

## SUPPORTING STATEMENT

### SOCIOECONOMICS OF COMMERCIAL FISHERS AND FOR HIRE DIVING AND FISHING OPERATIONS IN THE FLOWER GARDEN BANKS NATIONAL MARINE SANCTUARY

OMB CONTROL No. 0648-0597

#### 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.**

Commercial Fishers. We estimate the population of commercial fishing operations that operate in the relevant portions of the Northwest Gulf of Mexico Study Area that would be potentially impacted by FGBNMS boundary expansion or research-only areas to number 76 operations. This information was obtained through the use of the Vessel Monitoring System (VMS) mandated by NOAA Fisheries, which tracks commercial vessel locations.

The actual determination was a two-step procedure. In Step 1, we asked NOAA Fisheries Southeast Fisheries Science Center for the names and addresses for all commercial fishing vessels that operate in NOAA Fisheries Gulf of Mexico statistical areas 14, 15 and 16, which most closely overlay our Northwest Gulf of Mexico Study Area. However, this resulted in over 1,000 vessels. In Step 2, we narrowed the list down to 76 operations by asking NOAA Fisheries for the vessels that have operated over the past three years in more precise geographic locations corresponding to the areas where boundary expansion and research only areas will be considered. NOAA Fisheries has required that all commercial fishing vessels have Vessel Monitoring Systems (VMS). Use of this information allowed us to more precisely define the relevant commercial fishing population.

We expect to get between an 85% and 100% response rate, based on our past applications of the same methods of information collection used in the Florida Keys. In our most recent application in the Florida Keys, which included all of the same types of information, we achieved a 90% response rate. As in the Florida Keys application, we will not send questionnaires to commercial fishers to fill out. Instead, we send a team of data collectors into the home or office of the commercial fishers and the data collection team works with the commercial fishers to fill out our questionnaires and spatial catch information work sheets. Interviews are set up in advance and the commercial fishers are informed of the types of information that will be collected and what kinds of records (e.g. log books and financial records) are required for the information collection.

For the For Hire Recreational Diving Operations, in 2011 we completed most of the population but are planning for the possibility of two new operations. We identified the initial population

by reviewing past research on all Texas Gulf of Mexico For Hire Dive Operations and updating from telephone Yellow book and web sites. We expected and got a 100% response rate or a census. The representative for the dive industry on the FGBNMS SAC has assured us that all of their members are highly supportive of the effort and we should expect full cooperation. If new operations have come into business, we expect they will respond.

For the For Hire Recreational Fishing Operations, we completed in 2011 the initial effort identified a population of 20 operations. We identified these operations through NOAA Fisheries, telephone yellow book, web sites and fishing magazines. We achieved a 100% response rate or a census. The representatives for the recreational fishing industry have assured us that their members are highly supportive of the effort and we should expect full cooperation. If new operations have come into being, we expect they will also respond.

**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.**

Generally, we expect to get a census for all three user groups. For commercial fishers, we expect, based on past experience, that the minimum response rate would be 85%. In past experiences, the 15% that don't respond accounted for less than 5% of total catch, so we think we will be as close to a census as practical.

**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.**

In January 2009, Bob Leeworthy attended the FGBNMS SAC Meeting and presented all that we currently know about the commercial fishers, for hire recreational diving industry and the for hire recreational fishing industry. The FGBNMS SAC representatives for each of these three user groups all agreed that the information currently available was inadequate to address the assessment of the potential socioeconomic impact of various boundary alternatives for FGBNMS boundary expansion alternatives or research only areas. Bob presented what information collection he thought would provide the necessary information to build a decision support tool to allow FGBNMS management and a working group of the SAC to evaluate regulatory alternatives in designing boundary expansion or research only areas. User group representatives each said they would contact their memberships and do their best to make sure we got maximum cooperation.

In 2011, Texas A&M students with oversight with their major Professor, William Heyman, completed the for hire diving and fishing industry operations. However, funding was not available to do the commercial fishing operations which are located in Texas, Louisiana, Florida,

Alabama and Mississippi. We have only now been successful in securing the necessary funding to complete the effort.

In past applications (most recent in Florida Keys—see OMB 0648-0534), we did achieve over 85% response rates for both commercial fishing operations and dive operations. So far with the for hire industry, we have achieved 100% response or a census. In addition, we had no item non response, even for income questions, as we experience when surveying households. So we do not expect non response bias to be a significant issue for the populations in this information collection request.

**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.**

All of the questionnaires and methods proposed here have been employed in past information collections and so are well tested. They all have been slightly modified for application to the FGBNMS. We have also worked through the FGBNMS SAC to make sure that the members of each user group will know why it is important to provide the information and how it will be used, in order to receive a high level of cooperation in providing the information requested.

**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

- Gulf States Fisheries Economics Workshop. 2009. New Orleans, Louisiana, March 19-20, 2009. Gulf States Marine Fisheries Commission, Ocean Springs, Mississippi. Alex L. Miller Workshop Coordinator.
- Liese, Christopher, Carter, David, and Curtis, Rita. 2009. Surveying the For-Hire Sector: Economic Heterogeneity in the Southeastern U.S. Charter Boat Industry. Staff Paper, NOAA Fisheries Service, Southeast Fishery Science Center, Miami, Florida, pp 20.

Shivlani, M., Leeworthy V.R., Murray, T.J., Suman, D.O., and F. Tonioli. 2008. Knowledge, Attitudes and Perceptions of Management Strategies and Regulations of the Florida Keys National Marine Sanctuary by Commercial Fishers, Dive Operators, and Environmental Group Members: A Baseline Characterization and 10-year Comparison. Marine Sanctuaries Conservation Series ONMS-08-06. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries, Silver Spring, MD. 170 pp.