UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northeast Fisheries Science Center
166 Water Street
Woods Hole, MA 02543-1097

October 21, 1999

MEMORANDUM FOR: Teri Frady

FROM: Jon Gibson JAG

SUBJECT: History of External Affairs Activities by the Bureau of Commercial Fisheries (BCF)/National Marine Fisheries Service (NMFS) during the Late 1960s and Early 1970s

Attached for your reference are: 1) a copy of your August 30 memo to me asking for selected information on the subject (Attachment #1); 2) a sheet with the names of individuals from whom I gathered background information on the subject (Attachment #2); and 3) a copy of selected sections of the following items in chronological order: a) a fish cookery bulletin ("Fish Recipes for School Lunches") in the BCF's *Test Kitchen* series in 1959 (Attachment #3); b) a program review of the BCF's Marketing Branch in 1966 (Attachment #4); c) the annual report for the BCF in 1969 (Attachment #5); d) the briefing book for the first meeting of the Marine Fisheries Advisory Committee in 1971 (Attachment #6); e) an extension publication ("Redfish") in NMFS's *Fishery Facts* series in 1972 (Attachment #7); f) the annual report for NMFS in 1972 (Attachment #8); g) the annual report for NMFS in 1974 (Attachment #9); and h) an article by the U.S. Fish and Wildlife Service's (USFWS) Assistant Director for Public Affairs ("Role of Federal Wildlife Information Offices") in the *Transactions of the Forty-eighth North American Wildlife and Natural Resources Conference* in 1983 (Attachment #10).

Below also for your reference is a summary of the comments that I received from the individuals listed in Attachment #2, as well as some of my own experiences (which I have specifically identified as such), from four perspectives: 1) "The BCF Approach," 2) "The Early NMFS Approach," 3) "The USFWS View at the Time of the Early NMFS Approach," and 4) "The Sea Grant Experience at the Time of the Early NMFS Approach."

You had three basic questions in your August 30 memo. Your first question was, "What was the best year for external affairs in NMFS?" The short answer is probably 1972. Your second question was, "What has changed in terms of external affairs activities within NMFS from its beginning to present?" The short answer is that proportionately fewer programs and personnel have responsibilities for such activities, and that those activities have become less focused on the seafood industry and consumer as well as less practical in their intent and application. Your third question was, "What has been the role of Sea Grant in supporting the external affairs needs of NMFS?" The short answer is that Sea Grant has often been self serving and has occasionally been adversarial. The attached reference materials and the following summary comments should reinforce these short answers.

The BCF Approach

External affairs activities pervaded the BCF. Many programs were largely dedicated to such activities. In addition, many individuals who were in research or management positions had major responsibilities for such activities.

Examples of the BCF's external-affairs-oriented programs were its Marketing Division and Publications Division. The Marketing Division at one time included a Market News Office, Marketing Services Office, International Development Office, Fisheries Extension Office (including a Fishing Vessel Safety Program), and an Audiovisual Services Unit to serve all four offices.

The Marketing Services Office included, among other things, test kitchens in College Park, Seattle, Pascagoula, and Ann Arbor (*i.e.*, covering the Atlantic, Pacific, and Gulf Coasts, and the Great Lakes) to promote the nutritional value, economical use, and safe preparation of seafood. Food editors around the country regularly received recipes and cookbooks from these test kitchens. The College Park test kitchen employed up to five home economists, and among its test-kitchen series of recipes and cookbooks was a cookbook on outdoor fish cookery which won an award for best color book in government.

The Audiovisual Services Unit produced, among other things, motion pictures with the financial support of the fishing industry to promote use of underutilized species, use of new fishery products, and safety in seafood preparation. The films were kept at a BCF library in Reston, Virginia, and distributed to hundreds of schools and television stations around the country.

The Publications Division produced a significant number of popular and semi-technical series, including the *Fishery Leaflet*, *Circular*, *Commercial Fisheries Review*, and *Fishery Market Development*. The *Fishery Leaflet* series provided information to the general public on frequently asked questions about fisheries resources and their uses. The *Circular* series provided information to the seafood industry and consumers on the practical applications of research. The *Commercial Fisheries Review* series provided information to the full range of BCF constituents on newsworthy activities, events, and findings (*i.e.*, it was at that time a news bulletin). The *Fishery Market Development* series provided information to seafood processors, retailers, and consumers on all aspects of seafood use.

The Division also prepared and sent a periodical newsletter to the news media on the availability of all new information products (*e.g.*, books, serial publications, motion pictures).

The Division also had a Publications Distribution Unit which stocked all publications and had a 48-hour response deadline for all constituent requests for such information products.

Additionally, many researchers (*e.g.*, Perry Lane at the Gloucester Technology Laboratory) had collateral duties in extension work. They were expected to give demonstrations, hold workshops, and participate in seminars for industry and consumers on a regular basis.

The Early NMFS Approach

The early NMFS approach to external affairs can be summarized as initially carrying on as BCF with sport fishing thrown in, then beginning a serious effort to address problems and

opportunities, then being swallowed by the NOAA bureaucracy, and then having NOAA abandon much of its (and thus NMFS's) external affairs and at the same time prohibit NMFS from resurrecting any of its own. This pattern can be seen by following the course of some of the functions noted in the earlier section.

The BCF Marketing Division became the NMFS Marketing Research and Services Division (MRSD). The "research" continued, but the "services" declined. What had been the Division's Marketing Services Office's test kitchens were phased out. Only what came to become called the National Fishery Education Center fared well among the Marketing Services Office's functions, and only then because it was outside the Washington area (*i.e.*, Chicago), because some consumers had recently died from eating contaminated seafood, and because the head of the Center appealed directly to the first NOAA Administrator, Bob White, and to the first Commerce Secretary after NOAA's creation, Maurice Stans, for support. White was a forecast meteorologist by training and experience, and was extremely attuned to criticism over not getting out sound information in a timely manner. Stans loved the political publicity that marketing provided. The Center had about 20 employees at peak, published eight fish charts and several sport fishing atlases, sent monthly seafood-related materials to 825 food editors, made presentations at all major restaurant and supermarket conventions and seafood festivals, and trained NMFS staff in preparation of public information products. When White and Stans had both left, the Center slowly died.

The MRSD's Fisheries Extension Office became a separate division within NMFS in 1971, employed nine people in Washington at peak, and was in line for a major funding increase (in part to staff the regional offices) in 1972; then, the function was permanently, and five of the positions were "temporarily," transferred to Sea Grant in 1973. NMFS has never since had the sort of extension support as envisioned in 1972, nor has it ever had a return of the temporarily transferred positions.

The MRSD's Audiovisual Services Unit with its motion picture functions were transferred to NOAA. NMFS has never had the same level of audiovisual support since.

What "marketing services" remained with NMFS by 1974 were ultimately assigned to the regional fishery development foundations which were launched with S-K funds.

The BCF Publications Division's *Fishery Leaflet* series was reserved for use by the new NMFS Extension Division, and the series' name was changed to *Fishery Facts*. When the Extension Division's functions were transferred to Sea Grant, so was the series. It died immediately upon transfer.

The BCF Publications Division's *Commercial Fisheries Review* series became the carryover NMFS Publications Division's series, and was ultimately renamed *Marine Fisheries Review*, whereupon it began a slow transformation from a news bulletin of practical information for constituents to a science journal effectively "specializing" in anything that did not fit in the *Fishery Bulletin*, *Circular*, or *Special Scientific Report-Fisheries* series.

The NMFS Publications Division continued to publicize the availability of its publication issues (largely within the publications themselves), but had to relinquish publicizing of such information products as motion pictures since the NOAA Public Affairs Office was "handling" that now.

The NMFS Publication Division also lost its Publications Distribution Unit to NOAA's new, analogous unit in Bethesda, Maryland. After two years of NOAA "handling" requests for NMFS information products, NOAA acknowledged that it had not filled a single request that had been

referred to it from NMFS -- it had been "tied up" with reorganizational concerns (*i.e.*, the 48-hour turnaround policy became "inoperative" -- the term of choice in that era).

The USFWS View at the Time of the Early NMFS Approach

There is a nexus that justifies this section; that nexus is the recently deceased John Gottschalk. In 1972, Gottschalk was the Assistant to the (NMFS) Director for Sport Fisheries. In 1973, he became the Director of the USFWS. Gottschalk took the USFWS position for career advancement, but the reason he even began looking for another job was his significant frustration with NOAA for not having the public affairs support for him to deal effectively with the new sportfishing thrust by NMFS.

When he arrived at the USFWS, the public affairs situation was only a little better. The USFWS basically had an art-based shop, turning out hardcover color books and color posters (*e.g.*, "Fifty Birds of Town and City"). It was staffed with two writer-editors, a photographer, an artist (*i.e.*, the famous Bob Hines), and a duck stamp coordinator.

However, as Director, Gottschalk could deal with the USFWS's public affairs weaknesses -- something he could not do at NMFS when it was under NOAA. In fact, the first thing he did as USFWS Director was hire John Mattoon as the first Assistant Director of the USFWS for Public Affairs. (Mattoon had begun with the U.S. Forest Service's (USFS) Division of Information and Education in 1956, and had moved to the Bureau of Land Management in 1967 to start its Public Affairs Program.)

Mattoon built a Public Affairs Office for the USFWS which ultimately had a Washington-based staff of 23 professional and clerical individuals assigned among four divisions (*i.e.*, Current Information, Broadcast, Editorial Services, and Liaison). The Current Information Division, which was headed by a GS 14 and had two national public affairs officers and several writer-editors, prepared news releases, speeches, and other public information products. The Broadcast Division, which began with three staff and ended up with six or seven, had its own mission as well as serving the other divisions in developing audiovisual products. The Editorial Services Division, which had an editor-in-chief and two technical writer-editors, handled the typical publishing and printing functions. The Liaison Division was Gottschalk's means of keeping the Interior Secretary and Deputy Secretary for Fish, Wildlife, and Parks informed of what was going on at the USFWS, and vice versa.

Mattoon also built Public Affairs Offices in each of the USFWS's 10 regions. When he arrived at the USFWS, he found a "conservation education" position in each region, but only some of those positions were filled. He established in each region a GS 14 Assistant Regional Director for Public Affairs, with a GS 12/13 assistant. Since then, the regions have created GS 15 Assistant Directors for External Affairs, with assistants -- at a minimum -- for public affairs and Congressional liaison.

Among the individuals who have headed up the USFWS's public affairs/external affairs functions, there are several interesting observations: 1) prior to the creation of NOAA/NMFS, the BSFW's public affairs people "had virtually no contact" with their counterparts at the BCF; 2) nothing was ever accomplished by these public affairs heads unless they had a close personal relationship with the agency director; 3) the first time that public affairs became a full partner in the executive management of any Interior agency was when the USFWS's public affairs officials

successfully overrode the agency's senior researchers and managers by stopping the plan to kill 800 wolves in Alaska (even though it was favored by Interior Secretary Hickel from Alaska); and 4) the most beneficial thing the USFWS Public Affairs Office ever did was to establish strong liaisons with conservation organizations (*e.g.*, National Wildlife Federation). With respect to the latter point, they felt that one-on-one contact was good, but not enough; they went so far as to set up public affairs staff meetings once or twice a year to which the conservation organizations were invited and at which the staff presented the agency's positions and upcoming plans on controversial issues, regardless of whether those conservation organizations did or did not agree with those positions and plans.

The Sea Grant Experience at the Time of the Early NMFS Approach

In the early days of Sea Grant, when BCF/NMFS had a strong marketing and extension orientation, Sea Grant wanted to be doing what we were doing. In particular, the state-level programs in Florida, Texas, and Oregon were borrowing our ideas and products to meet the demands in their spheres of responsibility.

[Everything which has been written above has been an as-faithful-as-can-be summarization of the comments of others. Everything which is written below is my own view of events.]

From the start, Sea Grant has had understandable problems with identity and advocacy. When your programs and personnel are at, or directed from, a university campus, it is easy to identify yourself with the university and its interests at the expense of the federal agency which is funding most of your operations. So, when a Sea Grant program is able to help a commercial fisherman, the image which is consciously or unconsciously conveyed is that it is the university, not NOAA/NMFS, which is the fisherman's friend. (If there are doubters, they should look at the letterheads and mastheads which did and still do accompany most Sea Grant communications and information products. Based on those images, where would you think most of the interest, support, and funding were coming from?)

The problem of advocacy is a natural outgrowth of spending most of one's time and energy in the company of one's constituents -- what you refer to as the "cop shop syndrome." The most severe case of such advocacy was a 1977 article prepared by the University of Maine - New Hampshire Sea Grant Program (M/NHSG) and run in its monthly column in the trade paper *Commercial Fisheries News*. In that article, M/NHSG called the NMFS stock assessments on New England groundfish unscientific and flawed because the commercial fishermen with whom the M/NHSG's personnel were interacting did not like the regulations which ensued from those assessments. Even though the Director of the National Sea Grant College Program formally apologized to the NMFS Director for such blatant advocacy, the damage was done and we have never been able to fully recover from it.

Along the lines of the identity problem, you asked me specifically to recount my experiences with the USDA Soil Conservation Service (SCS) in 1988. (For background, remember that the USDA has assigned virtually of the extension functions of its primary components -- SCS, USFS, etc. -- to its Extension Service.) Anyway, as you recall, soon after I and Barbara were married, and right at the time you joined NMFS from the Alaska Sea Grant Program, Barbara and I looked

into moving back to either her home state (Connecticut) or mine (Ohio). I applied for three federal positions in Ohio (*i.e.*, an editor for the USFS's Northeast Forest Experiment Station at the Station's Delaware, Ohio, laboratory, the state public affairs officer for the SCS's Ohio Office at the Office's Columbus headquarters, and the third one I'll mention later). Although I was fortunately and surprisingly offered all three positions, I ultimately turned them down. (I had more roots in Cape Cod than I thought.) One thing that the head of SCS's Ohio Office liked in my background was my understanding of what I called the "agency extension outsourcing" problem. The SCS's Ohio Office had just suffered a terrible financial blow by Congress. The Ohio Cooperative Extension Service (OCES) -- which received most of its funding through the USDA's Extension Service -- in the past year had taken many of the information products of the SCS's Ohio Office, rewritten them verbatim but without attribution to the SCS's Ohio Office, and then used those rewritten information products to lobby Congress for more funds to continue "their" great work. Congress took the bait and did give OCES a significant boost in funding, and effectively took it out of the hide of the SCS's Ohio Office. The folks at the SCS's Ohio Office were understandably upset and looked favorably upon a job applicant who had some experience of having to rely on another agency to perform his agency's extension functions. They were looking for a way to fight back. (Incidentally, that third job offer mentioned above was from OCES for a fisheries and aquacultural advisor for the southern half of the state -- the area where I had grown up. It seems that they had just come into a financial windfall from Congress and were beginning to hire a number of new people in new positions!)

Attachments: 10

#1

Subject: Detective work
Date: Mon, 30 Aug 1999 08:54:39 -0400
From: Teri Frady <tfrady@whsun1.wh.whoi.edu>
To: jon gibson <jon.gibson@noaa.gov>

I have a couple of pieces of detective work for you--you may already have this info:

I am working on a presentation for HQ on a strawman Org Chart w/ functional statements and staffing for a HQ/field unit that would give the agency a permanent, consistent external relations capability.

Two points I would like to make are first that this is in many ways not new, but in fact rebuilding a capability we had prior to NOAA formation; and second, that while we would certainly expect a closer, more symbiotic relationship with the Sea Grant advisory service, external relations are inherently part of the agency adminitrative toolbox and relying on those outside the agency to deliver our message is only going to be useful if the news is good and they can take credit for it.

For the first part, I'd like to return to a year in which we had the fullest complement of "constituent service" tools: the seafood test kitchens, the seafood technology labs, the various published series (Fishery Leaflets, etc.) for the general, interested public. If you have any ideas about what would qualify as a Very Good Year, I'd like to hear them. Also, if you could shed any light on what happened to some of these series and functions--for example, was Fishery Leaflets rolled into another series or simply discontinued?--that would also be useful.

On the second point, some elucidation of your oft noted example of the relationship between the Soil Conservation Service and the Ag Department's extension service would also be useful to me. In particular I need to make the argument that the Sea Grant Extension model be viewed with caution--first, that they can be a better partner to us, second that our expectations of value from this relationship should be tempered with the reality that SG agents are creatures of the states first and the federal interest second, and serve to some extent as an example of what to guard against (Cop Shop Reporter Syndrome--knows so many cops he can't report objectively about justice any more) if we make a comittment to building an external relations function.

So, a couple of pages with your throughs, ideas, guidance on unearthing some info would be appreciated. Praise to be effusive, much credit given.

Questions, ideas, feedback welcome.

Thanks.

#2

Individuals from Whom Information Was Obtained on the External Affairs (Public Affairs, Constituent Affairs, Extension, etc.) Activities of the Bureau of Commercial Fisheries, National Marine Fisheries Service, and U.S. Fish and Wildlife Service during the Late 1960s and Early 1970s

Bob Finley, National Marine Fisheries Service - former Director of the National Fishery Education Center, (515) 873-4140

Bob Hall, National Marine Fisheries Service Northeast Region - former Chief of the Statistics and Market News Division, (978) 531-3307

Sam Marler, U.S. Fish and Wildlife Service - former (and first) Assistant Director for External Affairs, (334) 625-0384

John Mattoon, U.S. Fish and Wildlife Service - former (and first) Assistant Director for Public Affairs, (703) 533-2149

Phil Million, U.S. Fish and Wildlife Service - former Assistant Director for Public Affairs, (703) 358-2521

Paul Paradis, Bureau of Commercial Fisheries - former Chief of the Division of Marketing, (410) 250-0860

George Ridgway, National Marine Fisheries Service - former Assistant (Northeast Fisheries) Center Director for Planning, (207) 582-1204

Les Scattergood, Bureau of Commercial Fisheries - former Chief of the Division of Publications, (703) 620-9211

Michael Weber, contract researcher who prepared historical account of the National Marine Fisheries Service for the agency's 125th anniversary, (310) 316-0599

(#3)

FISH RECIPES for school lunches

Test Kitchen Series No. 5—Revised 1959

United States Department of the Interior
Bureau of Commercial Fisheries
Fish and Wildlife Service

Certain recipes in this leaflet were prepared by
Bureau of Commercial Fisheries,
Fish and Wildlife Service,
United States Department of the Interior,
in cooperation with
Institute of Home Economics and
Food Distribution Division,
United States Department of Agriculture

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OCT. 14 · 1966 (#4)

Return to Paul Paradis

REPORT TO THE BUREAU OF COMMERCIAL FISHERIES

ON THE

BRANCH OF MARKETING

Conducted by an Outside Study team led by Charles Eklach, Director of the New England Extension Service Office, engaged in dissemination of information to consumers, producers and distributors of food products. It did a few years ago

VI. RECOMMENDATIONS

The Study Team submits the following recommendations:

ORGANIZATIONAL CHANGES

1. Establishment of a Division of Education, Extension, and Marketing

It is recommended that:

A new Division of Education, Extension, and Marketing be established to include the Branch of Marketing and the educational work of an extension nature now being conducted or which may be initiated later by the Bureau.

a. An assignment of the scope indicated in the Acts of Congress concerning this area of the Bureau's fishery work requires a major unit of educational and extension focus, which can conduct work with consumers, the food industry, the fishing industry, and other public agencies and private organizations; which informs, educates, and promotes; which is concerned with marketing in all of its aspects and improvement of the effectiveness of marketing practices. This encompasses a much broader field of activity than is now the province of the Branch of Marketing, although the Branch does conduct some work in these areas.

b. The need for extension work to take research results to the people concerned is very evident. Successful extension of research results is an educational job which cannot be fulfilled by presentation of papers at scientific meetings nor publication of research reports.

c. What is needed is a Division of Education, Extension, and Marketing. Marketing work is far too important a Bureau responsibility to be relegated to Branch status in a research division; and the Branch of Marketing should be elevated to Division status even if the proposed combination of educational, extension, and marketing work is not realized.

d. The changes recommended would provide the higher-level attention to marketing which, in the past, has not been forthcoming; and would also enable the Bureau to do the things which Congress has directed be done in various Acts, and which are not now being done or are being done only in a minimum way.

e. The Study Team visualizes a new Division as including at least four units -- Marketing, Education and Extension, Educational Materials, and Market News.

Note: Further discussion of this recommendation will be found in the appendix to this report.

In fact, there may be considerable merit in separating the promotional contract from the processing, even if only one firm is involved. The additional competition that might be generated with resulting benefits in advertising copy could be substantial. The recent change of advertising agency would not appear to be of major benefit since the account executive also transferred with the account.

The nature of advertising and promotion would appear to justify the use of outside agencies, rather than depend upon the assumption of these functions by the Government. The extent and content of the advertising program should be examined by consultants, with competency in this area well before the expiration of the present contract. One point, however, appears clear. If the objectives are to improve net income to the Bureau, the advertising program should emphasize the brandname or names that have acceptance, rather than just Alaskan sealskins.

2. ADDITIONAL INFORMATION PERTINENT TO THE RECOMMENDATIONS ON ESTABLISHMENT OF A DIVISION OF EDUCATION, EXTENSION, AND MARKETING

This recommendation calls for the establishment of a Division of Education, Extension, and Marketing by combining the Branch of Marketing with some other elements of the Bureau; and the expansion of the resulting division to include some education and extension elements, and to conduct work not now being done or being done in a minimum and fragmented manner by other divisions of the Bureau.

THE FOUR PARTS OF THE DIVISION

There would be four units in the Division - (1) Education and Extension; (2) Marketing; (3) Educational Materials and Services; and (4) Market News. These need not all be accorded Branch status at this time, but this ultimate probability should be considered now.

Following is a description of the function, area of work, and staff visualized for each of the units:

Education and Extension - Would develop and conduct the extension and other educational work of the Bureau, taking research results from all divisions to the applicable clienteles. There would be need for some staff, but staff of the other Divisions of the Bureau would also be utilized, since this unit would provide a needed educational and extension facility for them.

Marketing - This unit would include most of what is now in the Branch of Marketing, although some of the educational and extension type activities would become the responsibility of the Education and Extension unit. The Marketing unit would be concerned with a wide range of marketing problems, the promotional activities, and other activities concerned with marketing situations. A study would be needed to determine staff that should be retained for the work, and the staff that should be assigned to education and extension unit responsibilities.

Educational Materials and Services - The function of this unit would be to support the educational and extension, marketing, and other work with the needed audio, visual, and other educational materials and services. The personnel and activities of the present Audio-Visual Unit, the National Marketing Services Office, and the National Home Economics Research Center would be part of this unit, with possibly some additional minor additions.

Market News - This unit, now a part of another Division of the Bureau, would be transferred to the new Division, as the nature of its work makes it a logical part of the Division.

The area of Market Research would be part of the Division of Economics, rather than being made part of the new Division. The new Division would draw on all Divisions of the Bureau for research results and subject matter information for use in its education and extension work.

In connection with Home Economics, the inclusion of all home economics work as a separate unit in the new Division was considered, but the Study Team considers that it more logically should be a part of the Educational Materials and Services unit, since its work is directly in support of the educational work and to some extent the promotional work. However, some parts of the Home

Economics program would be in the Education and Extension program area and these parts of the program would operate as part of that unit.

FOCUS OF THE NEW DIVISION

The focus of the new division would be on education and extension, supported by research from all Divisions of the Bureau, and by the needed educational materials and services.

This focus would provide a mechanism by which all Divisions of the Bureau could have their research results developed into applicable teachable materials, and taken to the various segments of the industry to which they have applicability.

It would also provide the extension service which Congress has repeatedly directed be established, but which to date has not been established, at least not in the manner and on the scale contemplated.

It would separate the educational, promotional, and other activities of the Branch of Marketing into a more logical and more effective organizational pattern.

It would provide the Bureau the organizational structure, program delineation, and operational machinery, which would enable the Bureau to provide assistance of greater value than ever before to

the fishing industry of the United States, and should produce results of a scope and value never previously attainable.

RATE OF DEVELOPMENT

Two approaches to formation of the new Division suggest themselves. One would be to set up the Division at one time and make the needed changes, transfers, etc., at this same time. The other is to start where the Branch of Marketing is now, and gradually make the needed changes, staff additions, and reassignments.

The first changes should be at Washington. The Director of the Division could, for a time, direct the operations of the various units, but the eventual goal should be formation of branches.

PERSONNEL NEEDED

It is difficult at this time to suggest a staffing pattern, since what would be needed depends on the extent to which the recommendation is adopted if, in fact, it is adopted at all, the scale of activity decided upon for each unit, and the timetable for further development.

However, there are several comments which can be made. At Washington, there would be need for a Division Director and the needed number of assistants to develop the areas of work decided upon.

The assistants should include one or more whose competencies are in the education and extension area. No staff additions would be needed for Market News. Some of the Branch of Marketing personnel could assume different or broader responsibilities. One man would probably be needed to head up the Educational Materials and Services unit.

In the field, the personnel mix should include staff with competencies in education and extension, marketing, home economics and/or food service, and market news. An education and extension specialist, a fishery marketing specialist, a home economics or food service specialist, and market news specialist would make up an ideal basic team, which might be increased in whatever areas the local needs would require.

The education and extension specialist would have competency in all phases of extension education. The fishery marketing specialist should have competency in the fields of marketing and especially food distribution. The home economist should have competency in the food service area so she can effectively conduct work involving commercial food service firms, as well as work with school lunch, hospital, and similar institutions.

All specialists, if at all possible, should be college graduates with as much experience and ability as can be obtained.

It is recognized that at the start, some field people may have to serve in dual capacities.

AN OPPORTUNITY

It is the considered opinion of the Study Team that the recommendation for formation and implementation of a Division of Education, Extension, and Marketing is the single most important recommendation resulting from the Team's study; and could be the basis for a new era of service and value to the U. S. fishing industry in carrying out the directives of legislation by Congress and the aims and objectives of the Bureau of Commercial Fisheries.

In these times of rapid developments in the food industry, increasing complexity of marketing problems, accelerated pace of research, and more complicated relationships between countries which affect the fishing industry, a major and new approach to the Bureau's responsibilities in education and marketing must be taken, if the Government's role is to be most effective and the resources devoted to it are to be most effectively utilized.

This recommendation points the way to the direction which can produce results of the scope, quantity, and quality needed.

REPORT OF THE BUREAU OF COMMERCIAL FISHERIES

FOR THE CALENDAR YEAR 1969

United States Department of the Interior
U.S. Fish and Wildlife Service
Bureau of Commercial Fisheries

ANNUAL REPORTS

Leslie W. Scattergood, *Editor*

Lola T. Dees, *Associate Editor*

Annual reports review briefly the principal efforts of the Bureau of Commercial Fisheries to help the U.S. fishing industry maintain the position of the United States as one of the world's leading fishing nations.

On October 2, 1970, the Bureau of Commercial Fisheries was transferred to the Department of Commerce and renamed National Marine Fisheries Service.

UNITED STATES DEPARTMENT OF THE INTERIOR

U.S. FISH AND WILDLIFE SERVICE

BUREAU OF COMMERCIAL FISHERIES

REPORT OF THE

BUREAU

OF

COMMERCIAL FISHERIES

FOR THE

CALENDAR YEAR 1969

UNITED STATES GOVERNMENT PRINTING OFFICE

WASHINGTON • 1971

fish protective devices, progress in building a fish protein concentrate demonstration plant, studies of groundfish, studies of king crabs and tanner crabs, new technique for using refrigerated brine, new uses for selected fish species, activities on the Pribilof Islands, processing of shellfish waste into marketable products, studies of salmon, consideration of sausages as a possible new outlet for fish, progress in synthesis of alkyl isocyanates from fish oil, developments in water resources, and workshop conversion of shrimp separator trawls.

Alaska seafood marketing workshop.—In May 1969, BCF held a workshop in Anchorage, Alaska, to help develop domestic and foreign markets for latent Alaskan fishery resources. BCF, Alaska producers and processors, air freight carriers, container manufacturers, and retail and wholesale representatives discussed such topics as processing requirements, quality, air distribution, shipping containers, and merchandising. As a result of the workshop, communications were improved among processors, distributors, and retailers, and Alaska products were tested in several new markets.

Columbia River Fishery Development Program.—In 1969, the Columbia River Fishery Development Program continued to manage, preserve, and improve the anadromous salmon and steelhead trout resources of the Columbia River Basin. The Program funds the operation of 21 hatcheries, more than 700 screens, and 83 major fishways. Much of the work is carried out through contracts with the Bureau of Sport Fisheries and Wildlife and the conservation agencies of Idaho, Oregon, and Washington.

Columbia River salmon runs in 1969 were both discouraging and encouraging. Because the spring run of salmon arrived late, the fishery agencies assumed that the run was small and consequently they restricted the fishery. This assumption was erroneous —nearly 180,000 spring chinook salmon eventually passed Bonneville Dam, the largest count since 1938. These fish encountered great difficulties farther upriver, and many perished before reaching their spawning grounds. The principal causes for the deaths were poor passage conditions at John Day and Lower Monumental Dams and gas bubble disease caused by the water being supersaturated with nitrogen.

The summer runs of both salmon and steelhead trout in 1969 were smaller than in 1968, and only a limited fishery was allowed. Indian fishermen caught most of the fish above Bonneville Dam. The inundation of spawning grounds by upriver dams reduced the summer run of chinook salmon and steelhead trout.

bait as nehu in the skipjack fishery and survives better in baitwells.

Tuna-tagging studies.—Tagging has shown that a night fishery for tuna may be forthcoming. Scientists at the BCF Biological Laboratory at Honolulu studied the travels of a small tuna that had been fed an ultrasonic transmitter. They found that the tuna traveled farther at night than in daylight and was always at the surface at night. If the tuna habitually swim at the surface at night, the scientists think that it might be possible to develop a night fishery. Fishermen would have to locate the schools at night, but could do so by observations of luminescence in the water, sonar, or perhaps a sonic-tagged tuna.

South Central States

The chief accomplishments in 1969 in the South Central States concerned catfish. BCF coordinates its activities with those of other Federal and State agencies and the Catfish Farmers of America Association to help develop improved production, marketing efficiency, and increased consumption of farm-raised catfish. Of special interest are the efforts to improve marketing operations and increase consumption of catfish.

Improving efficiency of marketing catfish.—Through its Marketing office in Little Rock, Ark., BCF has continuous liaison with the catfish farming industry. This work involves assistance in improving the efficiency of marketing operations by providing information to industry on market potential, distribution, quality control, cost reduction, and merchandising.

Increasing consumption of catfish.—BCF's work also includes efforts to encourage consumption of catfish through Government publications, media publicity in newspapers, television, and radio; and through contacts with potential markets.

Gulf of Mexico

In the Gulf of Mexico the chief accomplishments in 1969 were home economics training, red snapper storage life extension, shrimp studies, and water resource developments.

Home economics training.—At its Pascagoula, Miss., test-kitchen station, BCF's Division of Marketing has training facilities for home economists who have an interest in a career in fisheries education. In 1969, four home economists participated in a 6-week training course at Pascagoula. Participants are trained in preparation of recipes for consumers, identification of commer-

cial species of fish and shellfish, cookery demonstration techniques, and handling and dressing fish and provided facts about the fishing industry. Plant tours are arranged to familiarize the participants with the industry. At the end of the course, each home economist gives one demonstration for the extension service and one for television.

Red snapper storage life extension.—Scientists of the BCF Technological Laboratory at Pascagoula, Miss., have successfully extended the storage life of the red snapper for a year. Market development of large unutilized stocks of snapper in the Caribbean has been limited because of rapid browning of the fillet, discoloration of the red skin pigment, and curling of the skin when cooked. The scientists solved these problems by treating the fillets with a special chemical TDP (3,3¹-thiodipropionic acid) and packaging them in cryovac bags.

Shrimp studies.—The BCF Biological Laboratory at Galveston, Tex., in 1969 continued its biological studies of shrimp and its methods of forecasting the abundance of shrimp. To extend prediction lead time, the scientists are examining oceanic conditions that influence reproduction and survival of young shrimp. They found that persistent seaward winds may prevent shrimp larvae from entering estuaries. The result is greater larval mortality and less growth among the survivors. These studies benefit the State agencies responsible for regulating the industry and the fishing industry.

Water resource developments.—Studies for the Gulf of Mexico estuarine environment were completed, and atlases are being prepared. These closely coordinated comprehensive studies begun in 1966 were carried on jointly by scientists of the Marine Fisheries Departments of Alabama, Louisiana, and Mississippi and from BCF's St. Petersburg Beach, Fla., and Galveston, Tex., laboratories. The data from these studies will be extremely valuable to groups concerned with preventing further unwise exploitation of irreplaceable resources.

Scientists from BCF's Tropical Atlantic Biological Laboratory at St. Petersburg Beach, Fla., and the regional Office of Water Resources Studies participated in interagency studies and related activities that helped bring about a high-level Governmental decision to relocate the Miami Super Jetport. This huge project, already under construction, encompassed about 39 square miles of the Everglades just north of the Tamiami Trail. Results of the study showed that the project, if completed, together with expected future development around it, would have endangered the

tions of solvent extraction techniques to new solvent and solvent mixtures. The type of solvent used has a marked effect on both the cost of the process and the functional properties of the FPC produced. This aspect of research, therefore, is aimed at cost reduction and improved functional properties.

BCF completed and submitted a petition to FDA (Food and Drug Administration) to use a large number of fish species for FPC manufacture. Data for this petition were obtained by using samples produced in the model scale unit by a modification of the BCF solvent extraction procedure. The extensive analytical and nutritional data provided FDA demonstrated that FPC will meet present FDA requirements when made from a number of kinds of fish.

The model scale unit has been used to process several species of fish, such as anchovy and menhaden, to provide FPC samples for testing in connection with the petition to FDA. Plans have been made to modify this batch model scale unit for continuous operation. When modified, this unit can be effectively used in engineering research to lower the cost and increase the efficiency of the FPC process.

BCF also studied the use of enzymes to produce FPC and developed information on the process for making FPC by hydrolysis methods—specifically with endogenous or added enzymes.

After several years of concerted effort, BCF made a significant improvement in the assay that uses the growth of chickens as a measure of protein quality. The improved technique will be used as a standard in developing a quick chemical test for estimating accurately the quality of fish meals.

BCF also made two other successful studies. One was an intensive study of availability and body assimilation of amino acids from fish meals. The other was a detailed study of the variations in chemical and nutritive contents of menhaden fish solubles throughout the 1969 fishing season. These data will assist the animal feeding industry in its formulation of feeds.

Fishery product publicity.—BCF's Division of Marketing maintains a consumer educational program to advise the public of fishery products in plentiful supply, methods of preparation, quality maintenance, and handling. Each month about 1,000 newspaper food editors receive consumer educational materials from the Division of Marketing's central mail facility in Chicago.

The Division of Marketing released three publications in 1969. "Seafood Moods," a 30-page Government Printing Office sales document in full color, features fishery products from Alaska, Wash-

ington, and Oregon. The "Big Fish-In" is a 38-page recipe booklet that accompanies a 25-minute film strip by the same title for use in the National School Lunch Program. A 15-page manual that gives the cost per portion for Type A school lunches was released nationally.

BCF research home economists made 798 recipe tests and 748 yield tests for school lunch, institutional, and consumer applications. They also issued 46 school lunch menus and 23 school lunch marketing guides. Information provided by BCF home economists was released nationally through 81 news releases and publications.

In cooperation with several Gulf States, BCF produced two new fishery educational films. "Estuarine Heritage" and "The Biologist and the Boy" are now in national distribution through 200 film libraries. About 5 million people view BCF films annually on 26 different fishery subjects. An estimated 20 million additional people see the films through public service television broadcasts. BCF's Audio Visual Services Unit received eight national and international awards for creative excellence in 1969.

Fishery statistics.—BCF's Division of Statistics and Market News assembled data on fisheries for the 46 States that had commercial fishing in 1969. These statistics include numbers of commercial fishermen, fishing craft and gear, as well as quantity and value of the catch by species and gear, production of processed fishery commodities, and imports and exports of fishery products. In 1969, 306 current fishery statistical publications (1,961 pages) were sent to private industry and Government agencies in the United States, foreign industry and government, and U.S. embassies. In addition, considerable data were supplied as news releases for the Fishery Market News reports. Seven Market News field offices at principal fishing ports served as information centers for the U.S. fishing industry. With cooperation of State fishery agencies, data on landings were published monthly for 19 States. Also printed monthly was information on production of fish meal, oil, and solubles; freezings; and cold storage holdings of fish and shellfish. Data on monthly production of fish sticks, fish portions, and breaded shrimp were released quarterly.

Inspection and certification program.—BCF provided continuous inspection and certification services to 35 processing plants on a cost-reimbursable basis. Fifty-six inspectors inspect 298 million pounds (edible weight) of fishery products. In addition, 13 lot inspection stations provided inspection services to 22 States and various State and Federal agencies that use U.S. Department of

Interior inspection when they buy fishery products. These stations inspected 39 million pounds of products.

To provide the fishing industry with inspection services at an economical cost, BCF cross-licensed 40 inspectors from other Federal inspection agencies to sample and inspect products for quality and condition.

Market News Service reporting.—In 1969, eight BCF Fishery Market News Service offices, strategically located in important fish production and consumption areas, collected marketing information and data on a wide range of fishery products. Through daily mimeographed "Fishery Market News Reports," seven field offices provided members of the fishery industry (fishermen, wholesalers, retailers, and other interested persons) with timely information on supplies, receipts, shipments, foreign trade, market conditions, and prices on more than one hundred fishery products. They also provided industry members with U.S. and foreign fishery news items, information on Government legislative actions relating to fisheries, and periodic summaries and other reports. The reports, disseminated widely by the field offices, provide current market information and other data that are important for ensuring competitive freedom and efficiency in the orderly marketing of fishery products.

Fishery marketing information and related data, collected currently, provide an accumulation of records that are valuable in analyzing past performances and for projecting trends in the fisheries.

Standards and specifications.—At the request of members of the fishing industry, BCF develops standards for use in the voluntary inspection and certification of fishery products. Since 1956, BCF has developed voluntary U.S. grade standards for 16 fishery products. It is developing two more standards, one for frozen raw scallops and the other for fresh and frozen dressed catfish.

Transportation.—BCF's transportation economist continued to work with shippers, box manufacturers, and BCF technologists in developing new ways to ship fish products. He also studied transportation rates for fishery products and used the results of these studies to help obtain equitable rates for fishery products.

Water resource developments.—During 1969, the entire water resources and river basin staff of BCF participated in the National Estuary Protection Act Study with the Bureau of Sport Fisheries and Wildlife. A final draft of the study report was finished. The study documents the critical need to protect and conserve the estuarine environment and suggests a course of action to do so.

cooperative BCF-Atomic Energy Commission program. The program is designed to study the pelagic fauna off the mouth of the Columbia River. The goals are (1) locating midwater concentrations of pelagic fish and invertebrates in the area, (2) determining the species composition and relative abundance of species in each concentration sampled, and (3) establishing guidelines for future pelagic surveys during winter. An echo-sounder survey was made along a predetermined trackline between 25- and 400-fathom depths. All significant echo signs at depths of 200 fathoms or less were sampled with both an Isaac-Kidd trawl and a monofilament midwater fish trawl. The dimensions and other characteristics of fish concentrations at greater depths were estimated from studies of the echo sounding.

USDA (Department of Agriculture).—BCF and the Foreign Agriculture Service, International Trade Division of USDA work closely together to promote U.S. fishery products at international food trade fairs and exhibits.

BCF also works cooperatively with USDA through the Plentiful Foods Committee by listing fishery products on the "List of Foods in Plentiful Supply" when a marketing imbalance occurs. USDA sends these lists to food buyers, publicists, and others. In 1969, the list featured canned salmon during January and February and Maine sardines in May.

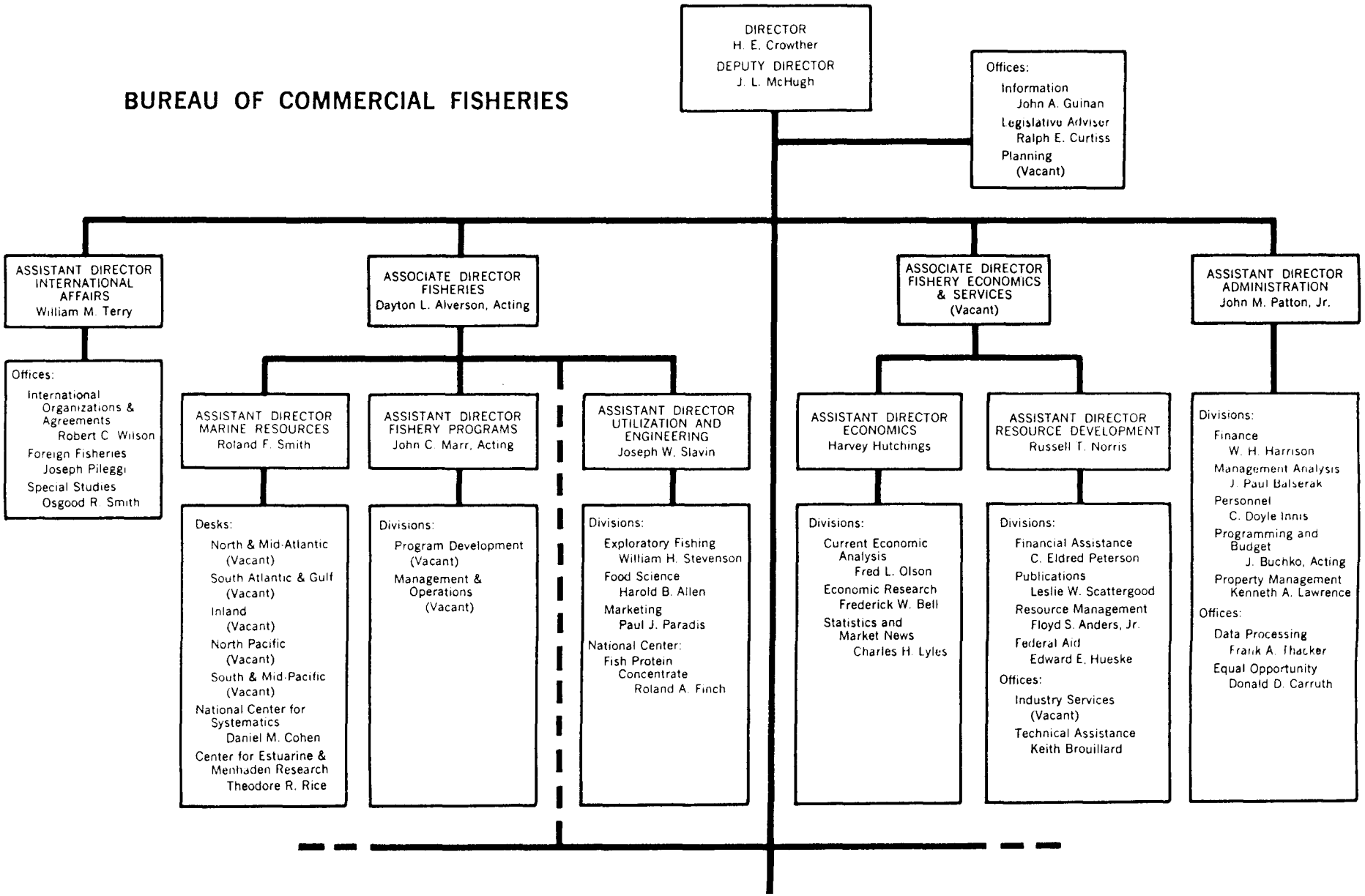
Through mutual cooperation with USDA, the Department of Defense, and the Department of Health, Education, and Welfare, BCF information on home economics is distributed nationally to schools, military installations, dietitians, and food publicists. An effective means of releasing timely BCF home economics information is to send it to those who can pass it on to food trades and consumers. As an example, BCF prepared a section on fishery products that was printed in the 1969 USDA Yearbook of Agriculture, "Food for Us All."

Economic Development Administration.—BCF continued to participate in the program of EDA (Economic Development Administration), as provided for by the Public Works and Economic Development Act of 1965 (Public Law 89–136). At the request of EDA, BCF reviewed and evaluated several proposed projects related to commercial fishing activities in economically depressed areas throughout the United States. Recommendations were made for approval or denial of funding of the proposals.

Cooperation with States

BCF cooperates closely with two interstate commissions—Atlantic States Marine Fisheries Commission and the Gulf States

BUREAU OF COMMERCIAL FISHERIES



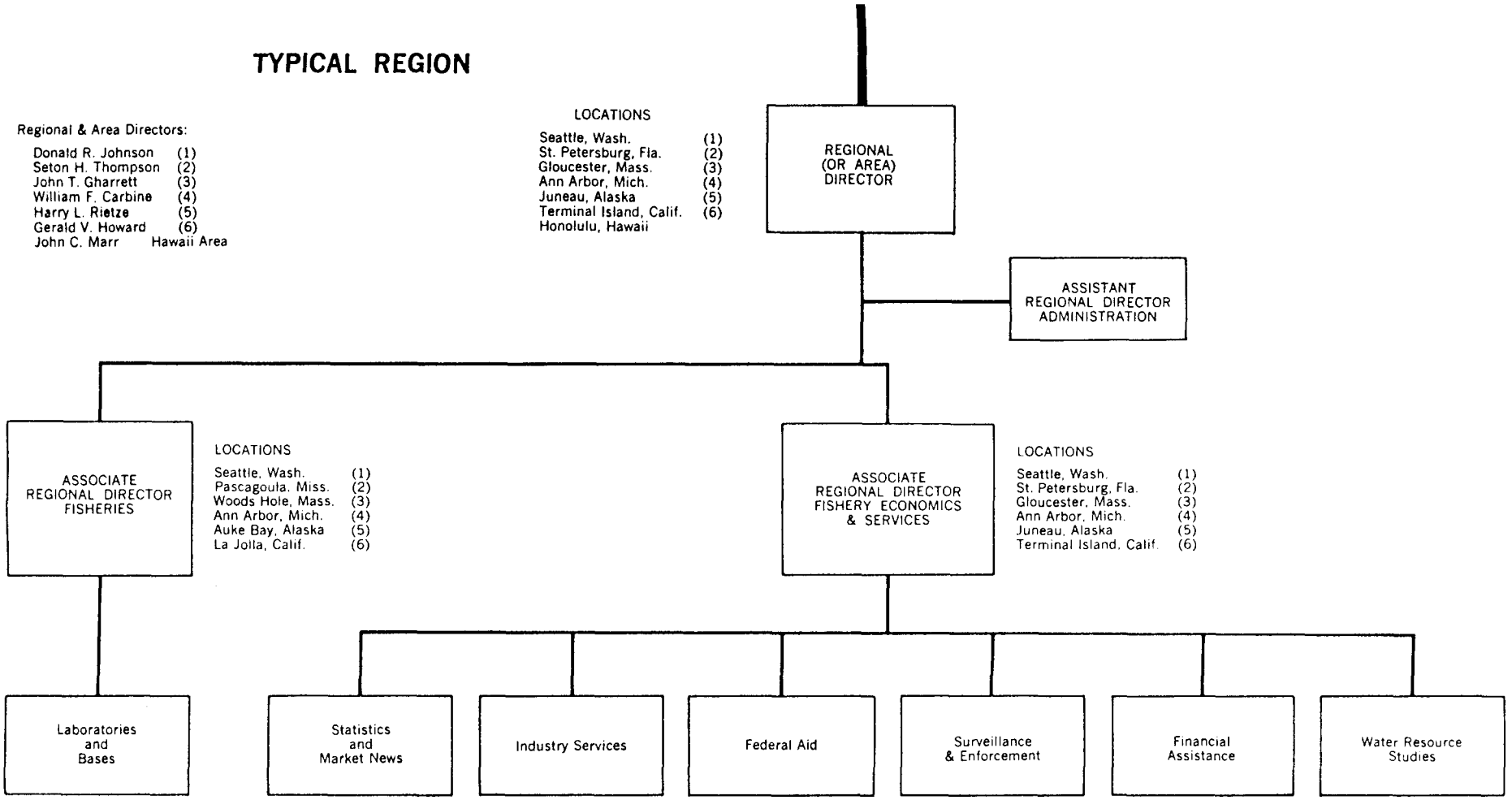


FIGURE 1.—Organization Chart, Bureau of Commercial Fisheries, December 31, 1969.

tional Center for Estuarine Marine Resources. Special program and guidance on fishery matters will be supplied by the Associate Regional Director for Fisheries in Region 2.

The names of several divisions in the headquarters office were changed.

Figure 1 shows the organization of BCF as of December 31, 1969.

Table 1 shows the field organization of BCF as of December 31, 1969.

TABLE 1.—*Field organization of BCF as of December 31, 1969* [1]

Region 1, Seattle, Wash.

Regional Office, Regional Director
- Administration, Assistant Regional Director
- Fisheries, Associate Regional Director
  - Biological Laboratory
  - Exploratory Fishing and Gear Research Base
  - Food Science Laboratory
  - Marketing Program
  - Technological Laboratory
- Fishery Economics and Services, Associate Regional Director
  - Columbia River Fishery Development Program, Portland, Oreg.
  - Columbia River Fishery Program (Field Station), Eugene, Oreg.
  - Columbia River Fishery Program (Field Station), Boise, Idaho
  - Enforcement and Surveillance Office
  - Federal Aid Office
  - Financial Assistance Office
  - Industry Services Office
  - Marine Mammal Resource Program (Pribilof Islands)
  - Statistics and Market News Office

Region 2, St. Petersburg, Fla.

Regional Office, Regional Director
- Administration, Assistant Regional Director
- Fisheries, Associate Regional Director
  - Biological Laboratory, Beaufort, N.C.
  - Biological Laboratory, Galveston, Tex.
  - Biological Laboratory
  - Exploratory Fishing and Gear Research Station, Brunswick, Ga.
  - Exploratory Fishing and Gear Research Base, Pascagoula, Miss.
  - Marketing Program
  - National Center for Estuarine Studies (Headquarters Office), Beaufort, N.C.
  - National Center for Estuarine Studies (Field Station), Gulf Breeze, Fla.
  - Technological Laboratory, Pascagoula, Miss.
  - Tropical Atlantic Biological Laboratory, Miami, Fla.
- Fishery Economics and Services, Associate Regional Director
  - Federal Aid Office
  - Financial Assistance Office
  - Industry Services Office
  - Statistics and Market News Office, New Orleans, La.
  - Water Resource Studies Office

Region 3, Gloucester, Mass.

Regional Office, Regional Director
- Administration, Assistant Regional Director
- Fisheries, Associate Regional Director
  - Biological Laboratory, Milford, Conn.
  - Biological Laboratory, Boothbay Harbor, Maine
  - Biological Laboratory, Oxford, Md.
  - Biological Laboratory, Woods Hole, Mass.
  - Exploratory Fishing and Gear Research Base
  - Marketing Program, Boston, Mass.
  - Technological Laboratory
- Fishery Economics and Services, Associate Regional Director
  - Enforcement and Surveillance Office
  - Federal Aid Office
  - Financial Assistance Office

See footnote at end of table.

Industry Services Office
Safety Office, Boston, Mass.
Shellfish Advisory Service, Oxford, Md.
Statistics and Market News Office
Statistics and Market News Office, Boston, Mass.
Water Resource Studies Office

Region 4, Ann Arbor, Mich.

Regional Office, Regional Director
- Administration, Assistant Regional Director
- Fisheries, Associate Regional Director
  - Biological Field Station, Ludington, Mich.
  - Biological Field Station, Marquette, Mich.
  - Biological Field Station, Millersburg, Mich. (Hammond Bay)
  - Biological Field Station, Sandusky, Ohio
  - Biological Field Station, Mobridge, S. Dak.
  - Biological Field Station, Ashland, Wis.
  - Exploratory Fishing and Gear Research Base
  - Great Lakes Fishery Laboratory
  - Marketing Program
  - National Marketing Services Office (Headquarters Office), Chicago, Ill.
  - Technological Laboratory
- Fishery Economics and Services, Associate Regional Director
  - Economics Office
  - Federal Aid Office
  - Office of Industry Services, Chicago, Ill.
  - Office of Statistics and Market News, Chicago, Ill.
  - Statistics and Market News Office
  - Water Resource Studies Office

Region 5, Juneau, Alaska

Regional Office, Regional Director
- Administration, Assistant Regional Director
- Fisheries, Associate Regional Director
  - Biological Laboratory, Auke Bay, Alaska
  - Exploratory Fishing and Gear Research Base
  - Facilities Planning and Maintenance
  - Technological Laboratory, Ketchikan, Alaska
- Fishery Economics and Services, Associate Regional Director
  - Enforcement and Surveillance Office
  - Enforcement and Surveillance Office, Kodiak, Alaska
  - Federal Aid Office
  - Financial Assistance Office
  - River Basin Studies Office
  - River Basin Studies Office, Anchorage, Alaska
  - Statistics and Market News Office

Region 6, Terminal Island, Calif.

Regional Office, Regional Director
- Administration, Assistant Regional Director
- Fisheries, Associate Regional Director
  - Fishery-Oceanography Center, La Jolla, Calif.
  - Marketing Program
  - Ocean Research Laboratory, Stanford, Calif.
  - Technological Laboratory
- Fishery Economics and Services, Associate Regional Director
  - Enforcement and Surveillance Office
  - Federal Aid Office
  - Financial Assistance Office
  - Foreign Reporting Office
  - Industry Services Office, Los Angeles, Calif.
  - Statistics and Market News Office

Hawaii Area, Honolulu, Hawaii

Area Office, Area Director
- Administration, Assistant Area Director
- Biological Laboratory

Field operations with headquarters offices in Washington, D.C.
- Assistant Director for Economics and Services
  - National Home Economics Research Center, College Park, Md.
- Assistant Director for Marine Resources
  - National Center for Estuarine Studies, Beaufort, N.C.
  - National Center for Systematics, Washington, D.C.
- Assistant Director for Utilization and Engineering
  - National Center for Fish Protein Concentrate, College Park, Md.

[1] All laboratories and offices in same city as the Regional Office except as noted.

Publications

Through its publications BCF tells the U.S. fishing industry, fishery scientists, and the general public of progress in its biological, chemical, economic, engineering, exploratory, marketing, oceanographic, and statistical activities.

These publications fall in three general categories. Fifty-two percent of the publications are contributions to scientific knowledge, particularly relating to fishery biology, fishery technology, and oceanography; 38 percent are statistical reports of interest to fishery researchers and the fishing industry; and the remaining 10 percent present popular information for the general public and nontechnical or semitechnical reports for the fishing industry.

Exclusive of the 1,648 Fishery Products Reports (5,223 pp.) which the seven Market News Service field offices issued five times a week, BCF sponsored 987 publications (12,106 pp.) in 1969. In the Fish and Wildlife Service series, 544 reports (8,040 pp.) were published. The remaining 443 publications (4,066 pp.) appear in non-Service technical and trade journals. BCF employees wrote most of the publications; employees of research institutions under contract to BCF, and unpaid collaborators wrote the others.

Not listed in the following section (app. H) or accounted for in the above statistics are those reports that were published under various Federal Aid Programs that BCF supervised or helped supervise. A complete list of such reports for 1969 is given in the annual BCF publication "Federal Aid Programs 1969."

Appendix H of this report describes the BCF series of publications and partially lists the publications issued in 1969.

Appendix H—U.S. Fish and Wildlife Service Publications Series and a 1969 List of Publications by Bureau Personnel

The regular, established series of the U.S. Fish and Wildlife Service in which BCF publications appear are:

Fishery Bulletin.—Technical reports on scientific investigations of fishery biology. The Bulletin of the United States Fish Commission was begun in 1881; it became the Bulletin of the Bureau of Fisheries in 1904 and the Fishery Bulletin of the Fish and Wildlife Service in 1941. Separates were issued as documents through volume 46; the last document was No. 1103. Beginning with volume 47 in 1931 and continuing through volume 62 in 1963, each separate appeared as a numbered Bulletin. A new system began in 1963 with volume 63 in which papers are bound together in a single issue of the Bulletin instead of being issued individually. Fourteen papers (430 pp.) were published in 1969. Four papers (113 pp.) are in volume 67, No. 2, one paper (141 pp.) in volume 67, No. 3, and nine papers (176 pp.) in volume 68, No. 1. Bulletins are distributed free to libraries, research institutions, scientists, and State agencies. Some Bulletins are for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Fishery Industrial Research.—Technical reports dealing with scientific investigations of fishery technology, economics, exploratory fishing, and gear research. Twenty-six papers (318 pp.) were published in 1969. Three papers (31 pp.) are in volume 4, No. 6, three papers (60 pp.) in volume 4, No. 7, four papers (37 pp.) in volume 5, No. 1, three papers (63 pp.) in volume 5, No. 2, four papers (29 pp.) in volume 5, No. 3, five papers (48 pp.) in volume 5, No. 4, and four papers (50 pp.) in volume 5, No. 5. They are distributed free to the fishing industry, libraries, scientists, and technologists.

Special Scientific Report—Fisheries.—Preliminary or progress reports and reports on scientific investigations of restricted scope. Established as Special Scientific Reports in 1940, Nos. 1 to 67 were issued from that date to 1949, when the new series, Special Scientific Report—Fisheries, with new serial numbering, was started. Fourteen of these reports (369 pp.) were published in 1969. They are distributed free to biologists, cooperators, and libraries. They also are distributed free on individual requests.

Fishery Leaflet.—Popular information on fishery subjects intended primarily for use in correspondence. Six leaflets (98 pp.) were published in 1969. They are distributed free to biologists, cooperators, and libraries. They also are distributed free on individual requests.

Circular.—Popular and semitechnical publications of general and regional interest intended to aid conservation and management. Twenty-five Circulars (915 pp.) were published in 1969. They are distributed free to biologists, cooperators, and libraries. They also are distributed free on individual requests.

Data Report.—Reports that include compilations of unanalyzed or partially analyzed data collected during biological, limnological, or oceanographic investigations. The reports were originally printed as 3- by 5-inch microfiche, each

of which has up to 40 pages of material. In June 1965, BCF began using the 4- by 6-inch size of microfiche, which holds up to 70 pages. The pages are reduced to one-eighteenth normal size; consequently, they can be read only through a microscope, microfiche "reader," or any similar device for enlarging. The Data Report series is the first Government microfiche series to be used for primary publication of scientific reports. Advantages of microfiche over regular size reports are threefold. They occupy only about one-hundredth as much space; they can be printed in a matter of weeks rather than months; and for BCF distribution lists, the cost of printing and mailing is only about one-tenth as much. Data Reports 31, 32, 33, 34, 35, 36, 37, 38, and 39 (1,154 pp., 23 microfiches) were issued in 1969. They are distributed free to a restricted mailing list of laboratories, libraries, State fishery agencies, research institutions, and research scientists. [Hard (full-size) copy is available for purchase at the U.S. Department of Commerce, Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151.]

Commercial Fisheries Abstracts.—A monthly abstract of world literature (chiefly English language) on fishery technology. Volume 22 in 1969 had 12 issues (348 pp.). They have free but limited distribution.

Commercial Fisheries Review.—A monthly periodical which features articles on BCF research and operations and trends and developments in the domestic and foreign fisheries. Volume 31 in 1969 had 11 issues (824 pp.). They are for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Subscription price is $7 a year, $2 additional for foreign mailing, single copies 60 cents each. Index for volume 30 (1968) of the Commercial Fisheries Review was issued also (48 pp.).

Statistical Digest.—Annual statistics with detailed tabulations relating to fishery production, manufacture, and commerce. These succeeded the Administrative Report series. No Digest was published in 1969. Digests are for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402; some are distributed free to a limited mailing list.

Current Fishery Statistics.—Current statistical information on fishery production, manufacture, and domestic or foreign trade; issued monthly, quarterly, or annually by States, regions or larger areas. In 1969, the Division of Statistics and Market News issued 306 current fishery statistical publications totaling 1,961 pages. In addition, considerable data were supplied as news releases for the Fishery Market News reports. The current fishery statistical publications are sent to private and Government industries in the United States, foreign industries, and U.S. embassies.

Fishery Products Reports.—Three times a week seven BCF Market News Service field offices mail free reports of marketing information on fisheries (not available from any other source) to brokers, fishermen, processors, retailers, wholesalers, and others in related industries. During 1969, these offices released 1,648 daily reports (5,223 pages) and published 6 annual reports and 72 monthly summaries (742 pages) and 28 supplementary reports (157 pages).

Current Economic Analysis.—Quarterly situation and outlook reports are published by the BCF Division of Current Economic Analysis covering finfish, shellfish, and industrial fishery products. Prices, production, imports, exports, and inventories of fishery products are analyzed to develop a picture of current and future market conditions. One purpose of the situation and outlook reports is to help the fishing industry make rational decisions concerning production, distribution, inventories, and pricing of fishery products. In 1969,

two issues of the Current Economic Analysis F5 and F6 (Food Fish Situation & Outlook) (134 pp.), four issues of the Current Economic Analysis I4, I5, I6, and I7 (Industrial Fishery Products Situation & Outlook) (172 pp.), and four issues of the Current Economic Analysis S12, S13, S14, and S15 (Shellfish Situation & Outlook) (136 pp.) were published. About 6,000 copies of each issue of the finfish and shellfish reports were distributed to industry and Government agencies in all 50 States and some 70 countries. About 3,500 copies of each of the four industrial fishery products situation and outlook reports were mailed to industry and Government personnel in 1969.

Fishery Market Development Series.—This series, established in 1966 to replace the Test Kitchen Series, contains popular educational publications on care, preparation, purchase, and nutrition of fishery products. These publications are for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. During 1969, three publications (83 pp.) were published.

Miscellaneous paper.—One miscellaneous paper, totaling 151 pages, was issued. It is the "Report of the Bureau of Commercial Fisheries for the Calendar Year 1967." BCF's annual reports are distributed free to biologists, cooperators, and libraries on individual requests.

A detailed list of publications of BCF and its personnel or contractors or collaborators during 1969 follows. The articles are listed by authors.

Publications [1]

AHLSTROM, ELBERT H.

Distributional atlas of fish larvae in the California Current region: jack mackerel, *Trachurus symmetricus*, and Pacific hake, *Merluccius productus*, 1951 through 1966. Calif. Coop. Oceanic Fish. Invest. Atlas 11, xi + 187 pp.

Mesopelagic and bathypelagic fishes in the California Current region. Calif. Coop. Oceanic Fish. Invest. Rep. 13: 39–44.

AHLSTROM, ELBERT H., and H. GEOFFREY MOSER.

A new gonostomatid fish from the tropical eastern Pacific. Copeia 1969: 493–500.

ALLEN, DONALD M., and T. J. COSTELLO.

Additional references on the biology of shrimp, family Penaeidae. U.S. Fish Wildl. Serv., Fish. Bull. 68: 101–134.

ALLEN, HAROLD.

Oysters opened by microwaves. Commer. Fish. Rev. 31(4): 35.

ALLEN, HERBERT E.

Chemical characteristics of Lake Ontario. Great Lakes Fish. Comm., Tech. Rep. 14: 1–18.

ALLEN, HERBERT E., and CHARLES W. BACON.

Rapid determination of filterable residue in natural waters. J. Amer. Water Works Ass. 61: 355–356.

ALLEN, HERBERT E., and RICHARD B. HAHN.

Determination of phosphate in natural waters by activation analysis of tungstophosphoric acid. Environ. Sci. Technol. 3: 844–848.

ALVERSON, D. L.

Distribution and behavior of Pacific hake as related to design of fishing

[1] This list does not include Commercial Fisheries Abstracts, Current Fishery Statistics, and Commercial Fisheries Review, except a few articles for which the authors' names are given.

(#6)

Paul Prodis

File

MAFAC I

BRIEFING BOOK

FOR DR. WHITE

MAFAC - I - 1971

MARINE FISHERIES ADVISORY

COMMITTEE - SUGGESTED

OPENING REMARKS BY DR. WHITE

As Chairman of this Committee I wish also to welcome you to this meeting. We consider this Committee to be one of considerable importance to us. As Secretary Stans pointed out, the mandate of the Committee is to advise and counsel the Department on many matters of national and international significance dealing with both recreational and commercial fishing.

As you are aware, we have a new organization, the National Marine Fisheries Service. It is located in a new agency, the National Oceanic and Atmospheric Administration (NOAA). This resulted from President Nixon's Reorganization Plan #4 of 1970 which became effective on October 3 of that year. This reorganization brought together under NOAA various Government agencies engaged in oceanic and atmospheric activities. The purpose--to develop a unified approach to the problems of the ocean and the atmosphere. The National Marine Fisheries Service includes the old Bureau of Commercial Fisheries and the marine sport fish program of the Bureau of Sport Fisheries and Wildlife. Thus, the National Marine Fisheries Service has a broader mandate than either of its predecessors. We still have not worked out all of the problems associated with the creation of NOAA and the movement of the marine fisheries functions from the Department of the Interior to the Department of Commerce.

I wish to assure you that we did not ask you to come here just for the purpose of lecturing to you. However, we do, at this first meeting, wish to spend some time discussing how we are organizing, how we function, and how we are looking at our responsibilities. I believe such a background will be conducive to a better rapport among us.

We have placed on the agenda several subjects, the discussion of which we feel will be very useful to us at this time. This does not preclude the discussion of any other subjects which any of you may wish to bring up.

Within the time limit of a two-day meeting it is obvious that we cannot fully discuss all of the complex subjects bearing on the use of our fisheries resources. Some of these were outlined by Secretary Stans. However, I hope we can make a good start.

I might mention a few of the problems that we have studied in recent months:

What position should we take relative to the public clamor against the Pribilof Island fur seal harvest? It is our feeling that the international management program of the northern fur seals is an outstanding example of international cooperation and resource management and that we should press for its continuation. At the same time we should continue our search for a more cosmetic, yet humane way of killing the animals.

What should be the role of the Federal Government in the marketing of fishery products? We are sympathetic to increased Federal emphasis on marketing, but there is still a question of how and how much. We feel that our first step is to restore consumer confidence which has been adversely affected by publicity concerning heavy metals contamination. Then other efforts must be made to make the fishing industry's products competitive at the marketplace, such as helping to alleviate supply-demand imbalances when needed, market research studies, the development of markets for underutilized species, and consumer education programs.

We are presently developing plans for a formal Extension Service. This is being designed to get information from our research and service programs into the hands of those who can benefit from it. This is an area which we feel has been neglected. We are planning in terms of a cooperative program including Federal, State and local governments, universities, industry and other interested groups.

In the environmental picture, we have a responsibility for input in a number of fields where the fisheries resources may be affected. We are presently developing and improving procedures and channels whereby our evaluations may be submitted and receive adequate consideration relative to such matters as Environmental

?

Dr White,
I am not sure that this item should be mentioned except for the need to restore Consumer confidence.
Paul P.

Impact Statements, Permits by the Department of Army for the discharge or deposit of wastes into navigable waters, Offshore Oil and Gas Development, and Water Resource Development.

In the financial assistance field, we are developing the necessary steps and procedures to implement the Capital Construction Fund Program for fishing vessels. The Department is working cooperatively with the Internal Revenue Service and we anticipate a press release to be issued this week regarding tax procedures. The development of the implementing regulations is a complex procedure but we are actively pressing the problem and hope to have them ready for issuance in the near future.

We have formulated plans for our FY 1972 operations. Mr. Roedel will discuss these this afternoon. There is some flexibility in the plans and we will appreciate your discussion.

In view of our recent organization and the increasing complexity of the problems bearing on the use of our marine resources, I feel that this meeting is timely--if not over-due. I want, in fact I expect, the members of this Committee to take a critical look at our operations and to feel free to offer advice, comments, and suggestions.

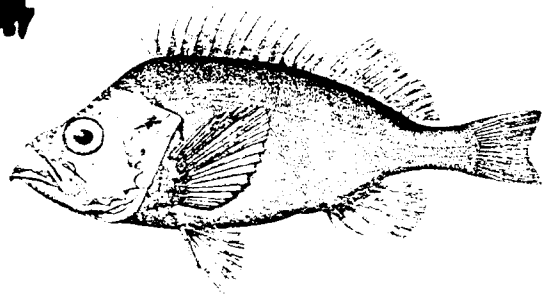
#7

A UNITED STATES DEPARTMENT OF **COMMERCE** PUBLICATION

FISHERY FACTS-1

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service

redfish



GEORGE F. KELLY
PAUL M. EARL
JOHN D. KAYLOR
FRED E. LUX
HENRY R. McAVOY
ERNEST D. McRAE

SEATTLE, WA
October 1972

NMFS Extension Publication

The major responsibilities of the National Marine Fisheries Service (NMFS) are to monitor and assess the abundance and geographic distribution of fishery resources, to understand and predict fluctuations in the quantity and distribution of these resources, and to establish levels for optimum use of the resources. NMFS is also charged with the development and implementation of policies for managing national fishing grounds, development and enforcement of domestic fisheries regulations, surveillance of foreign fishing off United States coastal waters, and the development and enforcement of international fishery agreements and policies. NMFS also assists the fishing industry through marketing service and economic analysis programs, and mortgage insurance and vessel construction subsidies. It collects, analyses, and publishes statistics on various phases of the industry.

The series Fishery Facts documents developments in research in the fishery sciences, including biology, technology, and engineering. The publications are written by scientists and other staff members of the National Oceanic and Atmospheric Administration, National Marine Fisheries Service.

Publications in the Fishery Facts series are available free in limited numbers to governmental agencies, both Federal and State. They are also available in exchange for other scientific and technical publications in the marine sciences. Individual copies are available for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Prices appear on the title page of each publication.

U.S. DEPARTMENT OF COMMERCE
Peter G. Peterson, Secretary
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
Robert M. White, Administrator
NATIONAL MARINE FISHERIES SERVICE
Philip M. Roedel, Director

FISHERY FACTS-1

REDFISH

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SEATTLE, WA
October 1972

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Washington, D.C., 20402 - Price 25 cents

fish therefore has been impossible. Tagging and observation of the behavior of live fish was accomplished first in 1956 with the discovery of a shallow-water population of redfish in the harbor at Eastport, Maine. More than 5 thousand redfish were caught at the surface on hook and line and were tagged with good results. These fish have moved very little, if at all, and over a period of years hundreds of tagged individuals have been recaught and returned to the water several times. One 8-inch fish that was tagged in 1956 was recaught for the third time in 1970. It had grown less than an inch in length in the 14-year period.

The behavior of redfish at Eastport appears to be similar to that of the fish on the commercial grounds. The fish settle in the deep water of the harbor during the day and move inshore around the docks at night to feed on the swarms of shrimp at the surface.

TRAWLS MODIFIED FOR REDFISH

Bottom otter trawls take most of the redfish. Nets modeled after the Granton, Yankee No. 41, and No. 41-A trawls have been used by United States fishermen since the beginning of this fishery.[1] Redfish nets differ from 41 and 41-A groundfish nets mainly in mesh size and in length of the extension piece. Nets currently in use usually have 4½ inch mesh twine forward of the cod-end and 2½ inch mesh in the cod-end.

Redfish behavior has led to a number of modifications to gear that are unique to this fishery. On bright days redfish often are concentrated on or near to the bottom; on cloudy days, however, they may rise some distance above the bottom and beyond the reach of regular groundfish nets. To raise the net opening to reach higher fish concentrations, fishermen usually buoy the headrope with 70 or so floats. The highly buoyed nets may only be in light contact with the bottom when fishing. This probably saves gear since redfish frequently occur over rough ground where normal bottom trawling is risky.

GEAR RIGGED FOR ROCKY BOTTOM

Fishermen also have a gear modification for fishing around rocky ridges where good redfish catches can at times be made. For this,

[1] Details of construction are omitted but are available from National Marine Fisheries Service, Engineering and Vessel Operations Unit, Woods Hole, Massachusetts 02543, or phone (617)-548-5123 in Woods Hole.

two or three iron shoes are added to the trawl doors and less than the usual amount of trawl wire is used with the heavier doors. In this way, the heavy doors tend the bottom, but if they hit into a ridge, the pull is somewhat upward. This helps to keep the doors from digging in and parting wire. This arrangement, fished in combination with extra headrope floats, also works well over mud and rock bottoms where redfish concentrations are sometimes found. Many fishermen have abandoned the effort to keep lower wings mended, since the rough bottom fished for redfish usually tears them out. Some nets are built with a jib omitted from the lower front end of the lower wing. In addition, cheaper, manila bottom bellies are often used to reduce twine replacement costs.

Midwater trawls, off-the-bottom trawls, and high-opening bottom trawls all have some potential for catching redfish that are above the reach of regular bottom trawls (Figure 12). A major drawback to midwater gear is that it is generally light and will not survive if it touches the hard bottom. In addition, these nets are very long and vessels must be large in order to handle them effectively.

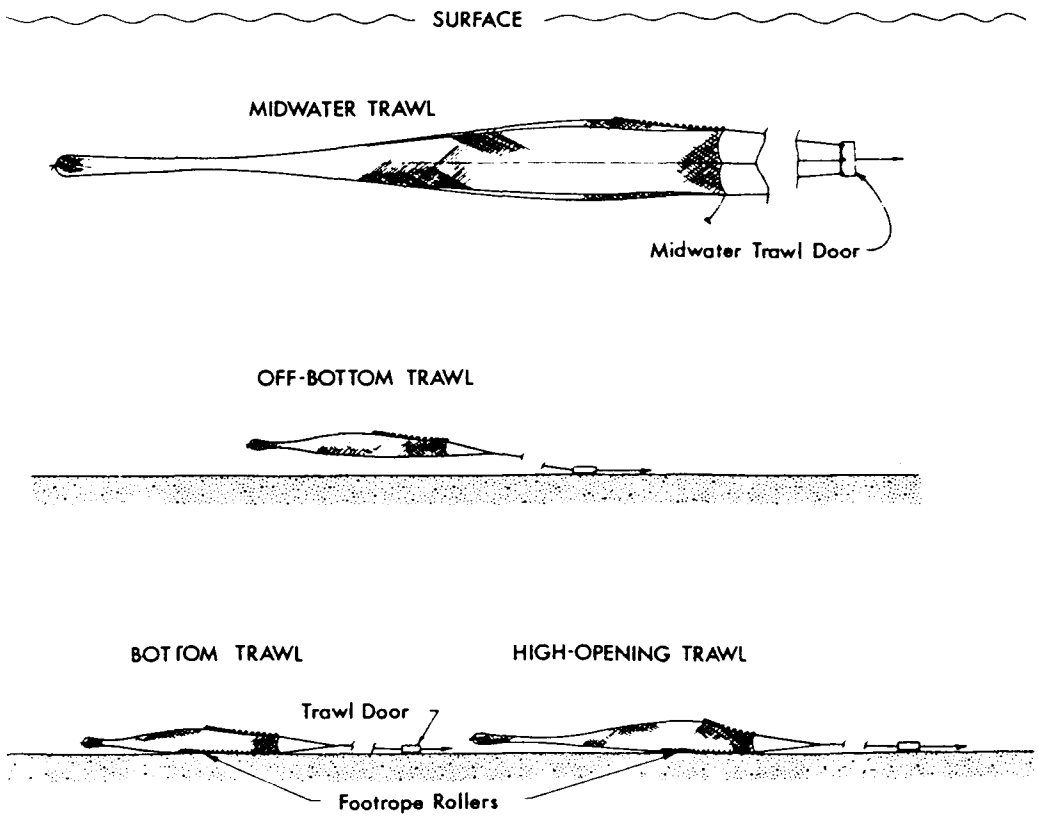

Figure 12.—Sketches of some types of trawls.

Off-the-bottom trawls, also, are susceptible to damage if they should contact hard bottom; when rigged to survive contact with hard bottom, they may be too heavy to fish properly above the bottom. Neither these nets nor midwater trawls have been particularly successful or have had wide industry acceptance.

High-opening trawls appear to hold the greatest potential for increasing the efficiency of trawling for redfish. A well designed high-opening trawl, with no loose twine to snag on rough bottom, should give greater redfish catches than nets now in use. The Atlantic Western trawl is a high-opening net available in New England that could be adapted to use for redfish.

GOOD MARKET DEMAND

Redfish, marketed as ocean perch, has been a popular food in the United States for about 35 years. The best markets have been in the midwest and south where it has been eaten primarily by low income families. Markets have been poor for this fish in the northeast and west because of the availability of a wide variety of local marine species. The present public awareness of the nutritional value of fish, coupled with the decreasing supplies and rising prices of many North Atlantic species, may improve the prospects for expanding and strengthening the markets for ocean perch products, particularly in medium and high income groups. Recent test marketing of ocean perch products in New York City and Pittsburgh have shown encouraging results.

Market demand in the past has been greatest for frozen fillets with the skin on. Skinless fillets are not popular because they have a short storage life when frozen. Recently, skin-on fillets that have been breaded and individually quick-frozen have gained in popularity. There has been little demand for fresh fillets in the past, but this market has good potential for growth.

As United States landings of redfish declined, imports increased to the extent that we now import substantially more than we produce at home (Figure 13). Fillet imports in 1969 were almost triple those of 1954. In recent years more than 90 percent have come from Canada. Ocean perch is imported primarily as fillets and has replaced cod as the major groundfish fillet imported (Figure 14).

In view of the present firm demand for ocean perch, it appears that markets could be further expanded. One way to do this might lie in marketing ocean perch in more varied forms as is practiced

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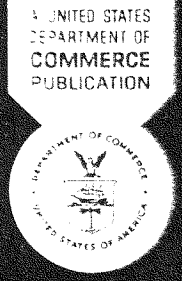


U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service

Report of the

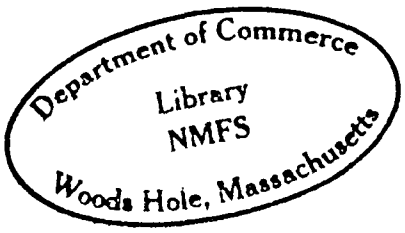
National Marine Fisheries Service

For the Calendar Year

1972

Seattle, WA

U.S. DEPARTMENT OF COMMERCE
Frederick B. Dent, Secretary
National Oceanic and Atmospheric Administration
Robert M. White, Administrator
National Marine Fisheries Service
Robert W. Schoning, Director



Report of the
National Marine Fisheries Service
For the Calendar Year
1972

Seattle, WA

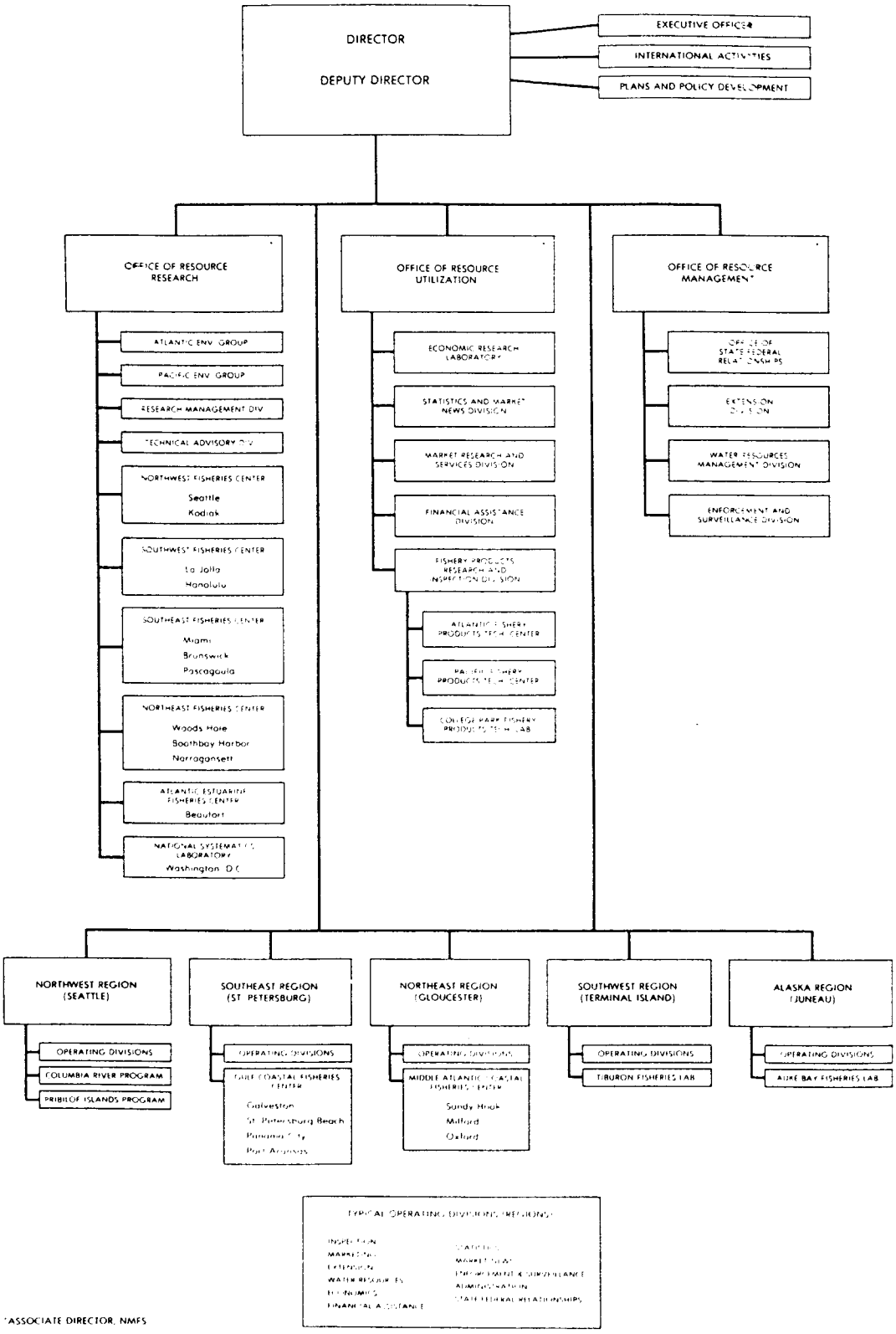


Figure 2.—Organization structure of the National Marine Fisheries Service.

Two Centers, with headquarters in the NMFS laboratories in Galveston, Tex., and Sandy Hook, N.J., and two laboratories, at Tiburon, Calif., and Auke Bay, Alaska, are concerned chiefly with inshore and estuarine research and with programs and problems that tend to be regional in nature. These report to the Regional Directors.

The principal officials of NMFS on December 31, 1972, are shown in Table 1.

Budget

Appropriations for fiscal year 1973, covering those budget activities for which NMFS has program responsibilities, provided an increase of $10,828,000. This was the same as the amount of increase requested in the President's budget. However, as a result of the necessity to reduce Federal spending in order to reduce inflation and avoid a tax increase, as well as to provide increased funding for higher priority programs, most of these increases were deferred. Further reductions of $1,774,000 were made in ongoing programs. The amount of $500,000 was provided for conservation and restoration of the Atlantic salmon and $700,000 was provided to carry out the additional responsibilities in connection with the Marine Mammal Protection Act of 1972 (PL 92-522). These actions resulted in a net reduction of $574,000 and are summarized as follows:

	(Dollars in Thousands)		
FY 1973 Increase Items Deferred	*Increase Appropriated*	*Amount Deferred*	*Balances*
1. Equipment and staff for data collection and processing for the operational phase of the Marine Resources Monitoring, Assessment and Prediction (MARMAP) Program	838	838	— —
2. Develop, test and evaluate equipment for MARMAP surveys	1,312	1,312	— —
3. Expand fisheries research ship operations and maintenance	1,672	1,672	— —
4. Repair Woods Hole Biological Laboratory	100	100	— —
5. Start planning water pollution abatement facilities at hatcheries, on fisheries vessels, and at Alaskan field stations	3,800	3,800	— —
6. Coordinate and review environmental impact statements	354	354	— —
7. Initiate requirements for an aquaculture system	250	250	— —
8. Strengthen state-federal fisheries management program	1,009	1,009	— —

Deputy Associate Director	Walter Kirkness
Chief, Office of State-Federal Relationships	Richard H. Schaefer
Chief, Extension Division	J. David Almand
Chief, Water Resources Management Division	H. William Newman
Chief, Enforcement and Surveillance Division	Raymond L. Fritz
Director, Northwest Region	Donald R. Johnson
Deputy Director	John B. Glude
Director, Columbia River Fisheries Development Program	Fred C. Cleaver
Director, Pribilof Islands Program	William L. Peck
Director, Southeast Region	Jack W. Gehringer
Deputy Director	Harold B. Allen
Director, Gulf Coastal Fisheries Center	Dr. A.K. Sparks
Director, Northeast Region	Russell T. Norris
Deputy Director	William G. Gordon
Director, Middle Atlantic Coastal Fisheries Center	Dr. C.J. Sindermann
Director, Southwest Region	Gerald V. Howard
Deputy Director	Floyd S. Anders, Jr.
Director, Tiburon Fisheries Laboratory	Richard S. Shomura
Director, Alaska Region	Harry L. Rietze
Deputy Director	Robert W. McVey
Director, Auke Bay Fisheries Laboratory	Dr. William A. Smoker
Public Affairs Officer*	John A. Guinan
Legislative Advisor*	Kip Robinson
Staff Attorney*	Herbert L. Blatt

*NOAA personnel on Detached Service with NMFS

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9. Expand enforcement and surveillance program related to monitoring of foreign fishing activities in international waters adjacent to the United States	348	348	— —
10. Expand technical information-extension services to fishermen	100	100	— —
11. Initiate market research on consumer consumption patterns	326	326	— —
12. Expand grant-in-aid for conservation and restoration of the Atlantic salmon	540	40	500
13. Reduced administrative cost for vessel construction subsidy program	146	— —	146

problems. The pilot household survey resulted in substantial improvement over the Census' 1-year recall Salt-Water Angling Survey.

Because of the importance of determining what kinds of data are needed by various interest groups, a contract was arranged with a private firm to develop a priority listing of data needs. The contractor prepared alternative 5-year program development plans for collecting statistics to meet as many of the sport fish statistical needs as possible at various funding levels.

Also in FY 1973, work was completed on the 1970 Salt-Water Angling Survey. In addition, work was started on a compendium of marine sport fish data collected by other Federal agencies, the States, and private organizations.

ECONOMIC RESEARCH ACTIVITIES

The initial program consisted of a contract study designed to canvass the current economics research field to determine the "state of the art" of evaluation of outdoor recreational pursuits, to examine the valuation proposed in guidelines of the Water Resources Council, and to prepare a priority listing of research needed as a foundation for an in-depth economics program.

EXTENSION ACTIVITIES

The Extension Program carries out the same types of activities for the benefit of the marine angler constituency that it does for the other NOAA constituencies. Meetings were organized to inform sport fishermen of current problems and programs, and to provide information to facilitate angling and promote safety. A series of leaflets is under preparation, and a special project describing the characteristics of sport fishing in Alaska has been funded.

International Activities Staff

The International Activities Staff conducts investigations of the fishing operations carried on by foreign countries which have an impact on the United States fishing industry and on achievement of NMFS program objectives. Current fishery reports covering political, economic, and technological developments in 15 countries were issued. An appraisal was also made of the fisheries policies of the European Economic Community. A resume of the foreign fishing vessels operating off the United States coasts was compiled monthly for the information of interested government and industry officials. Reports on opportunities for fisheries development and investment in 30 countries were obtained from U.S. Foreign Service posts

During the 2nd Session of the 92nd Congress, several new Federal laws pertaining to fisheries were enacted which specifically assigned certain controlling responsibilities and/or functions to the Secretary of Commerce. These laws, necessarily involving NMFS, include: an Act to authorize appropriations for FY 1973 for certain maritime programs of the Department of Commerce, including an authorization for the use of Liberty Ships as artificial fish reefs, P.L. 92-402, August 22, 1972; the Central, Western, and South Pacific Fisheries Development Act, P.L. 92-444, September 29, 1972; an amendment to the North Pacific Fisheries Act of 1954, P.L. 92-471, October 9, 1972; the Federal Ship Financing Act of 1972, P.L. 92-507, October 19, 1972; the Marine Mammal Protection Act of 1972, P.L. 92-522, October 21, 1972; the Marine Protection, Research, and Sanctuaries Act of 1972 (Ocean Dumping), P.L. 92-532, October 23, 1972; the Coastal Zone Management Act of 1972, P.L. 92-583, October 27, 1972; an Act to extend the Commercial Fisheries Research and Development Act of 1964, as amended (extend to FY 1977), P.L. 92-590, October 27, 1972; an amendment to Section 7 of the Fishermen's Protective Act of 1967 (extend to FY 1977, program administration transferred to the Secretary of Commerce), P.L. 92-594, October 27, 1972; an Act to prohibit use of certain small vessels in U.S. fisheries, P.L. 92-601, October 27, 1972; and an Act to authorize appropriations to carry out jellyfish control programs until the close of FY 1977, P.L. 92-604, October 31, 1972.

Although the Secretary of Commerce was not delegated overall program authority under the following Federal laws enacted during the 2nd Session, they have a significant impact on NMFS responsibilities and activities: the Ports and Waterways Safety Act of 1972, P.L. 92-340, July 10, 1972; the Federal Water Pollution Control Act Amendments of 1972, P.L. 92-500, October 18, 1972; an amendment to the Sockeye Salmon or Pink Salmon Fishing Act of 1947, P.L. 92-504, October 18, 1972; the Federal Environmental Pesticide Control Act of 1972 (revises the Federal Insecticide Fungicide, and Rodenticide Act), P.L. 92-516, October 21, 1972; an amendment to the Act of August 16, 1971, which established the National Advisory Committee on Oceans and Atmosphere, to increase the appropriation authorization thereunder, P.L. 92-567, October 25, 1972; and an amendment to the Fishermen's Protective Act of 1967 (expedite reimbursement), P.L. 92-569, October 26, 1972.

Public Affairs

The Public Affairs activities of the National Marine Fisheries Service are a function of the Public Affairs Officer and his staff who are detailed to NMFS and supervised by the NOAA Director of Public Affairs.

The NMFS Public Affairs Officer is responsible for liaison between NMFS and NOAA in all public affairs activities. He functions as a member of the staff of the NMFS Director and has close contact with the three NMFS Associate Directors and their division chiefs as well as the NMFS regional and center directors. The Public Affairs Officer is responsible for clearance of the Director's speeches and frequently coordinates the preparation of such speeches.

The Public Affairs Office produces national news releases; frequently prepares releases for regional release; prepares feature stories; arranges for interviews with NMFS personnel with representatives of all media; handles inquiries from the press, radio, TV, trade papers, and the general public. The Public Affairs Office also maintains close liaison with NMFS regional offices and centers on matters of public interest.

Marine Fisheries Advisory Committee

The Marine Fisheries Advisory Committee (MAFAC) was established February 17, 1971, by the Secretary of Commerce under provisions of Reorganization Plan No. 4 of July 1970 and Executive Order 11007, Section 3b, Act of July 1, 1954 (15 U.S.C. 713-3(c)). MAFAC members are appointed by the Secretary and advise him on matters pertinent to the Department of Commerce's responsibilities for marine fisheries resources.

The Committee held three meetings in Washington, D.C.: January 26-28, May 2-4, and October 24-26, 1972.

Membership of the Committee as of December 31, 1972 was:

Mr. Theodore T. Bugas, Director
Public & Gov't Relations
Bumble Bee Seafoods, Div. of Castle and Cooke, Inc.
P.O. Box 60
Astoria, OR 97103

Mr. Charles R. Carry
Executive Director
Tuna Research Foundation
215 Cannery Street
Terminal Island, CA 90731

Dr. James A. Crutchfield, Jr.
Department of Economics
University of Washington
Seattle, WA 98105

Mr. Jacob J. Dykstra
Point Judith Fishermen's Cooperative Association
Point Judith, RI 02882

Prof. John D. Isaacs, III
Scripps Institution of Oceanography
La Jolla, CA 92037

Mr. Harold E. Lokken
Fishing Vessel Owners Association, Inc.
Pier 59, Foot of Pike Street
Seattle, WA 98101

Mr. Henry Lyman
Salt-Water Sportsman
10 High Street
Boston, MA 02110

Legislation affecting the programs during the year also included P.L. 92-594 which extended the Fishermen's Protective Act program until July 1, 1977.

The Capital Construction Fund program provides tax deferral benefits to fishing vessel owners or lessees upon deposit of certain funds. Withdrawals are made for the acquisition, construction, or reconstruction of fishing vessels or for the payment of the principal of indebtedness incurred for those purposes. A total of 173 Capital Construction Fund agreements had been executed through the end of 1972; 144 were being processed; and as many as another 50 applications are expected shortly after the end of the year. Over 1,000 fishing vessels are estimated to be involved, with deposits qualified for tax deferral estimated at about $7 million and withdrawals estimated at about $4 million.

The year was one of change and of much effort directed towards what may eventually result in significant program redirection. A NOAA Task Group on Financial Assistance submitted a draft of its report during the year. Living Marine Resources, Inc., was awarded a contract during the year for an evaluation of Financial Assistance programs and a study of the industry's future need for Federal financial assistance. Early next year, when the contractor's final report is due, these two documents should form significant bases for decisions on program redirection.

Statistics and Market News

The Service's data collection and dissemination program consists of three major components: commercial fisheries statistics, marine sport fisheries statistics, and market news.

COMMERCIAL FISHERIES STATISTICS

As part of the commercial fisheries statistics program, the Service collects, stores, and publishes statistics on the commercial fishing industry of the United States. Included are: the volume and value of the commercial landings of fish and shellfish by species, region, State, and type of gear; number of fishing craft and gear operating in the fisheries; the production of processed fishery products; imports and exports of fishery products; employment on fishing craft and in wholesale and fish processing establishments; cold-storage holdings of fishery products; and the per capita consumption of fishery products. The Service maintains 44 statistical offices in the major fishing ports of the United States. Much of the statistical data are collected by field personnel with the cooperation of several State fishery agencies.

During 1972, these data were published in over 300 monthly, quarterly, and annual statistical publications which were distributed to private industry; Federal, State, and local government agencies; libraries; universities;

research institutions; foreign industry and government; and United States Embassies. In addition, several thousand requests for information or special data were answered.

Certain field installations expanded their biological sampling activities as an aid to the Service's biological programs, to meet commitments under international agreements and treaties, and to assist international agencies engaged in studies of fishery resources. A program was established for collecting detailed shrimp statistics required under the terms of a bilateral fisheries agreement with Brazil. A program for collecting nationwide statistics on production by the developing pond-cultured catfish industry was begun in the summer of 1972. Monthly data on production and inventories of processed catfish also will be collected and disseminated.

The Service established a Committee on Data Needs to make recommendations concerning the types of data that should be collected and published in *Fishery Statistics of the United States*. During 1972, the monthly landings bulletins for several States were computerized and data collection time was decreased.

MARINE SPORT FISH STATISTICS

The responsibility for collecting marine sport fish statistics was transferred to the Department of Commerce from the Department of the Interior with the creation of NOAA under Reorganization Plan No. 4. In June 1972, a two-phase contract study was completed. The objectives of the study were: (1) to determine the causes of response bias in collecting sport fish statistics through personal interviews and to develop means of correcting such biases; and (2) to conduct a pilot household survey to test the means for decreasing the response biases.

A contract was awarded to a private researcher to: (1) develop a priority listing of marine sport fish data needs and; (2) prepare two 5-year program plans for collecting marine sport fish statistics, each plan based on three different funding levels. A draft report of this study was submitted in December 1972.

MARKET NEWS PROGRAM

The Service's Market News Program provides current information on market activities. Seven reporting centers issue reports three times a week containing data on current market prices, landings, imports, holdings and movements of fishery products, as well as other information to promote efficient and orderly marketing of fish and shellfish and products prepared from them.

Early in 1972, a questionnaire was sent to 10,000 readers of Market News Reports to determine what kinds of market information people want, how

often they want the information, and the form in which they want it. Results of this survey will be used in the Service's continuing in-house efforts to determine the most effective and efficient way of collecting, processing, and distributing market information.

The installation of Xerox 400 Telecopiers in Market News offices has improved efficiency of the program and service to the general public.

During the 1972 halibut season the Seattle, Washington, Market News office expanded coverage to include daily halibut landings and prices in Seward and Yakutat, Alaska. Other Market News coverage refinements in 1972 include more complete current reporting of airfreight shipments of fishery products from Seattle and Anchorage, Alaska, as well as more complete coverage of albacore tuna landings in the Pacific Northwest and British Columbia.

Market Research and Services

The Service's marketing activities encompass two areas, i.e., market research and marketing services. Research-related activities include: (1) conduct of market surveys to determine consumer use patterns, consumer attitudes and demand trends, and distribution and marketing patterns for fishery products; and (2) preparation of quarterly market situation and outlook analyses. Service-related activities include: (1) alleviation of periodic supply-demand imbalances; (2) development of markets for abundant underutilized species; (3) development of export markets for U.S. products; (4) improvement of marketing practices at all levels in the distribution chain; (5) consumer education; (6) providing technical assistance to fisheries cooperatives; and (7) assisting the industry in meeting its transportation needs.

The foregoing market research and service activities are designed to enhance the economic position of the U.S. commercial fishing industry and, simultaneously, to provide consumers with a greater variety of quality fishery products. The NMFS marketing effort is carried on by industry economists, marketing specialists, and home economists in a division office in Washington, D.C., and in 13 field offices, strategically located throughout the United States.

Significant accomplishments in calendar year 1972 included:

1. Market feasibility studies were completed for ocean perch, snow crab, pan-sized salmon, and croaker. These studies were made to determine product acceptability in major institutional markets, to measure market potential for these species, to make recommendations as to how the products might be modified to gain better market acceptance, and to generally assist in developing and expanding the markets for these products.

2. Efforts were initiated to develop export markets for mullet and mullet roe. Preliminary observations indicate excellent potential in Japan and

France. In recent years, the production of mullet in the U.S. has been about 35 million pounds; potential production is estimated to be about 200 million pounds. Export opportunities were also identified for such underutilized species as croakers, ladyfish, bonito, Spanish mackerel, Jonah crab, ocean quahogs, and squid.

3. The market for comminuted[1] fish portions was studied to assist industry in the development of marketing strategies for this new fishery product form.

4. The NMFS marketing program underwent extensive review by an outside contractor and an industry advisory group. The purpose of the review was to determine how the NMFS marketing efforts might make a more meaningful contribution to NOAA/NMFS goals and objectives. Based on recommendations stemming from this review, the NMFS marketing program is being focused on latent resource development, consumer education and market intelligence.

Fishery Products Research and Inspection

The Service conducts a broad program of basic and applied research related to the processing and utilization of fish and fishery products. A fishery products inspection and certification service is also available on a fee basis to processing establishments requesting it.

Overall direction and management of research activities other than those underway in the Pascagoula Fishery Products Technology Laboratory are the responsibility of the Fishery Products Research and Inspection Division in Washington, D.C. The Pascagoula Laboratory reports to the Southeast Regional Office, but its program is coordinated with that of the other laboratories. The other research facilities include the Atlantic Fishery Products Technology Center in Gloucester, Mass.; the Pacific Fishery Products Technology Center in Seattle, Wash.; a field laboratory at Kodiak, Alaska, under the direction of the Seattle Center; and the College Park Fishery Products Technology Laboratory in College Park, Md. These Centers and Laboratories employ food technologists, engineers, chemists, nutritionists, microbiologists, and various technicians with backgrounds in the life and physical sciences. The research facilities include chemical and microbiological laboratories as well as pilot plants.

The work of the Division is classified under six broad program areas: (1) utilization technology, including fish protein concentrate (FPC); (2) microconstituents; (3) quality, composition and nutrition; (4) pollution control; (5) process-induced hazards; and (6) inspection and certification.

Highlights of these programs in 1972 are given below:

[1]Minced fish flesh separated mechanically from the bone.

2. Assisted the Division of Conservation, U.S. Geological Survey in preparing a draft Environmental Impact Statement on future oil drilling at the Santa Ynez Unit area in the Santa Barbara Channel, California. This involved preparation of a bibliography of more than 120 references pertinent to the marine environment and its relation to oil drilling. Additionally, a detailed outline of the topics of special concern to the protection of the marine ecosystem was provided to insure that those subjects would receive adequate discussion in the final EIS.

3. Development of a mechanism for closer coordination with the New England Division of the Corps of Engineers with respect to providing advice and guidance on proposed Corps projects in navigable waters. Initially, the emphasis will be on about 20 planned harbor dredging projects in the Long Island area.

4. Consultation with the Consolidated Edison Company on the use of fish screens in preventing losses of eggs and larvae of striped bass and white perch that were being sucked into intakes of power plants on the Hudson River. As a result of these consultations, the power company funded experimental studies to design screens that will protect these important Hudson River species.

5. A waterfront developer on Galveston Island, Texas, violated an NMFS recommended condition in a Department of the Army permit by building a spoil disposal area levee in a tidal marsh rather than on higher ground. The project was stopped and after considerable discussion with NMFS personnel, the developer agreed to relocate the spoil disposal area to higher ground and to restore the tidal marsh area to its prior tidal elevation.

Extension

The NMFS Extension Program is an integral component of the NOAA Marine Advisory Service (NMAS) which was officially implemented in December 1972. There are nine full-time Extension (advisory) personnel in the Washington and Regional Offices. Key contact personnel have also been designated at appropriate NMFS Centers and regional facilities to help provide program integration and guidance to the Extension staff in meeting NMFS's responsibilities to NOAA Marine Advisory Service.

The primary responsibilities of NMFS advisory staff are to: (1) ensure that advisory services relative to the NMFS mission are adequate; (2) work with the Sea Grant Office to assist States and Sea Grant organizations to improve existing services or to ensure that new services are provided where required; (3) assist in the preparation of NMAS plans and reports; and (4) serve as a principal source of technical expertise, information and assistance in marine fisheries-related subjects.

Advisory services accomplishments of NMFS include:

1. Systematic utilization of meetings and publications as techniques to convey practical information to users. In 1972, NMFS Regional Offices, Centers, and Laboratories sponsored, co-sponsored or otherwise participated in some 706 educational meeting activities such as town hall meetings, workshops, demonstrations, discussion groups and seminars for about 26,600 users. The meetings covered a wide range of subjects regarding NMFS programs, activities and research results. The first four issues of the new Extension publication series, "Fishery Facts," were also printed and distributed with another three manuscripts approved for publication. The Northeast Region also prepared and distributed four medical assistance placards for use by sport and commercial fishermen.

2. Strengthening of marine advisory services to the seafood industry in the Alaska, Northeast, and Northwest Regions through planning meetings and program coordination with Sea Grant advisory programs and appropriate State agencies and groups.

3. Assessment of educational needs of commercial fishermen in regard to business management through: (a) completion of a survey of business management educational needs of North Carolina fishermen; (b) exploration of new credit sources for fishermen through meetings between appropriate Regional Office officials and officials responsible for carrying out the Farm Credit Act of 1971; and (c) cooperative activities with the NOAA Marine Advisory Service, NOAA Office of General Counsel, and the Internal Revenue Service regarding record keeping for tax purposes.

4. Implementation of joint activities with U.S. Coast Guard and NOAA Marine Advisory Service to develop educational materials regarding (a) USCG rules and regulations affecting fishermen and (b) reduction of accidents at sea.

Enforcement and Surveillance

The Enforcement and Surveillance program: develops, promulgates, and enforces domestic fisheries regulations required under the authority of 18 international fisheries agreements to which the United States is a contracting party; enforces observance by foreign fishing vessels of the contiguous fisheries zone and territorial waters; and provides intelligence on foreign fishing fleets off the United States needed for enforcement and for negotiations regarding foreign fishing. The program is largely planned and conducted in cooperation with the U.S. Coast Guard, which provides aerial and surface patrols, and the NOAA National Marine Fisheries Service, which provides Fisheries Enforcement

December 21, 1972. Major tasks and supporting functions include (1) management or administration of the provisions of the Act, (2) establishment of public hearings procedures through use of hearing examiners, (3) Federal enforcement and monitoring of State enforcement activities, and (4) participation by coastal States through contract arrangements for enforcement functions related to marine mammal conservation and protection.

The Marine Mammal Protection Act of 1972 is administered jointly by the Department of Commerce, which has responsibility for all Cetaceans (whales, porpoises and dolphins) and Pinnipeds (seals and sea lions exclusive of walrus) and the Department of the Interior, which has responsibility for walruses, polar bears, sea otters, and manatees.

The Act established a moratorium on the taking and importation of marine mammals and marine mammal products except that under certain conditions a permit may be issued by the Secretary after it is first reviewed by the Marine Mammal Commission and the Committee of Scientific Advisors on Marine Mammals established by the Act. In addition to review by the Commission and its Committee, notice of all permit applications must be published in the *Federal Register* inviting public comment. When applicable, a public hearing may be held and depending on the outcome of the hearing a judicial review may be required.

The Act requires the Secretary, through the Secretary of State, to initiate and develop a variety of bilateral and multilateral agreements with other nations for the protection and conservation of marine mammals as well as to prepare reports to the Congress on results of these efforts.

The Act authorizes the Secretary to make grants, or to provide financial assistance to any Federal or State agency, public or private institution, or other person for the purpose of assisting such agency, institution or person to undertake research in subjects which are relevant to the protection and conservation of marine mammals. Additionally, the Secretary is authorized to make grants to each State whose laws and regulations relating to protection and management are found to be consistent with the purposes and policies of the Act.

PUBLICATIONS

NMFS staff members publish their work both in series of publications bearing the NMFS imprimatur and in scholarly journals and technical publications. A list, arranged by author, of these publications in calendar year 1972 comprises 387 titles.

The series issued directly under the auspices of NMFS in calendar year 1972 were:

Commercial Fisheries Abstracts

Issued monthly, *Commercial Fisheries Abstracts* has appeared since 1948. In calendar year 1972 the 12 numbers contained 384 pages. The publication is available from the Superintendent of Documents.

Marine Fisheries Review

In calendar year 1972, *Marine Fisheries Review* (until the July-August number called *Commercial Fisheries Review)* had 12 numbers (429 pages). The publication is available from the Superintendent of Documents.

Current Fisheries Statistics

These publications are issued monthly, quarterly, or annually by States, regions, or larger areas. In calendar year 1972, 36 annuals (526 pages) were issued; 252 monthlies (1,222 pages).

Data Report

The *Data Reports* appear in microfiche form. They are available as microfiches or as hard copies from the U.S. Department of Commerce, National Technical Information Service. Prices vary according to length. In calendar year 1972, 5 Data Reports (923 pages; 17 microfiches) were issued.

Fishery Bulletin

This publication, which originated in 1881 is issued quarterly. It is available from the Superintendent of Documents.

Four numbers of Volume 70 were issued in calendar year 1971. They contained 91 papers and an index, which totaled 1,330 pages.

Fishery Facts

This series was established in 1971. In calendar year 1972, 4 numbers (77 pages) were issued.

Fishery Market Development Series

This series contains popular educational publications on care, preparation, purchase, and nutrition of fishery products. They are for sale by the Superintendent of Documents. During calendar year 1972, one chart of marine fishes was issued.

Market News

The several Market News offices issue current statistical information on a daily, monthly, and annual basis. In calendar year 1972, the daily reports numbered 1,638 (5,000 pages); the monthly reports numbered 50 (375 pages); the annual reports numbered 6 (102 pages).

NOAA Technical Memorandum NMFS

This series was established in calendar year 1971. In 1972, 6 numbers (109 pages) were issued.

NOAA Technical Report NMFS CIRC

In July, 1971, the *Circular* series of NMFS (and formerly of the Bureau of Commercial Fisheries) was incorporated in the *NOAA Technical Report* series. Sequential numbering in the *Circular* series was unchanged. At the same time, the publications were put on sale by the

Superintendent of Documents. In calendar year 1972, 10 *Circulars* (610 pages) were issued.

NOAA Technical Report NMFS SSRF

In July, 1971, the *Special Scientific Report—Fisheries* of NMFS (and formerly of the Bureau of Commercial Fisheries) was incorporated in the *NOAA Technical Report* series. Sequential numbering in the *SSRF* series was unchanged. At the same time, the publications were put on sale by the Superintendent of Documents. In calendar year 1972, 17 SSRF's (450 pages) were issued.

Situation and Outlook

There are three types of *Situation* and *Outlook reports*, in which prices, production, imports, exports, and inventories of fishery products are analyzed. They are *Food Fish Situation and Outlook* (2 numbers, 128 pages in calendar year 1972); *Shellfish Situation and Outlook* (2 numbers, 136 pages in calendar year 1972); and *Industrial Fish Situation and Outlook* (2 numbers, 63 pages in calendar year 1972).

Statistical Digest

These are annual compilations of statistics with detailed tabulations relating to fishery production, manufacture, and commerce. In calendar year 1972, 1 (474 pages) was issued.

An alphabetical listing of publications (by author) follows. The list does not include *Marine Fisheries Abstracts, Current Fishery Statistics, Situation and Outlook* reports, and *Marine Fisheries Review*, except for a few articles for which the authors' names are given.

ABRAMSON, N.J., and P.K. TOMLINSON.
An application of yield models to a California ocean shrimp population. Fish. Bull., U.S. 70:1021-1042.

AHLSTROM, E.H.
Kinds and abundance of fish larvae in the eastern tropical Pacific on the second multivessel EASTROPAC survey, and observations on the annual cycle of larval abundance. Fish. Bull., U.S. 70:1153-1241.

ALLEN, D.M.
References and subject index concerning the calico scallop, *Argopecten gibbus*. U.S. Dep. Commer., NOAA, Southeast Fisheries Center Informal Rep. 1, 31 p.

ALLEN, D.M., and T.J. COSTELLO.
The calico scallop, *Argopecten gibbus*. U.S. Dep. Commer., NOAA Tech. Rep. NMFS SSRF 656, 19 p.

ALMENAS, K.K., L.C. DURILLA, E.C. ERNST, J.W. GENTRY, M.B. HALE, and J.M.MARCHELLO.
Engineering economic model for fish protein concentration processes. U.S. Dep. Commer., NOAA Tech. Rep. NMFS CIRC 367, 176 p.

ALTON, M.S.
Bathymetric distribution of the echinoderms off the northern Oregon coast. *In* A.T. Pruter and D.L. Alverson (editors), The Columbia River estuary and adjacent ocean waters: bioenvironmental studies, p. 475-537, Univ. Wash. Press. Seattle.

Characteristics of the demersal fish fauna inhabiting the outer continental shelf and slope off the northern Oregon coast. *In* A.T. Pruter and D.L. Alverson (editors), The

(#9) C. 6

Report of the National Marine Fisheries Service for the Calendar Year 1974

July 1975

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service

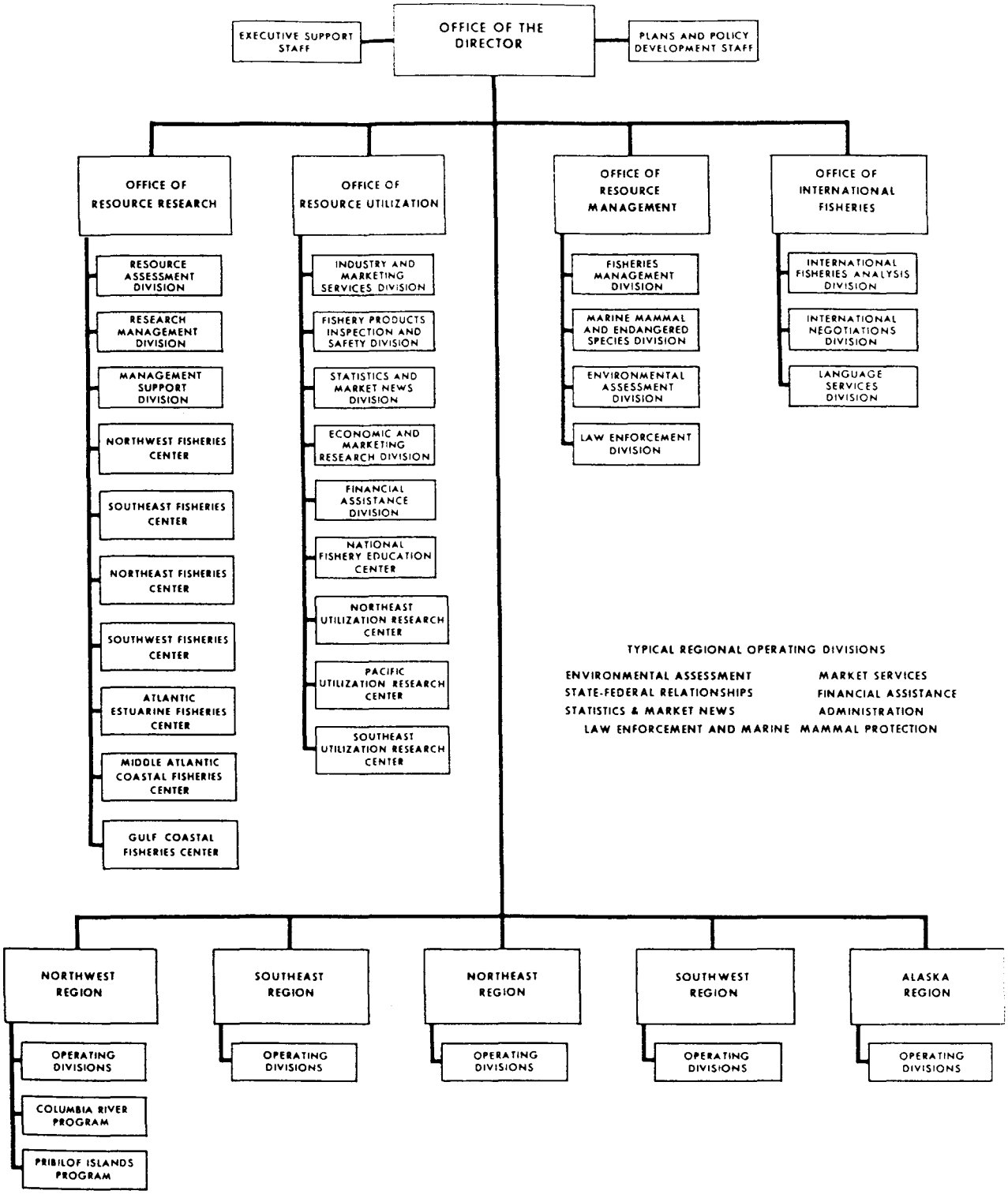

Figure 1.--Organizational structure of NMFS.

(FEBRUARY 1975)

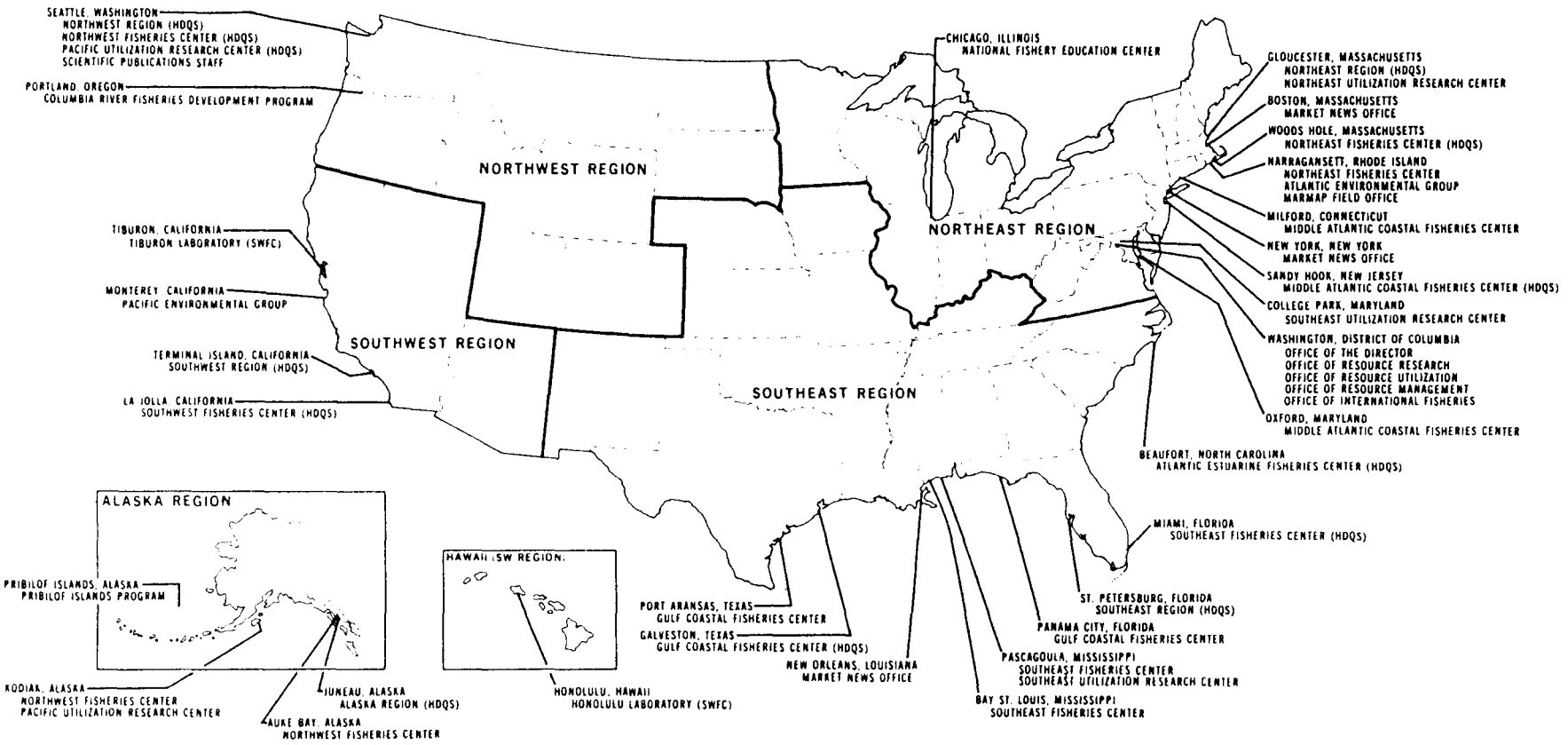

Figure 1.--Principal facilities of NMFS.

news information.

(3) Financial assistance to the fishing industry in the form of loans, and mortgage and loan insurance.

(4) Microbiological, chemical, and technological research to improve the quality and use of fishery resources.

(5) Voluntary national inspection and certification of fishery products.

(6) Marketing practices improvement and alleviation of extraordinary short-term supply-demand imbalances.

(7) Fishery education services.

(8) National research programs in fishery products technology.

The Office of Resource Utilization was reorganized effective November 11, 1974. The number of divisions is decreased from 7 to these 5: Industry and Marketing Services, Fishery Products Inspection and Safety, Statistics and Market News, Economics and Marketing, and Financial Assistance. Functions were so aligned that the primary responsibilities of the Office are for national oversight of its programs and for assuring that national programs are in tune with regional constituency needs. The Office also supervises Northeast, Pacific, and Southeast Utilization Research Centers and a National Fishery Education Center.

ECONOMICS AND MARKETING RESEARCH

The Economics and Marketing Research Division was formed by consolidating the former Economic Research Division and the Marketing Research Unit of the Market Research and Services Division. The Division's three major program areas are: (1) fisheries management economics, (2) fisheries development economics, and (3) marketing research.

Economics research focuses on the demand for and supply of fish products. During 1974, the Division examined the impact of the energy crisis on U.S. fisheries, undertook studies to determine the profitability of selected fisheries, and monitored foreign investment in U.S. fishing operations. Analyses of problems and opportunities in U.S. fisheries provide a basis for policy formulation and program evaluation, and they are used by the fishing industry, investors, financial institutions, and the general public.

Market research is designed to provide current information on economic conditions affecting the fishing industry and consumers. Results of this market intelligence function are published as scheduled market reports, economic impact studies, and a monthly retail price survey. Analyses and forecasts of market conditions are published in the Department of Agriculture's National Food Situation. The scheduled market reports include analyses of current market factors--prices, landings, imports, exports, production, inventories, and consumption.

Significant accomplishments:

Fisheries Management and Development Economics:

(1) Studies of the economic impact of fuel price increases and supply shortages on the U.S. fishing industry.

(2) Cost and earnings studies of the Florida spiny lobster fishery and New England squid fishery.

(3) Review of insurance problems faced by fishing vessel owners.

(4) Completion of an initial aquacultural economic bibliography.

(5) Analysis of the economic feasibility for increased U.S. production of Alaska groundfish.

Market Research:

(6) Three issues of each of the following market review and outlook reports were published: (a) Shellfish Market Review and Outlook; (b) Food Fish Market Review and Outlook; (c) Industrial Fishery Products Market Review and Outlook.

(7) Fourteen issues of Operation Fish Watch, a retail price survey of fish and meat products, were published.

FISHERIES DEVELOPMENT

A special staff group was established within the Office of Resource Utilization to coordinate with industry the activities concerned with increasing fish and shellfish supplies from domestic fishery resources. This included harvesting, processing, and marketing, and such support services as economic evaluations, statistical and inspection services, financial assistance programs, and foreign trade services.

Fishery development accomplishments for target species:

(1) Offshore Crabs--Progress in Northeast offshore crab fishery development included clarification of the available resource through surveys and tagging studies. Processing technology was made available and adapted to the needs of

NMFS is cooperating with the States of California, Oregon, and Washington, in developing a coastwide fisheries data system. In the Northeast, some States are developing data collection and processing capabilities with the help of NMFS funding. Finally, in 1974 work has begun toward development of a fisheries statistics policy that calls for State-Federal cooperation in the collection, processing, and dissemination of fisheries statistics.

INDUSTRY AND MARKETING SERVICES

The Industry and Marketing Services Division was formed and incorporates Fishery Products Research (includes the coordinator of the activities of three resource utilization centers) and the Market Development and Consumer Education function of the former Market Research and Services Division.

Fishery products research in 1974 focused on latent resources and fishery development, improved feeds and nutrition for aquaculture, product quality and safety, microconstituents in seafoods, and waste control in seafood processing.

Significant accomplishments:

Fishery Products Research:

(1) Issued a new publication, Current Information of Fishery Pollution Abatement Technology. Issues during the year (a) identified agencies and institutions in the United States involved in fishery pollution abatement technology research or regulations; (b) addressed problems and interpretations of the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500) as applied to seafood processors; and (c) provided information about fishery pollution abatement projects obtained from a national survey conducted in the spring of 1974. Future issues will have results of NMFS waste treatment studies, analytical monitoring techniques, and interpretation of EPA effluent guidelines for seafood processors.

(2) Held five export marketing seminars to help the U.S. fishing industry develop overseas markets for its products by (a) acquainting U.S. producers and processors with the methodology of exporting, (b) providing information about available export services in the Federal Government, and (c) providing essential information on various countries.

(3) Co-sponsored with the USDA an international food trade show in Tokyo, Japan, to establish or expand foreign markets for United States fishery products that are underutilized in the United States, but which have a large potential or existing markets overseas. Twenty-one U.S. fishery firms participated.

(4) As a result of the cost-price squeeze, started an emergency marketing program in November to stimulate demand for fishery products in oversupply and to help the industry develop a more effective organization to deal with future marketing needs.

(5) Completed a 2-foot by 3-foot resource wall chart, "Mollusks and Crustaceans of Coastal United States," that shows various species of shellfish in color. In addition, published a recipe booklet, "Great Catsby," containing recipes for catfish.

(6) Carried on a sustained marketing effort to develop markets for underutilized rock shrimp by NMFS and State marketing staffs, and established this product as a regular menu item in at least three major restaurant chains. Consultations by marketing personnel and fish cookery demonstration and menu planning food service personnel built a demand for more than 3 million pounds during 1974.

(7) Stimulated demand for shrimp through major marketing efforts. Primary emphasis was in the coastal producing States. NMFS marketing personnel worked with State Cooperative Extension Offices, various State marketing offices, major retail chains, supermarkets, restaurants, and institutions. Total national efforts by NMFS marketing and other cooperators at the consumer's level produced an increase of nearly 4 percent over the 1973 usage of shrimp products.

FINANCIAL ASSISTANCE

The NMFS administers four financial assistance programs--one is under a moratorium. These programs were established to help make the harvesting segment of the fishing industry more efficient and competitive.

The Fishing Vessel Obligation Guarantee program (46 U.S.C. 1271 et seq.) was implemented during the year with publication of permanent program regulations (50 CFR Part 255). Efforts were concentrated on trying to develop capital alternatives to conventional bank lenders, because 1974's restrictive monetary policies made conventional lending funds very scarce and inflation discouraged long-term, fixed-interest-rate, conventional loans except at historically high interest rates. The ability to reach the general debt instrument market was developed during the year and fisheries applicants are now being placed with investors at favorable interest rates. Over $10 million in applications was received during 1974.

The Capital Construction Fund (CCF) tax deferral program (46 U.S.C. 1177) expanded rapidly in 1974. Although permanent procedure regulations have been delayed pending issuance

of the Internal Revenue Service's joint tax regulations, this program is operational. By year end, over 575 individual CCF agreements had been executed. Under these agreements over $60 million has been withdrawn for new fishing vessel construction and improvements.

Activity under the Fishermen's Guaranty Fund (22 U.S.C. 1971-1977) was minimal during 1974 because only one U.S. flag vessel was seized by a foreign country claiming territorial jurisdiction not recognized by the United States. The Fishermen's Guarantee Fund Agreements included 160 vessels for the year beginning July 1, 1974.

The financial assistance programs, particularly the Fisheries Loan Fund, have been only partially successful in meeting their objective--increase the efficiency and competitiveness of the harvesting segment of the industry. The Fisheries Loan Fund is being restructured, and in the interim an administrative moratorium has been declared on loans under this fund. The moratorium remained in effect during 1974.

A conditional fisheries mechanism (50 CFR Part 251) was implemented during the year which will restrict the availability of financial assistance programs in fisheries which have excessive vessel capacity. In such fisheries, assistance will be restricted to projects which do not add significant vessel capacity to those fisheries.

FISHERY PRODUCTS INSPECTION AND SAFETY

The missions of the Fishery Products Inspection and Safety Division are to: (1) Provide an impartial seafood inspection and product certification system on a voluntary and reimbursable basis to assist national and international trading in fishery products. (2) Provide consumers with assured quality choices in the marketplace, as well as safety assurances, through protection against contaminated fishery products. (3) Provide a basis and tools to help industry upgrade plant sanitation and improve product quality as a means of preparation for mandatory inspection of fishery products/plants.

Significant accomplishments:

(1) A new inspection service, the Sanitarily Inspected Fish Establishment (SIFE) program, was developed and made available. This service provides an initial sanitation survey, plant certification, and contract sanitation inspections to interested fishery product processors.

(2) A new Memorandum of Understanding (MOU) was signed with the Food and Drug Administration. MOU documents FDA recognition of NMFS expertise in seafood inspection and provides a cooperative working agreement on fish and seafood inspection and certification activities.

(3) Educational materials on the value of inspected products for consumers and the fishery trade were developed and distributed. Eight publications designed for consumers and one for the trade were created and distributed. Three educational slide presentations, one for consumers and two for the trade were prepared and presented to audiences throughout the United States. Television and radio spot announcements on DOC inspection services were prepared for use in 1975.

(4) An International Standard for Canned Tuna and Bonito was completed and recommended to the international Codex Alimentarius Commission. The Standard was approved and has been distributed to countries for adoption as part of their national regulations, after which it will serve as the basis for international trading in these commodities.

RESOURCE MANAGEMENT

The Office of Resource Management carries out a variety of fisheries management functions, a great many of which result from new or enlarged responsibilities acquired by NMFS when it was transferred to the Department of Commerce. The Office plans, develops, and evaluates programs to improve State and Federal management and protection of fisheries, marine mammals, endangered species, and their environments. There is work cooperation with a number of other Federal agencies, including the Department of State, Coast Guard, Environmental Protection Agency, Army Corps of Engineers, Fish and Wildlife Service, Marine Mammal Commission, and Bureau of Customs. Close cooperation is also required with interstate bodies such as the Atlantic States Marine Fisheries Commission, Gulf States Marine Fisheries Commission, Pacific Marine Fisheries Commission, Great Lakes Fishery Commission, and Council of State Governments; also with the fisheries and game agencies of the 50 States, Puerto Rico, Virgin Islands, Guam, and American Samoa. Prominent conservation organizations are consulted frequently: The International Association of Game, Fish and Conservation Commissioners; American Fisheries Society; Sport Fishing Institute; National Wildlife Federation; Wildlife Management Institute; and Wildlife Society. Also, NMFS meets frequently with Monitor Inc., a consortium of private societies for animal protection and conservation. The Office is organized into four divisions: (1) Environmental Assessment, (2) Fisheries Management, (3) Law Enforcement, and (4) Marine Mammals and Endangered Species. It

and Yugoslavia and are funded with PL 83-480 Special Foreign Currencies. About 27,000 translations were distributed during FY 1974. In April 1974, the NMFS and NOAA translation activities were consolidated under one program which is administered by the Language Services Division.

PUBLICATIONS

The publication series issued directly under the auspices of NMFS in calendar year 1974 were:

Current Fisheries Statistics

Issued monthly, quarterly, or annually by States, regions, or larger areas--249 numbers (1,490 pages) issued.

Data Report

Available as microfiches or as hard copies from the U.S. Department of Commerce, National Technical Information Service--16 Data Reports (3,130 pages, 55 microfiches) issued. Prices vary according to length.

Fishery Bulletin

Issued quarterly (originated in 1881). Sold by the Superintendent of Documents. Four numbers of Volume 72 (1,187 pages) issued; contained 68 papers and an index.

Fishery Facts

Established in 1971; 4 numbers (120 pages) issued.

Fishery Market Development Series

None issued in 1974.

Marine Fisheries Abstracts

Issued monthly (until March 1973, titled Commercial Fisheries Abstracts). Has been issued since 1948. In 1974, 12 numbers (444 pages) issued. Publications ceased with the December issue.

Marine Fisheries Review

Issued monthly--12 numbers (635 pages). Sold by Superintendent of Documents.

Market News

The several Market News offices issue current statistical information almost daily--940 daily reports (2,638 pages) issued.

Current Economic Analysis

Consists of three subseries reports in which prices, production, imports, exports, and inventories of fishery products are analyzed: Issued in 1974: Food Fish Market Review and Outlook (3 numbers, 147 pages), Industrial Fish Market Review and Outlook (3 numbers, 87 pages), and Shellfish Market Review and Outlook (3 numbers, 146 pages). Until July 1973, these subseries were titled Situation and Outlook.

Miscellaneous Publications

Report of the National Marine Fisheries Service for Calendar Year 1973 (96 pages) issued in 1974.

NOAA Technical Memorandum NMFS

A total of 4 (203 pages) issued; in addition, Vol. 8 (7 pages plus 184 charts) of the EASTROPAC Atlas (Circular 330) issued. Sold by the Superintendent of Documents.

Statistical Digest

Annual compilations of statistics with detailed tabulations relating to fishery production, manufacture, and commerce. In 1974, 1 (424 pages) issued.

Listing of Publications by Author

NMFS staff members published in publications with the NMFS imprimatur, and in journals and technical publications. Following is a listing by author of works published in calendar year 1974 (not included are articles in Marine Fisheries Abstracts, Current Fishery Statistics, Market Review and Outlook Reports, and Marine Fisheries Review unless published under a by-line):

AAGAARD, K., L.K. COACHMAN, F. FAVORITE, J.A. GALT, and C.A. PAULSON.
Physical oceanography and air-sea interaction. In E.J. Kelley and D.W. Hood (editors), Probes: a prospectus on processes and resources of the Bering Sea shelf 1975-1985. Univ. Alaska, Fairbanks, Inst. Mar. Sci., Public Inf. Bull. 74-1:49-57.

#10

TRANSACTIONS
of the
Forty-eighth North American Wildlife and Natural Resources Conference

Conference Theme:

Many People, Many Demands, One Land

March 19–24, 1983
Radisson Muehlebach Hotel
Kansas City, Missouri

Edited by
Kenneth Sabol

Published by the
Wildlife Management Institute
Washington, D.C.
1983

Role of Federal Wildlife Information Offices

John Mattoon
U.S. Fish and Wildlife Service, Department of the Interior
Washington, D.C.

The role of Federal wildlife public affairs offices is, in part, self-explanatory: to make information about Federal wildlife conservation efforts available to the public. But within this straightforward mandate, there exist many subtleties and complexities that must be recognized and respected if the goal of communication is ever to be achieved.

Over the past 10 to 15 years, public affairs offices in Federal wildlife agencies have experienced a marked change in function and duties. The general trend could be characterized as an increase in responsibility, with a decrease in elective capability to initiate conservation awareness efforts. Both situations arise from greatly enhanced public interest in wildlife and resource topics, and from the growing intensity of media coverage and scrutiny from "watchdog" organizations. Thus, much wildlife public affairs effort is now reactive at the Federal level, responding to public/media inquiry, criticism, or support to increasingly visible issues. Further defining the current situation for fish and wildlife public affairs offices are the budget concerns now widespread throughout the Federal and public sectors. The net effects of these circumstances are that Federal public affairs offices are likely to be far more sophisticated than in the past. They have to be more skillful, discerning, and selective regarding effective use of money and staff resources in their treatment of resource topics than in times past—but at the same time they are operating under more limitations than previously.

With this background in mind, we can proceed to look at both the changed role and the continuing goal of fish and wildlife public affairs efforts.

The most significant change—one not yet widely recognized even in the resource community—is the sharing in policy-making responsibilities. This new development was born of necessity: resource managers have become more and more aware that their resource decisions cannot be made in a vacuum. They must represent at very least some acknowledgement of public attitudes and outlooks. Pure biology, pure economics, pure administrative efficiency do not and cannot exist in the public resource arena. There are always qualifiers and contingencies that interact to produce real-world resource decisions and resource policies. Prudent resource managers have always acknowledged this and have worked this principle to great public advantage—they have created public policy that served both the public and the resources to the greatest extent possible. With the dramatic rise in special interest resource groups since the 1960s, however, the decision-making equations have become far more complex. And the services of trained and experienced public affairs specialists, to both evaluate public perception and to help strategize and articulate agency policy goals, have become essential to modern resource management.

The Fish and Wildlife Service was one of the first Federal resource agencies to establish a communications/public affairs office with a policy function as part of its position; the first to confer Service directorate level ranking and participation. When this was done, nearly 10 years ago, it was with the full recognition that

public wildlife policy could not issue and be effected without public input, support, and understanding. Too often, decisions are made by administrators and their immediate staff without the public affairs input at the policy, program development, and execution levels. When this happens, the public affairs program is only a disseminator of information. I want to make clear that the Fish and Wildlife Service wasn't establishing an in-house PR firm; it was not setting up a mere information service geared solely to the needs of one or two constituencies. It was establishing a public affairs office whose overall goal was to participate in the management of the agency and provide the public with timely and accurate information regarding wildlife resources, especially those for which the Fish and Wildlife Service has significant responsibilities under law.

Among the early operating premises in 1973 (and one that carries forth to this day) was that wildlife resource issues were indeed newsworthy and important aspects of the public trust that all citizens should at least be aware of. Thus, we made direct efforts to work with national news media—in part because we perceived the media was slow to realize the importance of these stories, and slower still to assess public interest in wildlife and related natural resources. In the past 10 years, there have been some dramatic changes. The major news organizations now regard resource issues, particularly wildlife, as major news. This has brought about the need for increased specialization among our information staffs. It is now necessary for us to have content specialists who can devote significant time and energies to being our interim "experts" on the breaking stories and most visible (and controversial) resource topics of the day. Similarly, we have staff specialists whose expertise lies in various communication functions, such as audio-visual, media liaison and motion picture production.

The advent of specialized staff has helped us serve a greater variety and larger volume of information/media inquiries than in times past. Not surprisingly this has created a lot of new "spin-off" interest—references and topics passed on to other writers, reporters, producers, etc., who may have never heard of the Fish and Wildlife Service before. Thus, the results for some of our initial outreach efforts have been a seemingly unending supply of new and repeat media contacts. A good circumstance, by and large, but at times a mixed blessing.

With a marked increase both in volume of work and the visibility or sensitivity of the topics we deal in, it has become essential to pay special attention to the sensitivities involved in resource issues. We have encouraged our staffs to be particularly attuned to serving public and press needs, while recognizing the legitimate managerial prerogatives and initiatives of the leadership in the Executive Branch. That may sound to some like a balancing act, or a tightrope; in fact, it is not and need never be if sensible and forthright limits are established up front, in a professional manner, with media *and* with management. Public information in any endeavor is built on trust. So too with wildlife information. It is our task to see that the agency speaks clearly and effectively to its concerned publics, that information is conveyed that accurately reflects biological realities, and that top management's goals and policies have been articulated fully and faithfully.

That, basically, is our job: we work for the Department of the Interior, on behalf of this country's resources and its people. We are responsive to the wishes of the offices of the Secretary and the Assistant Secretary for Fish and Wildlife and Parks in their goals to articulate their valid points of view to the Fish and Wildlife Service

resource constituencies. Conversely, we are responsive to the resource community and relay their special concerns back through our information system.

In our daily workings with the media both in the Washington office and the field, we try to achieve a balanced perspective and mode of operation with all inquirers—whether it is a major television network or a small daily serving just a few thousand subscribers. We spell out what's available, and where and how we can help; and we try to offer additional supportive information or necessary background on the biology or natural history of many of the siutations we deal in.

It is the policy of the Service to have all media inquiries referred to public affairs for response. This has two purposes. It relieves the amount of time required that non-public-affairs managers have to spend with the media, and it assures, to the degree possible, that responses accurately reflect current Service and Departmental policies. We don't "give away the store." Nor do we play cat-and-mouse. Our time is too valuable and we assume that the reporter's is as well. We have found this direct, helpful approach the most effective in relaying our important information and in saving everyone's time.

There's an old saying that before you can know the tricks of the trade, you have to know the trade. This is especially true in wildlife information. You don't have to be a biologist or resource specialist, but you do have to have both a knowledge of and an interest in wildlife resources—and a willingness to learn more each day.

In the Fish and Wildlife Service's public affairs effort, we are very concerned about the quality of our communications—not simply the professionalism of our style, but the accuracy and integrity of the content of our messages. This combined approach of solid information delivered in a professional manner has proven its value to top resource managers, to the media, and to the public.

In summary, there have been many changes in wildlife information efforts at the Federal level during the past 10 years. These changes reflect increased press and public interest in resource issues, and the growing realization on the part of resource agency administrators that the public affairs effort is now an integral part of any sound management equation. The managerial and policy roles of public affairs reflect an overall maturing of the resource management process in this country. These changes reflect the reality that has long been present, but seldom publicly acknowledged in wildlife circles: "pure" wildlife biology, just like "pure" communication theory, cannot effectively function in the real-world environment of a modern resource agency. A team approach—calling upon the skills and backgrounds of many diverse specialists—can best integrate valid public concerns with legitimate management prerogatives and biological priorities. This approach will likely remain the most effective one for resource management in this country.