Commercial Fishing Safety Research
Updates from NIOSH

North Pacific Fishery Management Council Meeting | April 2024

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About NIOSH

- The National Institute for Occupational Safety and Health (NIOSH) is the federal institute responsible for conducting research and making recommendations to prevent work-related illness, injury, and death.
- NIOSH is not a regulatory or enforcement agency.
NIOSH Center for Maritime Safety and Health Studies (CMSHS)

- CMSHS promotes collaborative research to identify practical solutions that reduce the unique hazards within the maritime industries, including:
  - Commercial fishing
  - Seafood processing
  - Aquaculture
  - Marine terminals
  - Shipyards
  - Marine transportation
- CMSHS is managed by the NIOSH Western States Division.
Outline

- Recent Activities
- Current and Future Activities
- Commercial Fishing Fatality Update
Recent Activities
Recent Publication: *Commercial Fishing Fatalities and Injuries Described by Linked Vessel Incidents*

- In 2017, NIOSH and Oregon State University collaborated to develop a comprehensive system to gather information on injuries, fatalities, and vessel casualties in the Pacific Northwest fishing fleet, called the [Risk Information System for Commercial (RISC) Fishing](https://doi.org/10.1080/1059924x.2023.2229827).

- Data from the RISC Fishing database were analyzed to understand the circumstances of incidents and identify opportunities for injury prevention.

- Vessel-level and work task-specific prevention strategies were suggested, including:
  - Ensuring vessel stability
  - Improving navigation/operation decisions
  - Enacting lifejacket policies

https://doi.org/10.1080/1059924x.2023.2229827
Recent Publication: *Relationship of Personal, Situational, and Environmental Factors to Injury Experience in Commercial Fishing*

- This study, in collaboration with researchers from Oregon State University, sought to determine if fishing experience is associated with injury risk and explore common work activities resulting in injuries.
- Key informant interviews were conducted, and a survey was administered among fishermen in Washington, Oregon, and Northern California.
- Findings showed that years of fishing experience, by itself, is not associated with injury experience; rather, the type of work typically performed by deckhands is related to injury risk.
- This study was part of the *Fishermen Led Injury Prevention Program (FLIPP)*.

[Link to the publication](https://doi.org/10.1016/j.jsr.2023.08.009)
Sixth International Fishing Industry Safety and Health Conference (IFISH 6)

- IFISH 6 was held January 8-12, 2024, in Rome, Italy and co-hosted by NIOSH, the Northeast Center for Occupational Health and Safety, and the Food and Agriculture Organization.
- The conference hosted 180 attendees representing 55 countries to discuss safety, health, and wellbeing among workers in commercial fishing, seafood processing, and aquaculture.
- Sessions covered a wide range of topics, including climate change, decent work, safety training, fisheries management, and international conventions.
- Presentation slides will be added to the IFISH 6 website.
Preview the New CDC.gov!

- Clean Slate, part of **CDC Moving Forward**, was launched to overhaul the CDC.gov website and streamline content by more than 60%.
- Some CDC/NIOSH topics are available to preview in beta:
  - [Commercial Fishing Safety](#)
  - [Maritime Safety and Health](#)
- We invite you to explore the beta pages and provide feedback.
Current and Future Activities
In-Progress Study: Examination of Dive-Related Fatalities in the Commercial Fishing Industry

- Commercial fishermen may dive to harvest species from the sea floor or to conduct maintenance or repairs.
- Fatalities during these operations occur with regularity (~2 deaths per year)*, but little is known about the circumstances surrounding these deaths.
- By analyzing data from the NIOSH Commercial Fishing Incident Database (CFID), we will provide in-depth information about these fatalities, including safety and health risk-factors, and suggest relevant prevention strategies.

In-Progress Study: *Workplace Fatalities Due to Suicide, Unintentional Drug Overdose, and Alcohol Poisoning in the Commercial Fishing Industry*

- While fatalities in the commercial fishing industry have steadily declined since the 1990s, deaths due to suicide, drug overdose, and alcohol poisonings have increased*.
- The aim of this study is to describe the trends, patterns, and characteristics of these fatalities by analyzing data from CFID.
- We will explore behavioral health risk factors identified in death investigations and bring attention to important issues faced by fishermen.

In-Progress Study: COVID-19 Prevention Among Seafood Processors: Workplace and Social Factors

- Seafood processing workers, a part of the essential food supply chain workforce, may be at higher risk of COVID-19 due to occupational and social factors.
- This qualitative study, involving participant interviews in the Gulf of Mexico, explores the occupational, social, economic, and mental health factors that contribute to worker health and wellbeing.
- This study is a collaboration between NIOSH and the University of Texas.
Newly Funded Project: *Testing the Integrity of Immersion Suits to Determine Service Life*

- Immersion suits may pass a visual exam but could have unseen leaks and tears, reducing buoyancy and thermal protection needed in an emergency.
- Currently, there is no age-based guidance for immersion suit replacement.
- Over the next four years, NIOSH and the U.S. Coast Guard (USCG) will collect 400 used immersion suits from commercial fishing vessels in Alaska.
- The suits will undergo pressure testing at a USCG-accredited facility to find and classify leaks.
- We will measure immersion suit failure rates by age and other factors to provide practical suggestions on suit replacement.
- Estimated start date: Spring 2024.
Newly Funded Project: *Personal Flotation Device (PFD) Use Among Women in the Commercial Fishing Industry*

- NIOSH previously worked with fishermen across Alaska to evaluate a variety of PFD styles and identify which were most comfortable to wear while working. However, few women participated in the study.
- Women may have unique concerns regarding the sizing, fit, and comfort of PFDs.
- We will examine women’s PFD use and opinions through a survey and PFD wear trial.
- This pilot project will be part of a larger effort by NIOSH to understand safety and health needs of women working in maritime industries.
- Estimated start date: Summer 2025, pending necessary approvals.
Upcoming Webinar: Protecting the Mental Health of Offshore Workers

- The NIOSH Office of Research Integration hosts the Expanding Research Partnerships Webinar Series.
- This series is designed to promote the work of innovative and impactful research and expand intramural and extramural partnerships in occupational safety and health.
- Researchers, practitioners, and interest groups engage in discussion of pressing issues and opportunities for collaboration.
- The next webinar will be held Wednesday, August 14th, 2024 and is entitled, “Protecting the Mental Health of Offshore Workers.”
- Registration will open in June 2024.
NIOSH Extramural Research and Training Programs:
Grants for Commercial Fishing Safety Research and Training

- The NIOSH Office of Extramural Programs and U.S. Coast Guard work together to provide funding for fishing safety research and training through grants and cooperative agreements.
- This funding opportunity was created to provide extramural funding to advance fishing safety research and provide focused, regionally appropriate training for the nation’s commercial fishermen.
- The next deadline to apply for funding is August 27, 2024.
- Individuals from academia, non-profit organizations, municipalities, and businesses are encouraged to apply.
- For more information, including descriptions of current grantee projects, FAQs, and contact information, visit this link.
Commercial Fishing Fatality Update
Commercial Fishing Incident Database (CFID)

- NIOSH developed CFID to track fatalities in the U.S. commercial fishing industry.
- Data are abstracted from U.S. Coast Guard investigation reports, local law enforcement reports, news media, and other sources.
- Analyses are used to identify fishery- and region-specific risks and develop relevant prevention strategies.
Commercial Fishing Fatalities, United States, 2018-2022 (n=145)

Source: NIOSH Commercial Fishing Incident Database

Average: 29 fatalities per year
Comparing Commercial Fishing Fatalities by Incident Type, Alaska vs. Rest of US, 2018-2022 (n=145)

- Fatal Fall Overboard: 25% Alaska, 42% Rest of US
- Fatal Vessel Disaster: 42% Alaska, 35% Rest of US
- Onboard Fatality: 17% Alaska, 21% Rest of US
- Onshore Fatality: 11% Alaska, 0% Rest of US
- Diving Fatality: 6% Alaska, 2% Rest of US

Source: NIOSH Commercial Fishing Incident Database
Commercial Fishing Fatalities by Fishery* and Incident Type, Alaska, 2018-2022 (n=36)

*Fisheries with < 3 fatalities are included in the “Other” category.

Source: NIOSH Commercial Fishing Incident Database
# Commercial Fishing Fatalities, Alaska, 2023*

<table>
<thead>
<tr>
<th>Incident Type</th>
<th>Number of Fatalities</th>
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<tbody>
<tr>
<td>Fatal Vessel Disaster</td>
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<tr>
<td>Fatal Fall Overboard</td>
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</tr>
<tr>
<td>Onboard Fatality</td>
<td>2</td>
</tr>
<tr>
<td>Onshore Fatality</td>
<td>0</td>
</tr>
<tr>
<td>Diving Fatality</td>
<td>0</td>
</tr>
</tbody>
</table>

*Note: Fatality data for 2023 are preliminary, pending validation with state and federal partners.*
The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.