SUPPORTING STATEMENT
MARINE RECREATIONAL INFORMATION PROGRAM
OMB CONTROL NO. 0648-0659

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 Access-Point Angler Intercept Survey

The MRIP Access-Point Angler Intercept Survey (APAIS) is a bi-monthly (wave), in-person survey designed to estimate the catch rates, by species, catch category (harvested or released alive), and mode (Charter Boat, Party Boat, Private or Rental Boat, Shore fishing), of anglers participating in marine recreational fishing in the study states. The 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, the US Virgin Islands, 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 7,000 - 27,000 completed fishing trips, resulting in 6,800 – 25,800 completed interviews per wave.

Table 1. Marine Recreational Angler-Trip Intercept Sampling

Universe Size	10,000,000 angler-trips per wave[1]	
Complete Surveys	wave 1: 4,600	wave 4: 29,200
	wave 2: 8,800	wave 5: 17,300
	wave 3: 26,400	wave 6: 8,700[2]

Table 2. APAIS Annual Response Rates, 2013-2014 (complete year sampled, new design)

Regions	Non-Response (%)	Response (%)
Atlantic & Gulf of Mexico	19.5	80.5

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, and stakeholder outreach efforts. Additional training will be developed to address conversion of

[1] 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.

[2] Annual total angler-intercepts obtained is approximately 95,000 (2013-2015).

the initial refusals, which have begun to increase in recent years.

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.

A critical review conducted by the National Research Council (2006) identified problems in the Access Point Angler Intercept Survey (APAIS) that the NOAA Fisheries Service has conducted for many years as a component of the Marine Recreational Fisheries Statistics Survey (MRFSS). The APAIS had been using a stratified, multi-stage cluster sampling design to collect catch data from anglers at fishing access sites, but the survey estimators and measures of precision were not accounting for the complex design. In addition, the sampling protocols for the APAIS had combined formal randomization with subjective decision-making in ways that further complicated the development of statistically valid, defensible estimators and measures of precision. Finally, the spatiotemporal sampling frame used for the survey was incomplete and did not provide adequate coverage of angler fishing days ending at night.

Breidt et al (2011) noted the weighted estimation method will only provide correct estimates of mean catch rates "when the sampling, data collection, and data processing for the APAIS are conducted in accordance with the documented sampling design". Errors could be introduced into the weighted estimator if the data structure is not arranged to accurately reflect the stratified, probability-proportional-to-size (PPS) multistage sampling design, or if the field samplers misinterpret the sampling and measurement protocols. More formalized sampling protocols with stricter control of sampler behavior are needed to ensure that a probability sample is consistently obtained. Chromy, et al (2009) stressed that "it is necessary to know the probability of selection of each unit (landing site, vessel trip, angler, or fish) interviewed or observed". Breidt, et al (2011) pointed out that a re-design of the APAIS would (1) make it much less complicated to determine the true sample selection probabilities, (2) eliminate the need for model-based weighting methods, and (3) provide a means for a strictly design-based approach to unbiased estimation.

The APAIS is based upon a stratified, multi-stage cluster design. Samples are selected from a comprehensive, spatio-temporal list of site-days, constructed by crossing a list of publicly-accessible fishing sites/landing sites with a list of available sampling days within a two-month wave.

2.0.1. Sample Design

The primary sampling unit (PSU) is a site-day that comprises a combination of a selected fishing site with a selected day. Within strata, a sample of site-days is selected from a frame consisting of all possible combinations of site-days by a probability proportional to size without replacement sampling scheme, where the size measure for a given PSU is a prediction of the mean number of angler fishing trips that an assigned interviewer would encounter. The number of stages of sampling in the APAIS is dependent on the type of fishing activity. Sampling of boat fishing activity occurs in three stages in which the secondary sampling unit (SSU) is boat trips

within the selected site-day (PSU) and the tertiary sampling unit (TSU) is angler trips within the intercepted boat trip (SSU). Sampling of shore fishing activities occurs in two stages in which the SSU is angler trip within the selected site-day (PSU).

For each wave, sampling of PSU's is stratified by state, month, kind of day (weekend or weekday), six-hour time interval and fishing mode. Stratum variables were selected to maximize sampling efficiency while ensuring adequate sampling coverage and sample size among geographic regions, seasons and time intervals.

2.0.2. Estimation/Weighting

The base weight for each PSU is equal to the inverse of its selection probability. Where a census is achieved at the 2nd and/or 3rd stage of sampling, the final weights for each intercepted trip are equal to the PSU weight. When a census is not possible, sample weights are adjusted by 2nd/3rd stage selection probabilities. Estimates of catch-per-trip, by species, are calculated as weighted means of counts of fish reported per intercepted trip using the final sampling weights.

2.1. Data Collection Procedures

The Intercept Survey will be conducted in the Atlantic states (ME - GA) and the Gulf states (FL - LA) by two-month sample waves. Not all states and modes are sampled in each wave. Atlantic Coast sampling will be conducted in NC in Jan/Feb, MA – GA in Mar/Apr, ME -GA in May/Jun, Jul/Aug, and Sep/Oct waves, and in MA to GA in Nov/Dec. In Jan/Feb only Shore, Private or Rental Boat, and Charter Boat angling will be surveyed in North Carolina. All survey modes will be sampled in wave 2 in MA to GA, and all modes in all Atlantic states will be sampled in waves 3 – 5. In wave 6, all modes will be surveyed in NY – GA, and shore, private/rental boat, and charter boat modes will be sampled from MA, RI, and CT. The survey is not conducted in wave 6 in ME and NH. All modes and all waves are sampled in the Gulf States. Although Florida is considered a Gulf State, both coasts are sampled by the APAIS. These specific sampling periods by state or region encompass the majority of the recreational fishery seasons. Prior surveys indicated recreational fishing outside these periods was rare, contributed a very small percentage of annual landings of managed fishes, and would be disproportionately expensive to estimate precisely.

The two main data collection tasks of the APAIS are counts of completed angler fishing trips and angler-intercept interviews. Only saltwater recreational fishing trips are included in the APAIS. The sample size is defined as the total number of assignments completed or primary sampling units (PSUs, defined as the combinations of cluster-calendar day-time interval) visited rather than the number of interviews attained. The angler interviews are obtained by intercepting marine recreational anglers at shore (SH), private/rental boat (PR), and charter boat (CH) access points. Sampling in the party (or head) boat (HB) mode will include riding on the boats during fishing days (no overnight fishing trips will be sampled). The interviews will ask anglers about their fishing day and obtain some demographic data about the angler. To ensure only eligible anglers are interviewed several screening questions are asked of potential respondents: did they fish in saltwater, fish for primarily recreation, complete fishing in the sampled mode for the day, and only fish for finfish, or incidentally catch finfish (a sample screening script is attached).

The clustering of sites allows for more efficient sampling of a larger number of sites, maintains the cost-effective emphasis of the prior MRFSS design, and removes sampler discretion, therefore minimizing individual site-selection bias. The pre-determined maximum number of sites in a given cluster is two (a decrease from three since implementation in 2013). To remove sampler discretion, all sites within the cluster will be visited in the order specified during the assignment draw process. For two-site clusters samplers will spend three hours at the first site and sample the second site from time of arrival until the time interval ends. At a single site cluster the sampler will remain at the site for the entire 6-hour time interval.

The following criteria are used for clustering:

- Sites with a pressure code of "4" or greater[3] would not be clustered with other sites (i.e. single site cluster);
- Sites with a pressure code of "3" or less could be clustered with one additional site;
- Driving time between any two sites within a single cluster must be less than 60 minutes;
- Total driving time for the entire cluster should be minimized;
- Clusters will contain sites only within the same county;
- Sites will be clustered by strata (county/month/mode) such that all sites within the cluster are required to have some level of fishing pressure in that strata; and
- In addition to county/month/mode, clusters should be time interval specific since individual site pressures will vary across intervals (e.g., a high pressure site may be a single site cluster from 2:00PM-8:00PM but clustered with other sites from 8:00PM-2:00AM; some sites will not have any mode-specific fishing activity in one or more time intervals).

Although more time consuming, clustering by time interval was necessary to avoid scenarios where two or more very low pressure sites are clustered during daytime intervals but only one of the sites has nighttime activity. Clustering by time interval guarantees that all sites within the cluster will have some associated fishing pressure.

2.2. Estimation Methods for Catch Rates and Proportions in APAIS

Stratification. Stratify population into $h = 1,\ldots, H$ strata. Each stratum is defined by Mode, State, Year, Wave, Region, Month, KOD, and Interval.

Modes are Beach-Bank (BB), Man-Made Structures (MM), Charter Boat (CH), and Private/rental boat (PR).

Efficient sampling of the coastal counties of a state may require sub-state regions. These regions will be defined by state, but most states will be sampled as a single geographic region.

[3] Expected activity per site is coded using 'pressure' categories. These numeric codes represent a range of anglers expected to complete fishing in a specific mode during the sample period and are non-uniform. '0'=1-4 anglers; '1'=5-8 anglers; '2'=9-12 anglers; '3'=13-19 anglers; '4'=20-29 anglers; '5'=30-49 anglers; '6'=50-79 anglers; '7'=80 and greater anglers; '9'=fishing mode not present.

KOD is kind of day or day type, that is, weekday (WD) and weekend (WE).

Interval is any of 6-hr blocks (2AM-8AM, 8AM-2PM, 2PM-8PM, 8PM-2AM, 11AM-5PM) within a 24-hr day.

Stage I weight. Cluster-days are sampled within stratum via ppswor and assigned to samplers as an assignment. Let $s=\{a_i \vee i=1,\ldots,n_h\}$ denote the set of samples. Probability of drawing one assignment is

$$Pr(s=a_i)=\frac{z(a_i)}{\sum_{i=1}^{N_h} z(a_i)} \quad (1)$$

where $z(a_i)$ is the pressure of the *i*th assignment (i.e., cluster-day) and N_h is total number of cluster-days in the *h*th stratum. The inclusion probability of the *i*th cluster-day (or assignment) is $\pi_{I,hi}$.

$$\pi_{I,hi}=\sum_{i=1}^{N_h} \frac{z(a_i)}{\sum_{i=1}^{N_h} z(a_i)} I(a_i \in s) \quad (2)$$

where $I(a_i \in s)$ = 1 if $a_i \in s$ is true and 0 otherwise. The Stage I weight is

$$w_{I,hi}=\pi_{I,hi}^{-1}. \quad (3)$$

Stage II weight. A cluster includes up to three sites (j = 1,…,J_i where $J_i \leq 3$). All sites within a sampled cluster must be visited at least once within the 6-hr interval, $\Delta(T_1,T_2)$, where T_1 and T_2 respectively are the lower and upper boundaries of each 6-hr interval (see *Stratification*). Site visiting is divided into several disjoint time-windows. Each window has specialized activities of the sites: intercepts, counts, intercepts-and-counts (both), and travel.

An example of assignment *i* that consists of two sites (Sites A and B) in an assignment is given below. In the 6-hr interval, sampler's activity is specified by k = 1,…, 6 windows as shown in the table. Site A is visited in two different windows, t_1-t_3 and t_6-t_7. The first visit of Site A has two different activities, intercepts in window t_1-t_2 and counts in window t_2-t_3. During the second visit of Site A (window t_6-t_7), as well as Site B (window t_4-t_5), the sampler conducts intercepts-and-counts (both).

Time-window (k)	(1) t_1-t_2 0800-0930	(2) t_2-t_3 0930-1000	(3) t_3-t_4	(4) t_4-t_5 1000-1200	(5) t_5-t_6	(6) t_6-t_7 1230-0200
Time spent	$\Delta(t_1,t_2)=1.5$	$\Delta(t_2,t_3)=0.5$	$\Delta(t_3,t_4)$	$\Delta(t_4,t_5)=2$	$\Delta(t_5,t_6)$	$\Delta(t_6,t_7)=1.5$
activity	Site A intercepts	Site A counts	Travel	Site B both	Travel	Site A both
Angler intercepts	$I_A(1) = I_A(t_1,t_2) =$ 8	0		$I_B(4) = I_B(t_4,t_5) =$ 5		$I_A(6) = I_A(t_6,t_7)$ = 6
Obs. departures	0	$D_A(t_2,t_3) = 10$		$D_B(t_4,t_5) = 7$		$D_A(t_6,t_7) = 10$

The data values for this table can be obtained from Assignment Summary Form (ASF),

Angler Intercepts (k) = ints(k) + other3(k) + other4(k) + other5(k)

Obs. Departures(k) = Confirmed(k) + Unconfirmed (k) for $D_A(t_2,t_3)$

Obs. Departures(k) = Confirmed(k) + Unconfirmed (k) + Angler Intercepts (k) for $D_A(t_6,t_7)$ and $D_B(t_4,t_5)$

where k is the time window that sampler involves in counts, intercepts, or both.

The Site B is visited only once and the site weight computed by

$$w_{B,k\vee i}=w_{B,4\vee i}=\frac{D_B(t_4,t_5)}{I_B(t_4,t_5)}\frac{\Delta(T_1,T_2)}{\Delta(t_4,t_5)}=\frac{7}{5}\frac{6}{2}=4.2 \qquad (4)$$

The first visit to Site A has two activities in two disjoint windows: intercepts in t_1-t_2 and counts in t_2-t_3. It is necessary to use $D_A(t_2,t_3)$ for estimating $D_A(t_1,t_2)$ assuming that observed departures are uniformly distributed over (T_1, T_2) interval:

$$\hat{D}'_A(t_1,t_2)=\frac{\Delta(t_1,t_2)}{\Delta(t_2,t_3)}D_A(t_2,t_3)=\frac{1.5}{0.5}\times 10=30 \qquad (5)$$

If $\hat{D}'_A(t_1,t_2)<I_A(t_1,t_2)$, set $\hat{D}'_A(t_1,t_2)=I_A(t_1,t_2)$. The estimate of total departures in t_1-t_2 window is $\hat{D}_A(t_1,t_2)=I_A(t_1,t_2)+\hat{D}'_A(t_1,t_2)=8+30=38$. Once the total departures in t_1-t_2 (k = 1) is estimated, the weight of the first visited Site A is

$$w^{\square}_{A,1\vee i}=\frac{\hat{D}_A(t_1,t_2)}{I_A(t_1,t_2)}\frac{\Delta(T_1,T_2)}{\Delta(t_1,t_2)}=\frac{38}{8}\frac{6}{1.5}=19 \qquad (6)$$

For the second visit of Site A in t_6-t_7 window (k = 6), the weight is

$$w^{\square}_{A,6\vee i}=\frac{D_A(t_6,t_7)}{I_A(t_6,t_7)}\frac{\Delta(T_1,T_2)}{\Delta(t_6,t_7)}=\frac{16}{6}\frac{6}{1.5}=10.67 \qquad (7)$$

The final weight of Site A is a linear combination of $w^{\square}_{A,1\vee i}$ and $w^{\square}_{A,6\vee i}$, in proportion to the length of time spent on two visits of Site A:

$$w_{A,\cdot\vee i}=\frac{\Delta(t_1,t_2)}{\Delta(t_1,t_2)+\Delta(t_6,t_7)}w^{\square}_{A,1\vee i}+\frac{\Delta(t_6,t_7)}{\Delta(t_1,t_2)+\Delta(t_6,t_7)}w^{\square}_{A,6\vee i} \quad (8)$$

$$¿\ \frac{1.5}{1.5+1.5}19+\frac{1.5}{1.5+1.5}10.67=14.84 (8)$$

where $\bullet$ indicates the combination of Site A in two time windows. Intuitively,

$$w_{B,\cdot\vee i}=w_{B,4\vee i}. \quad (9)$$

In cases where angler intercepts = 0 but observed departure $\neq$ 0, replace angler intercepts = 1 in the calculation of site weights. This replacement is artificially and only for the estimation of total effort. For the estimation of catch rate, this replacement should not be used. Other cases of revisits and design changes can follow the approaches given in this example.

Effort. Note that the effort in this section is estimated from intercept survey (Assignment Summary Files). This effort is served for stratum weights when stratum catch rates and other similar statistics are estimated. For total catches, the efforts are estimated from CHTS and/or FHS data.

Effort is expressed by number of angler-trips. Total effort of Site-*j* in the assignment is estimated by

$$\hat{t}_{x,hij}=w_{j,\cdot\vee i}\sum_{k\in j}I_j(k\vee i) \quad (10)$$

where $k \in j$ indicates sampler work at Site-*j* in the window-*k*. Total effort of the *i*-th cluster day (PSU of the assignment) is the sum of effort of all sites in the cluster-day:

$$\hat{t}_{x,hi}=\sum_{j=1}^{J_i}\hat{t}_{x,hij} \quad (11)$$

Using the example, the effort from the two sites during the 6-hr interval is calculated by

j)

	Intercepts ($\sum_{k\in j}I_j(k\vee i)$)	$w_{j,\bullet\|i}$	Effort ($\hat{t}_{x,hij}$)
	8 + 6 = 14	14.84	207.76
	5	4.20	21.00

total effort of the *i*-th assignment ($\hat{t}_{x,hi}$)	228.76

Total effort in the *h*th stratum:

$$\hat{t}_{x,h}=\sum_{i}^{n_h} w_{I,hi}\hat{t}_{x,hi}$$

Catch Rates. The total A-type catch of a species for boat-based fishing is estimated by

$$\hat{t}_y^A=\sum_{h=1}^{H}\hat{t}_{y,h}$$

$\hat{t}_{y,h}$: est. total catch for startum *h*

$$¿\sum_{h=1}^{H}\sum_{i=1}^{n_h} w_{I,hi}\hat{t}_{y,hi}$$

$\hat{t}_{y,hi}$: est. total catch for assignment *i*|*h*

$w_{I,hi}$: stage I weight
n_h: number of sites in assignment *i*|*h*

$$¿\sum_{h=1}^{H}\sum_{i=1}^{n_h}\sum_{j=1}^{J_i} w_{I,hi}\hat{t}_{y,hij}$$

$\hat{t}_{y,hij}$: est. total catch for site *j*|*hi*: see (10)

J_i: number of sites assignment *i*|*h*

$$¿\sum_{h=1}^{H}\sum_{i=1}^{n_h}\sum_{j=1}^{J_i} w_{I,hi}\left(\hat{t}_{x,hij}\frac{\sum_{b=1}^{b_{hij}}\hat{t}_{y,hijb}}{\sum_{b=1}^{b_{hij}} t_{x,hijb}}\right)$$

$\hat{t}_{y,hijb}$: est. total catch for boat-trip *b*|*hij*

$t_{x,hijb}$: PARTY, number of anglers on boat-trip *b*|*hij*

$\frac{\sum_{b=1}^{b_{hij}}\hat{t}_{y,hijb}}{\sum_{b=1}^{b_{hij}} t_{x,hijb}}=\hat{\bar{y}}_{hij}$: est. catch per angler-trip for site *j*|*hi*

$\hat{t}_{x,hij}$: est. total anglers for site *j*|*hi*; see (11)
b_{hij}: number of sampled boat-trips for site *j*|*hi*

$$¿\sum_{h=1}^{H}\sum_{i=1}^{n_h}\sum_{j=1}^{J_i}\sum_{b=1}^{b_{hij}} w_{I,hi}\left(\frac{\hat{t}_{x,hij}}{\sum_{b=1}^{b_{hij}} t_{x,hijb}}\right)\hat{t}_{y,hijb}$$

$$¿\sum_{h=1}^{H}\sum_{i=1}^{n_h}\sum_{j=1}^{J_i}\sum_{b=1}^{b_{hij}} w_{I,hi}\left(\frac{\hat{t}_{x,hij}}{\sum_{b=1}^{b_{hij}} t_{x,hijb}}\right)\left(t_{x,hijb}\frac{\sum_{g=1}^{g_{hijb}} y_{hijbg}}{\sum_{g=1}^{g_{hijb}} x_{hijbg}}\right)$$

y_{hijbg}: number of fish for angler-group $g|hijb$

x_{hijbg}: contributors for angler-group $g|hijb$

$\frac{\sum_{g=1}^{g_{hijb}} y_{hijbg}}{\sum_{g=1}^{g_{hijb}} x_{hijbg}} = \hat{\bar{y}}_{hijb}$: est. catch per angler-trip for boat-trip $b|hij$

$g_{hi\,jbg}$: number of sampled angler-groups for Boat-trip $b|hij$

$$¿\sum_{h=1}^{H}\sum_{i=1}^{n_h}\sum_{j=1}^{J_i}\sum_{b=1}^{b_{hij}}\sum_{g=1}^{g_{hijb}} w_{I,hi}\left(\frac{\hat{t}_{x,hij}}{\sum_{b=1}^{b_{hij}} t_{x,hijb}}\right)\left(\frac{t_{x,hijb}}{\sum_{g=1}^{g_{hijb}} x_{hijbg}}\right) y_{hijbg} \qquad (12)$$

To estimate total B-type catches of boat-based fishing, substitute $x_{hijbg}= 1$ and $\sum_{g=1}^{g_{hijb}} x_{hijbg} = g_{hijb}$ into the above equation to obtain:

$$\hat{t}_y^B = \sum_{h=1}^{H}\sum_{i=1}^{n_h}\sum_{j=1}^{J_i}\sum_{b=1}^{b_{hij}}\sum_{g=1}^{g_{hijb}} w_{I,hi}\left(\frac{\hat{t}_{x,hij}}{\sum_{b=1}^{b_{hij}} t_{x,hijb}}\right)\left(\frac{t_{x,hijb}}{g_{hijb}}\right) y_{hijbg} \qquad (13)$$

The shore-based fishing does not involve boat-trip sampling stage. Explicitly, $t_{x,hijb}$ and $\sum_{b=1}^{b_{hij}} t_{x,hijb}$ are removed out of the equations for $\hat{t}_y^A$ and $\hat{t}_y^B$. Alternatively, one can treat each individual interview (either an angler-group for A-type catch or an angler for B-type catch) as a boat-trip. Therefore, $b_{hij}=1$ and $t_{x,hijb}=1$, and thus, $\sum_{b=1}^{b_{hij}} t_{x,hijb}=1$, which implicitly cancels out the boat-trip stage from the equations for shore-based fishing.

Proportions. Apply the equation of $\hat{t}_y^B$ for estimation of proportions. For example, if one intents to estimate proportion of angler-trips fish in area 1, one will set $y_{hijbg}=1$ if angler reports fishing in area 1 and $y_{hijbg}=0$ otherwise. Proportion of in-frame anglers follows the same approach.

Variance. The variance of PSU (= cluster-day or assignment) is the dominant component and is estimated by linear approximation.

Total efforts: Total effort is estimated from CHTS data. The raw estimates of total effort in angler-trips are adjusted by proportions of resident-to-trip County and proportions of in-frame anglers (non-coastal and out-of-state anglers), and partitioned into three fishing areas (in-land, state and federal waters).

Total catches = catch rate × total effort by species in mode-state-region-year-wave-area stratum.

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.

The expected response rates for the APAIS are above 80% but have declined since the new survey design was implemented in 2013. Over the next 3 years we will be working closely with the MRIP Communication and Education Team to produce outreach and education materials to keep all potential respondents informed about what the survey is, how it has evolved into the 2013 APAIS, how it has been further improved since 2013, how the data are used, and the importance of participation in the surveys. The field interviewer training will include a new section on initial refusal conversion and all data collection supervisors will be advised of non-response and refusal rates following each data collection wave. Outreach materials will include pamphlets and information cards (business card size with URL for more information online) to be distributed to anglers and the general public using the sampled access points. Directed informative presentations (websites, podcasts, webinars) are available on agency websites and/or will periodically be hosted by the NMFS, as well as occasional in-person slide and video presentations to organizations (upon invitation) and hosted public meetings.

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:

F. Jay Breidt, Colorado State University,
James R. Chromy, RTI International (retired),
Dr. Thomas Sminkey, Statistician (biology), NOAA Fisheries Service, Office of Science and Technology, 301-427-8177 is the point-of-contact for the Agency.

References

Breidt, F. J., H. L. Lai, J. D. Opsomer, and D. A. Van Voorhees (2011) A Report of the MRIP Sampling and Estimation Project: Improved Estimation Methods for the Access Point Angler Intercept Survey Component of the Marine Recreational Fishery Statistics Survey. http://www.countmyfish.noaa.gov/projects/downloads/Final%20Report%20of%20New%20Estimation_Method_for_MRFSS_Data-01242012.pdf

Chromy. J. R., S. M. Holland, and R. Webster (2009) Consultant's Report: For-Hire Recreational Fisheries Surveys. https://www.st.nmfs.noaa.gov/pims/main/public?method=DOWNLOAD_FR_PDF&record_id=451

National Research Council, Committee on the Review of Recreational Fisheries Survey Methods (2006) Review of Recreational Fisheries Survey Methods. 202 pp. http://www.nap.edu/catalog/11616.html