and Seattle, Wash. Smaller vessels in support of NOAA's vast marine programs are located at various ports where fisheries laboratories and research centers are maintained. Included is the Great Lakes Center at Monroe, Mich., which conducts limnology research and nautical charting surveys of the Great Lakes.

Five of NOAA's ships are carrying out environmental impact studies in potentially oil-rich waters of the Gulf of Alaska and the Bering and Beaufort seas. The Discover, Surveyor, Miller Freeman, Townsend Cromwell, and Rainier are making in-depth studies of the environmental impact of the exploration and development of oil and gas resources in these sub-Arctic and Arctic waters.

Eight ships will conduct the nautical charting surveys essential to safe navigation. They will gather data in America's coastal waters. estuaries, bays and lakes for the two million charts the National Ocean Survey issues each year. These are the *Fairweather*, *Rainier*, *Mt Mitchell*, *Whiting*, *Peirce*, *McArthur*, *Davidson*, and *Ferrel*, and several smaller vessels. Their work will take them to the waters of New Jersey and New York, the Florida Keys, Puerto Rico, the Virgin Islands, Gulf of Mexico, Puget Sound, the West Coast and Alaska, and the Great Lakes.

Essential also to safe navigation are the wire drag surveys for underwater hazards, including wrecks, conducted by the *Rude* and *Heck* along the southeast coast and in the Gulf of Mexico, and the current circulation surveys carried out by the *Ferrel* in Chesapeake Bay, Oregon Inlet, N.C., and the Great Bay-Portsmouth Harbor Estuary in New Hampshire. These three vessels are unique, the only ones of their kind in the country, built specifically for their specialized work.

Some of the studies engaged in by the NOAA Fleet will seek to extend man's understanding of the ocean and the atmosphere, to evaluate the living marine resources of waters off the United States and South America and in the eastern and mid-Pacific: and to assess the environmental impact of activities in submerged coastal areas, such as man-made pollution in the New York Bight, the 11,500-square-mile area of coastal and outer continental waters extending from Montauk Point, Long Island, N.Y., to Cape May, N.J. And far off the southern California coast, the deep sea research vessel Oceanographer will seek to determine the effects of deep sea mining for manganese nodules on the sea environment. Some studies will involve other U.S. agencies, educational institutions, and foreign countries.

Foreign Fishery Developments

Japan: Soviet Talks and Fishing Protest; Tuna Prices and Exports

JAPAN-USSR FISHERY TALKS

The 19th Annual Meeting of the Japan-Soviet Fisheries Commission opened in Tokyo, Japan, on 3 March 1975 according to the *Suisan Keizai Shimbun* and *Shin Shimbun*. The focal points of this year's negotiations were: 1) allocation of salmon catch quotas; 2) enforcement of salmon regulations in the Area B (south of lat. 45°N) of the North Pacific treaty waters; and 3) regulations of the herring fishery in the Okhotsk Sea.

This year's salmon talks were expected to be tough since Japan wanted a 91,000-metric-ton quota (the same as in 1973, the previous year of good Asian pink salmon runs), whereas the Soviet Union was expected to demand a cut to correct the imbalance in the salmon catches of the two countries. The Soviet Union was also likely to insist on sending their patrol vessels into Area B, a move which Japan strongly opposed. The crab and sea snail fishery negotiations opened in Moscow on March 3rd.

FISHERMEN PROTEST

About 1,000 irate Japanese fishermen on 28 February 1975 staged a rally in Tokyo to protest what they called the Soviet fleet's "reckless" fishing in Japanese waters, the *Suisan Keizai Shimbun* and *Minato Shimbun* report. In recent years, Soviet trawlers fishing for Alaska pollock, mackerel, and other fish off the Pacific coast of Japan from Hokkaido to Chiba Prefecture were reported to have caused damages to vessels and fishing gear totaling 300 million yen (US\$1.05 million).

At the rally, the fishermen adopted a resolution calling for: (1) immediate withdrawal of Soviet fleets operating off Japan; (2) compensation for damages to vessels and gear; and (3) early establishment of a 12-mile territorial sea limit. A recent aerial patrol by the Maritime Safety Agency sighted 135 Soviet trawlers and motherships off eastern Japan.

TUNA PRICE PLAN

The Federation of Japan Tuna Fisheries Cooperative Associations (whose members include most of the Japanese tuna longline vessel owners), anticipating a sharp decline in skipjack and albacore prices in Japan owing to stagnant sales to the United States, has developed a tuna supply adjustment plan, according to reports in the Suisan Keizai Shimbun and Kanzueme Joho. From March until August, the Federation plans to store, frozen, over 20,000 metric tons of skipjack and 10,000 metric tons of albacore if the bidding prices for the landings fall sharply.

The prices at which the storage operation will begin are reported to be around ex-vessel 150 yen per kilogram (US\$481 per short ton at 283:1) for skipjack and 220 yen per kilogram (\$705 a short ton) for albacore. The prefectural tuna associations will also participate in this plan. Funds needed to finance the undertaking are estimated to reach 15,200 million yen (\$53.7 million), for which the Federation intends to seek emergency, low-interest government loans. Monetary losses resulting from the supply adjustment plan will be apportioned to the members, who will be assessed 2 yen/kg (\$6.4/short ton) for their landings for one year beginning 1 March 1975. Also included in the plan is the storage of canned tuna. The Tuna Federation's price supporting measure is being closely watched by Japanese tuna packers, who have been hopeful that raw tuna prices would decline in the future.

TUNA EXPORTS, 1974

Japanese fresh and frozen tuna exports in 1974 totaled 139,358 metric tons valued at 24,293 million yen (US\$83.8 million at 290:1) on a customs clearance basis (see Table), according to the Finance Ministry of Japan and reported in the *Suisan Tsushin*. This is

an increase of 1 percent in quantity and 13 percent in value (yen) over the 1973 exports of 138,505 tons worth 21,540 million (\$78.9 million at 273:1). Skipjack exports, which recorded 95,776 tons, declined by about 7,000 tons or 6 percent from 1973 but albacore exports, at 27,769 tons, registered a 33 percent increase over 1973.

Japan's fresh and frozen tuna exports, 1973-74.

Species	1973			1974		
	Quantity Metric ton	Value ¹		Quantity	Value ²	
		10 ⁶ yen	\$1,000	Metric ton	10 ⁶ yen	\$1,000
Skipjack	102,685.0	13,479	49,374	95,776	12.654	43,634
Albacore	20,884	5,973	21,879	27,769	9,118	31,441
Yellowfin	13,885	1,905	6,978	14,769	2,295	7,914
Bluefin	0.2	2	7	4	21	72
Other tuna	1,051	181	663	1,040	205	707
Total	138,505	21,540	78,901	139,358	24,293	83,768

¹Based on 273 yen = US\$1

²Based on 290 yen = US\$1

Uruguay, Bulgaria Explore Fishery Programs

Bulgarian and Uruguayan officials met for 3 days in Montevideo, Uruguay during the week of 10 March 1975, to discuss the possibility of fisheries cooperation. The talks were of an information-gathering and exploratory nature. The Uruguayan law on investments, the purchase of Uruguayan products, the investment of capital goods, and the creation of a joint Bulgarian-Uruguayan enterprise were discussed in detail.

The Bulgarian delegation, headed by Dragni A. Nedev, the Director of the Bulgarian State Fishing Enterprise, proposed an agreement allowing Bulgarian stern factory and freezer trawlers to operate in Uruguayan waters. This offer was rejected by Uruguayan officials who claimed that three such vessels presently fish in Uruguay's coastal waters and that any additional vessels are prohibited by Uruguayan fishery laws.

The Bulgarian delegation also expressed an interest in forming an Uruguay-based fishing company, either as a joint venture or as a 100 percent Bulgarian-owned company. The proposal included the construction of a fish-processing plant. The Uruguayans welcomed such a project, providing the Bulgarians complied with legal provisions which stipulate that all vessels be new, that they fly Uruguayan flags, and that at least 50 percent of the crew be Uruguayan citizens. (These same provisions are required of all would-be investors.)

According to the NMFS Office of International Fisheries, there seems to be a growing interest by Communist countries in Latin American fisheries. The Bulgarians also held talks with Brazilian and Argentine officials. In February 1975, a delegation from the Polish state-owned companies RYBEX (fishery trade) and DALMOR (deepsea fishing) visited Uruguay and Peru. The discussions were apparently of a similar nature and included an offer by the Poles to provide Uruguay with five new fishing vessels. A Soviet fisheries delegation is about to visit Montevideo to discuss fisheries cooperation.

The East European and Soviet officials are concerned with the growing number of coastal nations expanding fishery jurisdictions and an increasing tendency of setting quotas, or other limitations, on fisheries catch. Investments since World War II in ever-expanding fishing fleets of East Europe and the USSR have been enormous and are estimated to exceed \$10 billion.

The waters off Brazil, Uruguay, and Argentina still have abundant resources of little-exploited fishery stocks. Since all of these countries claim 200-mile fishery jurisdictions, the only possibility for the Soviets and the East Europeans to participate in such fisheries is by entering into joint venture arrangements.

Joint Shrimp Venture Set by Japan-Pakistan Firms

Two Japanese firms have obtained a combined 49 percent interest in a Pakistani shrimp fishing operation according to a report in *Quick Frozen Foods International*. The company, Sea Food Freezing Company, has granted Nichiro Gyogyo Kaisha, Ltd. (a fishery firm) a 27 percent interest, and Toyo Menka Kaisha, Ltd., (a trading firm) a 22 percent interest. Nichiro will utilize highly advanced fishing technology and large freezer vessels to increase the company's current shrimp catch above its present 1,000 tons per year.

Japanese fishing companies have been actively seeking to form joint ventures abroad in order to continue fishing in waters off coastal countries which may extend their fisheries jurisdictions. Nichiro has already established two joint ventures in the United States (ORCA Pacific Packing Co., and Nichiro Pacific, Ltd.) and one each in Gambia, Ghana, Guatemala, Indonesia, and the Philippines, according to reports in the Japan Economic Journal.

Japan Asked to Ban Korean Tuna Landings

Over 1,300 Japanese fishermen and crewmen from various prefectures rallied in Tokyo on 28 March 1975, calling for a ban on tuna landings in Japan by foreign fishing vessels according to the Suisan Tsushin and Katsuo Maguro Tsushin. The rally, sponsored by "Nikkatsuren" (The Japan Tuna Federation), was aimed primarily at halting tuna landings by Republic of Korea (ROK) fishing vessels, which have been unloading their catches in Japanese ports in increasing quantities in recent years. (In 1974, ROK longliners and Panamanian-flag vessels, manned by Koreans, together landed over 10,000 tons of tuna in Shimizu, the port where foreign fish landings are largest.)

At the rally, Nikkatsuren's President Shoichi Masuda stated that the sharp increase in direct tuna landings by foreign fishing vessels posed a difficult international problem complicated by the involvement of Japanese trading firms in the venture. He cited direct ROK tuna landings as contributing to the market price decline. He pointed out that the trading firms, which have heavily financed and virtually controlled ROK vessels operating out of Japanese ports, were hindering normal Japanese fishing activities and emphasized the need for legislation to revise the existing Law Relating to the Regulation of Fishing by Foreign Nationals.

The rally adopted a resolution calling for legislation aimed at: (1) banning fish landings in Japan by foreign fishing vessels; and (2) prohibiting foreign carrier vessels from bringing fish into Japanese fishing ports or fishing port districts. Earlier, on 14 March, a separate vally was held in Shimizu by about 1,000 tuna fishermen protesting foreign fish landings. They staged demonstration parades on land and sea, shouting repeatedly at Korean fishing vessels in port to go home with their catches.

The Japanese Government's Fisheries Agency, in view of strong protests by the Japanese tuna industry, on 25 March sent Fisheries Administration Chief Hyodo to Seoul, Republic of Korea, to confer with ROK Fisheries Director Kang regarding voluntary regulation of Korean tuna exports to Japan, the Suisan Tsushin and Nihon Suisan Shimbun report. The Japanese official is believed to have sought acceptance of the following proposals relating to ROK tuna exports to Japan: (1) temporarily suspend tuna exports to Japan; (2) voluntarily limit exports to 20,000 tons a year; and (3) use carrier vessels but no fishing vessels for shipment of tuna to Japan. On 28 March, the talks were still going on, with indications that ROK will not accept the proposed regulations.

Japanese Company Halts Ghanian Tuna Operation

Nichiro Gyogyo, a major Japanese fisheries firm, has apparently decided to cease tuna fishing operations, according to the Office of International Fisheries, NMFS. The company's notification of the All Japan Seamen's Union of the planned layoff of 633 tuna fishermen was reported in Suisan Tsushin early this year.

Nichiro, once the largest Japanese fishery firm in the tuna business, had 13 pole-and-line skipjack vessels based in Tema, Ghana. That joint venture ran into difficulties because of depressed tuna sales to the United States and because of the criticism voiced at the November 1974 meeting of the International Commission for the Conservation of Atlantic Tuna. The Commission alleged that Tema-based Japanese vessels were taking undersized yellowfin tuna. Nichiro planned to sell its Tema-based tuna vessels to local Ghanaian interests.

Continued deficits, arising from tuna operations in recent years, contributed to the serious financial troubles of Nichiro, whose business in 1974 showed a net loss of nearly US\$3 million. As a result, the firm has undergone reorganization.

Long-term Fishery Aid Loan Given Indonesia

The Asian Development Bank (ADB) has announced the approval of a \$13.2 million long-term loan to the Indonesian Government for a fisheries development project costing an estimated \$21.3 million. The ADB loan will finance the construction of facilities at Pekalongan, Central Java, for the catching, processing, transport, and marketing of fish for domestic consumption. The project is expected to increase the fisheries catch by about 14,000 metric tons a year and to introduce modern marketing facilities. The Bank loan, which will cover the foreign exchange portion of the project (\$11.3 million), interest, and other expenses (\$1.9 million), is repayable in 18 years, including a 4-year grace period. The annual interest rate is 8.25 percent. The project is to be completed by 1979.

According to the U.S. Embassy, Manila, the project would provide foreign exchange funds for the purchase or construction of:

(1) Diesel engines, auxiliary equipment and purse seine nets to equip a fleet of 50 wooden-hulled vessels each having the capacity of 60 gross registered tons (GRT) (the vessels are to be built by local shipyards);

(2) Equipment and power sets for a cold-storage/ice-making complex;

(3) Three steel-hulled refrigerated fish carriers (each having the capacity of 120 GRT);

(4) Fourteen refrigerated trucks and 13 insulated trucks;

(5) A repair workshop and a slipway;

(6) A fish landing pier;

(7) Housing for 150 employees; and(8) Miscellaneous facilities and

equipment as well as the services of consultants.

The project is designed to increase the marine fisheries catch in waters adjacent to northern central Java by adding more efficient fishing vessels and gear. It is planned that the annual catch of fish will increase by 14,000 tons; in addition 2,500 tons more will be bought from small fishermen. The catch will be distributed by the refrigerated fish carriers and trucks to the main consuming centers in central and western Java. By providing ice, coldstorage, and marketing facilities, the project will increase the productivity and income of small fishermen and generate about 1,200 new jobs.

In October 1974, the Indonesian Government established a Government-owned corporation, Persean Terbatas Tirta Raya Mina, or, the Tirta Raya Mina Company, Ltd. This agency will manage the project with headquarters in Jakarta and a branch office in Pekalongan. The ADB-sponsored project will further the goals of the Government's development plan: to increase fisheries catch; to increase fishermen's incomes; to expand employment; and to maintain fishery resources.

Danish Fishermen Protest Prices, Gain EEC Subsidy

To protest low prices of cod and fish used for reduction to animal feed, Danish fishermen selectively ceased their fishing operations for brief periods in March 1975, according to the U.S. Embassy, Copenhagen. In early March, fishermen at Hirtshals, an important fishing port, stopped fishing and held talks with fishermen at other major ports on the Danish West Coast to extend the strike. To make matters worse, the fishermen claim that prices for fuel have more than doubled, that costs of gear and other supplies have risen sharply, and that as a result they can not make ends meet with the prevailing low prices.

Substantial quantities of first-quality cod are being taken off the market for human consumption and sold as mink food. Prices for fish used in reduction have fallen from 10-11 U.S. cents/kg in March 1974, to 3-4 cents/kg at present.

In a related development Danish fishery associations have increased pressure on the Government not to renew permission for Polish fishing vessels to land fish in Denmark, as much of the Polish-caught fish is processed into frozen fillets and blocks for export to the United States. Such exports are in direct competition with Danish exports.

Falling fish prices have likewise affected the fishing industries of other member states of the European Economic Community (EEC). Weak export markets in the United States for cod fillets and blocks, and in Europe for fish meal have further aggravated the situation. Danish officials therefore met with their EEC counterparts to seek answers to this international dilemma. The Danes believe that much of their problem in exporting frozen cod to the United States comes from semi-hidden government export subsidies paid by their major competitors -Norway, Iceland' and Canada.

Export subsidy measures were being considered by the Danish government, when, on April 1, the EEC Council approved a subsidy for all member countries on the exports of frozen fillets and blocks of cod and saithe to all destinations. The subsidies paid to each member country will vary slightly because of complicated accounting procedures. The effect for Denmark will be a U.S. 14.1 cents/kg subsidy for cod exports, and 9.2 cents/kg subsidy for saithe products. This action by the EEC Council should help improve the competitive position of Danish exports against non-EEC nations.

JAPAN WHALING FIRMS MERGE, HALVE FLEETS

Six Japanese fishing companies have merged their whaling operations into a single new firm, which will have a capitalization of US\$33 million (10 billion yen), according to the U.S. Em-

¹Iceland's exports were also helped by the devaluation of her currency. bassy in Tokyo. The participants in the merger are: Taiyo, Nippon Suisan, Kyokuyo, Nitto Hogei, Nihon Hogei, and Hokuyo Hogei.

The merger was considered necessary as whale quotas have been declining, and the individual companies involved did not feel their independent whaling operations were economically viable. The Japanese Federal Trade Commission ruled that the merger was not monopolistic in view of the economic pressures, but it did stipulate that only needed assets could be transferred to the new firm to preclude the passing on of consolidation costs to the consumer through higher prices. This ruling is expected to complicate and delay merger negotiations. In addition the participating companies must share the financial burden of reducing the four whaling fleets currently in existence, to the two projected for the successor firm, before the planned consolidation can take place.

Iceland Discusses 200-Mile Fish Zone

Prime Minister Geir Hallgrimsson, Foreign Minister Einar Agustsson, and Justice (and Commerce) Minister Olafur Johanasson, each made statements on March 5 concerning the Icelandic government's plan to implement a 200-mile Fisheries Zone (FZ) in 1975 according to the U.S. Embassy in Reykjavik.

The Prime Minister stated that the political decision for extended jurisdiction had already been made, but that no unilateral action would be taken until the Law of Sea Conference at Geneva had been concluded on May 10. He indicated that the extension would probably be put into effect by November 13, when the current fisheries agreement with the United Kingdom will have expired. Hallgrimsson reiterated his government's official position that Iceland alone could utilize the entire catch within the 200-mile FZ.

Foreign Minister Agustsson advised that a 200-mile FZ would require negotiations to establish suitable midlines, but declined to speculate when such talks might begin. The Justice Minister, who has the responsibility for the Icelandic Goast Guard and for fisheries enforcement, indicated that his office was currently studying the problems that extended jurisdiction would bring about. A new Coast Guard cutter is expected to be available in May, but as one additional vessel would not be sufficient for adequate surveillance, his Ministry was seriously considering the possibility of strengthening the Guard's air fleet.

Polish Fishermen Drown in Danish Port Accident

The Polish side trawler *Brda* became careened in a 15-20 feet of water at the entrance to the Danish North Sea port of Hanstholm on 10 January 1975. Ten of the 27 crewmen were lost before a helicopter could take all hands off the vessel.

The Brda was entering Hanstholm at 11 p.m. in a Force 6 wind when it struck bottom and lost the use of its steering mechanism. While waiting for a tugboat to aid in maneuvering the trawler, whose engines were still in good order, the Brda anchored, but at 2:15 a.m. the anchor chain parted and the wind blew the vessel toward the cement breakwater. A wave smashed the Brda against the breakwater; after that, the vessel lay on its starboard side 10 meters from the breakwater. During the helicopter rescue operations, 10 seamen were washed overboard and drowned. A special commission and a maritime court are investigating the incident.

Publications

Recent NMFS Scientific Publications

Data Report 98. Petersen, Duane H. "Trawl catches and oceanographic data from NMFS surveys of the Gulf of Alaska pandalid shrimp resources, 1973." February 1975, 206 p. (3 microfiche). For sale by U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Rd., Springfield, VA 22151.

ABSTRACT

Trawl catch and oceanographic data collected from two National Marine Fisheries Service cruises to assess the relative abundance of