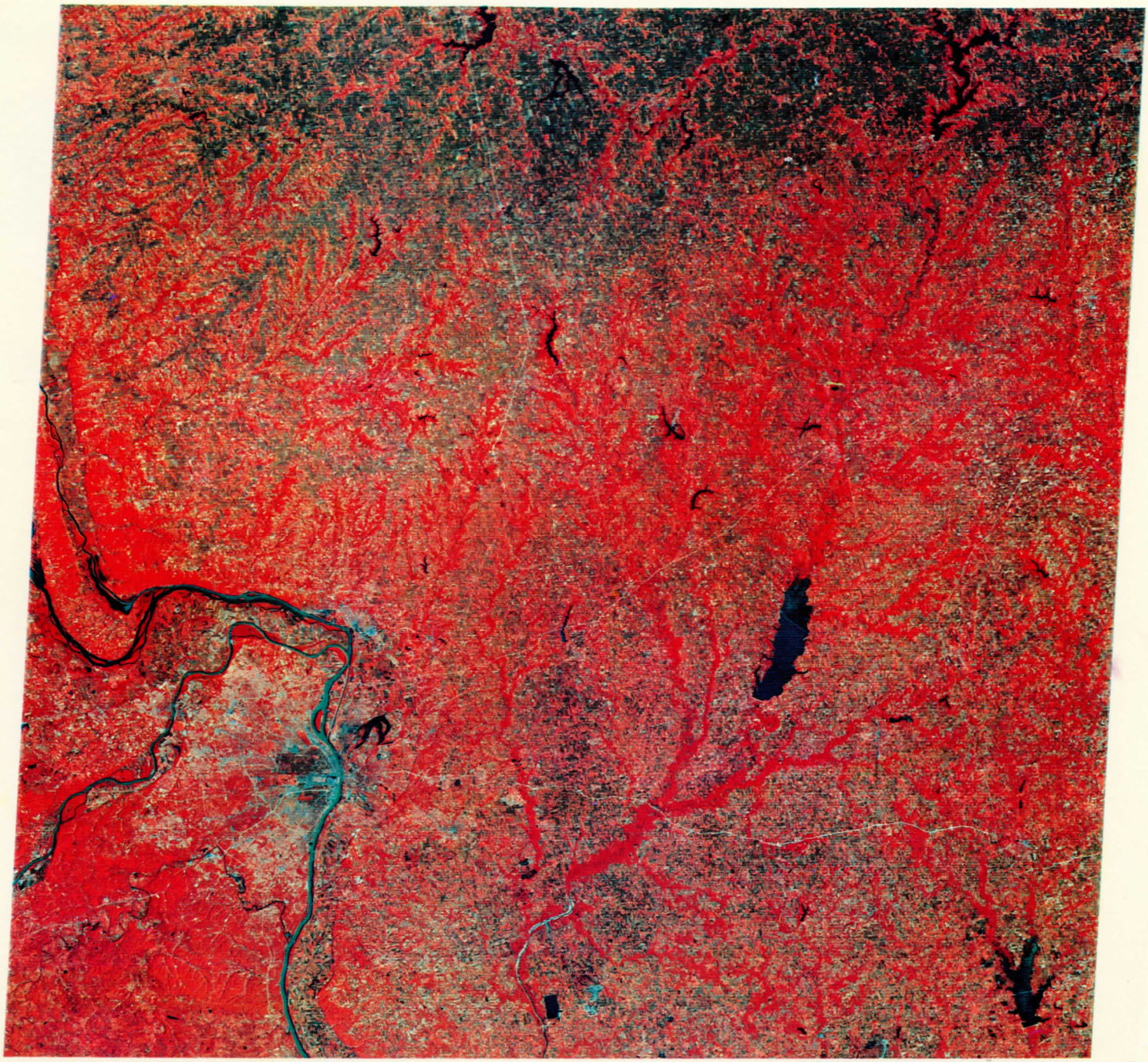
# NASA (ERTS-1)
## EARTH RESOURCES TECHNOLOGY SATELLITE
# ST. LOUIS, MISSOURI AND SOUTHERN ILLINOIS



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION IMAGE

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D.C.—1973

W090-301 W090-001 W089-301 W089-001

02OCT72 C N39-00/W089-37 N N38-57/W089-34 MSS 4 5 7 D SUN EL41 AZ146 191-0989-N-I-N-D-L NASA ERTS E-1071-16104 01

5 0 10 20 30 40 MILE

Scale approximately 1:1,000,000

U.S. DEPARTMENT OF THE INTERIOR · MARCH 3, 1849 ·

EROS EARTH RESOURCES OBSERVATION SYSTEMS PROGRAM
In cooperation with NASA and other agencies

UNITED STATES GEOLOGICAL SURVEY

Experimental printed image produced from a color-separated color transparency.
By U.S. Geological Survey

# ST. LOUIS, MISSOURI AND SOUTHERN ILLINOIS

This "false color" composite was made from multispectral imagery taken by NASA's Earth Resources Technology Satellite (ERTS-1) from an altitude of 915 kilometers (570 miles) on October 2, 1972. The scale of the image is 1:1,000,000 or one inch equals approximately 16 miles. In this image, vegetation that is in vigorous growth appears red, clear water black, and water that carries silt appears blue. Likewise, the mixtures of asphalt, concrete and rooftops in the central cities appear grayish blue. Newer construction areas such as concrete highways, railroads, airfields, as yet unpaved shopping centers, or land clearing operations appear white, tan, or gray.

The predominant feature in this scene is the Mississippi River, lower left, which shows the Illinois River entering at upper left center above the major sharp bend at Alton, Illinois. The Missouri River enters from the lower left corner just below the bend. Note that the flood plain of the Illinois River (center left) and Mississippi (lower left) are well marked by a sharp vegetation boundary indicating tree covered land separated from the main channel by marshy lowlands. Horseshoe Lake, east of the Mississippi, separates Granite City from East St. Louis and Belleville, Illinois. West of the river lies the city of St. Louis, Missouri. Suburban areas and grassy farm lands are various shades of pink when compared to the deeper red of forest vegetation. The bright white line extending across the bottom of the scene is the Louisville-Nashville Railroad bed. A similar line in the northcentral part of the scene is the Illinois Central Railroad and Interstate Route 55.

The large lake in right center is Carlyle Reservoir. The smaller lake in the lower right corner of the scene is a new reservoir, Rend Lake, on the Big Muddy River south of Mt. Vernon, Illinois. It does not appear on 1:250,000 scale maps of the area which are dated 1962. Branching stream bed patterns and shallow aquifers are indicated by deeper pink tones surrounding dormant or harvested farm fields.

The rectangular body of water at the south edge of the scene is a coal strip mine operation that has been reclaimed into a reservoir for water storage and recreation. It is about 12 miles south of New Athens, Illinois. To the east of it about three miles is an active coal stripping operation known as the Green Diamond Mine. It is light grayish blue in color.

The arcuate lake at the upper edge of the scene is Springfield Reservoir which lies just south of the city of Springfield, Illinois. The irregular "Y" shaped lake (upper right) is the Shelbyville Reservoir.

Information on detailed cost and availability of ERTS-1 data in a number of formats may be obtained from:

EROS Data Center
Sioux Falls, South Dakota 57198

Telephone: (605) 339-2270