2008 Responsible Fisheries Assessment of Hawaii's Pelagic Longline Fisheries

December 19, 2008

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Prepared for:
Hawaii Seafood Project 2
National Oceanographic and Atmospheric Administration
U.S. Department of Commerce

This document was prepared by PacMar, Inc. under Award No. NA06NMF4520222 from NOAA, U.S. Department of Commerce. The statements, findings, conclusions and recommendations are those of the authors and do not necessarily reflect the views of NOAA or the U.S. Department of Commerce.

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1. ABSTRACT

Hawaii's pelagic longline fisheries were reassessed in 2008 using the provisions of the United Nations Food and Agriculture Organization (FAO) Code of Conduct for Responsible Fisheries (Code) as a scoring system. The 2006 Responsible Fisheries Assessment (RFA) is the most comprehensive application of the Code for the assessment of a pelagic longline fishery according to the FAO. The Hawaii longline fisheries are the first in the United States to have been fully assessed and scored comprehensively against Articles of the Code relevant to wild capture fisheries. The 2008 RFA demonstrates the practical application of the Code for monitoring progress in a fishery towards compliance. The RFA process applies FAO's internationally-accepted set of criteria which define a responsible fishery managed for sustainability. The RFA was revised in 2008 because of significant changes in the domestic and international fishery management framework resulting primarily from the December 2006 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act and recent developments of the Western and Central Pacific Fisheries Commission. The 2008 RFA of the Hawaii longline fisheries resulted in a cumulative score of 94% compliance (265.5 of 283 points) with the prescriptive and applicable Articles of the Code. These include Article 7 Fishery Management (96% or 109.5 of 114 points), Article 8 Fishing Operations (93% or 70 of 75 points), Article 10 Integration with Coastal Area Management (83% or 17.5 of 21 points), Article 11 Post–harvest Practices and Trade (95% or 38 of 40 points) and Article 12 Fisheries Research (92% or 30.5 of 33 points).

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Hawaii Seafood Project-2 (NOAA Award No. NA06NMF4520222). December 19, 2008

2. EXECUTIVE SUMMARY

The Hawaii longline fisheries were assessed using the provisions of the United Nations Food and Agriculture Organization Code of Conduct for Responsible Fisheries (FAO 1995) as a scoring system. The Responsible Fisheries Assessment (RFA) process is a way to assess a fishery against the Code, a comprehensive and internationally-accepted set of criteria that define a responsible fishery managed for sustainability. The 2008 RFA has been completed as part of the Hawaii Seafood Project (NOAA Award No. NA06NMF4520222, PacMar, Inc., Honolulu, Hawaii).

The first RFA of the Hawaii longline fisheries (Bartram et al., 2006) was completed in December 2006 under the Hawaii Seafood Project (NOAA Award No. NA05NMF4521112, PacMar Inc.). The 2006 RFA was the first and most comprehensive application of the Code for the assessment of a pelagic longline fishery. The methodology was reviewed and published as a model for the application of the Code by the FAO (Caddy et al., 2007). The RFA was revised in 2008 because of significant changes in the domestic and international fishery management framework resulting primarily from the re-authorized Magnuson-Stevens Fishery Conservation and Management Act and recent developments of the Western and Central Pacific Fisheries Commission.

The FAO developed a scoring system and a 193 question checklist to facilitate and standardize the application of the Code (Caddy 1996). This was expanded (Bartram et al., 2006) to 283 questions to include Code provisions that were not covered by the original FAO checklist. Scoring was done by PacMar Inc. (Paul Bartram, Katrina Nakamura, John Kaneko and George Krasnick) applying the FAO methodology (Caddy 1996). Scorecards contain the original language and questions formatted to address each Code provision. Answers provide the rationale for scoring. For transparency, answers are referenced whenever possible with links to electronic documents and websites that provide background and detail. Readers are advised to review the scorecards electronically so that they can link to relevant websites and documents.

2008 summary scores for Hawaii longline fisheries follow:

• Article 7 (Fishery Management)	96% (109.5 of 114 points)
• Article 8 (Fishing Operations)	93% (70 of 75 points)
• Article 10 (Integration with Coastal Zone Mgt)	83% (17.5 of 21 points)
• Article 11 (Post-harvest Practices and Trade)	95% (38 of 40 points)
• Article 12 (Fisheries Research)	92% (30.5 of 33 points)
Cumulative RFA Score	94% (265.5 of 283 points)

The credibility of the RFA process flows directly from the agencies involved in the management of the fishery. The RFA process documents the working relationships among the components of the management system. The agencies directly involved in the integrated management system (NOAA Pacific Islands Regional Office and Fisheries Science Center, Western Pacific Fishery Management Council, US Coast Guard and the Pelagic Fisheries Research Program) reviewed the 2008 RFA to ensure accuracy, transparency and credibility of the assessment. Maintaining an RFA is important for Hawaii to document responsible pelagic longline fisheries that supply sustainable seafood.

3. INTRODUCTION TO THE RESPONSIBLE FISHERIES ASSESSMENT AND THE FAO CODE OF CONDUCT FOR RESPONSIBLE FISHERIES

3.1 Why is it important to assess the responsible nature of Fisheries?

Sustainable seafood is produced by responsible fisheries. Differentiating sustainable seafood in the market place requires demonstration that a fishery is responsible and managed for sustainable use. A science-based fishery management system that applies an ecosystem approach and the precautionary principle is a pre-requisite for a well-managed, responsible fishery. A comprehensive and objective set of criteria for responsible fisheries is needed for comparison of seafood sources. Without a meaningful way to distinguish sustainable seafood in the market and without rewards for responsible fishing and punishments for irresponsible fishing embedded in fishery management systems, there will be no incentive for fisheries to become more responsible.

Responsible fisheries need to be rewarded in negotiations for access to fishery resources. Regional fishery management organizations (RFMO) must recognize the profound positive force for sustainability that tangible benefits for responsible fisheries can produce in multi-national fisheries such as Pacific tuna. RFMOs must also adhere to the precautionary principle and science-based management and consider the negative impact of uniformly assigning quotas to fishery segments that provide significant quantities of high-quality and timely fishery data with which fish stock assessments and management actions are based. Consumers can share in the obligation to support responsible fisheries by seeking out sustainable seafood. Consumer preference for sustainable seafood will create a market incentive for countries to develop and manage responsible fisheries and, with suitable incentives in fishery management systems, the current trends of overexploitation of global fishery resources may be correctable.

3.2 How Responsible Are Hawaii Fisheries?

This question is asked by many people, including consumers of Hawaii fishery products, environmental organizations and the general public. Answering the question requires a broader perspective of fisheries than is provided by conventional fishery management. As the average consumer does not read or have access to technical reports and policy updates about sustainability benchmarking in fishery journals, the job of communicating sustainability falls to fishery managers and producers. Good science and good management can be successful in fostering responsible fisheries but good news may not often be communicated to seafood consumers.

Several non-governmental organizations issue consumer advisories that combine factors such as sustainable fishing, fish bycatch and incidental capture of protected species in a marine species ranking system. These advisories often take the form of lists of marine species and possible product sources divided into categories color coded as green (low impacts = best choices), orange (good alternatives but higher impacts) or red (avoid because of high impacts) (e.g., Monterey Bay Aquarium Seafood Guide for Hawaii). Some of the advisories provide a numerical rating for the species and fishery assessed (e.g., Blue Ocean Institute online "Guide to Ocean Friendly Seafood"). In this ranking scheme, marine species are "scored" based on their biological resilience to fishing, as well as the gear characteristics

and practices of particular fisheries that harvest the species. Thus, species' scores evaluate some aspects of fisheries but the fisheries and their management systems are not comprehensively evaluated. The Marine Stewardship Council's approach to ecolabeling and certification of sustainable seafood relies on third party assessments focused on three main areas, 1) fishery management, 2) fishery stock status, and 3) environmental/habitat impacts.

In order to evaluate how responsible Hawaii's pelagic longline fisheries are, an international standard was required. The Code of Conduct for Responsible Fisheries (Code) was established in 1995 by the United Nations Food and Agriculture Organization (FAO) (FAO, 1995) for the very purpose of evaluating fisheries and fisheries management systems based on a wide range of standard norms and practices compatible with objectives of responsible fisheries and sustainable seafood production. No comprehensive evaluation of Hawaii longline fisheries was available before the 2006 Responsible Fisheries Assessment (RFA) (Bartram et al., 2006) applied the provisions of the Code.

3.3 What is the Code of Conduct, its Origins and Purposes?

The Code is an international agreement that is widely recognized as the most complete operational reference for fisheries management, combining the aims of sustainable fisheries management with environmental conventions and instruments. The Code is a voluntary agreement that sets out principles and international standards of responsible practices to ensure conservation, management and sustainable utilization of living aquatic resources, with due respect for ecosystem and biodiversity. There are no legally binding obligations created for member states by this Code.

The Code is one of the landmarks in a sequence of significant developments relating to responsible fisheries since the 1970s. The Code takes into account the biological characteristics of the resources and their environment and the interests of consumers and other users (FAO 2008). The Code reinforces the obligation of all of those engaged in fisheries to be responsible, not only for biological aspects of fisheries but also the technological, economic, social and cultural facets as well. Governments, managers, scientists, fishers, processors, consumers and others are all accountable to act responsibly.

The general principles, set out in Article 6 of the Code, urge governments to prevent overfishing and excess capacity; ensure compliance with and enforcement of conservation and management measures and establish effective mechanisms to monitor and control activities of fishing vessels; cooperate through sub-regional, regional and global fisheries management organizations; conduct fish trade in accordance with the principles, rights and obligations established in World Trade Organization agreements; protect the rights of fishers and fish workers, especially those engaged in subsistence, small-scale and artisanal fisheries; and promote the interests of food security, taking into account present and future generations (Roheim and Sutinen, 2006).

Although voluntary, the Code has many provisions based on relevant rules of international law, including those reflected in the 1982 United Nations Convention on the Law of the Sea. The Code also includes certain provisions that are binding, notably the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, 1993 (FAO 2001: p. 1).

3.4 What are the Objectives of the Code?

The Code consists of 12 Articles, beginning with general statements and principles (Articles 1-6) and leading to specific guidance (Articles 7-12). The detailed and prescriptive Articles include standards not only for conservation and management of fisheries (Article 7) but all aspects of fisheries, including fishing operations (Article 8), aquaculture (Article 9), post-harvest processing and trade of fishery products (Article 11), fisheries research (Article 12) and the integration of fisheries into coastal area management (Article 10).

The Code reaffirms the importance of using the best scientific evidence available when deciding on fishery conservation and management measures and calls for the timely, complete and reliable collection of data for fishery assessment. FAO is mandated by the Committee on Fisheries (COFI), to monitor progress and assist with the implementation of the Code (Clause 4.2). Clause 4.3 of the Code expresses the means for its own revision.

Objectives of the Code are defined in Article 2, as follows:

(a) establish principles, in accordance with the relevant rules of international law, for responsible fishing and fisheries activities, taking into account all their relevant biological, technological, economic, social, environmental and commercial aspects;

(b) establish principles and criteria for the elaboration and implementation of national policies for responsible conservation of fisheries resources and fisheries management and development;

(c) serve as an instrument of reference to help States to establish or to improve the legal and institutional framework required for the exercise of responsible fisheries and in the formulation and implementation of appropriate measures;

(d) provide guidance which may be used where appropriate in the formulation and implementation of international agreements and other legal instruments, both binding and voluntary;

(e) facilitate and promote technical, financial and other cooperation in conservation of fisheries resources and fisheries management and development;

(f) promote the contribution of fisheries to food security and food quality, giving priority to the nutritional needs of local communities;

(g) promote protection of living aquatic resources and their environments and coastal areas;

(h) promote the trade of fish and fishery products in conformity with relevant international rules and avoid the use of measures that constitute hidden barriers to such trade;

(i) promote research on fisheries as well as on associated ecosystems and relevant environmental factors; and

(j) provide standards of conduct for all persons involved in the fisheries sector.

3.5 What are the Core Principles of the Code?

The core principles of the Code (elaborated in Article 6) aim to promote responsible fishing by seeking to:

- maintain the quality, diversity and availability of fishery resources for present and future generations;
- prevent overfishing and excess fishing capacity;
- ensure the conservation of not only target species but also associated and dependent species belonging to the same ecosystem;
- prevent the degradation of fisheries habitats in marine and fresh water ecosystems with attention to the integration in coastal zone management;
- ensure that in the absence of best scientific information, the application of the precautionary approach is imperative;
- eliminate the use of non-selective and environmentally unsound fishing gear;
- promote the research and the collection of data in order to improve fisheries knowledge;
- encourage States (i.e., nations) to employ effective control over vessels that fly their flag;
- facilitate effective participation by all stakeholders in decision-making in relation to determining conservation and management policies and laws;
- make the trade of fish and fisheries products consistent with relevant international agreements, including the World Trade Organization Agreement and should not result in environmental degradation or negative social impacts;
- maintain safe and healthy fisheries work environments and food quality controls in the processing and distribution of fisheries products; and
- consider aquaculture and culture-based fisheries with minimal environmental impacts as a diversification for income and diet.

3.6 What is Being Done to Facilitate the Application of the Code?

FAO has also produced a series of technical guides to facilitate the practical application of the principles of the Code and a number of International Plans of Action addressing specific issues of fisheries management concerns: on illegal, unreported and unregulated (IUU) fishing, incidental catch of seabirds in the longline fishery, fishing capacity, and the conservation and management of sharks. The plans of action are for all intents and purposes considered part of the Code. The term "ecosystem approach to fisheries" (EAF) has been adopted in Technical Guidelines No. 4, Suppl. 2 to reflect the merging of ecosystem-based management and fisheries management. FAO guidelines on EAF recognize that this approach is a way to implement many of the provisions of the Code (FAO 2003: abstract).

The Code addresses several audiences, including national governments, referred to as "States." In 1999 the US participated with 125 other UN member states in the unanimous adoption of a commitment to implement the Code (FAO 1999a). On behalf of the U.S. government, the National Marine Fisheries Service (NMFS) of the National Oceanic and Atmospheric Administration (NOAA) has responded to the Code with an implementation plan for U.S. domestic marine fisheries and areas where the agency has jurisdiction or major

authority (NMFS 1997). Through its legislative mandates (particularly the 1996 amendments to the Magnuson-Stevens Act (MSA) known as the Sustainable Fisheries Act), strategic plan and related activities, NMFS seeks to achieve most of the same goals as the Code (NMFS 1997: 2). The Fisheries Strategic Plan is organized around three programmatic areas: a) sustainable fisheries; b) recovery of protected species; and c) healthy living marine resource habitat (NMFS 1997).

The FAO prepared a checklist based on some but not all of the provisions of the Code to facilitate the evaluation of fisheries (Caddy 1996). More recently, the FAO FishCode Unit prepared a report on the practical adaptation and application of the Code for the evaluation of fisheries in the 10+ years since the adoption of the Code (Caddy et al., 2007).

3.7 Can Fishery Responsibility be Scored Based on the Code?

The Code is intended to be the global standard for defining responsible fisheries and to provide a basis for reviewing the adequacy of fishery management and revising management when necessary. Yet, much of the detail in the body of the Code is written in a way that makes systematic scoring of compliance rather difficult (Pitcher 1999).

The Code consists of a series of statements of principles that need to be placed in an 'operational' context in order to identify their practical significance to fisheries managers, stakeholders in the fishery, the fishing industry in general and, progressively in recent years, the concerned public at large (Caddy 1996). As a way of rendering the implications of the Code more explicit, and at the same time testing to see how close the various fisheries management systems are to meeting its provisions, the FAO reformulated many provisions of the Code into a series of specific questions (Caddy 1996) with minimal interpretation or editorial changes from the original Code text. These could, in theory at least, be asked of any particular fishery in an attempt to see how it measures up to the idealized fishery regime envisaged by the countries that agreed to the provisions in the Code (Caddy 1996).

Caddy's checklist includes a total of 193 questions, focused on provisions of the Code that deal with fisheries management (Article 7) and fishing operations (Article 8), as well as selected clauses extracted from Articles 10-12 that have particular relevance to the proper management of living aquatic resources (Caddy 1996).

Translating the Code into questions is to some extent subjective, and it must be stressed that the checklist does not have the authority of the Code, although it provides a useful way of seeing its implications in practical terms (Caddy 1996). The reader is urged by Caddy not to confuse the checklist with the Code but to refer to the text of the Code for exact wording and content. Not all Articles in the Code are well adapted to be expressed in the form of questions regarding fishery management and operations. No specific questions were formulated by Caddy (1996) based on Articles 1-6 of the Code. This is not because these articles are not important; to the contrary, they represent the 'core' of the Code and are elaborated later in more detail in the prescriptive Articles 7-12 that follow (Caddy 1996). Article 5 of the Code articulates special requirements for developing countries, which include taking into account the need for financial and technical assistance, technology transfer, training and scientific cooperation, as well as their right to develop their own fisheries.

Specific clauses of Articles 7-12 take into account "the capacity of developing countries to implement the recommendations of this Code," referred to in Article 5 (Caddy 1996).

The deficiencies of the Caddy (1996) checklist are well recognized, since there are many pitfalls in attempting to determine the 'correct' response to, and appropriate overall weighting for, a given question, depending on the definitions followed as well as the point of view (Caddy 1996). Some simple examples of the problem of definitions include the common phrases "conservation and management measure", "confidentiality requirements", "complete and reliable statistics", etc. The parties that agreed to the Code did not enter into questions of definition of its component terms for the obvious reason that, if they had done so, an overall agreement might have required many more years of negotiation. Commonly used meanings of the terms used are implied, but clearly more than one definition of given terms exists and will influence how a particular question is answered (Caddy 1996).

4. METHODOLOGY: SCORING THE RESPONSIBILITY OF HAWAII LONGLINE FISHERIES

4.1 RFA Approach

The 2008 RFA followed the methodology and scorecards used in the initial 2006 assessment (Bartram et al., 2006). The Rome-based FAO FishCode unit reviewed the methodology used in 2006. For the 2008 assessment the project team first reviewed the Code, the reauthorized Magnuson-Stevens Fisheries Conservation and Management Act (MSA) and recent developments in the Western and Central Pacific Fisheries Commission (WCPFC). Scorecards were then reviewed, reassessed and updated. The draft 2008 RFA scorecards were reviewed by the agencies and organizations that comprise the Hawaii longline fisheries' management framework. These include the National Oceanographic and Atmospheric Administration (NOAA) Pacific Islands Regional Office and Pacific Islands Fisheries Science Center, the Western Pacific Fishery Management Council, the University of Hawaii's Pelagic Fisheries Research Program and the U.S. Coast Guard. The 2008 RFA was only finalized after addressing reviewers' comments.

Article 4 of the Code calls for FAO to monitor the global implementation of the Code and for nations and international organizations (whether governmental or non-governmental) to promote the understanding and implementation of the Code. PacMar notified the FAO FishCode Unit of the Code application as a scoring system in the 2006 RFA of the Hawaii longline fisheries. After reviewing the methodology and scorecards, Dr. John Caddy of the FAO commented that "your approach is the most complete as far as referring the management measures in place to the questions in the Code, and this makes the Hawaii study very helpful to other potential users." A description of the Code's application in Hawaii was included as a model in the 2007 FAO report on implementation of the Code internationally over the 10+ years since its adoption (Caddy et al., 2007). Upon completion the final version of the 2008 RFA of the Hawaii longline fisheries will be submitted to the FAO FishCode Unit.

Provisions of Articles 7, 8, 10-12 that were not included in Caddy's checklist were converted into question format by PacMar Inc. during the Hawaii Seafood Project in 2006 following

the Caddy approach. An additional question increased the total to 283 for the 2008 RFA. Individual clauses of the Code often contain a number of ideas that, when formulated in the interrogative form, pose a series of questions that need to be answered in sequence. Some duplication of questions inevitably resulted from this literal translation of individual clauses, but duplications were included to indicate the emphasis given to these particular points in the Code.

For the Code to be effectively applied, it must be addressed through national governments to those engaged in world fisheries at the grass-roots level, i.e. the fishing communities, fishing industries, fishers and all those considered to be covered by the term "interested parties" in the Code or, in more common parlance, the "stakeholders in the fishery" (Caddy 1996). Re-formulation of the individual clauses of the Code into questions, therefore, addresses a more general audience, when this seemed appropriate, rather than to the government, so that they can hopefully be answered by different levels of representation of those involved in the fisheries' world (Caddy 1996).

4.2 How Was the FAO Checklist Adapted by the Hawaii Seafood Project?

The Hawaii Seafood Project RFA scorecards (Appendix A) applied the FAO scoring method and checklist developed by Caddy (1996) in which each provision is scored separately and scores can be summed separately for each provision of the detailed Articles (7, 8, 10-12). Most of the questions can be scored as "yes (1 point)" or "no (zero points)", with allowance for possible half (1/2 point) scores. The questions are not weighted and therefore the scores should be interpreted with this consideration in mind.

The RFA of the Hawaii longline fisheries is one of the main elements of the Hawaii Seafood Project. To provide an objective basis for assessing the level of responsibility of Hawaii longline fisheries, the Hawaii Seafood Project developed "scorecards" for five detailed thematic Articles of the Code (Articles 7, 8, 10, 11, 12) by adapting and expanding the original marine resources management checklist designed by Caddy (1996) to include additional provisions of the Code relating to social, economic, cultural, technological and infrastructure dimensions of Hawaii longline fisheries. This more comprehensive evaluation does not include Aquaculture Development (Article 9) because its provisions are not presently applicable to Hawaii fisheries for wild pelagic fish. Throughout the Code and its associated checklist, nations are referred to as "States," so readers of this report are cautioned not to mistake this for the State of Hawaii.

Questions have been scored in such a way that a fishery that meets these criteria in the respondent's opinion is scored a full point, with the possibility recognized that, in some cases, a response intermediate between wholly positive and wholly negative will be likely (Caddy 1996). The particular approach taken to translating the answers to such questions into quantitative terms is certainly debatable, and other weightings for the scores are certainly possible. It is justifiable, however, if only because a scoring of the questionnaire by those involved or interested in the fisheries conservation and management process should lead to a clarification of the current situation of a given fishery.

The score given for each question in the RFA checklist is justified by a relatively short narrative that provides an explanation of actions, progress or difficulties encountered and discusses the applicability to the particular Code provision under consideration. For transparency, each narrative justification is referenced to websites and other mostly electronic sources that provide further detail and links for information. For example, following links provided in many electronic references will often connect to relevant national laws, international agreements or arrangements that are being implemented by U.S. agencies. Readers are advised to review the scorecards electronically so that they can rapidly connect to these electronic links.

FAO developed the Code before the ecosystem approach became the new paradigm for responsible fisheries management. Subsequently, FAO prepared technical guidelines indicating which of the Code's provisions reinforce ecosystem-based management. The phrase "furthers ecosystem approach to fisheries" is added to selected provisions in the RFA questionnaire based on FAO (2003).

5. RESULTS

5.1 Primer on how Hawaii Longline Fisheries are managed.

Most U.S. fisheries operating in federal waters are managed under a framework consisting of federal government agencies and regional fishery management councils. In Hawaii, the primary entities (Figure 1) include the National Oceanic and Atmospheric Administration (NOAA) Pacific Islands Regional Office (PIRO) and Pacific Islands Fisheries Science Center (PIFSC), the Western Pacific Fishery Management Council (Council) and the U.S. Coast Guard.

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) governs US fisheries within federal waters extending to 200 miles offshore within the U.S. Exclusive Economic Zone (EEZ). The Hawaii longline fisheries operate under the same federal regulations when they fish in international waters outside of the EEZ. The MSA sets national standards for how US fisheries are to be managed for sustainability. Other laws and agencies play a role in how fisheries are managed, but the MSA forms the core of the management framework.

The MSA established a series of regional fishery management councils with the responsibility for preparing Fishery Management Plans (FMPs). FMPs are prepared and amended by the Council with input from diverse stakeholders, public comment and scientific input through Plan Teams, Advisory Panels and the Science and Statistical Committee. Rules on how a fishery should be managed are based on the best available science. The Council prepares FMP amendments (as needed) that evaluate alternatives and propose a preferred alternative to NOAA for review, action, rule-making and implementation by the Secretary of Commerce using an Administrative Procedures Act (1946) driven process.

In Hawaii, PIFSC's monitoring programs are the primary source of fishery data that support domestic and international pelagic fisheries management. PIFSC and the Pelagic Fisheries Research Program (PFRP) of the University of Hawaii sponsor scientific research in support

of federal fisheries management. Enforcement of the rules and regulations in the Hawaii longline fisheries is performed by NOAA and the U.S. Coast Guard.

Hawaii's longline fisheries also fall under the jurisdiction of two regional fishery management organizations, the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC).

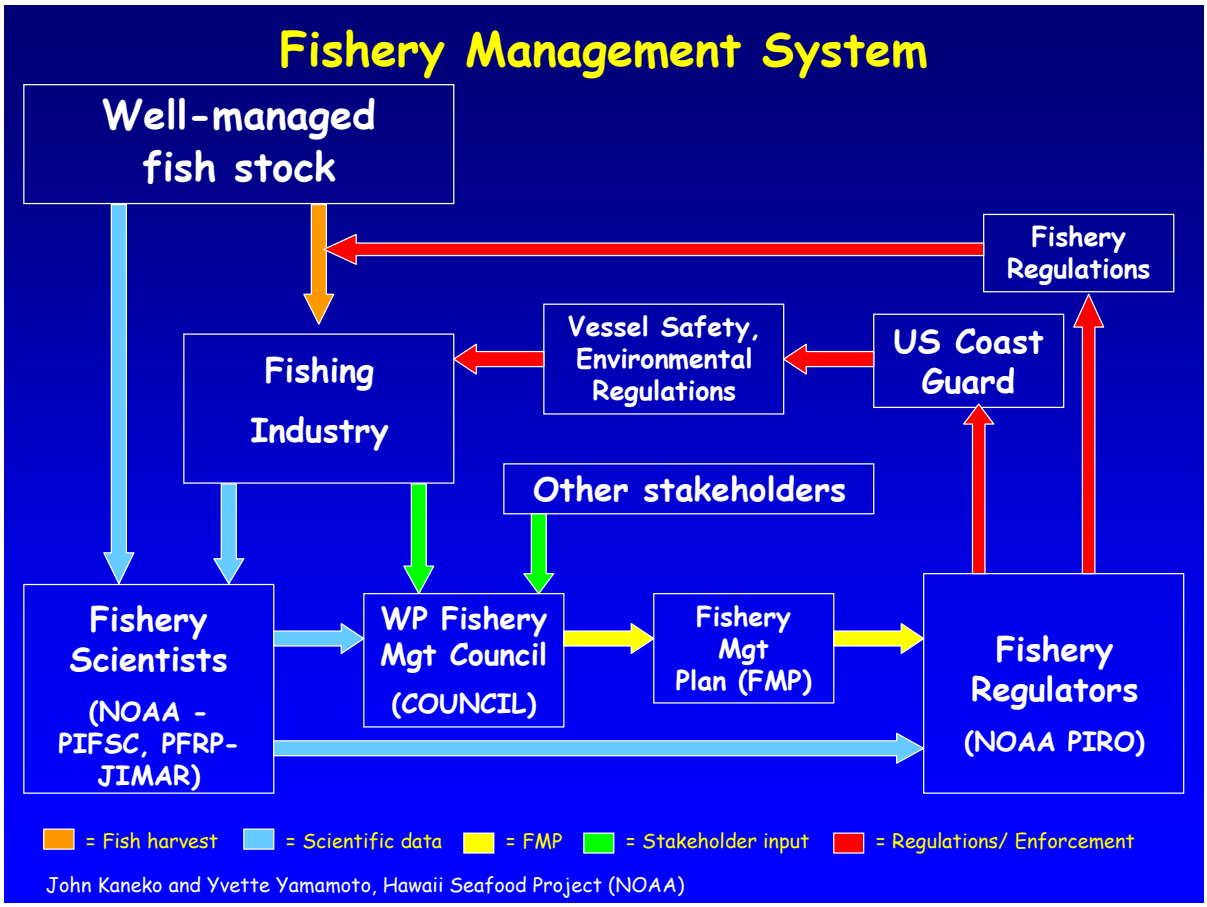

FIGURE 1. Fishery Management Framework

5.2 How Well Do Hawaii Longline Fisheries Comply with the Code?

The Code sets goals for fisheries without the expectation of simultaneous or instantaneous fulfillment of all goals in every fishery. Some provisions of the detailed Code articles (7-12) express the intentions of fishery management, whereas other clauses express the actual effects of implementing management measures.

The detailed 2008 RFA scorecards in Appendix A evaluate Hawaii longline fisheries based on 283 questions concerning fishery management (Article 7), fishing operations (Article 8), post-harvest activities and trade (Article 11), fisheries research (Article 12) and fisheries interactions with coastal area management (Article 10), although the latter is only weakly linked to Hawaii longline fisheries that operate in the open ocean.

Hawaii longline fisheries score high in both expressed intentions of fishery management and in actual implementation of desired management measures. The reason why compliance with desired management objectives is so high is that the fisheries are regulated through a Hawaii longline limited access permit system and other U.S. regulations. Any violations of this system and associated rules can jeopardize continued participation by permit holders, so there are strong practical incentives for compliance with many of the objectives of the Code that are reflected in federal management of Hawaii longline fisheries.

Hawaii longline fisheries received scores ranging from over 92 to 96 percent for provisions of Articles 7, 8, 11 and 12, to 83 percent for provisions of Article 10. The summary scores for Hawaii longline fisheries are as follows:

• Article 7 (Fishery Management)	96% (109.5 of 114 points)
• Article 8 (Fishing Operations)	93% (70 of 75 points)
• Article 10 (Integration with Coastal Zone Mgt)	83% (17.5 of 21 points)
• Article 11 (Post-harvest Practices and Trade)	95% (38 of 40 points)
• Article 12 (Fisheries Research)	92% (30.5 of 33 points)
Cumulative RFA Score	94% (265.5 of 283 points)

5.3 Changes in the Fishery between 2006 and 2008 Responsible Fisheries Assessments

The cumulative RFA percentage score for 2008 increased to 94% from 93% in 2006. Summary results for the 5 Articles of the 2006 RFA and 2008 RFA are included in Tables 1 through 5. Scoring for each provision is found in the detailed scorecards (Appendix A). Scores increased in Article 10 (Integration with Coastal Area Management) and Article 12 (Fisheries Research). The Magnuson Stevens Fishery Conservation and Management Act (MSA) was re-authorized in December 2006, after the initial 2006 RFA was completed. The new MSA significantly increased the authority of the Science and Statistical Committees (SSC) that advise regional fishery management councils and SSC decisions about allowable fishing levels. Scores for some 2006 RFA provisions increased in 2008 because of MSA amendments, whereas other scores decreased because of delays by regional fishery management organizations (WCPFC, IATTC) in response to recent scientific advice. Many scores remained unchanged between the 2006 and 2008, although the 2008 RFA provides enhanced information to justify scores.

TABLE 1. Compliance of Hawaii Longline Fisheries with Code: Article 7 (Fisheries Management) Scorecard

Code Provisions	Best Possible Score	HI Longline Fisheries' Scores		HI Longline Fisheries' Score as % of Best Possible Score	
		2006	2008	2006	2008
7.1 *General*	23	23	22.5	100%	97.8%
7.2 *Management objectives*	14	14	14	100%	100%
7.3 *Management framework and purposes*	12	12	10.5	100%	87.5%
7.4 *Data gathering and management advise*	11	11	11	100%	100%
7.5 *Precautionary approach*	15	15	15	100%	100%
7.6 *Management measures*	23	21	23	95%	100%
7.7 *Implementation*	15	12	12.5	80%	83.3%
7.8 *Financial institutions*	1	1	1	100%	100%
Article 7 Overall	**114**	**110**	**109.5**	**96%**	**96%**

TABLE 2. Compliance of Hawaii Longline Fisheries with Code: Article 8 (Fishing Operations) Scorecard

Code Provisions	Best Possible Score	HI Longline Fisheries' Scores		HI Longline Fisheries' Score as % of Best Possible Score	
		2006	2008	2006	2008
8.1 *Duties of all States*	10	8	8	80%	80%
8.2 *Flag State duties*	14	12.5	12.5	89%	89.2%
8.3 *Port State duties*	4	4	4	100%	100%
8.4 *Fishing operations*	14	14	14	100%	100%
8.5 *Fishing gear selectivity*	7	7	7	100%	100%
8.6 *Energy optimization*	2	1	1	50%	50%
8.7 *Protection of the aquatic environment*	4	4	4	100%	100%
8.8 *Protection of the atmosphere*	7	7	7	100%	100%
8.9 *Harbors and landing places for fishing vessels*	6	6	6	100%	100%
8.10 *Abandonment of structures and other materials*	2	2	2	100%	100%
8.11 *Artificial reefs and fish aggregation devices*	5	4.5	4.5	90%	90%
Article 8 Overall	**75**	**70**	**70**	**93%**	**93%**

TABLE 3. Compliance of Hawaii Longline Fisheries with Code: Article 10 (Integration of Fisheries into Coastal Area Management) Scorecard

Code Provisions	Best Possible Score	HI Longline Fisheries' Scores		HI Longline Fisheries' Score as % of Best Possible Score	
		2006	2008	2006	2008
10.1 *Institutional framework*	7	5.0	5.5	71%	78.5%
10.2 *Policy measures*	8	6.0	6.5	75%	81.2%
10.3 *Regional cooperation*	4	2.5	4	62%	100%
10.4 *Implementation*	2	1.5	1.5	75%	75%
Article 10 Overall	**21**	**15**	**17.5**	**71%**	**83%**

Table 4. Compliance of Hawaii Longline Fisheries with Code: Article 11 (Post-Harvest Practices and Trade)

Code Provisions	Best Possible Score	HI Longline Fisheries' Scores		HI Longline Fisheries' Score as % of Best Possible Score	
		2006	2008	2006	2008
11.1 *Responsible fish utilization*	16	16	16	100%	100%
11.2 *Responsible international trade*	16	15	15	94%	93.7%
11.3 *Laws and regulations relating to fish trade*	8	7	7	88%	87.5%
Article 11 Overall	**40**	**38**	**38**	**95%**	**95%**

Table 5. Compliance of Hawaii Longline Fisheries with Code: Article 12 (Fisheries Research) Scorecard

Code Provisions	Best Possible Score	HI Longline Fisheries' Scores		HI Longline Fisheries' Score as % of Best Possible Score	
		2006	2008	2006	2008
Article 12 Overall	**33**	**30**	**30.5**	**91%**	**92%**

6. DISCUSSION

6.1 How to Interpret FAO Code of Conduct Scores?

Numerous initiatives claim to use the Code as the basis for sustainable seafood certification schemes (e.g. Marine Stewardship Council). This prompted the FAO in 2005 to prepare guidelines for ecolabeling schemes for marine capture fishery products that employ a selective use of the Code provisions (FAO 2005).

Caddy (1996) suggests that one use of the FAO questionnaire is as "a check list for seeing that the fishery in question meets the requirements of the Code, which can be updated regularly to see whether progress is being made in approximating the fisheries management system currently in place to its provisions." This can assist resource managers in evaluating the adherence of a particular fishery or fishery management system to the provisions of the Code and for monitoring progress in this respect (Caddy 1996). The FAO scoring system may have some value as an incentive for action and can serve as a way of comparing the performance of a given fishery management system for two or more fisheries (Caddy 1996). However, Caddy (1996) cautions that it is not inevitably the case, that a lower score automatically means that one fishery is "less responsible" than another, given the multiplicity of management systems in operation and the differing importance of the individual questions.

The Hawaii Seafood Project RFA of the Hawaii longline fisheries is the only case study applying the Caddy checklist and scoring system expanded to a total of 283 questions which address the comprehensive provisions of the Code to a specific fishery. The RFA approach applies the Code provisions in a non-selective manner remaining as close as possible to the objectives and detailed provisions of the Code. The compliance score of 94% corresponds with the sophisticated approach and exemplary performance of the integrated science-based fishery management system under which the Hawaii longline fisheries operate. After the 2006 RFA of the Hawaii longline fisheries was completed, the Alaska Seafood Marketing Institute (2007) applied 192 questions of the Caddy checklist (1996) without expansion of its scope to the assessment of Alaska fisheries. A high compliance score of 99% was reported for the Alaska fisheries. This reflects the advanced state of fishery management in Alaska by state, federal and international agencies.

An alternative scoring method based on a statistical rapid appraisal technique to measure compliance with the Code (RAPFISH) is under evaluation (Pitcher 1999). Some of the potential advantages of this method are 1) separation of analysis between the intentions of management in ensuring compliance with the Code and the effectiveness of compliance in practice; 2) providing multiple reference points and possible answers (rather than just "yes" or "no") along a scale from "best" to "worst" potential scores attainable; and 3) addressing situations when selected provisions of the Code do not apply to the evaluation of particular fisheries. The Hawaii application of the Code, in contrast to RAPFISH, is fishery-focused, detailed and literal. This is intentional because the Hawaii RFA has an explicit role to play in the direction of Hawaii longline fisheries. The RFA measures Hawaii fisheries' performance and, while it can be used for external comparison, the emphasis is on long-term monitoring of these fisheries' compliance with the Code.

6.2 Is "Precautionary Management" being promoted?

The precautionary approach is mandated in the management of the Hawaii longline fisheries through the Magnuson-Stevens Fishery Conservation and Management Act and implemented through the integrated management system involving multiple organizations (Figure 1). The precautionary approach is also recognized by the fishery scientists of NOAA, the Pelagic Fisheries Research Program and the scientific committees of the regional fishery management organizations and the resulting requirements for data quality on which to base management decisions.

The precautionary approach has often been interpreted as assuming that fishing is harmful unless proven otherwise. This is not the position of the FAO. Although the precautionary approach may require that activities with potentially severe effects be restricted, this "…does not imply that no fishing can take place until all potential impacts have been assessed and found to be negligible" (FAO 1996: 7). The Code calls on countries "…to apply the precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment. The absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures" (FAO 1996: 7).

The precautionary approach involves the application of "prudent foresight" (FAO 1996: 6). What this really means, according to the FAO, is "…that all fishing activities be subject to prior review and authorization; that a management plan be in place that clearly specifies management objectives and how impacts of fishing are to be assessed, monitored and addressed; and that specified interim management measures should apply to all fishing activities until such time as a management plan is in place; and…the standard of proof to be used in decisions regarding the authorization of fishing activities should be commensurate with the potential risk to the resource, while also taking into account the expected benefits of the activities" (FAO 1996: 7). By these measures, Hawaii longline fisheries are being managed in accordance with the precautionary approach.

7. CONCLUSION

The RFA of the Hawaii longline fisheries is one of the few case studies of the comprehensive application of the FAO checklist and scoring system for the Code (Caddy 1996; Caddy et al., 2007) to a specific fishery. The Code sets goals for fisheries without the expectation of simultaneous or instantaneous fulfillment of all goals. The scoring system, therefore, has value as an incentive for action and scores should increase as fisheries improve in meeting the norms of responsible fisheries and sustainable seafood production.

The high level of compliance with the Code in 2008 provides the basis for the conclusion that Hawaii longline fisheries are responsible and well-managed for sustainability. The compliance score improved from 93% in 2006 to 94% in 2008. The RFA has demonstrated its value as a working document to track changes and progress in the management and the responsible nature of Hawaii longline fisheries. Self-assessment of fisheries that involves the management agencies and organizations and uses the Code as a tracking tool over time is effective for monitoring fishery performance to achieve sustainability.

8. REFERENCES

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APPENDIX A

Detailed Scorecards for Compliance of Hawaii Pelagic Longline Fisheries[1] With Provisions of FAO Code of Conduct Articles 7, 8, 10, 11 and 12

The following scorecards are intended as web-based references. Readers will benefit by using electronic links to relevant documents and websites that are cited in the answer columns. Many of the citations will appear to be incomplete unless electronic links are followed.

[1]Hawaii Pelagic Longline Fisheries involve permit holders and vessels registered for use with Hawaii longline limited access permits.

Article 7 - Fisheries Management

7.1 General

7.1.1 States and all those engaged in fisheries management should, through an appropriate policy, legal and institutional framework, adopt measures for the long-term conservation and sustainable use of fisheries resources. Conservation and management measures, whether at local, national, subregional or regional levels, should be based on the best scientific evidence available and be designed to ensure the long-term sustainability of fishery resources at levels which promote the objective of their optimum utilization and maintain their availability for present and future generations; short term considerations should not compromise these objectives.

Question format (Caddy 1996): (a) Are conservation and management measures based on the best scientific evidence available? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] This plan is required to conform to the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requirement to base conservation and management measures on the best scientific information available.[3] New information is reviewed annually by the Pelagics Plan team and at three meetings per year of the Scientific and Statistical Committee. These groups advise the Council when the FMP or conservation and management measures for Hawaii longline fisheries need to be adjusted because of new scientific evidence.[1]		

[1]Western Pacific Fishery Management Council, FMP and Annual Reports for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

[3]MSA, sec. 301

(b) Are conservation and management measures designed to ensure the long-term sustainability of fishery resources at levels which promote the objective of optimum utilization and maintain their availability for present and future generations? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] This plan conforms to the national standard of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) for conservation and management measures to achieve long term sustainability and optimum yield of fisheries resources, while preventing overfishing.[3]		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

[3]MSA, sec. 301

(c) Are management measures currently in effect in the fishery designed for the long-term conservation and sustainable use of fishery resources, as opposed to reasons of short-term expediency? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] This plan conforms to the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requirement for management measures to achieve long-term conservation and sustainable use of fisheries resources instead of merely short-term benefits.[3]		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

[3]MSA, sec. 303

7.1.2 Within areas under national jurisdiction, States should seek to identify relevant domestic parties having a legitimate interest in the use and management of fisheries resources and establish arrangements for consulting them to gain their collaboration in achieving responsible fisheries.

Question format (Caddy 1996): (a) Have attempts been made to identify domestic parties having a (legitimate) interest in the use and management of fisheries resources? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] The Council is comprised of representatives of several Federal agencies and U.S. Pacific island governments, including the State of Hawaii, as well as representatives of commercial, recreational and subsistence fisheries sectors. The Council solicits participation in its advisory panels by fishermen and others with interest in fisheries resources use and management.[1] The Pacific Islands Regional Office (PIRO) maintains a list of interested parties for distribution of National Environmental Policy Act (NEPA) documents that analyze the environmental impacts of proposed management actions for Hawaii longline fisheries.[2]		

[1]WPFMC – Advisory Panels – Membership Information

[2] Final Environmental Impact Statement; Western Pacific Pelagic Fisheries (Mar 2001) Appendix T, Distribution List for the Final Environmental Impact Statement on the Pelagic Fisheries of the Western Pacific Region. http://www.fpir.noaa.gov/DIR/dir_public_documents.html

(b) Have arrangements been made to consult these parties and gain their collaboration? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Western Pacific Fishery Management Council is comprised of representatives of several Federal agencies and U.S. Pacific island governments, including the State of Hawaii, as well as representatives of commercial, recreational and subsistence fisheries sectors. The Council meets three times per year. It is advised by panels comprised of representatives of various fisheries and other interests in fisheries resources use and management. These panels meet up to 3 times per year and the public is welcomed to apply for membership on a panel via the Council website.[1] Impacts of proposed management actions for Hawaii longline fisheries are assessed in National Environmental Policy Act (NEPA) documents which are distributed to parties with legitimate interests in the resource for review and comment.[2] Proposed regulations are published in draft form in the Federal Register and public hearings are conducted to obtain public comment.		

[1]WPFMC – Advisory Panels – Membership Information

[2] Final Environmental Impact Statement; Western Pacific Pelagic Fisheries (Mar 2001) Appendix T, Distribution List for the Final Environmental Impact Statement on the Pelagic Fisheries of the Western Pacific Region. http://www.fpir.noaa.gov/DIR/dir_public_documents.html

7.1.3 For transboundary fish stocks, straddling fish stocks, highly migratory fish stocks and high seas fish stocks, where these are exploited by two or more States, the States concerned, including the relevant coastal States in the case of straddling and highly migratory stocks, should cooperate to ensure effective conservation and management of the resources. This should be achieved, where appropriate, through the establishment of a bilateral, subregional or regional fisheries organization or arrangement.

Question format (Caddy 1996): (a) Where transboundary, straddling or highly migratory fish stocks and high seas fish stocks are exploited by two or more States, do the States concerned cooperate to ensure effective conservation and management of the resources? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
On June 27, 2007, the United States completed the process to become a member of the Western and Central Pacific Fisheries Commission (WCPFC) after several years of participation as a cooperating non-member.[1] The Commission is a treaty-based organization established to conserve and manage tunas and other highly migratory fish stocks across a vast range of the Pacific Ocean.[2] The U.S. is a long-time member of the Inter-American Tropical Tuna Commission (IATTC)[3], which has responsibilities for conservation and management of eastern Pacific pelagic resources similar to those of WCPFC for the western and central Pacific. Hawaii longline fisheries, as fisheries of the U.S., are bound to the conservation and management measures adopted by both commissions for highly migratory fish stocks within their respective convention areas.[2,3]		

[1] Press Release, June 28, 2007, *U.S. Joins Western and Central Pacific Fisheries Convention*, http://www.state.gov/r/pa/prs/ps/2007/jun/87537.htm

[2] WCPFC, Conservation & Management Measures & Resolutions, http://www.wcpfc.int/

[3] IATTC – Active Resolutions

(b) Is there a formal fishery commission or arrangement to which all parties (States) fishing belong? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Western and Central Pacific Fisheries Commission (WCPFC), established by international convention in 2004, is responsible for the conservation and management of fisheries for highly migratory pelagic species in the western and central Pacific Ocean.[1] In June 2007, the U.S., which has been participating as a cooperating non-member, became a formal member of this commission.[2] The Inter-American Tropical Tuna Commission (IATTC), established by international convention in 1949, is responsible for the conservation and management of fisheries for tunas and other species taken by tuna-fishing vessels in the eastern Pacific Ocean. The U.S. is one of the original member nations of IATTC.[3]		

[1]WCPFC Convention Texts, http://www.wcpfc.int/

[2] Press Release, June 28, 2007, *U.S. Joins Western and Central Pacific Fisheries Convention*, http://www.state.gov/r/pa/prs/ps/2007/jun/87537.htm

[3]IATTC – Member Countries

7.1.4 A subregional or regional fisheries management organization or arrangement should include representatives of States in whose jurisdictions the resources occur, as well as representatives from States which have a real interest in the fisheries on the resources outside national jurisdictions. Where a subregional or regional fisheries management organization or arrangement exists and has the competence to establish conservation and management measures, those States should cooperate by becoming a member of such organization or a participant in such arrangement, and actively participate in its work.

Question format (Caddy 1996): (a) Do States which have a real interest in the fisheries or the resource outside their national jurisdiction cooperate in the work of the relevant regional fisheries management organization or arrangement by becoming a member of such organization and arrangement and by actively participating in its work? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
A cooperating non-member since the establishment of the Western and Central Pacific Fisheries Commission (WCPFC) by international convention in 2004, the U.S. became a formal member of WCPFC in June 2007.[1] The U.S. is also a member of the Inter-American Tropical Tuna Commission.[2] Member nations of both groups cooperate in establishing and are bound to conservation and management measures adopted for highly migratory fish stocks within their respective convention areas.[3,4]		

[1]Press Release, June 28, 2007, *U.S. Joins Western and Central Pacific Fisheries Convention*, http://www.state.gov/r/pa/prs/ps/2007/jun/87537.htm

[2]IATTC – Member Countries

[3]IATTC – Active Resolutions

[4]WCPFC Convention Texts, http://www.wcpfc.int/

(b) Do all parties attend meetings and collect data in the specified format? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Members of the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC) participate in regular meetings of the commissions and their advisory bodies.[1,2] Member nations are also required to follow data collection protocols of WCPFC[3] and IATTC.[4]		

[1] WCPFC Meetings, http://www.wcpfc.int/

[2]IATTC – Member Meetings

[3]WCPFC, Guidelines, Procedures & Regulations, Scientific Data to be Provided to the Commission, http://www.wcpfc.int/

[4]IATTC – Active Resolutions

(c) Is the (resource) population analysis updated regularly and in cooperation by a scientific group? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Western and Central Pacific Fisheries Commission (WCPFC) Scientific Committee's Stock Assessment Specialist Group is responsible for continuing population analysis of the Convention area's pelagic resources. The group's working papers and stock assessment information are updated annually before the regular sessions of the Scientific Committee and are available online.[1] The Inter-American Tropical Tuna Commission (IATTC) conducts annual stock assessments of tunas and billfishes, which are presented as Background Papers at IATTC meetings, and also published as a series of papers online.[2] The International Scientific Committee (ISC) for Tuna and Tuna-Like Species in the North Pacific Ocean provides scientific advice on stocks and fisheries to the member governments (including the U.S.) and regional fishery management organizations to promote conservation and rational utilization of these resources.[3]		

[1]WCPFC Meetings, Scientific Committee, http://www.wcpfc.int/

[2]IATTC – Stock Assessment Reports

[3]International Scientific Committee (ISC) for Tuna and Tuna-Like Species in the North Pacific Ocean, http://isc.ac.affrc.go.jp?guide.html

(d) Are scientific recommendations of groups reflected in the regulations? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	Conservation and management measures adopted by the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC) reflect some of the recommendations of their respective scientific advisory groups[1,2] but there can be delays in adopting other scientific recommendations as international regulations.[3]	

[1]WCPFC, Conservation and Management Measures and Resolutions, http://www.wcpfc.int/

[2]IATTC – Active Resolutions

[3]PFRP Newsletter, Volume 12, Number 1, January – June 2007

Analysis: This sub-provision received only ½ point because the WCPFC has been slow in adopting management measures for bigeye and yellowfin tuna proposed by its Scientific Committee. IATTC failed in 2008 to adopt management measures proposed by scientific advisers for eastern Pacific bigeye and yellowfin tuna.

Likelihood of improving compliance: This sub-provision is likely to a full point score in the future, at least for Hawaii pelagic fisheries, because the WCPFC and IATTC are likely to adopt management measures proposed by their respective scientific advisory groups.

(e) Are the regulations respected by the parties concerned? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
All members (including the U.S.) and associated parties of the Western and Central Pacific Fisheries Commission (WCPFC) are bound to the conservation and management measures adopted for highly migratory fish stocks within the Convention area. They are required to cooperate according to the terms outlined in the Commission's decisions.[1] The U.S. and other members of the Inter-American Tropical Tuna Commission (IATTC), as well as non-members, are bound to the conservation and management measures for highly migratory fish stocks within the eastern Pacific Convention area.[2] Hawaii longline fisheries are required to follow conservation and management measures of the WCPFC and IATTC.[1,2]		

[1]WCPFC, Conservation & Management Measures & Resolutions, http://www.wcpfc.int/

[2]IATTC – Active Resolutions

7.1.5 A State which is not a member of a subregional or regional fisheries management organization or is not a participant in a subregional or regional fisheries management arrangement should nevertheless cooperate, in accordance with relevant international agreements and international law, in the conservation and management of the relevant fisheries resources by giving effect to any conservation and management measures adopted by such organization or arrangement.

Question format (PacMar Inc. 2006): Is there cooperation by non-member and non-participating nations in accordance with relevant international agreements and international law, in the conservation and management of fisheries resources according to conservation and management measures adopted by subregional or regional fisheries management organizations or arrangements? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Cooperating non-members and associated parties of the Western and Central Pacific Fisheries Commission (WCPFC) are required to comply with all conservation and management measures in force in the Convention Area. Non-members are also required to inform the Commission annually of the measures it takes to ensure compliance by its vessels with the Commission's conservation and management measures; as well as respond in a timely manner to alleged violations of conservation and management measures by its vessels, as requested by a member of the Commission or determined by the appropriate subsidiary bodies of the Commission.[1] Cooperating non-parties to the Inter-American Tropical Tuna Commission (IATTC) must abide by all conservation and management measures in force in the eastern Pacific Convention Area.[2]		

[1]WCPFC, Conservation and Management Measures and Resolutions, http://www.wcpfc.int/

[2]IATTC – Criteria for Cooperating Non-Parties

7.1.6 Representatives from relevant organizations, both governmental and non-governmental, concerned with fisheries should be afforded the opportunity to take part in meetings of subregional and regional fisheries management organizations and arrangements as observers or otherwise, as appropriate, in accordance with the procedures of the organization or arrangement concerned. Such representatives should be given timely access to the records and reports of such meetings, subject to the procedural rules on access to them.

Question format (Caddy 1996): (a) Are representatives from relevant organizations, both governmental and non-governmental, concerned with fisheries afforded the opportunity to take part in meetings of subregional and regional fisheries management organizations and arrangements as observers or otherwise, in accordance with the procedures of the organization or arrangement concerned? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
U.S. commissioners representing the National Oceanic and Atmospheric Administration (NOAA) Fisheries, the Western Pacific Fishery Management Council, the Pacific Fishery Management Council and two other persons appointed by the President will participate in meetings of the Western and Central Pacific Fisheries Commission (WCPFC).[1] These meetings are announced online and can also be attended by others who pre-register as observers.[2] The U.S. is represented at meetings of the Inter-American Tropical Tuna Commission (IATTC) by commissioners. These meetings are publicly posted and open for registration via the Commission's website.[3] The Western Pacific Fishery Management Council is comprised of representatives of several Federal agencies and U.S. Pacific island governments, as well as representatives of commercial, recreational and subsistence fisheries sectors. All meetings are announced in the Federal Register and local media and are open to attendance by the public.[4]		

[1]MSA, Title V: Implementation of Western And Central Pacific Fisheries Convention, http://www.nmfs.noaa.gov/msa2005/

[2]WCPFC Meetings, http://www.wcpfc.int/

[3]IATTC - Meetings

[4] WPRFMC Council, http://www.wpcouncil.org/meetings/

(b) Subject to the procedural rules on access, are such representatives given timely access to the records and reports of such meetings?
Yes...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Background information, documents and reports for all meetings of the Inter-American Tropical Tuna Commission (IATTC) and the Western and Central Pacific Fisheries Commission (WCPFC) are made publicly available via the organizations' websites.[1,2] Background information and documents for meetings of the Western Pacific Fishery Management Council (Council) are publicly available during the meetings and summaries of actions taken during meetings are available via the organization's website.[3] Major meetings are recorded and complete minutes are available by request after transcription.		

[1]IATTC - Meetings

[2]WCPFC Meetings, http://www.wcpfc.int/

[3]WPRFMC Council, http://www.wpcouncil.org/meetings/

7.1.7 States should establish, within their respective competences and capacities, effective mechanisms for fisheries monitoring, surveillance, control and enforcement to ensure compliance with their conservation and management measures, as well as those adopted by subregional or regional organizations or arrangements.

Question format (Caddy 1996): (a) Have mechanisms been established for fisheries monitoring, surveillance, control and enforcement to ensure compliance with their conservation and management measures for the fishery in question? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline vessels are required to carry and use vessel monitoring systems (VMS) for continuous vessel position reporting to aid federal surveillance and enforcement of fishery regulations in Hawaii's Exclusive Economic Zone and on the high seas.[1] Federally-mandated observers cover at least 20% of deep-set tuna longline trips[2] and 100% of shallow-set swordfish longline trips[3] by Hawaii vessels. The U.S. Coast Guard (USCG) conducts air and sea patrols in the Exclusive Economic Zone of Hawaii and on the high seas to enforce federal regulations for Hawaii vessels and protect the EEZ from illegal foreign encroachment. The USCG also cooperates in enforcing international fisheries agreements.[4]		

[1]Code of Federal Regulations (CFR), Title 50, Wildlife and Fisheries, Part 665.25, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]Biological Opinion on the Effects of the Hawaii-Based Pelagic, Deep-Set Longline Fishery on Listed Species, October 4, 2005, http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[3]U.S. Fish and Wildlife Service Biological Opinion on the Effects of the Shallow-set Sector of the Hawaii Longline Fishery on the Short-tailed Albatross (*Phoebastria albatrus*), October 8, 2004, Formal Consultation Log Number 1-2-1999-F-02.2, http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[4]U.S. Coast Guard Office of Law Enforcement, Living Marine Resources

(b) Have these measures proved effective? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Effectiveness of Hawaii longline fisheries' monitoring, surveillance, control and enforcement measures is evaluated in annual reports for pelagic fisheries of the western Pacific. Prepared by the Pelagics Plan Team of the Western and Central Pacific Fishery Management Council (Council), these reports include sections on compliance and enforcement activities of the U.S. Coast Guard and National Oceanic and Atmospheric Administration (NOAA) Office of Law Enforcement. Annual reports also propose any adjustments considered necessary to improve effectiveness of fisheries monitoring, surveillance, control and enforcement.[1] NOAA penalties for violation of Hawaii longline fisheries regulations take into account the individual histories of offenders, with repeat offenders receiving more severe penalties to discourage further violations.[2,3]		

[1]Western Pacific Fishery Management Council, Pelagics Annual Reports, USCG Enforcement Activities, NOAA OLE Activities, http://www.wpcouncil.org/pelagic.htm

[2]NOAA Office of General Counsel for Enforcement and Litigation, Civil Administrative Penalty Schedule, Application of Prior Violations

[3]NOAA Office of General Counsel for Enforcement and Litigation, Civil Administrative Penalty Schedule, Western Pacific Pelagic Fishery

7.1.8 States should take measures to prevent or eliminate excess fishing capacity and should ensure that levels of fishing effort are commensurate with the sustainable use of fishery resources as a means of ensuring the effectiveness of conservation and management measures.

Question format (Caddy 1996): (a) Have mechanisms been established to (identify, quantify) prevent or eliminate excess fishing capacity? ***Yes...***[1] ***In Part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries are managed under a Federal limited access permit system (maximum of 164 vessels) to prevent excess fishing capacity.		

Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

(b) Have these measures proved effective? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fishing vessels registered with limited access permits have never numbered more than 141 since the limit of 164 permits was established.[1] Various possible measures of Hawaii longline fleet capacity have been examined and research of the impact of technological change on Hawaii longline fishing capacity has been conducted.[2] Hawaii longline fisheries were estimated to average 85 percent "capacity utilization" for the period 1987-2001.[3]		

[1]Western Pacific Fishery Management Council, Pelagics Annual Reports, http://www.wpcouncil.org/pelagic.htm

[2]PFRP, Pan, Minling, 2003. Quantitative Measurement of Fishing Capacity for the Western Pacific Fisheries (under review)

[3]Anon. 2006. Capacity analysis for the Hawaii longline fishery. Appendix F: Report on quantitative measurement of fishing capacity in the Pacific Islands region. Pp. 117-121 In: (J.M. Terry and J.E. Kirkley eds.) Assessments of Excess Fishing Capacity in Selected Federally-Managed Commercial Fisheries. March 31, 2006.

7.1.9 States and subregional or regional fisheries management organizations and arrangements should ensure transparency in the mechanisms for fisheries management and in the related decision-making process.

Question format (Caddy 1996): Are the arrangements followed for assessment, management of the fishery and the decision-making process in general transparent?

(a) Assessment ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Western Pacific Fishery Management Council's Pelagic Fisheries annual reports contain information on stock assessment and management of western Pacific pelagic fisheries, including Hawaii longline fisheries.[1] Meetings of the Pelagics Plan Team and Scientific and Statistical Committee (SSC) that prepare and review the annual assessments are open to the public and advertised in advance. Documents and records reviewed are publicly available at the meetings.[2] Scientific advisory group meetings of the Inter-American Tropical Tuna Commission (IATTC) and Western and Central Pacific Fisheries Commission (IATTC) are announced on their respective websites, with pre-registration available for persons planning to attend. Documents and records to be reviewed at these meetings are posted on the websites.[3,4]		

[1]Western Pacific Fishery Management Council, Pelagics Annual Reports, http://www.wpcouncil.org/pelagic.htm

[2]Western Pacific Fishery Management Council - Meetings

[3]IATTC - Meetings

[4]WCPFC Meetings, http://www.wcpfc.int/

(b) Management ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Management meetings of the Inter-American Tropical Tuna Commission (IATTC) are publicly posted and open for registration via the Commission's website.[1] Management meetings of the Western and Central Pacific Fisheries Commission (WCPFC) are open to non-members and observers who pre-register.[2] Records of all meetings, adopted resolutions, conservation and management measures are made publicly available via the respective organizations' websites.[1,2] The Western Pacific Fishery Management Council (Council) advertises all of its hearings and meetings in the local media, the Federal Register, and its website. All meetings are open to the public.[3] Summaries of Council actions are made public immediately after meetings. Minutes of major meetings and public hearings are available after transcription of recordings. The Council proposes management measures for Hawaii longline fisheries only after impacts of alternative actions are assessed in National Environmental Policy Act (NEPA) documents which are distributed by National Oceanic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Regional Office (PIRO) to parties with legitimate interests in the resource for review and comment.[4] Proposed measures are also published in the Federal Register and hearings held for public review and comment before approval and rule-making by National Oceanic and Atmospheric Administration (NOAA) Fisheries. A summary of management measures that apply to Hawaii longline fisheries is published by PIRO.[5]		

[1]IATTC - Meetings

[2]WCPFC Meetings http://www.wcpfc.int/

[3]Western Pacific Fishery Management Council - Meetings

[4]Final Environmental Impact Statement; Western Pacific Pelagic Fisheries (Mar 2001) Appendix T, Distribution List for the Final Environmental Impact Statement on the Pelagic Fisheries of the Western Pacific Region. http://www.fpir.noaa.gov/DIR/dir_public_documents.html

[5]2008 Summary of Hawaii Longline Fishery Regulations, Compliance Guide, http://www.fpir.noaa.gov/SFD/SFD_regs_index.html

(c) Decision-making ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Decision-making by the Inter-American Tropical Tuna Commission (IATTC) occurs at management meetings that are publicly posted and open for registration via the Commission's website.[1] Decision-making by the Western and Central Pacific Fisheries Commission (WCPFC) occurs at commission meetings that are open to non-members and observers who pre-register.[2] Records of all meetings, adopted resolutions, conservation and management measures are made publicly available via the respective organizations' websites.[1,2] Decision-making by the Western Pacific Fishery Management Council (Council) occurs at three meetings per year that are advertised in the local media, the Federal Register, and its website. All meetings are open to the public.[3] Summaries of Council actions are made public immediately after meetings. Meeting minutes are available after transcription of recordings. The Council proposes management measures for Hawaii longline fisheries only after impacts of alternative actions are assessed in National Environmental Policy Act (NEPA) documents which are distributed by National Oceanic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Regional Office (PIRO) to parties with legitimate interests in the resource for review and comment.[4] Proposed measures are also published in the Federal Register and hearings held for public review and comment before approval and rule-making by National Oceanic and Atmospheric Administration (NOAA) Fisheries. A summary of management measures that apply to Hawaii longline fisheries is published by PIRO.[5]		

[1]IATTC - Meetings

[2]WCPFC Meetings http://www.wcpfc.int/

[3]Western Pacific Fishery Management Council - Meetings

[4]Final Environmental Impact Statement; Western Pacific Pelagic Fisheries (Mar 2001) Appendix T, Distribution List for the Final Environmental Impact Statement on the Pelagic Fisheries of the Western Pacific Region. http://www.fpir.noaa.gov/DIR/dir_public_documents.html

[5]2008 Summary of Hawaii Longline Fishery Regulations, Compliance Guide, http://www.fpir.noaa.gov/SFD/SFD_regs_index.html

7.1.10 States and subregional or regional fisheries management organizations and arrangements should give due publicity to conservation and management measures and ensure that laws, regulations and other legal rules governing their implementation are effectively disseminated. The basis and purposes of such measures should be explained to users of the resource in order to facilitate their application and thus gain increased support in the implementation of such measures.

Question format (Caddy 1996): Are the conservation and management measures adopted for management of the fishery and the related decision-making process given due publicity in order to ensure that laws, regulations and other legal rules governing their implementation are effectively disseminated? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The National Oceanic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Regional Office (PIRO) publishes a "Compliance Guide," which summarizes Hawaii longline fisheries regulations.[1] Annual completion of protected species workshops by all Hawaii longline vessel owners and operators is mandatory. PIRO notifies Hawaii longline fisheries permit holders in advance of workshop dates and issues multi-lingual information cards about protected species.[2] PIRO disseminates documents required under the National Environmental Policy Act (NEPA) that analyze alternative fishery management measures before final action.[3] Draft regulations affecting Hawaii longline fisheries are published in the Federal Register for public comment prior to finalization. All adopted resolutions, conservation and management measures established by the Inter-American Tropical Tuna Commission (IATTC) and Western and Central Pacific Fisheries Commission (WCPFC) are made publicly available via their respective websites.[4, 5] Management measures established by IATTC and WCPFC that affect Hawaii longline fisheries are further publicized by the Western Pacific Fishery Management Council and PIRO.		

[1] 2008 Summary of Hawaii Longline Fishery Regulations, Compliance Guide, http://www.fpir.noaa.gov/SFD/SFD_regs_index.html

[2] NOAA PIRO – Protected Species Workshops

[3] Final Environmental Impact Statement; Western Pacific Pelagic Fisheries (Mar 2001) Appendix T, Distribution List for the Final Environmental Impact Statement on the Pelagic Fisheries of the Western Pacific Region. http://www.fpir.noaa.gov/DIR/dir_public_documents.html

[4] IATTC – Active Resolutions

[5]WCPFC Conservation and Management Measures and Resolutions, http://www.wcpfc.int/

7.2 Management Objectives

7.2.1 Recognizing that long-term sustainable use of fisheries resources is the overriding objective of conservation and management, States and subregional or regional fisheries management organizations and arrangements should, inter alia, adopt appropriate measures, based on the best scientific evidence available, which are designed to maintain or restore stocks at levels capable of producing maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing countries (*furthers ecosystem approach to fisheries*, per FAO 2003: 80).

Question format (Caddy 1996): (a) Are fisheries measures based on the best scientific evidence? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] This plan conforms to the national standard of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) for basing conservation and management measures on the best scientific information available.[3] New information is reviewed annually by the Pelagics Plan team and at three meetings per year of the Scientific and Statistical Committee. These groups advise the Council when the FMP or conservation and management measures for Hawaii longline fisheries need to be adjusted because of new scientific evidence.[1]		

[1]Western Pacific Fishery Management Council, FMP and Annual Reports for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

[3]MSA, sec. 301

b) Are they qualified by relevant environmental and economic factors? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Environmental effects of Hawaii longline fisheries' measures, including impacts on essential fish habitat (EFH) and habitats of particular concern (HAPC), are among the potential impacts assessed in the Environmental Impact Statement prepared in 2001 for management of Hawaii longline and other pelagic fisheries of the western Pacific Region. The National Environmental Policy Act (NEPA) requires analysis of any potentially significant environmental impacts that may result from new regulations. The findings are summarized either in a finding of no significant impact (FONSI) or a record of decision.[1] The maximum annual incidental "take" of protected sea turtles and albatross in Hawaii longline fisheries are established in Biological Opinions conducted by the National Oceanic and Atmospheric Administration (NOAA) Fisheries[2] and U.S. Fish and Wildlife Service[3], as required by the Endangered Species Act (ESA). If these limits are exceeded, consultations under Section 7 of ESA may be initiated by these agencies. Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region prepared and amended as needed by the Western Pacific Fishery Management Council.[4] This plan defines "optimum yield" for western Pacific pelagic fisheries (i.e., maximum sustainable yield modified by relevant economic and social factors), as required by the Magnuson-Stevens Fishery Conservation and Management Act (MSA).[5]		

[1]Environmental Impact Statement – Western Pacific Pelagic Fisheries EIS

[2]Biological Opinion on the Effects of the Hawaii-Based Pelagic, Deep-Set Longline Fishery on Listed Species, October 4, 2005, 5.2.1. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[3]U.S. Fish and Wildlife Service Biological Opinion on the Effects of the Shallow-set Sector of the Hawaii Longline Fishery on the Short-tailed Albatross (*Phoebastria albatrus*), October 8, 2004, Formal Consultation Log Number 1-2-1999-F-02.2, pp. 71-72. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[4]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[5]MSA, sec. 301

(c) Have formal reference point(s) based on stock size been established? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] This plan conforms to the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requirement to establish formal reference points and control rules for managed fish stock size. The FMP, as amended, defines maximum sustainable yield-based control rules and reference points that identify when a) overfishing is occurring and b) a stock is overfished.[3]		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

[3]Western Pacific Fishery Management Council, Magnuson-Stevens Act Definitions and Required Provisions – Overfishing Prohibitions

7.2.2 Such measures (which *further ecosystem approach to fisheries*, per FAO 2003: 80-82) should provide inter alia that:

--excess fishing capacity is avoided and exploitation of the stocks remains economically viable;

--the economic conditions under which fishing industries operate promote responsible fisheries;

--the interests of fishers, including those engaged in subsistence, small-scale and artisanal fisheries, are taken into account;

--biodiversity of aquatic habitats and ecosystems is conserved and endangered species are protected (*furthers ecosystem approach to fisheries*, per FAO 2003: 80-81);

--depleted stocks are allowed to recover or, where appropriate, are actively restored;

--adverse environmental impacts on the resources from human activities are assessed and, where appropriate, corrected;

--and pollution, waste, discards, catch by lost or abandoned gear, catch of non-target species, both fish and non- fish species, and impacts on associated or dependent species are minimized, through measures including, to the extent practicable, the development and use of selective, environmentally safe and cost-effective fishing gear and techniques.

Question format (Caddy 1996): Have management measures taken into account the need to avoid excess capacity and promote conditions under which the interests of fishermen, especially the small-scale, artisanal and subsistence fishery sectors, are protected, the biodiversity conserved, depleted stocks restored and adverse environmental impacts assessed and corrected?

(a) Is the level of excess capacity defined? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries are managed under a Federal limited access permit system that defines excess capacity as more than 164 permitted vessels.		

Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

(b) Is excess capacity avoided? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fishing vessels registered with limited access permits have never numbered more than 141 since the capacity limit of 164 permits was established.		

Western Pacific Fishery Management Council, Pelagics Annual Reports, http://www.wpcouncil.org/pelagic.htm

(c) Do the economic conditions under which the fishery operates promote responsible fisheries? ***Yes...***[1] ***In Part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries supply an exclusively fresh fish market. At the central Honolulu fish auction, each fish is individually inspected and marketed. Responsible fishing is promoted because a) the marketing system has maximized the use of multiple species and minimized discards; b) market pricing rewards quality and penalizes spoilage; and c) the market is highly sensitive to oversupply.[1,2,3]		

[1]Hawaii Seafood Buyer's Guide – Buyer's Summary

[2]WPRFMC – Hawaii Seafood Market for Pelagic Fish - 1996

[3]WPRFMC – Important Pelagic Fishes of the Pacific - 1996

(d) Are interests of small-scale, etc., fishermen accounted for? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
50-75 nautical mile longline fishing exclusion areas have been established around the main Hawaiian Islands to protect the interests of small-scale troll and handline fishermen.		

WPFMC – Fishery Management Plan for the Pelagic Fisheries of the Western Pacific Region – Amendment 5 - 1991

(e) Has the biodiversity of aquatic ecosystems been conserved (as a result of operation of the fishery in question)? ***Yes...***[1] ***In Part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Impacts of Hawaii longline and other pelagic fisheries managed under the Fishery Management Plan (FMP) for the western Pacific region on biodiversity of the pelagic ecosystem have been evaluated in an environmental impact statement, with supplemental analyses conducted for each subsequent FMP amendment. [1] Comprehensive estimates of fishery impacts on pelagic fish population biomass and size structure, through analysis of all available data from Pacific tuna fisheries (including multi-national longline fisheries) for 1950-2004, indicate relatively minor impacts on the pelagic ecosystem in the Pacific Ocean.[2]		

[1]PIRO – Western Pacific Pelagic Fisheries – Environmental Impact Statement and Amendments - 2001

[2]Sibert, John, John Hampton, Pierre Kleiber, Mark Maunder, *Biomass, Size, and Trophic Status of Top Predators in the Pacific Ocean*, Science Magazine, 15 December 2006:Vol. 314. no. 5806, pp. 1773 – 1776, http://www.sciencemag.org/cgi/content/abstract/314/5806/1773?

(f) Have depleted stocks been allowed to recover or, where appropriate, restored? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
No pelagic fish stocks harvested by Hawaii longline fisheries have been depleted according to presently available stock assessments. To prevent stock depletion, current international management efforts led by the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC) focus on a) reducing stock-wide fishing mortality of bigeye and yellowfin tuna so that these stocks do not become depleted and b) assessing other pelagic fish stocks to determine their population status.[1,2]		

[1]WCPFC Conservation and Management Measures and Resolutions, http://www.wcpfc.int/

[2]IATTC – Active Resolutions

(g) Have adverse environmental impacts on the stocks from human activities been assessed and, where appropriate, rectified? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
An environmental impact statement has been prepared for Hawaii longline and other pelagic fisheries managed under the Fishery Management Plan (FMP) for the western Pacific region, with supplemental analyses conducted for each subsequent FMP amendment. These assessments have found that Hawaii longline fisheries harvest a very small percentage of pelagic fish stocks in the central and western Pacific and thus, there are no adverse impacts that could be rectified through the management of Hawaii longline fisheries alone in the absence of international management. [1] Current international management efforts led by the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC) focus on reducing stock-wide fishing mortality of bigeye and yellowfin tuna to rectify overfishing of these stocks. [2,3]		

[1]PIRO – Western Pacific Pelagic Fisheries – Environmental Impact Statement and Amendments - 2001

[2]WCPFC Conservation and Management Measures and Resolutions, http://www.wcpfc.int/

[3]IATTC – Active Resolutions

(h) Have pollution and waste been minimized? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries are governed by U.S. Coast Guard regulations that aim to minimize pollution and trash.		

U.S. Coast Guard Office of Operating and Environmental Standards, Environmental Standards

(i) Has catch by lost and abandoned gear of commercial species and other organisms been minimized? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
In Hawaii longline fisheries, the mainline is set in sections monitored by radio buoys. Any lost sections are likely to be retrieved, thereby reducing gear loss and possible ghost fishing effects. The same methods are applied in foreign-flag longline fisheries.[1] To improve safety at sea and assist in environmental cleanup, Hawaii longline vessels, when at sea, retrieve drifting nets lost from non-longline foreign fisheries and cargo vessels. This material is returned to shore for disposal in a container dumpster located at Pier 38 in Honolulu Harbor.[2]		

[1]Beverly, S., L. Chapman and W. Sokimi. 2003. Horizontal longline fishing methods and techniques: a manual for fishermen. Secretariat of the Pacific Community, Noumea, New Caledonia. http://www.spc.int/coastfish/Sections/Development/FDSPublications/FDSManuals/HLL/index.htm

[2]Hawaii Longline Fishermen Help Rid Ocean of Derelict Nets, WPRFMC Newsletter, Summer 2005

(j) Have selective and environmentally-safe and cost-effective fishing methods been developed? ***Yes...***[1] ***In Part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries are conducted using hook and line gear in accordance with Federal regulations promulgated under the Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] Deep-set longline methods are selective in terms of swimming depths of pelagic fish species,[2] as well as in avoiding incidental catch of sea turtles and seabirds.[3] Federal regulations based on FMP amendments require modifications of Hawaii longline methods to reduce fishery interactions with sea turtles[4] and seabirds.[5] Hawaii longline fisheries have been determined to be environmentally safe in environmental impact analyses[6] and cost-effective in providing high quality catch to a discriminating fresh fish market.[7]		

[1]2008 Summary of Hawaii Longline Fishery Regulations, http://www.fpir.noaa.gov/SFD/SFD_regs_index.html

[2]PFRP Newsletter, Volume 3, Number 4, October 1998 - Bach,Misselis and Abbes – Longline Depth Research

[3]PIRO – Biological Opinion on the Effects of the Hawaii-Based Pelagic, Deep-Set Longline Fishery on Listed Species – 2005. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[4]CFR, Title 50, Wildlife and Fisheries, Part 665.32, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[5]CFR, Title 50, Wildlife and Fisheries, Part 665.35, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[6]PIRO – Western Pacific Pelagic Fisheries – Environmental Impact Statement and Amendments - 2001

[7]WPFMC – Hawaii Seafood Market for Pelagic Fish - 1996

7.2.3 States should assess the impacts of environmental factors on target stocks and species belonging to the same ecosystem or associated with or dependent upon the target stocks, and assess the relationship among the populations in the ecosystem (*furthers ecosystem approach to fisheries*, per FAO 2003: 81-82).

Question format (Caddy 1996): Have the impacts of environmental factors on target species, species belonging to the same ecosystem orthose species associated with or dependent on the target stocks been assessed? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
An environmental impact statement has been prepared for Hawaii longline and other pelagic fisheries managed under the Fishery Management Plan (FMP) for the western Pacific region, with supplemental analyses conducted for each subsequent FMP amendment. These analyses are required under the National Environmental Policy Act to consider target species, as well as associated and dependent species (fish and non-fish).		

PIRO – Western Pacific Pelagic Fisheries – Environmental Impact Statement and Amendments - 2001

7.3 Management framework and procedures

7.3.1 To be effective, fisheries management should be concerned with the whole stock unit over its entire area of distribution and take into account previously agreed management measures established and applied in the same region, all removals and the biological unity and other biological characteristics of the stock. The best scientific evidence available should be used to determine, inter alia, the area of distribution of the resource and the area through which it migrates during its life cycle.

Question format (Caddy 1996): (a) Have the management measures developed taken into account the whole stock unit over its entire area of stock distribution? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
International fishery management organizations in the Pacific -- the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC) -- consider whole stock units of bigeye and yellowfin tuna in conservation and management measures prescribed to reduce fishing mortality of these species.[1,2] All tropical and sub-tropical and much of the temperate areas of distribution of these stocks are within the convention areas managed by WCPFC and IATTC. Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[3] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[4] This plan conforms to Magnuson-Stevens Fishery Conservation and Management Act (MSA) national standards, including the requirement to consider whole stock units when establishing management measures.[5]		

[1]WCPFC, Conservation & Management Measures & Resolutions, http://www.wcpfc.int/

[2]IATTC – Active Resolutions

[3]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[4]MSA, sec. 304 , 104-297(b) Review of Regulations

[5]MSA, sec. 301

(b) Have previously-agreed management measures established and applied in the same region been considered? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] Existing Federal regulations for these fisheries include longline exclusion zones and limited access permit system for all Hawaii longline fisheries, and separate gear requirements and prohibitions for deep-set and shallow-set longline sectors.[3] As a member of the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC), the U.S. is obligated to apply annual catch quotas for bigeye tuna established by the commissions in their respective convention areas to Hawaii longline fisheries.[4,5]		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

[3]CFR, Title 50, Wildlife and Fisheries, Part 665, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=5e8e8ad2c4b77295205470fa9ffed885&tpl=/ecfrbrowse/Title50/50cfr665_main_02.tpl

[4]WCPFC, Conservation & Management Measures & Resolutions, http://www.wcpfc.int/

[5]IATTC – Active Resolutions

(c) Have all removals and the biological unity and other biological characteristics of the stock been considered? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	International Pacific tuna management organizations -- the Western and Central Pacific Fisheries Commission (WCPFC) [1] and the Inter-American Tropical Tuna Commission (IATTC) [2] -- as well as the Western Pacific Fishery Management Council (Council) and National Oceanic and Atmospheric Administration (NOAA) Fisheries, consider primarily commercial fisheries data in pelagic resources stock assessment and management. Removals by recreational fisheries are rarely considered, although acquisition of recreational fisheries data is being emphasized by the Council and NOAA Fisheries.[3] Annual stock assessments provided to international management organizations -- Western and Central Pacific Fisheries Commission (WCPFC) and Inter-American Tropical Tuna Commission (IATTC) – utilize models that account for biological unity, reproduction and recruitment characteristics of pelagic fish stocks.[1,2] Biological unity and characteristics of the stocks harvested by Hawaii longline fisheries are also receiving greater emphasis as the Council follows the mandate of the Magnuson-Stevens Fishery Conservation and Management Act 2006 amendments to develop annual catch limits for each of its managed fisheries that may not exceed the fishing level recommendations of its Scientific and Statistical Committee.[4]	

[1]WCPFC Meetings, Scientific Committee, http://www.wcpfc.int/

[2] Search "SWO Stock Structure Review," http://www.iattc.org

[3]PIRO, Recreational Fisheries, http://www.fpir.noaa.gov/RCF/rcf_index.html

[4]Magnuson-Stevens Fishery Conservation and Management Act, as amended through January 12, 2007, http://www.nmfs.noaa.gov/msa2005/

Analysis: This sub-provision received only ½ point because removals by recreational fisheries are rarely considered in pelagic fisheries management; thus, not <u>all</u> removals are being considered.

Likelihood of improving compliance: This sub-provision is likely to reach a full point score in the future, at least for Hawaii pelagic fisheries, because acquisition of recreational fisheries data is being emphasized by the Council and NOAA Fisheries.

(d) Has the best scientific evidence available been used to determine, *inter alia*, the area of distribution of the resource? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii's longline fisheries harvest tuna and other pelagic fish resources that are part of wide-ranging Pacific populations. Scientific groups that advise the Western and Central Pacific Fisheries Commission[1], Inter-American Tropical Tuna Commission,[2]as well as the Pelagic Fisheries Research Program[3] and National Oceanic and Atmospheric Administration (NOAA) Pacific Islands Fisheries Science Center[4], conduct research, including fish tagging and genetic studies, so that pelagic resources' stock structure descriptions and areas of distribution are based on best scientific evidence.		

[1]Meetings, Scientific Committee, Stock Assessment, http://www.wcpfc.int/

[2]Search "SWO Stock Structure Review," http://www.iattc.org

[3]Pelagic Fisheries Research Program, Biology Projects, http://www.soest.hawaii.edu/PFRP/biology/biology.html; Genetics Projects http://www.soest.hawaii.edu/PFRP/genetics/genetics.html

[4]Pacific Islands Fisheries Science Center, Fishery Biology and Stock Assessment Division, http://www.nmfs.hawaii.edu/fbsad/

(e) Has the area through which the species migrates during its life cycle been considered? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Annual stock assessments provided to international management organizations -- Western and Central Pacific Fisheries Commission (WCPFC) and Inter-American Tropical Tuna Commission (IATTC) – utilize models that account for all areas where species migrate, reproduce and recruit to fisheries during their life cycles.[1,2] Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[3] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[4] The FMP conforms to the national standards of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The MSA requires that essential fish habitat (EFH) be identified, which includes areas for juveniles and adults, as well as eggs and larvae, as detailed in Table 20 of FMP Amendment 8.[5] According to the MSA, EFH is designed to minimize adverse effects on managed species by		

fishing or other actions and encourage the conservation and enhancement of habitat needed at all life stages of these species.[6]		

[1]Meetings, Scientific Committee, Stock Assessment, http://www.wcpfc.int/

[2]Search "SWO Stock Structure Review," http://www.iattc.org

[3]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[4]MSA, sec. 304 , 104-297(b) Review of Regulations

[5]Fishery Management Plan for Pelagic Fisheries of the Western Pacific Region (Pelagic FMP), as amended, Table 20, Amendment 8

[6]MSA, sec. 305

7.3.2 In order to conserve and manage transboundary fish stocks, straddling fish stocks, highly migratory fish stocks and high seas fish stocks throughout their range, conservation and management measures established for such stocks in accordance with the respective competences of relevant States or, where appropriate, through subregional and regional fisheries management organizations and arrangements, should be compatible. Compatibility should be achieved in a manner consistent with the rights, competences and interests of the States concerned.

Question format (Caddy 1996): In the case of a transboundary, straddling and highly migratory fish stock or high seas fish stock throughout its range, are the conservation and management measures established for such stock within the jurisdiction of the relevant States, or the appropriate subregional, regional fisheries management organizations and arrangements, compatible? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 0		
Yes	*Some*	*No*
		Current regulations for Hawaii longline fisheries are based largely on effort limitation through a limited access permit system, longline exclusion zones and gear requirements.[1] Current conservation and management measures established by the international management organizations (Western and Central Pacific Fisheries Commission and the Inter-American Tropical Tuna Commission) for tuna fisheries in their respective convention areas emphasize catch quotas, although effort limitations may also be considered.[2,3] Catch limits may receive more attention from the Western Pacific Fishery Management Council (Council) as it follows the mandate of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) 2006 amendments to develop annual catch limits for each of its managed fisheries that may not exceed the fishing level recommendations of its Scientific and Statistical Committee.[4]

[1]CFR, Title 50, Wildlife and Fisheries, Part 665, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=5e8e8ad2c4b77295205470fa9ffed885&tpl=/ecfrbrowse/Title50/50cfr665_main_02.tpl

[2]WCPFC, Conservation & Management Measures & Resolutions, http://www.wcpfc.int/

[3]IATTC – Active Resolutions

[4]Magnuson-Stevens Fishery Conservation and Management Act, as amended through January 12, 2007, http://www.nmfs.noaa.gov/msa2005/

Analysis: This provision received a zero score because conservation and management measures for longline fisheries in Hawaii (under U.S. regulations) emphasize direct limits on fishing permits and capacity, whereas measures established by the WCPFC and IATTC emphasize catch quotas, thus causing incompatibility between "State" and regional management approaches.

Likelihood of improving compliance: This provision may achieve a higher score in the future if the WCPFC and IATTC move toward direct limitation of fishing effort and fishing capacity through limited access and as the Western Pacific Fishery Management Council follows the mandate of MSA 2006 amendments to develop annual catch limits for each of its managed fisheries that may not exceed the fishing level recommendations of its Scientific and Statistical Committee.

7.3.3 Long-term management objectives should be translated into management actions, formulated as a fishery management plan or other management framework (*furthers ecosystem approach to fisheries*, per FAO 2003: 82).

Question format (Caddy 1996): Have long-term management objectives been translated into a plan or other management document (subscribed to by all interested parties)?

(a) Is there a plan? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] This plan conforms to the national standards of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) that state long-term management objectives for U.S. fisheries.[3]		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2] MSA, sec. 304 , 104-297(b) Review of Regulations

[3]MSA, sec. 301

(b) Is it subscribed to? ***Yes***...[1] ***In Part***...[½] ***No***...[0]]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Regulatory measures for Hawaii longline fisheries are approved and implemented by the National Oceanic and Atmospheric (NOAA) Fisheries after thorough consideration of alternatives through the Western Pacific Fishery Management Council Fishery Management Plan decision-		

making process.[1] This process allows for consultation with all interested parties and fosters consensus-building before Council designation of a "preferred alternative" that is submitted to NOAA Fisheries for review, action and rule-making by the Secretary of Commerce.[2] Compliance with these rules is enhanced because violators are subject to civil and criminal prosecution by NOAA.[3]		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

[3]2008 Summary of Hawaii Longline Fishery Regulations, Compliance Guide, http://www.fpir.noaa.gov/SFD/SFD_regs_index.html

7.3.4 States and, where appropriate, subregional or regional fisheries management organizations and arrangements should foster and promote international cooperation and coordination in all matters related to fisheries, including information gathering and exchange, fisheries research, management and development.

Question format (Caddy 1996): Have attempts been made to foster cooperation in all matters related to:

(a) information gathering and exchange? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Cooperation in information exchange is fostered by U.S. membership and participation in the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC) and their scientific advisory bodies. WCPFC's Scientific Committee is made up of a number of working groups, which are focused on information gathering and exchange related to the aims of the Commission.[1] The IATTC Tuna-Billfish Research Program focuses on research and information concerning compliance with IATTC resolutions.[2] The IATTC also maintains records of gear, flag, and fish-carrying capacity for most of the vessels that fish in the Commission's area.[3] The National Oceanographic and Atmospheric Administration (NOAA) Pacific Islands Fisheries Science Center provides non-confidential data on Hawaii longline and other pelagic fisheries to the WCPFC and IATTC and other partners.[4]		

[1]WCPFC, Meetings, Scientific Committee, http://www.wcpfc.int/

[2]IATTC – Tuna Research

[3]IATTC – Data & Information

[4] PIFSC – Fisheries Monitoring and Socioeconomics Division

(b) fisheries research? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Cooperation in fisheries research is fostered by U.S. membership and participation in the Western and Central Pacific Fisheries Commission (WCPFC) and Inter-American Tropical Tuna Commission (IATTC). WCPFC's Scientific Committee is made up of a number of working groups, which are focused on a variety of fisheries research data as related to the aims of the Commission.[1] The IATTC Tuna-Billfish Research Program focuses on fisheries research concerning compliance with IATTC resolutions, as well as general biology and stock assessment.[2] The International Scientific Committee (ISC) for Tuna and Tuna-Like Species in the North Pacific Ocean provides scientific advice on stocks and fisheries to the member governments (including the U.S.) and regional fishery management organizations to promote conservation and rational utilization of these resources.[3] To ensure a strong linkage between applied fisheries research results and fisheries management, the Pelagic Fisheries Research Program (PFRP) publishes a quarterly newsletter that circulates around the world to more than 350 fisheries managers, academic and government scientists, government fisheries agencies, libraries and interested individuals in 38 countries and U.S. territories[4] A section of the PFRP Ten Year Report,[5] is concerned with "Communicating Results & Fostering International Cooperation." International research is continuing on gear selectivity and methods to reduce sea turtle and seabird bycatch in pelagic longline fisheries. Results are disseminated and technology transferred internationally through International Fishers' Forum[6] and other meetings. The National Oceanic and Atmospheric Administration (NOAA) Pacific Islands Fisheries Science Center collaborates with Japan[7], Korea[8], Indonesia, Philippines, the World Wildlife Fund, Mexico, Costa Rica, Guatemala, Ecuador, Peru, Chile, the Inter American Tropical Tuna Commission,[9] Brazil, Uruguay, Spain, and Italy in experiments testing methods to reduce sea turtle bycatch in longlines[10]. The Pelagic Fisheries Research Program also sponsors collaborative international research on gear selectivity. An example is provided in reference[11].		

[1]WCPFC, Meetings, Scientific Committee, http://www.wcpfc.int/

[2]IATTC – Tuna Research

[3]International Scientific Committee (ISC) for Tuna and Tuna-Like Species in the North Pacific Ocean, http://isc.ac.affrc.go.jp?guide.html

[4]PFRP website

[5]Parks, Noreen M., John Sibert and May Izumi. Pelagic Fisheries Research Program: Ten Years of Excellence.

[6] International Fishers' Forum, http://www.fishersforum.net/

[7]WCPFC, Meetings, Scientific Committee, August 2006, http://www.wcpfc.int/ ; Minami, H., K. Yokota, and M. Kiyota (2006) Effect of circle hooks and feasibility of de-hooking devices to reduce incidental mortality of sea turtles in the Japanese longline fishery. Working Paper, Western and Central Pacific Fisheries Commission, Scientific Committee, Second Regular Session, 7-18 August 2006, Manila, Philippines. WCPFC-SC-2006/EB WP-9

[8]WCPFC, Meetings, Scientific Committee, August 2006, http://www.wcpfc.int/; S. S. Kim, D. Y. Moon, C. H. Boggs, D. H. An and J. R. Koh. Comparison of circle hook and J hook catch rate for target and bycatch species taken in the Korean tuna longline fishery. Working Paper, Western and Central Pacific Fisheries Commission, Scientific Committee, Second Regular Session, 7-18 August 2006, Manila, Philippines. WCPFC-SC2-2006/EB WP-12

[9]Inter-American Tropical Tuna Commission (IATTC). 2006. The sea turtle bycatch mitigation program for the coastal longline fleets and preliminary results of circle hook experiments. IATTC Working Group on Bycatch 5th meeting, Busan, Korea, 24 June 2006. IATTC- BWG-5-04. 5pp.

[10]WCPFC, Meetings, Technical and Compliance Committee, December 2005, http://www.wcpfc.int/; Boggs, C. 2005. Appendix D: Recent (2005) developments in scientific research on the use of circle hooks to reduce longline bycatch of sea turtles. Pages 17-22 in Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC), First Meeting of the Technical and Compliance Committee (TCC), 5-9 December, 2005, Sea Turtle Conservation and Management: Actions by the Commission, Relevant Regional Fisheries Management Organizations, and Regional Fisheries Bodies. WCPFC/TCC1/18 Suppl. 2. 22 pp.

[11]Seeking Responsible Commercial Fishing Solutions in Costa Rica: Study Tests New Bait to Reduce Accidental Capture of Sea Turtles. PFRP Newsletter January-March 2004, p 4.

(c) fisheries management? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
On June 27, 2007, the United States completed the process to become a member of the Western and Central Pacific Fisheries Commission after several years of participation as a cooperating non-member.[1] The Commission is a treaty-based organization with broad international membership established to conserve and manage tunas and other highly migratory fish stocks across a vast range of the Pacific Ocean. The U.S. is also a member of the Inter-American Tropical Tuna Commission.[2] Member nations of both groups cooperate in establishing and are bound to the conservation and management for highly migratory fish stocks within their respective convention areas.[3,4]		

[1]Press Release, June 28, 2007, *U.S. Joins Western and Central Pacific Fisheries Convention*, http://www.state.gov/r/pa/prs/ps/2007/jun/87537.htm

[2]IATTC – Current Members

[3]WCPFC, Conservation & Management Measures & Resolutions, http://www.wcpfc.int/

[4]IATTC – Active Resolutions

(d) fisheries development? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Asian Development Bank (ADB) is a multilateral development financial institution that provides grants, loans, technical assistance, and equity investments to developing member countries for a variety of projects, including fisheries development in Pacific island nations.[1] ADB is not now involved in the fisheries sector in the Pacific islands.[2] The World Bank is another financial developmental institution that offers loans, grants, and credits to its developing member countries for the improvement of a variety of living standards, not excluding fisheries development in Pacific island nations.[3] The World Bank commissioned a study of its potential role in the Pacific islands' fisheries sector.[2] Through the U.S. Agency for International Development (USAID), Compact of Free Association and the now-defunct Pacific Fisheries Development Foundation, the U.S. has encouraged domestic fishery development in several Pacific island nations. USAID is no longer involved in the Pacific Islands' fisheries sector.		

[1]ADB – Developing Member Countries

[2]Gillett, R. and G. van Santen. 2007. Major issues and constratins preventing Pacific island countries from obtaining optimal benefits from their fishery resources. A report prepaed for the World Bank.

[3]WB – Developing Member Countries

7.4 Data gathering and management advice

7.4.1 When considering the adoption of conservation and management measures, the best scientific evidence available should be taken into account in order to evaluate the current state of the fishery resources and the possible impact of the proposed measures on the resources.

Question format (PacMar Inc. 2006): During the consideration of the adoption of conservation and management measures, is the best available scientific evidence taken into account in order to evaluate the current state of the fishery resources and the possible impact of the proposed measures on the resources? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Before conservation and management measures are adopted for Hawaii longline fisheries, alternatives are evaluated under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region prepared by and amended as needed by the Western Pacific Fishery Management Council (Council).[1] This plan meets the national standard of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) for basing conservation and management measures on the best scientific information available.[2] Before selecting a "preferred alternative" to recommend to the National Oceanographic and Atmospheric Administration (NOAA) Fisheries for review, action and rule-making, the Council considers alternative measures and their potential impacts, as required under the National Environmental Policy Act.[3]		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 301

[3]Environmental Impact Statement – Western Pacific Pelagic Fisheries EIS (NEPA)

7.4.2 Research in support of fishery conservation and management should be promoted, including research on the resources and on the effects of climatic, environmental and socio-economic factors. The results of such research should be disseminated to interested parties.

Question format (Caddy 1996): Has relevant research been carried out on:

(a) the resource? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Island Fisheries Science Center's (PIFSC) Fishery Biology and Stock Assessment Division studies a variety of species (including tunas, swordfish, billfish, mahimahi, sharks, moonfish, sickle pomfret), providing the fundamental biological and ecological research on Federally managed species, including those harvested in Hawaii longline fisheries, to allow for improved understanding of the mechanisms that influence resource distribution and abundance.[1] PIFSC publishes administrative reports that provide research results in preliminary and timely form before they are published in peer-reviewed journals.[2] Research results are disseminated to other U.S. agencies, non-governmental organizations, foreign fisheries agencies, academic institutions and the general public in the form of non-confidential summaries for stock assessments and other studies.[3] The data are used to prepare status reports such as the annual reports for the Western Pacific Fishery Management Council's Fishery Management Plan for pelagic fisheries of the western Pacific region[4] and the Fisheries of the United States report. The Pelagic Fisheries Research Program (PFRP) conducts related research on resource biology, trophic structure and genetics.[5] PFRP maintains an extensive national and international mailing list. PFRP technical reports, newsletters, and report reprints are sent out to this mailing list on a regular basis. For those not on the mailing list, PFRP results from selected projects published as PFRP technical reports are available on the PFRP website for electronic download and limited hard copies are available upon request. Journal publications, which include articles by PFRP project principal investigators, published in refereed journals, are also available on the PFRP website and research projects are often summarized in PFRP newsletter.[6] published quarterly newsletter with a circulations around the world to more than 350 fisheries managers, academic and government scientists, government fisheries agencies, libraries and interested individuals in 38 countries and U.S. territories. Contact information for individual PIs is made available to inquire about hard copies. PFRP PIs also meet annually to discuss ongoing projects, and the details of these meetings are available in document form on the PFRP website.[7]		

[1]PIFSC – Fishery Biology & Stock Assessment Division

[2] PIFSC – Library

[3] PIFSC – Fisheries Monitoring and Analysis Program

[4]Western Pacific Fishery Management Council, Pelagics Fishery Management Plan annual report

[5]PFRP – Projects

[6]PFRP Publications website

[7]PFRP Meetings Information website

(b) climatic and environmental factors? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Island Fisheries Science Center's (PIFSC) Ecosystems and Oceanography Division (EOD) conducts research to advance understanding of the structure and dynamics of central North Pacific marine ecosystems; namely how marine populations change in response to both direct changes in their predators and prey as well as from broader habitat-based changes in the ocean climate including El Niño, La Niña, and other inter-annual or decadal events.[1] PIFSC publishes administrative reports that provide research results in preliminary and timely form before they are published in peer-reviewed journals.[2] Research results are disseminated to other U.S. agencies, non-governmental organizations, foreign fisheries agencies, academic institutions and the general public in the form of non-confidential summaries for stock assessments and other studies.[3] A number of Pelagic Fisheries Research Program (PFRP) research projects (examples in footnotes [4,5,6]) address the effects of climactic and environmental change on fish stocks and aquatic ecosystems. PFRP maintains an extensive national and international mailing list. PFRP technical reports, newsletters, and report reprints are sent out to this mailing list on a regular basis. For those not on the mailing list, PFRP results from selected projects published as PFRP technical reports are available on the PFRP website for electronic download and limited hard copies are available upon request. Journal publications, which include articles by PFRP project principal investigators, published in refereed journals, are also available on the PFRP website and research projects are often summarized in PFRP newsletter.[7] published quarterly newsletter with a circulations around the world to more than 350 fisheries managers, academic and government scientists, government fisheries agencies, libraries and interested individuals in 38 countries and US territories. Contact information for individual PIs is made available to inquire about hard copies. PFRP PIs also meet annually to discuss ongoing projects, and the details of these meetings are available in document form on the PFRP website.[8]		

[1]PIFSC – Ecosystems and Oceanography Division

[2]PIFSC – Library

[3]PIFSC – Fisheries Monitoring and Analysis Program

[4]PFRP – "Regime Shifts in the Western and Central Pacific Ocean Tuna Fisheries" - Kirby

[5]PFRP – "Impact of ENSO Events on Tuna Fisheries in the US-affiliated Pacific Islands" - Allain

[6]PFRP – "Trophic Structure and Tuna Movements in the Cold Tongue-Warm Pool Pelagic Ecosystem of the Equatorial Pacific - Foley

[7]PFRP Publications website

[8]PFRP Meetings Information website

(c) the socio-economic context? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Island Fisheries Science Center's (PIFSC) Fisheries Monitoring and Socioeconomics Division (FMSD) provides social and economic research and advice in support of Federal fisheries management in the central and western Pacific.[1] PIFSC publishes administrative reports that provide research results in preliminary and timely form before they are published in peer-reviewed journals.[2] Research results are disseminated to other U.S. agencies, non-governmental organizations, foreign fisheries agencies, academic institutions and the general public in the form of non-confidential summaries for stock assessments and other studies.[3] The data are used to prepare status reports such as the annual reports for the Western Pacific Fishery Management Council's Fishery Management Plan for pelagic fisheries of the western Pacific region[4] and the Fisheries of the United States report. The Pelagic Fisheries Research Program (PFRP) funds socio-economic research projects to assess the human impacts of fisheries policy, including the management of Hawaii longline fisheries.[5] PFRP maintains an extensive national and international mailing list. PFRP technical reports, newsletters, and report reprints are sent out to this mailing list on a regular basis. For those not on the mailing list, PFRP results from selected projects published as PFRP technical reports are available on the PFRP website for electronic download and limited hard copies are available upon request. Journal publications, which include articles by PFRP project principal investigators, published in refereed journals, are also available on the PFRP website and research projects are often summarized in PFRP newsletter.[6] published quarterly newsletter with a circulations around the world to more than 350 fisheries managers, academic and government scientists, government fisheries agencies, libraries and interested individuals in 38 countries and U.S. territories. Contact information for individual PIs is made available to inquire about hard copies. PFRP PIs also meet annually to discuss ongoing projects, and the details of these meetings are available in document form on the PFRP website.[7]		

[1]PIFSC – Fisheries Monitoring and Socioeconomics Division

[2] PIFSC – Library

[3] PIFSC – Fisheries Monitoring and Analysis Program

[4]Western Pacific Fishery Management Council, Pelagics Fishery Management Plan annual report

[5]PFRP – Socioeconomic Research

[6]PFRP Publications website

[7]PFRP Meetings Information website

7.4.3 Studies should be promoted which provide an understanding of the costs, benefits and effects of alternative management options designed to rationalize fishing, in particular, options relating to excess fishing capacity and excessive levels of fishing effort.

Question format (Caddy 1996): Has research been carried out on:

(a) cost-benefits of fishing? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Island Fisheries Science Center's (PIFSC) Fisheries Monitoring and Socioeconomics Division (FMSD) periodically surveys Hawaii longline vessel owners and operators to compile cost and income information.[1] The Pelagic Fisheries Research Program (PFRP) has funded several research projects focused on the cost-benefits and economics of Hawaii longline fishing.[2] This and other information is considered by the Western Pacific Fishery Management Council (Council) when evaluating alternative management options for Hawaii longline fisheries and by the National Oceanic and Atmospheric Administration (NOAA) Fisheries when reviewing any "preferred management alternative" recommended by the Council for NOAA Fisheries' action and rule-making. Impact analysis is also required under the National Environmental Policy Act (NEPA) of alternatives for every Hawaii longline fisheries management action.[3]		

[1]PIFSC – Fisheries Monitoring and Socioeconomics Division

[2]PFRP – Economics Projects

[3]Environmental Impact Statement – Western Pacific Pelagic Fisheries EIS

(b) alternative management strategies? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Island Fisheries Science Center's (PIFSC) provides the fundamental biological, socio-economic and ecological research on Federally managed fisheries to facilitate comparison of alternative management strategies[1] The Pelagic Fisheries Research Program (PFRP) conducts related research to assist in evaluating alternative management strategies.[2] This and other information is considered by the Western Pacific Fishery Management Council (Council) when evaluating alternative management options for Hawaii longline fisheries and by the National Oceanic and Atmospheric Administration (NOAA) Fisheries when reviewing any "preferred management alternative" recommended by the Council for NOAA Fisheries' action and rule-making. Impact analysis of alternatives is required under the National Environmental Policy Act (NEPA) for every proposed Hawaii longline fisheries management action.[3]		

[1]PIFSC – Fishery Biology & Stock Assessment Division and other divisions

[2]PFRP – Projects

[3]Environmental Impact Statement – Western Pacific Pelagic Fisheries EIS

7.4.4 States should ensure that timely, complete and reliable statistics on catch and fishing effort are collected and maintained in accordance with applicable international standards and practices and in sufficient detail to allow sound statistical analysis. Such data should be updated regularly and verified through an appropriate system. States should compile and disseminate such data in a manner consistent with any applicable confidentiality requirements.

Question format (Caddy 1996): Are timely and reliable statistics available on catch and fishing effort maintained in accordance with applicable international standards and practices and in sufficient detail to allow sound statistical analysis? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries summary reports are derived from daily records in the mandatory logbooks submitted to the National Oceanic and Atmospheric Administration (NOAA) Pacific Islands Fisheries Science Center by captains of Hawaii-based U.S. longline vessels within 72 hours after each fishing trip. The logbook provides details on fishing operations and effort, retained and released catch by species, time and location for each longline set. At the end of every quarter, logbook data from trips landing during the quarter are analyzed and quarterly non-confidential summary statistics on nominal effort, fish catch, and catch per unit of fishing effort (CPUE) are calculated and displayed in tables and charts. Catch summaries are prepared for tunas, billfishes, and other fishes identified by the Western Pacific Fishery Management Council as Pelagic Management Unit Species (PMUS). In addition, at the end of each calendar year, tables of yearly non-confidential summary effort, fish catch, and CPUE statistics are prepared and charts showing yearly catch and effort from 1991 through the current year are created. All non-confidential summary statistics are based on activities of three or more vessels. Before logbook data are summarized, they are subjected to extensive validation checks and known errors are corrected to ensure accuracy.[1] Over 20% of deep-set tuna longline trips[2] and 100% of shallow-set swordfish trips[3] by Hawaii longline vessels are covered by Federally-mandated observers, who report details of fishing operations and effort, interactions with protected species, catch of retained and non-retained fish for each observed longline set by species, time and location. Quarterly observer data summaries are available from NOAA Fisheries Pacific Islands Regional Office.[4] These data fulfill most of the requirements established as international standards in the agreement for the implementation of the provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. [5]		

[1] Hawaii longline reports, http://www.nmfs.hawaii.edu/fmsd/reports.php

[2]Biological Opinion on the Effects of the Hawaii-Based Pelagic, Deep-Set Longline Fishery on Listed Species, October 4, 2005, 5.2.1. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[3]U.S. Fish and Wildlife Service Biological Opinion on the Effects of the Shallow-set Sector of the Hawaii Longline Fishery on the Short-tailed Albatross, (*Phoebastria albatrus*), October 8, 2004, Formal Consultation Log Number 1-2-1999-F-02.2, pp. 71-72.
http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[4]Pacific Islands Regional Observer Program Quarterly Status Reports

[5]United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, Sixth session, New York, 24 July- 4 August 1995, http://www.un.org/Depts/los/convention_agreements/texts/fish_stocks_agreement/CONF164_37.htm

7.4.5 In order to ensure sustainable management of fisheries and to enable social and economic objectives to be achieved, sufficient knowledge of social, economic and institutional factors should be developed through data gathering, analysis and research.

Question format (Caddy 1996): Has sufficient knowledge of social, economic and institutional factors relevant to the fishery in question been developed through data gathering, analysis and research? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Island Fisheries Science Center's (PIFSC) Fisheries Monitoring and Socioeconomics Division (FMSD) provides fishery data, social and economic research, technical support, analysis and advice to support on-going sustainable management of Hawaii longline fisheries.[1] The Pelagic Fisheries Research Program (PFRP) funds socio-economic and institutional research projects focused on Hawaii longline fisheries to provide feedback for developing and modifying management objectives and regulations.[2] Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region prepared and amended as needed by the Western Pacific Fishery Management Council (Council) [3] in response to new knowledge of socioeconomic, institutional and other factors developed through data gathering, analysis and research. This FMP must conform to the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requirement to base conservation and management measures on the best scientific information available.[4]		

[1]PIFSC – Fisheries Monitoring and Socioeconomics Division

[2]PFRP – Socioeconomic Research

[3]Western Pacific Fishery Management Council, FMP and Annual Reports for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[4]MSA, sec. 301

7.4.6 States should compile fishery-related and other supporting scientific data relating to fish stocks covered by subregional or regional fisheries management organizations or arrangements in an internationally agreed format and provide them in a timely manner to the organization or arrangement. In cases of stocks which occur in the jurisdiction of more than one State and for which there is no such organization or arrangement, the States concerned should agree on a mechanism for cooperation to compile and exchange such data.

Question format (Caddy 1996): Are fishery-related and other supporting scientific data relating to fish stocks covered by subregional or regional fisheries management organizations or arrangements compiled in an internationally agreed format and provided in a timely manner to the organization or arrangement?

(a) in an internationally agreed format? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
To assist in stock-wide assessments, the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center provides data on Hawaii longline and other pelagic fisheries relating to fish stocks managed internationally to the Western and Central Pacific Fisheries Commission and Inter-American Tropical Tuna Commission.[1] These data fulfill most of the requirements established as international standards in the Agreement for the implementation of the provisions of the United Nations' Convention on the Law of the Sea of 10 December 1982 relating to the conservation and management of straddling fish stocks and high migratory fish stocks.[2]		

[1]PIFSC – Fisheries Monitoring and Socioeconomics Division

[2] United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, Sixth session, New York, 24 July - 4 August 1995, http://www.un.org/Depts/los/convention_agreements/texts/fish_stocks_agreement/CONF164_37.htm

(b) in a timely manner? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline operators are required to submit a completed and signed daily longline fishing logbook to the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) within 72 hours after returning to port. PIFSC's Fisheries Monitoring and Analysis Program prepares quarterly and annual summary reports of longline fishing effort and catch for dissemination to the public and to agency partners in fishery management, including international tuna management organizations for the Pacific -- the Western and Central Pacific Fisheries Commission (WCPFC) and Inter-American Tropical Tuna Commission (IATTC). [1] WCPFC's Stock Assessment Specialist Group's working papers and stock assessment information are updated annually.[2] Stock assessment documents completed annually by the Inter-American Tropical Tuna Commission (IATTC) staff are presented as Background Papers at IATTC meetings and are also published as a series of papers online.[3]		

[1]PIFSC – Fisheries Monitoring and Socioeconomics Division

[2]WCPFC, Meetings, Scientific Committee, http://www.wcpfc.int/

[3]IATTC – Stock Assessment Reports

7.4.7 Subregional or regional fisheries management organizations or arrangements should compile data and make them available, in a manner consistent with any applicable confidentiality requirements, in a timely manner and in an agreed format to all members of these organizations and other interested parties in accordance with agreed procedures.

Question format (Caddy 1996): With respect to the data collected for management purposes, are applicable confidentiality requirements complied with? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The international tuna management organization for the western Pacific -- Western and Central Pacific Fisheries Commission (WCPFC) -- has established standards for fisheries data to be provided to WCPFC by members (including the U.S.) and associated parties, as well as rules and procedures for access to and dissemination of data complied by WCPFC and a requirement for annual updating.[1] The international tuna management body for the eastern Pacific – Inter-American Tropical Tuna Commission (IATTC) – has also set standards for fisheries data provision and sharing by members and associated parties.[2] The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) monitors the catch and effort by Hawaii longline fisheries. PIFSC's Fisheries Monitoring and Analysis Program collects and processes catch and effort data reported by longline vessel operators in federally mandated logbooks. Non-confidential summary data are disseminated to the public and to WCPFC, IATTC and other agency partners in support of fishery management. Whenever confidential data are provided, strict measures are enforced to ensure that data recipients have proper authorization and abide by non-disclosure agreements.[3] Hawaii's longline fisheries are managed under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), which requires that the Western Pacific Fishery Management Council establish appropriate procedures for itself, its committees and advisory panels for ensuring confidentiality of the statistics that may be submitted to it by Federal or State authorities, and may be voluntarily submitted to it by private persons; including, but not limited to, procedures for the restriction of Council employee access and the prevention of conflicts of interest; except that such procedures, in the case of statistics submitted to the Council by a State or by the Secretary under section 402(b), must be consistent with the laws and regulations of that State, or with the procedures of the Secretary, as the case may be, concerning the confidentiality of the statistics.[4]		

[1]WCPFC. Guidelines, Procedures & Regulations, http://www.wcpfc.int/

[2]IATTC, Search "Data Provision Resolution," http://www.iattc.org

[3]PIFSC, Hawaii longline reports, Fisheries Monitoring and Socioeconomics Division

[4]MSA, sec. 104-297

7.5 Precautionary approach (*furthers ecosystem approach to fisheries*, per FAO 2003: 82)

7.5.1 States should apply the precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment. The absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures (*furthers ecosystem approach to fisheries*, per FAO 2003: 82).

Question format (Caddy 1996): (a) Has the precautionary approach been applied widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] Highly precautionary measures, including a limited access permit system (164 permits maximum) and longline exclusion zones were implemented by NOAA Fisheries in the early 1990s for Hawaii longline fisheries under this FMP.		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

(b) Has the absence of adequate scientific information been used as a reason for postponing or failing to take conservation and management measures? ***No...***[1] ***Occasionally...*** [½] ***Often...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
		Regulations establishing a limited access permit system and longline exclusion zones for Hawaii longline fisheries were established in the early 1990s before full scientific information was available to support these measures.[1,2]

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]PIRO – Western Pacific Pelagic Fisheries – Environmental Impact Statement and Amendments - 2001

7.5.2 In implementing the precautionary approach, States should take into account, inter alia, uncertainties relating to the size and productivity of the stocks, reference points, stock condition in relation to such reference points, levels and distribution of fishing mortality and the impact of fishing activities, including discards, on non-target and associated or dependent species, as well as environmental and socio-economic conditions (*furthers ecosystem approach to fisheries*, per FAO 2003: 82).

Question format (Caddy 1996): Has there been an attempt to determine for the stock both safe targets for management (Target Reference Points) and limits for exploitation (Limit Reference Points), and, at the same time, the action to be taken if they are exceeded?

(a) Have target reference point(s) been established? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region provides that fishing should achieve "optimum yield" (maximum sustainable yield as modified by environmental, economic and social factors) as a target.		

Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

(b) Have limit reference points been established? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
As required by the Magnuson-Stevens Fishery Conservation and Management Act, the Western Pacific Fishery Management Council's Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific specifies two limit reference points, one for fishing mortality that identifies when overfishing is occurring and a second for biomass that indicates when a stock is overfished.		

Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

(c) Have data and assessment procedures been installed measuring the position of the fishery in relation to the reference points established? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Data and assessment procedures are established that enable the Western Pacific Fishery Management Council's Pelagics Plan Team to annually measure the status of Hawaii longline and other pelagic fisheries in relation to maximum sustainable yield-based reference points. The findings are published in the Council's Annual Reports for federally-managed pelagic fisheries.		

Western Pacific Fishery Management Council, FMP and Annual Reports for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

(d) Have management actions been agreed to in the eventuality that data sources and analyses indicate that these reference points have been exceeded? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
As prescribed in the Western Pacific Fishery Management Council's (Council) Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region, if the limit reference point for fishing mortality is exceeded for one year or more, overfishing is occurring. If biomass falls below the limit reference point, the fish stock is overfished. The Council must take remedial action in the form of an FMP amendment or proposed regulations when it has been determined by the Secretary of Commerce that overfishing is occurring, a stock is overfished, either of the two limit reference points is being approached, or existing remedial action to end previously identified overfishing has not resulted in adequate progress.[1] FMP amendments that evaluate alternatives and propose a preferred alternative are submitted to the National Oceanic and Atmospheric Administration (NOAA) Fisheries Service for review, action, rule-making and implementation by the Secretary of Commerce[2] to reduce fishing mortality sufficiently that the fishery returns to a state of compliance with the reference points and control rules.		

[1]Western Pacific Fishery Management Council, FMP and Annual Reports for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

7.5.3 States and subregional or regional fisheries management organizations and arrangements should, on the basis of the best scientific evidence available, *inter alia*, determine (furthers ecosystem approach to fisheries, per FAO 2003: 82):

a. stock specific target reference points, and, at the same time, the action to be taken if they are exceeded; and
b. stock-specific limit reference points, and, at the same time, the action to be taken if they are exceeded; when a limit reference point is approached, measures should be taken to ensure that it will not be exceeded.

Question format (PacMar Inc. 2006): (a) Have the determination of stock-specific target reference points, and the action to be taken if exceeded, been based on the best scientific evidence available? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] This plan conforms to the national standard of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requiring that best available scientific information be used in all determinations and actions.[3]		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

[3]MSA, sec. 301

(b) When limit reference points are approached, are measures taken to ensure they are not exceeded? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
As prescribed in the Western Pacific Fishery Management Council's (Council) Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region, if the limit reference point for fishing mortality is exceeded for one year or more, overfishing is occurring. If biomass falls below the limit reference point, the fish stock is overfished. The Council must take remedial action in the form of an FMP amendment or proposed regulations when it has been determined by the Secretary of Commerce that overfishing is occurring, a stock is overfished, either of the two limit reference points is being approached, or existing remedial action to end previously identified overfishing has not resulted in adequate progress.		

Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

7.5.4 In the case of new or exploratory fisheries, States should adopt as soon as possible cautious conservation and management measures, including, inter alia, catch limits and effort limits. Such measures should remain in force until there are sufficient data to allow assessment of the impact of the fisheries on the long-term sustainability of the stocks, whereupon conservation and management measures based on that assessment should be implemented. The latter measures should, if appropriate, allow for the gradual development of the fisheries (*furthers ecosystem approach to fisheries*, per FAO 2003: 82).

Question format (Caddy 1996): (a) For new and exploratory fisheries, are procedures in place for promptly applying precautionary management measures, including catch or effort limits? ***Yes...***[1] ***In Part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Before the Hawaii swordfish longline fishery was re-opened in 2004, annual limits on fishing effort (annual maximum sets) and number of sea turtle interactions (annual maximum "takes" of leatherback and loggerhead turtles) were established in Federal regulations as precautionary measures.[1] The National Oceanic and Atmospheric Administration (NOAA) Fisheries has the authority under the Endangered Species Act to require fishing vessels subject to U.S. jurisdiction that are identified through an annual determination process to take observers upon NOAA Fisheries' request.[2]		

[1]CFR Title 50, Wildlife and Fisheries, Part 665.33, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]Final Rule on Observer Requirement for Fisheries to Monitor Sea Turtle Bycatch, http://www.nmfs.noaa.gov/pr/species/turtles/regulations.htm

(b) Have provisions been made for the gradual development of new or exploratory fisheries while information is being collected on the impact of these fisheries, allowing an assessment of the impact of such fisheries on the long-term sustainability of the stocks? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Before the Hawaii swordfish longline fishery was re-opened in 2004, annual limits on fishing effort (number of sets) and number of sea turtle interactions were established in Federal regulations to allow an assessment of the impact of the fishery on the long-term sustainability of Pacific sea turtle populations and the North Pacific swordfish stock before allowing this fishery sector to expand to pre-2000 levels.		

CFR Title 50, Wildlife and Fisheries, Part 665.33, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

(b.1) Have precautionary management provisions been established early on? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline and other pelagic fisheries have been managed under a Fishery Management Plan (FMP) for the western Pacific region prepared and amended as needed by the Western Pacific Fishery Management Council since 1987.[1] The FMP was established two years before the rapid expansion in the Hawaii longline fleet beginning in 1989. Precautionary measures were taken in the early 1990s to curtail this expansion well before fishing mortality reached stock target or limit reference points. Among these measures were a limited access permit system, longline exclusion zones and a mandatory vessel monitoring system.. More recently, other precautionary measures were established (gear restrictions and prohibitions, increased Federally-mandated vessel observer coverage) to reduce Hawaii longline fisheries' interactions with protected species.[2]		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]CFR Title 50, Wildlife and Fisheries, Part 665, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=5e8e8ad2c4b77295205470fa9ffed885&tpl=/ecfrbrowse/Title50/50cfr665_main_02.tpl

(b.2) Has information collection been initiated early to allow impact assessment? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
A federal logbook reporting requirement for Hawaii longline fishing operators was implemented in November 1990. Logbooks must be completed and submitted to the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center with complete information on fish catch and effort by (fish and non-fish) species, time and location for each longline set within 72 hours of vessel landing in port.[1] Federally-mandated observer coverage of Hawaii longline fisheries has increased from less than 5% of trips (the level funded by NOAA Fisheries during 1994-2000) to over 20% of deep-set tuna longline trips[2] since 2001 and 100% of shallow-set swordfish longline trips[4] since 2004.[3]		

[1]PIFSC, Hawaii longline reports, Fisheries Monitoring and Socioeconomics Division

[2]Biological Opinion on the Effects of the Hawaii-Based Pelagic, Deep-Set Longline Fishery on Listed Species, October 4, 2005, 5.2.1. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[3]U.S. Fish and Wildlife Service Biological Opinion on the Effects of the Shallow-set Sector of the Hawaii Longline Fishery on the Short-tailed Albatross, (*Phoebastria albatrus*), October 8, 2004, Formal Consultation Log Number 1-2-1999-F-02.2, pp. 71-72. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

7.5.5 If a natural phenomenon has a significant adverse impact on the status of living aquatic resources, States should adopt conservation and management measures on an emergency basis to ensure that fishing activity does not exacerbate such adverse impact. States should also adopt such measures on an emergency basis where fishing activity presents a serious threat to the sustainability of such resources. Measures taken on an emergency basis should be temporary and should be based on the best scientific evidence available (*furthers ecosystem approach to fisheries*, per FAO 2003: 82).

Question format (Caddy 1996): (a) Have contingency plans been agreed to in advance on the appropriate temporary management response to serious threats to the resource as a result of overfishing or adverse environmental changes or other phenomena adversely affecting the resource? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] This FMP conforms to the Magnuson-Stevens Fishery Conservation and Management Act (MSA), which provides for the Secretary of Commerce to take temporary emergency measures at the request of the Council[3] to address overfishing, adverse environmental change or other phenomena that may require emergency action. These measures may include emergency regulations, interim measures, or amendments to existing fishery management plans.		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

[3]MSA – Sec. 305

(b) Have these emergency (temporary) responses been agreed to due to:

(b.1) natural phenomena adversely impacting the stock? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] This FMP conforms to the Magnuson-Stevens Fishery Conservation and Management Act (MSA), which provides for the Secretary of Commerce, at the request of the Council, to take temporary emergency measures[3] to respond to natural phenomena such as oceanic regime shifts. These measures include emergency regulations, interim measures, or amendments to existing fishery management plans.		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2] MSA, sec. 304 , 104-297(b) Review of Regulations

[3]MSA – Sec. 305

(b.2) fishing adversely impacting the stock? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] This plan conforms to the Magnuson-Stevens Fishery Conservation and Management Act (MSA), which provides for the Secretary of Commerce, at the request of the Western Pacific Fishery Management Council, to take temporary emergency measures[3] to respond to adverse fishery impacts on stocks. These measures include emergency regulations, interim measures, or amendments to existing fishery management plans.		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

[3]MSA – Sec. 305

7.6 Management measures

7.6.1 States should ensure that the level of fishing permitted is commensurate with the state of fisheries resources.

Question format (Caddy 1996): Is the level of fishing permitted commensurate with the current state of the fishery resources? ***Yes...***[1] ***In Part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The level of fishing in Hawaii longline fisheries is controlled by a limited access permit system (164 maximum) established under the Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region, prepared by the Western Pacific Fishery Management Council (Council).[1] Thus, the U.S. as a "State" is controlling the level of Hawaii longline fishing commensurate with the current state of pelagic fishery resources, although foreign tuna fleets fishing the same pelagic stocks in the Pacific lack equivalent controls on the level of fishing. International tuna management organizations for the eastern Pacific (Inter-American Tropical Tuna Commission, IATTC) and western Pacific (Western and Central Pacific Fisheries Commission, WCPFC) have determined that the level of fishing, on a stock-wide scale, causes Pacific stocks of bigeye and yellowfin tuna to be in an "overfishing" condition. The IATTC and WCPFC have established longline catch quotas for bigeye and yellowfin tuna based on historical catch levels in longline fisheries (including Hawaii longline).[2,3]		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]WCPFC Meetings, Scientific Committee, http://www.wcpfc.int/

[3]IATTC – Active Resolutions

7.6.2 States should adopt measures to ensure that no vessel be allowed to fish unless so authorized, in a manner consistent with international law for the high seas or in conformity with national legislation within areas of national jurisdiction.

Question format (Caddy 1996): Are fishing vessels allowed to operate on the resource in question without specific authorization? ***Yes***...[0] ***In Part***...[½] ***No***...[1]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
		No longline fishing by Hawaii vessels is allowed in the Exclusive Economic Zone around Hawaii unless the vessel is registered for use with a Hawaii longline limited access permit.[1] No longline fishing by U.S. vessels is allowed in the high seas without a High Seas Fishing Compliance Act permit.[2]

[1]CFR Title 50, Wildlife and Fisheries, Part 665.21, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]CFR Title 50, Wildlife and Fisheries, Part 300.13, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

7.6.3 Where excess fishing capacity exists, mechanisms should be established to reduce capacity to levels commensurate with the sustainable use of fisheries resources so as to ensure that fishers operate under economic conditions that promote responsible fisheries. Such mechanisms should include monitoring the capacity of fishing fleets.

Question form (Caddy 1996): (a) Have attempts been made to measure fleet capacity operating in the fishery? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Various possible measures of Hawaii longline fleet capacity have been examined and research of the impact of technological change on Hawaii longline fishing capacity has been conducted.[1] Hawaii longline fisheries were estimated to average 85 percent "capacity utilization" for the period 1987-2001.[2]		

[1]Pan, M. and Q.D. Nguyen. 2006. Technological changes and the impact on fishing capacity – preliminary findings in Hawaii longline fishery. Pacific Islands Fisheries Science Center. Item 7.A.(3).(a). In: Agenda book for 92nd Meeting of Science and Statistical Committee, Western Pacific Regional Fishery Management Council. Honolulu, HI. May 30-June 1, 2006.

[2]Anon. 2006. Capacity analysis for the Hawaii longline fishery. Appendix F: Report on quantitative measurement of fishing capacity in the Pacific Islands region. Pp. 117-121 In: (J.M. Terry and J.E. Kirkley eds.) Assessments of Excess Fishing Capacity in Selected Federally-Managed Commercial Fisheries. March 31, 2006.

(b) Have mechanisms been established where excess capacity exists to reduce capacity to levels commensurate with sustainable use of the resource? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The condition of pelagic tuna stocks is assessed annually by the scientific advisers of the Western and Central Pacific Fisheries Commission (WCPFC) [1] and the Inter-American Tropical Tuna Commission (IATTC).[2] Based on these assessments and corresponding management actions by these international organizations, together with reference points in the Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region, prepared and amended as needed by the Western Pacific Fishery Management Council (Council)[3], the National Oceanographic and Atmospheric Administration (NOAA) Fisheries may determine that a state of "overfishing" exists. If such a condition arises, the Council examines alternatives and recommends management actions for review, action and rule-making by NOAA Fisheries to reduce fishing or fishing capacity, as required by the Magnuson-Stevens Fishery Conservation and Management Act (MSA).[4] The IATTC and WCPFC are discouraging expansion of tuna fishing capacity and have established longline catch quotas for bigeye and yellowfin tuna based on historical catch levels in longline fisheries (including Hawaii longline) fisheries operating in their respective convention areas.[5,6]		

[1]WCPFC Meetings, Scientific Committee, http://www.wcpfc.int/

[2]IATTC – Stock Assessment Reports

[3]Fishery Management Plan for Pelagic Fisheries of the Western Pacific Region (Pelagic FMP), as amended, Amendment 8

[4]MSA, sec. 301; sec. 304 , 104-297(b) Review of Regulations

[5]IATTC – Active Resolutions

[6]WCPFC Conservation & Management Measures & Resolutions, http://www.wcpfc.int/

7.6.4 The performance of all existing fishing gear, methods and practices should be examined and measures taken to ensure that fishing gear, methods and practices which are not consistent with responsible fishing are phased out and replaced with more acceptable alternatives. In this process, particular attention should be given to the impact of such measures on fishing communities, including their ability to exploit the resource.

Question format (PacMar Inc. 2006): (a) Has the performance of existing fishing gear, methods and practices been examined and measures taken to ensure that those not consistent with responsible fishing are phased out and replaced with more acceptable alternatives? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The swordfish sector of Hawaii longline fisheries was closed for 3 years because of a perceived high level of gear interactions with protected sea turtles. This sector was re-opened in 2004 under new Federal regulations that require the use of circle (rather than J) hooks and fish (rather than squid) bait and other gear restrictions to reduce incidental catch of sea turtles[1] and distinguish the "shallow set" fishery for swordfish from the "deep set" longline fishery for tuna.[1] Other parts of Federal regulations have been amended to require the use of specific measures to reduce interactions with protected species of seabirds in Hawaii longline fisheries.[2]		

[1]CFR Title 50, Wildlife and Fisheries, Part 665.33, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]CFR, Title 50, Wildlife and Fisheries, Part 665.35, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

(b) Has attention been given to the impact of such measures on fishing communities and their ability to exploit the resource? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The impacts on fishing communities of regulatory changes to reduce sea turtle and seabird interactions in Hawaii longline fisheries were analyzed in supplements to the Environmental Impact Statement for the Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.		

PIRO – Western Pacific Pelagic Fisheries – Environmental Impact Statement and Amendments http://www.fpir.noaa.gov/DIR/dir_public_documents.html#eis

7.6.5 States and fisheries management organizations and arrangements should regulate fishing in such a way as to avoid the risk of conflict among fishers using different vessels, gear and fishing methods.

Question format (Caddy 1996): Has the fishery been regulated in such a manner that conflict among fishers using different vessels, gear and fishing methods are minimized? ***Yes...***[1] ***In Part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Conflict between Hawaii's longline fisheries and small-scale troll and handline fisheries has been effectively eliminated through longline exclusion zones established by Federal regulation around the main Hawaiian Islands. Minimizing gear conflict between different vessels and gear types was the specific purpose of the longline exclusion zones.		

CFR Title 50, Wildlife and Fisheries, Part 665.26, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

7.6.6 When deciding on the use, conservation and management of fisheries resources, due recognition should be given, as appropriate, in accordance with national laws and regulations, to the traditional practices, needs and interests of indigenous people and local fishing communities which are highly dependent on fishery resources for their livelihood.

Question format (Caddy 1996): In the course of deciding on use, conservation and management of the resource, were relevant national laws and regulations relating to the traditional practices needs and interests of indigenous people and local fishing communities highly dependent on these resources for their livelihood taken into account? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Potential impacts on indigenous people, traditional practices and local fishing communities are assessed by the Western Pacific Fishery Management Council (Council) when examining alternatives for new regulatory measures governing Hawaii longline fisheries[1], before recommending a "preferred management" alternative for review, action and rule-making by the National Oceanographic and Atmospheric Administration (NOAA) Fisheries.[2] Traditional practices, needs and interests of indigenous Hawaiian people and local fishing communities are recognized in the Magnuson-Stevens Fishery Conservation and Management Act (MSA), which gives the Council and NOAA Fisheries authority to establish community development, resource use preferences and grant programs to assist indigenous fishermen in Hawaii longline and other western Pacific fisheries.[3]		

[1]PIRO – Western Pacific Pelagic Fisheries – Environmental Impact Statement and Amendments - 2001

[2]MSA, sec. 301; sec. 304 , 104-297(b) Review of Regulations

[3]Magnuson-Stevens Fishery Conservation and Management Act, as amended through January 12, 2007, 109-241, 109-479, http://www.nmfs.noaa.gov/msa2005/

7.6.7 In the evaluation of alternative conservation and management measures, their cost-effectiveness and social impact should be considered.

Question format (Caddy 1996): Have the cost-effectiveness and social impact been considered in the evaluation of alternative conservation and management measures? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
In preparing and amending the Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region, the Western Pacific Fishery Management Council must conform to national standards specified in the Magnuson-Stevens Fishery Conservation and Management Act (MSA), including a mandate to consider cost-effectiveness and social impact in the evaluation of alternative management measures for Hawaii longline and other Federally-managed fisheries.[1] These impacts are also addressed in environmental impact analyses required by the National Environmental Policy Act (NEPA) for management alternatives prior to action and rule-making by the National Oceanic and Atmospheric Administration (NOAA) Fisheries Service.[2]		

[1]MSA, sec. 301

[2]PIRO – Western Pacific Pelagic Fisheries – Environmental Impact Statement and Amendments - 2001

7.6.8 The efficacy of conservation and management measures and their possible interactions should be kept under continuous review. Such measures should, as appropriate, be revised or abolished in the light of new information.

Question format (Caddy 1996): Are procedures in place to keep the efficacy of current conservation and management measures and their possible interactions under continuous review to revise or abolish them in the light of new information?

(a) Have review procedures been established? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The adequacy of conservation measures in light of new information for Hawaii longline fisheries is reviewed annually by the Western Pacific Fishery Management Council and especially its Pelagics Plan Team in the course of annual report preparation (which meets the National Oceanographic and Atmospheric Administration (NOAA) Fisheries requirement for an annual stock assessment and fishery evaluation, or SAFE report, for each federally managed fishery).		

Western Pacific Fishery Management Council, Annual Reports for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

(b) Does a flexible mechanism for revision of management measures exist? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] Management measures can be revised through FMP amendments. The FMP has been amended 15 times since 1987.		

[1]Fishery Management Plan for Pelagic Fisheries of the Western Pacific Region (Pelagics FMP), and Amendments

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

7.6.9 States should take appropriate measures to minimize waste, discards, catch by lost or abandoned gear, catch of non-target species, both fish and non-fish species, and negative impacts on associated or dependent species, in particular endangered species. Where appropriate, such measures may include technical measures related to fish size, mesh size or gear, discards, closed seasons and areas and zones reserved for selected fisheries, particularly artisanal fisheries. Such measures should be applied, where appropriate, to protect juveniles and spawners. States and subregional or regional fisheries management organizations and arrangements should promote, to the extent practicable, the development and use of selective, environmentally safe and cost effective gear and techniques (*furthers ecosystem approach to fisheries*, per FAO 2003: 82).

Question format (Caddy 1996): (a) Are appropriate measures being applied to minimize:

(a.1) waste and discards? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries are managed under Federal regulations that conform to the mandate of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) to minimize "bycatch" (fish discards and waste).		

MSA, sec. 301

(a.2) catch of non-target species (both fish and non-fish species)? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries are managed under Federal regulations that conform to the mandate of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) to minimize bycatch of fish and non-fish species.[1] Fish bycatch is reduced and catch utilization is increased in the multi-species pelagic fish catches of these fisheries by Hawaii's market demand for a variety of pelagic fish.[2] Multi-species fish harvesting is permitted by the Federal regulations governing Hawaii longline fisheries.		

[1]MSA, sec. 301

[2]WPRFMC – Hawaii Seafood Market for Pelagic Fish - 1996

(a.3) impacts on associated, dependent or endangered species? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] Regulations have been adopted to require the use of specific gear and fishing methods in Hawaii longline fisheries to reduce incidental catch of sea turtles[3] and seabirds.[4]		

[1]Fishery Management Plan for Pelagic Fisheries of the Western Pacific Region (Pelagics FMP), and Amendments

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

[3]CFR – Title 50, Wildlife and Fisheries, Part 665.33, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[4]CFR – Title 50, Wildlife and Fisheries, Part 665.35, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

(b) are technical measures being taken in relation to:

(b.1) fish size? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries deploy hooks at swimming depths of larger fish (minimum depth 21 m targeting swordfish and 43 m tuna) rather than on the ocean surface, where smaller fish are concentrated. Federal regulations require deeper setting of hooks in the Hawaii tuna longline fishery than in the Hawaii swordfish longline fishery.		

CFR – Title 50, Wildlife and Fisheries, Part 665.33, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

(b.2) mesh size or gear? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hook type (circle, not J hooks) and bait type (fish not squid) are required under current Federal regulations for the Hawaii swordfish longline fishery to minimize the frequency and severity of interactions with protected sea turtles.[1] Measures to reduce interactions with seabirds are required for both the Hawaii tuna and swordfish longline fisheries.[2]		

[1]CFR – Title 50, Wildlife and Fisheries, Part 665.33, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]CFR – Title 50, Wildlife and Fisheries, Part 665.35, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

(b.3) discards? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Hawaii fresh fish market values the large majority of all fish species harvested in Hawaii longline fisheries. Thus, discards are discouraged through marketing forces rather than technical measures.[1,2,3] Deep-setting practices (e.g., line shooter, deep mainline sag, weighted leaders) required by Federal regulations for the Hawaii tuna longline fishery[4] reduce bycatch of the fish species that might be discarded.[5]		

[1]Hawaii Seafood Buyer's Guide – Buyer's Summary

[2]WPRFMC – Hawaii Seafood Market for Pelagic Fish - 1996

[3]WPRFMC – Important Pelagic Fishes of the Pacific - 1996

[4]CFR Title 50, Wildlife and Fisheries, Part 665.22, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[5]Beverly, S., L. Chapman and W. Sokimi. 2003. Horizontal longline fishing methods and techniques: a manual for fishermen. Secretariat of the Pacific Community, Noumea, New Caledonia. http://www.spc.int/coastfish/Sections/Development/FDSPublications/FDSManuals/HLL/index.htm

(b.4) closed seasons? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Under Federal regulations, the Hawaii swordfish longline fishery opens on January 1 of each year and closes each year whenever the annual limit of either loggerhead (17) or leatherback turtle (16) interactions is reached, or when the annual limit of swordfish sets (2,012) is reached. In years when any of these limits is reached and the fishery is closed, closures are not necessarily in the same season.		

CFR – Title 50, Wildlife and Fisheries, Part 665.33, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

(b.5) closed areas? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Ocean areas within 50/75 nautical miles (nmi) of the main Hawaiian Islands and within 50 nmi of the Northwestern Hawaiian Islands are closed to longline fishing under Federal regulations for Hawaii longline fisheries.		

CFR – Title 50, Wildlife and Fisheries, Part 665.26, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

(b.6) areas reserved for particular (e.g. artisanal) fisheries? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Ocean areas within 50/75 nautical miles (nmi) of the main Hawaiian Islands are closed to longline fishing under Federal regulations for Hawaii longline fisheries. These areas are reserved for small-scale troll and handline fisheries that target many of the same pelagic fish species.		

CFR – Title 50, Wildlife and Fisheries, Part 665.26, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

(b.7) protection of juveniles or spawners? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Ocean areas within 50/75 nautical miles of the main Hawaiian Islands are closed to longline fishing under Federal regulations for Hawaii longline fisheries. The closed areas include seasonal spawning grounds for large yellowfin tuna near some of the main Hawaiian islands.		

CFR – Title 50, Wildlife and Fisheries, Part 665.26, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

(c) Are suitable arrangements in place to promote, to the extent practicable, the development and use of selective, environmentally safe and cost-effective gear and techniques? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hook type (circle, not J hooks) and bait type (fish not squid) are required under Federal regulations to reduce the incidental catch of protected sea turtles in the Hawaii swordfish longline fishery.[1] Research was undertaken to determine that these measures are environmentally safe, cost-effective and selective in reducing sea turtle interactions.[2,3] Measures to reduce interactions with seabirds are required under Federal regulations for both the tuna and swordfish sectors of Hawaii longline fisheries.[4] Research was undertaken to determine that these measures are environmentally safe, cost-effective and selective in reducing sea bird interactions.[5,6]		

[1]CFR – Title 50, Wildlife and Fisheries, Part 665.33, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]Watson, J.W., S.P. Epperly, A.K. Shah, and D.G. Foster. 2004. Fishing methods to reduce sea turtle mortality associated with pelagic longlines. Canadian Journal of Fisheries and Aquatic Sciences 62:965-981.

[3]Gilman, E., D. Kobayashi, T. Swenarton, N. Brothers, P. Dalzell, I. Kinan. 2007. Reducing sea turtle interactions in the Hawaii-based longline swordfish fishery. Biological Conservation 139: 19-28.

[4]CFR – Title 50, Wildlife and Fisheries, Part 665.35, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[5]Brothers and Gilman. 2006. Technical Assistance for Hawaii Pelagic Longline Vessels to Change Deck Design and Fishing Practices to Side Set

[6]Gilman, E. and D. Kobayashi. 2007. Reducing seabird bycatch in the Hawaii longline tuna fishery. Prep. for National Marine Fisheries Service, Pacific Islands Regional Office.

7.6.10 States and subregional and regional fisheries management organizations and arrangements, in the framework of their respective competences, should introduce measures for depleted resources and those resources threatened with depletion that facilitate the sustained recovery of such stocks. They should make every effort to ensure that resources and habitats critical to the well-being of such resources which have been adversely affected by fishing or other human activities are restored (furthers ecosystem approach to fisheries, per FAO 2003: 80-81).

Question format (Caddy 1996): Have measures been introduced to identify and protect depleted resources and those resources threatened with depletion, and to facilitate the sustained recovery of such stocks? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
As prescribed in the Western Pacific Fishery Management Council's (Council) Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region, if the limit reference point for fishing mortality is exceeded for one year or more, overfishing is occurring. If biomass falls below the limit reference point, the fish stock is overfished. The Council must take remedial action in the form of an FMP amendment or proposed regulations when it has been determined by the Secretary of Commerce that overfishing is occurring, a stock is overfished, either of the two limit reference points is being approached, or existing remedial action to end previously identified overfishing has not resulted in adequate progress.[1] The Inter-American Tropical Tuna Commission (IATTC) and Western and Central Pacific Fisheries Commission (WCPFC) have established catch quotas for bigeye and yellowfin tuna based on historical catch levels in longline fisheries (including Hawaii longline).[2,3] The Endangered Species Act and Marine Mammal Protection Act require consultations and biological opinions when protected marine species (already threatened with depletion) may be jeopardized by existing or proposed Federal fishery management measures.[4]		

[1] Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]IATTC – Active Resolutions

[3]WCPFC Conservation & Management Measures & Resolutions, http://www.wcpfc.int/

[4]ESA & MMA – PIRO – Biological Opinion on the Effects of the Hawaii-Based Pelagic, Deep-Set Longline Fishery on Listed Species – Section 4.0. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

7.7 Implementation

7.7.1 States should ensure that an effective legal and administrative framework at the local and national level, as appropriate, is established for fisheries resource conservation and fisheries management.

Question format (Caddy 1996): Has an effective legal and administrative framework been established at the local and national level, as appropriate, for fishery resource conservation and management? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] The FMP conforms to national standards of the Magnuson-Stevens Fishery Conservation and Management Act (MSA).[3] These fisheries are extensively regulated through a framework of Federal regulations, most of which are administered through the NOAA Pacific Islands Regional Office (PIRO). Hawaii longline vessel owners can apply for permits at the Honolulu, Hawaii-based PIRO office.[4]		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

[3]MSA, sec. 301

[4]NOAA PIRO, Small Business Compliance Guide, 2008 Summary of Western Pacific General Longline Fishery Regulations, http://www.fpir.noaa.gov/SFD/SFD_regs_2.html

7.7.2 States should ensure that laws and regulations provide for sanctions applicable in respect of violations which are adequate in severity to be effective, including sanctions which allow for the refusal, withdrawal or suspension of authorizations to fish in the event of non-compliance with conservation and management measures in force.

Question format (Caddy 1996): (a) Are national laws in place that provide for sanctions? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Penalties are specified for vessel owners who violate Federal regulations governing Hawaii longline fisheries.[1,2,3]		

[1]NOAA Office of General Counsel for Enforcement and Litigation, Civil Administrative Penalty Schedule, Application of Prior Violations

[2]NOAA Office of General Counsel for Enforcement and Litigation, Civil Administrative Penalty Schedule, Western Pacific Pelagic Fishery

[3]CFR, Title 15, Commerce and Foreign Trade, Part 904, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

(b) Are these adequate in severity to be effective? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Penalties for violations of Hawaii longline fisheries regulations are determined on a case-by-case basis. They can include significant administrative, civil or criminal penalties. They take into account the individual histories of offenders, with repeat offenders receiving more severe penalties to discourage further violations.[1,2,3]		

[1]NOAA Office of General Counsel for Enforcement and Litigation, Civil Administrative Penalty Schedule, Application of Prior Violations

[2]NOAA Office of General Counsel for Enforcement and Litigation, Civil Administrative Penalty Schedule, Western Pacific Pelagic Fishery

[3]CFR, Title 15, Commerce and Foreign Trade, Part 904, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

(c) Do sanctions affect (refusal/withdrawal/suspension) authorization to fish in the event of non-compliance with conservation and management measures in force? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
A Hawaii longline limited access permit is required for vessels to engage in longline fishing, transshipment or landing of fish shoreward of the offshore boundary of the Exclusive Economic Zone around Hawaii.[1] Depending on the severity of an offense, this permit can be revoked.[2,3,4]		

[1]CFR, Title 50, Wildlife and Fisheries, Part 665.21, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]NOAA Office of General Counsel for Enforcement and Litigation, Civil Administrative Penalty Schedule, Application of Prior Violations

[3]NOAA Office of General Counsel for Enforcement and Litigation, Civil Administrative Penalty Schedule, Western Pacific Pelagic Fishery

[4]CFR, Title 15, Commerce and Foreign Trade, Part 904, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

7.7.3 States, in conformity with their national laws, should implement effective fisheries monitoring, control, surveillance and law enforcement measures including, where appropriate, observer programmes, inspection schemes and vessel monitoring systems. Such measures should be promoted and, where appropriate, implemented by subregional or regional fisheries management organizations and arrangements in accordance with procedures agreed by such organizations or arrangements.

Question format (Caddy 1996): Are there in place:

(a) monitoring control and surveillance schemes? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. Coast Guard (USCG) conducts air and sea patrols in the Exclusive Economic Zone of Hawaii and on the high seas to enforce federal regulations for Hawaii vessels and protect the EEZ from illegal foreign encroachment. The USCG also cooperates in enforcing international fisheries agreements.		

U.S. Coast Guard Office of Law Enforcement, Living Marine Resources

(b) observer programmes? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
A mandatory observer program for Hawaii longline fishing trips was instituted in 1994 under Federal regulations but observer coverage rates were low until 2001. Federally-mandated observers now cover more than 20% of deep-set tuna longline trips[1] and 100% of shallow-set swordfish longline trips[2] by Hawaii vessels.		

[1]Biological Opinion on the Effects of the Hawaii-Based Pelagic, Deep-Set Longline Fishery on Listed Species, October 4, 2005, 5.2.1. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[2]U.S. Fish and Wildlife Service Biological Opinion on the Effects of the Shallow-set Sector of the Hawaii Longline Fishery on the Short-tailed Albatross (*Phoebastria albatrus*), October 8, 2004, Formal Consultation Log Number 1-2-1999-F-02.2, pp 71-72. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

(c) inspection schemes? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline vessels are subject to shipboard inspections by the U.S. Coast Guard in the Exclusive Economic Zone around Hawaii, on the surrounding high seas and while in port to ensure compliance with a range of Federal and international regulations.		

U.S. Coast Guard Office of Law Enforcement, Living Marine Resources

(d) vessel monitoring schemes? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Beginning in 1994, Hawaii longline vessels were required by Federal regulations to carry and use Vessel Monitoring Systems for continuous vessel position reporting. This aids federal surveillance and enforcement of longline exclusion areas and other fishery regulations in the Exclusive Economic Zone around Hawaii and on the high seas.		

CFR, Title 50, Wildlife and Fisheries, Part 665.25, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

7.7.4 States and subregional or regional fisheries management organizations and arrangements, as appropriate, should agree on the means by which the activities of such organizations and arrangements will be financed, bearing in mind, inter alia, the relative benefits derived from the fishery and the differing capacities of countries to provide financial and other contributions. Where appropriate, and when possible, such organizations and arrangements should aim to recover the costs of fisheries conservation, management and research.

Question format (Caddy 1996): (a) Have States and subregional or regional fisheries management organizations and arrangements, as appropriate, agreed on the means by which the activities of such organizations and arrangements will be financed, bearing in mind, *inter alia*, the relative benefits derived from the fishery and the differing capacities of countries to provide financial and other contributions?

(a.1) Is the capacity of member countries to finance taken into account? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The financial obligations of members of the Western and Central Pacific Fisheries Commission (WCPFC)[1] and Inter-American Tropical Tuna Commission (IATTC)[2] are based on formulas that consider the relative capacities and benefits of member countries, including the U.S.		

[1]WCPFC, Guidelines, Procedures & Regulations, http://www.wcpfc.int/

[2]IATTC – Financial Regulations

(a.2) Is there an agreement on financing? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Western and Central Pacific Fisheries Commission (WCPFC)[1] and Inter-American Tropical Tuna Commission (IATTC)[2] have financial agreements that obligate member countries, including the U.S.		

[1]WCPFC, Guidelines, Procedures & Regulations, http://www.wcpfc.int/

[2]IATTC – Financial Regulations

(a.3) Is there an agreement on relative benefits? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 0		
Yes	*Some*	*No*
		No such agreements exist among Western and Central Pacific Fisheries Commission (WCPFC) or Inter-American Tropical Tuna Commission (IATTC) members and other parties.

Analysis: Pacific regional fishery management organizations have not yet agreed on relative benefits derived from various pelagic fisheries and fishing nations in their respective convention areas.

Likelihood of improving compliance: An agreement on relative benefits derived from Pacific tuna fisheries by members and parties associated with the WCPFC and IATTC is unlikely at this time because of the diversity of issues and interests associated with various Pacific fish stocks, fishing gears and the market values of a wide range of fishery products.

(b) Is it possible for such organizations and arrangements to agree on an attempt to recover the costs of fisheries conservation, management and research measures (and their enforcement) that are in place? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1/2		
Yes	*Some*	*No*
	The Western and Central Pacific Fisheries Commission (WCPFC), at its 3rd regular meeting in December 2006, committed itself to developing rules and procedures for the operation of a Commission vessel monitoring system (VMS), including provisions for cost recovery and cost sharing. No similar commitment has yet been made by Inter-American Tropical Tuna Commission (IATTC) members and associated parties.	

WCPFC, Conservation & Management Measures & Resolutions, http://www.wcpfc.int/

Analysis: A full point ("1") is not given to Hawaii longline fisheries for this sub-provision because there are not yet attempts to recover the costs of fisheries conservation, management and research measures other than VMS.

Likelihood of improving compliance: Pacific regional fishery management organizations may be able to recover the costs of some monitoring measures, such as VMS, from the fishing industry but the cost of most conservation and management measures will continue to be borne by member nations who participate in the WCPFC and IATTC. Hence, a higher score for this sub-provision is unlikely in the future.

(c) Does an agreement on cost recovery exist? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 0		
Yes	*Some*	*No*
		No such agreements yet exist among Western and Central Pacific Fisheries Commission (WCPFC) or Inter-American Tropical Tuna Commission (IATTC) members and other parties.

Analysis: A zero score is given to Hawaii longline fisheries for this sub-provision because there are not yet agreements to recover the costs of fisheries conservation, management and research measures, although WCPFC and IATTC are moving toward an agreement for the fishing industry to share the cost of vessel monitoring systems.

Likelihood of improving compliance: Pacific regional fishery management organizations may be able to recover the costs of some monitoring measures, such as VMS, from the fishing industry but the cost of most conservation and management measures will continue to be borne by member nations who participate in the WCPFC and IATTC. The score of Hawaii longline fisheries for this sub-provision could possibly increase to ½ in the future.

7.7.5 States which are members of or participants in subregional or regional fisheries management organizations or arrangements should implement internationally agreed measures adopted in the framework of such organizations or arrangements and consistent with international law to deter the activities of vessels flying the flag of non-members or non-participants which engage in activities which undermine the effectiveness of conservation and management measures established by such organizations or arrangements.

Question format (Caddy 1996): (a) Have States which are members of or participants in subregional or regional fisheries management organizations or arrangements taken steps to implement (into national legislation and practice) internationally agreed measures adopted in the framework of such organizations or arrangements which are consistent with international law? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries are managed under the Western Pacific Fishery Management Council's (Council) Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region. The Council has proposed an amendment to this FMP for review, approval and rule-making by the National Oceanic and Atmospheric Administration (NOAA) Fisheries so that Federal regulations for Hawaii longline fisheries would be compatible with those established by international management arrangements under the Western and Central Pacific Fisheries Commission (WCPFC) [2] and the Inter-American Tropical Tuna Commission (IATTC). [3] Member nations are bound to the conservation and management measures for highly migratory fish stocks adopted by these commissions.		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, Amendment 14, http://www.wpcouncil.org/pelagic.htm

[2]WCPFC, Conservation & Management Measures & Resolutions, http://www.wcpfc.int/

[3]IATTC – Active Resolutions

(b) In particular, have national measures been adopted to deter the activities of vessels flying the flag of non-members or non-participants which engage in activities which undermine the effectiveness of conservation and management measures established by such organizations or arrangements? ***Yes***...[1] ***In Part***...[½] ***No***...[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. is a member of the Western and Central Pacific Fisheries Commission (WCPFC) and Inter-American Tropical Tuna Commission (IATTC), both of which target illegal, unregulated, unmonitored (IUU) fishing activities for surveillance, monitoring and enforcement of internationally-agreed conservation and management measures. Surveillance and enforcement against IUU fishing in the Exclusive Economic Zone around Hawaii and surrounding high seas is provided by the U.S. Coast Guard.[1] The Lacey Act is a U.S. statute that makes it unlawful for any person subject to the jurisdiction of the U.S. to import, export, transport, sell, receive, acquire or purchase any fish or wildlife taken, possessed, transported or sold in violation of any law or regulation of any of the United States or any foreign law. U.S. prosecutors have used the Act's provisions to deal with importations of illegally caught fish. The Act is considered as a possible model for international enforcement of internationally-agreed conservation and management measures.[2]		

[1]U.S. Coast Guard – IUU-NPOA Implementation Plan

[2]An Overview of the U.S. Lacey Act Amendments of 1981 and a Proposal for a Model Port State Fisheries Enforcement Act
http://www.high-seas.org/docs/Lacey_Act_Paper.pdf

7.8 Financial institutions

7.8.1 Without prejudice to relevant international agreements, States should encourage banks and financial institutions not to require, as a condition of a loan or mortgage, fishing vessels or fishing support vessels to be flagged in a jurisdiction other than that of the State of beneficial ownership where such a requirement would have the effect of increasing the likelihood of non-compliance with international conservation and management measures.

Question format (PacMar Inc. 2006): Are banks and financial institutions encouraged not to require, as a condition of a loan or mortgage, that fishing and fishing support vessels be flagged in a jurisdiction other than that of the State of beneficial ownership where such a requirement could increase non-compliance with international conservation and management measures? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The problem is avoided because Hawaii longline limited access permits cannot be registered for use with vessels that are not U.S. flag.		

CFR, Title 50, Wildlife and Fisheries, Part 665.21, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

Article 8 - Fishing Operations

8.1 Duties of all States

8.1.1 States should ensure that only fishing operations allowed by them are conducted within waters under their jurisdiction and that these operations are carried out in a responsible manner.

Question format (Caddy 1996): Are States involved in the fishery ensuring that only fishing operations allowed by them are conducted within waters under their jurisdiction and that these operations are carried out in a responsible manner? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Non-U.S. vessels are not permitted to fish in the U.S. Exclusive Economic Zone (EEZ) around Hawaii.[1] Federal longline limited access permits are required for U.S. vessels to engage in longline fishing, transshipment or landing of longline fishery products shoreward of the seaward boundary of the EEZ around Hawaii.[2] Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[3] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[4] This FMP meets "national standards" of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) to prevent overfishing, minimize bycatch and achieve other objectives that promote responsible fishing.[5]		

[1]Magnuson-Stevens Fishery Conservation and Management Act (MSA), sec. 201

[2]CFR, Title 50, 665, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=1255e79e70dd930a7ac1b0d65bc8fba7&rgn=div8&view=text&node=50:9.0.1.1.2.3.1.1&idno=50

[3]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[4]MSA, sec. 304 , 104-297(b) Review of Regulations

[5]MSA, sec. 301

8.1.2 States should maintain a record, updated at regular intervals, on all authorizations to fish issued by them.

Question format (Caddy 1996): Are States (or local/regional management bodies) involved in the fishery maintaining a record, updated at regular intervals, on all authorizations to fish issued by them? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Current records of longline limited access permit holders and High Seas Fishing Compliance Act permit holders operating in the Exclusive Economic Zone and high seas around Hawaii are maintained by the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Regional Office, which updates records annually and whenever vessels or permits are transferred.		

PIRO, Compliance Guides, http://www.fpir.noaa.gov/DIR/dir_public_documents.html#compliance_guides

8.1.3 States should maintain, in accordance with recognized international standards and practices, statistical data, updated at regular intervals, on all fishing operations allowed by them.

Question format (Caddy 1996): Are States (or regional management bodies) involved in the fishery maintaining, in accordance with recognized international standards and practices, statistical data, updated at regular intervals, on all fishing operations allowed by them? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries summary reports are derived from daily records in the mandatory logbooks submitted to the National Oceanic and Atmospheric Administration (NOAA) Pacific Islands Fisheries Science Center by captains of Hawaii-based U.S. longline vessels within 72 hours after each fishing trip. The logbook provides details on fishing operations and effort, retained and released catch by species, time and location for each longline set. At the end of every quarter, logbook data from trips landing during the quarter are analyzed and quarterly non-confidential summary statistics on nominal effort, fish catch, and catch per unit of fishing effort (CPUE) are calculated and displayed in tables and charts. Catch summaries are prepared for tunas, billfishes, and other fishes identified by the Western Pacific Fishery Management Council as Pelagic Management Unit Species (PMUS). In addition, at the end of each calendar year, tables of yearly non-confidential summary effort, fish catch, and CPUE statistics are prepared and charts showing yearly catch and effort from 1991 through the current year are created. All non-confidential summary statistics are based on activities of three or more vessels. Before logbook data are summarized, they are subjected to extensive validation checks and known errors are corrected to ensure accuracy.[1] Over 20% of deep-set tuna longline trips[2] and 100% of shallow-set swordfish trips[3] by Hawaii longline vessels are covered by Federally-mandated observers, who report details of fishing operations and effort, interactions with protected species, catch of retained and non-retained fish for each observed longline set by species, time and location. Quarterly observer data summaries are available from NOAA Fisheries Pacific Islands Regional Office.[4] These data fulfill most of the requirements established as international standards in the agreement for the implementation of the provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. [5]		

[1]Hawaii Longline Fishery Logbooks Summary Reports, http://www.nmfs.hawaii.edu/fmsd/reports.php

[2]Biological Opinion on the Effects of the Hawaii-Based Pelagic, Deep-Set Longline Fishery on Listed Species, October 4, 2005, 5.2.1. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[3]U.S. Fish and Wildlife Service Biological Opinion on the Effects of the Shallow-set Sector of the Hawaii Longline Fishery on the Short-tailed Albatross (*Phoebastria albatrus*), October 8, 2004, Formal Consultation Log Number 1-2-1999-F-02.2, pp. 71-72.
http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[4]Pacific Islands Regional Observer Program Quarterly Status Reports

[5]United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, Sixth session, New York, 24 July- 4 August 1995.
http://www.un.org/Depts/los/convention_agreements/texts/fish_stocks_agreement/CONF164_37.htm

8.1.4 States should, in accordance with international law, within the framework of subregional or regional fisheries management organizations or arrangements, cooperate to establish systems for monitoring, control, surveillance and enforcement of applicable measures with respect to fishing operations and related activities in waters outside their national jurisdiction.

Question format (Caddy 1996): Are States involved in the fishery, in accordance with international law, within the framework of subregional or regional fisheries management organizations or arrangements, cooperating to establish systems for monitoring, control, surveillance and enforcement of applicable measures with respect to fishing operations and related activities in waters outside their national jurisdiction?
Yes...[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
As a member of the Western and Central Pacific Fisheries Commission (WCPFC) [1] and Inter-American Tropical Tuna Commission (IATTC) [2], the U.S. is cooperating in regional arrangements to establish and operate mandatory vessel monitoring systems and observer programs, to establish positive lists of vessels authorized to fish in the respective convention areas and to take actions against illegal, unreported and unmonitored fishing vessels. The U.S. Coast Guard (USCG) conducts air and sea patrols in the Exclusive Economic Zone of Hawaii and on the high seas to enforce federal regulations for Hawaii vessels and protect the EEZ from illegal foreign encroachment. The USCG also cooperates in enforcing international fisheries agreements.[3] A mandatory observer program for Hawaii longline fishing trips was instituted in 1994 under Federal regulations but observer coverage rates were low until 2001. Federally-mandated observers now cover over 20% of deep-set tuna longline trips[1] and 100% of shallow-set swordfish longline trips[2] by Hawaii vessels.[4,5] Beginning in 1994, Hawaii longline vessels were required by Federal regulations to carry and use Vessel Monitoring Systems for continuous vessel position reporting. This aids federal surveillance and enforcement of longline exclusion areas and other fishery regulations in the Exclusive Economic Zone around Hawaii and on the high seas.[6]		

[1]Conservation & Management Measures & Resolutions, http://www.wcpfc.int/

[2]Resolution C-03-07, www.iattc.org

[3]U.S. Coast Guard Office of Law Enforcement, Living Marine Resources

[4]Biological Opinion on the Effects of the Hawaii-Based Pelagic, Deep-Set Longline Fishery on Listed Species, October 4, 2005, 5.2.1. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[5]U.S. Fish and Wildlife Service Biological Opinion on the Effects of the Shallow-set Sector of the Hawaii Longline Fishery on the Short-tailed Albatross (*Phoebastria albatrus*), October 8, 2004, Formal Consultation Log Number 1-2-1999-F-02.2, pp. 71-72. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[6]CFR, Title 50, Wildlife and Fisheries, Part 665.25, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

8.1.5 States should ensure that health and safety standards are adopted for everyone employed in fishing operations. Such standards should be not less than the minimum requirements of relevant international agreements on conditions of work and service.

Question format (PacMar Inc. 2006): Is the State ensuring that minimum health and safety standards are established for everyone employed in fishing operations? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline vessel owners are required by U.S. Coast Guard regulations to protect the health and safety of their crews, in accordance with Federal regulations. These meet International Maritime Organization regulations, especially the International Convention for the Safety of Life at Sea (SOLAS) that represent the most comprehensive international standards for maritime safety.		

CFR, Title 46, Shipping, Part 28, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

8.1.6 States should make arrangements individually, together with other States or with the appropriate international organization to integrate fishing operations into maritime search and rescue systems.

Question format (PacMar Inc. 2006): Is the State working individually and cooperatively with other States and international organizations to integrate fishing operations into maritime search and rescue systems? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. Coast Guard (USCG) works within the framework of the International Convention for the Safety of Life at Sea (SOLAS), the most important of all treaties dealing with maritime safety, to integrate the fishing operations of Hawaii longline fisheries into maritime search and rescue systems. The USCG representative on the Western Pacific Fishery Management Council works with representatives of other Federal agencies and is kept appraised of any changes in fishing operations. The Hawaii longline fleet voluntarily cooperates in maritime search and rescue systems when called upon by the USCG.		

CFR, Title 46, Shipping, Part 28, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

8.1.7 States should enhance through education and training programmes the education and skills of fishers and, where appropriate, their professional qualifications. Such programmes should take into account agreed international standards and guidelines.

Question format (Caddy 1996): Are education and training programmes enhancing the education and skills of fishers and, where appropriate, their professional qualifications, taking into account agreed international standards and guidelines? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	Hawaii longline vessel owners and operators are required to annually complete a protected species training course as a condition of retaining Hawaii longline limited access permits. Training materials have been prepared in the native languages of all vessel operators (English, Korean, Vietnamese).[1] This training is not required for other crew, however. The predominant form of education for crew members is on-the-job training by senior crew and vessel owners and operators through demonstration and example. Visas issued by the U.S. Immigration and Naturalization Service (Department of Homeland Security) for those crewmen who are foreigners to work on Hawaii longline vessels facilitate this type of training.	

[1]CFR, Title 50, Wildlife and Fisheries, Part 665.34, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

Analysis: A full point ("1") is not given to Hawaii longline fisheries for this sub-provision because not all crew members are receiving training that enhances their education and skills.

Likelihood of improving compliance: Because of high crew turnover, training programmes that reach all crew members are unlikely to ever be implemented. Hence, it is improbable that Hawaii longline fisheries could increase to a score of "1" for this provision.

8.1.8 States should, as appropriate, maintain records of fishers which should, whenever possible, contain information on their service and qualifications, including certificates of competency, in accordance with their national laws.

Question format (Caddy 1996): Are records of fishers being maintained which should, whenever possible, contain information on their service and qualifications, including certificates of competency, in accordance with their national laws? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	Certificates of competency are not required for crew members in Hawaii longline fisheries or any other U.S. fishery. Every crew member of Hawaii longline vessels must have a State of Hawaii commercial marine license.[1] Many of the fishermen serving on Hawaii longline vessels are recruited from overseas. They complete hiring documentation at manning agencies in their home countries. Typically, these agencies require fishermen to possess a Seaman's book that contains information on their past service and training.[2] Records are maintained of mandatory participation by all Hawaii longline owners and operators in annual protected species training workshops conducted by National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Regional Office.[3]	

[1]Hawaii Administrative Rules, Title 13, Department of Land and Natural Resources, Subtitle 4 Fisheries, Part IV Fisheries Resource Management, Chapter 74, License and Permit Provisions and Fees for Fishing, Fish, and Fish Products. Hawaii Administrative Rule Chapter 13-74

[2]Allen, Steward and Amy Gough, *A Sociocultural Assessment of Filipino Crew Members Working in the Hawaii-based Longline Fleet*, NOAA Technical Memorandum NMFS-PIFSC-6, October 2006. http://www.pifsc.noaa.gov/tech/NOAA_Tech_Memo_PIFSC_6.pdf

[3]PIRO, Compliance Guides, http://www.fpir.noaa.gov/DIR/dir_public_documents.html#compliance_guides

Analysis: A full point ("1") is not given to Hawaii longline fisheries for this provision because not all crew members maintain seamen's books that document their service and qualifications.

Likelihood of improving compliance: Because of high turnover and diverse backgrounds of crew members, it is unlikely that all of them would maintain seamen's books that completely document their service and qualifications. Hence, it is improbable that Hawaii longline fisheries could increase to a score of "1" for this provision.

8.1.9 States should ensure that measures applicable in respect of masters and other officers charged with an offence relating to the operation of fishing vessels should include provisions which may permit, *inter alia*, refusal, withdrawal or suspension of authorizations to serve as masters or officers of a fishing vessel.

Question format (Caddy 1996): Do measures applicable in respect of masters and other officers charged with an offence relating to the operation of fishing vessels include provisions which may permit, *inter alia*, refusal, withdrawal or suspension of authorizations to serve as masters or officers of a fishing vessel? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	No special U.S. license is needed to captain a Hawaii longline fishing vessel, although captains must be U.S. citizens. Since there is no authorization to serve as a longline master, the U.S. government has no ability to withdraw an authorization. A longline limited access permit is required for a vessel to engage in longline fishing in the Exclusive Economic Zone around Hawaii and a High Seas Fishing Compliance Act permit is required for a vessel to engage in longline fishing on the high seas. Penalties for violations of Hawaii longline fisheries regulations are determined on a case-by-case basis. They can include significant administrative, civil or criminal penalties. They take into account the individual histories of offenders, with repeat offenders receiving more severe penalties to discourage further violations. Depending on the severity of an offense, permit(s) may be revoked from the permit holder, who may or may not also be the master of the fishing vessel in violation. [1,2,3]	

[1]NOAA Office of General Counsel for Enforcement and Litigation, Civil Administrative Penalty Schedule, Application of Prior Violations

[2]NOAA Office of General Counsel for Enforcement and Litigation, Civil Administrative Penalty Schedule, Western Pacific Pelagic Fishery

[3]CFR, Title 15, Commerce and Foreign Trade, Part 904, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

Analysis: A full point ("1") is not given to Hawaii longline fisheries for this provision because there is no special U.S. authorization to serve as a longline master that could be withdrawn, although withdrawal of a Hawaii longline limited access permit from a vessel owner (who may also be the owner) could occur as a penalty for severe violation(s) of Hawaii longline fisheries regulations.

Likelihood of improving compliance: The U.S. is unlikely to institute a special license for masters of U.S.-flag fishing vessels. Hence, it is improbable that Hawaii longline fisheries could increase to a score of "1" for this provision.

8.1.10 States, with the assistance of relevant international organizations, should endeavour to ensure through education and training that all those engaged in fishing operations be given information on the most important provisions of this Code, as well as provisions of relevant international conventions and applicable environmental and other standards that are essential to ensure responsible fishing operations.

Question format (Caddy 1996): Is an attempt being made to ensure that, through education and training, all those engaged in fishing operations are given information on the most important provisions of this Code, as well as provisions of relevant international conventions and applicable environmental and other standards that are essential to ensure responsible fishing operations? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	The National Oceanographic and Atmospheric Administration (NOAA) Fisheries is required to produce a "small entity compliance guide" to make the public aware of rules issued for Hawaii longline fisheries. To the extent that provisions of the Code and other applicable international convention provisions and standards are incorporated in rules for Hawaii longline fisheries, education occurs through issuance of the compliance guides.[1] Another example of compliance is a requirement for Hawaii longline vessel owners and captains to complete an annual training course on protected species conducted by NOAA Fisheries Pacific Islands Regional Office as a condition of retaining limited access permits.[2] But other crew members are not subject to this requirement. Hawaii longline vessel operators are required to post environmental warnings on shipboard placards.[3,4] Nearly all Hawaii longline vessels market their catches through a centralized fish auction in Honolulu. As part of the auction's seafood safety program, the staff verifies all vessels delivering fish against a company list of pre-registered vessels. Every fish sold through the auction is traceable to the harvesting vessel through tags that auction staff attaches to each fish before sale.	

[1]PIRO, Compliance Guides, http://www.fpir.noaa.gov/DIR/dir_public_documents.html#compliance_guides

[2]CFR, Title 50, Wildlife and Fisheries, Part 665.34, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[3]CFR, Title 33, Navigation and Navigable Waters, Part 151.59

[4]CFR, Title 33, Navigation and Navigable Waters, Part 155.450

Analysis: A full point ("1") is not given to Hawaii longline fisheries for this provision because not all crew members are exposed to information about the Code of Conduct and other international conventions and standards for responsible fishing through training.

Likelihood of improving compliance: Because of high crew turnover, in-depth training programmes that inform all crew members about the Code of Conduct and other international standards for responsible fishing are unlikely to be implemented. Hence, it is improbable that Hawaii longline fisheries could increase to a score of "1" for this provision.

8.2 Flag State duties

8.2.1 Flag States should maintain records of fishing vessels entitled to fly their flag and authorized to be used for fishing and should indicate in such records details of the vessels, their ownership and authorization to fish.

Question format (Caddy 1996): Are flag States maintaining records of fishing vessels entitled to fly their flag and authorized to fish, which indicate details of the vessels, their ownership and authorization to fish? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii vessels of five net tons or more used in longline fishing activities in navigable waters of the U.S. or in the Exclusive Economic Zone (EEZ) must be documented by the U.S. Coast Guard.[1] Hawaii longline vessels smaller than five net tons are registered by the State of Hawaii. Hawaii vessels are authorized to engage in longline fishing, transshipment and landing of longline fishery products shoreward of the seaward boundary of the EEZ only if they are registered for use with Hawaii longline limited access permits.[2] Permits are issued by the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Regional Office (PIRO), which maintains records of authorized vessels and also monitors vessel ownership changes and Hawaii longline limited access permit transfers.[3] Only U.S. vessels registered for use with High Seas Fisheries Compliance Act permits are authorized to engage in longline fishing on the high seas.[4]		

[1]U.S. Coast Guard, National Vessel Documentation Center, http://www.uscg.mil/hq/g-m/vdoc/nvdc.htm

[2]CFR, Title 50, Wildlife and Fisheries, Part 665.21, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[3]2008 Summary of Hawaii Longline Fishery Regulations, http://www.fpir.noaa.gov/SFD/SFD_regs_2.html

[4]CFR, Title 50, Wildlife and Fisheries, Part 300.15, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

8.2.2 Flag States should ensure that no fishing vessels entitled to fly their flag fish on the high seas or in waters under the jurisdiction of other States unless such vessels have been issued with a Certificate of Registry and have been authorized to fish by the competent authorities. Such vessels should carry on board the Certificate of Registry and their authorization to fish.

Question format (Caddy 1996): (a) Are Flag States taking steps to ensure that no fishing vessels are entitled to fly their flag fish on the high seas or in waters under the jurisdiction of other States unless such vessels have been issued with a Certificate of Registry and have been authorized to fish by the competent authorities? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
To engage in longline fishing on the high seas under U.S. flag, Hawaii vessels of 5 net tons or more must be issued a certificate of documentation by the U.S. Coast Guard [1] or, if smaller, be registered with the State of Hawaii. U.S. vessels that engage in longline fishing on the high seas must have High Seas Fishing Compliance Act permits issued by the National Oceanographic and Atmospheric Administration (NOAA) Fisheries. [2] If fishing in waters under the jurisdiction of another State, a Hawaii longline vessel must have a permit from the appropriate authority of that State. A high seas vessel of the U.S. may not be eligible for a High Seas Fishing Compliance Act permit if the boat was previously authorized to fish on the high seas by a foreign nation that suspended such authorization because the fishing operation undermined the effectiveness of international conservation and management measures. [3]		

[1]U.S. Coast Guard, National Vessel Documentation Center, http://www.uscg.mil/hq/g-m/vdoc/nvdc.htm

[2]CFR, Title 50, Wildlife and Fisheries, Part 300.15, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]CFR, Title 50, Wildlife and Fisheries, Part 300.13, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

(b) Have such vessels been issued with, and carry on board, a Certificate of Registry and authorization to fish? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
When operating on the high seas as U.S. vessels, Hawaii longline vessels of 5 net tons or more are required carry on board a certificate of U.S. documentation,[1] or on smaller vessels, a certificate of registration by the State of Hawaii. A High Seas Fishing Compliance Act permit must also be carried on board.[2]		

[1]U.S. Coast Guard, National Vessel Documentation Center, http://www.uscg.mil/hq/g-m/vdoc/nvdc.htm

[2]CFR, Title 50, Wildlife and Fisheries, Part 300.15, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

8.2.3 Fishing vessels authorized to fish on the high seas or in waters under the jurisdiction of a State other than the flag State, should be marked in accordance with uniform and internationally recognizable vessel marking systems such as the FAO Standard Specifications and Guidelines for Marking and Identification of Fishing Vessels.

Question format (Caddy 1996): Are national fishing vessels authorized to fish on the high seas or in waters under the jurisdiction of a State other than the Flag State marked in accordance with uniform and internationally recognizable vessel marking systems such as the FAO Standard Specifications and Guidelines for Marking and Identification of Fishing Vessels? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline vessels that fish on the high seas must comply with marking requirements of the U.S. High Seas Fishing Compliance Act.[1] Those requirements are consistent with FAO standard specifications and guidelines for marking and identification of fishing vessels and with the standard adopted by the Western and Central Pacific Fisheries Commission (WCPFC). Hawaii longline vessels that may be authorized to fish under the jurisdiction of another western Pacific State must also be marked in accordance with the WCPFC standard.[2]		

[1]CFR, Title 50, Wildlife and Fisheries, Part 300.14, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]Conservation & Management Measures and Resolutions, CMM-2004-03, http://www.wcpfc.int

8.2.4 Fishing gear should be marked in accordance with national legislation in order that the owner of the gear can be identified. Gear marking requirements should take into account uniform and internationally recognizable gear marking systems.

Question format (Caddy 1996): Is there national legislation requiring fishing gear to be marked, taking into account uniform and internationally recognizable gear marking systems, in order that the owner of the gear can be identified? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The official number of each Hawaii longline vessel must be affixed to every longline buoy and float, including each buoy and float that is attached to a radar reflector, radio antenna, or flag marker, whether attached to a deployed longline or possessed on board the vessel. Markings must be legible and permanent, and must be of a color that contrasts with the background material. [1] Hawaii longline vessels that fish on the high seas must comply with marking requirements of the U.S. High Seas Fishing Compliance Act.[2] Those requirements are consistent with FAO standard specifications and guidelines for marking and identification of fishing gear and with the standard adopted by the Western and Central Pacific Fisheries Commission. [3]		

[1]CFR, Title 50, Wildlife and Fisheries, Part 665.24, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]CFR, Title 50, Wildlife and Fisheries, Part 300.14, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[3]Conservation & Management Measures and Resolutions, CMM-2004-03, http://www.wcpfc.int

8.2.5 Flag States should ensure compliance with appropriate safety requirements for fishing vessels and fishers in accordance with international conventions, internationally agreed codes of practice and voluntary guidelines. States should adopt appropriate safety requirements for all small vessels not covered by such international conventions, codes of practice or voluntary guidelines.

Question format (PacMar Inc. 2006): (a) Does the State ensure compliance with appropriate safety requirements for fishing vessels and fishers in accordance with international conventions, internationally agreed codes of practice and voluntary guidelines? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries must comply with U.S. Coast Guard safety requirements for fishing vessels and fishers to promote safety at sea,[1] in accordance with the International Maritime Organization regulations, including the International Convention for the Safety of Life at Sea (SOLAS), the most important of all treaties dealing with maritime safety. Monthly safety drills conducted by a trained instructor are required for each Hawaii longline vessel.[2]		

[1]U.S. Coast Guard Office of Operating and Environmental Standards, Vessel and Facility Operating Standards

[2]United States Coast Guard, Navigation and Vessel Inspection Circular No. 7-93

(b) Has the State adopted appropriate safety requirements for all small vessels not covered by such international conventions, codes of practice or voluntary guidelines? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Small vessels in Hawaii troll and handline (non-longline) fisheries for pelagic fish species are required to follow the appropriate U.S. Coast Guard safety regulations based on vessel type, length and area of operation.		

CFR, Title 46, Shipping, Part 28, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

8.2.6 States not party to the Agreement to Promote Compliance with International Conservation and Management Measures by Vessels Fishing in the High Seas should be encouraged to accept the Agreement and to adopt laws and regulations consistent with the provisions of the Agreement.

Question format (Caddy 1996): Are States involved in a fishery on the high seas party to the Agreement to Promote Compliance with International Conservation and Management Measures by Vessels Fishing in the High Seas? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The National Oceanographic and Atmospheric Administration (NOAA) Fisheries implements the international Agreement through the High Seas Fishing Compliance Act (HSFCA) of 1995. U.S. vessels must have a valid HSFCA permit to engage in longline fishing on the high seas around Hawaii (and elsewhere).		

CFR, Title 50, Wildlife and Fisheries, Part 300.13, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

8.2.7 Flag States should take enforcement measures in respect of fishing vessels entitled to fly their flag which have been found by them to have contravened applicable conservation and management measures, including, where appropriate, making the contravention of such measures an offence under national legislation. Sanctions applicable in respect of violations should be adequate in severity to be effective in securing compliance and to discourage violations wherever they occur and should deprive offenders of the benefits accruing from their illegal activities. Such sanctions may, for serious violations, include provisions for the refusal, withdrawal or suspension of the authorization to fish.

Question format (Caddy 1996): (a) Are Flag States taking enforcement measures in respect of fishing vessels entitled to fly their flag which have been found by them to have contravened applicable conservation and management measures, including, where appropriate, making the contravention of such measures an offence under national legislation? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Federal penalties are specified for vessel operators and owners who violate any of the federal regulations that govern Hawaii longline fisheries.[1] Penalties for violations of Hawaii longline fisheries regulations are determined on a case-by-case basis. They can include significant administrative, civil or criminal penalties. They take into account the individual histories of offenders, with repeat offenders receiving more severe penalties to discourage further violations. Depending on the severity of an offense, permit(s) may be revoked from the permit holder, who may or may not also be the master of the fishing vessel in violation.[2,3,4]		

[1]CFR, Title 16, Chapter 38—Fishery Conservation and Management, subchapter IV, 1857-1861, http://www.access.gpo.gov/uscode/title16/chapter38_subchapteriv_.html

[2]NOAA Office of General Counsel for Enforcement and Litigation, Civil Administrative Penalty Schedule, Application of Prior Violations

[3]NOAA Office of General Counsel for Enforcement and Litigation, Civil Administrative Penalty Schedule, Western Pacific Pelagic Fishery

[4]CFR, Title 15, Commerce and Foreign Trade, Part 904, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

(b) Are sanctions applicable in respect of violations and illegal activities adequate in severity to be effective in securing compliance and discouraging violations wherever they occur? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Penalties for violations of Hawaii longline fisheries regulations are determined on a case-by-case basis. They can include significant administrative, civil or criminal penalties. They take into account the individual histories of offenders, with repeat offenders receiving more severe penalties to discourage further violations.[1,2,3]		

[1]NOAA Office of General Counsel for Enforcement and Litigation, Civil Administrative Penalty Schedule, Application of Prior Violations

[2]NOAA Office of General Counsel for Enforcement and Litigation, Civil Administrative Penalty Schedule, Western Pacific Pelagic Fishery

[3]CFR, Title 15, Commerce and Foreign Trade, Part 904, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

8.2.8 Flag States should promote access to insurance coverage by owners and charterers of fishing vessels. Owners or charterers of fishing vessels should carry sufficient insurance cover to protect the crew of such vessels and their interests, to indemnify third parties against loss or damage and to protect their own interests.

Question format (PacMar Inc. 2006): (a) Does the Flag State promote access to insurance coverage for owners and charterers of fishing vessels? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 0		
Yes	*Some*	*No*
		Insurance coverage for Hawaii longline fishing vessels and operations is the responsibility of individual vessel owners.

Analysis: Hawaii longline fisheries are scored "0" because the U.S. government does not involve itself in insuring or promoting access to insurance for Hawaii longline or other U.S. vessels.

Likelihood of improving compliance: Unlike European governments, the U.S. is unlikely to ever become involved in insuring U.S. vessels, so it is improbable that Hawaii longline fisheries could improve the score for this sub-provision.

(b) Are owners or charterers of fishing vessels required to carry sufficient insurance coverage to protect the crew of such vessels and their interests, to indemnify third parties against loss or damage and to protect their own interests? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	Hawaii longline fishing vessel owners are not required by U.S. law to carry any type of insurance but most of these vessels are covered by private protection and indemnity (P&I) policies. P&I is insurance that protects a vessel and its owners and operators against liability for bodily injury and third-party property damage.[1] The State of Hawaii requires Hawaii longline vessel owners to carry liability insurance or P&I insurance in order to have a berth in a State harbor.[2] In special cases, vessels without liability or P & I insurance can obtain a berth by paying 2 times the mooring charge.[3]	

[1] Fireman's Fund Insurance Company, Protection and Indemnity, http://www.firemansfund.com/servlet/dcms?c=business&rkey=150

[2]John Grosseto, Grosseto Marine Insurance Services, personal communication

[3]Hawaii Administrative Rules, Title 19, Department of Transportation, Chapter 42, Vessel and Harbor Controls, Section 37

Analysis: Hawaii longline fisheries are assigned a ½ score because the U.S. government does not require any type of insurance for U.S. fishing vessels, although in practice most Hawaii longline vessels are covered by private P&I policies.

Likelihood of improving compliance: Unlike European governments, the U.S. is unlikely to ever require insurance for U.S. fishing vessels, so it is improbable that Hawaii longline fisheries could improve the score for this sub-provision.

8.2.9 Flag States should ensure that crew members are entitled to repatriation, taking account of the principles laid down in the "Repatriation of Seafarers Convention (Revised), 1987, (No.166)".

Question format (PacMar Inc. 2006): Are (abandoned) crew members entitled to repatriation, taking account of the principles laid down in the "Repatriation of Seafarers Convention (Revised), 1987, (No.166)"? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Crew members who are recruited to work in Hawaii longline fisheries from outside the U.S. have contracts with vessel owners. If contracts are broken and such crew members abandoned in any port, they would be repatriated by the U.S. Immigration and Naturalization Service because their visas for the U.S. would no longer be valid.		

Embassy of the United States in Manila, Nonimmigrant Visa website

8.2.10 In the event of an accident to a fishing vessel or persons on board a fishing vessel, the flag State of the fishing vessel concerned should provide details of the accident to the State of any foreign national on board the vessel involved in the accident. Such information should also, where practicable, be communicated to the International Maritime Organization.

Question format (PacMar Inc. 2006): In the event of an accident to a fishing vessel or persons on board a fishing vessel, is the flag State of the fishing vessel concerned required to provides details of the accident to the nation of any foreign national on board the vessel involved in the accident and to the International Maritime Organization? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. Coast Guard complies with International Maritime Organization requirements in reporting maritime accidents in Hawaii longline (and other domestic) fisheries to other nations whenever foreign nationals are onboard the vessel involved in the accident. [1,2]		

[1]U.S. Coast Guard Office of Operating and Environmental Standards, Vessel and Facility Operating Standards

[2]International Maritime Organization, http://www.imo.org/home.asp

8.3 Port State duties

8.3.1 Port States should take, through procedures established in their national legislation, in accordance with international law, including applicable international agreements or arrangements, such measures as are necessary to achieve and to assist other States in achieving the objectives of this Code, and should make known to other States details of regulations and measures they have established for this purpose. When taking such measures a port State should not discriminate in form or in fact against the vessels of any other State.

Question format (PacMar Inc. 2006): (a) Have port states taken measures, established in their national legislation and in accordance with international law, to achieve and to assist other nations in achieving the objectives of this Code? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] This FMP meets national standards established in the Magnuson-Stevens Fishery Conservation and Management Act (MSA)[3]that furthers the objectives of the Code. On June 27, 2007, the United States completed the process to become a member of the Western and Central Pacific Fisheries Commission (WCPFC) after several years of participation as a cooperating non-member. The U.S. is obligated to implement and to assist other nations in implementing conservation and management measures adopted by the WCPFC with similar objectives as those of the Code.[4] As a member of the Inter-American Tropical Tuna Commission (IATTC), the U.S. is obligated to fulfill the requirements of membership and assist other members in complying with conservation and management measures,[5] which promote objectives similar to those of the Code.		

[1]Western Pacific Fishery Management Council, FMP for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

[3]MSA, sec. 301

[4]WCPFC, Guidelines, Procedures and Regulations, http://www.wcpfc.int/

[5]IATTC, Resolutions, www.iattc.org

(b) Does the flag state ensure that details of regulations and measures for this purpose are made known to other nations? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Regulations and control measures for Hawaii longline fisheries are made known to members and cooperating non-members of the Western and Central Pacific Fisheries Commission (WCPFC) [1] and Inter-American Tropical Tuna Commission (IATTC)[2] by the U.S. commissioners appointed to these international management bodies. In according member status to the U.S., the WCPFC and IATTC consider its record of compliance with the provisions of the Convention and the conservation and management measures developed by these and other regional fisheries management organizations.		

[1]WCPFC, Guidelines, Procedures and Regulations, http://www.wcpfc.int/

[2]IATTC, Resolutions, www.iattc.org

(c) Does the flag state ensure that there is no discrimination in form or in fact against the vessels of any other nation when taking measures to achieve and assist other nations in achieving the objectives of the Code? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
On June 27, 2007, the United States completed the process to become a member of the Western and Central Pacific Fisheries Commission (WCPFC) after several years of participation as a cooperating non-member. Membership obligates the U.S to take actions to deter fishing vessels of any other nation that have engaged in activities that undermine the effectiveness of or otherwise violate the conservation and management measures adopted by the WCPFC for the Convention Area until such time as appropriate action is taken by the flag state. These actions may include any procedures developed in the future by the WCFPC when necessary for non-discriminatory trade measures.[1] Nations that fail to take measures or exercise effective control to prevent vessels flying under their flag from engaging in any activity that undermines the effectiveness of Inter-American Tropical Tuna Commission (IATTC) conservation and management measures in the convention area east of 150° W longitude are subject to non-discriminatory restrictive trade measures (in accordance with international law, including principles, rights and obligations established in the World Trade Organization (WTO) Agreements, and implemented in a fair, transparent and non-discriminatory manner), imposed by the IATTC (of which the U.S. is a member) as a last resort. [2]		

[1]WCPFC, Text of Convention, http://www.wcpfc.int/

[2]IATTC, 74th Meeting, Busan, 26-30 June 2006, Resolution C-06-05, Adoption of Trade Measures to Promote Compliance, www.iattc.org/PDFFiles2/C-06-05-Trade-measures.pdf

8.3.2 Port States should provide such assistance to flag States as is appropriate, in accordance with the national laws of the port State and international law, when a fishing vessel is voluntarily in a port or at an offshore terminal of the port State and the flag State of the vessel requests the port State for assistance in respect of non- compliance with subregional, regional or global conservation and management measures or with internationally agreed minimum standards for the prevention of pollution and for safety, health and conditions of work on board fishing vessels.

Question format (PacMar Inc. 2006): Does the Port State provide such assistance to flag nations as is appropriate, in accordance with the national laws of the port state and international law, when a fishing vessel is voluntarily in a port or at an offshore terminal of the port state and the flag nation of the vessel requests the port state for assistance in respect of non-compliance with subregional, regional or global conservation and management measures or with internationally agreed minimum standards for the prevention of pollution and for safety, health and conditions of work on board fishing vessels? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
If a foreign government submits a request via the U.S. Department of State, the U.S. Coast Guard will assist the flag nations of fishing vessels visiting ports in Hawaii when requested for non-compliance with resource conservation, management measures, environmental pollution or safety conditions.		

8.4 Fishing Operations

8.4.1 States should ensure that fishing is conducted with due regard to the safety of human life and the International Maritime Organization International Regulations for Preventing Collisions at Sea, as well as International Maritime Organization requirements relating to the organization of marine traffic, protection of the marine environment and the prevention of damage to or loss of fishing gear (*furthers ecosystem approach to fisheries*, per FAO 2003: 80).

Question format (PacMar Inc. 2006): Is fishing conducted with due regard to the safety of human life and the International Maritime Organization International Regulations for Preventing Collisions at Sea, as well as International Maritime Organization requirements relating to the organization of marine traffic, protection of the marine environment and the prevention of damage to or loss of fishing gear? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries are governed by U.S. Coast Guard (USCG) regulations to promote safety at sea,[1] in accordance with the International Maritime Organization regulations, including the International Convention for the Safety of Life at Sea (SOLAS), the most important of all treaties dealing with maritime safety. The USCG also represents U.S. interests in national and international fora, including the International Maritime Organization (IMO) Marine Environment Protection Committee (MEPC), to integrate U.S. and international marine environmental standards; provide technical assistance to appropriate international organizations dealing with environmental prevention, preparedness, and response issues, including the International Organization for Standardization (ISO); and serve as the principal environmental liaison for coordination and concurrence on environmental standards as required by international conventions or Congressional legislation.[2]		

[1]U.S. Coast Guard Office of Operating and Environmental Standards, Vessel and Facility Operating Standards

[2]U.S. Coast Guard Office of Operating and Environmental Standards, Environmental Standards

8.4.2 States should prohibit dynamiting, poisoning and other comparable destructive fishing practices (*furthers ecosystem approach to fisheries*, per FAO 2003: 81).

Question format (Caddy 1996): Have States prohibited within national legislation dynamiting, poisoning and other comparable destructive fishing practices? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries are governed by U.S. regulations that specify "allowable gear." Among gear not allowed are drift gill nets[1], dynamite and poisons.[2]		

[1]CFR, Title 50, Wildlife and Fisheries, Part 665.30, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]CFR, Title 50, Wildlife and Fisheries, Part 665.48, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

8.4.3 States should make every effort to ensure that documentation with regard to fishing operations, retained catch of fish and non-fish species and, as regards discards, the information required for stock assessment as decided by relevant management bodies, is collected and forwarded systematically to those bodies. States should, as far as possible, establish programmes, such as observer and inspection schemes, in order to promote compliance with applicable measures.

Question format (Caddy 1996): a) Is documentation required with regard to fishing operations, retained catch of fish and non-fish species and, as regards discards, the information required for stock assessment as decided by relevant management bodies, collected and forwarded systematically to those bodies?

(a.1) documentation on fishing operations ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
For each longline fishing trip by a Hawaii vessel, a logbook must be submitted by the vessel operator to the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) providing detailed information about fishing operations per set, time and location.[1,2] This information is summarized quarterly by PIFSC's Fisheries Monitoring and Analysis Program[2] to prepare status reports for inclusion in the Western Pacific Fishery Management Council's Pelagics Fishery Management Plan annual report[3] (which meets the NOAA Fisheries requirement for an annual stock assessment and fishery evaluation report) and Fisheries of the United States annual report. Summary information is also shared with the scientific advisory committees to the Western and Central Pacific Fisheries Commission (WCPFC) and Inter-American Tropical Tuna Commission (IATTC).[4,5] Similar per-set information by time and location is collected by federally-mandated observers on at least 20% of deep-set tuna longline trips[6] and 100% of shallow-set swordfish longline trips[7] by Hawaii vessels. These observations are summarized quarterly by NOAA's Pacific Islands Regional Office.[8]		

[1]CFR, Title 50, Wildlife and Fisheries, Part 665.14, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]Pacific Island Fisheries Science Center, Hawaii Longline Fishery Logbook Summary Reports, http://www.nmfs.hawaii.edu/fmsd/reports.php

[3]Western Pacific Fishery Management Council, Pelagics Fishery Management Plan annual report

[4]WCPFC, Scientific Committee, http://www.wcpfc.int/

[5]IATTC, Resolution on Data Provision, www.iattc.org

[6]Biological Opinion on the Effects of the Hawaii-Based Pelagic, Deep-Set Longline Fishery on Listed Species, October 4, 2005, 5.2.1. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[7]U.S. Fish and Wildlife Service Biological Opinion on the Effects of the Shallow-set Sector of the Hawaii Longline Fishery on the Short-tailed Albatross (*Phoebastria albatrus*), October 8, 2004, Formal Consultation Log Number 1-2-1999-F-02.2, pp. 71-72. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[8]Pacific Islands Regional Observer Program Quarterly Status Reports

(a.2) documentation on non-fish catches ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
For each longline fishing trip by a Hawaii vessel, a logbook must be submitted by the vessel operator to the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) providing detailed information about retained and non-retained catch of non-fish species (sea turtles, marine mammals, seabirds) per set, time and location.[1] This information is summarized by PIFSC's Fisheries Monitoring and Analysis Program[2] to prepare status reports for inclusion in the Western Pacific Fishery Management Council's Pelagics Fishery Management Plan annual report[3] (which meets the NOAA Fisheries requirement for an annual stock assessment and fishery evaluation report) and Fisheries of the United States annual report. Summary information is also shared with the scientific advisory committees to the Western and Central Pacific Fisheries Commission (WCPFC) and Inter-American Tropical Tuna Commission (IATTC).[4,5] Similar per-set information by time and location is collected by federally-mandated observers on at least 20% of deep-set tuna longline trips[6] and 100% of shallow-set swordfish longline trips[7] by Hawaii vessels. These observations are summarized quarterly by NOAA's Pacific Islands Regional Office.[8]		

[1]CFR, Title 50, Wildlife and Fisheries, Part 665.14, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]Pacific Island Fisheries Science Center, Hawaii Longline Fishery Logbook Summary Reports, http://www.nmfs.hawaii.edu/fmsd/reports.php

[3]Western Pacific Fishery Management Council, Pelagics Fishery Management Plan annual report

[4]WCPFC, Scientific Committee, http://www.wcpfc.int/

[5]IATTC, Resolution on Data Provision, www.iattc.org

[6]Biological Opinion on the Effects of the Hawaii-Based Pelagic, Deep-Set Longline Fishery on Listed Species, October 4, 2005, 5.2.1. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[7]U.S. Fish and Wildlife Service Biological Opinion on the Effects of the Shallow-set Sector of the Hawaii Longline Fishery on the Short-tailed Albatross (*Phoebastria albatrus*), October 8, 2004, Formal Consultation Log Number 1-2-1999-F-02.2, pp. 71-72. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[8]Pacific Islands Regional Observer Program Quarterly Status Reports

(a.3) documentation on fish catches ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
For each longline fishing trip by a Hawaii vessel, a logbook must be submitted by the vessel operator to the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) providing detailed information about retained and non-retained catch of fish species per set, time and location.[1] This information is summarized quarterly by PIFSC's Fisheries Monitoring and Analysis Program[2] to prepare status reports for inclusion in the Western Pacific Fishery Management Council's Pelagics Fishery Management Plan annual report[3] (which meets the NOAA Fisheries requirement for an annual stock assessment and fishery evaluation report) and Fisheries of the United States annual report. Congressional approval of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 clears the way for the U.S. to become a member of the Western and Central Pacific Fisheries Commission (WCPFC), obligating the U.S. to provide information required for stock assessment to WCPFC, as well as to the Inter-American Tropical Tuna Commission.[4,5] Similar per-set by time and location information is collected by federally-mandated observers on at least 20% of deep-set tuna longline trips[6] and 100% of shallow-set swordfish longline trips[7] by Hawaii vessels. These observations are summarized quarterly by NOAA's Pacific Islands Regional Office.[8]		

[1]CFR, Title 50, Wildlife and Fisheries, Part 665.14, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]Pacific Island Fisheries Science Center, Hawaii Longline Fishery Logbook Summary Reports, http://www.nmfs.hawaii.edu/fmsd/reports.php

[3]Western Pacific Fishery Management Council, Pelagics Fishery Management Plan annual report

[4]WCPFC, Scientific Committee, http://www.wcpfc.int/

[5]IATTC, Resolution on Data Provision, www.iattc.com

[6]Biological Opinion on the Effects of the Hawaii-Based Pelagic, Deep-Set Longline Fishery on Listed Species, October 4, 2005, 5.2.1. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[7]U.S. Fish and Wildlife Service Biological Opinion on the Effects of the Shallow-set Sector of the Hawaii Longline Fishery on the Short-tailed Albatross (*Phoebastria albatrus*), October 8, 2004, Formal Consultation Log Number 1-2-1999-F-02.2, pp. 71-72. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[8]Pacific Islands Regional Observer Program Quarterly Status Reports

(b) Is an observer and inspection scheme being established in order to promote compliance with applicable (fishery management) measures? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Federally-mandated observers cover at least 20% of deep-set tuna longline trips[1] and 100% of shallow-set swordfish longline trips[2] by Hawaii vessels. They collect data for fishery research and management, which promotes compliance with fishery management measures, such as annual quotas on incidental loggerhead and leatherback sea turtle takes in Hawaii's shallow-set swordfish longline fishery.		

[1]Biological Opinion on the Effects of the Hawaii-Based Pelagic, Deep-Set Longline Fishery on Listed Species, October 4, 2005, 5.2.1. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[2]U.S. Fish and Wildlife Service Biological Opinion on the Effects of the Shallow-set Sector of the Hawaii Longline Fishery on the Short-tailed Albatross (*Phoebastria albatrus*), October 8, 2004, Formal Consultation Log Number 1-2-1999-F-02.2, pp. 71-72. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

8.4.4 States should promote the adoption of appropriate technology, taking into account economic conditions, for the best use and care of the retained catch.

Question format (Caddy 1996): Is the adoption of appropriate technology being promoted by the State, taking into account economic conditions for the best use and care of the retained catch? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Over 90 percent of Hawaii longline fisheries products are marketed through a central fish auction that is subject to the U.S. Food and Drug Administration's Hazard Analysis Critical Control Point (HACCP) regulations for seafood safety.[1] When applied practically to Hawaii longline fisheries, the HACCP system promotes practices and technology (e.g., proper time-temperature control, gilling and gutting of harvested fish at sea) for best use and care of the retained catch.[2]		

[1]U.S. Food and Drug Administration, Seafood HACCP Regulation

[2]Kaneko, John. 2000. Development of a HACCP-based Strategy for the Control of Histamine for the Fresh Tuna Industry, pp 17-18. http://www.nmfs.noaa.gov/mb/sk/saltonstallken/haacp.htm

8.4.5 States, with relevant groups from industry, should encourage the development and implementation of technologies and operational methods that reduce discards. The use of fishing gear and practices that lead to the discarding of catch should be discouraged and the use of fishing gear and practices that increase survival rates of escaping fish should be promoted (*furthers ecosystem approach to fisheries,* per FAO 2003: 82).

Question format (Caddy 1996): Are States and relevant groups from the fishing industry encouraging the development and implementation of technologies and operational methods that reduce (fish) discards? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Federal regulations governing Hawaii's tuna longline fishery require deep setting of gear.[1] Deep-setting practices (e.g., line shooter, deep mainline sag, weighted leaders) reduce bycatch of non-marketable fish species[2] that would be discarded. The Hawaii Longline Association cooperates with the National Oceanic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center, and the Western Pacific Fishery Management Council in researching methods of seabird[3] and sea turtle[4] incidental catch reduction in pelagic longline fisheries. Federal regulations that require use circle (not J) hooks and fish (not squid) bait in Hawaii's shallow-set swordfish longline fishery[1] also reduce the catch and discard of unwanted fish species that are commonly taken with J hooks and squid. For example, there has been a large (36%) and significant decrease in the shark catch rate in the Hawaii swordfish longline fishery, very likely due to the change from using squid to fish as bait.[5] The Hawaii fresh fish market values the large majority of fish species that are harvested in Hawaii longline fisheries. Thus, discards are discouraged through market operations as well as through technical measures.[6]		

[1]CFR – Title 50, Wildlife and Fisheries, Part 665.33, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]Beverly, S., L. Chapman and W. Sokimi. 2003. Horizontal longline fishing methods and techniques: a manual for fishermen. Secretariat of the Pacific Community, Noumea, New Caledonia. http://www.spc.int/coastfish/Sections/Development/FDSPublications/FDSManuals/HLL/index.htm

[3]Brothers and Gilman. 2006. Technical Assistance for Hawaii Pelagic Longline Vessels to Change Deck Design and Fishing Practices to Side Set

[4]Gilman, E., E. Zollett, S. Beverly, H. Nakano, K. Davis, D. Shiode, P. Dalzell and I. Kinan. 2006. Reducing sea turtle by-catch in pelagic longline fisheries. Blackwell Publishing Ltd., *Fish and Fisheries*, 7, 2-23.

[5]Gilman, E., D. Kobayashi, T. Swenarton, N. Brothers, P. Dalzell, I. Kinan. 2007. Reducing sea turtle interactions in the Hawaii-based longline swordfish fishery. Biological Conservation 139: 19-28.

[6]WPRFMC – Hawaii Seafood Market for Pelagic Fish - 1996

8.4.6 States should cooperate to develop and apply technologies, materials and operational methods that minimize the loss of fishing gear and the ghost fishing effects of lost or abandoned fishing gear.

Question format (Caddy 1996): Are technologies, materials and operational methods being applied (through cooperation among States) that minimize the loss of fishing gear and the ghost fishing effects of lost or abandoned fishing gear? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
In Hawaii (and other) pelagic longline fisheries, the mainline is set in sections monitored by radio buoys. Any lost sections are likely to be retrieved, thereby reducing gear loss and possible ghost fishing effects. The same methods are applied in longline fisheries of other States.[1] When at sea, Hawaii longline vessels retrieve drifting nets lost from non-longline foreign fisheries. This material is returned to shore for disposal in a container dumpster located at Pier 38 in Honolulu Harbor.[2]		

[1]Beverly, S., L. Chapman and W. Sokimi. 2003. Horizontal longline fishing methods and techniques: a manual for fishermen. Secretariat of the Pacific Community, Noumea, New Caledonia. http://www.spc.int/coastfish/Sections/Development/FDSPublications/FDSManuals/HLL/index.htm

[2]Hawaii Longline Fishermen Help Rid Ocean of Derelict Nets, WPRFMC Newsletter, Summer 2005

8.4.7 States should ensure that assessments of the implications of habitat disturbance are carried out prior to the introduction on a commercial scale of new fishing gear, methods and operations to an area (*furthers ecosystem approach to fisheries*, per FAO 2003: 80, 82).

Question format (Caddy 1996): Are assessments being carried out of the implications of habitat disturbance prior to the introduction on a commercial scale of new fishing gear, methods and operations? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Potential habitat disturbance and other possible environmental effects were analyzed in a National Environmental Policy Act (NEPA) document prior to implementation of new Federal regulations in 2004 that introduced gear changes and re-opened the Hawaii longline fishery for swordfish.[1] Potential effects on sea turtles, seabirds and their habitats were analyzed in biological opinions by the National Oceanographic and Atmospheric Administration (NOAA) Fisheries[2] and the U.S. Fish and Wildlife Service[3] prior to re-opening of the Hawaii longline fishery for swordfish.		

[1]Management Measures to Implement New Technologies for the Western Pacific Pelagic Longline Fisheries, March 5, 2004

[2]Biological Opinion on the Effects of the Hawaii-Based Pelagic, Deep-Set Longline Fishery on Listed Species, October 4, 2005, 5.2.1. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[3]U.S. Fish and Wildlife Service Biological Opinion on the Effects of the Shallow-set Sector of the Hawaii Longline Fishery on the Short-tailed Albatross (*Phoebastria albatrus*), October 8, 2004, Formal Consultation Log Number 1-2-1999-F-02.2, pp. 71-72. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

8.4.8 Research on the environmental and social impacts of fishing gear and, in particular, on the impact of such gear on biodiversity and coastal fishing communities should be promoted (*furthers ecosystem approach to fisheries*, per FAO 2003: 81).

Question format (Caddy 1996): Is research being promoted on the environmental and social impacts of fishing gear and, in particular, on the impact of such gear on biodiversity and coastal fishing communities?

(a) on the environmental impacts? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Research on the environmental impacts of pelagic longline fishing gear is being promoted and conducted by the Pelagic Fisheries Research Program. Examples are referenced in footnotes.[1,2,3] The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Service Pacific Islands Fisheries Science Center (PIFSC) conducts gear evaluation studies, looking at how different methods of longline fishing affect a variety of marine species.[4] Analysis of environmental impacts of Hawaii longline fisheries and management actions promotes further research on this issue.[5]		

[1] Direct Tests of the Efficacy of Bait and Gear Modifications for Reducing Interactions of Sea Turtles with Longline Fishing Gear in Costa Rica. Pelagic Fisheries Research Program, Joint Institute for Marine and Atmospheric Research, University of Hawaii at Manoa

[2] Survivorship, Migrations, and Diving Patterns of Sea Turtles Released from Commercial Longline Fishing Gear, Determined with Pop-Up Satellite Archival Transmitters. Pelagic Fisheries Research Program, Joint Institute for Marine and Atmospheric Research, University of Hawaii at Manoa

[3] Distributions, Histories, and Recent Catch Trends with Six Fish Taxa Taken as Incidental Catch by the Hawaii-Based Commercial Longline Fishery. Pelagic Fisheries Research Program, Joint Institute for Marine and Atmospheric Research, University of Hawaii at Manoa

[4] PIFSC Administrative Reports website

[5] PIRO, Environmental Impact Statements, http://www.fpir.noaa.gov/DIR/dir_public_documents.html#eis

(b) on the social impacts? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Research on the social impacts of Hawaii longline fisheries is being promoted and conducted by the Pelagic Fisheries Research Program. Examples are referenced in footnotes [1,2]. The Human Dimensions Research Program of the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center is dedicated to providing the best available social research and advice in support of federal fisheries management in the central and western Pacific.[3] Analysis of environmental impacts of Hawaii longline fisheries and management actions includes a socio-economic component that promotes further research on this issue.[4]		

[1]A Sociological Baseline of Hawaii's Longline Fishery. Pelagic Fisheries Research Program, Joint Institute for Marine and Atmospheric Research, University of Hawaii at Manoa

[2]Sociological Baseline of Hawaii-Based Longline Fishery: Extension and Expansion of Scope. Pelagic Fisheries Research Program, Joint Institute for Marine and Atmospheric Research, University of Hawaii at Manoa

[3]PIFSC, Fisheries Monitoring and Socioeconomics Division website

[4]PIRO, Environmental Impact Statements, http://www.fpir.noaa.gov/DIR/dir_public_documents.html#eis

(c) on the impact on biodiversity? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Research on the impact of Hawaii longline fisheries on biodiversity provides the scientific basis for current regulations that specify hook type (circle, not J hooks) and bait type (fish not squid) for the swordfish sector of Hawaii longline fisheries.[1,2] Research on alternatives for reducing seabird incidental catch in Hawaii longline fisheries provides the scientific basis for control measures that are part of current regulations.[3,4] The Pelagic Fisheries Research Program (PFRP) sponsors research to study post-release movements of sea turtles hooked in Hawaii longline fisheries[5] and the distributions and catch trends of non-target fish species.[6] The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC)'s Ecosystems and Oceanography Division[7] examines how the diversity of marine populations change in response to both direct changes in their predators and prey as well as from broader habitat-based changes in the ocean climate. Analysis of environmental impacts of Hawaii longline fisheries and management actions promotes further research on fishing-biodiversity relationships.[8]		

[1]CFR – Title 50, Wildlife and Fisheries, Part 665.33, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]Watson, J.W., S.P. Epperly, A.K. Shah, and D.G. Foster. 2004. Fishing methods to reduce sea turtle mortality associated with pelagic longlines. Canadian Journal of Fisheries and Aquatic Sciences 62:965-981.

[3]CFR – Title 50, Wildlife and Fisheries, Part 665.35, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=ba0ddca7b2ad5da37c7f80d78208c84b&rgn=div8&view=text&node=50:9.0.1.1.2.3.1.15&idno=50

[4]Brothers and Gilman. 2006. Technical Assistance for Hawaii Pelagic Longline Vessels to Change Deck Design and Fishing Practices to Side Set

[5]Survivorship, Migrations, and Diving Patterns of Sea Turtles Released from Commercial Longline Fishing Gear, Determined with Pop-Up Satellite Archival Transmitters. Pelagic Fisheries Research Program, Joint Institute for Marine and Atmospheric Research, University of Hawaii at Manoa

[6]Distributions, Histories, and Recent Catch Trends with Six Fish Taxa Taken as Incidental Catch by the Hawaii-Based Commercial Longline Fishery. Pelagic Fisheries Research Program, Joint Institute for Marine and Atmospheric Research, University of Hawaii at Manoa

[7]PIFSC, Ecosystems and Oceanography Division website

[8]PIRO, Environmental Impact Statements, http://www.fpir.noaa.gov/DIR/dir_public_documents.html#eis

(d) on the impact on coastal fisheries? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Research has been conducted on the impact of Hawaii longline fishing on coastal troll and handline fisheries.[1,2,3,4,5] This resulted in establishment by Federal regulation of a longline exclusion zone around the main Hawaiian islands designed to minimize gear conflicts with coastal fisheries.[6]		

[1]Boggs, C. H. 1991. A preliminary examination of catch rates in Hawaii's troll and handline fisheries over a period of domestic longline fishery expansion. Honolulu Lab., Southwest Fish. Sci. Cent., Natl. Mar. Fish. Serv., NOAA, Honolulu, HI 96822-2396. Southwest Fish. Sci. Cent. Admin. Rep. H-91-05, 62 p.

[2]Skillman, R. A., C. H. Boggs and S. G. Pooley. 1993. Fishery interaction between tuna longliners and other pelagic fisheries in Hawaii. U.S. Dept. Commerce, NOAA Tech. Memo. NMFS-SWFSC-189, 46 p.

[3]Boggs, C. H. 1994. Methods for analyzing interactions of limited-range fisheries: Hawaii's pelagic fisheries. Pages 74-91 In: R. S. Shomura, J. Majkowski, and S. Langi (editors), Proceedings of the first FAO Expert Consultation on Interactions of Pacific Tuna Fisheries, Noumea, New Caledonia, 3-11 December 1991. FAO Fisheries Technical Paper. No. 336, Vol. 1. p. 74-91. Rome, FAO, 326 p.
http://www.fao.org/fi/eims_search/1_dett.asp?calling=simple_s_result&lang=en&pub_id=65296

[4]He, X., and C. H. Boggs. 1996. Do local catches affect local abundance? Time series analysis on Hawaii's tuna fisheries. Pages 224-240 In: Shomura, R.S., J Majkowski, and R.F. Harman (Eds.) Status of interactions of Pacific tuna fisheries in 1995. Proceedings of the Second FAO Expert Consultation on Interactions of Pacific Tuna Fisheries. Shimizu, Japan, 23-31 January 1995. FAO Fisheries Technical Paper No. 365. Rome, FAO, 612 p.
http://www.fao.org/DOCREP/003/W3628E/W3628E00.HTM

[5]He, X., and C. H. Boggs. 1997. Estimating fisheries impacts using commercial fisheries data: simulation models and time series analysis of Hawaii's yellowfin tuna fisheries. Pages 593-599 In: Hancock, D .A., D .C. Smith, A. Grant, and J.P. Beumer (Eds.) Developing and sustaining world fisheries resources: the state of science and management: 2nd World Fishery Congress proceedings, 1996, Brisbane, Australia. Collingwood VIC, CSIRO Publishing, 797 p.

[6]CFR -- Title 50, Wildlife and Fisheries, Part 665.26, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

8.5 Fishing gear selectivity (*furthers ecosystem approach to fisheries*, per FAO 2003: 82).

8.5.1 States should require that fishing gear, methods and practices, to the extent practicable, are sufficiently selective so as to minimize waste, discards, catch of non-target species, both fish and non-fish species, and impacts on associated or dependent species and that the intent of related regulations is not circumvented by technical devices. In this regard, fishers should cooperate in the development of selective fishing gear and methods. States should ensure that information on new developments and requirements is made available to all fishers (*furthers ecosystem approach to fisheries*, per FAO 2003: 81).

Question format (Caddy 1996): (a) Where practicable, is there a requirement that fishing gear, methods and practices are sufficiently selective as to minimize waste, discards, catch of non-target species - both fish and non-fish species - and impacts on associated or dependent species? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries are regulated by the National Oceanic and Atmospheric Administration (NOAA) Fisheries under a Fishery Management Plan for pelagic fisheries of the western Pacific region that meets "national standards" of the Magnuson-Stevens Fishery Conservation and Management Act, including a requirement to minimize bycatch of associated or dependent fish and non-fish species.[1] Hook type (circle, not J hooks) and bait type (fish not squid) are required for the Hawaii shallow-set swordfish longline fishery to reduce interactions with sea turtles.[2] Measures to reduce interactions with seabirds are required for both the tuna and swordfish sectors of Hawaii longline fisheries.[3] Federal regulations governing Hawaii's tuna longline fishery require deep setting of gear.[4] Deep-setting practices (e.g., line shooter, deep mainline sag, weighted leaders) also reduce bycatch of non-marketable shallow swimming fish species.[5]		

[1]Fishery Management Plan for Pelagic Fisheries of the Western Pacific Region (Pelagic FMP), as amended, 3.6

[2]CFR – Title 50, Wildlife and Fisheries, Part 665.33, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[3]CFR – Title 50, Wildlife and Fisheries, Part 665.35, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[4]CFR – Title 50, Wildlife and Fisheries, Part 665.33, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[5]Beverly, S., L. Chapman and W. Sokimi. 2003. Horizontal longline fishing methods and techniques: a manual for fishermen. Secretariat of the Pacific Community, Noumea, New Caledonia. http://www.spc.int/coastfish/Sections/Development/FDSPublications/FDSManuals/HLL/index.htm

(b) Are regulatory measures being circumvented by technical devices? ***Yes...***[0] ***In part...***[½] ***No...***[1]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
		Regulatory measures, including requirements to use circle hooks and fish bait in the Hawaii shallow-set swordfish longline fishery, were developed with consideration to maintaining or improving catch rates of target fish species. Therefore, incentives to use technical devices to circumvent the regulations are minimized. Circumvention of technical regulatory measures in the Hawaii swordfish longline fishery is further discouraged because Federal observers cover 100% of shallow-set swordfish trips.[1] All Hawaii longline vessels are required to participate in a vessel monitoring system that detects any violations of Hawaii longline exclusion zone regulations.[2] Some regulatory measures, such as side setting of gear to reduce incidental catch of seabirds in Hawaii tuna and swordfish longline fisheries, can be verified by dockside inspection.[3]

[1]U.S. Fish and Wildlife Service Biological Opinion on the Effects of the Shallow-set Sector of the Hawaii Longline Fishery on the Short-tailed Albatross (*Phoebastria albatrus*), October 8, 2004, Formal Consultation Log Number 1-2-1999-F-02.2, pp. 71-72. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[2]CFR Title 50, Part 665.25, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[3]Brothers and Gilman. 2006. Technical Assistance for Hawaii Pelagic Longline Vessels to Change Deck Design and Fishing Practices to Side Set

(c) Are fishers cooperating in the development of selective fishing gear and methods? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Hawaii Longline Association cooperates with the Western Pacific Fishery Management Council and National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center in research to develop fishing practices that reduce the incidental catch of seabirds[1] and sea turtles[2] in Hawaii longline fisheries.		

[1]Brothers and Gilman. 2006. Technical Assistance for Hawaii Pelagic Longline Vessels to Change Deck Design and Fishing Practices to Side Set

[2]Gilman, E., E. Zollett, S. Beverly, H. Nakano, K. Davis, D. Shiode, P. Dalzell and I. Kinan. 2006. Reducing sea turtle by-catch in pelagic longline fisheries. Blackwell Publishing Ltd., Fish and Fisheries, 7, 2-23.

d) Is information on new developments and requirements made available to all fishers? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Hawaii Longline Association (HLA)[1] and Western Pacific Fishery Management Council (WPFMC)[2] publicize the results of gear research and regulatory requirements to promote gear selectivity. The National Oceanographic and Atmospheric Administration (NOAA) Fisheries, Pacific Islands Regional Office (PIRO) conducts protected species training workshops that are required to be completed annually by all Hawaii longline vessel owners and operators[3] and publishes a summary of Hawaii longline fishing regulations.[4] HLA, WPFMC and NOAA Fisheries Pacific Islands Fisheries Science Center and PIRO participate in research and international fora where new gear developments are transferred to foreign fisheries.[5]		

[1]Hawaii Longline Association website

[2]WPFMC, Management Measures to Implement New Technologies for the Western Pacific Pelagic Longline Fisheries, March 5, 2004

[3]CFR Title 50, Wildlife and Fisheries**,** Part 665.34**,** http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[4]PIRO, Compliance Guides, http://www.fpir.noaa.gov/DIR/dir_public_documents.html#compliance_guides

[5]International Fishers' Forum, http://www.fishersforum.net/

8.5.2 In order to improve selectivity, States should, when drawing up their laws and regulations, take into account the range of selective fishing gear, methods and strategies available to the industry.

Question format (Caddy 1996): Do regulations governing the selectivity of fishing gear take into account the range of fishing gear, methods and strategies available to the industry? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Federal regulations governing Hawaii longline fisheries take into account different fishing gear, methods and strategies used by the industry to target shallow-set swordfish versus deep-set tuna. The regulations differentiate the shallow-set swordfish fishery and the deep-set tuna fishery based on differences in hook types, bait types, depths, times and deck positions of setting.		

CFR – Title 50, Wildlife and Fisheries, Part 665.33, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

8.5.3 States and relevant institutions should collaborate in developing standard methodologies for research into fishing gear selectivity, fishing methods and strategies.

Question format (Caddy 1996): Are States and relevant institutions involved in the fishery collaborating in developing standard methodologies for research into fishing gear selectivity, fishing methods and strategies? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The emphasis of research standardization in collaborations between the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center, the Pelagic Fisheries Research Program and the Hawaii Longline Association has been on ensuring that relevant gear configuration data are collected. Of particular importance are gear aspects that affect fishing depth, such as those that define the shallow-set versus deep-set techniques used by Hawaii longline fisheries.[1,2] And to the extent practicable, recording of all relevant aspects of gear configuration has also been made a high priority for fishery observers.		

[1]Bigelow, K., M.K. Musyl, F. Poisson, and P. Kleiber, 2006. Pelagic longline gear depth and shoaling. *Fisheries Research.* 77: 173-183.

[2]Hawn, D. and M. Seki, 2005. End of the Line: Using Instrumented Longline to Study Vertical Habitat of Pelagic Fishes. PFRP Newsletter July-Sept 2005, 10(3): 1-2

8.5.4 International cooperation should be encouraged with respect to research programmes for fishing gear selectivity, and fishing methods and strategies, dissemination of the results of such research programmes and the transfer of technology (*furthers ecosystem approach to fisheries*, per FAO 2003: 82).

Question format (Caddy 1996): Is international cooperation being encouraged with respect to research programmes for fishing gear selectivity and fishing methods and strategies, dissemination of the results of such research programmes and the transfer of technology? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
International research is continuing on gear selectivity and methods to reduce sea turtle and seabird bycatch in pelagic longline fisheries. Results are disseminated and technology transferred internationally through International Fishers' Forum and other meetings.[1] The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center collaborates with Japan[2], Korea[3], Indonesia, Philippines, the World Wildlife Fund, Mexico, Costa Rica, Guatemala, Ecuador, Peru, Chile, the Inter American Tropical Tuna Commission,[4] Brazil, Uruguay, Spain, and Italy in experiments testing methods to reduce sea turtle bycatch in longlines[5]. The Pelagic Fisheries Research Program also sponsors collaborative international research on gear selectivity. An example is provided in reference[6].		

[1]International Fishers' Forum, http://www.fishersforum.net/

[2]Minami, H., K. Yokota, and M. Kiyota (2006) Effect of circle hooks and feasibility of de-hooking devices to reduce incidental mortality of sea turtles in the Japanese longline fishery. Working Paper, Western and Central Pacific Fisheries Commission, Scientific Committee, Second Regular Session, 7-18 August 2006, Manila, Philippines. WCPFC-SC-2006/EB WP-9

[3]S. S. Kim, D. Y. Moon, C. H. Boggs, D. H. An and J. R. Koh. Comparison of circle hook and J hook catch rate for target and bycatch species taken in the Korean tuna longline fishery. Working Paper, Western and Central Pacific Fisheries Commission, Scientific Committee, Second Regular Session, 7-18 August 2006, Manila, Philippines. WCPFC-SC2-2006/EB WP-12

[4]Inter-American Tropical Tuna Commission (IATTC). 2006. The sea turtle bycatch mitigation program for the coastal longline fleets and preliminary results of circle hook experiments. IATTC Working Group on Bycatch 5th meeting, Busan, Korea, 24 June 2006. IATTC- BWG-5-04. 5pp.

[5]Boggs, C. 2005. Appendix D: Recent (2005) developments in scientific research on the use of circle hooks to reduce longline bycatch of sea turtles. Pages 17-22 in Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC), First Meeting of the

Technical and Compliance Committee (TCC), 5-9 December, 2005, Sea Turtle Conservation and Management: Actions by the Commission, Relevant Regional Fisheries Management Organizations, and Regional Fisheries Bodies. WCPFC/TCC1/18 Suppl. 2. 22 pp.

[6]Seeking Responsible Commercial Fishing Solutions in Costa Rica: Study Tests New Bait to Reduce Accidental Capture of Sea Turtles. PFRP Newsletter January-March 2004, p 4.

8.6 Energy optimization (*furthers ecosystem approach to fisheries*, per FAO 2003: 81).

8.6.1 States should promote the development of appropriate standards and guidelines which would lead to the more efficient use of energy in harvesting and post-harvest activities within the fisheries sector.

Question format (PacMar Inc. 2006): Does the State promote development of standards that would lead to more efficient use of energy in harvesting and post-harvest activities within the fisheries sector? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The fishery lands and markets exclusively fresh fish catch, thereby eliminating the high energy costs associated with frozen storage and transport of fish catches.[1] The infrastructure at the Pier 38 fishing village in Honolulu, Hawaii, is highly efficient and has eliminated the need for trucks to travel to and from other piers to meet Hawaii longline vessels and deliver their catches to the Honolulu fish auction. The U.S. Department of Energy's Appliances and Commercial Equipment Standards Program develops minimum efficiency standards that must be adhered to in the manufacture of new commercial equipment, including refrigeration and ice-making units purchased for Hawaii longline fishing vessels and for post-harvest processing and marketing of Hawaii longline fisheries' products.[2]		

[1]Kaneko, John. 2000. Development of a HACCP-based Strategy for the Control of Histamine for the Fresh Tuna Industry, p 17.

[2]U.S. Department of Energy, Appliances and Commercial Equipment Standards website

8.6.2 States should promote the development and transfer of technology in relation to energy optimization within the fisheries sector and, in particular, encourage owners, charterers and managers of fishing vessels to fit energy optimization devices to their vessels.

Question format (PacMar Inc. 2006): Is the development and transfer of technology being promoted in relation to energy optimization within the fisheries sector. In particular, are owners, charterers and managers of fishing vessels encouraged to fit energy optimization devices to their vessels? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 0		
Yes	*Some*	*No*
		Hawaii longline vessels store fresh fish catches in insulated holds chilled with ice, thereby eliminating the higher energy costs associated with large refrigerated storage systems. Fitting of Hawaii longline vessels with energy optimization devices and transfer of technology is not actively promoted.

Kaneko, John. 2000. Development of a HACCP-based Strategy for the Control of Histamine for the Fresh Tuna Industry, p 17.

Analysis: Hawaii longline fisheries are scored "0" for this provision because fitting of Hawaii longline vessels with energy optimization devices and transfer of technology is not actively promoted.

Likelihood of improving compliance: Hawaii longline fisheries could improve the score for this provision in the future, depending upon research, development and transfer of energy optimization devices for diesel-powered vessels.

8.7 Protection of the aquatic environment (*furthers ecosystem approach to fisheries*, per FAO 2003).

8.7.1 States should introduce and enforce laws and regulations based on the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78).

Question format (PacMar Inc. 2006): Are laws and regulations being enforced based on the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78)? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries are governed by U.S. Coast Guard regulations based on the International Convention for the Prevention of Pollution from Ships, as modified (MARPOL 73/78). The U.S. Coast Guard (USCG) currently enforces MARPOL Annex V regulations on board applicable U.S. and foreign vessels operating in the U.S. and internationally through ensuring compliance with the regulations in 33 CFR 151, Part A. The USCG also enforces shore side facility regulations found in 33 CFR 158, Part D. Known worldwide as the MARPOL Convention, the 1973 International Convention for the Prevention of Pollution by Ships prohibits at-sea disposal of garbage generated during routine ship operations. Annex V of the MARPOL Convention prohibits all overboard disposal of plastics (or garbage mixed with plastics) and limits other discharges (based on the material and the vessel's location/distance from shore).		

Crown Bay Marina, Port Clearance, MARPOL Annex V Environmental Regulations: Ship-Board Waste Management, http://www.crownbay.com/dinghy/mapol.html

8.7.2 Owners, charterers and managers of fishing vessels should ensure that their vessels are fitted with appropriate equipment as required by MARPOL 73/78 and should consider fitting a shipboard compactor or incinerator to relevant classes of vessels in order to treat garbage and other shipboard wastes generated during the vessel's normal service (*furthers ecosystem approach to fisheries*, per FAO 2003: 81).

Question format (PacMar Inc. 2006): Are fishing vessels fitted with appropriate equipment to treat garbage and other shipboard wastes as required by MARPOL 73/78? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries are governed by U.S. Coast Guard regulations that conform to the International Convention for the Prevention of Pollution from Ships, as modified (MARPOL 73/78). MARPOL Annex V laws outline requirements for onboard waste management plans and specific procedures to be used for collecting, processing, storing and discharging the vessel's garbage properly. U.S. vessels 40 feet or larger, and which operate beyond three miles, and have a galley and berthing, or engage in commerce, must have a waste management plan posted and keep records of garbage discharges and disposals. Any person who violates any of the above requirements is liable for a civil penalty of up to $25,000, a fine of up to $50,000, and imprisonment for up to five years for each violation. Note that regional, state, and local restrictions on garbage restrictions also may apply. Foreign vessels that must meet MARPOL and U.S. requirements for garbage handling and management have their placards, plans, and equipment evaluated during port state control examinations that take place once each year. This evaluation takes place on board all U.S. certificated vessels during their inspections or re-inspections.		

Crown Bay Marina, Port Clearance, MARPOL Annex V Environmental Regulations: Ship-Board Waste Management, http://www.crownbay.com/dinghy/mapol.html

8.7.3 Owners, charterers and managers of fishing vessels should minimize the taking aboard of potential garbage through proper provisioning practices.

Question format (PacMar Inc. 2006): Do owners, charterers and managers of fishing vessels minimize the taking aboard of potential garbage through proper provisioning practices? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The potential garbage taken aboard Hawaii longline vessels prior to fishing trips is minimized because trips are relatively short (2 weeks) to supply an exclusively fresh fish market.		

Western Pacific Fishery Management Council, Pelagics Fishery Management Plan annual report

8.7.4 The crew of fishing vessels should be conversant with proper shipboard procedures in order to ensure discharges do not exceed the levels set by MARPOL 73/78. Such procedures should, as a minimum, include the disposal of oily waste and the handling and storage of shipboard garbage (*furthers ecosystem approach to fisheries*, per FAO 2003: 81).

Question format (PacMar Inc. 2006): Are the crew of fishing vessels conversant with proper shipboard procedures, including the disposal of oily waste and the handling and storage of shipboard garbage, in order to ensure discharges do not exceed the levels set by MARPOL 73/78? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries are governed by U.S. Coast Guard regulations that conform to the International Convention for the Prevention of Pollution from Ships, as modified (MARPOL 73/78). Posting of shipboard warnings against oily waste[1] and excessive garbage[2] discharge is required. There is no standardized training program for crew in proper shipboard procedures for discharge of garbage. However, senior crew members train inexperienced crew through demonstration and example.		

[1]CFR, Title 33, Navigation and Navigable Waters, Part 155.450, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]CFR, Title 33, Navigation and Navigable Waters, Part 151.59, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

8.8 Protection of the atmosphere

8.8.1 States should adopt relevant standards and guidelines which would include provisions for the reduction of dangerous substances in exhaust gas emissions (*furthers ecosystem approach to fisheries*, per FAO 2003: 81).

Question format (PacMar Inc. 2006): Have relevant standards and guidelines been adopted which include provisions for the reduction of dangerous substances in exhaust gas emissions? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
U.S. Environmental Protection Agency (EPA) has adopted standards under the Clean Air Non-road Diesel Rule to decrease the allowable levels of sulfur in fuel used in U.S. marine vessels (including the Hawaii longline fleet) by 99 percent. This rule began to take effect in 2007. In addition, EPA announced its intent to propose more stringent emission standards for all new commercial, recreational, and auxiliary marine diesel engines except the very large engines used for propulsion on deep-sea vessels. These standards, which are modeled after the Clean Air Non-road Diesel engines program, would require the use of advanced emission-control technologies similar to those already upcoming for heavy-duty diesel trucks and buses. EPA estimates that nitrous oxide and PM emissions could be reduced by 90 percent by applying such advanced technology to marine diesel engines. As Hawaii longline vessels require engine replacement, they will be required to follow the new standards.		

United States Environmental Protection Agency, Diesel Boats and Ships website

8.8.2 Owners, charterers and managers of fishing vessels should ensure that their vessels are fitted with equipment to reduce emissions of ozone depleting substances. The responsible crew members of fishing vessels should be conversant with the proper running and maintenance of machinery on board (*furthers ecosystem approach to fisheries*, per FAO 2003: 81).

Question format (PacMar Inc. 2006): (a) Are fishing vessels required to be fitted with equipment to reduce emissions of ozone depleting substances? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline vessel owners are required to fit vessels with refrigeration and fire-fighting equipment in accordance with U.S. Environmental Protection Agency regulations issued under sections 601-607 of the Clean Air Act that ended the production of ozone-depleting substances and provided phase-out schedules for ozone-depleting substances.		

U.S. Environmental Protection Agency, The Phase-out of Ozone-Depleting Substances

(b) Are responsible crew members of fishing vessels conversant with the proper running and maintenance of machinery on board? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline vessel operators understand the proper running and maintenance of shipboard refrigeration and fire-fighting equipment using non-ozone depleting substances that replace ozone-depleting substances in accordance with U.S. Environmental Protection Agency regulations issued under sections 601-607 the Clean Air Act that ended the production of ozone-depleting substances and provided phase-out schedules for ozone-depleting substances.		

U.S. Environmental Protection Agency, The Phase-out of Ozone-Depleting Substances

8.8.3 Competent authorities should make provision for the phasing out of the use of chlorofluorocarbons (CFCs) and transitional substances such as hydrochlorofluorocarbons (HCFCs) in the refrigeration systems of fishing vessels and should ensure that the shipbuilding industry and those engaged in the fishing industry are informed of and comply with such provisions.

Question format (PacMar Inc. 2006): Have provisions been made for the phasing out of the use of chlorofluorocarbons (CFCs) and transitional substances such as hydrochlorofluorocarbons (HCFCs) in the refrigeration systems of fishing vessels? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline vessel owners are required to phase out refrigeration using ozone-depleting gases in accordance with U.S. Environmental Protection Agency regulations issued under sections 601-607 of the Clean Air Act that ended the production of ozone-depleting substances and provided phase-out schedules for ozone-depleting substances. Class I substances, including halons, chlorofluorocarbons (CFCs), methyl chloroform, carbon tetrachloride, and methyl bromide, are almost completely phased out, whereas Class II substances (hydrochlorofluorocarbons) are on a phase-out schedule.		

U.S. Environmental Protection Agency, The Phase-out of Ozone-Depleting Substances

8.8.4 Owners or managers of fishing vessels should take appropriate action to refit existing vessels with alternative refrigerants to CFCs and HCFCs and alternatives to Halons in fire fighting installations. Such alternatives should be used in specifications for all new fishing vessels (*furthers ecosystem approach to fisheries*, per FAO 2003: 81).

Question format (PacMar Inc. 2006): (a) Are owners or managers of fishing vessels required to take appropriate action to refit existing vessels with alternative refrigerants to CFCs and HCFCs and alternatives to Halons in firefighting installations? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline vessel owners are required to phase out refrigeration equipment charged with CFCs and fire extinguishers charged with Halon in accordance with U.S. Environmental Protection Agency regulations issued under sections 601-607 of the Clean Air Act that ended the production of ozone-depleting substances and provided phase-out schedules for ozone-depleting substances. Fire extinguishers already charged with Halon can continue to be used on Hawaii longline vessels but they can no longer be recharged with Halon.		

U.S. Environmental Protection Agency, The Phase-out of Ozone-Depleting Substances

(b) Are such alternatives required to be used in specifications for all new fishing vessels? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Owners and builders of new Hawaii longline fishing vessels are required to follow U.S. Environmental Protection Agency regulations issued under sections 601-607 of the Clean Air Act that ended the production of ozone-depleting substances and provided phase-out schedules for ozone-depleting substances.		

U.S. Environmental Protection Agency, The Phase-out of Ozone-Depleting Substances

8.8.5 States and owners, charterers and managers of fishing vessels as well as fishers should follow international guidelines for the disposal of CFCs, HCFCs and Halons.

Question format (PacMar Inc. 2006): Do owners, charterers and managers of fishing vessels as well as fishers follow international guidelines for the disposal of CFCs, HCFCs and Halons? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Disposal of CFCs, HCFCs and Halons by the Hawaii longline fleet complies with U.S. Federal law[1,2] that follows the international guidelines established by Montreal Protocol on Substances that Deplete the Ozone Layer. In 1998, production of halon blends was prohibited. In 2003, import or production of common HCFCs was prohibited. In 2005, venting/disposal of hydrocarbons and other noxious elements of refrigerants was prohibited.		

[1]CFR, Title 40, Protection of Environment, Part 82.154, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]CFR, Title 40, Protection of Environment, Part 82.270, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

8.9 Harbours and landing places for fishing vessels

8.9.1 States should take into account, *inter alia*, the following in the design and construction of harbours and landing places:

a. safe havens for fishing vessels and adequate servicing facilities for vessels, vendors and buyers are provided;
b. adequate freshwater supplies and sanitation arrangements should be provided;
c. waste disposal systems should be introduced, including for the disposal of oil, oily water and fishing gear (*furthers ecosystem approach to fisheries*, per FAO 2003: 81);
d. pollution from fisheries activities and external sources should be minimized (furthers ecosystem approach to fisheries, per FAO 2003: 81); and
e. arrangements should be made to combat the effects of erosion and siltation.

Question format (PacMar Inc. 2006): Concerning the design and construction of harbors and landing places:

(a) Are safe havens provided for fishing vessels and adequate servicing facilities provided for vessels, vendors and buyers? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Hawaii Department of Transportation provides berthing and service docks for the Hawaii longline fleet.[1] The commercial fishing village at Pier 38 in Honolulu Harbor has been upgraded specifically to accommodate the unloading and provisioning of Hawaii longline vessels. This facility also provides state of the art facilities for marketers, buyers and vendors.[2]		

[1]Port Hawaii Commercial Harbors System Handbook, pp 22-23

[2]Pier 38 Fishing Village Project

(b) Are adequate freshwater supplies and sanitation arrangements provided? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Dockside freshwater and sanitation arrangements are provided by the Hawaii Department of Transportation at the piers where Hawaii longline vessels are berthed.		

Port Hawaii Commercial Harbors System Handbook

(c) Are proper waste disposal systems, including for the disposal of oil, oily water and fishing gear provided? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The State of Hawaii Department of Transportation operates a shoreside collection site for vessels' oily waste at Pier 36 in Honolulu Harbor.[1] Hawaii longline fisheries reuse fishing gear as much as possible. When at sea, Hawaii longliners encounter lost (non-longline) nets that they bring back to port to be disposed of on shore.[2]		

[1]Used Oil Brochure, General Permit Coverage, Storm Water Management Plan Honolulu Harbor, http://www.state.hi.us/dot/harbors /oahu/storm.htm

[2]Hawaii Longline Fishermen Help Rid Ocean of Derelict Nets, WPRFMC Newsletter, Summer 2005

(d) Is pollution from fisheries activities and external sources minimized? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries are governed by U.S. Coast Guard regulations that ensure that pollution is minimized at sea.[1] Vessels unloading fish at Pier 38 in Honolulu Harbor are not permitted to discharge associated wastewater.[2] Dockside "black water" pumping services are available from private companies. The U.S. Clean Water Act prohibits the discharge of untreated sewage by vessels in U.S. waterways and directs the U.S. Environmental Protection Agency and U.S. Coast Guard to establish discharge and design standards for onboard toilets.[3] The sanitation aspects of seafood processing activities are regulated by the Hawaii Department of Health to minimize pollution.[4]		

[1]CFR, Title 33, Navigation and Navigable Waters, Part 151.66, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]Hawaii Administrative Rules, Title 19, Chapter 42, Section 127

[3]CFR, Title 40, Protection of Environment, Part 140.3, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[4]Hawaii State Department of Health, Waste Minimization and Pollution Prevention Program

(e) Have arrangements been made to combat the effects of erosion and siltation? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Hawaii longline fleet berths in harbors maintained by the Hawaii Department of Transportation and U.S. Army Corps of Engineers to control erosion and remove accumulated sediment.		

U.S. Army Corps of Engineers, Civil Works website

8.9.2 States should establish an institutional framework for the selection or improvement of sites for harbours for fishing vessels which allows for consultation among the authorities responsible for coastal area management.

Question format (PacMar Inc. 2006): Has an institutional framework been established for the selection or improvement of sites for harbors for fishing vessels which allows for consultation among the authorities responsible for coastal area management? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
In general, selection of a site for a harbor or a harbor improvement would be preceded by development of a master plan with alternatives and would be the subject of a State or Federal Environmental Impact Statement or Environmental Assessment. The Honolulu Pier 38 Fishing Village was developed after such a master planning and consultation procedure. A new harbor would almost certainly require a Department of the Army Corps of Engineers' permit for dredging, filling and work in navigable waters of the U.S.[1] All of these actions would require consultation with agencies responsible for coastal area management and the general public. Such actions would require a determination of "coastal zone consistency" by the Hawaii Coastal Zone Management Program.[2]		

[1]U.S. Army Corps of Engineers, Regulatory Branch, www.poh.usace.army.mil/EC-R/EC-R.htm

[2]Hawaii Coastal Zone Management Program, http://www.hawaii.gov/dbedt/czm/program/fed_con/fed_con_app.pdf

8.10 Abandonment of structures and other materials

8.10.1 States should ensure that the standards and guidelines for the removal of redundant offshore structures issued by the International Maritime Organization are followed. States should also ensure that the competent fisheries authorities are consulted prior to decisions being made on the abandonment of structures and other materials by the relevant authorities.

Question format (PacMar Inc. 2006): (a) Are standards and guidelines for the removal of redundant offshore structures issued by the International Maritime Organization (IMO) followed? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Operations of Hawaii longline fisheries do not rely on any offshore structures nor are they impeded by any such structures at this time. However, if such structures are in navigable waters, their presence and possible need for removal are provided for and regulated by the U.S. Coast Guard and U.S. Army Corps of Engineers, in accordance with IMO guidelines.		

CFR, Title 33, Navigation and Navigable Waters, Part 245.10, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

(b) Are competent fisheries authorities consulted prior to decisions being made on the abandonment of structures and other materials by the relevant authorities? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Open ocean operations of Hawaii longline fisheries do not rely on any offshore structures or materials. Other pelagic fishing methods may utilize fish aggregation devices deployed by public and private interests or naturally occurring (e.g., floating logs). Any man-made structure placed offshore of Hawaii would be within the "essential fish habitat" (EFH) of some "management unit species" included in fishery management plans of the Western Pacific Fishery Management Council and the National Oceanographic and Atmospheric Administration (NOAA) Fisheries would have to be consulted regarding potential EFH impacts. If such structures are in navigable waters, decisions about their abandonment are made by the U.S. Coast Guard[1] with notification through the local Notice to Mariners.[2]		

[1]CFR, Title 33, Navigation and Navigable Waters, Part 64, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]CFR, Title 33, Navigation and Navigable Waters, Part 72.01-5, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

8.11 Artificial reefs and fish aggregation devices (*furthers ecosystem approach to fisheries*, per FAO 2003: 81)

8.11.1 States, where appropriate, should develop policies for increasing stock populations and enhancing fishing opportunities through the use of artificial structures, placed with due regard to the safety of navigation, on or above the seabed or at the surface. Research into the use of such structures, including the impacts on living marine resources and the environment, should be promoted.

Question format (Caddy 1996): Have policies been developed for increasing stock populations and enhancing fishing opportunities through the use of artificial structures, placed with due regard to the safety of navigation? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Open ocean operations of Hawaii longline fisheries do not rely on either artificial reefs or fish aggregation devices (FADs). The Hawaii Department of Land and Natural Resources deploys and maintains FADs[1] and artificial reefs[2] in coastal waters. These structures enhance recreational fishing opportunities, which is one of the objectives of the Hawaii Coastal Zone Management Program.[3] The U.S. Coast Guard is responsible for the safety of navigation and any potential hazards posed by artificial structures.[4]		

[1]State of Hawaii FAD program

[2]State of Hawaii, Department of Land and Natural Resources, Division of Aquatic Resources, http://www.hawaii.gov/dlnr/dar/programs.htm

[3]Hawaii Revised Statutes, Chapter 205A, Section 2

[4]CFR, Title 33, Navigation and Navigable Waters, Part 64, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

8.11.2 States should ensure that, when selecting the materials to be used in the creation of artificial reefs as well as when selecting the geographical location of such artificial reefs, the provisions of relevant international conventions concerning the environment and safety of navigation are observed.

Question format (Caddy 1996): When selecting the materials to be used in the creation of artificial reefs, as well as when selecting the geographical location of such artificial reefs, have the provisions of relevant international conventions concerning the environment and safety of navigation been observed? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Open ocean operations of the Hawaii longline fisheries do not rely on artificial reefs. The Hawaii Department of Land and Natural Resources occasionally creates artificial reefs in coastal waters. Selection of sites and materials follows international conventions in that impacts on the environment and safety of navigation are evaluated prior to deployment through analyses required under the National Environmental Policy Act.[1] Installation of artificial reefs typically requires approval of the U.S. Army Corps of Engineers and issuance of a Section 10 permit under the Rivers and Harbors Act of 1899.[2]		

[1]United States Code, Title 40, Chapter 55—National Environmental Policy, 4332

[2]U.S. Army Corps of Engineers, Regulatory Branch, www.poh.usace.army.mil/EC-R/EC-R.htm

8.11.3 States should, within the framework of coastal area management plans, establish management systems for artificial reefs and fish aggregation devices. Such management systems should require approval for the construction and deployment of such reefs and devices and should take into account the interests of fishers, including artisanal and subsistence fishers (*furthers ecosystem approach to fisheries*, per FAO 2003: 81, 82).

Question format (Caddy 1996): (a) Are management systems for artificial reefs and fish aggregation devices established within the framework of coastal area management plans? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Open ocean operations of Hawaii longline fisheries do not rely on either artificial reefs or fish aggregation devices (FADs). Management systems for these structures are under the authority of the Hawaii Department of Land and Natural Resources. They enhance recreational fishing opportunities, which is one of the objectives of the Hawaii Coastal Zone Management Program.[1] Deployment of artificial structures in State waters requires National Environmental Policy and Hawaii Revised Statues Chapter Act 343 environmental impact analysis,[2,3] a Special Management Area use permit in compliance with Hawaii Revised Statutes Chapter 205A,[1] and a State Conservation District Use permit.[4]		

[1]Hawaii Revised Statutes, Chapter 205A, Section 2

[2]United States Code, Title 40, Chapter 55—National Environmental Policy, 4332

[3]Hawaii Revised Statutes, Chapter 343, Section 5

[4]State of Hawaii, Department of Land and Natural Resources, Office of Conservation and Coastal Lands, State Conservation District Use permit, http://hawaii.gov/dlnr/occl/documents-forms/applications-forms/CDUA.pdf

(b) Does the construction and deployment of such reefs and devices take into account the interests of fishers, including artisanal and subsistence fishers? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Open ocean operations of Hawaii longline fisheries do not rely on artificial reefs or fish aggregation devices (FADS), which are placed in coastal waters where longline fishing is prohibited by federal regulation.[1] Deployment of such structures by the State of Hawaii Department of Land and Natural Resources is expressly to serve artisanal and subsistence fishers and enhance recreational fishing opportunities,[2] in compliance with the objectives of the Hawaii Coastal Zone Management Program.[3]		

[1]WPFMC – Fishery Management Plan for the Pelagic Fisheries of the Western Pacific Region – Amendment 5 - 1991

[2] State of Hawaii, Department of Land and Natural Resources, Division of Aquatic Resources, http://www.hawaii.gov/dlnr/dar/programs.htm

[3]Hawaii Revised Statutes, Chapter 205A, Section 2

8.11.4 States should ensure that the authorities responsible for maintaining cartographic records and charts for the purpose of navigation, as well as relevant environmental authorities, are informed prior to the placement or removal of artificial reefs or fish aggregation devices.

Question format (PacMar Inc. 2006): Are the authorities responsible for maintaining cartographic records and charts for the purpose of navigation, as well as relevant environmental authorities, informed prior to the placement or removal of artificial reefs or fish aggregation devices? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1/2		
Yes	*Some*	*No*
	Open ocean operations of Hawaii longline fisheries do not rely on artificial reefs or fish aggregation devices (FADs). When such structures are placed or removed by government agencies, the U.S. Coast Guard (USCG) must be informed and the public notified through the Notice to Mariners.[1] Deployment of private FADS by non-longline pelagic fishermen is a common practice off the island of Hawaii. This is subject to rules and procedures set forth in Federal Regulations Title 33, Chapter 1, part 66.[2] Applications can be made to the Coast Guard for private FADS, following instructions in a USCG form titled "private aids to navigation."[3] In practice, however, non-longline pelagic fishermen who place private FADS wish their locations to remain unknown to others.	

[1]CFR, Title 33, Navigation and Navigable Waters, Part 72.01-5, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]CFR, Title 33, Navigation and Navigable Waters, Part 66, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[3]U.S. Coast Guard, Office of Boating Safety, Private Aids to Navigation Application

Analysis: Hawaii longline fisheries are scored 1/2 for this provision because some non-longline pelagic fishermen place private FADs without informing the U.S. Coast Guard.

Likelihood of improving compliance: Until specific regulations are adopted to control the placement of private FADs in Hawaii's pelagic handline fishery, the score for this provision cannot be improved.

Article 10 - Integration of Fisheries into Coastal Area Management

10.1 Institutional framework

10.1.1 States should ensure that an appropriate policy, legal and institutional framework is adopted to achieve the sustainable and integrated use of the resources, taking into account the fragility of coastal ecosystems and the finite nature of their natural resources and the needs of coastal communities.

Question format (Caddy 1996): Has an appropriate policy, legal and institutional framework been adopted in order to achieve sustainable and integrated use of living marine resources, taking into account the fragility of coastal ecosystems and the finite nature of their natural resources and the needs of coastal communities? ***Yes...***[1] ***In part…***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries are federally managed. They are also influenced by Hawaii State policies and programs, especially those relating to harbors and piers. Hawaii's Coastal Zone Management Program states objectives and policies to achieve sustainable and multiple use of coastal resources, with responsibility delegated to county-level government.[1] The State of Hawaii updated its Ocean Resources Management Plan in 2006.[2] This plan proposes a long-term (20 year) process undertaken by the Hawaii Coastal Zone Management Program to move toward an integrated, place-based and community and culture-based approach for managing coastal areas. The Hawaii Department of Land and Natural Resources (DLNR) administers laws and regulations to control fishing in coastal areas.[3] The DLNR is working toward a Comprehensive Coastal Policy that aims for greater consistency in policies of its four different divisions.[4] Coastal waters extending to 50/75 nautical miles (nmi) offshore of the main Hawaiian islands are closed to longline fishing, primarily to protect interests of small-scale fisheries and coastal communities. Coastal waters extending to 50 nmi offshore of the Northwestern Hawaiian Islands are closed to longline fishing, primarily to protect coastal ecosystems.[5]		

[1]State of Hawaii, County of Maui, Coastal Zone Management Program, http://www.co.maui.hi.us/departments/Planning/czmp/intro.htm

[2]Hawaii Ocean Resources Management Plan, 2006 Final Report to the Twenty-Fourth Legislature, Regular Session of 2007
http://hawaii.gov/dbedt/main/about/annual/2006/2006-ormp-implementation.pdf

[3]State of Hawaii Department of Land and Natural Resources, Division of Aquatic Resources, Hawaii Fishing Regulations website

[4]State of Hawaii Department of Land and Natural Resources, News Release May 27, 2005, Comprehensive Coastal Policy

[5]CFR – Title 50, Wildlife and Fisheries, Part 665.26, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

10.1.2 In view of the multiple uses of the coastal area, States should ensure that representatives of the fisheries sector and fishing communities are consulted in the decision-making processes and involved in other activities related to coastal area management planning and development.

Question format (Caddy 1996): In view of the multiple uses of the coastal area, are representatives of the fisheries sector and fishing communities consulted in the decision-making processes involved in other activities related to coastal area management planning and development? ***Yes...***[1] ***In part…***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Western Pacific Fishery Management Council that prepares fishery management plans for the U.S. Exclusive Economic Zone around Hawaii and the Hawaii Department of Land and Natural Resources that manages fisheries in the 3-mile territorial sea of Hawaii are represented on the Hawaii Ocean and Coastal Council. The latter council includes representatives from county, state and federal agencies and community groups to create a formalized, coordinated management effort focused on ocean and coastal resources of Hawaii. Longline fishing is prohibited in Hawaii state waters. The Hawaii Longline Association is regularly consulted in decision-making on issues relating to port use by fishing vessels (particularly Honolulu Harbor Piers 16-17, 35-36, 38), commercial marine licensing and catch reporting.		

State of Hawaii Department of Land and Natural Resources, News Release February 2, 2006, Hawaii Ocean and Coastal Council

10.1.3 States should develop, as appropriate, institutional and legal frameworks in order to determine the possible uses of coastal resources and to govern access to them taking into account the rights of coastal fishing communities and their customary practices to the extent compatible with sustainable development.

Question format (Caddy 1996): Do institutional and legal frameworks regulating the possible uses of coastal resources and their access take into account the rights of coastal fishing communities and their customary practices to the extent compatible with sustainable development? ***Yes...***[1] ***In part...***[½] **No...**[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii state law provides for public access to all shorelines.[1] The Hawaii State Constitution adopted in 1978 added Section 7, in which the State reaffirms and shall protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by tenants of traditional units of land and sea (usually extending from mountain tops into coastal waters) known as *ahupua'a* who are descendants of people who inhabited the Hawaiian Islands prior to 1778, subject to the right of the State to regulate such rights.[2] State of Hawaii law provides for a process through which community-based coastal subsistence fishing areas can be designated.[3]		

[1]Hawaii Coastal Zone Management Program Document, Shorefront Access Planning, pp 55-59, http://hawaii.gov/dbedt/czm/

[2]Hawaii Legislative Reference Bureau website, Hawaii State Constitution, Article XII – Hawaiian Affairs, Section 7 – Traditional and Customary Rights

[3]Hawaii Revised Statutes, Chapter 188 – Fishing Rights and Regulations, Section 22.6 – Designation of community based subsistence fishing area

10.1.4 States should facilitate the adoption of fisheries practices that avoid conflict among fisheries resources users and between them and other users of the coastal area (*furthers ecosystem approach to fisheries*, per FAO 2003: 81).

Question format (Caddy 1996): a) Has the adoption of fisheries practices been promoted that avoids conflict:

(a.1) among bottom resource users? ***Yes...***[1] ***In part…***[1/2] ***No...***[0];

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate in open ocean waters too deep for most coastal resource uses. Coastal waters extending to 50/75 nautical miles (nmi) offshore of the main Hawaiian islands and within range of most bottom resource users are closed to longline fishing under Federal regulations. Bottomfishing areas within 50 nmi of the Northwestern Hawaiian Islands are also closed to longline fishing.[1] Chumming to attract sharks for tourist viewing is prohibited in the Exclusive Economic Zone around Hawaii because of conflicts with small-boat fishermen.[2] However, conflicts remain between fishing activities and tourist-oriented boating activities, particularly in areas where visitor traffic and noise scares off coastal pelagic schooling fish, such as *akule* (bigeye scad). Trawling is not an allowed fishing method in Exclusive Economic Zone around Hawaii under the Western Pacific Fishery Management Council's Fishery Management Plan for Bottomfish and Seamount Groundfish, so conflict with hook and line fishing for bottomfish is avoided.[3]		

[1]CFR – Title 50, Wildlife and Fisheries, Part 665.26, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]Magnuson-Stevens Fishery Conservation and Management Act, as amended through January 12, 2007, http://www.nmfs.noaa.gov/msa2005/docs/MSA_amended_msa%20_20070112_FINAL.pdf

[3]CFR Title 50, Wildlife and Fisheries, Part 665.64, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

(a.2) between bottom resource users and other users of the coastal area? ***Yes...***[1] ***In part…***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	Hawaii longline fisheries operate in open ocean waters too deep for most coastal resource uses. Coastal waters extending to 50/75 nautical miles (nmi) offshore of the main Hawaiian islands and within range of most bottom resource users are closed to longline fishing under Federal regulations. Bottomfishing areas within 50 nmi of the Northwestern Hawaiian Islands are also closed to longline fishing.[1] Chumming to attract sharks for tourist viewing is prohibited in the Exclusive Economic Zone around Hawaii because of conflicts with small-boat fishermen.[2] However, some conflicts remain between fishing activities and tourist-oriented boating activities, particularly in areas where visitor traffic and noise scare off coastal pelagic schooling fish, such as *akule* (bigeye scad).	

[1]CFR – Title 50, Wildlife and Fisheries, Part 665.26, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]Magnuson-Stevens Fishery Conservation and Management Act, as amended through January 12, 2007, Section 317, http://www.nmfs.noaa.gov/msa2005/docs/MSA_amended_msa%20_20070112_FINAL.pdf

Analysis: Compliance with this sub-provision is assigned only ½ point because conflicts remain between some Hawaii coastal fishing activities and tourist-oriented activities.

Likelihood of improving compliance: The score for this sub-provision cannot be improved until conflicts between coastal fishing and tourist-oriented activities can be avoided.

(b) Have procedures and mechanisms been adopted which help settle these conflicts? ***Yes...***[1] ***In part…***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	The regional fishery management process (Western Pacific Fishery Management Council) for the Exclusive Economic Zone around Hawaii provides for advisory bodies representing different resource users to help mitigate user conflicts and make recommendations to the Council on fishery management actions.[1] Task forces and committees have sometimes been established on an ad hoc basis by the Hawaii Department of Land and Natural Resources when proposing laws and regulations governing coastal activities. This is a selective process and there is no Hawaii statewide government mechanism to resolve such conflicts. However, one possible model of integrated coastal management occurs within the West Hawai`i Regional Fishery Management Area comprising the Kona coast of the island of Hawaii. Management of overlapping use claims by multiple coastal and coral reef users, including inshore fisheries, the marine ornamental industry, dive tourism operators and tourism/residential property owners, is administered by the Division of Aquatic Resources (DAR) of the Hawaii Department of Land and Natural Resources through the area management plan, which includes Marine Life Conservation Districts (marine protected areas). The Hawaii Coastal Zone Management Act requires that federally-permitted activities (including Hawaii longline fisheries) be consistent with Hawaii state coastal zone objectives and policies.[3]	

[1]Western Pacific Fisheries Management Council, http://www.wpcouncil.org/about

[2]State of Hawaii, Department of Land and Natural Resources, Division of Aquatic Resources, Report to the Twenty-third Legislature, Regular Session of 2005, A Report on the Findings and Recommendations of Effectiveness of the West Hawaii Regional Fishery Management Area, http://www.hawaii.gov/dlnr/dar/pubs/ar_hrs188F5.pdf

[3]Hawaii Coastal Zone Management Program, Federal Consistency Review, http://www.state.hi.us/dbedt/czm/program/fed_con/fed_con_app.pdf

Analysis: Compliance with this sub-provision is assigned only ½ point because no comprehensive procedures have been adopted to settle conflicts between some Hawaii coastal fishing activities and tourist-oriented activities.

Likelihood of improving compliance: The score for this sub-provision cannot be improved until mechanisms have been established to resolve or mitigate conflicts between coastal fishing and tourist-oriented activities.

10.1.5 States should promote the establishment of procedures and mechanisms at the appropriate administrative level to settle conflicts which arise within the fisheries sector and between fisheries resource users and other users of the coastal area (*furthers ecosystem approach to fisheries*, per FAO 2003: 81).

Question format (Caddy 1996): Have procedures and mechanisms been established at the appropriate administrative level to settle conflicts which arise within the fisheries sector and between fisheries resource users and other users of the coastal area? ***Yes...***[1] ***In part…***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	The regional fishery management process (Western Pacific Fishery Management Council) provides for advisory bodies representing different resource users to help mitigate user conflicts and make recommendations to the Council for fishery management actions.[1] The Magnuson-Stevens Fishery Conservation and Management Act provides for a consultation process by the National Oceanographic and Atmospheric Administration (NOAA) Fisheries on federal actions with potential to degrade essential fish habitat of federally-managed species.[2] The Hawaii Coastal Zone Management Program requires that federally-permitted activities (including Hawaii longline fisheries) be consistent with Hawaii state coastal zone objectives and policies.[3] An *aha moku* council system is being formed to re-establish and empower Native Hawaiian communities in natural resource decision making by the State of Hawaii.[4] For most of the Hawaii's coastal areas, there is no established administrative procedure to resolve conflicts between tourist activities and inshore fishing activities. However, one possible model of integrated coastal management occurs within the West Hawai`i Regional Fishery Management Area comprising the Kona coast of the island of Hawaii. Management of overlapping use claims by multiple coastal and coral reef users, including inshore fisheries, the marine ornamental industry, dive tourism operators and tourism/residential property owners, is administered by the Division of Aquatic Resources (DAR) of the Hawaii Department of Land and Natural Resources through the area management plan, which includes Marine Life Conservation Districts (marine protected areas).[5]	

[1]Western Pacific Fisheries Management Council (WPFMC) website http://www.wpcouncil.org/about

[2]Magnuson-Stevens Fishery Conservation and Management Act (MSA), Title III – National Fishery Management Program, Section 305

[3]Hawaii Coastal Zone Management Program, Federal Consistency Review, http://www.state.hi.us/dbedt/czm/program/fed_con/fed_con_app.pdf

[4]WPRFMC, Report of the Puwalu Series, February 2007, http://www.wpcouncil.org/indigenous/Puwalu%20Report.pdf

[5] State of Hawaii, Department of Land and Natural Resources, Division of Aquatic Resources, Report to the Twenty-third Legislature, Regular Session of 2005, A Report on the Findings and Recommendations of Effectiveness of the West Hawaii Regional Fishery Management Area, http://www.hawaii.gov/dlnr/dar/pubs/ar_hrs188F5.pdf

Analysis: Compliance with this sub-provision is assigned only ½ point because administrative procedures to settle conflicts between some Hawaii coastal fishing activities and tourist-oriented activities are not well established.

Likelihood of improving compliance: The score for this sub-provision cannot be improved until administrative procedures have been established to settle conflicts between coastal fishing and tourist-oriented activities.

10.2 Policy measures

10.2.1 States should promote the creation of public awareness of the need for the protection and management of coastal resources and the participation in the management process by those affected.

Question format (Caddy 1996): Is public awareness being created on the need for the protection and management of coastal resources and the participation in the management process by those affected? ***Yes...***[1] ***In part…***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Western Pacific Fishery Management Council[1], National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fishery Science Center[2] and Hawaii Department of Land and Natural Resources[3] are active in public education and outreach, especially promoting sustainable fisheries and conservation of protected species and coral reef ecosystems. In addition, some educators in the Hawaii Department of Education create and teach special courses or curriculum to raise student awareness of coastal resources. Footnote [4] provides one example. Community-based and other non-governmental organizations are also active in outreach and education to promote sustainable use of coastal resources and participation of citizens in their management. Footnote [5] provides one example.		

[1]Western Pacific Fishery Management Council, Education Corner, http://www.wpcouncil.org

[2]National Marine Fisheries Service (NMFS) Pacific Islands Fishery Science Center (PIFSC), Community Outreach and Education website http://www.nmfs.hawaii.edu/outreach/

[3]Hawaii Department of Land and Natural Resources (DLNR), http://www.hawaii.gov/dlnr/

[4]Venture into Hawaii's Coral Reefs website http://library.thinkquest.org/J002237/splash/page.htm

[5]Malama Kai Foundation, Public Education website http://www.malama-kai.org/edu/index.htm

10.2.2 In order to assist decision-making on the allocation and use of coastal resources, States should promote the assessment of their respective value taking into account economic, social and cultural factors.

Question format (Caddy 1996): Has an attempt been made to assess the economic, social and cultural value of coastal resources in order to assist decision-making on their allocation and use?

(a) economic ***Yes...***[1] ***In part…***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	Reefs are a predominant feature of Hawaii's coastal environment. The economic value of Hawaii coral reefs has been estimated but this assessment is not widely used in resource allocation and use decisions by Hawaii state government.	

Hawaii Coral Reef Initiative Research Program, http://www.hawaii.edu/ssri/hcri/

Analysis: This sub-provision was assigned only ½ point because economic assessments used to assist decision-making on coastal resource allocation and use in Hawaii are generally incomplete (e.g., no environmental impact analysis of mountain-to-sea effects of upland development on coastal resources).

Likelihood of improving compliance: The score for this sub-provision could be improved if economic assessments of upland development in Hawaii considered cumulative mountain-to-sea effects on coastal resources and user groups.

(b) social and cultural ***Yes...***[1] ***In part…***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	Reefs are a predominant feature of Hawaii's coastal environment. The social and cultural value of Hawaii coral reefs has been estimated but this assessment is not widely used in resource allocation and use decisions by Hawaii state government.[1] The distribution and use of pelagic fish resources harvested in coastal waters around the main Hawaiian Islands is under study to aid fishery managers in decisions about allocation and use.[2]	

[1]Hawaii Coral Reef Initiative Research Program, http://www.hawaii.edu/ssri/hcri/

[2]Glazier and Allen. 2007. Distribution and use of seafood in the context of the community: a case study of the main Hawaiian Islands, http://www.soest.hawaii.edu/PFRP/socio/glazier_distribution_channels.html

Analysis: This sub-provision was assigned only ½ point because social and cultural assessments used to assist decision-making on coastal resource allocation and use in Hawaii are generally incomplete (e.g., lacking analysis of cumulative effects of upland development on coastal communities and traditional gathering rights).

Likelihood of improving compliance: The score for this sub-provision could be improved if social-cultural assessments of upland development considered cumulative mountain-to-sea effects on coastal resources and user groups.

10.2.3 In setting policies for the management of coastal areas, States should take due account of the risks and uncertainties involved (*furthers ecosystem approach to fisheries*, per FAO 2003: 81).

Question form (Caddy 1996): Have risks and uncertainties involved in the management of coastal areas been taken into account in setting policies for the management of coastal areas? ***Yes...***[1] ***In part…***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Adaptive management approaches that allow for risks and uncertainties are being incorporated into the Western Pacific Fishery Management Council (Council) fishery ecosystem plan for the Hawaii Archipelago.[1] In addition, "essential fish habitat" is defined conservatively by the Council because of uncertainties about certain life phases of federally-managed marine species.[2] The State of Hawaii updated its Ocean Resources Management Plan in 2006. This plan includes long-term goals promoting greater agency cooperation and community involvement in marine resource decision-making to account for local variability and uncertainty.[3]		

[1]Western Pacific Fishery Management Council, Fishery Ecosystem Plan for the Hawaiian Archipelago http://www.wpcouncil.org/HawaiiArchipelago.htm

[2]Western Pacific Fishery Management Council (WPFMC), Magnuson-Stevens Act Definitions and Required Provisions, Amendment 8 to the Pelagics Fishery Management Plan http://www.wpcouncil.org/documents/magnuson.pdf

[3]Hawaii Ocean Resources Management Plan, 2006 Final Report to the Twenty-Fourth Legislature, Regular Session of 2007, http://hawaii.gov/dbedt/main/about/annual/2006/2006-ormp-implementation.pdf

10.2.4 States, in accordance with their capacities, should establish or promote the establishment of systems to monitor the coastal environment as part of the coastal management process using physical, chemical, biological, economic and social parameters (*furthers ecosystem approach to fisheries*, per FAO 2003: 80, 81, 82).

Question format (Caddy 1996): In accordance with capacities, have measures been taken to establish or promote the establishment of systems to monitor the coastal environment as part of the coastal management process using physical, chemical, biological, economic and social parameters? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Hawaii Coral Reef Assessment and Monitoring Program was established in 1997-98 by leading coral reef researchers, managers and educators in Hawaii. The initial task was to develop a state-wide network consisting of over 30 long-term coral reef monitoring sites and associated data base. Upon completion of the monitoring network the focus was expanded to include rapid quantitative assessments and habitat mapping on a state-wide spatial scale. The present emphasis is on using these tools to understand the ecology of Hawaii coral reefs in relation to other geographic areas.[1] Through its sponsored projects, the Hawaii Coral Reef Initiative complements the priorities of the U.S. Coral Reef Task Force, and the research goals and objectives in the Coral Reef and Marine Conservation Act of 2000.[2] Physical parameters are routinely monitored by the Pacific Tsunami Warning Center (tsunami)[3], National Data Buoy Center (oceanographic data)[4], National Weather Service (satellite imagery and other climate data)[5], University of Hawaii Sea Level Center (sea level data)[6] and National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center Ocean Watch.[7] The Hawaii-Pacific Regional Ocean Observing System[8] is an umbrella organization that provides physical and biochemical observations from several monitoring programs (Hawaii Ocean Time-series Program[9], National Data Buoy Center Moored Buoys and C-MAN Stations[10], National Water Level Observation Network[11], U.S. Army Corps of Engineers Wave Data Sites[12], and U.S. Geological Survey Stream Gauge Network.[13] The Hawaii Department of Land and Natural Resources collects economic data from commercial fishermen and from fish dealers.[14] Social and economic information about Hawaii's recreational fishermen is being collected by mail survey in conjunction with fish catch, effort and trip expense data collected through field surveys of the Hawaii Marine Recreational Fishing Survey.[15]		

[1]Hawaii Coral Reef Assessment & Monitoring Program (CRAMP) website http://cramp.wcc.hawaii.edu/

[2]Hawaii Coral Reef Initiative Research Program, http://www.hawaii.edu/ssri/hcri/

[3]NOAA Pacific Tsunami Warning Center website http://www.prh.noaa.gov/ptwc/

[4]NOAA National Data Buoy Center website http://www.ndbc.noaa.gov/maps/Hawaii.shtml

[5]NOAA National Weather Service website http://www.weather.gov/ha_sat_tab.php

[6]University of Hawaii Sea Level Center website http://uhslc.soest.hawaii.edu/

[7]NOAA Oceanwatch website map http://oceanwatch.pifsc.noaa.gov

[8]NOAA Coastal Services Center website, Hawaii-Pacific Regional Ocean Observing System http://www.soest.hawaii.edu/pacioos/

[9]NOAA Coastal Services Center website, Hawaii Ocean Time-series (HOT) Program http://hahana.soest.hawaii.edu/hot/hot.html

[10]NOAA Coastal Services Center website, National Data Buoy Center (NDBC) Moored Buoys and C-MAN Stations http://www.nodc.noaa.gov/BUOY/bhi.html

[11]NOAA Coastal Services Center website, National Water Level Observation Network (NWLON) http://ports-infohub.nos.noaa.gov/hq/d_nwlop.html

[12]NOAA Coastal Services Center website, U.S. Army Corps of Engineers (USACOE) Wave Data Sites
http://sandbar.wes.army.mil/public_html/pmab2web/htdocs/dataport.html

[13]NOAA Coastal Services Center website, U.S. Geological Survey Stream Gauge Network http://water.usgs.gov/waterwatch/?m=real&r=hi

[14]State of Hawaii Department of Land and Natural Resources (DLNR) Division of Aquatic Resources (DAR) website, Fisheries Statistics
http://www.hawaii.gov/dlnr/dar/stats.htm

[15]State of Hawaii Department of Land and Natural Resources (DLNR) Division of Aquatic Resources (DAR) website, Hawaii Marine Recreational Fishing Survey
http://www.hawaii.gov/dlnr/dar/surveys/index.htm

10.2.5 States should promote multi-disciplinary research in support of coastal area management, in particular on its environmental, biological, economic, social, legal and institutional aspects.

Question format (Caddy 1996): Has multi-disciplinary research in support of coastal area management been promoted on

(a) environmental and biological aspects? ***Yes...***[1**]** ***In part…*** [1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Through its sponsored projects, Hawaii Coral Reef Initiative complements the priorities of the U.S. Coral Reef Task Force, and the research goals and objectives in the Coral Reef and Marine Conservation Act of 2000. The multi-disciplinary research is expected to provide knowledge that can be extrapolated to other regions across the Pacific.[1] The University of Hawaii Sea Grant Program promotes multi-disciplinary research on biological and environmental aspects of coastal zone management.[3]		

[1]Hawaii Coral Reef Initiative Research Program, http://www.hawaii.edu/ssri/hcri/

[2]University of Hawaii School of Ocean and Earth Science and Technology, Sea Grant College Program website
http://www.soest.hawaii.edu/seagrant/research/research.php

(b) economic and social aspects? ***Yes...***[1] ***In part…*** [1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1/2		
Yes	*Some*	*No*
	Multi-disciplinary research on the economic and social value of Hawaii coral reefs has been conducted.[1] Additional research is being promoted but is not yet funded.[2]	

Hawaii Coral Reef Initiative Research Program, http://www.hawaii.edu/ssri/hcri/

Analysis: This sub-provision is assigned only ½ point because of inadequate funding of inter-disciplinary research, including community-led projects, in support of coastal area management.

Likelihood of improving compliance: The score for this sub-provision could be improved if inter-disciplinary research, including community partners having traditional knowledge of coastal areas, were encouraged through greater funding.

(c) legal and institutional aspects? ***Yes...***[1] ***In part…*** [1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Hawaii Coastal Zone Management (CZM) Program Phase III of the Native Hawaiian Access Rights Project was completed in 2002. CZM conducted statewide focus group meetings regarding the special management area (SMA) permitting process with the four County Planning Departments, Hawaiian community practitioners, landowners, developers, the Office of Hawaiian Affairs, and the 1996 Public Access Shoreline Hawaii Rights Study Group. A final report with recommendations was distributed to all participants. Phase III provides recommendations and guidelines to assist the Counties in the determination of an appropriate means to fully consider traditional and customary access rights for Native Hawaiians within the SMA.[1] The Puwalu series of Native Hawaiian practitioner conferences were held in 2006 and 2007 to re-establish traditional Hawaiian knowledge and empower Hawaiian communities in natural resource decision-making by the State of Hawaii.[2] The University of Hawaii Sea Grant promotes multi-disciplinary research on legal and institutional aspects of coastal zone management.[3] Multi-disciplinary research led to adoption and implementation of ocean and submerged lands leasing law in Hawaii.[4]		

[1]Hawaii Coastal Zone Management (CZM) Program website, Hawaiian Traditional and Customary Gathering Rights Project http://www.hawaii.gov/dbedt/czm/

[2]WPRFMC, Report of the Puwalu Series, February 2007, http://www.wpcouncil.org/indigenous/Puwalu%20Report.pdf

[3]University of Hawaii School of Ocean and Earth Science and Technology, Sea Grant College Program website http://www.soest.hawaii.edu/seagrant/research/research.php

[4]Sixth Report to the Legislature, State of Hawaii, 2005 Regular Session, Implementation of Chapter 190D, H.R.S., Ocean and Submerged Lands Leasing http://www.state.hi.us/dlnr/reports/LD05-OceanLeasingRpt6.pdf

10.3 Regional cooperation

10.3.1 States with neighbouring coastal areas should cooperate with one another to facilitate the sustainable use of coastal resources and the conservation of the environment.

Question format (Caddy 1996): Do States with neighbouring coastal areas cooperate with one another in:

(a) the sustainable use of resources? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Hawaiian Islands are isolated from other island groups, so there are no neighboring coastal areas or exclusive economic zones of other States. However, the U.S. cooperates in some multi-national initiatives to facilitate sustainable use of coastal resources. For example, the U.S. Department of State, National Oceanographic and Atmospheric Administration (NOAA) and U.S. Agency for International Development successfully led an effort with the Asia Pacific Economic Forum to adopt a resolution addressing destructive fishing and the use of cyanide in the live reef fish trade. The International Marine Life Alliance was sponsored in efforts to reform live reef species trade in Indonesia, Vietnam, Vanuatu and Hong Kong.		

Pacific Island Nations: Current Issues and U.S. Interests, Ambassador Mary Beth West, Deputy Assistant Secretary of State for Oceans and Fisheries, Statement before the Subcommittee on East Asia and the Pacific, Committee on International Relations, House of Representatives Washington, DC, July 23, 2002
www.state.gov/g/oes/rls/rm/2002/12159.htm

(b) the conservation of the environment? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Hawaiian Islands are isolated from other island groups, so there are no neighboring coastal areas or exclusive economic zones of other States. The Western Pacific Fishery Management Council, National Oceanographic and Atmospheric Administration (NOAA) Fisheries and National Marine Sanctuary Program, University of Hawaii Sea Grant and U.S. Department of State were among the sponsors and participants in the international seminar among Asia-Pacific Economic Cooperation (APEC) partners on "Derelict Fishing Gear and Related Marine Debris."		

Asia-Pacific Economic Cooperation (APEC), 2005 APEC Ocean-Related Ministerial Meeting
http://www.apec.org/apec/ministerial_statements/sectoral_ministerial/ocean-related/2005_ocean-related.html

10.3.2 In the case of activities that may have an adverse transboundary environmental effect on coastal areas, States should:

a. provide timely information and, if possible, prior notification to potentially affected States; and
b. consult with those States as early as possible.

Question format (PacMar Inc. 2006): Are potentially affected States consulted and notified as early as possible and provided with timely information on potential adverse transboundary environmental effects on coastal areas? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Hawaiian Islands are isolated from other island groups, so there are no neighboring coastal areas of other States. Timely information on potential adverse transboundary environmental effects is available for El Nino forecasting[1], sea level rise[2], and tsunami warning.[3] The U.S. Army and U.S. Air Force use Environmental Compliance Assessment manuals in maintaining compliance with environmental laws and regulations at U.S. military installations overseas.[4]		

[1]NOAA CIRES, Climate Diagnostics Center, El Nino/Southern Oscillation (ENSO) website http://www.cdc.noaa.gov/ENSO/

[2]University of Hawaii Sea Level Center website http://uhslc.soest.hawaii.edu/

[3]NOAA Pacific Tsunami Warning Center website http://www.prh.noaa.gov/ptwc/

[4]U.S. Army Corps of Engineers, Engineer Research and Development Center (ERDC), Environmental Compliance Assessment Manuals for Overseas Installations http://www.erdc.usace.army.mil/pls/erdcpub/WWW_WELCOME.NAVIGATION_PAGE?tmp_next_page=5416&tmp_Main_Topic=51587

10.3.3 States should cooperate at the subregional and regional level to improve coastal area management.

Question format (PacMar Inc. 2006): Is there cooperation at the subregional and regional level to improve coastal area management?
Yes...[1]***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. is a member of the Secretariat of the Pacific Regional Environment Programme (SPREP), the primary regional organization concerned with environmental management in the Pacific. The current action plan (2005-2009) identifies natural resources management, pollution prevention, climate change and variability, sea level rise and stratospheric ozone depletion, along with issues raised in the SPREP Convention, a number of other cross-cutting issues, as the broad focus for assistance in the region. SPREP coordinates the development of regional strategies for implementation of global agreements, including the Framework Convention on Climate Change, the Global Program of Action for the Protection of the Marine Environment and the International Coral Reef Initiative[1] The United Nations Regional Seas Programme (RSP) provides a globally coordinated, region-wide mechanism to implement all relevant global environmental conventions and agreements, using the deliberations and results of the World Summit on Sustainable Development as its blueprint. RSP has cooperated with SPREP and the Western Pacific Fishery Management Council on the issue of mangrove responses to sea level and climate change.[2] A Turtle Research Database System (TREDS) was launched in 2006 in a joint initiative between the Secretariat of the Pacific Regional Environment Program (SPREP), Secretariat of the Pacific Community (SPC), Queensland Parks Authority, Southeast Asian Fisheries Development Center (SEAFDEC), National Marine Fisheries Service – Pacific Islands Fishery Science Center (PIFSC) and the WPFMC. Together, these agencies will manage and consolidate turtle research data for their 31 member countries in the Pacific Ocean. TREDS can store data on tags, nesting beach and foraging ground monitoring data, clutch and hatchling information and biological sampling (such as genetic data).[3] The U.S. Agency for International Development (USAID) supports coastal zone management-related programs in the Pacific islands through non-governmental organizations. USAID and the U.S. Peace Corps have initiated the Partnership in Integrated Coastal Management in the Pacific to use local and U.S. expertise to build the capacity of Pacific island states to manage coastal resources.[4]		

[1]South Pacific Regional Environment Programme (SPREP), http://www.sidsnet.org/pacific/sprep/whatsprep_.htm

[2]Western Pacific Fishery Management Council (WPFMC) website, Climate Change Threat to Pacific Ocean Mangroves

[3]Western Pacific Fishery Management Council (WPFMC) website, Turtle Research Database System (TREDS)
http://www.wpcouncil.org/protected/Documents/TREDS_poster2.pdf

[4]Pacific Island Nations: Current Issues and U.S. Interests, Ambassador Mary Beth West, Deputy Assistant Secretary of State for Oceans and Fisheries, Statement before the Subcommittee on East Asia and the Pacific, Committee on International Relations, House of Representatives Washington, DC, July 23, 2002
http://www.state.gov/g/oes/rls/rm/2002/12159.htm

10.4 Implementation

10.4.1 States should establish mechanisms for cooperation and coordination among national authorities involved in planning, development, conservation and management of coastal areas.

Question format (PacMar Inc. 2006): Are mechanisms established for cooperation and coordination among national authorities involved in planning, development, conservation and management of coastal areas?

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. is a member of the Secretariat of the Pacific Regional Environment Programme (SPREP), the primary regional organization concerned with environmental management in the Pacific.[1] The Western Pacific Fishery Management Council (Council) and the National Oceanographic and Atmospheric Administration (NOAA) Fisheries cooperate in some SPREP programs. The Council and NOAA Fisheries Pacific Islands Fisheries Science Center collaborate in a few activities of the Coastal Fisheries Programme operated by the Secretariat of the Pacific Community (SPC). This program provides a mechanism for cooperation in planning, development, conservation and management of coastal fisheries among Pacific island nations. The Programme is charged with the implementation of an ecosystem approach to fisheries by 2010.[2] Regional and international financial assistance and technical consultation are available for planning, development, conservation and management of coastal areas.[3,4,5,6]		

[1]South Pacific Regional Environment Programme (SPREP), http://www.sidsnet.org/pacific/sprep/whatsprep_.htm

[2]Secretariat of the Pacific Community (SPC) Coastal Fisheries Programme website http://www.spc.int/coastfish/

[3]Asian Development Bank (ADB) website http://www.adb.org/About/default.asp

[4]World Bank website, http://www.worldbank.org/about

[5]United Nations Development Programme website http://www.undp.org/about/

[6]United Nations Environment Programme website http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=43

10.4.2 States should ensure that the authority or authorities representing the fisheries sector in the coastal management process have the appropriate technical capacities and financial resources.

Question format (PacMar Inc. 2006): Do authorities representing the fisheries sector in the coastal management process have the appropriate technical capacities and financial resources?

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1/2		
Yes	*Some*	*No*
	The Hawaii Department of Land and Natural Resources (DLNR) represents the fisheries sector in the Hawaii coastal zone management process. Coastal fisheries enforcement efforts of DLNR's Division of Conservation and Enforcement (DOCARE) are severely underfunded.[1] Technical capacity of the DLNR is extended through programs that involve citizens in inshore fish tagging.[2] Technical and financial assistance is available from various federal agencies.[3,4,5,6]	

[1]Hawaii State Department of Land and Natural Resources (DLNR), Report to the Twenty-Second Legislature State of Hawaii 2004 Regular Session http://www.state.hi.us/dlnr/reports/CP04-AnnualReportforAct100.pdf

[2]Tagawa, A.W. and C.K.M. am. 2006. Hawaii's ulua and papio tagging project 2000 to 2004. DAR Technical Report 06-01. Division of Aquatic Resources, Department of Land and Natural Resources. Honolulu, HI. www.hawaii.gov/dlnr/dar/pubs/uluataggingrept.pdf

[3]National Marine Fisheries Service (NMFS) Pacific Islands Fisheries Science Center (PIFSC) website http://www.pifsc.noaa.gov/pifsc.php

[4]National Marine Fisheries Service (NMFS) Pacific Islands Regional Office (PIRO) website http://www.fpir.noaa.gov/

[5]Western Pacific Regional Fisheries Management Council (WPRFMC) website http://www.wpcouncil.org/about

[6]U.S. Fish and Wildlife, Coastal Conservation Programs website http://www.fws.gov/coastal

Analysis: This provision was assigned only ½ point because the fisheries enforcement arm of the State of Hawaii (DOCARE) is severely underfunded and understaffed to enforce existing regulations for coastal resources, let alone any new regulations.

Likelihood of improving compliance: The score for this provision could increase if enforcement of regulations for coastal resources is given a higher priority and greater funding by the State.

Article 11 - Post-Harvest Practices and Trade

11.1 Responsible fish utilization

11.1.1 States should adopt appropriate measures to ensure the right of consumers to safe, wholesome and unadulterated fish and fishery products.

Question format (PacMar Inc. 2006): Has the State adopted measures to ensure the right of consumers to safe, wholesome and unadulterated fishery products? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
All food supplied to the U.S. market, including Hawaii longline fishery products, must meet standards in Code of Federal Regulations, Title 21 Food and Drugs, Chap. 1. Food and Drug Administration, Dept. of Health and Human Services, Sub Chap. B. Food for Human Consumption, Part 110 - Current Good Manufacturing Practices (cGMPs) in manufacturing, packing and holding human food.[1] All seafood suppliers to the U.S. market must comply with the U.S. Code of Federal Regulations, Title 21 Food and Drugs, Chap. 1, Food and Drug Administration, Dept. of Health and Human Services, Sub Chap. B. Food for Human Consumption, Part 123 – Fish and Fishery Products (aka the U.S. Food and Drug Administration (FDA) Seafood Hazard Analysis Critical Control Point, or HACCP Regulation).[2]		

[1]U.S. Food and Drug Administration (FDA), Center for Devices and Radiological Health (CDRH) website, Title 21 CFR 110
http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=110

[2]U.S. Food and Drug Administration (FDA), Center for Devices and Radiological Health (CDRH) website, Title 21 CFR 123
http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=123

11.1.2 States should establish and maintain effective national safety and quality assurance systems to protect consumer health and prevent commercial fraud (*furthers ecosystem approach to fisheries*, per FAO 2003: 81).

Question format (PacMar Inc. 2006): Has the State established and maintained effective national safety and quality assurance systems to protect consumer health and prevent commercial fraud? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
All food supplied to the U.S. market, including Hawaii longline fishery products, must meet standards to ensure that food is safe and free from adulteration. Hawaii seafood processors must comply with the Code of Federal Regulations, Title 21 Food and Drugs, Chap. 1. Food and Drug Administration, Dept. of Health and Human Services, Sub Chap. B. Food for Human Consumption, Part 110 - Current Good Manufacturing Practices (cGMPs) in manufacturing, packing and holding human food.[1] All seafood suppliers to the U.S. market must implement seafood safety control measures to ensure that the seafood is safe. Hawaii seafood processors must comply with the U.S. Code of Federal Regulations, Title 21 Food and Drugs, Chap. 1. Food and Drug Administration, Dept. of Health and Human Services, Sub Chap. B. Food for Human Consumption, Part 123 – Fish and Fishery Products (aka the U.S. Food and Drug Administration (FDA) Seafood Hazard Analysis Critical Control Point, or HACCP Regulation).[2] The U.S. Seafood Hazard Analysis Critical Control Point (HACCP) regulation (hazard analysis critical control point) requires that first receivers and processors establish and implement HACCP plans to ensure safety of all fishery products they handle, including any products of Hawaii longline fisheries. Consumer fraud is one aspect but not a priority of these two regulations. Consumer fraud is addressed through the Food, Drug and Cosmetic Act. Mislabeling or misnaming of marine species is prohibited [3]		

[1]U.S. Food and Drug Administration (FDA), Center for Devices and Radiological Health (CDRH) website, Title 21 CFR 110
http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=110

[2]U.S. Food and Drug Administration (FDA), Center for Devices and Radiological Health (CDRH) website, Title 21 CFR 123
http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=123

[3]U.S. Food and Drug Administration (FDA), Federal Food, Drug and Cosmetic Act, Chapter III – Prohibited Acts and Penalties
http://www.fda.gov/opacom/laws/fdcact/fdcact3.htm

11.1.3 States should set minimum standards for safety and quality assurance and make sure that these standards are effectively applied throughout the industry. They should promote the implementation of quality standards agreed within the context of the FAO/WHO Codex Alimentarius Commission and other relevant organizations or arrangements.

Question format (PacMar Inc. 2006): Has the State

a) set minimum standards for food safety and quality assurance? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. Food and Drug Administration (FDA) requires that seafood be processed under good manufacturing practices that set standards.[1] The FDA Seafood Hazards guide suggests minimum standards for "critical control points" in the Hazard Analysis Critical Control Point (HACCP) system for specific seafood products (including those of Hawaii longline fisheries) and processes.[2] The FDA has established a set of defect action limits (DALs) that serve as minimum standards for pathogens, indicator organisms (E coli, fecal coliforms), chemical contaminants, metals, aquaculture drugs, marine biotoxins, and foreign objects allowable in seafood.[3]		

[1]U.S. Food and Drug Administration (FDA), Center for Devices and Radiological Health (CDRH) website, Title 21 CFR 110 http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=110

[2]U.S. Food and Drug Administration (FDA), Center for Devices and Radiological Health (CDRH) website, Title 21 CFR 123 http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=123

[3]U.S. Food and Drug Administration (FDA) Center for Food Safety and Applied Nutrition (CFSAN), Fish and Fisheries Products Hazards and Controls Guidance, *Third Edition* June 2001 http://www.cfsan.fda.gov/~comm/haccp4.html

b) Are these standards effectively applied? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. Food and Drug Administration (FDA) annually inspects first receivers and processors of seafood in the U.S. to ensure that Hazard Analysis Critical Control Point (HACCP) systems are properly implemented for fishery products, including those of Hawaii longline fisheries.[1] The Hawaii Department of Health conducts regular inspections of retailers in the State of Hawaii who market fishery products, including those of Hawaii longline fisheries, to ensure that minimum U.S. government standards are met.[2]		

[1]U.S. Food and Drug Administration (FDA) Center for Food Safety and Applied Nutrition (CFSAN), Guidance for Industry: Refusal of Inspection or Access to HACCP Records Pertaining to the Safe and Sanitary Processing of Fish and Fishery Products http://www.cfsan.fda.gov/~comm/seaguid3.html

[2]Hawaii State Department of Health, Food and Drug Branch, Food Safety website http://www.hawaii.gov/health/environmental/food_drug/food/foodsafety.html

c) Are these standards implemented within the context of FAO/WHO Codex and other relevant international organizations or arrangements? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Seafood HACCP system implemented by the U.S. Food and Drug Administration (FDA)[1] is based on standards that consider seafood safety hazards and are science-based. This is consistent with CODEX and other international arrangements. A Code of Practice for Fish and Fishery Products[2] has been developed by the CODEX Committee on Fish and Fishery Products which provides guidance on how to implement HACCP based control systems for seafood. Efforts and progress have been made to bring the FDA Seafood HACCP and the CODEX approach to seafood HACCP into alignment. Originally, they differed in that FDA HACCP focused on only seafood safety issues, while the CODEX approach included controls for quality, labeling and consumer fraud. These controls are now voluntary under CODEX and addressed through Defect Action Plans separate from HACCP Plans.		

[1]U.S. Food and Drug Administration (FDA) Center for Food Safety and Applied Nutrition (CFSAN), Fish and Fisheries Products Hazards and Controls Guidance, *Third Edition* June 2001 http://www.cfsan.fda.gov/~comm/haccp4.html

[2]Codex Alimentarius and Recommended International Code of Practice for Fish and Fishery Products
http://www.codexalimentarius.net/download/standards/10273/CXP_052e.pdf

11.1.4 States should cooperate to achieve harmonization, or mutual recognition, or both, of national sanitary measures and certification programmes as appropriate and explore possibilities for the establishment of mutually recognized control and certification agencies.

Question format (PacMar Inc. 2006): Are States cooperating and exploring possibilities to achieve harmonization or mutual recognition of national sanitary measures and certification programmes? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Efforts and progress have been made to bring the U.S. Food and Drug Administration (FDA) Seafood Hazard Analysis Critical Control Point (HACCP) approach and the CODEX approach to seafood HACCP into alignment. Originally, they differed in that FDA HACCP focused on only seafood safety issues, while the Codex approach included controls for quality, labeling and consumer fraud. These are now voluntary under Codex and addressed through Defect Action Plans separate from HACCP Plans Although for pelagic seafood products there are no MOUs (memorandum of understanding) currently between the U.S. and other countries recognizing the equivalence of seafood HACCP regulations, efforts to establish MOU are being made by several countries including Chile, New Zealand, Australia and Canada.[1] The U.S. is included in the list of fully harmonized countries for imports into the European Union (EU) of fishery products (Commission Decision 2006/200/EC). Imports into the EU are subject to official certification based on the EU's recognition of the exporting country's competent authority. In the U.S., both the FDA and the National Oceanic and Atmospheric Administration (National Marine Fisheries Service) have the authority to issue health certificates for seafood exports to the EU.[2] The U.S. continues to seek harmonization of sanitary measures and Hazard Analysis Critical Control Point (HACCP) requirements with those of other nations.[3]		

[1]Codex Alimentarius and Recommended International Code of Practice for Fish and Fishery Products http://www.codexalimentarius.net/download/standards/10273/CXP_052e.pdf

[2]Foreign Agricultural Service U.S. Mission to the European Union http://useu.usmission.gov/agri/seafood2.html

[3]FDA CFSAN, FDA's Evaluation of the Seafood HACCP Program for Fiscal Years 2002/2003 http://www.cfsan.fda.gov/~comm/seaeval3.html

11.1.5 States should give due consideration to the economic and social role of the post-harvest fisheries sector when formulating national policies for the sustainable development and utilization of fishery resources.

Question form (PacMar Inc. 2006): Does the State consider the economic and social role of the post-harvest fisheries sector when formulating national fisheries policies? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] This plan conforms to "national standards" of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), including consideration of economic and social factors in the harvest and post-harvest sectors when evaluating alternative conservation and management measures.[3] These factors are also considered in environment impact analyses required by the National Environmental Protection Act (NEPA) for federal actions, including management actions affecting Hawaii longline fisheries.[4] The Regulatory Flexibility Act, 5 U.S.C. 601 *et seq* . (RFA), requires government agencies to assess the impact of their regulatory actions on small entities, including small companies, small organizations, and small governmental jurisdictions. The assessment is done via the preparation of Regulatory Flexibility Analyses.[5] Executive Order (EO) 12866, "Regulatory Planning and Review," requires that the National Marine Fisheries Service (NMFS) complete a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest. The review provides an overview of the problem, policy objectives, and anticipated impacts of the action, and ensures that management alternatives are systematically and comprehensively evaluated so that the public welfare can be enhanced in the most efficient and cost-effective way. In accordance with EO 12866, the following is set forth: (1) this rule is not likely to have an annual effect on the economy of more $100 million or to adversely affect in a material way the economy, a sector of the economy, productivity, jobs, the environment, public health or safety, or state, local, or tribal governments or communities; (2) this rule is not likely to create any serious inconsistencies or otherwise interfere with any action taken or planned by another agency; (3) this rule is not likely to materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights or obligations of recipients thereof; (4) this rule is not likely to raise novel or policy issues arising out of legal mandates, or the principles set forth in the Executive Order; and (5) this rule is not controversial.[6]		

[1]Western Pacific Fishery Management Council, FMP and Annual Reports for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

[3]Magnuson-Stevens Fishery Conservation and Management Act (MSA), sec. 303 http://www.nmfs.noaa.gov/sfa

[4]CFR, Title 40, Protection of Environment, Part 6.203, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[5]The National Archives, Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*), www.archives.gov/federal-register/laws/regulatory-flexibility

[6]U.S. Small Business Administration, Executive Order 12866, http://www.sba.gov/advo/laws/sum_eo.html

11.1.6 States and relevant organizations should sponsor research in fish technology and quality assurance and support projects to improve post-harvest handling of fish, taking into account the economic, social, environmental and nutritional impact of such projects.

Question format (PacMar Inc. 2006): Is research sponsored in fish technology and quality assurance to improve post-harvest handling of fish, taking into account the impacts of such projects? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Research has been sponsored by the National Oceanic and Atmospheric Administration (NOAA) Fisheries to document time-temperature history of Hawaii longline fishery products from capture through post-harvest handling and the relationship to decomposition and histamine (scombrotoxin) formation. This provides science-based information to improve handling and quality assurance. The economic, social, environmental and nutritional impacts of this research have not been formerly assessed but the benefits of higher quality fishery products, better market prices and less waste of fish catch that result from application of this research are apparent.		

Kaneko, John. 2000. Development of a HACCP-based Strategy for the Control of Histamine for the Fresh Tuna Industry. http://www.nmfs.noaa.gov/mb/sk/saltonstallken/haacp.htm

11.1.7 States, noting the existence of different production methods, should through cooperation and by facilitating the development and transfer of appropriate technologies, ensure that processing, transporting and storage methods are environmentally sound (furthers ecosystem approach to fisheries, per FAO 2003: 81).

Question format (PacMar Inc. 2006): Does the State ensure that post-harvest processing, transporting and storage methods for fish are environmentally sound? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Adverse impacts on air, water quality and environmental quality by post-harvest methods of processing, transporting and storing Hawaii longline (and other domestic) fishery products are minimized under regulations of the U.S. Environmental Protection Agency (EPA), enforced in cooperation with the Hawaii Department of Health.		

U.S. Environmental Protection Agency, Compliance and Enforcement website http://www.epa.gov/ebtpages/complianceenforcement.html

11.1.8 States should encourage those involved in fish processing, distribution and marketing to:

a. reduce post-harvest losses and waste;
b. improve the use of by-catch to the extent that this is consistent with responsible fisheries management practices; and
c. use the resources, especially water and energy, in particular wood, in an environmentally sound manner.

Question format (PacMar Inc. 2006): Does the State encourage companies involved in fish processing, distribution and marketing to:

a) reduce post-harvest losses and waste? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
There is little post-harvest loss and waste of the multi-species fish harvest of Hawaii longline fisheries because all species have market value. The auction system through which the catch is sold ensures that all but spoiled fish are marketed.[1] The heads, tails and bellies of most longline species have value as food, bait or chum, leaving only offal to be disposed. A rendering company collects offal for processing into animal feed.[2] A City and County of Honolulu ordinance requires recycling of food waste.[3]		

[1]Hawaii Seafood Buyers' Guide website, Introduction: Hawaii's Fish Auctions http://www.hawaii-seafood.org/introduction.htm#

[2]Island Commodities Corp., contact Carl Tanaka ctanaka@bakercommodities.com

[3]City and County of Honolulu, Revised Ordinances of Honolulu, 9-3.5 Food Waste Recycling

b) improve the use of by-catch to the extent that this is consistent with responsible fisheries management practices? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Greater use and market value of the multi-species fish harvest of Hawaii longline fisheries has come about through promotional efforts by Hawaii chefs, the Hawaii Seafood Promotion Committee, seafood wholesalers and retailers, and the State of Hawaii Department of Business, Economic Development and Tourism.		

Hawaii Seafood Buyers' Guide website http://www.hawaii-seafood.org/

c) use water and energy resources, particularly wood, in an environmentally sound manner? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Freshwater is used during post-harvest processing, handling and distribution primarily for cleaning. Wastewater is disposed of into the government sewage treatment system that conforms to U.S. government regulations for water quality.[1] Freshwater is also used to manufacture ice so that products of Hawaii longline (and other) fisheries are properly chilled during post-harvesting handling, marketing and distribution. Hawaii fisheries land and market exclusively fresh fish catch, thereby eliminating the higher energy costs associated with frozen storage and transport of fish catches.[2] Electric power is generated by plants that are required to conform to U.S. government regulations for air quality.[3] No wood is used for fuel during post-harvest processing, marketing or distribution but boxes of fish are sometimes transported on wooden pallets.		

[1]Hawaii State Department of Health, Wastewater Branch website http://www.hawaii.gov/health/environmental/water/wastewater/index.html

[2]Kaneko, John. 2000. Development of a HACCP-based Strategy for the Control of Histamine for the Fresh Tuna Industry, p 17. http://www.nmfs.noaa.gov/mb/sk/saltonstallken/haacp.htm

[3]U.S. Department of Energy, Clean Air, Soil and Water website http://www.energy.gov/environment/cleanairesoil.htm

11.1.9 States should encourage the use of fish for human consumption and promote consumption of fish whenever appropriate.

Question format (PacMar Inc. 2006): Does the State encourage and promote human consumption of fish? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
All Hawaii longline fishery products are consumed by humans. Fresh fish in the Hawaii market has a strong demand and high value, making it uneconomical to use the catch for fish meal or fertilizer production utilizing these products. The Seafood & Health Conference[1] sponsored by the National Oceanic and Atmospheric Administration National Marine fisheries Service in 2005 promoted the health benefits of consuming tuna and other species that are high in omega-3 fatty acids. The Hawaii Seafood Promotion Committee[2] received Federal funding in the late 1980s to produce educational material, including nutritional information, about Hawaii seafood products.		

[1]2005 Seafood and Health Conference, Washington, D.C., http://www.seafoodandhealth.org/index.php?section=13

[2]Hawaii Seafood Promotion Committee, contact Brooks Takenaka BrksTknk@netscape.net

11.1.10 States should cooperate in order to facilitate the production of value-added products by developing countries.

Question format (PacMar Inc. 2006): Is the State cooperating to facilitate production of value-added seafood products by developing countries. ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii represents both a market and a transshipment gateway for value-added seafood products produced by developing Pacific island nations. U.S. import of such products is driven by private market forces, not by government.[1] The Western Pacific Fishery Management Council has completed a study of "Fishery and Seafood Marketing Development Potentials for American Samoa." The U.S. Agency for International Development has supported pilot projects to promote development of value-added tuna products in some Pacific island countries.		

[1]Forum Fisheries Agency. 2000. Tuna Products Catalogue. Honiara, Solomon Islands.

11.1.11 States should ensure that international and domestic trade in fish and fishery products accords with sound conservation and management practices through improving the identification of the origin of fish and fishery products traded.

Question format (Caddy 1996): Is international and domestic trade in fish and fishery products in accord with sound conservation and management practices through the identification of the origin of fish and fish products traded? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Under the U.S. Department of Agriculture Country of Origin Labeling (COOL) regulations,[1] all fishery products retailed in the U.S. are required to be labeled by country of origin and harvest method ("wild" versus "cultured").[2]		

[1]United States Department of Agriculture (USDA) Agricultural Marketing Service (AMS) Country of Origin Labeling website http://www.ams.usda.gov/cool/

[2]CFR, Title 7, Agriculture, Part 60.200, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

11.1.12 States should ensure that environmental effects of post- harvest activities are considered in the development of related laws, regulations and policies without creating any market distortions.

Question format (PacMar Inc. 2006): Does the State ensure that environmental effects of post-harvest activities are considered in the development of laws, regulations and policies, without creating any market distortions? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Environmental effects of post-harvest activities for products of Hawaii longline fisheries are considered in environmental impact analyses required by the National Environmental Protection Act (NEPA) for federal actions, including fishery management and development actions. The environmental effects of post-harvest activities for equivalent foreign products may be considered in NEPA-required "cumulative impacts" analyses but the U.S. does not impose domestic environmental standards on foreign exporters of pelagic fish, so any market distortions favor foreign over domestic pelagic fish processors.		

NOAA Fisheries, Pacific Islands Regional Office (PIRO), Western Pacific Pelagic Fisheries EIS, Chapter 4
http://www.fpir.noaa.gov/Library/PUBDOCs/environmental_impact_statements/FEIS_Wstrn_Pcf_Plgc_Fshrs/feis_wstrn_pcf_plgc_fshrs.html

11.2 Responsible international trade

11.2.1 The provisions of this Code should be interpreted and applied in accordance with the principles, rights and obligations established in the World Trade Organization (WTO) Agreement.

Question format (PacMar Inc. 2006): Are provisions of the Code being interpreted in accordance with principles, rights and obligations established in WTO trade agreements? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. does not impose tariff or non-tariff trade barriers on pelagic longline fisheries products imported fresh or frozen from foreign countries. Tariffs are imposed on canned and pouched tuna products but these are being phased out. This complies with World Trade Organization agreements and principles promoting trade without discrimination.		

United States International Trade Commission (USITC), Tariff Information Center, Harmonized Tariff Schedule of the United States (2006)—Supplement 1, Chapter 3 http://hotdocs.usitc.gov/docs/tata/hts/bychapter/0610C03.pdf

11.2.2 International trade in fish and fishery products should not compromise the sustainable development of fisheries and responsible utilization of living aquatic resources.

Question format (PacMar Inc. 2006): Is international trade in fishery products compromising responsible fishing and sustainable development of fisheries? ***Yes...***[0] ***In Part...***[1/2] ***No...***[1]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	The U.S. does not impose tariff or non-tariff trade barriers on pelagic longline products imported fresh or frozen from foreign countries.[1] Federal regulations set quotas for annual sea turtle interactions in Hawaii longline fisheries but there are no equivalent controls for foreign fisheries that export longline products to the U.S. (often to replace Hawaii products restricted when the domestic fishery reaches turtle quotas).[2,3] Thus, free trade in longline products may be compromising responsible fishing to some degree.	

[1]United States International Trade Commission (USITC), Tariff Information Center, Harmonized Tariff Schedule of the United States (2006)—Supplement 1, Chapter 3 http://hotdocs.usitc.gov/docs/tata/hts/bychapter/0610C03.pdf

[2]National Oceanic and Atmospheric Administration (NOAA) Fisheries, Pacific Islands Regional Office, http://www.fpir.noaa.gov?DIR/dir_public_documents.html, Final Environmental Impact Statement: Western Pacific Pelagic Fisheries (March 2001)

[3]Bartram, Paul K. and John J. Kaneko. Catch to bycatch ratios: Comparing Hawaii's longline fishery with others. *SOEST Publication 04-05, JIMAR Contribution 04-352*, 40 pp. http://www.soest.hawaii.edu/PFRP/soest_jimar_rpts/bartram_kaneko_bycatch_rpt.pdf

Analysis: This question is scored in the context of Hawaii longline fishery regulation, rather than U.S. national policy. International trade is compromising responsible fishing to the extent that foreign fisheries that export longline fishery products to the U.S. are not held to the same standards as Hawaii longline fisheries to reduce protected species bycatch. Therefore, only ½ point is assigned for this provision.

Likelihood of improving compliance: The score for this provision could improve if regional fishery management organizations (Western and Central Pacific Fisheries Commission and Inter-American Tropical Tuna Commission) and their members adopt regulations for non-Hawaii longline fisheries operating in the Pacific as stringent and effective as U.S. regulations for Hawaii longline fisheries.

11.2.3 States should ensure that measures affecting international trade in fish and fishery products are transparent, based, when applicable, on scientific evidence, and are in accordance with internationally agreed rules.

Question format (Caddy 1996): Are measures affecting international trade in fish and fishery products transparent, based, when applicable, on scientific evidence, and in accordance with internationally agreed rules? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. does not impose tariff or non-tariff trade barriers on pelagic longline products imported fresh or frozen from foreign countries.[1] This is in accordance with the World Trade Organization Agreement on Sanitary and Phytosanitary Measures and the Agreement on Technical Barriers to Trade that recognize the sovereignty of each country to protect its population but any measures taken to restrict trade should be based on scientific evidence.[2]		

[1]United States International Trade Commission (USITC), Tariff Information Center, Harmonized Tariff Schedule of the United States (2006)—Supplement 1, Chapter 3 http://hotdocs.usitc.gov/docs/tata/hts/bychapter/0610C03.pdf

[2]Globefish website, WTO and Fisheries http://www.globefish.org/dynamisk.php4?id=2665

11.2.4 Fish trade measures adopted by States to protect human or animal life or health, the interests of consumers or the environment, should not be discriminatory and should be in accordance with internationally agreed trade rules, in particular the principles, rights and obligations established in the Agreement on the Application of Sanitary and Phytosanitary Measures and the Agreement on Technical Barriers to Trade of the WTO.

Question format (PacMar Inc. 2006): Are fish trade measures adopted by the State non-discriminatory and in accordance with principles, rights and obligations established in WTO trade agreements? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. does not impose tariff or non-tariff trade barriers on pelagic longline products imported fresh or frozen from foreign countries. This is in accordance with World Trade Organization agreements and principles promoting trade without discrimination.		

United States International Trade Commission (USITC), Tariff Information Center, Harmonized Tariff Schedule of the United States (2006)—Supplement 1, Chapter 3 http://hotdocs.usitc.gov/docs/tata/hts/bychapter/0610C03.pdf

11.2.5 States should further liberalize trade in fish and fishery products and eliminate barriers and distortions to trade such as duties, quotas and non-tariff barriers in accordance with the principles, rights and obligations of the WTO Agreement.

Question format (PacMar Inc. 2006): Is the State eliminating barriers and distortions to trade in fishery products, including duties, quotas and non-tariff barriers in accordance with the WTO Agreement? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. does not impose tariff or non-tariff trade barriers on pelagic longline products imported fresh or frozen from foreign countries. Tariffs are imposed on canned and pouched tuna products but these are being phased out. This is in accordance with World Trade Organization agreements and principles promoting trade without discrimination.		

United States International Trade Commission (USITC), Tariff Information Center, Harmonized Tariff Schedule of the United States (2006)—Supplement 1, Chapter 3 http://hotdocs.usitc.gov/docs/tata/hts/bychapter/0610C03.pdf

11.2.6 States should not directly or indirectly create unnecessary or hidden barriers to trade which limit the consumer's freedom of choice of supplier or that restrict market access.

Question format (PacMar Inc. 2006): Is the State creating unnecessary or hidden barriers to trade that limit consumers' freedom of choice or restrict market access? ***Yes...***[0] ***In Part...***[1/2] ***No...***[1]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. does not impose tariff or non-tariff trade barriers on pelagic longline products imported fresh or frozen from foreign countries. This is in accordance with World Trade Organization agreements and principles promoting trade without discrimination.		

United States International Trade Commission (USITC), Tariff Information Center, Harmonized Tariff Schedule of the United States (2006)—Supplement 1, Chapter 3 http://hotdocs.usitc.gov/docs/tata/hts/bychapter/0610C03.pdf

11.2.7 States should not condition access to markets to access to resources. This principle does not preclude the possibility of fishing agreements between States which include provisions referring to access to resources, trade and access to markets, transfer of technology, scientific research, training and other relevant elements.

Question format (PacMar Inc. 2006): Does the State condition access to markets to access to resources? ***Yes...***[0] ***In Part...***[1/2] ***No...***[1]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. does not impose tariff or non-tariff trade barriers on pelagic longline products imported fresh or frozen from foreign countries or condition U.S. market access to resource access. This is in accordance with World Trade Organization agreements and principles promoting trade without discrimination.		

United States International Trade Commission (USITC), Tariff Information Center, Harmonized Tariff Schedule of the United States (2006)—Supplement 1, Chapter 3 http://hotdocs.usitc.gov/docs/tata/hts/bychapter/0610C03.pdf

11.2.8 States should not link access to markets to the purchase of specific technology or sale of other products.

Question format (PacMar Inc. 2006): Does the State link market access to the purchase of specific technologies or other products? ***Yes...***[0] ***In Part...***[1/2] ***No...***[1]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. does not impose tariff or non-tariff trade barriers on pelagic longline products imported from fresh or frozen foreign countries. For longline fishery products, U.S. market access is not linked to purchase of specific technologies.		

United States International Trade Commission (USITC), Tariff Information Center, Harmonized Tariff Schedule of the United States (2006)—Supplement 1, Chapter 3 http://hotdocs.usitc.gov/docs/tata/hts/bychapter/0610C03.pdf

11.2.9 States should cooperate in complying with relevant international agreements regulating trade in endangered species.

Question format (PacMar Inc. 2006): Does the State comply with international agreements regulating trade in endangered species? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. is a party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), an international treaty that controls or prohibits trade in over 40,000 species of animals and plants, depending on the level of the threat to their survival. CITES is the keystone of U.S. international wildlife resources conservation policy, and is strongly supported by the legitimate wildlife trade as well as by a wide range of non-governmental organizations. CITES uses a system of permits to regulate trade in wildlife. The treaty members issue permits allowing trade only if they are satisfied that it will not pose a threat to the survival of the species. Commercial trade in the most endangered species, including the great whales, all sea turtles and many other species is prohibited. Commerce is permitted in other species which might become endangered if trade were not controlled and monitored. National authorities limit the number of permits issued for trade in these species, and records are maintained and analyzed.		

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) website http://www.cites.org/

11.2.10 States should develop international agreements for trade in live specimens where there is a risk of environmental damage in importing or exporting States.

Question format (PacMar Inc. 2006): Is the State party to international agreements for trade in live specimens where there is a risk of environmental damage? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Animal and Plant Health Inspection Service (APHIS) of the U.S. Department of Agriculture is responsible for enforcing regulations governing the import and export of plants and animals and certain agricultural products. In cooperation with State governments, APHIS administers Federal laws and regulations pertaining to animal and plant health and quarantine, humane treatment of animals, and the control and eradication of pests and diseases. Within APHIS, the Plant Protection and Quarantine (PPQ) Program conducts programs and activities at various U.S. ports to prevent the introduction and spread of foreign pests. APHIS Veterinary Services (VS) has responsibility for protecting the health of livestock, poultry, and other animals. The laws APHIS enforces are numerous and varied but include the Plant Quarantine Act; Plant Protection Act; and Animal Import-Export Regulations (19 CFR 1306, 21 USC 103, 21 USC 105, and 21 CSC 134).		

United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) website http://www.aphis.usda.gov/

11.2.11 States should cooperate to promote adherence to, and effective implementation of relevant international standards for trade in fish and fishery products and living aquatic resource conservation.

Question format (PacMar Inc. 2006): Is the State promoting adherence to and effective implementation of relevant international standards;

a) for trade in fishery products? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. is a member of the World Trade Organization (WTO) and, therefore, is bound by the WTO agreements for trade in fishery products, guided by the principle of trade without discrimination.		

Globefish website, WTO and Fisheries http://www.globefish.org/dynamisk.php4?id=2665

b) for living aquatic resource conservation? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Through its legislative mandates (particularly the 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act (MSA) known as the Sustainable Fisheries Act), strategic plan and related activities, the National Oceanic and Atmospheric Administration (NOAA) Fisheries seeks to achieve most of the same goals as the FAO Code of Conduct and associated international plans of action for living aquatic resource conservation. The NOAA Fisheries Strategic Plan is organized around three programmatic areas: a) sustainable fisheries; b) recovery of protected species; and c) healthy living marine resource habitat.[1] The U.S. is a party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), an international treaty that controls or prohibits trade in over 40,000 species of animals and plants, depending on the level of the threat to their survival. CITES is the keystone of U.S. international wildlife resources conservation policy, and is strongly supported by the legitimate wildlife trade as well as by a wide range of non-governmental organizations.[2]		

[1]Implementation Plan for the Code of Conduct for Responsible Fisheries, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, July 1997, http://www.nmfs.noaa.gov/plan.html

[2]CITES website http://www.cites.org/

11.2.12 States should not undermine conservation measures for living aquatic resources in order to gain trade or investment benefits.

Question format (PacMar Inc. 2006): Is the State undermining conservation measures for living aquatic resources to gain trade or investment benefits? ***Yes...***[0] ***In Part...***[1/2] ***No...***[1]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	Hawaii longline fisheries operate under a Fishery Management Plan (FMP) for pelagic fisheries of the western Pacific region.[1] The Western Pacific Fishery Management Council (Council) prepares the FMP, any subsequent FMP amendments that evaluate alternatives and propose a preferred alternative to the National Oceanic and Atmospheric Administration (NOAA) for review, action, rule-making and implementation by the Secretary of Commerce.[2] This plan conforms to the Magnuson-Stevens Fishery Conservation and Management Act (MSA), which does not allow compromise of Hawaii longline (or other domestic) fisheries' conservation and management measures to gain trade or investment benefits.[3] Federal regulations set quotas for annual sea turtle interactions in Hawaii longline fisheries but there are no equivalent controls for foreign fisheries that export longline products to the U.S. (often to replace Hawaii products restricted when the domestic fishery reaches turtle quotas).[4] This outcome may generate trade or investment benefits for foreign longline fisheries that are not held to the same strict standards on sea turtle interactions as Hawaii longline fisheries.[5]	

[1]Western Pacific Fishery Management Council, FMP and Annual Reports for Pelagic Fisheries of Western Pacific Region, http://www.wpcouncil.org/pelagic.htm

[2]MSA, sec. 304 , 104-297(b) Review of Regulations

[3]NOAA, Office of Sustainable Fisheries, Magnuson-Stevens Fishery Conservation and Management Act (MSA), sec. 301 http://www.nmfs.noaa.gov/sfa

[4]National Oceanic and Atmospheric Administration (NOAA) Fisheries, Pacific Islands Regional Office, http://www.fpir.noaa.gov?DIR/dir_public_documents.html, Final Environmental Impact Statement: Western Pacific Pelagic Fisheries (March 2001)

[5]Bartram, Paul K. and John J. Kaneko. Catch to bycatch ratios: Comparing Hawaii's longline fishery with others. *SOEST Publication 04-05, JIMAR Contribution 04-352*, 40 pp. http://www.soest.hawaii.edu/PFRP/soest_jimar_rpts/bartram_kaneko_bycatch_rpt.pdf

Analysis: This question is scored in the context of Hawaii longline fishery regulation, rather than U.S. national policy. Conservation of sea turtles and other protected species is undermined because foreign fisheries that export longline products to the U.S. are not held to the same standards as Hawaii longline fisheries to reduce bycatch. Therefore, only ½ point is assigned for this provision.

Likelihood of improving compliance: The score for this provision could improve if regional fishery management organizations (Western and Central Pacific Fisheries Commission and Inter-American Tropical Tuna Commission) and their members adopt regulations for non-Hawaii longline fisheries operating in the Pacific as stringent and effective as U.S. regulations for Hawaii longline fisheries.

11.2.13 States should cooperate to develop internationally acceptable rules or standards for trade in fish and fishery products in accordance with the principles, rights, and obligations established in the WTO Agreement.

Question format (PacMar Inc. 2006): Is the State cooperating in the development of internationally acceptable standards for trade of fishery products, in accordance with WHO agreements and principles? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. is a member of the World Trade Organization (WTO) and is a party to the Doha agenda of WTO international negotiations that is considering improved market access for fishery products based on internationally agreed standards.		

Globefish website, WTO and Fisheries http://www.globefish.org/dynamisk.php4?id=2665

11.2.14 States should cooperate with each other and actively participate in relevant regional and multilateral fora, such as the WTO, in order to ensure equitable, non-discriminatory trade in fish and fishery products as well as wide adherence to multilaterally agreed fishery conservation measures.

Question format (PacMar Inc. 2006): Is the State cooperating and participating in relevant fora, such as WTO, to ensure non-discriminatory trade in fishery products with adherence to multilaterally agreed fishery conservation measures? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. is a member of the World Trade Organization (WTO) and is a party to the Doha agenda of WTO international negotiations that considers improved market access for fishery products based on internationally agreed standards. The Doha mandate launches negotiations on the relationships between existing WTO rules and specific trade obligations set out in multilateral environment agreements.		

Globefish website, WTO and Fisheries http://www.globefish.org/dynamisk.php4?id=2665

11.2.15 States, aid agencies, multilateral development banks and other relevant international organizations should ensure that their policies and practices related to the promotion of international fish trade and export production do not result in environmental degradation or adversely impact the nutritional rights and needs of people for whom fish is critical to their health and well being and for whom other comparable sources of food are not readily available or affordable.

Question format (PacMar Inc. 2006): Does the State ensure that policies related to promotion of fish trade and export do not result in environmental degradation or adversely impact the nutrition or health of consumers for whom comparable sources of food are not readily available or affordable? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline fisheries harvest highly migratory pelagic species in the open ocean. These fisheries have been determined not to result in significant environmental degradation.[1] Federal regulations have established longline exclusion areas around the main Hawaiian islands so that that Hawaii longline fisheries do not compete directly with subsistence fishers who harvest the same pelagic species using troll, handline, or other non-longline fishing methods.[2] Furthermore, a large part of Hawaii's subsistence fishery is based on reef species that are not caught in longline fishing. Hawaii seafood promotion[3] and export do not involve reef species; hence, there is no adverse impact on the health or nutrition of consumers who are dependent on near-shore subsistence fisheries.		

[1]NOAA Fisheries, Pacific Islands Regional Office (PIRO), Western Pacific Pelagic Fisheries EIS, Chapter 4
http://www.fpir.noaa.gov/Library/PUBDOCs/environmental_impact_statements/FEIS_Wstrn_Pcf_Plgc_Fshrs/feis_wstrn_pcf_plgc_fshrs.html

[2]CFR Title 50, Wildlife and Fisheries, Part 665.26, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[3]Hawaii Seafood Buyers' Guide website http://www.hawaii-seafood.org/

11.3 Laws and regulations relating to fish trade

11.3.1 Laws, regulations and administrative procedures applicable to international trade in fish and fishery products should be transparent, as simple as possible, comprehensible and, when appropriate, based on scientific evidence.

Question format (PacMar Inc. 2006): Are laws, regulations and procedures applicable to international trade in fishery products transparent, comprehensible and based on scientific evidence? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. does not impose tariff or non-tariff trade barriers on pelagic longline products imported fresh or frozen from foreign countries.[1] This is in accordance with the World Trade Organization Agreement on Sanitary and Phytosanitary Measures and the Agreement on Technical Barriers to Trade that recognize the sovereignty of each country to protect its population but any measures taken to restrict trade should be based on scientific evidence.[2]		

[1]United States International Trade Commission (USITC), Tariff Information Center, Harmonized Tariff Schedule of the United States (2006)—Supplement 1, Chapter 3 http://hotdocs.usitc.gov/docs/tata/hts/bychapter/0610C03.pdf

[2]Globefish website, WTO and Fisheries http://www.globefish.org/dynamisk.php4?id=2665

11.3.2 States, in accordance with their national laws, should facilitate appropriate consultation with and participation of industry as well as environmental and consumer groups in the development and implementation of laws and regulations related to trade in fish and fishery products.

Question format (PacMar Inc. 2006): Is the State facilitating appropriate consultation with and participation of fishing industry, environmental and consumer groups in the development and implementation of laws and regulations related to trade in fishery products? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. does not impose tariff or non-tariff trade barriers on pelagic longline products imported fresh or frozen from foreign countries.[1] Any new federal regulations related to trade in longline fishery products would be published in draft form in the Federal Register for comment by anyone in the U.S. or overseas prior to final adoption.[2]		

[1]United States International Trade Commission (USITC), Tariff Information Center, Harmonized Tariff Schedule of the United States (2006)—Supplement 1, Chapter 3 http://hotdocs.usitc.gov/docs/tata/hts/bychapter/0610C03.pdf

[2]Federal Register website http://www.gpoaccess.gov/fr/index.html

11.3.3 States should simplify their laws, regulations and administrative procedures applicable to trade in fish and fishery products without jeopardizing their effectiveness.

Question format (PacMar Inc. 2006): Is the State simplifying laws, regulations and procedures applicable to trade in fishery products without jeopardizing their effectiveness? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 0		
Yes	*Some*	*No*
		The National Oceanic and Atmospheric Administration (NOAA) Fisheries has placed additional regulations on dealers of longline fishery products to help track frozen bluefin tuna, southern bluefin tuna, swordfish or frozen (but not fresh) bigeye tuna. Regardless of ocean origin, dealers who export or import these products from foreign countries must hold a Highly Migratory Species International Trade Permit, submit statistical documents for each shipment, submit summary reports of trade activity for the named species and comply with all applicable record-keeping and reporting requirements.

NOAA Fisheries, Pacific Islands Regional Office (PIRO), Highly Migratory Species International Trade Permit https://www.st.nmfs.noaa.gov/hms/

Analysis: This question is scored in the context of Hawaii longline fishery regulation, rather than U.S. national policy. The Highly Migratory Species International Trade Permit (HMSITP) and associated reporting were established by ICCAT to track trade in some Atlantic pelagic fish species. HMSITP was expanded to include some Pacific pelagic fishery products without explanation of need. As the permit must be obtained from NOAA Fisheries in the continental U.S. rather than the Pacific Islands Regional Office, it has complicated rather than simplified procedures applicable to trade in Pacific pelagic fishery products without a clear or documented benefit for conservation. Therefore, this provision received a score of "0."

Likelihood of improving compliance: Paperwork associated with trade in longline fishery products is increasing without well-documented conservation benefits rather than being streamlined or simplified, so there is little probability for improving the score for this provision.

11.3.4 When a State introduces changes to its legal requirements affecting trade in fish and fishery products with other States, sufficient information and time should be given to allow the States and producers affected to introduce, as appropriate, the changes needed in their processes and procedures. In this connection, consultation with affected States on the time frame for implementation of the changes would be desirable. Due consideration should be given to requests from developing countries for temporary derogations from obligations.

Question format (PacMar Inc. 2006): Does the State provide sufficient information and advance notice before changing legal requirements for trade in fishery products that affected States and producers can comply by changing their processes and procedures? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. does not impose tariff or non-tariff trade barriers on pelagic longline products imported fresh or frozen from foreign countries.[1] Sufficient advance notice to foreign exporting countries of any changes in legal requirements would come from the Office of the U.S. Trade Representative (USTR), which is responsible for developing and coordinating U.S. international trade, commodity, and direct investment policy, and overseeing negotiations with other countries. The head of USTR is the U.S. Trade Representative, a Cabinet member who serves as the president's principal trade advisor, negotiator, and spokesperson on trade issues.[2] Any new federal regulations related to trade in longline fishery products would be published in draft form in the Federal Register for comment by anyone in the U.S. or overseas prior to final adoption.[3]		

[1]United States International Trade Commission (USITC), Tariff Information Center, Harmonized Tariff Schedule of the United States (2006)—Supplement 1, Chapter 3 http://hotdocs.usitc.gov/docs/tata/hts/bychapter/0610C03.pdf

[2]United States Trade Representative (USTR) website http://www.ustr.gov/Who_We_Are/Mission_of_the_USTR.html

[3]Federal Register website http://www.gpoaccess.gov/fr/index.html

11.3.5 States should periodically review laws and regulations applicable to international trade in fish and fishery products in order to determine whether the conditions which gave rise to their introduction continue to exist.

Question format (PacMar Inc. 2006): Does the State periodically review laws and regulations applicable to international trade in fishery products to adapt to changing conditions? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. does not impose tariff or non-tariff trade barriers on pelagic longline products imported fresh or frozen from foreign countries.[1] The Office of the U.S. Trade Representative (USTR) is responsible for developing and coordinating U.S. international trade, commodity, and direct investment policy, and overseeing negotiations with other countries. This includes periodic review of the suitability of laws and regulations to changing conditions. The head of USTR is the U.S. Trade Representative, a Cabinet member who serves as the president's principal trade advisor, negotiator, and spokesperson on trade issues.[2]		

[1]United States International Trade Commission (USITC), Tariff Information Center, Harmonized Tariff Schedule of the United States (2006)—Supplement 1, Chapter 3 http://hotdocs.usitc.gov/docs/tata/hts/bychapter/0610C03.pdf

[2]United States Trade Representative (USTR) website http://www.ustr.gov/Who_We_Are/Mission_of_the_USTR.html

11.3.6 States should harmonize as far as possible the standards applicable to international trade in fish and fishery products in accordance with relevant internationally recognized provisions.

Question format (PacMar Inc. 2006): Is the State harmonizing standards for international trade in fishery products in accordance with internationally recognized provisions? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The U.S. does not impose tariff or non-tariff trade barriers on pelagic longline products imported fresh or frozen from foreign countries.[1] This is in accordance with World Trade Organization (WTO) agreements and principles promoting trade without discrimination. The U.S. is a member of WTO and is a party to the Doha agenda of international WTO negotiations that is considering improved market access for fishery products based on internationally agreed standards. The Doha mandate launched negotiations on the relationships between existing WTO rules and specific trade obligations set out in multilateral environment agreements.[2]		

[1]United States International Trade Commission (USITC), Tariff Information Center, Harmonized Tariff Schedule of the United States (2006)—Supplement 1, Chapter 3 http://hotdocs.usitc.gov/docs/tata/hts/bychapter/0610C03.pdf

[2]Globefish website, WTO and Fisheries http://www.globefish.org/dynamisk.php4?id=2665

11.3.7 States should collect, disseminate and exchange timely, accurate and pertinent statistical information on international trade in fish and fishery products through relevant national institutions and international organizations.

Question format (PacMar Inc. 2006): Does the State collect, disseminate and exchange timely, accurate and pertinent statistical information on international trade in fishery products? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The National Oceanic and Atmospheric Administration (NOAA) Fisheries Office of Science & Technology maintains a data base that can be used to summarize U.S. foreign trade (imports and exports) in fishery products for the years 1989 to the present. The system for classifying products was developed under the auspices of the World Customs Organization. This information is available online to everyone.		

NOAA Fisheries, Office of Science and Technology website www.st.nmfs.gov/st1/trade

11.3.8 States should promptly notify interested States, WTO and other appropriate international organizations on the development of and changes to laws, regulations and administrative procedures applicable to international trade in fish and fishery products.

Question format (PacMar Inc. 2006): Does the State promptly notify interested States, WTO and appropriate international organizations on development of and changes to laws, regulations and procedures applicable to international trade in fishery products? ***Yes...***[1] ***In Part...***[1/2] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Office of the U.S. Trade Representative (USTR) is responsible for developing and coordinating U.S. international trade, commodity, and direct investment policy, and overseeing negotiations with other countries. The head of USTR is the U.S. Trade Representative, a Cabinet member who serves as the president's principal trade advisor, negotiator, and spokesperson on trade issues. Through an interagency structure, USTR coordinates trade policy, resolves disagreements, and frames issues for presidential decision. USTR also serves as vice chairman of the Overseas Private Investment Corporation (OPIC), is a non-voting member of the Export-Import Bank, and a member of the National Advisory Council on International Monetary and Financial Policies. USTR provides trade policy leadership and negotiating expertise in its major areas of responsibility, including: • Bilateral, regional and multilateral trade and investment issues • Expansion of market access for American goods and services • International commodity agreements • Negotiations affecting U.S. import policies • Oversight of the Generalized System of Preferences (GSP) and Section 301 complaints against foreign unfair trade practices, as well as Section 1377, Section 337 and import relief cases under Section 201 • Trade, commodity, and direct investment matters managed by international institutions such as the Organization for Economic Cooperation and Development (OECD) and the United Nations Conference on Trade and Development (UNCTAD) • Trade-related intellectual property protection issues • World Trade Organization (WTO) issues		

United States Trade Representative (USTR) website http://www.ustr.gov/Who_We_Are/Mission_of_the_USTR.html

Article 12 - Fisheries Research

12.1 States should recognize that responsible fisheries require the availability of a sound scientific basis to assist fisheries managers and other interested parties in making decisions. Therefore, States should ensure that appropriate research is conducted into all aspects of fisheries including biology, ecology, technology, environmental science, economics, social science, aquaculture and nutritional science. States should ensure the availability of research facilities and provide appropriate training, staffing and institution building to conduct the research, taking into account the special needs of developing countries.

Question format (Caddy 1996): Responsible fishing requires the availability of a sound scientific basis to assist fisheries managers and other interested parties in making decisions, taking into account the special needs of developing countries.

(a) Is appropriate research conducted into all aspects of fisheries, including biology, ecology, technology, environmental science, economics, social science, aquaculture and nutritional science? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Pelagic Fisheries Research Program (PFRP) was created in 1992 to provide scientific information on pelagic fisheries to the Western Pacific Fishery Management Council (Council) for use in the development of fisheries management policies. PFRP supports a wide range of ongoing research projects covering all aspects of Hawaii's longline fisheries, including Biology, Oceanography, Statistics & Modeling, Genetics, Economics, Socio-Cultural, and Protected Species.[1] Aquaculture and nutrition are not part of the PFRP research agenda. The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) studies a variety of pelagic marine species (including tunas, swordfish, billfish, mahimahi, sharks), providing the fundamental biological and ecological research on Federally managed species to allow for improved understanding of the mechanisms that influence resource distribution and abundance. New fishing technologies are developed, tested, and promoted internationally to reduce bycatch and the impacts of pelagic longline fisheries on populations of sea turtles, seabirds, sharks, and other species caught incidentally.[2] The Ecosystems and Oceanography Division (EOD) of PIFSC conducts research to advance understanding of the structure and dynamics of central North Pacific marine ecosystems.[3] PIFSC's Fisheries Monitoring and Socioeconomics Division (FMSD) consists of four distinct programs (Economics Program, Human Dimensions Research Program, Fisheries Monitoring & Analysis Program, Western Pacific Fishery Information Network) that conduct a wide variety of fisheries monitoring and research in the Pacific Islands Region and surrounding international waters.[4]		

[1]Pelagic Fisheries Research Program (PFRP), Projects website

[2]PISFC, Fishery Biology and Stock Assessment Division website

[3]PIFSC, Ecosystems and Oceanography Division website

[4]PIFSC, Fisheries Monitoring and Socioeconomics Division website

b) Are research vessel surveys of the resource and the marine environment carried out? ***Annually...***[1] ***Occasionally...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	"Oscar Elton Sette" is the primary platform supporting fisheries research in Hawaii, under the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Island Fisheries Science Center (PIFSC). The ship normally operates throughout the central and western Pacific, and conducts fisheries assessment surveys; physical, chemical and biological oceanography; marine mammal projects; and coral reef research. It is equipped for longline fishing research, which is conducted occasionally. Plankton, fish larvae and eggs are also collected with plankton nets and surface and mid-water larval nets.[1,2] PIFSC also occasionally charters commercial fishing vessels to test measures for protected species bycatch reduction.[3]	

[1]Pacific Islands Fisheries Science Center (PISFC), NOAA Ships and Research Cruises website

[2]NOAA Ship Oscar Elton Sette website

[3]Boggs, C.H. 2003. Annual report on the Hawaii longline fishing experiments to reduce sea turtle bycatch under ESA Section 10 permit 1303. Honolulu, HI.

Analysis: Longline fisheries research is not high enough priority for PIFSC to include in annual research vessel surveys, especially when there is an option of chartering Hawaii longline vessels for specific research activities that can be conducted in conjunction with commercial fishing operations and continuous collection of data through Federally-mandated observers on a large percentage of Hawaii longline fishing trips. Occasional research vessel surveys devoted to longline fisheries rate a ½ point for this provision.

Likelihood of improving compliance: Non-longline fisheries research is expected to continue as a high priority, so there is little likelihood of improving the score for this provision in the short term.

(c) Are appropriate research and training facilities available and provisions made for staffing and institution building to conduct the necessary research, taking into account the special needs of developing countries? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Pacific Fisheries Research Program (PFRP) facilities are housed at the Joint Institute for Marine and Atmospheric Research (JIMAR), under the University of Hawaii's School of Ocean and Earth Science and Technology (SOEST).[1] No special facility is dedicated to training but affiliated researchers (some from developing countries) have access to PFRP computer hardware and software. PFRP utilizes meeting rooms at the nearby East-West Center for conferences and training. PFRP projects employ graduate students and have contributed to numerous advanced degrees. The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) is headquartered in Honolulu on the University of Hawaii campus. PIFSC maintains a Honolulu dockside salt-water research facility at Kewalo Basin and leases laboratory facilities at the Hawaii Agricultural Research Center in Aiea.[2]		

[1]PFRP Program Overview website; Parks, Noreen M., John Sibert and May Izumi. Pelagic Fisheries Research Program: Ten Years of Excellence

[2]Overview f Pacific Islands Fisheries Science Center (PIFSC), http://www.nmfs.hawaii.edu/pifsc.php#pifsc_org

12.2 States should establish an appropriate institutional framework to determine the applied research which is required and its proper use.

Question format (Caddy 1996): Has an appropriate institutional framework been established to determine the applied research which is required and its proper use? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) has a leading role in marine research on ecosystems, both in the insular and pelagic environments. It is implementing a multidisciplinary research strategy including a monitoring system and scientific analysis to support ecosystem approaches to management and restoration of living marine resources. It conducts a wide range of activities including resource surveys and stock assessments, fishery monitoring, economic and sociological studies, oceanographic research and monitoring, critical habitat evaluation, life history and ecology studies, and advanced oceanographic and ecosystem modeling and simulations.[1] After its creation in 1992, the Pelagic Fisheries Research Program (PFRP) operated under the same set of research priorities for over 10 years. In November 2005, an international group of scientists and fishery managers gathered for two and a half days in Honolulu to discuss future research priorities for PFRP. The workshop opened with invited presentations from representatives of fisheries research and management organizations in the Pacific, outlining their visions of research priorities. Workshop participants convened in small discussion sessions to identify and rank research topics in four general areas: applied economics, ecosystem integration, biology and life history, and fishing communities.[2]		

[1]Overview of Pacific Islands Fisheries Science Center (PIFSC), http://www.nmfs.hawaii.edu/pifsc.php#pifsc_org

[2]Sibert, John, Scott McCreary, and Eric Poncelet, 2005. Pacific Ocean Connections: Priorities for pelagic fisheries research in the twenty-first century. Report of PFRP Research Priorities Workshop, November 16-18, 2005, *SOEST Publication 06-01, JIMAR Contribution 06-358*, 25 pp.

12.3 States should ensure that data generated by research are analyzed, that the results of such analyses are published, respecting confidentiality where appropriate, and distributed in a timely and readily understood fashion, in order that the best scientific evidence is made available as a contribution to fisheries conservation, management and development. In the absence of adequate scientific information, appropriate research should be initiated as soon as possible.

Question format (Caddy 1996): (a) Are data generated by research being analyzed and the results of such analyses published in a way that confidentiality is respected where appropriate? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
If requested, results of Pelagic Fisheries Research Program (PFRP) research projects can be published in a way that confidentiality is respected where appropriate, or where requested. However, PFRP lacks a formal policy for confidentiality.[1] The following confidentiality standards apply to data collected through the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC).[2] Individual vessel identifiers cannot be attached to any individual data items which are made public. Any fishery-wide aggregations of data shall include information from three or more individual vessels. Latitude and longitude information should be reported or plotted primarily on 5 degree squares, which is the de facto international standard for fisheries data exchange. However, as long as there are at least three vessels included in the overall scope of the data, then data may be reported or plotted for fewer than 3 vessels per 5 degree square. This would not be the case for smaller area strata, such as for 1 degree squares. Whenever confidential data are provided, strict measures are enforced to ensure that data recipients have proper authorization and abide by non-disclosure agreements.		

[1]Dodie Lau, PFRP Administrative Coordinator, personal communication

[2]Pacific Islands Fisheries Science Center (PISFC), www.pifsc.noaa.gov

(b) Are results of analyses being distributed in a timely and readily understandable fashion in order that the best scientific evidence be made available as a contribution to fisheries conservation, management and development? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
All scientific publications produced by t Pelagic Fisheries Research Program (PFRP) are available through links on their website[1]. The PFRP maintains an extensive national and international mailing list. PFRP technical reports, newsletters, and report reprints are sent out to this mailing list on a regular basis. For those not on the mailing list, PFRP results from selected projects published as PFRP technical reports are available on the PFRP website for electronic download and limited hard copies are available upon request. Research projects are often summarized in PFRP newsletters[1] published quarterly newsletter with distribution to more than 350 fisheries managers, academic and government scientists, government fisheries agencies, libraries and interested individuals in 38 countries and US territories. Contact information for individual PIs is made available to inquire about hard copies. PFRP PIs also meet annually to discuss ongoing projects, and the details of these meetings are available in document form on the PFRP website.[2] The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) publishes administrative reports that provide results of PIFSC research in a preliminary and timely form before it is published in peer-reviewed journals.[3] The data are used by various PIFSC in-house research programs and are disseminated to other U.S. agencies, non-governmental organizations, foreign fisheries agencies, academic institutions and the general public in the form of non-confidential summaries for stock assessments and other studies.[4] The data are used to prepare status reports such as the annual report for the Western Pacific Fishery Management Council's Pelagics Fishery Management Plan[5] and the Fisheries of the United States report.		

[1]PFRP Publications website

[2]PFRP Meetings Information website

[3]PIFSC Library, http://www.pifsc.noaa.gov/library/

[4]PIFSC, Fisheries Monitoring and Analysis Program (FMAP), http://www.pifsc.noaa.gov/fmsd/fmap

[5]Western Pacific Fishery Management Council, Pelagics Fishery Management Plan annual report

(c) In the absence of adequate scientific information, is appropriate research being initiated in a timely fashion? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
As fisheries management concerns, governance arrangements, and the fisheries themselves have changed rapidly, the Pelagic Fisheries Research Program (PFRP) makes an effort to keep pace with changing research priorities. A workshop was held in November 2005 to update PFRP research priorities as they have undoubtedly changed since the program's inception in 1992.[1] Highly migratory species are not well suited for abundance estimation by scientific surveys. It is not a reasonable or cost-effective means to estimate abundance of species on which longline fisheries depend. Large-scale tuna tagging projects are a good substitute for scientific surveys. They provide direct estimates of fishing mortality and other rate parameters useful for fishery management. PFRP has sponsored tuna tagging in the Hawaii archipelago and collaborated in tagging research elsewhere in the Pacific The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Service Pacific Islands Fisheries Science Center (PIFSC) studies a variety of pelagic marine species to allow for improved understanding of the mechanisms that influence resource distribution and abundance.[2] The Ecosystems and Oceanography Division (EOD) of PIFSC conducts research to advance understanding of the structure and dynamics of central North Pacific marine ecosystems.[3]		

[1]Sibert, John, Scott McCreary, and Eric Poncelet, 2005. Pacific Ocean Connections: Priorities for pelagic fisheries research in the twenty-first century. Report of PFRP Research Priorities Workshop, November 16-18, 2005, *SOEST Publication 06-01, JIMAR Contribution 06-358*, 25 pp.

[2]PISFC, Fishery Biology and Stock Assessment Division website

[3]PIFSC, Ecosystems and Oceanography Division website

12.4 States should collect reliable and accurate data which are required to assess the status of fisheries and ecosystems, including data on bycatch, discards and waste. Where appropriate, this data should be provided, at an appropriate time and level of aggregation, to relevant States and subregional, regional and global fisheries organizations.

Question format (Caddy 1996): (a) Are reliable and accurate data required to assess the status of fisheries and ecosystems - including data on bycatch, discards and waste - being collected? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii longline operators are required to submit a completed and signed daily longline fishing logbook to the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) within 72 hours after returning to port.[1] PIFSC's Fisheries Monitoring and Analysis Program prepares quarterly and annual summary reports of longline fishing effort and catch (including bycatch and discards) for dissemination to the public and to agency partners in fishery management.[2] Status reports are written for inclusion in the Western Pacific Fishery Management Council's Pelagics Fishery Management Plan annual report[3] (which meets the NOAA Fisheries requirement for an annual stock assessment and fishery evaluation report) and Fisheries of the United States annual report. Similar per-set by time and location information is collected by federally-mandated observers on at least 20% of deep-set tuna longline trips[4] and 100% of shallow-set swordfish longline trips[5] by Hawaii vessels. These observations are summarized quarterly by NOAA Fisheries' Pacific Islands Regional Office.[6]		

[1]CFR, Title 50, Wildlife and Fisheries, Part 665.14, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]Pacific Island Fisheries Science Center, Fisheries Monitoring and Socioeconomics Division

[3]Western Pacific Fishery Management Council, Pelagics Fishery Management Plan annual report

[4]Biological Opinion on the Effects of the Hawaii-Based Pelagic, Deep-Set Longline Fishery on Listed Species, October 4, 2005, 5.2.1. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[5]U.S. Fish and Wildlife Service Biological Opinion on the Effects of the Shallow-set Sector of the Hawaii Longline Fishery on the Short-tailed Albatross (*Phoebastria albatrus*), October 8, 2004, Formal Consultation Log Number 1-2-1999-F-02.2, pp. 71-72. http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

[6]Pacific Islands Regional Observer Program Quarterly Status Reports

(b) Are these data being provided, at an appropriate time and level of aggregation, to relevant States and subregional, regional and global fisheries organizations? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Federally-mandated logbook data submitted by Hawaii longline vessel operators are collected, analyzed and results disseminated by the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) to other U.S. agencies, non-governmental organizations, foreign fisheries agencies, academic institutions and the general public in the form of non-confidential summaries for stock assessments and other studies.[1] Summary data are used to prepare status reports such as the annual report for the Western Pacific Fishery Management Council's Pelagic Fisheries Fishery Management Plan[2] and are forwarded to regional scientific groups affiliated with the Western and Central Pacific Fisheries Commission and Inter-American Tropical Tuna Commission that are responsible for pelagic fisheries stock assessment.		

[1]Pacific Island Fisheries Science Center, Fisheries Monitoring and Socioeconomics Division

[2]Western Pacific Fishery Management Council, Pelagics Fishery Management Plan annual report

12.5 States should be able to monitor and assess the state of the stocks under their jurisdiction, including the impacts of ecosystem changes resulting from fishing pressure, pollution or habitat alteration. They should also establish the research capacity necessary to assess the effects of climate or environment change on fish stocks and aquatic ecosystems (*furthers ecosystem approach to fisheries*, per FAO 2003: 80).

Question format (Caddy 1996): (a) Are States monitoring and assessing the state of the stocks under their jurisdiction, including the impacts of ecosystem changes resulting from fishing pressure, pollution or habitat alteration? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) conducts biology and stock monitoring and assessment studies of pelagic marine species, providing the fundamental biological and ecological research on Federally managed species to allow for improved understanding of the mechanisms that influence resource distribution and abundance. Diet and food web modeling, reproduction and fecundity are all under study. Pollution and other potential threats to essential fish habitat and marine ecosystems are also assessed.[1] PIFSC's Ecosystems and Oceanography Division (EOD) examines how the diversity of marine populations change in response to both direct changes in their predators and prey as well as from broader habitat-based changes in the ocean climate. EOD products include scientific advice for stock monitoring, assessment and fisheries management, development of indicators of ecosystem changes, and the publication of scientific findings related to habitat/environmental effects on individuals, populations, ecosystems, and fisheries.[2] Comprehensive estimates of fishery impacts on pelagic fish population biomass and size structure, through analysis of all available data from Pacific tuna fisheries (including multi-national longline fisheries) for 1950-2004, indicate substantial, though not catastrophic impacts of fisheries on these top-level predators and minor impacts on the pelagic ecosystem in the Pacific Ocean.[3] The Pelagic Fisheries Research Program (PFRP) project entitled "Physical Characteristics of the Environment Influencing Pelagic Fishes" assesses the aquatic habitats of a range of pelagic species and provides information for better interpretation of fishery data.[4]		

[1]PISFC, Fishery Biology and Stock Assessment Division website

[2]PIFSC, Ecosystems and Oceanography Division website

[3]Sibert, John, John Hampton, Pierre Kleiber, Mark Maunder, *Biomass, Size, and Trophic Status of Top Predators in the Pacific Ocean*, Science Magazine, 15 December 2006: Vol. 314. no. 5806, pp. 1773 – 1776. http://www.sciencemag.org/cgi/content/abstract/314/5806/1773?

[4]PFRP Oceanography Projects, Physical Characteristics of the Environment Influencing Pelagic Fishes

(b) Have they established the research capacity necessary to assess the effects of climate or environment change on fish stocks and aquatic ecosystems? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
A number of Pelagic Fisheries Research Program (PFRP) sponsored research projects address the effects of climactic and environmental change on fish stocks and aquatic ecosystems. For example, the PFRP project "Regime Shifts in the Western and Central Pacific Ocean Tuna Fisheries[1]," contributes to the GLOBEC Oceanic Fisheries and Climate Change Project (OFCCP), which has the objective of investigating the effects of climate variability and change on the productivity and distribution of tuna stocks and fisheries in the Pacific Ocean. Another PFRP project, "Impact of ENSO events on tuna fisheries in the U.S.-affiliated Pacific Islands[2]" (cited in PFRP's Ten Year Report[3]) looked at the social and economic impacts of ENSO events on fisheries. A PFRP project entitled "Development of Oceanographic Atlases for Pelagic and Insular Fisheries and Resource Management of the Pacific Basin[4]" is collecting oceanographic data with potential application in stock assessment, and in predictions of effects of seasonal, inter-annual (e.g., El Niño) and decadal variability on fishery performance and population dynamics models. A third PFRP project entitled "Trophic Structure and Tuna Movements in the Cold Tongue-Warm Pool Pelagic Ecosystem of the Equatorial Pacific" [5]combines diet analysis, stable isotopic compositions, food-web modeling, and stable isotope markers to trace tuna movements and trophic-level variation in the equatorial Pacific. The results should help define ecosystem linkages between tuna production and the effects of climate variability, which is important for both fisheries production and ecosystem modeling of the equatorial Pacific Ocean. The Ecosystems and Oceanography Division[6] (EOD) of the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) conducts research to advance understanding of the structure and dynamics of central North Pacific marine ecosystems. In particular, EOD looks at how marine populations change in response to both direct changes in their predators and prey as well as from broader habitat-based changes in the ocean climate including El Niño, La Niña, and other inter-annual or decadal events. Current work is addressing ecosystem and environment impacts for a range of species including the Hawaiian monk seal, several species of sea turtles, and many species of large pelagic fishes including a mix of both commercially important and bycatch species of tunas, billfishes, sharks, and other incidental species. EOD products include scientific advice for stock assessment and fisheries management, development of indicators of ecosystem changes, and the publication of scientific findings related to habitat/environmental effects on individuals, populations, ecosystems, and fisheries.[6]		

[1]PFRP Oceanography Projects, Regime Shifts in the Western and Central Pacific Ocean Tuna Fisheries

[2]Hamnett, Michael P. and Cheryl L. Anderson, 2000. Impact of ENSO events on tuna fisheries in the U.S.-affiliated Pacific Islands. SOEST Publication 00-03, JIMAR Contribution 00-330, 27 pp.

[3]Parks, Noreen M., John Sibert and May Izumi. Pelagic Fisheries Research Program: Ten Years of Excellence.

[4]PFRP Oceanography Projects, Development of Oceanographic Atlases for Pelagic and Insular Fisheries and Resource Management of the Pacific Basin

[5]PFRP Oceanography Projects, Trophic Structure and Tuna Movements in the Cold Tongue-Warm Pool Pelagic Ecosystem of the Equatorial Pacific

[6]PIFSC, Ecosystems and Oceanography Division website

12.6 States should support and strengthen national research capabilities to meet acknowledged scientific standards.

Question format (Caddy 1996): Are States taking steps to support and strengthen national research capabilities to meet acknowledged scientific standards? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Until fiscal year 2008, the Pelagic Fisheries Research Program (PFRP) saw increased support in the form of overall annual Congressional budget increases. Annual reports (beginning from 1992, the year of PFRP establishment) detailing PFRP budgets can be found on the PFRP website. [1] The National Oceanic and Atmospheric Administration (NOAA) is moving ahead with plans to design and build a comprehensive new facility on Ford Island, Pearl Harbor, to house most Honolulu offices of NOAA agencies, including the Pacific Islands Fisheries Research Center (PIFSC). Center staff have participated in several working groups to help plan important details of the facility, including office and laboratory space, small boat facilities, the library, a common telecommunications and information technology center, and various workplace amenities. The new facility is scheduled for completion in 2010, but some functions, such as support for NOAA research vessels, will be enabled sooner.[2]		

[1]PFRP Management Progress Reports website

[2]Pacific Island Fisheries Science Center (PIFSC), http://www.pifsc.noaa.gov

12.7 States, as appropriate in cooperation with relevant international organizations, should encourage research to ensure optimum utilization of fishery resources and stimulate the research required to support national policies related to fish as food.

Question format (Caddy 1996): (a) Are States cooperating with relevant international organizations to encourage research in order to ensure optimum utilization of fishery resources? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
As a member of the Inter-American Tropical Tuna Commission[1] and Western and Central Pacific Fisheries Commission[2], the U.S. cooperates in international stock assessments and other research to ensure optimum utilization of Pacific pelagic fishery resources.		

[1]IATTC Research website

[2]WCPFC, Meetings, Scientific Committee, http://www.wcpfc.int/

(b) Are they stimulating the research required to support national policies related to fish as food? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii seafood processors must comply with the U.S. Code of Federal Regulations, Title 21 Food and Drugs, Chap. 1. Food and Drug Administration, Dept. of Health and Human Services, Sub Chap. B. Food for Human Consumption, Part 123 – Fish and Fishery Products (aka the U.S. Food and Drug Administration (FDA) Seafood Hazard Analysis Critical Control Point (HACCP) Regulation).[1] This regulation was implemented in 1997. It established a mandatory seafood inspection program for the first time in the US. The FDA Seafood HACCP regulation stimulated research in Hawaii needed to support the implementation of this seafood safety policy. Research involved the analysis of potential seafood hazards and the design and verification of effective HACCP-based controls of seafood safety issues associated with pelagic fish, including parasites, histamine and mercury. PacMar Inc., a private consulting company in Hawaii has conducted a series of research studies on these issues funded by the State of Hawaii Dept. of Business and Economic Development, National Oceanic and Atmospheric Administration (NOAA) Saltonstall-Kennedy Fisheries Research Program and NOAA Pacific Islands Regional Office with Hawaii fishing and seafood industry support. Hawaii seafood processors must also comply with the Code of Federal Regulations, Title 21 Food and Drugs, Chap. 1. Food and Drug Administration, Dept. of Health and Human Services, Sub Chap. B. Food for Human Consumption, Part 110 - Current Good Manufacturing Practices (cGMPs) in manufacturing, packing and holding human food.[2] The implementation of the FDA Seafood HACCP regulation resulted in a shift in inspection authority over Hawaii seafood processors from the Hawaii Dept. of Health to the FDA for both cGMPs and Seafood HACCP regulation compliance. This stimulated research in Hawaii to support the seafood industry in standard sanitation operating procedures and applying sensory examination techniques to control spoilage (required by cGMPs) and as a critical seafood safety measure to control histamine (important in HACCP controls for histamine) in fish received from fishing vessels. The Hawaii industry with support from NOAA (and more recently collaboration with the FDA), has led the nation in research focused on controlling histamine on pelagic fishing vessels. Histamine poisoning is one of the most frequently reported seafood-related illnesses in the U.S. Most cases are associated with either imported seafood or recreational fishing. The following is a sequence of seafood safety related research conducted in Hawaii since 1994 to support national policies related to fish as food. *Survey of mercury and selenium in Hawaii's pelagic fish* was conducted under the *Hawaii Seafood Project* (NOAA Award No.NA05NMF4521112) (2005-present) J.J. Kaneko. B. Takenaka, P.K. Bartram, PacMar, Inc., Honolulu, Hawaii. Funded by NOAA and published as Kaneko, J.J. and N.V.C. Ralston, 2007. Selenium and mercury in pelagic fish in the central North Pacific near Hawaii. Biol. Trace Elem. Res. 2007, 119: 242-254, http://www.springerlink.com/content/a7t6506062k1008p/ *Hawaii Seafood Project* (NOAA Award No.NA05NMF4521112) (2005-2008) J.J. Kaneko, B.H. Takenaka, P.K. Bartram, PacMar, Inc.,		

Honolulu, Hawaii. Funded by NOAA. As part of this project, collaborative histamine control research is being conducted with FDA, NOAA, National Sea Grant Program, Hawaii Longline Association and the United Fishing Agency in Honolulu. The outcome of this research is central to the FDA revision of its policy guidance for histamine controls for Hawaii, domestic and foreign fishing vessels and seafood processors supplying the US market with histamine-forming fish including tuna and mahimahi. Some members of this collaborative group are scientists active in national and international seafood safety regulatory and policy efforts and are involved in the National Seafood HACCP Alliance that provides recommendations to the FDA on seafood safety and HACCP policy issues. The project is also conducting research on mercury in 15 important pelagic fish species and contributing to research to investigate the protective effects of selenium on mercury neurotoxicity. *Hawaii Seafood Safety Project* (NOAA Award No. NA03NMF4520365) (2005) J.J. Kaneko, B. Takenaka, P.K. Bartram, PacMar, Inc., Honolulu, Hawaii. Funded by NOAA. Research generated information on the cause, occurrence, control and prevention of histamine, parasites, mercury, ciguatera and other potential public health hazards associated with Hawaii's pelagic, reef and deepwater bottomfish. This project produced an educational booklet *Keeping Hawaii Seafood Safe to Eat* that provides details on the major seafood safety issues associated with Hawaii Seafood. A histamine workshop was held to share Hawaii research results with other scientists from across the country with pelagic fisheries facing the challenge of histamine control and FDA HACCP compliance. Collaborative histamine control research onboard a Hawaii longline vessel was planned. *Verification of a HACCP-based Strategy for the Control of Histamine for the Fresh Tuna Industry (*NOAA Award No. NA16FD2472) (2004) J.J. Kaneko, J.W.Bell, D.R.Hawn, PacMar Inc., Honolulu, Hawaii. Funded by NOAA Saltonstall-Kennedy Fisheries Research Program. This project verified the efficacy of the Hawaii HACCP approach to the control of histamine on fishing vessels. *Development of a HACCP-based Strategy for the Control of Histamine for the Fresh Tuna Industry* (NOAA Award No. NA86FD0067) (2000). J.J. Kaneko, PacMar Inc., Honolulu, Hawaii. Funded by NOAA Saltonstall-Kennedy Fisheries Research Program. This project studied the control of histamine using standard operating procedures for fishing and onboard fish handling. The Hawaii HACCP approach to the control of histamine on fishing vessels was developed. *Development of a Methylmercury Profile for the Central North Pacific Swordfish (Xiphias gladius) Fishery* NOAA Award No. NA66FD0057 **(**1998) J.J. Kaneko, PacMar Inc., Honolulu, Hawaii. Funded by NOAA Saltonstall-Kennedy Fisheries Research Program. This study examined the relationship between fish weight and methylmercury concentration in swordfish in the Hawaii fishery. *Comparison of mercury in Hawaii yellowfin tuna caught in 1971 and 1998*. This study found no change in mercury levels over the 27 year period between sample sets. The results provide insight into the mercury cycle in the pelagic environment. The results suggest that mercury in tuna comes from the food web in the deep ocean and not directly from atmospheric pollution. The study was published as Kraepiel, A.M.L., K. Keller, H.B. Chin, E.G. Malcolm and F.M.M. Morel. (2003) *Sources and variations of mercury in tuna.* Environmental Science and Technology. Vol. 37(24): 5551-5558. Funded by the US Environmental Protection Agency. Tuna sampling was performed by John Kaneko, PacMar Inc.,		

funded by the U.S. Tuna Foundation under the direction of Henry Chin of the National Food Processors Association. *Development and Practical Application of a Generic HACCP Model for the Hawaii Seafood Industry* (1997) J.J. Kaneko, PacMar Inc., Honolulu, Hawaii. Funded by State of Hawaii, Dept. of Business and Economic Development. Prior to the implementation of the FDA Seafood HACCP regulation, this study assessed the seafood safety hazards potentially associated with common Hawaii market fish species and designed a generic HACCP Plan for the typical Hawaii seafood processor. The model plan was used for training and implementation of HACCP by many of Hawaii's seafood processors and integrated food safety controls on fishing vessels. *Quality and Product Differentiation in the Marketing of Fresh Pacific Tuna and Marlin* (1995) P.K. Bartram and J.J. Kaneko, Akala Products, Inc., Honolulu, Hawaii. Funded by NOAA, Pelagic Fisheries Research Program, JIMAR, SOEST, University of Hawaii. This study investigated the market quality requirements for fresh tuna and marlin, and compared quality grading systems in Hawaii and with major U.S. mainland tuna markets. *A Critical Review of the Newly Proposed FDA HACCP System for the Seafood Industry: The Hawaii Industry Perspective* (1994) J.J. Kaneko and P.K. Bartram, PacMar Inc., Honolulu, Hawaii. Funded by State of Hawaii, Dept. of Business and Economic Development. This study reviewed the proposal for the FDA Seafood HACCP regulation. Key seafood safety issues and challenges for the Hawaii fishing and seafood industry were identified, as were hazard analyses held by the FDA on the prevalence and effective controls of some of these potential problems. The study addressed the FDA concerns about parasite risk in fresh tuna sashimi. Based on the presentation of the best available science, the FDA did not implement its proposed policy for mandatory freezing for sashimi tuna (to kill non-existent parasites of public health significance).		

[1]CFR, Title 21, Food and Drugs, Part 123, Fish and Fishery Products

[2]CFR, Title 21, Food and Drugs, Part 110, Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food

12.8 States should conduct research into, and monitor, human food supplies from aquatic sources and the environment from which they are taken and ensure that there is no adverse health impact on consumers. The results of such research should be made publicly available.

Question format (Caddy 1996): (a) Is research being conducted into the study and monitoring of human food supplies from aquatic sources and the environments from which they are taken to ensure that there is no adverse health impact on consumers? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Hawaii Department of Health investigates and monitors seafood-borne illnesses and reports this information to the Center for Disease Control and Prevention.[1,2] Research on the safety of Hawaii Seafood and the efficacy of seafood safety systems is being done in Hawaii to support the industry and to protect the public. Histamine and mercury are the main concerns. The efficacy of histamine control measures is being studied in the following projects. *Quarterly fish sampling and histamine testing* has been performed since 1997 at the United Fishing Agency to verify the continued efficacy of the Hazard Analysis Critical Control Point (HACCP) system for histamine control. Over 80% of the commercial fish landings in Hawaii are sold through the Honolulu Fish Auction, operated by the United Fishing Agency. This information is reviewed annually by U.S. Food and Drug Administration (FDA) inspectors as a HACCP system verification procedure. To date, no single fish tested has exceeded the 50 ppm histamine limit. *Hawaii Seafood Project* (NOAA Award No.NA05NMF4521112) (2005-present) J.J. Kaneko. B.H. Takenaka, P.K. Bartram, PacMar, Inc., Honolulu, Hawaii. Funded by NOAA. This project is conducting collaborative histamine control research with FDA, NOAA, National Sea Grant, the Hawaii Longline Association and the United Fishing Agency in Honolulu. The project is also conducting research on mercury and selenium in 15 important pelagic fish species and contributing to research to investigate the protective effects of selenium on mercury neurotoxicity. *Hawaii Seafood Safety Project* (NOAA Award No. NA03NMF4520365) (2005) J.J. Kaneko, B.H. Takenaka, P.K. Bartram, PacMar, Inc., Honolulu, Hawaii. Funded by NOAA. Research generated information on the cause, occurrence, control and prevention of histamine associated with many of Hawaii's pelagic fish. This project produced an educational booklet *Keeping Hawaii Seafood Safe to Eat* that provides details on the major seafood safety issues associated with Hawaii Seafood. Outreach and training was conducted to share information with fishermen, processors, retailers and food service staff. Research results were submitted to NOAA.		

Bartram, P., K. Nakamura, J.J. Kaneko and G. Krasnick, PacMar, Inc., Honolulu, Hawaii
Hawaii Seafood Project-2 (NOAA Award No. NA06NMF4520222). December 19, 2008

*Verification of a HACCP-based Strategy for the Control of Histamine for the Fresh Tuna Industry (*NOAA Award No. NA16FD2472) (2004) J.J. Kaneko, J.W.Bell, D.R.Hawn, PacMar Inc., Honolulu, Hawaii. Funded by NOAA Saltonstall-Kennedy Fisheries Research Program. This project verified the efficacy of the Hawaii HACCP approach to the control of histamine on fishing vessels. Outreach and training was conducted to share information with fishermen, processors, retailers and food service staff. Research results were submitted to NOAA and FDA. *Development of a HACCP-based Strategy for the Control of Histamine for the Fresh Tuna Industry* (NOAA Award No. NA86FD0067) (2000) J.J. Kaneko, PacMar Inc., Honolulu, Hawaii. Funded by NOAA Saltonstall-Kennedy Fisheries Research Program. This project studied the control of histamine using standard operating procedures for onboard fish handling and developed the Hawaii HACCP approach to the control of histamine on fishing vessels. Research results were submitted to NOAA and FDA. *Development and Practical Application of a Generic HACCP Model for the Hawaii Seafood Industry* (1997) J.J. Kaneko, PacMar Inc., Honolulu, Hawaii. Funded by Hawaii Department of Business and Economic Development. This project developed a HACCP-based approach to controlling histamine integrating fishing vessel and processor controls. Training workshops were held to share the model plans with the Hawaii Seafood industry. Research results were submitted to the State of Hawaii. *A Critical Review of the Newly Proposed FDA HACCP System for the Seafood Industry: The Hawaii Industry Perspective* (1994) J.J. Kaneko and P.K. Bartram, PacMar Inc., Honolulu, Hawaii. Funded by State of Hawaii, Dept. of Business and Economic Development. This study reviewed the FDA proposed regulation for Seafood HACCP. Key seafood safety issues and challenges were identified, as were misconceptions held by the FDA on the prevalence and effective controls of some of these potential problems. The study addressed the FDA misconception about parasite risk in fresh tuna sashimi. Based on the presentation of the best available science, the FDA did not implement its proposed mandatory freezing requirement for sashimi tuna. A policy paper was submitted to the State of Hawaii and FDA during the comment period for the proposed regulation. Monitoring mercury in fish is not routine, but recent studies in Hawaii have confirmed the presence of trace amounts of mercury in pelagic fish. There is growing evidence that mercury in pelagic fish is not directly from anthropogenic sources of mercury pollution, but natural environmental background. Mercury in pelagic fish is being studied. *Survey of mercury and selenium in Hawaii's pelagic fish* was conducted under the *Hawaii Seafood Project* (NOAA Award No.NA05NMF4521112) (2005-present) J.J. Kaneko. B. Takenaka, P.K. Bartram, PacMar, Inc., Honolulu, Hawaii. Funded by NOAA and published as Kaneko, J.J. and N.V.C. Ralston, 2007. Selenium and mercury in pelagic fish in the central North Pacific near Hawaii. Biol. Trace Elem. Res. 2007, 119: 242-254, http://www.springerlink.com/content/a7t6506062k1008p/		

The Development of a Stock Profile for Methyl Mercury for the North Pacific Swordfish (*Xiphias gladius*) NOAA Award No. NA66FD0057 **(**1998) J.J. Kaneko, PacMar Inc., Honolulu, Hawaii. Funded by Saltonstall-Kennedy Fisheries Research Program, NOAA. This study examined the relationship between fish weight and methylmercury concentration in swordfish in the Hawaii fishery. Research results were submitted to the NOAA. *Comparison of mercury in Hawaii yellowfin tuna caught in 1971 and 1998*. This study found no change in mercury levels over the 27 year period between sampling. The results of this study have helped scientists understand the mercury cycle in the pelagic environment and to conclude that atmospheric emissions are not the direct source of mercury found in tuna. The study was published as Kraepiel, A.M.L., K. Keller, H.B. Chin, E.G. Malcolm and F.M.M. Morel. (2003) *Sources and variations of mercury in tuna.* Environmental Science and Technology. Vol. 37(24): 5551-5558. The study was funded by the U.S. Environmental Protection Agency. Tuna sampling was performed by John Kaneko, PacMar Inc., funded by the U.S. Tuna Foundation under the direction of Henry Chin of the National Food Processors Association. The Hawaii Department of Health conducted a survey of mercury in Hawaii's pelagic fish in 2002. Survey results have not been published and are not yet available to the public but were used as one of the data sources for the DOH health advisory *A Local Guide for Eating Fish Safely for Pregnant Women, Nursing Mothers and Young Children*.[3] DOH is planning a monitoring program of fish available at retail outlets in Hawaii and mercury exposure levels by sampling and testing consumer hair mercury to estimate exposure.[4] FDA collects and presents data on *Mercury Levels in Commercial Fish and Shellfish*[5] (last updated Feb 2006) and *Mercury Concentrations in Fish: FDA Monitoring Program (1990 to 2004)*.[6] This information is not broken down by fishery location and it is uncertain how much of the information is from fish collected in the Hawaii pelagic fishery. Fish weights are not reported and in some cases information is not reported down to the species level. NOAA published the *National Marine Fisheries Service Survey of Trace Elements in the Fishery Resource* in 1978, by Hall, R.A., E.G. Zook and G.M. Meaburn. NOAA Technical Report NMFS SSRF-721. pp 315. This survey included testing results for a variety of Hawaii marine fish species. Analytical technology has evolved in the interim period and new survey data are needed.		

[1]Hawaii State Department of Health, Hawaii Food Safety Program, Incidence by County

[2]Hawaii State Department of Health, Hawaii Food Safety Program, Reported Cases by County

[3]Hawaii State Department of Health, A Local Guide to Eating Fish Safely for Pregnant Women, Nursing Mothers and Young Children

[4]Dr. Barbara Brooks, DOH Toxicologist, personal communication, 4/27/06

[5]U.S. FDA, Mercury Levels in Commercial Fish and Shellfish

[6]U.S. FDA, Mercury Concentrations in Fish: FDA Monitoring Program (1990 to 2004)

(b) Are results of such research being made publicly available? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The details of research described in 12.8 (a), have been reported in 1) project reports for the National Oceanic and Atmospheric Administration (NOAA) Fisheries, the State of Hawaii and the U.S. Food and Drug Administration (FDA); 2) peer reviewed journal articles, 3) NOAA technical reports, 4) FDA web-based data sources, 5) health advisories and 6) outreach materials.		

12.9 States should ensure that the economic, social, marketing and institutional aspects of fisheries are adequately researched and that comparable data are generated for ongoing monitoring, analysis and policy formulation.

Question format (PacMar Inc. 2006): Are the economic, social, marketing and institutional aspects of the fishery being adequately researched and comparable data being generated for ongoing monitoring, analysis and policy formation? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Pelagic Fisheries Research Program (PFRP) funds research projects to assess the effects of fisheries policy on both the resources and humans to provide feedback for developing and modifying appropriate management objectives and effective fisheries regulations in support of the Western Pacific Fishery Management Council and National Oceanic and Atmospheric Administration (NOAA) Fisheries. More than a third of PFRP research projects have originated from the disciplines of economics, public policy studies, and the social sciences. Past and current PFRP projects can be viewed on the PFRP website,[1] with an overview in the PFRP Ten Year Report.[2] NOAA Fisheries Pacific Islands Fishery Science Center (PIFSC)'s Fisheries Monitoring and Socioeconomics Division (FMSD) consists of four distinct programs (Economics Program, Human Dimensions Research Program, Fisheries Monitoring & Analysis Program, Western Pacific Fishery Information Network) that conduct a wide variety of fisheries monitoring and research in the Pacific Islands Region and surrounding international waters. FMSD's mission is to provide the best available fisheries-dependent data, fishery reporting, technical support, social and economic research, and advice in support of federal fisheries management in the central and western Pacific.[3]		

[1]PFRP Economics Projects

[2]Parks, Noreen M., John Sibert and May Izumi. Pelagic Fisheries Research Program: Ten Years of Excellence

[3]PIFSC, Fisheries Monitoring and Socioeconomics Division website

12.10 States should carry out studies on the selectivity of fishing gear, the environmental impact of fishing gear on target species and on the behaviour of target and non-target species in relation to such fishing gear as an aid for management decisions and with a view to minimizing non-utilized catches as well as safeguarding the biodiversity of ecosystems and the aquatic habitat (*furthers ecosystem approach to fisheries*, per FAO 2003: 80, 81, 82).

Question format (Caddy 1996): (a) Are studies on the selectivity of fishing gear, the environmental impact of fishing gear on target species and on the behaviour of target and non-target species in relation to such fishing gear being conducted as an aid for management decisions?
Yes...[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hook type (circle, not J hooks) and bait type (fish not squid) are specified in current regulations for the Hawaii swordfish longline fishery.[1] Research was undertaken to determine the effectiveness of these measures in reducing longline sea turtle interactions and maintaining catch rates of target fish species.[2,3] Measures to reduce interactions with seabirds are required under existing regulations for both the tuna and swordfish sectors of Hawaii longline fisheries.[4] Research was undertaken to determine that these measures are effective in reducing seabird interactions in Hawaii longline fisheries.[5,6] The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Service Pacific Islands Fisheries Science Center (PIFSC) conducts gear evaluation studies, looking at how different methods of longline fishing affect a variety of marine species.[7] For example, PIFSC collaborates with Japan[8], Korea[9], Indonesia, Philippines, the World Wildlife Fund, Mexico, Costa Rica, Guatemala, Ecuador, Peru, Chile, the Inter-American Tropical Tuna Commission,[10] Brazil, Uruguay, Spain, and Italy in experiments testing methods to reduce sea turtle bycatch in longlines[11]. A variety of Pelagic Fisheries Research Program (PFRP) studies address the selectivity of fishing gear. One study characterized the vertical habitat of tuna and other pelagic fish species using Time-Depth-Temperature Recorders (TDRs) and hook timers on pelagic longline gear fished on six commercial tuna longline vessels.[12] A 1996 PFRP study done by David Itano looked at the reproductive biology and spawning behavior of yellowfin tuna and the implications to gear vulnerability and fishery interaction[13] (see PFRP Ten Year Report[14]). Various components of other PFRP studies address protected species. A "Protected Species" section has been added to PFRP's list of projects and summaries of past and current projects can be viewed at the PFRP website.[15] The impact of fishing gear on bycatch/catch ratios is also discussed in the PFRP Ten Year Report, in the section entitled "Comparing the Environmental Baggage of Longline Fisheries."		

[1]CFR – Title 50, Wildlife and Fisheries, Part 665.33, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[2]Watson, J.W., S.P. Epperly, A.K. Shah, and D.G. Foster. 2004. Fishing methods to reduce sea turtle mortality associated with pelagic longlines. Canadian Journal of Fisheries and Aquatic Sciences 62:965-981.

[3]Gilman, E., D. Kobayashi, T. Swenarton, N. Brothers, P. Dalzell, I. Kinan. 2007. Reducing sea turtle interactions in the Hawaii-based longline swordfish fishery. Biological Conservation 139: 19-28.

[4]CFR – Title 50, Wildlife and Fisheries, Part 665.35, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[5]Brothers and Gilman. 2006. Technical Assistance for Hawaii Pelagic Longline Vessels to Change Deck Design and Fishing Practices to Side Set

[6]Gilman, E. and D. Kobayashi. 2007. Reducing seabird bycatch in the Hawaii longline tuna fishery. Prep. for the National Marine Fisheries Service, Pacific Islands Regional Office, Honolulu.

[7]PIFSC Administrative Reports website

[8]Minami, H., K. Yokota, and M. Kiyota (2006) Effect of circle hooks and feasibility of de-hooking devices to reduce incidental mortality of sea turtles in the Japanese longline fishery. Working Paper, Western and Central Pacific Fisheries Commission, Scientific Committee, Second Regular Session, 7-18 August 2006, Manila, Philippines. WCPFC-SC-2006/EB WP-9. WCPFC, Meetings, Scientific Committee, http://www.wcpfc.int/

[9]S. S. Kim, D. Y. Moon, C. H. Boggs, D. H. An and J. R. Koh. Comparison of circle hook and J hook catch rate for target and bycatch species taken in the Korean tuna longline fishery. Working Paper, Western and Central Pacific Fisheries Commission, Scientific Committee, Second Regular Session, 7-18 August 2006, Manila, Philippines. WCPFC-SC2-2006/EB WP-12. WCPFC, Meetings, Scientific Committee, http://www.wcpfc.int/

[10]Inter-American Tropical Tuna Commission (IATTC). 2006. The sea turtle bycatch mitigation program for the coastal longline fleets and preliminary results of circle hook experiments. IATTC Working Group on Bycatch 5th meeting, Busan, Korea, 24 June 2006. IATTC- BWG-5-04. 5pp.

[11]Boggs, C. 2005. Appendix D: Recent (2005) developments in scientific research on the use of circle hooks to reduce longline bycatch of sea turtles. Pages 17-22 in Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC), First Meeting of the Technical and Compliance Committee (TCC), 5-9 December, 2005, Sea Turtle Conservation and Management: Actions by the Commission, Relevant Regional Fisheries Management Organizations, and Regional Fisheries Bodies. WCPFC/TCC1/18 Suppl. 2. 22 pp. WCPFC, Meetings, Technical & Compliance Committee, http://www.wcpfc.int/

[12]Hawn, Donald and Michael Seki. End of the Line: Using Instrumented Longline to Study Vertical Habitat of Pelagic Fishes. PFRP Newsletter July-September 2005, pp 1-2.

[13]Itano 1996. The Reproductive Biology of Yellowfin Tuna (Thunnus albacares) in Hawaiian Waters and the Western Tropical Pacific Ocean: Project Summary. SOEST 00-01, JIMAR Contribution 00-328. http://www.soest.hawaii.edu/PFRP/biology/itano/itano_yft.pdf

[14]Parks, Noreen M., John Sibert and May Izumi. Pelagic Fisheries Research Program: Ten Years of Excellence

[15]PFRP Protected-Species Projects website

b) Is an attempt being made through research to minimize non-utilized catches? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Hawaii's fresh fish market values virtually all fish species that are harvested in Hawaii's multi-species pelagic longline fisheries.[1] The major exception is blue shark. Research has been conducted on shark interactions in longline fisheries[2] and methods to reduce the incidental catch of pelagic sharks, particularly blue shark, which comprise the largest non-utilized catch in these fisheries. Pelagic Fisheries Research Program (PFRP) projects are studying the horizontal and vertical movements, distribution and survival rates of blue sharks captured and released from commercial longline gear.[3]		

[1]Hawaii Seafood Buyer's Guide – Buyer's Summary

[2]Gilman, E. et al. 2008. Shark interactions in pelagic longline fisheries. Marine Policy 32: 1-18.

[3]PFRP Management Progress Reports website; PFRP Principal Investigators Workshop, Associative Behavior: Fisheries, FADs and Conservation, November 13-14, 2007, Imin Conference Center, University of Hawaii at Manoa campus, Bill Walsh and Keith Bigelow presentation, http://www.soest.hawaii.edu/PFRP/nov07mtg/nov07mtg_presentations.html

(c) Is the biodiversity of ecosystems and the aquatic habitat being safeguarded (through research)? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Fisheries Science Center (PIFSC), Fishery Biology and Stock Assessment Division, studies the ecology of exploited stocks and the effects of stock levels, harvests, and bycatch on the broader ecosystem. These questions are explored through food web analyses and ecosystem models.[1] PIFSC's Ecosystems and Oceanography Division[6] examines how the diversity of marine populations change in response to both direct changes in their predators and prey as well as from broader habitat-based changes in the ocean climate.[2] The Pelagic Fisheries Research Program (PFRP) project entitled "Physical Characteristics of the Environment Influencing Pelagic Fishes"[3] assesses the aquatic habitats of a range of pelagic species and provides information for better interpretation of fishery data. PFRP-affiliated scientists participate in a multi-regional program known as Climate Impacts on Oceanic Top Predators (CLIOTOP), a ten year program under the international research program Global Ocean Ecosystem Dynamics (GLOBEC). CLIOTOP is devoted to the study of oceanic top predators within their ecosystems and is based on a worldwide comparative approach, i.e. among regions, oceans and species.[4]		

[1]PISFC, Fishery Biology and Stock Assessment Division website

[2]PIFSC, Ecosystems and Oceanography Division website

[3]PFRP Oceanography Projects, Physical Characteristics of the Environment Influencing Pelagic Fishes

[4]Global Ocean Ecosystem Dynamics (GLOBEC), Climate Impacts on Oceanic Top Predators (CLIOTOP), http://www.globec.org/structure/regional/cliotop/cliotop.htm

12.11 States should ensure that before the commercial introduction of new types of gear, a scientific evaluation of their impact on the fisheries and ecosystems where they will be used should be undertaken. The effects of such gear introductions should be monitored (furthers ecosystem approach to fisheries, per FAO 2003: 80, 81, 82).

Question form (Caddy 1996): (a) Before the commercial introduction of a new type of gear, is a scientific evaluation of its impact on the fisheries and ecosystems where it will be used being undertaken? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) conducts gear evaluation studies, looking at how different methods of fishing affect a variety of marine species.[1] A good example is the Federal government closure of the Hawaiian swordfish longline fishery in 2001, and the studies done prior to its re-opening in 2004.[2] The National Environmental Policy Act (NEPA) requires analysis of any potentially significant environmental impacts that may result from new regulations. The findings are summarized either in a finding of no significant impact (FONSI) or a record of decision.[3]		

[1]PIFSC Administrative Reports website

[2]WPFMC, U.S. Western Pacific Fisheries – Past to Present

[3]Environmental Impact Statement – Western Pacific Pelagic Fisheries EIS

(b) Is the effect of such gear introduction monitored? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Federally-mandated observers have covered 100% of shallow-set swordfish longline trips by Hawaii vessels since re-opening of the fishery in 2004, primarily to monitor gear interactions with protected sea turtles.		

U.S. Fish and Wildlife Service Biological Opinion on the Effects of the Shallow-set Sector of the Hawaii Longline Fishery on the Short-tailed Albatross (*Phoebastria albatrus*), October 8, 2004, Formal Consultation Log Number 1-2-1999-F-02.2, pp. 71-72.
http://www.fpir.noaa.gov/DIR/dir_public_documents.html#biological_opinion

12.12 States should investigate and document traditional fisheries knowledge and technologies, in particular those applied to small-scale fisheries, in order to assess their application to sustainable fisheries conservation, management and development.

Question format (Caddy 1996): Are traditional fisheries knowledge and technologies being investigated and documented, in particular those applied to small-scale fisheries, in order to assess their application to sustainable fisheries conservation, management and development? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Pelagic Fisheries Research Program (PFRP) projects have explored the possible applications of local fishery knowledge to the management and development of Hawaii's small-scale pelagic fisheries.		

PFRP Socio-cultural Projects, Local Fishery Knowledge: Its Application to the Management and Development of Small-scale Tuna Fisheries in the U.S. Pacific Islands

12.13 States should promote the use of research results as a basis for the setting of management objectives, reference points and performance criteria, as well as for ensuring adequate linkages between applied research and fisheries management.

Question format (Caddy 1996): (a) Is the use of research results as a basis for the setting of management objectives, reference points and performance criteria being promoted? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) administers scientific research and monitoring programs that specifically support the domestic and international conservation and management of pelagic marine resources and generate feedback for setting fishery management policy and objectives. The Fishery Biology and Stock Assessment Division[1] uses research to improve stock assessments and to advise resource management at both species and ecosystem levels while addressing mandates of the Magnuson-Stevens, Endangered Species, Marine Mammal Protection, and Migratory Bird Treaty Acts. In "Recommended Overfishing Definitions and Control Rules for the Western Pacific Fishery Management Council's Pelagics Fishery Management Plan,"[2] PIFSC outlines control rules and stock status determination reference points recommended for Federally-managed pelagic species.		

[1]PIFSC Fishery Biology and Stock Assessment Division website

[2]Boggs, Christofer, Paul Dalzell, Tim Essington, Marc Labelle, David Mason, Robert Skillman, and Jerry Wetherall. 2000. Recommended Overfishing Definitions and Control Rules for the Western Pacific Regional Fishery Management Council's Pelagic Fishery Management Plan

(b) Is research being used to help ensure adequate linkages between applied research and fisheries management? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
New fishing technologies are developed, tested, and promoted internationally by the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center and its partners to reduce bycatch and the impacts of pelagic longline fisheries on populations of sea turtles, seabirds, sharks, and other species caught incidentally.[1] Hook type (circle, not J hooks) and bait type (fish not squid) are specified in current regulations for the swordfish sector of Hawaii longline fisheries.[2] Research was undertaken to determine that these measures are cost-effective in reducing sea turtle interactions before they were adopted as Hawaii longline fisheries regulations.[3] Measures to reduce interactions with seabirds are required under existing regulations for both the tuna and swordfish sectors of Hawaii longline fisheries.[4] Research was undertaken to determine that these measures are cost-effective in reducing sea turtle interactions before they were adopted as Hawaii longline fisheries regulations.[5]		

[1]PIFSC Fishery Biology and Stock Assessment Division website

[2]CFR – Title 50, Wildlife and Fisheries, Part 665.33, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[3]Watson, J.W., S.P. Epperly, A.K. Shah, and D.G. Foster. 2004. Fishing methods to reduce sea turtle mortality associated with pelagic longlines. Canadian Journal of Fisheries and Aquatic Sciences 62:965-981.

[4]CFR – Title 50, Wildlife and Fisheries, Part 665.35, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl

[5]Brothers and Gilman. 2006. Technical Assistance for Hawaii Pelagic Longline Vessels to Change Deck Design and Fishing Practices to Side Set

12.14 States conducting scientific research activities in waters under the jurisdiction of another State should ensure that their vessels comply with the laws and regulations of that State and international law.

Question format (Caddy 1996): Are States conducting scientific research activities in waters under the jurisdiction of another State, ensuring that their vessels comply with the laws and regulations of that State and international law? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
A Pelagic Fisheries Research Program (PFRP) project is conducting "Direct Tests of the Efficacy of Bait and Gear Modifications for Reducing Interactions of Sea Turtles with Longline Fishing Gear in Costa Rica[1]" within the Costa Rican Exclusive Economic Zone. This project complies with the laws and regulations of Costa Rica and applicable U.S. laws by obtaining the necessary permits required for U.S. and Costa Rican scientists to pursue this research that may impact threatened species. The process of compliance with state and international laws is described in the project's 2003 progress report.[2]		

[1]PFRP Protected Species Projects, Direct Tests of the Efficacy of Bait and Gear Modifications for Reducing Interactions of Sea Turtles with Longline Fishing Gear in Costa Rica

[2]JIMAR, PFRP Annual Progress Report FY 2003, Project Proposal Title: Direct Tests of the Efficacy of Bait and Gear Modifications for Reducing Interactions of Sea Turtles with Longline Fishing Gear in Costa Rica

12.15 States should promote the adoption of uniform guidelines governing fisheries research conducted on the high seas.

Question format (PacMar Inc. 2006): Is the adoption of uniform guidelines being promoted governing fisheries research conducted on the high seas? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 0		
Yes	*Some*	*No*
		Pelagic Fisheries Research Program (PFRP) projects on the high seas are mostly fish tagging studies that do not promote uniform guidelines for high seas research.

PFRP Biology Projects, Hawaii Regional Tuna Tagging Project

Analysis: This provision is scored "0" because the only fisheries research on the high seas promoted by the State are fish tagging studies that do not follow uniform guidelines because of the different pelagic species and different ocean areas on which research is focused.

Likelihood of improving compliance: Pelagic fisheries scientists studying Hawaii longline fisheries are anxious to collaborate with colleagues in other fishing nations, but collaboration is based on good project-by-project research design and execution, not uniform guidelines for all pelagic species and Pacific ocean areas. Thus, the score for this provision is not likely to improve.

12.16 States should, where appropriate, support the establishment of mechanisms, including, *inter alia*, the adoption of uniform guidelines, to facilitate research at the subregional or regional level and should encourage the sharing of the results of such research with other regions.

Question format (PacMar Inc. 2006): (a) Is the establishment of appropriate mechanisms being supported, including, *inter alia*, the adoption of uniform guidelines, to facilitate research at the subregional or regional level? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Past and current Pelagic Fisheries Research Program (PFRP) fish tagging projects support research at the subregional and regional levels, as well as the intersection and overlap between larger scales with smaller, local scales of research.[1,2] In November 2005, an international group of scientists and fishery managers gathered for two and a half days in Honolulu to discuss future research priorities for PFRP. One of the highest ranking topics that arose from the workshop was to support future large-scale tagging programs to investigate movement on different scales. More detail on this topic can be found in Section 6.1.2 of the report, "What is the appropriate scale of pelagic fisheries research?[3]" Another presentation, "Tunas in Space: Scales of Interactions in Large Ecosystems," was presented at a PFRP Principal investigators' meeting in 2000.[4] The Western Pacific Fishery Management Council provides logistic and funding support for multi-organization sea turtle nesting beach protection projects and research throughout the Pacific Basin following guidelines expressed at the "Bellagio Conference" in 2003 to consider all life phases of sea turtles in conservation efforts.[5]		

[1]PFRP Biology Projects website

[2]PFRP Oceanography Projects website

[3]Sibert, John, Scott McCreary, and Eric Poncelet, 2005. Pacific Ocean Connections: Priorities for pelagic fisheries research in the twenty-first century. Report of PFRP Research Priorities Workshop, November 16-18, 2005, *SOEST Publication 06-01, JIMAR Contribution 06-358*, 25 pp.

[4]PFRP Principal Investigators Meeting, Exploitation, Predation, and Scales of Spatial Variability in Pelagic Fisheries, December 5-7, 2000, Imin Conference Center, UH Manoa campus, Tim Essington presentation: Tunas in Space: Scales of Interactions in Large Ecosystems.

[5]WPRFMC, Protected Species Conservation, http://www.wpcouncil.org/protected/

(b) Is the sharing of the results of such research encouraged with other regions or fisheries? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Western Pacific Fishery Management Council and National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) and Pacific Islands Regional Office participate in international meetings and training where new protected species-saving longline gear developments are transferred to foreign fisheries.[1, 2] To promote wide sharing of research results, the Pelagic Fisheries Research Program produces a quarterly newsletter[3] that circulates around the world to more than 350 fisheries managers, academic and government scientists, government fisheries agencies, libraries and interested individuals in 38 countries and U.S. territories. Detailed technical reports and informal workshop reports are available online.[4] A section of the PFRP Ten Year Report,[5] is concerned with "Communicating Results & Fostering International Cooperation.." In addition, PFRP holds two annual principal investigators' meetings.[6] PIs are required to make presentations to audiences of international fishery scientists at either of these venues. PFRP has been involved in international fisheries meetings for the past 10 years.[5] The North Pacific Marine Science Organization (PICES), an intergovernmental scientific organization, was established in 1992 to promote and coordinate marine research in the northern North Pacific and adjacent seas. PICES provides a forum for scientists for study of North Pacific oceanographic regimes. Its present members are Canada, Japan, People's Republic of China, Republic of Korea, the Russian Federation, and the United States of America. During its first decade, PICES focused on environmental variation and its impacts on marine ecosystems. NOAA scientists from four NMFS Science Centers and several other NOAA research groups participate in PICES working groups.[7]		

[1]WPRFMC, Protected Species Conservation, http://www.wpcouncil.org/protected.htm

[2]Boggs, C. 2005. Appendix D: Recent (2005) developments in scientific research on the use of circle hooks to reduce longline bycatch of sea turtles. Pages 17-22 in Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC), First Meeting of the Technical and Compliance Committee (TCC), 5-9 December, 2005, Sea Turtle Conservation and Management: Actions by the Commission, Relevant Regional Fisheries Management Organizations, and Regional Fisheries Bodies. WCPFC/TCC1/18 Suppl. 2. 22 pp. http://www.wcpfc.int/

[3]PFRP Publications website

[4]PFRP website

[5]Parks, Noreen M., John Sibert and May Izumi. Pelagic Fisheries Research Program: Ten Years of Excellence

[6]PFRP Meetings Information website

[7]North Pacific Marine Science Organization (PICES), http://www.pices.int

12.17 States, either directly or with the support of relevant international organizations, should develop collaborative technical and research programmes to improve understanding of the biology, environment and status of transboundary aquatic stocks.

Question format (Caddy 1996): Are States, either directly or with the support of relevant international organizations, developing collaborative technical and research programmes to improve understanding of the biology, environment and status of transboundary aquatic stocks? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
Representatives from the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC) and Pacific Islands Regional Office (PIRO) and from the Western Pacific Fishery Management Council (Council) participate in meetings of the Scientific Committee and Technical & Compliance Committee of the Western and Central Pacific Fisheries Commission[1] and Inter-American Tropical Tuna Commission[2] to develop collaborative programs to improve understanding of highly migratory species and stock status. PIFSC collaborates with Japan[3], Korea[4], Indonesia, Philippines, the World Wildlife Fund, Mexico, Costa Rica, Guatemala, Ecuador, Peru, Chile, the Inter-American Tropical Tuna Commission,[5] Brazil, Uruguay, Spain, and Italy in experiments testing methods to reduce sea turtle bycatch in longlines.[6] The Council provides logistic and funding support for multi-organization sea turtle nesting beach protection projects and research throughout the Pacific Basin following guidelines expressed at the "Bellagio Conference" in 2003 to consider all life phases of sea turtles in conservation efforts.[7] The majority of Pelagic Fisheries Research Program (PFRP) funds have supported research based at the University of Hawaii and PIFSC but the program steering committee makes it clear that all relevant research proposals are welcomed, and a variety of projects from many countries has been funded. This policy expands the pool of potential researchers and fosters the sharing of results internationally, as described in the "Communicating Results and Fostering International Cooperation" section[8] of the Ten Year Report. One PFRP project, entitled "Mobility of tropical tunas and the implications for fisheries management,"[9] specifically addresses the mobility of transboundary pelagic fish stocks.		

[1]WCPFC – Stock Assessment Specialist Group

[2]IATTC – Stock Assessment Reports

[3]Minami, H., K. Yokota, and M. Kiyota (2006) Effect of circle hooks and feasibility of de-hooking devices to reduce incidental mortality of sea turtles in the Japanese longline fishery. Working Paper, Western and Central Pacific Fisheries Commission, Scientific Committee, Second Regular Session, 7-18 August 2006, Manila, Philippines. WCPFC-SC-2006/EB WP-9. WCPFC, Meetings, Scientific Committee, http://www.wcpfc.int

[4]S. S. Kim, D. Y. Moon, C. H. Boggs, D. H. An and J. R. Koh. Comparison of circle hook and J hook catch rate for target and bycatch species taken in the Korean tuna longline fishery. Working Paper, Western and Central Pacific Fisheries Commission, Scientific Committee, Second Regular Session, 7-18 August 2006, Manila, Philippines. WCPFC-SC2-2006/EB WP-12 WCPFC, Meetings, Scientific Committee, http://www.wcpfc.int

[5]Inter-American Tropical Tuna Commission (IATTC). 2006. The sea turtle bycatch mitigation program for the coastal longline fleets and preliminary results of circle hook experiments. IATTC Working Group on Bycatch 5th meeting, Busan, Korea, 24 June 2006. IATTC- BWG-5-04. 5pp.

[6]Boggs, C. 2005. Appendix D: Recent (2005) developments in scientific research on the use of circle hooks to reduce longline bycatch of sea turtles. Pages 17-22 in Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC), First Meeting of the Technical and Compliance Committee (TCC), 5-9 December, 2005, Sea Turtle Conservation and Management: Actions by the Commission, Relevant Regional Fisheries Management Organizations, and Regional Fisheries Bodies. WCPFC/TCC1/18 Suppl. 2. 22 pp. http://www.wcpfc.int/

[7]WPRFMC, Protected Species Conservation, http://www.wpcouncil.org/protected

[8]Parks, Noreen M., John Sibert and May Izumi. Pelagic Fisheries Research Program: Ten Years of Excellence.

[9]Sibert and Hampton 2003.Mobility of tropical tunas and the implications for fisheries management, http://www.soest.hawaii.edu/PFRP/reprints/mobility.pdf

12.18 States and relevant international organizations should promote and enhance the research capacities of developing countries, inter alia, in the areas of data collection and analysis, information, science and technology, human resource development and provision of research facilities, in order for them to participate effectively in the conservation, management and sustainable use of living aquatic resources.

Question format (Caddy 1996): Are States and relevant international organizations promoting and enhancing the research capacities of developing countries, *inter alia*, in the areas of data collection and analysis, information, science and technology, human resource development and provision of research facilities, in order for them to participate effectively in the conservation, management and sustainable use of living aquatic resources? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	The Secretariat of the Pacific Community (SPC) can provide technical support when requested by its Pacific island country members to enhance marine research capacities of developing Pacific Island member countries. SPC activities are financed by various donors.[1] The National Oceanographic and Atmospheric Administration (NOAA) Fisheries Pacific Islands Fisheries Science Center (PIFSC)'s Western Pacific Fishery Information Network (WPacFIN)[2] promotes the fisheries research capabilities of local state and territorial fisheries offices by providing technical support and some funding to address changing data and information needs to meet new federal requirements as they arise. Under the terms of the South Pacific Tuna Treaty, an Economic Assistance Agreement between the U.S. Government (U.S. Agency for International Development) and the Forum Fisheries Agency (FFA). The U.S. Government pays $18 million annually, subject to the availability of appropriated funds for this purpose, into an economic development fund administered by the FFA. The FFA ensures that the fund is used to support economic development programs in the region. In addition to paying access fees, the U.S. purse seine tuna industry also pays the FFA costs associated with observer coverage (including training), vessel monitoring system deployment and associated recurring costs, and a regional registration fee.[3] The Western Pacific Fishery Management Council provides logistic and funding support for multi-organization sea turtle nesting beach protection projects and research to reduce sea turtle bycatch in longline fisheries throughout the Pacific Basin.[4] Technical and financial assistance to enhance fisheries research capabilities may be available to member countries from the Asian Development Bank (ADB),[5] the World Bank[6], or to foreign nations from the U.S. Agency for International Development (USAID).[7]	

[1]SPC Marine Resources Division website

[2]PIFSC, Western Pacific Fishery Information Network website

[3]Treaty on Fisheries Between the Governments of Certain Pacific Island States and the Government of the United States of America (South Pacific Tuna Treaty -- SPTT), http://www.nmfs.noaa.gov/ia/intlagree/docs/SPTT%20-%2005.doc

[4]WPRFMC, Protected Species Conservation, http://www.wpcouncil.org/protected/

[5]ADB, Projects website

[6]The World Bank, Projects & Operations website

[7]U.S. Agency for International Development (USAID), http://www.usaid.gov/about_usaid/

Analysis: The U.S. and international organizations are enhancing the marine research capacities in some developing Pacific island countries but this is a selective process usually based on special relationships with the U.S. or with international aid organizations. Therefore, this provision was assigned only a ½ score.

Likelihood of improving compliance: Neither the U.S. nor international aid organizations give highest priority to developing countries in the Pacific or to the marine research sector. Other regions of the world and economic sectors are likely to receive higher priority, so there is little likelihood for improving the score for this provision.

12.19 Competent international organizations should, where appropriate, render technical and financial support to States upon request and when engaged in research investigations aimed at evaluating stocks which have been previously unfished or very lightly fished.

Question format (PacMar Inc. 2006): Are competent international organizations available to render technical and financial support upon request and when engaged in research investigations aimed at evaluating stocks which have been previously unfished or very lightly fished? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = 1		
Yes	*Some*	*No*
The Secretariat of the Pacific Community (SPC) can provide technical support when requested by its Pacific island country members to conduct research to evaluate stocks previously not heavily fished in the South Pacific. SPC activities are financed by various donors.[1] Technical and financial assistance for research of potential new pelagic fisheries may be available to member countries from the Asian Development Bank (ADB)[2], the World Bank[3], or to foreign nations from the U.S. Agency for International Development (USAID).[4] In the early 1990s, USAID funded a pilot longline fishery project in Tonga to evaluate previously lightly fished pelagic stocks.		

[1]SPC Marine Resources Division website

[2]ADB, Projects website

[3]The World Bank, Projects & Operations website

[4]U.S. Agency for International Development (USAID), http://www.usaid.gov/about_usaid/

12.20 Relevant technical and financial international organizations should, upon request, support States in their research efforts, devoting special attention to developing countries, in particular the least-developed among them and small island developing countries.

Question format (PacMar Inc. 2006): Are relevant technical and financial international organizations available, upon request, to support research efforts, devoting special attention to developing countries, in particular the least-developed among them and small island developing countries? ***Yes...***[1] ***In part...***[½] ***No...***[0]

Extent of Compliance by Hawaii Pelagic Longline Fisheries = ½		
Yes	*Some*	*No*
	The Secretariat of the Pacific Community (SPC) can provide technical support when requested by its Pacific island country members and subject to funding availability to support research efforts in developing Pacific Island member countries. SPC activities are financed by various donors.[1] Research on pelagic fisheries in small island developing countries may be supported by the Asian Development Bank (ADB),[2] the World Bank[3], or the U.S. Agency for International Development (USAID).[4] ADB is not now involved in the fisheries sector in the Pacific islands. Nor is USAID. The World Bank commissioned a study of its potential role.[5]	

[1]SPC Marine Resources Division website

[2]ADB, Projects website

[3]The World Bank, Projects & Operations website

[4] U.S. Agency for International Development (USAID), http://www.usaid.gov/about_usaid/

[5]Gillett, R. and G. van Santen. 2007. Major issues and constraints preventing Pacific island countries from obtaining optimal benefits from their fishery resources. A report prepared for the World Bank.

Analysis: The U.S. and international organizations provide technical and financial support to marine research in some developing Pacific island countries but this is a selective process usually based on special relationships with the U.S. or with international aid organizations. Therefore, this provision was assigned only a ½ score.

Likelihood of improving compliance: Neither the U.S. nor international aid organizations give highest priority to developing countries in the Pacific or to the marine research sector. Other regions of the world and economic sectors are likely to receive higher priority, so there is little likelihood for improving the score for this provision.