

**Supporting Statement for Paperwork Reduction Act Submission:**

**Socioeconomic Research and Monitoring Program in Florida Keys National Marine  
Sanctuary: Commercial Fishing Panels and Dive Shop Logbooks**

**OMB CONTROL No. 0648-0409**

**U.S. Department of Commerce  
National Ocean and Atmospheric Administration  
National Ocean Service  
Office of National Marine Sanctuaries  
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## **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.**

For the commercial fishing panels, a sample of 5 to 10 fishing operations has been selected for each panel. Selection was based on a representative set of operations for each panel. This was done by accessing the fish ticket data system maintained by the Florida Fish and Wildlife Research Institute (FWRI). Fish tickets report type of species caught, amount of species caught, revenue received by fisherman, location of where caught, and location of where landed. For the Sambos Ecological Reserve panel, those that fished in the Key West region were first screened for those that fished in the Sambos before July 1997. A representative panel of fishermen was then assembled who agreed to be part of the long-term panel research. The same procedure was followed for the Tortugas Ecological Reserve panel. For the panel of general commercial fishermen in Monroe County that did not fish in any of the zones before their creation, a panel was constructed that generally is representative of the entire commercial fishery in Monroe County before July 1997. A similar procedure was followed for creation of the Marine Life Collectors panel. These panels have been interviewed each year since 1998. Two panel members have had to be replaced. One retired and the other died. New panel members were recruited to replenish the panels.

For the dive shops, sampling methods are not used. Agreements have been made that all dive shops will voluntarily participate in completing the dive logs. This will be a census of the dive shops in the Key Largo and Key West areas. Statistical methods have been tested and peer reviewed for combining on-water observation information with the dive log information in deriving estimates of total use surrounding sinking sites for the Spiegel Grove and the U.S.S. Vandenberg. A complete census of Dive Shops was not obtained in the case of the U.S.S. Spiegel Grove (87% cooperation rate), but a method was developed using on-water observation data to estimate use by non-responding Dive Shops. Seventy-two days per year of on-water observation were obtained for both pre-sinking and post-sinking for the Spiegel Grove and for pre-sinking of the U.S.S. Hoyt Vandenberg. All but three dive shops in the Key Largo/Tavernier area have been providing their dive logs. All three of these dive shops have continued to be relatively low users of the study areas for the Spiegel Grove and consequently the development of a correction factor for extrapolating to total dive shop use was minimal.

**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.**

Commercial Fishing Panels: see Question 1 above.

Dive logs: a census approach is used here. See Question 1 above.

**3. Describe the methods used to maximize response rates and to deal with nonresponse. 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.**

For the commercial fishing panels and the dive shops, non-response has not been a problem. We expected and have received to date a high level of cooperation because the different user groups had requested that we conduct such information collection efforts. Each of these user groups in the FKNMS think that the information collections proposed here are needed in the Socioeconomic Monitoring Program for the FKNMS.

For the Dive Shops, local industry leaders have been used to contact Dive Shop owners/managers to get cooperation. When a Dive Shop refuses to cooperate, industry leaders are informed and they make efforts to get participation. So far, cooperation has been very good. Only three Dive Shops in the Key Largo area did not provide their Dive Logs. On-water observation data will continue to be used to derive a correction factor to extrapolate to the total population of use. Initial review of the on-water observation data reveal that the three Dive Shops that refused to supply their dive logbooks are relatively low users of the study area and therefore the correction factor for extrapolating from sample to population will be small.

**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.**

There is no need for additional testing. Both these efforts are on going and have been working.

**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.**

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## References

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Thomas J. Murray & Associates. 2007. SOCIO-ECONOMIC BASELINE DEVELOPMENT, Florida Keys National Marine Sanctuary, fishing Years 1998 – 2006. Under contract to NOAA. June 2007. Available at <http://sanctuaries.noaa.gov/science/socioeconomic/floridakeys/pdfs/commfishpan7and8.pdf>

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