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REPORT ON

**THE CANADIAN FISHERIES  
RECONNAISSANCE TRADE MISSION**

TO JAPAN

MARCH 24 – APRIL 4, 1964

DEPARTMENT OF TRADE AND COMMERCE, OTTAWA, CANADA

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CANADIAN FISHERIES RECONNAISSANCE MISSION TO JAPAN

March 24 - April 4, 1964

To obtain firsthand knowledge of the world's leading producer and exporter of fisheries products, a Fisheries Reconnaissance Mission travelled to Japan and conducted during the period March 24 - April 4, 1964 an on the spot investigation into the producing and marketing procedures of the Japanese fisheries. Members of the Mission were: Mr. Maurice Lessard, Assistant Deputy Minister of Industry and Commerce for the Province of Quebec; Mr. Leonce Chenard, Deputy Minister of Fisheries for the Province of New Brunswick; and Mr. Ray Kinsella, Chief, Fisheries Division, Department of Trade and Commerce.

The purpose of the Mission was:

- (a) To visit the Japanese Federal Fisheries Agency to discuss with its senior officials production methods, marketing procedures and scientific organizations, and to visit the Japanese fisheries research stations and fisheries universities.
- (b) To visit diversified fish plants including canneries and processing plants for salted, smoked, and specialty fish products.
- (c) To visit fishing ports and shipyards specializing in the construction of steel and wooden fishing vessels.
- (d) To visit plants producing the most modern fishing gear and equipment - and to see demonstrations in the use of this particular material and equipment.
- (e) To visit wholesale and retail fish markets.

At the outset a call was made on the Japanese Fisheries Agency of the Federal Ministry of Agriculture and Forestry. It was explained that the Agency has four main divisions:

Fisheries Administration Division  
Production Division  
Fishing Port Division  
Research Division

In addition there are several auxiliary organs including Fisheries Research Stations and two National Fisheries Universities.

Fisheries Research plays a major role in the development of the Japanese Fisheries, and it should be noted that both the federal and prefectural (provincial) governments are involved in this particular phase.

The Federal Fisheries Agency maintains one central and eight regional fisheries research stations throughout the country. In Tokyo the Mission members visited the principal research station known as the Tokai Regional Fisheries Laboratory. The staff of this station includes some 230 persons including 130 scientists. The main divisions are:

- General Administration
- Marine Resources
- Population Dynamics and Statistics
- Oceanography
- Marine Propagation
- Fishing Gear and Methods
- Fish Preservation
- Marine Product Utilization
- Biochemistry
- Hydrology

It was pointed out that the Tokai Laboratory has three research vessels, two of which are ocean going.

The Prefectural (provincial) Fisheries Research and Experimental Stations adopt a coordinated research system with the National Fisheries Research Organization. These stations are broken into 38 dealing with the ocean and 7 with inland waters; they are scattered across the country, one station in each prefecture, with an average of 12 scientists in each station. Each Prefecture has its own Department of Fisheries.

Japanese fishing activity in recent years has ranged far and wide - to the northwestern and southern regions of the Pacific ocean, the Indian ocean, and even the Atlantic ocean. Larger and more efficient ships, improved processing facilities and better techniques have accompanied the increased fishing activity. In 1963 the Japanese catch amounted to about 6.8 million metric tons worth some \$1,200 million. This accounts for about 16 per cent of the world total landings - and ranks Japan first among the fishing nations. With an anticipated annual growth rate of 2.7 per cent, it is expected that overall Japanese fish landings will reach some 7.4 million metric tons by 1970.

The Japanese fisheries supply 65 - 70 per cent of the country's total animal protein requirements - and the annual per capita consumption ranges between 55 - 60 pounds, a high level compared with other nations of the world. There are about 800,000 persons engaged in the Japanese fisheries with some 400,000 fishing boats both large and small in size. The Japanese fishermen are also contributing to the development of fisheries industries in less-developed countries in Southeast Asia and Latin America by providing them with advanced fishing technology through such means as joint business ventures, including technological and capital assistance, and the participation of Japanese fishermen. These overseas ventures are carried out by large Japanese fishery firms, including the Taiyo Fishery Co.; Nippon Suisan Kaisha; Nichiro Gyogyo Kaisha; and Kyokuyo Hogeï Co.

Japanese fisheries operations are classified into three categories:

- (a) small inshore boats used by fishermen for coastal fishing
- (b) medium-sized vessels owned and operated by individual fishermen and firms for offshore fisheries
- (c) large distant water fishing vessels, using modern technology, owned and operated by enterprises with substantial capital.

Some of the principal species caught include mackerel, anchovies, saury, Alaska pollock, tuna, flounders, sole, salmon, and halibut. The greatest part of

the catch is taken by the large and medium size vessels. The smaller enterprises and individual fishermen are scattered along the coast and only contribute about 20 per cent of the total. The coastal fishermen have organized cooperatives in their respective regions, and there is the National Federation of Fisheries Cooperative Associations in Tokyo as a coordinating body. The Japanese Fisheries Association, on the other hand, is made up mainly of medium and large-scale fisheries concerns. This association represents the interests of the entire Japanese fishing industry in both domestic and international affairs.

While certain elements of the Japanese fishing industry are second to none in productivity, the average catch per fisherman or average catch per boat is far behind the level of other leading fishing nations of the world. As a consequence, several measures are being taken as part of government policy for the improvement of the coastal fisheries in order to rationalize their management and improve their income. One measure that is showing good progress is the organizing of more and more fishermen into cooperatives. This provides better management control better credit, and educational facilities both in the processing and in the distribution for this sector of the industry.

The Fisheries Agency indicated that during the post war period, the Japanese fishing industry was given a big boost by a powerful fisheries reconstruction policy. This has continued with major developments in production techniques including the construction of steel boats (to enable the fishermen to go further afield as the shore fisheries are being depleted); the extensive use of diesel engines, particularly on small fishing boats which used to have semi-diesel engines; synthetic fibres for fishing nets; modern electronics equipment such as radio-telephone, fish finders, loran, radar, direction finders, gyro compasses, automatic pilots, and refrigeration facilities on board the vessels. Even many of the small fishing boats are equipped with some of these modern instruments and equipment.

The remarkable development of the Japanese fishing industry is also attributed in a large measure to the expansion of the deep-sea fishery, mainly by the large-scale firms. It is characterized by the general use of factory ships or floating factories which process fish on the spot. A major part of the Japanese output is consumed in the fresh form in the domestic market. However, one-third of the total catch is processed into frozen, dried, salted, canned, and specialty fisheries products.

There were few refrigeration and cold-storage plants in Japan in 1946, but the number gradually increased and by 1950 totalled 1,847, reaching prewar levels. In 1962 they numbered 2,896 - with a total storage capacity of 152.6 million cubic feet.

The total value of Japanese exports of all commodities during the calendar year 1962 amounted to \$4,920 million of which Fisheries accounted for \$310 million or 6.4 per cent. Principal items included canned salmon, tuna and crab meat; frozen tuna, swordfish, salmon, rainbow trout, and halibut; and marine animal oils. About 140 Japanese fishing boats (100 long-liners and 40 trawlers) are currently operating in the Atlantic ocean. The reason for this rapid progress is that Japanese fishermen or fishing companies can export frozen tuna caught in the Atlantic to the United States via designated ports of third nations along the Latin American and African coasts, or they can export directly to European countries like Italy, and to African nations. The former practice is called "trans-shipment exports by tuna boats" and the latter is known as "direct export by tuna boats".

The members of the Mission visited Shizuoka Prefecture which is the centre of canned tuna production. Over 80 per cent of Japan's canned tuna is turned out in the area surrounding the prefecture's port cities of Shimizu and Yaizu. Canned tuna is processed into two types, one with the meat in brine and the other in oil. The United States takes virtually all the exports of the brine type,

while Canada, West Germany, Switzerland and other countries in Europe are major markets for tuna packed in oil. Tuna packed in brine is subject to import restrictions by the United States, and control is enforced on the export volume, price, and sales methods by the Japanese Canned Tuna Packers' Association in accordance with Japanese Government regulations.

Quantitative ceilings are fixed each year for frozen swordfish exports to the United States and Canada. The export system is the same as that used for frozen tuna, but export controls are presently being enforced for shipments to the United States only.

There are two Japanese canned salmon operations, one conducted on the coast of Hokkaido and the other aboard the salmon fleet mother ships operating in the northern Pacific by the "Big Five" fisheries firms - Nichiro Tyogyo Kaisha; Taiyo Fishery Co.; Nippon Suisan Kaisha; Kyokuyo Hogeï Co. Ltd.; and Hoko Fishing Co. Ltd. - and their affiliated firms. The number of catcher boats attached to the mother ships is closely regulated by the Japanese Fisheries Agency - and the mother ships can take salmon caught by licensed catcher boats only. The salmon used by the canneries (on the coast of Hokkaido) is purchased at the various fish auctions. There is no control on domestic sales. All canned salmon destined for export is consigned to the Japanese Canned Salmon Sales Company, which administers shipments and determines the price at which canned salmon may be exported - on the basis of the market potential. Initial advances are made pending final settlement. This sales company is made up of nine major stockholders, one of which represents some sixty packers in Hokkaido. The other stockholders are representatives of the major Japanese fisheries firms. The Japanese firms wishing to export apply to the Japanese Canned Salmon Sales Company for supplies. Exporters are not permitted to sell canned salmon abroad below the established export price.

Japanese exports of canned salmon in 1962 amounted to 2,616,000 cases valued at \$91,232,000. Shipments of frozen salmon reached 1,552 tons worth \$1,640,000 while salted salmon export sales were only 17 tons in the amount of \$18,000.

It appears that the output of canned salmon in Japan has been decreasing because of fishing restrictions on salmon hauls under the Japanese-Soviet Fisheries Treaty. Japan's salmon quota is fixed annually by the Japan-Soviet Fisheries Commission, and the quota is applied to two areas - "Zone A" north of the 45th Parallel around the Aleutian Islands, where fleets led by mother ships operate, and "Zone B" south of the 45th Parallel near Japan. The 1963 quotas for "Zone A" and "Zone B" were 57,000 tons and 63,000 tons respectively.

Exports of frozen, salted, dried, and canned fisheries products are subject to the Japanese Export Inspection Law. They undergo inspection conducted by a third party - a State inspection agency, or a State-designated private inspection agency - according to standards and methods of inspection determined by the State on the basis of the Export Inspection Law. In the case of canned salmon, inspection is conducted mostly in Yokohama by the Japan Canned Food Inspection Corporation, a private organization designated by the government. The inspection is somewhat similar to the Canadian system with sample lots being tested and the salmon classified as Grade A (Fancy) or Grade B (Standard).

The Mission members visited the Tokyo Central Wholesale Market in the early hours of the morning to see the operations at their maximum. This market is the largest in the world and is owned and operated by the Tokyo Metropolitan Government. Fish arrives conveniently by all modes of transportation, including refrigerated railway cars, ships, and trucks. The daily average is some 1,300 tons (\$600,000) in all forms: fresh, frozen, dried, salted, smoked, canned, and alive. Supplies come from as far away as South African and Australian waters.



Almost all is sold by auction and supervised by the Market Authority. The members of the Mission were greatly impressed by the cleanliness of the market, its organization, superior quality, and lack of odour. About 60,000 persons daily visit the market which has nine fish wholesale dealers who act as auctioneers, 1,632 fish jobbers, and 22,000 fish purchasers. The records of the Tokyo Central Wholesale Market show that it and its subsidiary markets handle over 600,000 tons of fish annually.

The Mission members were taken on a tour of fish processing plants in Tokyo and surrounding areas - and saw all forms of fish being produced. They were surprised to note that over 114,000 metric tons of fish sausages and fish hams are processed annually. This has increased from 26,000 tons in 1956 - and the demand continues strong. The fish hams and sausages are produced by grinding whale and tuna meat and blending the mixture with seasoning salt, starch, condiments, sodium glutamate, pigment, lard (to give it a meat taste) and by precooking (90 - 95°C) the product. It is attractively packaged in cellophane and sells in the retail stores at about 42 cents per pound. As of May 1963, Japan had 235 fish canning enterprises, more than 80 per cent of which were corporations and the rest cooperative unions and individuals. There are 10 firms capitalized at more than \$2.7 million each and many of them are comprehensive concerns engaged not only in fish packing but also in the operation of fishing vessels, cold storage plants and even shipyards.

The two-week tour of the Japanese fisheries arranged by the Department of Trade and Commerce officials in Tokyo gave the Mission members a very good insight into the overall Japanese fisheries at all levels including catching, landing, processing, and marketing. The visits in the Tokyo area also entailed a tour of electronic equipment manufacturers (direction finders, high frequency radio telephones, loran, gyro compasses, monitors, and fish finding equipment) as

well as fish processing plants. With the high frequency radio telephones, the mother ship may contact 43 boats of the fleet simultaneously or individually. The visits outside Tokyo, viz. Hachioji City, Kurihama, Yokosuka, Shimizu, Shizuoka City, Yaizu City, and Choshi City, which included some of the largest fishing vessel shipbuilding firms in Japan and fish plants, were most interesting and constructive. A feature was the visit to the fisheries and the Fisheries Cooperative Association of Yaizu. During 1962, some 134,000 metric tons of fish were landed at this Cooperative's wharf. It was mentioned that 400 foreign visitors toured the operations last year.

A visit was made to the Tokyo University of Fisheries which is directly under the Japanese Ministry of Education. Fisheries training in Japan plays an important role in the management, research, public administration, and operation of the Japanese fishing industry and this has been so since the foundation of the Tokyo University of Fisheries in 1889. Training programmes are fully organized at two separate levels: professional and vocational. Both national and private universities give professional training in fisheries, while prefectural high schools train young fishermen at the technical level.

There are two national universities of fisheries in Japan, one located at Tokyo and the other at Shimonoseki. These universities, owned and operated by the Federal Government of Japan, give both graduate and post-graduate training in their three faculties: faculty of fishing, faculty of technology, and faculty of fish culture. Graduate studies lead to a "Suisan Gakushi" (Bachelor of Fisheries) degree after a four-year course and a Ph.D. degree in fisheries and fisheries economics could be obtained in additional post-graduate studies.

Current enrolment at the Tokyo University of Fisheries consists of 800 under-graduates and 56 post-graduates. In addition, 60 foreign students from the United States, Indonesia, and other countries were taking special courses in fisheries. This university also has three training ships, one of which measures

over 1,400 tons. Fifty students at a time get intensive training in navigation aboard the ship for periods not exceeding six months. About 200 students graduate each year.

University training in fisheries is also given in 60 Japanese universities across the country which have faculties of fisheries specializing in one particular branch of the curriculum set up by the two national fisheries universities. These universities also confer a bachelor degree in fisheries to their graduate students.

Elementary and vocational training in fishing and technology is extended to fishermen attending the prefectural fisheries high schools in Japan. Each prefecture has at least one fisheries high school. In most cases instructors are graduates of fisheries universities. Textbooks and syllabus used at these schools are prepared by committees formed by the Ministry of Education.

The Mission members took the opportunity to discuss marketing procedures with the Provisions Departments of Mitsui & Co. Ltd., Tokyo, one of the largest organizations of its kind in the world. Its 1963 overall volume of business amounted to \$2.58 billion. This huge firm handles everything from bridges to buttons, cars to canned foods. With an international network outside of Japan of 77 offices and affiliates in 48 countries, it is a purveyor of goods, services and ideas to hundreds of countries and thousands of businesses. It has 8,000 employees in Japan of whom 3,500 work in Tokyo. Its exports of fisheries products are substantial and include canned salmon, tuna, crabmeat, sardines, sauries, mackerelpike, horse mackerel, mackerel, shrimp, and tuna spread; frozen tuna, salmon, porbeagle, prawns, shrimp, swordfish, and oysters; dried abalone and squid; and fish and marine animal oils (fish oils and whale oils). Messrs. Mitsui & Co. Ltd. have offices in Vancouver, Toronto, and Montreal.

At the conclusion of the tour, the Japanese Government fisheries officials and the fisheries trade held a reception for the Mission which was well

attended by the senior officials and executive officers. Just prior to the Mission's departure, a joint meeting was convened by the Japanese Fisheries Agency and the Japan Fisheries Association at which 29 officials of the Japanese government and trade were present. The Mission members were afforded the opportunity to ask pertinent questions concerning all phases of the Japanese fisheries. The Chairman of the meeting expressed the view that the visit of the Mission would continue to strengthen the cordial relationship already existing between the fisheries industries of Japan and Canada - and that possibly during their next visit to Japan the Mission members might be able to arrange for a more extended stay in order to see every aspect of the Japanese fisheries. During the stay of the Mission in Japan it was announced that Japanese and Russian fisheries delegates agreed on April 4, 1964, at their seventh plenary session of the current Japanese-Soviet fishery talks in Moscow, to fix the catch quotas for crab in the restricted waters covered by the Japanese-Soviet Fishery Treaty at the same level as 1963. Under the agreement reached Japan will be allowed to catch 252,000 cases in terms of canned crabs and Russia 378,000 cases (each case containing four dozen  $\frac{1}{2}$  lbs. tins).

The Japanese and Soviet delegates also discussed herring fishery operations indicating that scientific surveys of herring resources should be continued to study steps necessary for replenishment of resources.

The two countries were scheduled to start discussions on the problem of salmon fishing and restrictive measures, the principal item on the agenda of the next plenary session. The date for holding the next plenary session, however, has not yet been decided.

It should be noted that the Japanese government officials, cooperative organizations, and the trade associations provided the Mission with every cooperation and assistance throughout the tour. Some of the fisheries precision equipment manufacturers even offered to place sample sets at the disposal of the Canadian provincial governments. It was the consensus that the tour though brief was invaluable and the information gleaned will be passed on to the provincial fisheries departments and the trade across Canada.

