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NOTES ON VILLAGE ECONOMIES AND WILDLIFE UTILIZATION  
IN ARCTIC ALASKA

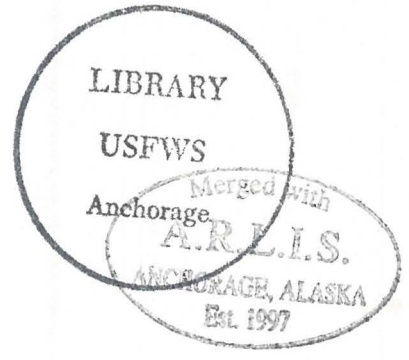
by

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U S Fish & Wildlife Service

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Visits were made to 12 Eskimo villages in Arctic Alaska during the spring of 1954. At each settlement information was collected regarding the economy and the utilization of wildlife with emphasis being placed upon the caribou take.

The writer, accompanied by Ray Tremblay, left Fairbanks on May 2, 1954, and flew directly to Kotzebue with Stinson N-782. This aircraft was equipped with long range gas tanks and an ADF thus making an ideal plane for the trip. Flights were made from Kotzebue to each of the villages along the Kobuk River and to Selawik, Noatak and Kivalina.

Although Point Hope was included on our list of villages to be visited, a strong cross wind prevented any possibility of landing on its very narrow ski strip. Upon completing the work out of Kotzebue we flew directly to Point Lay and from there, as weather permitted, on to Wainwright and Point Barrow. During our week's stay in Barrow, weather prevented flights on all but two days. We returned to Fairbanks on May 14. The information was collected at Anaktuvuk Pass by Ray Tremblay, Jim King and Bob Scott on May 21. Pacer N-702, with wheels, was used for a landing on the glare ice of a lake in the Pass.

Upon arriving at a village our first contact was with the highest ranking individual. Most generally it was with the teachers or traders. We explained that we were interested in gathering data on the village economy and that we were attempting to obtain an accurate estimate of the number of caribou killed by the village during the past year. We endeavored to make it very clear that our visit was in the nature of a fact finding mission, and that any information we obtained would not be used in a retaliatory manner. In organized villages all of our discussions were held with members of the native council. The game regulations were explained in detail as were the various activities of the Service. The wolf control program and the Arctic game survey were highlighted in these discussions.

Fortunately, our visits coincided with this year's game survey and many of the people had seen the Beechcraft as it flew over their village. As a result of the Arctic game survey and wolf control program, we were able to tell the groups that the caribou bag limit had been raised from three to five.

The information contained in this report is based entirely upon personal interviews with village council leaders, teachers and traders. In every case the completeness of the information is directly proportionate to the interest shown by the village leaders.

The descriptions of the village economies which follow are not complete. In general, village incomes may be divided



into two sources, earned and unearned. The earned income might be construed as that resulting from the exertion of physical energy. Under this classification are wages for labor, proceeds from the sale of wildlife products such as furs, and the food and clothing obtained by hunting and fishing. Unearned income is self-defined. It is more in the nature of a gift, dole or subsidy. Its chief sources in the villages under consideration are the Federal and Territorial assistance programs. In the limited time that was devoted to this project it was impossible to document the earned incomes. To do so accurately would require a personal interview with each and every individual in the village. Even then it would be necessary to assign nebulous values to some parts of the income. Earned income is mentioned only under the section describing Noatak, where it had been computed by the Alaska Native Service teacher. The unearned income, however, is more easily documented because each village has its own welfare agent. This is true of all sources except payments for Army dependency and insurance and unemployment compensation. Figures for these last items were available from store receipts and are reasonably accurate.

The statement "during the past year", appears frequently in this report. In all instances it refers to the twelve months immediately preceding our visit to the particular village.

"Native Stores" are unique organizations. Many of the villages along the Arctic Coast and Bering Sea are small and far apart. It has not proven economically sound for private enterprise to establish and stock stores with groceries and other items for the relatively few people. In an effort to assist the natives "loans" totalling more than \$600,000 have been made out of the Bureau of Indian Affairs revolving fund to 32 Federally-chartered Eskimo villages on the Bering Sea and Arctic coast to supply working capital for their community stores. The Alaska Native Service credit branch supervises the loans and controls and to a considerable extent, the local store accounting, ordering, and management.

The individual cost of 8 food items in the quantities shown below was obtained wherever possible.

Flour	50 lbs	Lard	4 lbs
Sugar	lb	Rolled Oats	9 lbs
Tea	lb	Corn Meal	10 lbs
Coffee	lb	Milk	case

The quantity of these items will be omitted in future references to food costs as they appear throughout the report.

Once during the trip we were able to learn of the reaction to our visit and period of questioning. Louie Rotman

of Kotzebue provided us with a copy of the letter below which he had received just after our visit to Selawik:

Selawik, Alaska  
May 6, 1954

Louis Rotman  
Dear Friend--

I received two 22 rifle yesterday by Fish & Wildlife Service. Some people brings a words from Kiana and Noorvik lots of Indians going to come down to look for young men and young ladies to kill some. So some people afraid to go up the river, Paul Stanley brings down his stuff to village, Oh foolish I told them we have government a strong law, no killing anybody's too bad, Here is too small checks \$27.92 yes if clara up to her if she like to come as last spring. hope people will get lots of rats, But seems no water again. This game warden asking too many things even, they asking the price grube. & they dont talk much Nelson Walker. Well Not Much to write,

Your Friend

Harry S Cleveland



KOBUK

Two hundred miles northwest of Fairbanks on the north bank of the Kobuk River is a small settlement of Eskimos. Named from the river upon which it is situated, Kobuk boasts a year-around population of 53. The 9 families have 15 children of school age and 105 dogs. For the past few years the population has remained relatively static with no discernible upward or downward trend.

A newly constructed one story log building serves as the school, with the teacher and supplies being provided by the Territory. There is no established church at Kobuk to administer spiritual guidance, however, it is understood the Baptist's are planning a mission for this village. Local villagers have not formed a village council; there is no system of local government. None of the area immediately adjacent to Kobuk is in reservation status. The residents expressed an emphatically negative attitude toward any form of reservation in a plebiscite conducted during the spring of 1950.

The nearest supply center to Kobuk is the seaport village of Kotzebue. Supplies are annually brought from the west coast of the United States by Alaska Steamship to Kotzebue, where they are off-loaded and put on river boats and barges for the tortuous 300 upriver miles to Kobuk. Most of the annual supply of foods, clothing, hardware and miscellaneous items for the village of Kobuk are brought upriver from Kotzebue. The cost of the river freight is \$28.00 per ton. Should shortage develop during the winter months when river navigation is ice blocked, supplies are purchased from the larger stores in Kotzebue and flown in at a cost of \$ .15 per pound. Wien Alaska Airlines schedules twice-weekly mail flights to the village of Kobuk, with the flights originating at Kotzebue. Over the past two or three years the practice of shipping supplies by parcel post has noticeably increased. The airline serving this village operates, on a part time basis, a radio transmitter and receiving station. No commercial radio facilities are in operation at the present time.

Being an unorganized village, not under the influence of the Alaska Native Service, a "free trader" type of store serves the village of Kobuk. The facility is directed by May J Bernhardt, daughter of pioneer Kobuk trader Harry O Brown. The policy of unlimited credit is a function of the past. In keeping with other trading establishments throughout the remote areas of Alaska, a policy of limited credit is extended to those who have demonstrated their honesty and ability to pay. A compilation of the local costs of eight food items believed to be basic to the diet of the Eskimo people is given below:

Flour	\$ 7.50	Sugar	\$ .20	Rolled Oats	\$ 2.00
Tea	2.00	Coffee	1.25	Corn Meal	2.00
Lard	2.00	Milk	12.00		



Kobuk

Opportunities for local employment at Kobuk are negligible. It is possible that nearby mining activity will provide for the employment of 1 or 2 men for a period of three months. Estimated return to the village from this source would not exceed an average annual income of \$1500.00. The chances of employment away from Kobuk offer many more possibilities. It was stated that during the previous year 3 men flew to Fairbanks and Livengood where they were employed during a three month period. Two of the men returned to Kobuk with absolutely nothing to show for their summer's earnings, while the third returned with savings amounting to \$400.00.

The chief source of ready cash for local residents comes under the classification of "unearned income." This category includes monies received from old age pensions, unemployment compensation, ADC (Aid to Dependent Children), and ANS welfare cases. Receipts from these sources are tabulated below:

<u>No</u>	<u>Kind</u>	<u>Month</u>	<u>Year</u>
4	Old Age Pensions	\$ 180.00	\$ 2,160.00
?	Unemployment Compensation	-	2,500.00
3	ADC	115.00	1,380.00
1	ANS Welfare	30.00	360.00
	Total		\$ 6,400.00

Thus the annual per capita income from these sources is \$120.75 with the average per family being \$711.11.

A supplement to the earned and unearned incomes listed above is received from utilization of the wildlife resource. Game animals most generally accessible to people of Kobuk village are caribou, moose and rabbits. The take of caribou is of necessity varied from year to year, being totally dependent upon the nearness of migration routes. Although moose are reasonably plentiful a short distance upstream from Kobuk village, their killing has been prohibited. Doubtless some utilization of moose occurs in spite of restrictions but it is impossible to determine the degree. Rabbits, at the time of this survey, were considered to be scarce. Mink, otter, weasel and beaver complete the list of fur bearers trapped by local hunters. Although foxes are available, no recent effort has been made to trap them because of the very low prices offered for their pelts. No epizootic among the foxes or dogs was reported.

Fish in the Kobuk River are varied and plentiful. The upstream migration of spawning salmon reaches Kobuk about July 15 each year. The salmon are caught chiefly by seining.



Kobuk

It was reported that during the past season at least 15,000 salmon were caught, dried and preserved for human consumption and dog food. Sheefish, or inconnu, were likewise very plentiful and were handled as the salmon. During the winter months, the natives place traps beneath the river ice for "mud sharks" or ling cod.

The take of fur and game animals as listed below was determined from examination of fur dealer and store records and from questioning local residents.

Caribou - 25	Mink - 98
Otter - 4	
Weasel - 35	Beaver - 26

Although it is possible to grow to maturity certain types of vegetables in gardens it was found that only one family had planted a garden and was successfully growing lettuce and turnips.

SHUNGNAK

Along a sidehill bordering the north bank of the river, 12 miles downstream from Kobuk, lies the village of Shungnak with a total population of 142 Eskimos and 150 dogs. There are 42 families with 45 children under six years of age, 33 children of school age and the remainder of the people older than 18 years of age. According to local sources of information, the population is slowly but steadily increasing.

The Shungnak school facilities are staffed and operated by the Alaska Native Service. The building is of frame construction and contains more than one classroom. The Friends denomination, supervised by a Mr Beck of Kotzebue, maintains a church in this village. The religious services are conducted by a local native minister.

Local village government is very highly organized in Shungnak. There are two councils: one acts as the village governing authority; the efforts of the other are devoted primarily to the management of the cooperative store. According to Mr Graham, ANS teacher, these groups are self sufficient and very rarely is it necessary to call for the assistance of a deputy marshal. On the 27th of December each year an election is held at which time three new council members are elected. Residents of Shungnak are definitely opposed to the establishment of a reservation and so expressed themselves in the plebiscite of 1950.

Inbound freight from Seattle to Shungnak is carried aboard the Alaska Native Service boat, North Star. At

Shungnak

Kotzebue it is lightered to river boats and barges and taken upstream to Shungnak. Both river and air freight costs are identical to those previously indicated for the village of Kobuk. Wien Alaska Airlines bush planes land at Shungnak twice weekly carrying mail, passengers and freight. The ANS school is equipped with a functioning two-way radio telephone with a direct tie-in with the ANS Hospital and the Alaska Communications System at Kotzebue.

The Shungnak Native Store is a village cooperative managed by an elected council. According to the council, it operates upon a strictly cash basis. It is not, however, patronized exclusively by all residents, as the privately operated store at Kobuk does considerable business with its downriver neighbors. Costs of the eight basic food items at the Shungnak store are:

Flour	\$ 7.50	Lard	\$ 1.25
Sugar	.20	Rolled Oats	1.80
Tea	1.70	Corn Meal	2.00
Coffee	1.25	Milk	11.00

The possibilities of local employment and industry at Shungnak are very promising. An unlimited supply of the gem stone, jade, is found along nearby Shungnak River. Elaborate equipment for the cutting and polishing of the stones has been arranged in assembly line position in the school basement. Three complete machines, including the tools and templates for the manufacturing of jewelry have been provided. The jade project presently employs 3 adults and 5 to 6 school children. Considering the time involved in the manufactured products, employees engaged at this labor earn approximately \$1.45 per hour. During the past two years a community income of \$5000.00 has been derived from the manufacture and sale of jade products. Another means of revenue for the people of Shungnak has been the sewing of mukluks and parkas, and the construction of birch bark baskets. Sales of these products average about \$750.00 annually.

From 5 to 7 men fly to Fairbanks each spring where they are employed during the four month period of seasonal employment. During this time their earnings will range from \$1500 to \$2200.00. Of these amounts various percentages return to the village. One or two outstanding individuals will return with all their summer salary minus expenses; one or two will return with only an empty pocketbook and an appetite; while others may return with from \$300.00 to \$500.00. It appears to be almost impossible to arrive at a percentage of outside earned income returning to the village.

More easily identified are the sources of "Unearned Income." For Shungnak last year these were as listed:



Shungnak

<u>No</u>	<u>Source</u>	<u>Month</u>	<u>Year</u>
6	Old Age Pensions	\$ 270.00	\$ 3,240.00
?	Unemployment Compensation	-	1,308.00 *
10	ADC	500.00	6,000.00
?	Army Dependents	91.30	<u>1,095.00</u>
	Total		\$11,643.00

\* Unemployment compensation figures are totals for months of February and April. Data in this category for other months were not available.

The annual per capita income, unearned is \$82.00, while the average per family is \$277.23.

During the past year the caribou migration, fortunately or unfortunately--depending upon the outlook, did not swing close to Shungnak. The nearest crossing was at least thirty miles west of the village. Reports indicate the rabbit population is increasing. Fur bearing animals that are available to Shungnak trappers are muskrat, mink, otter, fox, weasel, beaver and lynx. During the summer months salmon, whitefish, and pike are caught with seines and gill nets. No figures were obtained relative to the take of the several species of fish. Council members stated however that when the fish runs failed to materialize it became necessary to kill caribou for summer food. It was also mentioned that, "Some families don't fish, then have hard luck." No gardening is attempted at Shungnak. It is possible, and was rather extensively practiced several years ago. The reason for the present lack of gardening is the movement of the people away from the village to their fish camps.

An examination of the fur records of the native store along with questioning of several council members and the ANS teacher indicated the following listed take of game and fur animals:

Caribou - 250	Mink - 30	Otter - 2
Weasel - 13	Red Fox - 7	Wolves - 10

In a discussion regarding the actual number of caribou required as food by the natives of Shungnak, council members stated that 2 caribou for each adult and 1 for each child would be sufficient provided fishing was normal. With a poor fishing season it would become necessary to kill more caribou. Village and store council members present at the time this information was obtained were Charlie Lee, James Commack, Gene Lee and Charlie Douglas. Also attending the discussion was ANS teacher, Mr Graham.

KIANA

The village of Kiana is situated on the north bank of the Kobuk River near its junction with the Squirrel River. Forty-four families compose a total population of 178 people. The dog population of Kiana is 400. The number would have been higher, but an epidemic of distemper had killed many of the dogs. One "crazy" acting fox had been killed near the village in April 1954.

The Alaska Native Service operates the school which has an attendance of between 30 and 40 children. The Friends Church is established here with services conducted by a native minister.

For several years the village has been without the guidance of an active native council and accordingly, there is no organized village government. Local natives have gone on record opposing any type of reservation that might be established for their exclusive use.

Kotzebue, 100 miles to the west, is the nearest supply center. All incoming freight originates there, with river transportation at the rate of \$10.00 per ton. During the winter months, when the only convenient method of handling freight is by plane, the cost is \$ .05 per pound. During the entire year, Wien Alaska Airlines schedules thrice-weekly mail flights to the village. Although the ANS school is equipped with radio, it was understood to be inoperative. When this system is in use, it provides a direct contact with the ANS hospital and Alaska Communications System at Kotzebue.

Store facilities at Kiana are operated by W R Blankenship under a limited credit policy. There is no native service cooperative store. Costs of the eight basic food prices at the Blankenship store are listed below:

Flour	- \$ 7.50	Lard	- \$ 2.00
Sugar	- .20	Rolled Oats	- 1.75
Tea	- 2.00	Corn Meal	- 1.50
Coffee	- 1.25	Milk	- 9.50

The Kobuk River salmon migration reaches Kiana about July 4 each year and continues until freezeup, with the heaviest take during the months of July and August. Local reports indicate they are dog salmon, however, this was not verified. In many localities the salmon are classified according to ultimate usage of the fish. Thus, any salmon caught and dried for dog food is called a dog salmon. Whether the fish is actually Oncorhynchus keta is of no concern to the villagers. Whitefish, sheefish, pike and ling cod are plentiful. During the period of open water, fish are taken by seine and gill nets. During winter months traps and set lines are placed



Kiana

under the ice for the whitefish and ling cod. Fishing was excellent during the past season. Dried fish was still available in the village, and Blankenship had not sold large quantities of cornmeal for dog food.

Game animals most common to this area in the order of their relative importance to the community are: caribou, rabbits, and an occasional moose. Ducks, geese and ptarmigan are very abundant. Blankenship has estimated the utilization of the wildlife resource at Kiana as follows:

Caribou - 800	Mink - 50
Wolves - 13	Muskrat - 6000

Local employment possibilities at Kiana are practically non-existent. The ANS school hires one native as a janitor. Blankenship employes another as a boat operator during the summer months. Little has been done to develop the arts and crafts. An innovation for the village has been the establishment of a fishing camp a few miles downstream. Sportsmen in quest of sheefish are flown to this camp by Wien Alaska Airlines. The Alaska National Guard payments to members of the village will total approximately \$320.00 a year. During the summer season 25 men head for Nome, Fairbanks or Kotzebue in search of employment. They return to the village four months later with varying amounts, generally not exceeding \$1500.00.

The unearned income for residents of Kiana is estimated in the following table:

<u>No</u>	<u>Source</u>	<u>Month</u>	<u>Year</u>
10	Old Age Pension	\$ 450.00	\$ 5400.00
?	Unemployment Compensation	-	8000.00
4	ADC	220.00	2640.00
1	Aid to the Blind	64.00	768.00
		Total \$16,808.00*	

\* Source of information stated figures given would be low.

The annual per capita unearned income is \$94.43, with the average per family \$382.00.

NOORVIK

"With their advancement in civilization the Eskimos living at Deering, on the bleak coast of the Arctic Ocean, craved a new home. Lack of timber compelled them to live in the semi-underground hovels of their ancestors, while the

Noorvik

killing off of game animals made it increasingly difficult to obtain food. An uninhabited tract on the bank of the Kobuk River, 15 miles square, abounding in game, fish and timber, was reserved by Executive Order for these Eskimos, and thither they migrated in the summer of 1915. On this tract, within the Arctic Circle, the colonists, under the leadership of the teachers, have built a village, which they have called Noorvik, with well laid-out streets, neat single-family houses, gardens, a mercantile company, a sawmill, an electric-light plant, and a radio station, which keeps them in touch with the outside world." 1

Noorvik is approximately 45 airmiles east of Kotzebue. By water transportation, the distance would be doubled. The town has a populace of 300 people and 500 dogs, and population is on the increase. There are 64 families with 69 children attending school. School facilities at Noorvik are provided by the Alaska Native Service. The Friends Church is firmly settled with a resident "white" missionary. Bible School is conducted continuously from November through March. An active village council supervises local affairs including the operation of the store. Annual elections replace two members with all councilmen having staggered terms of office.

Inbound freight is carried to Noorvik by riverboat, dog team and airplane. Supplies not available at the local native store are frequently procured from the larger, better stocked stores at Kotzebue. River freight is moved from Kotzebue to Noorvik at a cost of \$16.60 per ton while the air freight rate is \$ .05 per pound. Dog team rates were not available. Wien Alaska Airlines schedules three weekly mail flights to the village and accordingly offers the most convenient method of communication to the village. The school maintains a two-way radio with daily schedules to the ANS Hospital and the ACS at Kotzebue.

The Noorvik Native Store is a village cooperative. It demands cash for all articles sold. Examples of the costs of food items are tabulated below:

Flour	\$ 6.35	Lard	\$ 1.10
Sugar	.08	Rolled Oats	1.55
Tea	1.70	Corn Meal	1.55
Coffee	1.20	Milk	9.80

1 THE WORK OF THE BUREAU OF EDUCATION FOR THE NATIVES OF ALASKA, Washington, Government Printing Office, 1921



Noorvik

At odd times during the year, a local arts and crafts shop employs about 10 people. This concern engages in the manufacturing of jewelry. Another local cooperative enterprise is a sawmill. It was impossible to determine the income derived from either of these sources. The making of parkas, mukluks and slippers for commercial sale is of little importance to the economy of the village. For approximately 4 months each summer 10 or more men travel to Nome, Kotzebue or Fairbanks where they are hired for work in the seasonal construction or mining activities. Their returns to the village will vary from zero to over \$1,000.00. An Alaska National Guard unit has been organized at Noorvik. From participation in this program, 17 men are paid \$150.00 each, thus providing a total annual income from this source of \$2550.00. Forms of Federal and Territorial assistance greatly implement the local economy. These are tabulated below:

<u>No</u>	<u>Source</u>	<u>Month</u>	<u>Year</u>
16	Old Age Pensions	\$ 995.00	\$ 11,940.00
6	Unemployment Compensation	300.00	3,000.00
7	ADC	485.00	5,820.00
3	ANS Welfare	108.00	1,296.00
1	Army Dependent	117.00	1,404.00
		Total	\$ 23,460.00

The annual per capita income from these sources is \$78.20 while the family average is \$366.56.

The only big game animal available in numbers to the people of Noorvik is the wandering caribou. A migration of caribou appeared in the hills east of Noorvik during September 1953 and stragglers were still observed in the area in early May 1954. Rabbits are on the increase and ptarmigan are reported to be abundant. An occasional moose wanders down the Kobuk as far as Noorvik. If sighted, his travels are over. Two moose, a male and a female, were shot at Noorvik within recent months.

The chief fur producing animals of the area are mink and muskrat. Mink were numerous during the last open season but the catch was somewhat less than usual. An all Alaska National Guard encampment was held at Anchorage during the middle of the trapping season, thus removing most of the young, more energetic trappers from the tundra. Local residents have complained that winter grazing of reindeer in the area west of Noorvik has contributed to the decline of the muskrats. "The reindeer, he trample and paw pushup. Muskrat freeze." As near as could be determined from local sources of information the take of game and fur animals was as follows:

Caribou - 200

Mink - 308

Muskrat - 5,600



Noorvik

Whitefish, sheefish, ling cod, pike, grayling and salmon are periodically abundant in the rivers and lakes. Salmon fishing commences early in July and continues until about mid-August. The biggest percentage of fish are taken with nets.

Although it is possible to grow to maturity certain types of vegetables such as turnips, cabbage, lettuce and radishes, gardens are not planted.

SELAWIK

"East wind, warm up, muskrat come out. West wind start to blow, freeze-up, muskrat go inside. Warm up then not many come out."

The Eskimo village of Selawik, almost completely surrounded by water, is located 75 miles southwest of Kotzebue. The total population is 300 and, including pups, the dog population of Selawik is 600. It was reported that an epidemic of distemper had broken out and a few dogs had died. The 52 families have 70 children of school age. School facilities are provided by the Alaska Native Service. Spiritual instruction is dispensed by the Friends Church.

The bulk of the annual village supplies are brought from Kotzebue by river boat and barge at a cost of \$18.00 per ton. Air freight service is provided by Wien Alaska Airlines for \$ .05 per pound. Additionally, Wien schedules mail flights to the village at least twice-weekly.

Two "free-trader" type stores serve the village. One is owned and supervised by Louie Rotman of Kotzebue while the other was recently established by Nelson Walker. For the most part, both stores sell only upon a cash basis, with a very limited amount of credit extended. Food prices quoted here were obtained from the Rotman store:

Flour	- \$ 7.50	Rolled Oats	- \$ 1.75
Sugar	- .20	Corn Meal	- 1.75
Tea	- 2.00	Lard	- 1.75
Coffee	- 1.25	Milk	- 9.50

Local employment possibilities are nonexistent at Selawik and accordingly, at least 48 men and older boys leave the village for about 4 months during the summer. As in the case of the other villages, returns from seasonal employment vary widely with the maximum amount being \$1,500.00. Incomes for the village, as derived from the several Federal and Territorial assistance programs, are tabulated as follows:

Selawik

<u>No</u>	<u>Source</u>	<u>Month</u>	<u>Year</u>
18	Old Age Pensions	\$ 1,260.00	\$ 15,120.00
?	Unemployment Compensation	700.00	8,400.00
9	ADC	540.00	6,480.00
2	Aid to the Blind	60.00	<u>720.00</u>
	Total		\$ 30,720.00

The annual per capita income, unearned, is \$102.40 while the average per family is \$590.76.

None of the game animals are easy for Selawik residents to obtain. Caribou usually range no closer than 50 miles to the village. Rabbits are very scarce. Ptarmigan are plentiful during the winter months and ducks and geese are plentiful during the period of open water. Mink and muskrat are the two most valuable fur bearers sought by local trappers. Whitefish, sheefish and pike are available the year around and accordingly, fish play a predominant part in the local diet. Salmon are not available to the people of Selawik. "Maybe we get 1 or 2, 3 sometimes, maybe 4."

The village take of fur and game animals was determined to be as follows:

Caribou - 150            Mink - 406            Muskrat - 13,000

One "crazy acting" fox was killed in the village during April 1954.

In an attempt to determine the number of caribou needed for all purposes by the Eskimo people, William Sheldon stated that for his family and dogs he would require a total of 10 caribou a month. In figuring food requirements for his dogs, he stated that a team averaging 9 dogs would require 3 caribou a month, provided all parts including the "guts" were used.

An active council supervises local village affairs. Terms of office are staggered with 4 new members being elected each January.

KOTZEBUE

Kotzebue is the metropolis of the Arctic coast. Situated on the northwest tip of Baldwin Peninsula the town is surrounded by water on three sides. The total population is 820 and this represents an increase of approximately 65% during the past five years. This rapid growth has been due to an

Kotzebue

influx of native families from neighboring villages; a trend likely to continue. The number of dogs in the village exceeds the humans and is estimated to total 1,000. School and hospital facilities are under the supervision of the Alaska Native Service. One segment of the white population advocates the transfer of the schools to the Territory. The two most active religious groups in the community are the Catholic Church and the Friends Church. A recent arrival to this field of endeavor is the Assembly of God. There is no active native council at Kotzebue.

Wien Alaska Airlines flights originating at Fairbanks land at Kotzebue every Monday, Tuesday, Friday and Saturday. Air cargo is carried from Fairbanks at a cost of \$ .09 per pound. An Alaska Airlines flight departs Anchorage every Monday for the village. All these scheduled flights carry mail and are flown with two-engine equipment. Wien Alaska also operates a bush service from Kotzebue to carry the mail, passengers and freight to the smaller villages and to the various mining operations in the district. The Alaska Communications System provides radio and telegraph service to the remainder of Alaska and to the States. Most of the freight destined for Kotzebue and neighboring villages is carried from Seattle by the Alaska Steamship Company to within 12 miles of the town. Shallow water in the bay necessitates lighterage from the ship's anchorage to the beach.

There are two principal stores in the town. One is owned and operated by N G Hansen and the other by Louie Rotman. The stores are well stocked with a year's supply of food, clothing and hardware items. Both merchants report a sales expansion. Rotman claimed that during the past year he had transacted over \$500,000.00 worth of business. The following are prices of food at the Rotman store::

Flour	- \$ 6.25	Lard	- \$ 1.25
Sugar	- .18	Rolled Oats	- 1.50
Coffee	- 1.25	Corn Meal	- 1.50
Tea	- 1.50	Milk	- 8.75

Opportunities for local employment in Kotzebue are more numerous than in any of the villages visited. The city serves as a distribution center to all the villages along the Kobuk River as well as those farther north along the Arctic coast. Alaska Steamship boats terminate their northward journeys here and the freight must be moved to its final destinations by small boats. Many of the natives find seasonal employment in the transportation field. Others are employed, both seasonally and on a full time basis, by the CAA, hospital, airlines and the stores. Rotman stated that about 50 of the local native people worked 6 months of the year at an average rate of \$2.00 per hour. Another 30 were



Kotzebue

employed the year around at a salary averaging \$250.00 per month. Assuming a 48 hour week on the seasonal employees, as all work in Kotzebue ceases on Sundays, these 80 individuals will earn collectively better than \$200,000 during a year.

Another important source of local income for which an estimate was not available is that of local service. Whenever a group of natives congregate in larger settlements and one segment of the population is employed, the necessity of local service develops automatically. He who is so fortunate to be employed at a salaried position no longer has either the time nor the inclination to provide for the water and fuel supply, or to hunt and fish for his favored foods. He hires another to cut and haul ice for water and to bring in a supply of fuel. He buys his fish, seal, caribou and furs from other natives. The local service business is highly developed at Kotzebue.

The development of the tourist trade has made its impact upon the economy of Kotzebue. During the past summer as many as 20 tourists a day were flown to the village for an overnight visit. Several natives are hired as guides while another group entertains nightly with the Eskimo dances. Boats are rented for jaunts to Shesualek and the sale of curios and handicrafts has increased.

The income received from the various assistance programs is tabulated below:

<u>No</u>	<u>Source</u>	<u>Month</u>	<u>Year</u>
26	Old Age Pensions	\$ 1,451.00	\$ 17,412.00
20	ADC	1,708.00	20,496.00
?	Unemployment Compensation	-	<u>80,000.00*</u>
		Total	\$117,908.00

\* Estimated by Rotman

Thus the per capita average from this source alone is \$143.79.

The only game animal of importance to the people of Kotzebue is the caribou. Last year they were easily obtained on the hills just across the bay. An estimated 1,000 animals were killed by local hunters. Mink, muskrat, and white fox are the principal fur bearers taken by the trappers. According to local reports, foxes are on the increase. Several were killed on the beach fronting the main street. Seals and beluga whales are abundant in Kotzebue Sound. Over a hundred tons of shee fish are taken from Hotham Inlet and

### Kotzebue

Selawik Lake each winter. At the present time most of the catch is sold within the Territory, however, local leaders envision an eventual large scale commercialization of this product.

Excepting the larger industrial centers, Kotzebue is the fastest growing community in northern Alaska. With its moving picture theatre, ice cream machines, and all of its activity, Kotzebue is fascinating to the people of the smaller outlying villages.

### NOATAK

Fifty miles north of Kotzebue on the north bank of the Noatak River is a settlement of 290 Eskimos and 400 dogs,-- the village of Noatak. There are 45 families with 65 children of school age and 50 children of preschool age in the village. The population appears to be slowly declining as families are prone to migrate to the big city of Kotzebue.

Educational facilities are provided and operated by the Alaska Native Service. The school is a two story frame structure with more than one class room. The Friends Church is well established at Noatak with a resident native minister to conduct services. Church activities are under the general supervision of a Mr Beck, who resides at Kotzebue.

Although a village council has been formed to regulate temporal affairs its authority has not been recognized by local citizens. A majority of the people voted for the establishment of a reservation but "nothing has happened."

Kotzebue is the nearest supply center to the village of Noatak with all in-coming freight routed through there. River boats and barges carry the biggest percentage of the Noatak freight at a cost of \$20.00 per ton. Wien Alaska Airlines planes land three times each week with mail. The smaller shipments of freight, including perishable items, are carried on these mail flights at a cost of \$ .05 per pound.

The school is equipped with a radio transmitter and receiver providing a direct tie-in with the Alaska Communications System facility at Kotzebue. Radio schedules are also maintained with the Kotzebue ANS Hospital and with the other schools.

The only source of supply in the village is the Noatak Native Store. The activities of the store are supervised by the village council. As is generally the case, the store

Noatak

does not enjoy complete patronage from local residents. Many of the people trade with the larger, better stocked concerns in Kotzebue. It is not unusual to see Noatak dog teams with sleds loaded down with supplies purchased in Kotzebue homeward bound during the winter months. The costs of basic food items at the Noatak Native Store are tabulated below:

Flour	- \$ 6.80	Lard	- \$ 1.40
Sugar	- .19	Rolled Oats	1.80
Tea	- 1.50	Corn Meal	- 1.60
Coffee	- 1.00	Milk	- 10.36

Local employment possibilities, while at present few, have promise of future development. Especially is this true in the manufacturing of parkas, mukluks and other articles such as gun cases. Of minor importance to the economy of the village, is the building of sleds, stoves and boats by several individuals for the other members of the community. There is a ready market for stove wood, and were several men to engage in this activity on a full time basis, it might well prove to be a lucrative venture. Also ripe for further commercialization is the sale of seal skins and oil to natives of neighboring villages. Payments for National Guard attendance will total \$600.00 a year. Between 10 and 14 men are flown to the canneries each summer where their average net earning is \$300.00. Of this amount 30% returns to the village. Another group of men, approximately 8 in number, travel to Fairbanks for summer employment. Here the average net earning is reported to be higher--\$800.00 with a 50% return to the village.

Monies received at Noatak village in payments under the several Federal and Territorial assistance programs are estimated below:

<u>No</u>	<u>Source</u>	<u>Month</u>	<u>Year</u>
14	Old Age Pensions	\$ 750.00	\$ 9,000.00
?	Unemployment Compensation	-	11,000.00
6	ADC	360.00	4,320.00
1	ANS Welfare	20.00	240.00
1	Aid to the Blind	35.00	420.00
1	Army Dependent	45.00	<u>540.00</u>
	Total	\$	\$ 25,520.00

The annual per capita return to the village from these sources is \$88.00 with the average per family being \$567.11.

Twice each year the Friends Church presents gifts of clothing to children and needy people in the village. Supervisor Beck appoints one individual to make the distribution.

Noatak

At the present time, neither food nor clothing grants have been made by the Alaska Native Service, although it was stated these grants would be possible in the event of an emergency. The school serves a hot lunch to all students during the period of October through April.

During the past year, caribou were continuously available to the people of Noatak during the period August 1953 to March 1954. Rabbits appear to be on the increase. Fur animals trapped by the people of Noatak are muskrats, mink, white fox, red fox, ermine and a few marten. Wolves are taken incidental to the hunting of caribou. Fish are abundant in the Noatak River. During the early spring months dolly varden trout are taken with set lines and gill nets beneath the ice. After the ice has moved downstream, fishing continues for trout, whitefish and grayling. Although not plentiful in the river, pike are abundant in nearby lakes. The salmon appear in August with about 500 put up for dog food and local consumption. They have been identified by local residents as dog salmon and a few reds.

Although it is possible to raise vegetables such as turnips, radishes, and lettuce, little gardening is done in the village. For all practical purposes the town is completely deserted during most of the summer months.

With the advent of spring comes the preparation for the annual trek south to the coast and sealing grounds. Even before the snow leaves the ground many families travel by dog team to their summer camp at Shesualek. After breakup the remaining families load their camp equipment and themselves into boats for the trip down the river and across the bay from Kotzebue. It is not unusual to find but one or two families remaining at Noatak during the summer months. By mid-June, most all the hunters have gathered at Shesualek and the pursuit of seals and beluga whales is well under way. Meat of these sea mammals is preserved in two ways. Some is cooked and stored in barrels with its natural oil while the remainder is sun dried by hanging from racks. Seal oil surplus to the needs of the Noatakers is stored in pokes, and sold to other natives in neighboring villages. Sealing and whaling activities are wound up by early August and the preserved meats and oil are hauled back by boat across the bay and up river for future consumption at Noatak.

For the period of this report, questioning of local residents indicated the following take of fur and game animals\*

White fox - 19	Ermine - 30	Otter - 2
Red fox 6	Mink 20	Wolves 5

Caribou - 750



Noatak

- \* Items of fur caught by Noatak residents and sold elsewhere would not be indicated here as these figures were taken from store records of furs purchased.

In a discussion to determine local caribou requirements for food and skins, the president of the Native Council stated that his family, consisting of 2 adults and 6 children needed a minimum of 3 caribou a month, but that 5 would be better. He went on to say that one caribou will last an 8 dog team--utilizing guts and all--for two days. He further added that it is a common practice when hunting caribou any distance from a village to feed dogs exclusively on caribou and that this meat was equal to fish for dog food.

A government official residing in the village stated, "For the period of a year the people of Noatak received an unearned income of \$26,000.00 and an earned income of \$24,000 for a total of \$50,000." Using his figures, the annual per capita average income, all sources, would be \$172.37 while the family average would be \$1,111.11.

KIVALINA

It requires two days travel by dog team in a north-westerly direction from Kotzebue, or thirteen hours by boat, to reach the Eskimo village of Kivalina. With an airplane, the 85 miles separating the villages can be covered in three quarters of an hour.

Kivalina sits on a narrow spit facing the ocean and is surrounded by water on three sides. Twenty-four families with a total of 132 people and 150 dogs live in the village. There are 29 children of school age and 15 in the pre-school level; the remainder are over the age of 18 years. School facilities are operated by the Alaska Native Service. Both the Friends and Episcopal denominations are active in the community with local lay readers conducting services.

A village council administers local affairs. Members hold staggered terms of office with two or three new officers being elected each January. The council conducts trials and assesses fines and other punishments for minor infractions of its regulations. The more serious violations are referred to the U S Marshal's office at Kotzebue. Several years ago the residents petitioned for the establishment of a native reservation. They are still awaiting action on that request.

Mail is carried to Kivalina three times weekly by Wien Alaska Airlines. The school operates a radio transmitter and receiver and maintains daily schedules with the ACS and the hospital at Kotzebue. The bulk of the village supplies

Kivalina

are brought from Seattle to Kivalina by the ANS boat, "North Star." It was not possible to obtain the rate charged for freight. Supplemental items are brought in from Kotzebue, most frequently on the mail flights, at a cost of \$ .10 per pound.

The Kivalina native store, managed by the native council, is reasonably well stocked with food supplies. It operates on a cash basis and is reported to be well patronized by local residents. Clothing, footgear and entertainment needs are purchased at Kotzebue. Costs of food items at the Kivalina store are as follows:

Flour	-	\$ 6.80	Lard	-	\$ 1.20
Sugar	-	.20	Rolled Oats	-	1.65
Tea	-	1.60	Corn Meal	-	1.65
Coffee	-	1.25	Milk	-	10.60

The only possibility of local salaried employment at Kivalina is that provided in the repair and maintenance of the school facilities. This will furnish part time work for three individuals.

An obviously hostile attitude was apparent at Kivalina. We were met at the school house door by a parka clad individual who introduced himself as follows: "My name is Bingham. I'm with the Alaska Native Service. Will you please state your names and businesses?"

In the ensuing conversations with members of the council it appeared the natives were most reluctant to talk, and Bingham dominated the entire discussion. Foreseeing the impossibility of obtaining any information on incomes from the council members and officials in the schoolhouse, the matter was temporarily dropped. It was planned to visit the store where the data could be obtained. When we arrived there, the building was locked. Although we asked several natives when the store would open, no one had the slightest idea-----, certainly not while we were in town. Thus, figures cannot be given to indicate the amounts of earned and unearned income in Kivalina; only the general information was available. Seasonal jobs are sought by 10 or 12 men during the summer months, and these men are absent from one to four months.

Game animals hunted by the people of Kivalina are caribou and a few rabbits some distance north of the village. Two moose appeared in the village last fall. It was late in the evening. They were spotted by a couple of teen-age boys who rushed to their cabin, grabbed rifles and shot the two "strange caribou."

Kivalina

White and red foxes, mink, muskrat and a few polar bear are taken during the winter months. Many seals are taken from Kotzebue Sound during the year. Although beluga whales are also abundant, only a few are taken each year. The excuse offered is lack of equipment.

In the Kivalina River, nearby, dolly varden trout, whitefish and different species of salmon are caught in season. The latter are reported to be kings and humpies. All fish are caught by use of a gill net, one end of which is weighted with the free end being pulled around to close the net.

Gardening is not possible at Kivalina.

Villagers reported that seal hunting and fishing were excellent during the past year. Caribou were north of the village for about six months with an estimated 500 being killed.

Many of the younger dogs died during the past year but there were no reports of any type of sickness among the foxes.

In a discussion of local food requirements council member Clinton Swan stated that his family of 9 needed 10 caribou a month for food. This estimate disregards any provision for the dogs.

POINT LAY

Point Lay is an Eskimo village 200 miles north of Kotzebue. There are 12 families with a total of 66 people and 100 dogs. The village population is slowly declining as the people move to better hunting and fishing grounds. The Alaska Native Service provides for the educational needs in a large two-story building. Religious services are conducted in the native tongue by a local Eskimo. An active village council supervises local affairs and the native store.

Point Lay is the southern terminus of a weekly mail flight from Barrow. By use of radio facilities at the school, daily schedules are maintained with the ACS and other schools. Weather broadcasts are relayed several times daily to Wainwright and Kotzebue. The boat "North Star" calls at the village in mid-summer to bring the yearly supplies for the school and native store. Other items shipped from Fairbanks via air are routed through Barrow at a cost of 30¢ per pound.

There are no opportunities for local employment in the village excepting the position of postmaster and weather observer. One individual holds both these jobs.



Point Lay

No one leaves the village for seasonal employment elsewhere. About three families are drawing aid to dependent children, and three individuals are drawing old age pensions. The amounts received under these programs were not obtained.

The mainstay of the Point Lay diet is meat, and not that from the animals of the sea as would be expected, but from caribou. Evidence of a large caribou kill was noticeable everywhere in the village. Some skins were hanging drying, while parts of others and bones littered the ground. From discussions with the people in the village, it was estimated that at least 500 caribou had been killed. Meat, excess to the immediate need, is stored underground. Permafrost serves as a natural refrigeration unit.

The white fox is the only fur animal trapped by the natives of Point Lay. The adjacent sea abounds with hair seals, bearded seals, walrus and beluga whales. Yet very little effort is directed to these sources of food. In the summer months schools of beluga whales swim past the village and are never touched.

"Caribou be here pretty soon."

WAINWRIGHT

An old Eskimo, known as Nimrod, stood on a high bank near Wainwright with his arm outstretched toward the ice covered sea. "Lots of polar bear out there," he said.

Wainwright is located about 90 miles southwest of Point Barrow. Its population is on the increase which may be accounted for by a movement of people from Barrow, where hunting has become more difficult. There are 41 families in the village with a total of 225 people and 350 dogs. The Alaska Native Service provides the educational facilities. School attendance was so high during the year that classes were held on a shift basis--morning and afternoon. Religious services of the Presbyterian persuasion are conducted regularly by a local native minister.

Mail is flown to Wainwright twice weekly by a Wien Airlines bush plane from Barrow. A transmitter and receiver in the school maintains radio communication with the other schools, and with the hospital and ACS at Barrow. Annual supplies are brought in during mid-summer aboard the ANS freighter "North Star." Should shortages develop later in the year, supplies must be flown in from Fairbanks via Barrow.

The two stores at Wainwright are independently owned and managed with both operating on a cash basis. Food prices furnished by the Wainwright Reindeer and Trading Company are

Wainwright

as listed below:

Flour - \$	6.50	Lard	- \$	1.20
Sugar -	.18	Rolled Oats -		1.50
Tea -	1.50	Corn Meal -		1.50
Coffee	1.30	Milk	-	9.60

There are no opportunities for local employment, nor do any of the people leave the village in search of seasonal jobs. Supplementing the income derived from trapping is that received from the various assistance programs. Local records revealed the following for the past year:

<u>No</u>	<u>Source</u>	<u>Month</u>	<u>Year</u>
8	Old Age Pensions	-	\$ 4,000.00
4	ADC	-	4,800.00
2	General Welfare	-	1,000.00
?	Army Dependents	-	1,200.00
3	Veterans Insurance **	-	<u>4,000.00</u>
		Total	\$15,000.00

\*\* 3 National Guard Members killed in air crash at Barrow. Families have received insurance payments.

The per capita average income from these sources is \$66.66 while the family average is \$365.85.

The wandering caribou is the only game animal hunted diligently by the Eskimos of Wainwright. On the first of October last year, caribou appeared right in the village. The migration lasted for one week. Hunters were not required to leave town to lay in a good supply. At least 1,000 animals were killed.

Fur animals taken are white foxes and wolves. The foxes appear to be on the increase, but no significant change in the numbers of wolves was reported. Trappers reported taking 300 white foxes, 2 wolverines, and 2 wolves.

As at Kivalina and Point Lay, the animals of the sea are not extensively utilized. Hair and bearded seals, walrus, beluga whales and the big whales are available. Although the people do not actively pursue seals, they readily admit their potential value as food.

Grayling, ling cod, whitefish, smelt and a few salmon are caught at Wainwright. The smelt run is quite large and these fish are caught beneath the ice starting in January,



Wainwright

and continuing until May. Limited catches of king, humpback, and dog salmon are reported from the Wainwright area and also from the mouth of the Utukok River. Dolly varden trout may be caught in the Utukok and mackinaws in the inland lakes.

By May 10, 1954, whaling crews had struck 2 whales but the harpoons did not hold. It was reported they had been unsuccessful in their whaling efforts for the past two or three years.

POINT BARROW

Barrow is the farthest north settlement in Alaska. There are approximately 175 families with a population of about 1200 living in the village. The dog population is estimated at 1000.

The hospital and school are operated by the Alaska Native Service. At least three religious groups are represented and they are the Catholic, Presbyterian and Pentacostal denominations. The Native Council at Barrow is very active in the affairs of the community. In addition to the store, it supervises a restaurant, hotel and motion picture theatre. Residents of this village have always expressed opposition to any proposal for the establishment of a native reservation.

Only one ocean freighter calls at Barrow in mid-summer and that is the "North Star." The bulk of the village supplies arrive on that one trip. Wien Alaska Airlines flies to Barrow three times weekly carrying mail, passengers and freight. The round trip passenger fare is \$139.00, while freight in lots under 100 lbs is carried at a cost of 20¢ per lb. In heavier lots the charge is 15¢ per lb. Radio communication to and from the village is provided by the Wien network and by the Alaska Communications System.

The stores in Barrow are of two types, native cooperative and private enterprise. Costs of food items at the store operated by Tom Brower are shown below:

Flour	-	\$ 7.20	Lard	-	\$ 1.80
Sugar	-	.20	Rolled Oats	-	1.00
Tea	-	1.80	Corn Meal	-	1.00
Coffee	-	1.15	Milk	-	10.00

When supplies must be shipped in from Fairbanks by air, costs rise appreciably.

For a period of ten years, 1943 - 1953, the activities of the U S Navy and the Arctic Contractors in the oil exploration program provided continuous employment for about 100 men.



Point Barrow

However, this is no longer available and except for the few jobs offered by the coal mine at Meade River and the various ANS and native cooperative enterprises local employment possibilities are few. Most of the more skilled workers leave the village during the summer season for jobs in the construction industry at Anchorage and Fairbanks.

Time did not permit the individual compilation of monies received from the various Federal and Territorial assistance programs. Tom Brower, who was born at Barrow, and who operates two stores in the village, has estimated the total from all sources to have been \$250,000.00 for the past year. This amount would provide a per capita unearned income of \$208.33 and a family average of \$1428.57. According to Brower, the biggest percentage of unearned income is in the category of unemployment compensation--a direct result of the cessation of the oil exploration program. It is likewise significant that the "take" from this single source will rapidly diminish as fewer people will continue to be eligible as recipients.

The animals of the sea, today as in the past, are very important to the economy of the Barrow Eskimos. Those utilized are the big bowhead whale, the beluga whale, hair and bearded seals, walrus and polar bears. A good whaling season brings prosperity to the village from the viewpoint of an abundant food supply. During the spring of 1954, at least 13 whaling camps could be found along the open lead west and north of Barrow. Very few of the huge animals were taken, however. The only fur bearing animals in the area are the foxes. They are found in assorted colors, red, white, blue, silver and cross. Both the large and small whitefish, grayling, lake trout and dolly varden trout are found in the lakes. Salmon enter all the streams emptying into coastal waters. They are few in number and make their appearance in early August. Ranking in importance to the sea animals are the caribou. They are generally available during the entire year at varying distances from the village. Last year the take at Barrow and Meade River was "at least 2,000" stated Brower.

ANAKTUVUK PASS

In the Brooks Range, just about midway between Point Barrow and Fairbanks, a mountain pass provides an easy route of travel from the barren Arctic Slope to the spruce timbered ridges of the Interior. At various times of the year caribou stream through the pass on their endless travels.

Taking advantage of the natural ease of hunting, a group of 75 Eskimos have settled here. The village is known as Anaktuvuk Pass. There are 13 families with a total of 30

Anaktuvuk Pass

children of school age or younger. The settlement supports a total of 124 dogs. Local school facilities are non-existent. However, several years ago during the summer months the Alaska Native Service flew a teacher to the village for short sessions of learning. Infrequently, the Presbyterian minister from Barrow stops at the village and conducts services. At other times, meetings are directed by one of the local residents. A village council was organized several years ago, however this system has been dropped and there is no form of village government in operation at the present time.

A postoffice, supervised by Homer Mekiana, has been established in the village. Mail arrives once weekly by a Wien flight originating in Bettles. All the food and other supplies, excepting those obtained locally, are flown in from Fairbanks. The cost per pound is 20¢. Generally, all freight is carried during mail schedules but occasionally a plane is chartered from Fairbanks. There is no radio communication to the village as receivers are only to be found in the tents of local residents.

The one and only white man in the village, Pat O'Connel, runs a trading post. It is a private enterprise and only a very minimum supply of basic items is stocked. Once or twice a year a group of Eskimos will dog-sled to Bettles, or perhaps Kobuk, and exchange their catch of wolf pelts for food, clothing and hardware items not available in the O'Connel store. Examples of food costs at the post in Anaktuvuk Pass are as follows:

Flour	-	\$ 14.00	Lard	-	\$ -
Sugar	-	.35	Rolled Oats	-	2.50
Tea	-	2.00	Corn Meal	-	2.50
Coffee	-	1.50	Milk	-	19.00

For the past five years or more Anaktuvuk Pass has been the mecca of the research scientist. The people of this village were thought to be untouched by modern civilization and thus unique and different from other Eskimos. Once they were "found" there began a period of intense study. Almost every aspect of their lives suddenly became the object of research. About the only benefits that have directly resulted to the people so far have been the salaries paid for assistance and the supplies of food, clothing and other material left by the various study groups. Either studies have been completed or interest in the people of the Pass has languished during the past year to the degree that only a few individuals are doing part time work on research projects. It was impossible to obtain any estimate of the money disbursed to villagers under these projects during the past year except Mekiana's cryptic comment, "Not much." This is the only opportunity for local employment available to the people. They do not leave the village for seasonal jobs in the larger cities.

Anaktuvuk Pass

Even in this remote village the monies received from the various Federal and Territorial assistance programs play a predominant part in the economy.

<u>No</u>	<u>Source</u>	<u>Month</u>	<u>Year</u>
3	Old Age Pensions	\$ 184.00	\$ 2208.00
3	Aid Dependent Children	180.00	<u>2160.00</u>
	Total		\$ 4368.00

The per capita average income from these sources is \$58.24 while the family average is \$336.00.

Caribou, sheep, an occasional moose and grizzly bear are the game animals available for hunting. The principal fur bearers taken are foxes and ermine. Grayling are caught in the mountain streams during the summer months. No effort is made to dry the fish for use during the winter. They are caught on a day-to-day basis as desired when available.

The only group of natives in Alaska almost totally dependent upon a single game animal are the Eskimos of Anaktuvuk Pass. Caribou are essential to their existence. Their food is almost entirely meat, and that meat is caribou. Their winter clothing is made from caribou hides. Their tents, stretched over a willow or alder framework, are made from caribou skins sewn together. If the caribou fail to appear in Anaktuvuk Pass, it becomes necessary for the Eskimos to leave the village and travel until the animals are found.

At the north end of the Pass the Eskimos have erected a caribou lead. Starting on the mountain side to the east it runs across the valley for a distance of about three miles. Pieces of sod several feet in length chopped from the ground, or piles of rocks, were erected at intervals in a straight line. Bits of cloth fastened to the tops of the sod or rock piles wave in the breeze. Caribou, approaching from the east, a natural migration route, will follow along the "fence" to its end, then turn south. Here groups of natives lie in ambush and the animals are shot.

With the caribou are the wolves. Bounty money, paid by the Territory, is the chief source of income directly related to the wildlife resource. This was estimated to have been \$3,330.00 from wolves and wolverine during the past year--\$256.15 per family or \$44.40 per individual.

The take of fur and game animals as estimated by Homer Mekiana during the past year is shown below:

Fox 150 Ermine 30 Wolverine 12 Wolves 63  
Caribou 2000



Anaktuvuk Pass

In a discussion relative to the requirements of the people, Mekiana stated that when eating nothing but meat his family, totaling 9 of various ages, needed 1 caribou each day. Mekiana's statement makes no provision for the dogs. O'Connell has stated that the village dogs are fed almost exclusively on caribou and that a team of 7 dogs will consume one caribou a week when "guts and all" are utilized.

SUMMARY

In each of the twelve villages previously described the population is increasing. This trend will likely continue and is attributable, in part at least, to the advancement of the educational, health and welfare programs. The table following shows the populations, numbers of families and numbers of dogs in each village.

Populations

<u>Village</u>	<u>Population</u>	<u>Families</u>	<u>Dogs</u>	<u>Dogs</u>	
				<u>Per Capita</u>	<u>Per Family</u>
Kobuk	53	9	105	1.98	11.6
Shungnak	142	42	150	1.05	3.5
Kiana	178	44	400	2.24	9.0
Noorvik	300	64	500	1.66	7.8
Selawik	300	52	600	2.00	11.5
Noatak	290	45	400	1.37	8.8
Kotzebue	820		1000	1.02	
Kivalina	132	24	150	1.13	6.2
Point Lay	66	12	100	1.51	8.3
Wainwright	225	41	350	1.55	8.5
Point Barrow	1200	175	1000	0.83	5.8
Anaktuvuk	<u>75</u>	<u>13</u>	<u>124</u>	<u>1.66</u>	<u>9.6</u>
Totals	3781	521*	4879	1.29	7.4*

\* Does not include Kotzebue.

It is interesting to note that in every village, excepting Barrow, the number of dogs exceeds the number of humans. During the decade of the oil exploration at Barrow, the dogs were not nearly so necessary to the village economy. The pursuit of white foxes and food animals gave way to the wage earners and store foods. Now being faced with the necessity of returning partially to the old way of life, dogs are regaining their former position in the Barrow economy and in a short time their numbers will exceed the humans as in other villages. A high percentage of the wildlife utilized by the natives of northern Alaska is consumed as dog food. It is very likely that the identical economic level of a family or village could be maintained with fewer of the beasts. However, in native life, dog ownership is a matter of prestige. The more dogs a man owns, the higher is his standing in the community.

In the table on the following page, unit food costs in the several Eskimo villages are arranged for comparison. An additional column has been provided to show the retail costs of the same items at the Northern Commercial Company in Fairbanks.

BASIC FOOD COSTS

	KOBUK	SHUNGNAK	KIANA	NOORVIK	SELAWIK	NOATAK	KOTZEBUE	WAINWRIGHT	PT BARROW	ANAKTUVUK*	FAIRBANKS NC Co
Flour	7.50	7.50	7.50	6.35	7.50	6.80	6.25	6.50	7.20	14.00	7.50
Sugar	.20	.21	.20	.16	.20	.19	.18	.18	.20	.35	.175
Tea	2.00	1.70	2.00	1.65	2.00	1.50	1.50	1.50	1.80	2.00	1.85
Coffee	1.25	1.25	1.25	1.20	1.25	1.00	1.25	1.30	1.15	1.50	1.43
Lard	2.00	1.25	2.00	1.10	1.75	1.40	1.25	1.20	1.80		1.85
Rolled Oats	2.00	1.80	1.75	1.65	1.75	1.80	1.50	1.50	1.00	2.50	1.75
Corn Meal	2.00	1.70	1.50	1.55	1.75	1.60	1.50	1.50	1.00	2.50	1.75
Milk	12.00	11.00	9.50	9.00	9.50	10.36	8.75	9.60	10.00	19.00	8.95
TOTALS	28.95	26.41	25.70	22.66	25.70	24.65	22.18	23.28	24.15	41.85*	26.83

\* Does not include lard.



In only two of the native villages is the unit cost of food higher than in Fairbanks. By comparing the cost at Kobuk with that of Shungnak and Kiana with Noorvik, it appears that the food prices of the native cooperative stores are less than those charged by the independent traders. The extremely high cost at Anaktuvuk is directly related to transportation. The freight charge alone on a case of milk flown from Fairbanks to Anaktuvuk would be \$10.00.

Village economies are founded upon the wildlife resource. Essential to a stable income is an abundant and varied supply of fish, food and fur animals. The greatest single source of cash is probably that derived from trapping. When fur prices lower or the supply of fur bearers is insufficient to provide for the necessities and wants of the people, it becomes necessary for them to leave their villages periodically in search of employment. Supplementing the revenues obtained from trapping are those received from the various assistance and welfare programs. The table below portrays the "unearned" incomes of nine Arctic villages for the past year.

<u>Village</u>	<u>Pop.</u>	<u>Families</u>	<u>Unearned Income</u>	<u>Per Capita</u>	<u>Family</u>
Kobuk	53	9	\$ 6,400.	\$ 120.75	\$ 711.11
Shungnak	142	42	11,643.	81.99	277.21
Kiana	178	44	16,808.	94.43	382.00
Noorvik	300	64	23,460.	78.20	366.56
Selawik	300	52	30,720.	102.40	590.76
Noatak	290	45	25,520.	88.00	567.11
Wainwright	225	41	15,000.	66.67	365.85
Pt Barrow	1200	175	250,000.	208.33	1428.57
Anaktuvuk	<u>75</u>	<u>13</u>	<u>4,368.</u>	<u>58.24</u>	<u>336.00</u>
Total	2763	485	\$ 383,919.	138.95*	791.58*

\* Average

The figure for the total village income was obtained at Noatak. Here, 51 percent of the total was of the unearned classification. There appears to be a distinct relationship between this percentage of unearned income and the variance of the wildlife resource. In a recently concluded economic survey of an Alaskan Indian village with a more abundant and varied wildlife resource than any of the Eskimo villages

described in this report, it was found that the percentage of unearned to total income was 23 percent. These percentages are similar to those in the Canadian Arctic where it was found that during the period 1945-1951 53 percent of the Eskimo income in the eastern portion came from government sources while in the western section the figure was 25 percent. The western section has a more varied supply of fur animals. 2

The government payments for the relief of the children, the aged, sick and blind, and the amounts disbursed in payments for unemployment compensation have made the Eskimos aware that they need no longer rely entirely upon hunting and trapping as a means of livelihood.

The following table has been prepared to show the estimated take of caribou by the twelve villages visited during the spring of 1954. All figures are for the year immediately preceding the date of the visit.

Estimated Caribou Take

<u>Village</u>	<u>Number of Caribou</u>
Kobuk	25
Shungnak	250
Kiana	800
Noorvik	200
Selawik	150
Noatak	750
Kotzebue	1000
Kivalina	500
Point Lay	500
Wainwright	1000
Point Barrow	2000
Anaktuvuk Pass	<u>2000</u>
Total	9175

The above estimates were obtained by questioning members of the various native councils, traders and teachers. Doubtless the estimates are low, for caribou provide one of the

2 THE POLAR RECORD, Vol 7, No 47, January 1954, Scott Polar Research Institute, Lensfield Road, Cambridge, England.

principal sources of food in each village. The people are afraid to accurately report their take, if they actually remember the numbers they have killed, for fear of retaliation or subsequent restrictions on the part of the Fish and Wildlife Service. No estimate was obtained from the small settlements along the coast east of Barrow nor from Barter Island.

Whenever caribou are available, as many as possible are killed. No effort is made to dispatch wounded animals which escape. Herd shooting is a general practice and thus, many of the animals drop far from the scene of the shooting.

Information obtained in several of the villages with regard to the caribou requirements of the people supports the contention that the take estimates are low. At Anaktuvuk Pass for instance the estimated take was 2000 animals, a figure mutually agreed upon by trader O'Connell and Postmaster Mekiana. The people of Anaktuvuk exist primarily upon caribou. O'Connell stated the village dogs were fed almost exclusively on caribou and that a team of 7 dogs requires one animal each week. Mekiana stated that when eating nothing but meat, his family totaling 9 of various ages needed 1 caribou each day. By using these statements to compute the village take, the original estimate jumps alarmingly.

52 caribou a year for 7 dogs	
17.7 teams of 7 dogs each at Anaktuvuk	
17.7 x 52 . . . . .	920.4
and	
1 caribou a day per family of 9	
8.3 families of 9 in total population	
8.3 x 365 . . . . .	<u>3029.5</u>
Total	3949.9

It is quite probable that the 4000 figure more accurately describes the Anaktuvuk caribou take, and it is equally probable the remaining village estimates could be revised upwards.

The Eskimos will kill caribou without regard to the legal bag limit as long as the animals are available. Considering the periods of accessibility to the villages visited, the take during the past year is estimated by the writer to have been at least 15,000 animals.

