

Investigation of satellite images

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The National Aeronautics and Space Administration (NASA) of the United States on 23rd July 1972 launched a satellite with the purpose of investigating the Earth's natural resources and their potential use. The satellite, named ERTS-1 (Earth Resources Technology Satellite), circles the globe 14 times a day in a near-polar, sun-synchronous orbit at a height of 912 km and produces images in 4 spectral bands. Each image covers an area of 185×185 km. The image data is stored at the Eros Data Center in the U.S.A. and from there made available for scientific investigation in all countries.

GGU has systematically collected information on available ERTS-1 images covering the ice-free areas of Greenland and has evaluated a number of ERTS-pictures for geological, hydrological, glaciological and cartographic purposes.

Together with officers from the Geodetic Institute (J.K.W. Ekholm, personal communication) some examples of pictures from the Scoresby Sund region in East Greenland have been evaluated cartographically (fig. 1). It was found that the variation in image scale of an 1:250 000 enlargement was less than 0.25 %, confirming the near-orthographic character of the images. The geological and glaciological information in the images was compared with the results from the recently finished systematic mapping project of the Scoresby Sund region (*Rapp. Grønlands geol. Unders.* 58, 1973).

A second ERTS satellite is planned to be launched early in 1975 and, in relation to this, a special study of the hydrology and geology of the fjord region of East Greenland has been suggested as a joint venture between GGU and the United States Geological Survey.

The development of the ERTS-project and other aspects of Remote Sensing are being closely followed by GGU, in order to make best possible use of these study methods in future survey work.

Developments in petroleum exploration in and around Greenland 1969-1974

Gilroy Henderson

The rapidly increasing interest that has been shown in the petroleum potential of the Arctic during the last decade has caused attention to be focussed on the sedimentary basins of Greenland and its offshore areas.

During the period up to 1966 sporadic interest was shown in the petroleum