International

FISH MEAL

PRODUCTION AND EXPORTS FOR SELECTED COUNTRIES, JANUARY-MAY 1963-1964:

Member countries of the Fish Meal Exporters' Organization (FEO) account for about 90 percent of world exports of fish meal. The FEO countries are Chile, Angola, Iceland, Norway, Peru, and South Africa/South-West Africa. Production and exports of fish meal by FEO countries during January-May 1964 were up substantially from that same period of the previous year.

Table 1 - Exports of Fish Meal by Member Countries of the FEO, January-May 1963-1964

Country	May		Jan.-May		Total
	1964	1963	1964	1963	1963
	(1,000 Metric Tons)				
Chile	9.2	1/	62.2	1/	1/
Angola	2/	2.4	2/	11.5	30.0
Iceland	7.2	7.2	47.7	34.0	99.1
Norway	17.5	7.4	95.4	36.0	102.1
Peru	133.0	78.1	664.0	529.7	1,159.4
So. Africa (including S.-W. Africa)	27.5	14.1	90.2	56.3	198.8
Total	194.4	109.2	959.5	667.5	1,589.4

Table 2 - Production of Fish Meal by Member Countries of the FEO, January-May 1963-1964

Country	May		Jan.-May		Total
	1964	1963	1964	1963	1963
	(1,000 Metric Tons)				
Chile	14.5	1/	75.3	1/	86.8
Angola	2/	2.3	2/	10.8	31.5
Iceland	4.5	4.6	35.7	34.8	87.2
Norway	11.2	10.6	86.1	25.6	132.2
Peru	123.4	160.2	777.8	602.9	1,159.2
So. Africa (including S.-W. Africa)	33.4	33.2	130.0	114.7	238.0
Total	187.0	210.9	1,104.9	788.8	1,734.9

1/Data not available. Chile became a member of FEO at the end of 1963.
2/Data not reported. January 1964 exports were 4,800 tons; January 1964 production was 5,600 tons.

During the first 5 months of 1964, Peru accounted for 69.2 percent of total fish-meal exports reported by FEO countries, followed by Norway with 9.9 percent, South Africa with 9.4 percent, Chile with 6.5 percent, and Iceland with 5.0 percent. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, July 15, 1964.)

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WORLD PRODUCTION, APRIL-MAY 1964 AND JANUARY-MAY 1964:

World fish meal production in April 1964 held steady at about the same level as in the previous month and then moved somewhat lower in May 1964, according to preliminary data from the International Association of Fish Meal Manufacturers. The modest decline in May 1964 was due mainly to a drop in output in Peru, Norway, and Iceland, which was partly offset by rising production in the United States.

World Fish Meal Production by Countries, January-May 1963-1964

Country	April		May		Jan.-May	
	1964	1963	1964	1963	1964	1963
	(Metric Tons)					
Canada	1,460	1,311	3,941	5,020	16,401	31,9
Denmark	6,591	7,081	8,466	10,267	30,074	35,8
France	1,100	1,100	1,100	1,100	5,500	5,5
German Fed. Republic	6,736	7,461	5,279	5,795	31,550	33,7
Netherlands	500	500	400	300	2,900	1,7
Spain	1/	2,180	1/	1,673	1/	10,8
Sweden	885	822	531	754	3,428	2,7
United Kingdom	7,217	6,438	5,467	5,752	33,812	32,2
United States	6,434	2/7,565	24,765	2/36,195	2/36,612	2/50,7
Angola	1/	1,345	1/	2,276	3/5,566	11,2
Iceland	10,094	8,742	4,547	4,602	35,669	34,1
Norway	31,582	4,000	11,228	10,649	86,048	25,1
Peru	158,505	129,104	123,336	160,209	777,778	602,1
So. Africa (incl. S.-W. Africa)	31,543	33,237	33,297	32,278	134,277	113,1
Belgium	375	375	375	375	1,875	1,8
Chile	13,343	1/	14,501	1/	75,253	
Morocco	350	1/	2,150	1/	4,060	
Total	276,715	211,261	239,383	277,245	1,280,803	994,1

1/Data not available.
2/Revised.
3/Data available only for January 1964.
Note: Japan does not report fish meal production to the International Association of Fish Meal Manufacturers at present. Chile and Morocco did not report production prior to 1963.

World fish meal production in the first 5 months of 1964 was considerably above that in the same period of 1963. The increase was due largely to expanded production in Peru which accounted for about 61 percent of world output during January-May 1964. There was also a noticeable increase in Norwegian and South African production in January-May 1964. The gain was offset partly by a sharp drop in Canadian and United States output.

Most of the principal countries producing fish meal submit data to the Association monthly (see table).

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WORLD TRADE, 1958-1963:

World exports of fish meal, including fish solubles and similar products, reached a record level in 1963, reflecting increased shipments from all major suppliers except Angola (table 1).

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ble 1 - Fish Meal[1/] Exports from Specified Countries, 1958-1963 and Average 1955-59

ry	2/1963	1962	1961	1960	1959	1958	Average 1955-59
	(1,000 Short Tons)						
3/	56.7	48.2	40.6	35.5	46.9	29.3	44.3
na	3.5	1.7	.3	.1	2.7	2.5	1.9
	95.7	80.3	45.8	26.6	19.1	11.9	10.0
	1,278.4	1,175.0	838.4	571.3	306.1	117.4	109.1
n	3.4	6.4	4.2	4.7	2.3	2.0	2.4
k 3/	74.5	68.0	47.1	35.4	77.7	66.8	54.8
slands	1.9	2.2	1.2	.9	.7	.6	.6
	2.0	1.7	3.7	4.6	.8	.9	4/1.1
Germany	6.0	9.5	.9	6.3	8.0	8.5	6.8
	114.8	76.8	78.0	60.5	48.7	60.2	42.1
lands	3.9	6.6	5.2	6.2	9.2	6.7	6.7
y	113.9	65.9	141.6	112.4	98.3	118.0	148.0
d	.8	2.9	5.0	2.5	.6	1.5	1.3
	.3	.3	.6	.3	1.1	1.5	.9
R.	5/4.0	4.1	5.4	4.4	5.3	4.2	4.1
	30.8	35.9	55.5	49.7	56.5	89.6	72.8
co	21.9	17.6	20.9	15.3	16.0	18.4	13.0
ica Re-							
c 3/6/	235.8	228.7	186.7	139.7	110.1	98.6	78.9
	4.0	20.0	5.3	6.9	26.5	26.1	15.4
l	2,052.3	1,851.8	1,486.4	1,083.3	836.6	664.7	614.2

is fish solubles and similar products.
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is the production of South-West Africa.

2 - Fish Meal Imports into Specified Countries, 1958-1963 and Average 1955-59

ry	1/1963	1962	1961	1960	1959	1958	Average 1955-59
	(1,000 Short Tons)						
	3.0	.1	6.4	2.1	-	-	-
	30.7	22.1	13.6	16.8	10.4	4.0	3.9
States	386.5	255.8	221.4	133.5	147.3	109.0	107.7
ia 2/	2.8	1.8	.6	.6	-	-	.2
ela	16.6	14.6	12.9	4.8	5.0	2.8	2.9
	33.4	30.9	26.5	24.0	14.1	16.1	12.7
n	56.6	62.8	44.0	54.8	32.9	31.0	24.7
k	13.6	17.1	30.6	20.8	14.8	12.0	12.8
	8.0	17.8	13.7	7.2	3.9	3.8	3.3
	84.3	90.9	66.4	35.1	43.9	46.5	30.5
rmany	332.4	365.8	295.3	212.6	166.1	137.0	128.1
	8.2	5.8	4.8	4.4	4.3	5.0	3.4
	67.5	53.6	34.3	33.7	14.6	15.9	10.7
lands	193.7	190.2	178.9	150.3	110.1	92.5	88.0
	33.1	17.3	11.8	7.1	2.2	1.6	2.1
	84.1	41.5	14.6	10.2	-	2.7	1.4
land 2/	33.0	26.1	24.5	19.3	20.6	12.6	13.7
Kingdom	32.0	31.4	27.4	30.5	17.0	14.6	14.0
via	310.5	305.0	257.6	186.3	164.7	127.0	127.2
a/	3/24.7	3.1	3.8	13.9	8.1	-	1.8
land	4/5.5	5.4	5.9	4.7	5.3	5.4	4/4.9
	11.3	5/11.0	13.1	17.7	13.3	22.3	14.3
	92.9	42.4	25.7	21.4	-	-	-
a	5/9.7	16.8	15.1	11.6	6.8	5.0	3.6
ues	4/7.0	6.9	10.3	3.3	5.4	3.8	3.8
l	1,881.1	1,636.3	1,359.2	1,026.7	810.8	670.6	615.7

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small amounts of meat meal.
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h meal is a high-protein concentrate that contains the acids necessary to good animal nutrition. As animal it is usually incorporated in balanced mixtures of veg- substances to which minerals and vitamins are added. lk of fish meal production is used in poultry and hog s and, when prices are competitive with other protein trates, in other livestock rations.

In general, exports of fish meal follow the pattern of production as the greater part of the output is exported in major producing countries such as Peru, South Africa Republic, Norway, Iceland, Denmark, Angola, and Morocco. The main exceptions are the United States, Japan, and the Soviet Union where virtually all the production is retained for domestic use.

There has been a marked change in the regional pattern of world exports. Prior to 1959, Europe was the leading exporting region but with the rapid development in the productive capacity for fish meal in other parts of the world, South America has become the leading exporting region and Africa has emerged as an important source of supply. Exports from North America continue, as in the past, almost entirely from Canada. Asian exports are insignificant compared with those from other regions.

Peru continued as the leading fish meal supplier in 1963. By areas of destination the percentage distribution of Peruvian fish-meal shipments in 1963 was as follows: Western Europe 61.2 percent; North and South America 25.0; Eastern Europe 7.0; Asia 6.4; and Oceania 0.4 percent.

Record quantities of fish meal were shipped from the South Africa Republic in 1963. Western Europe absorbed 56 percent of South African fish-meal exports in 1963, followed by Asia with 18 percent, Eastern Europe with 14 percent, North and South America with 5 percent, Africa with 3 percent, and Oceania with 2 percent.

Exports of fish meal from Norway and Iceland increased significantly in 1963. Virtually all shipments from both those countries in 1963 went to other Western European countries, except for small quantities (about 14 percent in 1963) which were sold to Eastern Europe.

Chile's exports of fish meal, which have been increasing steadily in recent years, totaled a record 95,700 tons in 1963. Chilean fish-meal exports in 1963 were mainly to Western Europe which took 60 percent of the total. Of the remainder, North and South America accounted for 37 percent, Eastern Europe 2 percent, and Asia 1 percent.

The greater part of the fish-meal shipments from Denmark, Angola, and Morocco goes to Western Europe except for small quantities (about 12 percent in 1963) going to Eastern Europe. Over 80 percent of Canadian exports of fish meal in 1963 went to the United States, and most of the remainder went to the United Kingdom.

Most of the increase in world supplies of fish meal since 1959 has been absorbed by Western European countries and by the United States, now the world's leading fish-meal importer. Increased imports have also been recorded by countries in South and Central America, Asia, and Eastern Europe.

Combined imports in 1963 by leading fish-meal buyers increased considerably over 1962 (table 2). Purchases by the United States rose 130,700 tons, and those by Japan, Spain, Yugoslavia, Italy, and Poland rose collectively by 144,400 tons. Those increases more than offset reduced purchases by West Germany, Finland, France, Belgium, and Denmark.

In Eastern Europe, estimated purchases of fish meal by East Germany fell to 80,000 tons in 1963 from 102,000 in 1962. Imports into Czechoslovakia and Hungary, however, increased in 1963 to an estimated 17,500 and 20,500 tons, respectively, from an estimated 17,000 and 16,500 tons in 1962. (World Agriculture Production and Trade, July 1964.)

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INTERNATIONAL ASSOCIATION OF FISH MEAL MANUFACTURERS' FIFTH ANNUAL CONFERENCE:

The Fifth Annual Conference of the International Association of Fish Meal Manufacturers will be held in Vienna, Austria, September 29-October 2, 1964.

International (Contd.):

The Association, which was formed in 1959, is a recognized international body representing the world fish meal industry as a whole, and is designed to promote cooperation among all manufacturers. It thus provides a forum for discussions between producers, many of whom are also engaged in foreign trade, and experts who are concerned with the many commercial promotional, scientific, and technical problems affecting the industry.

Over 100 delegates from the 17 member countries, as well as official observers from Japan, Mexico, and Argentina, were expected to attend the Vienna Conference. In addition, agents, importers, and brokers who are interested in fish meal marketing were invited to attend the opening and closing sessions, and to be present as observers at a special working session.

Member countries, all of whom were expected to send delegates to the Conference, are: Belgium, Canada, Chile, Denmark, France, West Germany, the Netherlands, Iceland, Morocco, Norway, Peru, Portugal, So. Africa Republic, Spain, Sweden, the United Kingdom, and the United States.

Organizations and agencies which were to be represented at the Conference include the Fishmeal Exporters Organization (FEO), with which the Association cooperates on promotional and similar matters; the U. S. Bureau of Commercial Fisheries, which is actively engaged in research on fish protein concentrate for human nutrition; and the Food and Agriculture Organization (FAO) of the United Nations.

Fish meal is easily incorporated as a high-grade protein ingredient in animal feeds, particularly for intensively reared stock such as poultry and pigs. Fish flour or fish protein contrate for human consumption may become an important factor in combating malnutrition. In those and other activities the Association cooperates with FAO; the United Nations Children's Fund (UNICEF); and the Freedom from Hunger Campaign. The Association also cooperates with groups such as the European Federation for Animal Technology (FEZ) and other regional bodies such as the Expert Committee in the European Economic Community. (International Association of Fish Meal Manufacturers, July 1964.)

MARINE OIL

WORLD PRODUCTION, 1963:

In 1963, world production of marine oils (excluding seal oil) totaled an estimated 1,071,500 short tons, 16 percent below that of the previous year. Production of baleen whale oil and fish oil declined by an estimated 109,700 and 94,200 tons, respectively. Sperm oil production, however, rose 5 percent in 1963.

World Marine Oil Production, 1961-63

Item	1/ 1963	1962	1961
	(1,000 Short Tons)		
Baleen whale oil	280.4	390.1	427.7
Sperm whale oil	135.8	129.8	119.9
Fish and fish-liver oil	655.3	749.5	668.6
Total	1,071.5	1,269.4	1,216.2

1/Preliminary.

The production of seal oil in 1963 is estimated at 3,600 tons, compared with an estimated 4,600 tons produced in 1962.

INTERNATIONAL PACIFIC HALIBUT COMMISSION

NORTH PACIFIC HALIBUT FISHING IN AREA 3A ENDED AUGUST 19, 1964:

Fishing in Pacific halibut Area 3A ended at 6 p.m. (P.S.T.) on August 19, 1964. The International Pacific Halibut Commission announced the closure on July 31, 1964, since it estimated that by August 19 the catch limit of 34 million pounds for Area 3A would be reached. Area 3A includes waters off the coast of Alaska between Cape Spencer and Kupreanof Point (near the Shumagin Islands). There will be no halibut fishing in Area 3A after August 19, 1964, until the area is reopened in 1965.

This year Area 3A was open to fishing for 110 days--18 days more than the 92-day season in 1963. In 1962, the area was open to fishing for 94 days, in 1961 for 105 days, in 1960 for 85 days, in 1959 for 92 days, and in 1958 for 119 days.

North Pacific halibut landings by United States and Canadian vessels for 1964 through July 31, 1964, were: 14.4 million pounds in Area 2; 26.3 million pounds in Area 3A; 2.1 million pounds in Area 3B South; 359,000 pounds in Area 3B North; and 1.5 million pounds in Area 3B North Triangle. Total United States and Canadian landings as of July 31, 1964, totaled 44.7 million pounds as compared with 56.7 million pounds for the same period of 1963.

There has been no announcement concerning the closure of any of the other North Pacific halibut fishing areas which are subject to quota limitation. The North Pacific halibut fishing regulations for 1964 provide that the season in Area 2 shall terminate at the time of the attainment of a catch limit of 25 million pounds or on September 15, whichever is earlier; fishing in Area 3B South shall terminate at the time of the attainment of a catch limit of 4 million pounds or on October 15, whichever is earlier; fishing in Area 3B North (without catch limit) shall terminate on October 15 and the season in Area 3B North Triangle shall terminate at the time of the attainment of a catch limit of 6,393,340 pounds or on October 15, whichever is earlier (the catch limit in Area 3B North Triangle is to be shared between the United States, Canada, and Japan).

The halibut catch during the 1964 season in Area 2 and the Bering Sea areas has been substantially below that during the previous sea

International (Contd.):

Those developments were considered at a special meeting of the International Pacific Halibut Commission on June 4, 1964. Following the meeting it was announced that the catch-limit area of the Bering Sea was tentatively scheduled for complete closure during 1965 and that North Pacific halibut fishing off the United States and Canadian coasts would be closely surveyed to determine if further restrictions would be required.

[1] See Commercial Fisheries Review, August 1964 p. 49.

INTER-GOVERNMENTAL MARITIME CONSULTATIVE ORGANIZATION

PANEL OF EXPERTS ON STABILITY OF FISHING VESSELS HOLDS FIRST SESSION IN LONDON, JULY 13-17, 1964:

A Panel of Experts on Stability of Fishing Vessels has been established by the Inter-Governmental Maritime Consultative Organization (IMCO). The action was taken following the third IMCO Assembly, which resolved that "IMCO should continue its studies on the stability of fishing vessels with all possible speed." The Panel will serve as a subsidiary body to the Working Group on Intact Stability of Ships, which is already concerned with stability studies of all types of ships including fishing vessels.

The object of the Panel as defined at its first session, July 13-17, 1964, in London is "to collect and study data, instigate further research, and disseminate information and recommendations on the stability of fishing vessels of different types and dimensions, with the ultimate object of establishing criteria for judgement of stability, and to insure that the master is furnished with adequate and understandable information for his guidance."

The first session of the Panel of Experts was attended by representatives of Denmark, West Germany, Finland, France, Iceland, Italy, Japan, Netherlands, Norway, Poland, Sweden, U.S.S.R., United Kingdom, United States, and by a representative of the Food and Agriculture Organization (FAO) of the United Nations.

The Panel agreed upon the following terms of reference:

1. To classify fishing vessels without limitation of size in different groups with regard to dimensions, type, fishing methods, and operating areas for the purpose of the studies to be carried out by the Panel.

2. To study and analyze casualty records of fishing vessels from different groups which have foundered or suffered dangerous heeling.

3. To collect, analyze, and compare existing national stability requirements, recommendations, and criteria for fishing vessels together with supporting information about the principles involved.

4. To compile on a uniform basis intact stability calculations (with curves) for different groups of fishing vessels, using parameters already established by the Working Group on Intact Stability of Ships, and using actual conditions of loading as practiced in specific fisheries.

5. To formulate recommendations with regard to stability criteria to be used for fishing vessels of the different groups.

6. To investigate the possibility of establishing simple methods to be used in judging the stability of small fishing vessels.

7. To investigate the desirability of establishing minimum freeboard requirements for fishing vessels.

8. To formulate recommendations with regard to watertight integrity and constructional details of fishing vessels which affect stability such as hatches, superstructures, binboards, freeing ports, safety releases, etc.

9. To investigate the possibility of standardizing assumptions with regard to wind and wave forces applicable to fishing vessels and to cooperate with the Working Group on Intact Stability of Ships in the research necessary to verify those assumptions.

10. To develop proposals for appropriate simple operating guidance to fishing crews regarding stability, avoiding as far as possible the necessity of making calculations at sea.

11. To collect information on present theoretical investigations and research work regarding the stability of fishing vessels and their general behavior at sea insofar as this affects stability.

12. To establish a long-range research program on the stability of fishing vessels and their general behavior at sea insofar as this affects stability.

13. To consider operational practices which have an unfavorable effect on the intact stability of fishing vessels and to recommend reasonable and practicable precautions which would prevent the reduction in stability or to keep it within acceptable limits.

At the London meeting, the Panel of Experts considered what work could be started immediately under those terms of reference. As a result, some members volunteered to carry out certain studies and report to the Panel at its next session. The Panel also prepared the following preliminary suggestions concerning fishing vessel stability:

1. All doorways and other openings through which water can enter into the hull or deck houses, forecastle, etc. should be suitably closed in adverse weather conditions, and accordingly all appliances for that purpose should be kept on board in good condition.

2. Hatchcovers and flush deck scuttles should be kept properly secured when not in use during fishing.

3. All porthole deadlights should be maintained in good condition and securely closed in bad weather.

4. All fishing gear and other large weights should be properly stowed and placed as low as possible.

5. Particular care should be taken when pull from fishing gear might have a bad effect on stability--for example, when nets are hauled by powerblock or when a trawl net snags on the bottom.

6. Gear for releasing the deck load in fishing vessels carrying their catch on deck should be kept in good working condition for use when necessary.

7. Freeing ports provided with closing appliances should always be capable of functioning and should not be locked, especially in bad weather.

8. When the main deck is prepared for a deck load by setting up pound boards, there should be slots of suitable size between the pound boards to allow easy flow of water to freeing ports in order to prevent the trapping of water.

9. Never carry fish in bulk without first being sure that the portable divisions in the holds are properly installed.

International (Contd.):

10. At any one time keep the number of partially filled tanks to a minimum.

11. Observe any instructions given regarding filling of water-ballast tanks, but always remember that slack tanks can be dangerous.

12. Any closing devices provided for vent pipes to fuel tanks should be secured in bad weather.

13. Reliance on automatic or fixed steering can be dangerous as it prevents quick maneuvers which may be needed in bad weather.

14. Be alert to all the dangers of following or quartering seas. If excessive heeling or yawing occurs, reduce speed as a first precaution.

15. In all conditions of loading, necessary care should be taken to maintain a seaworthy freeboard.

16. Pay special attention to icing of a vessel and reduce it by all possible means.

ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT

POSITION ADOPTED ON FISHING INDUSTRY SUBSIDIES:

The Fisheries Committee of the Organization for Economic Cooperation and Development (OECD) met in Paris, June 29-30, 1964, and considered a report on subsidies and other financial support to the fishing industries of member countries. The Fisheries Committee then issued recommendations making distinctions between justifiable subsidies and those which should be eliminated. The conclusions of the Fisheries Committee were endorsed by the Council of OECD in a statement to the press, July 21, 1964, the text of which follows:

"The Council of OECD recommends the Governments of member countries, when they determine their fishery policies, to take into consideration the conclusions of a study carried out by the Fisheries Committee on subsidies and other financial support to the fishing industries.

"The Report by the Fisheries Committee makes a distinction between subsidies which are likely to create difficulties at international level by creating or perpetuating abnormal conditions for the fishing industry, and those which 'may be necessary for developing the fishing industry and raising its productivity or for facilitating the alternative employment of fishermen.'

"These (subsidies which may be necessary) include government regulations for landing prices or sales and other nondiscriminatory systems drawn up and applied by the governments in order to fix or to regulate the prices. These systems involve no financial grant, however, other than the payment of the administrative costs or at least only a subsidy low enough to have no practical effect on the general level of prices.

"In the same way, social and economic motives may justify subsidies and other financial aids designed to encourage investment by small firms or individuals who have not the financial means needed to improve their equipment. These technical improvements, however, must result in profitable modernization likely to raise the fishermen's standard of living and insure them normal incomes.

"On the other hand, financial aids which favor home producers by reducing their costs of exploitation should be gradually diminished until their total abolition. Such aids have too great an influence on imports or exports.

"The Fisheries Committee also condemns catch premiums and subsidies given to fishermen on the basis of the quantity of fish landed, gross proceeds, or time spent at sea. Such schemes should only be introduced by way of exception and for a period not exceeding three years. In those countries where such subsidies have been made for more than 5 years the aim should be to reduce them gradually with the object of abolishing them within 10 years.

"In the case of support given to traditional production which is diminishing but which gives rise to marketing difficulties, the possibilities of structural changes should be considered if the difficulties encountered by the sectors concerned tend to become permanent. The present aids, in so far as they facilitate the placing of exports, might well affect the international trade in fish and in this case the position on the international markets should be given careful attention.

"Care should also be taken not to encourage the tendency to overinvestment so as to avoid an artificial increase of the production capacity of the fleet in nonprofitable conditions of exploitation. To this effect, it is generally acknowledged that scrapping premiums, shipbuilding and other investment subsidies for the benefit of fisheries are only acceptable if they are to be in force for a period of less than 5 years and/or if the amount granted does not exceed 25 percent of the building costs of a new vessel.

"Moreover the rate of interest for loans granted to the fishing industry must be comparable with the average rate of interest regarded as normal for private loans for similar purposes in the same country.

"Finally, financial aid given to shipbuilding has not been considered as a subsidy for the fishing industry so long as it does not reduce the costs of investment to the buyer of a vessel below the cost of purchasing a similar vessel from a foreign shipyard.

"These general recommendations are accompanied by country recommendations which take account of the structures of the different national fishing industries and the economic conditions which might influence the fishing situation." (Organization for Economic Cooperation and Development, Paris, July 21, 1964.)

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FISH PROMOTIONAL MATERIALS PLANNED:

Fish promotional materials in the form of colored illustrations of various fish species are planned to be issued by the German Fish Promotion Service (Deutsche Fischwerbung e.V.) as a cooperative fish promotion service under the Organization for Economic Cooperation and Development (OECD). The illustrations would be available to persons or agencies in OECD Member Countries who are interested in fish promotion services, and they are encouraged to participate in this cooperative effort.

The proposed illustrations are based on water colors and would be suitable for use in retail or wholesale fish establishments, for educational school material, or for display at fishery group meetings. They would measure about 17 x 23 inches consisting of 12 different fish species including herring, ocean perch, cod, haddock, mackerel, halibut, wolffish (ocean catfish), shrimp, tuna, and several other species. The names of the different

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ies could be shown in several languages. price for the illustrations would vary ac- ing to the number of copies ordered and d range from about 10 to 15 U. S. cents

or further information, interested per- may write directly to: Deutsche Fisch- ung, 2 Karlsburg, 2850 Bremerhaven 1, Germany, or through the Fisheries Di- n, Organization for Economic Coopera- nd Development, 2 rue Andre-Pascal, 16e, France.

ember Countries of the OECD include nited States, Canada, Japan, the Euro- Common Market countries, member ries of the European Free Trade Associa- (EFTA), and others.

UNITED NATIONS

ONVENTION ON THE TERRITORIAL SEA AND THE CONTIGUOUS ZONE ERS INTO FORCE:

e Convention on the Territorial Sea and ontiguous Zone (which was adopted by nited Nations Conference on the Law of ea in April 1958 at Geneva) entered into September 10, 1964, following ratifica- y 22 countries. The Dominican Republic ited the 22nd ratification August 11, 1964. nited States ratified the Convention on 12, 1961. The Convention embodies the s of work of the 1958 United Nations ence, but does not cover the width of rritorial sea. Among other things, the ntion establishes specific rules for the of innocent passage of ships through ter- al waters, with separate reference to ant vessels, government-owned ships ommercially, and warships. The Con- n describes the rights and duties of through whose waters the ships pass.

lso provides for the use of the low-wa- e as the baseline for measuring the h of the territorial sea, except as other- rovided for in the Convention. The ex- n allows for the use of the straight base- ethod (Article 4) in localities where the is deeply indented or if there is a fringe nds immediately adjacent to the coast.

e Convention also recognizes the right oastal state to exercise jurisdiction over tiguous zone" extending up to 12 miles he baselines from which the territorial sea is measured, for the purpose of allowing the coastal state to exercise control necessary to: "(a) prevent infringement of its customs, fiscal, immigration, or sanitary regulations within its territory or territorial sea; (b) punish infringement of the above regulations committed within its territory or territorial sea."

The 1958 United Nations Conference on the Law of the Sea also formulated the (1) Convention on the High Seas; (2) Convention on the Continental Shelf; and (3) Convention on Fishing and Conservation of the Living Resources of the High Seas. All of those Conventions have entered into force, except the Convention on Fishing and Conservation of the Living Resources of the High Seas which in August 1964 had only 16 of the 22 ratifications needed before coming into force.

Note: See Commercial Fisheries Review, June 1961 p. 90; May 1960 p. 40.

WHALING

ANTARCTIC WHALE OIL AND SPERM OIL PRODUCTION, 1962/63 AND 1963/64 SEASON:

Total marine oil production from pelagic whaling in the Antarctic during the 1963/64 season was down about 9 percent from that in the previous season due to a drop of 20 percent in whale oil output. All countries participating in Antarctic whaling during the 1963/64 season reported lower production except Norway. The decline in whale oil production was partly offset by a gain of 54 percent in sperm oil production. The Japanese and Soviet fleets accounted for most of the gain in sperm oil.

Marine Oil Production from Pelagic Whaling in the Antarctic, 1962/63 and 1963/64[1]

Country	Season	Whale Oil	Sperm Oil	Total
		(Barrels[2])		
Norway	1963/64	202,215	50,273	252,488
	1962/63	183,345	42,620	225,965
Netherlands	1963/64	47,971	15,411	63,382
	1962/63	62,916	17,491	80,407
Japan	1963/64	561,035	120,093	681,128
	1962/63	666,335	61,959	728,294
U.S.S.R.	1963/64	214,438	167,715	382,153
	1962/63	312,517	94,299	406,816
United Kingdom	1963/64	-	-	-
	1962/63	67,260	13,100	80,360
World total	1963/64	1,025,659	353,492	1,379,151
	1962/63	1,292,373	229,469	1,521,842

1/Preliminary.
2/Six barrels equal one long ton.

A total of 16 factoryships participated in the 1963/64 Antarctic whaling season--1 less

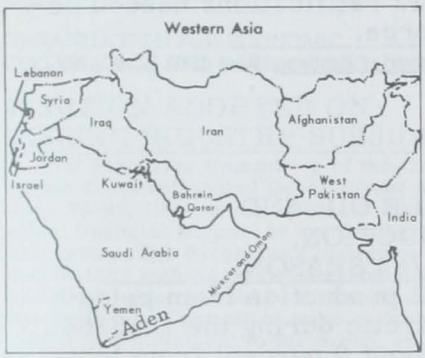
International (Contd.):

than in the previous season. After the 1962/63 season the British Antarctic whaling factory-ship was sold to Japan. (United States Embassy, Copenhagen, June 30, 1964.)

Aden

FISHERIES DEVELOPMENT PROJECT:

To help develop fisheries in the Gulf of Aden and adjacent waters, the United Nations Special Fund has contributed £330,000 (US$924,000) and the United Kingdom has contributed £160,000 ($448,000) for a fisheries survey and training project. The development project is expected to continue for 3 years and includes provisions for chartering 2 fishing vessels to be used in training local fishermen in the Aden area. The project is being carried out by the Food and Agriculture Organization of the United Nations. (Fish Trades Gazette, July 4, 1964.)



Note: See Commercial Fisheries Review, March 1964 p. 39.

Australia

SCALLOP CATCH ON NEW GROUNDS OFF VICTORIA:

During October 1963-February 1964, the Australian newly-developed Port Phillip Bay (Victoria) scallop beds yielded 35,800 bags of scallops (611,000 pounds of meats). Those scallops are being marketed in Melbourne and exported (France being the best customer).

In past years Tasmania has been Australia's main source of scallops with production reaching a record 1,257,076 pounds (worth A£160,000 or US$358,400 ex-vessel) in 1962. Production dropped to 978,864 pounds in 1963, when the main season was four months.

A meeting of licensed scallop and snapper long-line fishermen in Melbourne agreed to restrictions being placed on scallop dredging operations in certain areas of Port Phillip Bay during April, May, and September. The only areas in which scallop fishing will be allowed during those months are south of an imaginary line from Indented Head to Snapper Point, near Mornington, and north of a line from Point Cook to Green Point, near Brighton. Long-line fishermen who operate gear within the areas set aside for scallop dredging will do so at their own risk. The meeting was called by the Victorian Fisheries and Wildlife Department to find an acceptable solution to the possible conflict which might have developed had the two fisheries both operated on the same grounds at the same time.

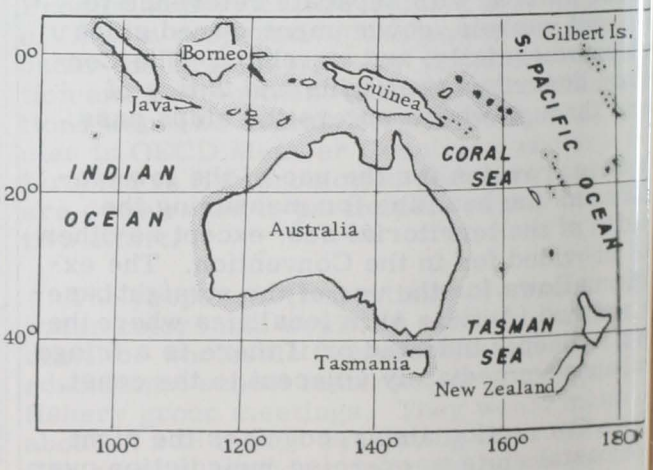
The snapper long-line season opens on April 1 and is an established fishery of long standing. The most productive months of that fishery are during April, May and September. The snapper long-line season closes at midnight on September 30.

The scallop fishery is in its first year, having begun in September 1963. Previously no restrictions have applied to the scallop fishery in Victoria. (Australian Fisheries Newsletter, May 1964.)

* * * * *

NEW SCALLOP BED SHOWS PROMISE:

East coast beds proved most productive in the opening weeks of the Tasmanian scallop season in May 1964. A new bed south of St. Helens showed most promise. Indications late in May were that the bed was more extensive than previously thought, and would attract more vessels.



About 60 vessels were expected to be dredging east coast and D'Entrecasteaux beds wh

tralia (Contd.):

season reached its peak. This is about ewer vessels than last season.

he Sea Fisheries Division of the Tas- ian Department of Agriculture reported rough weather marred the opening of the on in the D'Entrecasteaux Channel on 14, and only 8 vessels put to sea. Thir- ree vessels worked beds on the east t.

st scallop catches were in the St. Helens where 30 to 40 bags a boat were landed. improved to 100 bags a day for some in the second week of the season.

argest and best-conditioned scallops taken from beds off Triabunna, also on ast coast. Yields were as high as 25 to unds of meats for a bean bag containing en 550 and 700 shell scallops.

he early-season ex-vessel price for ops was 2s.9d. (31 U.S. cents) a pound, which they paid 8d. (7 cents) a pound plitting and cleaning. In April scallops selling for 4s.4d.(48.5 cents) a pound in rt. Most of the early season catch was on the local market, and top-quality ops were packed for export.

gging of 10,000 Port Phillip Bay scal- o obtain information about their growth population density, mortality, and mi- n is planned by the Victorian Depart- of Fisheries and Wildlife.

ers intend to tag in scallop beds in the ana, Sorrento, Portarlington, Corio Bay, Cook, and Mordialloc areas and a re- will be paid for returned tagged scallop . (Australian Fisheries Newsletter, 964.)

* * * * *

RY EXPORTS INCREASE:

stralia is rapidly becoming one of the s leading exporters of high-priced sea- and for the financial year ending June 64, it was anticipated that exports of e products would reach A£10 million .4 million).

r the nine months ending March 1964, s of marine products were valued at t £6 million ($13.4 million) compared with slightly more than £4.5 million ($10.1 million) for the same period in 1962/63. Exports of marine products for the full year 1962/63 were almost £8 million ($17.9 million).

For 1963/64 exports of spiny lobsters (both tails and whole cooked) were expected to reach £7 million ($15.7 million) while shrimp exports were expected to approach £1 million ($2.2 million), according to the Economic Section of the Fisheries Branch of the Department of Primary Industry.

Interesting developments have been increased exports of molluscs, mainly scallops and abalone, which could amount to £150,000 ($336,000) for 1963/64, and the export of about 2,000 short tons of tuna. The items making up the balance of marine exports were pearls, pearl shell, whale products, and a small quantity of canned fish.

United States, France, and Japan are the three main markets for marine products. Exports to the United States for 1963/64 were expected to be about £6.3 million ($14.1 million), consisting of approximately £6 million ($13.4 million) of spiny lobsters, and the balance mainly tuna and shrimp. Spiny lobster exports towards the end of 1963/64 were up about 9 percent from last year. Since there was a recovery in spiny lobster prices on the United States market, the actual value of the exports could exceed the estimate.

Marine exports are now the third largest export trade item to France behind wool and hides. It is thought that for 1963/64 those exports will be worth about £900,000 ($2.0 million), consisting almost entirely of whole spiny lobsters (approximately £750,000 or $1.7 million) and scallops.

Japan is Australia's main market for shrimp and exports for 1963/64 should reach almost £500,000 ($1.1 million). Pearls, and to a lesser extent pearl shell, are also sold to Japan in large quantities. (Australian Fisheries Newsletter, June 1964.)

* * * * *

NEW SOUTH WALES PLANS CHAIN OF SAFE FISHING PORTS:

To link the whole of Australia's New South Wales coastline with a chain of safe fishing ports is the ultimate aim of that State's Government. The plan also is regarded as a step

Australia (Contd.):

towards decentralization of the fishing industry, by providing facilities for its expansion, and paving the way for the development of processing plants and the creation of local employment.

The wholesale value of the commercial fish catch in New South Wales averages between AŁ3.0 million and Ł4.0 million (US$6.7 million and $9.0 million) a year, and the annual catch between 25 million and 30 million pounds of fish.

To date expenditure of more than Ł1.3 million ($2.9 million) has been approved on improvements to 7 fishing ports. Port works already have been completed at Bermagui, Brunswick Heads, Evans Head, and Ulladulla; work is in progress at Tweed Heads and Crowdy Head, while the building of a breakwater at Eden has been authorized.

In a number of coastal ports in the past, fishing vessels have been restricted in their operations by difficult entrance conditions and insufficient depth of water. In some cases vessels have only been able to leave port or return at high tide, and even then some times under dangerous conditions.

The State Government's plan aims to overcome those difficulties by constructing breakwaters, walls, and other associated harbor works so as to give safe entry at all stages of the tide.

The New South Wales Government also is engaged in an improvement scheme for major ports, such as Newcastle, Port Kembla, and the Clarence River mouth.

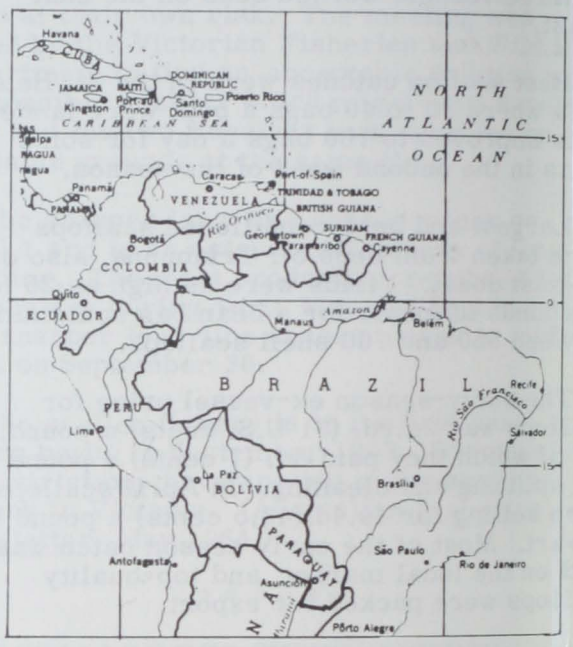
Announcing improvements to the fishing port of Eden, the New South Wales Minister for Public Works said that the greatly increased safety provided by the breakwater would encourage larger boats to operate from the port to exploit fishing grounds off the coast. "It would allow the fleet of 40 vessels to operate on a more efficient basis," he said.

Eden is one of the major New South Wales fishing ports with an annual catch worth more than Ł500,000 ($1.1 million). With the development of the tuna fishery based in that port, the catch is likely to increase in value. (Australian Fisheries Newsletter, May 1964.)

Brazil

WHALING OPERATIONS OFF BRAZIL:

The Japanese whaling vessel Daishin Maru No. 1 is reported to be making good whale catches in the Atlantic Ocean off the Brazilian coast. The vessel, which commenced operations from a base in Brazil on June 18, 1964, is reported to have caught a total of 100 sei whales as of July 27, 1964.



The Brazilian-based whaling enterprise of another Japanese fisheries company is not conducting any whaling operations this year. (Suan Tsushin, July 31, 1964.

Canada

EXTENDED FISHING LIMITS DO NOT APPLY TO UNITED STATES FISHING VESSELS:

In July 1964, Canada proclaimed fishing limits of 12 miles as described in the Territorial Sea and Fishing Zones Act of Canada. However, the extended limits will not apply to United States fishing vessels on either the Pacific or Atlantic Coast. This means United States fishing vessels may continue to fish up to the previously established 3-mile limit of Canadian territorial waters.

Canada will also permit fishing vessels of France, Britain, Portugal, Spain, Italy, Norway, and Denmark to continue to fish in the 3-12 mile zone off Canada on the Atlantic Coast.

The exemptions for the fishing vessels of the United States and the seven European countries were established by the Canadian Government through an order in Council, the text of which follows:

"Whereas negotiations have been under way with the Governments of the United States of America, France, Britain, Portugal, Spain, Italy, Norway, and Denmark respecting fishing off Canada's coast;

da (Contd.):

nd whereas the proclamation of the Territorial Sea and Fi g Zones Act will extend to areas now fished by these co ies the laws of Canada respecting fishing which apply to territorial sea of Canada;

nd whereas at the present stage of negotiations, and in or to facilitate their completion, it is expedient not to ex- te application of the laws of Canada respecting fishing to s fished by the aforementioned countries.

erefore, His Excellency the Governor General in Co l, on the recommendation of the Minister of Fisheries, pu t to section 4 of the Coastal Fisheries Protection Act pleased hereby to amend the Coastal Fisheries Pro- te Regulations in accordance with the Schedule hereto, ef ve on the day fixed by proclamation of the Governor in Co l as the day on which an Act respecting the Territorial Se d Fishing Zones of Canada, Chapter 22 of the Statutes of a da, 1964, shall come into force.

The Coastal Fisheries Protection Regulations are as ed by adding thereto the following section:

'9. (1) Fishing vessels of United States of America are authorized to continue to fish in the fishing zones established by section 4 of the Territorial Sea and Fishing Zones Act.

(2) Fishing vessels of France, Britain, Portugal, Spain, Italy, Norway and Denmark are authorized to continue to fish in the fishing zones on the Atlantic Coast of Canada established by section 4 of the Territorial Sea and Fishing Zones Act.'

The said Regulations are further amended by de- le the words 'Canadian territorial waters' in sections 4, 5, 6 and by substituting therefor the words 'Canadian fi s waters'."

MEAL INDUSTRY TRENDS, ND QUARTER 1964:

l fish meal plants in northern Chile were ted to be operating in mid-1964, although pply of anchoveta was somewhat irregu- There have been sharp fluctuations this in landings of anchoveta, the commer- ish of the Chilean reduction industry. oveta virtually disappeared off the coast ile in March and did not return until April. (The Chilean anchoveta fleet has ited range since the vessels must be to deliver their catch to the fish meal s within a day, or carry ice which is not ble.)

me 20 to 25 fish meal plants were oper- in northern Chile in mid-1964 as the try continued to expand. The largest in Chile is the new facility at Arica has a raw material capacity of 70 tons per hour. The new plant's capacity will be expanded to 120 tons by September 1964.

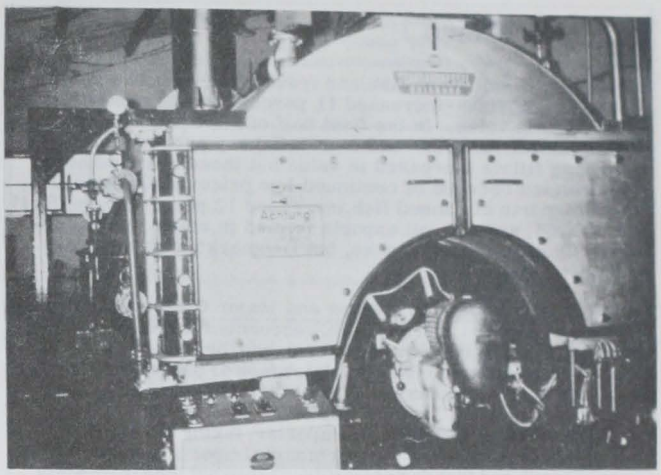


Fig. 1 - Boiler plant of a fish meal plant in San Antonio, Chile.

Fig. 2 - Bagging fish meal at a plant in San Antonio, Chile.

The Chilean fish meal industry is supported by a purse-seine fleet numbering close to 200 vessels. The fleet consists mainly of modern steel vessels of 100 to 170 tons, equipped with echo-sounders, radio communication, and power equipment for handling nets. The Iquique shipyard (which began operating in 1961) laid the keel for its 100th vessel in June 1964. (United States Embassy, Santiago, July 24, 1964.)

Denmark

FISHERY PRODUCTS EXPORTS, JANUARY-JUNE 1964:

Exports to All Countries: Denmark's total exports of fishery products and byproducts to all countries in the first half of 1964 increased 10 percent in value over the same period in 1963, despite a 3-percent decline in quantity and a 5-percent drop in landings during the first 6 months of the year.

Denmark (Contd.):

Danish exports of fresh fish and frozen fish--the two most important categories--increased 11 percent and 22 percent, respectively, in value. In the first half of 1964 prices were slightly better for fresh and frozen fishery products. Exports of herring fillets increased in value but those of round herring declined because of continued low prices in Germany. Danish exports of canned fish increased 13 percent in the first half of 1964, and fish oil exports tripled in value reflecting relatively high fish oil prices, but Denmark's fish meal exports dropped 10 percent.

Exports to Economic Groups and Major Countries: The European Common Market (EEC) accounted for 43 percent of the value of Danish fishery exports, and the European Free Trade Association (EFTA) countries took 41 percent. However, the EFTA increased its imports from Denmark by 24 percent while the EEC gained only 14 percent. Germany continued as the largest individual importer, taking 27 percent of Denmark's fishery exports. Germany's imports from Denmark of fresh and frozen herring decreased but larger imports of herring fillets, other marine fish, and pond trout added up to a total increase of 16 percent. The United Kingdom increased its imports by 32 percent, almost doubling the value of frozen fish fillets imported and also receiving greater direct landings by Danish fishing craft. Sweden and Italy increased their imports from Denmark about one-third but the United States imports dropped by 30 percent.

Exports to the United States: Exports of Danish fishery products to the United States declined 42 percent in quantity and 30 percent in value during the first half of 1964 as compared with the same period in 1963. A 52-percent drop in the value of United States imports of Danish cod fillets (blocks) is ascribed to competition from lower-priced Canadian fishery products in the United States market and a substantially greater demand by buyers in the United Kingdom. Denmark's inability to meet the United States market prices of Japanese trout was responsible for a 46 percent decrease in pond trout imports. Canned herring imports from Denmark were down 12 percent. However, Norway lobster imports from Denmark more than doubled and imports of Danish flatfish more than tripled.

Table 1 - Danish Fishery Products Exports to all Countries, January-June 1964 and Year 1963

Product	January-June 1964			January-Dec. 1963 1/		
	Qty.	Value		Qty.	Value	
	Metric Tons	1,000 Kr.	US$ 1,000	Metric Tons	1,000 Kr.	US$ 1,000
Fresh, Frozen, & Cured:						
Fresh fish	94,231	162,368	23,543	200,519	314,100	45,545
Frozen "	24,641	84,340	12,229	46,538	152,097	22,054
Salted "	1,683	6,319	916	9,945	26,881	3,898
Smoked "	297	4,414	640	517	7,322	1,062
Canned Products:						
Fish	2,918	10,825	1,570	5,507	20,474	2,969
Shellfish	609	4,565	662	1,952	12,738	1,847
Semipreserved Products:						
Fish	695	4,158	603	1,663	9,291	1,347
Shellfish	434	2,562	372	168	2,625	380
Other Products:						
Fish meal, solubles, ensilage, and trout food	29,064	25,739	3,732	72,507	65,372	9,478
Total	154,572	305,290	44,267	339,316	610,900	88,580
	January-May 1964					
Fish oil 2/. . . .	11,015	12,994	1,877	20,754	18,607	2,698

1/Record year for quantity and value.
2/Fish oil data are shown separately because they are collected by another Ministry and often are delayed.
Note: One Danish krone equals US$0.145.
Source: Preliminary data from Ministry of Fisheries.

Table 2 - Value of Danish Fishery Products Exports by Economic and Major Countries, January-June 1964

Destination	January-June 1964 1/		January-Dec. 1
	Value 1,000 Kr.	US$ 1,000	Value 1,000 Kr.	US$ 1,000
By Economic Groups:				
Common Market (EEC).	131,000	18,995	260,000	37,7
European Free Trade Assn. (EFTA-including Finland)	126,000	18,270	225,000	32,6
East Bloc countries	12,000	1,740	30,000	4,3
Other countries	36,000	5,220	114,500	16,6
Total	305,000	44,225	629,500	91,2
Major Importers by Country:				
West Germany	81,000	11,745	159,000	23,0
United Kingdom	58,000	8,410	109,000	15,8
Sweden	40,000	5,800	59,000	8,5
Italy	22,000	3,190	39,000	5,6
Switzerland	20,000	2,900	36,000	5,2
United States	14,000	2,030	46,500	6,7

1/Preliminary.

Table 3 - Danish Fishery Products Exports to the United States, January-June 1964

Product	January-June 1964			January-Dec. 196		
	Qty. 1/	Value		Qty.	Value	
	Metric Tons	1,000 Kr.	US$ 1,000	Metric Tons	1,000 Kr.	U
Fresh & Frozen:						
Fillets:						
Cod	1,811	5,702	827	8,934	27,919	4,
Other fillets	85	370	54	769	1,283	
Pond Trout	226	1,784	259	784	6,103	
Flatfish 2/	164	1,414	205	130	726	
Norway lobster	107	2,020	293	212	4,368	
Other	1	75	10	13	141	
Cured Products:						
Salted & Smoked 3/	21	77	11	105	207	
Canned Products:						
Herring & sprat	269	1,282	186	556	2,977	
Shrimp	67	664	96	175	1,654	
Mussels	31	177	26	57	350	
Other	10	58	8	40	227	
Semipreserved products	8	95	14	20	240	
Fish solubles	100	96	14	400	344	
Total exports to U.S.	2,900	13,814	2,003	12,195	46,539	6

1/Preliminary.
2/Mostly turbot, brill, plaice, and sole.
3/Mostly cod, salmon, eels.

Future production of Jutland cod fillets are expected t less available to United States buyers than those from B holm, the Faroe Islands, and Greenland, because of the d mand for local processing into consumer and institutiona packs of breaded fillets, sticks and portions.

A larger production of pond trout (possibly 10 to 20 pe cent) is expected this fall and next year. The increase is result of a greater survival of fingerlings due to lower l from disease, resulting from raising the fingerlings in c crete rather than earthen ponds, and the use of dry food stead of wet food. (Regional Fisheries Attache for Euro United States Embassy, Copenhagen, July 29, 1964.)

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mark (Contd.):

ERIES TRENDS:

anuary-June 1964: LANDINGS: In the half of 1964, landings in Danish ports by sh vessels were down 12 percent from e in the same period of 1963 due mainly substantial decline in the catch of indus- fish. The Norway pout fishery has been ure, and sand eel landings for the reduc- ndustry were down about 25 percent. ecline was partly offset by heavier local ngs by Danish vessels of flatfish, her- and brisling. In addition, foreign ves- (mainly Swedish) increased their land- (mostly herring) in Danish ports. Dan- ssels also increased their landings in gn ports, which consist mainly of cod laice deliveries to England.

Table 1 - Danish Fishery Landings, January-June 1964 with Comparisons

Item	Jan-June 1964	Change from Jan.-June 1963	
	Quantity	Plus	Minus
	Metric Tons	. . (Percent) . .	
Landings in Danish Ports:			
Danish vessels:			
fish[1]	32,257	11	-
	42,258	1	-
-like fish[2]	17,665	-	49
ring	117,547	37	-
ling	4,071	45	-
kerel	2,958	-	22
	546	-	20
mon	558	-	71
d trout	4,236	15	-
er fish[3]	109,110	-	39
way lobster	1,015	114	-
mp	2,050	-	28
sel	7,965	49	-
shellfish	22	-	46
fish	2,206	222	-
tal by Danish ves- els in Danish ports	344,464	-	12
ign vessels in sh ports	88,513	35	-
l landings in ish ports	432,977	-	5
gs in Foreign Ports:			
ish vessels	2,831	95	-

, flounder, dab, common sole, etc.
ck, coalfish, hake, ling, etc.
industrial fish such as sand eels, Norway pout, etc.

OCESSING: Danish production of proc- ed fishery products in January-June 1964 in ed substantial quantities of cod fillets, hg fillets, plaice fillets, and canned her- Comparative production data for 1963 a ot available, but export summaries in- d that more fish have been frozen, s ed, and canned in Denmark in the first h of 1964 than in the same period of 1963.

Table 2 - Danish Production of Processed Fishery Products, January-June, 1964

Product	Jan.-June 1964
	Quantity
	Metric Tons
Canned:	
Herring & sprats	1,901
Mackerel	325
Other fish	3,011
Mussels	258
Other shellfish	582
Semi-preserved:	
Herring & sprats	2,246
Other fish	224
Mussels	318
Fresh & Frozen Fillets:	
Cod	14,138
Cod-like fish[1]	758
Plaice	7,152
Other flatfish	486
Herring	16,603
Other fish	132
Smoked:	
Herring & sprats	822
Mackerel	662
Eels	341
Salmon & trout	222
Other fish and shellfish	121
Miscellaneous:	
Force meat[2]	772
Salted herring	11
Dry-salted cod	394
Other fishery products[3]	3,790
Industrial Products:	
Meal	39,582
Oil	10,555
Ensilage[4]	3,018
Solubles	4,905

1/Haddock, coalfish, hake, ling, etc.
2/Groundfish, milk, and flour.
3/Excluding industrial products.
4/Chemically treated raw fish.

July-August 1964 (Preliminary): Danish landings in July 1964 were substantial, but ex-vessel prices showed some decline. Despite a good export market, Danish processing plants were unable to handle the increased supplies because most of their workers began vacations in July.

One of Denmark's largest processing plants opened an affiliated plant in West Germany in August 1964 in order to avoid European Economic Community (EEC) tariffs on fishery products sold in the EEC countries. Initially, production at the new plant will consist of semipreserved fishery products but eventually all types of processed fishery products will be produced at the new West German facility. The greater part of the raw material for the plant will be obtained at Danish fishing ports. (Regional Fisheries Attache for Western Europe, United States Embassy, Copenhagen, August 12, 1964.)

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Denmark (Contd.):

FREEZERSHIP-TRAWLERS BUILT FOR SOVIET UNION:

The M/S Geizer, the final vessel in another series of four freezership-trawlers ordered by V/O Sudoimport, Moscow, from a Danish shipyard in Copenhagen, was christened on August 5, 1964. It will be the 28th freezer vessel delivered to the Soviet Union by the Copenhagen shipyard since 1932. The specifications and other particulars of the Geizer (91 meters long, 2,550 deadweight tons, and accommodations for a crew of 106) are similar to those of the Grumant, Golfstrim, and Skazachnik Andersen launched earlier in 1964.

Shows the partially completed M/S Geizer in construction drydock at a Copenhagen shipyard.

In September 1963, the Danish shipyard completed Soviet delivery of a previous series of four freezership-trawlers. Four more are to be delivered in 1965. Four additional vessels for delivery by the end of 1966 were ordered from Copenhagen by the Soviets in June 1964 at a cost of about Kr.25 million (US$3.6 million) each.

Some of the new Soviet freezerships operate out of Murmansk and Vladivostok off the Siberian north coast and in the northern part of the Pacific Ocean, according to Danish newspaper reports. They serve as motherships for trawlers catching cod, flatfish, and ocean perch, acting as a link in the freezer chain which ends in the Soviet retail outlets. On the freezership, which also may act as a stern trawler, the catch is mechanically headed and gutted, before being packed in blocks for freezing. Mechanization has made it possible to freeze 50 metric tons of blocks per day with 4 men. The new freezerships also carry a fish meal plant with a daily capacity of 30 tons of raw material. Cod livers are rendered into cod-liver oil in a separate plant. The frozen fish are either taken to receiving ports by the freezerships or delivered at sea to transport vessels. (Regional Fisheries Attache for Europe, United States Embassy, Copenhagen, August 12, 1964.)

* * * * *

TESTS INDICATE ARTIFICIAL "SEAWEED" MAY HELP PROTECT SHORELINE:

A Danish firm has developed an artificial "seaweed" and conducted an experiment with the material in an attempt to control currents and waves, thereby protecting the shoreline. The results of that experiment attracted the interest of the Danish Maritime Board which has scheduled further tests with the artificial "seaweed."

The objective of the experiments is to retard bottom currents by the use of an artificial obstacle. The artificial "seaweed," used in the obstacle, consists of polyesterene strips which are tied together and weighted at one end. That permits the other end of the strips to wave and float about in the currents, thus retarding the flow. The polyesterene strips has a density of about 0.9 which gives it a tendency to float. The first experiment with the artificial "seaweed" by the manufacturing company resulted in the deposit of almost 3,000 tons of sand over a period of 12 weeks in a 1,600-square-meter area along the western coast of Jutland.

Plans called for a test by the Danish Maritime Board to begin in late July 1964 off the western coast of Jutland in an area where the Atlantic surf has been washing away the coastal area. The Maritime Board test was to take place between two concrete jetties extending

Denmark (Contd.):

...the Atlantic Ocean. The purpose of the ...tee is to protect the shoreline by building up ...nd deposits near the end of the jetties ...which are about 300 meters apart. Between ...the jetties, 10 lines of rope were to be laid ...about 1½ meters apart. The ropes were to ...be weighted and the polyesterene artificial "seaweed" was to be tied to the ropes. In the ...next tests, the polyesterene strings used have ...more resemblance to a flat ribbon than those ...used in the first test by the manufacturing ...company. It was expected that the flat ribbon ...design would set up more resistance to the ...flow along the ocean bottom.

...The artificial polyesterne "seaweed" has ...been patented by the Danish manufacturing ...company which has signed agreements giving ...a United States oil firm an option on the pat...ent. (United States Embassy, Copenhagen, ...June 24, 1964.)

Fiji Islands

JOINT JAPANESE-BRITISH TUNA BASE IN FIJI ISLANDS COMPLETED:

...The joint British-Japanese tuna base at ...Levuka, Fiji Islands, opened in early August ...1964. The base is beginning operations with ...17 fishing vessels, but plans to eventually in...crease that fleet to 26 vessels.

...The facilities include a 2,000-ton cold-sto...rage warehouse, a 60-ton freezing unit, a 30...-ton ice-making plant, and a 600-ton ice-sto...rage facility. Annual landings of 9,650 ...metric tons at the new base have been fore...cast, of which 6,750 tons are expected to be ...exported and 2,900 tons shipped back to Ja...pan. The base has a frozen tuna export quota ...of [illegible]0 short tons. (Suisancho Nippo, August ...6, [illegible]4, and other sources.)

...Commercial Fisheries Review, July 1964 p. 59, March ...1953.

Ghana

TECHNICAL FISHERY SERVICE AGREEMENT MADE WITH JAPAN:

...Ghana, which in February 1964 contracted to ...purchase ten 1,850-ton trawlers and two 1,850-ton carrier vessels from a Japanese fishing firm, in July 1964 made arrangements to receive technical fishery service from the Japanese firm for the operation of those vessels. The agreement was to be formalized when the Ghanaian Minister of Commerce and the president of the Ghanaian Fisheries Corporation visited Japan in early August. About 50 Japanese crews, including the captain and the engineer, were to board the first fishing vessel to be delivered to Ghana in August this year. The second vessel is scheduled for completion by the end of this year, the third, in in June 1965, with final completion of all vessels scheduled for 1967.

Under an ambitious program to expand her fishing fleet, Ghana is also reported to have ordered a large number of fishing vessels from other countries. They include six 1,800-ton trawlers ordered from Norway, two 500-ton trawlers from Great Britain, and 18 trawlers (ten 60-ton two-boat trawlers and eight 200-ton trawlers) from the Soviet Union. Prior to this, Ghana purchased three 1,000-ton side trawlers from the Soviet Union and two stern trawlers from Great Britain, all of which are already in service. Under technical service agreements concluded with those two countries, 15 Russian crews are aboard the vessels built by the Soviet Union and 3 British nationals are serving aboard the British-built trawlers. (Suisancho Nippo, July 29, 1964.)

Greenland

FAROESE FISHING RIGHTS IN GREENLAND WATERS TO BE RENEGOTIATED:

Faroese fishing rights in Greenland waters will be considerably reduced in 1967 unless a fishing rights agreement concluded in 1959 is renewed. In the summer of 1964, plans were announced for negotiations between the 2 countries to determine the future of the agreement.

Greenland had expected the present agreement to lead to close cooperation with Faroese fishing interests, thereby providing a supply of raw material for the developing fish-processing industry in Greenland. It was also hoped that the Faroese would train Greenland fishermen in the use of modern fishing methods. It seems, however, that those expectations have not been completely fulfilled.

It is claimed that £5 million (US$14 million) has been invested in the development of

Greenland (Contd.):

fish-processing plants in Greenland. Those plants are threatened with a shortage of fish. It is expected that Greenland will insist on a much larger supply of fish from Faroese fishing vessels if the present fishing agreement between the two countries is extended beyond 1967. (The Fishing News, June 26, 1964.)

Guatemala

SHRIMP FISHING
INVESTMENT OPPORTUNITY:

The U. S. Trade and Industrial Development Mission to Central America and Panama has described the following shrimp fishing investment opportunity in Guatemala:

A family-owned shrimp fishing enterprise, wishing to expand operations, is seeking a joint venture with United States fishing interests. The Guatemalan firm holds one of the limited number of shrimp fishing licenses issued by the Guatemalan Government. The firm wants to purchase additional vessels and build a wharf on land which it holds under long-term lease. An investment of about US$300,000 would be required. The current net worth of the company is declared to be $78,800. The firm's volume of business is reported to average around $280,000 a year. In 1962, the company produced 247,000 pounds of shrimp, 88,000 pounds of fish, and 9,000 pounds of other fishery products.

For additional details write: Guillermo Matheu Bacohar, 7a Calle 9-21, Zona 1, Guatemala City, Guatemala. Correspondence should include the reference: IR 2. (International Commerce, August 17, 1964, U. S. Department of Commerce.)

* * * * *

JOINT JAPANESE-GUATEMALAN
SHRIMP OPERATIONS:

The joint Japanese-Guatemalan shrimp enterprise established at Champerico, Guatemala, is annually producing 1,000 metric tons of frozen shrimp. Most of the production is exported to the United States, principally to New York and Los Angeles, and a small portion is sold on the domestic market. Small shrimp are also exported to Japan. The joint shrimp base, which is operating at full capacity, is said to be unable to increase production beyond the present level because of the limited capabilities of its shrimp fishing fleet.

A fleet of 30 wooden shrimp trawlers (5 72 gross tons each), equipped with high-sp engines and mechanical refrigeration, are operation. Each trawler is jointly manned a five-man Japanese-Guatemalan crew, wi the Japanese holding positions of captain a engineer. Catch per two-week trip averag 2-3 tons, but at times runs as high as 5 to (Suisancho Nippo, August 14, 1964.)

Iceland

SALMON FARM
INVESTMENT OPPORTUNITY:

An Icelandic firm has been carrying out scientific experiments in the development a unique crossbreed of salmon (Salmo trut islandia). The firm is now seeking additio capital to develop commercial salmon farm The firm, which is presently capitalized at $35,000, plans a number of relatively smal installations, rather than one large fish-re ing center, both for the accessibility of fre water and to minimize the danger of disea in the fish. It is estimated that in about 2 years the first section of the planned insta tion would produce 100 tons of salmon a y with total production gradually increasing around 1,500 tons a year.

It is anticipated that the new breed of s on will enjoy a good demand from institut users in the United States and European h ury resort areas. United States firms int ested in participating in the development the salmon farms on a joint venture basis the Icelandic firm may obtain additional i mation by writing to the Bureau of Interna al Commerce, Office of International Inve ment, File 5-0989-1-S, U. S. Department Commerce, Washington, D. C. 20230.

* * * * *

FISHERY LANDINGS BY PRINCIPAL SPECIES, JANUARY-MARCH 1964:

Species	January-March	
	1964	1963
	. . . . (Metric Tons) . .	
Cod	88,607	71,530
Haddock	17,828	16,590
Saithe	8,330	3,160

(Table continued on next pa

Iceland (Contd.):

...cies	January-March	
	1964	1963
	... (Metric Tons)	
H...	2,249	2,784
W... (catfish)	3,360	6,329
C...	2,346	3,535
C... perch	3,507	3,987
H...	240	284
H...	64,366	62,420
S...	45	291
C...	8,640	-
C...	1,133	1,305
...tal	200,651	172,221

H... Except for herring which are landed round, all fish are ... weight.

* * * * *

UTILIZATION OF FISHERY LANDINGS, JANUARY-MARCH 1964:

Utilized	January-March	
	1964	1963
	....(Metric Tons)....	
H... 1/ for:		
...d meal	51,707	43,812
...ing	9,428	9,059
...g	3,231	4,646
...on ice	-	4,904
C... fish 2/ for:		
...on ice	11,744	11,417
...ng and filleting	54,793	52,401
...	31,193	20,982
...fish (dried unsalted)	25,594	20,165
...ng	24	-
...consumption	3,231	3,767
...l meal	1,021	778
C... for:		
...ng	133	-
...l meal	8,507	-
S... for:		
...ng	20	267
...g	25	23
...l production	200,651	172,221

1/ ... fish.
2/ ... fish.
... Aegir, June 15, 1964.

Inm...

JO... JAPANESE-INDIAN FISHING FIRM CO... ENTRATES ON SHRIMP:

...oint fishing venture established in India al... 10 years ago by a large Japanese fish- in... ...mpany and an Indian firm is reported to be... ...ecting its main effort to shrimp fishing. In... ...y, the base commenced operations as a tr... ...ng base for bottomfish such as red snap- pe... ...oaker, and Spanish mackerel, but sev- er... ...ears ago it began to concentrate on sh... ...p fishing following the discovery of good sh... ...p grounds off Cochin.

Seven shrimp trawlers (from 15 to 75 gross tons) are operating out of that base. Production per vessel reportedly runs as high as 500 boxes (33 lbs. per box) per day. Large shrimp are mostly frozen and exported to the United States, Europe, and Japan. The joint firm is planning on adding 10 shrimp trawlers to its fishing fleet.

Trawl operations for bottomfish are being conducted with the company's two-boat trawler based at Bombay. The vessel is manned jointly by Japanese and Indian crewmen. (Nihon Suisan Shimbun, August 10, 1964.)

Italy

JAPANESE FROZEN TUNA SALES TO ITALY IMPROVING:

Japanese frozen tuna sales to Italy, which had sharply declined in the second quarter of 1964, were reported improving as of late July, with active offers being made by Italian packers. Tuna packing in Italy, which had been partly reduced or completely suspended due to the unfavorable foreign exchange situation in that country, was back in full swing at most of the plants as a result of large canned tuna orders placed by the Italian armed forces. Italian offers for Japanese tuna were being made at US$300 a metric ton for yellowfin and US$275 a metric ton for big-eyed, c.i.f. Italy. (Nihon Suisan Shimbun, July 24, 1964.)

* * * * *

JOINT JAPANESE-ITALIAN TUNA VENTURE:

A Japanese fishing company in July 1964 was authorized by the Japanese Fisheries Agency to participate in a proposed joint tuna venture with an Italian firm. The Japanese firm is to contribute the equivalent of 30 million yen (US$83,333) of the total capital investment of 100 million liras (US$160,000) for the enterprise, which will be established in Italy. The venture includes the operation of a 1,500-ton two-portable boat-carrying tuna mothership, to be built in Italy. However, since the vessel construction has not yet been started, it appears likely that this venture will not go into full-scale operation until the summer of 1965.

The Japanese firm will conduct the fishing operations and the Italian partners will sell

Italy (Contd.):

the catches to Italian packers. Annual production of tuna is expected to total around 2,000 metric tons. (Suisancho Nippo, July 29, 1964.)

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MARINE OIL FOREIGN TRADE, 1962-1963:

Italy's foreign trade in marine oils in 1962 and 1963 consisted almost entirely of incoming shipments as exports were insignificant. Italian imports of marine oils (other than liver oils) in 1963 were down 16.5 percent from those in the previous year due mainly to a sharp drop in shipments from the Netherlands. Italian imports of marine liver oils in 1963 showed a modest gain from the previous year. (United States Embassy, Rome, April 13, 1964.)

Italy's Foreign Trade in Marine Oils, 1962-1963

Commodity and Country of Origin or Destination	Imports		Exports	
	1963	1962	1/1963	1962
	(Metric Tons)			
Marine Fats and Oils (other than liver oils):				
Finland	-	50	-	-
France	1,079	1,494	-	-
West Germany	116	105	-	-
Norway	4,432	4,441	-	-
Netherlands	626	2,298	-	-
Portugal	706	739	-	-
United Kingdom	255	183	-	-
Morocco	1,947	1,526	-	-
South Africa Republic	6	55	-	-
Canada	297	-	-	-
Peru	114	125	-	-
United States	163	-	-	-
Other countries	121	796	13	17
Total marine fats and oils (other than liver oils)	9,862	11,812	13	17
Marine Liver Oils:				
Finland	19	-	-	-
France	43	3	-	-
West Germany	58	26	-	-
Iceland	22	39	-	-
Norway	607	526	-	-
Portugal	491	618	-	-
United Kingdom	198	117	-	-
Other countries	40	36	1	2
Total marine liver oils	1,478	1,365	1	2

1/Export data for 1963 limited to January-October period.

Ivory Coast

PLANS FOR FISHERY DEVELOPMENT:

Developments and plans for expansion of the commercial fisheries of the Ivory Coast were outlined in a feature article titled "Important Expansion of Industrial Fishing Planned to Satisfy Growing Demand for Fish," published this past summer in Abidjan's local daily newspaper Matin. A translation of the article follows:

"As a result of technical development, traditional fishing is being replaced more and more by industrial fishing. This is a result of progress and wealth. A great change has taken place from the pirogues to fishing boats who now go fishing with a maximum of safety. Without these new techniques, it would be impossible to venture to the offshore fishing banks, since fishing is more or less hazardous. Fish are seldom seen during the rainy season; the temperature is too low at the surface of the sea, pushing the fish to the deeper water.

"Fishing will become an important industry in the future. The Director of the Fishing Port released the following information about the development of industrial fishing in the Ivory Coast, the creation of an Ivoirien fishing fleet being the objective:

"Fishing Boats and Production: There are now 67 fishing boats in Abidjan. Production in 1963 was between 30,000 and 35,000 tons, valued at 45 CFA per kilo on the dock (approx. 8.2 U.S. cents per pound), or a total value on the dock of 1,350,000,000 to 1,575,000,000 CFA (approx. US$5.4 million to 6.3 million). To this must be added production from the traditional fishery of 15,000 tons of a value of 675,000,000 CFA (US$2.7 million).

"Projects: 1. Modernization of the fishing fleet.

"2. Creation of a joint company; The 'Fond d' Aide et de Cooperation' (FAC) will finance 300,000,000 CFA (US$1.2 million).

"3. Construction of three fishing vessels for sardine and tuna to be equipped for freezing.

"Two private companies have already bought fishing vessels equipped for freezing. They will fish in the high seas, using the new 'pelagic trawl' and the purse seine for tuna. The 'pelagic trawl' will protect the deep-sea life.

"Traditional Fishing: For the small fishermen, some 10-ton fishing vessels built locally and equipped with Diesel engines will replace the motorized pirogues. These boats can be operated by Ivoirien fishermen with

Ivory Coast (Contd.):

little training and are not too expensive (3 to 4 million CFA) (approx. US$12,000 to $16,000).

The Fishing Service of the Ivory Coast will get another fishing vessel for sardine and tuna, equipped with freezing facilities, and some fishermen will be trained on board as has been done before on the Reine-Pokou.

Research Must be Directed to the Mining Banks: The research directed to the mining banks will provide continuous knowledge of the best fishing areas and the catching methods to be used.

Construction of a Cold Storage: The fish market is very irregular in the Ivory Coast, and trade is very difficult. The Ivoirien Government has decided on the construction of a large cold-storage plant to help to stabilize the price of fish. The characteristics of the cold storage are: 50 tons of ice per day; 400 tons of storage capacity at 0° C. (32° F.); 60 tons of freezing capacity; 1,500 to 3,000 tons of storage capacity at -20° C. (-40° F.); and 350 tons of fresh frozen food at less than -20° C.

Expansion of Fish Distribution Facilities: The new cold-storage plant is the first step of a commercial fish distribution system for all the Ivory Coast and the Upper Volta. At the end of this year the company 'Franco-Ivoirienne,' equipped with a freezer vessel of 30 meters (about 170 feet) in length, will produce 300 to 400 tons of fish monthly, frozen and packed in 23-kilogram cartons about 500 pounds. These will be sold locally and also delivered by trucks or by rail to the principal cities of the Ivory Coast.

Smoke-Curing City Fish Factories: Smoke-curing is in the long run the cheapest method of preservation. A project of a 'City of Smoke-Curing' is being studied. It will include 500 smoke-curing facilities and an area where workers' housing will be built.

There are already two tuna canneries which produce 40 tons of products daily. A project calling for a factory of 50 tons daily capacity will be realized soon. This plant will produce fish meal for human consumption and fish oils for industrial uses.

At last we can say that the fishing industry of the Ivory Coast will see very important developments in the near future."

The United States fishery observer in Abidjan reports that most of the plans described in the article are proceeding. The new "Port de Peche" (Fishing Port) had been open for several months for unloading purposes, and construction of the cold-storage plant was about 25 percent completed. The vessel for the Fishing Service referred to in the article is the research and training vessel provided by the U. S. Agency for International Development which was expected to be delivered in a few months.

According to local Ivory Coast reports, the beginning of a fish distribution system as described in the article should take place in the fall of 1964, probably using the existing railroad (with terminus at Ouagadougou, Upper Volta) as the first means of transportation, with refrigerated trucks to come later. The two factories mentioned are the two small tuna canneries now existing (one cans pineapple in season and tuna when plentiful). Plans for a larger tuna cannery at the new "Port de Peche" are on paper, but are probably a little further away in actual realization than the other developments. (Fisheries Attache, United States Embassy, Abidjan, August 18, 1964.)

Note: See Commercial Fisheries Review, September 1964 p. 70.

Japan

EXPORT VALIDATIONS FOR FROZEN TUNA AND TUNA LOINS TO U.S.

January-July 1963-64: Japan's export validations of frozen tuna and cooked frozen tuna loins to the United States during January-July 1964 totaled 63,329 short tons, an increase of 21,267 short tons (50 percent) as compared with exports during the same period in 1963. Albacore exports increased 90 percent, yellowfin 18 percent, skipjack 18 percent, and tuna loins 68 percent. Exports of big-eyed tuna declined 13 percent. Only 1 short ton of bluefin tuna was exported during the period, compared with 374 short tons exported in 1963.

Japanese tuna industry sources attribute the heavier than normal frozen tuna exports to the United States for the first six months in 1964 as compared with last year's shipments during this period to: (1) good supplies of summer albacore caught off the coast of Japan, and (2) lack of demand for tuna by the Japanese tuna canning industry because of the

Japan (Contd.):

Japan's Export Validations for Frozen Tuna and Tuna Loins to U.S., Jan.-July 1963-64

Species	Direct	1964 Trans-shipped	Total	Direct	1963 Trans-shipped	Total	Total Exports 1963
			(Short Tons).				
Albacore, round	15,649	18,233	33,882	4,424	13,382	17,806	36,737
Yellowfin:							
Round	-	616	616	-	463	463	-
Gilled & Gutted:							
20/100 lbs.	14,761	2,182	16,943	11,312	3,248	14,560	-
100 lbs. up	1,517	-	1,517	164	-	164	-
Drsd. with tail	25	2,776	2,801	-	3,062	3,062	-
Fillets	33	12	45	195	96	291	-
Total	16,336	5,586	21,922	11,671	6,869	18,540	33,370
Big-eyed:							
Gilled & gutted	30	30	60	20	4	24	-
Drsd. with tail	-	170	170	-	240	240	-
Fillets	37	3	40	6	42	48	-
Total	67	203	270	26	286	312	316
Bluefin fillets	-	1	1	-	374	374	374
Skipjack, round	8	2,800	2,808	70	2,312	2,382	3,762
Loins:							
Albacore	2,117	-	2,117	1,111	-	1,111	2,998
Yellowfin	2,329	-	2,329	1,537	-	1,537	3,083
Bluefin	-	-	-	-	-	-	157
Total	4,446	-	4,446	2,648	-	2,648	6,238
Grand total	36,506	26,823	63,329	18,839	23,223	42,062	1/80,797

1/Revised.

sluggish market in the United States for tuna canned in brine. Direct shipments of round albacore increased from 4,424 short tons during January-July 1963 to 15,649 short tons in 1964, an increase of 254 percent; direct shipments of yellowfin increased 40 percent. Frozen tuna validated for export during January-July 1964 amounted to 78 percent of the total exported for the entire year in 1963. (Fisheries Attache, United States Embassy, Tokyo, August 19, 1964.)

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January-June 1963-64: Japan's export validations of frozen tuna and cooked frozen tuna loins to the United States during January-June 1964 totaled 48,434 short tons, an increase of 28 percent as compared with 37,948 short tons for the same period in 1963. Of the total shipments of 48,434 tons authorized to be shipped during that period in 1964, albacore amounted to 23,423 tons or 48 percent, yellowfin 18,398 tons or 38 percent, skipjack 2,781 tons or 6 percent, and tuna loins 3,710 tons or 8 percent. The shipment of big-eyed tuna authorized was very small.

In January-June 1963, the percentage exported by species was: albacore 42 percent,

Japan's Export Validations for Frozen Tuna and Tuna Loins to U. S., June 1964 and January-June 1963-64

Species	June 1964			Jan.-June 1964			Jan.-June 1963		
	Direct	Trans-shipped	Total	Direct	Trans-shipped	Total	Direct	Trans-shipped	To
			(Short Tons).						
Albacore:									
Round	1,424	1,466	2,890	10,224	13,199	23,423	4,129	11,970	16
Yellowfin:									
Round	-	78	78	-	606	606	-	455	
Gilled & Gutted:									
20/100 lbs.	3,400	80	3,480	12,119	1,996	14,115	10,332	2,392	12
100 lbs. up	284	-	284	1,281	-	1,281	164	-	
Drsd. with tail	18	209	227	25	2,335	2,360	-	2,919	2
Fillets	-	-	-	33	3	36	195	93	
Total	3,702	367	4,069	13,458	4,940	18,398	10,691	5,859	16
Big-eyed:									
Gilled & gutted	-	-	-	-	5	5	20	4	
Drsd. with tail	-	55	55	-	79	79	-	199	
Fillets	30	1	31	37	1	38	6	36	
Total	30	56	86	37	85	122	26	239	
Bluefin	-	-	-	-	-	-	-	374	
Skipjack:									
Round	-	909	909	8	2,773	2,781	70	2,312	
Loins:									
Albacore	415	-	415	1,854	-	1,854	881	-	
Yellowfin	416	-	416	1,856	-	1,856	1,397	-	
Total	831	-	831	3,710	-	3,710	2,278	-	
Grand total	5,987	2,798	8,785	27,437	20,997	48,434	17,194	20,754	37

Source: Japan Frozen Food Export Association.

yellowfin 44 percent, skipjack 6 percent, a tuna loins 6 percent. Shipments of bluefin and big-eyed were very small. (Fisheries Attache, United States Embassy, Tokyo, J 27, 1964.)

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ATLANTIC TUNA EXPORTS, JANUARY-JUNE 1964:

Japanese Atlantic-caught tuna exports proved by the Japan Export Frozen Tuna ducers Association during January-June 1 are shown in the table. Transshipments Atlantic tuna to the United States during t period totaled 19,887 short tons and expo

Table 1 - Atlantic Frozen Tuna Transshipments to the United States, January-June 1964 with Comparisons

Species	Year	Jan.	Feb.	Mar.	April	May	June	T
				(Short Tons)				
Albacore	1964	2,689	4,048	3,130	598	948	1,649	13
	1963	3,502	3,725	2,467	1,678	265	162	11
Yellowfin	1964	1,260	663	869	868	323	867	
	1963	564	705	1,085	1,731	1,209	50	5
Big-eyed	1964	-	-	3	-	2	81	
	1963	59	22	19	77	43	-	
Bluefin	1964	-	-	-	-	-	21	
	1963	98	-	3	213	67	-	
Skipjack	1964	184	153	86	315	590	540	1
	1963	193	301	261	592	129	-	1
Total	1964	4,133	4,864	4,088	1,781	1,863	3,158	1
	1963	4,416	4,753	3,835	4,291	1,713	212	1

Jap(Contd.):

Table 2 - Atlantic Frozen Tuna Exports to Italy, January-June 1964 with Comparisons								
Sp	Year	Jan.	Feb.	Mar.	April	May	June	Total
		. . .			(Metric Tons)	. .	. .	. .
AL	1964	60	37	18	13	24	65	217
	1963	267	-	114	353	57	141	932
Ye	1964	2,059	1,282	1,134	1,615	1,305	1,253	8,648
	1963	668	135	577	3,653	3,990	1,904	10,927
Bi	1964	650	200	134	250	298	437	1,969
	1963	530	243	216	628	735	645	2,997
Bi	1964	321	55	-	363	488	846	2,073
	1963	428	11	4	578	718	907	2,646
Sk	1964	-	-	-	16	-	-	16
	1963	-	-	-	-	-	-	-
	1964	3,090	1,574	1,286	2,257	2,115	2,601	12,923
	1963	1,893	389	911	5,212	5,500	3,597	17,502

TT 3 - Atlantic Frozen Tuna Exports to Other European & African Countries, anuary-June 1964 with Comparisons		
C try of D nation	Quantity	
	1964	1963
	. (Metric Tons) .	
Y slavia	7,124	6,109
O European & African ntries	4,936	1/

1/ ty omitted due to misprint in the original Japanese article.

to ope and Africa amounted to 24,983 metrics. (Suisancho Nippo, July 10, 1964.)

* * * * *

TU CANNERS AND EXPORTERS
DI S DROP IN EXPORTS
OF NNED TUNA TO U. S.:

tic Japan Export Tuna Packers Associa- to August 12, 1964, held its fifth meeting in erate on ways and means of overcom- tu slow movement of Japanese canned th brine exports to the United States. At to eting, the Association directors agreed tu to exporters 900,000 cases of canned ne brine during the remainder of the busi- 45 ear (December 1963-November 1964)-- an cases during August and September, be ,000 cases during October and Novem- bo rices were to be determined at the st of directors meeting. In an effort to ta ate exports to assure attainment of that ne the directors agreed to have the Can- na Sales Company (representing canners) conduct sales directly with the 18 outlet firms belonging to the Canned Foods Exporters Association, instead of selling to the Association, which is the procedure normally used.

Opinions within the Japan Foods Exporters Association on this latest canners' offer were divided, one group favoring the idea and the other opposing it to the extent of even urging that the exporters torpedo the packers' plan. On August 14, the Tuna Subcommittee of the Exporters Association formed a countermeasures committee to study the canners' new sales plan since it felt that direct dealings between packers and exporters may create undue competition among exporters and may even disrupt market conditions. The countermeasures committee met on August 17 and 18, but the details of the meeting were not disclosed. However, it seems likely that the Association will go along with the canners' offer of the 900,000 cases planned for export during the remainder of the business year.

Meanwhile, the Exporters Association agreed to provisionally export 35,000 cases of lightmeat tuna in brine packed in 4-lb. cans (6 cans to case). That shipment is part of the 80,000 cases of lightmeat tuna that had been scheduled for sale in July. Sales of the balance of 45,000 cases (7-oz. 48's and 13-oz. 24's) were being witheld pending conclusion of a price agreement with the canners. (Suisan Tsushin, August 12, 15, & 19; Suisan Keizai Shimbun, August 14, 1964.)

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REDUCTIONS PROPOSED FOR CANNED TUNA EXPORT QUOTA AND PRICES:

At a meeting between the Japan Canned Foods Exporters Association and the Japan Tuna Packers Association at Shimizu, Japan, in late July, the chairman of the Exporters Association's Tuna Committee proposed that the canned tuna export quota and packers' prices be reduced. In his proposals, which he described as his "personal suggestions," he stated that the 2.5-million-case export quota canned tuna in brine for the United States market during the current business year (December 1963-November 1964) was difficult to fulfill and that a more realistic export target would be 2 million cases. In this case, Japanese exporters would have to sell 925,000 cases to the United States during the remaining five months from July to November. By type of pack, he suggested that 585,000 cases of whitemeat tuna and 340,000 cases of light-

Japan (Contd.):

meat tuna should be sold and advised that no substitution should be made in case a supply shortage occurs in either type of pack.

Regarding canned tuna prices, he pointed out the need to substantially reduce prices in view of the present market situation in the United States. For whitemeat tuna he felt that the packers may have to continue granting the $1 promotional allowance per case for the time being because of the large inventory the packers were carrying, which would preclude a price reduction at this time. But he urged the packers to reduce the canned lightmeat tuna prices by $1 a case for No. ½ (7-oz.) 48's and by 50 cents a case for 4-lb. (66-oz.) 6's. (Minato Shimbun, August 1, 1964.)

* * * * *

SLOW SALES OF CANNED TUNA STUDIED BY JAPANESE PACKERS AND EXPORTERS:

Japanese tuna packers and exporters as of mid-July 1964, stated that Japanese canned tuna in brine exports to the United States were said to have reached a turning point, demanding drastic changes to cope with the slow export trade. Canned tuna sales transacted for export to the United States up to and including the sixth sale totaled 1,080,000 cases (850,000 cases of white meat tuna and 230,000 cases of light meat tuna). At that rate of sales, Japanese packers and exporters see little prospects of attaining the 2.5-million-case quota established for export to the United States during the current business year (December 1963-November 1964) and are even uncertain that 1.7 million or 1.8 million cases could be exported by the end of the business year (November).

Japanese tuna packers attribute the slow movement of Japanese products on the United States market to the extensive advertising by United States packers, as well as to the problem of Japanese canned tuna prices. Japanese packing industry representatives who toured the United States observed that major United States packers were conducting extensive promotional sales to boost sales.

Japanese canned tuna in brine as of July 1964 were exported at f.o.b. Japan prices of US$10.50 a case for whitemeat tuna and $7.60 a case for light meat tuna. In the case of whitemeat tuna, the additional costs of freight, insurance, and broker's commission would increase the United States delivered price to $13.50 a case. In comparison, main United States brands of canned tuna were reported to be selling for $13-14 a case, private or other packers' labels for around $11 a case. (Suisancho Nippo, July 20; Suisan Keizai Shimbun, July 19, 1964.)

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CANNED-TUNA-IN-OIL EXPORT PRICES TO CANADA, 1964:

The Japan Canned Tuna Export Association set the following ex-warehouse and f.o.b. prices for canned tuna in oil for export to Canada in 1964. Export of canned tuna in oil in can sizes other than those shown will be considered by the Association when the need arises. (Fisheries Attache, United States Embassy, Tokyo, July 15, 1964.)

Japan's Export Prices for Canned Tuna in Oil to Canada, 1964

Category	Can Size	Price Per Case		
		Ex-Warehouse Japan 1/		F.o.b Yokohama
		Yen	US$	US$
White meat (solid)	No. 1 (13-oz.)/24's	2,780	7.66	8.30
	No. 2 (7-oz.)/48's	3,050	8.40	9.15
	No. 3 (3-1/2-oz.)/48's	1,750	4.82	5.35
	2 kilos (4.4 lbs.)/6's	3,240	8.93	9.65
White meat (chunk)	No. 1 (13-oz.)/24's	2,610	7.19	7.80
	No. 2 (7-oz.)/48's	2,880	7.93	8.65
	No. 3 (3-1/2-oz.)/48's	1,650	4.55	5.05
	2 kilos (4.4 lbs.)/6's	3,050	8.40	9.10
(flake)	No. 2 (7-oz.)/48's	2,210	6.09	6.70
Light meat (solid)	No. 1 (13-oz.)/24's	2,267	6.25	6.80
	No. 2 (7-oz.)/48's	2,452	6.75	7.40
	No. 3 (3-1/2-oz.)/48's	1,431	3.94	4.40
	2 kilos (4.4 lbs.)/6's	2,643	7.28	7.90
Light meat (chunk)	No. 1 (13-oz.)/24's	2,090	5.76	6.30
	No. 2 (7-oz.)/48's	2,270	6.25	6.90
	No. 3 (3-1/2-oz.)/48's	1,320	3.64	4.10
	2 kilos (4.4 lbs.)/6's	2,450	6.75	7.35
(flake)	No. 2 (7-oz.)/48's	1,969	5.42	6.00

1/Ex-warehouse price does not include brokerage, shipping, labeling, or packing.

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ALBACORE TUNA CATCH IN ATLANTIC IMPROVING:

More than half of the some 150 Japanese tuna vessels operating in the Atlantic Ocean this past summer were reported to be fishing off the South American coast, where albacore catches were said to be relatively good. Landings in that area were running about 70 percent albacore, 10-20 percent bluefin and bigeyed and less than 10 percent yellowfin. The preponderance of albacore landings is said to have created a favorable condition for tuna exports to the United States, and for that reason Japanese tuna exporters were closely watching albacore price developments in the

Ja (Contd.):

United States market, particularly since albacore export prices were said to be $10-15 below the earlier trading price of US$335 a short ton, f.o.b. Port of Spain. (Suisan Tsushin, July 16, 1964.)

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JAPANESE GOVERNMENT TO EXPLORE FOR ATLANTIC TUNA:

The Japanese Fisheries Agency is planning to charter the Fukushima prefecture-operated fishery guidance vessel Joban Maru (475 gross tons) to conduct tuna explorations in the Atlantic Ocean. The vessel was scheduled to depart Japan in early October 1964 on a two-months cruise to explore the waters fished by Japanese long-liners. The research objectives of the vessel is to collect data on current, water and atmospheric temperatures, and other oceanographic conditions, as well as hook rates. Stations will be occupied on the lines connecting the points 27° W. longitude-20° N. latitude and 27° W. longitude-25° S. latitude, and the lines connecting the points 10° W. longitude-3° N. latitude and 10° W. longitude-20° S. latitude. (Minato Shimbun, July 24, 1964.)

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ATLANTIC TUNA FISHERY TRENDS, 1957-1964:

Available catch statistics show that the total Atlantic tuna catch by all countries amounted to less than 100,000 metric tons in 1957; however, by 1963 the catch had increased to nearly 200,000 tons. The increase was due mainly to an expansion of the Japanese Atlantic long-line fishery.

Japan's Atlantic tuna catch increased rapidly from 1957 (15,885 tons) to 1961 (82,251 tons), and then declined to 60,369 tons in 1962 despite increased fishing effort. The decline in 1962 was due mainly to a poor catch of yellowfin (down from 52,631 tons in 1961 to 26,857 tons in 1962). Japan's 1963 Atlantic tuna catch was reported in trade journals to total about 93,000 metric tons.

Estimates indicate Japan is now taking about half of the total Atlantic tuna harvest. The Japanese Atlantic tuna fleet increased from 26 vessels in 1957 to a reported 127 vessels in 1963 and an estimated 150-160 vessels in 1964. That increase, which showed particularly sharp acceleration in 1963 and in 1964, was due in large part to poor tuna fishing conditions in the South Pacific and Eastern Pacific, resulting in a shift of Japanese vessels to the Atlantic.

Japanese tuna fishing capability in the Atlantic in 1964 has been further developed by the establishment of two overseas fishing bases (Cape Verde Islands off the west African coast of Senegal, and St. Martin, Netherlands Antilles, in the Caribbean Sea).

Those developments mean that the Japanese catch (assuming "normal" fishing conditions) can likely be expected to increase by at least 10,000 metric tons in 1964.

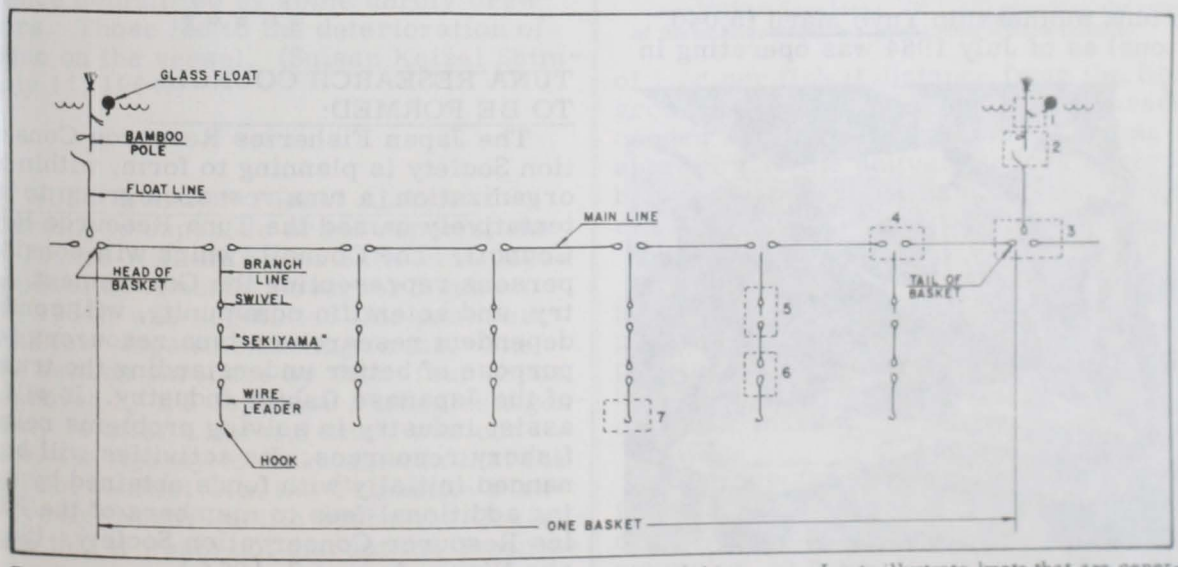

Diagram showing the component parts of a basket of tuna long-line fishing gear. Insets illustrate knots that are generally used in assembling the different sections.

Japan (Contd.):

The growing Soviet interest in tuna fishing may have significance for the Atlantic fishery. The U.S.S.R. is already engaged in experimental tuna fishing in the Indian Ocean and, according to press reports, has ordered five large tuna factoryships from Japan. The first of those factoryships, Leninskie Luchi (5,100 gross tons), which will carry six 20-ton portable boats, was launched in Japan in January 1964. A second vessel is expected to become operational in fall 1964. The specific ocean assignment of those tuna factoryships, which likely will use long-line gear, are unknown. However, Soviet trawlers operating off the Atlantic coast are reported to be observing the fishing techniques and operations of United States tuna purse-seine vessels.

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TUNA MOTHERSHIP FISHING TRENDS IN THE SOUTH PACIFIC:

A Japanese fishing company is planning on sending the tuna mothership Shinyo Maru (2,900 gross tons) to the South Pacific. The Shinyo Maru fleet, which has been assigned a production target of 5,000 metric tons, will operate in the vicinity of the Fiji Islands from October 1, 1964, until sometime in February 1965. During that period of the year, catch rates usually decline, so a larger number of catcher vessels will be assigned to the Shinyo Maru this year to assure a profitable trip. For a financially successful operation, it is said that each catcher vessel will have to land an average of 2.3 tons of fish per day.

The tuna mothership Yuyo Maru (5,040 gross tons) as of July 1964 was operating in the South Pacific off the Fiji Islands with g results. More than half of the 55 catcher v sels serving the Yuyo Maru were landing a average of at least 2.2 tons per day, 7 or 8 catcher vessels were averaging over 3 ton and several were landing over 4 tons in 1 d The catch was said to be predominantly ye lowfin tuna. The Yuyo Maru expected to f fill her production target of 5,300 tons by scheduled withdrawal date of September 2 1964. (Suisancho Nippo, August 1, 1964.)

A worker filleting a yellowfin tuna aboard a Japanese tuna mothership.

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GOOD TUNA LANDINGS AT CAPE VERDE BASE OFF WEST AFRICAN COAST:

Good tuna landings have been reported Sao Vicente, Cape Verde Islands, where a storage and transshipment base was estab lished in June 1964 by Japanese, Portugue and United States interests. A total of 993 tons of tuna were unloaded at the base dur the period June 4-July 6, 1964, by six fish vessels. Of that amount, over 700 tons we contracted for delivery to a Puerto Rican packing plant owned by the United States p ners, about 250 tons were shipped to Japa and a small quantity exported to Italy.

The Cape Verde Islands tuna base is b served by 10 fishing vessels, and there ar plans to increase that fleet to 25 vessels i 1964. The base has a cold-storage capac of 700 tons, which will be increased to 1,8 tons upon completion of the refrigeration plant now under construction. (Suisan Ts shin, July 31, 1964.)

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TUNA RESEARCH COUNCIL TO BE FORMED:

The Japan Fisheries Resource Conse tion Society is planning to form, within it organization, a tuna research group to be tentatively named the Tuna Resource Res Council. The Council, which will consist persons representing the Government, in try, and scientific community, will condu dependent research on tuna resources for purpose of better understanding the true s of the Japanese fishing industry. It will a assist industry in solving problems relat fishery resources. Its activities will be nanced initially with funds obtained by as ing additional fees to members of the Fis ies Resource Conservation Society. (Suis cho Nippo, August 7, 1964.)

Ja (Contd.):

T NEW TUNA PURSE SEINERS O RIAL RUNS:

o Japanese newly-built purse seiners (K shio Maru Nos. 81 and 82, each of 140 gr tons) were undergoing trial runs off nc astern Japan in August 1964 in preparatio r mothership-type purse-seine operatio the Atlantic Ocean. They were schedull depart Japan for West African waters in y September to fish (primarily for skipja ff the coasts of Sierra Leone, Ivory Co and Ghana for a period of two years. C s will be delivered to the bases of U States tuna-canning firms in West A The Japanese firm owning the seiners pl o operate the freezership Chichibu M No. 2 (1,700 gross tons) as the mothersh (Suisancho Nippo, August 18, 1964.)

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JA NESE TUNA MOTHERSHIP CREW D SSED FOR DISTURBANCE ABOARD:

crew members, including the skipper, of Japanese tuna mothership Showa Maru N (1,076 gross tons) were dismissed by th ssel owner. The vessel returned to Ja on June 25, 1964, one month earlier th cheduled, due to a disturbance aboard th ssel. The dismissal was on the grounds of lect of duty.

estigation by the vessel's owner re- ve that the disturbance was caused not by th w members' dissatisfaction over wages, as been originally suspected, but by acts of ence committed by some unruly crewm rs. Those led to the deterioration of di ine on the vessel. (Suisan Keizai Shim- bu ly 11, 1964.)

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J N BUYS SALMON FROM ALASKA:

ording to Japanese press reports, the sa Prince William Sound salmon to Japan (a opposed by Alaskan Governor Egan on Ju , 1964), was negotiated this past sum- m ith four Japanese fishing firms. The A n salmon purchase by those four firms w pproved by the Japanese Fisheries Agenc July 18 after a careful study was con- di by the Agency to make certain that the sa d not conflict with the Tripartite Fish- e Treaty (North Pacific Fisheries Conven- ti nd that it would not disrupt the Japanese di tic market.

The four Japanese fishing firms made arrangements to dispatch refrigerated vessels to Prince William Sound to receive the catches for shipment back to Japan.

The quantity of salmon involved was 9,000-10,000 short tons. Evidently, this quantity was the basis on which the Japanese firms decided to dispatch 8 vessels with a total holding capacity of close to 11,000 tons.

Purchase prices agreed upon between the Alaska Fishermen's Union and Japanese buyers were 10.5¢ a pound for pink salmon and 8¾¢ a pound for chum salmon. Japanese buyers were also to pay the Alaskan State tax of 1.6¢ per fish and, in addition, transportation charges

The Japanese refrigerated vessel Akebono Maru No. 71 (a new vessel on its maiden voyage) docked at Cordova, Alaska, before moving out to buy salmon from United States fishermen in the Prince William Sound area. Of 1,470 gross tons, the vessel is one of the smaller vessels assigned to buy Alaska salmon.

of 1.5¢ per fish if distance from the fishing ground to the Japanese receiving vessels exceeded 15 miles. Those prices are said to approximate the delivery prices agreed upon between Japanese salmon catcher vessel owners and salmon mothership operators.

Practically all the pinks (the bulk of the purchase) were expected to be packed for export because of greater profits gained by packing, and all the chums were expected to be salted or frozen and sold on the Japanese domestic market.

The four Japanese fishing firms involved in the purchase agreed to pack all pink salmon purchases only for export to European countries, in order to avoid friction with Unit-

Japan (Contd.):

ed States packers. It was planned that packing of Alaskan pinks would not begin any earlier than November 1964, so until then the fish were expected to be kept frozen in cold storage. (Nihon Suisan Shimbun, July 20; Suisancho Nippo, July 21 & 22, 1964; Suisan Tsushin, July 22, 1964.)

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SALMON PURCHASES FROM ALASKA AS OF AUGUST 7, 1964:

The four Japanese companies engaged in buying Prince William Sound salmon from Alaskan fishermen received deliveries totaling 5,600 tons of salmon as of August 7, 1964. By species, they consisted of 70 percent pink, close to 20 percent chums, and a small quantity of reds. (Suisancho Nippo, August 12, 1964.)

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ALASKAN SALMON SALE TO JAPAN COMPLETED:

The sale of Alaska Prince William Sound fresh salmon to the Japanese ended on August 14, 1964. An estimated total of 7,400 tons of fresh salmon was delivered to the refrigerated vessels of the four Japanese fishing firms purchasing the fish. By species, they consisted of close to 80 percent pink, 20 percent chum, and small quantities of red and silver salmon. While deliveries exceeded the 6,000 tons reportedly guaranteed by the Alaskan sellers, the quantity was considerably below the 11,000 tons of vessel-carrying capacity provided by the purchasers.

Of the 8 Japanese vessels that were reported as having withdrawn from Prince William Sound, 4 returned to Gulf of Alaska waters to resume trawl operations, and another trawler and a shrimp mothership resumed operations in the Eastern Bering Sea. (Suisancho Nippo, August 18, 1964.)

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SALMON, CRAB, AND BOTTOMFISH MOTHERSHIP FISHERIES IN NORTH PACIFIC FIND POOR FISHING:

The 11 Japanese salmon motherships (accompanied by 369 catcher vessels), operating in the North Pacific Ocean north of 45° N. latitude (Area A), were experiencing unusually poor fishing as of late July 1964. Some fleets were not expected to fulfill their production targets by the August 10 closing da As of July 20, the total salmon catch was r ported as slightly over 33,000 metric tons, 74 percent of the mothership fleet target o 44,665 metric tons. By species, that catch consisted of approximately 15,000 tons of chum, 10,000 tons of red, 4,700 tons of sil 3,000 tons of pink, and 800 tons king salm

Fig. 1 - A type of Japanese fishery factoryship (accompanied trawlers) that operates in the North Pacific and Bering Sea.

The 14 Japanese bottomfish mothership fleets operating in the northern waters (Okhotsk Sea, Bering Sea, and North Pacif Ocean) landed a total of 190,000 metric ton of bottomfish as of July 10. This was an i crease of 60,000 metric tons over landings made during the same period in 1963. The production increase is due to the operatio one additional fish meal factoryship this y and to improved organization of fleet oper tions. There has been a notable catch increase in Alaskan pollock, herring, rockfi and cod, whereas the high-priced halibut a sablefish landings have fallen below 1963 duction. The Japanese Fisheries Agency mates that the total 1964 mothership-type bottomfish landings will likely come up to 400,000 metric tons, compared with appr

Fig. 2 - Repairing crab baskets aboard a Japanese crab mot ship.

Japan (Contd.):

may 310,000 metric tons landed in 1964

The 1964 mothership crab operations in the northern waters are reported to be progressing satisfactorily. The two crab mothership operating in the Bristol Bay had packed a total of 150,000 cases of canned crab meat as of July 15, and were expected to attain their production goal of 235,000 cases by the end of September. By fleet, the Tokei Maru (5,835 gross tons) had packed 80,000 cases (production target 120,000 cases), and the Dainichi Maru (5,858 gross tons), 70,000 cases (production target 115,000 cases). The four crab mothership fleets operating off the western coast of Kamchatka Peninsula had packed a total of 197,000 cases as of July 15 or close to 80 percent of their production target of 252,000 cases ($\frac{1}{2}$-lb. 48's). Production by fleet is: Yokoteru (9,800 gross tons), 53,000 cases; Kaiyoteru (5,449 gross tons), 48,000 cases; Hakuyo Maru (6,372 gross tons), 46,000 cases; and Taiyo Maru (6,404 gross tons), 50,000 cases. (Suisan Keizai Shimbun, July 24, 1964.)

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SALMON MOTHERSHIP FISHERY FOR 1964 CLOSES WITH CATCHES SLIGHTLY UNDER TARGET:

The 1964 Japanese mothership-type salmon fishery in the North Pacific Ocean north of 45° latitude (Area A) came to a close on August 10, 1964, with catches by all fleets fairly slightly below assigned targets. The combined fleet catch totaled 44,483 metric tons, 182 tons below the quota of 44,665 metric tons allotted to the mothership salmon fishery. Composition of catch was reported as: 41 percent chum; 30 percent red; 22 percent silver (including a small percentage of king); and 7 percent pink salmon. The 11 Japanese salmon motherships engaged in the fishery were accompanied by 369 catcher vessels. (Shin Suisan Shimbun, August 17, 1964.)

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NORTH PACIFIC MOTHERSHIP SALMON PRICES ADJUSTED:

Negotiations between the Japan National Federation of Fishermen's Cooperative Associations (NIKKEIREN) and the Northern Water Salmon Mothership Council to establish salmon delivery prices resulted in a settlement on August 7, 1964. The final 1964 prices represent a straight 7-percent increase over 1963 prices and are for fresh whole salmon delivered by catcher vessels to the motherships.

The following are the final Japanese North Pacific mothership salmon delivery prices with comparisons:

Species	1964 Prices		1963 Prices	
	Yen/kg.	U.S. Cents/lb.	Yen/kg.	U.S. Cents/lb.
Red	217.2	27.4	203.0	25.6
Chum	117.7	14.9	110.0	13.9
Pink	94.7	11.9	88.5	11.2
Silver	128.4	16.2	120.0	15.2
King	128.4	16.2	120.0	15.2

The newly negotiated price agreement replaces the provisional flat 5-percent increase agreed to on May 15, 1964, by NIKKEIREN and the mothership companies. (Suisan Keizai Shimbun, August 6; Suisan Tsushin, August 6, 1964.)

Editor's note: We have had several inquiries concerning the seemingly high prices for salmon paid to the Japanese fishermen. We have checked our sources carefully and believe the published prices are reliable. Despite the high cost of the raw product to the Japanese packers, we believe they are able to maintain their competitive position on the world canned salmon market for the following reasons:

1. Labor cost: The labor cost is very low. For example, our understanding is that the workers on the Japanese motherships receive an average salary of about $145 a month. At shore-based plants in Hokkaido, the cannery workers, mostly women, are provided, in addition to room and board, a monthly salary ranging from $20-30 a month.

2. Meat recovery: Recovery of meat per pound of fish is believed to be higher in Japan than in the United States. For example, meat attached to the head section is recovered manually by the Japanese and canned as "tid-bits."

3. Utilization of byproducts: Japanese packers pack salmon caviar incidentally to their canning operations. The value of this product, which has a special market in Japan, is reported to be substantial. For example, in 1963 processed pink salmon roe (caviar) is said to have sold for $4.00 a pound on the wholesale market. First grade roe of other species sold for about $20-25 a pound. The fact that Japan has arranged to obtain salmon roe from United States canneries further attests to the economic value of that product. Another byproduct is salmon carcasses. For example, on the motherships, scraps remaining from the canning operations are processed for later conversion into fertilizer.

4. Other products: Large quantities of pink and chum salmon are salted. The return to the packer on the salted product compares favorably to that for the canned product. Smoked salmon is becoming a popular item in Japan. Smoked red salmon has a ready market in West Germany and the United Kingdom. The return to the producer on this specialty item is reported good.

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EXPERIMENTAL NORTHWEST ATLANTIC TRAWL OPERATIONS:

The Japanese trawler Aoi Maru No. 2 (1,386 gross tons) has been conducting experimental trawl fishing in the northwest Atlantic Ocean off Newfoundland for about one-and-a-half years. She was scheduled to end operations by late July 1964, owing to expiration of her permit. The Japanese firm that owns the trawler does not intend to plan any further operations in the northwest Atlantic until it has evaluated the results of the experimental operations from all angles. Experimental fishing with the Aoi Maru has revealed that the

Japan (Contd.):

trawler is not properly designed and equipped for operation in the northwest Atlantic Ocean, where sea conditions have been found to be far more severe than in the Bering Sea.

Tenyo Maru No. 3 (3,500 gross tons), the second Japanese trawler conducting trial operations in the northwest Atlantic Ocean under a permit which expired in August 1964, was expected to remain longer in the northwest Atlantic trawling grounds if the Government approves the extension of her permit.

The Japanese Fisheries Agency, which had planned to license operation of the Northwest Atlantic trawl fishery this year, is reported to have decided to withhold decision on it until 1965, in view of the inconclusive results so far obtained from the experimental operations. (Suisan Keizai Shumbun, July 15, 1964.)

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ATLANTIC BOTTOMFISH RESOURCES TO BE SURVEYED BY JAPANESE FISHERIES AGENCY:

The Japanese Fisheries Agency is developing plans to actively conduct resource investigations in fiscal year 1965 (April 1965-March 1966), for the Japanese distant-water trawl fishery. Primary objective of the program is to gain a better understanding of the state of resources off the coast of Africa as well as in the northwest Atlantic Ocean, where greater fishing restrictions possibly may be imposed upon trawl operations now being conducted by various countries, including Japan.

Under present plans, the Fisheries Agency hopes to charter one 300-ton trawl vessel for exploratory operations off the African coast and also plans to have a Government fishery investigator board a large fishing company's research vessel to conduct investigations in the northwest Atlantic Ocean. (Shin Suisan Shimbun Sokuho, July 23, 1964.)

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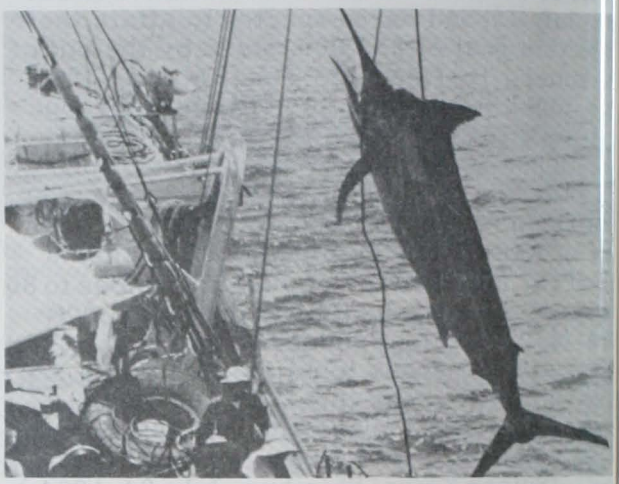
JAPANESE TO FISH SWORDFISH IN NORTHWEST ATLANTIC:

Three Japanese fishing vessels were scheduled in July 1964 to the northwest Atlantic fishing grounds on an experimental long-line swordfish operation. This is the first time that the Japanese vessels will be fishing for swordfish off the northwest Atlantic coast. The first vessel, An-ei Maru No. 7 (180 gross tons), departed Kesennuma, Japan, on July 18, and was to be followed by the Ryoun Maru (192 gross tons) and the Tenyo Maru (192 gross t
The three vessels will operate out of Sai
Pierre Island (French), off the coast of Ne
foundland, and their catches will be either
dressed or filleted, packaged, and frozen ab
the vessels. Products will be exported thr
the trading firm located at Saint Pierre Is
The three vessels are expected to land a
of 15,000 metric tons of swordfish in one ye



A swordfish being hauled aboard a Japanese catcher boat.

Japanese swordfish exports to the Unit
States have been declining since 1963. La
year, exports dropped to 4,500 tons from
9,000 tons delivered in 1962. The export
quota for 1964 is 5,500 short tons, 500 to
less than in 1963. The decline in exports
portedly is due primarily to good swordfi
catches being made by United States fishe
men along the Atlantic Coast following th
change from harpoon fishing to long-line
ing in 1963. But it is also attributed to s
er swordfish landings being made by Jap
fishing vessels. (Nihon Suisan Shimbun,
15 & 22, 1964.)

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EXPORTS OF CANNED SAURY, AUGUST 1963-JUNE 1964 AND ESTIMA
FOR FOLLOWING BUSINESS YEAR:

Japanese canned saury contracted for
port during August 1, 1963-June 30, 1964
creased 5.8 percent or 59,815 cases below t
exports for the same period in the previous
business year, announced the Japan Canned
Saury Packers Association at a meeting he
in July 1964.

The Japan Canned Saury Packers Asso
tion also adopted a production quota of 1.5
lion cases of export canned saury for the
business year (August 1964-July 1965), b

Japan (Contd.):

Table 1 - Japanese Exports of Canned Saury, August 1963-June 1964 and August 1962-June 1963

Country or Area of Destination	Aug. 1963-June 1964	Aug. 1962-June 1963
	(No. of Cases)	
Philippines	416,985	404,518
Burma	89,444	100,101
Egypt	90,000	148,053
New Guinea	221,665	155,034
Ceylon	85,000	119,875
Malaya	19,041	64,410
Other countries	55,341	45,300
Total	977,476	1,037,291

ficer position in foreign countries, $4,800 to establish a nongovernment fishery representative position at overseas fishing bases, $31,500 to conduct water pollution control studies, $20,700 to establish health clinics for distant-water vessel crews, and $11,250 to improve the wireless telephone system used by Japanese fishing vessels. (Shin Suisan Shimbun Sokuho, July 29; Suisan Keizai Shimbun, July 29, 1964.)

* * * * *

Table 2 - Estimated Japanese Canned Saury Exports for Business Year, August 1964-July 1965

Country or Area of Destination	In Tomato Sauce				Natural		Total
	1-Lb. Oval, 48's	8-Oz. Oval, 96's	5-Oz. Tall, 100's	1-Lb. No. 4 1/	5-Oz. Tall, 100's	1-Lb. No. 4 1/	
	(In 1,000 Cases)						
Philippines	170	20	30	30	140	310	700
Burma	70	-	-	130	-	-	200
Egypt	-	-	-	-	100	50	150
New Guinea	60	10	-	-	60	100	230
Ceylon	-	-	-	-	60	90	150
Malaya	20	5	5	-	-	-	30
Other countries	10	5	5	5	5	10	40
Total	330	40	40	165	365	560	1,500

1/ Chinese can size.

on export estimates for the 1964 business year. (Suisan Tsushin, July 11, 1964.)

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FISHERIES AGENCY BUDGET FOR FISCAL YEAR 1965:

The Japanese Fisheries Agency is requesting a budget of 26,875 million yen (US$74.7 million) for fiscal year 1965 (April 1965-March 1966--an increase of about 8,275 million yen ($22.9 million), or over 44 percent, above the budget of 18,600 million yen ($51.7 million) allocated in fiscal year 1964.

The 1965 budget submission shows that the Agency is requesting a large increase in appropriations for the coastal fishery improvement program--$7.3 million compared with $3.3 million in 1964. A sizable budgetary increase is also being requested for the fish marketing program in order to stabilize fish prices--$915,000 compared with $759,000 for the current fiscal year. A sum of $630,000 has been submitted for biological research related to international fisheries, compared with 383,000 budgeted in 1964.

For new programs, the Agency is requesting 1,500 to establish a resident fishery officer position in foreign countries, $4,800 to establish a nongovernment fishery representative position at overseas fishing bases, $31,500 to conduct water pollution control studies, $20,700 to establish health clinics for distant-water vessel crews, and $11,250 to improve the wireless telephone system used by Japanese fishing vessels. (Shin Suisan Shimbun Sokuho, July 29; Suisan Keizai Shimbun, July 29, 1964.)

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COMPENSATION LAW FOR LOSS OF FISHING GEAR AND CATCH REVISED:

The Japanese Fisheries Agency disclosed that on April 24, 1964, Article 17 of the "Rules for the Enforcement of Fishing Vessels Compensation Law" was amended to compensate vessel owners for the value of the cargo of fish, fuel, and gear jettisoned to alleviate damage to a vessel when grounded, and to compensate vessel owners for the value of fishing gear actually in use and abandoned when pursued by a foreign patrol vessel. Under this amendment, compensation was to be based on the following formula:

$$\text{Compensation} = \frac{\text{Value of the vessel}}{\text{value of vessel + cargo, etc.}} \times \frac{\text{amount of insurance}}{\text{value of insured cargo, etc.}}$$

However, on June 25, 1964, that formula was deleted from the amendment by Ministerial Order, Ministry of Agriculture and Forestry, and a simple statement was substituted to the effect that compensation will be for the value of the cargo, fuel, and gear jettisoned to alleviate damage to a vessel when grounded and for the value of the gear abandoned which was in operation at the time of pursuit by a foreign patrol vessel. (Fisheries Attache, United States Embassy, Tokyo, July 14, 1964.)

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Japan (Contd.):

FISHERIES AGENCY STUDYING MEASURES TO COPE WITH OECD RECOMMENDATIONS:

The Japanese Fisheries Agency is studying measures to cope with developments likely to affect the Japanese fishing industry because of Japan's entry this year into the Organization for Economic Cooperation and Development (OECD). In view of the OECD fishery recommendations that subsidies and other financial supports to the fishing industries be reduced and progressively abolished, the Agency feels that OECD will, in the future, very likely urge Japan to place a curb on government loans to her fishing industry. (Suisan Keizai Shimbun, August 12, 1964.)

* * * * *

EXTENSION OF PRIVATE KELP AGREEMENT WITH JAPAN RECOGNIZED BY SOVIETS:

Soviet Premier Khruschev, at a meeting held on July 14, 1964, with Japanese Socialist delegates who were in Moscow to discuss territorial problems with the Russians, is reported to have told the group that the Soviet Union intends to recognize the extension of the the present (one year) U.S.S.R.-Japan private kelp agreement over a period of two years. This announcement has been received favorably by the Japanese kelp industry as an act of goodwill by the Soviet Union. (Shin Suisan Shimbun Sokuho, July 16, 1964.)

* * * * *

ADDITIONAL FOREIGN CURRENCY SOUGHT FOR SOUTH KOREAN FISHERY IMPORTS:

The Japan Fishery Products Importers Association, which earlier this year obtained foreign currency allocations of US$1 million from the Japanese Government to import fishery products from the Republic of South Korea, is seeking an additional $1 million for additional imports. The Association, which has already purchased $700,000 worth of cuttlefish and $300,000 worth of yellowtail from South Korea this year, hopes to import more yellowtail from that country during the fall and winter yellowtail fishing season.

Japanese imports of South Korean fishery products have been increasing yearly. In 1961, imports from that country totaled US$850,000, in 1962 $1 million, and in 1963 $1.3 million. Imports in 1964 are expected to show a substantial increase over the previ year. (Minato Shimbun, July 25, 1964.)

* * * * *

MINISTERIAL CONFERENCE WITH CANADA CONVENED IN TOKYO:

The Japan-Canada ministerial confere to discuss economic and trade problems the two countries was to be held in Tokyo, S tember 4 and 5, 1964. Problems related the North Pacific Fisheries Convention a Canada's establishment of a 12-mile fish zone were also to be discussed at that co ence. The Japanese were hopeful that the Tokyo meeting would help resolve the pro lems associated with the North Pacific fi eries treaty arrangements between the U States, Canada, and Japan which were sch uled for further discussion by all three co tries at another meeting in Ottawa at a la date. (Suisan Keizai Shimbun, August 5, 1

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JAPANESE FISHERIES AGENCY AUTHORIZES PURCHASE OF DUTCH WHALING FACTORYSHIP:

The Japanese Fisheries Agency on Aug 5, 1964, authorized three Japanese fishing firms to jointly purchase the Netherlands Whaling Company's whale factoryship Wil Barendsz (26,830 gross tons), including th factoryship's 6-percent international wha catch quota. The purchase of the Dutch w factoryship will increase Japan's share o international whale catch quota from 46 p cent to 52 percent, or from 3,680 blue-wh units to 4,160 units, based on the 8,000 b whale catch limit informally adopted by t whaling nations for the Nineteenth Antarc Whaling Expedition. The Fisheries Agen also announced that the Japanese Govern would recognize the catch quota adopted the 4 whaling nations for the 1964/65 sea (Minato Shimbun, August 7, 1964.)

* * * * *

TRAWLER SOLD TO GREEK FIRM:

The Japanese trawler Aoi Maru No. 2 (1,150 gross tons), which in late July 196 concluded 1½ years of exploratory trawlin in the Northwest Atlantic, has been sold t Greek firm. Delivery will be made at La Palmas, Canary Islands. The Japanese o ers of the Aoi Maru No. 2 sold the trawle a result of finding that the vessel was ina quately equipped and too small for trawl

Japan (Contd.):

...ns in the Northwest Atlantic. (Suisan Tsushin, August 6 1964.)

* * * * *

EXPERIMENTAL SUCTION-PUMP FISHING: ...uction pump has been used to catch fish in ...n, it was reported at a meeting of the Japan Fisheries Academy in Otaru. In the course of a survey of modern fishery methods a team of the Nihon University's Fishery Department used a pump to land a catch weighing 5 kilograms (27.5 pounds) in 15 minutes.

...eriments with the pump were conducted ... an 11-ton vessel in waters near Ajishima Island off the Ojika peninsula in May and June 1963. The suction pump was powered ... an electric motor connected to a rubber hose ... meters (16.4 feet) long, with a trumpet-shaped mouthpiece at one end. Lights installed on the ship and fixed to the mouthpiece attracted fish. The technique had been tried in the Japanese fisheries before but on each occasions, the fish were invariably damaged.

...iet fishing vessels are reported to have successfully employed the suction-pump fishing method in the Caspian Sea. (Australian Fisheries Newsletter, May 1964.)

Netherlands

WHALING FACTORYSHIP SOLD TO JAPAN: The Netherlands Whaling Company has announced that it is selling its whaling factoryship Willem Barendsz to Japanese interests under contract which has a duration of two years. At the end of that period, the vessel will be resold to the Netherlands Whaling Company at a predetermined price, as the Japanese are only interested in the catching rigs attached to the factoryship. Those rigs will be retained by the Japanese after the vessel is resold to the Netherlands. Before becoming effective, the contract for the sale to the Netherlands factoryship must be approved by the Japanese Government.

...management of the Netherlands Whaling Company has sold 2 of its 10 catcher vessels to Norway. The other 8 vessels will be sold as scrap. After the Willem Barendsz returns to the Netherlands, the company will try to sell the vessel as a freezership or as a tanker.

The Netherlands Whaling Company is disposing of its fleet as a result of disappointing results in the Antarctic in recent years. (United States Consulate, Amsterdam, July 23, 1964.)

New Caledonia

JAPANESE FISHING FIRM WITHDRAWS FROM TUNA BASE AT NOUMEA: The large Japanese fishing company engaged in tuna fishing operations at Noumea, New Caledonia (French possession), has withdrawn. The firm is seeking the Fisheries Agency's permission to retain the 7,500-ton tuna quota allotted to the Noumea base.

The firm sent a representative to the Caribbean Sea islands to investigate the possibilities of establishing a tuna base in that area to facilitate tuna exports to the United States, Canada, and Cuba. (Suisancho Nippo, July 27, 1964.)

New Zealand

SOUTH COAST BLUEFIN TUNA EXPLORATIONS: Bluefin tuna in New Zealand southern waters appear to be present in commercial quantities from mid-January to April. The statement was made by New Zealand's Marine Department following a three-week exploratory cruise off the Fiordland coast by the Department's chartered fishing vessel Olwyn.

Conclusions reached as a result of the explorations were: (1) tuna are found in temperatures as low as 12° C. (53.6° F.) and feed in depths as shallow as five fathoms; (2) tuna appear to be attracted by white lures in preference to other colors; (3) a trolling line of 60 feet appears to be most successful, providing a rubber spring is inserted to take the pull of the strike; and (4) vessels could fish for tuna in the calm of the sounds, providing the weather is suitable for rounding Puysegur Point at the southwest tip of New Zealand's South Island.

New Zealand (Contd.):

The objective of Olwyn's cruise was primarily to assess the potential of southern bluefin tuna and to study their distribution in relation to hydrological conditions in the area. The vessel was equipped with a live-bait tank and gear for pole fishing, and was also rigged to troll 8 lines.

Surface temperatures in Foveaux Strait were all below average but 3 tuna strikes were made just before the vessel rounded Puysegur Point. She then sailed to Dusky Sound and ran into a confused northerly sea and swell. Surface temperatures averaged 54.5° F. and the sea was a murky bottle green color. Under those conditions, 600 pounds of southern bluefin tuna were caught between Dusky and Nancy Sounds in 12 hours' trolling time.

Schools of tuna were sighted at the entrance to Charles and Bligh Sounds. At least 8 strikes were made in that area. The thermocline was at 120 feet and tuna were caught in depths ranging from 5 to 70 fathoms.

It was conceded by the Marine Department that considerable research will be needed before the commercial possibilities of that fishery can be assessed. The New Zealand Marine Department plans to be working on this project in the next year or so. (Commercial Fishing, a New Zealand fishery periodical, May 1964.)

* * * * *

TREND TO SMALL STERN TRAWLERS:

This year one New Zealand firm built two 70-foot stern trawlers. They were built by an Auckland shipyard.

Each stern trawler cost about NZ£35,000 (US$97,000) and carries a crew of three, including the skipper. A total of three small stern trawlers has been built.

Apart from normal trawling, one fishing firm plans to experiment with shrimp, tuna, and line fishing. Another firm is also reported to be looking for another two similar stern trawlers. It hopes to buy them overseas.

Both new trawlers for the one firm are identical and can store up to 40 metric tons of fish as compared with the 20 to 25 tons carried by ordinary small trawlers. (Commercial Fishing, New Zealand, May 1964.)

Norway

EXPORTS OF CANNED FISH, JANUARY 1-MAY 25, 1964:

Norway's total exports of canned fish d ing January 1-May 25, 1964, were down 5 percent from those in the same period of 1963. Shipments of canned small sild dro ped 21.4 percent and those of kippered he ring were down 10.6 percent. But shipme of canned brisling increased 15.6 percent from the same period a year earlier and there were some increases in the exports several other canned fish products.

Norwegian Exports of Canned Fish

Product	1/Jan. 1-May 23 1964	Jan. 1-May 1963
	(Metric Tons)	
Brisling	2,209	1,911
Small sild	4,503	5,728
Kippered herring	1,187	1,328
Soft herring roe	805	349
Sild delicatessen	183	167
Shellfish	680	607
Other fishery products	1,173	1,232
Total	10,740	11,322

1/Preliminary.

The packing of sild sardines started i early May and by June 13, 1964, a total o 83,860 standard cases of small sild had b packed, compared with 89,952 standard c in the comparable period of 1963.

The pack of brisling from the start o season in late May to June 13, 1964, amo to 121,114 standard cases, compared wi 56,289 standard cases in the same perio 1963.

Mackerel landings for canning purpos totaled 92 tons as of June 6, 1964, compa with 188 tons in the corresponding perio 1963. (Norwegian Canners Export Journ July 1964.)

* * * * *

CANNED FISH EXPORTS, JANUARY-MARCH 1964:

Smoked small sild sardines in oil wa Norway's most important canned fish ex in January-March 1964, accounting for

Norway (Contd.):

percent of the quantity and 30.7 percent of the value of total shipments during the period.

Table 1 - Norwegian Exports of Canned Fishery Products by Type, January-March 1964

Product	January-March 1964		
	Quantity	Value	
	Metric Tons	N. Kroner 1,000	US$ 1,000
Smoked sprat in oil	1,327	8,934	1,248
Smoked sprat in tomato	162	912	127
Smoked small sild in oil	2,259	9,841	1,374
Smoked small sild in tomato	374	1,342	187
Unsmoked small sild in oil	172	568	79
Smoked, unclassified	97	364	51
Kippered herring (Kippers)	754	3,380	472
Mackerel	159	765	107
Roe unclassified	163	626	87
Soft herring roe	134	679	95
Fish balls	118	305	43
Other canned fish	21	160	22
Sheet	411	4,151	580
Total	6,151	32,027	4,472

Table 2 - Norwegian Exports of Canned Fishery Products 1/ by Country of Destination, January-March 1964

Country of destination	January-March 1964		
	Quantity	Value	
	Metric Tons	N. Kroner 1,000	US$ 1,000
Finland	54	292	41
Sweden	85	414	58
Belgium-Luxembourg	157	754	105
Ireland	49	207	29
France	67	265	37
Netherlands	46	157	22
United Kingdom	1,202	5,823	813
West Germany	181	710	99
Czechoslovakia	97	313	44
Japan	3	12	2
South Africa Republic	466	1,853	259
Iran	40	150	21
Canada	149	899	125
United States	2,544	13,856	1,935
Australia	460	1,845	258
New Zealand	107	465	65
Other countries	234	884	123
Total 2/	5,941	28,899	4,036

1/ Do not include exports of canned shellfish.
2/ Totals are slightly larger than the combined exports of canned fish (excluding shellfish) shown in table 1.
Note: Norwegian kroner 7.16 equal US$1.
See Commercial Fisheries Review, June 1964 p. 53.

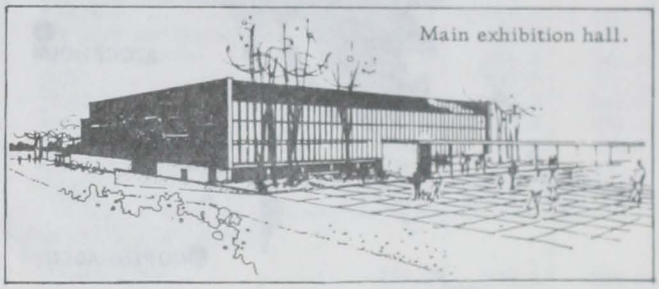
The United States was the leading buyer of Norwegian canned fish during January-March 1964, taking 42.8 percent of total shipments (excluding shellfish), followed by the United Kingdom with 20.2 percent, the South Africa Republic with 7.8 percent, and Australia with 7.1 percent. (Norwegian Canners Export Journal, July 1964.)

* * * * *

INTERNATIONAL FISHERIES FAIR AT TRONDHEIM:

Manufacturers of all types of machinery, equipment, and instruments for the fishing industry and related fields are invited to exhibit at the Second Official Norwegian Fisheries Fair which will be held at the exhibition hall in Trondheim, Norway, August 19-29, 1965.

The list of items to be displayed includes: (1) fishing craft and engines; (2) accessories such as anchors, chains, lanterns, tackle, galley equipment, fittings, searchlights, and lifesaving equipment; (3) navigational equipment such as radio, radar, asdic, and other instruments; (4) fishing gear such as seines, lines, nets, floats, trawls, hunting weapons; and impregnating materials; (5) fishermen's clothing and provisions; (6) fish processing machinery and refrigerating equipment; (7) manufactures (food and other); (8) transport appliances, containers, and store equipment; (9) angling equipment; (10) services provided by lifeboat associations, insurance companies, banks, publishers, etc.

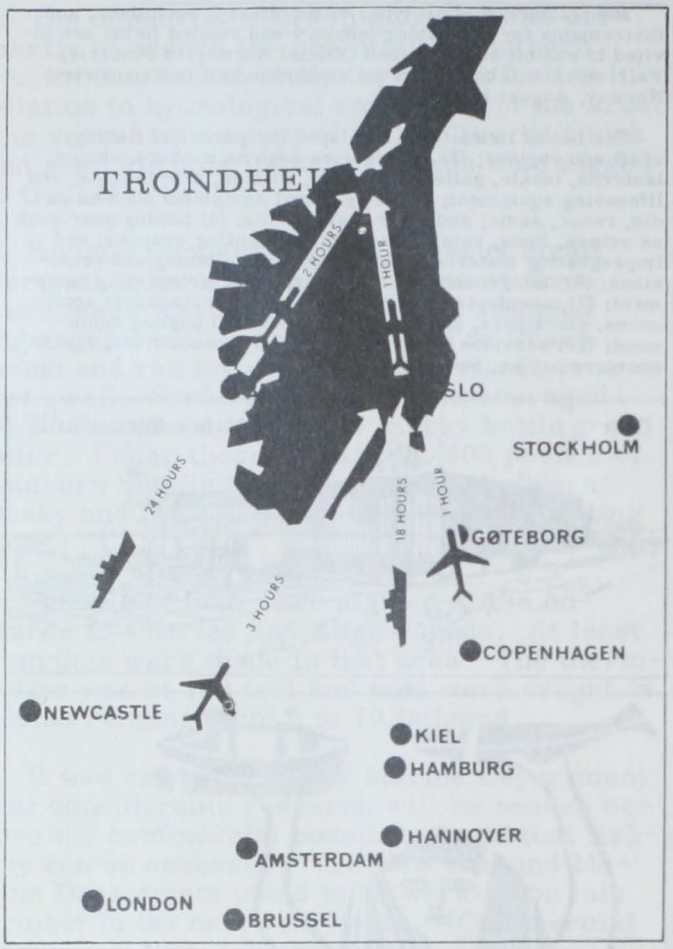


Main exhibition hall.

The Norwegian Ministry of Fisheries is sponsoring the Fair in order to improve the position of the Norwegian fishing industry by bringing to its attention the most efficient machinery, instruments, and auxiliary equipment available today.

The Fair offers United States manufacturers a unique opportunity to display and sell United States products to a large industry which must keep up with technological development in order to survive. For example, the Norwegian fishing in-

Norway (Contd.):



dustry has recently shown considerable interest in pumps for handling fish in nets or for unloading fish from vessels.

The trade exhibit will cover an effective floor area of about 32,000 square feet indoors and 21,000 square feet outdoors. Rental charges will be US$1.95 per square foot indoors with a minimum charge of $210 indoors and $1.11 per square foot outdoors with a minimum charge of $119. The deadline for space applications is December 1, 1964. Applications should be addressed to Norges Varemesse, P.O. Box 130, Skoyen, Oslo 2, Norway. (Cable Address: Varemessen.)

Arrangements for electricity, plumbing, and telephones should be made directly with the management. Electric current is 220 volts, 50 cycles. Insurance may be obtained locally. Samples and exhibits may be imported duty-free provided they are exported within eight months after their importation. Ample storage space is available. There will be restaurant facilities and parking space for visitors at the Fair.

The first official Norwegian Fisheries Fair was held in Bergen, Norway, in 1960. However, it was not open to foreign participation. (United States Embassy, Oslo, July 26, 1964.)

Peru

EXPORTS OF PRINCIPAL MARINE PRODUCTS, JANUARY-MARCH 1963-64

Item	1/ Jan.-Mar. 1964			Jan.-Mar. 196	
	Quantity	Value 2/		Quantity	Value
	Metric Tons	Million Soles	US$ 1,000	Metric Tons	Million Soles
Fish meal . .	335,098	947.1	35,313	326,393	861.9
Fish oil . . .	31,879	96.4	3,594	56,887	88.9
Fish (frozen, canned, etc.)	5,759	49.6	1,849	7,318	48.9

1/Preliminary.
2/F.o.b. values converted at rate of 26.82 soles equal US

Source: United States Embassy, Lima, July 9, 1964.

Portugal

REFRIGERATION EQUIPMENT TO MODERNIZE FISHING INDUSTRY SUPPLIED BY BRITISH:

In July 1964, a British firm announced a contract with Fundo de Renovacao e de Apetrechamento da Industria d Pesca, Lisbon, to supply a considerable amount of refri tion equipment for the fishing vessels and shore installa required in connection with the Portuguese Government' fisheries development plans. Under the agreement, the ish firm expects to supply equipment with a value in exc of £800,000 (US$2,240,000).

The first order under the agreement covers freezing cold-storage equipment for the five new stern trawlers built at Portuguese shipyards in Viana do Castelo and F da Foz. Each vessel will have a freezing capacity of ov 28 tons of whole fish a day in 8 plate freezers and a sto capacity for about 500 metric tons of frozen fish at -25° (-13° F.). The installed power of the refrigerating mac will be 285 B.hp. and it will operate on the pump circul of Refrigerant 12 through the freezers, with brine-coole grids in the refrigerated holds.

South Africa Republic

PILCHARD-MAASBANKER FISHERY:

April 1964: The shoal fish catch off th west coast of the South Africa Republic in 1964 was 21,775 short tons pilchards, 7 tons maasbanker, 13,989 tons mackere l 3,636 tons anchovy for a total of 47,354 That compares with 67,941 tons pilcha 3,676 tons maasbanker, and 401 tons m el landed in April 1963.

The April 1964 catch yielded 10,527 tons of fish meal, 576,890 imperial gal fish body oil, 421,656 pounds of canned chards, 1,198,424 pounds of canned ma

South Africa Republic (Contd.):

banna and 4,668,672 pounds of canned mack-
erel.

Cape west coast shoal fish catch for the first four months of the 1964 season was 189 tons pilchards, 17,397 tons maas-banna 41,733 tons mackerel, and 3,636 tons ancho . The total catch was 252,327 tons. In the same period of 1963, the total catch was ,546 tons, made up of 238,239 tons pilco s, 7,673 tons maasbanker, and 14,634 tons ckerel.

alvis Bay in South-West Africa, the pilco catch amounted to 203,013 tons during uary-April 1964. (The South African Ship g News and Fishing Industry Review, June 64.)

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ch 1964: The shoal fish catch off the Cap st coast of the South Africa Republic in M h 1964 was 56,850 short tons pilchards, 6 to maasbanker, and 17,751 tons mackerel for tal of 74,607 tons. That compares with 54,4 tons pilchards, 3,724 tons maasbanker, and 40 tons mackerel landed in March 1963.

March 1964 catch yielded 17,082 short tons fish meal, 886,350 imperial gallons of fish y oil, 141,768 pounds of canned pil-chaa and 4,772,224 pounds of canned mack-erel.

Cape west coast shoal fish catch for the three months of the 1964 season was 168 tons pilchards, 9,443 tons maasbanker, and 44 tons mackerel. The total catch was 205 tons. In the same period of 1963, the tota ch was 188,538 tons, made up of 170 tons pilchards, 3,997 tons maasbank-er, 4,233 tons mackerel.

alvis Bay in South-West Africa, the pilco catch amounted to 99,835 tons during uary-March 1964. (The South African Ship g News and Fishing Industry Review, Mar 4.)

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EXP TS OF FISHERY PRODUCTS, 1963: 63, fish meal was South Africa's most impo nt fishery export item (from the stand-poin total value), followed by frozen spiny lobs tails, and canned pilchards. The United Kingdom was the leading market for South African fish meal, while the United States was

South Africa Republic[1] Exports of Fishery Products, 1963

Commodity and Destination	Quantity	Value[2]	
	1,000 Pounds	Rand 1,000	US$ 1,000
Fresh and Frozen:			
Spiny lobster tails:			
United States	11,978.2	8,098.5	11,281.2
France	214.6	133.2	185.5
Other countries	146.2	98.1	136.7
Total	12,339.0	8,329.8	11,603.4
Other fresh and frozen fishery products:			
Australia	8,025.6	1,068.4	1,488.3
Rhodesia and Nyasaland	5,496.2	604.8	842.5
United Kingdom	3,777.0	464.2	646.6
Italy	4,970.5	337.7	470.4
United States	1,882.1	190.2	265.0
France	963.4	198.3	276.2
Mozambique	1,514.8	109.6	152.7
Other countries	3,734.9	420.9	586.3
Total	30,364.5	3,394.1	4,728.0
Preserved (Mostly Canned):			
Spiny lobster tails:			
United States	291.2	218.2	304.0
France	139.6	89.7	125.0
West Germany	117.1	86.8	120.9
Belgium	62.0	48.4	67.4
Other countries	35.8	28.3	39.4
Total	645.7	471.4	656.7
Pilchards:			
United Kingdom	4,345.0	1,120.1	1,560.3
United States	4,827.3	732.2	1,019.9
Other countries	39,253.5	3,465.4	4,827.3
Total	51,345.5	5,317.7	7,407.5
Other preserved fishery products:			
United Kingdom	14,867.3	1,579.2	2,199.8
United States	7,694.3	671.1	934.9
Other countries	22,081.3	2,252.5	3,137.7
Total	44,642.9	4,502.8	6,272.4
Dried, Salted, and Cured:			
Australia	5,522.1	805.2	1,121.6
Other countries	4,109.8	327.3	455.9
Total	9,631.9	1,132.5	1,577.5
Industrial Products:			
Fish meal and solubles:			
United Kingdom	184,388.8	5,808.2	8,090.8
East Germany	64,853.4	2,042.3	2,844.9
West Germany	42,148.8	1,310.2	1,825.1
Japan	44,406.2	1,538.1	2,142.6
United States	24,400.9	708.7	987.2
Israel	24,135.6	724.6	1,009.4
Netherlands	23,403.6	717.9	1,000.0
Australia	11,377.0	350.0	487.6
Other countries	52,610.2	1,888.7	2,631.0
Total	471,724.5	15,088.7	21,018.6
Fish-body oil:			
United Kingdom	68,088.3	2,595.9	3,616.1
Other countries	1,989.6	105.1	146.4
Total	70,077.9	2,701.0	3,762.5
Fish-liver oil:			
Canada	379.4	24.4	34.0
United States	3/211.5	3/12.8	17.8
Other countries	26.3	2.4	3.3
Total	617.2	39.6	55.1

(Continued on next page.)

South Africa Republic (Contd.):

Commodity and Destination	Quantity	Value2/	
	1,000 Pounds	Rand 1,000	US$ 1,000
Whale and seal oil:			
United Kingdom	10,400.1	791.2	1,102.2
West Germany	6,663.2	506.1	705.0
United States	1,925.1	156.1	217.4
Netherlands	1,476.2	60.3	84.0
Other countries	210.8	36.1	50.3
Total	20,675.4	1,549.8	2,158.9

1/Includes South-West Africa.
2/F.o.b. value.
3/Includes exports to the United States of 2,100 pounds of concentrated fish-liver oil valued at Rand 2,070 (US$2,884).
Note: US$1.393 equals South African Rand 1.00.

the main buyer of South African lobster tails. (United States Consulate, Cape Town, July 28, 1964.)

Spain

FISHERY TRENDS AT VIGO, APRIL-JUNE 1964:

Landings and Prices: Fishery landings at the port of Vigo, Spain, in April-June 1964 totaled 18,755 metric tons valued at 213.8 million pesetas (US$3.6), an increase of 19.7 percent in quantity but a decrease of 6.9 percent in value from the first quarter 1964 landings. Compared with April-June 1963, landings this quarter dropped 26.5 percent in quantity and 32.2 percent in value.

The lower value of the second quarter 1964 landings was due to the light demand by fish canneries as they were reluctant to buy raw materials because of the large carryover of canned fish still on hand from the previous season. Normally, the April-June period is the beginning of accelerated cannery production but because of the ample canned fish stocks on hand the canneries were not disposed to produce at the usual normal rate.

Landings of frozen fish at Vigo (part of which is imported fish) totaled 2,738 tons the second quarter of 1964, all of it landed during May as compared with landings of 3,686 tons in the first quarter of the year. The quantity of frozen fish landed in April-June 1964 is not included in the quarterly landings of fresh fish.

Fig. 1 - Port of Vigo, Spain. Wooden hull trawlers outfitted tuna fishing.

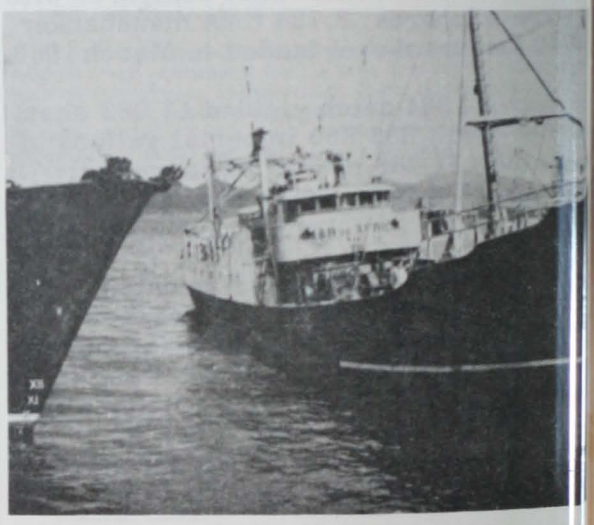

Fig. 2 - Cod fishing vessels docked at Vigo. They fish for the North Atlantic.

Table 1 - Landings and Average Ex-Vessel Prices of Selected Species at Vigo, April-June 1964 with Comparisons

Species	1964						1963		
	April-June			January-March			April-June		
	Quantity	Average Price		Quantity	Average Price		Quantity	Average Price	
	Metric Tons	Pesetas/Kilo	US¢/Lb.	Metric Tons	Pesetas/Kilo	US¢/Lb.	Metric Tons	Pesetas/Kilo	U
Octopus	3,495	5.03	3.8	906	7.09	5.4	6,903	5.14	
Horse mackerel	3,431	2.58	2.0	1,934	4.69	3.5	3,473	3.46	
Small hake	2,694	29.93	22.6	4,503	26.47	20.0	3,599	26.74	
Cuttlefish	1,013	7.51	5.7	484	6.99	5.3	1,630	8.92	
Sardines	585	5.86	4.4	-	-	-	1,191	8.16	

Spa[illegible](Contd.):

[illegible]e 2 - Distribution of the Fishery Landings at Vigo, April-June 1964 with Comparisons

Peri[illegible]	Shipped Fresh to Domestic Markets	Canned	Other Distribution (Smoking, Drying Fish Meal, etc.) and Local Consumption
	(Metric Tons)		
2nd [illegible] [illegible]r 1964	11,013	1,545	6,197
1st Q[illegible]r 1964	11,139	890	3,643
2nd [illegible] [illegible]r 1963	10,083	5,214	10,232

[illegible]ned Fish Industry: The canned fish industr[illegible] was practically inactive during April-June 1964 as far as production was concer[illegible]--only 1,545 tons of fish was packed as against 5,214 tons in the same period a year earlier.

Fig. [illegible] Unloading semiprocessed or green salted cod at Vigo.

[illegible]e beginning of the second quarter in 1964 [illegible]ere was a substantial recovery in the quan[illegible] of exports of canned fish and the domes[illegible] market was also somewhat more active. [illegible]he upturn was shortlived and fish canners were again reporting low sales at the end of June. In some cases, the movement in sales was brought about by lower prices quoted by canners who wanted to dispose of their excessive stocks to finance production from the new tuna and sardine season. In the case of the domestic market, summer always brings about a higher consumption of canned goods. The economic situation, however, was not favorable and the canned fish industry as a group was trying to obtain official assistance in this crisis.

Fig. [illegible] Spanish fishing stern trawler Villalba, owned and operated by [illegible] fishery firm.

A group of leading Vigo fish canners was establishing a new factory in Ensenada, Mexico, in association with Mexican interests, for canning Pacific sardines. The production from the Ensenada plant will be sold in the Mexican market, but there are plans for exports to the United States later. (United States Consulate, Vigo, July 17, 1964.)

Note: See Commercial Fisheries Review, August 1964 p. 85.

Surinam

JAPANESE SHRIMP FISHING OPERATIONS:

The Japanese fishing firm (engaged in a joint enterprise) in Surinam, which was scheduled to ship frozen shrimp to Japan this past July, was established in Paramaribo a little over two years ago. The local United States-owned shrimp processing firm in Surinam (also located in Paramaribo) has been freezing and processing the Japanese shrimp catches and has been acting as their export agents. Except for the one shipment to Japan in July 1964 and another scheduled for September, shrimp caught by the Japanese vessels have been exported exclusively to the United States.

Prior to 1962, the Japanese firm operated 3 fishing vessels off the northern coast of South America (from Georgetown, British Guiana, to the mouth of the Amazon River). Those vessels carried small freezing units and were accompanied by a mothership to which catches could be transferred. Subsequently the mothership sank in the waters of that area.

During the past two years the Japanese fleet has expanded to 10 vessels to equal the size of the United States fleet presently operating out of Paramaribo. The catches of the Japanese trawlers account for about 50 percent of the United States shrimp processing firm's total exports. The 7 vessels purchased by the Japanese firm in the course of the past two years are of United States manufacture. Three are steel-hull trawlers purchased from a Texas shipyard and 4 are wooden-hull trawlers from a Florida shipyard. The present 10 Japanese vessels have 220 hp., and use the same type gear as used on vessels operated by the United States firm in Surinam. The Japanese trawlers have 3 drive winches, 150 fathoms of 7/16-inch steel cable, tickler chain, and are double-rigged. The United States trawlers generally use a flat net whereas the Japanese vessels prefer the balloon net. A few of the Japanese vessels have begun to copy the jib net such as is used by shrimp vessels operating out of Texas. A smaller mesh net of 1-3/4 inches (stretched) is used by the Japanese whereas the United States vessels use a net of 2-1/4 inches (stretched).

Until recently the crews of the Japanese trawlers in Surinam consisted solely of Japanese nationals. Reportedly, the Surinam Government has been exerting pressure to have the

Surinam (Contd.):

Japanese company conform with a local law requiring 75 percent of the employees of a locally-established company be Surinamers. One source in the local fishing industry there estimated that about an equal number of Surinamers and Japanese are now being employed. Some 35 Japanese nationals are affiliated with the company locally, including the manager, fleet manager, one office employee, and a mechanic. The Japanese personnel of the company were said to be paid from the Tokyo headquarters of the parent company, and receive about 35 to 40 Surinam guilders (about US$19 to $21) a month with the balance of their salaries delivered to their families in Japan. Surinamers employed on all trawlers are paid according to the catch, ranging from 25 to 75 guilders (about $13 to $40) per metric ton of shrimp caught. Japanese seamen have one-year contracts with the company and the contracts are renewable.

It was reported that all Japanese fishermen receive training in Japan prior to their assignment in Surinam. They are said to be highly adaptable and imitate successfully the methods used by American fishermen, and are also described as being collectivistic and scientific. Each Japanese vessel is assigned a certain area to fish each day and can only move to another area when advised to do so by the manager. The fishing grounds are carefully studied and information pertinent to shrimping in those waters is recorded at the company's local office. This past summer, a fishery technician from Japan went to Surinam as an adviser on how to improve the shrimp catches.

The local manager of the Japanese firm anticipated the purchase of 5 more trawlers in the United States during this year (1964). This will raise the total Japanese fleet operating out of Paramaribo to 15 vessels. It was also reported that the Japanese Government has approved the purchase of as many as 10 more trawlers in the United States. Ultimately, a fleet of 25 vessels is envisaged by the company.

The United States-owned local shrimp freezing, processing, and exporting enterprise was established in 1956. The company enjoys an exclusive license and franchise for the right to catch, handle, purchase, receive, process, freeze and warehouse, sell, and otherwise deal in shrimp for sale and consumption for export only. During the eight years of its existence, operations have expanded rapidly with 1963 exports totaling 1,318,600 pounds of frozen shrimp. Until early 1962 the plant was processing exclusively (or almost exclusively) the catches of United States flag vessels. (United States Consulate, Paramaribo, July 21, 1964.)

Note: Values converted at rate of 1.886 guilders equal US$1.

U.S.S.R.

NEW DEEP-WATER TRAWLING GEAR DEVELOPED:

Soviet gear experts are reported to have developed an improved type of bottom trawl gear that can withstand water pressure at great depths. The improved gear has reinforced floats; heavier (220-265 pounds) rope-length adjusting boards; and longer ropes of smaller diameter but with sufficient strength to withstand the pressure of net hauling by winches. The Soviets plan to use the deep-water gear soon for trawling at depths of up to 1,300 meters (4,264 feet) in the Barents Sea and the North Atlantic Ocean. In the Bering Sea and Okhotsk Sea, they hope to achieve a substantial increase in landings by usin new gear.

A Soviet RT-type trawler operated by Soviet Northern Fisheries Administration found halibut concentrations in the Barent Sea at depths of 850-1,100 meters (2,788 - 3,608 feet), according to a Japanese press summary of a Soviet news report, dated J 16, 1964. About 20 Soviet trawlers which w led to that area are reported to be making catches. (Suisancho Nippo, July 29, 1964.)

United Kingdom

DANGER TO FISHERIES FROM OIL EXPLORATIONS IN NORTH SEA DISCUSS

The explorations for petroleum and natu gas in the North Sea were discussed by British Minister of Power at a meeting a Lowestoft in late June 1964. The Ministe said, "I must be frank with you and say th this search cannot be conducted without s interference with fishing, but I ask you n be unduly anxious about what is going to h pen. In the first place, the Convention on Continental Shelf, which came into force lier this month, requires the Government ensure that the exploration of the British tor and its exploitation does not result in unjustifiable interference with navigation, ing, and conservation of the sea. This requ ment will be incorporated in the licenses w my Department will issue and the licens will have to observe."

The Minister said that the charges us the ships engaged in the exploration wo exploded within a few feet of the surface minimizing danger to bottomfish. He ad that the exploring oil companies would m tain close contact with British fishery offi

The Minister stated that no charges i cess of 50 pounds would be exploded wit nautical mile of any vessel, and no charge within half a mile. (Fishing News, July 3, 1

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MARINE OIL IMPORTS, 1962-1963:

Net imports of marine oil by the Unit Kingdom in calendar year 1963 consiste 117,400 long tons of fish and fish-liver o 60,400 long tons of whale oil, and (for st tical purposes) an additional 5,500 tons whale oil from British Antarctic whaling

Unn.. Kingdom (Contd.):

er..s--grand total of 183,300 tons. That was 4 p..ent below the net marine oil imports in 19..hich totaled 191,100 tons and consisted of ..500 tons of fish and fish-liver oils, 57,.. tons of whale oil, and an additional 27,.. tons of whale oil from British Antarctic wh..g operations.

..h Utilization of Refined Oils and Fats in Margarine ..d Compound Cooking Fat Manufacture, 1962-1963

	Margarine		Compound Cooking Fat	
	1963	1962	1963	1962
	..... (1,000 Long Tons)			
Mai..ils:				
Wh..oil	29.5	45.3	17.3	24.9
Fi..l	76.7	58.1	40.2	31.1
..marine oil	106.2	103.4	57.5	56.0
..utilization ..getable, ..al, and ..ne oils and	277.3	270.2	153.4	142.5

..United Kingdom withdrew from Antarctic..ling at the end of the 1962/63 season and sol..r remaining whaling fleet to Japan.

..British margarine industry is an important consumer of marine oils. In 1963, there..as considerable substitution of fish oil..r whale oil in the production of British ma..rine and compound cooking fat; total uti..ion of marine oils by that industry in 19..owed a small increase over the previous..r. (United States Embassy, London, Apr..3, 1964.)

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NE..REEZER-TRAWLER SAA..ON MAIDEN VOYAGE:

..new stern-trawler Ross Valiant successfully completed trials in July 1964 and joi..he Grimsby fishing fleet of one of Britai..argest integrated fishing companies. Th..s Valiant carries 10 plate freezers with ..combined daily freezing capacity of 35 tons. The vessel will be able to store 400 tons ..frozen fish at -20° F.

Fig ..oss Valiant off Grimsby about to start her maiden voyage ..wfoundland fishing grounds.

The company operating the Ross Valiant plans to add nine more freezer-trawlers to its fishing fleet and has already launched the Cape Kennedy, a sistership to the Ross Valiant. The Cape Kennedy is expected to enter service early in 1965. The company plans to market the frozen fish from its new freezer-

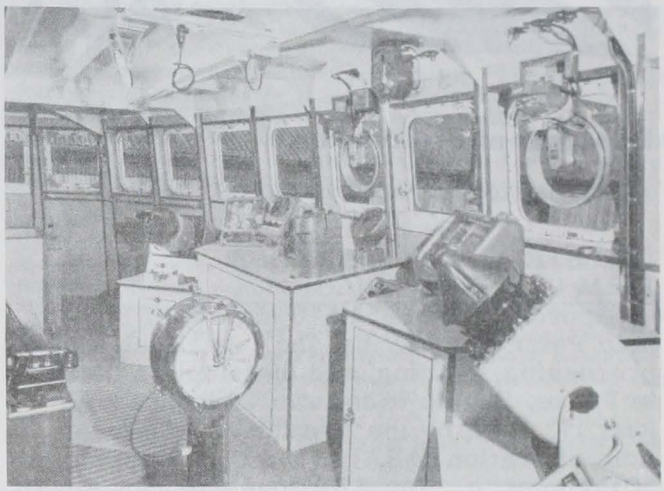

Fig. 2 - The bridge of the Ross Valiant. Shows echo-sounding equipment in the center and transistorized radar equipment to the left.

trawlers under a fixed-price contract arrangement in order to eliminate seasonal fluctuations and stabilize prices. The demand in Britain for fish frozen at sea has increased rapidly the past year.

Note: See Commercial Fisheries Review, April 1964 p. 76.

Yugoslavia

TUNA MARKET TO BE SURVEYED BY JAPANESE:

The Japan Export Trade Promotion Organization (JETRO), a Japanese government agency, was reported to be planning on conducting a tuna market survey in Yugoslavia. That country annually imports large quantities of frozen tuna to supplement domestic supply. In 1963, Yugoslavia's frozen tuna imports reportedly totaled 10,070 metric tons, of which 8,077 tons came from Japan, 794 tons from Italy, 448 tons from Israel, 460 tons from Turkey, and 291 tons from the United States. Yugoslavia, therefore, has become a very important tuna market for Japan, constituting the third largest buyer of Japanese tuna, next to the United States and Italy. (Suisan Keizai Shimbun, July 22, 1964.