



ST Response to Review of Fishery Information Networks (FINs)

Program Review Background

In 2013, NOAA Fisheries initiated a standardized five-year cycle to peer review science conducted by each of the six science centers and the Office of Science and Technology (ST). Each year will have a different program focus. The theme for 2013 was data collected and managed for fishery stock assessments. ST's role in this area differs from that of the science centers, and ST chose to focus its review on the Fishery Information Networks (FINs). FINs are regional co-operative state-federal programs to design, implement and conduct marine fisheries statistics data collection programs and to integrate those data into a single data management system that will meet the needs of fishery managers, scientist, and fishermen. The five regional FINs are:

- Alaska Fisheries Information Network
- Atlantic Coastal Cooperative Statistics Program
- Gulf Fisheries Information Network
- Pacific Fisheries Information Network
- Western Pacific Fisheries Information Network

ST invited experts from both inside and outside the federal government to review the FINs' partnerships (in particular, state partners), the relationship between the FINs and NOAA Fisheries, and how the FINs are meeting national and regional data needs for stock assessments from the federal perspective. From that foundation, the review panel was asked to provide recommendations to improve the FINs. The results of this review will complement the 2013 program evaluations conducted at the science centers, and will inform a national synthesis and recommended actions to improve NMFS data collection programs.

Review Panel

The ST review was held in September 2013, in Portland, Oregon. ST appreciates the substantial time and effort review panelists made to participate in the review and provide valuable feedback. The review panelists were respected members of the scientific community from across the nation:

| Reviewer | Affiliation |
|-----------------------------|--|
| Stephen Bortone | Retired (Gulf of Mexico Fishery Management Council) |
| Jack Dunnigan | Retired (NOS, NMFS, and Atlantic States Marine Fisheries Commission) |
| Michael Hinton | Inter-American Tropical Tuna Commission |
| Steve Jordan (Chair) | Environmental Protection Agency |
| Bonnie Ponwith | NOAA Fisheries |
| Ed Waters | Gentner Consulting Group |

Focus

The review was not designed to be a comprehensive review of the entirety of the five FIN programs, nor is it intended to be five “mini-reviews” of the programs. Information was presented to the review panel by representatives from each FIN and from NOAA Fisheries. In the context of how the FINs are meeting national and regional data need, differences in approach, common themes and issues, and opportunities for lessons learned and collaborative solutions were emphasized.

Three general themes were addressed in the review:

- **Data/information dissemination:** How well is the FIN program meeting regional and national needs for dissemination of commercial fisheries data? Are there particular impediments and how are these being addressed?
- **Data/information management:** Is the information management component of the FIN appropriate and working well?
- **Review and improvement process:** Does the FIN have its own review process? If so, is there a mechanism used to follow up on the implementation of recommendation? Is there a plan for periodically evaluating performance to determine any needs for improvement or changes in direction? What are recommendations for program improvements and priorities?

Key Recommendations and ST Responses

The reviewers provided many valuable insights and recommendations. Although a number of these recommendations will necessarily be the responsibility of the individual FIN programs to evaluate and implement, it is clear that the FINs could benefit by addressing them in collaboration with each other and with the national Fisheries Information System (FIS) program. ST has discussed with the managers of the five different FIN programs possible ways to coordinate actions in response to the recommendations. The FIN program managers have agreed to: 1. prepare and deliver to ST their written responses to the review by mid-February, 2014; and 2. coordinate their responses to avoid widely varying interpretations of the reviewer recommendations and to enable cross-FIN actions as appropriate. ST proposes to assist the FINs in forming a cross-regional advisory body that will promote more effective collaboration among the FINs and between NOAA Fisheries and the FINs. That body would only serve to coordinate actions taken by the FINs with those taken by NOAA Fisheries to achieve the most efficient use of available resources in improving the programs. In addition, ST will take specific actions, largely through the Fisheries Information System (FIS) program, to encourage and facilitate the work of the FINs to evaluate and implement recommendations provided by the reviewers. The specific recommendations and proposed actions are described below under two headings as those

to be addressed by the FINs and the proposed advisory body and those to be addressed by ST through specific actions of the FIS Program.

Actions of the FINs and the Proposed Advisory Body:

A number of recommendations provided in the reviewer reports will be addressed in the responses ST will receive from the managers of the FIN programs. NOAA Fisheries will work together with the programs through a proposed advisory body to coordinate and facilitate specific actions as needed to make the most efficient use of available resources. ST expects that the FINs will take actions with NOAA Fisheries support to address the following key recommendations of the FINs reviewers:

- 1. Strategic Planning:** The Chair's Review Summary recommended: "The leadership of the FINs should agree to a common approach and timeline for developing strategic plans covering the next 5-10 years. Planning should include critical reviews of vision, mission, and goals." NOAA Fisheries agrees that all FIN programs should implement strategic planning efforts and consider some level of coordination among the programs in this regard. The FINs will be providing their own responses to this recommendation, and NOAA Fisheries proposes to work with them as FIN partners and through the proposed advisory body to encourage and facilitate coordination as needed.
- 2. Review and Improvement Process:** The Chair's Review Summary recommended: "The FINs should consider adopting a set of minimum, not overly burdensome, standards for the frequency and structure of peer reviews." In addition, it recommended: "The implementation of review recommendations needs to be formally tracked and documented, perhaps in combination with customer feedback and performance measures." The Chair's Summary notes: "The use of peer reviews is uneven across the FINs, ranging from regular formal peer reviews to more informal internal reviews." NOAA Fisheries agrees that all of the FINs should implement some form of regularly scheduled peer review process. As some reviewers recognized, it would not be necessary for all to use the same approach. The FINs will be proposing their own specific actions in response to this recommendation, and NOAA Fisheries proposes to work with them as partners and through the proposed advisory body to facilitate their implementation of appropriate peer review processes. In addition, ST will develop a plan for a regularly scheduled peer review and improvement process for the FIS program by September of 2014. This would include development of an approach for tracking FIS's success in addressing peer review recommendations and implementing needed improvements.
- 3. Funding:** The Chair's Summary states: "It was clear from the review that inadequate funding is an obstacle to improving processes and services for all of the FINs, most acutely for WPacFIN, which is severely under-funded." To address funding issues, the Summary provides the following recommendations:
 - a. "The FINs should speak to NOAA/NMFS with one voice in budgetary matters, rather than pursuing individual, region-specific approaches." NOAA Fisheries agrees that a more coordinated approach to addressing budget matters could be more effective than region-specific approaches. The FINs will be responding to this recommendation, and NOAA Fisheries proposes to work with them to facilitate more coordination among the programs in this regard if there is agreement among the programs to do so.

- b. “Stronger, active outreach to customers and the public (e.g., face-to-face and through social media) will increase the profiles of the FINs, which in turn could give them higher priority in funding decisions as well as additional opportunities to attract outside funding.” NOAA Fisheries agrees that improved outreach and communication programs are needed to better inform stakeholders and the general public of the importance of the FINs in providing access to fishery-dependent information at both regional and national levels. NOAA Fisheries also agrees that enhanced communications could pave the way for greater success in acquiring needed resources. The FINs will identify actions to be taken in response to this recommendation, and NOAA Fisheries will work to facilitate their efforts.
 - c. “The business model for WPacFIN [West PacFIN], which unlike the other FINs is part of a NMFS Science Center, should be reconsidered. A more autonomous model would provide greater flexibility in operations and expanded opportunities for outside funding.” ST will reach out to the Pacific Islands Fisheries Science Center to offer support in evaluating alternative business models for West PacFIN.
- 4. **Cross-regional Collaboration:** The Chair’s Summary states: “The regional distribution of the FINs is natural and appropriate, given the regional nature of fisheries and management institutions. In this sense, regionality is a strength, and none of the review panel members suggested that the networks should be centralized or merged nationally. Nevertheless, the FINs should be working toward more inter-regional collaboration and consistency. Although the immediate management needs for data typically are regional, there are national needs, as well as cross-regional needs, facts that seem to demand commonality in standards, protocols, documentation, data accessibility, and the types of core data that are acquired and maintained.” It recommends: “The FINs should put a higher priority on inter-regional collaboration and coordination. Stronger leadership at the national level, or other modifications to governance structures should be considered.” NOAA Fisheries believes that we are already seeing a substantial amount of collaboration among the FINs, and the FINs are all currently cooperating in providing information in support of the national reporting needs of the FIS program. ST will address this recommendation from within by providing more frequent updates to the Leadership Council and Science Board on the work of the FIS Program to improve sharing of fishery-dependent data and information across regions in support of national reporting requirements. A better awareness of national reporting needs will help to raise the priority level of inter-regional coordination within our own Agency.
- 5. **Data and Information Dissemination:** The Chair’s Summary states: “There is considerable variation among the FINs in what data are made available, to whom, and by what means.” It provides the following recommendations to reduce that variability and achieve more consistency:
 - a. **Public Access:** The Summary states: “The ideal for an information network is to make comprehensive, well-managed data readily available to any user, and to make potential users aware of the resource.” It recommends: “All of the FINs should adopt a goal to make non-confidential data available to any user, including the public, through accessible, easy-to-use electronic means, including friendly user interfaces and query tools.” NOAA Fisheries agrees with this recommendation. After receiving the responses of the FINs to this recommendation, NOAA will work with them through the proposed FINs advisory body to promote this issue.

- b. Confidentiality:** The Summary states: “Confidential data create difficulties for the FINs and users in data dissemination and accessibility. It was recognized that as a matter of state and federal law and policy, the FINs could not have any direct influence on the problem.” It recommends: “The issue of confidential data should be addressed nationally, at the NOAA/NMFS level rather than regionally. There should be a uniform national policy and protocol for how confidential data are managed and under what conditions they can be made available.” NOAA Fisheries agrees that a more uniform cross-regional policy would be beneficial and will work with the FINs through the proposed advisory body to determine the most appropriate actions to take to address this recommendation.
 - c. Meeting National Data Needs:** The Summary states: “The FINs have achieved a considerable amount of success in meeting basic regional needs for managing and disseminating data and information. Less attention has been paid to national needs, although national-scale information can be quite important for policy-makers and non-governmental entities.” It recommends: “The FINs should adopt a shared vision, objectives and mechanisms for supporting data and information needs nationally...” NOAA Fisheries agrees that the development of a shared vision for supporting national data needs is an important goal to work toward. After reviewing the response of the FINs to this specific recommendation, ST will initiate a discussion through the proposed advisory body to determine the feasibility of reaching agreement on this recommendation and to develop an approach for accomplishing the shared vision.
- 6. Data and Information Management:** The Chair’s Review Summary provides some additional recommendations to improve the consistency among the FINs in their approaches to data and information management.
 - a. Quality Assurance and Data Management Plans:** The Summary states: “It was apparent from the review that some FINs do not have documented quality assurance plans, nor was a strong understanding of quality assurance and quality control evident in some of the presentations.” It recommends: “Each FIN should develop a quality assurance plan according to a standard model; a data management plan to ensure data integrity should be included. It would be valuable and more efficient if the plans were coordinated among the FINs using the same model.” NOAA Fisheries agrees that quality assurance and data management plans are needed for all fishery-dependent information programs. ST will continue ongoing efforts to develop, implement, and update such plans within the Marine Recreational Information Program (MRIP) and FIS Program that it administers for the Agency. After receiving the proposed actions of the FINs in response to this recommendation, NOAA Fisheries will work as a partner in each FIN and through the proposed advisory group to encourage actions to develop and implement such plans.
 - b. Electronic Data and Reporting:** The Summary states: “The future of data recording and reporting is surely digital and electronic. Some FINs have made more progress in this area than others.” It recommends: “It should be a goal of the FINs to work together, along with their partners and NMFS, toward maximizing electronic data recording and reporting.” NOAA Fisheries agrees that it will be important to work together with the states through the regional FINs to develop and implement

electronic data collections and reporting programs in the most efficient and cost-effective ways possible. A high level of communication and coordination between the FINs and NOAA Fisheries is already happening with regards to the development and implementation of electronic reporting applications through the ongoing activities of the Electronic Reporting Professional Specialty Group (ERPSG) of FIS as well as the NOAA Fisheries national electronic technologies implementation plan initiative. After receiving the response of the FINs to this specific recommendation, ST will evaluate possible ways to improve collaboration through the ERPSG.

ST Actions through the FIS Program

- 1. Strategic Planning:** The Chair's Review Summary indicated, "The leadership of the FINs should agree to a common approach and timeline for developing strategic plans covering the next 5-10 years. Planning should include critical reviews of vision, mission, and goals." ST agrees with this recommendation and will facilitate this process via the FIS Program through a number of mechanisms including, but not limited to:
 - a. Supporting projects that identify and work toward a clearly stated strategic goal. Specifically, the existing FIS program's RFP process will prioritize projects that work toward a clearly stated strategic goal. This will be clearly stated in the scoring criteria in the RFP guidance.
 - b. Providing matching funds or small awards to support strategic planning processes by the FINs, or to support a multi-FIN strategic planning workshop.
- 2. Inter-regional Collaboration:** The Chair's Review Summary indicated, "The FINs should put a higher priority on inter-regional collaboration and coordination." The reviewers noted that national and cross-regional needs would be better served if there was greater commonality in data standards, protocol, documentation and accessibility. ST supports this recommendation and will facilitate inter-regional collaboration to the extent preferred by the FINs.
 - a. The FIS program is heavily based on a "community of practice" concept, as reflected in the FIS Professional Specialty Groups (PSGs). Most of the PSGs currently have fairly specific portfolios, but will expand in scope to support coordinating efforts among FINs. Additional PSGs will be created as appropriate.
 - b. The FIS program currently prioritizes projects that include cross-regional collaboration and produce transportable results. This criterion will be more heavily emphasized when evaluating proposals relevant to the FINs.
- 3. Data Access:** The Chair's Review Summary indicated, "All of the FINs should adopt a goal to make non-confidential data available to any user, including the public, through accessible, easy-to-use electronic means, including friendly user interfaces and query tools." ST agrees with the panel. While all of the FINs make data available to the public, most do not have dynamic query tools in place. This recommendation will be addressed in the following ways:
 - a. ST will work with the regional FIS partners who actively participate in the FINs to develop and fund one or more FIS projects that would adapt the National Fisheries One-Stop Shop (FOSS) query system for use by the regional FINs. The FOSS project

has developed a dynamic query system that has the ability to present data from all of the FINs in a manner that is fully consistent with existing business rules and is flexible enough to change with them over time. Rather than each FIN developing and maintaining a new query system of its own, they could consider modifying the FOSS query system to specifically meet their regional reporting needs. This would free up financial and personnel resources at the FINs to address specific data requests, improve data collection, or develop new programs.

- b. In areas where utilizing FOSS as the primary public data portal is not viable, the FIS Program will consider providing limited funding, as available, to assist in the development of FIN-specific query systems.

4. Quality Management: The Chair's Review Summary indicated, "Each FIN should develop a quality assurance plan according to a standard model; a data management plan to ensure data integrity should be included." Several reviewers also recommended increasing the consistency of the structure, documentation, and implementation of quality management programs across the FINs. ST agrees with this recommendation and will assist in the implementation of quality management programs in the following ways:

- a. The FIS Program currently supports a Quality Management PSG, which seeks to expand the use of standardized quality management techniques through training and by providing a "tool box" of quality management resources. Both PacFIN and AKFIN have been a part of the Quality Management PSG for several years and Pacific RecFIN recently joined. The FIS program will encourage participation by the other FIN programs, giving them access to resources that will help with the development and implementation of quality improvement plans that address both quality assurance of data processes and quality control of data and information.
- b. The FIS Program's RFP process includes a category for information quality projects. FIS will encourage the FINs to apply for funding for quality management projects through this RFP.

5. Communications: The Chair's Review Summary indicated, "Stronger, active outreach to customers and the public (e.g. face-to-face and through social media) will increase the profiles of the FINs, which in turn could give them higher priority in funding decisions as well as additional opportunities to attract outside funding." ST supports this recommendation and will help the FINs with their communications efforts in the following ways:

- a. The FIS Program will improve the descriptions on the ST website and in ST publications (e.g. Fisheries of the United States) of the important roles performed by the FINs in each region to coordinate data collection, data management, and information management processes.
- b. The FIS Program has an ongoing outreach and communications initiative. The scope of this effort will be expanded as appropriate to further communicate the important work of the FINs in providing the regional components of a national fisher-dependent information program. The FIS Program will take advantage of opportunities to provide more frequent updates to NMFS Leadership on the importance of the FINs as

the regional foundation for a national fishery-dependent information program.

6. **Confidentiality:** The Chair's Review Summary indicated, "The issue of confidential data should be addressed nationally, at the NOAA/NMFS level rather than regionally. There should be a uniform national policy and protocol for how confidential data are managed and under what conditions they can be made available." ST acknowledges the panel's recommendation and is leading the effort to develop a final NOAA Fisheries confidentiality rule. Once a rule is finalized, the NMFS Confidentiality Working Group will work to establish national aggregation guidelines in consultation with the regional FIN programs.