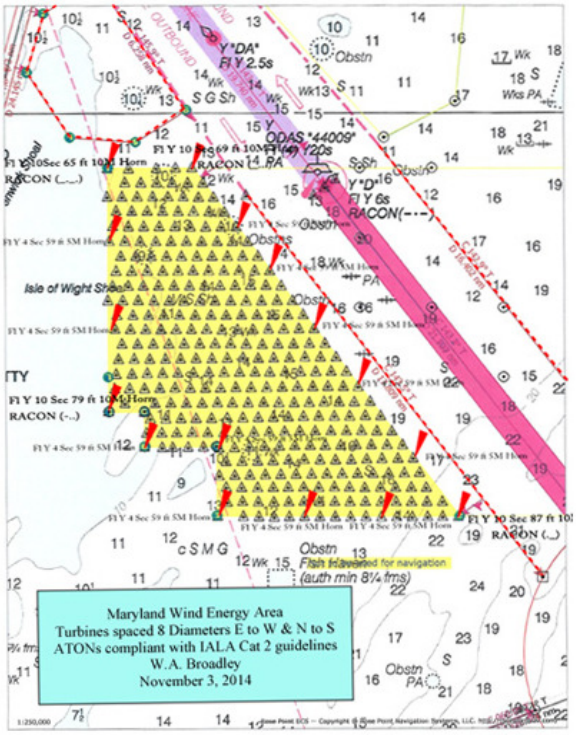
Many questions remain that must be addressed, especially as to how this proposal will affect professional mariners. How will our radars be affected by many turbines close to a major sea lane? Will we be able to see traffic on the other side of this WEA, both visually and by radar? Will our ARPAs (Automatic Radar Plotting Aids) be able to distinguish and plot moving targets within this WEA area? Is a routing measure, such as a TSS (Traffic Separation Scheme) extension, which was proposed and is depicted on the attached chartlet, necessary? How much separation is necessary from this routing measure to the WEA?

The area within this WEA will most likely be restricted in some form as yet to be determined. There are many reasons for this; one of interest is that, in certain freezing conditions, if any of these over 400-foot-diameter turbines picks up ice that drops off after a turbine is reenergized, it would be catastrophic for any vessel that happens to be too close.

Fortunately, we have some modern technology to help us out with some of these challenges. RACONS (Radar Beacons) may be used to help mark this area. Note that this chartlet depicts this WEA with RACONS on the four corners; however, this will have to be discussed and evaluated. AIS (Automatic Identification System) has been used to a great extent for years for vessel identification, but a new system is available where AIS can be used to describe a WEA and it will plot on an ECDIS (Electronic Chart Display and Information System).

In the BOEM (Bureau of Ocean Energy Management) leasing process of WEAs, the Maryland WEA involves an area close to a main ship fairway. Many of the problems that will have to be addressed here will apply to other areas that have similar problems. One of these areas is off the New Jersey coast, where a proposed large WEA is close to the existing Barnegat Sea Lane, which is the main Southern approach to New York Harbor. This area is also very close to several commonly used coastwise routes.

One of the professional tools that has not been discussed in terms of helping with spatial planning for WEAs and how it will affect the professional mariner is simulation. There are many marine simulators with various types of capabilities that have been used for training purposes, but none have been used for planning purposes. Appropriate routing measures, ATONs, AIS, RACONs and buffer areas



Another matter that will need to be decided is how this area should be lighted with ATONs (Aids to Navigation). The enclosed chartlet shows a lighting arrangement that is an interpretation of IALA (International Association of Marine Aids to Navigation and Lighthouse Authorities) guidelines. This will be decided by the U.S. Coast Guard ATONs personnel. This is also contentious as the bird conservation organizations and people who live along the shoreline will want the least number and visibility of navigational lights as possible,

The area within this WEA will most likely be restricted in some form as yet to be determined. There are many reasons for this; one of interest is that, in certain freezing conditions, if any of these over 400-foot-diameter turbines picks up ice that drops off after a turbine is reenergized, it would be catastrophic for any vessel that happens to be too close.

Fortunately, we have some modern technology to help us out with some of these challenges. RACONS (Radar Beacons) may be used to help mark this area. Note that this chartlet depicts this WEA with RACONS on the four corners; however, this will have to be discussed and evaluated. AIS (Automatic Identification System) has been used to a great extent for years for vessel identification, but a new system is available where AIS can be used to describe a WEA and it will plot on an ECDIS (Electronic Chart Display and Information System).

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Capt. William Broadley, a retired federal pilot and tanker master, is a marine consultant and expert witness. He is a participant in the Atlantic Coast Port Access Route Study and is a member of the Mariners' Advisory Committee for the Bay and River Delaware.

Add your comment:

In connection with Bill's report, Captain Kemmerley reported that he has been attending Mid-Atlantic Regional Ocean Planning group listening sessions and that there is too little discussion on the commercial end. He added that BOEM is intent on moving forward and creating these areas and selling these leases. It was also discussed that the next meeting is being held in January in New York City to review their first draft of their Marine Spacial Plan.

Conrail Update

Captain Kemmerely reported that he is going to tour the bridge operation in January with a few other pilots.

IX. New Business

John Hart reported on two items:

Congress passed the Coast Guard Authorization Act exempting small boats from federal environmental regulations for water discharge for another three years.

5th District published in the Local Notice to Mariners asking for feedback for 39 aids to navigation from New Jersey to North Carolina. Most are sea-coast buoys, parking hazards or marking shoals. Tug and barge operators may be more impacted by these rather than deep draft vessels. The District is attempting to lower their operating costs by 15% that are being directly related to the replacing buoy lights and upgrading AtoNs. They are seeking comments before the January 13th deadline.

Appeal

Captain Steve Roberts addressed the recent tragedy and fatality on the Christiana River and is asking the Seamen's Center at the Port of Wilmington to act as the fiduciary for a fund for his family. Captain Roberts also asked that the MAC members to help out as well.

Right Whale

Captain Kemmerley reminded the group that there is a seasonal Right Whale protection area off the coast in the sea-lanes where there will be a 10 knot speed restriction and enforcement in place.

Captain Moore added that there is a request for comments regarding the process that a ship has to go through in terms of reporting as it relates to Right Whales.

X. Adjournment

Captain Kemmerley announced the next meeting of the MAC is scheduled for March 12, 2015 at 1100 hours at the LaVeranda Restaurant at Penn's Landing.

With no further agenda items or discussion, Captain John Gazzola moved that the meeting be adjourned. Captain Wayne Bailey seconded. The meeting was adjourned at 1246 hours.