

**"I may not agree with a word you say but I will defend unto death your right to say it." — Voltaire**

# Tundra Times



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## Editorial Comment—

# The Defeat of the Thirteenth Region

At this point of the series of actions relative to Alaska Native Claims Settlement Act, the attempt to form the 13th Regional Corporation by vote of the non-resident Alaskan Natives has fallen short of making it a reality. Even with some further review of the balloting and appeals, it looks as if the vote of our Alaskans in the Lower 48 will stand. This will mean that the Natives who left Alaska to settle elsewhere will be enrolled in their respective regional corporations, whether that corporation is on the Arctic Slope, Northwest, Southeast, Bering Straits region, Bristol Bay, Aleutian area, Chugach, Kenaitze, Southwest, Interior Athabascans, Copper River region and Kodiak area.

The effort to form the 13th region has been one of the most controversial issues from the start. It has been an intense soul-searching job for the non-residents where the outcome became doubtful at many points along the way, making it even more formidable for those who have had to vote. Strong ties along the family lines and to land came to the fore at last.

We have to say that we are profoundly grateful of the outcome, even to the point of poignancy. The folks in the other states showed unmistakable wisdom in choosing to retain ties with their home country. In doing so, they will be able to participate in the progress of the land claims award, if they chose to, so that it will be done in the greatest interest of all our Native people in Alaska and those that will come in the future.

We are also aware that many of our non-resident Natives have attained fine technical skills while they were out there. Many of these skills can certainly be utilized in the massive effort to make the land claims award work for the greatest good for all our people. This possibility of service for their people back home, they should keep in mind.

There will always be welcome signs to our non-resident folks among their relatives and friends back home in Alaska.

## At Land's End Village—

# The Old Eskimo

Land's End Village  
State of Alaska  
Nov. 7, 1973

Dear Howard:  
An old friend of mine stop-

## Fort Yukon Newspaper

Fort Yukon School  
Fort Yukon, Alaska  
Oct. 8, 1973

Dear Mr. Rock:  
The elementary school is starting to sell the newspapers. Is there someone in your village that will like to send some news for our newspaper?

Subscriptions to newspaper are \$4.00 per year.

Sincerely,  
Donald Kelly

ped by and spent a few days with Wally and me last week. Charlie has a trampoline up river and comes down for a visit every freeze-up to gather his supplies for the winter and also catch up on all the news.

Charlie, Wally, and I were looking at the Oct. 24 issue of the Tundra Times and were especially interested in the article concerning a special Handbook that has been prepared to help Native people understand the "Corporation game." As you know, Howard, in AN ACT we have to form corporations as stated in Sections 7 and 8.

Charlie was confused about what the Handbook said about a corporation being like a motor. He said that there are many dif-

(Continued on Page 6)

# Spectacular Celestial Wanderer—

## Comet Kohoutek to Be Glittering Christmastime Visitor



COMET KOHOUTEK, called "the comet of the century," should soon be visible streaking across Alaska's southeast sky in the early morning hours. Kohoutek is not yet close enough to the earth to be seen by the naked eye, but by Nov. 15 it should be visible before sunrise. Shortly before Christmas it will be in the southern sky in the evening, and by early January, it is possible that the comet and its extended tail might even be visible during daylight hours low in the southern sky. Shown in the photo is Comet Bennet, which appeared in 1969; astronomers expect Kohoutek to be even more spectacular.

— UA News Service Photo by NASA

FAIRBANKS — A celestial visitor should soon provide some spectacular viewing in Alaska and elsewhere around the world according to scientists at the University of Alaska Geophysical Institute.

Especially before and after Christmas the sky should contain a very bright comet, said by some to be "the comet of the century." Comet Kohoutek. The comet was named after the astronomer at Hamburg Observatory who discovered it in March, 1973.

"The surmise that Comet Kohoutek may turn out to be a very bright object is based on its early brightness, which indicates a considerable dust content," said Wallace B. Murray, associate professor of physics at the Geophysical Institute.

"The comet was not observable during the summer, because it was behind the sun," he said. "It was picked up again, however, by Japanese observers from the Kochi Observatory in late September. At that time it had brightened to about 11th magnitude—roughly 100 times the original brightness."

It is now predicted that Kohoutek will become bright enough to be seen with the naked eye in mid-November or perhaps earlier.

At present the comet rises and sets before the sun, therefore it can be observed only in the early morning hours. From Fairbanks, at 6 a.m., it is approximately 100 above the horizon in the southeast. For more southern Alaskan locations it is a bit higher, and for more northern ones, lower.

During November, the comet will move progressively lower and toward the south. Early in December it will go below the horizon as seen from Fairbanks. But soon it will reappear in the evening sky, low in the south, a few days before Christmas. It

will be closest to the sun, and presumably brightest on December 28.

At this time the growth of an extended tail may make the comet visible for a long time each evening. Kohoutek may even be visible in the daylight sky, but it will remain low in the south until about January 8. Then it will be 50° above the horizon at 5 p.m. and it may appear above the horizon again before sunrise. From then on it will move westward and higher in the sky.

"It is not definitely known at present what sort of tail system the comet will develop," Murray said, "but it is likely that it will have both gas and dust tails. A dust tail is yellow in color and often noticeably curved; a gas tail is fainter and bluish in color, and it is relatively straight. The head may be reddish or yellowish in color but if it is very bright, the comet head will look white."

The comet is now in a rather sparsely populated part of the sky, near the autumnal equinox, the point where the celestial equator intersects the ecliptic. Around mid-November it will be near the constellation Corvus, moving southeastward toward Scorpio.

During December and January it will be moving very rapidly through the star field. On Dec. 19 it will be in Scorpio near Antares; from there it moves north and east.

On Dec. 24 it will be in Sagittarius, about 50° north of Sigma Sagittarius, and during January it will traverse Capricornus and Aquarius. From Feb. 1 on, the comet is expected to fade quite rapidly, becoming invisible to the naked eye near the first of

Comet Kohoutek was first noticed last March, as a faint, diffuse object on a photographic plate. At that time, it was about 16th magnitude, which is rough-

ly ten thousand times fainter than the faintest star which can be seen by the naked eye under good viewing conditions.

Once discovered, attempts were made to photograph the comet again, and also to find it on previous photographs. Both attempts were successful, and a series of positions of the object against the star field were obtained, from which an orbit was calculated.

The orbit showed the object to be below (south) of the plane of the earth's orbit and to be coming in toward the sun on a track which would bring it within less than 14 million miles of the center of the sun. At the end of March, 1973 it was somewhat further from the sun than is Jupiter, and it will be closest to the sun on Dec. 28, after which it will speed away from the sun.

"Kohoutek is somewhat brighter than Comet Bennet had been at a comparable distance," said Murray. "Comet Bennet put on a magnificent show in 1969. The new comet will pass closer to the sun than Bennet did, and it will be above (north) of the earth's orbital plane shortly before passing closest to the sun. Thus indications are that Kohoutek will be a very bright comet providing a spectacular display in addition to much scientific information."

"When comets pass close to the sun, some portions get very hot," he said. "Metals such as iron and nickel appear in gaseous form. While Comet Kohoutek is close to the sun in late December there is likely to be violent activity in the head portion, with flare-ups in brightness and sometimes actual break-up of the comet. The brightness sometimes becomes sufficient that the comet can be seen even in daylight."

The brilliant comet "1910" (the first comet of the year 1910), was roughly the same distance from the sun as is projected for Kohoutek. It was seen in daylight when it was only 40° (teight solar diameters) from the sun. Comet 1910a appeared just before Halley's comet, and seems to have been more spectacular.

Tail development of comets is generally more pronounced after passing the sun; some comets develop tails which spread over an angle in the sky of 30-40 degrees.

According to Dr. Neal Davis, deputy director of the university's Geophysical Institute, two scientists will be making observations of Comet Kohoutek from a National Aeronautics and Space Administration (NASA) Convair 990.

The aircraft will be especially equipped to study the comet's appearance and activities from the air. Dr. Gulamabas Sivjee, assistant professor of geophysics, and Dr. Gerald Romick, associate professor of geophysics will be aboard.

In addition, the institute's television equipment on Ester Dome, near Fairbanks, will be used to look for possible effects on the comet's tail due to changes in the solar wind, the stream of ionized gases which are constantly streaming away from the sun. The television equipment is ordinarily used to study the aurora borealis which is also influenced by the solar wind.

The University of Alaska will make available to the public any significant information obtained from these projects.