MFR PAPER 1039

Publications and Services of the **National Marine Fisheries Service**

Compiled by J. DAVID ALMAND

The National Marine Fisheries Service (NMFS) was established as a part of the National Oceanic and Atmospheric Administration (NOAA) when NOAA was created in October 1970. The basic mission of NMFS is to protect and to promote the wise and full utilization of marine fisheries resources. NMFS thus concerns itself with many aspects of the fisheries, ranging from resource assessment and management to the ultimate use by consumers. In carrying out this

mission. NMFS is guided by the following goals:

- 1. Promote economic, safe, and full utilization of selected commercial and sport fish resources.
- 2. Effectively conserve and allocate fisheries resources of interest to the United States.
- 3. Increase U.S. fish production through hatcheries and aquaculture
- 4. Insure conservation of fisheries resources in manmade environmental alterations.

5. Protect and conserve marine mammals.

This listing has been compiled to acquaint fishermen, fisheries associations, government agencies, universities, and other interested citizens and groups with the various NMFS publications and services (Table 1). It should also serve as a useful reference in obtaining information on, or taking advantage of, the various publications and services available.

Table 1.—Publications, periodicals, news releases, and major services of the National Marine Fisheries Service.

PUBLICATIONS, PERIODICALS, AND NEWS RELEASES

- 1. Albacore Fishing Information Bulletins
- 2. Basic Economic Indicators
- 3. Canned Fishery Products
- 4. Catalog of Federal Financial Assistance Available to the U.S. Fishing Industry
- 5. Data Reports
- 6. Digest of Congressional Record
- 7. Fish Charts
- 8. **Fish Cookery Publications**
- 9. Fish Meal and Oil
- 10. Fish Sticks, Fish Portions, and Breaded Shrimp
- 11. Fisheries of the United States 12. Fishing Information Reports
- 13. Fishery Bulletin
- 14. Fishery Facts
- 15. Fishery Statistics of the United States 16. Food Fish Facts
- **17. Food Editor Releases**
- 18. Foreign Fisheries Leaflets
- 19. Foreign Fishing off U.S. Coasts
- **20. Frozen Fishery Products**

- 21. Grant-In-Aid for Fisheries Program Activities
- 22. **Gulf Coast Shrimp Data**
- 23. Imports and Exports of Fishery Products
- 24. Industrial Fishery Products
- 25. Marine Fisheries Abstracts
- 26. Marine Fisheries Review
- 27. Marine Gamefish Newsletters
- 28. Market News Reports
- 29. Market Review and Outlook Reports
- 30. NOAA News Releases (Fisheries)
- 31. NOAA Technical Memoranda NMFS 32. NOAA Technical Report NMFS CIRC
- 33. NOAA Technical Report NMFS SSRF
- 34. Our Living Oceans
- 35. Processed Fishery Products
- 36. Production of Fish Fillet and Steaks
- **37. Safety Placards**
- 38. Saltwater Anglers' Guides
- 39. Saltwater Angling Survey
- 40. Sectional Summaries
- 41. Shrimp Landings
- 42. State Landings Bulletins
- 43. Simplified Recordkeeping Sheets (SRS) for Fishermen

44. Subject Matter Index 45. Translations

OVERVIEW OF MAJOR SERVICES

- 1. Administration of Pribilof Islands
- 2. Advisory Services
- 3. Artificial Reefs
- **Cooperative Gamefish Tagging and** 4. Recovery
- 5. Enforcement and Surveillance
- **Environmental Impact Analysis** 6.
- 7. Financial Assistance
- 8. Fish Forecasting Services
- 9. Fishery Products Inspection and Grading Services
- 10. Foreign Fishing Vessel Transfers
- Grants-In-Aid
- 12. Lake Washington Sockeye Salmon **Acoustical Survey**
- 13. Marine Mammals
- 14. Marine Resource Assessment
- 15. Marketing Services
- 16. Technological Services, Harvesting
- 17. Technological Services, Processing

Table 2.—National and re	egional offices of the National	Marine Fisheries Service.
U.S. Department of Com- merce National Oceanic and At-	Juneau, AK 99801 Telephone: (907) 586-7221	Southeast Regional Office Duval Building 9450 Gandy Boulevard
mospheric Administration	Northeast Regional Office	St. Petersburg, FL 33702
National Marine Fisheries Service Washington, DC 20235	Federal Building 14 Elm Street Gloucester, MA 01930	Telephone: (813) 893-3141
Telephone: (202) 343-4993	Telephone: (617) 281-0640	Southwest Regional Office Room 2016
	Northwest Regional Office	U.S. Customs House
Alaska Regional Office Federal Building	1700 Westlake Avenue N. Seattle, WA 98109	300 S. Ferry Street Terminal Island, CA 90731
P.O. Box 1668	Telephone: (206) 442-7575	Telephone: (213) 548-2575

Specific NMFS information contacts, in most instances, are incorporated with the description of the publication or service. Where no contact is given, any of the offices listed in Table 2 can supply additional information.

The various publications listed as being available from the Superintendent of Documents (Table 3) or the National Technical Information Service (Table 3) are sales documents. The others are free and can be obtained from the source indicated, through any of the NMFS offices listed in Table 2, or from the Environmental Science Information Center, NOAA, Washington, DC 20235. All NMFS publications sold by the Superintendent of Documents can also be purchased from U.S. Government Printing Office Bookstores. There are Government Printing Office bookstores in: Atlanta, Ga.; Birmingham, Alabama; Boston, Mass.; Canton, Ohio; Chicago, Ill.; Cleveland, Ohio; Dallas, Tex.; Denver, Colo.; Detroit, Mich.; Kansas City, Kansas; Los Angeles, Calif.; New York, N.Y.; Philadelphia, Pa.; San Francisco, Calif.; Seattle, Wash.; and Washington, D.C.

PUBLICATIONS, PERIODICALS, AND NEWS RELEASES

1. Albacore Fishing Information Bulletins — These information bulletins, issued every two weeks, during the fishing season (mid-June, through mid-November) contain: (a) shortterm projections of albacore distribution; (b) location of productive fishing areas; and (c) oceanic and weather conditions. Fifteen-day sea surface temperature charts for the area between Central Baja California and Vancouver Island out to 135°W are also issued with these bulletins. For more information, contact the Southwest Fisheries Center, (Table 4), La Jolla, Calif. (Also refer to item No. 12, Fishing Information Reports.

2. Basic Economic Indicators — These publications, containing extensive compilations of economic, statistical, and biological data for certain major U.S. fisheries or fishery products, are published on an irregular basis. Separate reports have been published for shrimp, menhaden, scallops, halibut, and tuna. Similar reports will be issued on other major species. Available from Technical Information Division, Environmental Science Information Center, Washington, DC 20235.

3. Canned Fishery Products — Annual bulletin summarizing the production and value of canned fish and shellfish. Available from the NMFS Statistics and Market News Division, Washington, DC 20235.

4. Catalog of Federal Financial Assistance Available to the U.S. Fishing Industry — This publication will describe financial assistance programs of the Federal Government and certain other sources to assist the U.S. fishing industry in furthering its economic progress. It is intended as an educational aid for fisheries businessmen in obtaining information on business loans and related financial assistance programs of the Federal Government. (In preparation.)

5. Data Reports — Compilations of unanalyzed or partially analyzed biological, limnological, or oceanographic data available in either microfiche or hard-copy form. Issued irregularly and used mostly by libraries and research scientists and groups. Contact National Technical Information Service, 5285 Port Royal

Table 3.—NOAA, NMFS, and o	other Federal publications sour	rces mentioned in this article.
International Activities Staff National Marine Fisheries	formation Center, NOAA Washington, DC 20235	Division of State-Federal Fisheries Management Relations
Service Washington, DC 20235	National Marketing Service Office	National Marine Fisheries Service
Legislative Advisor	National Marine Fisheries Service	Washington, DC 20235
	100 East Ohio St.,	Public Affairs Office
National Oceanic and At-	Room 526	National Marine Fisheries
mospheric Administration	Chicago, IL 60611	Service
National Marine Fisheries		Washington, DC 20235
Service	National Technical Informa-	in a dening tening te i te
Washington, DC 20235	tion Service	Statistics and Market News
	5285 Port Royal Road	Division
Market Research and Ser- vices Division	Springfield, VA 22151	National Marine Fisheries Service
National Marine Fisheries Service	Office of Resource Man- agement	Washington, DC 20235
Washington, DC 20235	National Oceanic and At- mospheric Administration	Superintendent of Docu- ments
Technical Information Divi- sion	National Marine Fisheries Service	U.S. Government Printing Office
Environmental Science In-	Washington, DC 20235	Washington, DC 20402

Road, Springfield, VA 22151, for a listing of reports available and prices. (Prices vary depending upon type of publication and whether obtained in hard-copy or microfiche form.)

6. Digest of Congressional Record Daily releases summarizing status of congressional actions and legislation regarding fisheries and related subjects. For information contact the Legislative Advisor, National Oceanic Atmospheric Administration. and National Marine Fisheries Service, Washington, DC 20235, Telephone (202) 343-8743. For copies of bills or other congressional publications, write to the appropriate House or Senate Document Room as indicated below.

> Document Room House of Representatives Room H226—U.S. Capitol Washington, DC 20515

Document Room United States Senate Room S325—U.S. Capitol Washington, DC 20510

7. Fish Charts — Color posters or charts showing various species of marine fish are available for the following geographic areas: California Current and adjacent waters; North Atlantic waters; Gulf and South Atlantic waters; North Pacific waters; and Great Lakes. Additional charts under preparation will show shellfish and marine mammals. Posters are sold by the Superintendent of Documents (Table 3). Cost is about \$2.00 each.

8. Fish Cookery Publications — These publications present information on how to cook various types of seafood. Copies are sold by the Superintendent of Documents at from 25 to 60 cents per copy. A list of the publications available can be obtained from the Superintendent of Documents or

J. David Almand is a member of the Extension Division, Office of Resource Utilization, National Marine Fisheries Service, NOAA, Washington, DC 20235. from the NMFS Market Research and Services Division, Washington, DC 20235.

9. Fish Meal and Oil — Monthly report on the domestic production of fish meal, oil, and solubles. Available from the Statistics and Market News Division, Washington (Table 3).

10. Fish Sticks, Fish Portions, and Breaded Shrimp — Quarterly and annual bulletins on production and value of fish sticks, breaded and unbreaded fish portions, breaded shrimp, and imports of fish blocks and slabs. Available from the Statistics and Market News Division, Washington. is available from the Atlantic Estuarine Fisheries Center (Table 4).

13. Fishery Bulletin — A NMFS/ NOAA scientific journal published quarterly, and available on a subscription basis (\$10.85/year) from the Superintendent of Documents. It contains scientific articles on various fisheries related subjects including biology, economics, technology, fish physiology, and oceanography.

14. **Fishery Facts** — Bulletins geared to specific user groups such as fishermen and processors, which summarize, in nontechnical language, research results and developments on specific

Centers of the National Marine	e Fisheries Service.
Middle Atlantic Coastal Fisheries Center	Seattle, WA 98102
P.O. Box 428	Southeast Fisheries Center
Highlands, NJ 07732	75 Virginia Beach Drive Miami, FL 33149
Northeast Fisheries Center	
Woods Hole, MA 02543	Southwest Fisheries Center 8604 La Jolla Shore Drive
Northwest Fisheries Center	P.O. Box 271
2725 Montlake Blvd. E.	La Jolla, CA 92037
	Middle Atlantic Coastal Fisheries Center P.O. Box 428 Highlands, NJ 07732 Northeast Fisheries Center Woods Hole, MA 02543 Northwest Fisheries Center

11. Fisheries of the United States — Annual report with information on the domestic catch, world fisheries, processed products, foreign trade, supply, purchases, prices, per capita consumption, employment, and other information on U.S. fishing industry. Sold by Superintendent of Documents. Cost is about \$1.00 per copy (paper bound).

12. Fishing Information Reports -Daily radio and/or other periodic reports on the general fishing outlook, sea surface temperatures and other factors for certain fisheries, including albacore, vellowfin and skipjack tuna, billfishes, and menhaden. Additional information on albacore is available from the Southwest Fisheries Center's La Jolla Laboratory (Table 4). More information on skipjack tuna, yellowfin, and billfishes can be obtained from the Southwest Fisheries Center's Honolulu Laboratory, P.O. Box 3830, Honolulu, HI 96812, and, additional information on menhaden

topics. This series replaces the "Fishery Leaflet" series and is sold by the Superintendent of Documents, at a per issue cost of from 25 to 50 cents.

15. Fishery Statistics of the United States — A standard reference for detailed annual statistics by State and region on the domestic fishing industry, this is sold by the Superintendent of Documents.

16. Food Fish Facts — Pamphlets written in nonscientific language describing the life history, habitat, fishing methods, distribution and use, and nutritional qualities of various fish and shellfish species. The pamphlets are issued on an irregular basis to food editors by the NMFS's National Marketing Services Office, 100 East Ohio Street, Room 526, Chicago, IL 60611.

17. Food Editor Releases — News releases mailed on a regular basis to food editors associated primarily with newspapers and which contain information on seafood nutrition, "best buys," and related consumer information. The releases are also prepared and distributed by the National Marketing Services Office in Chicago.

18. Foreign Fisheries Leaflets — Issued on an irregular basis and describing the fisheries of individual foreign countries, the leaflets are prepared by the NMFS's International Activities Staff, Washington, DC 20235.

19. Foreign Fishing Off U.S. Coasts — Monthly reports on fishing activities by foreign fleets off the coasts of the U.S. Prepared by the International Activities Staff, Washington, D.C.

20. Frozen Fishery Products — Monthly and annual report on freezings and holdings of fishery products by species and geographical sections. Available from the Statistics and Market News Division, Washington, D.C. 21. Grant-In-Aid for Fisheries Program Activities — This is an annual publication summarizing funding, current status, and accomplishments under the Grant-In-Aid Program described under the "Major Services" section of this article. Available from the NMFS's Office of State-Federal Relations, Washington, DC 20235.

22. Gulf Coast Shrimp Data — Monthly and annual publications showing shrimp landings by depth and area of capture, species, size, number of trips, and days fished for the Gulf Coast States. Available from the Statistics and Market News Division, Washington, D.C.

23. Imports and Exports of Fishery Products — Annual report of quantity and value of imports of fishery products and of exports of domestic products. Available from the Statistics and Market News Division, Washington, D.C.

24. Industrial Fishery Products — Annual publication containing information by State on the quantity and value of domestic production and fish scrap and meal, fish and oil solubles, marine pearl and mussel shell buttons, oyster shell grit and lime, animal feed, and other industrial products. Available from the Statistics and Market News Division, Washington, D.C.

25. Marine Fisheries Abstracts — Monthly abstract of world literature on fisheries (particularly fishery technology) available on a subscription basis (\$6.50/year) from the Superintendent of Documents. The abstracts provide a valuable information reference to anyone having a special interest in fisheries subjects. A coding system is incorporated as an aid in file storage and retrieval.

26. Marine Fisheries Review — Monthly periodical which features articles on research, operations, trends and developments in domestic and foreign fisheries. Available on a subscription basis (\$12.50/year) from the Superintendent of Documents.

27. Marine Game Fish Newsletters — Annual reports, prepared in newsletter format, for all cooperators in the Cooperative Game Fish Tagging Program (including) charter boat associations; and game fish tournament participants and officials (see also item 4, "Major Service" section).

28. Market News Reports — Releases that contain information on landings, prices, imports, movements of fishery products, and certain other information regarding current market conditions in the geographic area of coverage. Information on foreign fishing industry developments is also included. The reports are published and mailed three times per week except during the fishing season when they may be published and mailed up to five times per week. The reports are prepared and mailed from the five offices listed in Table 5.

29. Market Review and Outlook Reports — Quarterly Situation and Outlook Reports are published separately for: Food Fish, Industrial Fishery Products, and Shellfish. These reports analyze the current market situation for major U.S. fisheries and contain an outlook concerning future economic conditions. Available from the Superintendent of Documents. 30. NOAA News Releases (Fisheries) — News releases regarding NMFS programs, accomplishments, and other newsworthy information on fisheries related subjects are issued on an irregular basis. These and other NOAA news releases can be obtained by contacting the Public Affairs Officer, National Marine Fisheries Service, Washington, DC 20235. Telephone: (202) 343-4881.

31. NOAA Technical Memoranda — Publications prepared primarily by NMFS research centers and laboratories designed to present scientific and technical studies that are mainly of local interest. Separately numbered subseries are available for each of several units within NMFS. Contact the National Technical Information Service (Table 3) for specific memoranda available and prices '(usually about \$3.00 per copy).

32. NOAA Technical Report NMFS CIRC — Publications on fishery subjects of a technical nature available on a per issue basis. The Reports review broad areas of research in considerable detail and are intended to aid fishery management agencies or groups and to provide helpful information to industry. Sold by Superintendent of Documents at about 50 cents per copy.

33. NOAA Technical Report NMFS SSRF — Special scientific reports on fishery subjects, which document longterm or continuing scientific investigations of NMFS or which provide an intensive report on a study of restricted scope. Bibliographies of a specialized nature may also be published in this series. The Reports are designed primarily for scientific or technical audiences and are available on a per issue basis. Sold by the Superintendent of Documents at from 25 cents upward.

34. **Our Living Oceans** — Pamphlets published on an irregular basis that contain information on living marine resource subjects of general interest. The series is primarily aimed at the 8 to 18 age group.

35. Processed Fishery Products — Annual statistical publication on

Table 5NMFS of	lices which prepare and mail A	larket News Reports.
Statistics and Market News Division	546 Carondelet St., Room 412	National Marine Fisheries Service
National Marine Fisheries Service	New Orleans, LA 70130	201 Varick Street New York, NY 10014
Room 2016, U.S. Customs House 300 S. Ferry Street	Statistics and Market News Division National Marine Fisheries	Statistics and Market News
Terminal Island, CA 90731 Statistics and Market News	Service Room 10, Commonwealth Pier	Division National Marine Fisheries Service
Division	Boston, MA 02210	7018 Federal Office Building
National Marine Fisheries Service	Statistics and Market News Division	909 First Street Seattle, WA 98104

quantity and value of all processed fishery products by geographic region and for American Samoa and Puerto Rico. Data on the number of processing and wholesaling establishments as well as data on employment are also included. Available from the Statistics and Market News Division, Washington, D.C.

36. **Production of Fish Fillets and Steaks** — Annual publication on domestic production and value of fish fillets and steaks by species and area of production. Available from the Statistics and Market News Division, Washington, D.C.

37. **Safety Placards** — Informational placards that contain a safety related message. The placards are waterproof and suitable for posting in a conspicuous location on a fishing vessel or dock.

Three placards have recently been released. The first deals with "Helicopter Evacuation" of crew members or passengers from vessels in distress or of any individual in a "life or death" situation. The second placard relates to "Medical Assistance Available to Vessels" and tells how vessel operators can obtain medical assistance in emergency situations. The Medical Assistance placards have been prepared for each of four geographical areas; the South Atlantic, Gulf and Caribbean waters; the California. North Pacific, and Alaska waters Hawaiian waters; and the North and Middle Atlantic waters. The third discusses the handling of explosives caught in fishing gear. Placards are

available from Regional NMFS Offices. 38. **Saltwater Anglers' Guides** — Two separate publications, one of which is prepared for the East Coast of the United States, the other for the West Coast and Hawaii. The publications contain information on the best locations and time of year to fish, species to be caught, and other information relating to saltwater sportfishing. These publications will be sold by the Superintendent of Documents.

39. Saltwater Angling Survey -Publication containing statistical data on saltwater sportfishing by fishing method, species, and geographic region, based on a national survey conducted once every five years. Available from the Superintendent of Documents at about 85 cents each. 40. Sectional Summaries - Annual bulletins showing commercial landings for the United States fisheries and 10 major geographic sections as follows: Alaska fisheries, Chesapeake fisheries, Great Lakes fisheries, Gulf fisheries, Hawaii fisheries, Middle Atlantic fisheries, Mississippi River

fisheries, New England fisheries, Pacific Coast fisheries, and South Atlantic fisheries. Available from the Statistics and Market News Division, Washington, D.C.

41. **Shrimp Landings** — Monthly and annual statistical bulletins on shrimp landings by species and by count, in the Gulf and South Atlantic States. Available from the Statistics and Market News Division, Washington, D.C.

42. State Landings Bulletins — Monthly and annual bulletins issued by the Statistics and Market News Division, Washington, D.C. for most coastal States, showing value and volume of landings by port, county, or district, area of capture, and catch by gear. Bulletins presently issued: Alabama, Florida, Georgia, Louisiana, Maine, Maryland, Massachusetts, Mississippi, New Jersey, New York, North Carolina, Rhode Island, South Carolina, Texas, and Virginia.

43. Simplified Recordkeeping Sheets (SRS) for Fishermen — An educational aid to assist fishing vessel operators in maintaining business records relating to their vessel and in recording information for tax reporting purposes. The forms are specifically intended for fishermen who do not use the services of "settlement houses" or accountants for maintaining and analyzing their business records.

44. **Subject Matter Index** — This publication provides a ready reference of NMFS expertise in selected subject areas. The index is in two parts: a subject matter listing and an information directory. Part I of the Index contains an alphabetical listing of

Table 6.—	NMFS Fishery Product Inspec	aron onices.
Division of Fishery Products	Service	P.O. Box 1188
Inspection	Duval Building	Emerson Avenue
National Marine Fisheries Service	9450 Gandy Blvd. St. Petersburg, FL 33702	Gloucester, MA 01930
4747 Eastern Ave. Bldg. 7 Bell, CA 90201		Division of Fishery Pro ducts Inspection
	Division of Fishery Pro-	National Marine Fisherie
Division of Fishery Products	ducts Inspection	Service.
Inspection	National Marine Fisheries	1700 Westlake Ave. N.
National Marine Fisheries	Service	Seattle, WA 98109



most subjects in which NMFS possesses expertise. Cross-referenced to these subject listings are information codes, by geographic region, which identify specific offices within NMFS that have expertise relative to the corresponding subject areas. Part II consists of six geographic directories that contain (a) information codes. (b) information sources, and (c) their corresponding information numbers. 45. Translations - Published listings of translated Tables of Contents and publications regarding foreign fisheries and oceanographic related items. For information, contact the International Activities staff, Washington, D.C. (Table 3).

OVERVIEW OF MAJOR SERVICES

1. Administration of Pribilof Islands — The NMFS administers the Fur Seal Act of 1966 which directs NMFS to protect and manage the fur seal resources of the Pribilof Islands located off the coast of Alaska. The Act also provides for the care and welfare of the native islanders. In fulfilling these responsibilities, NMFS conducts research on the management and harvest of fur seals and provides employment, housing, and educational services to the Aleut residents of the Pribilof Islands. Additional information on these services can be obtained from the Office of Resource Management, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Washington, DC 20235.

2. Advisory Services — In December 1972, the National Oceanic and Atmospheric Administration established the NOAA Marine Advisory Service (NMAS) to promote and disseminate knowledge on use and development of marine fisheries and other ocean and Great Lakes resources through an informal education program whereby research results, availability of services, experience of industry, and other sources of information are quickly made available to the users.

The principal components of NMAS are State and local Sea Grant Advisory Programs and the various NOAA organizations. It is a national system for helping fishermen and other marine resource users solve practical problems through informal education. The State and local advisory staffs emphasize personal contact and other direct fieldwork at the community level. The local field staffs are backed up and supported by the total resources of NOAA, Sea Grant universities, and many other cooperating agencies and institutions.

The various services described in this listing are among the activities which provide direct support to the NMAS program. NMFS field offices and research installations also provide valuable backup to marine advisory agents by serving as a source of talent and expertise. In addition, NMFS experts throughout the country cooperate with a variety of fisheries related groups in providing information and technical expertise to the fishing industry. Each NMFS region now has at least one extension special-

Publications play an important role in NMFS

programs

now has at least one extension specialist that serves somewhat as a focal point for advisory work within each of the five regions.

3. Artificial Reefs — NMFS provides advice and technical assistance regarding the location, construction, and ecology of manmade reefs in the marine environment. These reefs provide new habitat for fish and other organisms and serve as productive fishing areas for saltwater anglers. For additional information contact the Atlantic Estuarine Fisheries Center in Beaufort, N.C. (Table 4).

4. Cooperative Gamefish Tagging and Recovery - NMFS serves as a clearinghouse in connection with research activities regarding the life history and migration patterns of oceanic gamefish. These activities are carried out in cooperation with saltwater angling clubs and groups and often involve participation of NMFS scientists in collecting data during saltwater fishing tournaments. Fish tags and tagging instructions are provided by NMFS. The actual tagging of fish is performed by the angler or by charter boat operators. For additional information contact the Northwest Fisheries Center, Seattle, Wash .: Northeast Fisheries Center, Woods Hole, Mass.; Southwest Fisheries Center, La Jolla, Calif.; or the Southeast Fisheries Center in Miami, Fla. (Table 4).

5. Enforcement and Surveillance — The NMFS has a specialized Federal enforcement program involving marine fish and mammals. The present enforcement and surveillance responsibilities involve (1) the development, promulgation, and enforcement of domestic fisheries regulations required under the authority of international fisheries agreements to which the United States is a contracting party; and (2) compliance by foreign fishing vessels of the contiguous fisheries zone and territorial waters. Also included is enforcement of U.S. statutes concerning marine mammal protection, and prohibiting possession or importation of illegally taken fish and wildlife; surveillance of foreign fishing operations to ensure compliance with the provisions of various treaties and agreements to which the U.S. is a party; and collecting intelligence on foreign fishing fleets off the United States needed for enforcement and for negotiations regarding foreign fishing. That portion of the fisheries enforcement program which involves activities at sea is largly planned and conducted in cooperation with the U.S. Coast Guard. Under this arrangement, the Coast Guard provides aerial and surface patrols and NMFS provides agents with fisheries expertise to accompany these patrol efforts.

6. Environmental Impact Analysis

NMFS provides consultative services, under the authority of the Fish and Wildlife Coordination Act, as amended, to other Federal agencies regarding the impacts of water development projects on fish and wildlife resources and their habitat. Specific areas of responsibility include marine fisheries, anadromous fishes, fresh water commercial fisheries, and marine mammals. Recommendations are made to prevent loss of, mitigate damages to, or enhance the populations of those resources. NMFS also provides consultative services to Federal regulatory agencies that grant permits and licenses for construction and waste discharges in the aquatic environment. In accordance with certain provisions of the National Environmental Policy Act, NMFS expertise is further brought to bear on environmental impact statements through a review and comment process.

7. Financial Assistance — The NMFS operates four financial assistance programs to assist the fishing industry: Capital Construction Fund, Fisheries Loan Fund, Fishermen's Guaranty Fund Program, and the Fishing Vessel Obligation Guarantee Program.

The Capital Construction Fund allows fishermen to accumulate tax deferred funds for the construction. reconstruction and/or acquisition of commercial fishing vessels. Through an agreement with the Department of Commerce, fishermen already owning commercial fishing vessels are permitted to make certain tax deferred deposits which are scheduled for later withdrawal for construction, reconstruction, or acquisition. These deposits may consist, in any given year, of earnings from fishing activities, depreciation on existing vessels, net proceeds from the sale of existing vessels, and/or insurance proceeds attributable to those vessels. Although taxes on those deposits are deferred, the depreciation basis of vessels purchased or reconstructed with the aid of withdrawals from a fund is adjusted to reflect those withdrawals.

The **Fisheries Loan Fund** is a revolving fund from which loans are available to finance or refinance the cost of purchasing, constructing, equipping, maintaining, repairing, or operating new or used commercial fishing vessels or gear. A fund moratorium was declared on 1 March 1973. The moratorium will probably continue until 1 July 1974. A new program is being developed to use the limited means available to the Fund in a more effective manner.

The Fishermen's Guaranty Fund Program provides for reimbursement to owners of U.S.-flag vessels for certain losses and costs incurred as a result of a vessel seizure by a foreign country claiming territorial jurisdiction in waters regarded by the United States as the high seas. Participation is by agreement and payment of fees.

The Fishing Vessel Obligation Guarantee Program authorizes Commerce Department guarantee of obligations which aid in financing or refinancing up to 75 percent of the cost of construction, reconstruction, or reconditioning of commercial fishing vessels. Repayment period ordinarily may not exceed 15 years (construction) or 7 years (reconstruction or reconditioning). Permissible interest rates are determined by the Secretary on the basis of prevailing rates in the private market and the risks assumed by the Department. A lender with a guaranteed obligation will not be a party to the security arrangements made between the Commerce Department and the borrower. The lender's sole security will be the U.S. guarantee of the borrower's obligation.

8. Fish Forecasting Services -Forecasts of abundance are made for selected fish populations including menhaden, North Atlantic groundfish, and tuna. Radio facsimile broadcasts are made to tuna fishermen in the tropical Pacific in a cooperative fishery advisory monitoring service between fishermen and scientists at the Southwest Fisheries Center. Abundance forecasts for other species (anchovies, hake, sardines, etc.) are also provided as required. Industry advisories are also issued to the menhaden industry and state fishery agencies on a semimonthly basis along with annual forecasts of abundance and availability by the Atlantic Estuarine Fisheries Center.

The Northeast Fisheries Center prepares quarterly and annual stock catalogues for industry and an annual abundance forecast for the Atlantic States Marine Fisheries Commission regarding the status of groundfish stocks off the northeast coast of the U.S. Similar information is available for important fishery resources of the North Pacific (salmon, hake, shrimp, halibut, crabs, and other species) from the Northwest Fisheries Center. Such information for the Gulf of Mexico. the southeast coastal region, and the western Caribbean is available from the Southeast Fisheries Center and from the Gulf Coastal Fisheries Center in Galveston (primarily Gulf of Mexico shrimp). Additional information on these forecasting services is available from the above NMFS Fisheries Centers (Table 4) and the Middle Atlantic Coastal Fisheries Center, Milford, CN 06460.

9. Fishery Products Inspection and Grading Services — NMFS provides inspection and grading services to help the fishing industry (producers, processors, and distributors) upgrade and maintain the quality of their fresh, frozen, canned, or cured products during the whole chain from producer to final user, including products of both domestic and international origin. The major components of the service are inspection and grading.

Inspection is provided on a fee for service basis, under either a contractual arrangement or on a product lot basis. Contract inspection involves the monitoring, examination, and certification of facilities, equipment, and products during production, processing, and packing, by trained inspectors, to make certain that products are safe, wholesome, properly labeled, and that the food-handling personnel working within the processing confines meet well defined food handling practices and principles. Products packed under such an arrangement, and which pass all Federal requirements may bear on their brand labels the Federal mark or statement "Packed Under Federal Inspection."

Lot inspection involves the examination and certification of specified lots of fishery products by trained inspectors upon request by anyone with a financial interest in the product. It may be located in processing plants, public warehouses, distribution points, etc. Products examined under this service cannot bear Federal inspection symbols.

Grading is an added step under contract inspection in which the trained inspector determines and certifies as to the grade of products produced, in accordance with published U.S. Grade Standards. Such products are eligible to bear a "U.S. Grade" shield in addition to the Federal inspection mark.

The inspection and grading programs are efforts to increase consumer confidence and promote wider acceptance and use of fishery products through industry quality assurance programs and brand label marketing efforts. Further information regarding these services is available from the NMFS offices listed in Table 6.

10. Foreign Fishing Vessel Transfers — The NMFS provides consultative services to the Maritime Administration (MARAD) on all applications to MARAD involving requests for approval for the transfer of U.S. fishing vessels to foreign ownership or registry pursuant to provisions of the Shipping Act, 1916. NMFS views are solicitied to ensure that all transfers are consistent with the wise use of fisheries resources.

11. **Grants-In-Aid** — NMFS administers Grants-In-Aid programs under the two legislative acts described below.

The Commercial Fisheries Research and Development Act of 1964 (P.L. 88-309), as amended. Authorizes the Secretary of Commerce to cooperate with the 50 States, the Commonwealth of Puerto Rico, and the Governments of the Virgin Islands, Guam, and American Samoa in carrying out research and development of the Nation's commercial fisheries. Projects eligible for funding include research, development, construction, and coordination. Cost-sharing projects are funded at either a 50 percent or 75 percent level of Federal participation, whereas projects to alleviate resource disaster are financed with 100 percent Federal funds.

The Anadromous Fish Act of 1965 (P.L. 89-304), as amended. Authorizes the Secretary of Commerce to enter into cooperative agreements with State or other non-Federal interests for the conservation, development, and enhancement of the anadromous fishery resources of the nation and the fish in the Great Lakes that ascend streams to spawn. The program is administered at the Federal level jointly by the National Marine Fisheries Service and the Bureau of Sport Fisheries and Wildlife. Federal funds up to 50 percent and, in certain cases, up to 60 percent, may be used to finance project costs. State fishery agencies, colleges, universities, private companies and other non-Federal interests in 30 States bordering the oceans and the Great Lakes may participate under the Act. All projects must be approved by the State fishery agency concerned.

12. Lake Washington Sockeye Salmon Acoustical Surveys - In cooperation with the Fisheries Research Institute of the University of Washington, Seattle, and the Washington State Department of Fisheries, the Northwest Fisheries Center conducts weekly acoustical surveys of Lake Washington during June, July, and August. Concentrations of sockeve salmon adults are detected and news releases, in turn, issued to local newspapers immediately after each survey. These releases contain a chart showing areas of salmon concentrations and the depth distribution of the fish. Sport fishermen utilize this information in fishing for sockeye salmon.

13. Marine Mammals — In carrying out its responsibilities under the Marine Mammal Protection Act of 1972 for whales, porpoises, seals, and sea lions, NMFS reviews and either approves or disapproves: (a) economic hardship exemptions; (b) applications for permits to harvest marine mammals for scientific research purposes; and (c) applications for permits to publicly display marine mammals. NMFS also conducts public hearings and issues regulations on various aspects of the program relative to implementation of the Act.

14. Marine Resource Assessment and Prediction — NMFS conducts a marine resource assessment program (MARMAP) which represents a total system for resource assessment and prediction, including information on the abundance, distribution, and condition of actual and potential marine resource populations available to the United States. Information generated by MARMAP is based on ichthyoplankton, groundfish, and pelagic surveys, and fishery catch analyses for resources of interest to the United States in Atlantic, Pacific, and Gulf of Mexico waters. Environmental data taken in conjunction with surveys by other agencies are also used. Additional information regarding these surveys is available from the Northeast Fisheries Center, Northwest Fisheries Center, Middle Atlantic Coastal Fisheries Center, Southwest Fisheries Center, Southeast Fisheries Center, and the Gulf Coastal Fisheries Center.

15. Marketing Services - Marketing Services include Market Development, Consumer Education, and Market Intelligence. Market Development is designed to provide assistance to the industry in identifying and developing new and expanded domestic and foreign markets, primarily for latent or underutilized fishery products. Specific activities include identification of possible markets for new products, a determination of the volume of the new product that can be marketed in given locations, assisting industry in introducing the product in the market place, and providing technical marketing assistance to fishery product processing or marketing firms.

Consumer Education helps provide consumers with greater knowledge regarding the purchasing and preparation of seafood products. Activities include development, production, and distribution of consumer education materials, conduct of fish cookery presentations and demonstrations with emphasis on latent species, conducting seafood related training for various State and industry home

Table 7.—Fishery Products T	echnology Centers and Labor Fisheries Service.	ratories of the National Marine
Atlantic Fishery Products Technology Center	Campus College Park, MD 20740	2725 Montlake Boulevard East
Emerson Avenue		Seattle, WA 98102
Gloucester, MA 01930	Kodiak Fishery Products Technology Center	Pascagoula Fishery Pro-
College Park Fishery Pro- ducts Technology Lab- oratory		ducts Technology Lab- oratory 3209 Frederick Street
Regents Drive University of Maryland	Pacific Fishery Products Technology Center	P.O. Drawer 1207 Pascagoula, MS 39568

economists, and consultations with State and industry associations.

The purpose of the Market Intelligence program is to analyze factors which affect current market conditions for fishery products (such as prices, imports, exports, production, inventories, and consumption) and to prepare forecasts.

16. Technological Services, Harvesting - NMFS conducts research and development activities regarding various types of fishing gear, equipment and techniques. Current work is oriented primarily toward the development and testing of gear and techniques for three basic purposes: (1) more efficient resource assessment through improved sampling; (2) conservation of living marine resources; and (3) encouragement of more efficient harvesting. NMFS collaborates with members of the U.S. fishing industry in testing and promoting new gear and techniques to achieve the three basic purposes mentioned above. Additional information can be obtained from: Middle Atlantic Coastal Fisheries Center, P.O. Box 428, Highlands, NJ 07732; Northeast Fisheries Center, Southeast Fisheries Center; Northwest Fisheries Center; Southwest Fisheries Center; or the Gulf Coastal Fisheries Center (Table 4).

17. Technological Services Processing - NMFS also conducts research and development activities necessary to provide assistance to the fishing industry in solving technological problems relating to the seafood processing industry. This includes work relating to the development of products from underutilized fishery resources, new seafood processing and handling methods, microconstituents in fishery products, aquaculture technology, pollution control, and fishery products safety and nutrition. Technical information is also provided concerning the nutritional value composition, proper and safe handling, and preservation of fishery food products in the home. The various research and technological assistance activities are carried out at the NMFS facilities listed in Table 7.

MFR Paper 1039. From Marine Fisheries Review, Vol. 36, No. 3, March 1974. Copies of this paper, in limited numbers, are available from D83, Technical Information Division, Environmental Science Information Center, NOAA, Washington, DC 20235.