

**MARINE FISHERIES DEVELOPMENT
AND MANAGEMENT ON GUAM:
IT'S CURRENT STATUS**

Guam Coastal Management Program
Bureau of Planning
Government of Guam
Agana, Guam

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GLOSSARY OF ABBREVIATIONS

CFAP	Coastal Fisheries Assistance Program
DAWR	Division of Aquatic and Wildlife Resources
EIS	Environmental Impact Statement
FCMA	Fishery Conservation and Management Act
FCZ	Fishery Conservation Zone
FMP	Fishery Management Plan
GCMP	Guam Coastal Management Program
GFBA	Guam Fishing and Boating Association
GFCA	Guam Fishermen's Cooperative Association
GIFA	Governing International Fishing Agreement
GMFAC	Guam Marine Fisheries Advisory Council
NMFS	National Marine Fisheries Service
PIDC	Pacific Islands Development Commission
PMP	Pacific Tuna Development Foundation
SPC	South Pacific Commission
SSC	Scientific and Statistical Committee
UOG	University of Guam
USFWS	United States Fish and Wildlife Service
WPRFMC	Western Pacific Regional Fishery Management Council

Background

Since the precontact era, fisheries on Guam has been an important component of the island's naturally limited resource base. The degree of exploitation of marine resources has fluctuated to opposite extremes as the direct result of cultural and technological changes in society. The Precontact Chamorro were a fishing and horticultural society, heavily dependent upon fish, shellfish and other marine organisms as staple foods for subsistence. Multiple phases of colonial heritage brought drastic changes in subsistence methods and the current practices related to fishing are primarily at a limited recreational and commercial level. Few full-time fishermen presently exist on Guam. However, interest in a small-scale, fishing industry is steadily increasing and the potential for large-scale corporate fishing industry development is seen as a significant growth sector in the Territory's developing economy.

The official Government of Guam policy related to living marine resources, as developed by the Guam Coastal Management Program is:

All living resources within the territorial waters of Guam, particularly corals and fish, shall be protected from overharvesting and, in the case of marine mammals, from any taking whatsoever.

This conservation policy does not discourage fisheries development, just irresponsible use of such resources, and is balanced by policies manifested in the Guam Comprehensive Development Plan which state:

Encourage increased investment in the area of fisheries resources and aquaculture.

Support research and development activities of regional foundations and commissions involved in fisheries development.

Increase governmental efforts in research and management of fisheries resources.

Develop commercial fishing support facilities on Dry Dock Island in Apra Harbor.

Encourage establishment of a cannery and a freezing and transshipment plant.

Support fishing cooperatives in their efforts to provide adequate dock and service facilities.

Both conservation and development policies recognize that the Government of Guam must promote the conservation and wise use of existing stocks of important commercial and recreational species, develop new or poorly utilized ones, and ensure that these stocks are fairly allocated among user groups.

Presently, Guam is only in the initial stages of fisheries development. Much more planning and research is needed before the island can include fisheries among the types of industries contributing to economic growth on a significant and consistent basis. The industry is well-developed in Hawaii, Samoa, Truk, and Palau; thus, Guam can benefit from the expertise developed within the Pacific Region. However, much more information is available concerning fisheries in the Central-Eastern Pacific than for the Southwest Pacific on topics such as feeding habits, spawning habits and migration routes of skipjack tuna, as well as the provision of baitfish. It is known that significant marine fisheries resources are present in regional waters surrounding Guam. Japan has long exploited the region, but has generally guarded catch statistics, locations and fishing methods. They have even intensified operations within the region in conjunction with fish population declines in their territorial waters. This not only illustrates that commercially harvestable levels are present, but also that fisheries development and management affecting Guam involves local, regional and foreign interests.

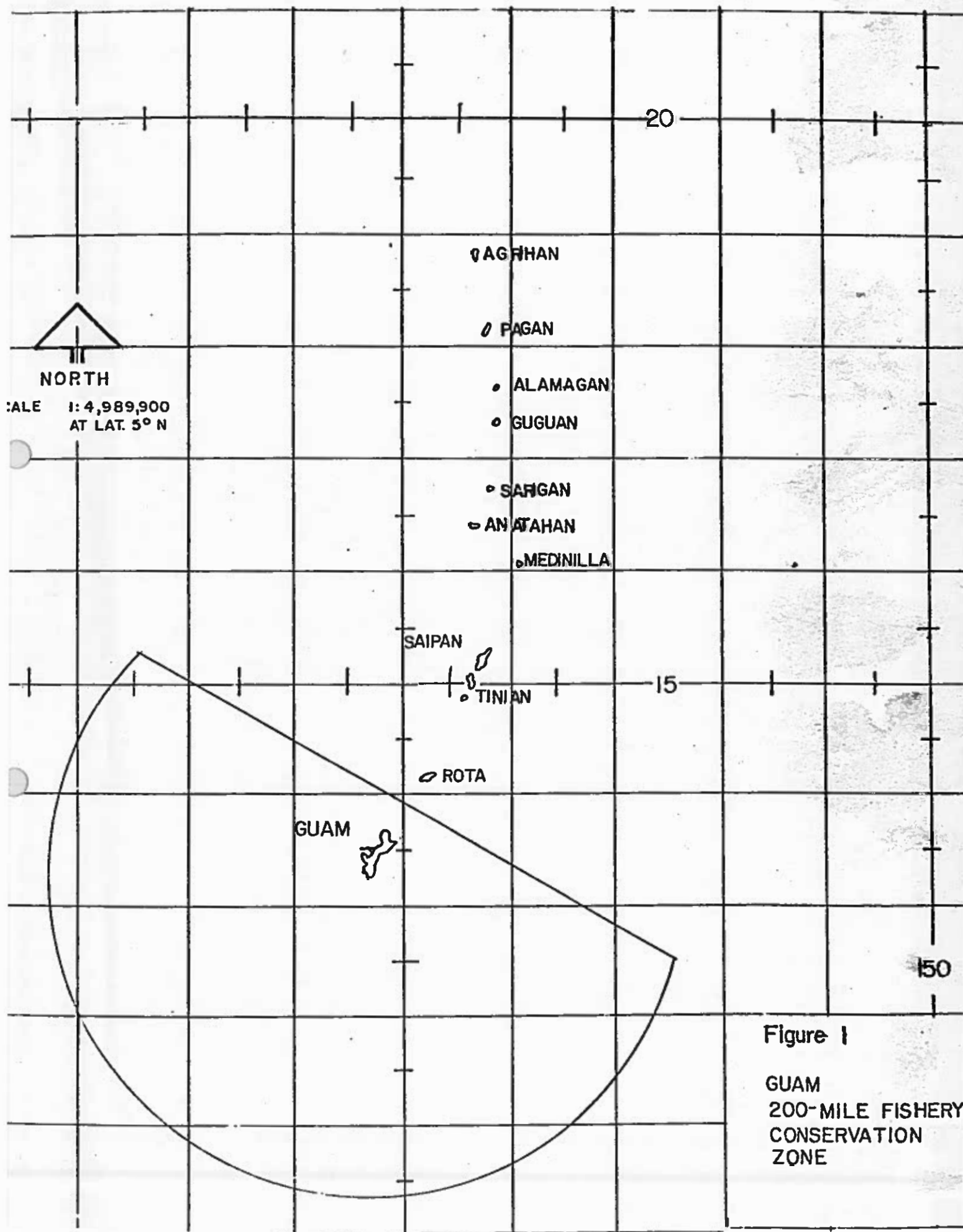
In reviewing the policies related to fisheries development and the objectives of numerous agencies, commissions and special interest groups, it becomes quickly evident that there is a primary need for improved coordination between such groups. One means of addressing the diversity of functions and interests is through Guam's participation in the federal Coastal Fisheries Assistance

Program (CFAP), funded through the Department of Commerce, Office of Coastal Zone Management (See Appendix 1).

This paper is a compilation of a data regarding the current status of marine fishery-related interests, projects and agency functions. As background information, it can be utilized in development of a CFAP narrative or toward eventual preparation of a Fisheries Development and Management Plan for Guam. The paper is solely concerned with harvesting of offshore marine species; aquaculture is not addressed in this context.

The Fishery Conservation and Management Act of 1976 and the Western Pacific Regional Fishery Management Council

The federal Fishery Conservation and Management Act (FCMA) was signed into law on April 13, 1976. Depletion of fish stocks within territorial waters and foreign competition with U. S. fishermen prompted passage of the Act. The law established a 200-nautical mile Fishery Conservation Zone (FCZ), (See Fig. 1). This zone extends U. S. jurisdiction over marine resources beyond waters within the 3-mile territorial limit which is managed by local enforcement capability. Within the FCZ, foreign vessels are prohibited from harvesting marine resources without permits. Foreign fishing for migratory species (tuna) is excluded from the provisions of the Act. The U. S. Coast Guard has the responsibility of enforcing the provisions of the FCMA. They currently have both air and vessel reconnaissance capability to monitor the FCZ surrounding Guam and the Northern Marianas, as well as in the Trust Territory which is still unclear as to the limits of its territorial waters. The delineations between these areas still awaits outcome of Law of the Sea Conferences. The strength of surveillance capability depends upon the status of other missions. The U. S. Coast Guard is currently hindered most by lack of specific plans or rules and regulations for resources within the FCZ. The Act prohibits foreign fishing, however, the regulations specify protected resources and fines for non-compliance.



No foreign fishing, with the exception of tuna fishing, can be carried on in the FCZ without a treaty or Governing International Fishing Agreement (GIFA). The Secretary of State is required to renegotiate treaties which are inconsistent with the provisions of the FCMA. A foreign nation having a GIFA acknowledges the exclusive fishery management authority of the United States within the FCZ and agrees to conditions and regulations. For example, the GIFA requires the foreign state to comply with provisions on boarding, searching and inspecting vessels. Congress has the power to review and disapprove any GIFA in the form of an executive agreement by passing a joint resolution which must be signed by the President. No foreign state will be given a GIFA unless it extends similar benefits to the United States. Currently, no GIFA's have been made with Guam. There have only been regional-level negotiations with the South Pacific Commission representing non-U. S. member countries. No regional agreements under the WPRFMC are pending with Japan. The Trust Territory has entered negotiations with Japan, as they are not under the mandate of the FCMA.

The main potential areas of marine resources, initially identified by the NMFS and WPRFMC as requiring immediate management attention outside the 3-mile territorial limit, are billfish and sharks, precious coral, spiny lobsters, bottomfish, seamount groundfish and seamount mineral resources. Further planning could include additional resources such as crabs, and clams. The state of the technology for undersea mining (i.e. for manganese nodules) is such that no pressures will be placed on mineral resources (if found to exist) within the area surrounding Guam in the near future. Exploration by the U.O.G. Marine Lab has shown that very little precious corals are present in waters surrounding Guam. Spiny lobsters are not present in commercial quantities on Guam and are locally protected by an Executive Order. The bottomfish and groundfish stocks in offshore areas such as Santa Rosa Reef and Galvez Banks have not yet been

surveyed and the WPRFMC sub-panels have never met to prepare plans for these areas and resources.

The WPRFMC's primary task is to develop a management strategy for marine resources within the FCZ. They also review permit applications by foreign fishing interests. The Council's plans must address both foreign and domestic fishing efforts within the zone. Specifically, they must consider the productivity of resources, the expected U. S. catch, the portion of allowable harvest which cannot be taken by U. S. fishermen (and therefore available for foreign fishing) and recreational fishing interests. Public hearings are required for public and input into Fishery Management Plans (FMP).

In the WPRFMC's tasks of preparing plans for submittal to the Secretary of Commerce, they have appointed a subcommittee of professional scientists and economists as advisory staff. The subcommittee is called the Scientific and Statistical Committee (SSC). Guam's members of the SSC are: Dr. Lucius Eldredge, Marine Biologist and U.O.G. Professor; Isaac Ikehara, Fishery Consultant; and Harry Kami, Chief Biologist, DAWR. The SSC meets a minimum of four times a year. The SSC is responsible for recommending to the Council the order and priority of fishery management units for plan development, nominating members of planning teams and drafting plans. The planning teams and their Guam representatives are:

Billfish Advisory Sub-Panel

Robert Campbell, Manager, Marianas Divers
Jesus D. Castro, Fisherman

Spiny Lobsters and Bottomfish Sub-Panel

Albert Topasna, Commissioner of Umatac
Richard Sakamoto, Marine Technician, UOG

Seamount Groundfish Sub-Panel

Jose S. Quinata, Fisherman, Hydrological Technician
Paul Callaghan, Marine Resources Economist

Precious Corals

Richard Randall, Assistant Biology Professor, UOG

In the past, some of Guam's members of the WPRFMC have discussed the possible need for inclusion of tuna within the realm of resources protected within the FCZ. It has been estimated that 25% of the catch of foreign tuna longliners (baited hooks) consists of billfish, wahoo and dolphin (mahi-mahi). Foreign vessels are presently catching these fish up to the territorial limit and they are retained as incidental catches.

The Council is also attempting to expand the protective zone for billfishes and sharks. The Preliminary Fishery Management Plan (PMP), established by the NMFS, allowed foreign catches of billfish and sharks to a 12-mile limit from Guam. After receipt of comments, the NMFS expanded the protective zone to 50 miles. Guam's members of the WPRFMC and local government agencies feel this is an arbitrary designation and the protective zones should be at least 100 miles. A resolution is currently before the 15th Guam Legislature to endorse this boundary. The present billfish and shark regulations are currently implemented in an interim status prior to formulation of a FMP by the WPRFMC.

To date, the WPRFMC and SSC are in a research phase and have drafted FMPs for billfish and sharks, precious corals and spiny lobsters.

There has been a tendency on Guam to recognize the WPRFC as the primary mechanism for fisheries development and management. The Council, however, is a regional body and is not responsible for local management and development capability. They state in their 1977 Annual Report:

"The Council sees a great need for adequate funded, well coordinated fishery development programs throughout the Region. The Council feels capable of contributing to the planning and execution of such programs and wishes to be involved in fishery development to the maximum extent possible."

It is becoming increasingly evident that local fishing industry representation must have greater communication with Guam's members to the WPRFMC. The Council recently passed a resolution, for submittal to the Secretary of Commerce, which

endorses the development of foreign fishing in Guam and the Northern Marianas (See Appendix 2). This action has induced the Guam Fishermen's Cooperative Association to request the Department of Commerce to hold a public hearing before undertaking any action pursuant to the WPRFMC resolution.

The Pacific Tuna Development Foundation

The Pacific Islands Development Commission (PIDC) is a non-profit corporation formed in 1979 by the State of Hawaii, American Samoa, Guam and the Trust Territory of the Pacific Islands. Its main purpose is to promote economic development of resources within the Central and Western Pacific. It is comprised of the Chief Executives of member governments. The Pacific Tuna Development Foundation (PTDF) was established in 1974 under the auspices of the PIDC. The PTDF's goal is to expand the use and protection of tuna resources in the Western Pacific by U. S. fishermen. The membership is comprised of U. S. tuna industry representatives and officials of member governments. Federal funding under the Central, Western and South Pacific Fisheries Development Act is administered by NMFS and allocated to the PTDF. A small amount of funding is also provided by the U. S. tuna industry. Primary research interests of the PTDF involve fishing expeditions, provision of bait fish, fish attraction and catching methods, marketing and economic studies.

The PTDF is concerned with catching skipjack tuna in the Pacific using three different techniques: trolling with 3-4 ton boats, live-baiting with 10-12 ton boats and purse seining with 400-700 ton boats. Purse seining presently holds the greatest potential for high yields as live-bait methods such as pole-and-line, are constrained by difficulties in obtaining an abundant supply of low-cost, hardy bait. In conjunction with increased tuna fishing in regional waters surrounding Guam, supplies of baitfish would have to be developed through aquaculture so that fishing vessels could utilize varying methods.

Tuna are a worldwide resource and yielded a total catch of 1.5 million tons in 1973. Five species: bluefin, yellowfin, albacore, big-eye and skipjack comprise the major species of commercial magnitude. Skipjack tuna is the only tuna resource which is underdeveloped and it is estimated that skipjack production can be significantly increased within the Western Pacific Region. Currently, 100,000 tons of tuna, mostly skipjack, are taken annually from the Western Pacific region by foreign flag vessels, primarily Japanese. According to figures brought forth at a past PTDF meeting, a 100,000 ton U. S. catch could support 2,600 cannery jobs, up to 850 fishermen and up to 50 purse seining vessels requiring support services such as boat repair, net repair, fuel and supplies. Estimates of the potential annual harvest of skipjack in the Western Pacific range up to one million tons. Charter vessels contracted to the PTDF have further documented the presence of commercial quantities of tuna in the Pacific. The data from the charter vessel M/V Jeanette C. is contained in Appendix 3. For 1979, the Foundation has proposed chartering three seiners which will fish both north and south of Guam.

The current research projects of the PTDF directly related to Guam are a Night Tuna Fishing Project, administered by the DAWR and an Economic Study of Frozen Tuna Transshipment Facilities in Guam and the Trust Territory of the Pacific Islands to be prepared by Dr. Paul Callaghan. The night fishing project involves a Hawaiian-Japanese fishermen teaching a specialized midwater handlining technique, called ika-shibi, to interested Guam fishermen. The current status of the Night Tuna Fishing Project and a proposed DAWR Fish Aggregation Device Project are in question pending a NMFS review. The transshipment study will be of significant importance, as Guam transshipped 11,750 tons in 1975 and the demand is considerably higher and increasing. Provision of such facilities is contingent upon acquisition of federal lands in the Apra Harbor area.

The UOG Marine Laboratory is considering application for PTDF funding for an exploratory bottomfishing project. The Marine Lab has staff members with offshore fishing skills and the required equipment, essential for practical implementation of offshore fishing projects.

A meeting of the PTDF was held in Saipan during October, 1978. Guam did not fare well in funding priorities for proposed projects of the Foundation. Often representatives sent to PTDF meetings are non-voting alternates, thus Guam has been inconsistent in representation. Usually, non-voting delegates are not well-versed concerning the issues. A contributing factor may be that most regional meetings are not held on Guam.

The South Pacific Commission (SPC)

The SPC is a consultative and advisory body, established in 1947 by the governments, then responsible for the administration of island territories. The Commission still advises member governments on health, economic and social matters. Their research in fisheries has funded projects which are directly related to the Western Pacific Region. Limited funding for travel, however, has hindered efforts to provide for Guam's consistent representation at the Commission's fishery development conferences.

The National Marine Fisheries Service and U. S. Fish and Wildlife Service

The National Marine Fisheries Service (NMFS) is the primary federal agency managing living marine resources toward responsible fisheries development. Specifically, the NMFS administers federal funding to local programs and commissions, such as the WPRFMC and PTDF. They are also engaged in their own biological research of economically and socially important species, analyses of economic aspects of the fishery industry and development of methods of improving catches. They review environmental impact assessments in respect to marine fisheries. Their policy in this review process is shown in Appendix 4.

Currently, the NMFS is preparing PMPs for the 200-mile Fishery Conservation Zone in coordination with the WPRFMC. Until the WPRFMC develops FMPs, the NMFS has undertaken the development of PMPs which are implemented in an interim status. The current status of both PMPs and FMPs relative to the Western Pacific and Guam is outlined below:

PMP: Pacific Billfishes and Oceanic Sharks. This plan was published in the Federal Register in July, 1978. It was subsequently withdrawn and a proposed revision submitted for public commentary. A public hearing, held on Guam on November 14, 1978, was not well-announced or well-attended. The revised PMP will probably be effective during May, 1979. It is unknown how many foreign tuna vessels, which also take billfishes and sharks, will apply for permits.

FMP: Pacific Billfishes and Oceanic Sharks. This plan, under development by the WPRFMC, will supercede the PMP on billfishes.

PMP: Precious Coral. This plan was prepared by NMFS, but never formally adopted since it determined there was no surplus for foreign harvesters.

FMP: Precious Coral. This plan is under preparation by the WPRFMC. It is expected to allow for the harvesting of precious coral in exploratory beds in the Guam area.

FMP: Spiny Lobsters. This plan is under revision by the WPRFMC. The present draft does not address the management of spiny lobsters in Guam other than to cite the requirements of lobster fishing vessels in Guam (and elsewhere) of having permits.

FMP: Bottomfish: The Council has not yet begun preparation of this plan. How it will apply to Guam remains to be seen.

PMP: Seamount Groundfish of the Pacific. At present, the plan does not permit foreign fishing for seamount groundfish in the Guam area.

The NMFS is conducting a Nationwide Survey of Recreational Fishing, in which one study sector is Hawaii, Guam and American Samoa. It will consist of a 1-year creel census program to monitor sport fish catches and analysis of questionnaire survey data. A Hawaii-based firm, Survey Marketing Services Research has sub-contracted the DAWR to conduct the census and survey for Guam.

In close coordination, the U. S. Fish and Wildlife Service (USFWS) and NMFS administer a variety of federal laws related to fisheries. Two of the most important other than the Fishery Conservation and Management Act of 1976 (discussed above) are the Fish and Wildlife Coordination Act which ensures that water

resource-related projects under federal permits take into account recommendations concerning conservation of fishery and wildlife resources and the Endangered Species Act of 1973, which protects rare and threatened animal and plant life and their habitats.

The FWS administers a variety of programs whose ultimate goals are the protection, preservation and enhancement of fish and wildlife resources and the habitats upon which they depend. In addition to fisheries, protection of shorebirds is essential on Guam, as fishermen identify schools of fish using overflying flocks of birds. The USFWS also reviews environmental impact assessments, assists in long-range environmental planning and constitutes a major information source for data regarding the ecology of a wide variety of natural and altered habitats.

The Guam Fishermen's Cooperative Association (GFCA)

The GFCA held their first formal organizational meeting in September, 1977. The cooperative has prepared Articles of Incorporation from which the following purposes are summarized:

- . To acquire, handle and market fish or fish products.
- . To engage in marketing the fish delivery by members.
- . To purchase supplies and equipment for members.
- . To obtain lower insurance rates.
- . To organize smaller groups of fishermen and boat operators.

The GFCA is comprised of resident fishermen who primarily fish for recreational purposes and wish to efficiently market their catch to defray some of the high expense of boating. Some members would fish on a full-time basis. The group has identified problem areas such as the high prices for fishing gear and the lack of a fuel pier, cold storage and a public market facility which is suitable for fish handling.

The cooperative also hopes to establish a larger local market providing a consistent supply to the public, restaurants, food stores, hospitals, military, and construction camps. There is an active effort by the GFCA to establish a local industry before off-island or foreign interests are eventually allowed to monopolize the local industry in the absence of significant local utilization and control of available resources.

Recently, the GFCA has identified land within the Agana Marina and Paseo de Susana which they feel is suitable for development of needed facilities. A bill was passed in the 14th Guam Legislature, overriding a governor's veto, to lease the property to the cooperative and designate the authority of the DAWR to administer any federal funding for the cooperative's activities. Initial operations will focus upon the Agana Marina location with eventual establishment of a smaller facility in Merizo. If the proposed Agat Small Boat Harbor is constructed by the U. S. Army Corps of Engineers, many fishermen would also use its facilities. Presently, there is a conflict between the Corp's proposal and the objectives of the National Park Service who will manage the War in the Pacific National Historic Park. The location of the proposed harbor falls within the park's boundaries.

Guam Fishing and Boating Association (GFBA)

The GFBA is a loosely-knit organization with a primary interest centered on recreational or sport fishing. Their main activity has recently been to conduct an annual fishing derby. The contest has provided the DAWR with additional sport fishing creel census data. The objectives of the organization as published in their annual report of the fishing derby are:

- . To encourage and promote interest in fishing and boating in the Territory of Guam.
- . To encourage, promote and undertake public events and programs of interest to fishing and boating enthusiasts.

- . To seek, encourage and promote legislation that would provide needed facilities for fishing and boating.
- . To seek, encourage and promote conservation programs designed to foster fishing in Guam, including measures that would prevent pollution of territorial waters.

The Division of Aquatic and Wildlife Resources (DAWR)

The DAWR within the Government of Guam Department of Agriculture is the lead local agency with functions related to fishery resources. Their primary function is research, management and development of fish and wildlife resources. They also encourage responsible use and conservation of wildlife through enforcement of fish and game laws, coral harvesting laws and various regulations. They currently have federal funding from the U. S. Department of Commerce for expenses in their official capacity as State Liaison to the WPRFMC. The Division issues permits for fish weirs (underwater wire traps), however, this activity is being phased-out. From 35 weir sites, only 13 permits were issued by the Division for 1978 and 8 for 1979. The DAWR conducts ongoing projects which primarily monitor the status of natural habitats and their representative species on Guam. Current projects directly related to fishery resources and funded by the Federal Aid in Sport Fish Restoration Act are:

- . Survey of Guam's Fish Population and Fishing Methods
- . Compilation of a Checklist of the Food and Games Fishes of Guam
- . Habitat Improvement of Inshore Lagoons
- . Technical Guidance to Project Affecting Guam's Fish and Wildlife Resources
- . Experiments with offshore Fish Aggregation Devices

The above-listed projects are defined in detail in portions of the Division's program narrative for application for federal assistance and contained in Appendix 5. At present, they have a 2-year schedule for work in these projects, but presently lack funding needed for more emphasis on deepwater, offshore

management planning or a truly comprehensive approach to fisheries management. Their present capability is concentrated on sport fishing and near-shore harvesting of marine species from coral reef habitats. This is due to the fact that the Federal Aid in Sport Fish Restoration Act limits the use of funds to recreational fishing-related efforts and limited funding has been obtained from the NMFS and PTDF for commercial-related fisheries projects and planning. Present funding from the NMFS is used solely for aquaculture projects.

Department of Commerce

Even if biological studies and fishing expeditions provide a solid base of information on fishery resources, the exploitation of sustainable yields will never be realized without establishment of a Guam-based, large-scale regional fishing enterprise. Inducements are needed to encourage investment by experienced corporations within the U. S. tuna industry. The Government of Guam, Department of Commerce has among its responsibilities, to enhance the development of Guam's economy by providing economic analyses, and assuring timely dissemination of such information to interested or potential business endeavors. The Department has no past or projected studies related to off-shore fisheries. Past provision of background information and promotional literature for corporate investment on Guam has given limited attention to fisheries potential. This is primarily due to the general lack of a sufficient data base. Increased coordination and research should remedy this problem and specific efforts should be made to prepare and distribute economic studies and promotional literature, specifically addressing fisheries development.

Discussion

As a precedent to fishery industry development on Guam, of paramount importance is improved coordination between fishery-related agencies and commissions. A diversity of interests and functions are performed by the groups outlined within this paper. Often, their activities overlap or conflict and other times they

simply are not cognizant of the activities and projects of other groups. A single coordinating body is required for centralized research, information exchange and coordination. The Guam Marine Fisheries Advisory Council (GMFAC), recently established through Executive Order should provide a focus for such coordination. The Council (See Appendix 6) will serve as a forum for resolution of problem areas and enhancement of both management capabilities and industry development potential.

The Guam Marine Fisheries Advisory Council has a membership comprised of representatives of the local agencies and groups outlined within this paper, including the Guam Environmental Protection Agency and Department of Parks and Recreation. In the event of formation of additional groups or corporate developments on Guam, such groups should also be represented within the membership. There is a tendency on Guam for advisory councils to be loosely-structured groups which are merely kept informed of their parent agency's progress. Such should not be the case with the GMFAC. The Council should initially ensure that Government of Guam agency members present written progress reports of their research and coordinate agency responsibilities during preparation of relevant portions of a Five-Year Fishery Development and Management Plan for Guam.

The NMFS, USFWS, WPRFMC and PTDF are all based in Hawaii and must rely on correspondence, conferences and limited field inspections to be familiarized with physical developments, specialized ecosystems or unique circumstances on Guam. GMFAC activity could aid in assessing impacts on Guam's first population and help establish Guam's position in respect to marine resources in a more realistic perspective in many cases.

CFAP funds would optimally be administered by the DAWR, in conjunction with their current research projects. Their staff of fishery biologists can assist in familiarizing added planning-oriented staff with the Division's activities.

The result will be the formulation of truly comprehensive fish and wildlife plans.

The CFAP can also provide funding for the DAWR, as Chairman of the GMFAC, in the periodical reevaluation of governmental policies and updating of management plans in respect to changing environmental, economic and social conditions. Research for this status report has identified new issues and needs which are incorporated in the following section's policy recommendations for fisheries development and management on Guam.

Recommended Policy Additions and Refinements

- . Increase the local supply of wholesome, economically priced seafood products to Guam's residents, encourage formation of an export market and diversify the economy of Guam through timely development of a fishery industry on Guam.
- . Improve coordination and communications between fishery-related agencies, commissions and special interest groups through the active implementation of Executive Order No. 79-6, Guam Marine Fisheries Advisory Council.
- . Develop necessary rules and regulations guiding fisheries development and management within the framework of a 5-Year Fisheries Development and Management Plan.
- . Conduct economic feasibility studies and market outlook projections for various components of a marine fishery industry.
- . Conduct further scientific studies of Guam's resource base, the productivity of its species, oceanographic conditions affecting species, exploitive techniques and provision of bait fish; identify those species having a high potential for commercial development and those with low sustainable yields requiring special protection or restoration.
- . Upgrade the capability for local and federal law enforcement regarding conservation of fishery resources, particularly surveillance of the Fishery Conservation Zone.
- . Acquire federal lands in the Apra Harbor area for fishery industry development.
- . Establish a fishery industry extension service capability for provision of technical assistance, information dissemination and public information.

- . Develop promotional literature and establish contact with U. S. corporations having potential interest in fisheries development on Guam.
- . Integrate fisheries management and development on Guam into a regional context.
- . Provide consistent and active representation on regional fisheries-related commissions and organizations.
- . Provide such assistance as required to help increase local fish sales and marketing programs.

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COASTAL FISHERIES ASSISTANCE PROGRAM

I. INTRODUCTION

Coastal Zone Management Act

Conservation and rational use of coastal living marine resources are major objectives of the 1972 Coastal Zone Management Act. The Act states: "The coastal zone, and the fish, shellfish, and living marine resources and wildlife therein, are ecologically fragile and consequently extremely vulnerable to destruction by man's alterations." (Sec. 302(d)). The Act refers specifically to competing coastal uses, activities, and decisions which contribute to the loss of living marine resources to the detriment of the "national interest in the effective management, beneficial use, protection and development of the coastal zone." The importance of the link between living marine resources, land use, ecological, cultural, historic and aesthetic values is also clearly established by the Act.

Considering the possibilities of detrimental effects, and the close relationship between coastal zone elements, the key to more effective protection and use of the land and water resources of the coastal zone, in terms of the Act, is to encourage States to establish and enforce unified standards and policies for land and water use decisions of more than purely local significance.

Coastal Fisheries Assistance Program (CFAP)

The objective of the Coastal Fisheries Assistance Program is to assist States in accomplishing the expressed purpose of the Coastal Zone Management Act as it applies specifically to living marine resources in the territorial sea* and the shoreside facilities necessary to facilitate wise use of these resources. The complexity of coastal processes and uses, and the central yet vulnerable position of fisheries within the zone have been identified in the course of developing coastal zone management programs. The approach defined by the Act is, then, also appropriate to the development of a fisheries component within a State's overall coastal zone management program. This approach is based on the following principles:

* For purposes of this paper, the term, "territorial sea" includes the Great Lakes.

- o Identification of coastal problems and issues of State importance;
- o Development, in an open manner, of unified State policies and objectives designed specifically to address and resolve these problems and issues.
- o Establishment of a process for decisionmaking which:
 - o Carries out coastal policies;
 - o Is based in enforceable State law;
 - o Considers the interests of all affected parties; and
 - o Can resolve conflicts among competing public and private values, and various level of government.

States have the opportunity under the Coastal Fisheries Assistance Program (CFAP) to incorporate specific consideration of living marine resources into their ongoing coastal management programs, using exactly these same principles. Implemented through basic Section 305 or 306 CZM grants the CFAP would fulfill the following objectives:

- o Help establish a comprehensive approach to the management of living marine resources.
- o Bring State and Federal coastal zone management and fisheries management closer together in objectives and operation.
- o Provide better information and data for well informed decision-making regarding living marine resources.
- o Improved management of fish stocks.

States including proposals for CFAP funding, as part of their program development or implementation grants, should indicate how the anticipated investigation, analysis or study will lead to the formulation of fisheries management goals, objectives and policies, or to the achievement of these if already established within the framework of their CZM program.

It is not intended that States which initiate a CFAP as described herein, will develop a separate fisheries expertise, but rather will turn to their fish and game departments for the development and ultimate implementation of a coastal fisheries management program. It is intended, however, that the State coastal management agency will work with and review

the program developed by the State fish and game agency to insure such program is compatible with and supported by the policy framework contained in the State's coastal management program.

II. CFAP PROJECT AREAS

Four general CFAP project areas as shown below are recommended. These project areas generally follow the pattern of program development established for coastal zone management. As with CZM, however, States will be entering into CFAP from different levels of fishery management sophistication. Thus, it is not necessary for States to progress sequentially through each of these project areas in order to qualify for funding. However, before Project Areas 2-4 below could be funded through a State's Section 305 or 306 grant, a State will need to establish that Project Area 1 has been or is being adequately developed. Thus, it is essential that proposals identify clearly how the proposed work fits into an overall framework (Project Area 1) and how the funding will lead to more comprehensive management of the State's fishery resources.

1. The State's Fisheries: Identification of Problems, Issues and Opportunities

This project area seeks preliminary identification of those problems and issues related to fisheries which require State attention. Studies in this area will be based primarily upon existing information and/or interviews with knowledgeable and interested individuals. This project area also would include the identification of unique opportunities which may exist and of which advantage might be taken. The information gathered in such analyses should lead to a listing of the concerns which fishery management in a given State should address and directions such management should take.

Typical categories of investigation in this project would include:

o Habitat

- General condition of habitat;
- Relationship of habitat to adjacent lands, fresh water systems, and/or the open ocean;
- Biological issues affecting the habitat, particularly those relating to fish;
- State position/laws criteria concerning habitat management.

o Fish Stocks

- Traditional species harvested: commercially/recreationally;
- Areas requiring further information as to species biology and behavior;
- Relationship of fish stocks to adjacent State's waters and/or the Fishery Conservation Zone.

o Management

- Relationships among management entities: local authorities, other bodies within State government, other States, regional fishery management councils, international entities;
- Adequacy of existing information for the management of coastal fisheries within the territorial sea;
- Status of State's regulatory and enforcement regime;
- Effects upon State's fisheries of FCMA regulations and enforcement activities.

o Economics

- Major commercial and recreational concerns with respect to the taking of fish;
- Critical economic factors with respect to intensity and type of fishing activity;
- Importance of the following factors with respect to distribution, sale, and utilization of fish: the major markets, the product flow network, transportation systems, consumer preferences, international trade considerations, and other government programs affecting the economics of fisheries;
- The commercial network serving the recreational fishery.

o Community Framework

- Importance of the territorial sea of coastal States to urban and rural fishing communities;

- Information and educational relationships of fisherman's associations, processors' associations, consumer groups, government agencies and universities to fisheries management.

2. Information and Data Collection

It is recognized that the development and implementation of a State fisheries management program may require the identification and collection of certain types of information and data. As with similar activities in the basic CZM program, however, the collection of data and information will be supported as part of the CFAP only where it can be shown that it is directly related to, and required:

- o For consideration of options leading to the establishment of a management strategy or regime; or
- o To enable sound decisions to be made under that strategy or regime once well-established and firmly articulated.

Data and information proposed for collection will typically be included in the following categories of definition and characterization:

(A) Definition of State Fisheries Operational Functions

The operational structure and organizational network within which day-to-day economic and recreational activities occur is most important in the development of fisheries management plans. This information and data on the definition of such a structure and network might be collected on the following:

I. The Taking of Fish

Vessel Types, Size, Number - Capacity
 Employment
 Traditional Nature of the Fisheries
 Species Sought and When Sought
 Gear conflicts
 Relationship to Recreational Fisheries

Recreational

Intensity and Type of Use
 Employment, Value, Location or Most Use
 Effects Upon resource
 Relationship to Commercial Fishing
 Gear Conflicts

II. The Distribution and Utilization of Fish

Categories of Dealers, Wholesalers, Processors

Major Markets

Outports

Retail Markets

Trucking — Shipping

Boxes

Ice

Product Flow Network

Insurance

(B) Characterization of State Fishery Groups and Interactions

Characterization of the fisheries should emphasize social, economic, and institutional factors, group perceptions, and interaction with the listing of basic geophysical and biological issues detailed in Project Area 2(A) above.

Possible Characterization Categories:

I. The Habitat

Description of the Habitat

Relationship to Adjacent Lands

Relationship to Fresh Aquatic Inland Systems

Relationship to Salt Aquatic Systems in the Open Ocean

II. The Taking of Fish

Harvest Activities — Commercial and Recreational

Sale and Distribution of Fish

Relationship to Other Coastal Activities

III. The Management of Fish

State Laws and Regulations

Effects on Other State Laws and Regulations

Relationship to FCMA

Relationship to Local Authorities

IV. The Major Institutions and Information/Education Network

Fishermens' Associations
Processors' Associations
Consumers
Government Agencies
Universities

3. Objectives, Policies and Strategies

With a clear understanding of the problems, issues and probable direction of a State fisheries management program, as well as an adequate base of knowledge on the subject, a State is in a position to list and examine alternative options for action, in the form of a management strategy, a regulatory regime, or both. Options for strategic approaches might include:

- o Choice strategy - adding new factors to existing policies or concentration on improvement of existing elements;
- o Intervention strategy - where leverage might be applied, as in the production, processing or marketing stages;
- o Change direction of approach strategy - superimposition of new policies with resultant adjustments to existing program activities;
- o Distribution strategy - Changing "weights" or relationships of one element to another.

In this project area, proposals for funding should seek to identify State fisheries management objectives, and to develop and analyze all strategy options. In order to assure the best possible consideration of each option before adoption, the work to be funded in this project area should include:

- o A clear statement of State fisheries management objectives;
- o Clear articulation of alternative courses of State action designed to reach objectives;
- o Rationales for the selection of each option;
- o Detailing of methods by which each option can be successfully implemented to reach objectives;

- o Consideration of the environmental, economic and social impacts of adoption of each alternative;
- o Assurance that all interested, affected parties have been involved in the development of options;
- o Assurance of a reasonable balance between conservation and development of the State's fisheries resources.

4. Implementation Strategy and Program

This project area should result in a State fisheries management strategy and program governed by specific objectives as developed in Section 3, above. An option "mix" supporting the objectives derived from previous considerations will provide the substance of a program, and the application of dynamic management functions guiding the State toward its long-range fisheries objectives.

State activity should include:

- o Selection and establishment of specific fisheries management objectives;
- o Relationship between the proposed effort and other projects (either conducted previously or ongoing), documenting sources examined and agencies consulted;
- o Documentation that other sources of assistance for proposed work are not available;
- o Details with respect to: the schedule, timing, and personnel to be involved in the proposed project, planned necessary intergovernmental activities, and procedures for public review (including provision for public hearing(s) before final selection of the preferred management strategy);
- o The State's fishery program should include the following information:
 - Those species most important to a given State, and why;
 - How species should be allocated to users;
 - Level and mix of resources desired;
 - How State proposes to address habitats issues, e.g., wetland protection through regulation, acquisition, easements, etc.

o In General

- The role of CZM in clarifying and implementing this policy will be stated;
- A measurement and evaluation procedure will be developed which allows the statement of goals and objectives, the development of options to support these goals and objectives, and the selection among options by States in conjunction with each other as required;
- Costs will be lowered through coordinated programs;
- Likely incremental progress toward the coordinated use of coastal and ocean resources as related to water activities, uses and impacts;
- Government attention will be focused upon fisheries as a step in developing an ocean resources policy;
- Planning and programming will be refined in relation to field experience;
- Through coordinated long-range planning, new mechanisms of management and regulation can be involved;
- User groups will lend more direction and impetus, thus encouraging their cooperation and positive inputs.

- Full consideration of the interests of other States, national interests under CZMA and standards under FCMA, and affected users;
- Assurance that State CFAP activities are in sufficient detail to assure compatibility with FCMA plans;
- New information required to manage the State's fisheries in light of the objectives, policies and strategy chosen here;
- The manner in which regional and local authorities are involved in the process and effect of CFAP upon them.

III. EXPECTED RESULTS OF THE CFAP

The development and completion of the CFAP procedure and the expenditure of CFAP funds are expected to have the following results:

o On Individual States

- The link with the FCMA process will be improved;
- Fisheries will occupy a more visible position in the CZM process;
- A rational, comprehensive management process will be established, involving all affected, interested parties.

o On Regional-State Groups

- A balance between regional and State goals will be accomplished;
- The FCMA process, where applicable, will be improved.

o On the Federal Interest

- Needs of economic development will be balanced by the conservation of an important national, natural resource;
- A creative relationship between Federal and State government will result, recognizing the need for national interest, balanced by the recognition of States' needs.

WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL

1164 BISHOP STREET - ROOM 1506
HONOLULU, HAWAII 96813
TELEPHONE (808) 523-1368

RESOLUTION

The Western Pacific Fishery Management Council: Recognizing that Guam and the Northern Mariana Islands suffer from a serious lack of development of offshore fishery industries, although their waters are rich in offshore fishery resources, including pelagic species such as tuna, billfishes, wahoo, dolphinfish and rainbow runners; midwater resources such as the big-eyed scad (akule); seamount species such as the armorhead and alfonsin; bottomfish species such as groupers, snappers, onaga and dog-tooth tuna; and a variety of reef fishes on offshore banks;

Understanding that there are no known plans for any large-scale development by domestic fishing concerns of offshore fishery operations in Guam or the Northern Mariana Islands in the foreseeable future;

Noting that one of the purposes of the Fishery Conservation and Management Act, as stated in its Sec. 2(b)(6), is "to encourage the development of fisheries which are currently underutilized or not utilized by United States fishermen;

Concluding that the offshore fisheries of Guam and the Northern Marianas are indeed seriously underutilized at this time and deserving of all possible development assistance by Federal agencies, the Council, in relation to its function under Sec. 204(b)(5) of the FCMA to prepare comments on any application for foreign fishing transmitted to it by the Secretary of State, hereby adopts the following policy:

RESOLVED:

"The Council recommends to the Secretary of State and the Secretary of Commerce that the highest priority for approval be granted to those applications for foreign fishing permits covering fishing vessels that are owned by a company which has committed itself to contributing to the development of the offshore fisheries of Guam and the Northern Marianas Islands through equity capital investments, the landing of catches in Guam and and Northern Marianas ports, and the construction of shore facilities and the organization of vessel operations using modern equipment and fishing techniques, or similar methods, provided these operations are carried out under appropriate joint venture arrangements with majority participation by local interests.

"The Council further recommends to the Secretary of State and the Secretary of Commerce that the same factors be taken into account in determining the allocations to foreign countries of any surpluses available in Guam and the Northern Mariana Islands from fishery resources under United States jurisdiction in accordance with Sec. 201(e)(4) of the Fishery Conservation and Management Act."

The Chairman is requested to inform the Secretaries of Commerce and State of this resolution by letter.

Jan. 11, 1979
Date

Molokai, Hawaii

Place

Wadsworth Y. H. Yee
WADSWORTH Y. H. YEE
CHAIRMAN



report from
SLMR
 living marine resources, inc.

PACIFIC TUNA DEVELOPMENT FOUNDATION
1977/1978 PURSE-SEINE CHARTER REPORT #7
CHARTER VESSEL M/V JEANETTE C.

CHARTER TOTALS TO: October 18, 1977

Sets			Tons Offloaded in Guam			
Total	Successful	Unsuccessful	Yellowfin	Skipjack	Other	Total
49	30	19	124	598	8	730

COMMENTS:

A revised summary of the first trip of the Jeanette C. is outlined on the attached table to provide additional information while the final report of all data covering the period is being prepared.

The offloaded weights of tuna from the Jeanette C. into containers in Guam exceeded the original hailed estimates by slightly more than 115 tons. The actual tonnage figure has been rounded off at 730. The engineers had not loaded the vessel before this first trip which made accurate estimates difficult. The final weights will be determined when the containers are unloaded in California; however, we do not expect any significant change from the Guam weights.

This summary of the first trip, as it relates to the catch per set, should not be considered to represent the potential catch rate in the area of operations during the August-October, 1977 period.

In complying with the intent of the charter, many experimental sets were made, even when the possibility of success was remote, to establish the best handling procedure of the large Japanese type seine and to test its effectiveness operating on school fish. Treacherous subsurface currents were ever present which caused many delays and loss of fishing time. Continued operations under these conditions, not encountered during the 1976 survey, provided information on vessel equipment modifications and additions which will be required to combat the ocean current problems and will be included in the completed first trip report.

November 11, 1977

REVISED

SUMMARY OF THE FIRST TRIP OF THE JEANETTE C.

Depart Guam - August 7, 1977 Return Guam - October 18, 1977
 Days Absent - 72 Catch Per Day's Absence - 10.1 tons
 Days Fishing - 57 Catch Per Day's Fishing - 12.8 tons
 Days Lost (bad weather, etc.) - 15 Total Hauled Catch - 730.0 tons

	Successful Sets	Tons Caught	Unsuccessful Sets	Total Sets	Average Catch Successful Sets	Average Catch Total Sets
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Deep Net (Original)						
Log Sets	6	191	1	7	31.83	27.29
School Sets	8	104	2	10	13.00	10.40
Total	14	295	3	17	21.07	17.35

Shallow Net
 (3 strips 6-inch mesh removed)

Log Sets	12	276	4	16	23.00	17.25
School Sets	4	159	12	16	39.75	9.94
Total	16	435	16	32	27.18	13.59

Combined Totals (Original and Revised)	30	730	19	49	24.33	14.90
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Original Net - Log Sets Successful	85.7 percent
School Sets Successful	80.0 percent

Revised Net - Log Sets Successful	75.0 percent
School Sets Successful	25.0 percent

Combined Average Per Successful Log Set (Catch)	25.99 tons
Combined Average Per Successful School Set (Catch)	21.92 tons

Combined Average Total Sets Logs (Catch)	20.30 tons
Combined Average Total Sets School (Catch)	10.11 tons

JUNE 8, 1978

FSW33

NATIONAL MARINE FISHERIES SERVICE

SOUTHWEST REGION

HABITAT PROTECTION POLICY

The National Marine Fisheries Service (NMFS) reviews Federally initiated or Federally licensed or permitted projects which have the potential of altering aquatic environments and thereby impacting the biological resources which depend upon those habitats. The Southwest Region of NMFS will not recommend approval or authorization of any project or activity that will damage any existing or potentially restorable habitat of living marine, estuarine, or anadromous resources. Habitat may include spawning areas, rearing areas, food-producing areas, or other areas necessary for the survival of those organisms. The water-dependence of the proposed activities will be a positive consideration in determining project approval.

Under circumstances in which habitat/resource damages can be compensated, exceptions to the policy may be allowed. The following conditions are required for such exception:

1. The project will incorporate all feasible modifications and construction techniques to eliminate or minimize adverse environmental impacts; and
2. An acceptable combination of habitat restoration, enhancement or off-site acquisition will be adopted to compensate for adverse environmental impacts that cannot reasonably be eliminated by project modification; and
3. Post-project habitat value shall be equal to or greater than pre-project habitat value. Determination of post-project value will be based on the contribution of that habitat to the support of commercial and recreational fisheries, fishery resources, certain marine mammals, and/or endangered species.

Some of the types of projects and activities which may cause damage to marine, estuarine, or anadromous resources include: dredging, filling, river alterations, drainage of wetlands, discharge of effluents, as well as certain construction or operational activities. The activities listed are not intended to be all-inclusive but are representative of activities which are of concern to NMFS. It is in the best interest of project sponsors to contact the appropriate NMFS office as early as possible to determine the impacts, if any, of each particular project.

DIVISION OF AQUATIC AND WILDLIFE RESOURCES FY79-80 PROJECTS
RELATED TO MARINE FISHERIES MANAGEMENT

STUDY TITLE: Island-Wide Sport Fisheries Research and Management.

JOB TITLE: Survey of Guam's Fish Population and Fishing Methods.

JOB OBJECTIVES:

- (a) To monitor trends in types and results of different fishing methods, areas fished, and types and amounts of each species taken for both inshore and offshore fishing activities. This information will be made available to the fishermen so that they may use it to improve their catch.
- (b) To chart variations in standing crop, species composition, and/or distribution patterns for various areas, and to determine if these variations occur in a seasonal or otherwise predictable manner.
- (c) To make annual estimates of the total fish catch for Guam.
- (d) To create a table of length/weight conversion constants for Guam's popular inshore and offshore game fishes.

PROCEDURES:

- (a) Personal interviews and creel counts will be made twice a month (one weekday and one weekend day) in each of the three most heavily fished inshore areas, and records of fishing methods, area and time fished, catch by species, numbers, weights, etc. will be kept on special data sheets. Also, four times a month (two weekdays and two weekend days) offshore fishing emanating from the Agana Boat Basin will be monitored continuously between the hours of 0500 and 2100.
- (b) Permanent underwater transects will be established at various inshore reef locations. These will be used to monitor variations in standing crop, species composition, relative abundances, and distribution patterns of Guam's reef fishes. Subzones within each transect area will be descriptively analyzed. By comparing observed variations within similar subzones over time, it may be possible to correlate these with habitat type or time of year.
- (c) Flights on a light commercial aircraft will be made twice a month on the mornings of the continuous offshore fishing census to aid in assessing total fishing pressure. The flights will cover the inshore fishing areas of the whole island as well as the offshore waters and fishing banks near Guam.
- (d) Daily catch reports from licensed weir operators will be obtained on a monthly basis.
- (e) Catch data for seasonal runs of various fish species occurring around the Island of Guam will also be gathered.

- (f) A daily Catch Record form will be distributed to cooperating fishermen, to collect more complete data on daily catch rates and species composition.
- (g) A table of length/weight conversion constants for Guam's popular food fishes will be compiled from data collected during inshore and offshore creel censuses. Supplemental data may also be derived from examination of museum specimens (if found to be applicable) and from fresh specimens collected in the field.

LOCATION OF WORK: Reef, inshore waters, and offshore waters of Guam.

STUDY TITLE: Island-Wide Sport Fisheries Research and Management.

JOB TITLE: Compilation of a Check-list of the Food and Game Fishes of Guam.

JOB OBJECTIVES:

To compile a check-list of all the food and game fishes found in Guam waters. The scientific, common and local names for each species will be listed whenever possible.

PROCEDURES:

- (a) Collect, borrow, or buy specimens of the various food and game fishes found in Guam waters.
- (b) Identify each fish giving generic and specific names, common names and local names whenever applicable.
- (c) Survey all available literature for taxonomic, common and local name equivalents for the species collected.
- (d) Publish a supplement to the check-list of Guam fishes in Micronesica.

LOCATION OF WORK: Fresh and marine waters of Guam.

STUDY TITLE: Island-Wide Sport Fisheries Research and Management.

JOB TITLE: Experiments With Moored Offshore Fish Attracting and Congregating Devices.

JOB OBJECTIVES:

To determine the effectiveness of various types of moored offshore fish attracting and congregating devices; and design a development project for the fishing grounds around Guam if the devices prove an effective aid to fishermen.

PROCEDURES:

- (a) Conduct a literature search on the subject, and contact the Pacific Tuna Development Foundation and NMFS for information and mooring designs from their Hawaii project.
- (b) Design, construct and install one or more moorings off Guam shores and nearby fishing banks. All applicable permits will be acquired for work in Territorial waters, and the Coast Guard will be consulted for work on the banks.
- (c) After installation, the moorings will be monitored on a regular basis to document the development of resident fauna and flora. Fishing trips will be made to sample the fish in the vicinity of the mooring and contiguous areas to provide comparisons of CPUE. As part of the normal creel census, data will be gathered on the degree to which fishermen visit the moorings, and their CPUE near the moorings and in other areas.
- (d) Various modifications and additions will be made to the moorings from time to time to develop more effective attracting devices and configurations.
- (e) If the moorings are successful, this job will be listed as a regular development project in the future.

LOCATION OF WORK: The offshore waters of Guam, and the nearby fishing banks.

STUDY TITLE: Island-Wide Sport Fisheries Research and Management.

JOB TITLE: Habitat Improvement of Inshore Lagoons.

JOB OBJECTIVES:

To investigate various methods of improving the habitat of certain inshore lagoon areas for the purpose of increasing fish populations.

PROCEDURES:

- (a) In certain lagoon areas, artificial fish shelters will be constructed using old car tires and other materials. Determination of the effectiveness of such shelters in concentrating food and game fish will be made.
- (b) Artificial "algae beds" made out of synthetic materials will be constructed.
- (c) Certain algae species will be transplanted to form beds and to determine whether fish can be attracted to these natural beds.
- (d) Fish counts will be made regularly at the sites of these artificial fish shelters and algae beds.

LOCATION OF WORK: Inshore and Lagoons of Guam.

STUDY TITLE: Technical Guidance to Projects Affecting Guam's Fish and Wildlife Resources.

JOB TITLE: Technical Guidance to Projects Affecting Guam's Fish and Wildlife Resources.

JOB OBJECTIVES:

To minimize any adverse effects resulting from the construction of recreational, commercial, and public utility facilities, as well as from accidental spills of oil and other toxic substances upon the marine and terrestrial ecosystem. To insure that the utilization of coastal and interior areas of the island does not result in the deterioration of the environment.

PROCEDURES:

- (a) Review and comment on EIS's, and EAR's.
- (b) Conduct field inspections relative to permit requests to the U.S. Corps of Engineers for use of coastal or submerged lands.
- (c) Provide technical assistance to military and civil agencies relative to the management of fish and wildlife resources.
- (d) Participate in the Regional Response Team for petroleum and toxic substance spills.

GOVERNMENT OF GUAM
OFFICE OF THE GOVERNOR
AGANA, GUAM

EXECUTIVE ORDER NO. 79-6

GUAM MARINE FISHERIES ADVISORY COUNCIL

WHEREAS, Guam's marine fisheries resources are a valuable natural resource requiring increased management attention; and

WHEREAS, the responsible development of a local fishing industry represents one of the Territory's growth sectors for increased economic development; and

WHEREAS, there is a need for governmental support for the development of a local fishing industry in light of the potential foreign exploitation of Guam's marine fisheries resources; and

WHEREAS, there is a need for less dependence on imported fish and increased provision of a local supply of wholesome, economically-priced seafood products for Guam's residents; and

WHEREAS, the Guam Fishermen's Cooperative Association is actively seeking to establish a local fishing industry on Guam; and

WHEREAS, the Guam Coastal Management Program's report entitled, Marine Fisheries Development on Guam: Its Current Status, emphasizes the need for:

1) increased coordination and information exchange among various fishery-related interests and, 2) preparation of a Marine Fisheries Development and Management Plan for Guam.

NOW THEREFORE, by virtue of the authority vested in me by the Organic Act of Guam, the Guam Marine Fisheries Advisory Council is hereby established, comprised of one representative to be selected and appointed by the Governor from each of the following organizations:

- . Department of Agriculture, Division of Aquatic and Wildlife Resources: Chairman
- . Bureau of Planning, Guam Coastal Management Program: Vice-Chairman
- . Department of Commerce: Member
- . Guam Environmental Protection Agency: Member
- . University of Guam Marine Laboratory: Member
- . Department of Parks and Recreation: Member
- . Western Pacific Regional Fishery Management Council Membership: Member
- . Guam Fisherman's Cooperative Association: Member
- . Guam Fishing and Boating Association: Member
- . Two members from the public-at-large

Participation in Council activities shall also be encouraged and open to relevant federal agencies and fishery-related business interests.

Meetings shall be open to the public. The Council shall hold at least one meeting per month for purposes of information exchange, policy formulation and provision of data toward preparation of a Government of Guam Marine Fisheries Development and Management Plan. Minutes shall be recorded at each Council meeting and written minutes of each previous meeting shall be provided to the membership at the opening of each meeting. The meeting agenda shall be prepared by the Council Chairman. The Council shall adopt such rules as necessary to fulfill its responsibilities. All policies developed or adopted by the Council shall be submitted to the Governor for approval. Upon such approval, such policies shall constitute the official position of the Government of Guam relative to marine fisheries.

This Executive Order shall be effective this date. Dated at Agana, Guam this 15th day of Feb., 1979.



PAUL M. CALVO
Governor of Guam

COUNTERSIGNED:



JOSEPH F. ADA
Lieutenant Governor of Guam