Assessment of Occupational Hazards in the Alaskan Halibut/Sablefish Fleet

North Pacific Fishery Management Council Meeting
October 8, 2016

Samantha Case, MPH | Devin Lucas, PhD | Laura Syron, MPH







Department of Homeland Security



Department of Health and Human Services

United States
Coast Guard
USCG

Centers for Disease
Control and Prevention
CDC

National Institute for Occupational Safety and Health

NIOSH

Regulation/Enforcement

Research, Training, and Prevention Recommendations





Commercial Fishing Safety Research and Design Program

- Scientific research on safety problems and solutions
- Provide high quality, relevant information
- Research findings used by
 - Fishing industry
 - Government agencies (USCG, NMFS)
 - Fishing safety advocates





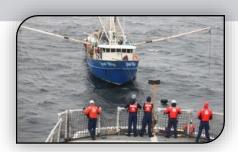




Marine Casualty Occurs

Coast Guard Investigates NIOSH Reviews case Information entered into CFID





	REPO	U.S. Coast ORT OF MARII	Guard NE CASUALTY	
SECTION I. GENERAL INFORMATION 2. Official No. 3. Nationality				4. Call
		2. Ollicia No.	5. Nasonany	4. 0411
:.)	7. Length	8. Gross Tons	9. Year Built	10. Pro
12. Draft (Ft - in.) FWD AFT.		13. If Vessel Classed, By Whom: (ABS, LLOYDS, DNV, BV, etc.)		14. Date
	_			17. Est







Hazard Assessment

Crewmember fatalities:

- Previous study by Lincoln, Mode, & Woodley (2007): 1991-2000
- More recent data: 2001-2015
- Fatality rates (# of fatalities/100,000 FTEs)
 - FTEs account for number of vessels, workers, and days at sea
- Test for trend in fatality rates

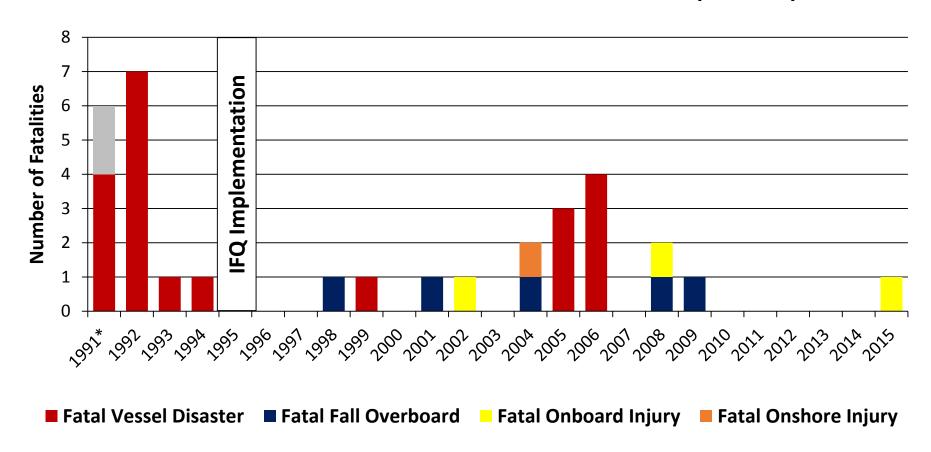
Vessel disasters:

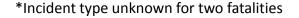
Fatal and nonfatal: 2001-2014





Number and causes of fatalities in the Alaskan halibut/sablefish fleet, 1991-2015 (n=32)

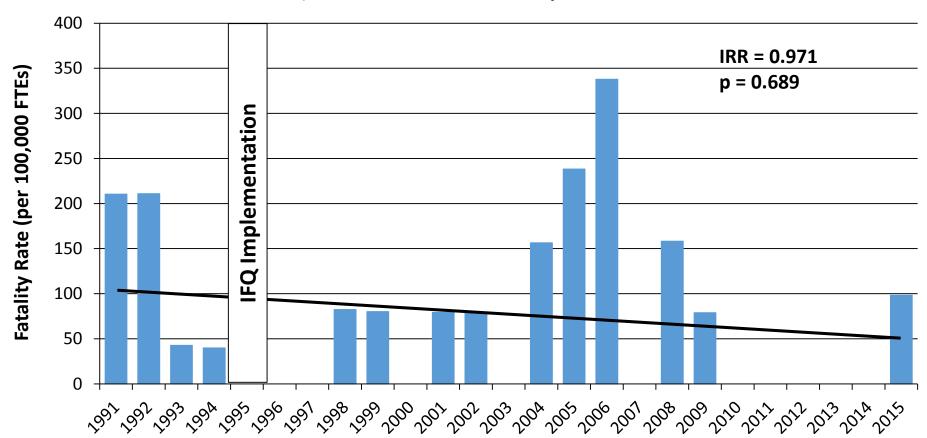








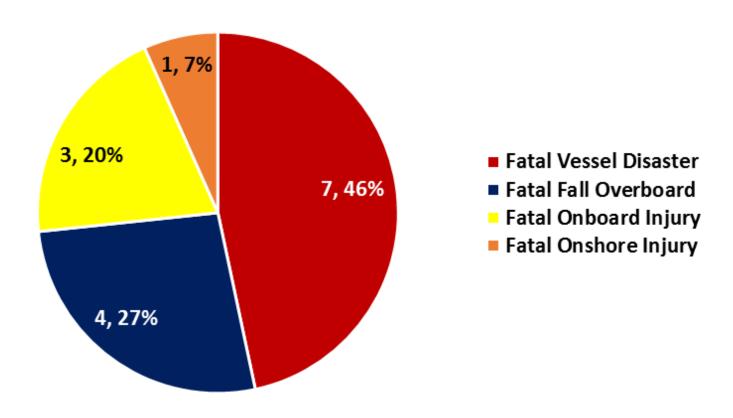
Fatality rates and trend in the Alaskan halibut/sablefish fleet, 1991-2015







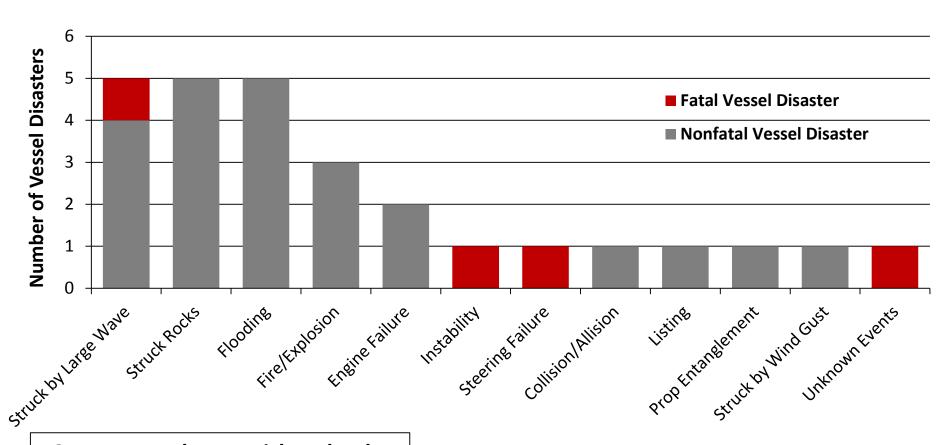
Causes of fatalities in the Alaskan halibut/sablefish fleet, 2001-2015 (n=15)







Initiating causes of vessel disasters in the Alaskan halibut/sablefish fleet, 2001-2014 (n=27)



87 crewmembers at risk; 7 deaths





Recommendations

To prevent and survive vessel disasters...

- Keep vessels and systems well-maintained and watertight
- Participate in marine safety training
- Conduct monthly drills

To prevent fatal **falls overboard**...

- Wear PFDs on deck
- Create/enforce PFD policy
- Conduct monthly drills
- Use effective recovery devices





Limitations

- Timeline is imbalanced
 - Limited pre-IFQ data
- FTE estimates include average number of crewmembers
- Additional safety measures can be considered
 - Nonfatal injuries
 - Vessel safety issues





Conclusions

- IFQs allow for longer fishing seasons, more experienced crews, and flexibility on when to fish
- While trend in risk was minimal, other factors outside of fishery management policies may be responsible for fatalities
- Important to continue to research and address persistent hazards (vessel disasters, falls overboard)



THANK YOU

Samantha Case, MPH
Devin Lucas, PhD
NIOSH Western States Division, Alaska Office
dlucas@cdc.gov
907-271-2386

www.cdc.gov/niosh/topics/fishing



