

## 4 Scientists Involved—

# Intensive Study of Troublesome Ice Fog

COLLEGE—Ice fog, that troublesome mixture of gases and vapors which blankets Alaskan cities in sub-zero temperatures, will be the subject of an intensive study next winter by four scientists from the University of Alaska's Geophysical Institute.

The researchers—Drs. Carl Benson, Gunther Weller, Charles Wilson and Ken Philip—will conduct a series of measurements of the fogbank over Fairbanks, using a specially-developed "acoustic radar" device.

The National Science Foundation is providing funds for the project, entitled, "Acoustic Radar Investigation of Arctic Radiation Inversions and Ice Fog," through a recently-announced grant of \$61,400.

A related grant of \$98,500 to the Environmental Science Services Administration's Wave Propagation Laboratory, in Boulder, Colorado, provides funds for construction of the radar sounding device to be used in the experiment.

Although it is generally recognized that a particular climatic condition, called a temperature inversion, often gives rise to the dense gray ice fog which plagues arctic industrial areas, little is known about the structure of the fogbank and the time needed for its development. Information gathered during the acoustic radar study may prove useful in developing techniques to control or prevent the ice fog.

The acoustic sounding device, now under construction at the cooperating Colorado laboratory, will both send and receive pulses of sound from its College Road location. The machine will "beep" into the air overhead, then record the returning echo of its acoustic pulse.

The minute differences in the atmosphere, caused by slight variations in temperature or wind velocity, are easily registered through this technique, because

of the resultant changes in return rate of the sound-waves.

Next winter, as soon as a temperature inversion develops, the acoustic radar will be put into operation, shooting sound waves overhead throughout the development and dissipation of the ice fog. With the recorded information, a profile of the inversion conditions can be developed.

The researchers hope to continue this experiment for several winters. As the study is expanded, a mobile sounding device will be added, to measure the atmospheric density and temperature at various sites around Fairbanks. However, only the stationary sounder on College Road will be in operation in 1971-72.

In the early phases of the experiment, tethered balloons, carrying meteorological instruments, will also be used to measure temperature, wind pressure and radiation thus providing even more accurate measurements of the inversion condition.

Each of the four scientists involved in the experiment will coordinate a different phase of the study. Meteorologist Weller will study the evolution and dynamics of the temperature inversion. Dr. Benson, well-known for his studies of ice fog, will analyze the data received in an attempt to discover the relationship of the inversion to the development of ice fog.

Dr. Phillips is in charge of the project's technical aspects. Infrasonics-expert Wilson, using a delicate microphone instrumented especially for the purpose, will study internal gravity waves involved in inversion conditions.

Study of the development of temperature inversions is of particular importance in the study of ice fog, for without this particular condition pollutants would not be trapped near the earth's surface, but would dissipate as they are released.

# Moose Creek Nike To Scan for Flood

WASHINGTON, D.C. — Senator Mike Gravel (D-Alaska) said he has received assurances from the U.S. Corps of Engineers that the Army Nike site at Moose Creek, Alaska, will remain in operation for at least the remainder of this year.

Senator Gravel said he had been "greatly disturbed" by reports that the site might be closed, "since" the microwave communications facilities at the site constitute the center of the flood warning system for the entire Fairbanks area.

"Although I share everyone's hope that this Spring's run-offs will be gradual enough to avoid severe flooding conditions, the possibility of damaging floods is with us and it is essential that this important warning system be continued until a substitute system can be implemented.

"I therefore, am most pleased with the decision not to close down the Moose Creek site for the remainder of the year, thereby allowing time for the establishment of a new flood warning system to serve the Fairbanks area," Senator Gravel said.

## More Kowchee Art

The arctic winter landscape. The hunter, guiding his dog team across the frozen north, in search of the seal.

These are the themes of two new seal skin drawings by Ralph Kowchee, an Eskimo artist in McGrath, Alaska. In fine detail, they portray the hunter and the hunted, the variations of the seemingly blank white winter landscape.

The drawings are done in black ink on the naturally tanned ivory inside of the skin of the ring seal. The drawings can be cleaned by wiping them lightly with a damp cloth.

These two drawings, priced at \$175 are available from the Tundra Times, along with several of Mr. Kowchee's drawings on deer skin, priced from \$20 to \$55.

## Native Craft

CARVED IVORY, Slippers; mukluks; custom seal skin parkas.

—R.R. "Bob" Blodgett—  
Teller Commercial Company  
Teller, Alaska

If You're Thinking About Going Outside to High School  
Why not a U.S. school to prepare for a U.S. College?

Why not

## OREGON EPISCOPAL SCHOOLS?

Alaskan students this year are from  
Anchorage, Fairbanks, Juneau & Mountain Village  
Grades 7-12 Coeducational

THE HEADMASTER  
OREGON EPISCOPAL SCHOOLS  
6300 S.W. Nicol Road  
Portland, Oregon 97223

Tundra tough



chapparrALaska

1306 - 2nd AVENUE SEATTLE WASHINGTON 98101  
Division of ANICA, INC.

Please send me information on  
CHAPARRAL MACHINES.

☐ Dealer Information.

Name

Address

City  State  Zip

## Nurses to Gang Foreman—

# Health Service Jobs

The Alaska Area Native Health Service is recruiting for the following positions. Closing date for applying for most of these positions is April 16, 1971. Preference will be given to applicants with 1/4 or more Alaska/American Indian, Eskimo or Aleut blood.

Supervisory Clinical Nurse - St. George Island. Requires two or three years experience beyond a nursing degree in coordinating health care. This is an isolated condition post with assignments not to exceed one year.

Clinical Nurse - Fort Yukon. Requires a degree plus 2½ years professional experience or 3 to 4 year degree plus 1½ years experience. This is an isolated post with service limited to one year.

Dietitian - Bethel, Alaska.

Requires B.A. degree plus at least one year experience in the department of dietetics of a hospital.

Mixed Gang Foreman, Equipment Operator, General Maintenance Mechanic, Plumber, Laborer - Anchorage, Galena, Manokotak, Lower Kalskag, Kaltag, Hyadaburg and Klukwan plus other locations. Federal Civil Service Commission qualification requirements apply.

Applicants for the above positions should apply in writing along with a completed SF 171 Personal Qualifications Statement to the Area Personnel and Training Branch/ Department of Health Education and Welfare/ Public Health Service/ Alaska Area Native Health Service/ Box 7-741, Anchorage, Alaska 99501

**LUMBER & BUILDING MATERIALS**  
BUY WHERE YOUR DOLLAR GOES FARTHER!

## PLYWOOD

Building Materials of All Types

## PRE-FAB HOMES

All Sizes

## PLUMBING AND

## ELECTRICAL SUPPLIES

COLUMBIA TRANSPORTATION

1110 West Ewing

Seattle, Washington 98119

PHONE: 206-283-6100

## FILM PROCESSING

Color Prints (Jumbos) we exp. \$2.87; 20 exp. \$4.39; psst \$1.19 refund on negatives not printed.

Color Slides up to 20 exp. \$ .99 roll.

Super 8 or 8mm movies—\$1.09 roll.

Send film with check or money order to:

"THE PHOTO MINE"

Box 299A

North Bend, Oregon 97459