



UNITED STATES COAST GUARD
U.S. Department of Homeland Security

MARINE SAFETY ALERT
Inspections and Compliance Directorate

May 12, 2014
Washington, DC

Alert 05-14

**OVERHEATING OF PARASAIL VESSEL HYDRAULIC OIL SYSTEM
LEAVES PARASAILORS ALOFT FOR THREE HOURS**

The information in this safety alert is derived from a recent parasail casualty investigation. Two passengers were successfully launched from a parasail vessel for a ride aloft. As they were being winched in the winds picked up. The parasail towline winch became inoperable and 800 feet of towline payed out stranding the passengers aloft. Additionally, the vessel was unable to make way through the water while battling rough seas and the strong winds.

The cause of the winch malfunction was due to overheating of the hydraulic power system. This occurred because of an inadequate oil cooling system (through hull fittings / scoop type system) that relied solely on the vessel's movement through the water. When the vessel's movement was overcome and stalled by the wind acting against the parasail and the waves, there was no water circulation and thus no resultant cooling of the hydraulic oil. Since there was no fail safe braking system, the towline payed out when the hydraulic motor could no longer develop power. Three hours passed before the winds subsided enough to allow forward movement of the vessel, cooling off of the oil, and restoring the system to operation.

This event was fortunate in that the parasail towline did not break and there were no fatalities or injuries. Nevertheless, to prevent similar occurrences, the Coast Guard **strongly recommends** that insurers, owners and operators of parasail vessels:

- Ensure their vessel's parasail winch hydraulic oil cooling systems are not dependent on forward movement of the vessel. If necessary, have the system modified by a parasail vessel professional.
- Owners of parasail vessels which do have pressurized hydraulic oil cooling systems should ensure that their systems are properly fitted with inlet strainers on the sea water supply and that the rest of the system, pumps, motors, controls, oil filters, etc. are properly maintained at the proper frequency.
- Review the attached previously sent "Know Your Ropes" safety alert and remember:

You set the stage for passenger safety!

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MARINE SAFETY ALERT

Assistant Commandant for Prevention Policy

July 22, 2013
Washington, DC

Alert 07-13

Parasailing Operations
Know Your ROPES

A series of parasail incidents resulting in fatalities and injuries have occurred over the last few years. Since 2006, there have been 11 deaths and 52 injuries as a result of parasailing activities. There have been several common factors in all of these incidents that are unique to parasailing. The following mnemonic '**Know Your ROPES**' was designed to remind parasail operators of important safety issues that may help prevent future casualties:

Remember that most parasail fatalities and injuries are related to the failure of the towline. Failures have occurred at tensions significantly below the rated towline strengths due to a variety of reasons that may include cyclic loading, long term exposure to environmental elements, the presence of knots creating a weak point, and overloading.

Observe and monitor weather conditions continuously. Increases in wind speed impacts the relative speed against the chute, where limits of the towline and/or chute can quickly be exceeded. As wind speed doubles, the load on the towline may quadruple. Be vigilant in monitoring weather conditions noting the formation of squalls, thunderstorms, or whenever weather fronts are expected to pass through your operational area. Cease operations well before such weather conditions impact your parasailing operation. ASTM Standard F2993-13 published on April 1, 2013 is a 'Standard Guide for Monitoring Weather Conditions for Safe Parasail Operation'. It is available for purchase and download on line at <http://www.astm.org/>.

Prepare for emergencies by having well documented procedures and conducting crew training to ensure proficiency in responding to emergencies such as towline breaks, winch failures, propulsion failures, and any other concerns that impact crew/passenger safety.

Ensure that all of your equipment is properly maintained on a continual basis. This includes the winch and drive motor, hydraulic brakes, hoses and piping, spooling systems, and other tackle. Also check your chutes, harnesses, and related components for stitching failures, degradation, and the need for general repairs. Immediately correct identified problems.

Safety is up to you the Operator. Coast Guard Credentialed Operators are expected to provide an adequate level of safety during vessel operations, to include the monitoring of weather conditions and maintenance of equipment.

The Coast Guard encourages owners and operators to work with each other and related industry associations to share best practices and develop operational standards to maximize safety and prevent marine casualties. *Enforcement action may be taken against the operator* for misconduct or negligent operation.

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Parasailing Operations



Know Your **ROPES**

Remember

Your towline! Most accidents are related to the failure of the tow line. Remember to continuously assess your line.

Observe and Monitor

Weather! Increased winds and other weather conditions can significantly impact your operations. Cease operations well in advance! See ASTM 'Weather' Standard F2993-13.

Prepare

Be ready for any emergency. Have well documented procedures and conduct crew training frequently.

Ensure

Ensure your equipment is properly maintained. Immediately correct any problems.

Safety

Safety is up to you...the Operator! Do everything you can to ensure the safety of your passengers.