

DEPARTMENT of the INTERIOR

news release

GEOLOGICAL SURVEY

Don Finley (703) 860-7444

For release: November 23, 1976

NEW SYSTEM TO SPEED PROCESSING OF SPACE IMAGES

Processing of Landsat Earth resources survey satellite images and data by the U.S. Geological Survey and delivery to users will be improved and speeded up under a new computerized processing system to be installed at the Interior Department's USGS-managed EROS (Earth Resources Observation Systems) Data Center, Sioux Falls, S.D.

The USGS awarded a \$3,223,494 contract to TRW's Defense and Space Systems Group, Redondo Beach, Calif. for the design, fabrication, delivery, installation and test of an EROS Digital Image Processing System (EDIPS) at the Data Center.

Allen H. Watkins, chief of the EROS Data Center (EDC) said the new system would result in products with improved quality and usefulness, and would reduce from 4-5 weeks to 2-3 weeks the time between when an image is recorded by one of the two Landsats and when copies can be shipped to customers from EDC, the main public sales point for Landsat imagery and data.

Landsat products are used by scientists around the world for Earth resources and environmental studies and projects, such as mineral exploration, flood mapping, crop monitoring, and revision of maps and charts.

Watkins said that under the present system, NASA supplies Landsat data to EDC in the form of master 70mm film transparencies, which are used to produce working transparencies from which film positives and other film products are made for shipment to customers. At the present time computer compatible tapes of images are produced by NASA on an individual order basis and are distributed through EDC.

With EDIPS, Watkins said NASA will ship to the Data Center high density digital tapes which can be used to produce 241mm film negatives and positives of the Landsat images. The high density tapes can also be converted into computer compatible tapes by EDIPS. Quality will be increased because users can get first generation film products made from tapes, rather than third generation film products made from other film products. Moreover, the 241mm film will not have to be enlarged to produce standard-size products.

Watkins said EDIPS also will permit production of enhanced products, such as images that have had the contrast "stretched," the haze removed, or the edges of features sharpened. He said related system improvements at NASA will also provide geometric and radiometric corrections in the Landsat data before it gets to EDC.