

**Personal Flotation Devices (PFDs) and Commercial Fishermen:
Preconceptions and Evaluations in Actual Use**

Request for Office of Management and Budget Review and Approval for Federally Sponsored
Information Collection

Reinstatement with Change of Previously Approved Package
0920-0787

Supporting Statement A

National Institute for Occupational Safety and Health (NIOSH)

**Alaska Field Station
4230 University Drive Suite 310
Anchorage, Alaska 99508**

**Project Officer: Christy Forrester
Phone: (202)245-0687
E-mail: cforrester@cdc.gov**

March 12, 2014

Table of Contents

1A. Justification

1. Circumstances Making the Collection of Information Necessary
2. Purpose and Use of Information Collection
3. Use of Improved Information Technology and Burden Reduction
4. Efforts to Identify Duplication and Use of Similar Information
5. Impact on Small Businesses or Other Small Entities
6. Consequences of Collecting the Information Less Frequently
7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5
8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency
9. Explanation of Any Payment or Gift to Respondents
10. Assurance of Confidentiality Provided to Respondents
11. Justification for Sensitive Questions
12. Estimates of Annualized Burden Hours and Costs
13. Estimates of Other Total Annual Cost Burden to Respondents or Record Keepers/Capital Costs
14. Annualized Cost to the Government
15. Explanation for Program Changes or Adjustments
16. Plans for Tabulation and Publication and Project Time Schedule
17. Reason(s) Display of OMB Expiration Date is Inappropriate
18. Exceptions to Certification for Paperwork Reduction Act Submissions

Attachments

Attachment 1	Section 20(a)(1) Occupational Safety and Health Act of 1970
Attachment 2	60-day Federal Register Notice
Attachment 3	NIOSH Statement on Commercial Fishing Vessel Safety
Attachment 4	Public Comments and Responses to 60-day FRN
Attachment 5	Informed Consent
Attachment 6	Survey Instrument
Attachment 7	HSRB
Attachment 8	Peer Review Comments and Responses

SUPPORTING STATEMENT FOR REQUEST FOR OMB APPROVAL

A. JUSTIFICATION

1. Circumstances Making the Collection of Information Necessary

This Information Collection Request (ICR) is a reinstatement with changes requesting two years of OMB approval to follow up Personal Flotation Devices (PFDs) and Commercial Fishermen: Preconceptions and Evaluations in Actual Use (OMB# 0920-0787, expiration date: 08/31/2010).

The National Institute for Occupational Safety and Health (NIOSH) has the responsibility under P.L. 91-596 Section 20 (Attachment 1: Section 20(a)(1) Occupational Safety and Health Act of 1970) to conduct research relating to innovative methods, techniques, and approaches for dealing with occupational safety and health problems. The NIOSH Alaska Pacific Office is a leader in commercial fishing safety research in Alaska and has received project funds from the National Occupational Research Agenda (NORA) to expand the research program to other fishing regions in the US.

This research fits into CDC's broader research agenda by contributing to the following CDC Health Protection Goal: Healthy Workplaces: Promote and protect the health and safety of people who work by preventing workplace-related fatalities, illnesses, injuries, and personal health risks.

Commercial fishing is the most dangerous occupation in the United States, with a fatality rate of 127 per 100,000 fishermen in 2011, over 30 times higher than the national average for all workers (BLS, 2011). Drowning due to vessels sinking and falls overboard is the leading cause of death for commercial fishermen. Drowning prevention is one of the highest priorities for those who work to make the industry safer. Preventing fishermen from entering the water is the surest way of reducing the number of drowning fatalities, but given the nature of commercial fishing, this may not always be possible. When immersion does occur, personal flotation devices (PFDs) can increase the chance that the fisherman will survive.

Although the risk of drowning for commercial fishermen is high, most fishermen do not wear PFDs while on deck. From 1990 to 2005 in Alaska, 71 commercial fishermen drowned after falling overboard (Lucas and Lincoln, 2007). None of the victims were wearing a PFD, and sadly, many were within minutes of being rescued when they lost their strength, sank and drowned. Many of those deaths could have clearly been prevented if the victims had been wearing a PFD. According to the most recently reported mortality statistics, among the 191 U.S. commercial fishermen who drowned as a result of falling overboard between 2000 and 2012 only one was wearing a life jacket (NIOSH, 2013).

There is an urgent need to increase PFD usage among commercial fishermen. A study of commercial fishing fatalities in Alaska found that from 1990 to 2005, the number of fatal falls overboard did not show a decreasing trend, despite major decreases in other types of fishing fatalities (Lucas and Lincoln, 2007). Anecdotal evidence from fishermen and marine safety

experts show that some of the most common objections among fishermen to wearing PFDs are that they are bulky, heavy, hot, and generally uncomfortable. Fishermen have also expressed concerns that PFDs create an entanglement hazard. Those arguments may have some merit; however, many new types and styles of PFDs have become available that appear to have overcome these complaints; but it is unknown how many commercial fishermen are aware of them, or if they are in fact more comfortable and wearable than the older styles.

Safety in the fishing industry has been a priority for Congress for many years. Congress intervened to improve safety in the fishing industry in 1988 when the Commercial Fishing Industry Vessel Safety Act was passed into law (CFIVSA, P.L. 100-424). More recently (April 25, 2007) the House Committee on Transportation and Infrastructure, Subcommittee on Coast Guard and Marine Transportation held a hearing on commercial fishing vessel safety to address the persistent safety problems in the industry. The National Institute for Occupational Safety and Health (NIOSH) offered testimony at the hearing to describe the progress made in Alaska to improve safety in the fishing fleet, and to share how improvements implemented there could benefit other fishing regions of the United States (Attachment 3: NIOSH Statement on Commercial Fishing Vessel Safety). The testimony emphasized the problem of falls overboard and identified PFD use as one of the most important areas to focus prevention activities.

NIOSH designed a research project to address this need. In 2008, NIOSH requested and received OMB approval to begin information collection for a project entitled, *Personal Flotation Devices (PFDs) and Commercial Fishermen: Preconceptions and Evaluations in Actual Use* [OMB No: 0920-0787, Exp Date: 08/31/2010]. Phase 1 of the original data collection implemented a cross-sectional survey to establish a baseline understanding of perceptions of the risk of falling overboard, safety attitudes, beliefs about PFDs, use of PFDs, and experiences with falls overboard among fishermen working in Southwest and South Central Alaska fisheries. Phase 2 assessed satisfaction with specific PFD types among a subset of the previously surveyed fishermen. NIOSH used this baseline understanding and knowledge of satisfactory PFD designs to develop an intensive risk communication strategy to raise awareness to newer (potentially more satisfactory) PFD models, address barriers, and to encourage increased PFD use among fishermen working in Alaska. The results of the initial data collection have been reported in the scientific literature (Lucas, et. al 2012; Lucas et. al 2013; NIOSH, 2012a-e).

As this initial baseline was gathered in 2008-2009, a follow up assessment is needed to determine if fishermen's perceptions, beliefs, and use of PFDs have changed or remained the same over time. Furthermore, it is essential to evaluate the effectiveness and potential impact of ongoing communication efforts and to inform future NIOSH risk communication efforts.

In Phase 1 of the original protocol, the Fishing for Facts: Survey of Fishermen's Opinions about the Risks of Falls Overboard and PFDs, conducted during 2008-2009, provided baseline information on fishermen's perceptions of the risk of falling overboard, safety attitudes, beliefs about PFDs, PFD use, and experiences with falls overboard among fishermen working in Southwest and South Central Alaskan fisheries. In Phase 2, an evaluation of specific PFD types in actual use was conducted to determine fishermen's likes and dislikes regarding contemporary PFD styles. Through this initial work, NIOSH gained a baseline understanding of potential determinants for PFD use and determined the availability of satisfactory PFD styles for a variety

of fishing gear types. Based on these results, NIOSH was equipped to develop several evidence-based communication products intended to raise awareness of the newer and more satisfactory models of PFDs as well as to address barriers to PFD use with the continued goal of increasing PFD use among commercial fishermen. The current information collection request seeks to reinstate survey data collection to reassess population-wide perceptions of the risk of falling overboard, safety attitudes, beliefs about PFDs, use of PFDs, and experiences with falls overboard as well as potential exposure to and influence of NIOSH risk communication interventions among fishermen working Alaskan fisheries. Continued monitoring of shifts or persistence in fishermen's perceptions and beliefs will not only provide key information to evaluate the effectiveness of ongoing communication efforts, but also provide a measure of progress toward the goal of increased PFD use among commercial fishermen. As with the original data collection, this proposed data collection directly addresses the repeated recommendation by NIOSH that all commercial fishermen wear PFDs while on deck (NIOSH, 1994; 1997; 2002).

The following are changes from the original submission:

- 1) Reduction in sample size. While it would be ideal to continue to monitor and evaluate fishermen fishing all four gear types involved in the original data collection (pots, gillnet, longline, and trawl), the cost is prohibitive. Per the initial data analysis (baseline) and fatality risk estimates, the focus has been narrowed to two particularly gear types: Bristol Bay salmon gillnet fishermen and Bering Sea/Aleutian Island crab fishermen. Specifically, these gear types were selected based upon the high rate of work-related drowning fatalities and self-reported low PFD use.
- 2) Data collection system.
 - a. Modification to the Data Collection Instrument [Phase 1 Survey – Fishermen's Opinions about the Risk of Falls Overboard and PFDs]. Slight modification of the survey instrument involved the elimination of questions deemed inconsequential through previous analyses and the addition of questions to account for the potential exposure to and influence of interim NIOSH communication intervention efforts. The exact questions on can be found in Attachment 6 (Survey Instrument).
 - b. Phase 2 Evaluation of Actual PFD Use: The original OMB-approved information collection included a survey evaluation of actual PFD use. NIOSH is not seeking to reinstate this portion of the data collection system as the purpose (identifying PFD style preferences among fishermen) has been accomplished. Thus, this data collection is deemed complete. Thus, the total burden hours will be reduced from 200 (original OMB-approved ICR) to 134 (this reinstatement ICR).

Privacy Impact Assessment Information

This information collection request (reinstatement with change) uses methodology developed for the original OMB-approved survey of fishermen's perceptions, attitudes, and beliefs regarding PFDs. Like the original survey, the follow up survey entails in-person administration by researchers to a sample of fishermen in Southwest Alaska. However, due to funding limitations, the population under study has been narrowed to focus on two particular populations: Bristol Bay salmon gillnet fishermen and Bering Sea/Aleutian Island crab fishermen. These populations

were selected based upon the high rate of work-related drowning fatalities and self-reported low rate of PFD use.

In addition, the data collection system has been slightly modified to eliminate those questions deemed inconsequential in previous analyses and add questions to account for potential exposure to and influence of ongoing risk communication efforts. The step-by-step procedure for selecting the sample and administering the surveys is outlined in Part B, Section 2 starting on page 15 of this protocol.

In general, the items of information to be collected on the survey are the same as the original survey data collection, including: demographic and vessel/fishery information, fishermen's experiences with and perceptions of falls overboard, safety attitudes, and opinions about PFDs. Slight modification of the survey instrument involved the elimination of questions deemed inconsequential through previous analyses and the addition of questions to account for the potential influence of interim NIOSH communication intervention efforts. The exact questions can be found in Attachment 6 (Survey Instrument). No individually identifiable information will be collected.

There is not a website associated with this data collection.

2. Purpose and Use of Information Collection

The purpose of this study is to assess fishermen's perceptions of the risk of falling overboard, safety attitudes, beliefs about PFDs, use of PFDs, and experiences with falls overboard. NIOSH initiated this effort with the original data collection –taking the first steps to increasing PFD use among commercial fishermen by understanding fishermen's perspectives, such as the reasons for not wearing PFDs. With the empirical data in hand, NIOSH selected the two highest risk fisheries and designed targeted interventions to address these fishermen's concerns and the barriers that are currently in place. Reinstatement of this information collection request will not only provide a means by which to monitor changes or persistence in population-wide PFD perceptions and use, but will provide essential information to gauge potential exposure and influence of these interim risk communication efforts. This study addresses the repeated recommendation by NIOSH that all commercial fishermen wear PFDs while on deck (NIOSH, 1994; 1997; 2002).

Specifically, NIOSH requests approval to reinstate the Phase 1 survey data collection system – administering the slightly modified survey two times over a period of two years – once per fishing season (in 2014 and in 2015). This follow up information collection does not seek to employ repeated measures of the same individual – but population-wide sampling of particular sites over the course of next 2 seasons. No personally identifiable information will be gathered. Therefore, there is no way to identify or predict if an individual sampled in 2014 will again be sampled in 2015.

The resulting information from the proposed survey data collection will be used in the same manner as the original survey data collection, including the following:

1. Results will be shared by NIOSH personnel with marine safety organizations involved with training fishermen. The information will help them understand and resolve the barriers that fishermen have regarding safety and wearing PFDs.
2. Results of survey will be published by NIOSH personnel in peer-reviewed journals to contribute to the body of scientific knowledge surrounding commercial fishing safety and drowning prevention.
3. Results will inform ongoing and future NIOSH risk communication strategies to improve PFD use and prevent drowning among commercial fishermen.

Privacy Impact Assessment Information

As evidenced in the original data analyses, the majority of commercial fishermen do not wear PFDs while working. One possible reason is the perception that PFDs are uncomfortable and not suited for the rigors of the fishing environment. Another reason may be the belief that PFDs introduce an entanglement hazard while working. The baseline data collection provided insights, such as these, to inform the development of communication intervention efforts to improve PFD use among fishermen. This information had never been collected in the past and has not been re-evaluated since the original NIOSH survey. Solid data are needed to effectively communicate the risk and make safety improvements in this industry. Research-based interventions not only require the initial collection of baseline data about the problem to guide the design phase, but also ongoing data collection throughout the process to monitor changes or persistence in perceptions, beliefs, and use; to determine progress or impact of ongoing risk communication efforts; and to inform future risk communication interventions.

Data will be analyzed and the results disseminated to fishermen, marine safety organizations, PFD manufacturers, and other researchers in the field of occupational safety. Results will only be released in aggregate form. No sensitive information is being collected, and data collection will have little effect on respondents' privacy since we are only collecting data on their perceptions of PFDs, and the recognition and impact of risk communication efforts. No individually identifiable information will be collected.

3. Use of Improved Technology and Burden Reduction

Only those data necessary for the purposes of this study will be collected in the survey. A thorough literature review was conducted, as well as a review of other available data sources, and only questions providing information unavailable from other sources were included in the survey instrument.

All of the survey respondents and evaluation participants are located in rural Alaska, where internet access is often expensive, slow, or simply not available. Additionally, commercial fishermen are isolated on their vessels for extended periods of time. Using the internet as a primary survey approach is either not possible or would increase both the time and monetary burden on our respondents.

4. Efforts to Identify Duplication and Use of Similar Information

An exhaustive literature search failed to reveal any studies (besides the original NIOSH survey) that analyzed commercial fishermen's risk perceptions and safety attitudes about falls overboard, their beliefs about PFDs, or their evaluations of PFDs while working. There have been four studies conducted since 1998 that tested and rated PFDs for recreational boaters. One study was conducted by Consumer Reports and the other three were conducted by BoatUS. These evaluations of PFDs for recreational boaters are useful in helping to design the present study; however, the differences between recreational boaters and commercial fishermen are large enough that the results of one group cannot be generalized to the other. Additionally, there are several new PFDs available now that were not on the market at the time of the recreational PFD evaluations.

1. In 1998, BoatUS staff tested seven models of inflatable PFDs for performance, in-water comfort, and features. Inflatable PFDs have a cartridge of compressed gas that inflates a bladder when activated.
2. In 1999, Consumer Reports had six testers wear 25 different PFDs in and out of the water and rated their performance, comfort, and features. Most of the PFDs tested were inherently buoyant foam-core vests, and seven were inflatable PFDs.
3. In 2000, BoatUS examined four more models of inflatable PFDs. The testers compared the types of inflation mechanisms, colors, reflective tape, cost, and weight.
4. Most recently (2004), BoatUS tested seven belt pack style inflatable PFDs for out-of-water wearability, in-water comfort, sense of security, and ease of repacking.

Although these PFD tests were for recreational boating, involved few participants, and may be outdated given the rapid evolution of inflatable PFDs, they do have value for the current study. They provide many different ideas for rating methods and identify important features to test. They may also aid in selecting styles and models to test on commercial fishermen in this study.

PFDs are a form of Personal Protective Equipment (PPE). The literature review identified many studies of workers in industries other than commercial fishing which examined the comfort and product satisfaction of many types of PPE, such as respirators, eye protection, and helmets.

In a study of Latino farm workers in Illinois and Michigan, Forst et al. (2006) explored worker's reasons for wearing or not wearing safety glasses. The researchers distributed glasses to workers for two seasons and observed and questioned those who wore them and those who did not. The most common reasons for not wearing the safety glasses were misperception of risk, perceived lack of protection, discomfort, undesirable appearance, interference with visual acuity, and the absence of a mandate from employers. The study was able to make several recommendations for ways to improve safety glasses; for example, reducing fogging, improving comfort and fit, and including bands to hold glasses on.

Dissatisfaction with PPE was also studied by Akbar-Khanzadeh (1998) among workers at a metal refining plant. The researchers questioned workers about their satisfaction with seven types of PPE, and reasons for dissatisfaction. Like the Latino farm workers, they believed the PPE was not needed, created a new hazard, interfered with work, was too heavy, was hard to wear, irritated skin, and had an undesirable appearance.

Salazar et al. (2001) studied the factors affecting hazardous waste workers' use of respirators. The researchers interviewed and administered a written survey to 255 workers in order to measure their beliefs and attitudes about the use of respirators. The study found that the factors for use were mostly based on knowledge, beliefs and attitudes. Factors for non-use were mostly physical comfort complaints like communication impairment, personal comfort, and effect on vision.

There is evidence that workers can adapt to initial feelings of discomfort in PPE when it is worn regularly. Abeysekera and Shahnavaz (1990) tested this with Sri Lankan workers' wearing of safety helmets. Workers were asked to wear safety helmets six hours a day for 30 days, with incentives and supervision to insure compliance. Ratings of wearability improved in the areas of hotness, harness pain, fit, and inconvenience during the one month period. The authors concluded that adaptation to initial discomfort in PPE is possible if the device is worn consistently for at least one month.

In the studies reviewed above, common reasons given for non-use of PPE included discomfort, misperceptions of risk, and negative attitudes about PPE efficacy. Among commercial fishermen, there may be similar perceptions and attitudes. Fishermen may feel that a PFD will be uncomfortable and impede them in their work. There may also be concern that a PFD not designed for their working conditions could endanger them by restricting their movements, or by being an entanglement hazard.

The proposed research will extend the previously OMB-approved information collection to more narrowly and specifically understand perspectives among fishermen operating two gear types in Southwest Alaska: Bristol Bay salmon gillnet fishermen and Bering Sea/Aleutian Island crab fishermen. Specifically, these gear types were selected based upon the high rate of work-related drowning fatalities and self-reported low rate of PFD use. No similar information collection system currently exists to evaluate changes or persistence in these fishermen's perceptions of the risk of falling overboard, safety attitudes, beliefs about PFDs, and experiences with falls overboard, much less the potential exposure to and influence of interim risk communication intervention activities.

5. Impact on Small Businesses or Other Small Entities

The fishermen that will be included in this study are considered to be small businesses. As with the previous OMB-approved information collection, we are keeping the length of questionnaire as short as possible to minimize the amount of time required to complete it.

6. Consequences of Collecting the Information Less Frequently

Solid data are needed to make safety improvements in this industry – particularly to ensure that risk communication message are accurately and effectively targeted to address the unique concerns of the individual fisheries and gear types. Baseline data about the problem were first collected (original OMB-approved data collection) to inform the development of communication interventions and to enhance the possibility of a positive impact. Additional survey data collection is needed to evaluate changes in or persistence of the problem to gauge progress of ongoing communication efforts and potential impact. Additional data points might be desirable, but to keep the burden on respondents at a minimum, information collections will be limited to one survey administration per fishing season for two seasons.

7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

There are no special circumstances. This request fully complies with the guidelines of 5 CFR 1320.5.

8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency

A. A 60-day Federal Register Notice was published in the Federal Register on October 3, 2013, vol.78, No. 192, pp. 61363-61364 (Attachment 2: Federal Register Notice). One comment was received from the public (Attachment 4: Public Comments and Responses to the Federal Register Notice). No changes were made to the proposed project based on this response, as the public comment did not relate to the utility and scope as proposed.

B. The study reinstatement proposal was peer reviewed by two experts in the field of commercial fishing safety outside of CDC (Attachment 8: Peer Review Comments with Responses). Their feedback was integrated into the study protocol. In addition, NIOSH consulted with the following industry representatives, government agencies, and marine safety organizations:

- 2013, Jerry Dzugan, Director, Alaska Marine Safety Education Association (AMSEA), Sitka, Alaska (Phone: 907-747-3287, email: director@amsea.org).
- 2013, Karen Conrad, Executive Director, North Pacific Fishing Vessel Owners Association (NPFVOA), Seattle, Washington (Phone: 206-285-3385, email: karen@npfvoa.org).
- 2013, Mark Gleason, Executive Director, Alaska Bering Sea Crabbers Association (Phone: 206-783-0188, email: markgleason@gmail.com).
- 2013, Ken Lawrenson, District 17 Fishing Vessel Safety Coordinator, United States Coast Guard (USCG), Alameda, California (Phone: 907-463-2810, email: Kenneth.lawrenson@uscg.mil).

9. Explanation of Any Payment or Gift to Respondents

No payments will be made to respondents of the survey.

10. Assurance of Confidentiality Provided to Respondents

No information in identifiable form will be collected from respondents. Respondents will be asked to provide general demographic information such as age (but not birth date) and type of gear fished (but not employer) in the survey. The survey will be administered only once to each respondent and therefore there will be no need to collect contact information for follow-up. The survey will be administered by NIOSH researchers. All data will be recorded on standard forms and belongs exclusively to NIOSH.

This study protocol and attached consent document was approved by the NIOSH IRB on January 8, 2014 (Attachment 7: HSRB Form 1379).

A waiver of documentation of informed consent for respondents was granted by the NIOSH IRB based on 45CFR 46.117 (c) (2) which states that an IRB may waive the requirement for the investigator to obtain a signed consent form for some or all subjects if the research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context (for documentation of waiver, see Attachment 8: HSRB Form 1379, page 2 – NIOSH HSRB Chair signature line).

This research introduces no potential risks to respondents and no procedures for which written consent is normally required outside of the research context. Fishermen will only be asked to complete a short survey that asks only non-intrusive questions about their perceptions and opinions. There are no sensitive questions, and no identifying questions.

A copy of the complete consent form will be provided to respondents (Attachment 5: Informed Consent).

Privacy Impact Assessment Information
No IIF is being collected

11. Justification for Sensitive Questions

No questions of a sensitive nature will be asked. Because participation is entirely voluntary, respondents may skip any survey items they do not wish to answer. The demographic items to be gathered are standard in social science research.

12. Estimates of Annualized Burden Hours and Costs

There is only one type of respondent involved with this study - fishermen. As previously discussed in Section A1, there has been a decrease in the burden hours due to the completion of one phase of the initial information collection. The goals of Phase II (identifying PFD style preferences among fishermen) has been accomplished and there is no need to reinstate this data collection. Thus, the total burden hours will be reduced from 200 hours which was originally approved, to 134 hours.

In addition, the survey has been slightly modified to eliminate questions deemed inconsequential during the original analyses and add questions to account for exposure to and influence of NIOSH risk communication efforts. The original survey was pilot tested with eight fishermen volunteers. The pilot respondents reported that they had ready-made answers to all of the short questions and checking the provided answer boxes was a fast and simple process. This was confirmed during the original administration of the survey (2008-2009). Given that the questions were similarly structured (i.e., checked answer boxes), it has been determined that the time burden will remain the same.

There are two data collection points (once per season) covered by this information collection request. A total of four hundred (400) fishermen will be asked to complete a questionnaire (Attachment 6: Survey Instrument) that may take up to 20 minutes to complete (Table I).

Table I. Estimated Annualized Burden Hours

Type of Respondent	Form Name	No. of Respondents	No. Responses per Respondent	Average Burden per Response (in hours)	Total Burden Hours
Fishermen	2014 Fishing Season: Fishing for Facts: A survey of fishermen's opinions about the risk of falls overboard and PFDs	200	1	20/60	67
Fishermen	2015 Fishing Season: Fishing for Facts: A survey of fishermen's opinions about the risk of falls overboard and PFDs	200	1	20/60	67
Total					134

Table II. Estimated Annualized Burden Costs

Type of Respondent	No. of Respondents	No. Responses per Respondent	Average Burden per Response (in hours)	Total Burden Hours	Hourly Wage Rate¹	Total Respondent Costs
Fishermen (Survey, 2014)	200	1	20/60	67	\$17.74	\$1189
Fishermen	200	1	20/60	67	\$17.74	\$1189

(Survey, 2015)						
Total						\$2378

¹Source: Alaska Dept. of Labor and Workforce Development

13. Estimates of Other Total Annual Cost Burden to Respondents or Record Keepers

None

14. Annualized Cost to the Government

The total cost of this study to the Federal government will be approximately \$96,000 over an estimated 24-month period of data collection and analysis. This figure includes labor and material costs, which are further described in the project plan and budget for the NORA funded project “Reducing Fatalities Due to Falls Overboard.”

Table III. Cost to Government

Project Item	Cost
Personnel salaries and benefits	80,000
Travel	15,000
Materials	1,000
Total cost to government	96,000

15. Explanation for Program Changes or Adjustments

A “reinstatement with change” is specifically requested to reflect a narrowing of the focus to two Southwest Alaska fisheries as well as slight modifications to the survey instrument involving the elimination of questions deemed inconsequential through previous analyses and the addition of questions to account for potential exposure to and influence of interim NIOSH communication intervention efforts. The exact questions on can be found in Attachment 6 (Survey Instrument).

In addition, the original OMB-approved information collection included a survey evaluation of actual PFD use (Phase II). NIOSH is not seeking to reinstate this portion of the data collection system as the purpose (identifying PFD style preferences among fishermen) has been accomplished. Thus, there will be a decrease in burden from 200 hours which was originally approved, to 134 hours.

16. Plans for Tabulation and Publication and Project Time Schedule

The time schedule for this study is outlined in Table IV at the end of this section. There will be two data collection points at each location, once per season, over two fishing seasons (2014 and 2015). A questionnaire will be administered to fishermen to collect data on risk perceptions, safety attitudes, and beliefs about PFDs as well as exposure and impact of PFD risk communication efforts. The sample size for each survey administration is 200 fishermen (100 at each site).

Similar to the previous OMB-approved information collection, the survey data will be coded and entered into a dataset for analysis. The analyses will include descriptive statistics and tabulation of responses to each of the questions on fishermen’s perceptions and attitudes regarding the risks of falling overboard, and the advantages and disadvantages of PFDs, as well as exposure to and potential influence of risk communication messages.

The results of this study will be published in a peer-reviewed journal to disseminate the findings to the scientific community. Findings will also be published in fishing industry newsletters and magazines.

Table IV. Project Time Table

Activity	Time Schedule
2014 Administration of survey to summer fisheries (Gillnet vessels)	1 month after OMB approval
2014 Administration of phase 1 survey to winter fisheries (Pot-gear/crab vessels)	5 months after OMB approval
2015 Administration of survey to summer fisheries (Gillnet vessels)	13 months after OMB approval
2015 Administration of survey to winter fisheries (Pot-gear/crab vessels)	17 months after OMB approval
Data coding and analysis	18-24 months after OMB approval
Initial reporting/publication	24-30 months after OMB approval

17. Reason(s) Display of OMB Expiration Date is Inappropriate

The OMB expiration date will be displayed.

18. Exceptions to Certification for Paperwork Reduction Act Submissions

There are no exceptions to the certification.

REFERENCES

- Abeyssekera J, Shahnavaz H. 1990. Adaptation to discomfort in personal protective devices: an example with safety helmets. *Ergonomics* 33(2):137-145.
- Akbar-Khanzadeh F. 1998. Factors contributing to discomfort or dissatisfaction as a result of wearing personal protective equipment. *J Human Ergol* 27(1,2):70-75.
- Akbar-Khanzadeh F, Bisesi M. 1995. Comfort of personal protective equipment. *Applied Ergonomics* 26(3):195-198.
- BLS. 2011. National census of fatal occupational injuries in 2011. Washington (DC): United States Department of Labor, Bureau of Labor Statistics. Available from <http://www.bls.gov/iif/oshcfoi1.htm>
- BoatUS. 1998. Inflatable life jackets make the grade. Foundation Findings Report # 30, May 1998. Available from <http://www.boatus.com/foundation/findings/inflatablepfd.htm>
- BoatUS. 2000. What to know before they blow. Foundation Findings Report # 30C, July 2000. Available from <http://www.boatus.com/foundation/findings/floatingonair.htm>
- BoatUS. 2004. How much is that belt pack in the window? Foundation Findings Report # 37 & 38, January 2004. Available from <http://www.boatus.com/foundation/findings/findings38/default.htm.htm>
- Consumer Reports. 1999. Keep your head above water: How to find a life jacket that's comfortable on board, safe in use. May 1999 issue pp. 30-34.
- Forst L, Noth I, Lacey S, Bauer S, Skinner S, Tetrea R, Zanoni J. 2006. Barriers and benefits of protective eyewear use by latino farm workers. *Journal of Agromedicine* 11(2): 11-17.
- Lucas DL, Lincoln JM. 2007. Fatal falls overboard on commercial fishing vessels in Alaska. *Am J Ind Med* 50: 962-968.
- Lucas DL, Lincoln JM, Somervell PD, Teske TD. 2012. Worker satisfaction with personal flotation devices (PFDs) in the fishing industry: evaluations in actual use. *Applied Ergon.*, 43: 747-752.
- Lucas DL, Lincoln JM, Carozza SE, Bovbjerg VE, Kincl LD, Teske TD, Somervell PD, Anderson PJ. 2013. Predictors of personal flotation device (PFD) use among workers in the Alaska commercial fishing industry. *Safety Science* 53: 177-185.
- NIOSH. 1994. Preventing drownings of commercial fishermen. Cincinnati (OH): National Institute for Occupational Safety and Health. Pub. No. 94-107. 9p.

NIOSH. 1997. Commercial fishing fatalities in Alaska – Risk factors and prevention strategies. Cincinnati (OH): National Institute for Occupational Safety and Health. Pub. No. 97-163. 24 p.

NIOSH. 2002. Surveillance and prevention of occupational injuries in Alaska: A decade of progress, 1990-1999. Cincinnati(OH): National Institute for Occupational Safety and Health. Pub. No. 2002-15. 49 p.

NIOSH. 2012a. PFDs That Work: Crabbers. Cincinnati (OH): National Institute for Occupational Safety and Health. Pub. No. 2013-106. 2 p.

NIOSH. 2012b. PFDs That Work: Gillnetters. Cincinnati (OH): National Institute for Occupational Safety and Health. Pub. No. 2013-107. 2 p.

NIOSH. 2012c. PFDs That Work: Longliners. Cincinnati (OH): National Institute for Occupational Safety and Health. Pub. No. 2013-108. 2 p.

NIOSH. 2012d. PFDs That Work: Trawlers. Cincinnati (OH): National Institute for Occupational Safety and Health. Pub. No. 2013-109. 2 p.

NIOSH. 2012e. PFDs That Work: Overview. Cincinnati (OH): National Institute for Occupational Safety and Health. Pub. No. 2013-131. 2 p.

NIOSH (2013). Commercial fishing incident database. System queried by staff at the Alaska Pacific Office on September 19, 2013.

Salazar M, Connon C, Takaro T, Beaudet N, Barnhart S. 2001. An evaluation of factors affecting hazardous waste workers' use of respiratory protective equipment. AIHAJ 62:236-245.