The Outlying Areas
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MAREX Bilge Sock and Clean Marina Programs Help Boaters Protect Coastal Waters

The University of Georgia Marine Extension Service (MAREX) has developed and is promoting two coastal programs designed to help boaters and marina operators protect coastal waters from pollution. The Clean Marina and Bilge Sock Programs are complimentary efforts reaching commercial and recreational boaters and their supporting docks.

MAREX implemented the Georgia Clean Marina Program as part of the National Clean Marina Program (CMP) to reduce the amount of nonpoint source pollution in coastal Georgia counties through voluntary marine business compliance with Best Management Practices (BMPs). MAREX specialists provide the training needed for marina operators to implement the best available practices designed to reduce marina pollutants. The Georgia Department of Natural Resources Environmental Protection Division (EPD) inspects participating marinas to assure they meet the program's voluntary standards. "Clean Marinas" may fly the program flag and use Clean Marina promotional materials (Figure 1). One coastal marina has become a "Clean Marina," three more have applied for the program and several have sought information needed to join the program. Marina insurers have agreed to reduce insurance rates up to 10% for program members.

Figure 1. Coastal Georgia's first 'Clean Marina"

Just "Stick a Sock In It." MAREX promoted a voluntary bilge sock education and bilge sock use program to prevent diesel, oil, gasoline and other hydrocarbons from escaping to the environment when "bilge water" is pumped from a vessel's bilge. The bilge is the compartment at the bottom of the hull of a ship or boat where water that leaks into the boat collects so that it may be pumped out of the vessel as needed. Bilge socks (Figure 2) are soft pillows of absorbent material that collect and safely bind the hydrocarbons floating on the bilge water onto the sock material. When the sock becomes hard and rubbery, it has collected all the hydrocarbons that it can absorb. The sock can then be disposed of safely in a landfill.

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Figure 2. A bilge sock.

MAREX developed bilge sock training and educational materials, including Power Point presentations, brochures, and instructional materials for the bilge sock kits. Additional information is available from the MAREX bilge sock website, http://www.uga.edu/marine_advisory/BilgeSock.html. Marine specialists conducted 45 coastal bilge sock training and use workshops and distributed bilge sock educational kits containing more than 4,000 bilge socks to the owners and operators of shrimp boats, pilot boats, other commercial vessels, research vessels, and recreational vessels based in Georgia's coastal waters.

The unfortunate sinking of a shrimp boat at a local dock afforded MAREX the opportunity to make unconventional use of bilge socks to help impressed with the oil spill prevention efforts, and didn't call in an outside contractor for additional assistance. MAREX again provided environmental protection to a sinking vessel in April 2006 when a shrimp boat sunk at pine harbor, GA. MAREX safely contained diesel and oil spilled from the wreck with 25 bilge socks in a USCG approved response. Following up on the environmental danger posed by aging shrimp boats, MAREX prepared six emergency oil spill containment kits and delivered them to coastal Georgia fish houses in February 2007 (Figure 3).

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Figure 3. Emergency oil spill containment kit.

An early March 2007 morning saw the sinking of another shrimp boat close to the MAREX facility in Brunswick, GA. At 4:00 am the boat's owner received an emergency call that his boat was sinking. Neighbors and friends immediately deployed oil/fuel absorbing materials from the emergency response barrel MAREX had placed at their dock. By 7:00 am, MAREX staff members were deploying the contents of another barrel stored next door at our station. The following day, when the tide was finally low enough, the crew was able to pump out enough water to raise the vessel to the surface.

MAREX agents concentrated our remaining training and distribution efforts on recreational boats and public marinas as another attempt to redirect bilge sock resources away from the changing commercial market and expend their use in the growing recreational market. MAREX conducted surveys before and after bilge sock recipients had a chance to use them on their vessels. Figure 4 shows some of the results from the pre-survey. Bilge sock recipients had little knowledge of the socks and less than 20% of the respondents used bilge socks or had used bilge socks in the past before entering the program. In a follow-up survey (Figure 5), 100% of the respondents said they now use bilge socks.

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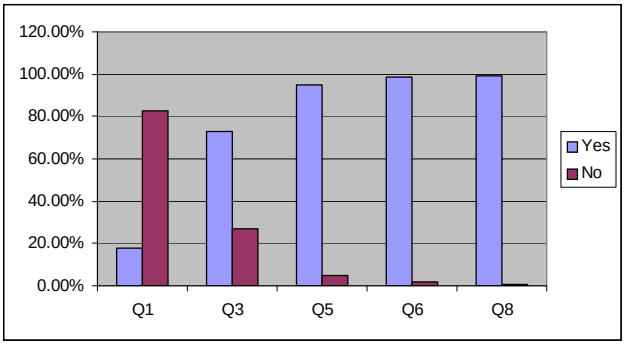

Figure 4. Bilge Sock – Initial Survey Results for Questions, Q1, Q3, Q5, Q6, and Q8.

Q1 – Do you presently use a bilge sock? (194 responses)
Q3 – If NO to Q1, do you use anything else to clean out your bilge? (160 responses)
Q5 – If NO to Q1, would dockside or simple trash disposal of a used bilge sock encourage you to use one on a regular basis? (158 responses)
Q6 – Do you think using bilge sock will help reduce pollution? (180 responses)
Q8 – Do you perform regular maintenance to your engine to help reduce oil leaks from getting in the bilge? (169 responses)

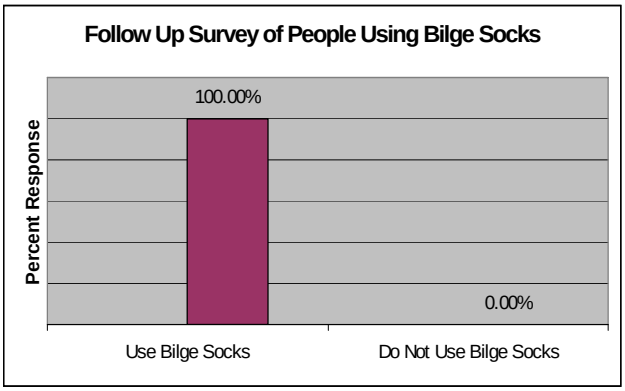

Figure 5. Follow-up survey of bilge sock recipients showing current use of bilge socks.

MAREX Bilge Sock and Clean Marina Programs have effectively improved environmental awareness and practices among Georgia's recreational and commercial vessel operators and their support services. Bilge socks, in addition to preventing the chronic discharge of hydrocarbons from vessel bilges, contained large diesel spills from sunken shrimp boats.

For additional information about either the Clean Marina or Bilge Sock Programs, please contact:

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