



MARINE SAFETY ALERT

Inspections and Compliance Directorate

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Safety Alert 05-02

AMPHIBIOUS VEHICLE OPERATIONS

Just a few days ago, in the Ottawa River near Gatineau, Canada an amphibious tour vessel sank. Two adults and two children drowned as a result. The facts and circumstances surrounding the event are currently under investigation by the Transportation Safety Board of Canada and other Canadian agencies.

The United States Coast Guard had no involvement with the inspection or operation of the vehicle. Nonetheless, the accident serves as a reminder to amphibious vehicle owners and operators of the importance of vehicle operational and post-repair inspections.

Several recent casualties can be directly attributed to inadequate inspection activities.

- May 1999 - The MISS MAJESTIC, a DUKW sank in Lake Hamilton, Arkansas and resulted in the loss of thirteen lives. One causal factor of the sinking was the failure of a mechanic to inspect the tightness of hose clamps securing the joints on the main drive shaft seals after performing maintenance.
- September 2000 - The MINNOW, an Alvis Stalwart amphibious vehicle sank in Milwaukee Harbor after passengers were disembarked. A failed bearing on the end of a propulsion impeller shaft contributed to the sinking.
- December 2001 - A "Ride the Ducks of Seattle," DUKW sank in Lake Union when taken under tow after disembarking passengers. The vessel flooded because a mechanic had failed to replace a 4 ½" drain plug which went undiscovered during a pre-operational inspection.

The consequences of poorly performed operational inspection procedures, inadequate maintenance and repair can be serious. All persons involved with these passenger-carrying vehicles must recognize the potential for significant casualties resulting directly from their actions or inactions. There is no room for complacency.

The Coast Guard strongly recommends that owners and operators provide suitable time and resources during daily operations to perform vessel safety inspections. Such inspections should include evaluations of hull integrity, flooding prevention, assessments of emergency equipment and reviews of procedures that may be required during emergencies. Operational and inspection processes should be supported by checklists and documented.

As a result of the MISS MAJESTIC sinking, the Coast Guard published Navigation and Vessel Inspection Circular (NVIC) No. 1-01. This NVIC contains additional technical information and guidance related to amphibious passenger vessel inspection and operation. We encourage

persons involved with amphibious vehicle operations to read this circular. The circular is available at http://www.uscg.mil/hq/g-m/nvic/1_01/n1-01.pdf.

Persons who wish to review the Coast Guard's Marine Board report detailing the circumstances of the MISS MAJESTIC casualty may obtain a copy at <http://www.uscg.mil/hq/g-m/moa/chronocas.htm>. Upon request, electronic versions of the GMC DUKW-353 technical manuals are available for owners and operators.

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