II. OVERVIEW: THE GEOGRAPHY, DEMOGRAPHY AND HISTORY OF THE CHUKOTKA AUTONOMOUS DISTRICT

GEOGRAPHY

Chukotka Autonomous District (Okrug) comprises the northeastern-most area of that part of the Soviet Union known as the "Far East". Chukotka can be used to refer to three different areas: the Chukotka Autonomous District (Okrug) is the entire North East half of the Magadan Province (oblast); the Chukotka Peninsula (sometimes written Chukotskyi) describes a geographic unit that is the northeastern peninsula of the Chukotka Autonomous District; and the Chukotka Region is an administrative unit equivalent to a county occupying the northern part of the Chukotka Peninsula. To make matters more confusing, in English sometimes any of the three areas are loosely referred to as the Chukotka region, with a small "R". It is the Chukotka Autonomous District that has declared its independence and is seeking the status of an Autonomous Republic (see below). Figure II-1 is a map of the Soviet Far East and shows the position of the Chukotka District relative to the USSR.

The Soviet Union is divided into fifteen "union republics". The entire Soviet Far East is included within the Russian Republic, which is by far the largest republic. If it were a separate country, the Russian Republic would be the largest country in the world.

The Russian Republic in turn is further divided into a number of second-level administrative units, with approximately equal standing. Each of these is further divided into third-level administrative units, equivalent to an intermediate level between state and county government, and fourth-level units equivalent to a county. Municipalities are fifth-level governments, but often major cities are hierarchically equal to Soviet "counties" because of their large populations.

---

1 Russians use the term "Siberia" to refer to the central area of the Soviet Union, east of the Ural Mountains. They do not consider the Far East to be part of Siberia. See inset in Figure II-1

2 The difference in names is partly historical, similar to the use of the word "Commonwealth" by the State of Massachusetts. They have different amounts of representatives to the two bodies of the union legislature (Soviet of the Peoples Deputies), also for historical differences.
Figure II-1: Map of the Soviet Far East

Note: Russian terms for administrative units have been translated as follows:

Krai         Territory
Oblast       Province
Okrug        District

THE SOVIET UNION

University of Alaska Anchorage, Institute of Social and Economic Research 1989
Russian names for these units and their approximate English equivalents, and examples of their uses, are as follows.

<table>
<thead>
<tr>
<th>Russian</th>
<th>English Equivalent</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aftonomnaya Respublika</td>
<td>Autonomous Republic</td>
<td>The Yakuts Autonomous Republic</td>
</tr>
<tr>
<td>Krai</td>
<td>Territory</td>
<td>The Khabarovsk Territory</td>
</tr>
<tr>
<td>Oblast</td>
<td>Province</td>
<td>The Magadan Province</td>
</tr>
</tbody>
</table>

Third level administrative units:

- Okrug
  - Aftanomnaya Oblast: Autonomous Province
  - Aftanomniiy Okrug: Autonomous District
  - Example: Chukotka Autonomous District

Fourth level administrative units

- Riaon: Region or county
- Gorod: City
  - Example: Provideniya and Chukotka Regions
  - Magadan City

Fifth level administrative units

- Gorod: City
- Poselok: Settlement
- Selo: Village
  - Example: Anadyr City
  - Settlement of Provideniya
  - Village of New Chaplino

Chukotka is still, technically, an Autonomous District (Okrug) of the Magadan Province. Recently, Chukotka has declared itself an Autonomous Republic, with the city of Anadyr as its capital, and is petitioning the Russian Republic to recognize its new status. The Russian Republic will most likely approve the petition. The district will also need to have a "fifty per cent plus one vote" majority on a referendum before it officially becomes an autonomous republic. The main reason that Chukotka would like to gain this status is to get out from under Magadan's sphere of influence and deal directly with Moscow. Nevertheless, it seems obvious that Chukotka lacks much of the administrative and technical expertise that has deliberately been centralized in Magadan over many years.

---

3 There are no standard English equivalents to the Russian words for these administrative units. Oblast, for example, has been translated as "Province", "District", or "Territory".

4 The word autonomous means that a certain ethnic group is represented in the region.
Chukotka has eight regions (riaons): Anadyr, Bering, Iultin, Provideniya, Chukotka, Schmidt, Chaun and Bilibino. Anadyr Region holds the capital, the city of Anadyr, a port, and a coal mine on the eastern coast. Bilibino, Chaun, Shmidt and Iultin Regions, located in the western and north central regions, have an extensively developed tin and gold mining industry. The Provideniya and Chukotka Regions, the closest neighbors to Alaska, are the proposed land areas for the Soviet share of the Beringian Heritage Park. Both these regions have relatively large Chukchi and Eskimo native communities. In addition, both contain local transportation hubs and have a significant military presence. Finally, the southernmost Bering Region, like the Anadyr Region, mines coal and has a seaport. Each region has a regional capital. Figure II-2 is a political map of Chukotka that shows the regional administrative units and major settlements. Table II-1 reviews the eight regions, their regional capitals, and some of the principal industries for each region. Figure II-3 shows the air distance between Northwest Alaska, the Bering Land Bridge National Preserve, and the closest coastal villages in the Soviet proposed park area.

Chukotka's climate is almost exclusively arctic and subarctic. Chukotka has tundra, mountain-tundra and forest-tundra ecosystems. Chukotka is in many ways analogous to the northern half of Alaska and shares similar geography, geology, vegetation and animals. Chukotka has well-developed drainage systems and includes several rivers that empty into the Bering, Chukchi and East Siberian Seas. Figure II-4 gives a good overview of the geology, climate, vegetation and animal habitats of the Soviet Northeast, including Chukotka.

---

5 Sometimes, in translation, the adjective ending "skii" or its variation is used in a name i.e. Bilibinskii, Chaunskii or Shmidtovskii.

6 Bilibino City, the regional capital is also the site of a small, 48 mega watt, nuclear powered electric plant.
Figure II-2: Political Map of Chukotka-
The Chukotka and Provideniya Regions
are the areas the Soviets propose
as their share of the Beringian
Heritage Park
<table>
<thead>
<tr>
<th>Regions (raion)</th>
<th>Principal City</th>
<th>Principal Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anadyr</td>
<td>Anadyr</td>
<td>center for human services and supply, military base, sea port on Northern Shipping Route, coal mining, reindeer farming, oil exploration</td>
</tr>
<tr>
<td>Bering</td>
<td>Nagornii</td>
<td>sea port on Northern Shipping Route, reindeer farming, coal mining</td>
</tr>
<tr>
<td>Iultin</td>
<td>Egvekinot</td>
<td>sea port on Northern Shipping Route, tin mining, reindeer farming, oil exploration, proposed controversial hydroelectric station (Amguam)</td>
</tr>
<tr>
<td>Provideniya</td>
<td>Provideniya</td>
<td>sea port on Northern Shipping Route, military base, reindeer farming and marine mammal hunting, gold and diamond exploration</td>
</tr>
<tr>
<td>Chukotka</td>
<td>Lavrentiya</td>
<td>reindeer farming and marine mammal hunting, native bone and ivory carving (Uelen craft shop)</td>
</tr>
<tr>
<td>Shmidt</td>
<td>Shmidt</td>
<td>gold mining, reindeer farming, Port on the Northern Shipping Route</td>
</tr>
<tr>
<td>Chaun</td>
<td>Pevek</td>
<td>seaport on the Northern Shipping Route, tin and gold mining, reindeer farming</td>
</tr>
<tr>
<td>Bilibino</td>
<td>Bilibino</td>
<td>gold mining, atomic power plant, reindeer farming</td>
</tr>
</tbody>
</table>

Figure II-3: Air distance between the Bering Land Bridge National Preserve, northwest Alaska and the closest coastal villages in the Soviet proposed park area.
Figure II-4: Geology, climate, vegetation and animal habitat of Chukotka.

Figure A: Geological structures 1-area of mesozoic folds, including [triassic?] and paleozoic massives. 2-area of meso-cenozoic volcanic belt 3-area of cenozoic folds.

Figure B: Climate 1- arctic tundra 2-tundra and forest-tundra outside of forested areas 3-tundra and forest-tundra within forested areas. 4-area of coniferous taiga.

Figure C: Geobotany 1-arctic tundra area 2-Bering Sea forest-tundra 3-Kolyma-Verhoyansk area of occasional larch forest 4-Okhotsk area of occasional larch forest and larch forest.

Figure D: Animal Habitat 1- Eastern arctic fauna 2- Eastern Siberian Fauna 3-Okhotsk-Kamchatka (Bering Sea) fauna.

DEMOGRAPHY

Chukotka Autonomous District's population in 1989 was 163,900. This is about 30 per cent of the entire population of the Magadan Province. Anadyr and Pevek are the only settlements that have "city" status. The centers of population are around the ports and mining regions of the area. 73 per cent of the people live in urban or semi-urban settings. Table II-2 gives selected population and land area statistics for Chukotka, with some Alaskan comparisons. Figure II-5 is a Soviet chart showing the population time-series of Chukotka from the 1930s to the present. The figure also makes population estimates through 1995, which in view of the current economic crisis should probably not be taken seriously.

Native people within the Chukotka Autonomous District are represented by 11,924 (1989) Chukchis, who live throughout the region; the 1,452 (1989) Eskimos, who live in coastal communities on the extreme Northeast of Chukotka. The Even (1,336), Chuvantsi (944) and Ukagir (160), who live mostly in the western part of Chukotka, and the Koryak (95), who live in the southern part of Chukotka, represent populations overlapping from larger groups which inhabit territories outside of Chukotka. Figure II-6 is a map showing the areas the Native groups of Chukotka occupy. Figure II-7 is a map showing relative population distribution in the Soviet part of the proposed park area. Native people represent almost 10 per cent of Chukotka’s population.

Demographic information available to the West on Chukotka is disjointed because demographic statistics in the Soviet Union fall under the category of "state secrets". It is particularly hard to get comprehensive statistics for an entire region. Under the new government orders, partial population statistics may be published as long as they do not reveal "...the complete statistical profile of the region". Soviet economists and demographers have written volumes of complex books on population of regions entirely based on comparing percentage differences of previous years without ever revealing a base figure.


25
Table II-2: Selected Population Statistics for the Soviet Northeast and Alaska

<table>
<thead>
<tr>
<th>Major settlements and their populations (thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchorage (235)</td>
</tr>
<tr>
<td>Fairbanks (72)</td>
</tr>
<tr>
<td>Juneau (26)</td>
</tr>
<tr>
<td>Nome (3)</td>
</tr>
<tr>
<td>Bethel (4)</td>
</tr>
<tr>
<td>Kotzebue (3)</td>
</tr>
<tr>
<td>Barrow (3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approximate Population (thousands)</th>
<th>Area (thousands of square miles)</th>
<th>Major settlements and their populations (thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>540</td>
<td>571</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magadan Region</td>
<td>557</td>
<td>463</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chukotka Autonomous District/Republic</td>
<td>164</td>
<td>284</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure II-5: Soviet time series of non-Native and Native populations of the Chukotka Autonomous District for 1930-1989 with a forecast through 1995. (thousands of people).
Figure II-6: Map of Native groups of the Soviet Northeast.

CHUKCHI
Chukotka Autonomous District

SIBERIAN YUPIK ESKIMO
St. Lawrence Island

KORYAK
Koryak Autonomous District

EVEN

ALEUT
Petricorotis Islands

THE SOVIET UNION

THE SOVIET FAR EAST AND ALASKA

Univ<rsity of Alaska Anchorage, Institute of Social and Economic Research 1990
Figure II-7: Map showing relative population distribution in the Soviet proposed park area.

Relative Population
- 3,000 - 10,000
- 1,000-3,000
- 500-1,000
- 200-500
- less than 200

Source: Magadanskaia Upravlenie Statistiki

Institute of Social and Economic Research 1991
The Chukchi, who may have settled in Chukotka prior to the Eskimo, are best described as the reindeer herders of the tundra. A large minority of Chukchi also live along the coast as maritime sea hunters, like the Eskimos. About 86 per cent of the Chukchi live in village settlements throughout Chukotka. There is and has been considerable contact and trade between the Eskimo and the large Chukchi population, which has steadily and successfully been assimilating the Eskimo groups. This process of assimilation was speeded up by the Soviet relocation policy of Eskimo villages from the early 1940s to the late 1950s. (See Appendix C: Krauss, Michael *Soviet Eskimo Population and History* Alaska Native Language Center, University of Alaska Fairbanks). Recently, even some Alaskan Siberian Yupik Eskimos have found distant relatives among the Soviet Chukchi.

The Eskimos of Siberia speak a different language than the neighboring Chukchi and traditionally followed a life-style almost exclusively as maritime sea hunters. Today about 1700 Eskimos live in the USSR about 1,400 are settled in mixed communities of Russians/Ukrainians and Chukchi along the shores of the Chukchi Peninsula. The villages of New Chaplino and Sereniki are the most significant Eskimo population centers. In New Chaplino, a village that was established in the late 1950s during the Soviet resettlement policy, about 300 Eskimos make up a majority among a 20 per cent Chukchi and 20 per cent Russian population. In Sereniki, 300 Eskimos represent only 42 per cent of the population.

The Soviet Eskimos are divided into three linguistic groups. The majority of the Eskimos, about 850, speak Central Siberian or Chaplinski, which is a language identical to that spoken by about 1,100 people living on St. Lawrence Island, Alaska. Naukanski Yupik is spoken by a minority in the northern part of the Chukotka peninsula and Old Sirenikski is virtually extinct. The Inupiaq-Inuit Eskimo language spoken in Northern Alaska, Northern Canada, and Greenland has not been represented in the USSR since the late 1940s. Table II-3 gives some pertinent population and linguistic data for the Chukchi and Eskimo Populations of Chukotka.


11 Personal communication with Natalie Novak, NANA Regional Corporation, Kotzebue, Alaska, October 1990


13 Bakhtin, N.B.*Socio-linguistic Description of Eskimo Villages of the Chukotka Peninsula*, Linguistic Research, Academy of Sciences USSR Institute of Language (Moscow 1984) p.69

14 Krauss, Michael *Soviet Eskimo Population and History* Alaska Native Language Center, University of Alaska Fairbanks

15 The last Soviet family of Inupiaq speakers (6 people) were moved from Big Diomede in 1948 and there were no further reports about them (Krauss).

<table>
<thead>
<tr>
<th></th>
<th>Chukchi</th>
<th>Eskimo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living in the Russian Republic</td>
<td>15,106</td>
<td>1,703</td>
</tr>
<tr>
<td>Living in Magadan Region (includes Chukotka)</td>
<td>12,563</td>
<td>1,531</td>
</tr>
<tr>
<td>Living in Chukotka District</td>
<td>11,914</td>
<td>1,452</td>
</tr>
<tr>
<td>% living in a rural settlement</td>
<td>86%</td>
<td>77.2%</td>
</tr>
<tr>
<td>Consider their 1st language to be a Native language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban Native population</td>
<td>47.1%</td>
<td>74.2%</td>
</tr>
<tr>
<td>Rural Native population</td>
<td>34.5%</td>
<td>56.7%</td>
</tr>
</tbody>
</table>

The first settlers on Chukotka were the Eskimo and the Chukchi. These two distinct groups lived for centuries before the 1648 Russian expedition of Semeon Dezhnev first reached East Cape, now known as Cape Dezhneva, the northeastern-most point of the Chukotka Peninsula.

Although the Russian settlers began establishing trading settlements along the Anadyr River at the settlement of Markova in the early part of the seventeenth century, no permanent settlements were established in the extreme northeast of the Chukchi peninsula until after the Russian Civil War (1917-1921).

The latter half of the eighteenth century brought the American whalers and a strong American presence on Chukotka. "...the Americans act, if not like at home, like conquerors in a conquered land: set fires and cut down trees, kill wildlife and whales, trade in ... furs, reindeer and leave behind their trail, reminding one, if not of, the ancient barbarians, then the Tatar and Saporozhets Cossack scourges." reported a Russian naval officer in 1863. Yearly the whalers slaughtered up to 6,900 whales (1848) and almost drove them to extinction in the region. In 1871 American whaling drew to a close after the fleet got caught in ice near Point Barrow. This did not end the American presence on Chukotka, and the Nome gold rush days at the turn of the century saw American traders acquire fur and ivory in exchange for goods and illegal liquor and establish a number of trading posts in Chukotka.

At the turn of the century a U.S. Coast Guard Cutter, The Bear, made yearly trips to Indian Point and Kamchatka to purchase reindeer. This was part of a plan by Sheldon Jackson, a missionary and head of Alaska's Department of Education, to establish a reindeer herding industry in Alaska that would provide Alaskan natives with employment. From 1892 to 1902 Jackson spent $158,000 in government appropriations to purchase over 1,500 reindeer and hire four Siberian Native handlers.

Following the Russian Civil War, Chukotka remained under non-communist control until almost the mid 1920s. The exception was a brief Bolshevik nationalization of American and Canadian trading posts in 1919.

18 Now known as Old Chaplino near Provideniya.
The Swenson Company of Nome, Alaska and the Hudson’s Bay Company, Canada continued to maintain posts into the mid-1920s, but with time American influence in the area began to be replaced by the new communist governments. Contacts during the late 1920s became limited to a few American traders. In the thirties occasional airplane flights between the regions were reported. Several ended tragically, notably Carl Ben Eielson’s 1929 crash off northern Chukotka while shuttling people to the mainland from a Swenson Trading Company ship caught in the ice, and Wiley Post’s and Will Roger’s flight that crashed near Barrow on the way to Siberia in 1935.  

In the 1940s, the war effort saw over 7,000 lend-lease planes flown from Alaska, many of them stopping along the way in Provideniya and Markova in Chukotka. In 1943, Vice President Wallace stopped in Chukotka on the way to Magadan and Yakutsk.

In 1948, with the advent of the Cold War, the border between the two areas was closed to travel. That year the Soviet Union and the United States ceased the yearly visits of Eskimo families that had been allowed by a 1938 agreement.

Very rare contact did occur between the two regions for the next thirty-eight years. Stories include the single Russian defector who in 1945 rode his motor driven umiak to St. Lawrence Island and annual incidents of Americans walking across the ice between the Diomede Islands, only to be sent back. In 1972 there was a brief exchange of presents allowed between Native relatives. In 1979 it was rumored that a dead member of the Soviet special forces showed up in an abandoned listening post on Little Diomede.

From the 1930s until recently Chukotka served three main purposes for the Soviet Union’s centralized government:

1) A source of tin and gold;
2) A base for a series of ports to resupply the Northern Shipping Route, and;
3) A strategic military territory to serve as a bulwark against the United States.

---


21 Knapp, G.P. Recent Alaska-Chukotka Contacts in the Bering Strait Region

22 Ibid.

23 skin boat

24 Iseman, Peter A. Lifting the Ice Curtain NY Times Magazine, October 23, 1988.
Some of the Russian, Ukrainian and Belorussian colonists were volunteers who came seeking adventure or higher salaries. Higher salary perks and job availability probably account for a continued growth in population between 1960 and 1980. Other settlers were in the military. In addition, there were documented instances of forced settlement in the district, namely Soviet soldiers who had been sent to Provideniya after having been exposed to the West during the 1945 invasion of Germany and prison laborers who worked at the tin mines in the late 1930s and 1940s. The Egvikinnot-Iultin road (1946-1951), constructed during some of the worst years of Stalinist repression, is said to have been built with prison labor. Population statistics for 1930-1960 are probably not reliable because prisoners were excluded from the regional statistics. It is not known to what extent Chukotka was affected by the infamous Stalinist system of gulags that established and formed the City of Magadan and the Kolyma mining district. It is quite likely that much of the development of Chukotka until the death of Stalin in 1954 was supported by forced labor.

Recent Alaska-Chukotka Contacts

In 1987 the Soviet government began to slowly ease the almost forty-year travel restrictions imposed on this region. Contacts began with a "friendship flight" between the towns of Nome, Alaska and Provideniya, Chukotka, in June 1988 and have expanded at an exponential rate. Over the past two years, dozens of government, business, academic, and tourist delegations have traveled back and forth between Alaska and the Soviet Far East.

Today, the dramatic "opening" of the U.S.-Soviet border in the Bering Strait has led an American charter service to operate flights from Nome to Provideniya. Bering Air, a commuter airline in Nome, has made more than 100 flights carrying over 2,000 Americans and Soviets between Nome and Provideniya over the past two years. Numerous Aeroflot planes have carried passengers and freight between Anchorage-Magadan, and Anadyr-Anchorage. Northern Air Cargo has recently signed a freight agreement with Aeroflot in Magadan and direct Anchorage-Magadan-Khabarovsk scheduled jet flights by Alaska Airlines and Aeroflot are expected to begin by June 1991.

The Governor of Alaska has met with the chairmen of the executive committees of the Primorskii and Khabarovsk Territories and Magadan Oblast and has signed broad agreements for trade, research, and cultural cooperation. When Steve Cowper was governor of Alaska, he visited to the Soviet Far East, including the Chukotka cities of Provideniya, New Chaplino, Lavrentiya, Lorino, Big Diomede Island, Uelen and Anadyr. In addition, that trip also brought the Minister of Fisheries of the USSR to Vladivostok for discussions concerning joint scientific research and management in the Bering Sea Region.

---

*Provideniya Airport has been temporarily closed during the Winter of 1991 for repairs - personal communication Hal Berntson, reporter for the Anchorage Daily News, January 4, 1991.*
There has been a significant amount of American and Western travel on business, educational, cultural, medical and scientific exchanges in the past two years. Communications have been improved by the increased travel between the regions and the direct microwave link that provides for telephone calls between Alaska and the Soviet Far East at half the rate for calls between the rest of the United States and the Soviet Union.

The United States and the Soviet Union have signed an agreement providing for visa-free travel by Soviet and Alaska Eskimos. Currently, the agreement has not been fully implemented and permission for Soviet natives for visa-free travel has been extended only to St. Lawrence Island, Kotzebue and Nome. 26

26 Vera Kaneshiro, University of Alaska Siberian Yupik Instructor, Anchorage, Alaska December 3, 1990
III. THE POLITICAL STRUCTURE AND ITS RELATION TO LOCAL NATURAL RESOURCE ALLOCATION

It is difficult to understand the current and former Soviet government structure because of its complexity and the many changes that have occurred in the Soviet Union since Soviet President Mikhail Gorbachev began implementing his policies of glasnost (openness) and perestroika (restructuring). The following is an attempt to briefly outline the Soviet government enough to explain its relationship to resource development in a remote region.

GOVERNMENT STRUCTURE

Under the "pre-glasnost" system of government the Communist Party of the Soviet Union (CPSU) made all policy for the country. The government's job was merely to implement CPSU policy. The government and the party were organized in a rigidly centralized and hierarchical structure that had overlapping representation at the union, republic, province, and city or county levels.

Prior to Gorbachev’s electoral reform law of 1988, the Communist Party had complete control at each level and directed and over-shadowed union, republic, province, county, city, and village governments. Each level of government merely carried out the Communist Party directives. The Communist Party directives were dictated from the highest organ of the Communist Party, the Politburo of the Central Committee of the Communist Party, through several layers down to the local lowest primary CPSU organizations. The CPSU organizations and members then implemented the party program at every level of government. Most government officials belonged to the CPSU, which gave it that much more control. Figure III-1 shows the hierarchical structure of the Soviet Communist Party.

---

1 This information is compiled from publications of the Central Intelligence Agency and from personal Communication with Professor Alexander Granberg, Deputy of the People's Deputies RSFSR.
Figure III-1: Organizational Structure of the Communist Party of the Soviet Union

The Soviet (council) of the People's Deputies remains the basic legislative body of government and state authority that exists at every level:

Supreme Soviet of the USSR
Supreme Soviets of the Republics (15 republics)
Supreme Soviet of Autonomous Republics
Soviet of People's Deputies of Territories and Provinces
Soviets of People's Deputies of the Autonomous Provinces and Autonomous Districts
Soviets of the People's Deputies of regions and cities
Soviets of the People's Deputies of settlements and villages.

Previously, the Soviets at any level had virtually no autonomy and the deputies (legislators) were CPSU endorsed candidates that were routinely elected without opposition. In the past, the Soviets met only several times a year for only a few days to routinely pass legislation prepared by other bureaucratic organs and dictated by the Party. Being a member of the Soviets was an unpaid honor and all deputies held outside full-time jobs, as well as fulfilling official duties.

Each Soviet therefore appoints an executive body to carry out day-to-day activities of government and coordinate the activities of the various economic sectors in a particular region. On the union level this executive body is now called the Cabinet of Ministers, on the republic level this is the Council of Ministers, on other levels the body is known as the Executive Committee of the Soviet of the People's Deputies. Formally, many economic, resource and policy decisions were made directly by local agents of Moscow's centralized union and republic ministries and committees. These ministries and committees are government bureaucracies that still control virtually all sectors of the economy. Figure III-2 shows the former hierarchical structure of the government and how the Party overshadowed and controlled the government.

Currently, the government structure of the USSR follows a similar pattern it had during the "pre-glastnost" period. The most important and crucial difference after the reforms introduced by Mikhail Gorbachev is that with the advent of free national and local elections the soviets and their executive committees have actually began to assume the role of leading policy-makers in the country and the power and influence of the Communist Party has been greatly diminished.
Figure III-2:
The Former Interlocking Structure of the Government and the Party.

THE NEW UNION AND REPUBLIC GOVERNMENT

One of the main steps taken in Gorbachev’s reforms has been the new electoral reform law that was passed in December 1988. Since the last union-national elections (May 1989) and the recent republic and local elections (March-April 1990) the Communist party has lost considerable control and many members have deserted the party, most notably Boris Yeltsin, the Chairman of the Supreme Soviet of the Russian Republic. Political freedoms have actually been extended and implementing them is an on-going process. Unfortunately, these political freedoms have contributed to the divisiveness between the Union and republics. In addition, the expected economic reform and move to a market economy has not occurred and the country is facing complete economic failure.

Overall Structure of Government

The union (national) government’s supreme legislative body is the Supreme Soviet of Peoples Deputies. The Supreme Soviet is elected from among the popularly elected Congress of People’s Deputies. The Supreme Soviet used to be responsible for appointing the Chairman of the Council of Ministers which was the "...highest executive and administrative body of state authority of the USSR." As of March 1990 the Presidency of the USSR has been created and it is slowly assuming the executive power of the Union. The Council of Ministers has recently been replaced by a Cabinet of Ministers. The Cabinet of Ministers’ chief officer, the Premier Minister, is appointed by the President and confirmed by the Supreme Soviet. Figure III-3 shows the current overall Soviet government structure. The system is a hybrid of the old system, that vaguely resembles the continental European system, and new aspects that include a presidential system. President Gorbachev is expanding stronger central presidential authority and consolidating executive and legislative power that was formally held either in the Supreme Soviet or the Council of Ministers.

Separation of powers did not exist within the old government and there is great confusion over where various powers should rest within the changing Soviet union government. Legislative power has been represented and exercised by the Congress of People’s Deputies and the Supreme Soviet elected less then two years ago. The Council of Ministers was never a truly independent executive body and was deeply bogged down in bureaucracy and trying to revive the faltering economy. The new Cabinet of Ministers gives more executive power to the President. Overall, the recent approval by the USSR Congress of People’s Deputies of increased legislative and executive powers for the presidency adds to the confusion and complexity of the developing system. Judicial oversight within the government has been introduced with the new Constitutional Court.

---

2 Constitution of the USSR

40
Figure III-3: **STRUCTURE OF THE USSR GOVERNMENT**
(as of January 25, 1991)

**Legislative Apparatus**

- Congress of the People's Deputies
  - (2,250 Members)

  **Supreme Soviet**
  - (542 Members)
  - Chairman Anatoliy Ivanovich Lukyanov

  - Soviet of the Union
    - (271 Members)

  - Soviet of the Nationalities
    - (271 Members)

  **Presidium of the Supreme Soviet**
  - (41 Members)
  - Chairman Anatoliy Ivanovich Lukyanov

**The Presidency and Executive Power**

- President
  - Mihail Sergeyevich Gorbachev
  - Vice President
    - Gennady Yanayev

  **Cabinet of Ministers***
  - Chairman Valatin Pavlov

  **Ministries and State Committees**

**Judicial Power**

- USSR Control (Audit) Chamber
- USSR Supreme Court
- USSR Supreme Court of Arbitration
- USSR Procurator General

**Constitutional Court**

---


INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH 1991
Soviet Legislative Power: The Supreme Soviet of the People's Deputies

The Congress of the People’s Deputies is the Soviet Union’s highest legislative body. The congress has 2,250 members elected for five-year terms. Of the total membership, 1,500 of the deputies of the Congress are elected by popular election and 750 have been elected through all-union public organizations like the Communist Party and the Academy of Sciences. The 2,250 members, in turn, elect from among themselves a Supreme Soviet of 542 members that are equally divided into two Councils: the Council of the Union, elected on the basis of population and the Council of Nationalities, elected on a regional basis. The Supreme Soviet used to meet only twice yearly for about a week each time, but recently the entire Congress has been in session, often in the face of increased powers and political and economic crisis. Figure III-4 shows the internal structure of the new Soviet legislature. The full Congress has the right to amend the Soviet Constitution, elect the Supreme Soviet, approve referendum proposals, vote on important legislation, veto the president’s actions and approve the Union budget. The Soviet legal system is similar to the continental European system and has a comprehensive set of codes. The Congress of People’s Deputies has the right to create and revise the Soviet basic statutory codes of law and pass more specific legislation in the form of statutes (zakony).

The Presidium of the Supreme Soviet is the administrative body accountable to the Supreme Soviet and is made up of the following ex-officio members: 15 deputy chairmen, who are also the chairmen of their respective republic Supreme Soviet, the chairmen of the Council of the Union and Nationalities, and the chairmen of the 22 standing committees and commissions of the Supreme Soviet. Anatoliy Lukyanov is the Chairman of both the Supreme Soviet and its Presidium. These positions were held by Gorbachev until January 1991. Gorbachev is now the President of the USSR, a post that he has held since May 1989, and Secretary-General (highest position) of the Communist Party of the USSR.

The standing committees and commissions of the Presidium carry out the bulk of the legislative work, which is voted on by the Presidium or the full Supreme Soviet. The Presidium’s decisions are edicts which are often upgraded by the full body of the Supreme Soviet to higher standing statutes.

---

3 In the future all the deputies of the USSR Congress of People’s Deputies will be popularly elected.

4 Occasionally referred to as the Soviet parliament.

5 Somewhat similar to the houses of the U.S. Congress.

6 Union republics and all autonomous republics, oblasts and okruhs get weighted representation as well as all-union public organization representatives. It is doubtful if public organization will get representation for the next Union elections. Public organizations are no longer represented on any lower level governments.

7 Central Intelligence Agency, USSR’s New Legislative System: a Reference Aid, July 1989

8 ibid.
The New Soviet Legislative Apparatus

Congress of USSR People's Deputies

The Congress of USSR People's Deputies (CPD) essentially is the highest organ of state power in the USSR. Its 2,250 members are elected every five years. Fifteen hundred members of the CPD are elected by periodic vote. 750 from electoral districts determined by population, and 750 from districts allocated equally among the USSR's administrative subdivisions. The remaining 250 delegates are chosen by all union public organizations such as the CPSU and the Komsomol. The Congress is responsible for electing the Soviet Supreme and its chairman, as well as approving the state plan and budget.

USSR Supreme Soviet

Elected by and for among the members of the CPD by means of secret ballot, the USSR Supreme Soviet is an elected standing parliament in Soviet history. The 542 members are divided into two houses: the Council of the Union and the Council of the Nationalities.

The Supreme Soviet is scheduled to meet twice a year—in the spring and in the fall—with each session lasting approximately three to four months. It has the power to approve top government appointments, form the defense council, assist in the preparation of the next economic plan, and make resolutions and orders of state and republic governments. One-fifth of the deputies to the Supreme Soviet will be replaced annually.

Chairman: Mikhail Sergeyevich Gorbachev

Presidency of the USSR Supreme Soviet

As chairman of the USSR Supreme Soviet, Gorbachev also heads the Presidium. In addition, there are the following other ex officio members: the First Deputy Chairman of the USSR Supreme Soviet, the 15 deputy chairmen (each is the chairman of a republic supreme soverign), the chairman of both councils, and the chairman of the 22nd Supreme Soviet. Accountable to the Supreme Soviet, the Presidium performs a variety of administrative functions. It delegates power to the chairman to enter treaties and make agreements with the diplomatic officials, and grant pardons.

Chairman: Mikhail Sergeyevich Gorbachev (Chairman, USSR Supreme Soviet)

Council of the Union

Representation in the Council of the Union is based on the basis of population. In most cases, each of the 271 deputies stands for a territorial district of approximately 250,000 voters. In practice, however, these numbers vary from around 150,000 to over 379,000. The deputies who are elected to the CPD from social organizations represent their groups rather than territory districts. The Council is responsible for all union matters such as the economy, legal rights, foreign policy, and national security.

Chairman: Yeoryy Makosinich Preobrazhenski

Deputy Chairman: Bessam Selissanovich Akhmatov

Alexandr Alekseyovich Melkman

Commissions

The membership of each of the four commissions of the Council of the Union is split equally between Council of the Union deputies and Council deputies who are not currently serving on the Supreme Soviet.

Industry, Energy, Machinebuilding, and Technology Development Commission

Chairman: Vladimtir Serigneckiy Krymski

Labor, Prices, and Social Policy Commission

Chairman: Nikolay Nikolayevich Chiitko

Commission on Planning, Budget, and Finance

Chairman: Viktor Grigorovich Khalidzki

Defence and State Security Committee

Chairman: Yakov Lavrovich Leppik

Ecology and the Rational Use of Natural Resources Committee

Chairman: Alexander Aleksandrovich Shchukin

Economic Reform Committee

Chairman: Valerian Mikhailovich Volgin

Glarment and Citizens' Rights and Appeals Committee

Chairman: Vladimir Konstantinovich Folovey

Health Committee

Chairman: Yury Ivanovich Berdin

International Affairs Committee

Chairman: Aleksandr Sergeyevich Dudnikhh

Source: United States Central Intelligence Agency

USSR Supreme Soviet

Although they are not part of the formal apparatus, the chairman's advisors provide him with close policy support.

Sergey Fyodorovich Afanasyev

Anatoly Viktorovich D'yankov

Vadim Valentinovich Zaydlin

Council of Nationalities

Representation in the Council of Nationalities is allocated on a regional basis. The 271 members are responsible primarily for the nationalities. Each union republic is guaranteed a number of representatives, each autonomous republic four, each autonomous oblast two, and each autonomous okrug one. The remainder are deputies who represent the social organizations that elected them to the CPD.

Chairman: Raffi Nikolaevich Nikolaev

Deputy Chairman: Vsevolod Viktorovich Shneider

Boris Il'yich Osipov

Commissions

The membership of each of the four commissions of the Council of Nationalities is split equally between Council of Nationalities deputies and Council deputies who are not currently serving on the Supreme Soviet.

Consumer Goods, Trade, and Municipal, Consumer, and Other Services Commission

Chairman: Grigory Stanislavovich Bondarev

Social and Economic Development of Union and Autonomous Republics, Oblasts, and Okrugs Commission

Chairman: Eduard Ivanovich Villas

Nationalities Policy and Interethnic Relations Commission

Chairman: Grigory Stanislavovich Bondarev

Culture, Language, National and International Traditions, and Protection of Historical Heritage Commission

Chairman: Chingiz Aynaev
Soviet Executive Power: The New Presidency and Cabinet of Ministers

The Presidency was just created in March 1990. By the end of 1990 the Congress of People's Deputies had significantly changed and increased the structure and power of the presidency. The presidency now includes a Federative Council of 38, which includes the 15 heads of state of the 15 Republics and representatives of the various autonomous republics, districts and regions, and a Defense Council, which has yet to be determined. In addition, the old Council of Ministers has been replaced by a Cabinet of Ministers that is under the Presidents' control. Valatin Pavlov has just been named the Premier Minister of the Cabinet of Ministers. Figure III-5 outlines the structure of the USSR presidency before January 1991 and gives a brief explanation of the responsibilities of councils to the president. It is undetermined which body will now carry these responsibilities. Figure III-6 gives the current structure of the Presidency and what is known about the newly formed Cabinet of Ministers.

Gorbachev is the President of the USSR and can, among other constitutional powers:

- appoint and remove, subject to the confirmation of the Supreme Soviet, government officials;
- declare martial law (subject to a two-thirds confirmation of the Supreme Soviet).

On December 25 and 26, 1990 the Congress of the Peoples Deputies passed a package of constitutional amendments that expands the powers of the presidency. This includes,

- putting the new Cabinet of Ministers, which replaces the Council of Ministers, under Gorbachev's direct control
- elevating the Federation Council into a policy-making body
- giving Gorbachev the power to legislate by decree, similar to what the Council of Ministers used to do.
- create a national security (defense) council under the power of the president.

Earlier in the month President's emergency powers were extended by the Supreme Soviet.

---

9 Central Intelligence Agency, The USSR Presidency: A Reference Aid, April 1990

44
Figure III-5: Structure of the Presidency - Pre-December 1990.

**USSR President**

The presidency, which was created in March 1990, is in the new office of the chief of state. In accordance with the Constitution, the president is elected by a popular vote. Mikhail Gorbachev, however, was elected indirectly by the 2,250 member Congress of People's Deputies (CPD). The president can serve a maximum of two five-year terms and can be impeached by the CPD only if he violates the Constitution or USSR laws. He enjoys several constitutional powers, including the right to:

- Appoint or dismiss members of the Council of Ministers (cabinet).
- Appoint and suspend orders and resolutions of the Council of Ministers.
- Declare martial law on a state of emergency subject to a confirmation vote by two-thirds of the USSR Supreme Soviet.

**Council of the Federation**

The Council of the Federation consists of the USSR Supreme Soviet of the Republics. It is the highest organ of state power of the USSR and is composed of the representatives of the representatives of the republics. The president of the USSR is also a member of the council. The council's powers include:

- The right to review and approve the draft federal budget.
- The right to propose laws to the USSR Supreme Soviet.
- The right to initiate impeachment proceedings against the president.

**USSR Presidential Council**

The Presidential Council is responsible for implementing domestic and foreign policy and for ensuring the country's security. Council members are appointed by the president. The chairman of the Council of Ministers is the only ex-officio member. Although the chairman of the USSR Supreme Soviet is not a member, he can participate in the sessions of the Presidential Council.

**Advisers to the President**

Although they are not part of the formal apparatus, the President's personal and private ties with other policy makers are important. These include:

- Seryi Valeriyevich
- Gorbachev
- Nikolayev
- Romanov
- Shushkevich
- Kuchma
- Kravchuk
- Yeltsin
- Khasbulatov
- Solozhenkin
- Gorbachev

**SOURCE:** UNITED STATES CENTRAL INTELLIGENCE AGENCY

* On 1 April 1990, President Gorbachev expressed his intention to resign, add members to the USSR Presidential Council.
Figure III-6: Current Executive Power Structure and the Presidency

President
Mihail Sergeyevich Gorbachev
Vice President
Gennady Yanayev

Federative Council

Defense Council

Cabinet of Ministers*

Premier Minister
Valantin Pavlov
1st Deputy Chairman
Doguzheev
1st Deputy Chairman
Velichko (industry)
Deputy Mosliykov (defense industry)
Deputy Laverov (Science and Technology)
Minister of Foreign Affairs
Bessmertnikh
Minister of Internal Affairs
Pugo

Ministries
State Committees

*The Cabinet of Ministers was formed in January 1991 and replaces the Council of Ministers. The structure, membership and responsibilities were only partially determined as of publication.
The powers of the Presidency are expanding so that they assume they include the former Council of Ministers, as well as some of the powers of the Supreme Soviet. Eduard Shevernadze, in his surprise resignation as foreign minister, warned against giving Gorbachev too much presidential power for fear that he might become a dictator. Gorbachev's choice of a conservative vice-president, Gennady Yanayev, and a conservative premier minister, Valantin Pavlov, seems to confirm a shift to the right. The Federative Council has a chance to expand its powers to include those policy and regulatory responsibilities now carried on by ministries and committees that are vital for the functioning of government, especially since the Presidential Council was dissolved. This might include a new role for the state bank, which is already undergoing reform. At the same time this would also fuel the fear that too much power is being placed in the presidency.

The former executive body, which was clearly subordinate to the Supreme Soviet, is called the USSR Council of Ministers. Now the Cabinet of Ministers is subordinate to the President. It was responsible for managing the economy, implementing the decisions of the Supreme Soviet and preparing draft legislation for consideration by the Supreme Soviet. The Chairman of the Presidium of the Council was appointed every five years by the Supreme Soviet. This is now an appointment of the President which is confirmed by the Soviet. The full Cabinet of Ministers has not been filled. The lower half of Figure III-6 shows a partial composition and structure of the new Cabinet of Ministers. Figures III-7a and 7b gives an outline of the old USSR Council of Ministers, the names of the members of the last Presidium, Ministries, State Committees and State Bank and their general responsibilities. Figure III-8 is a list of the Ministries and State Committees that continue to exist under the new Cabinet of Ministers.
Figure III-7a: The Structure of the Council of Ministers (replaced by the Cabinet of Ministers as of December 1990)
Figure III-7b: Responsibilities of the Council of Ministers

The Council of Ministers, before it was replaced by the Cabinet of Ministers, consisted of:

the Presidium
The main administrative body of the Council of Ministers. 15 people and the Chairman operated the day-to-day affairs of the government and the economy.

the Ministries
Still head the economic sectors of the country. Represented by the Minister of each of the 37 Ministries. Each Ministry runs a certain sector of the economy. For example, the Ministry of Fisheries, the Ministry of the Coal Industry, Ministry of Metallurgy, Ministry of Geology, Ministry of Defense, Ministry of Internal Affairs (Internal Security). (see Figure III-6.)

the State Committees
Still coordinate major policy areas for the country. Represented by the Chairman of each of the 19 State Committees, each of which coordinate policy for a certain policy question that crosses economic sectors. For example, Committee for Protection of the Environment (GOSKOMPRIRODA), Committee for State Security (KGB), Committee for Science and Technology. (see Figure III-6)

the head of the State Bank
Runs the banking system of the USSR.

the Chairmen of the Republic Council of Ministers.
fifteen, one from each republic\(^\text{10}\)

\(^{10}\) ibid.
Ministries

Atomic Energy and Industry (A-U)
Automotive and Agriculture Machine Building (A-U)
Aviation Industry (A-U)
Chemical and Petroleum Refining Industry (A-U)
Civil Aviation (A-U)
Coal Industry (A-U)
Communications (U-R)
Construction of Petroleum and Industry Enterprise (A-U)
Culture (U-R)
Defense (A-U)
Defense Industry (A-U)
Electrical Equipment Industry and Instrument Making (A-U)
Finance (A-U)
Fish Industry (A-U)
Foreign Affairs (U-R)
Foreign Economic Relations (U-R)
General Machine Building (A-U)
Geology (A-U)

State Committees

Cinematography (U-R)
Computer Science and Technology (A-U)
Construction (U-R)
Forestry (U-R)
Hydrometeorology (A-U)
Labor and Social Problems (U-R)
Material and Technical Supply (U-R)
Output Quality and Standards (A-U)
Physical Culture and Sports (U-R)
Planning (Gosplan) (U-R)

USSR State Bank (A-U)
The head of the State Bank has been previously in the Council of Ministers and is likely to be in the Cabinet of Ministers.

Source: Central Intelligence Agency-December 1989.
Republic Government

The Republic has a government analogous to the old Union government, with the exception of having those State Committees and Ministries that are strictly under all-union control.\(^{11}\) Figure III-9 shows the current structure of the executive and legislative power in the Russian Republic. Figure III-10 is a map showing the second and third-level administrative units in the Russian Republic.

Currently, the USSR is in a state of economic collapse. It is unclear day to day whether the Union government will maintain the confidence of the people or control of the country.

All the republics have declared their sovereignty over Union laws and claim complete control over the resources within their areas. This has resulted in the virtual halt of inter-regional trade. Food shortages, because of this distribution dilemma, are threatening almost all the cities. On the other hand, the natural resource ministries seem to continue to retain control over the areas of resource development and the infrastructure.

Soviet Judicial Power

The Soviet Union has a Supreme Court, a Procuracy, an Audit Chamber and a Court of Arbitration that are subordinate to the Supreme Soviet. The new Constitutional Court is an attempt to create an independent judicial branch, but so far its powers are untested.

The current legal system in the Soviet Union differs from the US-English common-law system and is similar to the continental European system of comprehensive codes. Basic statutory laws are those codes that cover basic areas of the law (such as criminal law, civil law, family law, etc.) and statutes (zakoni), which are more specific legislative acts passed by the USSR and Republic People’s Deputies. Sub-statutory law plays an important part in Soviet law. Edicts (ukazy) that can be passed by the Presidium of the Supreme Soviet are routinely turned into statutes by the Supreme Soviet and decrees (postanovlenia) of the Council of Ministers, and now the president, are the main laws that govern economic, resource and environmental legislation.\(^{12}\) It is worth mentioning that any disagreement between firms or government enterprises is not handled through a regular court, but rather through a well-developed and separate system of arbitration.

---

\(^{11}\) See Figure III-4 this includes ministries and committees that are marked A-U.

Legislative and Executive Structure of the Russian Republic Government

Legislative Apparatus

Congress of the People's Deputies
(1,068 Members)

Supreme Soviet
(252 Members)
Chairman Boris Yeltsin

Soviet of the Union
(126 Members)

Soviet of the Nationalities
(126 Members)

Presidium of the Supreme Soviet
(31 Members)
Chairman Boris Yeltsin

The Presidium consists of a Chairman, 3 Deputy Chairmen, the Chairmen of the two Soviets and 25 Chairmen of the Standing Committees and Commissions of the Supreme Soviet.

RSFSR Council of Ministers

Presidium
of the
Council of Ministers

Heads of Ministries

Heads of State Committees
Figure III-10: Administrative Units of the Russian Republic.
LOCAL GOVERNMENT

The local governments have a similar structure to that of the Union, with a simplified legislative body, the Soviets of the People's Deputies, and an appointed Executive Committee. There is no equivalent to the presidency at the local level. Each deputy is elected from a particular electoral district based on population. Figure III-11 shows the structure of a typical Provincial level government. With the last elections local governments have had the opportunity to introduce slight differences from region to region.

Previously, the Communist Party would select a candidate who was routinely elected. The last election differed from the simple elections of the past. In most regions, at any level, there were more than three candidates for each seat, which must be won by a strict majority of "fifty percent plus one vote". In Magadan, for example, only 5 per cent of the deputies won on the first round. Interestingly, deputies do not have to reside in the district that elects them. In addition, the practice of allowing seats in government to public organization representatives, like the trade unions or the Academy of Sciences, was completely eliminated.

The local legislative body elects a Chairman of the Soviet of People’s Deputies (SPD). Now, some local Soviets have formed Presidiums. This is a new position that was instituted with the last elections. In Chukotka, Vladimir Yetilin is the Chairman of the Chukotka Autonomous District, as well as being a Deputy of the Supreme Soviet of the USSR. The Chairman of the SPD appoints the Chairman of the Executive Committee and the Executive Committee, which is confirmed by the SPD. The members of the executive committee are not deputies.

The local SPDs are responsible for creating legislation and have standing committees for various policy issues. The Executive Committee runs day-to-day affairs of government and implements the People’s Deputies decisions. Figure III-12 shows the division of responsibility among the members of the Executive Committee. The local Executive Committees have departments and divisions that run the various local economic sectors that are not controlled from Moscow.

The local governments have problems similar to the national-union and republic dilemmas. Local governments, especially in the resource rich areas farthest from Moscow, feel that over the years they have been shipping their resources out and getting small subsidies in return. The problem of federal versus provincial rights has still not been seriously addressed.

Similarly, many Chukotka residents have felt that in addition to being cheated by Moscow, the Magadan central administration has been cutting into Chukotka subsidies. At the end of September 1990 the Chukotka People's Deputies declared their status as an autonomous republic, subject to approval by the Russian Republic and a popular referendum.
Figure III-11: **Structure of Local Soviet Government**

- **Soviet of the People's Deputies**
  - *(Sovet Narodnikh Deputatov)*
- **Presidium of the Soviet**
  - *(Presidium Soveta)*
  - Chairman of the Soviet
  - The Presidium consists of a Chairman, Deputy Chairmen, and the Chairmen of the Standing Committees and Commissions of the Supreme Soviet.
- **The Executive Committee**
  - *(Ispolkom)*
  - Chairman of the Executive Committee
- **Departments**
  - *(otdeli)*
  - Organizational
  - Native Affairs
  - Health
  - Education
  - Construction and Architecture
  - Accounting
- **Divisions**
  - *(upravleniya)*
  - Household Services
  - Internal Affairs
  - Housing and Welfare
  - Publishing
  - Supply
  - Culture
  - Local Industry
  - Agriculture
  - Trade
  - Finance

*Institute of Social and Economic Research 1991*
Figure III-12: Division of Responsibilities Among Members of a Typical Local Executive Committee.
STATUS OF RESOURCE DEVELOPMENT AND MANAGEMENT

The Soviet Union had, up to this year, an economic system that was completely integrated with its complex political system. The economy was not differentiated from the political system. No private ownership of the means of production existed- All production was owned, planned, and organized by the State.

Prior to 1991 GOSPLAN, the State Planning Committee, controlled all production and distribution for the entire Union. GOSPLAN would develop five-year plans, hand down production quotas, and decide on all reallocation. A scaled down GOSPLAN USSR still exists, amidst controversy, and most republics, having been given the right, have done away with their State Planning Committees. Nothing but promises of a move to a market economy has been offered to replace the centralized system. Table III-1 is an outline of some of the major political and economic events that have occurred since Gorbachev initiated his policy of perestroika. Among those changes is the rise in alternative views and the rise of various political parties, some of which are listed in Table III-2.

In a halfway attempt to move to a market economy, firms throughout the Soviet Union were given the right to manage their own budgets. But in the face of price controls firms further from the center are sometimes facing production costs that are 10 to 30 times greater than the retail price. Furthermore, the ministry monopolies have not been removed. The result is massive hoarding, the breakdown of inter-regional trade and an almost complete breakdown in distribution.

Union and republic ministries still retain almost complete control of the non-renewable natural resources and are trying desperately to maintain production. The control of some renewable resources, such as reindeer herding and hunting, has fallen into local control on a provincial or county level. Figure III-13 outlines the basic organizational structure controlling resource decision-making.

The State Committee for the Protection of Nature (GOSKOMPRIRODA), is a recently formed committee to coordinate, direct and enforce environmental policy. Its functions were previously carried out by the State Committee for Hydrometeorology and Environmental Protection and the Environmental enforcement departments of the resource development ministries. In essence, prior to the creation of GOSKOMPRIRODA, the resource development industries were self-policing.

Under the new changes the ministry budget is not absolutely controlled by the minister and the central administration. This gives the various regional firms of a ministry considerably more autonomy then they had in the past. There are many examples of how regional departments are now influencing the policies and decisions in their own areas. The current thinking is that the regional departments support the ministry administration rather then visa-versa. Still, the central ministry administration has other ways to exert control over its regional firms. Holding back the considerable state funds the ministry administration still controls, not delivering crucial machinery and equipment, and not lobbying on issues that need government approval are all ways the ministry retains monopolistic control of a particular resource sector.
<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
</tr>
</thead>
</table>
| 1985 | Gorbachev gains power.  
      | Concept of economic revitalization.  
      | The beginning of *glasnost*. |
      | "New thinking" and internationalization. |
| 1987 | First plan for economic reform introduced. |
| 1988 | Economic stagnation.  
      | Program of political reform introduced. |
| 1989 | Beginning of the economic crisis.  
      | First democratic election and new Congress of People’s Deputies, USSR.  
      | Political opposition begins to develop.  
      | Centralized economic system begins to fail.  
      | Second Plan of Economic reform. |
| 1990 | Gorbachev becomes president.  
      | Local and republic elections.  
      | New governments are formed in the republics.  
      | Crisis in the Communist Party. (XXVIII Congress)  
      | Republics take on the central government.  
      | Republics claim sovereignty.  
      | The Union market fails.  
      | Political battle develops around the concept of economic reform. (the plan of "500 Days")  
      | Gorbachev takes a new, more conservative position. |

*Source: Alexander Granberg, January 1991.*
Table III-2: New Political Parties of the USSR

<table>
<thead>
<tr>
<th>Communist Party</th>
<th>The only legal party until 1989 has about 12 million members.</th>
</tr>
</thead>
</table>

Democratic Russian Coalition

- Democratic Party of Russia
- Republican Party of Russia
- Social-Democratic Party
- Free Democratic Party
- Socialist Party

(outside of the Communist Party, probably the largest party with about 25,000 members)

The Left Democratic Block

- Liberal-Democratic Party
- Democratic Union Party
- Russian-Populist Front
- "Green" Party

- Russian Christen Democrats
- Party of the Rebirth of Islam
- Anarchist-syndicate Conference
- Monarchist

Centralist Block -(made up of smaller parties)

"Patriotic" Russian Movement (groups like Pamyat and others)

Even industries that are facing decentralization are still maintaining monopolistic policies in resource development. Local officials of resource enterprises are virtually uncontrolled and are eager to exploit resources at all costs to trade in the foreign market and gain coveted hard currency and western consumer goods. In addition, fish and wildlife enforcement agencies are organizing hunting and fishing trips for foreign tourists to earn foreign currency.

The major obstacle to reform in the ministries monopolistic control of resources is that land is still under the control of the state, and the situation will remain that way for most of the major resource developing sectors. Farming land and housing will most probably be privatized soon under the current Soviet reform policy. But, barring a radical shift in government policy, the major resource sectors will continue to be given land to develop in the attempt to stimulate the economy.

The current system of land assignation for resource development is best expressed by an example. If, for instance, the Ministry of Geology, which is responsible for all mineral, oil and gas exploration, strikes a gas and oil field of commercial significance, it reports its find to the oil and gas ministries, who in turn have paid for the exploratory work up front. The ministries of gas and oil would now pursue having the land assigned for their use. According to new legislation, GOSKOMPRIRODA must issue an "ecological expertise", equivalent to an American Environmental Impact Statement without a public process. The ministries of gas and oil then apply for a land assignment with the Council of Ministers. The Council of Ministers then pass a resolution issuing land for development or refuse such a right. Passage and refusal of a resolution may be appealed to the Supreme Soviet of the People's Deputies, which passes final judgement. Final judgement may not be appealed.

GOSKOMPRIRODA is virtually frozen from any action until the union and republic issue is settled. Local enforcement of resource management is facing problems of under-funding, under-staffing and lack of legislative mandate. Plans to put fish and wildlife under GOSKOMPRIRODA are facing great resistance from the enforcement agencies, who are refusing to relinquish any control. Many people we have talked to claim that bureaucrats and party officials who have lost their jobs have taken up many key posts in GOSKOMPRIRODA.

GOSKOMPRIRODA is in the midst of consolidating control over all aspects of environmental conservation. Previously much of GOSKOMPRIRODA's current responsibilities were carried out by the State Committee for Hydrometeorology and Environmental Control. Other players in environmental regulation include:

---

13 See Appendix D: GOSKOMPRIRODA's "Provisional Instruction on the use of assessments of environmental impact during studies of the technical-economic basis (feasibility) and construction of economic objects and complexes."
1) Other State Committees: Including the State Planning Committee (GOSPLAN), State Committees for Science and Technology, Forestry, Safety in Industry and Atomic Power, and Hydrometeorology.

2) Government Commissions Commissions of the Council of Ministers for the Rational Control and Use of Natural Resources, as well as Commissions on Environmental Protection for the Supreme Soviet.

3) Ministries Ministry of Water Resources Construction, Ministry of Health, Ministry of Fisheries, etc. Through their Administrations, divisions and inspection boards.

4) Quasi-public organizations These are government sponsored associations that include the Nature Protection Society, the Hunting and Fishing Society, the Young Communist League. 14

The one area where GOSKOMPRIRODA does have quite a bit of control and success in enforcing legislation is on any new or planned resource development projects. As mentioned before, GOSKOMPRIRODA has to give an "ecological expertise" for any planned project to be built. Furthermore, GOSKOMPRIRODA has the right to shut down any plant for an environmental infraction until the infraction is corrected. This enforcement tool has caused havoc in some cases, and brought respect and attention to GOSKOMPRIRODA. This right has a two-edged consequence. For example, recently GOSKOMPRIRODA shut down a major Armenian pharmaceutical firm because of pollution infractions. This led to a serious shortage of many medicines at drug stores all over the Soviet Union, because so many secondary processing plants used this Armenian plant's raw product. GOSKOMPRIRODA officials also have a personal incentive to see that new firms don't break the law. GOSKOMPRIRODA officials currently carry criminal liability in case of any release of hazardous materials should occur on any project they have approved.

Providing incentives for resource development and following environmental regulations is a complex issue for the ministries. Used to following production plans, with little care about product quality, marketing, and environmental consequence ministries have concentrated on grandiose and costly development schemes that would get approval of the party and government. Now these cost-burdened firms can only be relieved by an influx of foreign capital. Ministry officials are now eager to seek approval of new projects from GOSKOMPRIRODA. The direction of these relationships and their long-term effects, like everything else, is waiting for the Soviet economy to make a move.

Overall, the greatest concern and priority is the economy. The general feeling that seems to come across at all levels and throughout every economic sector is one of inertia. Everyone is waiting for some change to come from the top before they risk anything. Those changes include Gorbachev's and Yeltsin's joint plans with legislation on property rights, protection for private economic activity, allowing market prices to take control, allowing private profit retention and allowing the republics to have economic sovereignty. Currently, the Soviet economy and morale continue to decline.

IV. THE ROLE OF ACADEMY OF SCIENCES AND
THE STATE COMMITTEE ON ENVIRONMENTAL PROTECTION
(GOSKOMPRIRODA)
IN RESOURCE USE AND DEVELOPMENT
AND ENVIRONMENTAL PROTECTION

GOSKOMPRIRODA

The State Committee for the Protection of Nature (GOSKOMPRIRODA) is a committee established in 1988 to coordinate, direct and enforce environmental policy. The State Committee's relation to the entire government structure is outlined in Chapter III: The Soviet Political Structure and its relation to Local Natural Resource Allocation in Chukotka. GOSKOMPRIRODA's functions were previously carried out by the State Committee for Hydrometeorology and the environmental Protection and environmental enforcement departments of the resource development ministries. In essence, prior to the creation of GOSKOMPRIRODA, the resource development industries were self-policing. In addition, industrialization was a much higher national priority than environmental protection.

Union GOSKOMPRIRODA has a Republic analog that is responsible for implementing Union policies and coordinating, directing and enforcing environmental policy through its provincial and city/county divisions. The exact relationship between Union and Russian Republic GOSKOMPRIRODA is in the process of being re-established and is dependent on the direction Gorbachev and Yeltsin take in the next half year. Recent conversations with GOSKOMPRIRODA officials indicate that they are expanding their staff and beginning to negotiate with republic officials about dividing up fish and marine mammal management and enforcement responsibility. GOSKOMPRIRODA will most likely maintain a union presence, while many resource ministries will become republic based.1

In Chukotka, GOSKOMPRIRODA has its own branch that is still technically hierarchically subordinate to Magadan Region GOSKOMPRIRODA. Overall, Chukotka GOSKOMPRIRODA has a staff of eight in Anadyr that is primarily responsible for administrative work and a field staff of 33 throughout Chukotka. Most lab work is currently done in Magadan City, where GOSKOMPRIRODA has a new laboratory that runs samples for air, water and soil quality. Fish and wildlife management is still primarily carried on within the enforcement divisions of the Ministry of Fisheries and the Industrial Hunting Directorate2.

1 Personal communication with Igor Mikhno, Department of Fish Resource and Aquatic Animals, Enforcement Division, GOSKOMPRIRODA, USSR December 15, 1990.
2 Similar to a ministry.
Practically, GOSKOMPRIRODA seems to have three priority missions.

1) Police industrial pollution and make sure that the various enterprises are in compliance with government environmental standards and set, determine and enforce standards on new development projects.

2) Unify the system of fish and wildlife management.

3) Establish a system of land preservation in the face of anticipated legislation on land privatization.

Magadan Provinces GOSKOMPRIRODA's departments are indicative of the direction that GOSKOMPRIRODA is structured to carry out its work.

<table>
<thead>
<tr>
<th>Department</th>
<th>Main responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Conservation (nature conservation)</td>
<td>Deals primarily with conservation issues. Some fish and wildlife management is included in this department.</td>
</tr>
<tr>
<td>Environmental Impact Assessment and Environmental Standards (expert's investigation and rate setting)</td>
<td>Responsible for authorizing resource development projects and setting environmental standards on pollution.</td>
</tr>
<tr>
<td>Economics of Resource Use and Planning. (nature management and planning economics)</td>
<td>Responsible for natural resource use, development and protection decisions. Participate in planning and distribution of resources. Fish and wildlife management.</td>
</tr>
<tr>
<td>Computerization and Data (calculating equipment)</td>
<td>Responsible for maintaining computer data bases for all the departments. Including &quot;pollution&quot; mapping of the region.</td>
</tr>
</tbody>
</table>

---

3 Titles of the departments in parenthesis are way the Soviets have translated the departments. The author has translated the titles from the Russian, using terminology more familiar to an American audience.
Department

Scientific and International Relations (science and international relations)

Main Responsibilities

Liaison with ministry scientific institutions, the Academy of Sciences, etc. Coordinates international program participation.

Protection of the USSR 200 Exclusive Economic Zone and the Continental Shelf (continental shelf)

Responsibilities are equivalent to the US federal agencies past the three mile zone. This department has special interest in fisheries and marine mammal management.

Public relations and Scientific and Technical Information (propaganda, scientific and technical information)

Deals with the public, works with environmental education and publishes results, reports and pamphlets.

Ecology Laboratory

Main laboratory where levels are checked on water, soil and air samples. Run levels on radiation.

Figure IV-1 shows the people who are responsible for the various departments in the Magadan Region. Figure IV-2 shows the people responsible for the main administrative departments of the Russian Republic GOSKOMPRIRODA. The Russian Republic and Union GOSKOMPRIRODA has departments similar to those listed for the Magadan Province above.

The Chairman of GOSKOMPRIRODA USSR is Nikolai Nikolaiovich Vorontsov (age 56), the Chairman for the Russian Republic is Ivan Gavrilov, for the Magadan Province is Evgeniy Logunov, and for Chukotka is Gennadiy Tislenko. Ludmilla Bogaslovskaya⁴ is the Chairman of the Union International Park Working Group. Mr. Gavrilov, has recently been named as one of Yeltsin’s deputy chairman, a post that has never been held by an environmental protection committee or ministry.

---

⁴ Biologist from the Institute of Evolutionary Morphology and Ecology of Animals named Severtsov where Vladimir Sokolov is director.
Figure IV-1: Magadan Regional Environmental Conservation Committee

Director
Yevgeniy Logunov

Deputy Director
Vladimir Strekopitov

Deputy Director
Maria Frunza

Deputy Director
Alexander Nasonov

Department

Environmental Conservation  Chief
Alexander Kuklin

Environmental Impact Assessment and Environmental Standards
Sergey Dmitriev

Economics of Resource Use and Planning
Maria Frunza

Computerization and Data
Andrey Shabarshin (Chief Specialist)
Tatyana Dyakonova (engineer)

Scientific and International Relations
Victor Naumov

Protection of the USSR 200 Exclusive Economic Zone and the Continental Shelf
Pete Boiko

Public relations and Scientific and Technical Information
Svetlana Sheshina

Ecology Laboratory
Irina Povzner

Magadan City Environmental Conservation Committee

Director
Alexander Baginskiy

Chukotka District Environmental Conservation Committee

Director
Gennadiy Tislenko

Source: Magadan Regional Environmental Conservation Committee, October 1990.
Figure IV-2: RSFSR State Environmental Conservation Committee

State Directorate

Director
Ivan Gavrilov
Assistant
Yuriy Galkin
1st Deputy Director
Michael Shvetsov
Deputy Director
Vasilii Grek
Deputy Director
Vladimir Senin
Deputy Director
Boris Tenyakov
Administrative Department
Michael Sokolov
Enforcement Chief
Yelena Belova
Documentation Chief
Valeriy Denisov
Public Relations
Vladimir Ukolov
Legal Chief
Yuriy Yemelyanov

Source: Magadan Regional Environmental Conservation Committee, October 1990.
Research in the Soviet Far East is done under the structure of the Academy of Sciences of the USSR and the research institutes that are operated by the various Ministries. Academy research is often used to determine levels and direction of natural resource use and development. The academy and GOSKOMPRIRODA are responsible for making recommendations about designating newly protected areas of land.

The USSR Academy of Sciences is organized nationally, has its own budget, and operates independently of the regional and local governments. It has its own governing body with a General Assembly. The General Assembly sets research priorities and appropriates the academy budget. Members of the General Assembly are all of the more than 300 academicians and 600 of the corresponding members. The academy has over 250 institutes with separate academies in each of the various republics. It is not unusual for an institute to have several hundred faculty and staff. The academy also has four sections headquartered in Moscow: The Physical, Technical, and Mathematical Section, the Chemical, Technical and Biological Section, the Earth Sciences Section and the Social Sciences Section. Figure IV-3 shows the national structure of the Academy.

The academy institutes in Moscow are closely connected to Union and RSFSR GOSKOMPRIRODA. Within the Russian Republic, there are three regional branches of the academy. In addition to the headquarters in Moscow, there is one regional branch headquartered in Sverdlovsk (the Ural Branch), in Novosibirsk (the Siberian Branch) and another in Vladivostok (the Far Eastern Branch).

The Far East Branch of the Academy of Sciences will probably contribute the most scientific expertise about the Chukotka Region. The Far East Branch is geographically part of the Far Eastern economic region, which is one of 19 major economic regions of the USSR. This region includes the Yakutsk Autonomous Republic, Khabarovsk Territory, Primorskii (Maritime) Territory, Magadan Province, Amur Province, Kamchatka Province, and Sakhalin Province. Six of these territories of the Far East have scientific institutes and organizations that are subordinate to the Far East Branch of the Academy of Sciences, USSR, whose presidium is located in Vladivostok. Yakutsk Autonomous Republic’s institutes are under the jurisdiction of the Siberian Branch of the Academy of Sciences.

Much of this information in this section was provided by Professor Boris Krasnopolskii of the Northeastern Complex Scientific Institute in Magadan.

For example, the Ministries of Fisheries has the Pacific Research Institute of Fisheries and Oceanography (TINRO).

An academician is a leading scientist in a particular discipline and full lifetime member of the Academy of Sciences. Academicians are elected only by other academicians. The number of academicians in each discipline is frozen and a new academician is only elected after the previous academician reaches their 75th birthday or dies.

According to Professor Krasnopolskii, the fact that the Yakutsk institutes, of which there are eight, are under the jurisdiction of the Siberian Branch rather than the Far Eastern Branch leads to difficulties in coordinating their work with the work of the other Far Eastern Region institutes. This is particularly the case for the Magadan and the Kamchatka Regions.
Figure IV-4 is a chart of the 26 research institutes which make up the Far Eastern Branch of the USSR Academy of Sciences. The institutes' names are abbreviated to reveal their disciplinary focus, and they are listed by geographical region. The figure also shows the Far Eastern Branch's relative structural position to the rest of the Academy. In parentheses are the numbers of total staff employed by the various institutes. Information on the number of Ph.D. equivalents is not readily available, but these are likely to be a relatively small percentage of the total staff. The percentage of non-professional staff appears to be significantly higher in Soviet research institutes than in American research institutes.

The Far Eastern Branch of the Academy of Sciences (FEB AS USSR) has the following mission:

A. To provide comprehensive development of fundamental research in the branches of the natural, technical, and social sciences.

B. To resolve scientific problems of a regional nature, including the uses of the environment; protection and improvement of the environment; and uses of mineral, biological, and energy resources of the Far East.

C. To resolve the scientific aspects of practical problems with the goal of increasing scientific technical progress and developing the productive forces of the region.

D. To prepare proposals and relate fundamental and applied research to projects and plans for economic and social development of the USSR and RSFSR.

E. To resolve and prepare methods of utilizing automation and equipment for research.

F. To prepare highly qualified scientific workers.

G. To coordinate research in the natural and social sciences, various scientific research institutes and organizations of regional and federal departments located in the Far East.

The Chairman of the Presidium of the Far East Branch of the Academy of Sciences is the recently elected Academician Georgii Borisovich Yelyakov of the Institute of Bioorganic Chemistry of the USSR. The outgoing President was Academician Victor Ivanovich Ilichev. The President of the Far East Branch is also Vice-President of the Academy of Sciences, USSR.

On January 1, 1989, the Far East Branch included 29 scientific organizations (three of which are regional affiliates of other institutes Figure IV-4.) A total of about 12,000 people work for the institutes of the Far Eastern Branch, including scientists, technicians, and staff.

Chukotka has a Department of the North East Complex Scientific Research Institute, several departments of the Institute of Biological Problems of the North, including the Chaun and Markovskii Research Stations, and a representative from the Institute of Geography. Much scientific research in Chukotka is carried on during the summer season by scientists from other Academy Institutes, ministry institutes and GOSKOMPRIRODA.
Figure IV-4:

Organization of the Far Eastern Branch of the Academy of Sciences, USSR*

*Number of total staff employed by each of the institutes is shown in parentheses next to the abbreviated name of the institute.
THE EXISTING STRUCTURE OF PROTECTED AREAS IN THE SOVIET UNION

One of the greatest difficulties in establishing a protected area of land between the U.S. and the U.S.S.R. is the difference in the systems of land classification between the two countries. Russian terminology and its subsequent translation helps further complicate understanding the Soviet system of nature protection (conservation).

The Soviet system is most easily understood if one looks at how natural protected areas are organized on the Union level. There are over 60 different types of protected natural areas in the Soviet Union, but practically, when talking to scientists and nature protection specialists, three or four basic types of protected areas are usually considered. These are outlined in Table IV-1.

<table>
<thead>
<tr>
<th>English Equivalent</th>
<th>Russian</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>nature reserves</td>
<td>zapovedniki</td>
<td>Strictest level of protection.</td>
</tr>
<tr>
<td>national parks</td>
<td>natsional'nye parki</td>
<td>This term is used officially to refer to 19 protected areas that are mostly geared for recreation and education about conservation. Currently, the term is often used to also refer to a type of planned nature reserve that is to imitate the American national park.</td>
</tr>
<tr>
<td>wildlife refuge</td>
<td>zakazniki</td>
<td>Charged with protecting a specific resource (i.e. moose, waterfowl, etc.)</td>
</tr>
<tr>
<td>monuments to nature</td>
<td>pamyatniki prirody</td>
<td>Protects a particular location. (i.e. a geyser, nesting area, etc.)</td>
</tr>
</tbody>
</table>

These protected zones are then categorized by level (ranga), depending on which governmental body decreed a particular territory a protected area: republic (respublikanski), provincial/territorial (oblastnoi/kraiivoi), or regional (raion).

On the Union level it seems that only nature reserves (zapovedniki) granted international biosphere reserve status by the U.N. are regulated strictly by GOSKOMPRIRODA USSR. There are twenty-one such reserves in the USSR. Only two of these are in the Soviet Far East, the Kronotski Reserve of Kamchatka Province and the Sikhote-Alin Reserve of Primorskii Territory (Vladivostok). Formally, other nature reserves (zapovedniki) were administered by various ministries, including the Academy of Sciences. Now there seems to be a tendency to centralize administration under the GOSKOMPRIRODA of a particular republic. In Chukotka's case administration would rest in GOSKOMPRIRODA RSFSR (the Russian Soviet Federative Socialist Republic).
"Wrangel Island Reserve" is the only nature reserve (zapavednik) on Chukotka. It includes Wrangel Island and Herald Island and occupies 795,600 hectares of land. Chukotka also contains 1 union refuge ("Lebedinyi"), 5 provincial refuges (zakazniki) which are "Created with the goal of protecting migratory waterfowl, their nesting, resting and feeding areas.", and 1 provincial moose reserve ("Omolon"). These refuges are listed in Table IV-2. It is unclear, but Omolon may have become a union refuge with increased territory. Only hunting and trapping of furbearers is permitted on three of these refuges (Tundrovii, Avtotkuul' and Tumanskii).

Table IV-2 Refuges (zakazniki) of Chukotka

<table>
<thead>
<tr>
<th>Name of Reserve</th>
<th>territory (hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lebedinyi (union)</td>
<td>unknown</td>
</tr>
<tr>
<td>Tundrovii</td>
<td>45,000</td>
</tr>
<tr>
<td>Avtotkuul'</td>
<td>250,000</td>
</tr>
<tr>
<td>Tumanskii</td>
<td>398,000</td>
</tr>
<tr>
<td>Ust-Taniyrerskii</td>
<td>450,000</td>
</tr>
<tr>
<td>Teiykuul'</td>
<td>20,000</td>
</tr>
<tr>
<td>Omolon</td>
<td>57,000</td>
</tr>
</tbody>
</table>

Figure IV-5 shows some of the protected areas in Chukotka and Table IV-3 is a summary of the main protected areas in Chukotka. Both are from Alexander Andreev's Distribution and Status of the Beringian Common Heritage Components in Eastern Chukotski Peninsula. There is a small discrepancy between the map and the table on the "State Wildlife Refuges", it is probably due to the fact that the table was compiled before the "Chaigourgino" refuge was created.

The Magadanskii Reserve in the Magadan Province also has a reserve of 884,600 hectares that can be actually considered a series of 4 reserves.
Nature protected areas in North-East Asia. A - strict reserves, B - state wildlife refuges, C - provincial wildlife refuges. 1 - Magadanski state reserve: 1a - Kava-Tchelomdza district; 1b - Seimchan; 1c - Yama; 1d - Koni. 2 - State reserve "Ostrov Vrangelya". 3 - State wildlife refuge "Chaigourgino": 3a - Alazeya; 3b - Tchukochya; 3c - Omolon. 4 - State wildlife refuge "Lebedinyi".

Table IV-3: Protected areas of Magadan Province and Chukotka District.

<table>
<thead>
<tr>
<th></th>
<th>Magadan Province</th>
<th>Chukotka District</th>
<th>Provideniya and Chukotka Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Reserves</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>State Refuges</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Provincial Refuges</td>
<td>10</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Monuments to Nature</td>
<td>42</td>
<td>26</td>
<td>10</td>
</tr>
<tr>
<td>Area Protected</td>
<td>47,500</td>
<td>31,516</td>
<td>2,252</td>
</tr>
<tr>
<td>(square kilometers)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of total area</td>
<td>4.2%</td>
<td>4.4%</td>
<td>3.9%</td>
</tr>
</tbody>
</table>

V. CONTEMPORARY NATIVE LAND RIGHTS AND RESOURCE DEVELOPMENT

Discrimination, as a concept, has not existed in Soviet philosophy because by definition this was a problem of the bourgeois system that was wiped away with the victory of the egalitarian "Great Socialist Revolution." Being able to accommodate all the many diverse "nationalities" of the Soviet Union was always touted as an achievement by the Soviet propaganda. Today, with the rise of nationalism within the republics it is painfully obvious that the problems were never addressed but merely ignored.

Soviet relations with Native people and resource development from 1930 to the present in the North East, and the Kolyma and Chukotka in particular, were highly colonial. In fact, much of Chukotka's modern history is that of organizing large settlements of either forced, highly migrant and/or temporary labor around large-scale resource development or support projects. Economic theorists decided in the mid-1940s that villages with less than a certain population "had no economic future" and launched a policy of closing down small villages and resettling Native people into larger settlements. This was particularly true for the Eskimos of Chukotka. (See Appendix C: Michael Krauss' "Soviet Eskimo Population and History.") Figure V-1 shows the location and number of resettlements of villages in the proposed park area. In addition, Native people were collectivized around their traditional activities (reindeer herding, fishing and marine mammal hunting) and began to fulfill centrally dictated government quotas of production. Finally, although well represented in extremely remote villages, Native people were not always well represented in the party or government bureaucracies. Very often non-Native people were brought into Native communities to hold administrative positions in the party, government and even in state farms.

Soviet centralized programs had mixed results for the Native populations of the North. Large groups such as the Komi who live near Finland or the Yakuts seem to have escaped extremely negative effects on local cultures. Smaller groups, especially the Eskimo, have been hard hit. Besides the resettlement policy that closed down small villages, centralized schools took children away from traditional communities and lifestyles. Teaching in the Native language was promoted occasionally, but the long-term result is that only a minority of the younger Siberian Yupik are able to speak their own language.

---

1 This is the primary reason so many "Autonomous" republics, provinces, and districts occur in the USSR.

2 Collectivization of industries and enterprises was the program developed by Stalin to increase industrial production and was implemented in an extremely brutal manner.
Figure V-1: Villages closed within the last 50 years in the Chukotka and Provideniya Regions.

KEY
☐ Closed village

Relative Population
○ 3,000 - 10,000
○ 1,000-3,000
○ 500-1,000
○ 200-500
○ less than 200

Source: Alexander Andreev and Ludmilla Bogoslovskaya
Institute of Social and Economic Research 1991
Native people do have preference in hunting and fishing, but even these rights extend only to those Natives who live in the Soviet context of economic activity. For example, Soviet legislation states that the Natives who are allowed subsistence licenses are those for whom hunting is "a vital part of their work life (professional hunters, reindeer herders."). That is, only those individuals who in "appropriate" occupations get licenses.\(^3\)

Currently, the general direction for Native resources rights might be slowly moving toward both political and economic resolution. An important part of Gorbachev and Yelstin's "500 Day" plan for economic reform is legislation about the privatization of land. Until that occurs, no indigenous people can lay a legal claim on indigenous land rights. Movements of autonomous districts, like the Chukotka and Koryak Districts, are fundamentally different from those in the National Republics. The districts are proclaiming their independence from Provincial centers rather than trying to advance a Native sovereignty movement.

As the Soviet Union moves away from a centralized system to a market economy the major issue for Native people will be a settlement of land claims, what the Soviets refer to as the "right to natural resources", with the Russian Republic or Union government. The problem of contemporary Native lands rights has never been seriously addressed in the Soviet Union. Under the Soviet system all property was owned by the state and decisions about the distribution of land and resources were made by the government through the complex structures of the ministries. Native people never had a land claim under Soviet law because no one could own land.

Three factors that might positively influence any Native land claim in Chukotka, if or when it arises:

1) Election of a considerable number of Native people to the government at all levels, especially from Native rural districts, where previously Russian, Ukrainian or Byelorussian were handpicked by the Communist party.

2) The advent of the "Minority Peoples of the North" Association and various local organizations that are vital in organizing for the support of Native issues.

3) Contacts with American Native Groups who have experience in organizing Native claims movements.

The first advantage is already being contested by the new system of election that organizes districts based on eligible voters rather than resident population. This means that rural districts with a high percentage of children are clearly under-represented. This is true of many of the Native districts.\(^4\)

---

\(^3\) See Chapter IV: Furbearers and Large Game.

Native people on both sides are reaping large benefits from the new contacts across the Bering Strait. Now, for example, instead of a minority of 1,300 in a single country, Siberian Yupik Eskimos are a people numbering 2,600 who can petition both Superpowers for positive change within their communities.

The American Native communities in Western Alaska have been exchanging visits with Native groups from Chukotka for over two years. This contact exposes the Soviet Native people to some of the problems and benefits that can arise for indigenous people within a nation that has a market economy. Trips by Soviet Natives give them status and access to information not available to the ordinary Soviet citizen. Aspects of culture and language that were lost or forgotten are now being revived on both sides.

The Chukchi and Siberian Yupik Eskimo will have a greater difficulty in asserting any rights ultimately, because even in their own district they represent only 10 per cent of the population. Organizations like the "Association of Minority People of the North" can benefit small indigenous groups in the face of the huge Soviet Bureaucracy. Together the "Minority Peoples of the North" make up over 181,000 individuals, from groups with less than 200 to groups of over 30,000.

Finally, aside from Native claims settlement, more specific questions of Native participation in renewable resources management and determining the level of resource development near native communities will need to be resolved in the coming years. International participation may play a large part in the resolution of these issues.

---

5 Initially there were problems among the Soviet Chukchi and Siberian Yupiks, as more Siberian Yupiks were invited to the US by their relatives. The problem seems to be solved as the Soviet Natives are promoting a philosophy for a union of all the Native groups of the North and the American groups seem to be picking up on the idea.

6 See Chapter IV, subheading DEMOGRAPHY.
VI. TRENDS IN NATURAL RESOURCE DEVELOPMENT

INTRODUCTION

The major industries in the Chukotka Autonomous Republic include the mining of precious metals\(^1\) and coal, port service and support for the Northern Shipping Route, exploration for oil and gas, reindeer herding, fishing, and marine mammal hunting. In addition, the military also maintains a presence in Chukotka and contributes a significant percent of economic activity for the region. See Tables VI-1 and VI-2, which show summary data about economic sectors in the Soviet Far East. The first table compares Alaska's resource production with Chukotka's. The second table is a copy of the only Soviet source that includes any basic figures on mining that the author has seen.

This chapter will look at the basic sectors in the Chukotka economy. This includes:

- Mining
- Coal mining
- Oil & gas exploration
- Reindeer herding
- Fish industry
- Hunting - Commercial marine mammal and furbearers and large game

This chapter will also look at how the new park is viewed by Soviet government officials and possible problems that might arise for the park. In addition, this chapter includes documents that outline the Union government's planned schedule for the park.

---

\(^1\) Mostly gold and tin, but also tungsten, silver. Mercury mining operations have been shut down since the mid-1980s.
Table VI-1: Comparison of Resource Development

<table>
<thead>
<tr>
<th></th>
<th>Alaska, Magadan and Chukotka</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alaska</td>
</tr>
<tr>
<td><strong>Area</strong></td>
<td>540</td>
</tr>
<tr>
<td>(thousands of square miles)</td>
<td></td>
</tr>
<tr>
<td><strong>Population</strong></td>
<td>540</td>
</tr>
<tr>
<td>(thousands)</td>
<td></td>
</tr>
<tr>
<td><strong>Gold</strong></td>
<td>.28</td>
</tr>
<tr>
<td>(millions of ounces)</td>
<td></td>
</tr>
<tr>
<td><strong>Coal</strong></td>
<td>1,452</td>
</tr>
<tr>
<td>(thousands of tons)</td>
<td></td>
</tr>
<tr>
<td><strong>Oil</strong></td>
<td>1.92</td>
</tr>
<tr>
<td>(millions of barrels/day)</td>
<td></td>
</tr>
<tr>
<td><strong>Commercial Salmon Catch</strong></td>
<td></td>
</tr>
<tr>
<td>(harvest volume, millions of lbs.)</td>
<td></td>
</tr>
<tr>
<td><strong>Commercial Groundfish Catch</strong></td>
<td></td>
</tr>
<tr>
<td>(harvest volume, millions of lbs.)</td>
<td></td>
</tr>
<tr>
<td><strong>Domesticated Reindeer</strong></td>
<td></td>
</tr>
<tr>
<td>(thousands)</td>
<td></td>
</tr>
<tr>
<td><strong>Commercial Marine Mammal Catch</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table VI-2: Soviet Economic Indicators for the Soviet Northeast.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TERRITORY</td>
<td>KPS</td>
<td>NASC</td>
<td>MAGA</td>
<td>OBRA</td>
<td>KAMC</td>
<td>OBRA</td>
<td>SEVE</td>
<td>OB-VOST</td>
</tr>
<tr>
<td>TYS. CM 2</td>
<td>3103</td>
<td>1198</td>
<td>472</td>
<td>4774</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAZLENIE</td>
<td>1098.5</td>
<td>1168.5</td>
<td>581.7</td>
<td>505.0</td>
<td>439.3</td>
<td>460.0</td>
<td>1901.5</td>
<td>2213.5</td>
</tr>
<tr>
<td>TH. ZANJYXH.</td>
<td>536.7</td>
<td>585.0</td>
<td>344.0</td>
<td>260.0</td>
<td>260.0</td>
<td>260.0</td>
<td>1106.9</td>
<td>1250.9</td>
</tr>
<tr>
<td>TH. PP</td>
<td>88.9</td>
<td>100.0</td>
<td>83.5</td>
<td>90.4</td>
<td>50.2</td>
<td>59.1</td>
<td>230.6</td>
<td>249.5</td>
</tr>
<tr>
<td>TOB. PROD. PI</td>
<td>225.6</td>
<td>329.6</td>
<td>173.1</td>
<td>174.0</td>
<td>188.7</td>
<td>218.8</td>
<td>6154</td>
<td>7224</td>
</tr>
<tr>
<td>TH. A) GORNODOB.</td>
<td>1258.5</td>
<td>1453</td>
<td>1169</td>
<td>1037</td>
<td>-</td>
<td>-</td>
<td>2427.5</td>
<td>2490</td>
</tr>
<tr>
<td>TH. B) RYBNA</td>
<td>129.8</td>
<td>160.0</td>
<td>129.8</td>
<td>160.0</td>
<td>129.8</td>
<td>160.0</td>
<td>1417.6</td>
<td>1553</td>
</tr>
<tr>
<td>AL. PROD. C/X</td>
<td>334.0</td>
<td>380.7</td>
<td>119.2</td>
<td>135.0</td>
<td>95.3</td>
<td>104.0</td>
<td>548.5</td>
<td>619.7</td>
</tr>
<tr>
<td>AL. WAZHENIA</td>
<td>70.0</td>
<td>10.86</td>
<td>3.57</td>
<td>5.4</td>
<td>1.85</td>
<td>1.9</td>
<td>12.42</td>
<td>18.16</td>
</tr>
<tr>
<td>OCHAL. POK-LI</td>
<td>11.2</td>
<td>12.5</td>
<td>11.8</td>
<td>13.7</td>
<td>11.6</td>
<td>13.3</td>
<td>11.5</td>
<td>13.2</td>
</tr>
<tr>
<td>OCHAL. KHAPODAY</td>
<td>294.3</td>
<td>338.3</td>
<td>3708</td>
<td>4058</td>
<td>3280</td>
<td>3700</td>
<td>3310</td>
<td>3713</td>
</tr>
<tr>
<td>TOBARO ROBO</td>
<td>1855</td>
<td>1857</td>
<td>1853</td>
<td>2076</td>
<td>1742</td>
<td>1820</td>
<td>1750</td>
<td>1961</td>
</tr>
</tbody>
</table>

**TRANSLATION**

**North-East USSR (Basic Indicators)**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Yakutsk</th>
<th>Magadan</th>
<th>Kamchatka</th>
<th>North-East</th>
</tr>
</thead>
<tbody>
<tr>
<td>Territory</td>
<td>thousand square km</td>
<td>1098.5</td>
<td>1168.5</td>
<td>581.7</td>
</tr>
<tr>
<td>Of those occupied in the workforce</td>
<td>thousand persons</td>
<td>88.9</td>
<td>100.0</td>
<td>83.5</td>
</tr>
<tr>
<td>Manufactured goods</td>
<td>millions of rubles</td>
<td>2536</td>
<td>3296</td>
<td>1731</td>
</tr>
<tr>
<td>Of that a) mining</td>
<td>millions of rubles</td>
<td>1258.5</td>
<td>1453</td>
<td>1169</td>
</tr>
<tr>
<td>b) fishing</td>
<td>millions of rubles</td>
<td>-</td>
<td>-</td>
<td>129.8</td>
</tr>
<tr>
<td>Gross output of agriculture</td>
<td>millions of rubles</td>
<td>334.0</td>
<td>380.7</td>
<td>119.2</td>
</tr>
<tr>
<td>Capital investment (for the five year plan)</td>
<td>billions of rubles</td>
<td>7.0</td>
<td>10.86</td>
<td>3.57</td>
</tr>
<tr>
<td>Overall housing space</td>
<td>square meters</td>
<td>11.2</td>
<td>12.5</td>
<td>11.8</td>
</tr>
<tr>
<td>Earnings a year</td>
<td>rubles</td>
<td>2943</td>
<td>3383</td>
<td>3708</td>
</tr>
<tr>
<td>Commodity turnover (Consumer spending?)</td>
<td>rubles</td>
<td>1855</td>
<td>1857</td>
<td>1853</td>
</tr>
</tbody>
</table>

Source: Krasnopolskii, B.K., lecture handout during a February 1989 lecture on Magadan's economy.

Caution: Soviet economic terminology is often not equivalent to American terminology.

Rubles costs are difficult to convert to a meaningful western economic equivalent.
MINING

Mining accounted for 68 per cent (1169 million rubles) of the earnings from all manufactured goods produced in the Magadan Region in 1985. The mining of precious metals is probably the biggest industry in terms of capital, earnings and employment in Chukotka. According to Krasnopolskii and Grigorev, two economists from Magadan, Chukotka produced 53.7 per cent of the gold, 96.0 per cent of the tin and all of the tungsten for the Magadan Region. Mining is the main reason for non-Native settlement in the region and led to the development of infrastructure for the area. The four areas of mining for Chukotka are located around the cities of Bilibino, Pevek, Iultin and Mys Schmidt.

Precious metal mining (primarily gold and tin) remains the monopoly of the Soviet government. SEVRAVOSTOKZOLOTO (the Northeast Gold firm), Magadan Region's agent of GLAVALMAZZOLOTO (Main (Division) Diamond and Gold), the Moscow ministry of the gold and diamond industry, retains control of most mining activity of Magadan and Chukotka. An unconfirmed figure of 85,000 jobs in the Magadan Region for the gold industry was reported by Barker and Skudrzyk in the March 1990 issue of Minerals Today, Bureau of Mines publication. According to 1988 statistics for the Magadan Region, 315,000 of the population of 556,500 were in the labor force. This would mean that around 25 per cent of the jobs are in the mining industry for the Magadan and Chukotka regions.

It is difficult to estimate the amount of gold, tin and other metals produced in the Chukotka region since production statistics for precious metals continue to be a state secret in the Soviet Union. According to the Tom Bundtzen and others, the Alaska Mineral Industry Report quotes a figure of 2.5 million ounces (77,760 kg) for Magadan Region's annual production, which they state is 25 per cent of total USSR gold production. This estimate would put Soviet yearly production at around 342 tons, which is within Levin's (USSR Specialist for the U.S. Bureau of Mines) estimate of Soviet production; Levin places

---

2 Krasnopolskii, B.K, North-east USSR (Basic Indicators), handout at a February, 1989 lecture in Anchorage, possible source Magadnakaya Teoretnyaya Statistika.


4 Technically, after the 1988 reorganization of the USSR's Ministries, precious metals other than gold are controlled by the Ministry of Metallurgy. Yet, in the Magadan Region it has little effect on the monopoly of SEVRAVOSTOKZOLOTO.


84
it between US production of 240 tons per year and that of South Africa, 620 tons per year.\(^8\) Alaskans reported 284,617 ounces (8,852 kg) produced for 1989.\(^9\) If we use Krasnopolskii’s 1985 figure that Chukotka produced 53.7% of the gold in the Magadan Region, Chukotka then produces about 1.3 million ounces (1,757 kg) or almost 5 times as much, gold as produced in Alaska.

Another estimate that Tom Bundtzen, senior economic geologist for the Alaska Department of Natural Resources, gave in an October 14, 1989 Memorandum entitled "[Soviet] Far East Trip" that gold placer production was about 8.8 million ounces and total USSR production was 12.6 million for 1988. These figures are based on the assumption that 30 per cent of all Magadan gold production is a result of dredging.\(^{10}\) Evgenii Bogdanov, Director Emeritus and founder of the Mining Institute of Khabarovsk of the Far East Branch of the Academy of Sciences, wrote in his October, 1990 paper on "Placer Deposit Mining in the USSR" that 95 per cent of the mining in the USSR is open cast mining and of that only 15% is done with dredges. Using Bundtzen’s method and Bogdanov’s figures USSR placer mining comes to about 17 million ounces and total USSR gold production is 17.8 million ounces. Magadan’s production would then be 4.4 million ounces which would be 40% greater than the figure given in Alaska’s Mineral Industry, 1989. In conclusion, Magadan’s production must be somewhere in the range of 2 to 5 million ounces.\(^{11}\)

For Chukotka specifically, a general description of the areas under development is the only accurate gauge currently available to understand the extent of mining activity. It must be kept in mind that the individual mining firms have been organized to maximize output, not profit, and that changes in their system of organization have been implemented in the last two years. Figure VI-1 shows the major areas of mining activity for Chukotka.

---


\(^{10}\) It is unclear what the source of the gold production estimate was in Alaska Mineral’s,1989 and why it differs from Bundtzen’s outlined approach in his October,1989 trip report.

\(^{11}\) Bundtzen, T. "Memorandum: Far East Trip" Alaska Department of Natural Resources October 14, 1989 and Bogdanov, E.I. Placer Deposit Mining in the USSR unpublished paper delivered at Anchorage in October, 1990.
Bilibino, a main gold mining region, is connected by a combination of ice-road (300 kilometer) and riverway to the Port of Zelenyi Mys which has access to the Northern Shipping Route. Pevek serves as the port for the Komsomolskii gold fields, the large Val’kumei tin mine and nearby Krasnoarmeiskii tin placer deposits. The port of Egyekinot is connected by a road to the northern town of Iultin, which produces large quantities of tin and tungsten. Finally, the port of Mys Shmidt on the Northern Shipping route is the supply point for the Polyarninskii gold fields.

Chukotka’s precious metal mining began with the discovery and exploitation of the Val’kumei and Iultin tin deposits in 1936 and 1937. The infrastructure and deposits were initially developed by "DALSTROI" (The Far(east) Building Firm), the organization responsible for the Kolyma gold mining labor camps, and were most probably developed with slave labor typical of the Stalin era. The construction of the Iultin-Egvekinot road between 1946 and 1951 is said to have been as brutal as the construction of the Kolyma road.

Some Soviet social scientists have argued that the infamous Stalinist concentration camps of the Kolyma did not have time to take root in Chukotka because the Chukotka Autonomous District was under the administration of the Kamchatka Province until 1951 and was out from under the direct control of the "DALSTROI" system. Furthermore, the discovery of gold placer deposits did not occur until the late 1940s and early 1950s. Until then, Chukotka was thought to be strictly an area of tin deposits, and most of the development of gold deposits in Chukotka took place in the 1950s and 1960s, after the death of Stalin. While accounts of the use of slave labor in the Kolyma Region have been consistently published for the last four years, the extent of forced labor used in Chukotka remains a matter of conjecture.

---


13 Some mercury mining was done in the past here.


16 At least several thousands.


Figure VI-1: Map of gold and tin mining areas in Chukotka

Institute of Social and Economic Research 1991
With the exception of two tin mines\(^{19}\), most mining in Chukotka is the exploitation of opencast placer deposits with the use of portable non-dredge processing units. In the 1950s and early 1960s the Soviets were beginning to apply placer technology that was developed in the Kolyma Region and increased efficiency and decreased environmental damage. The quality of gold deposits in Chukotka is much higher than those of the Kolyma.\(^{20}\) The benefit of new technology was turned around by the bureaucratic party apparatus in the 1960s and 1970s with the reintroduction of deep sluices and overland tailing discharge. To date, the technological designs that are geared to improve efficiency and environmental quality continue to be stalled by the bureaucratic process.\(^{21}\)

The U.S. Geological Survey and the University of Alaska are presently conducting exchanges in the area of mining, but only in the Magadan-Kolyma and Northern Kamchatka Regions. SEVERAVOSTOKZOLOTO has signed a joint-venture agreement with two Alaskan firms\(^{22}\) to develop mineral deposits and exchange mining information, between Magadan-Kolyma and Northern Kamchatka region and Alaska.

**COAL MINING**

Chukotka has two significant deposits of coal that are currently mined and provide coal for much of the region. In all, Chukotka produced about 1,255,000 tons (1,139,000 metric tons) of coal in 1988. Near Anadyr (Shakhta Anadyrskaya), in 1988, about 509,000 tons (462,000 metric tons) of coal were produced and near Beringovskii (Shakhta Beringovskaya) about 746,000 tons (677,000 metric tons) were produced.\(^{23}\) Usibelli Coal Mine, Inc., Alaska’s sole producer for 1989, produced 1,452,353 tons (1,317,574 metric tons) of coal.\(^{24}\) The Anadyr coal is subbituminous and wet (22% water), the Beringovskii coal is hard coal and has little moisture (6-7 per cent water and 1.7-2 per cent sulfur content).\(^{25}\) The two sites seem to be mined underground. In addition, there is mining for local consumption at Egvikinot and outside of Pevek (Dolgozhdanny). Figure VI-2 is a map that shows the areas where coal is currently being mined in Chukotka.

---

\(^{19}\) one in Vel’kumin near Pevek and the other in Iultin

\(^{20}\) See Shilo pg. 383.

\(^{21}\) Bogdanov, E.I. Placer Deposit Mining in the USSR unpublished paper delivered at Anchorage in October, 1990 p. 10.

\(^{22}\) Bering Straits Trading Company and Greatland Exploration.


Coal mined in the Magadan Region, overall, does not satisfy the demand by about 10 per cent. The Chukotka supply/demand ratio is probably analogous to that of the entire region. Coal from the ports of Beringievskii and Anadyr and additional coal from Khabarovsk and Sakhalin are redistributed throughout Chukotka by the Northern Shipping Route.

**OIL AND GAS EXPLORATION**

Soviet finds of oil and gas on Chukotka have occurred near Anadyr and in the Khantyr region near Beringievskii. Limited information is available on the finds. Exploration is carried on by both the Ministry of Geology and the Ministry of Oil and Gas. The Anadyr exploration includes estimates of 32 million metric tons (233,600,000 bbls) onshore and 110 million metric (803,000,000 bbls) tons offshore. The Khantyr exploration includes estimates of 25 million metric tons (182,500,000 bbls) onshore and 85 million metric tons (620,500,000 bbls) offshore. The Anadyr basin includes several operating test wells south of Anadyr City. The Khantyr basin is less extensively explored. For comparison, Alaska recovered and produced 101 million metric tons (738,000,000 bbls) for 1988. The Anadyr and Khantyr sites are considerably closer to populated areas and shipping lanes than the Alaskan North Slope.

Alaska industry specialists have expressed interest in obtaining information about possible oil deposits in the Soviet sector of the Chukchi Sea, in areas close to current exploratory drilling by US companies. Agreements for joint mapping and exploration have been made with the Soviets. This includes a tentative agreement with Halliburton Geophysical Services, a Texas based geophysical firm. If a commercial strike were made joint exploitation of the area might be possible. Figure VI-2 shows current and probable areas of oil exploration in Chukotka.

Currently there is significant tanker traffic of petroleum products into the area on the arctic shipping route. Anadyr, for example, has a large tank farm for the military airport.

---


28 Helicopter fly-overs by the author of these drill sites seem to demonstrate that oil exploration is pursued with great damage to the tundra. In addition to the actual site itself, the geological crews use all-terrain tank vehicles as the basic mode of transport on the tundra.


Figure VI-2: Map of coal mining areas and oil & gas exploration in Chukotka
REINDEER HERDING

Reindeer herding is the principal industry for many remote villages and provides employment for much of the native population. Every Chukotka settlement has a reindeer herding statefarm located within it or nearby. For 1988 there were 485,959 domesticated reindeer in Chukotka. For comparison, there are only about 23,000 domesticated reindeer in Alaska. In 1988 10,377 metric tons of reindeer meat (liveweight) were butchered to provide food, mostly for the local market.

Figure IV-3 shows the number of reindeer in the proposed park area, the Chukotka and Provideniya Regions, for the period 1983 to 1988. The year 1984 was a particularly difficult due to a hard ice covering on the tundra, which resulted in the starvation of almost half the herds. Figure IV-4 shows a time series graph of the entire reindeer population of Chukotka. It seems that the proposed park area reindeer losses precipitated a general decrease of the Chukotka herd. Only since 1986 has the herd been slowly rising in numbers.

The statefarm (sovkhoz) is the basic unit of organization for agricultural activity within the Soviet Union. Reindeer herding state farms are generally located inland and average about 18,000 reindeer in Chukotka, with most farms holding between 12,000 and 25,000 reindeer. Figure IV-5 shows the location of the state farms and the reindeer herding areas in the proposed park area, Chukotka and Provideniya Regions. There are several statefarms that hold over 30,000 reindeer, as well as a few that keep only a couple thousand. The typical statefarm has about 17,000 reindeer employs from 300 to 500 workers. The statefarms are administered from rural and urban settlements and administrators are often non-Native. Actual herding is done almost exclusively by Native teams called brigades.

Brigades typically consist of seven people; five men who herd the reindeer and two women who cook and keep camp. Each brigade controls herds of 500-2,000 reindeer. The brigades live out in the tundra and direct the herds along seasonal migration routes developed by scientists.

33 Shishkov pp.10-11.
34 Shishkov pp.3-11
Figure VI-3: Reindeer in Proposed Park Area

Figure VI-4: Number of Reindeer in Chukotka
Figure VI-5: Map showing locations of statefarms and their resource harvesting areas.

KEY

- Statefarm
- Walrus haulout
- Grey whale feeding area
- Marine mammal hunting area
- Reindeer herding area

Source: Alexander Andreev and Ludmilla Bogoslovskaya

Institute of Social and Economic Research 1991
Living conditions in the tundra are harsh and brigades are not always well supplied. To supply the camps and aid in herding reindeer the brigades are equipped with snow-machines and all-terrain track vehicles that resemble tanks without turrets. The tracked vehicles are used year round and scar the tundra.

Formerly, the reindeer statefarms were centrally controlled and the government dictated five-year production plans. The reindeer were sold to the government at a set price of about 20 rubles a kilogram. The meat was then retailed as meat or sausage for several rubles a kilogram. Sometimes the hides were sold to a local or regional leather factory. The pricing structure, poor transportation network and lack of refrigeration led to huge losses in the volume and quality of meat between the statefarm and the retail market. Generally, the statefarms could be described as inefficient and heavily subsidized.

For the past year, the Soviet nation-wide policy of "self financing" (each firm must be self supporting) has led to significant budget cuts in the reindeer industry. Most statefarms have turned to selling reindeer horn to the Asian aphrodisiac market in exchange for hard-currency and consumer goods. This has included the advent of several foreign partnerships and has forced the statefarms to diversify into small-scale food production and tanning. In addition to reindeer there is small-scale butchering of cattle and pigs, although this is clearly more important in the urban area then in the rural.

Range management and parasite control are also cited as problems. The old reindeer herding and pasturing techniques are not being followed in the present due to the network of cabins that promote less movement by reindeer herders. In addition, there are strong arguments that claim years of centralized planning have contributed to large herd sizes that are putting undue pressure on the tundra ecosystems.

In addition, local officials and residents have reported a significant increase in corruption within the agricultural industry as the horn trade has provided the opportunity for administrators and agriculture officials to engage in large-scale bribery, misuse of funds and blackmarket activities. The reindeer industry's growth may be dictated by outside forces if the outside demand for reindeer by-products continues at its initial rate.

35 Called vyezdyekhod in Russian - literally "goeverywhere".
FISH INDUSTRY

The fishing industry in Chukotka can be broken down into three distinct fisheries: the salmon and freshwater fisheries that are controlled by the local agent of the Ministry of the Fish Industry and the statefarms; and the Bering Sea groundfish fisheries that are controlled by the Ministry of the Fish Industry in Vladivostok. The latter has little local participation.

Most of Chukotka's commercial salmon fishery occurs in the mouth of the Anadyr River, where yearly in the range 1,000 metric tons of chum salmon are intercepted as they begin their journey up the Anadyr river. Magadan Region has had a limit of about 17.6 million pounds (mostly chum salmon) the last several years. For comparison, Alaska caught 508 million pounds of salmon, all species harvest weight for 1987. Fishing was 7.5 per cent (129.8 million rubles) of "industrial" earnings for the Magadan Region. The salmon are caught in a giant set net and are loaded into a net bag on a floating wooden frame and towed ashore. On shore the salmon are salted in wooden barrels (80 per cent), smoked (15 per cent) and frozen (5 per cent).

The Anadyr fish plant is part of the huge "MAGADANRYBPROM" firm that is run by the Ministry of Fisheries. Quotas are generated and enforced by "OKHOTSKRYBVOD", the enforcement and management branch of the fishing industry, with the scientific assistance from "TINRO", the Ministry's research institute. The 17.6 million pounds of salmon are divided among the user groups for the entire region; "MAGADANRYBPROM", the fishing industry firms, receive about 19 per cent of the quota; the various state farms receive about 40 per cent; Native people receive about 19 per cent; sportfishing and cooperatives receive about 25 per cent. Sportfishing is mostly subsistence set-net fishing and a small amount of spin fishing for salmon.

---

37 Krasnopolskii, B.K, North-east USSR (Basic Indicators), handout at a February, 1989 lecture in Anchorage, possible source Magadnaya Tsentrainaya Statistika.
38 Krasnopolskii, B. K and Pilyasov, A.N. Magadan Province: Economic -Geographic Overview, Academy of Sciences Far Eastern Branch, Magadan 1990. p.15

95
The smaller salmon fisheries, for example, around 297,000 pounds of humpback, sockeye and chum salmon for the Provideniya and Chukotka Regions, are organized as part of State farm activities. These same groups also catch various freshwater species. According to Alexander Andreev these state farms will look at Arctic char and polar cod to significantly augment their catches.

In the Soviet sector of the Bering Sea, fishing for pollack, bottom fish, squid and crab is carried out by the big factory ship fleets of the Ministry of Fish Industry from Magadan, Kamchatka and Vladivostok that produce canned and frozen products. Soviet scientists estimate the Soviet sector Bering sea groundfish fisheries resources at 4,350 thousand metric tons. Of this 80 per cent is pollack. The allowable catch from the estimated "available resource" for the Soviets is between 20 per cent-50 per cent of that figure. Soviet fisheries figures are not consistent with Western data on the Bering Sea. It is estimated that the 1988 Pollack catch was around 1.25 million metric tons (2,755 million pounds) and that pollack made up about 70 per cent of the Soviet harvest volume. In Alaska an average of 4,000 million pounds of groundfish (harvest volume) is caught and in 1989 earned over $425 million.

Sports fishing is a new concept instituted in the last several years to combat widespread poaching. Very little spinning is done. Most "sportfishing" could be described as a day pass at a set net site, and could be considered non-native subsistence fishing. Payment is 3 rubles for a day pass and 1-3 rubles per salmon, with an allowable daily catch limit. Table VI-3 gives a description of the areas that are permitted set-net sites in northern Chukotka.

We were told by fish inspectors that catch-and-release fishing tours for foreign tourists (West Germans) had already been arranged for hard currency. The summer of 1990 is to bring Canadian and American groups.

Poor fishing practices by the state farms and poaching seem to be the biggest problems that plague the Chukotka fisheries. Apparently, salmon stocks are 50-75 per cent of what they were in the 1940s and the stocks were reported to have been greatly depressed in the 1970s.

39 The fish are called kyzha and Malma (dolly varden?).
41 Galanin, A.V., ed., Resources of the Magadan Region, Far East Branch of the Academy of Sciences, Magadan, 1989. p. 34
42 Personal communication with Dr. Jim Balsiger, Fisheries Scientist for the NW Fisheries Science Center of the National Marine Fisheries Service, December 17, 1990.
On our trip we were taken by fish inspectors of "OKHOTSKRYBVOD" on an all day inspection trip in the area south of Anadyr. In our view, the fish inspectors seem to be feared and respected by the fishermen. Inspectors threaten fishermen with hefty fines for illegally caught fish. Yet, overall, the system of enforcement seems to have little effect on the fishermen's behavior. The statefarm rather than the fisherman pays the fines, and because of the great expense in renting helicopter time (800 rubles an hour) spot checks seem to be few and far between.

On our day long shift the fish inspectors:

1) fined two Native statefarm fisherman 50,000 rubles for stringing a net illegally across an entire stream.

2) verbally warned a non-Native statefarm fishcamp that it allowed several fish smaller than the allowable catch to freeze into the ice rather than be released.

3) checked on the activity of an oil exploration crew that was joy riding in an all-terrain vehicle and hunting Arctic hare

4) searched the all-terrain vehicle of another oil exploration crew that had obviously dumped their illegal catch back into the river at the sound of the helicopter (we later found out that the fish inspectors are allowed to write up hunting violations and can get free hunting permits if they write up rubles worth of violations)

5) stopped at a large state farm fish camp and reindeer herding way post and;

6) circled several people who were engaging in various legal activities along the river and streambanks.

HUNTING

COMMERCIAL MARINE MAMMAL

The Soviet Union still maintains commercial marine mammal hunting in the Sea of Okhotsk and the Bering Sea. Hunting walrus, seal, and gray whales is permitted. The Provideniya and Chukotka Regions, the areas planned by the Soviets to be included as their section of the Beringia Park, are the principal marine hunting areas in the Soviet North East. Figure VI-5 shows the location of statefarms and areas of marine mammal hunting, and also walrus haulouts and grey whale feeding areas.

Two methods are used to hunt marine mammals:

1) Ships called ZRSes (Animal Hunting Fishing Ships - Zveroboinie Rybnie Sydno) run by the Ministry of Fisheries
2) Coastal hunting by the statefarms.

"OKHOTSKRYBVOD" is responsible for marine mammal management, in addition to their fisheries mandate. Currently, most marine mammal research is being done by the research institutes of the Ministry of Fisheries and the Academy of Sciences. Joint projects are currently being carried out on seal and walrus populations with the US Fish and Wildlife Service.

Most of the hunting is done from the commercial ZRS Ships. The planned 1989 seal and walrus harvest was 84,300 seals and 4,000 walrus. The two hunting areas are the Sea of Okhotsk and the Bering Sea. The Bering Sea accounts for about 25 per cent of all the seal harvest, about 20,000 seals. According to Dr. Andreev, at the Institute of Biological Problems of the North in Magadan, the walrus harvest is about 7,000 walrus per year. Table VI-4 is a forecast done in 1989 by the scientific community of what they anticipated the overall seal harvest for 1990. The accuracy of these figures is unknown to the author, but this estimate reflects the magnitude of what the overall harvest is acceptable to the management officials. Unconfirmed news that ZRS hunting will be limited or ended next year was reported by OKHOTSKRYBVOD officials.

Table IV-3: Forecasted seal harvests by Soviet Scientists for the Magadan Region for 1990.

<table>
<thead>
<tr>
<th></th>
<th>total seal</th>
<th>ringed seal</th>
<th>ribbon seal</th>
<th>bearded seal</th>
<th>harbor seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bering Sea Region</td>
<td>20,500</td>
<td>7,300</td>
<td>5,000</td>
<td>3,200</td>
<td>5,000</td>
</tr>
<tr>
<td>Sea of Okhotsk Region</td>
<td>63,800</td>
<td>32,000</td>
<td>15,000</td>
<td>7,400</td>
<td>9,400</td>
</tr>
<tr>
<td>Total Magadan Province</td>
<td>84,300</td>
<td>39,300</td>
<td>20,000</td>
<td>10,800</td>
<td>14,400</td>
</tr>
</tbody>
</table>


The "nearshore" statefarm marine mammal hunting is run by mostly Native work groups. Provideniya Region harvests about 800 walrus and 2200 seals, and the adjacent Chukotka Region harvests about 1000 walrus and 5450 seals. In 1984 the two regions harvested more than 2600 walrus. Since then harvesting has fallen to 1800 walrus a year. Figure VI-6 is a Soviet graph that shows statefarm walrus hunting from 1950 to 1988 in the Chukotka and Provideniya Regions.

The current status of marine mammal harvesting is a complex problem that pits an attempt to create employment for the local Natives against management of the local seal and walrus. The problem is further complicated by the fact that the fur farming industry relies on marine mammal hunting as a source of food for the arctic fox. In addition, the Soviets are trying to establish a pharmaceutical industry based on marine mammal organs and fat.

According to a report written for the Provideniya District Executive Committee by N.I. Mymrin, an official of "OKHOTSKRYBVOD", the basic goals of managing the marine mammal herds and creating a "traditional" life-style for the Native population are not being achieved:

"[The] current status of the walrus population can be evaluated to be extremely alarming...The relationship of the hunters of the series of villages is consumerism, and some incidents demonstrate it to be destructive [to the environment]...Current harvesting in the villages is popularly called traditional. This is far from the truth..."

Mymrin goes on to explain that the use of firearms and the transition of the industry to a "commercial basis" has helped contribute to overharvesting and has led to the inefficient use of the walrus resource. In addition, state farms now rely on the commercial marine mammal hunting ZRSes -- large commercial walrus/seal hunting ships-- to provide them with sufficient meat for the fur farms, rather than on the local hunters. The ZRSes can harvest large amounts of marine mammals. In 1987 the ship Zaslonovo was reported to have harvested over 1000 walrus.

Other biologists such as Michael Zasipkin of the Institute of Biological Problems of the North have put forth a proposal to limit ZRS but to continue native harvest.

"...it [marine mammal hunting] exists as the traditional activity of the Native populations (Eskimo and marine Chukchi) and needs to be analyzed as a undeniable part of their culture."

---


48 Mymrin, p.33

49 Galanin, A.V, ed., Resources of the Magadan Region, Far East Branch of the Academy of Sciences, Magadan, 1989. p.44.
Figure VI-6: Soviet Chart Showing Walrus Hunting Figures from 1950 to 1988 in Chukotka and Provideniya Regions.

Harvest of Walrus by statefarms. 1978-1988


1950-1957 - incomplete data

Gambell (St. Lawrence Island)

Mymrin, N.I. "Evaluation of the Conditions of the Walrus in the Bering Sea and the Zone of the Chukotka Autonomous District" (Okhotarkhyvod, February 7, 1989).
The conflict already exists. Natives are protesting the activities of the ZRS, the Ministry of Fisheries biologists have told us that native hunters are hunting illegally close to rookeries, and GOSKOMPRIRODA wants to take on marine mammal management as a one of its responsibilities. In addition, whale blubber and walrus ivory have already been offered for sale in the East Asian countries.

Many rural villages have a problem sustaining those activities that have formed the backbone of Native culture. Today more and more children are growing up removed from the traditional life. Loss of subsistence skills and not knowing the Native language (due to boarding school education, higher education being offered only in urban areas and two years mandatory military service for all males) are further contributing to the loss of a Native cultural identity.

One return to "tradition" is the revitalization of whale hunting in the past several years in the coastal villages of Chukotka and Provideniya Region. Exactly 169 gray whales were allotted to the Soviet North East in 1989 and 179 for 1990. Bowhead whale have not been taken since the early 1980s. As of September, 1990 92 gray whales were taken for this year. It is not clear whether the Natives use traditional hunting techniques or whether factory ships catch the whales and bring them to the village. In Sereniki the "whaling holiday", where the villagers butcher and prepare several whales, has been noted as an exciting revival of Native culture.50

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Provideniya</th>
<th>Chukotka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Hunting Teams</td>
<td>36</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Gray whales</td>
<td>143</td>
<td>58</td>
<td>83</td>
</tr>
<tr>
<td>Walrus</td>
<td>1800</td>
<td>800</td>
<td>1000</td>
</tr>
<tr>
<td>Seal</td>
<td>7650</td>
<td>2200</td>
<td>5450</td>
</tr>
<tr>
<td>Belugas</td>
<td>505</td>
<td>350</td>
<td>155</td>
</tr>
</tbody>
</table>


50 Tichotsky, John Notes from meeting with Nadezhda P. Otke, Chairman of the Chukotka District Executive Committee, June 15, 1989; and meeting with "OKHTSKRYBVOD" deputy director October, 1990.
FURBEARERS AND LARGE GAME

Hunting terrestrial game in Chukotka is managed and largely carried out by PROMOXOTA, the Hunting and Fur Farming Division of the Agricultural Directive. PROMOXOTA sets quotas, seasons, and bag limits and then has professional hunters go out and hunt and trap animals for meat and fur which is sold to the government.

Species that are available in Chukotka include moose, snow sheep\(^{51}\), caribou, brown bear, wolves, lynx, fox, arctic fox, and other smaller furbearers.

Licenses are given out to the public who participate in the public organization of hunters. Native hunters, by law, are allowed year-round hunting of all animals not listed in the Red Book of the USSR or the Red Book of the RSFSR\(^{52}\). The law reads as follows:

"EXCLUSION FOR NATIVE PEOPLE OF THE NORTH

In regions that are inhabited by Native people of the North, the hunters among these groups, with the goal of taking meat for subsistence, are allowed all year hunting on all types of animals and birds, with the exception of those animals in the Red Book of the RSFSR. Once having obtained the meat it cannot be sold or traded.

Hunting in these cases is based on free licenses and free passes, which are issued by the organs of the government hunting bureau and the administration of commercial hunting. The number of rabbits and small furbearers is not limited. The number of ungulates and brown bear, is issued to the hunter depending on the decisions of the local Soviet, depending on the available population in a given area where the hunter might hunt.

NOTE: this exclusion is only in force for those hunters out of the Native people in the North, for which hunting is a vital part of their work-life (professional hunters, reindeer herders, etc.)\(^{53}\)"

\(^{51}\) A species of white sheep.

\(^{52}\) This would be equivalent to the US endangered species list.

Large fines exist for poaching animals. However, we were told by the Fish inspectors in Anadyr that poaching is quite common. Currently, PROMOKHOTA is reserving licenses for foreign hunters in the Magadan and Chukotka areas. An unconfirmed report was relayed that this year four Polar Bear licenses will be issued, possibly for foreign hunters. Previously, polar bear, which are in the Red Book of the USSR and RSFSR, were completely off limits to any hunting. Taking polar bear resulted in fines of at least 3000 rubles⁵⁴.

Fur-farming consists of 20-by-20 foot cages on stilts above ground that house anywhere from 200-300 arctic foxes. The arctic foxes, as well as any trapped pelts, are sold to the government at established prices. For example, although in the West Arctic fox pelts are not a highly valued fur, in 1988 caged arctic fox fur brought the state farms 639,300 rubles in sales.⁵⁵ In the West, arctic fox is fur of limited value.

---

⁵⁴ 10 months salary of a bus driver, or a 20 month teacher’s salary in Moscow.

⁵⁵ Statistical Bulletin p.35
CHUKOTKA INFRASTRUCTURE

Chukotka is a good example of the achievements and deficiencies of the Soviet transportation and energy infrastructure in remote areas of the North. Resource development begun during the period of Stalinist industrialization, and cold war military build-up, as well as the high earnings1 and adventure of working in the North, are what laid down the infrastructure for this last area of the Soviet Union to be developed. Even today, in Chukotka and Magadan there is a sense of isolation from the rest of the Soviet Union. People of this region often refer to the rest of the country as "the continent", as though they were on an island.

TRANSPORTATION

Chukotka’s transportation network is a complex system that involves marine, river, air and motor ways and whose efficiency is often under question. Still, the transportation network has consistently supplied and supported a great amount of resource development and reflects years of priorities and goals of a centralized government. Figure VI-7 shows the major transportation routes and proposed transportation routes in the Soviet Northeast.

The Northern Shipping Route is an essential link for the Soviet policy of resource development for Chukotka. Chukotka relies heavily on the Northern Shipping Route for the bulk of the cargo it receives from other parts of the Soviet Union. Chukotka also uses the route to ship out the many tons of mineral ore produced in the region.

Every summer season about 20 icebreakers are used to lead ice reinforced freighters along the Northern Shipping Route, from Murmansk to the Pacific.2 The ten-year averages for the season opening for the Northern Shipping Route for the 1970s have been: Pevek, June 15 for 125 days; the mouth of the Kolyma, June 20; Mys Shmidt June 30 for 100 days; and Provideniya open for 165 days.3 The Soviets have four nuclear icebreakers in use along the route and one nuclear freighter. In 1989 the nuclear freighter was the object of protest by the public in Magadan and Vladivostok. Several more nuclear icebreakers are currently being built.4

Although the idea for the route had existed in the late nineteenth century, its practical creation was carried out during the Stalinist program of industrialization. Recently, there has been some public resistance to the use of nuclear powered icebreakers and supply ships for the route.

1 Until recently wages in the Northeast were 2.5 times greater than in western Soviet Union, two wage incentives being far from the center and a "Northern coefficient" was added to all base salaries.
Figure VI-7: Transportation Network of the Soviet Northeast

Key
1 - Rail Road
2 - Proposed Rail Road
3 - Permanent Road
4 - Proposed Permanent Road
5 - Riverway
6 - Marine Route
7 - Port on Northern Shipping Route
8 - Port
Only limited data are available on Soviet ports because of "state security" restrictions. A general description can be presented to give the reader a feel for the magnitude of port traffic. Unconfirmed sources have said that at least 500 ships come into the port of Provideniya in a given season. One Soviet research document printed 1985 relative freight delivery figures in percentages using the Port of Provideniya as a base figure (100 per cent). I have also included relative costs (these are not defined) for processing one ton of freight, with Provideniya, again, the base port for the index. These figures are summarized in Table VI-5.

Table VI-5: Chukotka port statistics*

<table>
<thead>
<tr>
<th>Port</th>
<th>Percent volume of cargo &quot;processed&quot; (weight)</th>
<th>Cost of processing one ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provideniya</td>
<td>100.0 %**</td>
<td>100.0 %</td>
</tr>
<tr>
<td>Egvikinot</td>
<td>140.2 %</td>
<td>48.8 %</td>
</tr>
<tr>
<td>Pevek</td>
<td>328.2 %</td>
<td>70.0 %</td>
</tr>
<tr>
<td>Anadyr</td>
<td>294.4 %</td>
<td>130.0 %</td>
</tr>
<tr>
<td>Beringovskii</td>
<td>296.0 %</td>
<td>74.2 %</td>
</tr>
</tbody>
</table>

* probably based on data of the mid 1980s
**Provideniya is the base index (100 %).


This basic marine transportation system is augmented by a secondary ferrying network down the major riverways to the interior settlements. The Soviets have also developed an intricate method of delivery to coastline settlements with shallow access and including floating containers that wash in with the tide and special supply ships that resemble miniature aircraft carriers with helicopters that drop and pick-up cargo.

There are 5,800 kilometers (3,625 miles) of roads and 5,500 kilometers (3,438 miles) of ice roads that link up some of the interior cities with ports along the Northern Shipping Route. Most notable examples of the use of roads includes the Egvikinot-Iultin road and also the winter road that connects Bilibino with Zelenyi Mys, a Yakutks port on the East Siberian Sea. The extensive year-round use of track, all-terrain vehicles for travel to rural villages has resulted in great damage of the tundra covering during the summer.

---

5 Tichotsky, J. and Knapp, G. Overview of Provideniya Region, Institute of Social and Economic Research, p.5
6 Called a vyezdykhod in Russian - literally "goeverywhere".
Airplanes are used primarily to carry passengers between the larger settlements and cities. Large, MI-8 helicopters, that can carry about 20 people, are used to transport passengers and cargo to the small rural villages. Weather is a common problem for the many travelers, a majority of whom are bureaucrats who travel relatively often to personally work out problems inherent in the centralized system. During the summer months the air routes are strained to the maximum in their goal of flying almost every citizen of the North to the Western and Southern sections of the country for their month long or longer yearly vacations.

Over all, the supply systems are terribly inadequate. Local villages have attempted to supplement supplies by raising vegetables in hothouses, and milk and pigs in barns. Cabbages and potatoes are grown in the southwestern portion of Magadan Province and satisfy about half of local demand. Chukotka imports all of its cabbage and potatoes. Table VI-6 shows agricultural production in Chukotka. The volumes of domesticated meat production in Chukotka have no comparisons in Alaska.

Table VI-6: The Agricultural Sector of the Chukotka District 1930-1989.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Collective farms</td>
<td>9</td>
<td>76</td>
<td>25</td>
<td>25</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Statefarms</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>Reindeer (thousand)</td>
<td>322</td>
<td>436.7</td>
<td>571.5</td>
<td>587</td>
<td>530.5</td>
<td>565.5</td>
<td>484.3</td>
<td>490.1</td>
<td>503.4</td>
<td>508.4</td>
<td>499.1</td>
</tr>
<tr>
<td>Cattle (head)</td>
<td>0</td>
<td>69</td>
<td>730</td>
<td>1100</td>
<td>1800</td>
<td>2860</td>
<td>3546</td>
<td>3847</td>
<td>4026</td>
<td>4100</td>
<td>3921</td>
</tr>
<tr>
<td>Pigs (head)</td>
<td>0</td>
<td>459</td>
<td>1642</td>
<td>1738</td>
<td>2600</td>
<td>6282</td>
<td>11281</td>
<td>10965</td>
<td>10936</td>
<td>13476</td>
<td>14947</td>
</tr>
<tr>
<td>Chickens (thousands)</td>
<td>0</td>
<td>0</td>
<td>17.5</td>
<td>14.2</td>
<td>46.1</td>
<td>81.4</td>
<td>43.5</td>
<td>84.8</td>
<td>89.4</td>
<td>87.5</td>
<td>91.8</td>
</tr>
<tr>
<td>Meat Production (thousand tons)</td>
<td>0</td>
<td>0.6</td>
<td>8.5</td>
<td>11.7</td>
<td>8.5</td>
<td>9.2</td>
<td>9.2</td>
<td>9.5</td>
<td>9.4</td>
<td>11</td>
<td>10.7</td>
</tr>
<tr>
<td>Fur Production (thousand rubles)</td>
<td>0</td>
<td>174.4</td>
<td>839</td>
<td>815</td>
<td>1324</td>
<td>2578</td>
<td>2710.2</td>
<td>2763.6</td>
<td>2604</td>
<td>2764.2</td>
<td>2819</td>
</tr>
<tr>
<td>Fish and marine mammal production (thousand tons)</td>
<td>2.5</td>
<td>15.6</td>
<td>8.1</td>
<td>12</td>
<td>8.4</td>
<td>7.8</td>
<td>3.7</td>
<td>5.2</td>
<td>5.6</td>
<td>7.4</td>
<td>6.1</td>
</tr>
</tbody>
</table>

Gross Production (million 1983 rubles) Not available 26.5 28.6 38 40 44.7 33.3
ELECTRICAL ENERGY

Chukotka produces about 25 per cent of the power of the Magadan Region. The power requirements for supporting the intensive resource development of Chukotka has led to a variety of power projects. The Northeastern Soviet Union electrical power system differs significantly from the great Western unified power system that include a considerable amount of hydroelectric power. It seems that many Western policy decisions on the direction of the development of electrical power systems are being forced upon the Northeast.

The Soviets have managed to create several power networks in Chukotka. Bilibino and the Chaun region include a nuclear power-plant of 48 mega watt in Bilibino, a huge coal and diesel fired station in Pevek and a floating power-station (20 to 25 mega watt) near Zylenii Mys. The Egvikinot coal fired station has power transmission along the road to Iultin. The Polyarnii and Leningradskii gold fields are run off of another floating power-station docked on the shores of the Chukchi Sea. These huge ships with built-in power-stations are called the "Northern Lights" Severnaya Siyanie, and need to be towed into place.

Anadyr, Beringovskii and Provideniya (the port owns their station) have coal fired power-stations. The small rural villages have mostly small coal fired stations, although some also have additional diesel generators. Since none of the coal stations have scrubbers air quality is and will continue to be an overriding concern, especially as more demand for power might lead to a continued dependence on coal. Although the Kolyma region has a large hydroelectric power station, current plans to build a hydroelectric station on the Amguema river near the Amguema mine, in the Iultin Region have been squelched by public opinion.

The Anadyr power station is a good example of how Soviet large-scale development projects can go awry. Anadyr is a city with two satellite towns, the airport/military base and the coal mining town, that lie across the Anadyr river. In the winter an ice-road connects these suburbs with the regional center of Chukotka. In the summer a half an hour ferry ride will get you from the airport to Anadyr proper. Fall and spring often requires great patience, as the MI-8 helicopters that fly about 20 people at a time are often grounded by fog. The main city of Anadyr has a relatively new thermal heat-and-power plant that is engineered to operate at a minimum of 5 times over the power requirement of the city. While coal is hauled in from the coal mine across the river, no transmission line passes power back over to the mining town and airport/military base, about half the population of the area.

---

7 Source: Krasnopolski, B.K. and Grigorev, V.M. Chukotka: Historical-Economic Overview, Far East Branch of the Academy of Sciences, Magadan, 1990 p.34.

108
SOVIET VIEW ON ESTABLISHING AN INTERNATIONAL PARK IN CHUKOTKA

The International Park is to be launched in 1992, according to the Soviet schedule. According to an order passed by the USSR Council of Ministers, the main organizational players in an International Beringian Park will be GOSKOMPRIRODA USSR (and also RSFSR), Council of Ministers RSFSR, State Committee for Architecture and the Academy of Sciences USSR. Figure VI-9 shows the timetable that the Soviets hope to follow. Figure VI-10 is the actual text of the Order 1472r that is a result of a Presidential Order that dates back to July 13, 1990.

The newly formed GOSKOMPRIRODA system of environmental protection was organized with GOSKOMPRIRODA RSFSR hierarchically subordinate to GOSKOMPRIRODA USSR. Currently, the situation has drastically changed. With every republic government, including the Russian Republic, claiming sovereignty from the Union government it is unclear how this will affect the relationship between the two agency levels. The feeling one gets from conversations with agency officials at each level is that at this point everyone is waiting for the problem to be resolved at the very highest level, between Yeltsin’s republic government and Gorbachev and the Union Soviet, before any real changes or policy shifts will be instituted. Figure VI-11 is the Resolution of GOSKOMPRIRODA USSR to begin organizational work on the park and a list of members of the Soviet Beringian working group.

Currently, it seems that GOSKOMPRIRODA and the Academy of Sciences are providing the bulk of the representation on the working group. It seems the Chukotka-Alaska international park project will continue to involve many of the same people regardless of the level at which the project will be implemented, since much of its organization is orchestrated through the USSR Academy of Sciences, which has no counterpart in the Russian Republic at this time.

The sovereignty movement in Chukotka has forced the creation of a Chukotka committee for the international park that includes a better representation of local native and non-native leaders. Figure VI-12 is the order by which the Chukotka local working group was created and Figure VI-13 is the list of members of the local working group. The local group includes more scientists from Magadan and Chukotka as participants of the project.

The park must then go through the Soglasovaniya system of compromise where all the resource ministries, local government, public organizations, GOSKOMPRIRODA, and Academy of Sciences must give their approval on a given proposal. Once the compromise time is over the Council of Ministers (now the Cabinet of Ministers within the Union system) then confirms the given proposal and it becomes law. It provides time tables when certain resource ministries must give up land and how they are to reclaim it. This compromise time is similar to lobbying a bill in Congress. If there are any disagreements after the Council of Ministers passes an order then the Soviet of the People’s Deputies must pass a decision on the order. The Soviet’s decision is final with no system to appeal.
**CONFIRMED ORDER** of The Council of Ministers of the USSR from September 1990 No. 1472r

**PLAN**

for creating in the region of the Bering Strait a Soviet American International Park

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Responsible Parties</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd quarter of 1991</td>
<td>Council of Ministers RSFSR, GOSKOMPRIRODA, with participation by the State Architecture Committee and the Academy of Sciences USSR</td>
<td>1. Developing, with a consideration for conservation and future development of the Chukotka Autonomous District’s, a technical-economic background statement for the creation on Soviet territory in the region of the Bering Strait a comprehensive specially protected land and marine area.</td>
</tr>
<tr>
<td>3rd quarter of 1991</td>
<td>Council of Ministers RSFSR, GOSKOMPRIRODA, with participation by the State Architecture Committee and the Academy of Sciences USSR, Ministry of Fisheries and the State Planning Committee of the USSR</td>
<td>2. Analyzing, with the participation when necessary of the American side, and confirming the above mentioned technical-economic background statement.</td>
</tr>
<tr>
<td>3rd quarter of 1991</td>
<td>GOSKOMPRIRODA, Council of Ministers RSFSR, and bringing in the State Architecture Committee and other interested organizations</td>
<td>3. To carry out Soviet-American Seminars on questions of planning and organization of a Soviet-American international park in the region of the Bering Strait.</td>
</tr>
<tr>
<td>4th quarter of 1991</td>
<td>Council of Ministers RSFSR</td>
<td>4. Provide the manner by which the acquisition and the time period within which the land and marine areas will be decided upon for inclusion in the international park.</td>
</tr>
<tr>
<td>1992</td>
<td>Council of Ministers RSFSR, GOSKOMPRIRODA, with participation by the State Architecture Committee and the Academy of Sciences USSR</td>
<td>8. Creating a draft management plan for a comprehensive specially protected land and marine territory in the Bering Strait Region for those areas that are included in the Soviet side of the international park.</td>
</tr>
</tbody>
</table>
ORDER from September 6, 1990 No. 1472r

In connection with the order of the President of the USSR from July 13, 1990: No. 356:

1. To confirm the agreement with the Ministry of Foreign Affairs USSR, Ministry of Fisheries USSR, State Planning Committee, State Committee on Environmental Protection, Council of Ministers RSFSR, State Architecture Committee, and the Academy of Sciences the plan to create in the region of the Bering Strait a Soviet-American International park, which will encompass special types of land and marine areas (see attached sheet).

2. The State Planning Committee, Ministry of Foreign Affairs USSR, and the Council of Ministers RSFSR: has developed with the involvement of interested ministries and agencies of the USSR and having gained preliminary agreement and draft protocol with the American side about creating in the Region of the Bering Strait a comprehensive special protected land and marine areas.

To be added to the November 1, 1991 Council of Ministers USSR draft protocol, and also the documents that demand the decision of the Government of the USSR.
USSR State Committee for Environmental Protection

Order from the 7th of May 1990 No. 19

For Organizing the work to create an international comprehensive especially protected terrestrial and marine area in the USSR and USA in the Region of the Bering Strait, GOSKOMPRIRODA USSR orders:

I. The Following working group to be formed:

Chairperson

Bogoslovskaya, Ludmilla Sergeevna

Senior Research Associate at the Institute of Evolutionary Morphology and Ecology of Animals, Academy of Sciences of the USSR, Doctor of Biological Sciences.

Deputy Chairmen

Yetylin, Vladimir Mikhailovich

Deputy of the Supreme Soviet of the USSR.

Logunov, Yevgennii Grigorovich

Chairman of the Magadan Province Committee of Environmental Protection GOSKOMPRIRODA RSFSR (State Committee of Environmental Protection of the Russian Republic).

Nikol'skii, Alexander Alexandrovich

Head of the Nature Preserves Division of GOSKOMPRIRODA USSR, Doctor of Biological Sciences.

Odintsiv, Vladimir Andreevich

Head of the subgroup on questions of the Arctic GOSPLAN RSFSR (State Planning Committee of the Russian Republic).

Scientific Secretaries

Belokon', Ludmilla Sergeevna

Scientific Secretary of the section of human ecology of the Scientific Soviet on Problems of Biospheres, Academy of Sciences of the USSR, Candidate of Technological Sciences.

---

8 The Soviet system of academic degrees differs greatly from the American system. A Candidate of Sciences is equivalent to a Ph.D. and a Doctor of Sciences is equivalent to a tenured Professor at an American University.
Dobrovolskaya, Natlia Ivanovna

Leading Specialist at GOSKOMPRIRODA USSR, acting secretary of the Soviet side of the Soviet-American Commission on Cooperation in Environmental Protection.

Suzyymova, Galina Nikolaevna

Scientific Secretary of the Section of Problems of Polar Regions of the Scientific Soviet on Problems of the Biosphere, Academy of Sciences USSR, Candidate of Geographic Sciences.

Members of the working group:

Legal, administrative and economic questions

Anashkin, Vitalii Mihailovich

Assistant Professor at the Department of International Law, Leningrad State University.

Vitt, Marina Borisovna

Senior Researcher at the Central economic-mathematical institute of the Academy of Sciences USSR, Candidate of Economics.

Voznesenskaya, Ninel' Nikolaevna


Shestepiyk, Anatolii Stepanovich

Assistant Professor of Industrial Law at the Law Department, Leningrad State University, Candidate of Law.

Planning of the Territory and Villages, Conservation and Restoration of Archeological and Historic Monuments.

Vinodapova, Marina Vladimirovna

Member of the Union of Architects, Candidate of Architecture.

Ivanov, Innokentii Grigorovich

Leading Specialist of GOSKOMARKHITECTURA (State Committee of Architecture, USSR).
Krubitov, Yuri Ivanovich

Senior Researcher Leningrad Scientific Research Institute for Civil Construction of GOSKOMARKHITECUTURA, Doctor of Architecture.

Cultural Heritage of Beringia

Bronshtien, Mihail Mokivich

Leading Specialist of the Government Museum of the Art of the People of the East, Candidate of History.

Krupnik, Igor Ilyich

Researcher, Institute of Ethnography of the Academy of Sciences of the USSR, Candidate of History.

Tein, Tasiyan Sergeevich

Researcher, Northeast Comprehensive Scientific Research Institute, Far East Branch of the Academy of Sciences, USSR.

Traditional Subsistence

Zadorin, Vitaliy Ignatyevich

Department Head at the Magadan Zonal Scientific Research Institute of Agriculture of the Northeast, Candidate of Agricultural Sciences.

Lebedev, Vladimir Vladimirovich

Department Head at the journal "Severniya Prostory" (Northern Lands), Candidate of History.

Mumrim, Nikolai Ivanovich

Head of the Monitoring and Enforcement Station of OKHOTSKRYBVOD MINRYBKHOZA USSR (Magadan Province, Ministry of Fisheries USSR).

Ethic, Social and Demographic Problems

Zelenskii, Mikhail Antonovich

Instructor, Foreign Relations, Chukotka District Committee of the Communist Party of the Soviet Union.

Pika, Alexander Ivanovich

Senior Researcher, Institute of Social and Economic Problems of Population, GOSKOMTRYD (State Committee on Labor) and the Academy of Sciences of the USSR, Candidate of History.
Terentyeva, Lidia Petrovna  
Researcher, Institute of Social and Economic Problems of Population, GOSKOMTRYD (State Committee on Labor) and the Academy of Sciences of the USSR, Candidate of History.

Protection of Flora, Fauna, Ecosystems, Geology and Geological Monuments

Andreev, Alexander Vladimirovich  
Laboratory Head, Institute of Biological Problems of the North, Academy of Sciences.

Bessonov, Boris Ivanovich  
Laboratory Head, Pacific Institute of Oceanography, Far East Branch of the Academy of Sciences of the USSR, Candidate of Biological Sciences.

Burkanov, Vladimir Nikolaevich  
Laboratory Head Kamchatka Branch of Natural Resources, Pacific Institute of Geography, Far East Branch of the Academy of Sciences of the USSR.

Buchkov, Viacheslav Aleksandrovich  
Senior Researcher, All-Union Research Institute of GOSKOMPRIRODA USSR, Candidate of Biological Sciences.

Zabelina, Natalia Mikhailovna  
Senior Researcher, All-Union of GOSKOMPRIRODA USSR, Candidate of Geography.

Ivanov, Oleg Nikolaevich  
Senior Researcher, Northeast Comprehensive Scientific Research Institute of the Far East Branch of the Academy of Sciences of the USSR, Candidate of Geology and Mineralogy.

Katenin, Adrian Evgenyevich  
Senior Researcher, Botanical Institute of the Academy of Sciences of the USSR, Candidate of Biological Sciences.

Krasilov, Valentin Abramovich  
Director, All-Union Scientific Research Institute of Nature of GOSKOMPRIRODA USSR, Doctor of Biological Sciences.

Ovsyannikov, Nikita Gordeevich  
Deputy Director, Wrangel Island State Nature Preserve, Candidate of Biological Sciences.
2. The Working Group should:

   By June 1, 1990 a temporary Statement on the Use of Natural Resources on the terrestrial and marine territories which are proposed for inclusion in the international complex of specially protected areas,

   By the Fourth quarter of 1990, prepare and present for confirmation a Technical and Economic Feasibility Study of the Soviet part of the international project, including the project’s status, so that in 1991 the project could begin to be implemented.

   That all planning work on the International Project be coordinated with the communities and organizations of Native people and with the (local) Soviet government.

3. Responsibility of implementation of the projects rest with First Deputy Chairman of GOSKOMPRIRODA USSR, V.G. Sokolovskii.

Signed:

Chairman GOSKOMPRIRODA USSR

N.I. Vorontsov
Chairman of the Soviet of the People's Deputies of the Chukotka Autonomous District

ORDER

from August 15, 1990 No. V-r

City of Anadyr

Regarding a Public working group of the District Soviet for developing the project for creating on Chukotka's territory a Biosphere Reserve-International Heritage Park

Creation of a Public working group of the District Soviet for developing the project for creating on Chukotka's territory a Biosphere Reserve-International Heritage Park

Chairman of the Soviet: B.M. Etylen

cc: to the administrative office, members of the public working group, department of the Soviet.
Figure VI-12: Order of the District Soviet of Chukotka, List of Working Group.

Supplement to the Regional Soviet's Chairman's order:


Podgaynii, V.I. Deputy Chairman of the District Executive Committee, Chairman of the working group.

Zheleznov, N.K Head of the Department of the Use of Natural Resources of the Northeast Pacific Institute of Geography of the Far East Branch of the Academy of Sciences of the USSR, Deputy Chairman of the Commission

Otke, N.I. Deputy Chairperson on Science for the Executive Committee, Deputy Chairperson of the Commission.

Members

Tototto, Y.M. Chairman, Chukotka Region Soviet of the People's Deputies.

Batura, A.V. Chairman Provideniya Region Soviet of the Peoples Deputies.

Povol'skikh, G.Y. Chairman of the New Chaplino Village Executive Committee.

Emelianov, A.D. Chairman of the Uelen Village Executive Committee.

Tislenko, G.M. Chairman Chukotka Committee of Environmental Protection (GOSKOMPRIRODA).

Vitzenko, G.Y. Chief Inspector, District Protection of Fish Stock.

Yarysh, V.F. General Director, "Chukotka" Agricultural Association of Enterprises.

Mitrofanov, N.V. Secretary, Communist Party Committee of the Statefarm "Udarnik".

Kononov, V.A. Head of the Chukotka Branch of the Northeast Comprehensive Scientific Research Institute of the Far East Branch of the Academy of Sciences, USSR.

Ivanov, V.I. Senior Researcher, Candidate of Geology and Mineral Sciences, Northeast Institute.

Pilyasov, A.N. Researcher, Northeast Institute, Candidate of Geography.

Muravyev, A.F. Deputy Director of Magadan Enterprize #15

118
Kozhevnikov, Y.P. Senior Researcher, Botanical Institute of the Academy of Sciences, USSR, Candidate of Biological Sciences.

Afonina, O.I. Senior Researcher, Botanical Institute of the Academy of Sciences, USSR, Candidate of Biological Sciences.

Signed:

Chairman of the Soviet
V.M. Etylen
SOME OF GOSKOMPRIRODA'S VIEWS ON THE INTERNATIONAL PARK

While collecting information for this report I participated in discussions with the chairperson of the Soviet Beringian Heritage Park working group, GOSKOMPRIRODA, and officials and scientists involved in the organization of the park.\(^9\) The following description illustrates what can be assumed to be some of the positions, attitudes and problems that exist within the central, Union GOSKOMPRIRODA. The people in this group emphasized that they were expressing personal views and opinions and that much was still undecided as to the final form of land protection in Chukotka. They particularly stressed that large changes taking place within the Union and Republic government would influence the outcome of the Beringian park. We can assume that this group is quite knowledgeable about the factors that would influence the final outcome. It is likely that most of the positions expressed by this small group would have the support of the uppermost leadership of GOSKOMPRIRODA.

Chukotka's new republic status will change the subordinate relationship between Magadan and Chukotka. Scientists and nature protection expertise will be little affected by the change because of the lack of expertise on Chukotka. Chukotka's new position with the Russian Republic government will put it technically on equal standing with Magadan. Local negotiations with government entities will have to be done in Chukotka's capital in Anadyr. The new local committee was created following criticism that the whole park project was a Moscow-controlled puppet.

The representatives of the Union GOSKOMPRIRODA say that one of the greatest priorities is better fish and wildlife protection in the region. They feel the current system of nature protection, as described earlier in this chapter, is not adequately doing its job or fulfilling what they see as the goals and objectives of these regions. The GOSKOMPRIRODA working group is currently proposing a new form of land conservation- the Nature and Ethnic Biosphere Reserve (NEBR) (Prirodnii Etnicheskii Biosfernii Reservat).

The Nature and Ethnic Biosphere Reserve (NEBR) seems to be an attempt to allow the indigenous people and present non-native population the right to continue their economic and subsistence activities. GOSKOMPRIRODA plans take all the "old" forms of nature protection, propose "new" forms and, using a "holistic" approach, divided the proposed park into areas of varying degrees of protection.

This is the concept that GOSKOMPRIRODA and the Academy would like to see the park take. One party of resistance to the NEBR is the Committee of Architecture and

---

\(^9\) The October 19, 1990 meeting included: Ludmilla Bogoslovskaya, Head of the Soviet working commission on the Beringian Heritage Park and works as a biologist at the Institute of Evolutionary Morphology and Ecology of Animals of the Academy of Sciences; Nadezhda Kolokolchikova, Chief Expert for the Union GOSKOMPRIRODA Department of International Cooperation and the person in charge of managing all cooperative agreements with the USA; Dr. Burkanov, Member of the Beringian Heritage Park working group and marine mammal biologist in the Department of Environmental Use of the Far East Branch of the Academy of Science's Pacific Geography Institute's Kamchatka Branch; Dr. Alexander Golovkin, an ornithologist with the All Union Institute of Nature Conservation and Reserves, who was introduced as member of the Beringian working group, although he is not on the official list; David Cline, Vice-President National Audubon Society, Alaska-Hawaii Region; and Mary Core, National Audubon Society, Alaska Regional Director.
Monuments, which is responsible for the next step in planning the park after the scientists propose the area. Apparently, nature preserves are always planned by the Committee of Architecture and Monuments, since technically nature preserves are "monuments" of nature. The new NEBR form would most likely take the planning of the park out from under the Committee for Architecture and Monuments.

The Committee for Architecture and Monuments is therefore against the new NEBR form of nature protection for two reasons:

1) They would lose the funding for this big, global project, which apparently is promised long-term, considerable financial support.

2) The Committee is considered a conservative organization and is resistant to any kind of new form of land preservation.

Ultimately, according to Union GOSKOMPRIRODA, the decision will rest on the local Chukotka Government. What Bogoslovskaya called the "final" decision on the form of the park will occur somewhere by mid-December 1990.

The Native groups in the region, The Organization of Minority Groups of Kolyma and Chukotka and the Regional Organization of Eskimos of Chukotka (a new organization The Organization of the Chukchi's of the Bering Sea is being formed and will also become a player in the park organization), have passed a resolution to participate in the park planning. The Chukotka and Provideniya Region has some of the highest percentage of Native population in the Chukotka District. The Native groups support the NEBR form of preserve, apparently, because they feel it will allow them to continue their economic and subsistence activities. The Native groups are afraid of the approach that was used in creating the Wrangel Island Preserve. The Wrangel Island Preserve resulted in relocating the Native people living on the island, closing a statefarm and prohibiting marine mammal hunting.

Union GOSKOMPRIRODA feels that the Native groups will be an important lobby and will have an important part in forming the structure of the new park. Another reason the Native groups support the NEBR plan is that they already know they won't be consulted if the park is planned the "old way", whereas the "new way" gives a chance for them to participate.

Bogoslovskaya would like to see all of Chukotka treated as a single ecosystem, including the marine area. This "holistic" approach to environmental protection will greatly influence the development of the Soviet side of the park. It is probably not likely that the American side will develop the park concept in an analogous manner because of the political complexity of such an approach.

The primary obstacles for the establishment of the park on the Soviet side is that the area is "closed", permission must be granted by the government for visits by both Soviets and foreigners, and the control that the ministries have over the region.

In the beginning of the meeting Bogoslovskaya assured us that GOSKOMPRIRODA
had already gone through the rigorous compromise and agreement process with the various ministries. When pressed, it was obvious that the problems were only initially addressed to move the project forward.

Conflicts that can be anticipated are:

1) Coal and Metallurgy Ministries:

Mining would be restricted or prohibited in the area. We were told that there was no coal in the region by the group, but that contradicts other data we have.

2) Oil & Gas and Geology Ministries:

Oil development would be restricted or prohibited in the area. This was an admitted concern by the group.

3) Defense Ministry and KGB (Border Guards):

The military has been traditionally known to abuse the land under their jurisdiction. (Dump and leak hazardous wastes, ride tanks over the tundra and poach fish and wildlife.) Bogoslovskaya's position is that they will diminish with the planned budget cuts.

4) Fishing Ministries:

The Fisheries Ministry is already in conflict with native groups and state farms over competing for marine mammal resources.

5) State Agricultural Committee:

Problems with the Reindeer herding industry with overgrazing of the tundra and the extensive use of tracked vehicles. Bogoslovskaya believes that if the native Chukchi herders were allowed to manage their own herds the numbers of reindeer would come down and be more consistent with range management. Bogoslovskaya also believes that getting rid of tracked vehicles is one of the major priorities.

6) GOSKOMPRIRODA, Fish and Wildlife agencies, and local governments:

Deciding what kind of tourism is to be allowed in the park is a concern. Bogoslovskaya related examples of foreigners who were taken on uncontrolled hunts, destruction and theft of archeological materials, and illegal export of endangered plants, animals and animal by-products (marine mammal products, ivory, whale blubber). On the other hand, there is also a fear by others that too many restrictions might be placed on the park.
7) Local governments and local people:

Deciding on what activity local governments and people could pursue within the park area. Fears include local groups engaging in any activity to earn hard currency and consumer goods regardless of whether it is consistent with the park objective, or, conversely being "locked out" of the park.

CONCLUSION

Although many similarities exist between development in Chukotka and Northern Alaska there are significant differences. Many of these differences are based on the extremely different political and economic structures between the United States and the Soviet Union that dictated the manner in which the respective Northern remote regions were developed. Most likely, market controls in Alaska were the primary limiting factor that prevented the type and extent of resource development that occurred in the heavily subsidized Chukotka. Factors such as the importance of the North as a national priority and the use of forced labor also clearly contributed to the differences between Alaska and Chukotka resource development. Table VI-7 lists some of the similarities and differences in Alaska-Chukotka development, as well as listing possible explanations for the differences.

Currently several joint ventures are going on between Alaska and Chukotka partners, including an Alaskan small plane charter, "adventure" tourism and reindeer horn trade. Table VI-8 is Alaska-Chukotka potential and existing areas of mutual cooperation.

Big "visionary"projects have been a part of Chukotka's and Alaska's history. In 1865 it began with the idea of laying a telegraph line across the Bering Strait. At the turn of the century elaborate proposals to link the Alaska railroad and the trans-Siberian Rail Road began to surface. Later, the idea of a global energy network was proposed which involved an undersea ultra-high voltage cable. None of the projects have come to fruition in the last 100 years, but we can expect new attempts, especially in these more open times.10

---

Table VI-7: Similarities, contrasts and explanations between Chukotka and Alaska

SIMILARITIES BETWEEN CHUKOTKA AND ALASKA

Geography
Native Cultures
Shared History
Sparse Population
Dependence on Natural Resource Industries
Government Ownership/management of Land
Relatively low Level of Infrastructure
High Wages
Enclave Military Settlements
Dual (subsistence/cash) Economy
Problems in Creating Viable Economy For Native Villages

CONTRASTS BETWEEN CHUKOTKA AND ALASKA

Supply and Distribution System
Northern Shipping Ports in Chukotka
Extensive use of riverways Chukotka
Use of airfreight in the Alaskan North
Use of helicopters in Chukotka, small aircraft in Alaska

Larger and Denser Settlements in Chukotka
Apartment Housing in Chukotka
Greater Industrialization in Chukotka
Greater mineral production in Chukotka
Lack of oil production in Chukotka

Extensive use of Coal as a fuel source in Chukotka

More Agricultural Activities in Chukotka
Large-scale Reindeer Herding in Chukotka
Commercial Marine-mammal Hunting in Chukotka
Fur-Farming in Chukotka
Vegetable and Livestock Farming in Chukotka

Native Claims Settlement in Alaska

EXPLANATIONS
Radically Different Political and Economic Structure
Market in Alaska Controls and Limits Extent of Industrial Activities
Greater Potential For Subsidization of Industry in USSR, Directly and Indirectly
Different Levels of Development of the National Economy
Different Strategic and Economic Roles of the North
Different Constitutional and Political Context-- Greater Central Control in Chukotka
Stalin-Era History
Use of Forced Labor in Chukotka
Policy of Industrialization and Collectivization
Native Relocation Policy
Differences in Chukchi and Eskimo Native Culture

124
Table VI-8: Examples of Existing and Potential Areas of Alaska-Chukotka Cooperative Activity

Resource Development

Fisheries
Tourism
Oil & Gas exploration and development
Mining (coal and metal)

Resource Management

Joint Park
Wildlife Conservation (marine mammal, waterfowl, Polar bear)
Scientific Exchanges

Cultural Exchanges

Native Cultural Exchanges
Cultural Tourism

Transportation and Infrastructure

Communications (Alascom)
Air transportation (Bering Air, Aeroflot and Alaska Airlines.)
Use of the Northern Shipping Route

Agriculture

Reindeer Products Industry
Appendix A: Protocol of the meeting of Working Group 02.04-20 "Conservation and Management of the Natural and Cultural Heritage" under the Joint Soviet-American Agreement on Cooperation in the Field of Environmental Protection, September 6, October 4, 1989, Joint Team List and Itinerary
Protocol of the meeting of the Working Group 02.04-20 "Conservation and Management of Natural and Cultural Heritage" under the Joint Soviet-American Agreement on Cooperation in the Field of Environmental Protection

September 6 - October 4, 1989
Provideniya, Magadan Region, U.S.S.R.-Anchorage, Alaska, U.S.A.

1. In accordance with the plan of the Working Group 02.04-20 and according to Theme 2, "Research, Conservation and Management of the Beringian Heritage," a group of American and Soviet specialists visited the Chukotskiy Peninsula in the U.S.S.R. (from September 7 - 18, 1989) and on the American side, the Seward Peninsula along with other regions in Alaska (from September 18 - 25, 1989). The group acquainted themselves with the natural and cultural richness of the regions, acquiring a great deal of scientific and practical knowledge. In addition, they consulted with local officials and the people regarding the development of an official proposal. This work was carried out pursuant to an agreement contained in proceedings dated July 1987, October 1987, and July 1989. For this reason the work represented an even greater priority for the working group in 1989.

The American delegation was lead by Mr. D. P. Galvin, Associate Director, Planning and Development, National Park Service. The Soviet delegation was lead by Mr. I. G. Ivanov, Chief Specialist of Goscomarchitecture under U.S.S.R. Gosstroy. The aforementioned had responsibility of co-chairing the working group.

A list of the members in the American and Soviet delegations and their working program is attached.

2. As a result of these reciprocal visits and in accordance with former agreements, the Soviet-American group worked out a joint report. From September 26 - October 4, in Anchorage, Alaska, the group prepared the text of the report which recommended the creation of an International Park in this region.

3. The American side agreed to publish 1,000 copies of the report, half of which would be sent to the Soviet side. In order that the report would be available and understood by a broad public, the text would be enhanced by the use of graphics. The American side also agreed to hand out the working group's (02.04-20) published report during the XIith Session of the Joint Soviet-American Commission Collaborating on Environmental Protection, which will occur in January 1990 in Washington, D.C.

The American side also agreed to receive two representatives from the leadership of the U.S.S.R.'s Goscomarchitecture and Goscoprirodi for 5 - 7 days in November 1989 for joint participation with leaders of the National Park Service. They will finalize work on the report before its publication.
4. Both sides agree that after approval of the idea to create an international park in the Bering region at the XIth Session of the Joint Soviet-American Commission, they will conduct a joint program. Within 6 months’ time, this program will describe the respective steps each government will take to establish an international park. To this end, during the period of preparation, 2-3 specialists on each side would exchange visits for a period of 5-7 days.

5. Both the Soviets and the Americans expressed an interest in subsequent cooperation concerning the preservation of the natural and cultural heritage. Both sides expressed mutual agreement in the value of organizing and participating in joint research. The month of work by the group of experts in studying the natural wealth and cultural values of the Bering region and the work on the report provided both sides with an incomparable opportunity to evaluate the high quality of professionalism of their counterparts.

Both sides recognize that the joint execution of their work was fruitful and proceeded in a setting of cooperation, friendship and mutual understanding.

The Soviet and American delegations express their appreciation to the officials of Provideniya and Chukotka, administrative regions in the U.S.S.R., as well as to the public organizations, schools and leadership in the U.S.A. regions of Nome and Kotzebue for the excellent conditions in carrying out their field work. They also express their appreciation to all the Soviet and American participants involved in this working expedition.

Signed in Anchorage on October 4, 1989, in English and in Russian so that both texts would be equally authentic.

From the American side From the Soviet side
/s/ /s/
D. P. Galvin  I. G. Ivanov
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/7 September</td>
<td>U.S. team flew to Provideniya.</td>
</tr>
<tr>
<td>8 September</td>
<td>Joint team left Provideniya by ship to Senyavin Archipelago; visited Yttygran Island; passed Arakamchechen Island; visited Senyavina Fjord. Left for Lavrentiya.</td>
</tr>
<tr>
<td>9 September</td>
<td>Arrived Lavrentiya; met Mayor Yuri Tototto and staff; toured the town. Traveled to Nynamo and spent night at Pinakul.</td>
</tr>
<tr>
<td>10 September</td>
<td>Left Pinakul and traveled to Lorino; met with Mayor Ludmilla Ivanova; visited Lorino hot springs. Left Lorino and anchored off Arakamchechen Island for night.</td>
</tr>
<tr>
<td>11 September</td>
<td>Returned to Provideniya.</td>
</tr>
<tr>
<td>12 September</td>
<td>Left Provideniya by helicopter to Yttygran Island, Arakamchechen Island, the coastline to Lavrentiya, then to Lake Ioni. Returned to Provideniya.</td>
</tr>
<tr>
<td>13 September</td>
<td>Helicopter along coast to Mechigmen. Went to Lake Koolen, and then to Lavrentiya. Stopped at East Cape and Dezhnev Memorial, then passed over Uelen and Inchoun and proceeded to Chegitan River. From there to Lorino hot springs for the night.</td>
</tr>
<tr>
<td>14 September</td>
<td>Left Lorino hot springs. Went to East Cape, and then to Big Diomede Island and Uelen; met Mayor Solovjeva Zinaida Vasiljevna and visited the ivory factory at Uelen. Left Uelen and flew northwest along the coast to Chegitan River and flew over Neshkan. Returned to Lavrentiya, and then went to the Lake Ioni region and visited a hot springs. Returned to Provideniya.</td>
</tr>
<tr>
<td>15 September</td>
<td>Met in Provideniya because of weather. Visited Novaya Chaplino; met Mayor Galina Povolskikh; toured school and hospital.</td>
</tr>
<tr>
<td>16 September</td>
<td>Flew northwest along coast past Sireniki, Nunligran, Kuyveyem, Val'kalen, and Neran and to Lake Pichkhminyitkhyn and landed on south shore of Koluchinskaya Bay. Returned to Provideniya.</td>
</tr>
<tr>
<td>17 September</td>
<td>Meetings in Provideniya</td>
</tr>
<tr>
<td>18/17 September</td>
<td>Joint team flew to Nome (one day time change when crossing International Date Line). Reception with city, state, and federal officials, native corporation leaders and membership, and news media.</td>
</tr>
</tbody>
</table>
## JOINT U.S.-U.S.S.R. STUDY TEAM MEMBERS

### SOVIET TEAM MEMBERS

#### Delegation

- **Innokenty G. Ivanov** Chief Specialist, State Committee for Architecture and Town Planning, Moscow
- **Tasyan S. Tein** Archeologist and Ethnographer, Far East Department, North-East Research Institute, U.S.S.R. Academy of Sciences, Magadan
- **Alexander A. Nasonov** Deputy Director, Magadan Regional Committee for Environmental Protection, Magadan
- **Andrey V. Rybakov** Geographer, State Committee for Architecture and Town Planning, Moscow

#### Other Participants

- **Yury Kurbatov** Architect, Research Institute of Town Planning, Leningrad
- **Alexander Andreev** Head of Ornithological Department, Institute of Biological Problems of the North, Far East Department, U.S.S.R. Academy of Sciences, Magadan
- **Georgy Rezvanov** Chief State Inspector, Okhotsk Basin Inspection on Protection of Fish and Sea Mammals Resources, Magadan
- **Victor Naumov** Ichthyologist, Magadan Regional Committee of Environmental Protection, Magadan
- **Igor Stupak** Botanist, Magadan Regional Committee of Environmental Protection, Magadan
- **Valentin Mostyaev** Attorney, Chukotka Provincial Department of Regional Committee of Environmental Protection, Provideniya

### AMERICAN TEAM MEMBERS

#### Delegation

- **Denis P. Galvin** Associate Director, Planning and Development, National Park Service, Washington, D.C.
- **Paul F. Haertel** Associate Regional Director, Resources Services, National Park Service, Anchorage, Alaska
- **Richard V. Giambardone** Landscape Architect, Denver Service Center, National Park Service, Denver, Colorado
- **Dale L. Taylor** Wildlife Biologist (Research), Alaska Region, National Park Service, Anchorage, Alaska

#### Other Participants

- **Jeanne M. Schaaf** Archeologist, Alaska Region, National Park Service, Anchorage, Alaska
- **Kenneth Schoeneng** Supervisory Archeologist, Alaska Region, National Park Service, Anchorage, Alaska
- **Peter A. Richter** Interpreter; Mining Engineering Technician, Alaska Region, National Park Service, Anchorage, Alaska
- **Ernie Suazo** Superintendent, Bering Land Bridge National Preserve, National Park Service, Nome, Alaska
- **David Mills** Park Ranger, Management Assistant, Northwest Areas, Alaska Region, National Park Service, Kotzebue, Alaska
- **Jonas Ramoth** Park Ranger, Native Liaison, Northwest Areas, Alaska Region, National Park Service, Kotzebue, Alaska
- **John R. Quinley** Public Affairs Specialist, Alaska Region, National Park Service, Anchorage, Alaska
- **Tanya Bratslavsky** Translator, Anchorage, Alaska
- **Roman Bratslavsky** Translator, Anchorage, Alaska
- **Jack Bradshaw** Geologist, U.S. Geological Survey, Anchorage, Alaska
- **Gregory J. Sorensen** Writer/Editor, Denver Service Center, National Park Service, Denver, Colorado
- **Anne Shewell** Visual Information Specialist, Denver Service Center, National Park Service, Denver, Colorado
- **Janet L. Stickland** Graphic Arts Assistant, Denver Service Center, National Park Service, Denver, Colorado
Appendix B: October 1990 Beringian Data Collection Trip Materials
The National Audubon Society, Alaska-Hawaii Region and the
Institute of Social and Economic Research of the University of Alaska.

This delegation is a joint effort of the National Audubon Society and the Institute of Social and Economic Research of the University of Alaska. Its main interests are to promote cooperation with the Soviet people for:

1) the establishment of an international park, marine biosphere reserve and world heritage site in Chukotka and Alaska (Beringia).

2) new initiatives in environmental protection, natural resource management and wildlife conservation in Chukotka and Alaska (Beringia).

David Cline is the Alaska-Hawaii Regional Vice-President of the National Audubon Society. Mr. Cline has held this position for the last 13 years. Previously, he has worked for the United States Fish and Wildlife Service as a wildlife biologist and has conducted research in both the arctic and antarctic.

Mary Core is the Alaska Regional Representative of the National Audubon Society. Ms. Core has formally worked on environmental and resource development issues and Alaska-Soviet relations for the Alaska State Legislature and the University of Alaska.

John Tichotsky is a research assistant at the Institute of Social and Economic Research. Mr. Tichotsky’s major interest is in natural resource development in the North. He is currently writing a report for the United States Park Service for the International Park Initiative.

The National Audubon Society is one of the leading organizations in the United States that is involved in wildlife protection, conservation education, scientific research and environmental action. The first Audubon group was organized more than 100 years ago, in 1886. Its nationwide sanctuary system protects 250,000 acres of unique natural habitat for birds, wildlife and plants. The Society has 510 chapters and 14 regional and state offices located throughout the United States. The Society has a government policy office in Washington, D.C., operates education programs and centers, publishes an award winning magazine and produces television programs that reach millions of people with its message of conservation. The National Audubon Society participates in a number of international organizations, including the International Council for Bird Preservation, that help foster a better understanding of global environmental issues.

The Institute of Social and Economic Research (ISER) was established by the Alaska Legislature in 1961, as part of the University of Alaska, for the purpose of conducting interdisciplinary research of economic and social change in Alaska. Research subjects have covered a very broad range: natural resource economics, regional and community development, issues relating to Alaska Natives, survey research, institutional and political studies, transportation and energy development, and environmental, resource and wildlife management. The Institute also carries out international comparative analyses and Alaska-related studies that have involved the Soviet Union, Japan and Canada.
Национальное Общество "Одубон", Аляскинско-Гавайское Отделение

Институт Социальных и Экономических Исследований
Университета штата Аляска

Эта Делегация организована Обществом "Одубон" и Институтом социальных и экономических исследований. Ее основные цели:

1). Создание международного парка, морского биосферного заповедника и археологического памятника древних культур на территории Чукотки и Аляски ("Берингия");

2). Обсуждение вопросов, связанных с охраной и контролем природной среды и использованием ресурсов на территории Чукотки и Аляски ("Берингия").

Национальное общество "Одубон" является ведущей организацией по охране природы, экологическому образованию, научным исследованиям и руководителем общественных экологических движений. Общество было образовано более 100 лет назад в 1886 г. Система его заповедных территорий общества включает 250000 акров (101174 гектаров) уникальных мест обитания птиц, диких животных и растений. Общество имеет 510 первичных организаций, 14 региональных отделений в США, официальное представительство в Вашингтоне, ведет программы по экологическому образованию, издает широко известный журнал и снимает телевизионные фильмы, которые просвещают миллионы людей в области охраны природы. Общество участвует в деятельности нескольких международных организаций, включая Международный совет по охране птиц, что способствует лучшему пониманию мировых природоохранных проблем.

Институт социальных и экономических исследований (ИСЭИ) был основан в 1961 г. Законодательным Собранием Аляски как часть Университета штата для проведения междисциплинарных исследований по экономическим и социальным вопросам штата Аляска. Тематика исследований охватывает широкий круг проблем: экономика природных ресурсов, региональное развитие, вопросы, связанные с коренными жителями Аляски.
производственной и социальной инфраструктуры, охраной и контролем природной среды и ресурсов. Институт также проводит сравнительный анализ территорий Советского Союза, Японии и Канады.

Дэвид Клайн является вице-президентом Аляскинского гавайского отделения национального Общества "Одубон" в течение последних тринадцати лет. До этого он работал биологом и проводил исследования в Арктике и Антарктике.

Мэри Кор - Директор Аляскинского отдела Национального общества "Одубон". Ранее она работала для Законодательного Собрания Аляски и занималась проблемами охраны и контроля природной среды и ресурсов, координировала Советско-Американские контакты в Университете штата Аляска.

Джен Тихоцкий - научный сотрудник Института социальных и экономических исследований Университета штата Аляска. Сфера его интересов - развитие природных ресурсов в зоне Севера. В данный момент он работает над отчетом Национальной службе парков США по проекту "Международный Ларк Беринги".

Национальное общество "Одубон"
300 G Street, Suite 213
Anchorage, Alaska 99501
Телефон: (907) 276-7034
Телефакс: (907) 276-5069

Институт социальных и экономических исследований
Университета штата Аляска
3211 Providence Drive
Anchorage, Alaska 99508
Телефон: (907) 786-7710
Телефакс: (907) 786-7739

135
Appendix C: USSR State Committee On Environmental Protection Main State Environmental Review.
USSR STATE COMMITTEE ON ENVIRONMENTAL PROTECTION

Main State Environmental Review

Environmental protection norms and rules for economic activity

APPROVED
Deputy Chairman
USSR Goskompriroda
E.B. Minayev
18 May, 1990

PROVISIONAL INSTRUCTION

on use of assessments of environmental impact during studies of the technical-economic basis (feasibility) and construction of economic objects and complexes

Effective through 1/1/92

Moscow, 1990
137
1) GENERAL PROVISIONS

1.1 The present instruction:

was prepared
- with the goal of introducing into planning practice the process of studying the interrelationships of the proposed decisions with details of environmental conditions and the socio-economic structure in the area surrounding economic objects;
- in addendum to existing documents regulating economic activity and ensuring observation of environmental protection legislation during planning processes;

is intended for
- both the sponsor and the preparer of documentation;
- specialized organizations, involved in work on EIA;
- expert units of the USSR Goskompriroda system;

defines
- the organization, manner, and procedures for undertaking EIA during development of pre-design or design-stage documentation;
- responsibility of the parties for the quality of EIA and review of its results;
- general principles and evaluation criteria, the form of presentation of the results of the EIA as a part of feasibility studies (calculations) and designing of construction projects;

establishes
- the general requirements, of expert agencies under the USSR Goskompriroda system, for the composition and contents of environmental impact assessment (EIA) documentation of proposed construction undertakings;

may be used
- by specialists during development of EIA methodology and while conducting related research;
- by administrative and local governmental agencies taking decisions on proposed projects;
- by non-governmental organizations and by the general public during discussion of project decisions.

This instruction will be subject to review or addition in response to development and approval of new legislative and regulatory (normativnykh) acts regulating the EIA process and the review of EIA results under state environmental expert review of planning-design documentation.
1.2 In accordance with the present instruction, new or revised existing regulatory and methodical documents should be developed for the planning and design of specific types of economic or other activity. Subject to the agreement of the units of USSR Goskompriroda are documents reflecting individual industry or territorial specifications during development of designs and [documents] regulating the content, scale, and form of the presentation of results of EIA and the pre-design and design-stage documentation.

1.3 Environmental impact assessment (EIA) is the identification of the character and degree of danger -- of all potential types -- of influence on the environment of proposed economic activity; and an assessment of the environmental, social, and economic consequences of completion of a project.

1.4 EIA is a mandatory element of all stages of the development of planning decisions for economic or other activity, the realization of which could influence the condition of natural resources, health and living conditions of present and future generations.

EIA materials should be presented for the state environmental expert review as a part of the feasibility study (calculation) and the budget-planning documentation.

1.5 EIA is to be undertaken with the goal of preventing degradation of the environment, restoring natural systems, destroyed by previous economic activity, ensuring of the environmental-economic balance of future economic development, creating positive living conditions for people and for developing measures to reduce the level of environmental danger posed by the planned action. [EIA] should precede the taking of a decision about the implementation of any particular project.

1.6 Basic principles for environmental impact assessment:

1.6.1 Integration (examination of the interrelationships) of technical, environmental, social, and economic indicators related to the planned economic decision;

1.6.2 Decisions options, which ensure fulfillment of environmental requirements;

1.6.3 Consideration of regional details from the perspective of:
   o the condition of the ecosystem and its sustainability in the face of expected impacts;
   o prospects for socio-economic development of the region;
   o historical, cultural, ethnic, and other interests of the local population.

1.7 As a result of the EIA, those projects are brought out and recommended for approval whose realization:
   o will not threaten human health in direct, indirect, cumulative or other
manners, with consideration of latent consequences;
o is not connected with the production of products which are ecologically
dangerous in their use, recycling, or destruction;
o will not lead to inalterable or critical changes in the natural environment
during construction, use, or liquidation of the object.

2) RESPONSIBILITY FOR ORGANIZATION, CONDUCT, AND REVIEW OF THE
RESULTS OF EIA

2.1 Responsibility for organization and conduct of EIA during the development of
feasibility study (calculation) and budget-planning documentation is incumbent on
the sponsor of the project.

2.1.1 The sponsor provides financing for EIA and for related research and
investigations necessary for its conduct. Financing for EIA should be
planned into the budget for expenditures related to feasibility study
(calculation) and for design documentation.

2.2 The sponsor will, when necessary, engage specialized organizations for the
preparation of documentation for the EIA and formulation of its results.

The preparer carries responsibility for the completeness and the quality of the EIA
and for the trustworthiness of information used.

2.3 Prior to presentation of documentation for the state environmental expert review,
the sponsor and preparer shall organize and carry out a preliminary review and
discussion of the results of the EIA:
o by a group of experts within the framework of the departmental review of the
feasibility study (calculation) and of design documentation;
o by representatives of the public whose interests are affected by the fulfillment
of the project.

2.4 The state environmental expert review of the pre-design and design-stage
documentation is the final step of review of the EIA results

2 The manner, procedures, and forms of organization of the state environmental expert
review, as well as the period of its conduct, are defined by "Provisional Instruction on the
Goskompriroda, USSR.
2.4.1 The expert units of the USSR Goskompriroda system, which organize state environmental expert review, bear responsibility for timely, high-quality, and objective review of the EIA results.

2.4.2 Financing of the state environmental expert review will be in accordance with the established order.

3) GENERAL REQUIREMENTS FOR COMPOSITION OF EIA

3.1 EIA will include the following basic steps:

- collection and analysis of necessary information;
- identification of sources, types, and objects of impact;
- prediction of change in the condition of the natural environment;
- evaluation of likely emergency situations and their consequence;
- evaluation of environmental, social, and economic consequences;
- identification of means for reducing (preventing) negative impact on the environment and human health;
- identification of residual impact and of methods for its control;
- conduct of environmental-economic evaluation of projects;
- analysis and selection of alternative options for implementation of the project, formulation of new options.

3.2 During EIA, information will be collected and analyzed on:

3.2.1 means for completing the intended activity, including the characteristics of the proposed technical and technological decisions on the construction, exploitation, and liquidation (reformulation) of the object, the sources of raw materials and energy, and of the required production infrastructure;

3.2.2 quantity and characteristics of wastes, identified on the basis of the material balance of production throughout the stages of the "life cycle" of the object under various work conditions;

3.2.3 condition of the environment at "the given moment" for various alternative locations of the object, including characteristics of the air and water environments; of earth which would be removed for permanent or temporary use; description of the climatic, geological, and other natural conditions, of flora and fauna, or of recreational or specially-protected areas and other environmental characteristics;
3.2.4 the current socio-economic structure in the regions around the site, including the social organization of the territory, etc.

3.3 On the basis of the enumerated information (as in item 3.2) the sources, types, and objects of impact will be brought out for [each of] the alternatives for completion of the intended activity.

3.3.1 The number and specific types of impact evaluated by the assessment can be identified by means of a preliminary study ("inquest") with the goal of bringing forth:
- impacted objects;
- dimension of the impact;
- geographic extent;
- dynamic of the impact over time;
- likelihood of the impact arising.

The "inquest" process includes preparation of supplementary information about the project, the selection and analysis of information on the environmental consequences of-analogous types of activity, systematization of the results of post-design analysis and analysis of the environmental situation.

During the preliminary study, methods of comparative analysis, expert evaluation, analysis of "mistakes and previous experience" and such are used.

3.3.2 Expected impact is to be evaluated in terms of:
- the boundaries of impact -- geographical extent, quantity of impacted objects;
- intensity -- change in the level of pollution of the air, water, noise level, etc.
- length -- nature of the impact over [various] time-scales:
  - short-term
  - uninterrupted
  - periodic
  - emergency

3.3.3 Designated as basic objects of impact are: human health, condition and character of the usage of natural resources of a territory, and so forth.

3.3.4 Characteristics of impact are given as: direct, indirect, cumulative, and so forth (recognizing the possibility that impact may appear after a given interval of time).

3.4 The "new" condition of the environment is to be predicted. Changing parameters are to be identified by "superimposing" the newly-appeared types of impact onto the condition of the environment as predicted "without the project."
3.5 Assessment of likely emergency situations, and of their consequences, includes:
- analysis of scenarios for development of emergency situations and of the likelihood of their occurrence;
- appearance of possible causes for the occurrence of accidents (employee technical errors, fires, explosions, unrest, etc.);

3.6 Possibilities for reducing impact are to be identified with the assistance of special technical means for protecting the population, animals and plants, and territory; measures for introduction of low-waste technological processes, recycling, disposal and destruction of all types of wastes, for prevention of emergency situations, for the localization and liquidation of their consequences.

3.7 During EIA, the consequences of completing the project will be identified:

- consequences for human health of the most significant (in terms of level, scale, danger, etc.), including latent, impacts;

- consequences for the environment, its individual elements, ecosystems. The "new" condition is to be assessed from the standpoint of its fulfillment of existing and expected environmental requirements.

- socio-economic consequences. Changes in lifestyles of the population relate to this, including the level of employment, demographic displacements, changes in social infrastructure (with consideration of aesthetic, cultural, ethnic, and other aspects).

3.8 Residual impacts and methods of their control will be identified.
The general technological plan will provide for a system of waste control. In case of emergency, methods of notification, warning, and required response mechanisms will be provided for.

3.9 Environmental-economic assessment of design decisions is to take place with regard to known consequences and (to) the analysis of social costs and results of the proposed alternatives for realization [of the project]. The results of the studies will serve as the basis for the study of the environmental-economic basis.

3.9.1 Economic calculations under EIA are to be undertaken in the following manner:
- full social costs of completion of the proposed version are to be calculated with regard to all known consequences;
- additional ("specific") assessments are to be undertaken.

\[^{3}\text{Such factors are to be evaluated in accordance with special prescriptions of the agencies under the USSR Goskompriroda system or according to the initiative of the project sponsor.}\]
depending on the goals of the calculations and [depending] on the expected status -- for example, cost accounting [khozraschetniye] profits, compensation payments, expenditures for liquidation or mitigation of specific negative consequences, etc.:

- a general environmental-economic assessment is to be undertaken, in which the "pros" and "cons" are totalled in ledger form;
- results of the assessment are to be commented on in accordance with the scale of public interests and with use of indicators not expressed in the form of cost.

3.9.2

At the stage of the feasibility study (calculation), approximate profitability will be calculated, keeping in mind the dynamic of prices for raw materials, provisions, products, changes in the sources of feed supply and components [komplektatsiya] etc.

Profitability of an enterprise is to be calculated within the framework of cost accounting self-sufficiency [khozraschetnaya samostoyatelnost'] at present prices, tariffs, etc. Included in the calculation are costs for production and product sales; upkeep and use of productive and social infrastructure items, enumerated on the balance sheet of the given object. Consumption of natural resources and use of services of outside organizations for re-processing and disposal of wastes is calculated in the established tariff rates according to present manner of payment for such services.

3.9.3

The efficiency of expenditures related to realization of the project, taking into account all consequences, as well as the "denial of project" option, will be calculated.

---

* Indicators which do not have any real monetary equivalent and are not reflected in investment flows, are to be considered in kind -- and/or with appropriate comment -- during the feasibility study for the proposed version [of the project].

If the value of the losses is defined by the size of the socio-economic damage [sotsial'no-ekonomicheskii ushcherb] from the environmental consequences, then, during the assessment and comparison, the results of such calculations are used independently as a "probability" category and are not "intermixed" into a single calculation with the "social cost" [obshchestvennaya stoyimost'] of the project. This does not apply to the cost of measures intended to remediate/mitigate the expected environmental consequences of given projects, [nor does it apply] if the completion of the project is conditional on completion of these [remediation/mitigation] measures.
FORMULATION OF EIA RESULTS AND AS A PART OF DOCUMENTATION

4.1 In the feasibility study (calculation) and in the budget-planning documentation, the results of the EIA should be included in a special section -- "Assessment of Environmental Impact" -- to which will be appended copies of:
- documents of agreement with the USSR Ministry of Health [Minzdrav] and with state oversight agencies having authority over use of natural resources;
- conclusions of the departmental review;
- materials concerning discussion of the project's EIA with the public, with an account of the fundamental disagreements.

4.2 The section "Assessment of Environmental Impact" should contain:
- names of the organizations which took part in conducting the EIA and in preparation of its results;
- in short form, the basis for demand for the production from the object; the goal and necessity of the project and references to documents from earlier stages, on the basis of which the project (as proposed for the state environmental expert review) was developed;
- exposition of the interests of the general public and of specific groups which were considered during the development of the proposed project;
- basic principle of location of the object and accord between the chosen and alternative locations [on the one hand] and regional development plans [on the other];
- listing of alternative versions reviewed in the process of pre-design research;
- limits of the undertaken research, required references to sources of information used during EIA;
- listing of environmental limitations, used during development of design decisions;
- short description of the EIA (in accordance with the basic requirements of Section Three of the present Instruction) with an appendix of tabular (matrix) and other material illustrating the conclusions and the bases of the project;
- list of alternative means -- reviewed but not undertaken in the chosen version -- for reducing the level of negative impact on the environment, with indication of their cost;
- programs for subsequent control of the safety of the produced good, with indication of the area and limitations for its use, as well as possible methods for its utilization/neutralization after use.

4.3 The assessment of environmental impact should be written in short form and in terms which are comprehensible to non-specialists.

Information presented in the section "Assessment of Environmental Impact" should reflect the consequences of realization of the proposed version and should be sufficient for the state environmental expert review to control, in light of
environmental safety considerations, the direction of adopted technological, organizational, and other decisions; as well as to verify the correspondence of the project with the established system of environmental limitations; to evaluate the reliability of information received in the course of the EIA and [assess the reliability] of the conclusions formed on the basis [of that information].

Translation by Jonathan Elkind, Council on Environmental Quality

Editorial assistance: Kristen Suokko, Natural Resources Defense Council
Appendix D: Micheal Krauss' "Soviet Eskimo Population and History"
In prehistoric times, Yupik-speaking Eskimos may have occupied the entire coast of the Chukchi Peninsula, but in recent centuries much of that coast has been taken over by the Chukchis, a Native Asian people (population 14,000) with an entirely different language, who have, influenced Siberian Yupik language and culture.

The Siberian Yupiks (population 1,250 USSR; 1,100 St. Lawrence Island) have three different languages, probably representing three waves of occupation. The oldest, and furthest from Alaskan, is Old Sireniki, now remembered by only two women at Sireniki. The second is the majority Eskimo language on the Soviet side, called Chaplinski, with about 850 people. This language is virtually identical with that of St. Lawrence Island. The third and latest wave is Naukanski, the language of Naukan on East Cape, intermediate between Chaplinski -- St. Lawrence Island and mainland Alaska Yupik. Naukanski is only partly intelligible to either, in fact, a link between the main Alaskan Yupik and Siberian Yupik languages, which must have been connected through Seward Peninsula. A few centuries ago this connection was interrupted by the expansion of the Inupiaq Eskimo language into Seward Peninsula and the Diomedes, Big Diomede, on the Soviet side of the Dateline. This had the only Inupiaq speakers in the USSR; the only Soviet Eskimos who could converse freely with the North Alaska Eskimos.

Though the Cossack Simon Dezhnev reached East Cape in 1648, permanent Russian settlements on the Chukchi Peninsula were not established until Soviet times. Around 1900 trading posts and outside influence in the Chukchi Peninsula were mainly American, until the area came under Soviets in the 1920s. The Soviets established a Culture Base at Lavrentiya, Soviet schools, and in 1932 began using the Eskimo language in schools also in written form, based on Chaplinski. Provideniya was established as the main (Russian) town in the late 1930s.

Until 1948, Eskimos were allowed to continue their traditional visits back and forth; their right to do so was even officially recognized by an agreement between the Soviet Embassy and the US State Department in 1938. During World War II, American Lend-Lease planes were flown to the USSR by this Fairbanks-Nome-Provideniya route. As the Cold War began, in 1948, the 1938 agreement was terminated, and the border bilaterally closed to all visits.

Also in 1948 the twenty-some Eskimos still on Big Diomede were evacuated to Naukan. Most of these were Naukan people, only one family (six people) were Inupiaq speakers, the rest having moved to Little Diomede. One of these six may still be alive.

By this time also most of the smaller Yupik villages on the Soviet side had been closed or abandoned, with the population concentrated mainly at Naukan, (Old) Chaplino, and Sireniki.

Then in 1958, of these three remaining Eskimo villages, the two most exposed to potential contact with Alakans, Naukan and Chaplino, were relocated. Naukan was closed, and the people dispersed to three locations in St. Lawrence Bay (Pinakul', Nunyamo, Lavrentiya), where they became a minority amongst Chukchis and Russians. Pinakul' was closed in the 1960s and Nunyamo in the 1970s, so most Naukan Eskimos now live in Lavrentiya, with some also at Lorino and Uelen, the large Chukchi community on East Cape. Though having no village of their
own for thirty years, numbering only 400, a minority of a minority, the Naukantsy maintain their identity as an articulate and creative people, including many of the foremost artists, dancers, poets, writers, scholars, educators, and leaders of the Soviet Eskimos.

Also in 1958 Chaplino, on Indian Point facing St. Lawrence Island, was moved into Tkachen Bay, to a location, New Chaplino, connected by road to the Russian port town of Provideniya, the regional trade and service center (population now over 5,000, including perhaps 100 Eskimos). New Chaplino has the closest ties to St. Lawrence Island. Eskimos also constitute a majority (300 of 400) there.

The other major Chaplinski-speaking village, Sireniki (where the Chaplinski language has long since almost completely replaced the Old Sirenikkski Eskimo language), remains in its traditional location. Eskimos there remain a large proportion (300 of 700), along with Chukchi and Russian.

Eskimo-Aleut Language Family

Source: Krauss, Michael Many Tongues-Ancient Tales
Appendix E: Information on air transportation within Chukotka. (schedule and air routes of Chukotka Flights).
## SCHEDULE FOR AIR ROUTES
### FIRST QUARTER 1989

**FLIGHTS FROM CHUKOTKA AIRPORTS**

<table>
<thead>
<tr>
<th>Destination</th>
<th>Flight number</th>
<th>Type of plane</th>
<th>Intermediate stops</th>
<th>Dates of travel</th>
<th>Days of the week</th>
<th>Time of departure</th>
<th>Time of arrival</th>
<th>Time of return</th>
<th>Ticket price (rubles)</th>
<th>Suggested price (kopecks/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOSCOW</td>
<td>2212</td>
<td>Як-42</td>
<td></td>
<td>FROM ANADYR</td>
<td>08.01-14.01</td>
<td>1, 4, 6</td>
<td>16.10</td>
<td>00.05</td>
<td>00.30</td>
<td>193</td>
</tr>
<tr>
<td>Khabarovsk</td>
<td>2212</td>
<td>Як-42</td>
<td></td>
<td></td>
<td>19.01-25.03</td>
<td>4, 6</td>
<td>16.10</td>
<td>00.05</td>
<td>00.30</td>
<td>193</td>
</tr>
<tr>
<td>MAGADAN</td>
<td>604</td>
<td>Ан-26</td>
<td></td>
<td>MAGADAN</td>
<td>01.01-31.03</td>
<td>3, 5, 7</td>
<td>02.00</td>
<td>07.40</td>
<td>01.40</td>
<td>36</td>
</tr>
<tr>
<td>PEVEK</td>
<td>605</td>
<td>Ан-24</td>
<td></td>
<td>MARKOV</td>
<td>01.01-31.03</td>
<td>1</td>
<td>08.00</td>
<td>10.00</td>
<td>12.40</td>
<td>31</td>
</tr>
<tr>
<td>IULTIN</td>
<td>607</td>
<td>Ан-24</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>2, 4</td>
<td>00.10</td>
<td>01.35</td>
<td>03.40</td>
<td>25</td>
</tr>
<tr>
<td>SHMIDT</td>
<td>609</td>
<td>Ан-24</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>4</td>
<td>08.00</td>
<td>09.30</td>
<td>11.50</td>
<td>27</td>
</tr>
<tr>
<td>EGVEKINOT</td>
<td>611</td>
<td>Ан-24</td>
<td></td>
<td></td>
<td>01.01-10.01</td>
<td>2, 4, 6</td>
<td>23.50</td>
<td>00.55</td>
<td>02.40</td>
<td>17</td>
</tr>
<tr>
<td>EGVEKINOT</td>
<td>611</td>
<td>Ан-24</td>
<td></td>
<td></td>
<td>11.01-31.03</td>
<td>2, 4, 6</td>
<td>23.20</td>
<td>00.25</td>
<td>02.10</td>
<td>17</td>
</tr>
<tr>
<td>PROVIDENIYA</td>
<td>613</td>
<td>Ан-24</td>
<td></td>
<td></td>
<td>01.01-10.01</td>
<td>3, 5, 7</td>
<td>03.40</td>
<td>05.20</td>
<td>07.40</td>
<td>27</td>
</tr>
<tr>
<td>PROVIDENIYA</td>
<td>613</td>
<td>Ан-24</td>
<td></td>
<td></td>
<td>11.01-31.03</td>
<td>3, 5, 7</td>
<td>03.10</td>
<td>04.50</td>
<td>07.10</td>
<td>27</td>
</tr>
<tr>
<td>BERINGOVSKII</td>
<td>616</td>
<td>Ан-24</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>1, 4</td>
<td>04.40</td>
<td>05.40</td>
<td>07.20</td>
<td>15</td>
</tr>
<tr>
<td>LAVRENTIYA</td>
<td>617</td>
<td>Ан-24</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>4, 7</td>
<td>22.20</td>
<td>01.10</td>
<td>03.35</td>
<td>29</td>
</tr>
<tr>
<td>SNEZHNOK</td>
<td>621</td>
<td>Мк-8</td>
<td>UST-BYELAYA</td>
<td></td>
<td>01.01-31.03</td>
<td>2, 5</td>
<td>23.50</td>
<td>01.55</td>
<td>04.20</td>
<td>30</td>
</tr>
<tr>
<td>OTOZHNOK</td>
<td>623</td>
<td>Мк-8</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>3, 6</td>
<td>23.50</td>
<td>01.20</td>
<td>03.10</td>
<td>30</td>
</tr>
<tr>
<td>Krasneno</td>
<td>625</td>
<td>Мк-8</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>1, 4</td>
<td>04.00</td>
<td>05.00</td>
<td>06.20</td>
<td>20</td>
</tr>
<tr>
<td>Kanchalan</td>
<td>627</td>
<td>Мк-8</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>6</td>
<td>06.30</td>
<td>07.30</td>
<td>08.40</td>
<td>10</td>
</tr>
<tr>
<td>Shchuchije</td>
<td>629</td>
<td>Мк-8</td>
<td>KHARIUSNOYE</td>
<td></td>
<td>01.01-31.03</td>
<td>2</td>
<td>10.00</td>
<td>11.05</td>
<td>12.30</td>
<td>4</td>
</tr>
<tr>
<td>Bystry</td>
<td>631</td>
<td>Мк-8</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>2</td>
<td>00.10</td>
<td>02.40</td>
<td>04.40</td>
<td>15</td>
</tr>
<tr>
<td>VAENGI</td>
<td>633</td>
<td>Ан-2</td>
<td></td>
<td>FROM MARKOV</td>
<td>01.01-31.03</td>
<td>4</td>
<td>01.50</td>
<td>02.20</td>
<td>03.20</td>
<td>5</td>
</tr>
<tr>
<td>CHUVANSKOE</td>
<td>635</td>
<td>Ан-2</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>3</td>
<td>01.50</td>
<td>02.55</td>
<td>04.20</td>
<td>10</td>
</tr>
<tr>
<td>Lamputskoe</td>
<td>637</td>
<td>Ан-2</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>6</td>
<td>01.50</td>
<td>02.55</td>
<td>04.20</td>
<td>10</td>
</tr>
<tr>
<td>Vankarem</td>
<td>641</td>
<td>Мк-8</td>
<td>NUTEPELMEN</td>
<td>FROM EGVEKINOT</td>
<td>01.01-31.03</td>
<td>3</td>
<td>00.30</td>
<td>02.55</td>
<td>05.40</td>
<td>38</td>
</tr>
<tr>
<td>Vostochny</td>
<td>643</td>
<td>Мк-8</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>6</td>
<td>01.00</td>
<td>02.00</td>
<td>03.20</td>
<td>20</td>
</tr>
<tr>
<td>Konergino</td>
<td>648</td>
<td>Мк-8</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>1</td>
<td>01.00</td>
<td>01.30</td>
<td>02.20</td>
<td>6</td>
</tr>
<tr>
<td>UELKAL</td>
<td>647</td>
<td>Мк-8</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>2</td>
<td>01.00</td>
<td>01.50</td>
<td>03.00</td>
<td>18</td>
</tr>
<tr>
<td>Enurmino</td>
<td>651</td>
<td>Мк-8</td>
<td></td>
<td>FROM LAVRENTIYA</td>
<td>01.01-31.03</td>
<td>2</td>
<td>02.40</td>
<td>03.45</td>
<td>05.10</td>
<td>24</td>
</tr>
<tr>
<td>Lorino</td>
<td>653</td>
<td>Мк-8</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>5</td>
<td>02.30</td>
<td>02.00</td>
<td>03.50</td>
<td>4</td>
</tr>
<tr>
<td>Neshikan</td>
<td>655</td>
<td>Мк-8</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>1</td>
<td>23.10</td>
<td>00.25</td>
<td>02.00</td>
<td>28</td>
</tr>
<tr>
<td>Uelen</td>
<td>657</td>
<td>Мк-8</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>2</td>
<td>23.10</td>
<td>00.05</td>
<td>01.20</td>
<td>14</td>
</tr>
<tr>
<td>Inchoun</td>
<td>659</td>
<td>Мк-8</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>3</td>
<td>01.40</td>
<td>02.25</td>
<td>03.30</td>
<td>10</td>
</tr>
<tr>
<td>Khayrka</td>
<td>661</td>
<td>Мк-8</td>
<td>MAINOPYLYGINO</td>
<td>FROM BERINGOVSKII</td>
<td>01.01-31.03</td>
<td>3</td>
<td>00.30</td>
<td>02.35</td>
<td>05.00</td>
<td>30</td>
</tr>
<tr>
<td>Enmeilen</td>
<td>663</td>
<td>Мк-8</td>
<td>NUNILINGRAN</td>
<td>FROM PROVIDENIYA</td>
<td>01.01-31.03</td>
<td>1, 5</td>
<td>00.05</td>
<td>01.45</td>
<td>03.45</td>
<td>20</td>
</tr>
<tr>
<td>Sireniki</td>
<td>665</td>
<td>Мк-8</td>
<td></td>
<td></td>
<td>01.01-31.03</td>
<td>3</td>
<td>04.20</td>
<td>04.30</td>
<td>05.40</td>
<td>4</td>
</tr>
<tr>
<td>Yarakinot</td>
<td>667</td>
<td>Мк-8</td>
<td>NEW CHAPLING</td>
<td></td>
<td>01.01-31.03</td>
<td>3</td>
<td>00.10</td>
<td>01.35</td>
<td>03.10</td>
<td>10</td>
</tr>
<tr>
<td>Destination</td>
<td>Flight number</td>
<td>Type of plane</td>
<td>Intermediate stops</td>
<td>Date of departure</td>
<td>Date of arrival</td>
<td>Time of departure</td>
<td>Time of arrival</td>
<td>Remarks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>---------------</td>
<td>---------------</td>
<td>--------------------</td>
<td>-------------------</td>
<td>----------------</td>
<td>------------------</td>
<td>----------------</td>
<td>--------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOSCOW</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALMA-ATA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRATSK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VLADIVOSTOK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DONETSK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRATSK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KIEV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KRASNOYARSK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KRYNOVO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIN. VODY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOVOSIBIRSK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OMSK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PETROPAVL.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVERDLOVSK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIMFEROPOL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UST-IJINK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Khabarovsk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Column headings are the same as for accompanying schedule of flights from Chukotka airports.
Appendix F: Maps of important biological areas, places of subsistence activities and cultural heritage sites provided by Ludmilla Bogaslovskaya, chairman of the Soviet international park working group, February 1991
Fig. 1 Map of important biological areas.

3 feeding area of Gray Whales
rockery of Walruses:

indicator of constant

indicator of temporary

great colonies of seabirds:

10-100 thousands

more than 100 thousands

places of some species of rare birds:

A Anser canagicus (nests, moult's areas) гусь-белощей

C Calidris bairdii (nests) бердов песочник

Cy Cygnus columbianus (nests) американский лебедь

E Eurypteryx pygmaeus (nests) кулик-лопатень

places of rare plants

border of Sireniki Polyn'ja

(По материалам Л.С.Богословской, Л.М.Вотрогова, Н.Б.Конюхова, П.С.Томкова, А.Е.Катенина, В.В.Петровского, Б.А.Иртсея и др.)

Translation: Based on work of L.S. Bogoslovskaya, L.M. Votrogova, N.B. Koniyhov, P.S. Tomkovich, A.E. Katenina, V.V. Petrovskii, B.A. Iyrtsev and others.

Source: Ludmilla Bogaslovskaya, Handout during February 1991 trip to Washington, D.C.
Fig. 2 Map of places coherent with traditional subsistence and culture of native people

(По материалам Л. С. Богословской, Л. М. Вотрогова, И. И. Крупника)

Translation: Based on work of L. S. Bogoslovskaya, L. M. Votrogova, I. I. Krypnik

Source: Ludmilla Bogoslovskaya, Handout during February 1991 trip to Washington, D.C.
Figure II-1: Map of the Soviet Far East

Note: Russian terms for administrative units have been translated as follows:

Krai  Territory
Oblast  Province
Okrug  District

University of Alaska Anchorage, Institute of Social and Economic Research 1989
Figure II-6: Map of Native groups of the Soviet Northeast.

University of Alaska Anchorage, Institute of Social and Economic Research 1990
Figure III-7a: The Structure of the Council of Ministers (replaced by the Cabinet of Ministers as of December 1990)
Ministries

Atomic Energy and Industry (A-U)
Automotive and Agriculture Machine Building (A-U)
Aviation Industry (A-U)
Chemical and Petroleum Refining Industry (A-U)
Civil Aviation (A-U)
Coal Industry (A-U)
Communications (U-R)
Construction of Petroleum and Industry Enterprise (A-U)
Culture (U-R)
Defense (A-U)
Defense Industry (A-U)
Electrical Equipment Industry and Instrument Making (A-U)
Finance (A-U)
Fish Industry (A-U)
Foreign Affairs (U-R)
Foreign Economic Relations (U-R)
General Machine Building (A-U)
Geology (A-U)

State Committees

Cinematography (U-R)
Computer Science and Technology (A-U)
Construction (U-R)
Forestry (U-R)
Hydrometeorology (A-U)
Labor and Social Problems (U-R)
Material and Technical Supply (U-R)
Output Quality and Standards (A-U)
Physical Culture and Sports (U-R)
Planning (Gosplan) (U-R)

USSR State Bank (A-U)

The head of the State Bank has been previously in the Council of Ministers and is likely to be in the Cabinet of Ministers.

Source: Central Intelligence Agency - December 1989.
Figure III-10: Administrative Units of the Russian Republic.
Figure III-12: Division of Responsibilities Among Members of a Typical Local Executive Committee.

CHAIRMAN
(President)

FIRST DEPUTY CHAIRMAN
(Pervit Zamesitel)

Public Works
Economic Planning

DEPUTY CHAIRMAN
(Zamesitel)

Communication
Education
Culture
Sports

DEPUTY CHAIRMAN
(Zamesitel)

Trade
Finance

DEPUTY CHAIRMAN
(Zamesitel)

Supply
Transport
Local Industry

DEPUTY CHAIRMAN
(Zamesitel)

Agriculture

SECRETARY
(Secretar)

Finance
Constitution
Law

University of Alaska Anchorage, Institute of Social and Economic Research

56
Figure III-13:

ORGANIZATIONAL STRUCTURE OF RESOURCE DECISION-MAKING

UNION MINISTRIES

REPUBLIC MINISTRIES

UNION STATE COMMITTEES

REPUBLIC STATE COMMITTEES

THE REGION

LOCAL GOVERNMENT

CHAIRMAN

EXECUTIVE COMMITTEE

DEPUTIES

DEPARTMENTS
Otdeli

DIVISIONS
Upravleniya

REPUBLIC MINISTRY AGENT

UNION MINISTRY AGENT

REPUBLIC COMMITTEE AGENT

INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH 1990

60
Figure V-1: Villages closed within the last 50 years in the Chukotka and Provideniya Regions.

KEY

- Closed village

- Relative Population
  - 3,000 - 10,000
  - 1,000-3,000
  - 500-1,000
  - 200-500
  - less than 200

Source: Alexander Andreev and Ludmilla Bogoslovskaya
Institute of Social and Economic Research 1991
Figure VI-1: Map of gold and tin mining areas in Chukotka