

College, Alaska 99701 U.S.A.

A-1-74-AK

May 14, 1975

Erk Reimnitz
U. S. Geological Survey
345 Middlefield Road
Menlo Park, California 94025

Dear Erk:

When I was at Barrow last year I was able to fly to Pt. Hope and back one afternoon. Flying down I was able to take 35 mm obliques from the right side of the cockpit and on return I took obliques from the left side of the plane. I am enclosing these photographs, a transcript of my notes taken at the time, and a flight line map with the location each photograph was taken indicated.

I'm sorry it took so long to get these to you, but I think they are much more useful with the flight line data. A considerable amount of work went into the preparation of those maps. For instance, photographs from the down leg flight were compared with photos from the return flight to make sure of location accuracy. The camera had a 50 mm lens and an effort was made to get the horizon in many photographs.

As you know, I was later able to get vertical aerial photos in the Harrison Bay area using the repaired ARL Cessna 180. These have been developed and two print copies made. One copy is yours and is also enclosed. The photos were taken from 10,000 feet with an old camera using 7" film and an 8.25" lens. This gives a somewhat narrow field of view. I also took obliques at the same time. Roughly speaking, the flight line went from Cape Halkett out over the shoals and then along the major ridge system to cross island. Before too long I will prepare a flight line map of that flight (using a LANDSAT image) and send it to you along with the oblique photos.

I'm sure Peter Barnes has mentioned seeing me in Anchorage. Please give him my regards. Perhaps I will see you both up here this summer.

Sincerely,



W. J. Stringer
Research Associate

Enclosures

WJS:wr

Eik - I presume you have already received your copy of this data.

Water Resources Division
Prescott Project Office
P.O. Box 2367
Prescott, Arizona 86301

October 7, 1974

Mr. William Stringer
Geophysical Institute
University of Alaska
Fairbanks, Alaska 99701

Dear Bill:

A roll of KA-50 prints covering the area of your interest on the sea ice is being sent to you by registered air mail today. Another roll is being sent to Dr. Reimnitz.

You will recall that we discussed earlier the fact that the framing mechanism on the camera malfunctioned in flight. We believe that there is good coverage of your area, even so.

Please let us know if the original shipment is found.

Sincerely,

(Mrs.) Mary L. Brown
Research Program Administrator

Pacific-Arctic Branch of Marine Geology
345 Middlefield Road
Menlo Park, California 94025

August 6, 1975

Mr. W. J. Stringer
Geophysical Institute
University of Alaska
College, AL. 99701

Dear Bill:

Due to a cruise to Mexico, sea trials of the R/V KARLUK, and preparations for our summer work in the Beaufort Sea, I am late in acknowledging the receipt of your aerial photos and letter. So far the coverage from Barrow to Pt. Hope has been most useful for me, since all images are recorded along the flight line. I have studied these with much interest and learned a great deal. The coverage between Cape Halkett and Cross Island shows a most interesting ice terrain, but since I don't know the relationship to the coast and bathymetry I don't have the proper perspective to make an analysis. You indicated in your letter that you would try to relate the coverage to a LANDSAT image, and I am very eager to see this. It would still be better if I could discuss the coverage with you personally, and will try to stop by when I am in Alaska this summer. How is your own shear zone study progressing? I see some very interesting relationships, but have not had the time to write anything on the subject.

Peter is aboard the KARLUK between Kotzebue and Barrow at the present, doing a reconnaissance survey of the nearshore area, and then will proceed with Jim Rogers from Barrow to Prudhoe Bay doing seismic refraction studies and other surveys. I will have the vessel from about August 20 to freeze-up, and plan to do topical studies between Cape Halkett and Flaxman Island. I heard rumors that ice conditions in the Beaufort Sea are prohibitive, so far, but haven't lost hope to get something accomplished.

I thank you very much for the data you sent, and look forward to seeing the Cape Halkett to Cross Island flight line.

Best regards,

cc:
Director
Marine Washington/Energy
Marine Reading
Reimnitz
EReimnitz/bgr
GD-8/6/75

Erk Reimnitz

On 2-17-97 I looked over the aerial photos Stringer took on April 30, 1974 from the R4D, with a handheld camera, from Barrow to Pt Hope and return. The polynyas are rather well recorded, mainly from Pt. Lay to the north, with new ice forming on them. There is also ill-defined open water south of Pt. Hope, and off Barrow. One could map the configuration of the openings and estimate inshore water depth, because the maps show the flight route and locations for photos, and in many shoreline features serve as reference points. I do not see clearly what the ice zonation is and how it is controlled. There is no simple fast-ice belt with ridges along outer edge. The polynya is irregular, separated from the shore by ridged fast ice. Nowhere is extensive smooth fast ice. The inner edge of the polynya is not marked by big ridges in most areas. First time around I did not get a good sense of the dominant wind direction, and there is no noticeable eolian dusting on ice, nor dirty ice in ridges, as far as I can tell. I tried to call Stringer.