

HB

566

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AGG 125391

2/5/80 - hearing - tabled



Alaska State Legislature

House

HOUSE RESOURCES COMMITTEE

FISH & GAME ISSUES
Alvin Osterback, Chairman

Pouch V, State Capitol
Juneau, Alaska 99811
(907) 465-3715

HEARING NOTIFICATIONS

Cantwell Research Station Reindeer Project

BILL	DATE INFORMED	LETTER/PHONE	INFORMED	HEARING DATE
HB566	2/1/80		Rep. Moss, prime sponsor	2/5/80
	2/4/80	Phone	Reps. Bettisworth, Branson, Carney, Fuller, Hurlbert, Miller, Rogers, Schaefer, Zharoff (Co-sponsors)	2/5/80
	2/4/80		Univ. of Alaska, Fairbanks notified by Rep. Moss's office.	2/5/80



HB 566

UNIVERSITY OF ALASKA, FAIRBANKS
Fairbanks, Alaska 99701
INSTITUTE OF ARCTIC BIOLOGY

November 6, 1979

Representative H. Pappy Moss
P. O. Box 182
Delta, Alaska 99737

Dear Pappy,

I was pleased to have had the opportunity of talking to you in Nome last week but regret we did not have time to discuss the reindeer industry or the Cantwell Reindeer Research Station. Three items are of considerable importance and I will describe them briefly at this time. Hopefully, you will want further information and I will be more than pleased to meet with you at your convenience.

I have a critical need for feed for the research reindeer at Cantwell. In fact, if feed does not become available very soon, I will have to destroy the herd this winter. This situation has come about because of rising costs and falling financial support for research. You mentioned the wisdom of tying the reindeer project into the Delta agricultural project. I have the reindeer, facilities and assistance needed for the required experimental feeding programs. Moreover, these reindeer are not now on a specific research project. Thus, if the State or a farmers coop can donate the feeds needed for the research, I will be pleased to initiate it immediately.

Secondly, the Cantwell Reindeer Station was built and supported almost entirely by federal grants and contracts. The buildings are all from military surplus and most of the construction and maintenance has been done on weekends, holidays, etc. by friends in Cantwell, my graduate student and me. I have now visited nearly every reindeer research station in Scandinavia and in Siberia and I can state without qualification that we in Alaska have the best equipped and most functional station for reindeer research in the world.

The funds that supported this station came from an Atomic Energy Commission Contract that began in 1967 and terminated in 1977. Since that time I have kept the station "open" through small grants from the Bureau of Indian Affairs and the Reindeer Herders Association in Nome (really BIA funds!).

Continued...

UNIVERSITY OF ALASKA
INSTITUTE OF ARCTIC BIOLOGY

Rep. P. Moss

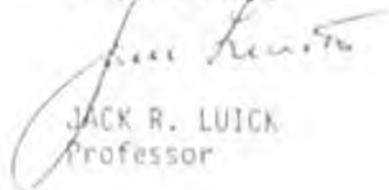
-2-

November 6, 1979

I am most embarrassed by the fact that the station manager, Mr. Danny Berberick, receives no salary for his efforts in keeping the station "presentable", for feeding the reindeer, for conducting tours for the several thousand tourists that visit the station each summer, and for any and all maintenance jobs that attend such a research facility. His only compensation is the privilege of living in a military surplus house trailer - he even has to pay for his own utilities! In brief, there should be some means for state support of this facility and the reindeer, at least until we can build a more elaborate and extensive station on the Seward Peninsula. I will enclose a "bare bones" budget for your consideration.

Lastly, I have been asked and encouraged to submit a supplement to the University of Alaska, Fairbanks budget request to establish research and teaching programs on behalf of the reindeer industry. I will deliver this proposal to Representative Brian Rogers this week. I am also getting letters in support of the proposal from the Reindeer Herders Association, the Nome Chamber of Commerce, village and regional native corporations, and in addition, resolutions passed by the Rural Area Development Council and the Reindeer Sub-Committee of the Alaska Cooperative Land Managers Task Force. I sincerely hope you will give this program your enthusiastic support and that you will encourage your fellow representatives on the agricultural and finance committees to do the same.

Respectfully,



JACK R. LUICK
Professor

JRL/dgh

cc: Rep. P. Moss
Rep. Pat Carney
Lynn Hale

BUDGETS FOR CANTWELL RESEARCH STATION

I. "Bare Bones Budget" to Assure Our Research Potential is Maintained:

Salaries

Station Caretaker @ 25% time	\$ 5,000
Staff Benefits	1,000

Reindeer Feed

12 Reindeer @ \$300/Yr./Reindeer	3,600
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<u>Misc.-Operating Costs and Repairs</u>	<u>2,400</u>
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\$12,000/Yr.

II. "Minimal Operating Budget":

This budget will pay the costs of maintaining and operating the Cantwell Station and in addition, will provide a decent salary for the station caretaker.

Salaries

Station Caretaker @ 50% fulltime	\$10,000
Summer Help (Improvements & Repairs)	6,000
Staff Benefits	2,000

Reindeer Feed

12 Reindeer @ 300/Yr./Reindeer	3,600
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<u>Utilities, Telephone, Fuels, Postage, etc.</u>	<u>2,400</u>
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<u>Supplies and Miscellaneous Expenses</u>	<u>3,000</u>
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Travel

(Intra-state, i.e. delivery of Supplies, Freight)	1,000
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Equipment

(e.g., To Replace Existing Equipment)	<u>2,000</u>
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\$30,000

HB566



KAWERAK, INC.



P.O. BOX 948 • NOME, ALASKA 99762

(907) 443-5231

January 21, 1980

Dr Jack E Luick
University of Alaska
Institute of Arctic Biology
Fairbanks, AK. 99701

Dear Jack:

Received your letter today regarding the Cantwell research station and want you to know that the Reindeer Herders Association enthusiastically supports continued funding of this station until a research center can be developed on the Seward Peninsula.

The need for continued applied research as well as the need for basic research are utmost on our list of priorities. Any discontinuation of such program would indeed be devastating to the growth of the reindeer industry.

We support your actions and wish to heartily thank you and your associates for your efforts in working with us to develop a successful reindeer industry.

Again, we recognize the importance of continuous funding and hope to work closely with you, the House Agriculture Committee and the State Legislature to ensure the continuation of these studies.

Sincerely,

The Reindeer Herders Association
Linda A. Zummer, Coordinator

cc: Bob Dieterich
Pappy Moss
Jack Fuller
Special Agriculture Committee

LZ/gu

(9)

COMMITTEE REPORT

HOUSE

1/18/80

FURTHER: FINANCE

Date: Feb. 5, 1980

Mr. Speaker:

The Committee on RESOURCES has had HB 566

"An Act making a special appropriation to the University of Alaska for support of the Cantwell research station reindeer project; and providing for an effective date."

under consideration and (a majority of the committee) (the committee) reports it back with the following recommendations:

- do pass do not pass
- do pass with attached amendments(s)
- replace with CS for _____ same title
 new title
- and recommends _____
- AND attaches a "Letter of Intent" New Fiscal Note
- reports it back without recommendation
- referred to the _____ Committee

MEMBERS SIGNING
DO PASS

MEMBERS HAVING
OTHER RECOMMENDATIONS:

CHAIRMAN

ALASKA STATE LEGISLATURE

Eleventh Legislature SECOND Session

HOUSE BILL NO. 566

By MOSS, BETTISWORTH, BRANSON,
CARNEY, FULLER, TURLBERT,
MILLER, ROGERS, SCHAEFFER
AND ZHAROFF

"An Act making a special appropriation to the University of Alaska for support of the Cantwell research station reindeer project; and providing for an effective date."

Sp appro - Cantwell research station reindeer project

Introduced in the House 1/18, 1950

HISTORY IN THE HOUSE

19 50

Jan. 18

Read first time and referred to Committee on

Resources and Finance

Reported back with recommendation that

Read second time and

Read third time and

PASS	Effective Date
Yeas	Yeas
Nays	Nays
Absent	Absent
Excused	Excused

Reconsideration

PASS	Effective Date
Yeas	Yeas
Nays	Nays
Absent	Absent
Excused	Excused
Reported correctly engrossed	
Signed by Speaker	
Sent to Senate	

CHIEF CLERK OF THE HOUSE

HISTORY IN THE SENATE

19

Read first time and referred to Committee on

Reported back with recommendation that

Read second time and

Read third time and

PASS	Effective Date
Yeas	Yeas
Nays	Nays
Absent	Absent
Excused	Excused

Reconsideration

PASS	Effective Date
Yeas	Yeas
Nays	Nays
Absent	Absent
Excused	Excused
Reported correctly engrossed	
Signed by President	
Returned to House	

SECRETARY OF THE SENATE

HISTORY IN THE HOUSE

19

Received from Senate

Concurred in Senate amendment thus adopting:
VOTE

Failed to concur in Senate amendment; asked Senate to recede
VOTE

Senate receded from amendment
VOTE

Senate failed to recede from amendment
VOTE

CC appointed by House

CC appointed by Senate

CC adopted by House
VOTE

CC adopted by Senate
VOTE

To enrolling
Reported correctly enrolled
Sent to Governor

by Governor

Filed with Lt. Governor

Chapter No.

ANA DEVELOPMENT CORPORATION, INC.

4706 HARDING DRIVE, ANCHORAGE, ALASKA 99503
TELEPHONE (907) 276-6030



February 26, 1980

Representative Pat Carney
Agriculture Committee
Pouch V
Juneau, Alaska 99811

Dear Representative Carney:

Senator Ferguson requested that we develop a scaled-down version of the Seward Peninsula Reindeer Research and Extension Station for inclusion in the Senate's agricultural package. Enclosed is a copy of the proposal that was developed by Sig Restad from the Agriculture Experiment Station, Jack Luick from the University of Alaska, Linda Zummer and myself.

The funding requested in the proposal would allow us to take the initial step towards developing a first class reindeer research station. The station can then continue to grow along with the reindeer industry.

If you have any questions about the proposal, please let me know.

Thanks for your continued interest in programs for the reindeer industry.

Sincerely,

Lynn Zeiflin Hale
Fisheries Development Specialist

LZH/int

Enclosure

cc Representative Pappy Moss
L Kelly Fyke

SEWARD PENINSULA REINDEER RESEARCH AND EXTENSION STATION

Introduction

Domestic reindeer were first introduced to Alaska in the late 1800's to provide a reliable food supply for the people of Northwest Alaska. While the size and success of the State's reindeer industry has fluctuated over the last 90 years, the need for a dependable meat supply in this part of Alaska remains. Currently, there are about 26,000 head of reindeer in Alaska; most are located on the Seward Peninsula. Recent range studies by USDA's Soil Conservation Service indicate that the Seward Peninsula's carrying capacity is much greater, about 250,000 animals. This number of animals could provide a sustained yield of close to 3 million pounds of meat annually. Reindeer meat is excellent quality and is preferred by Northwest Alaskan residents. In addition, the reindeer industry through the direct employment of herders and the sale of antlers makes a substantial contribution to this region's economy - an area where other economic opportunities are limited.

While the reindeer industry has great promise and can make a significant contribution to Alaska's agricultural development, its growth has been impeded both by a lack of knowledge about reindeer as a livestock animal and the application of already existing knowledge to Alaska's reindeer industry.

The objective of this proposal is to develop a reindeer research and extension station on the Seward Peninsula which would specifically address the research and extension needs of the reindeer industry. The need for such a reindeer station on the Seward Peninsula has been recognized by reindeer herders, scientists and government agencies for a number of years. All other northern latitude nations with reindeer populations have invested much time and money in reindeer research, but Alaska has done very little.

A Seward Peninsula Research and Extension Station would serve as a focal point for educators, researchers, extension agents and the reindeer industry. Applied research, disease control and animal husbandry programs would be the station's initial focus. Extension personnel would analyze and transfer the results of research and techniques developed both at the station and by other nations to the herders. The station also would provide a location for training programs and workshops.

Station Development

The Seward Peninsula Reindeer Research Station will be developed in a series of steps. It is recommended that a Station Advisory Committee composed of one representative each of the Reindeer Herders' Association; Division of Agriculture, Department of Natural Resources; the University of Alaska; and the U. S. Department of Agriculture oversee the planning and operation of the Station.

Until station facilities are constructed, research and administrative staff will work out of the Nome reindeer slaughterhouse. This use of the Nome slaughterhouse makes maximum use of existing facilities and provides a base of operation on the Seward Peninsula while the station's other facilities are being constructed. Initial facilities at the station site will consist of fenced pastures, corrals, one multipurpose building, a bunkhouse, and an animal barn and storage shed. As the station grows, additional facilities can be added.

This facility will complement existing research facilities and teaching programs at the University of Alaska by providing a Seward Peninsula field station.

SEWARD PENINSULA REINDEER
RESEARCH AND EXTENSION CENTER

-Budget-

Category

1000	Personal Services		\$177,000
	Station Manager	\$ 48,000	
	Chief Scientist	70,000	
	Herdsman	40,000	
	Clerical (50%)	9,000	
	Research Assistant (62.5%)	10,000	
	Extension Agents (2)	*	
2000	Travel		11,000
	Advisory Committee	4,000	
	Station Personnel		
	Intrastate	4,000	
	Out of State	3,000	
3000	Contractual Services		143,000
	Research Personnel	100,000	
	Laborer	11,000	
	Laboratory Analyses	7,000	
	Veterinary Services	3,000	
	Charter, freight	10,000	
	Fuel (heat, generator)	10,000	
	Miscellaneous	2,000	
4000	Commodities		33,000
	Veterinary Supplies	3,000	
	Laboratory Supplies	7,000	
	Building Supplies	5,000	
	Office Supplies	1,000	
	Field Research Supplies	3,000	
	Animal feeds	7,000	
	Plant Science Supplies	2,000	
	Fuels, gas	3,000	
	Miscellaneous	2,000	

*The Cooperative Extension Service has budgeted for two reindeer extension agents for the Seward Peninsula (\$162,000). These agents would work out of the Reindeer Station.

-Continue-

Category

5000	Equipment		\$102,000
	Office Furniture	\$ 3,000	
	Office Machines	3,000	
	Laboratory	15,000	
	Carcass Research	5,000	
	Animal handling	1,000	
	Veterinary	8,000	
	Tools	2,000	
	Animal Balance	4,000	
	Communication	1,000	
	Education	10,000	
	Farm	50,000	
6000	Land Buildings		513,000
	Nome Slaughterhouse Renovation/ Lease	35,000	
	Bunkhouse	75,000	
	Fencing	100,000	
	Corrals, Pens	9,000	
	Animal Barn	75,000	
	Generator Shed	9,000	
	Animal Purchases, herd nuclei (100)	30,000	
	Survey cost (land and site)	30,000	
	Utilities	50,000	
	Animal Research Laboratory Complex	100,000	
7000	Grants, Claims		

GRAND TOTAL \$979,000

REINDEER RESEARCH



INSTITUTE OF ARCTIC BIOLOGY

University of Alaska

Fairbanks, Alaska

FOREWORD

This brochure is presented by the Institute of Arctic Biology chiefly for the benefit of agencies and persons concerned with the development of Alaska's reindeer industry. Additionally, information is provided for scientists and others interested in conducting scientific investigations with reindeer and caribou at the Institute of Arctic Biology and its various Field Stations. Attention is focused on the research and training potential of the Institute's Cantwell Reindeer Research Station, a facility developed in 1967/68 under contract with the U.S. Atomic Energy Commission primarily for studies on the passage of fallout radio-nuclides through arctic and subarctic food chains. In 1973 a grant from the National Institutes of Health enabled us to upgrade the Station to the extent that we can now undertake research activities in direct support of the reindeer industry. As an added benefit, the village of Cantwell is located in the heart of the Alaska Range, adjacent to Mt. McKinley National Park and far from the disturbing influences of urban environments — circumstances that make the Station ideally suited for educational activities such as Reindeer Workshops, Apprenticeship Programs, Conferences, Seminars, etc. The Station also offers living accommodations for students, staff and families as well as an extensive library of scientific reports, review articles, bibliographies and reference volumes from the world's literature on reindeer biology and husbandry.

— J. R. LUICK

ADMINISTRATION

The Cantwell Reindeer Research Station is administered by the University of Alaska through its Institute of Arctic Biology. Research and teaching activities are conducted under grants and contracts awarded by federal and state agencies in furtherance of their proprietary interests, goals and missions. Inquiries for further information regarding use of the Station should be addressed as follows:

Professor Jack R. Luick
Institute of Arctic Biology
University of Alaska
Fairbanks, Alaska 99701, U.S.A.
Telephone: AC907/479 7657

SCIENTIFIC STAFF

A Task Force of scientists and educators from the University of Alaska [Institute of Arctic Biology (IAB), Alaska Cooperative Wildlife Research Unit (ACWRU), Institute of Agricultural Sciences (IAS) and Cooperative Extension Service (CES)], supported by colleagues in the U.S. Bureau of Land Management (BLM), U.S. Bureau of Indian Affairs (BIA) and Alaska Department of Fish and Game (ADFG), has been organized to provide research and educational programs on behalf of the reindeer industry. This Task Force is staffed with specialists representing several areas that concern reindeer herders and several are already working on problems that will be confronting the industry shortly, e.g. transportation corridors across reindeer ranges, chemical pollution of rangelands and rivers, oil and gas pipelines, multiple use of grazing lands, etc.

TABLE OF ORGANIZATION

<u>Name</u>	<u>Affiliation</u>	<u>Area of Interest</u>
A. University Staff that would contribute to research activities		
Luick, Jack R	IAB	Director of Reindeer Research and Educational Programs, Reindeer Husbandry
Dieterich, Robert A	IAB	Co Director, Reindeer Diseases and Veterinary Medicine
McKendrick, Jay D	IAS	Range Vegetation
Scarborough, William B	CES	Marketing and Extension
Thomas, Wayne C	IAS	Economics and Business Management
White, Robert G	IAB	Reindeer Nutrition
B. Collaborators willing to assist in research and educational programs as needed		
Cameron, Raymond D.	ADFG	Reindeer and Caribou Biology/Ecology
Chapin, F. Stuart	IAB	Vegetation Research
Holleman, Dan F.	IAB	Communication Systems
Klein, David R.	ACWRU	Range Ecology and Wildlife Management
Lent, Peter C.	ACWRU	Reindeer Behavior and Predator Control
Mitchell, William W.	IAS	Agronomics
Pegau, Robert E.	ADFG	Range Management
Scott, David	BLM	Land Resources and Management

APPLIED RESEARCH AND EDUCATION

Examples of several educational and research programs are listed to reflect the potential of the University of Alaska through its Cantwell Reindeer Research Station to provide direct and prompt assistance to the reindeer industry. The extent to which these areas and/or programs are activated depends for the most part only upon the level of funding received from concerned agencies.

Short Term Research Programs that could be initiated with minimal delay, results obtained within 1 - 3 years after activation, for example:

Management and marketing problems associated with the development of a reindeer cow/calf operation.

Develop techniques for processing and marketing reindeer antlers by the Reindeer Herders Association for sale to foreign markets.

Study the economic advantages, if any, of producing reindeer steers for market (studies with beef cattle indicate that reindeer herders may receive greater economic return from marketing of reindeer bull carcasses).

Continue studies on communication systems for locating reindeer herds and for communication networks between home base, reindeer herds, snow travelers, aircraft, etc.

Develop low cost, semi permanent, emergency shelters for herders (transportable, relatively indestructible, etc. such as geodesic domes, Yurts, etc.).

Develop and test various methods of fencing rangelands to control the movement of reindeer (and caribou).

Establish dog kennels to breed and train reindeer herding dogs.

Continuing Programs in applied reindeer husbandry research (could be activated in relatively short time but need support for several years to yield maximum benefits to reindeer herders).

Predator control (including non-lethal methods of predator control to satisfy the concern of naturalists, ecologists, etc.).

Warble fly research.

By-product research (hides, blood, ground meat, bone, etc.).

Import and maintain herds of special reindeer for breeding purposes, e.g. Hargin strains from Siberia, Pearyi reindeer from Spitzbergen, woodland caribou from British Columbia.

Disease research, especially toward the control and/or elimination of brucellosis.

Range management programs and rotational grazing schemes.

Revegetation studies and "cultivated" crop production.

Development of markets for reindeer meat and meat by products.

Emergency feeds and feeding programs to prevent starvation during inclement weather.

Educational and Instructional Programs

Reindeer workshops for novice and/or experienced herders.

Apprenticeship program (instruction and practical experience in reindeer herding to prepare prospective herders for advanced training with experienced herders on the Seward Peninsula).

Specialized courses such as.

Meat cutting and processing.

Antler processing for foreign markets.

Diseases of reindeer.

Breeding and selection programs for herd improvement.

Business management, economics and bookkeeping.

Conferences and seminars for administrators, legislators and/or supervisors.

Reindeer Herder Newsletter (news and research reports).

Paraveterinary training.

Apprenticeship training for herders.

CANTWELL REINDEER RESEARCH STATION

The Cantwell Reindeer Research Station was established during the spring of 1968 to fulfill the need for a research area where studies with reindeer could be conducted under natural grazing conditions. Located along the east boundary of Mt. McKinley National Park (63°23' N, 148°56' W) at Mile Post 319.5, Alaska Railroad, the Cantwell-Broad Pass area has long been grazed by indigenous caribou and moose, and from 1922 to 1928 was the center of a U.S. Government reindeer herding operation.

The Station is located near the junction of the Denali and McKinley highways, approximately half way between Fairbanks and Anchorage. The two sections of land (520 hectares) assigned to the University by the U.S. Department of the Interior, Bureau of Land Management, are approximately 1/3 mile from the village of Cantwell and consist, for the most part, of a relatively treeless hill with discrete areas of typical taiga vegetation. Situated approximately at the top of Broad Pass, elevation 2,250', the area is drained to the north by Cantwell Creek and the Jack River, both tributaries of the Nenana River. Drainage to the south leads to the middle fork of the Chulitna River. The average annual snowfall is 113" (record snowfall 190" in 1946-47) and the average temperature during the coldest month, January, is 2.1°F, while the average high temperature in July, the warmest month, is 52°F (record low -45°F occurred in February 1947 while the record high 89°F was recorded in June 1961).

To date, 28 hectares of this land have been subdivided into 8 grazing paddocks. Lane fences from these paddocks lead to the reindeer handling area, which contains working and cutting corrals, a field laboratory building, and an animal research barn. These buildings provide shelter for the experimenters during inclement weather, laboratory bench space, equipment and supplies for initial treatment and/or preservation of biological samples, and reindeer holding pens, metabolism stalls, etc. Electrical power is supplied by a 5 kw gasoline generator adjacent to the field laboratory building.

The main Station in Cantwell consists of three 10' x 60' house trailers which provide living accommodations for scientists, students and technicians. There is also a 20' x 80' research laboratory, library and study area, an experimental Greenhouse and a Conference Center (under construction). Communication between researchers in the field and at the Station is made possible through a radio communication network that includes aircraft, portable units (on foot, truck, snow machine, etc.) and base station.

Although research efforts have emphasized nutritional and environmental physiology of reindeer, the Station is being used increasingly by wildlife behaviorists, plant and animal ecologists, lichenologists, microbiologists, etc. Because of its location in the heart of the Alaska Range with easy access to both taiga and mountain tundra vegetation and wildlife, the facility has attracted visiting scientists from other states and abroad as well as researchers from within Alaska. Indeed, in so far as is known, the Cantwell Reindeer Research Station is the only facility in the world devoted to studies on the fundamental biology of *Rangifer tarandus*, the reindeer and caribou. In 1972, scientists associated with the Station sponsored the First International Reindeer/Caribou Symposium, a conference that attracted more than 150 reindeer scientists from the several circumpolar nations.

The Station is sponsored by the Institute of Arctic Biology, University of Alaska, the Atomic Energy Commission, and the Cantwell Store (Herman Cotter and Robert Smith, Props.).

BUILDINGS AND LIVING QUARTERS

Office and Living Quarter Buildings (12' x 60'); all utilities and completely furnished.

Staff Headquarters and Living Quarter Buildings (12' x 20'); all utilities and completely furnished.

Bunkhouse (12' x 60'); furnished for six (6) men.

Library and Office (one end of bunkhouse building); library contains a complete collection of research reports, text books and reference books pertinent to reindeer husbandry. Research reports on reindeer production are obtained weekly through a world wide literature searching service (ASCA). Copies of these reports are obtained through arrangement with the University of Alaska library.

Mechanical, Electrical and Plumbing Shop (approximately 250 sq. feet).

Research Laboratory and Veterinary Health Care Building (20' x 80').

Field Research Laboratory (10' x 20').

Field Research Barn (10' x 20').

Feed Storage Shed (10' x 20').

Corrals and Animal Feeding Facility

Experimental Greenhouse.

Conference Center (under construction); this building will be used for workshops, lectures and demonstrations, special briefing sessions, conferences and seminars at various levels, etc. It will also provide office and study areas as well as the library and reference collection.

LABORATORIES AND RESEARCH FACILITIES

Nutrition Research Laboratory; fully equipped.

Meats Research Laboratory; basic equipment including meat saw, meat grinder and large whole carcass grinder on order other equipment undoubtedly will be needed to complete this area.

Veterinary Research Facility including pathology and diagnostic laboratory, surgery, autopsy and post-operative care. This facility is scheduled for completion summer of 1975.

Field Research Barn is available in the fenced grazing area and can be used to supplement research activities in the new research laboratory building. Additional reindeer research facilities are available at the Institute of Arctic Biology where specialized apparatus such as controlled environment chambers, a whole body ^{60}Co irradiator "Bossy Nova", respiration apparatus, etc. are available for intensive physiological and nutritional research studies.

UTILITIES AT THE RESEARCH STATION

Propane, fuel oil, water, telephone, CB radio communication network, electricity (220 volt/3 phase) and sewage disposal system.

VEHICLES

Dodge Crew Cab Truck, two wheel drive.

Dodge Crew Cab Truck, four wheel drive.

Dump Truck (on order).

Dozer with bucket and/or blade (on order).

Two "Sno Tracs" (all terrain vehicles).

Miscellaneous Trailers (water, flat bed, cargo, etc.).

SUPPORTIVE FACILITIES AND EQUIPMENT AT CANTWELL

Boom truck.*

Dozer with Blade.*

Back hoe and bucket loader.*

Grader.*

Restaurant.

Store.

Laundry.

Living quarters.

Garage.

Available storage.

Railroad off loading facilities.

Post Office.

Alaska Department of Fish and Game, Cantwell Station.

Alaska State Troopers, Cantwell Station.

Alaska Railroad; passenger and freight service.

Fairbanks Air Service; passenger and freight service.

* Available for hire at minimal rates.

This figure shows the bunkhouse, greenhouse and the foundation for a log Conference Center which will be used for instructional purposes, seminars, and will also house the reindeer library.



The main office building at the Station Headquarters also functions as a communications center and kitchen.



Reindeer library for use by researchers at the Cantwell Station contains an up-to-date collection of research reports from Reindeer Stations in the USSR, Scandinavia, Canada and Alaska. The world's literature is searched weekly through a computer-programmed searching service and copies of pertinent reports are obtained for our reindeer libraries at Cantwell and at the Institute of Arctic Biology.



Reindeer Research Laboratory also includes areas for surgery and pathology, autopsy, meats research, metabolism and physiology, and a small animal vivarium.



An aerial photograph of the research area and adjacent rangelands. (Panorama Mountain appears in the background.)

Cantwell resident Frank Second Chief is shown feeding the reindeer during winter, 1970.



This photograph shows Cantwell resident Mike Pedro operating a steam jenny to thaw holes in the permafrost for fence posts.



Food storage building (right) and "self-feeder" (left) within the main grazing paddock.



Radioecologists F. W. Whicker (left) and D. F. Holleman are shown weighing a young male reindeer in the Cantwell corral.



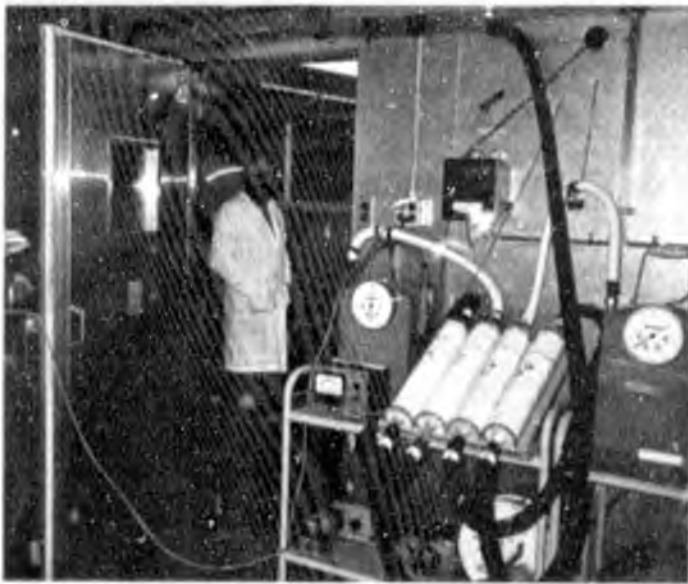
Cantwell resident Bud Carlson is shown at the field laboratory building. Strong winter winds frequently cause severe drifting and compacting of snow, especially in the immediate vicinity of corrals and research buildings.



All-terrain vehicles "Sno-Trecs" and pickup trucks are available for researchers working in the field.



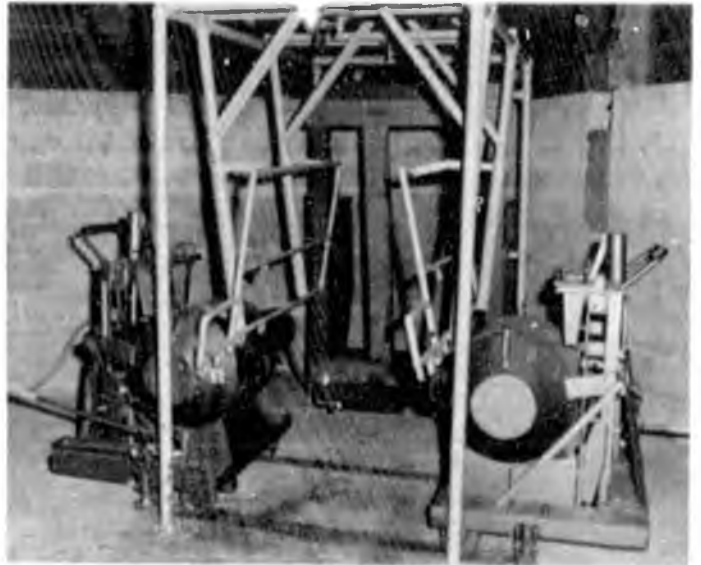
This photograph shows hand-picked lichens (left) and lichens that have been made into pellets (right) for use during nutrition experiments.



This photograph shows J. R. Luick standing inside the controlled environment chamber at the Institute of Arctic Biology where two reindeer are being maintained for studies on the effects of environment on body composition.



J. R. Luick (left) and D. F. Holleman (right) are shown discussing the liquid scintillation counter that is used to measure radioactive isotopes in various biological samples.



Cobalt-60 (^{60}Co) irradiator at the Institute of Arctic Biology which is used for studying the effects of ionizing radiation on body function.



The photograph shows the portable scintillation counter being used to measure the radioisotope body burden of male reindeer "Pierre".



Visiting Norwegian scientist Dr. Hans Staaland collects a sample of saliva from an esophageal fistulated reindeer. This fistula also enables researchers to collect samples of food actually selected by the reindeer while grazing on rangelands.



J. R. Luick measuring the depth of the rump fat pad (in this case, 3") that was deposited on a well nourished male caribou during the brief summer period of fattening.

Dr. R. G. White observes an experimental reindeer that is fitted with a respiration mask for studies on its energy requirement during various types of activity.



Reindeer "Pierre" has a full set of antlers by mid June. The growth of this antler rack was induced by changing the length of daylight hours.



Cantwell resident Tex Allbright holds a large gray wolf which he trapped along the fence lines at the Cantwell Reindeer Station during the winter 1968-69.



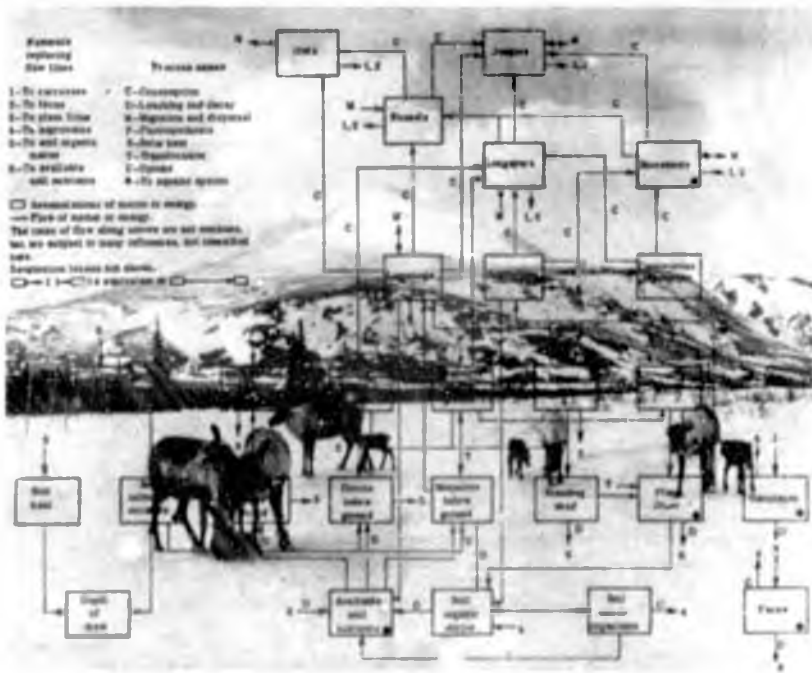
Norwegian reindeer scientist Eigel Reimers (left) and Dr. R. G. White have just obtained a sample of reindeer milk.



Drs. M. K. Yousef (left) and R. D. Cameron (right) are shown inserting a tube into the rumen of a reindeer. This tube will be used to remove samples of fluids and food from the reindeer's stomach when needed for the experimental study.



Research scientist M. K. Yousef with reindeer "Pierre" during an experiment to determine the heat production of reindeer during summer. Dr. M. Yousef is now stationed at the University of Nevada at Las Vegas.



This photograph shows an overlay block diagram of a proposed model for an arctic ecosystem. Research with reindeer at Prudhoe Bay, sponsored by the International Biological Programme, provided information needed to complete and make operational this model.

From left to right, research assistant Steve Persson, Dr. White and veterinary student Paul Frelter, performing field surgery on a tranquilized caribou at Prudhoe Bay.



Dr. Robert White and Paul Frelter leading two reindeer to a new grazing area at Prudhoe Bay, summer 1972. These reindeer were flown from the Cantwell Research Station to Prudhoe Bay for studies relating to caribou biology in the vicinity of the oil fields.

Ecosystem studies included determining the role of maternal milk in the nutrition and energy balance of her calf, seasonal changes in milk composition and the effects of nutrition on milk synthesis. The photograph shows the lactating female cow with a rumen fistula plug and a backpack for instruments needed for the continuous infusion of ^{14}C -labeled metabolites.





Dr. Robert G. White lectures students on the importance of nutrition in successful reindeer breeding.



Extension specialist Bill Scarborough demonstrates a tanning method as one way to utilize reindeer by-products.



Veterinarian Robert Dieterich shows students how to judge the age of reindeer by examining teeth.

Instructor Robert A. Pegau, Alaska Department of Fish and Game (Nome) shows a species of lichen to Robert Akpik (Point Ley). Others in the photograph are, left to right, Nancy Akpik (Point Ley), Dr. R. D. Cameron (ADF), Chuck Wheeler (Nome), Dr. R. G. White, Ed Shavings and Dale Smith (Nunivak Island), Rob Tidd (BIA, Bethel) and Norman Ongtowasuk (Wales).





Students Abel Akpik (left) and Dale Smith (right) practice roping reindeer "cowboy style".



Participants in the Reindeer Herders Workshop watch veterinarian R. A. Diesterich castrate a young male reindeer. Students shown standing, left to right, are Norman Ongtowsruk (Wales), Chuck Wheeler (Nome), Jimmy Kvamme (Aniak), Bill Scarborough, Instructor, University of Alaska, Bob Tidd (BIA, Bethel) and Ed Shavings (Nunivak Island).



Veterinarian R. A. Diesterich shows Kvamme how to clean and dress a wound that has been contaminated with insect larvae.



Two aircraft were used to demonstrate techniques for locating a reindeer herd to participants in the Reindeer Workshop. Pilot veterinarian Robert Diesterich demonstrated how radar and other all-weather aircraft locator techniques can be used to find reindeer regardless of weather conditions. Alaska Department of Fish and Game range specialist Bob Pagau (Nome) also used the aerial classroom technique to instruct students on evaluation of reindeer ranges from the air.



In August 1974 three reindeer scientists from the USA visited Soviet Reindeer Stations at Norilsk and Yakutsk in Siberia. The photograph shows the USA and USSR reindeer group on the tundra ranges near Norilsk. USA scientists included D. R. Klein (left), Cooperative Wildlife Research Unit, James Hemming, Bureau of Land Management (third from left), and J. R. Luick, University of Alaska (sixth from left). Soviet scientists Edward Borozdin, A. D. Mukhachev and Nadia Borozdin (second, fourth and fifth from left, respectively) represent the Extreme North Agricultural Research Institute at Norilsk.

Three scientists from the USSR visited the Cantwell Station during summer 1974. These included Professor V. L. Kontrimavichus, Institute of Biological Problems of the North, Magadan (second from left), Dr. V. D. Denisov, Department of Nature Preserves, Moscow (fifth from left) and Dr. V. Borisov, Central Laboratory on Nature Conservation, Moscow (kneeling).



Dr. Edward Borozdin and Chief herder Spiridon Balin, kneeling center, point out symptoms of brucellosis in a male reindeer. Photograph taken on tundra range near Norilsk, Siberia.



This photograph shows Dr. Robert White explaining research activities to the Soviet delegation at the Cantwell Reindeer Station, September 1974.



In 1972, reindeer scientists at the University of Alaska sponsored the First International Reindeer/Caribou Symposium, a highly successful four-day meeting that was attended by more than 150 reindeer scientists and wildlife biologists representing all the circumpolar nations. This photograph shows Norwegian reindeer scientist, Dr. Sven Skjenneberg, telling Symposium participants about research activities at the Norwegian State Tame Reindeer Institute, Herstad, Norway.



UNIVERSITY OF ALASKA, FAIRBANKS
Fairbanks, Alaska 99701
INSTITUTE OF ARCTIC BIOLOGY

*Lynne: The purpose
letter is to see where
programs have met the
1978-79 budget -
J.R.L.*

November 6, 1979

Representative Brian Rogers
Room 710 F Gruening Building
University of Alaska
Fairbanks, AK 99701

Dear Representative Rogers:

I enclose copies of two programs for teaching and research that were proposed for the FY81 University of Alaska budget on behalf of the reindeer herders of Alaska. According to the Director of the Agricultural Experiment Station, Dr. James Drew, these program requests were deleted from the AES and SAIRM budget requests because they could not be accommodated within the 19% ceiling placed on the developmental budget.

I am also enclosing resolutions that were adopted by the Rural Area Development Council in Kotzebue (10/14/76) and in Nome (5/18/78) and by the Reindeer Herders Association in Nome (8/31/76). In addition, you should receive letters in support of these programs from: Mr. John Shaeffer, NANA Reindeer Corporation, the Nome Chamber of Commerce, the Reindeer Herders Association, the Reindeer Sul Committee of the Alaska Cooperative Land Managers Task Force (Mr. Ted Freeman, Chairman), the Sitsauk Native Village Corporation, the Nome Eskimo Community and the Alaska Federation of Natives.

As you are doubtlessly aware, much of this renewed interest in the reindeer industry stems directly from the rapidly developing velvet antler industry. For example, I estimate that this year the sale of velvet antler (a renewable agricultural resource!) probably grossed about 1.5 million dollars. Further, if this stimulus to increase herd sizes continues until the herds reach the carrying capacities of the ranges, the annual gross income on the Seward Peninsula alone, based on 1979 prices, will probably exceed 5 million dollars. Most important, when this occurs Alaska's reindeer industry will be producing a very significant amount of meat that is preferred by it's native peoples.

Continued...

UNIVERSITY OF ALASKA
INSTITUTE OF ARCTIC BIOLOGY

Rogers

-2-

November 6, 1979

The purpose of the enclosed programs is to provide the research needed by our producers in order to achieve their very realistic goals. Further, they will provide the teaching aids, curricula and training programs that are needed to develop a reindeer industry that is founded on modern livestock industry techniques.

Please advise if there is anything more I can do to assure that these programs get consideration by the legislature this year.

Respectfully,

JACK R. LUICK
Professor

JRL/dgh

enc.

cc: Rep. H. Pappy Moss
Rep. Pat Carney
Rep. Jack Fuller
Senator Frank Ferguson
Mr. Dan Karmun
Dean James Drew
Lynn Hale

6 COMPONENT INCREMENT

FY 81

ABBREV. TITLE

GR/AES - Applied Reindeer Research

COVER PROGRAM

UNIVERSITY OF ALASKA

EXPLAIN WHICH COVER PROGRAM OBJECTIVE IS AFFECTED, AND HOW.

The reindeer industry has requested research assistance on reindeer. This program would emphasize research to: (1) develop husbandry practices that will assist in a transition from meat to broader orientation toward by-product development; (2) develop disease control and animal management as it relates to changing herd practices and related organizational systems; (3) develop markets and reindeer products; (4) develop improved range management techniques; and (5) improve nutritional practices and management.

BRIEFLY DESCRIBE WHAT THIS INCREMENT PURCHASES IN TERMS OF MANPOWER AND OTHER RESOURCES.

Research Animal Scientist	\$ 53.9 K	
Range Scientist	47.2	
Research Veterinarian	15.0	
Staff Benefits @ 21.0%	24.4	
Animal Technician Grade 12	19.5	
Administrative Assistant Grade 12	19.5	
Clerical Assistant Grade 9 - 6 mos.	8.5	
Staff Benefits @ 24.1%	11.4	
Graduate Research Assistants (2)	16.0	
Travel	8.0	
Contractual Services	7.0	
Commodities	5.0	
Equipment (snowmachine, sled, 1/2-ton p.u.)	16.0	
		TOTAL \$251.4 K

CODE	EXPENDITURE BY OBJECT	AMOUNT
100	PERSONAL SERVICES	21.0
200	TRAVEL	
300	CONTRACTUAL SERVICES	
400	COMMODITIES	
500	EQUIPMENT	16.0
600	LANDS, BLDGS, ETC.	
700	GRANTS, CLAWDS, ETC.	
800	MISCELLANEOUS	
	TOTAL	25.0

FEDERAL RECEIPTS	
GENERAL FUND MATCH	
GENERAL FUND	25.0
PROGRAM RECEIPTS	
STUDENT FEES	
FEDERAL COST RECOVERY	
OTHER RESTRICTED RECEIPTS	

POSITION COSTS		TEMPORARY	TOTAL MAN
No. PFT	No. PFT		
101	101	101	66

CHECK ONE:	INCREMENT CLASSIFICATION (circle one)			
Continuation <input type="checkbox"/>	1	2	3	4
New Services <input checked="" type="checkbox"/>				

PRIORITIES				
Component	GRU	MAU	Cover Program	COVER PROGRAM
8 / 27	/	/	/	ACC
				NEA

MAU UR/FAIRBANKS

GRU ORGANIZED RESEARCH

COMPONENT Agricultural Experiment Station

DATE REVISION 7/9/79

6 COMPONENT INCREMENT

13 PERSONAL SERVICES
REQUEST FOR NEW POSITION

FY 81

POSITION TITLE Professor of Animal Science		RANGE/STEP	DANG. UNIT	LOCATION	APPROV.	DISAPP.
					GOV.	
TYPE OF POSITION <input type="checkbox"/> FTE <input type="checkbox"/> PPT	MAN MONTHS 12	PRIORITY		FORM 12 PAGE/LINE	LEG.	

TYPE OF EXPENDITURE	1	2	3	AMOUNT
PERSONAL SERVICES:				
SALARY		53,900		
BENEFITS		11,300		
TRAVEL				
HEALTH INS.				
TOTAL PERSONAL SERVICES				65,200
TRAVEL				8,000
INDIRECT				7,000
SALARIES				9,000
EQUIPMENT				16,000
OTHER				
TOTAL COST				101,200

JUSTIFICATION: The reindeer industry has requested research assistance on reindeer. This program would emphasize research to: (1) develop husbandry practices that will assist in a transition from meat to broader orientation toward by-product development; (2) develop disease control and animal management as it relates to changing herd practices and related organizational systems; (3) develop markets and reindeer products; (4) develop improved range management techniques; and (5) improve nutritional practices and management.

This position will provide leadership for a comprehensive Reindeer Research Program. This program also includes the following personnel:

- Range Scientist (12 months)
- Range Veterinarian (3 months)
- Animal Technician (12 months)
- Administrative Assistant (12 months)
- Clerical Assistant (6 months)
- 2 Graduate Research Assistants

CODE	FUNDING SOURCE	AMOUNT
	FEDERAL RECEIPTS	
	FEDERAL FUND MATCH	
	FEDERAL FUND	101,200
	UNIVERSAL RECEIPTS	
	STUDENT FEES	
	INDIRECT COST RECOVERY	
	OTHER RESTRICTED RECEIPTS	

ESTIMATION	
OTHER	101,200

FAIRBANKS ORGANIZED RESEARCH COMPONENT Agricultural Experiment Station DATE REVISED 7/9/79

13 PERSONAL SERVICES REQUEST FOR NEW POSITION

8/17

**13 PERSONAL SERVICES
REQUEST FOR NEW POSITION**

FY 81

1	POSITION TITLE Assistant Professor of Range Science			RANGE/STEP	BARG. UNIT	LOCATION	APPROV.	DIS.
2	TYPE OF POSITION <input type="checkbox"/> PPT <input type="checkbox"/> FPT	MAN. MONTHS 12		PRIORITY		FORM 12 PAGE/LINE	GOV.	LEG.
3	TYPE OF EXPENDITURE			AMOUNT				
	1		2		3			
4	PERSONAL SERVICES:							
	SALARY		47,200					
5	FEE/FIDS		9,900					
6	FICA		XXXXXX					
7	HEALTH INS.		XXXXXX					
8	TOTAL PERSONAL SERVICES		57,100					
9	TRAVEL							
10	COMMODITIES							
11	EQUIPMENT							
12	OTHER							
13	TOTAL COST		57,100					
	CODE	FUNDING SOURCE						
14		PROPERTY RECEIPTS						
15		GENERAL FUND MATCH						
16		GENERAL FUND		57,100				
17		PROGRAM RECEIPTS						
18		STUDENT FEES						
19		INDIRECT COST RECOVERY						
20		OTHER RESTRICTED RECEIPTS						
21	CONTRIBUTION							
22	ADDITION		57,100					

JUSTIFICATION: The reindeer industry has requested research assistance on reindeer. This program would emphasize research to: (1) develop husbandry practices that will assist in a transition from meat to broader orientation toward by-product development; (2) develop disease control and animal management as it relates to changing herd practices and related organizational systems; (3) develop markets and reindeer products; (4) develop improved range management techniques; and (5) improve nutritional practice and management.

This position will provide research support for a program in Applied Reindeer Research.

YAC: JA/FAIRBANKS DIV: ORGANIZED RESEARCH COMPONENT: Agricultural Experiment Station DATE REVISED: 7/9/77

**13 PERSONAL SERVICES REQUEST
FOR NEW POSITION**

8/17

**13 PERSONAL SERVICES
REQUEST FOR NEW POSITION**

FY 81

1	POSITION TITLE Research Veterinarian		RANGE/STEP	BARG. UNIT	LOCATION	F.F. GOV.
2	TYPE OF POSITION: <input type="checkbox"/> FWT <input checked="" type="checkbox"/> PPT	MAX MONTHS 3		PRIORITY	FORM 12 PAGE/LINE	GOV. LEG.
3	TYPE OF EXPENDITURE		AMOUNT		<p>JUSTIFICATION: The reindeer industry has requested research assistance on reindeer. This program would emphasize research to: (1) develop husbandry practices that will assist in a transition from meat to broader orientation toward by-product development; (2) develop disease control and animal management as it relates to changing herd production and related organizational systems; (3) develop markets for reindeer products; (4) develop improved range management techniques; and (5) improve nutritional practices and management.</p> <p>This position provides technical support to a program in Applied Reindeer Research.</p>	
	1	2	3			
4	PERSONAL SERVICES:					
	SALARY		15,000			
5	BENEFITS		3,200			
6	FICA		 			
7	HEALTH INS.		 			
8	TOTAL PERSONAL SERVICES		18,200			
9	TRAVEL					
10	CONTRACTUAL					
11	COMMODITIES					
12	EQUIPMENT					
13	OTHER					
14	TOTAL COST		18,200			
	CODE	FUNDING SOURCE				
15		FEDERAL RECEIPTS				
16		GENERAL FUND MATCH				
17		GENERAL FUND		18,200		
18		PROGRAM RECEIPTS				
19		STUDENT FEES				
20		INDIRECT COST RECOVERY				
21		OTHER RESTRICTED RECEIPTS				
21	CONTINUATION					
22	ADDITION:		18,200			

NAU UA/FAIRBANKS ORGANIZED RESEARCH COMPONENT Agricultural Experiment Station DATE REVISED 7/9/79

**13 PERSONAL SERVICES
REQUEST FOR NEW POSITION**

FY 81

1	POSITION TITLE Animal Technician			RANGE/S/LP	ORG. UNIT	LOCATION	CCV	
2	TYPE OF POSITION <input checked="" type="checkbox"/> PER <input type="checkbox"/> PPT	MAN MONTHS 12		PRIORITY		FORM 12 PAGE/LINE	LEG	
3	TYPE OF EXPENDITURE			AMOUNT				
4	PERSONAL SERVICES:			1		2		
4	SALARY					19,500		
5	BENEFITS					4,700		
6	FICA					 		
7	HEALTH INS					 		
8	TOTAL PERSONAL SERVICES					24,200		
9	TRAVEL							
10	CONTRACTUAL							
11	COMMODITIES							
12	EQUIPMENT							
13	OTHER							
14	TOTAL COST					24,200		
15	CODE	FUNDING SOURCE						
16		FEDERAL RECEIPTS						
17		GENERAL FUND INCH						
18		GENERAL FUND		24,200				
19		PROGRAM RECEIPTS						
20		STUDENT FEES						
21		INDIRECT COST RECOVERY						
22		OTHER RESTRICTED RECEIPTS						
23	CONTRIBUTION							
24	ADDITION	24,200						

JUSTIFICATION. The reindeer industry has requested research assistance on reindeer. This program would emphasize research to: (1) develop husbandry practices that will assist in a transition from meat to broader orientation toward by-product development; (2) develop disease control and animal management as it relates to changing herd practices and related organizational systems; (3) develop markets and reindeer products; (4) develop improved range management techniques; and (5) improve nutritional practice and management.

This position provides technical support to a program in Applied Reindeer Research.

NAU UA/FAIRBANKS ORGANIZED RESEARCH COMPONENT Agricultural Experiment Station DATE REVISED 7/9/77

**13 PERSONAL SERVICES
REQUEST FOR NEW POSITION**

FY 81

1	POSITION TITLE Administrative Assistant			RANGE/STEP	BARG. UNIT	LOCATION	AGENCY
2	TYPE OF POSITION <input checked="" type="checkbox"/> PFT <input type="checkbox"/> PPT	MAX MONTHS 12		PRIORITY		FORM 12 PAGE/LINE	LEG.
3	TYPE OF EXPENDITURE			AMOUNT			
	1	2	3				
4	PERSONAL SERVICES:						
	SALARY			10,500			
	BENEFITS			6,700			
	FICA						
	HEALTH INS.						
8	TOTAL PERSONAL SERVICES			24,200			
9	TRAVEL						
10	CONTRACTUAL						
11	GRANT REVENUE						
12	EQUIPMENT						
13	OTHER						
14	TOTAL COST			24,200			
	CODE	FUNDING SOURCE					
15		FEDERAL RECEIPTS					
16		GENERAL FUND MATCH					
17		GENERAL FUND		24,200			
18		REGULATORY RECEIPTS					
19		STUDENT FEES					
20		INDIRECT COST RECOVERY					
21		OTHER RESTRICTED RECEIPTS					
22	CONTRIBUTION						
23	ADDITION	24,200					

JUSTIFICATION: The reindeer industry has requested research assistance on reindeer. This program would emphasize research to: (1) develop husbandry practices that will assist in a transition from meat to broader orientation toward by-product development; (2) develop disease control and animal management as it relates to changing herd practices and related organizational systems; (3) develop markets and reindeer products; (4) develop improved range management techniques; and (5) improve nutritional practices and management.

This provision provides administrative support to a project in Applied Reindeer Science.

NAU UA/FAIRBANKS PRG. ORGANIZED RESEARCH Agricultural Experiment Station DATE REVISD 7/9/79

**13 PERSONAL SERVICES REQUEST
FOR NEW POSITION**

8/17

6 COMPONENT INCREMENT

FY 81

ABBREV. TITLE
JJAARM Applied Reindeer Research - Teaching Program

COVER PROGRAM
 UNIVERSITY OF ALASKA

CODE	EXPENDITURES BY OBJECT	AMOUNT
100	PERSONAL SERVICES	15,763
200	TRAVEL	4,000
300	CONTRACTUAL SERVICES	12,000
400	COMMODITIES	4,000
500	EQUIPMENT	
600	LANDS, BLDGS., ETC.	
700	GRANTS, CLAIMS, ETC.	
800	MISCELLANEOUS	
TOTAL		35,763

EXPLAIN WHICH COVER PROGRAM OBJECTIVE IS AFFECTED, AND HOW.
 The University of Alaska by Alaska statutes has the responsibility for research, extension and education for the development of agriculture and Alaska's natural resources. This increment addresses the education portion of a program to develop the reindeer industry in Alaska and will support:

1. The training of Extension personnel and field based teachers as well as the support of back-up specialists for specific problems and concerns of the reindeer industry.
2. The development of curriculum and workshops and support for instructor fees and travel costs for planning and organization of the program.
3. The development of educational materials and teaching aids for items such as horn cutting, animal first aid, range plants, castration, and disease recognition and control

FEDERAL RECEIPTS	
GENERAL FUND MATCH	
GENERAL FUND	
PROGRAM RECEIPTS	
STUDENT FEES	
INDIRECT COST RECOVERY	
OTHER RESTRICTED RECEIPTS	

BRIEFLY DESCRIBE WHAT THIS INCREMENT PURCHASES IN TERMS OF MANPOWER AND OTHER RESOURCES.

Personal Services - 6 man months of professional salary

Travel - \$ 4,000 to organize, develop and deliver educational services

Contractual Services - \$12,000 for air charters, back-up specialists, duplication of teaching materials, postage, and phone rental

Commodities - \$ 4,000 Supplies for teaching and office support of the educational program.

POSITION COUNT		TEMPORARY	TOTAL NO. MAN MOS.
No. PPT	No. PPT		
NI	NI 6	NI	6

CHECK ONE:

Continuation

New Services

INCREMENT CLASS CODE (select one)

1	2	3	4	5
---	---	---	---	---

PRIORITIES				
Component	UNU	KAU	Cover Program	GOVERNOR
5 5	5 5	 	 	ACCEPT
				REJECT

DATE REVISIO _____ COMPONENT Academic/SALRN/IPS DATE _____

5 COMPONENT INCREMENT

**13 PERSONAL SERVICES
REQUEST FOR NEW POSITION**

FY 81

1	POSITION TITLE Applied Reindeer Research - Teaching Program		RANGE/STEP	DEPT. UNIT	LOCATION Fbks.	APPROV. DIS.
2	TYPE OF POSITION <input type="checkbox"/> PFT <input checked="" type="checkbox"/> EX PFT	MAX MONTHS 6	PRIORITY 5/5	FORM 12 PAGE/LINE		GOV. LCC.
3	TYPE OF EXPENDITURE		AMOUNT			
4	PERSONAL SERVICES:					
5	SALARY					
6	BENEFITS					
7	FICA		 			
8	HEALTH INS.		 			
9	TOTAL PERSONAL SERVICES		15,763			
10	TRAVEL		1,000			
11	CONTRACTUAL		12,000			
12	COMMODITIES		4,000			
13	EQUIPMENT					
14	OTHER					
15	TOTAL COST		35,763			
16	CODE	FUNDING SOURCE				
17		FEDERAL RECEIPTS				
18		GENERAL FUND MATCH				
19		GENERAL FUND				
20		PROGRAM RECEIPTS				
21		STUDENT FEES				
22		INDIRECT COST RECOVERY				
23		OTHER RESTRICTED RECEIPTS				
24	CONTINUATION					
25	ADDITION	X				

JUSTIFICATION:

The University of Alaska by Alaska statutes has the responsibility for research, extension and education for the development of agriculture and Alaska's natural resources. This increment addresses the education portion of an effort to develop the reindeer industry in Alaska.

This increment is to provide the following support:

1. develop and train teaching aides and materials;
2. support training for the Extension personnel and field based teachers;
3. provide for back-up specialist assistance as necessary for specific industry problems; and,
4. provide leadership in developing a general curriculum.

MAU _____ DRU _____ COMPONENT Academics/SALRM/IPS DATE REVISIO _____

**13 PERSONAL SERVICES REQUEST
FOR NEW POSITION**

Resolution No. 3

regarding

DEVELOPMENT OF A REINDEER INDUSTRY

WHEREAS, there is and will continue to be a severe shortage of meat available from within the Northwest and northern Alaska regions due to restrictions on caribou harvest, and

WHEREAS, NANA Regional Corporation has undertaken to establish a reindeer herd which will be able to provide a relatively cheap and reliable source of meat in Northwest Alaska, and

WHEREAS, NANA Regional Corporation desires to manage this herd on a basis of maximum sustainable yield consistent with maintenance of the range, and

WHEREAS, NANA Regional Corporation intends to increase the herd as rapidly as possible consistent with maintenance of the range,

NOW, THEREFORE, BE IT RESOLVED that the Alaska Rural Development Council endorses the attempts of NANA to develop the reindeer industry in Northwest Alaska, and

BE IT FURTHER RESOLVED that federal and state agencies are encouraged to continue and increase their technical educational and financial support for the reindeer industry, including establishment of a reindeer research facility in northwest Alaska, and

BE IT FURTHER RESOLVED that said agencies be encouraged to assist NANA Regional Corporation in establishing programs of cooperation with the Soviet Union and North European nations to exchange technology, train personnel, increase herds by importation of breeding stock, and ship meat directly to Alaska if feasible, and

BE IT FURTHER RESOLVED that the members of this Council will endeavor to assist NANA and other herd owners to efficiently manage and increase the herds so as to meet the food needs of the people of the Alaska.

ALASKA RURAL DEVELOPMENT COUNCIL - May 17-18, 1978

Nome, Alaska

Resolution Regarding Research and Education on Reindeer

WHEREAS, University of Alaska personnel, such as Dr. Jack Luick, of the Institute of Arctic Biology, have spent years developing research data and collecting information beneficial to the changing conditions of the reindeer industry with very limited financial support, and

WHEREAS, Continued support of this work is very uncertain, and

WHEREAS, Changing conditions such as the sale of reindeer antlers and possible changes in land ownership require a continual evaluation of reindeer management needs, and

WHEREAS, Data for making these management decisions requires considerable research and education capabilities now,

HEREBY BE IT RESOLVED that the Alaska Rural Development Council at its May 17th and 18th Nome meeting, urges the Alaska State Legislature to support, through the University of Alaska, an expanded program of applied reindeer research and education, and

BE IT FURTHER RESOLVED that this resolution be sent to the following:

Governor of Alaska
President of the Alaska Senate
Speaker of the House
President, University of Alaska
President, Board of Regents, University of Alaska