SECOND BI-MONTHLY PROGRESS REPORT
UNIVERSITY OF ALASKA
ERTS PROJECT 110-11
April 1, 1973

A. TITLE OF INVESTIGATION: ERTS-A Data as a Teaching and Research Tool in the Department of Geology

B. PRINCIPAL INVESTIGATOR/GSFC ID: Donald Grybeck UN 602

C. PROBLEM IMPEDING INVESTIGATION: None; however, it would be convenient if prints ordered by Data Request Form would be forthcoming sooner.

D. PROGRESS REPORT:

(a) Accomplishments during reporting period: All the prints held at the Geophysical Institute, University of Alaska have been examined. A selection was made that includes about 50% of the state and a large Data Request was sent in on February 26, 1973. An index map has already been prepared in anticipation of their arrival.

In using the ERTS material in teaching larger classes, it was found that none of the formats routinely prepared by NASA is really convenient. Accordingly, 35 mm transparency slides were prepared from a number of prints using a SLR camera and photoflood lamps. These slides have proved very convenient to illustrate geology from ERTS photographs as well as to illustrate or contrast the type of information that can be seen in the various bands or in color formats. It was also found useful to use these slides in conjunction with 35mm slides showing the available geology at approximately the same scale as well as referring to a topographic map in slide form. Unfortunately, few Alaskan geologic maps have been prepared to ERTS scales but some of the 1:250,000 geology quadrangle series of the U.S.G.S. serve as good summaries; the topographic reference base found most convenient is the AMS plastic relief series at 1:1,000,000.

(b) Plans for Next Reporting Period:

(1) As new material becomes available for Alaska, microfilms and/or prints will be scanned and Data Request Forms will be made out immediately to achieve complete coverage of Alaska with good quality, cloud-free prints.

(2) When the large order of prints requested under the Data Request Form of February 26 arrive, the preparation of the mosaic of the state will begin.

(3) The process of preparing 35mm slides of ERTS prints integrated with slides of the geology and topographic maps will continue. An index of these slides in card form with such information as faults, geomorphology, petrology, etc. and a bibliography of the apporpriate literature will accompany them.

E. SIGNIFICANT RESULTS:

ERTS prints have been used extensively in a Geology of Alaska class to give a basic framework of the geology of the state. In addition, they have been used intermittantly in such diverse classes as:

(a) Economic Geology (e.g. the Sn-bearing granites of the Seward Peninsula are particularily noticeable due to their wide contact metamorphic aureoles.)

(b) A "canned" Geology of Alaska lecture which has been given to two different introductory geology courses, a Geography of Alaska class, two seminars, and will be given to the local Historical Society.

(c) Structural Geology (e.g. the Fairweather and Denali Faults are strikingly obvious).

It was found most convenient for larger classes to prepare 35mm slides of the ERTS prints that are used in conjunction with slides of the topographic and geologic maps at about the same scale. Thus the emphasis has been in integration of the ERTS material into existing courses. As such, the ERTS data has provided a unique and striking viewpoint that never fails to initiate favorable comment.

In addition, prints have been examined by numerous researchers to develop a regional, integrated overview on such varied topics as regional geology to a background for local geologic mapping to stuides of ore deposits to the definition of a formation that was to be studied in detail at its type locality.

F. PUBLICATIONS: None

G. RECOMMENDATIONS: None

FOURTH BI-MONTHLY PROGRESS REPORT
UNIVERSITY OF ALASKA
ERTS PROJECT NO. 110-11
April 1, 1973

PRINCIPAL INVESTIGATOR: Donald Grybeck UN602

TITLE OF INVESTIGATION: ERTS Data as a Teaching and Research Tool in the Department of Geology

DISCIPLINE: Mineral Resources, Geological Structure and Landform Surveys

SUBDISCIPLINE: None

SIGNIFICANT RESULTS:

ERTS prints have been used extensively in a Geology of Alaska class to give a basic framework of the geology of the state. In addition, they have been intermittantly in such diverse classes as:

(a) Economic Geology (e.g. the Sn-bearing granites of the Seward Peninsula are particularily noticeable due to their wide contact metamorphic aureoles.)
(b) A "canned" Geology of Alaska lecture which has been given to two different introductory geology courses, A Geography of Alaska class, two seminars, and will be given to the local Historical Society.
(c) Structural Geology (e.g. the Fairweather and Denali faults are striking obvious).

It was found most convenient for larger classes to prepare 35mm slides of the ERTS prints that are used in conjunction with slides of the topographic and geologic maps at about the same scale. Thus the emphasis has been in integration of the ERTS material into existing courses. As such, the ERTS data has provided a unique and striking viewpoint that never fails to initiate favorable comment.

In addition, prints have been examined by numerous researchers to develop a regional, integrated overview of such varied topics as regional geology to a background for local geologic mapping to studies of ore deposits to a definition of a formation that was to be studies in detail in its type locality.

H. CHANGES IN STANDING ORDER FORMS: None

I: ERTS IMAGE DESCRIPTOR FORMS: None

J. DATA REQUEST FORMS:

(1) Feb 26; 156 prints in MSS Bands 6 & 7: None Received

(2) Feb 26; 156 prints in MSS Color: None Received.