SUPPORTING STATEMENT
U.S. Department of Commerce
National Oceanic & Atmospheric Administration
Collection of High Resolution Spatial and Temporal Fishery Dependent Data to Support Scientific Research
OMB Control No. 0648-xxxx

Abstract

This request is for a new collection of information. NOAA's National Marine Fisheries Service (NMFS) Northeast Fisheries Science Center (NEFSC) will collaborate with regional harvesters to self-collect high resolution effort and catch fishery dependent data electronically using the Fisheries Logbook Data Recording Software (FLDRS), developed by the NEFSC.

Justification

1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.

The high resolution effort and catch data will be collected electronically using the Fisheries Logbook Data Recording Software (FLDRS), which was developed by the Northeast Fisheries Science Center. The FLDRS software has the ability to collect data at the subtrip level, which can be used to satisfy a Federal trip report, and at a higher resolution haul level, which is used by various Cooperative Research Branch programs and projects. This ICR would enable harvesters to continue to voluntarily submit high resolution data, once those programs/projects are completed. The data collected will provide scientists with more precise and accurate fishery-dependent data than is collected on mandatory Federal Vessel Trip Reports (VTRs). Examples include more precise estimates of fishing effort, spatially explicit catch and discard data, and associated environmental conditions. Collecting high resolution catch and effort data electronically has shown to increase accuracy and precision of fishing area and effort duration (Palmer et al. 2007). Through default settings, favorite lists and auto population of date, time and location fields, FLDRS makes it easier for harvesters to collect high quality data under realistic fishing operations.

Collection of information about commercial fisheries is necessary to fulfill the statutory requirements of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.). By collecting this high resolution, fine scale spatial and temporal fishery dependent data we are improving the data available to support improved understanding of population, ecosystem, and fishery dynamics in the northeast region. Theses improved understandings help the Northeast Fisheries Science Center conduct accurate stock assessments and inform fisheries management, which is essential to achieve the standards laid out in the Magnuson Stevens Act.

By collecting fine scale spatial and temporal fisheries information, harvesters provide scientists with data from areas and seasons that are not sampled by Federal and state surveys. This fishery

dependent data can be used with fishery independent data to improve species mapping (Pennino et al, 2016). Fishery dependent data catch per unit effort (CPUE) calculations can be standardized and integrated into stock assessment models as indices of abundance. Collecting this fine scale commercial fisheries data also helps scientist understand patterns in fishing effort and relationships between catch and variables such as time of day, location, temperature and depth.

2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.

The data collected will be used on a continuous basis by government employees or agency contractors or grantees to improve understanding of population, ecosystem, and fishery dynamics in the northeast region. This fine-scale haul level data collected will be considered confidential under the Magnuson-Stevens Act and therefore will not be disseminated in raw form to the public. Confidential data may be released to the public in aggregate form upon request if the data consists of at least three entities of submitted information.

A majority of the respondents, if not all, will have electronically collected high resolution spatial data for NOAA Fisheries, Northeast Science Center Cooperative Research Branch in the past. The data has been used by scientists to: compare trends in catch over space and time with other sources of fishery dependent and independent data, to develop monitoring standards for auditing program for the region's pilot electronic monitoring program (Jones and Linden 2018), to monitor real-time bycatch in the herring fishery, and to support the branch's enhanced biosampling program. The data may be used to explore other fishery, ecosystem, or population dynamics in the future.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g. permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also, describe any consideration of using information technology to reduce burden.

The vessel registration forms (data waiver, non-disclosure agreement and vessel configuration) forms can be accessed and submitted electronically.

Harvesters will use the Fisheries Logbook Data Reporting Software (FLDRS) to collect the fishery-dependent data via a laptop running windows 10 or higher. FLDRS is integrated to the vessel's global positioning system (GPS) and depth sounder so vessel captains can capture the date, time, position, statistical area and bottom depth of each haul with the click of the mouse. At the conclusion of each trip the data is submitted electronically via WIFI or the vessel's vessel monitoring system (VMS).

4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Question 2

There is no historical information collection request past or current that have collected this high resolution fishery-dependent in the northeast region. However, some of the information that will be collected in this data request is also required in Federally mandated vessel trip reports. However, FLDRS can be used by vessel participants to collect high resolution catch and effort data and at the same time be used to meet vessel trip reporting requirements. Therefore, participant can us FLDRS to simultaneously collect data for cooperative research and eVTR. FLDRS is a tool solely used by the NEFSC cooperative Research Branch and therefor have full knowledge of all industry members using it. The same high resolution data collected in FLDRS has been used to support other regional fishery dependent data projects, such as electronic monitoring.

5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.

The collection of information under this ICR does involve small business. To help minimize the burden of these small businesses the FLDRS software will be provided free of charge to all respondents. FLDRS was built to collect high resolution self-reported data with ease while conducting normal fishing operations. FLDRS was developed in collaboration with commercial harvesters. The feasibility of obtaining high quality self-reported catch data under realistic fishing conditions has been extensively tested through the Cooperative Research Branch Study Fleet Program (Palmer et al. 2007). FLDRS can be connected to the vessel's global positioning system (GPS) and depth sounder so vessel captains can capture the date, time, position, statistical area and bottom depth of each haul with the click of the mouse, rather than having to enter this information manually. FLDRS has customizable user-configurable default settings and short-lists to make the software more accessible and ready to use each trip. There is a help button on every software page that links to an electronic FLDRS help document. The NEFSC Cooperative Research Branch has skilled field technicians that train software users and are always available to assist in person or on the phone with any technical issue that arise. Many of the respondents have participated in a project or program with the NEFSC Cooperative Research Branch where they were previously issued FLDRS free of charge. A field technician helped each participant install and set-up FLDRS defaults and preferences, as well as train them on how to use the software. The same would occur for any respondents who haven't previously been issued FLDRS.

6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.

Without working with the fishing industry to collect these data we are severely restricting access to the best available data to support needed research that informs fisheries stock assessments and management decisions. There is current research underway working to develop a fishery dependent data catch-per-unit effort (CPUE) indices which ultimately could be used to track abundance of some species. Data needs to be collected at the haul-level to gain precise information on fishing effort and catch, to support this CPUE research. Catch-per unit-effort research will inform scientists on the abundance, distribution, and dynamics of fish populations

and their harvest. Data collected electronically is also very important because the automation reduces the amount of error in data entry for time and location information.

Scientist working with harvesters to collect data creates a trusting collaborative network to communicate and share information and helps both parties gain insight into the factors influencing fishery dynamics. Without this important collaboration, there would be mistrust between stakeholders and a lack of commitment to using the best science and management.

7. Explain any special circumstances that would cause an information collection to be conducted in a manner inconsistent with OMB guidelines.

The data in this collection will be collected in a manner consistent with OMB guidelines.

8. If applicable, provide a copy and identify the date and page number of publications in the Federal Register of the agency's notice, required by 5 CFR 1320.8 (d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.

A Federal Register Notice published on October 29, 2021 (86 FR 59999) solicited public comments. No public comments were received.

Additionally, an email was sent to three commercial fishing industry fleet managers and several vessel owner/operators familiar with the collection request soliciting feedback. No comments were received in response to this outreach.

9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.

There is no planned gift or payment planned for respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy. If the collection requires a systems of records notice (SORN) or privacy impact assessment (PIA), those should be cited and described here.

All respondents sign a non-disclosure agreement and data waiver when they register to participate in collecting high resolution data. Any confidential data collected is protected under the Magnuson-Stevens Act.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior or attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

This data collection would not include any questions of a sensitive nature.

12. Provide estimates of the hour burden of the collection of information.

This information collection request would have two components (Table 12).

The first component would require respondents to manually or electronically complete the required registration paper work, which includes a one page data waiver form, a one page Non-disclosure form and a three page vessel configuration form. The signed data waiver documents the respondent agreement to the release of the data they collect to the Northeast Fisheries Science Center Cooperative Research Branch. The non-disclosure form allows the respondent access to a government application used for reviewing and editing submitted data. The vessel configuration form is used to collect information required to configure related vessel and user accounts in the Fisheries Logbook Data Recording Software (FLDRS) and identify and provide appropriate level of data access to respondents.

The second component of the information collection request would be electronically collecting high resolution fishing effort and catch data using FLDRS while commercial fishing. There are currently 39 vessel owners who previously collaborated with cooperative research branch that are interested in continuing to voluntarily collect high resolution data. We used the time spent from their past participation in similar data collections to calculate burden hours (35 minutes per data collection, 1,521 data collections per year).

Information Collection	Type of Respondent (Occupational Title)	# of Respondents (a)	Annual # of Responses / Respondent (b)	Total # of Annual Responses (c) = (a) x (b)	Burden Hrs / Response (d)	Total Annual Burden Hrs (e) = (c) x (d)	Mean Hourly Wage Rate (for Type of Respondent) (f)	Total Annual Wage Burden Costs (g) = (e) x (f)
Registration Paperwork	Commercial harvester	39	1	39	0.5	19.5	$14.49	$282.56
High Resolution Catch and Effort Data Collection	Commercial harvester	39	39	1521	0.584	888.264	$14.49	$12870.95
Totals				**1560**		**907.764**		**$13153.50**

13. Provide an estimate for the total annual cost burden to respondents or record keepers resulting from the collection of information. (Do not include the cost of any hour burden already reflected on the burden worksheet).

The registration portion of the information collection request would require completing a one page data waiver form, a one page Non-disclosure form and a three page vessel configuration form. We list a cost of 66 cents per respondent per registration form in case the forms are filled out manually and mailed rather than filled out electronically and emailed or faxed. Participation in this information data collection requires the use of Fisheries Logbook Data Reporting Software (FLDRS) running on a dedicated laptop. Even though many of the respondent will have participated in past cooperative research projects where they were issued a laptop, those laptops will soon be ageing out. Therefore, we accounted for the cost of one new computer per respondent under the high resolution catch and effort data collection component of this ICR.

Information Collection	# of Respondents (a)	Annual # of Responses / Respondent (b)	Total # of Annual Responses (c)=(a) x (b)	Cost Burden / Response (h)	Total Annual Cost Burden (i) = (c) x (h)
Registration paperwork	39	1	39	0.66	25.74
High Resolution Catch and Effort Data Collection	39	39	1521	1000	39,000.00
TOTALS			**1560**		**$39,025.74**

14. Provide estimates of annualized cost to the Federal government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information.

This program is supported by multiple federal and contract staff, which results in the following annualized cost to the Federal Government. One project manager FTE (ZP-4, $156,013 fully loaded salary) spends 100% of their time supporting this project, resulting in a total cost to the government of $156,013. One operations support FTE (ZP-2, $107,323 fully loaded salary) spends 80% of their time supporting this project, resulting in a total cost to the government of $85,858. One technical support FTE (ZP-2, $120,590 fully loaded salary) spends 80% of their time supporting this project, resulting in a total cost to the government of $96,472.

Six contract staff also support this project, with the following costs to the government. Four field staff with annual salaries of $68,934 spend 75% of their time supporting this project, with an annual cost to the government of $206,804.94. Two data management staff with annual salaries of $83,756 support this project for 90% of their time, resulting in a total annual cost to the government of $150,761.70.

The government also supports a cost of $15,000 annually to support travel of federal and contract staff to and from participating fishing vessels to provide technical and operational support.

Finally, an annual cost of $25,000 in equipment (computer accessories, repair kits, temperature and depth probes, etc.) is covered by the federal government to ensure efficient and effective data collection and transmission.

Cost Descriptions	Grade/Step	Loaded Salary /Cost	% of Effort	Fringe (if Applicable)	Total Cost to Government
Federal Oversight					
Project Manager	ZP-4	$156,013.00	100%		$156,013.00
Operations Support	ZP-2	$107,323.00	80%		$ 85,858.40
Technical Support	ZP-2	$120,590.00	80%		$ 96,472.00
Contractor Cost					
Field Staff (4)		$ 68,934.98	75% x 4		$206,804.94
Data Mgmt Support (2)		$ 83,756.50	90% x 2		$150,761.70
Travel		$ 15,000.00			$ 15,000.00
Other Costs					
Equipment/Supplies		$ 25,000.00			$ 25,000.00
TOTAL					**$735,910.04**

15. Explain the reasons for any program changes or adjustments reported in ROCIS.

This is a new information collection request.

16. For collections of information whose results will be published, outline plans for tabulation and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.

Research that uses the high resolution data collected will in many cases will be peer-reviewed and published or become center reference documents, which are posted at https://www.nefsc.noaa.gov/publications/crd/.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.

The expiration date will be displayed.

18. Explain each exception to the certification statement identified in "Certification for Paperwork Reduction Act Submissions."

The agency certifies compliance with 5 CFR 1320.9 and the related provisions of 5 CFR 1320.8(b)(3).

References:

Jones A.W., Linden, D.W., McAfee B.M., Rossi N.A., Palmer M.C., Hoey J.J., Martins A.S. Setting review rates: using existing data to help determine the business rules for an audit-model electronic monitoring program. 355 p. *in:* Kennelly, S.J. & Borges, L. (eds.) (2018). Proceedings of the 9th International Fisheries Observer and Monitoring Conference, Vigo, Spain. ISBN: 978-0- 9924930-7-3, 395 pages

Palmer MC, Wigley SE, Hoey JJ, Palmer J 2007. An evaluation of the Northeast Region's Study Fleet Pilot Program and electronic logbook (ELB) system: Phases I and II. NOAA Tech. Memo. NMFS-NE-204. 79 p.

Pennino MG, Conesa, D., López-Quílez, A., Muñoz, A. ,Fernández, A.,Bellido, JM.. 2016. Fishery-dependent and -independent data lead to consistent estimation of essential habitats.ICES Journal of Marine Science. 73(9), 2302-2310.