

**SUPPORTING STATEMENT  
FISHERY OBSERVER RETENTION SURVEY  
OMB CONTROL NO. 0648-XXXX**

**B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS**

**1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g., establishments, State and local governmental units, households, or persons) in the universe and the corresponding sample are to be provided in tabular form. The tabulation must also include expected response rates for the collection as a whole. If the collection has been conducted before, provide the actual response rate achieved.**

Potential Respondent Universe

The potential respondent universe consists of all former/current observers that have been an observer in U.S. fisheries. Current observers are defined as holding a validated contract and serving as observer on a U.S. commercial fishing vessel during 2016. Former observers are defined as serving as an observer on a U.S. commercial fishing vessel but under a contract that ended before 2016. For instance, there were 974 current observers with validated contacting information in 2015. An unknown number of former observers without any validated contacting information also are potential respondents.

Sampling and Other Respondent Selection Methods

The survey relies on voluntary responses of former and current observers. The survey will rely on notices to observers from observer provider companies, national and regional observer program managers and staff, observer program newsletters, regional fishery management council newsletters, observer professional associations, social networks, direct communications among observers, and “word of mouth.”

Expected Response Rate

One hundred percent of completed voluntarily-reported surveys will be used in reporting our results. In the year 2015, there were 974 observers. There are no major changes to the program; therefore, we expect the number to remain about the same. The response rate for current observers is estimated to be approximately 60%. Because of an unknown number of former observers, the universe of participants is not available. An estimate of 500 former observers may receive the survey. The corresponding response rate for former observers is expected around 40%. Approximately 785 surveys will be returned in total.

**2. Describe the procedures for the collection, including: the statistical methodology for stratification and sample selection; the estimation procedure; the degree of accuracy needed for the purpose described in the justification; any unusual problems requiring specialized sampling procedures; and any use of periodic (less frequent than annual) data collection cycles to reduce burden.**

The survey is designed to collect information on incentives and disincentives for scientists who work as fishery observers to remain in their position and identify potential actions or requirements to improve observer retention. A link for an online survey will be distributed to former and current observers. The observer sample populations are stratified by region and fishery type. All observers are grouped into one of five categories: (1) Northeast, (2) Southeast, (3) West Coast, (4) Pacific Island and (5) Alaska. Next, fishery types are put into categories. Because of the large variation of fishery type in each region, no general subcategory is used here. For the Northeast, observers are divided into observer, at-sea monitor, and industry funded scallop observer. For Alaska, observers are divided into groundfish and halibut full coverage and groundfish and halibut partial coverage. For the West Coast, there are four subcategories: groundfish non catch-share, groundfish catch-share, California gillnet fisheries, and California longline fishery. For the Pacific Islands, observers are divided into Hawaii pelagic longline and Samoa longline fisheries. For the Southeast, there are five types: pelagic longline, shark bottom longline, gillnets, reef fish and shrimp trawl. Because former observers are also included in the survey and some programs changed or were eliminated over time, there will be another subcategory 'Not listed above' available for each region. This method of stratification results in 23 strata including total populations for current observer and unknown populations for former observers.

Application

A basic application of the survey data will be the inference of non-surveyed observer retention estimates from the surveyed observer retention. Data from this survey will be used to provide clarity on the factors that contribute to observer retention and to ensure NMFS is providing the necessary support for a robust observer program. The feedback from this survey will be used to improve regional observer programs and to support observers in their career development.

**3. Describe the methods used to maximize response rates and to deal with non-response. The accuracy and reliability of the information collected must be shown to be adequate for the intended uses. For collections based on sampling, a special justification must be provided if they will not yield "reliable" data that can be generalized to the universe studied.**

A considerable amount of effort will be implemented to increase the responses, in order to make significantly meaningful and statistically sound inferences about the population. Dillman et al. (2008) suggested several approaches that could improve response rates. In this survey, we will follow several of these approaches.

1. Multiple modes of communications will be used in order to contact potential survey respondents. Studies have shown that implementing multiple modes of contact could

improve response rate and reduce non-response errors in mail surveys (Dillman et al. 1974, 2008; Heberlin and Baumgartner, 1978). Below we explain our multiple mode of contacts:

- a. A pre-notice email and flyer will be developed and distributed to all current observers through regional office and/or observer provider company. The email and flyer will inform observers about the survey and the value and use of this data. The regional office/provider company also will be requested to inform observers during their briefings or trainings. Research has shown that pre-notice improves response rates by 3 to 6 percentage points (Dillman 1991; Kanuk and Berenson 1975).
  - b. One week following distribution of the flyer, regional office and/or observer provider company will be asked to send the survey email that includes an internet link to the survey. The email will explain participation is voluntary and how responding to the survey will provide valuable information to NOAA and to observers.
2. A telephone number will be set up to address any questions or concerns that the respondents may have regarding the survey.
  3. Outreach during International Fisheries Observer and Monitoring Conference
  4. Facebook posting
  5. Outreach to Association of Professional Observers
  6. Observers will distribute the survey link through social networks.

**4. Describe any tests of procedures or methods to be undertaken. Tests are encouraged as effective means to refine collections, but if ten or more test respondents are involved OMB must give prior approval.**

The survey instrument will be pretested with nine former observers who currently are NOAA Fisheries staff. The feedback obtained from pretesting will not be included in the database for analysis, because necessary changes may take place afterwards.

**5. Provide the name and telephone number of individuals consulted on the statistical aspects of the design, and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.**

NMFS/Northeast Fishery Science Center – Dr. Drew Kitts 508-495-4702  
NMFS/Northeast Fishery Science Center – Dr. Patricia Clay 301-427-8116  
NMFS/Office of Science and Technology – Dr. Rita Curtis 301-427-8122  
NMFS/Office of Science and Technology – Dr. Kristy Wallmo 301-427-8190  
NMFS/Office of International Affairs and Seafood Inspection– John Henderschedt 301-427-8314  
NMFS/Alaska Fishery Science Center - Chris Rilling 206-526-4194  
NMFS/Northeast Fishery Science Center - Amy Martins 508-495-2266  
NMFS/Pacific Islands Observer Program – Richard Kupfer 808-725-5105  
NMFS/Southwest Fishery Science Center - Charles Villafana 562-980-4033

NMFS/Northwest Fishery Science Center – Ryan Shama 541-867-0538  
NMFS/Southeast Fishery Science Center – Dr. Elizabeth Scott Denton 409-766-3571  
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The internal NMFS survey design team consists of Dr. Yuntao Wang (301-427-8124) and Jane DiCosimo (301-427-8109).

## **REFERENCES:**

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- Dillman, D. A., J. D. Smyth, and L. M. Christian. 2008. Internet, mail, and mixed-mode surveys: The tailored design method. (3rd ed.), Hoboken, NJ: John Wiley & Sons.
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- Haberlein, T.A and R. Baumgartner. 1978. Factors affecting response rates to mailed questionnaires: A quantitative analysis of the published literature, *American Sociological Review*, 43, 447-462.
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