OVERALL VIEW OF SOVIET FISHERIES IN 1963, WITH EMPHASIS ON ACTIVITIES OFF UNITED STATES COASTS

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ABSTRACT

The U.S.S.R. fishery catch has increased steadily in recent years, the result mainly of the expansion and integration of high-seas fishing fleets. The significant development is that Soviet fleets and vessels have developed the capability of fishing great distances from home ports. Those vessels now fish commercial fishery concentrations off the Atlantic and Pacific coasts of the United States. It is highly probable that Soviet fishing effort will increase in the Western Hemisphere, particularly in the western Atlantic, where the Soviets have made arrangements for the expansion, modernization, and use of a Cuban fishing port in Havana Bay.

INTRODUCTION

The fishery catch of the U.S.S.R. has more than doubled since 1950. Within the last decade, the Soviet Union has moved ahead of the United States to occupy fourth place among the leading fishing nations of the world. The large increase in the Soviet catch, which was already at a high level, is the result of expanded high-seas fishing operations. Fully integrated Soviet fishing fleets and large stern factory trawlers are now capable of fishing for prolonged periods at great distances from home ports. Such capability has enabled the Soviets to fish for commercial quantities of fish at the opposite sides of the Atlantic and Pacific Oceans. Soviet fishing fleets are now a common sight off the coasts of Alaska and New England, and Soviet fishing vessels also frequent the Gulf of Mexico, the Caribbean Sea, and areas off the Middle and South Atlantic coast of the United States.

CATCH AND PRINCIPAL SPECIES

Soviet Landings, excluding whales and other marine mammals, for selected years (preliminary estimate for 1963) reflect the remarkable progress and expansion of the Soviet fisheries.

Table 1 - U.S.S.R. Fishery Landings, 1950, 1955, 1960-63[1/]

Year	Catch
	Metric Tons
1963	4,200,000
1962	3,616,500
1961	3,250,000
1960	3,051,000
1955	2,495,000
1950	1,627,000

1/Source: FAO Yearbook of Fishery Statistics, 1962.

Herring in 1962 comprised 24.5 percent of the Soviet catch, compared with 17.9 percent in 1955 (table 2). Cod and related species (including Alaska pollock) are also of major importance, and represented 24.4 percent of the Soviet catch in 1962. Catches of sprat, flatfish, and ocean perch have also increased significantly since 1955, whereas the catch of king crab has shown slight gains, and catches of Pacific salmon and fresh-water species

Table 2 - U.S.S.R. Catch of Fish and Shellfish, by Selected Species, 1955, and 1960-62

Species	1962	1961	1960	1955
	(1,000 Metric Tons)			
Marine:				
Cod, hake, haddock, and related species	783.8	669.7	563.3	686.0
Alaska pollock	97.2	97.6	109.2	9.7
Herring:				
Atlantic	500.7	396.7	523.4	224.4
Baltic	65.8	63.8	60.0	85.6
Pacific	320.5	272.8	193.0	135.9
Total herring	887.0	733.3	776.4	445.9
Sprat	270.0	234.0	199.8	177.2
Flounder, sole, halibut, and related species	238.7	273.1	241.7	127.2
Ocean perch	111.5	123.7	183.9	31.6
Salmon, Pacific	64.2	84.8	73.8	172.4
King crab	41.4	38.7	36.7	37.4
Other marine	758.7	574.8	434.6	237.6
Total marine	3,252.5	2,829.7	2,619.4	1,925.0
Fresh water[1/]	364.0	420.3	431.6	570.0
Grand total	3,616.5	3,250.0	3,051.0	2,495.0

1/Principally roach, bream, carp, pike, pike-perch, and whitefish.
Source: FAO Yearbook of Fisheries Statistics, 1960 and 1962.

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have declined. From 1961 to 1962, catch gains were noted for cod and related species, herring, sprat, and king crab, with declines in flatfish, ocean perch, and Pacific salmon. The Soviet catch of tuna reached 1,000 metric tons in 1962.

FISHING AREAS

A broad breakdown of the Soviet catch by area was based on an association between known species of fish and known bodies of water (table 3).

Table 3 - U.S.S.R. Fishery Catch by Area of Capture 1/, 1956 and 1962

Fishing Area	Catch	
	1962	1956
	. . . (Metric Tons) . . .	
Marine:		
Atlantic Ocean, Barents Sea, White Sea and adjacent waters	1,259,500	912,400
Pacific Ocean, Bering Sea, Sea of Okhotsk and adjacent waters	777,800	551,300
Baltic Sea, Sea of Azov, Black Sea, and Caspian Sea	356,100	394,600
Unidentified	859,100	268,700
Total marine	3,252,500	2,127,000
Fresh water	364,000	489,000
Grand total	3,616,500	2,616,000

1/Source: FAO Yearbook of Fishery Statistics, 1956 and 1962.

The Atlantic Ocean and adjacent waters supply over one-third of the total Soviet catch and continue to be of increasing importance. Large and increasing Soviet catches are also being taken in the Pacific Ocean and adjacent waters, particularly in the North Pacific and Bering Sea. The catch by major fishing area for 1956 and 1962 offers at best only a somewhat relative comparison; the data suggest that the catch from waters of the Atlantic Ocean area probably has increased by at least 38 percent since 1956, compared to a minimum catch increase from waters of the Pacific Ocean area of 41 percent. The catch in the "unidentified" category could not be further separated into the major marine fishing areas listed from the information presently available.

In the northwestern Atlantic Ocean, the Soviets are known to be taking significant quantities of ocean perch, cod, whiting (silver hake), haddock, herring, flounder, and halibut. Soviet catches, by principal species, taken in the ICNAF (International Commission for the Northwest Atlantic Fisheries) Convention area for the years 1956 and 1962-63 are given in table 4. In 1963, for the first time, whiting (silver hake) dominated the Soviet catch in the ICNAF Convention area, followed by herring, cod, and ocean perch. The herring and cod catches declined from 1962 to 1963. Soviet fleets now frequent the Grand Banks off Newfoundland and Georges Bank off New England. In August 1963, a peak number of over 200 Soviet vessels was reported operating on Georges Bank. In June 1963, a group of seven stern trawlers (BMRT class) was observed fishing for whiting (silver hake) in the vicinity of Bloc Canyon 1/, 30 miles south of Block Island, Rhode Island. The Soviet Union is also making a major effort to develop new fishing grounds in Davis Strait west of Greenland, and off the Labrador coast.

Table 4 - U.S.S.R. Catch in the ICNAF Convention Area, 1956, and 1962-63

Species	1963	1962	1956
		. . . . . (Metric Tons).	
Cod	81,658	100,791	3,001
Herring	100,036	160,404	1/
Whiting (silver hake) .	230,380	50,725	1/
Ocean perch	37,535	32,269	12,908
Haddock	6,504	5,315	1/
Other	35,333	20,290	1,100
Total	491,446	369,794	17,009

1/Included with "other."
Source: Documents of the International Commission for the Northwest Atlantic Fisheries (ICNAF).

In 1963, about 40 Soviet vessels, mostly medium trawlers and some stern trawlers, operated off the United States Atlantic coast from Nantucket Island south to Florida. In early 1964, about 30 Soviet medium trawlers were reported to be operating out of Cuban ports. In the past two years, some of those craft were observed off Virginia, the Carolinas, Florida, and Louisiana; it is believed those craft are conducting exploratory fishing operations and perhaps oceanographic studies off the Middle and South Atlantic coast of the United States, and in the Gulf of Mexico and Caribbean Sea. Species sought may include menhaden, shrimp, and tuna, among others. Soviet stern trawlers, operating off the coast of Virginia in March 1964, were taking scup, sea bass, and sea robins. In June 1962, a Soviet exploratory fishing vessel was reportedly seeking menhaden off the coasts of North and South Carolina. Soviet

1/A canyon in the ocean floor at approximately 39°42' N. latitude and 71°15' W. longitude.

scientists are known to be making a detailed study of the menhaden resources of the northwestern Atlantic; the study includes a thorough review of reports published on the subject in the United States. Soviet research vessels are also assisting the Cubans in an oceanographic study of the Gulf of Mexico.

In August 1962, it was announced that a Cuban fishing base, financed jointly by the Soviet Union and Cuba, would be built in Havana Bay. Reports indicate that construction at the base is proceeding rapidly and will include a shipyard for repairs, a large cold-storage plant, canneries, warehouses, and a fish reduction plant. The base will also be equipped with extensive docking facilities and will service about 130 Soviet fishing vessels as well as serving Cuban needs. The cold-storage plant will have a 10,000-ton capacity. In September 1963, about 2,000 workers were employed in construction at the base.

Some offshore marine resources of the western Atlantic, particularly off the coasts of Central American, South American, and Caribbean countries, are generally considered to be underdeveloped. Several Latin American countries do not have extensive fishery development capability and are not likely to develop such capability in the near future. In addition, the fisheries of the United States, Canada, and Mexico are highly selective, and certain species off the coasts of those countries are underutilized. Because of Soviet access to a Cuban fishing base and ports, Cuba's ideal location, Soviet fishing capability, and the underutilized state of many of the offshore marine fishery resources, the Soviets are expected to increase fishing efforts in the western Atlantic and adjacent waters in the future and further assist and encourage the Cubans in fishery development. In addition to the species mentioned previously, the Soviets may exploit stocks of flyingfish, anchovies, mackerel, swordfish, croaker, snapper, and other bottomfish and pelagic species available in sufficient quantity.

At least 400 Soviet vessels, at one time or another, fished on the high seas in the North Pacific and Bering Sea in 1963. Soviet catches in the North Pacific and Bering Sea include herring, ocean perch, flounders and soles, cod, Alaska pollock, sablefish, king crab, shrimp, and halibut. The halibut catches in the northeastern Pacific and eastern Bering Sea areas are believed small and incidental to trawl efforts for other bottomfish species. In October 1963, a Soviet research vessel reported taking good catches of halibut and sablefish in deep waters in the central Bering Sea area, but the exact location is not known. The Soviets are not known to be using baited multiple-hook and line sets for intensive commercial halibut fishing off Alaskan coasts as yet. Tangle nets are being used for king crab and in 1963, for the first time, the Soviets sought this species in the Gulf of Alaska, about 30 miles southwest of Kodiak Island. The Soviets first began trawling for ocean perch in the Gulf of Alaska in 1962. Meanwhile, Soviet exploratory fishing vessels were seen as far south, in the eastern North Pacific, as off the coasts of Washington, Oregon, and California. No data are yet available on the quantity of Soviet catch taken in the Gulf of Alaska. Catches of selected species in the Bering Sea are shown in table 5.

Table 5 - U.S.S.R. Catches of Selected Species in Bering Sea, 1960-1961 1/

Species	Catch	
	1961	1960
	(Metric Tons)	
Flatfishes	173,100	105,680
Herring	68,700	0
Ocean perch	48,500	11,700
Saury	24,440 (est.)	13,000
Other	14,700 (est.)	7,820
Total	329,440 (est.)	138,200

1/Source: Rybnoe Khoziaistvo, No. 10, October 1961.

The Soviets are also actively conducting fishing operations off the west coast of Africa and in the Indian Ocean. Soviet fishing craft have called at West African ports in Angola for supplies and fuel and the Soviets are assisting commercial fisheries development in Ghana. In mid-April 1963, the Fifth Soviet Tuna Research Expedition returned to Vladivostok from four months of exploration off the Chagos Archipelago in the western Indian Ocean. It is expected that commercial fishing operations will begin in that area in the near future for tuna, mackerel, and swordfish.

FLEETS AND VESSELS

The increased catch made by the Soviet Union is, for the most part, the result of high-seas fleet expansion with emphasis on increasing the number of larger motorized craft. In

1956, the Soviet fishing fleet numbered 60,443 craft, of which 12,387 were motorized and 48,056 were nonmotorized. In 1964, although precise figures are not available, the number of motorized Soviet fishing craft has increased significantly and could be as much as double the 1956 figure. The versatility and range of Soviet fishing fleets and vessels were also increased significantly.

The first Soviet stern trawlers were ordered in the mid-1950's and became operational a year or two later. Today, the Soviets have about 100 of those 2,600- to 3,200-gross-ton fishing vessels. The Soviets have also increased the number of medium fishing trawlers and seiners (250 to 600 gross tons each), as well as motherships, factoryships, and other fleet-supporting craft, but the total number is unknown. One Soviet herring fleet, operating off the Norwegian coast in April 1961, numbered more than 1,000 vessels. As mentioned previously, other Soviet fleets of 200 or more fishing vessels now frequent New England and Alaskan coasts.

The ocean-going fleets of the U.S.S.R. are highly versatile, mechanized, and integrated. Equipped with the most modern electronic fish-locating techniques and using a wide assortment of fishing gear, those fleets are capable of taking and processing commercial quantities of numerous pelagic and demersal species of fish in distant waters. Large floating factoryships and motherships produce canned, salted, and frozen fish and shellfish, and fish meal and oil, and are capable of remaining at sea for 60 days or more. Some are known to have remained at sea for as long as a year. Refrigerated carriers, cargo vessels, and transport ships haul to Soviet ports the catches processed by the factoryships and taken by the seine and trawl craft, and return with food, supplies, equipment, spare parts, mail, personal items, and replacement workers. Tugboats rescue disabled craft and repairs are often made on the high seas. Vessels comprising the large Soviet fleets are constructed in shipyards in the Soviet Union (in Western Europe and the Far East), East Germany, West Germany, Poland, Denmark, Sweden, Finland, and Japan.

FISH FARM ON LAKE HANKA, SOVIET FAR EAST

An expedition from the Pacific Institute of Fisheries and Oceanography has concluded several years of work on Lake Hanka, in the Soviet Far East.

The expedition studied the lake's flora and fauna, as well as hydrological conditions. The purpose of this research, the first of its kind there, was to study the conditions for artifical propagation and acclimatization of valuable varieties of fish.

Lake Hanka is one of the most interesting lakes in the world. It has about 60 varieties of fish, including fresh-water fish from cold northern latitudes as well as from the tropics, representatives of Asian fauna, and sturgeons from Russian European rivers.

A farm for the cultivation of the mirror carp will be built on the lake. It will be one of the biggest of its kind in the Soviet Union. (The Fishing News, June 26, 1964.)