SUPPORTING STATEMENT
U.S. Department of Commerce
National Oceanic & Atmospheric Administration
Highly Migratory Species Vessel Logbooks and Cost-Earnings Data Reports
OMB Control No. 0648-0371

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.

This collection of information will employ statistical sampling methods to reduce the respondent burden and the data processing cost to the government. As indicated in the response to Question 12 in Part A, certain fisheries would be subject to a census while others would have a sample drawn at random.

The selection rates that apply both to the logbook in general (set forms and trip forms) and to the cost-earnings form (attached to trip summary forms) are shown in Table B1.
The number of permit holders in 2021 (10,424) to be included in this data collection was only 7 permitted vessels more than the number of permits issued in 2019 (10,417) that were used to calculate the number of respondents in the 2020 renewal of this information collection. The number of respondents to this information collection has been modified to reflect the current number of permits being issued in each category. The 10,424 permit holders eligible for selection to report include 328 Swordfish Limited Entry, 469 Shark Limited Entry, 4,055 HMS Charter/Headboat, and 2,141 Dolphin/Wahoo permit holders that will be selected at the rate of 100 percent for catch logbook reporting for a total of 6,993 permit holders selected for reporting. In addition, 15 percent of Atlantic Tunas General category (410) and Swordfish General Commercial (105) will also be selected for reporting. This will result in a combined total of 7,508 permit holders being selected for catch reporting.

Table B1.   Breakdown of the respondent universe and selection rate for the HMS Logbook and Cost-Earnings reporting.

	Atlantic Tunas General	Sharks Limited Entry	Swordfish Limited Entry	Swordfish General Commercial	HMS Charter/ Headboats	Dolphin/ Wahoo - commercial	Total
Number of permit holders	2,730	469	328	701	4,055	2,141	10,424
Selection rate for logbooks	15%	100%	100%	15%	100%	100%	
# of Respondents	410	469	328	105	4,055	2,141	7,508
Selection for cost-earnings data trip reports and annual expenditures form	15%	20%	20%	15%	20%	0%	

# of Respondents	410	94	66	105	811	0	1,485

NMFS would continue the 20 percent selection rate for the cost-earnings and annual expenditures forms in the commercial shark limited entry, swordfish limited entry, and charter/headboat fisheries (not required for dolphin/wahoo permit holders), and a 15 percent selection rate for both catch and cost-earnings reports the Atlantic Tunas General and Swordfish General Commercial fisheries. These rates provide NMFS with a representative sample of the HMS fishery as a whole.

Table B1 indicates the affected universe. Out of 10,424 permit holders, under this program, 7,508 would be required to submit logbooks and 1,485 would be required to submit the cost-earnings and annual expenditure forms. To ensure the cost-earnings data collected is the most useful possible for management, stratification of cost-earnings sample selection is done at the primary gear-type level rather than the permit level for permit—types that authorize the use of multiple gear types. Fisheries are managed and regulated based on their gear-type, and vessel operating procedures and costs are heavily influenced by their selected gear-type. For Atlantic Tunas General, Swordfish General Commercial, and HMS Charter/Headboat permit holders, the only authorized gear-types are rod and reel and other handgears which are managed as a unit, and have very similar operating costs. As such, no stratification is required for the selection process for these permit types, and a simple random draw is conducted. For shark and swordfish limited entry permits, a number of gear-types are authorized including pelagic longline, bottom longline, gillnet, and handgear which can have very different operating costs. For these permit-types, logbook selection is stratified by assigning permitted vessels to the four gear-type categories listed above based on the gear-type they reported using on the majority of trips the previous year, and a sample of 20 percent is randomly selected from each stratum.

Compliance with the catch reports or logbooks and cost-earnings reports is high for the Shark and Swordfish Limited Entry Permits because they are linked to permit renewal. That is, permits cannot be renewed until logbooks are submitted for the year. Often, logbooks are not submitted in a timely manner but are submitted prior to renewing the permit. In 2016, 75.1 percent of initial applications for permit renewal had satisfied logbook requirements. Once informed of the deficiency, only 1.29 percent of all permit applicants did not fulfill the logbook requirements, ultimately abandoning their permit renewal. Therefore, we expect a final response rate of approximately 98.7 percent for logbook reporting. However, logbook compliance has not been linked to permit renewal for the open access HMS Charter/Headboat, Atlantic Tunas General, and Swordfish General Commercial permits. Previous logbook data collections of these permit holders in recent years have generated response rates ranging from 57 to 62 percent so we estimate an expected response rate of 60 percent.

Table B2. Expected response rates and anticipated number of respondents by permit groups.

	Atlantic Tunas General	Sharks Limited Entry	Swordfish Limited Entry	Swordfish General Commercial	HMS Charter/ Headboats	DolphinDolphi nfish/ Wahoo - commercial	Total
# Selected for Logbooks	410	469	328	105	4,055	2,141	7,508
Anticipated Response Rate	60%	99%	99%	60%	60%	99%	

Anticipated Respondents for Logbooks	246	463	324	63	2,433	2,113	5,642
# Selected for Cost-Earnings Reports	410	94	66	105	811	-	1,485
Anticipated Response Rate	60%	99%	99%	60%	60%	-	
Anticipated Respondents for Cost-Earnings	246	93	65	63	487	--	953

2. Describe the procedures for the collection, including: the statistical methodology for stratification and sample selection; the estimation procedure; the deree 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.

The respondent universe is the fleet for tuna, shark, swordfish, and charter/headboat permit holders, for which we have the entire population or universe of vessels from the HMS permit data file from which to choose. The respondent universe also includes any dolphinfish/wahoo permit holder that does not hold another federal HMS permit.

The respondent universe for selection from the tuna fishery is stratified according to the following criteria: (1) state of homeport and (2) level of landings (high-liner vs. not active) before taking a random sample from each strata. The HMS logbook form contains sufficient information to determine whether or not a vessel harvested beyond or within the Exclusive Economic Zone, i.e. U.S. offshore or on the high seas. Sampling designs for other commercial fishery surveys suggests that overall vessel length provides a reliable indicator of whether a vessel is capable of fishing on the high seas. A vessel's homeport state is recorded in the HMS permit database. The sample size for selection for tuna vessels is designed to achieve a 95 percent level of precision (significance). For any strata with less than three vessels, the vessel numbers in these strata is increased to three since NMFS' policy is not to disclose aggregated information for anything less than three vessels. The stratified random sample is determined using the Neyman Allocation Method with a finite population correction. This method is being used in the collection "Economic Surveys of U.S. Commercial Fisheries" (OMB Control Number 0648-0369).

The random sample for the collection of cost-earnings data from the shark, swordfish, and charter/headboat fleet is selected by stratifying the relevant respondent fisheries according to: (1) the primary type of fishing gear used in the previous year and (2) level of activity (landings versus no landings/held a permit or did not hold a permit). The HMS logbook form contains sufficient information to determine where a vessel was fishing and the level of activity in the previous year. Numerous analyses of logbook data have already designated the statistical areas. These same areas would be used in the random sample. Sample size for selection of these vessels is designed to ensure adequate representation across the fleet and across all areas. For areas where few HMS vessels fish (e.g., Sargasso or Northeast Distant areas), areas would be combined to ensure a large enough sample so that data can be disclosed. Sample fleets for selection of the cost-earnings data would then be averaged to produce information representative of the group. There are not expected to be any unusual problems requiring sampling procedures

more specialized than those indicated 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.

In order to maximize the response rate, brochures have been developed and circulated to educate fishermen in various sectors about reporting requirements. NMFS has also published compliance guides to remind fishermen of their obligations to complete the HMS logbook and cost-earnings forms as these are mandatory data collections. Non-responders are typically contacted first by phone and then are notified by the NMFS Office of Law Enforcement of their delinquency and issued a written warning. If there continues to be no response, citations could be issued. For the censused population, a small percentage of non-responders are not likely to decrease the reliability of the data given the number of vessels and trips. For the sampled population, however, the reliability of the data could suffer if delinquency rates prove to be high. In such a case, data between years could be combined to provide biennial estimates. NMFS has operated under an overall target response rate of 85 percent which would be equal to a delinquency rate of 15 percent. Since making the HMS logbook program mandatory, we have not had problems achieving this response rate target. NMFS uses a multi-factor time series regression model to analyze the costs and earnings of the HMS fleets across years. This model combines cost-earnings data provided by this data collection with vessel characteristic data gathered from permit applications and marine fuel price data.

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.

Logbooks have been used in this fishery since the 1980s and have proven an effective method of collecting data when used with observers. Before implementation of mandatory collection, NMFS tested a voluntary program. The voluntary program was ineffective for meeting management needs.

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.

NMFS, Highly Migratory Species Management Division (economic sampling design/analysis):
     George Silva and Cliff Hutt, 301-427-8503
     NMFS, Southeast Fishery Science Center (landings data collection/analysis):
     David Gloeckner, 305-361-4257