#### SUPPORTING STATEMENT MARINE RECREATIONAL INFORMATION PROGRAM OMB CONTROL NO. 0648-0052

#### **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.

#### 1.1. MRIP Fishing Effort Survey

Each year, the MRIP Fishing Effort Survey (MFES) will be conducted for six two-month waves in 17 states with coastline bordering the Atlantic Ocean and Gulf of Mexico, excluding Texas. The survey is a dual-frame design that samples from the United States Postal Service Computerized Delivery Sequence File (CDS) and state databases of licensed saltwater anglers. Each state within the study area is stratified into coastal and non-coastal strata defined by geographic proximity to the coast; counties with a border that is within 25-miles of the coast comprise the coastal stratum and all other counties comprise the non-coastal stratum. In addition, non-resident strata include anglers who are licensed to fish in a state within the study area, but reside in a different state. The CDS is the sample frame for the coastal and non-coastal strata, and state license databases are the sample frame for the nonresident strata.

For each wave a sample of 107,100 addresses within the study area is selected from the CDS, and 4,845 non-resident anglers are sampled from state saltwater license databases. Sampled addresses within a state are augmented by matching the addresses to that state's saltwater license database. In this case, the license database includes all resident anglers who were licensed to fish in the state during the wave. All addresses that match to the license database are retained in the sample, and addresses that do not match are sub-sampled such that expected completed surveys are optimally allocated among geographic strata and matched/unmatched classes to achieve a coefficient of variation of 10% on estimates of fishing effort at the state/wave level. Sub-sampling of the initial address sample results in an estimated total sample of 85,000 addresses in the final sample.

MFES WAVE	CDS	License Frame
Frame Size	42,946,443 <sup>1</sup>	583,000 <sup>2</sup>
Sample Size	85,000	4,845
Expected Response Rate	45%	60%
Completed Surveys	34,425	2,907

<sup>&</sup>lt;sup>1</sup> Estimated number of residential addresses in the 17 coastal states included in the study area, as of 12/31/2011.

<sup>&</sup>lt;sup>2</sup> Estimated number of nonresident anglers licensed to fish in the 17 coastal states included in the study area, as of 12/31/2011.

As described above, the final sample will consist of approximately 85,000 addresses and 4,858 licensed anglers. For the address sample, we expect an ineligibility rate<sup>3</sup> of 10% and a response rate of 45%, resulting in 34,425 completed surveys each wave. For the license sample, all sample units will be considered eligible, and we expect a response rate of 60% resulting in 2,907 completed surveys each wave. We expect a total of 37,332 completed surveys from both frames each wave (totaling 223,992). Estimates of ineligibility rates and response rates are based upon results from previous pilot studies.

#### 1.2. Access-Point Angler Intercept Survey

The Access-Point Angler Intercept Survey (APAIS) will be conducted for six, two-month waves in 17 states bordering the Atlantic Coast and Gulf of Mexico, with the exception of Texas, as well as in Puerto Rico and Hawaii. The universe for the APAIS is the estimated 5-20 million (median: 12.5 million) marine recreational fishing trips that are taken during each wave. From this universe, we sample approximately 21,765 completed fishing trips, resulting in approximately 18,500 completed interviews each wave (totaling 111,000).

APAIS TRIPS PER WAVE	
Universe Size <sup>4</sup>	10,000,000
Sample Size <sup>5</sup>	21,765
Expected Response Rate <sup>6</sup>	85%
Complete Surveys	18,500

# 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.

Attachment A provides an overview of the sampling and estimation designs for the MFES and APAIS. The surveys, which are conducted for independent, two-month reference waves, were designed to produce estimates of fishing effort and catch by species with sufficient reliability to support management actions and effectively monitor recreational fisheries landings. A coefficient of variation of 20% on catch estimates for commonly encountered species at the state/wave level is desired.

<sup>&</sup>lt;sup>3</sup> Ineligible addresses are those that are determined by the USPS to be undeliverable.

<sup>&</sup>lt;sup>4</sup> The size of the sample universe for each wave varies throughout the year from 5 million fishing trips to more than 20 million fishing trips.

<sup>&</sup>lt;sup>5</sup> Field samplers attempt to intercept al completed fishing trips during site/day/time sampling assignments. Sample sizes reported here are based upon historical interviewing productivity.

<sup>&</sup>lt;sup>6</sup> Estimated based upon historical APAIS response rates.

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.

Standard mail survey protocol (Dillman et al, 2008) will be implemented for the MFES. An initial mailing will include an introductory letter stating the purpose of the survey, the survey questionnaire, a business reply envelope, and a prepaid cash incentive. Incentive levels of \$0, \$1, \$2 and \$5 will be evaluated. A thank-you/reminder postcard will be sent to all sample units one week following the initial mailing. A final mailing, including a second questionnaire, a nonresponse conversion letter, and a business reply envelope will be sent to all nonrespondents three weeks after the initial mailing. We will account for nonresponse by adjusting weights of responding units to account for nonrespondents within nonresponse adjustment cells.

We plan to evaluate two versions of the MFES questionnaire. The first version will be clearly identified as a recreational saltwater fishing survey. The second version will include 2-3 household-level questions about activities other than recreational saltwater fishing. The intent of this evaluation is to maximize responses by both anglers and non-anglers and subsequently minimize the potential for nonresponse error. The questionnaires will be compared in terms of response rates and nonresponse error.

Response rates for the APAIS will be maintained at the high levels achieved to date with the current version of the intercept survey, through intensive interviewer training and monitoring.

## 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.

No additional testing is planned.

### 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.

Statistical support was provided by the following: Dr. J. Michael Brick, Westat, 301-294-2004 Dr. Nancy A. Mathiowetz, University of Wisconsin-Milwaukee, 414-229-2216

Rob Andrews, Fisheries Biologist, NOAA Fisheries Service, Office of Science and Technology, 301-427-8105 is the point-of-contact for the Agency.