Development of a Charter For-hire Electronic Reporting Program in the Gulf of Mexico and South Atlantic

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Ken Brennan, NMFS Southeast Fisheries Science Center
Dave Gloeckner, NMFS Southeast Fisheries Science Center
Vivian Matter, NMFS Southeast Fisheries Science Center
John McGovern, NMFS Southeast Region
Ron Salz, NMFS Science and Technology
Andy Strelcheck, NMFS Southeast Region
Steve Turner, NMFS Southeast Fisheries Science Center

Purpose of this Document

The purpose of this document is to gather feedback from the Councils early in the development of an electronic reporting program for charter vessels to help better guide Technical Subcommittee discussions. The document is intended to be a decision document for the Councils to refine electronic reporting objectives and what they envision charter for-hire electronic reporting to look like in the for-hire sector. By clearly defining objectives and identifying key challenges, the Subcommittee, NMFS, and state partners can then design electronic reporting approaches that best meet management and scientific objectives. Tools for collecting electronic data can also be identified that best meet the needs of management, Council objectives, and the preferred survey approach.

Background

Currently, charter for-hire catches in the Southeast are monitored through a combination of effort and dockside intercept surveys (Appendix 1). The Marine Recreational Information Program's (MRIP) For-hire Survey estimates charter vessel catches of state and federally managed species off Atlantic and Gulf coast states, with the exception of Texas. The Texas Parks and Wildlife Department conducts their own creel survey for estimating private and charter landings and the state of South Carolina currently administers a paper-based logbook reporting program. In recent years, interest by constituents and the Councils has been growing to implement electronic reporting requirements in the for-hire sector. There is general distrust of MRIP landings estimates and managers and fishermen have expressed a need for more timely and accurate data to support fishery monitoring, science, and management. Additionally, the National Research Council's (NRC) review of recreational survey methods concluded that in most cases charter boats should be required to maintain logbooks of fish landed and kept (Sullivan et al. 2006). These factors led to an electronic logbook pilot study of Texas and Florida charter vessels in 2010-11 (Donaldson et al. 2013) and new electronic reporting regulations for headboats in 2014 (NOAA 2014). Four additional projects have also been funded by MRIP or the National Fish and Wildlife Foundation in 2014 to test new (or improved) approaches for monitoring charter boat catch and effort (Appendix 2). Both the Gulf

of Mexico and South Atlantic Fishery Management Councils have also passed motions at recent meetings to require electronic reporting by charter vessels. A Technical Subcommittee is now being formed by the Councils. The charge of this Subcommittee is to develop recommendations for Council consideration by December 1, 2014, on how to best achieve an electronic reporting system for charter vessels.

In January 2014, a national electronic monitoring workshop was held in Seattle, Washington. The workshop was designed to bring together people from diverse interests, fisheries, and regions to discuss how to move forward with implementing electronic monitoring in federal fisheries. One of the key takeaways from the national workshop was the need to develop clear program objectives up front. Other key elements for successful development of electronic monitoring and reporting programs included ensuring all stakeholders are involved in the planning process and identifying solutions to challenges currently impeding successful implementation of electronic monitoring. There was also caution about overreliance on new technology to fully resolve ongoing fishery problems.

What are the Council's Objectives for Charter Electronic Reporting?

Clearly defined objectives are essential to successful development of catch monitoring systems. Too often, constituents and managers focus on tools for collecting data electronically before focusing on what objectives they would like the data collection to accomplish. Additionally, objectives can vary greatly depending on whom you ask, making it complicated for those designing survey approaches and tools to have a clear understanding of what is being accomplished. In order to guide the Technical Subcommittee, each Council must identify and prioritize objectives for charter boat electronic reporting. Objectives may include, but are not limited to:

- Increasing the timeliness of catch estimates for in-season monitoring of particular species;
- Increasing the temporal (and/or spatial) precision of catch estimates for monitoring particular species;
- Providing vessel-specific catch histories for management;
- Increasing stakeholder trust and buy-in associated with data collection; and
- Reducing biases associated with collection of catch statistics.

Are there other objectives the Councils would like to consider for electronic reporting in the for-hire charter boat sector?
What is viewed by the Councils as the primary objective and how are the remaining objectives prioritized after that?

Additionally, what are the Council's objectives for managing the for-hire sector and how do they interact with electronic reporting objectives?

- Stable seasons - predetermined season start and end dates would allow businesses to plan trips until the end of the season. Increasing the timeliness of catch data through

electronic reporting would not be compatible with this objective.

- In-season quota management – availability of current season data in a timely manner such that the data can be used to project when a quota will be met. Achieving season stability would not be compatible with this objective.

The Councils may also want to consider the amount of reporting burden that would be imposed on the for-hire sector if a change is made to the current data collection. If implemented, daily logbook reports, VMS reporting, hail ins/hail outs will all result in an increase in reporting burden when compared to the current sample design. Any increase in reporting burden may impact industry buy-in for such a change.

What are Key Challenges Currently Impeding Electronic Reporting?

In addition to a lack of clearly defined objectives, other challenges also may hinder or impede electronic reporting. These may include, but are not limited to:

- Mixed industry support and willingness to participate. There is general support expressed at public meetings for electronic reporting, but constituent buy-in varies by region, organization, and the level of reporting burden that may be placed on the charter industry.
- Limited resources: costs and infrastructure. Although applications and Web sites for reporting catch have already been developed, are generally free or inexpensive, and are readily available for use on computers and smartphones, there are many other costs that need to be considered when collecting data electronically. Costs for various survey designs can vary greatly depending on the level of dockside validation for catch, effort validation, the infrastructure needed for managers and scientists to store and process data, quality control and quality assurance conducted once data are submitted, and the electronic tools selected to report. Additionally, there would be increased costs associated with enforcing 100% mandatory reporting. Costs may initially limit the Councils and the Subcommittee from designing their desired electronic reporting system and as a result an adaptive approach may need to be taken to build and improve upon an electronic reporting system over time as additional funding becomes available.
- Regulations are insufficient to implement or enforce electronic reporting. Currently, many regulations refer to paper-based reporting requirements for charter boats. The Councils will need to amend their fishery management plans to require electronic reporting or allow the NMFS science director to define the type of reporting required in the for-hire sector.
- Size and geographic extent of fleet. Currently there are over 2,700 for-hire vessels with federal reef fish and snapper-grouper permits in the Southeast. This number does not include thousands of other state-permitted for-hire vessels that are also included in the MRIP and TWPD for-hire surveys. Charter for-hire vessels enter and leave hundreds of ports throughout the Gulf of Mexico and South Atlantic making it difficult for state and federal personnel to adequately monitor and validate fishing effort and landings.
- Multiple data collection partners (GulfFIN, ACCSP, states, and NMFS). Current data collection efforts heavily rely on state partners through joint funding agreements with

NMFS and GulfFIN to collect charter for-hire data. Given multiple partners are involved in collecting for-hire data and estimating landings, it is critical to have buy-in from all data collection partners and ensure that ownership and oversight of any new electronic reporting system is clearly defined.

- Calibration with old methods would need to be completed to ensure that new data could be incorporated into time series used for assessments. This would require running both surveys at the same time, which would add cost.

These are only some of the challenges faced by for-hire electronic reporting.
Are there other challenges not identified here that the Council believes are important for the Subcommittee to address? With regard to the challenges described above, do the Councils have ideas or possible solutions for overcoming these challenges?

Needed Regulatory Changes

Appendix 3 summarizes existing electronic reporting requirements for Gulf and South Atlantic charter vessels with permits for snapper-grouper, reef fish, coastal migratory pelagics, dolphin-wahoo, and highly migratory species (HMS). Most regulations require charter vessels to maintain a paper-based fishing record if selected to report by the SEFSC director and forms must be post-marked no later than 7 days after the end of each week. Only South Atlantic snapper-grouper regulations specifically require charter vessels to report electronically via logbooks and/or video monitoring systems if selected to report by the SEFSC director.

In order to require electronic reporting by charter vessels, the Councils will need to make several amendments to their fishery management plans. Possible regulatory changes include, but are not limited to:

- Changing the current method for submitting reports from paper-based mail to electronic for reef fish, coastal migratory pelagics, and dolphin wahoo. HMS personnel may also want to consider modifying regulations to allow for electronic reporting.
- South Atlantic snapper-grouper regulations are specific to logbooks and video monitoring. The Council may want to consider other mechanisms for electronically reporting that do not require logbooks, which would require regulatory modifications.
- Standardizing electronic reporting language throughout Gulf and South Atlantic regulations (i.e., reporting time frames and mechanisms of reporting), as necessary.
- Similar to new headboat reporting requirements, the Councils may want to consider regulations for reporting delinquency. For instance, vessels with delinquent reports are not allowed to harvest or possess fish until all required reports are submitted.
- In the event of a catastrophe, establish paper-based reporting requirements. NMFS would determine when catastrophic conditions exist, the duration of catastrophic conditions, and which participants are affected and allowed to submit paper-based reports. During catastrophic conditions, NMFS would have authority to waive or modify the reporting time requirements.

Additional regulatory changes may also be necessary when requiring electronic reporting.

Are there any other regulatory requirements the Councils would like to modify to allow for electronic reporting by charter vessels?

The Importance of Statistically Valid Approaches - Best Available Science and Certification

Scientifically sound and statistically valid data collection approaches are critical for collection of precise, unbiased data. NMFS is required to use the best scientific information available for collecting data. Data collection approaches must be unbiased. There is also a need for information to be consistent with historical time series for use in determining the status of stocks. Any survey or sampling approach developed should be statistically and scientifically certified for use. The following section describes various survey designs and tools that could be used to meet identified management and scientific objectives.

Survey Designs and Tools

There are numerous survey designs and tools that could be used to electronically monitor charter vessels. With each survey design and tool, there are various tradeoffs that may limit achieving various objectives and desired outcomes. There are also different levels of cost involved. Simplistic data collection systems can be cheaper and faster to implement, but may not provide precise, unbiased data. More complex data collection systems may provide more timely and accurate data but are much more expensive to administer and validate data. The most optimal survey design depends on the management and scientific objectives to be achieved. Table 1 briefly summarizes three generic design approaches that could be considered by the Councils for charter electronic reporting. These include sampling surveys, logbook census, and panel surveys.

Table 1. Matrix of survey designs and design attributes.

Data Collection Method	Design Attributes								
	Start-up Time	**Precision (i.e. sampling error)**	**Bias Considerations (i.e. non-sampling error)**	**Individual vessel catch history**	**Timeliness**	**Relative cost**	**Reporting Burden**	**Scientific and Management Impacts**	**Other Factors**
Mandatory electronic logbooks	**Very long** Would require regulatory changes and development of IT infrastructure.	**N/A** No variance if complete 100% census attained; If census not achieved then adjustment factors will be needed which may have an associated variance component	**1. Non-compliance / Undercoverage** always results in a unidirectional (negative) bias. Can be minimized through extensive outreach, follow-up, and enforcement. **2. Inaccurate reports** Self-reported catch and effort data are subject to inaccuracies. Built-in quality control features can help minimize data entry and logic errors. **3. Recall bias** could affect reported catch and effort, particularly if reports are submitted late.	**Yes** Quality entirely dependent on accuracy and complete-ness of each captains report	**Daily or weekly reporting** Preliminary data could be generated quickly. Final data will take longer (and may differ somewhat) due to late reporting and discrepancy adjustments based on validation results.	**Higher** Gulf pilot indicated cost will be very high (compared to sampling survey) with adequate follow-up, validation surveys, outreach, and enforcement to ensure high quality data.	**Higher frequency / less intrusive** Report every trip taken and "no fishing" reports in a timely manner. Electronic self-reporting may be viewed as less intrusive than current methodology.	**Scientific** Negative impact if census not achieved. Need for calibration against current method to obtain consistent time series to support stock assessments. **Management** Could be used for in-season monitoring. More costly to administer.	Requires adequate enforcement and penalty infra-structure are in place. Validation is a necessary (and costly) component. Length and weight data could be collected as part of validation.

Table 1. Continued.

Data Collection Method	Design Attributes								
	Start-up Time	**Precision (i.e. sampling error)**	**Bias Considerations (i.e. non-sampling error)**	**Individual vessel catch history**	**Timeliness**	**Relative cost**	**Reporting Burden**	**Scientific and Management Impacts**	**Other Factors**
Sample-based Survey Design (MRIP method-ology)	**Short** Sampling methodology already in place. Just need to obtain tablets and develop application.	**Measurable / Varies by species** Precision level is known and can be accounted for in management decisions and assessments. Greater precision for more common species.	**1. Non-response / Undercoverage** produces bias only if non-respondents (or undercoverage group) differ from respondents in survey data attributes. Non-response follow-up recommended if response rates are below 80%. **2. Inaccurate reports** Self-reported effort data subject to inaccuracies. Unobserved portion of catch may also be affected (i.e., releases and landings not seen by sampler). **3. Recall bias** could affect phone survey effort estimates. Short recall periods (e.g. 1-2 weeks) can help minimize this potential bias.	**No**	**Limited by design and budget** Precision improves by pooling data over time - typically 1 or 2 months. Trade-offs between cost, precision and timeliness need to be evaluated and priorities identified.	**Lower** Survey sample can be a cost effective method for making inferences about the larger population. Costs will increase with need for greater precision, spatial resolution, and/or timeliness.	**Lower frequency / more intrusive** Only report when vessel randomly selected for sampling. Dockside intercepts often conducted with clients not captain. Telephone calls and dockside samplers may be viewed as more intrusive.	**Scientific** High positive impact if precision is increased. **Management** Increased precision, increased timeliness, lower comparative costs.	Survey design can be flexible to address specific and changing management and assessment data needs for particular species, precision levels, and timeliness.

Table 1. Continued.

Data Collection Method	Design Attributes								
	Start-up Time	**Precision (i.e. sampling error)**	**Bias Considerations (i.e. non-sampling error)**	**Individual vessel catch history**	**Timeliness**	**Relative cost**	**Reporting Burden**	**Scientific and Management Impacts**	**Other Factors**
Panel Survey Design (Collect logbook data on represent-ative sample of fleet)	**Very long** Would require regulatory changes and development of IT infrastructure.	**Measurable / Varies by species** Precision level is known and can be accounted for in management decisions and assessments. High precision for certain species may require a very large panel, which will be costly to administer and track over time.	**1. Attrition** occurs when people selected for the panel drop out over time. This could result in bias if dropouts differ from non-dropouts and remaining panel is no longer representative. The bias could be in either direction (positive or negative) 2. **Inaccurate reports.** Self-reported catch and effort data are subject to inaccuracies. Built-in quality control features can help minimize data entry and logic errors. **3. Recall bias** could affect reported catch and effort, particularly if reports are submitted late.	**No**	**Daily or weekly reporting** Preliminary data could be generated quickly. Final data will take longer (and may differ somewhat) due to late reporting and discrepancy adjustments based on validation results	**Undetermin ed** Cost could be between logbook census and sampling design. Savings would depend on number of participants, validation design and non-reporting frequency.	**Highly variable** Burden will be very high for vessels selected for the panel but very low for all other vessels. Could lead to resentment on panel and attrition. Attrition could be mitigated by rotating panel, but this could lead to higher costs and questionable time series reliability if panel is frequently changed.	**Scientific** Could be negative impact if sample is not representative of the fleet. Need for calibration to obtain consistent time series to support stock assessments. **Management** Could be used to ground truth in-season projections or monitor in-season catches.	Validation would be necessary. Requires adequate penalty for not reporting. Length and weight data could be collected as part of validation.

Are there other survey design approaches the Councils would like the Subcommittee to explore? Do the Councils have a recommended approach for collecting data and is the approach consistent with scientific and management objectives?

Next Steps

One of the most critical steps in implementing a new system is setting clear objectives and then, establishing a process and timeline for implementation. In order to successfully move forward with charter for-hire reporting, the Councils will need to provide clear guidance to the Subcommittee regarding charter data collection objectives and goals at their next few meetings and begin development of fishery management plan amendments to authorize charter electronic reporting.

The Subcommittee will convene in late spring and meet throughout the summer and fall with recommendations due to the Councils on or before December 1. During development of an electronic reporting system by the Subcommittee it is recommended that the Councils receive updates at each of their meetings regarding Subcommittee progress. Additionally, based on the recommendations of the National Electronic Monitoring Workshop the Councils and Subcommittee should ensure that all stakeholders are involved in the planning process. As recommendations are developed by the Subcommittee, additional stakeholders with expertise in information technology, enforcement, technology vendors, and state partners with expertise in for-hire data collection should be involved and have a seat at the table. Additionally, the Councils and Subcommittee should establish a process for receiving public input from constituents on recommended electronic reporting options to ensure buy-in early in the process. Lastly, the Council in conjunction with NMFS should establish a project management plan that includes a timeline for development and implementation of electronic monitoring for charter vessels to manage timely progress, manage expectations and ensure transparency.

References

Donaldson, D, G. Bray, B. Sauls, S. Freed, B. Cermak, P. Campbell, A. Best, K. Doyle, A. Strelcheck, and K. Brennan. 2013. For-hire Electronic Logbook Pilot Study in the Gulf of Mexico. Submitted to the MRIP Operations Team. 284 pp.

NOAA. 2014. NOAA Fisheries Announces New Regulations - Modifications to Gulf of Mexico Headboat Reporting Requirements. NOAA Southeast Fishery Bulletin, NOAA Fisheries, Southeast Region, St. Petersburg, FL. 1 pp.

Sullivan, P.J., E.J. Breidt, R.B. Ditton, B.A. Knuth, B.M. Leaman, V.M. O'Connell, G.R. Parsons, K.H. Pollock, S.J. Smith, and S.L. Stokes. 2006. Review of Recreational Fisheries Survey Methods. National Academies Press, Washington, D.C. 187 pp.

Appendix 1. Current For-hire Data Collection Programs in the Southeastern U.S.

MRIP For-Hire Survey

The For-Hire Survey (FHS) is conducted in nearly every state along the Atlantic coast and Gulf of Mexico. The FHS collects information on fishing effort (number of angler trips) and catch by marine recreational anglers fishing on professional for-hire vessels, variously referred to as charter boats, guide boats, party boats, head boats, or multi-passenger fishing vessels. The survey design consists of two independent, complementary methods: 1) an access-point intercept survey to collect data on catch per-unit of effort, and 2) a vessel-directory telephone survey to collect data on fishing effort directly from vessel operators. Data from the two survey methods are combined to estimate total fishing effort and catch by species.

The access-point angler intercept survey portion of the FHS began in 1981 as the catch survey component of the Marine Recreational Fisheries Statistics Survey (MRFSS), which includes mode-specific sampling from the for-hire fisheries. In response to NRC recommendations, a re-designed MRIP access point intercept survey was developed and replaced the MRFSS in 2013. The new intercept survey design removed much of the interviewer discretion allowed in the MRFSS so that sampling probabilities could be calculated. The new intercept survey design is now appropriately matched with the improved MRIP weighted estimation methodology to produce unbiased estimates of catch and effort.

The vessel-directory telephone survey portion of the FHS was integrated with the MRFSS access point intercept survey in 2001 in the Gulf of Mexico (west Florida to Louisiana) and in 2005 in the Atlantic (Maine through east Florida). The sampling unit for the FHS telephone survey is the individual for-hire vessel. The sample frame is constructed from a comprehensive directory of for-hire boats for all states, from Maine through Georgia. Sampling is stratified by vessel type, state, and week, within each two-month sampling wave. Currently, vessels are sampled at a rate of 10% within each stratum, with a minimum sample size of 3 vessels. Data collection is conducted on a weekly basis during all weeks within each wave. The weekly dialing is completed during the week following the specified sample week of fishing. Respondents are asked to report vessel fishing activity for the prior week, and then asked to profile each for-hire fishing trip. Advance notice of selection is mailed to each selected vessel representative and alternative reporting modes are provided for the Atlantic Coast respondents, including an interactive website, a fax number and a phone contact for respondent-initiated interviewing. Effort estimates are produced from the average number of angler-trips per vessel-type per week and the number of vessels per vessel-type in the sampling frame. Adjustment factors for active for-hire fishing boats that are not in the sample frame are produced from field intercept survey questions and applied to the raw effort estimate.

TPWD Sport-boat Angling Survey

The Texas Parks and Wildlife Department (TPWD) Sport-boat Angling Survey began in 1983 and samples fishing trips made by sport-boat anglers fishing in Texas marine waters. The primary

objectives of the survey are to estimate daytime annual fishing pressure (trip man-hours) and landings (number of fish caught and kept), size composition, species composition and catch rates for sport-boat anglers on trips lasting 12 hours or less in Texas marine waters. The survey consists of roving counts of recreational boat-access sites to determine relative fishing pressure and interviews with boating parties to collect trip information and enumerate the catch. TPWD landings estimates are comparable to "Type A catch" in MRIP because self-reported catch, including fish that are dead but not identified by the interviewer (MRIP Type B1) and live discards (MRIP Type B2), are not collected. The survey is designed to estimate landings and effort by high-use and low-use seasons (May 15- November 20 and November 21- May 14). Only private boat and charter boat fishing are surveyed.

The primary focus of the TPWD survey is private boats fishing in bays and passes because this accounts for most of the coastwide fishing pressure and landings in Texas. Inventoried boat-access sites are sampled in proportion to the amount of private-boat bay/pass fishing occurring at these sites. All other fishing activity is obtained opportunistically for the most part. However, beginning in May 1992 a few "gulf-only" surveys were added each year at inventoried boat-access sites with known private-boat ocean fishing activity to increase the number of private-boat ocean interviews. The few inventoried boat-access sites commonly used by ocean charter boats are not commonly used by bay/pass or ocean private boats. Because of this and because ocean charterboat trips are least common, charterboat trips in ocean waters are the least encountered in the survey.

Louisiana Creel Survey Program

The Louisiana Creel Survey Program (LA Creel) monitors recreational fishery catch and effort in Louisiana marine waters and began in 2014. It is comprised of three surveys. The LA Creel Intercept Survey is a shoreside survey used to collect data needed to estimate the mean numbers of fish landed by species for each of five different inshore basins and one offshore area. In addition, the on-site survey also collects data needed to estimate the proportions of fishing trips made by LA fishing license holders and Louisiana recreational offshore landing permit holders. Currently, no information is collected on fish caught and released. Private mode (from shore or boat) and charter mode fishing are surveyed. The Louisiana Creel Private Telephone Survey randomly samples from a list of people who possess either a LA fishing license or a LA offshore fishing permit and provided a valid telephone number. The survey is conducted weekly to collect data on the number and location of marine recreational fishing trips, and the data are used to estimate the total numbers of angler fishing trips made offshore and in each of five inshore basins. The LA Creel For-Hire Telephone Survey randomly samples from a list of Louisiana's registered for-hire captains who provided a valid telephone number. The survey is conducted weekly to collect data on the number and location of captained for-hire fishing trips, as well as the number of anglers who fished on each trip.

Southeast Region Headboat Survey

The Southeast Region Headboat Survey (SRHS) is administered by the NMFS' Southeast Fisheries Science Center at the Beaufort Laboratory in North Carolina. The survey has operated along the southeast coast of the U.S. since 1972 and began operations in the Gulf of Mexico in 1986. Coverage in the South Atlantic extends from the VA\NC border to the Dry Tortugas, FL, and in the Gulf of Mexico from Naples, FL, to South Padre Island, TX. The survey generally includes 70-80 vessels annually from each region that have been selected to participate in the survey.

There are two components to the survey. The dockside intercept sampling component is used to obtain size and weight data from landed catch (bioprofiles) in order to estimate mean sizes and weights of species landed in the headboat fishery. Additionally, port agents collect biological samples (e.g., otoliths, spines and gonads) for age-growth and life-history studies used in the stock assessment process.

The logbook component of the survey collects self-reported summaries of catch and effort for each vessel trip (trip reports). Vessel personnel (i.e., captain or mate) are required to fill out a trip report after each trip with an accurate record of the date and duration of the fishing trip; vessel and captain's name; number of anglers and number of paying passengers; number of crew, number of gallons of fuel used, and price per gallon of fuel; location of fishing in lat/long; minimum, maximum and primary depth fished; number of fish of each species kept; and number of fish of each species released. As of Jan 1, 2013, the SRHS has implemented an electronic reporting system in the South Atlantic and Gulf of Mexico. Headboat captains now have the ability to submit logbooks electronically via an internet website or mobile app.

Effective January 27, 2014 in the South Atlantic and March 5, 2014 in the Gulf of Mexico, electronic fishing records must be submitted (i.e., via the internet by computer or mobile app) at weekly intervals (or intervals shorter than a week if notified by the Science Research Director) by 11:59 p.m. local time the Sunday following a reporting week. If no fishing activity occurred during a reporting week, an electronic report so stating must be submitted by 11:59 p.m. local time the Sunday following that reporting week. The regulations prohibit headboat owners and operators who are delinquent in submitting their reports from continuing to harvest or possess snapper, grouper, dolphin, wahoo, reef fish, and coastal migratory pelagic species until they have submitted the required reports.

Appendix 2. Funded 2014 projects to investigate new charter boat data collection approaches and improvements to existing data collection approaches

Project Title	Main Objectives
For-Hire Electronic Census Reporting of Red Snapper Catch Data in Alabama	Develop an electronic system for mandatory reporting of red snapper harvest by for-hire vessels in Alabama. Data will be collected in a timely manner and field validations will be used to determine appropriate under- and over-reporting adjustment factors.
For-Hire Programs: Inventory, Certification, & Integration Planning	Evaluate ongoing for-hire data collection programs and identify opportunities to improve timeliness and reduce reporting burden while meeting management data needs. Submit a certification plan to integrate data from various programs into MRIP estimation process.
Determining Optimum Sample Sizes for the Atlantic For-Hire Survey	Determine optimal sample sizes for the current FHTS and LPTS add-on. Compare alternative allocation methods and propose an appropriate allocation method that improves precision of effort estimates for the current FHTS and LPTS add-on,
Enhanced Assessment for Recovery of GOM Fisheries (NFWF funded project)	Implement a significant expansion of the collection of data on both catch effort and stock assessment in the northern and eastern Gulf of Mexico

Appendix 3. Current charter for-hire reporting regulations in the Gulf of Mexico and South Atlantic.

50 CFR 622.26 Recordkeeping and Reporting (GULF REEF FISH)

(b) Charter vessel/headboat owners and operators—-(1) Reporting requirement. The owner or operator of a vessel for which a charter vessel/headboat permit for Gulf reef fish has been issued, as required under § 622.20(b), or whose vessel fishes for or lands such reef fish in or from state waters adjoining the Gulf EEZ, who is selected to report by the SRD must maintain a fishing record for each trip, or a portion of such trips as specified by the SRD, on forms provided by the SRD and must submit such record as specified in paragraph (b)(2) of this section.

(2) Reporting deadlines--(i) Charter vessels. Completed fishing records required by paragraph (b)(1) of this section for charter vessels must be submitted to the SRD weekly, postmarked not later than 7 days after the end of each week (Sunday). Information to be reported is indicated on the form and its accompanying instructions.

50 CFR 622.176 Recordkeeping and Reporting (SOUTH ATLANTIC SNAPPER-GROUPER)

(b) Charter vessel/headboat owners and operators--(1) General reporting requirement. The owner or operator of a vessel for which a charter vessel/headboat permit for South Atlantic snapper-grouper has been issued, as required under § 622.170(b)(1), or whose vessel fishes for or lands such snapper-grouper in or from state waters adjoining the South Atlantic EEZ, who is selected to report by the SRD must maintain a fishing record for each trip, or a portion of such trips as specified by the SRD, on forms provided by the SRD and must submit such record as specified in paragraph (b)(3) of this section.

(2) Electronic logbook/video monitoring reporting. The owner or operator of a vessel for which a charter vessel/headboat permit for South Atlantic snapper-grouper has been issued, as required under § 622.170(b)(1), who is selected to report by the SRD must participate in the NMFS-sponsored electronic logbook and/or video monitoring reporting program as directed by the SRD. Compliance with the reporting requirements of this paragraph (b)(2) is required for permit renewal.

(3) Reporting deadlines—-(i) Charter vessels. Completed fishing records required by paragraph (b)(1) of this section for charter vessels must be submitted to the SRD weekly, postmarked not later than 7 days after the end of each week (Sunday). Completed fishing records required by paragraph (b)(2) of this section for charter vessels may be required weekly or daily, as directed by the SRD. Information to be reported is indicated on the form and its accompanying instructions.

50 CFR 622.271 Recordkeeping and Reporting (SOUTH ATLANTIC DOLPHIN-WAHOO)

(b) Charter vessel/headboat owners and operators--(1) Reporting requirement. The owner or operator of a vessel for which a charter vessel/headboat permit for Atlantic dolphin

and wahoo has been issued, as required under § 622.270(b)(1), or whose vessel fishes for or lands such Atlantic dolphin or wahoo in or from state waters adjoining the Atlantic EEZ, who is selected to report by the SRD must maintain a fishing record for each trip, or a portion of such trips as specified by the SRD, on forms provided by the SRD and must submit such record as specified in paragraph (b)(2) of this section.

(2) Reporting deadlines--(i) Charter vessels. Completed fishing records required by paragraph (b)(1) of this section for charter vessels must be submitted to the SRD weekly, postmarked not later than 7 days after the end of each week (Sunday). Information to be reported is indicated on the form and its accompanying instructions.

50 CFR 622.374 Recordkeeping and Reporting (GULF AND SOUTH ATLANTIC COASTAL MIGRATORY PELAGICS)

(b) Charter vessel/headboat owners and operators—-(1) Reporting requirement. The owner or operator of a vessel for which a charter vessel/headboat permit for Gulf coastal migratory pelagic fish or South Atlantic coastal migratory pelagic fish has been issued, as required under § 622.370(b)(1), or whose vessel fishes for or lands such Gulf or South Atlantic coastal migratory pelagic fish in or from state waters adjoining

(2) Reporting deadlines--(i) Charter vessels. Completed fishing records required by paragraph (b)(1) of this section for charter vessels must be submitted to the SRD weekly, postmarked not later than 7 days after the end of each week (Sunday). Information to be reported is indicated in the form and its accompanying instructions.

50 CFR 635.5 Recordkeeping and Reporting (HIGHLY MIGRATORY SPECIES)

(a) Vessels—(1) Logbooks. If an owner of an HMS charter/headboat vessel, an Atlantic tunas vessel, a shark vessel, a swordfish vessel, or a vessel in the squid trawl fishery for which a permit has been issued under §635.4(b), (d), (e), (f), or (n) is selected for logbook reporting in writing by NMFS, he or she must maintain and submit a fishing record on a logbook form specified by NMFS. Entries are required regarding the vessel's fishing effort and the number of fish landed and discarded. Entries on a day's fishing activities must be entered on the logbook form within 48 hours of completing that day's activities or before offloading, whichever is sooner. The owner or operator of the vessel must submit the logbook form(s) postmarked within 7 days of offloading all Atlantic HMS. If no fishing occurred during a calendar month, a no-fishing form so stating must be submitted postmarked no later than 7 days after the end of that month. If an owner of an HMS charter/headboat vessel, Atlantic tunas vessel, shark vessel, swordfish vessel, or a vessel in the squid trawl fishery permitted under §635.4(b), (d), (e), (f), or (n) is selected in writing by NMFS to complete the cost-earnings portion of the logbook(s), the owner or operator must maintain and submit the cost-earnings portion of the logbook postmarked no later than 30 days after completing the offloading for each trip fishing for Atlantic HMS during that calendar year, and submit the Atlantic Highly Migratory Species Annual Expenditures form(s) postmarked no later than the date specified on the form of the following year.