



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

MARINE SAFETY ALERT

Inspections and Compliance Directorate

August 16, 2016
Washington, DC

Safety Alert 10-16

Iron Mike will steer straight but you control your fate! **Avoid Auto-Pilot Induced Casualties**

This safety alert addresses the safe navigation of vessels while operating with an auto-pilot engaged. In the recent past there have been numerous instances in the Gulf of Mexico where a crew boat or supply vessel and other commercial craft allided with oil rigs or structures or collided with other vessels, causing significant injuries, property damage, platform fires, and oil or gas well shut-ins. These casualties often result in serious injuries and have the potential for multiple fatalities and serious environmental damage. In the “Oil Patch” it is standard practice to engage auto-pilot systems while transiting to and from job sites both in open and in restricted waters (e.g., platform fields), often regardless of visibility. Auto-pilot induced casualties are not limited to commercial oil field vessels and casualties have occurred on other vessel types that are equipped with auto-pilot systems.



Auto-pilot systems can reduce the monotony of steering by freeing up the helmsman to step away from the helm in order to perform other minor pilot house tasks and gain different navigational viewpoints. There are also disadvantages that have the potential to lead to negligent navigational practices. Over-reliance on these systems can allow an operator to get too engrossed in performing other work on the bridge and, in some extreme cases, can lead to watchstanders leaving the bridge for extended periods of time. This inattentiveness to the vessel’s navigation has led to marine casualties.

It should come as no surprise that when an inattentive operator meets with extreme circumstances, he or she usually has no time to take corrective actions. Also, in some past incidents, when there

was time to take corrective action, the operator's lack of system knowledge hindered the need to rapidly change over from auto-pilot to manual steering mode.

Specific regulations govern the use of auto-pilots, and these regulations can be found throughout 46 Code of Federal Regulations, with specific applicability within the respective subchapters. (46 CFR 35.20-45, 46 CFR 97.16, 46 CFR 122.360, 46 CFR 131.960, and 46 CFR 185.360) The general regulation found in 46 Code of Federal Regulations reads as follows:

Use of Auto-Pilot – When the automatic pilot is used in areas of high traffic density, conditions of restricted visibility, or any other hazardous navigational situations, the master shall ensure that:

- It is possible to immediately establish manual control of the vessel's steering;
- A competent person is ready at all times to take over steering control; and
- The changeover from automatic to manual control of the vessel's steering and the reverse is made by, or under the supervision of, the master or officer of the watch.

The U.S. Coast Guard **strongly recommends** that owners and operators ensure that all credentialed mariners:

- Are fully aware of "Use of Auto-Pilot" regulations found in the vessel's respective subchapter in 46 Code of Federal Regulations.
- Conduct periodic training to ensure that crews are properly versed in the operations and limitations of the auto-pilot system.
- Develop and prominently post written procedures on how to switch from auto-pilot to manual control in the vicinity of the auto-pilot system.
- Review company policies and evaluate setting operational limitations on the use of auto-pilot with regard to areas of high traffic density, conditions of restricted visibility, or any other hazardous navigational situations.

NOTE: NOTHING exempts a vessel operator from the requirements of the International and Inland Navigation Rules of the Road. Conduct of vessels in any condition of visibility: Rule 5 – Look-Out: Every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.

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