



The Pilot



Monthly Newsletter of the

Lake Hartwell Boating Club

From the Bridge - Billy Owens

I have to be honest with you all. This is about my least favorite time of the year. It's way too cold outside, it's still getting dark pretty early, and football is over. But we do have a few things we can do to keep us busy until the spring thaw.

On February 15 we have an ABC class coming up at Cabela's. Now I know everyone out there has a friend who needs this class, you know the one, you flinch every time they dock their boat and you are even known to hang around just to watch what happens at the boat ramp. Help them out, tell them to come out for a day of boating knowledge.



Also, February is one of our months for Co-Op charting. I know it's cold, but grab a blanket, a thermos of hot chocolate, and spend some time on the Lake. You can see the details in this issue.

Our Happy Hours are starting back. So if it is just too cold outside, come sip a tasty beverage and complain about the cold weather with the rest of us.

Calendar of Events

LHS&PS Calendar of Events

February

1 Murder Mystery Party
11 Executive Committee Meeting
15 ABC Class at Cabela's

March

10 Executive Committee Meeting

April

14 Executive Committee Meeting
18 Antique Wooden Boat Show & Shake Down Cruise



Bill Taylor	02/12
Don Hohman	02/15
Don Woodard	02/21

Our Bridge

Commander: Billy Owens, AP
president@lake-hartwell.org

Executive Officer: Pete Stevenson, AP
vice-president@lake-hartwell.org

Administrative Officer: Nioka Rose, S
admin@lake-hartwell.org

Education Officer: Bert Baxter, AP
education@lake-hartwell.org

Secretary: Charles Guderian, S
secretary@lake-hartwell.org

Treasurer: Craig McQueen, AP
treasurer@lake-hartwell.org

Assistant SEO: Ray Fedele, SN

Members At Large:

Chris Rose, SN

Don Woodard, N

Nathan Reynolds, AP

Nominating Committee

Charles Guderian, S 1 Yr

Chris Rose, SN 2 Yrs

Lynn Solesbee, AP 3 Yrs

Happy Hour - February 20th at 6 pm



We're going to try something new in February by heading to Easley. The next LHS&PS Happy Hour will be at The Pint Station at 6:00 pm on Thursday February 20th. The Pint Station is located at 116 East Main Street in Easley. I've never been so I look forward to a new experience. Their website lists a great selection of craft beers and it sounds like they will likely have a food truck present or you can bring your own food.

Their website is <https://thepintstation.com/>.

Please email (lynn@bluewatercivil.com) or call me (864-735-5453) if you have any questions. I look forward to seeing you on the 20th for a great time together!

P/C Lynn A. Solesbee, AP

Cooperative Charting--February Survey

February is here, and this month is one of our two assigned months for surveying the navigational aids on Lake Hartwell. Your Club is seeking volunteers to help in carrying out this important survey responsibility.

The lake is divided up into eight zones. The table below provides descriptions of the zones and survey commitments as of this date. As you can see, we need lots of help.

If you have a boat suitable for cold weather, consider volunteering for a zone. Likewise, if you would like to assist a skipper as an observer or guest, to help or learn the ropes for future surveys on your own, why not volunteer for an Observer/Guest spot? Simply contact Jef Lockman, 232-8784, jeflockman@gmail.com indicating the zone you are interested in and the role, whether Skipper or Observer/Guest. Even if there is currently a name in the spot you are interested in, contact Jef. We can shift around to fill all the holes.

Zone	Description	Skipper	Observer/Guest
1A	The Lower Savannah zone is the Hartwell Dam area, including Lightwood Log Creek, Flat Shoals Creek, Gum Branch, Duncan Branch, Powder Bag Creek, Elrod Ferry area; it is a 41 Nm distance and takes all day; departing Big Water Marina.	Don Woodard	Janice Woodard/Guest?
1B	The Upper Savannah zone begins downstream of the confluence of the Tugaloo and Seneca Rivers. One of the upstream area boundaries is marked by Buoys S1 and S2 (Seneca 1 and Seneca 2). Buoy T10 (Tugaloo 10) marks the boundary with zone 4A. The southern end of the zone is marked by 14 and 15.		
2A	The Upper Seneca zone extends from the Highway 24 bridge upstream on 26 Mile Creek and including 24 Mile Creek	Pete Stevenson	Charles Guderian/Guest?
2B	The Middle Seneca zone extends from the Highway 24 bridge downstream to the junction of the Tugaloo and the Seneca and including the Western Carolina Sailing Club area and Portman Marina.	Pete Stevenson	Charles Guderian/Guest?
3A	The Lower Seneca zone stretches from the Highway 24 bridge upriver to Buoy S82 and includes Coneross Creek and several other creeks with navigation aids.		
3B	The Upper Seneca zone begins at Buoys S83 and S84 and surveys the upper portions of the river, including Clemson sights, up to S100. With high water it is possible to go all the way to the Keowee dam. When the lake is low navigation is tricky as there are shallows and sand bars when you venture past the last channel marker.		
4A	The Lower Tugaloo zone extends from the Highway 85 bridge downstream to Buoy T10 and includes several creeks and other features, such as Harbor Light Marina South and Payne Creek.		
4B	The Upper Tugaloo zone extends from the Highway 85 bridge up river past T100 and up to the Highway 123 bridge. There are several side creeks with navigation aids that get surveyed in addition to the main channel. Past T100 there are stretches that do not have channel mark buoys but do include shoal markers and other navigation information.; 3 hours from launch, or 5 hours from home in Powdersville.	Charles Guderian	Pete Stevenson/Guest?

Minutes of the Squadron Planning Meeting January 26, 2020



18 attendees as follows:

Billy & Julie Owens, Pete & Rosemary Stevenson, Charles & Pam Guderian, Chris & Nioka Rose, Katherine Fedele, Bert & Amy Baxter, Craig & Kim McQueen, Henry Schmitt, Tommy & Lisa Hardin, Jim & JoanMarie Holding and Stone Moss

February	Co op charting Lake Hartwell
February 15	ABC at Cabela's
April 13	Shakedown cruise Portman Marina, Antique Boat Show Hartwell Marina
May 1-3	District 26 Cruise & Rendezvous in Little , SC
May 16	Blessing of the fleet and ABC course, Big Water Marina
May 25	Memorial Day, meet up at Big Water Marina with Henry Schmitt's big Sea Ray acting as the "anchor boat" for a raft out and enjoying the band.
June 5-7	Cruise Cooper River to Charleston while observing navigation aids along route
June 12-13	Poker Run
July 4 th	Cruise in for a gathering at the dock of Billy & Julie Owens
August 1	Wine & Cheese at Craig & Kim McQueen home
August 2-31	Coop Charting of 8 zones on Lake Hartwell
September 7	Labor Day beach party
October 2-4	District 26 COW Dreher Shoals Lake Murray
October 9-11	Tennessee River Fall Color Cruise and Squadron Annual Meeting
November 1	Change of Watch
December 12	Christmas Party
October 8-10 2021	District 26 Change of Watch combined with Fall for Greenville and to include a Murder Mystery activity. Jointly hosted by Lake Hartwell and Golden Corner squadrons.

January Fun in the Sun

The unbelievably boring story of our trip to Puerto Morelos with photos.

Who knew that in Puerto Morelos (Cancun area), the province of Quintana Roo on the Yucatan peninsula in the country of Mexico they celebrate the full 12 days of Christmas and children receive their gifts on January 5.

Apparently there are thousands of, as yet, uncovered archeological Mayan sites in the Yucatan jungles, enough to employ explorers for a long time. So far I have not learned what happened? Why did Mayan society collapse? Theories abound about war, the Conquistadores, famine or an ecological disaster but none are (as yet) authoritative. The fact remains that a Mayan people survive today and thoroughly populate the Yucatan. Especially in the giant resort complex referred to as Cancun but which reaches quite far south, west and even east (Cozumel) of Cancun proper. Remarkably the primary language of these people is Mayan and most are trilingual: Mayan, Spanish and English. A casual study of the population around the resorts reveals that there are tens of thousands of service people that run the resorts. Waiters, maids, clerks, guides, maintenance people, cab drivers, beach attendants and on and on. The resort management cast is hundreds and the tourists count in the thousands but to me the major population were the service people and they could hold simultaneous conversations in all three languages. Fantastic.

What were we doing in Puerto Morelos? A long time ago we bought a time share and in Early December we decided to visit it. It was a good idea; our quarters were clean, comfortable and inviting. We had easy access to restaurants, pools, the beach, the marina, tours and one day we actually walked 20,000 steps. The tours were inexpensive so we went snorkeling, sailed on a catamaran sailing vessel, visited Tulum and swam in a cenote. A cenote is a hole in the ground giving access to an enormous aquifer of crystal clear fresh water that flows everywhere. Of course 1000 years ago the cenotes were the Mayans source of fresh water.

Enough of this let's look at pictures.



One of the pools



Photos of the Stevensons January Trip to Puerto Morales.



The Beach



Crocodile Pond Resident



Big Iguana



Touristas

Learn about DAN Boater Safety and Travel Benefits

America's Boating Club has partnered with DAN Boater to offer safety and travel benefits to our members. Your new benefits include an emergency hotline, a nonemergency medical information line, worldwide medical evacuation, medical repatriation, search and rescue expenses, and much more.

Visit www.danboater.org/abc to get complete details on this valuable benefit program and print your DAN Boater benefits card.



Have your certificate number and PIN handy when logging in.

You can find details about all DAN Boater benefits, including coverage amounts, in the DAN Boater Benefits Handbook. If you have questions not answered in the handbook, call the DAN Boater Member Support Team at 919-490-2011.

Keep in mind that DAN Boater cannot answer questions related to your America's Boating

2020 Schedule of Vessel Safety Checks

The planning schedule for vessel safety checks is as follows. Please be aware that Big Water date, the Jocassee dates and the Poker Run date are tentative and will be confirmed when we hear from the Ranger and the people at Meals on Wheels in Anderson.

Shakedown cruise	April 18 Portman Marina
Big Water Marina	May 2
Lake Jocassee	May 30
Poker Run	June 12 - 13
Lake Jocassee	June 27

Pete Stevenson

Part 2: Understanding Marine Corrosion—Electrolytic Corrosion

Electrolytic or stray current corrosion is related to galvanic corrosion, discussed last month. It functions similarly, but with the addition of an external electrical source to the corrosion equation, which significantly accelerates the reaction. It occurs when metal with an electrical current flowing into it is immersed in water that is grounded (all water in the marine environment). This type of corrosion occurs when a short develops between:

- a) An external DC or AC current source (such as the 12-volt DC system on your boat or a nearby one).
- b) Something on the boat that is connected to boat's underwater metals.

The current flow to ground through the water does not necessarily start with the zinc sacrificial anodes. Any metal that is at a lower potential than the incoming current is susceptible to stray current corrosion. This could be the prop shaft, the propeller or a through-hull fitting. The current flow is likely to attack one specific piece of metal at a time. As the current leaves the piece of metal on its way to ground, it is carrying bits of the metal with it. This stray current is several orders of magnitude higher than the current produced by a galvanic cell. The corrosive effect is rapid and able to destroy a lower unit in mere days.

External Current Sources

If your boat is near another vessel leaking DC current, your boat could provide a path of lower resistance than simply moving straight through the water to ground. If so, the DC current could enter a through-hull fitting, travel through the bonding system (including the battery ground), and corrode the drive's grounded or bonded aluminum structure as it passes into the water to ground. Galvanic isolators will stop only DC current in the AC service cable's green (ground) wires. Next month, we will cover testing the slip environment, which is the only way to detect and prevent stray current corrosion damage in wet slips.

Internal Current Sources

Internal sources of corrosive current are normally shorts in your boat's wiring system. Most often this is a poorly insulated wire or connection in the bilge, or an electrical accessory that may be improperly wired. Wiring faults cause accelerated corrosion on the host boat, especially with metal hulls. You will notice corrosion at the current leakage points. These may be at fuse clips, service cord connector bodies and loose or poor electrical connections.

Wiring faults with current leakage are damaging to other boats plugged into the same shore power line if they provide better ground. The stray current would be transmitted to other boats through the common ground wire, unless blocked by a galvanic isolator.

New boats normally do not experience stray current corrosion problems, unless they are victimized by nearby boats or ground wiring faults on the dock. Most problems show up in older boats with jury rigged wiring and systems that owners add using incorrect wiring practices.

Practical Implications

Coastal cruises. If you plan to take your boat that is normally dry stored at an inland lake on a coastal cruise, be sure to install a galvanic isolator. Why? You may be docked at a guest slip in a coastal marina, connected to shore power to keep your air conditioner running. During the night, a metal hulled transient vessel docks near you and also connects to shore power. Your two boat's electrical systems are connected by a common ground. If he has a ground fault in his electrical system, your boat faces serious risk from stray DC current in the other boat's electrical system. Your anodes could be rapidly consumed, and at the same time your underwater metal components could be damaged. Rapid damage to props, prop shafts and lower units could result. Also, stray current to the bonding system in the other boat could find entry through your wetted parts and cause damage.

Aluminum outboard boats. Never ground any circuit to the metal hull, unlike the automotive practice, which grounds everything conveniently to the frame and then to the negative battery pole. You do not want any stray current flowing through your hull to ground. You will observe pinholes at the least, holes in your transom, or maybe corrosion around rivets. Ground all circuits back to a common ground bus connected to the negative pole of the battery. This pole is also connected to your outboards which are protected by sacrificial anodes. Note that on a metal boat, the outboard ground is unavoidably connected to the hull through the mounting bracket and bolts—you cannot avoid this. However, you do not want the current path to go first through the hull and then hopefully to the outboard ground. You want the current path to go back to the battery negative pole and then through insulated cables to the outboard.

Bilge pump wiring. Bilge pumps and float switches are common sources of stray currents that cause corrosion. Most of these are straight wired to the battery for unattended operation. Their conductors are necessarily ex-posed to moisture and bilge water. They are replaced every few years, which brings risk if the new pump is not spliced into the circuit correctly. Also, no wire insulation is 100% effective. Some current leakage is una-voidable. Use wire restraints to keep as much of the conductor from lying in residual bilge water. Any splice should be done with shrink wrap crimp connectors using a marine crimping tool.

Sources:

<https://www.boatus.com/seaworthy/magazine/2015/july/marine-corrosion-101.asp>

<http://www.boatus.com/boattech/articles/marine-corrosion.asp>

<https://www.goldeagle.com/tips-tools/understanding-corrosion-around-boat/>

<https://www.jetdock.com/knowledge-center/prevent-aluminium-boat-corrosion.asp>

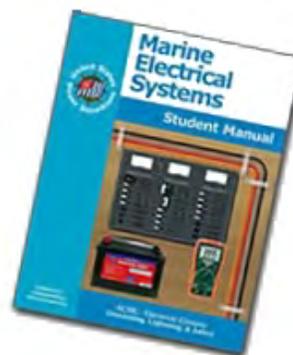
[*Marine Electrical Systems, AC/DC-Electrical Circuits, Grounding, Lighting, & Safety; United States Power Squadrons; 2008.*](#)

Learning More

Does marine corrosion seem complicated to you? Are you not sure where to start in applying best practices to your boat? United States Power Squadrons has a solution for you. Marine Electrical Systems is an elective course dedicated to onboard electrical power—both AC and DC. You will learn about electrical circuits, wiring, terminating, and routing wiring for safety and trouble-free operation. You will learn how to use multimeters and tools to check, diagnose and repair electrical problems. You also will learn about galvanic corrosion, stray currents, isolation, grounding, and safety of electrical systems.

The course material is organized in seven chapters and is intended to be presented in the classroom over nine two-hour sessions:

- Day 1 - Introduction, Chapter 1: Properties of Electricity
- Day 2 - Chapter 2: Boat Electrical Wiring Practices
- Day 3 - Chapter 3: Direct Current Power
- Day 4 - Chapter 4: Alternating
- Day 5 - Chapter 5: Galvanic and Stray Current Corrosion
- Day 6 - Chapter 6: Lightning Protection
- Day 7 - Chapter 7: Troubleshooting Part 1; on-the-boat optional
- Day 8 - Chapter 7: Troubleshooting Part 2
- Day 9 - Review and Examination



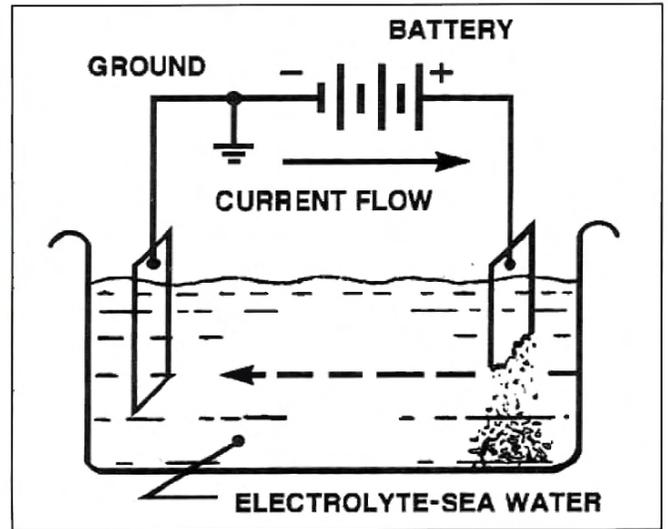
This course is the best way to learn about electrical factors that can save you from sustaining considerable damage, especially if you berth your boat at a marina, or if you make any repairs or modifications to your OEM electrical system.

If you are interested in taking this class, indicate your interest using the contact page.

Next month: testing for corrosion potential.



Stray current corrosion can damage underwater parts in a very short time. Wet slipped boats require regular testing of their surroundings for current flow entering their bonding systems.



Stray current corrosion is similar to galvanic corrosion, except that a current source is added to the circuit. Source: USPS.



This mast footplate was not insulated from the mast or not bonded to the grounding system and was destroyed by stray current corrosion. Source: BoatUS.



Stray current from a nearby boat overwhelmed the sacrificial anodes and destroyed this outdrive in a very short space of time. Source: BoatUS.

Ship's Store



Port Authority Rapid Dry Polo.

Port Authority Rapid Dry Polo. Soft and breathable, this baby pique polo has our exclusive Rapid Dry moisture-wicking technology. This unique knit has a soft inner layer which wicks moisture away from your skin to the shirt's surface where it quickly disperses and evaporates. 5.6-ounce, 60/40 cotton/poly Double-needle stitching throughout 3-button placket Pearlized buttons Open hem sleeves Side vents

Price \$26.00

Colors: White; Classic Navy; Dark Green; Royal; Jet Black; Red; Charcoal; Seafoam; Stone; Riviera Blue; Boysenberry Pink;

Moroccan Blue; Dusty Purple

Sizes: XS; S; M; L; XL; 2XL; 3XL; 4XL; 5XL; 6XL



Port Authority Outdoor Wide-Brim Hat.

Port Authority Outdoor Wide-Brim Hat. Trail-ready, this high-performance essential features No Fly Zone insect repellent technology, UPF 30+ sun protection, a concealable sun flap and a moisture wicking sweatband. The foam brim keeps it afloat in water. Fabric: 75/25 poly/nylon rip stop Structure:

Unstructured Features: Adjustable cord at crown, clip-on and adjustable drawcord

Price \$20.00

Colors: Coffee Cream; Olive Leaf; Stone

Sizes: S/M; L/XL



Sport-Tek 1/4-Zip Sweatshirt.

Sport-Tek 1/4-Zip Sweatshirt. These durable, colorfast quarter-zips feature a better fit with minimal shrinkage, as well as 2x2 rib knit cuffs and waistband. 9-ounce, 65/35 ring spun combed cotton/poly fleece Twill-taped neck 2x2 rib knit cuffs and hem with spandex *Please note: This product is transitioning from woven labels to tag-free labels. Your order may contain a combination of both labels

Price \$31.00

Colors: Athletic Heather; Black; Forest Green; Graphite Heather; Maroon; True Navy; True Red; True Royal; Vintage Heather; White

Sizes: XS; S; M; L; XL; 2XL; 3XL; 4X

Ship's Store



Eddie Bauer - Long Sleeve Fishing Shirt.

Eddie Bauer - Long Sleeve Fishing Shirt. Designed with the needs of fishermen in mind--but equally comfortable anywhere--this shirt has all the bells and whistles: a built-in rod holder, two large fly box pockets, utility loop and more. 3.5-ounce, 100% cotton poplin 100% polyester mesh upper back lining Built-in rod holder Two large fly box pockets with hook and loop closures Zippered chest pocket Utility loop and tool holder Cape back with mesh ...

Price \$47.00



Eddie Bauer - Short Sleeve Fishing Shirt.

Eddie Bauer - Short Sleeve Fishing Shirt. Designed with the needs of fishermen in mind--but equally comfortable anywhere--this shirt has all the bells and whistles: a built-in rod holder, two large fly box pockets, utility loop and more. 3.5-ounce, 100% cotton poplin 100% polyester mesh upper back lining Built-in rod holder Two large fly box pockets with hook and loop closures Zippered chest pocket Utility loop and tool holder Cape back with mesh...

Price \$41.00

Colors: Blue Gill; Driftwood; Goldenrod Yellow; Seagrass Green; White
Sizes: XS; S; M; L; XL; 2XL; 3XL; 4XL



Sport-Tek Ladies Sport-Wick Textured Colorblock 1/4-Zip Pullover

Sport-Tek Ladies Sport-Wick Textured Colorblock 1/4-Zip Pullover. Contrast sleeve stripes and texture give this moisture-wicking pullover an unrivaled look. 100% polyester Gently contoured silhouette Cadet collar Tag-free label Taped neck Front and back princess seams Contrast Vislon zipper Angled chin guard for additional comfort Set-in sleeves Thumbholes to keep hands warm Open cuffs and hem Slight drop tail hem

Colors: Black/ Iron Grey; Iron Grey/ Black; Pink Raspberry/ Iron Grey; True Royal/ Black; White/ Iron Grey

Sizes: XS; S; M; L; XL; 3XL; 4XL; XXL

Price \$33.00

Ship's Store



12" by 18" Burgee
Price 26.00



4" Burgee Decal
1.00



Lake Hartwell Boating Club

Executive Committee Meeting Minutes January 14, 2019

MD 360 Powdersville, SC

1. Call to Order

1..A quorum was established with six members present as follows: Cdr Billy Owens, XO Pete Stevenson, Member at Large Chris and AO Nioka Rose, SEO Bert Baxter and Treasurer Craig McQueen. The meeting was called to order at 18:35 and Billy Owens led the group in the pledge and invocation. The December minutes were accepted as published in The Pilot.

2. Department Reports

1..Commander Owens inquired whether any member of the bridge intended to attend the upcoming national meeting.No positive response was received.

2..Treasurer McQueen reported no significant change in squadron finances. No written report submitted.

3..Admin Officer Nioka Rose reported that Golden Corners wants to hold an initial planning meeting for the Fall 2022 conference. XO Stevenson is appointed as the lead person for Lake Hartwell. XO Stevenson will supply Nioka with dates he is available.

4. AO Rose reported that the squadron plans a "planning meeting" for January 26 at the Owens home.

5. AO Rose reported the Mystery dinner head count is 21. As it is desirable to have more people Cdr Owens will recruit his neighbors and associates. XO Stevenson will also inquire of interest among several non boating friends.

6. The shakedown cruise will once again coincide with the Hartwell Antique Boat show, April 18, 2020.

7. The D26 Spring Cruise and Rendezvous will be hosted by North Strand on May 1-3, 2020. Details available on the D26 website.

8. January Happy Hour is planned for Jan 23 at Max's Speed Shop in Greenville.

Executive Committee Meeting Minutes

9. SEO Baxter reported that ABC class at Cabela's is set for Feb 15, 2020. Available instructors include Ray Fedele, Bert, Chris Rose, Pete Stevenson.
- 10..SEO Baxter and Cdr Owens will seek agreement with Big Water Marina for a Spring ABC class.
- 11..XO Stevenson will coordinate with Rick Cunningham on VSC plans. Stickers have been received. Forms are needed.
12. XO Stevenson will coordinate with Jef Lockman to confirm February Co op charting.
13. Exhibit space for the Greenville boat show is sold out and we will not have complimentary exhibit space. Information cards advertising squadron opportunities are being prepared. XO Stevenson will attend the show on Jan 24 to distribute the cards to the various exhibitors. Cdr Owens will repeat the distribution on Sat, Jan 25.

3. Pilot article assignments are as follows:

Billy= From the Bridge

Nioka= Murder Mystery Event

Pete= Report on January 26th meeting

Don= Safety Article

Charles= Co op Charting

4. Old Business No report

5. New Business- No report

6. The next ExCom meeting is at MD 360 Powdersville Tuesday February 11th @ 6:30PM.

7. Adjourned 7:11 PM

Note: The official URL for our squadron is: Upstate Boating Club. Org and our Facebook page is Lake Hartwell Boating Club while our "official title" is Lake Hartwell Sail and Power Squadron.

Submitted by: Pete Stevenson



For Boaters, By BoatersSM



The Pilot

Official monthly publication of the Lake Hartwell Boating Club

Editor: Nioka Rose

Proofreaders: Pete & Rosemary Stevenson

Distribution: Don Woodard

Items are due on the 20th of the month preceding publication. Articles should be emailed to:

editor@lake-hartwell.org.

The editor reserves the right to edit submissions in a style that best serves the needs of LHS&PS, District 26, and United States Power Squadrons©

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