

FISHING VESSEL SAFETY AND DESIGN

What Can Be Done to Improve Stability and Safety?



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Commercial Fishing Industry Vessel Safety Act of 1988

46 C.F.R. Part 28 - Fall 1991

- 46 C.F.R. Part 28 subpart B - applies to ALL commercial fishing vessels
- Focus: emergency response
 - Lifesaving (46 C.F.R. § 28.105)
 - Life preservers and flotation devices (46 C.F.R. § 28.110)
 - Survival craft (46 C.F.R. § 28.120)
 - Distress signals (46 C.F.R. § 28.145)
 - EPIRBS (46 C.F.R. § 28.150)
 - Firefighting equipment (46 C.F.R. § 28.160)



Commercial Fishing Industry Vessel Safety Act of 1988

46 C.F.R. Subparts C, D, E, F and G

- comprehensive minimum design, engineering, equipment and operation standards
- Subpart E - minimum stability requirements
- apply only to certain types or classes of vessels, primarily larger and “newer” vessels:
 - vessels that were built or have undergone a “major conversion” on or after September 15, 1991;
 - vessels with large crews (more than 16 individuals on board); or
 - vessels that are classified as fish processing vessels or fish tender vessels with
- DO NOT APPLY TO: commercial “uninspected” fishing vessels
 - smaller vessels
 - built or major conversion before September 15, 1991



Commercial Fishing Industry Vessel Safety Act of 1988

46 C.F.R. Subpart E - Stability

- Applies only to:
 - Fishing vessels 79 feet or more in length;
 - Keel laid or major conversion started on or after September 15, 1991; or
 - “Substantially altered” on or after September 15, 1991.



1992 - Coast Guard Adopts “dock side examination procedures”

“Uninspected” vessels only examined for compliance with 46 C.F.R. Subpart B

Figure 2: Examples of Items a U.S. Coast Guard Examiner Reviews during a Dockside Exam



Sources: GAO analysis of Coast Guard information; photos: GAO, stock.adobe.com/wil tilroe-otte; Coast Guard; Coast Guard photo by PO1 Charly Tauffest. | GAO-23-105289

Common conditions and failures in serious fishing casualties are: lack of stability;

Background. Mandatory safety standards are minimal, and primarily address survival equipment. They do not address prevention of fishing vessel accidents.



The Coast Guard has developed watertight integrity and stability regulations for vessels more than 79 feet in length that had their keels laid after 15 September 1991, and may implement such standards for smaller vessels built since 1991. But this covers few of the fishing vessels working today. No mandatory stability or watertight integrity standards apply to older uninspected fishing vessels.

March 1000

It is particularly important that standards be developed for all classes of commercial fishing vessels to foster stability and watertight integrity.



DYING TO FISH

LIVING TO FISH

| Timing | Action Party | Recommendation |
|------------|--------------|--|
| Short Term | USCG | <p>4.1 Stability Regulation Project. Complete project to require stability letters for all commercial fishing vessels greater than, or equal to, 50 feet in length. Also establish watertight integrity and subdivision requirements for commercial fishing vessels less than 50 feet in length. Evaluate impact and feasibility of eliminating “grandfather” provisions.</p> <p>[Impact 17th / Ease 8th]</p> |

Captain James D. Spitzer, U. S. Coast Guard
Task Force Chairman





United States Coast Guard
Office of Investigations and Analysis

The casualty data for calendar years 1992 through 2007 included 666 reports involving loss of life. Those incidents resulted in 934 deaths, or an average of 58 fatalities per year.

Analysis of Fishing Vessel Casualties
A Review of Lost Fishing Vessels and
Fatalities, 1992 - 2007

| Historic F/V Casualty Figures | | | |
|-------------------------------|--------------|------------|---|
| Year | Vessels Lost | Fatalities | Data Source |
| 1970 | 215 | | Study: <i>U.S. Commercial Fishing Vessel Losses</i> . Marine Safety Evaluation Branch, Office of Merchant Marine Safety, U.S. Coast Guard Headquarters, October 1983 |
| 1971 | 181 | | |
| | 46 | | |
| | 71 | | |
| | 88 | | |
| | 69 | | |
| 1976 | 178 | | |
| 1977 | 151 | | |
| 1978 | 89 | | |
| 1979 | 209 | | |
| 1980 | 197 | | |
| 1981 | 250 | | |
| 1982 | 270 | 87 | CASMAIN database, (VCAS table) |
| 1983 | 293 | 149 | |
| 1984 | 280 | 91 | |
| 1985 | 279 | 109 | |
| 1986 | 187 | 98 | |
| 1987 | 207 | 112 | |
| 1988 | 224 | 106 | |
| 1989 | 255 | 120 | |
| 1990 | 192 | 84 | |
| 1991 | 217 | 89 | |
| 1992 | 139 | 85 | Marine Safety Information System (MSIS) |
| 1993 | 148 | 92 | |
| 1994 | 153 | 75 | |
| 1995 | 117 | 62 | |
| 1996 | 166 | 82 | |
| 1997 | 138 | 61 | |
| 1998 | 125 | 71 | |
| 1999 | 123 | 77 | |
| 2000 | 85 | 37 | |
| 2001 | 133 | 58 | |
| 2002 | 122 | 37 | Marine Information for Safety & Law Enforcement (MISLE) |
| 2003 | 107 | 43 | |
| 2004 | 112 | 37 | |
| 2005 | 99 | 42 | |
| 2006 | 75 | 42 | |
| 2007 | 61 | 33 | |

Prepared by David H. Dickey
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Coast Guard Authorization Act of 2010

- Mandatory dockside examinations (review of documents and safety equipment) and training for vessel operators
- Directed Coast Guard to adopt an Alternative Safety Compliance Program (“ASCP”) that would apply to vessels: (1) at least 50 feet in length; (2) built before July 1, 2012 (later amended to July 1, 2013); and (3) are 25 years and older
- Develop ASCP by January 1, 2017
- Implement ASCP by January 1, 2020



June 21, 2016 - Notice of Proposed Rulemaking

81 Fed. Reg. 40,438

- Suspended by Executive Orders in 2017

4.5.13. On July 20, 2016 the Coast Guard issued Marine Safety Information Bulletin 11-16. The bulletin discussed the Coast Guard's decision to suspend the effort to create an ASCP. Rather the Coast Guard would develop an Enhanced Oversight Program to address safety concerns on existing fishing vessels.





**Voluntary Safety Initiatives
and
Good Marine Practices
for
Commercial Fishing Industry Vessels**

JANUARY 2017

XI. Stability Standards

- A. On a vessel that has a stability document (to include loading conditions and stability instructions), the owner/operator should ensure that it is reviewed by a naval architect, marine engineer, or other qualified individual at least every 5 years, or after the vessel has been modified or altered in any way that changed its stability or handling characteristics. The stability document should be updated if determined to be necessary by the naval architect, marine engineer, or other qualified individual

A written copy of the document must be available onboard the vessel.

- B. On a vessel that does not have any stability documentation, the owner/operator should be able to show at least one of the following:

The vessel's operation and history of service does not cause the stability of the vessel to be questioned by the Coast Guard or a third party who performs a condition survey of the vessel, or if this history of service is not available, then:

1. The vessel performs satisfactorily on an operational test that demonstrates it has acceptable stability and handling characteristics; or,
2. The vessel has a satisfactory stability assessment considering its form, arrangement, construction, number of decks, route, and any operating restrictions of the vessel.

- C. The operator of the vessel should be provided basic training on stability, and on the current loading conditions and stability instructions for the vessel.



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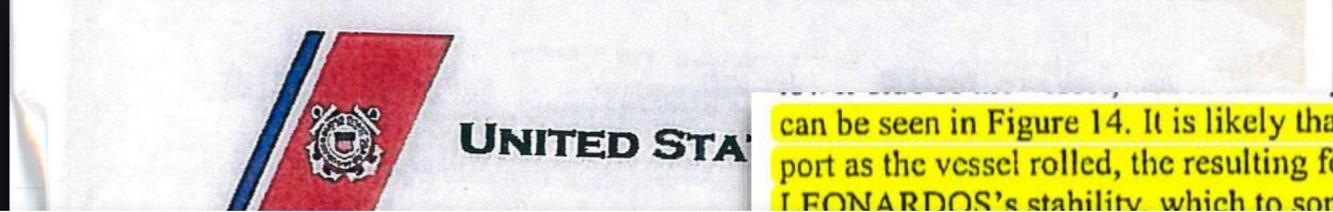


ENDORSEMENT/ACTION ON RECOMMENDATIONS

Administrative Recommendation 1. Recommend the Coast Guard continues to develop the Enhanced Oversight Program (EOP) for vessels that operate beyond the 3 nautical mile line if the vessel is: (1) at least 50 feet overall in length; (2) was built before July 1, 2012; and (3) is 25 years of age or older (in 2020); or was built before July 1, 2012, and undergoes a substantial change to the dimension or, or type of vessel, completed after July 1, 2012, to include stability, drainage calculations and drill documentation requirements.

Endorsement: Concur with recommendation and recommend Commandant continue to pursue regulatory effort.





can be seen in Figure 14. It is likely that as the seawater on deck shifted from starboard to port as the vessel rolled, the resulting force of the free surface effect was too great on the LEONARDOS's stability, which to some extent contributed to the vessel capsizing.

ENDORSEMENT/ACTION ON RECOMMENDATIONS

Safety Recommendation 1: Implement new regulations under 46 CFR Part 28 that establish minimum stability requirements for commercial fishing vessels operating beyond the boundary line regardless of size. This recommendation follows similar recommendations identified in MISLE by the following numbers:

2563 - Minimum Stability Requirements - The Coast Guard should consider amending the regulations for uninspected fishing vessels outlined in 46 CFR Part 28, Subpart E, to require compliance with minimum stability requirements for commercial fishing vessels operating beyond the Boundary Line, regardless of size.

6288 - Requirement for Stability Standards for Commercial Fishing Industry Vessels Less than 79 feet in Length - Recommend applying stability standards of 46 CFR 28.500 to commercial fishing vessels less than 79 feet in length or, that alternative stability standards be developed for commercial fishing vessels less than 79 feet in length.

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Coast Guard analysis shows that commercial fishing vessels that were 25 years of age or older account for almost 80 percent of commercial fishing vessel losses, which are the leading cause of commercial fishing-related fatalities.

However, our view is that the Coast Guard has the authority to develop and implement an alternate safety compliance program that is not tied to classification requirements, but rather establishes new safety requirements for older vessels.

The Commandant of the Coast Guard should ensure that the Assistant Commandant for Prevention Policy develops and implements an alternate safety compliance program, as required by law. (Recommendation 2)

U.S. Department of Homeland Security
Washington, DC 20528



October 12, 2022

Ms. Heather MacLeod
Director, Homeland Security and Justice
U.S. Government Accountability Office
441 G Street, NW
Washington, DC 20548

Re: Management Response to Draft Report GAO-23-105289, "COAST GUARD:
Additional Actions Needed to Improve Commercial Fishing Vessel Safety
Efforts"

Response: Non-Concur. As acknowledged in GAO's draft report, the Coast Guard's Assistant Commandant for Prevention Policy communicated to Congress in July 2021 that the Coast Guard would not take further action because, after reviewing existing authorities, the Coast Guard concluded that there is an insufficient foundation for the Coast Guard to pursue a regulatory compliance regime on the specified vessels.¹



Thank You!

