

Centennial Summer

ALASKA'S centennial celebration came to a premature close this August, when the Fairbanks flood forced the closing of the A-67 Exposition which had been organized to commemorate the 100th anniversary of the Alaskan Purchase. But the brief exposition — incidentally, it plans to reopen next spring — served once again to highlight the riches which Secretary Seward got for the taxpayers' \$7.2 million in President (Andrew) Johnson's Administration.

The exposition was mainly an exercise in nostalgia. Plane service from Seattle to the Fairbanks fair featured Gibson-girl stewardesses, turn-of-the-century decor, and in-flight readings from the poetry of Robert W. Service. At the fair itself, visitors toured a geodesic dome painted gold to represent Alaska's millions of gold nuggets, observed kayak rides and totem-pole carvers at a native village, and munched reindeer sausages while watching can-can girls perform aboard an old Yukon stern-wheeler.

Outsized problems—and promises

Yet, behind all of the hoopla and nostalgia was a serious effort to exhibit the problems and promises of the vast 49th State, with its wealth of resources and scarcity of people. Those tourists who went to A-67 rather than to Expo '67 would have found the largest state geographically (over 586,000 square miles), the state with the longest coast line (25,000 miles), the one with the greatest north-to-south and east-to-west extent — and the one with the smallest population (260,000) as well as the greatest amount of undeveloped resources.

Admittedly, Alaska's problems sometimes seem as outsized as the state itself. These include the adverse cost effects created by isolation from the states "Outside," the transportation problems created by the vast mountain systems blocking the interior, and the climatic problems created by the Arctic and subarctic weather. But, more than that, the state lacks sufficient population and revenue

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base to supply capital funds for roads, airports, recreational facilities, and other public needs. Its extractive industries lack adequate transport facilities and adequate mapping and survey data, and its native populations — Indians, Eskimos and Aleuts — lack an adequate economic base to support their growing numbers, especially in the undeveloped West.

Despite these problems, the state definitely has moved forward. The momentum generated in the earthquake-reconstruction period of the last several years has been reinforced by the rapid development of the extractive industries, especially oil and timber, coupled with the modest but healthy reorganization of the fishing industry, while the summer tourist traffic faces a potential explosion. Meanwhile, population growth in the South-Central area around Anchorage and the Interior area around Fairbanks has now reached a point where self-generating growth is possible in such service fields as banking, insurance, and communications. (These areas — centered around Cook Inlet and the Alaska Railway zone — now contain two-thirds of the state's people, as against one-third prewar.)

Old history and new

Alaska, in other words, may now be on the threshold of a new period of development distinctly different from its earlier historical periods. Its recent military phase, which followed the colonial period of 1880-1940 and the even earlier native phase, may now be followed by a new period built upon the widespread and efficient exploitation of the state's many natural resources. These periods of development are analyzed in *The Future of Alaska* by the Alaskan economist Dr. George W. Rogers.

"Native Alaska" was a period in which the influx of Russian fur-traders and American gold-seekers led to the decimation of

the native tribes exposed, for the first time, to the ills of civilization. In the century and a half which followed the Russian discovery, the native population dropped from perhaps 75,000 to roughly 25,000 people.

"Colonial Alaska" was a period in which the exploitation of the gold fields and the salmon fisheries brought considerable prosperity to Seattle but few permanent benefits to Alaska. (Alaska accounted for one-fourth of Seattle's total domestic shipping during the early years of this century.) During this colonial phase, the total value of outshipments was at least double that of shipments into the territory — and not surprisingly, the major imports were tinned foods, petroleum products, and liquor. Population trends responded to the fortunes of individual products; in 1900, the census-taker found 20,000 gold-seekers on the beach at Nome, but twenty years later he could locate only a few thousand more people (exclusive of natives) in the entire territory.

"Military Alaska" began with World War II and coincided with the erosion of the props of the colonial economy. In this period as in the colonial period, population fluctuations were extreme, but they responded to changing military requirements rather than to changes in the supply of colonial raw materials.

Military personnel, along with associated construction and supply workers, increased rapidly because of Alaska's strategic position during World War II and, after a postwar decline, they increased again in the 1950's in response to Korean-war and cold-war requirements. Total population jumped to 233,000 in 1943, dropped to 99,000 in 1946, and then rose to 212,000 in 1953 and to 228,000 in 1957. Yet, despite these fluctuations, the trend in employment and income was generally upward, and the expansion of consumer markets was strongly apparent throughout all of this period.

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Underdeveloped affluence

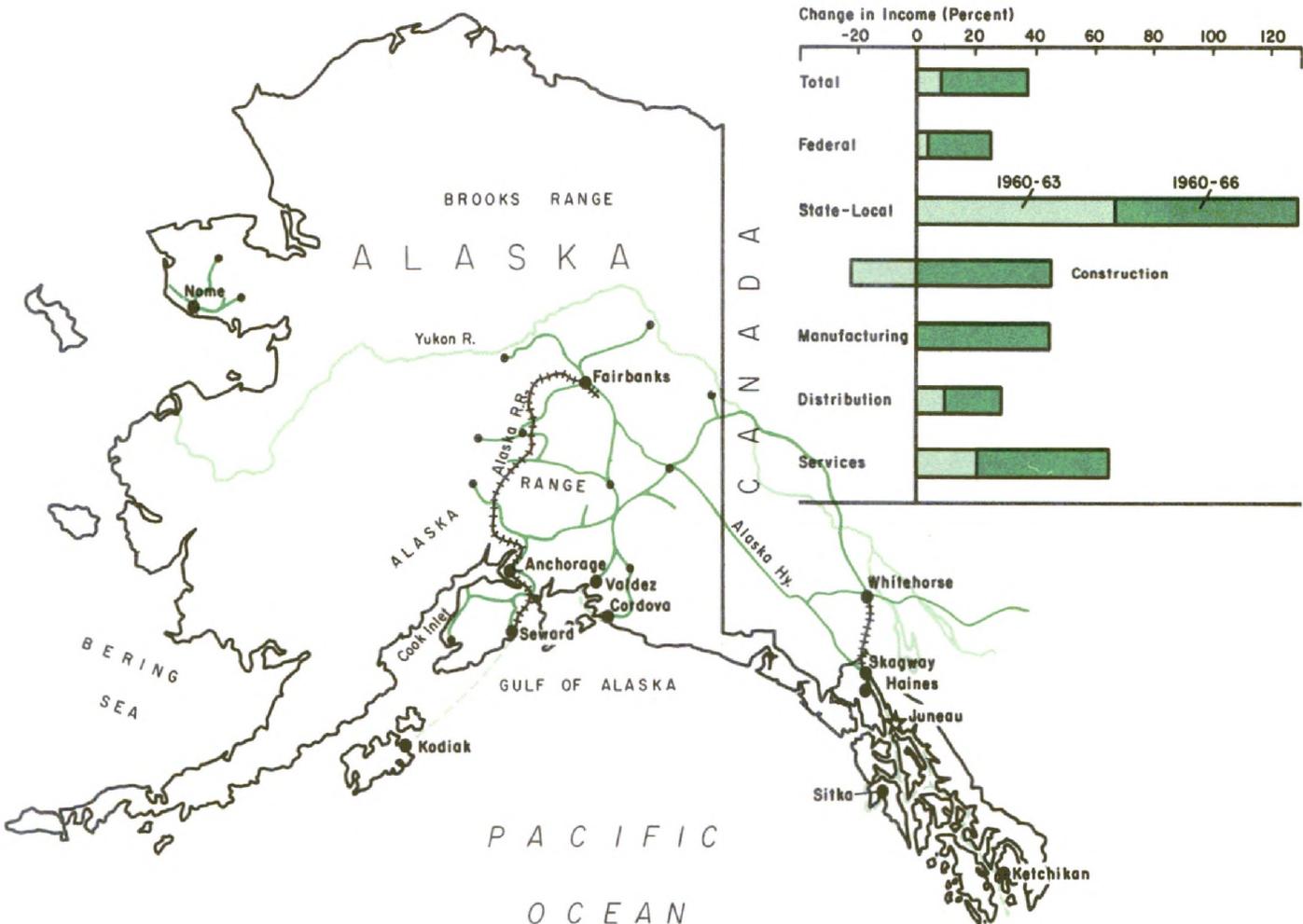
Supporting the continued upsurge in personal consumption is a substantial growth in income which has at least kept pace with the national uptrend. Alaskan personal income has increased more than 150 percent since the beginning of the Korean conflict in 1950 and, stimulated by the recent earthquake reconstruction, has increased at least 40 percent since the beginning of this decade. Personal income today is over \$900 million — a respectable consumer market even though it represents less than 1 percent of the total Western economy.

Income structure is still heavily weighted by government wages, especially Federal

government wages. Although declining as a share of the total, government wages and salaries still account for 56 percent of the total as against 12 percent in the nation as a whole. The military of course is a major factor in this disproportion, but also in this declining share. Total military wage payments are as high now as at the Korean-war peak, but total wage-and-salary income is now two-thirds above its 1953 level.

Wages in commodity-producing industries are only about 14 percent of Alaska's total wages, and wages in other private industries, although fast rising, are only 30 percent of the state's total. In each case, the share of the state's total is only half as large as it

Alaska's income rises at accelerated pace in recent years . . . future depends on expansion of new industries and transport network



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is in the nation as a whole.

Today most analysts look to nonmilitary sources for the foundations of future growth. One possibility is the state's largest private industry, fisheries, which produced almost \$200 million in products last year. A more likely source of growth is the forest-products industry which, although producing only about one-third as much as the fisheries industry, is an object of much interest to large investors. An even more likely trend-setter is the oil-and-gas industry, which produced practically nothing at the beginning of this decade but is now producing more than \$40 million worth of products annually. There are other industries with varying growth prospects, such as minerals and agriculture, and, in particular, tourism — but right now the emphasis is on petroleum and forest product industries.

Arctic gusher

Alaska's oil-and-gas industry has now matured after going through cycles of minor success and major frustration during the 1902-57 period. The first commercial success, the Swanson River field on the Kenai peninsula south of Anchorage, came into production in 1957 and by now has blossomed into a major field. A refinery processing Alaskan crude is now producing heating oil for Alaskan homes and industries as well as jet fuel for transport planes, a nearby

natural-gas field is now heating the city of Anchorage, and the state's first petrochemical plant is under construction.

At present the state boasts five oil fields, four of them containing reserves of 100 million barrels or more, as well as at least three big natural-gas fields. Daily petroleum production has risen rapidly in the past year from about 40,000 barrels to a current level in excess of 80,000 barrels, primarily as a result of increased output from fields in the Cook Inlet area. Output is expected to rise to at least 200,000 barrels per day by 1970 but, judging by the recent surge in output, production may far surpass this level by then. Admittedly, present production is dwarfed by Texas' output of 2.8 million barrels per day, but many oilmen feel that Alaska has the potential to be among the top three producing states by 1980. In the Cook Inlet basin alone, petroleum reserves have been estimated at one billion barrels and gas reserves at 4 trillion cubic feet.

In the processing field, Alaska has finally come into its own. The first refinery was built in 1963, and the petro-chemical complex now building will be the world's largest source of urea and the West Coast's largest source of ammonia. In addition, another refinery and a gas-liquefaction project are past the drawing-board stage.

The petroleum industry has had to combat many difficulties in this new area. Costs are high, logistics are a problem, and the climate is sometimes forbidding — in fact, this may be one of the world's most hazardous areas for drilling, producing, and laying pipe. In the present center of operations, Cook Inlet ("Oil Alley"), the cost of a drilling platform for year-round operations may run around \$15 million, as compared with \$4½ million in California offshore operations and \$2 million in the shallow Gulf of Mexico.

Nonetheless, continued exploration is assured not only in this major field, but also in

Eldorado?

What Alaska has become, instead of an Eldorado of trappers and gold prospectors, is a very unusual phenomenon indeed: an as yet underdeveloped reservoir of primary products inhabited mainly by affluent citizens of the Western world, most of whom live in a cozy civilized existence — most of the time.

London *Economist* (1967)

Bristol Bay, the Gulf of Alaska, and the North Slope facing the Arctic Ocean, where the Navy has done some desultory drilling for many years. Exploration has been stimulated by a royalty incentive — a reduction in the discovery lease, from 12 to 5 percent, for a 10-year period. More important, the proved reserves in the area are very large, and, being under the American flag, are immune from the political uncertainties affecting other oil-producing areas throughout the world.

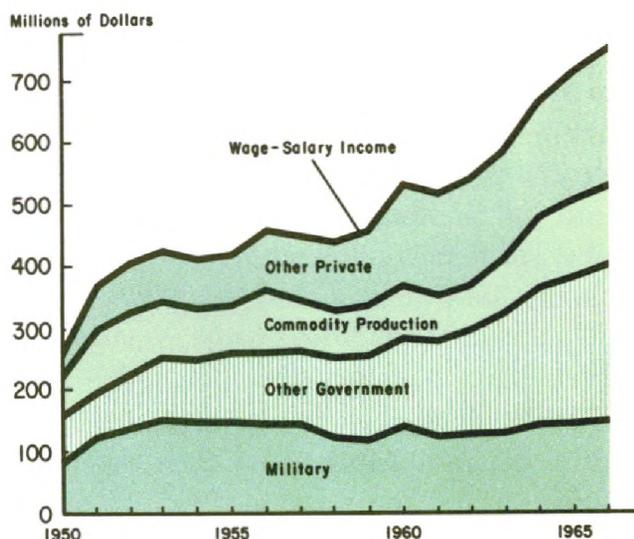
The industry has invested about \$600 million in Alaskan operations, and the total may rise to \$1 billion within the next several years. Even though the total return to date has been only \$190 million — all from the Swanson River field—the prospects for very profitable operations are strong indeed. Not incidentally, the industry is a major support of the state treasury: in the first half of this decade, petroleum accounted for roughly one-sixth of total state revenues.

... and other riches

Future prospects are also strong for the forest-products industry. The state contains 119 million acres of timberland, 28 million acres being in commercial forest land, including some 215 billion board-feet of marketable timber.

Over the past decade, the value of cut timber quadrupled to about \$65 million (over 400 million board-feet). This production was accomplished with only one-half of the allowable cut, that is, the cut permitted on a sustained-yield basis. Further expansion of the forest-products industry is now certain; the allowable cut, in fact, may increase to 600 million board-feet annually on the basis of a recent Forest Service sale of 8.8 billion board-feet in the Tongass National Forest. And in view of the recent Japanese investment in pulp mills and sawmills, the market for the timber products of the Alaskan panhandle appears very strong.

Military underpins Alaskan economy but other sectors grow faster



The fishery potential of Alaskan and North Pacific waters is still virtually untapped, except for the somewhat depleted salmon fisheries. Alaska and other West Coast States do not have modern fishing fleets comparable to those of Russia and Japan, and Alaska has only limited shore-based packaging and processing facilities. The problem is interwoven with the depressed state of the native villages, especially in Western Alaska. Harbor development for small craft in these areas would help the industry, since the supply of up-to-date harbor facilities lags behind even the somewhat limited demand for such facilities. But the industry is also faced with the salmon-depletion problem caused by the lack of earlier conservation measures — depletion which has reduced the salmon pack to only a fraction of what it was prior to World War II.

Agriculture, also small and underdeveloped, has considerably less potential for future expansion, even though Alaska produces less of its food supply than does any other state. Only about 8 percent of its food is produced within the state's borders, half of that being dairy products. In view of the necessity to import the vast majority of the

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state's food, some 20-25 percent of the average family budget must be allocated for food purchases.

In general, the primary producing industries offer great potential — but tourism offers even more. In a special 1961 report on tourism, then-Governor Egan said: "Its potential is enormous. Alaska's future is tied to tourism as much as it is to petroleum, fish, timber, or minerals." And private and public planners alike suggest that tourism can provide as much stimulus to employment as all other sources put together.

Recent data suggest an acceleration of tourist activity. More than twice as many tourists visited the state in 1965 as during the 1964 earthquake year, and the number rose 20 percent more in 1966, to perhaps 130,000. About 60 percent of the users of recreational facilities came from outside the state. Provided that accommodations in state and federal parks can be developed rapidly enough, and provided that road and ferry networks can be expanded, the future income from this source should rise substantially.

Development model

As this industry summary suggests, Alaska has an enormous potential which, in many

cases, is still untapped. At the same time, the state must deal with a number of more general problems, many of which were faced squarely only when the earthquake disaster focussed attention on the state's needs for long-term development as well as for short-range reconstruction. These broader problems were covered in detail in last year's report, *Economic Development in Alaska*, prepared by the Federal Field Committee for Development Planning in Alaska. This joint Federal-State committee was created in the aftermath of the earthquake to conduct long-range economic and resource-development planning.

In the Committee's view, Alaska in many respects fits the classic development model. There is a chronic shortage of capital for development and expansion, the economy is narrowly based and dependent upon extractive industries, and it suffers from an import imbalance, selective inflation, and reduced scope for modern managerial and marketing methods. The Field Committee, in a nutshell, described Alaska as "an area as large as a subcontinent, with too few people to develop a revenue base that could support the rapid expansion of public facilities required for opening up the country and for

Greatest Asset

There is one other asset of the territory not yet enumerated . . . one of the chief assets of Alaska, if not the greatest. This is the scenery. There are glaciers, mountains, fiords elsewhere, but nowhere else on earth is there such abundance and magnificence of mountain, fiord and glacier scenery. For thousands of miles the coast is a continuous panorama. For one Yosemite of California, Alaska has hundreds. The mountains and glaciers of the Cascade Range are duplicated and a thousandfold exceeded in Alaska. The Alaska coast is to become the showplace of the entire earth, and pilgrims not only from the United States but from beyond the seas will throng in endless procession to see it. Its grandeur is more valuable than the gold and the fish, or the timber, for it will never be exhausted. This value measured by direct returns in money from tourists will be enormous; measured in health and pleasure it will be incalculable.

Henry Gannett

Harriman Alaska Expedition (1904)

the stimulation of resource and industrial development.”

Costs—too high

One of the state's thorniest problems is its price-cost structure. Admittedly, Alaska is a land of high costs. Petroleum firms, for example, claim that they must pay 30 percent more than they do even in high-cost California in order to compensate workers for difficult working conditions — and to compensate them for living costs inflated by the need to bring in most materials and practically all food from more than 1,000 miles away.

The Federal Field Committee argues, however, that the preoccupation with the transport disadvantages can be overdone, since Alaska's distance from suppliers and markets does not in itself satisfactorily explain the price structure. But whatever the factors involved, the problem must be overcome if Alaska is to be successful in attracting and retaining private capital — a development which will occur only when expected costs are reduced and expected yields on Alaskan investment thereby compare more favorably with available alternatives.

Infrastructure—not enough

One essential precondition to a well-rounded development program is the provision of such basic services as power, transportation, communications, and education and research. Provision of this “infrastructure” not only provides employment and income directly, but also stimulates a climate in which overall economic development can proceed.

Cheap power is generally lacking in Alaska today. Generating facilities are unintegrated and are below optimum size, maintenance costs are increased by climatic conditions, and distribution costs are increased by the small size and isolation of markets.

Admittedly, the mountains and rivers of Alaska provide tremendous hydro-power po-

tential. Much of this is in the Yukon River system, centered around the proposed Ramparts Dam. If this dam were in operation, it would provide 2½ times the installed capacity of Grand Coulee Dam, with 4.8 million kilowatts. The dam, however, would cost at least \$1.5 billion and would provide a severe loss to wildlife by flooding an area larger than Lake Erie. Projects of this type obviously would provide low-cost power, such as is required for aluminum, titanium, and uranium production. For other uses, however, low-cost power may be less important than such factors as nearness to markets, materials and workers.

Transportation is, of course, a long-standing need, especially in view of the distances involved; from Seattle, Juneau is 950 miles, Anchorage is 1,450 miles, and Fairbanks is 1,800 miles distant. Alaskan development to date has taken place in a series of toeholds on the perimeter of a vast territory, with one emerging core. These communities are served internally by one short-line railroad, a ferry system, few roads, and a good basic air network, and externally by a single difficult road and an expanding network of shipping lines and airlines. (There are about as many airports and airstrips—550—as there are miles of railway track or of modern highways.)

Future planning looks to the creation of an expanded traffic flow, of a kind which would solve the back-haul problem which now adversely influences the rate structure. Also on the drawing board are the expansion of the air system, including the European and Asiatic routes, the development of the sea-train and sea-coach (“fishyback”) mode of steamship transportation, and the expansion of the ferry-system's links to the Canadian system. All in all, what is needed is an expanded movement of people and things by all forms of transportation into, out of, and around the state in a reliable fashion and at reasonable cost.

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Money—more needed

Money, especially long-term money, is a basic development requirement today, as a means of building the economic structure that will produce future income growth. The state's goal is to secure a broadly based and efficient economy which will attract and retain predominantly private capital funds at reasonable rates of return.

Understandably, public capital plays a predominant role at the present stage. Yet, as the Field Committee points out, the solution of the capital investment problem will ultimately be found in providing adequate incentives for private capital, in enhancing prospective yields, and in encouraging re-investment through retained earnings. Given the proper investment climate, adequate financing should be available from both short-term commercial-bank funds and longer-term private capital inflows.

Working capital requirements are being met today through a sharp expansion of commercial-bank lending. Over the past decade,

total loans have increased 350 percent—twice as fast as the Western and national average. Moreover, business loans during this period have increased more than 500 percent.

As for long-term investment capital, the extractive industries provide attractive prospects now and for some time to come. But not everybody can play in this league. In the Field Committee's view, the discovery and exploitation of Alaska's basic resources demand large commitments of finance capital and scientific-engineering talent to develop the most efficient techniques and the largest production volume.

Several factors already encourage such investment. High resource quality is available in many extractive fields amenable to the use of modern technology—thus producing high yields. Many of the production centers are located on tidewater, offering the potential of cheap bulk carriage. And the growing center around Anchorage and Fairbanks provides an expanding market for various types of consumer goods.

Building Bridges

Ironically, the same nation responsible for the "Military Alaska" that was an outcome of Alaska's strategic location in the Air Age is kindling an awareness of the strategic location of Alaskan resources in relation to the raw-material-hungry markets of industrial Europe and Asia. . . . Just as, in subsequent military planning, Alaska was to become a major bulwark of continental defense, so in our thinking on Alaska's natural resources development we must arrive at a more realistic focus. These resources are remote in space from domestic markets, and from this point of view Alaska economically is a marginal area of only remote future interest as a domestic source of supply. However, the elementary fact that the world is a globe, and that the shortest route to the Orient from the United States and Canada is via the Great Circle Route or through Alaska, has played an important part in the post-war plans of Japan in seeking to find replacements for its lost sources of natural resources. As a result Alaska may become one of the principal bridges between the rest of the states and the other side of the Pacific world.

George W. Rogers
The Future of Alaska (1962)

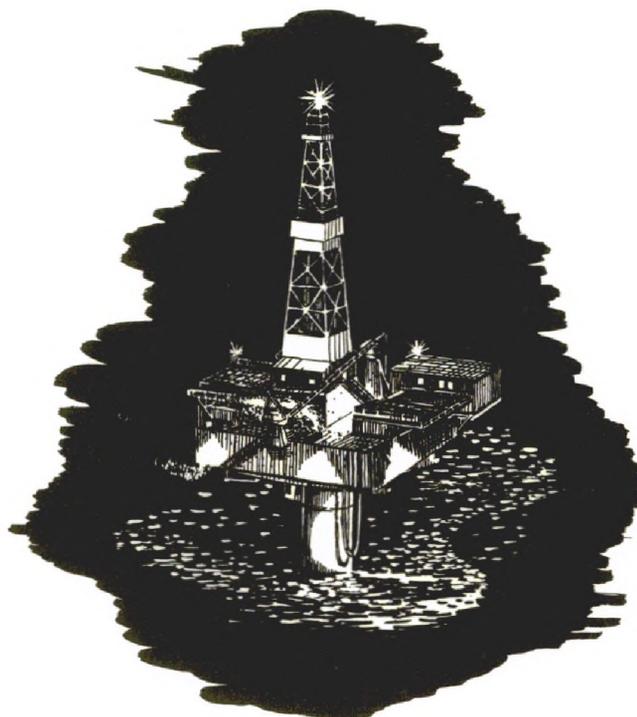
Money from Japan

Much of the long-term money may come from abroad, especially from Canadian and, in particular, Japanese sources. Given Alaska's present stage of resource development, and given the increasing world demand for primary products, this influx of foreign capital may become very substantial. In fact, Japan already is a major factor in the Alaskan scene. A decade ago, Japanese-Alaskan relations were confined almost entirely to salmon-fishing disputes. Now, however, Japan is a major customer and investor in Alaskan resources.

A Japanese-American company owns a Sitka pulp mill, operates a Wrangell sawmill, and markets much of the lumber from the Alaskan panhandle. The two largest Japanese fishery firms have a direct investment in Alaskan canneries and are involved in joint ventures with American fish-processing firms. And Japanese firms are involved in several major joint ventures utilizing Alaskan natural gas — a large petro-chemical complex, plus a gas-liquefaction project which is designed to supply the bulk of Tokyo's heating and lighting needs. In addition, Japanese interests have joined the search for additional oil and gas resources by securing acreage this July in a lease sale of Cook Inlet basin tracts.

Behind this "Arasuka Buumu" is Japan's rise over the past decade to the position of world's third-largest industrial power — a power which is a major importer of crude materials as well as a major exporter of finished manufactured goods. Alaska's underdeveloped resources are exactly those which Japan must have to supply its burgeoning industrial machine. Although lumber products now account for 92 percent of Alaska's exports to Japan, the state can supply six of Japan's eight major import requirements.

Alaska is operating in a competitive market, especially since the same primary products advertised by Alaska are also available

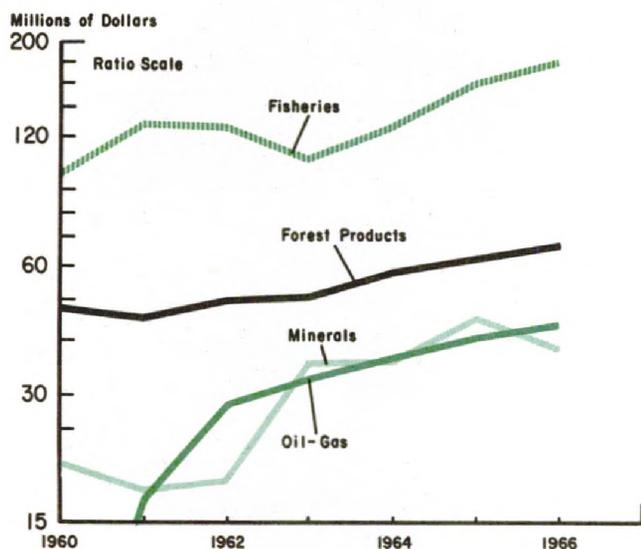


from the USSR. A commercial agreement signed last year listed 69 commodity groups which the USSR promised to supply to Japan — all of which duplicate Alaskan products. Yet Alaska's underdevelopment, which makes it attractive to investors, and its relative proximity to the Japanese market, mark it as a favored target in Japanese investment planning.

Japan lacks major oil and gas reserves of its own, and it obtains about three-fourths of its supplies from the politically uncertain Middle East. Alaska thus looks increasingly attractive as a reliable source of high-quality petroleum products. Moreover, in view of Japan's rapidly expanding needs for paper and food, increased Japanese investment in Alaskan forests and fisheries may be expected. Exploitation of other resources—for example, coal, iron ore, and copper—may proceed at a more leisurely pace, but whatever the product, Alaska's trade representatives in Tokyo will be certain to advertise the state's resources aggressively. (To demonstrate their ingenuity, they sent 1,000 reindeer carcasses to Tokyo recently in an effort to gain a foothold in the Japanese sausage market.)

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Oil-gas production surges upward, but fisheries and forests also grow



Money—only \$7.2 million

In this post-military resource-development phase of Alaska's history, development efforts will be based upon the provision of public and private capital to improve the state's price-cost structure and to provide profitable investment opportunities. The state undoubtedly will remain small in population and income for some time to come, but the rapid exploitation of its rich resources can

be expected to provide the foundation for future growth.

Regarding the size of this future Alaska, a study prepared for a Congressional transportation committee several years ago suggested that the state's population would still be less than 400,000 in 1980, assuming no change in government activity, resource base, or technology. Actually, it is conceivable that military activity could decline over time and that some resources (such as gold and coal) could be quite disappointing. At the same time, there is no reason to expect that technology will remain stable.

On the basis of accelerated research built around vigorous oil exploration and heavy Japanese investment in resources, and on the basis of the recent expansion of Federal-State research activity, Alaska should be able to look forward to technological changes which will create new demands and also make marginal resources more economic. Long before the second centennial summer arrives in 2067, the upward path of technology should prove — if further proof is needed — that Secretary Seward's \$7.2-million purchase of Alaska was one of the nation's most profitable investments.

William Burke

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