

*Science, Service, Stewardship*



National Standard 10  
Advanced Notice of Proposed  
Rulemaking

New England Fishery Management  
Council

Portland, ME

June 21, 2011

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## Presentation Outline

- Information on Fishing Safety
- National Standard 10 and the Current Guidelines
- Issues Under Consideration
- Opportunities to Provide Comment

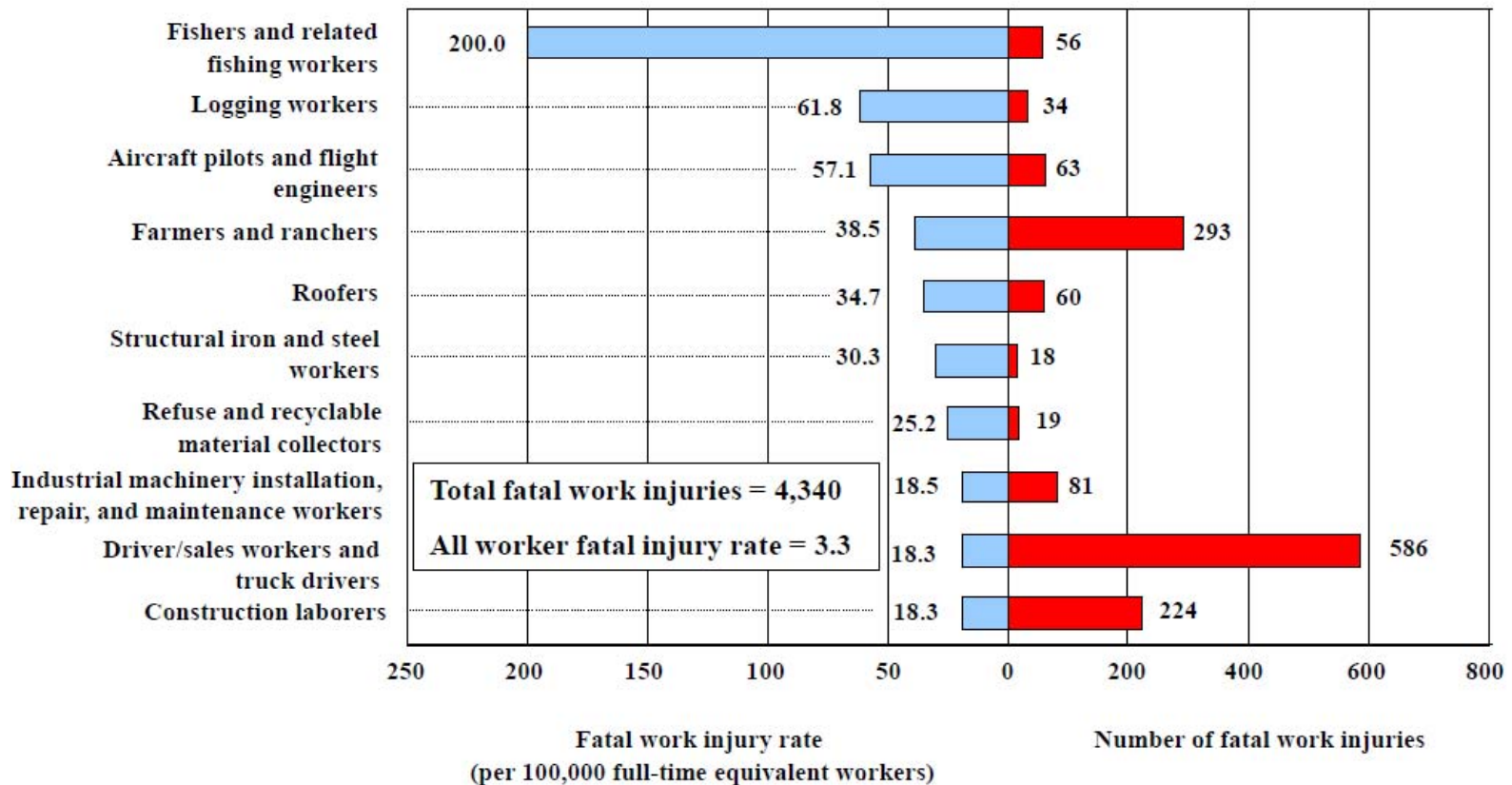


## Fishery Management and Safety

- Problem: Commercial fisheries have always been one of the most dangerous occupations.
- According to the National Institute for Occupational Safety and Health, during 1992-2008, the average annual fatality rate:
  - for commercial fishermen was 128 deaths per 100,000 workers
  - for all U.S. workers was 4 deaths per 100,000 workers
- Legislative Response: National Standard 10  
“Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.”



## Select Occupations with High Fatal Injury Rates, 2009

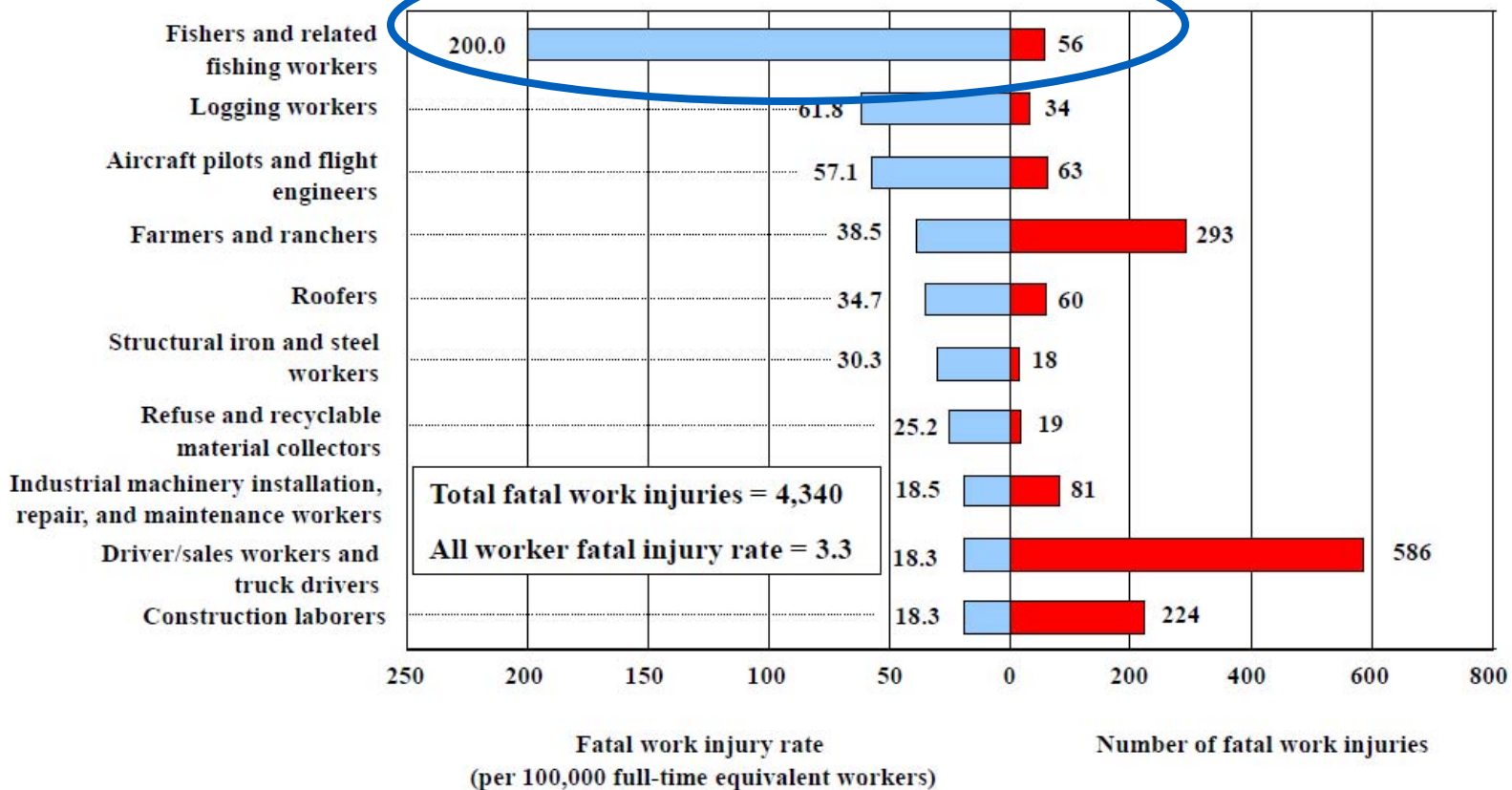


Date for 2009 are preliminary.

Source: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2010, <http://www.bls.gov/iif/oshcfoi1.htm>



## Select Occupations with High Fatal Injury Rates, 2009

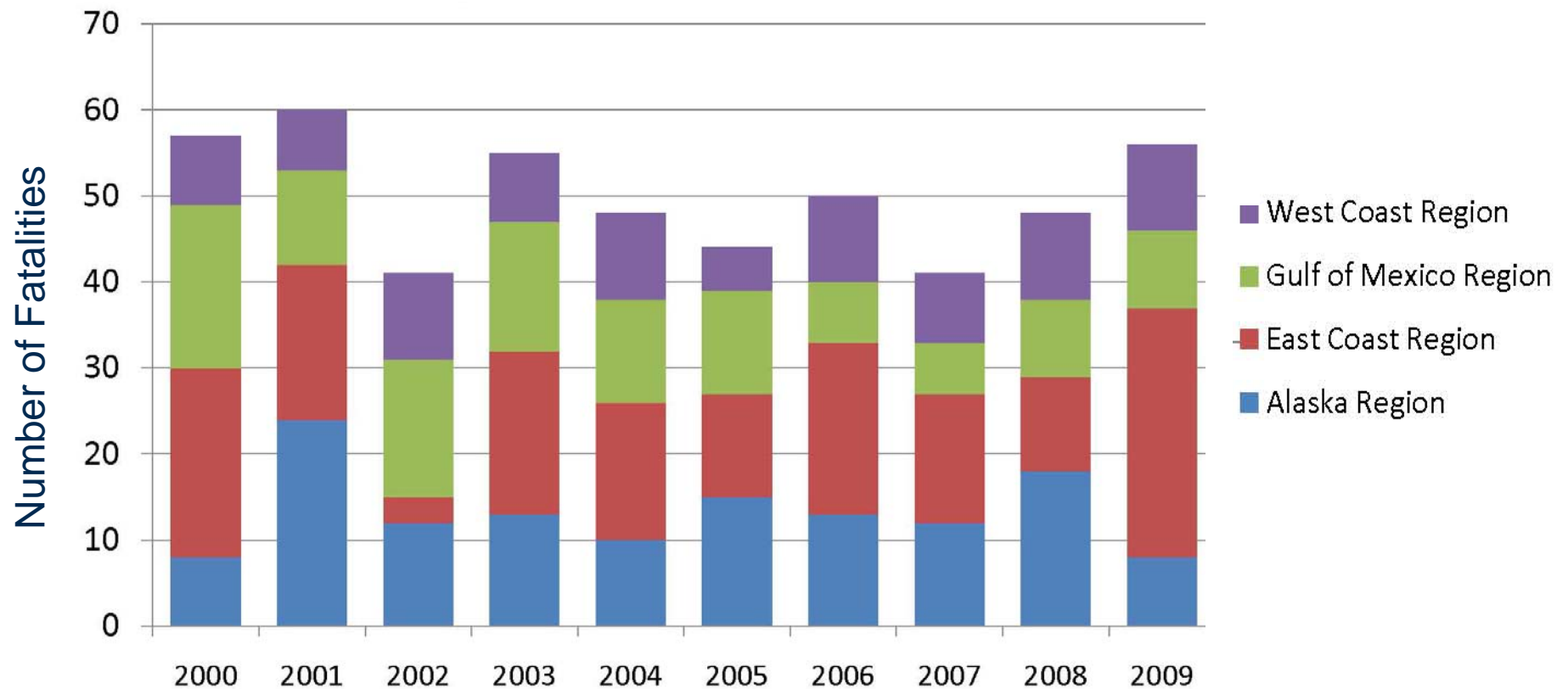


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Source: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2010, <http://www.bls.gov/iif/oshcfoi1.htm>



## U.S. Commercial Fishing Fatalities by Year and Region, 2000-2009 (N = 507\*)



Source: National Institute for Occupational Safety and Health

\*Chart excludes 6 deaths in Hawaii and 1 in Canadian waters during transit to AK





## National Standard 10

- Added to the Magnuson-Stevens Fishery Conservation and Management Act (MSA) in 1996.
- NMFS published National Standard 10 Guidelines in 1998.
- Primary source of NMFS guidance for the consideration of safety issues in fishery management plans and regulations.





## National Standards

- National Standards apply to the 8 Regional Fishery Management Councils and to NOAA's Fisheries Service
- Fishery Management Plans and any regulations to implement a plan shall be consistent with the 10 National Standards. (MSA 301(a))
- The Secretary of Commerce shall establish advisory guidelines (which shall not have the force and effect of law), based on the national standards, to assist in the development of fishery management plans. (MSA 301(b))





## Current National Standard 10 Guidelines

- (a) Standard 10
- (b) General
  - (1) Fishing is a dangerous occupation; Councils should reduce safety risks when developing management measures.
  - (2) Avoid constraining fishermen to fish in conditions that they would otherwise avoid.
  - (3) “Safety of human life at sea” refers to both the safety of a fishing vessel and the safety of persons aboard the vessel.
- (c) Safety Considerations
  - (1) Operating environment (weather conditions)
  - (2) Gear and vessel loading requirements (consider safety and stability)
  - (3) Avoid derby fisheries



## Current National Standard 10 Guidelines

- (d) Consultation: Consult with the U.S. Coast Guard and fishing industry if a regulation might affect safety of human life at sea.
- (e) Mitigation measures
  - (1) Set seasons to avoid bad weather.
  - (2) Seasonal or trip flexibility.
  - (3) Allowing for pre- or post- season soak time of fixed gear.
  - (4) Tailoring gear requirements to provide for smaller or lighter gear for smaller vessels.
  - (5) Avoid management measures that require hazardous at-sea inspections or enforcement if other comparable enforcement could be accomplished as effectively.
  - (6) Limit participation.
  - (7) Spread effort over time and area to avoid potential gear or vessel conflicts.
  - (8) Reduce the race to fish.



## National Standard 10 Guidelines – Need for Revision

- Guidelines are 13 years old.
- Analytical methods to evaluate safety.
- National Transportation Safety Board hosted a Fishing Vessel Safety Forum held in Washington, DC, October 13-14, 2010.
- Coast Guard Authorization Act of 2010 signed October 15, 2010.



# National Standard 10 – Advanced Notice of Proposed Rulemaking

- Published Advance Notice of Proposed Rulemaking on April 21, 2011 (76 FR 22342).
- Seek ideas and solutions to improve safety at sea.
- Additional public meetings will be held.
- Comment period ends July 20, 2011.
- Comments will be considered during the drafting of proposed revisions to the guidelines.
- [http://www.nmfs.noaa.gov/sfa/domes\\_fish/fisheries\\_news.htm](http://www.nmfs.noaa.gov/sfa/domes_fish/fisheries_news.htm)



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## Safety Issues Under Consideration



## 1. Assemble and analyze data on fatalities and injuries

- Fatalities are reported to the U.S. Coast Guard (USCG).  
[46 CFR 4.05-1(a)(5)]
- Non-fatal injuries are supposed to be reported if: “an injury that requires professional medical treatment (treatment beyond first aid) and, if the person is engaged or employed on board a vessel in commercial service, that renders the individual unfit to perform his or her routine duties...”  
[46 CFR 4.05-1(a)(6)]
- Count fatalities and non-fatal injuries that are reported to the USCG.



# NIOSH Products: Regional Summaries of Fatality Data

## Fatal Occupational Injuries in the U.S. Commercial Fishing Industry: Risk Factors and Recommendations Alaska Region



## Fatal Occupational Injuries in the U.S. Commercial Fishing Industry: Risk Factors and Recommendations West Coast Region



## Fatal Occupational Injuries in the U.S. Commercial Fishing Industry: Risk Factors and Recommendations East Coast Region



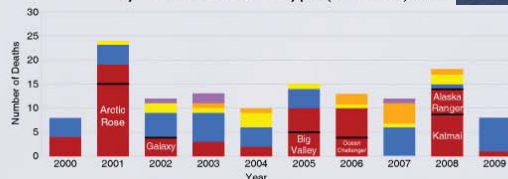
## Fatal Occupational Injuries in the U.S. Commercial Fishing Industry: Risk Factors and Recommendations Gulf of Mexico Region



### About This Report

The National Institute for Occupational Safety and Health (NIOSH) is the research government agency for conducting research and making recommendations for the prevention of work-related injury and illness. NIOSH recently completed an in-depth study of commercial fishing fatalities in the United States of America. The purpose of the study was to identify the most hazardous fisheries around the country and to identify unique safety issues in each. For this study the US was divided into four fishing regions: Alaska, West Coast, and the Gulf of Mexico. This document is one in a set of four reports summarizing fatality data by region.

### Alaska Commercial Fishing Fatalities by Year and Incident Type (133 Total) Figure 1



During the decade of 2000-2009, 133 commercial fishermen died while working in Alaskan waters. The fewest fatalities occurred in 2000 and 2009, with eight occupational deaths in each of those years. In 2001, 24 fishermen died on the job, including 15 in a single vessel disaster (Fig. 1). On average for the decade, 13 fishermen were killed per year. Half of the deaths were caused by drowning following vessel disasters (e.g. sinking, capsizing, fire, etc) in which the crew was forced to abandon ship (Fig. 2). Another 31% of fatalities were the result of falls overboard. The 12 fatal injuries sustained on-board were the result of being struck by gear (4, 33%), falling from height (3, 25%), getting caught in a deck winch (2, 17%), asphyxiation in a confined space (2, 17%), and a drug overdose (1, 8%).

Although vessel disasters contributed to the most fatalities during the decade as a whole, the incidents types varied from year to year. For example, in 2001 79% of fatalities resulted from vessel disasters, but in 2007 there were none related to a vessel disaster. In 2006 there were no fatal falls overboard, but in 2009 88% of deaths were caused by falls overboard.

Five fisheries contributed to 80% of fatalities in Alaska during 2000-2009 (Fig. 3). Fisheries with fewer than five deaths included black cod (Sablefish), sea cucumber, shrimp, herring, pollock, and others. The salmon fishery experienced the most occupational deaths with 39 fatalities. Falls overboard caused the most deaths among salmon fishermen (17, 44%). Almost all (13, 76%) occurred on drift-gillnet vessels and were usually the result of a trip or slip. Most (13, 76%) were not witnessed. Vessel disasters contributed to 33% of deaths in the salmon fishery. Most of these vessel disasters (8, 62%) occurred on set-net skiffs and were almost always (6, 75%) swamped and capsized in poor sea conditions. The cod and sole fisheries experienced the next highest number of fatalities during this time period (26 and 21 respectively). These fatalities occurred most often after a vessel disaster with multiple lives lost in each event.

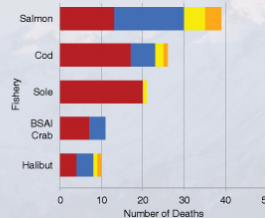
Although the salmon fishery experienced the highest number



being smothered by orange water, operating with impaired vessel stability, and flooding. Severe weather conditions contributed to 67% of vessel disasters.

Falls overboard accounted for 31% of all fatalities in the Alaska commercial fishing industry during 2000-2009. Falls overboard were caused most often by tripping or slipping deck (29%), losing balance (22%), and gear entanglement (15%) (Fig. 5). Factors that contributed to falls overboard were: working alone on deck (61%), using alcohol (24%), poor weather conditions (15%). None of the victims of overboard were wearing a Personal Flotation Device (PFD).

### Alaska Fisheries with Five or More Fatalities During 2000-2009 (107 Total) Figure 3



### Conclusions

The Coast Guard has developed tailored prevention programs for specific fisheries in Alaska that mitigate hazards found in high risk fisheries such as the Bering Sea crab, cod and sole fisheries. As a result of these efforts, the fatality rate in the Bering Sea crab fisheries declined by 60% during 1990-2009. This improvement was due to the implementation of a pre-season dockside enforcement effort developed by the Coast Guard in concert with vessel operators. Additionally, in 2005 the largest crab fisheries underwent changes in the way they were executed. The previous "race to fish" was "rationalized" meaning that each vessel was awarded the rights to catch a certain amount of crab. This change resulted in a slower paced fishery and a consolidation of the fleet. A different Coast Guard program known as the Alternate Compliance Safety Agreement (ACSA) focused on the Bering Sea cod and sole fisheries. ACSA required



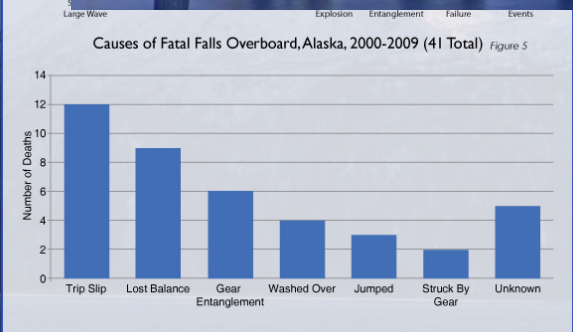
### Commercial Fishing Fatality Rates for Full-time Equivalent (FTE) Workers, Alaska, 2000-2009 Table 1

Fishery	Fatalities	FTEs	Annual rate per 100,000 FTEs
Bering Sea Crab	12	4,658	260
Alaska Halibut	10	7,519	130
Alaska Cod	26	21,327	120
Alaska Salmon	39	34,287	115

\* Rates were calculated by dividing the total number of fatalities for the 10 year period by the total annual FTE

- Data Key**
- Vessel Disaster
  - Fall Overboard
  - On-Board Injury
  - On-Shore Injury
  - Diving Injury

Number of Deaths



Large Wave Explosion Entanglement Failure Events



## 2. Calculate fatality and injury rates

- Rates provide a way to compare risk among various fisheries.
- Need to first estimate workforce.
- Workforce estimates can be generated using:
  - Number of Active Vessels
  - Number of Operational Days
  - Average Crew Size for Vessels in the Fishery



## Fatalities, Full-Time Equivalent (FTE) Employees, and Fatality Rates US, 2000-2009

<b>Fishery</b>	<b>Fatalities</b>	<b>FTE</b>	<b>Annual rate per 100,000 FTEs</b>
<b>East Coast Region</b>			
Atlantic scallop	44	10,384	425
Northeast multi-species groundfish	26	4,340	600
Atlantic snapper/grouper	6	3,622	170
<b>West Coast Region</b>			
West Coast Dungeness crab	25	8,092	310
<b>Alaska Region</b>			
Alaska salmon	39	34,287	115
Alaska cod	26	21,327	120
Bering Sea and Aleutian Islands crab	12	4,658	260
Alaska halibut	10	7,519	130

Source: National Institute for Occupational Safety and Health



### 3. Evaluate risks in fisheries

Risk assessments could be conducted to identify safety hazards within a fishery.

Risk assessment could include information on:

- Types of vessels and hazards
- Number of fatalities & fatality rates
- Have there been fatalities recently?
- Does the fishery occur far from search and rescue resources?



## 4. Safety considerations and mitigation measures to improve safety

Potential examples include:

- Emergency relief provisions for safety purposes
- Allowing for vessel replacement
- Allowing for transit through closed areas



## 5. Safety issues in recreational fisheries

Welcome information about safety issues in recreational fisheries and suggestions on how to address those issues.





## 6. Consultation/Safety committee

Safety issues could be address through:

- Consultation
- Advisory Panel or Committee



## 7. Including safety information in Stock Assessment and Fishery Evaluation (SAFE) Reports

Information collected on fatalities, fatality rates, and risk assessments could be recorded in SAFE reports.



## 8. Relationship between National Standard 10 and Fishery Impact Statements

Fishery Impact Statements assess the effect of conservation and management measures and include possible mitigation measures for “safety of human life at sea, including whether and to what extent such measures may affect the safety of participants to the fishery.” (MSA 303(a)(9)(C))



## Comments can be submitted:

- At public meetings
- Via the Federal eRulemaking Portal:  
<http://www.regulations.gov> using the identifier “0648-BA74”;
- Faxed to 301-713-1193, Attention Debra Lambert; or
- Submitted by mail to:  
Debra Lambert  
National Marine Fisheries Service, NOAA  
1315 East-West Highway, Room 13403  
Silver Spring, MD 20910
- Deadline: July 20, 2011



## Public Meetings

- NOAA Science Center, May 19, 2011, 1 – 3 p.m., Silver Spring, MD
- Joint Session of Gulf of Mexico and South Atlantic Fishery Management Council, June 10, 2011, 1 – 1:45 p.m., Marriott Beachside Hotel, Key West, FL
- Mid-Atlantic Fishery Management Council meeting, June 16, 2011, 9 – 10 a.m., Danfords Hotel, Port Jefferson, NY
- New England Fishery Management Council meeting, June 21, 2011, 1:30 – 2:30, Holiday Inn by the Bay, Portland, ME
- Swedish Cultural Center, July 19, 2011, 10 a.m. – noon, Seattle, WA



## Summary

- Requesting public comment on potential revisions to the National Standard 10 Guidelines.
- Comment period ends July 20, 2011.
- Comments received will be considered as we develop a proposed rule.



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## Questions & Comments