

REPORT ON THE SPECIAL CARIBOU SEASON FOR
BUCKLAND, ALASKA, DECEMBER 5, 1979 -
FEBRUARY 4, 1980

by
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Technical Paper Number 8

Alaska Department of Fish and Game
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Kotzebue, Alaska
March 17, 1980

Introduction

On November 29, 1979, the Alaska Board of Game decided in favor of a petition by the City of Buckland for a special caribou season to alleviate a set of unique resource losses experienced by the community. The special season was to run from December 5, 1979 to February 14, 1980. A bag limit of seven caribou, either-sex, per hunter was established with the total harvest not to exceed 210 caribou. Permits for the hunt were to be issued in Buckland only, from December 5 to December 10, 1979.

A total of 54 special permits were issued from December 5 to December 10, 1979 in Buckland by B. Pegau, Game Division. Administration of these permits was assigned to Kotzebue Area Biologist, Dave Johnson. A total of 97 caribou were harvested by Buckland hunters during the special season (Table 1.) All permits were accounted for by Game Division personnel at the end of the hunt.

Subsequent investigation in Buckland by Subsistence Section indicates that the special hunt did alleviate the meat shortage experienced by the Community. A wide range of community and regional resources were used, in addition to the hunt, to alleviate the shortage. Research indicates that several economic factors were most active in the decision to hunt. Meat was routinely shared among households in Buckland. Reporting compliance with the permit system was high, calculated to be 88%.

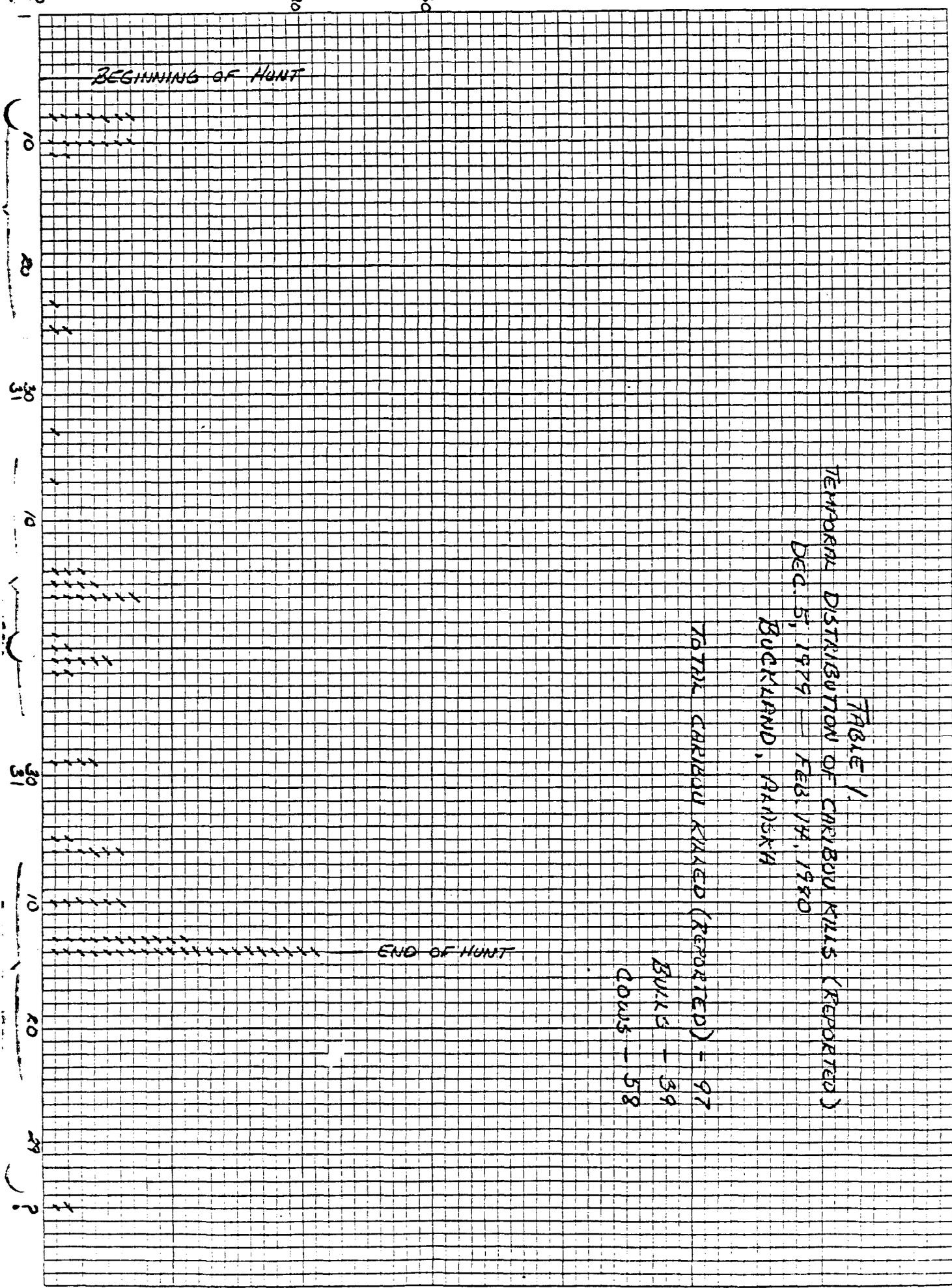
TABLE 1
TEMPORAL DISTRIBUTION OF CARIBOU KILLS (REPORTED)

DEC. 5, 1975 - FEB. 14, 1980
BUCKLAND, ALASKA

TOTAL CARIBOU KILLED (REPORTED) = 97

BULLS - 39

COWS - 58



The Buckland Questionnaire

Methodology

It was decided to analyze the results of the special Buckland caribou season by means of an interview questionnaire. The questionnaire was developed primarily by the Resource Specialist in Kotzebue, with assistance from Game Division personnel in Kotzebue.

The subject areas of the questions were divided into 5 parts:

- 1 Demographic data
- 2 Harvest data
- 3 Diet/Larder data
- 4 Barter data
- 5 Perceptual data

The questionnaire was limited to approximately 30 questions in order to ensure attentive responses through the course of the interview, minimize interference in normal household activities, and allow time for an adequate sample and analysis.

The approach and setting of the interviewer with respect to the community was considered an essential part of the methodology used in the survey. In this survey, the interviewer and a companion traveled to Buckland via snowmachine and dogteam. Permission to conduct the interviews was given by the Buckland City Council prior to the trip. A week was spent in the community, while the actual activities took 3½ days. Both the interviewer and the community exhibited a genuine interest in each others activities. The setting quickly became social, conversant and open. It seemed that the most important element was that of surface travel. The attempt by visitors to learn the topography, trails and traditions, which are past of surface travel was especially well received.

Sampling of the community was done on the basis of households. Households were selected at random within the community for sampling with the following criteria:

1. Whether the head of household had been present during the special caribou season,
2. Whether the head of household was currently present, and

3. Whether the head of household was perceived as an elder by the community.

It was decided not to sample elders of the community as the questionnaire might appear to be a cross-examination of a respected elderly community member and as such an inconvenience or affront to the status of the elder. A questionnaire necessitates the imposition of a more rigid formal (foreign) social situation upon the respondent. As it turned out, a certain degree of uneasiness on the part of the respondents occurred in every interview - avoidance of sampling of elders households appeared to be the correct judgement.

The questionnaire was introduced to the head of household and described as an unavoidable necessity due to the special caribou seasons. Emphasis was placed upon the likely positive results of the questionnaire. The questionnaire was further framed for respondents in the context of a public agency trying to improve its services to constituents. Permission to conduct the questionnaire was easily given in every case.

Time required to administer the questionnaire varied widely from $\frac{1}{2}$ hour to 2 hours. Some respondents replied directly and quickly to questions, others replied in an indirect conversational mode.

Answers were recorded in writing at the time of response by the interviewer. Conversational responses were often paraphrased by the interviewer in recording. A reading of the written response to the respondent was sometimes used to ensure accuracy of the notation.

As described earlier, some uneasiness on the part of the respondent always occurred during the interview. Agitation noticeably increased with direct eye contact between the interviewer and respondent.

Rapid questioning also tended to increase agitation. Some respondents became uneasy if English expression was difficult for them. The section of the questionnaire dealing with perceptions was always the most difficult and usually required reassurance by the interviewer in order to proceed easily.

A total of 10 households in Buckland were sampled, giving a sample of 33% of the households in the community. The desired sample was 50%, however time constraints and travel of many Buckland residents to the annual Regional Corporation meeting and quarterly Friends Church meeting (both in Ambler) precluded a larger sample.

Results

1. How many persons live in this household?

Total household population of the sample was 70 persons, giving an average household size of 7 persons. A survey conducted by Mauneluk Association (1979) gave an average household size of 5.4 persons in Buckland. The difference between the two samples is likely due to avoidance of elder's households in this sample which, it is presumed, tend to be smaller household units. Nevertheless, the average household size of 7 persons is accurate within the context of this sample and serves as a basis for this analysis of subsistence activities.

2. Could we list the age and sex of each household member?

	Male	Female	Total
less than 13	16	10	26
13-20	13	4	17
21-65	14	12	26
greater than 65	1	0	1
	<hr/>	<hr/>	<hr/>
	44	26	70

This sample suggests a growing population with more representation in young age groups.

3. Is there more than one family in this household?

Two households in the sample reported more than one family, giving an average of 1.2 families per household. The two households reporting more than one family were also the largest, averaging 10.5 persons/household. Multiple family dwellings are a problem throughout the NANA region as housing is short of meeting the needs of the population.

4. Is there one person who could be called "head-of household"?

Eight households reported male adult head-of-household, while two households reported female adult head-of-household. Both female head-of-household were widows; these households averaged 8.5 persons/household while one was a multiple-family dwelling.

5. Did any members of this household hold permits during the recent special caribou hunt?

The sample gave an average of 1.9 special permits per household. This compares well with the total Buckland average of 1.8 permits per household. Another way of examining permitting is that one permit was issued for every 3.7 persons in the sample, or one permit for every 3.3 persons in the community as a whole (the latter figure uses a population figure of 177 which includes schoolteachers and their families who did not hunt).

6. Did these permit holders hunt for caribou during the special season?

yes	11	(58%)
Hunted under supervision	1	(5%)
Someone else hunted for permittee	2	(10%)
No	5	(26%)

7. Can you remember how many caribou your household killed from 5 December 1979 through 14 February 1980?

The households sampled reported a total kill of 67 caribou, or 6.7 caribou per household. The comparable harvest reported under the permit system set up for the special hunt was 59 caribou. As a result compliance with the permit system resulted in a maximum of 88% of the harvest reported.

8. Can you remember how many caribou your household has killed so far this fall and winter?

The households sampled reported a total kill of 77 caribou, or 7.7 caribou per household.

9. Did somebody from another household hunt for you during the special season?

Nine households said they did their own hunting, while one household reported that hunters from another household hunted for the permittees.

10. Here are some things which may have affected the way your household hunted during the special season. Could you tell me which ones were important? (Multiple responses permitted)

Positive responses

a) Weather 2

10.

Positive Responses

b) Distance of caribou from Buckland	1
c) Cost of gasoline	5
d) Condition of caribou	2
e) Snowmachine condition	4
f) Presence of other game	0
g) Household resources (employment, money, etc)	5
h) Family activities (birth, death, marriage, etc.)	0
i) Community activities (holidays, school, church, etc.)	0
j) No one to hunt for you	0
k) Equipment condition	0
l) Other Ammunition cost	2

This question was designed to test whether certain factors were operative in affecting the decision to hunt. A positive response was neither indicative of reinforcement nor interference by the factor, but simply whether it was important or not.

The results of this question suggest that the decision to hunt is very much an economic decision. The three factors which appeared to be the most influential involved monetary decisions - cost of gasoline, condition of the snowmachine, and household resources. For two of the households interviewed, gasoline and snowmachine expenditures were not factors as these materials were supplied as part of their employment (reindeer herding). In these two households, available time away from the job was the hunting factor, again an economic decision.

11. How many operating snowmachines does your household own?

The average number of operating snowmachines per household was 1.1, while the average number of permitted hunters for each snowmachine was 1.9. Every household sampled had at least one operating snowmachine.

12. How many snowmachine sleds does your household own?

The average number of sleds per household was 1.1, while the average number of permitted hunters per sled was 1.9. Again, every household sampled owned at least one sled.

16. continued....

The term "barter" was not as easily understood as sharing and "trading" separately. "Sharing" may be taken to mean, in local usage, both sharing and trading. "Trading" carries the connotation reciprocal exchanges between Buckland residents and residents of other villages, except for relatives living in other villages.

17. When food is shared, is it mostly with relatives or friends or people in need? (Multiple responses permitted)

Relatives	-	6
Friends	-	3
needy	-	7

There was some confusion with this question, as, for example, with relatives as opposed to relatives in need.

18. How is sharing of food important to you?

Again, the phrasing of the question caused some confusion. Answers to this question were paraphrased and categorized after the interview.

It is part of life	2
For what we receive in return	1
As a gift	1
Relieves need	5
Provides variety in diet	3

19. When food is shared, does your household receive something in return?

Yes	0 households
No	5 households
Sometimes later	5 households

20. What is your household's main source of meat today? (Multiple responses permitted.)

Caribou	9 households
Reindeer	5 households
Commercial meats	2 households
Other	1 household

Multiple responses were given to the question. Nine households listed caribou as the primary source of meat, but often in adjunct with reindeer or frozen meats.

21. How much of your own food would you say your household hunted, fished and gathered this year?

All	0 households
Most	7 households
Half	3 households
Some	0 households
None	0 households

It was apparent to the interviewer that respondents treated this question to refer to meat rather than a wide range of foods.

22. How many meals a week are made up of caribou in your household?

All	2 households
Most	4 households
Half	3 households
Some	0 households
None	1 household

23. Is Fish and Game a State or Federal agency?

State	7 households
Federal	0 households
Did not know	3 households

24. What is the Alaska Board of Game?

Knew	1 household
Did not know	9 households

25. Why does Fish and Game have regulations?

Protect animals/prevent overharvest	8 households
Did not know	2 households

26. How can Fish and Game regulation be changed?

Knew	1 household
Did not know	9 households

27. What is the Kotzebue Fish and Game Advisory Committee?
- | | | |
|--------------|---|------------|
| Knew | 1 | household |
| Did not know | 9 | households |
28. What kinds of licenses can you buy?
- | | | |
|--------------|---|------------|
| Knew | 8 | households |
| Did not know | 2 | households |
29. What is a game warden?
- | | | |
|----------------|---|------------|
| Enforcement | 4 | households |
| Area Biologist | 3 | households |
| Did not know | 3 | households |
30. What is a biologist?
- | | | |
|-----------------|---|------------|
| Correct concept | 3 | households |
| Partial concept | 1 | household |
| Did not know | 6 | households |
31. What is a subsistence hunter?
- | | | |
|----------------------------|---|------------|
| Gathers food/hunts to eat? | 7 | households |
| Me | 2 | households |
| Did not know | 1 | household |
32. What is a sport hunter?
- | | | |
|----------------|---|------------|
| Hunts trophies | 4 | households |
| Wastes meat | 2 | households |
| A nonresident | 1 | household |
| Hunts for fun | 2 | households |
| Did not know | 1 | household |
33. What problem do you have with Fish and Game?
- | | | |
|-----------------|---|------------|
| No problems | 5 | households |
| Cost of license | 2 | households |
| Regulations | 2 | households |
| Enforcement | 1 | household |

Discussion

Questions 1-4, Demographic data.

Data collected in questions 1-4 were straight forward and served as a basis for establishing comparisons.

It is interesting to note that houses with female head-of-household tended to be larger than those households with male head-of-household. A larger sample is required to establish this phenomena as a trend in the community.

Questions 5-12, Harvest Data.

These questions were designed to provide information on the harvest of caribou in Buckland, both during the special season over the course of the fall and winter.

Of particular importance was established some basis for measuring the degree of compliance of reporting kills within the permit system.

Question 5 results indicate that most households had at least 2 permitted hunters during the special season. Based on the results of the questionnaire and conversations in the community, there was no evidence that non-permitted hunters took caribou during the special season.

The opportunity to obtain special permits was well advertised prior to the hunt - fully 30% of the village residents were permitted to take caribou.

Question 6 results indicate that 63% of the permitted hunters in the sample either did the hunting or were present during the hunt. Ten percent of the permitted hunters in the sample allowed other hunters to use their permit to take caribou.

Question 7 was the basis for estimating reporting compliance with the permit system. Several assumptions were made in utilizing the results of this question:

- a) That the approach and manner of the interviewer during the stay in Buckland predisposed respondents to openly discuss their caribou harvest,
- b) That the complete absence of enforcement activities and emphasis on information retrieval only, predisposed respondents to be less wary of the questionnaire, and
- c) That the time lag between the end of the permit hunt and the interview (30 days) would create an interview situation leading spontaneity on the part of respondents.

It is difficult to test these assumptions as they involve elements of human perception which are difficult to measure. It is the judgement of this researcher that the harvest information gathered both in questions 7 and 8 is accurate due to interaction of all 3 factors discussed.

As a result of question 7, reporting compliance with the permit system was calculated to be 88% for the sample. Extrapolating over the community as a whole, it is estimated that 110 caribou was killed during the special season by Buckland hunters, 97 of which were reported within the permit system.

Several reasons for failure to comply with the permit system were observed. Overharvest appeared to be the principal reason for nonreporting, yet in those instances where overharvest occurred the hunter was providing meat to households in need. The hunters clearly felt a social responsibility to provide/share meat for households not able to obtain meat. In some cases, failure to report harvest appeared to be simply a matter of apathy although such observations are the judgement of the researcher rather than the result of analysis.

There was no evidence of caribou meat wastage within the community. No direct observations of waste were made in the field, although no systematic search was made, either. It was reported by several hunters that the act of hunting is so expensive that a hunter can ill afford to be wasteful of meat.

Question 8 results indicated a total harvest of 77 caribou for the sample, yielding an average of 7.7 caribou per household. These data should be qualified in that caribou hunting has not yet ended; 30 days remain in the normal WAH caribou season. Taking into account households of elders not included in the sample and households of schoolteachers, it is estimated that approximately 7 caribou per household will be harvested by Buckland hunters in the 1979-1980 season, giving a total harvest of 224 caribou for the community. This estimate must be taken as a guideline only. Subsequent research would have to be conducted in May, 1980 in order to verify this estimate.

Results of question 9 indicate that most households did their own hunting under the issued permits. These data coincide well with the results of question 6 previously discussed. The avoidance of elder's households in this sample likely influenced the results of questions 6 and 9. At least 3 households in the sample hunted for elder's households during the special season.

Question 10 omitted one factor which should have been included in the questionnaire; the element of bag limits. It is noted that no respondents discussed the bag limit as a limiting factor either within the interview session or in conversations in the community.

Question 10 results intimate strong economic factors at work in the decision to hunt. The cost of gasoline, snowmachine parts and ammunition as well as the effect of time spent hunting on employment/earning power were cited as the predominant factors in the decision to hunt. All respondents indicated they could no longer simply "run-around" on their snowmachines. Snowmachines are being utilized for specific tasks such as wood hauling, ice hauling, garbage hauling, hunting and little less. There is a tendency in conversation to favor the smaller, more fuel efficient 340cc snowmachines rather than the 440cc machines.

Another economic element in purchasing gasoline, ammunition and snowmachine parts is the potential for buying these items through the USDA Food Stamp program. The Food Stamp program allows for purchases of fuel, ammunition and parts for the purpose of subsistence hunting, however, the local ANICA Native Store, the Buckland Fuel Project and the snowmachine parts dealers in Kotzebue does not accept food stamps for such purchases. No respondents in Buckland were aware that such a purchase were possible.

It is interesting to note that in current economic conditions in rural areas, possession of modern technology in support of subsistence activities may be a self-limiting system with respect to harvests. Although this sample is limited in scope, there is reason to believe that the caribou harvest in Buckland this winter would have been quite similar in the absence of a special caribou season and permit system; that is, no more caribou would have been harvested than absolutely needed by the community. The implication of such an enclosed subsistence system is that in situations similar to Buckland's which arise in the future extreme stringency in the permitting procedures may be unnecessary beyond the goal of harvest information retrieval. In a situation of economic distress as faced by Buckland, inherent economic controls appeared to limit the harvest more effectively than any other factor.

Results of question 11 indicate that most households maintain at least one snowmachine in operating condition. Many households owned snowmachines in various states of disrepair, but felt it necessary to only maintain one machine in operating condition. Results also indicate that most snowmachines are shared in usage. Each snowmachine had about two permitted hunter/operators for the special caribou season.

Results of question 12 indicate that most households maintain at least one snowmachine sled. All sleds observed in Buckland were basket sleds made either of oak or hickory and were in relatively poor condition. Hunters in Buckland commented that often hunting parties depend on one or two members having reliable sleds for hauling meat, even though all members may own a sled.

These questions were designed to provide information on the effect of the special season on the household larder and to give some indication of the content of the diet in Buckland.

Results of question 13 indicate that all respondents considered the amount of meat available to the household to be very low in early December, 1979. These results are consistent with investigations conducted by Subsistence Section in Buckland in fall, 1979 and reported to the Alaska Board of Game on 29 November 1979.

Results of question 14 indicate that for most households the current supply of meat is good.

Results of question 15 indicate that most households attributed the improved stocks of meat to the special caribou season. All respondents were appreciative of the special caribou season and clearly identified the Dept. of Fish and Game with the special season.

Question 20 results indicated caribou and reindeer as the current primary source of meat in most households. Many respondents also commented on the low stocks of muktuk and paniqtuk. It appeared that commercial meats were used as variety in the diet where other types of marine mammal provided variety in the past.

Question 21 results indicated that Buckland households gather from half to most of their yearly meat supply from surrounding wildlife. This question indicates that Buckland residents perceive a high degree of dependency on wildlife resources.

Question 22 results showed that in most of the sampled households caribou meat currently is included in from half to all of the household meals. In the single household which reported no caribou meals, most meals included reindeer meat.

Questions 16-19 Barter

These questions were designed to provide a rough understanding of barter activities in Buckland. As discussed earlier, "barter" is not a commonly used term in the NANA communities, the term "sharing", including "trading," being more universally understood.

The concept of sharing food as a community responsibility seemed to be most well developed in the older respondents to the questionnaire. Several very productive older male head-of-household was particularly emphatic about their responsibility to provide food for the community. This responsibility appeared to be assumed rather than socially assigned and related to either the financial capability to hunt or well developed hunting skills, or both.

Questions 16-19 continued....

The researcher personally experienced sharing as many households felt it important to share dogfood with travelers. Some of the older hunters regularly brought dogfood to the staked-out team commenting that they had run dog too, when young, and knew the effort involved in keeping a team.

All households interviewed participate in the sharing "economy". As expected most sharing takes place with relatives in other communities (Kotzebue and Noorvik) occurring.

BUCKLAND WITH SOME SHARING WITH -

It is not clear from the questionnaire whether sharing is routed principally to relatives, or friends or people in need. The structure of the question caused some confusion. Attempts to clarify the responses left the impression that the element of need was quite strong in determining who to share food with.

The act of sharing was described by most respondents as "part of life" while further emphasis was placed on the element of need. Several respondents had difficulty expressing an English answer to this question, leaving the impression that none of the terms used - barter, sharing or trading - fully encompass the Inupiat meaning of the act.

Reimbursement clearly is not part of the sharing tradition.

Many families reported that they receive something later, but these responses were couched in phrasing which indicated such "return sharing" is not expected and may only be incidental to the original act.

In summary, sharing is the hidden economy of Buckland, operating within a cultural context which is difficult to describe.

The element of need is central to sharing and may be a key motivator for some hunters in the community. Although the act of sharing is acknowledged by all, seldom are the quantities involved discussed, giving the impression that it is impolite to discuss matters. It could well be that caribou harvested specifically for such purpose in the community is not reported within the permit system because of the traditions involved with sharing.

Questions 23-32 Perceptual data.

These questions were designed to measure respondent's knowledge of the Alaskan wildlife management system. Summarizing the results, most respondents knew the Dept. of Fish and Game was a state agency and were aware of what kinds of licenses are available. Most respondents also had at least a partial concept of the reason for game regulations and attributed positive goals to those regulations and attributed positive goals to those regulations. Most respondents, however, had no knowledge of the Alaska Board of Game, the Kotzebue Advisory Committee, or the means by which undesirable game regulations might be changed. This is striking in that the part of the wildlife management system which is supposed to be a channel for public input is essentially unknown in this community.

Respondents ascribe research, management, regulatory and enforcement authority all to the Dept. of Fish and Game.

Questions 29-32 were designed to investigate resident's concepts of commonly used titles for people associated with game management issues. "Game warden" is a colloquial term often used by residents in referring to department personnel. The results of this sample indicate that "game warden" is likely only a label used for department personnel, although it carries an enforcement connotation for many people.

Better than half of the sampled households did not know what a biologist is.

The term "subsistence hunter" was ascribed by most of the sample to mean those who gather food from the land. An element of necessity appeared to be part of the meaning, also.

The term "sport hunter" had varying interpretations in the sampled households, but clearly carried a negative connotation for the majority of the people.

Finally, most respondents had no serious problems with the Dept. of Fish and Game. One very interesting comment, however, was made on enforcement activities. The respondent, a male head-of-household and active hunter, indicated that the hunters in Buckland know when an enforcement officer is in the area. Usually, he said, everybody becomes scared and stops hunting entirely while the game warden is in the area. Even though the season may be open, he reported, residents are uneasy or unsure in their knowledge of the regulations and simply stop hunting if an enforcement officer is present or nearby.

Economic Conditions

The USDA Food Stamp Program serves as one convenient indicator of economic conditions in a community. Table 1 gives the data on Buckland for those months pertinent to the hunt. The community exhibited extremely high participation in the food stamp program during November through February, suggesting stringent economic conditions during those months.

The proprietor of the Buckland Native Store reported commercial food sales up at least 200% over 1978-1979 sales, primarily in frozen meats. He also reported that credit accounts at the store remain fully extended (as in November 1979) and that the bulk of food sales has been by means of food stamps.

Both fuel and food prices have remained approximately stable from November 1979 to February 1980. Gasoline remains 94.00/drum while stove oil is 98.00/drum. The proprietor of the store reported no significant changes in food prices and no changes in frozen meat prices since November 1979.

CETA employment in Buckland has increased from November 1979 to February 1980. Currently 8 workers are employed by CETA - 2 of these half-time - with monthly compensation at 839.94 gross. In November 1979 CETA employment had been cut to 6 half-time positions with somewhat lower levels of remuneration.

Overall it is worth noting that the inflationary trend of the national economy tends to be amplified in rural area such as Buckland. While mean per capita income in Buckland is well below mean per capita income levels in urban Alaska (2464.00 Buckland is 11,000.00, Fairbanks), rural prices are several times higher, and dependence on fixed sources of income is reported to be higher (ADHSS, 1980). The trend may be that subsistence resource utilization will decline with increasingly severe economic conditions, but that the element of subsistence dependency on those resources will increase. In Buckland, residents reported economic factors to be most important among a range of factors in the decision to hunt, while their perception of well-being increased with acquisition of caribou meat.

TABLE 2
USDA FOOD STAMP FEDERAL DATA
BUCKLAND, ALASKA

	NOVEMBER 1978	NOVEMBER 1979	DECEMBER 1979	JANUARY 1980	FEBRUARY 1980
TOTAL HOUSEHOLDS	32	32	32	30	30
ELIGIBLE HOUSEHOLDS	4	16	19	19	17
INELIGIBLE HOUSEHOLDS	NO DATA	7	4	4	6
DID NOT APPLY	NO DATA	9	9	7	7
FOOD STAMP VARIATION	NO DATA	4015.00	4588.00	5225.00	4941.00
HOUSEHOLD PARTICIPATION	12.5%	50%	59%	63%	57%
RESIDENT PARTICIPATION	NO DATA	49%	54%	55%	50%
% CHANGE (HSHD PARTICIPATION)	—	+ 300%	+ 19%	0%	- 10%

DATA COURTESY

MS ANNEK AXETON
ALASKA DEPT HEALTH AND SOCIAL SERVICES
KOTZEBUE, ALASKA

Other Resource Utilization

A range of community and regional resources was used by Buckland to alleviate the resource shortage.

Many households used reindeer meat during the period December 1979 through February 1980. The Buckland Native Store sold 16 reindeer carcasses during this period, four reindeer were purchased directly from Deering and six reindeer was purchased from Shishmaref, for a total of 26 reindeer used. The November 1979 NANA reindeer slaughter yielded an average dressed carcass weight of 124 lbs. In total, reindeer contributed 3224 lbs of meat to Buckland larders from early December through February.

Small game utilization appeared to be high in the community. Young boys in the community were regularly observed hunting arctic hare and snowshoe hare during the stay in Buckland. Each household sample had a supply of hares although many residents reported being tired of eating hares.

Sharing between Buckland households and other communities did occur during the special season, although some residents felt that the trading element was lower than previous years due to the shortage of white muktuk. Sharing appeared to center primarily on dried white fish and seal oil, both items in short supply in Buckland.

Hunting Data

A calculated total of 110 caribou was killed by Buckland hunters during the special caribou season. The sex composition of the reported kill (40% bulls, 60% cows) may have been close to the sex composition of available caribou (38% bulls, 62% cows) for the Western Arctic Herd based on spring composition counts) although the exact composition of wintering bands of caribou in the Selawik Hills is unknown. In past experience with winter caribou hunting, the sex composition of the harvest usually reflects the sex composition of the available animals (Davis, pers. comm.) These data suggest that although the expressed preference of Buckland hunters was for cow caribou, the appearance of caribou under winter hunting conditions precludes sex selectivity

Hunting for caribou was conducted entirely by means of snowmachine. Sampled households reported that most hunting was conducted by groups of hunters traveling together. Most hunting was done in the rolling terrain between Buckland and the Selawik Hills, and in the Selawik Hills themselves. Most hunting was reported to involve one-day trips, although some hunting done adjunct to reindeer herding involved overnight travel.

The temporal distribution of the kills (Table 1) indicates a fairly even distribution of kills over time with exception of the last several days of the hunt. No clear reason for the high number of kills during the last few days was discovered. The end of the special season was well advertised in Buckland by Game Division personnel, so that the peak in reported kills may be due to anticipation of the close of the season. This phenomena was never mentioned either during the interview session or during the stay in Buckland.

Summary

The original analysis of the Buckland resource shortage estimated that the request for 210 caribou, at an average dressed weight of 102 lbs, would alleviate the meat shortage in the community. In practice 110 caribou (44 bulls and 66 cows) and 26 reindeer were used by Buckland:

66 cows x 102 lbs	=	6732 lbs
44 bulls x 126 lbs	=	5544 lbs
26 reindeer x 124 lbs	=	<u>3224</u> lbs
		15,500 lbs
210 cows x 102 lbs	=	21,420 lbs

In addition frozen meat sales by means of food stamps were reported to be up by 200% over 1978-79 sales by the Buckland Native Store. In rough estimate, if each of the 177 residents of Buckland consumed 1 lb of commercial meat per week during the course of the hunt, then approximately 1770 lbs of commercial meats were used. Combining amounts, the original estimate of the meat deficit in Buckland appears to have been in error about 18%.

The caribou hunt itself appeared to be regulated by economic factors such as cost of gasoline, cost of snowmachine maintenance and cost of ammunition. There is reason to believe that the expense of hunting limited the harvest to the level of need. No evidence of wastage was observed or reported.

The permit system worked well in Buckland with a maximum of 88% of the special caribou season with the Dept. of Fish and Game, and attributed the relief of the meat shortage to the special season. Most residents are aware of the Dept. of Fish and Game, understood the basic reasons for game regulations and attribute positive results to those regulations.

Harvest results revealed that expressed selectivity for cow caribou, although desired, was not reflected in the sex composition of the harvest. The sex composition of the harvest was likely very close to the sex composition of the available herd. These data suggest it is difficult to effectively distinguish the sex of the caribou in winter under hunting conditions.

In conclusion, the special caribou season for Buckland did alleviate a unique and intense resource loss. The hunt was effectively administered by Game Division. The special caribou season in Buckland may well serve as a model for future, similar resource problems which confront the Alaska Board of Game.