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Intelligence Memorandum

Potentials for Japan in the Development of East Siberia

Secret

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Potentials for Japan in the Development of East Siberia

For more than a decade the USSR has sought to involve the Japanese in the exploitation of East Siberian resources and in the improvement and use of Soviet transport and communication facilities.* Agreements thus far have been restricted to cooperation in the forest products industry and in port construction. Recent official exchanges, however, culminating in the October 1973 talks in Moscow between Premier Tanaka and Kosygin and Brezhnev, suggest that further Japanese involvement may be in the offing. Furthermore, Western interest in East Siberian resources, particularly natural gas and copper, has caused Japan—which imports up to 90 percent of its basic industrial resources—to reconsider the potential advantages of all the joint development proposals thus far advanced.

COOPERATION: PRECEDENT AND RATIONALE

Foreign involvement in the economic development of eastern Siberia is not without ample precedent, Western entrepreneurs having penetrated the area well before the outbreak of the American Civil War. By the turn of the century, in fact, U.S. businessmen had gained control over much of East Siberia's retail trade and finance, and the British and French had become deeply involved in mining and transport, respectively. The Bolshevik Revolution signaled a halt to such developments, however, and in the two decades preceding the outbreak of World War II, foreign influence over the East Siberian economy was effectively nullified.

Soviet acceptance of foreign participation in the development of Siberian resources, during a period in which Sino-Soviet relations have deteriorated precipitously, is at least partially motivated by a deep-seated concern about the vulnerability of East Siberia—a vast, remote, and sparsely populated storehouse of natural wealth. Foreign investment in selected development projects, in the Soviet view, would hasten the economic advancement of the area and lead to the strengthening of transport and communication ties that now link it to the seat of Soviet power in the west, thus enhancing its security.

Industrially strong but resource-poor, Japan must exchange capital and know-how for essential raw materials. The exploitation of valuable mineral fuels, ferrous and nonferrous ores, and various forest products in Siberia has therefore been looked upon with interest by many Japanese businessmen. Noting that proposed production sites in Siberia are nearer Japan than most sources now being tapped, they have expressed a willingness to proceed given the support of their Government, acceptable development costs, and the prospect of attaining remunerative profit levels within reasonable periods of time.

EAST SIBERIA-HARDSHIP POST

Unfavorable living conditions have limited the population of the Eastern USSR and slowed the pace of economic development. Only some 4 percent of the total USSR population now lives in this vast territory, which is slightly larger than the 48 contiguous states of the



United States. Furthermore, the population is so highly concentrated—along the route of the Trans-Siberian Railroad and in a few major river valleys—that most of this frontier land is empty.

Life here is Spartan at best, and the USSR, despite an attractive system of wage differentials and increments, has had difficulty in expanding the labor force of the area. People in the European USSR generally have not accepted the hardships of existence in East Siberia, thousands of miles from home. Nor are they apt to do so willingly until the standard of living more closely approximates that prevailing in the west. Winters are long and cold, summers short, and permafrost-underlying most of the area-makes the construction of housing and transport more difficult than elsewhere in the USSR. As a result, dissatisfaction with life is commonplace, and labor turnover is high. Coping with problems such as these substantially increases the cost of development, thus making the sharing of the risks involved even more desirable to the Soviet Government.

THE JOINT COMMITTEE

To provide a forum in which proposed joint economic undertakings, trade, and technical cooperation exchanges could be discussed, the USSR and Japan established in 1966 the Joint Japan-USSR Economic Committee (Joint Committee). Members of the Japanese delegations have been leading businessmen, government officials having remained in an advisory capacity. Their Soviet counterparts, however, have all been high-ranking officials of ministries involved in international trade or the economic development of Siberia.

This committee, which by agreement should meet once each year, has been convened five times. At the first meeting there was discussion of the development of natural gas deposits on Sakhalin Island and the exploitation of mainland resources—gas and oil, copper, and forests, including the construction of pipelines and port facilities. At the second meeting agreement was reached on the development of forest resources, and a pattern for future bilateral agreements was established. The third and fourth meetings continued the discussion of a number of proposals, with the two sides agreeing at the fourth session to speed up the negotiation of contracts for the development of Vrangel Bay (Bukhta Vrangelya); expedite research leading to the development of natural gas reserves on Sakhalin Island and Marketia; accelerate the exchange of information concern-

^{*}In this memorandum the terms East Siberia and Eastern USSR are used interchangeably to designate all of the USSR east of the western boundaries of the Yakut ASSR and Irkutsk Oblast.

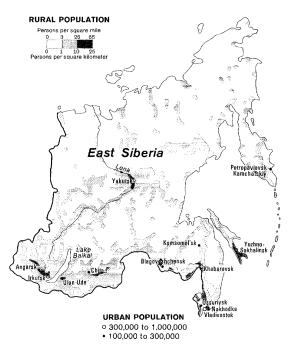
ing the supplying of Soviet coal and iron ore to Japan; expedite the negotiation of agreements concerning the production and shipment to Japan of chips, timber, and pulp derived from broadleaf trees; and encourage Japanese-Soviet scientific and technical exchanges. A joint communique at the conclusion of the twice-postponed fifth meeting indicated that much of the talk hinged around the proposed Tyumen'-Irkutsk-Nakhodka oil pipeline. The sixth meeting of the Joint Committee, already delayed, will undoubtedly continue to explore proposals previously advanced.

AGREEMENTS REACHED

Timber and Forest Products. The first of the joint development agreements to be reached called for the exploitation of forest resources in the Sikhote-Alin' Mountains. Parties to this 1968 agreement included an official Soviet foreign trade corporation and a private Japanese trading concern, the K. S. Sangyo Company of Tokyo, created especially for the venture by 14 Japanese firms. A second agreement on forest products followed in December 1971; by it Japan was to exchange equipment, machinery, and consumer goods worth \$50 million for the delivery, starting in 1972, of 8,050,000 cubic meters of wood chips and 4,700,000 cubic meters of wood and pulp over a 10-year period. This agreement was signed by the All-Soviet Export Corporation of the USSR and the Japan Chip Trading Company, Ltd., a consortium comprised of 27 paper and pulp companies.

In view of the abundance of forest resources in East Siberia, the modest investments required for their exploitation, and the mushrooming demand for wood and wood products in Japan, further agreements may be forthcoming. The unexploited forest reserves of East Siberia are so large that current operations could be greatly expanded without adversely affecting the balance between the rate of cutting and the rate of forest regrowth.

Port Development. Early recognition of the need to improve and expand Soviet ports in the Far East led to the only other Soviet-Japanese agreements. By the time of the first session of the Joint Committee in 1966 the principal Soviet commercial port in the area, Nakhodka, had already approached its cargo handling limit, and it seemed unlikely that its capacity could be expanded sufficiently to cope with proposed tonnage increases in



fuel, ores, and forest products. Turnaround time in the congested port continued to mount, and by 1970 the 500-mile trip from Japan to Nakhodka and return required as much as 30 days to complete.

Following the examination of a number of alternative port development possibilities, the USSR and a 14-member Japanese consortium agreed in December 1970 to cooperate in the construction of a new, \$350-million port on Vrangel Bay at a location some 8 miles from Nakhodka. By this agreement the Japanese were to provide technical assistance, engineering designs, equipment, and \$80 million in credits. Subsequently, in November 1972, the Japanese made available an additional credit of \$7 million to be used for the construction of a wood-chip loading system.

Work on Vostochnyy Port, as the development is now known, began in 1971. When complete, it will provide facilities for the annual shipment of 10 million tons of coal, 800,000 tons of wood chips, and the handling of 120,000 to 140,000 containers. Although a 10-year construction period was originally planned, parts of all major sectors of the port are slated to become operational by 1975. The dredging of critical harbor areas is well advanced, as is work on the coal and wood-chip piers. Land transport inland from the port is developing satisfactorily, and a critical rail-highway bridge over the Partizansk (formerly Suchan) River is now scheduled to open in early 1974.

Vostochnyy Port, slated to become the largest Soviet port in the Far East in terms of capacity, should have great significance in furthering Japanese-Soviet cooperation in East Siberia. In addition to facilitating the shipment of fuels and forest products, it may induce the Japanese to place greater reliance on container shipments to Europe via the Trans-Siberian Railroad. These developments would necessitate modernization of Siberian rail facilities, improvement of railroad operating efficiency, and the provision of a large number of additional freight cars.

PROPOSALS UNDER DISCUSSION

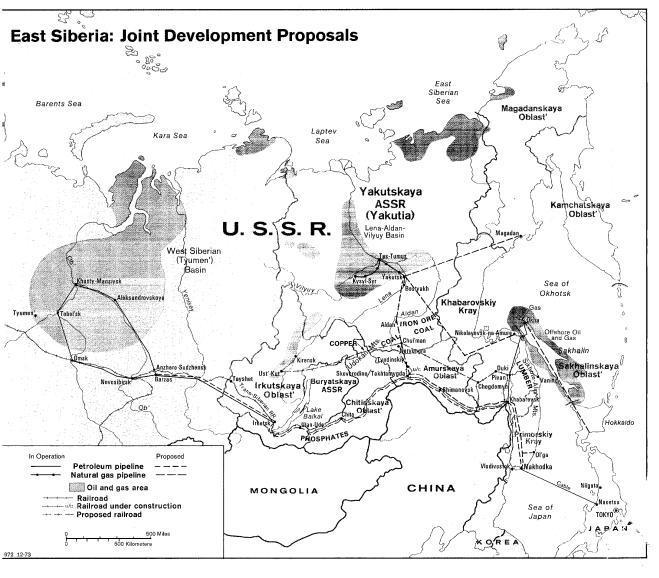
Chul'man Coal. Completion of new facilities at Vostochnyy Port could accelerate the development of the South Yakut coalfields in the Chul'man area, 270 miles north of the nearest terminal on the Trans-Siberian Railroad. The most promising of the deposits is the one situated near Neryungra, 20 miles south-southwest of Chul'man; it contains 350 million tons of premium grade coking coal according to Soviet officials. Coal deposits of lesser worth in the area are huge, estimates of total reserves of all grades ranging upwards to some 20 billion tons. At the present time only one mine at Neryungra, producing 200,000 tons of coal a year, is in operation, all of its output apparently being used to supply a small local power station.

USSR-Japanese coal negotiations date from the second meeting of the Joint Committee in 1967. Currently importing about 50 million tons of coking coal per annum for her steel industry, now the third largest in the world, Japan estimates that her requirements will probably exceed the 65-million-ton level by 1980. Should this occur, the South Yakut coalfields could become a significant source of supply for Japan. In 1972 a sample shipment of Neryungra coking coal was dispatched to Japanese steelmakers, who found it to be satisfactory but perhaps inferior to the best grade of U.S. coking coal available. On the basis of this sampling and a survey of the site in June 1973, the Japanese indicated that they might be willing to purchase 5 to 7 million tons of coal a year, with delivery to begin in the early 1980's.

Exploitation of the coal deposits at Chul'man will require supplementation of the highway now linking the

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mining area with centers of consumption to the south. A railroad is presently under construction from the Trans-Siberian Railroad to Tyndinskiy, and Moscow has informed the Japanese that extension of this line to Chul'man will be completed by 1977. While short, this line will prove relatively costly to construct. On the Skovoro-dino-Tyndinskiy sector alone it will be necessary to creet about 200 bridges and move more than 200 million cubic feet of earth.

The latest Soviet-Japanese discussions about Chul'man coal, concluded in April 1973, did not go well. In these talks the USSR raised the amount of Japanese investment capital they were seeking from \$350 million to \$585 million, \$80 million of which was to be used to provide consumer goods to help finance local development costs. The Japanese were also disappointed to learn that delivery of coking coal could not begin before 1984 and would not reach the 5-million-tons-per-year level until 1987. Finally, the Japanese and the Soviets were unable to agree on either the interest rate or the price of the coal. Discussion of these points will presumably continue at the sixth session of the Joint Committee.

Yakut Natural Gas. The development of the Nakhodka/Vostochnyy Port area may also figure prominently in the eventual joint development of the natural gas deposits of Yakutia, a subject of Soviet-Japanese discussions since at least 1966 and of Soviet-American discussions since 1971. At stake are the stores of natural gas in the Lena-Aldan-Vilyuy Basin, hundreds of miles from the

east coast of Siberia. The most likely of the several pipclines proposed to tap these deposits would extend some 2,300 to 2,500 miles from the gasfields northwest of Yakutsk to a liquefaction plant at Nakhodka—via Aldan, Takhtamygda, Shimanovsk, and Khabarovsk. In a variation of this plan, Ol'ga has been proposed as an alternate coastal terminal. Other proposals involve pipelines that would terminate at Nikolayevsk-na-Amure and at Magadan. Of the terminal ports under consideration, only Nakhodka is open the year around.

The Japanese have been unable to come to terms with the USSR on the exploitation of Yakut gas deposits because with only limited exploration of this area completed, uncertainty exists about the size of the gas deposits and about the costs of development. Until l'ate 1972 the USSR had not begun to survey the area, and in consequence the amount of gas available is still uinknown, previous estimates having been based on inaclequate evaluations; teams are now at work, however, hopeful that proved recoverable gas reserves may be sufficiently enlarged by 1975 to justify exploitation. 'Current negotiations are apparently proceeding on the assumption that by 1975 proved recoverable reserves may total about 300 billion cubic meters and potential' resources about 700 billion cubic meters, with the li kelihood that subsequent discoveries will be of sufficient magnitude to permit the uninterrupted flow of at least 56.6 million cubic meters (2 billion cubic feet) of gas per day for a period of 20 years.

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to European destinations. In 1972 approximately 12,000 containers moved over the route; traffic is expected to increase to between 15,000 and 20,000 during 1973, to about 57,000 in 1974, and to a full capacity of 120,000 to 140,000 containers when Vostochnyy Port is completed. One of the problems to be overcome is the imbalance in traffic flow; during 1972 the westbound flow of containers was five times as great as that to the east.

The involvement of the Japanese in the development of Eastern Siberia may depend most significantly on the 1,000-mile railroad proposed to link Ust'-Kut, on the Lena northwest of Lake Baikal, with Duki, a railhead west of Komsomol'sk. The completion of this longstanding, costly, and much discussed project would make the realization of other important proposals possible. While the precise route has not yet been determined, the railroad would probably pass through Chul'man and north of the Udokan deposits, thus serving the proposed mines and generating international interest in the area as a whole.

OUTLOOK

While USSR-Japanese joint development negotiations have produced only modest agreements since their inception in 1966, those which have been completed may pave the way for more significant pacts. Particularly important is the agreement for the development of Vos-

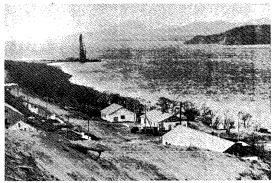
tochnyy Port on Vrangel Bay. Its completion will speed up involvement in other, more costly projects. Furthermore, international issues that have complicated or impeded the cooperative development of major projects now appear to be less critical than at any time in the past, and the international competitive position of Siberian resources is improving. The Japanese Government has recently assured the USSR of its interest in the joint development of Siberia, and Japanese business and commercial leaders have been urging foreign investors to join them in these ventures. Should they be successful—and recent manifestations of U.S. interest indicate that they may be—a steady growth of Japanese-Soviet cooperation in the exploitation of Siberian resources seems likely.

The achievement of joint development goals will depend in the last analysis on the improvement of local living conditions. East Siberia is sparsely populated, a reflection of the harshness of Siberian life, and in certain of the proposed development areas—Chul'man and Udokan, for example—the entire labor force would need to be imported. To establish an acceptable standard of living, unusually high investments in transport, housing, and services will be required. This is the unavoidable price of joint development on the frontiers of East Siberia today.

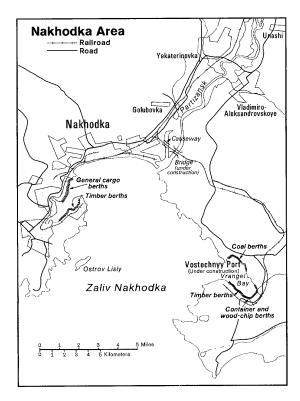
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The cost of the proposed pipeline, the associated liquefaction plant, and distributional facilities has caused the Japanese to negotiate with particular caution. Estimates of total capital requirements for the project range from \$2 to \$6 billion and possibly more, with as much as \$3 billion being allocated to the land facilities and the remainder to a fleet of 20 cryogenic tankers.

Because of the magnitude of the investment required and the uncertainty of return at this time, the Japanese have openly sought U.S. participation in the project, arguing that American technology and support is essential to success. This effort, supplemented by Soviet overtures, has been optimistically viewed by the Western press. The first tangible result was a "letter of intent" to develop Yakut gas, signed on June 9, 1973, by the El Paso Natural Gas Company, the Occidental Petroleum Corporation, and the USSR Ministry of Foreign Trade. This action, although not entirely unexpected, upset Japanese businessmen, who feared that they might be excluded from participation in the project. Moscow immediately sought to assure them, however, that the Japanese role in the development had not been diminished. In fact, the Soviets are reported to have reaffirmed previous pledges to the effect that the Japanese would be permitted to approve the choice of U.S. firms involved in the project. In the meantime final decisions must be delayed until definitive information on the gasfields is



Early stage of construction of Vostochnyy Port in April 1971.

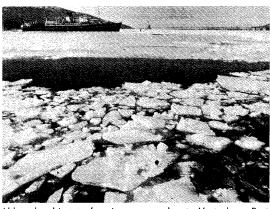


obtained through an exploration effort expected to cost as much as \$150 million, which by the Soviet proposal would be financed jointly by the export-import banks of Japan and the United States.

Tyumen' Petroleum Pipeline. Also slated to terminate in the Nakhodka area is the long-discussed Tyumen' petroleum pipeline. The Japanese were first invited to participate in this project in 1961, when the USSR proposed the extension of an existing pipeline from the vicinity of Irkutsk to Nakhodka, some 2,500 miles to the east. The offer was repeated in essentially this form in 1963, 1965, and 1966. The proposal was expanded in 1967 when the USSR solicited Japanese involvement in the construction of an entirely new 4,000-mile, 48-inch Tyumen'-Nakhodka pipeline designed to transport about 50 million tons of petroleum to the coast annually. Soviet commitment to the revised proposal, even in the absence of tangible Japanese support, is indicated by the USSR decision to make at least a start on the 1,480mile segment of the pipeline between Tyumen' and Irkutsk. In consequence of this decision, a new 500-mile, 48-inch pipeline connecting the oilfields at Aleksandrovskoye with the existing pipeline at Anzhero-Sudzhensk was completed in March 1972.

The total cost of the Tyumen'-Nakhodka pipeline, which would parallel the route of the Trans-Siberian Railroad eastward from Irkutsk, is estimated at approximately \$3 billion by Soviet authorities. Of this total, the USSR is seeking \$1 to \$1.5 billion from the United States and Japan in the form of credits to be repaid in oil at the rate of 25 million tons annually over a 20-year period. These credits would be used, in part, for the purchase in the United States and in Japan of some 1,700,000 tons of steel pipe and related equipment. The remainder would be expended to provide essential machinery, tools, and consumer goods.

The fortunes of the pipeline proposal have ebbed and flowed for several years, through the course of which a number of complicating issues-economic and political—have been raised. Most of the former—which have involved interest rates, repayment schedules, product quality, and price-have been or probably can be resolved through negotiation. The latter, however, have been more difficult: until recently there was open disagreement within the Government of Japan as to what the national policy toward this project should be. Of particular concern to the Japanese was the expressed objection of the Chinese to construction of the pipeline along the Sino-Soviet border. This question was settled in March 1973, however, when Prime Minister Tanaka expressed to CPSU General Secretary Brezhnev the willingness of the Government of Japan to participate in the Tyumen' oil, Yakut gas, and Sakhalin offshore projects.



Although subject to freezing, approaches to Vostochnyy Port can be kept open.

During the past several months the Japanese have been discussing the Tyumen' project with the USSR and with the American firms Gulf Oil and Exxon, which have been asked to collectively finance 20 percent of Japan's \$1 billion share of the project. The Occidental Petroleum Corporation has also indicated an interest, offering in July 1973 to assume 50 percent of the foreign share of the development. American support is highly desirable, if not indispensable, from the Japanese viewpoint; a number of high Japanese sources have told U.S. officials that the Japanese Government regards U.S. participation as essential for political and economic reasons. On the other hand the Japanese, wishing to preserve a predominant role among foreign states in the joint development projects of Siberia, have reflected surprise and apprehension when confronted with the expressed interest of Occidental Petroleum. Without doubt the discussion of the Tyumen' pipeline will occupy a prominent place on the agenda of the next meeting of the Joint Committee.

Udokan Copper. Of tremendous potential significance are the copper deposits of northern Chitinskaya Oblast'. These deposits, with a claimed average copper content of about 2 percent, may constitute the richest single source of copper in the world. Some sources estimate the ore body to be 7 kilometers (4.3 miles) long, 5 kilometers (3.1 miles) wide, and 200 meters (656 feet) thick; if so, it could contain more than 200 million tons of metallic copper, at least twice the amount available in Chile. Unfortunately, it is situated some 400 miles from the closest point on the Trans-Siberian Railroad.

The Japanese were first invited to participate in the exploitation of these deposits in 1966, but the normal costs of development, complicated by the complete lack of interregional transport, were too great for them to assume. According to the most recent estimates available, opening of the mines and the construction of a rail link to the Trans-Siberian Railroad would involve the expenditure of \$2 billion, about 50 percent of which the USSR would assume. Subsequent to the approach to the Japanese, the USSR also discussed the exploitation of Udokan copper with the British, French, West Germans, and Americans, all apparently without success despite the admitted richness of the beds.

Development of the deposits will involve the creation of entirely new roads, railroads, electric power lines, supply depots, and housing in the area. Furthermore, this will have to be accomplished in an environment "where the temperature varies by something like 90 degrees [Centigrade] from winter to summer, where mud follows snow, and where the buzzing of great clouds of flies follows the great white silence." It is generally agreed that this project, as the Soviets envision it, is probably beyond the means of any one of the countries with which the USSR has-established contact; hence the development will undoubtedly require the combined efforts of several of the countries already involved. Given such cooperation, however, including the provision of essential heavy mining and construction equipment, it is possible that some Udokan copper could be mined by the end of this decade.

Sakhalin Island and the Continental Shelf. Japanese interest in the natural gas of Sakhalin dates back to January 1966, when a Soviet mission visited Tokyo to propose the joint exploitation of deposits located in the Okha area. Enthusiasm for this proposal gradually developed, and by the time of the 1970 meeting of the Joint Committee, gas specialists in Japan looked forward to the importation of Sakhalin gas during the 1970-75 period. Ready to sign an agreement at that time, they were entirely unprepared for Premier Kosygin's declaration that the proved recoverable natural gas reserves of

Sakhalin were closer to 16 billion than to the previously declared 60 billion cubic meters, a statement that precluded further effective discussion of the original proposal.

In 1971 the USSR again turned the attention of the Japanese to the Sakhalin Island area, this time suggesting joint efforts on the continental shelf. This suggestion led to talks in February and November 1972, with the Far Eastern representatives of Gulf Oil participating in the November meetings. As a result of the November talks the USSR and Japan agreed in principle to jointly explore the continental shelf around Sakhalin Island. The USSR is reported to have asked the Japanese to provide \$200 million worth of drilling rigs, survey vessels, and other equipment, as well as \$30 million worth of various consumer goods. Reimbursement will undoubtedly be in product, should the surveys lead to oil and gas production.

The Sakhalin continental shelf is reputedly a highly promising source of natural gas and petroleum. Some 38 individual oil- or gas-bearing structures were identified by early 1972, and further evaluation by exploratory drilling is the next step in the determination of the potential of the area. On the strength of preliminary information, the USSR has laid out a tentative exploration schedule that extends through 1985. During this period a series of large-scale geophysical surveys will be completed, and test wells will be drilled. According to Soviet estimates, the Sakhalin continental shelf has an oil potential of 22 to 36.5 billion barrels. Japan's interest in deposits of this potential magnitude is naturally keen, and all exploratory work will certainly be closely monitored by them.

Additional Joint Development Proposals. At various times a number of lesser joint development proposals have also been reported. They have called for cooperation in the development of iron, zinc, tungsten, tin, mercury and potassium salt deposits and in the generation of electric power. The provision of machinery for fertilizer plants around Khabarovsk and equipment for a steel mill at Tayshet have also been discussed. The current status of these proposals is unknown, and they may now be in abeyance. Three Soviet-Japanese scientific and technical agreements were, however, concluded in 1972, and the October 1973 visit of Tanaka to Moscow resulted in the signing of an agreement on scientific and technical cooperation, a letter on scientific and cultural exchange, and a convention on the protection of migratory and endangered birds.

Communications-Transport Ties. In the period during which the joint development proposals have been under negotiation-from 1966 to the present-a coaxial cable between Naoetsu and Nakhodka joined the USSR and Japan for the first time and a number of significant transport agreements have been reached, including compacts covering international air traffic. Although an air connection between Tokyo and Moscow was established as carly as 1966, it was not until 1969 that Japan Airlines (JAL) obtained permission to operate independent flights on a Tokyo-Moscow service over Siberia. In January 1972 an air link between Niigata, on Japan's west coast, and Khabarovsk was created. It facilitated the immediate movement of air cargo and, starting in 1973, of passengers as well. In June of this year a further agreement was reached: Aeroflot and JAL now operate international passenger flights between Japan and Western Europe via Siberia.

Even more significant in linking the two countries is the growing use of the Trans-Siberian Railroad to handle freight to or from Japan. This route, sometimes designated the "Siberian Land Bridge," is being increasingly used to transport containers of Japanese goods

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