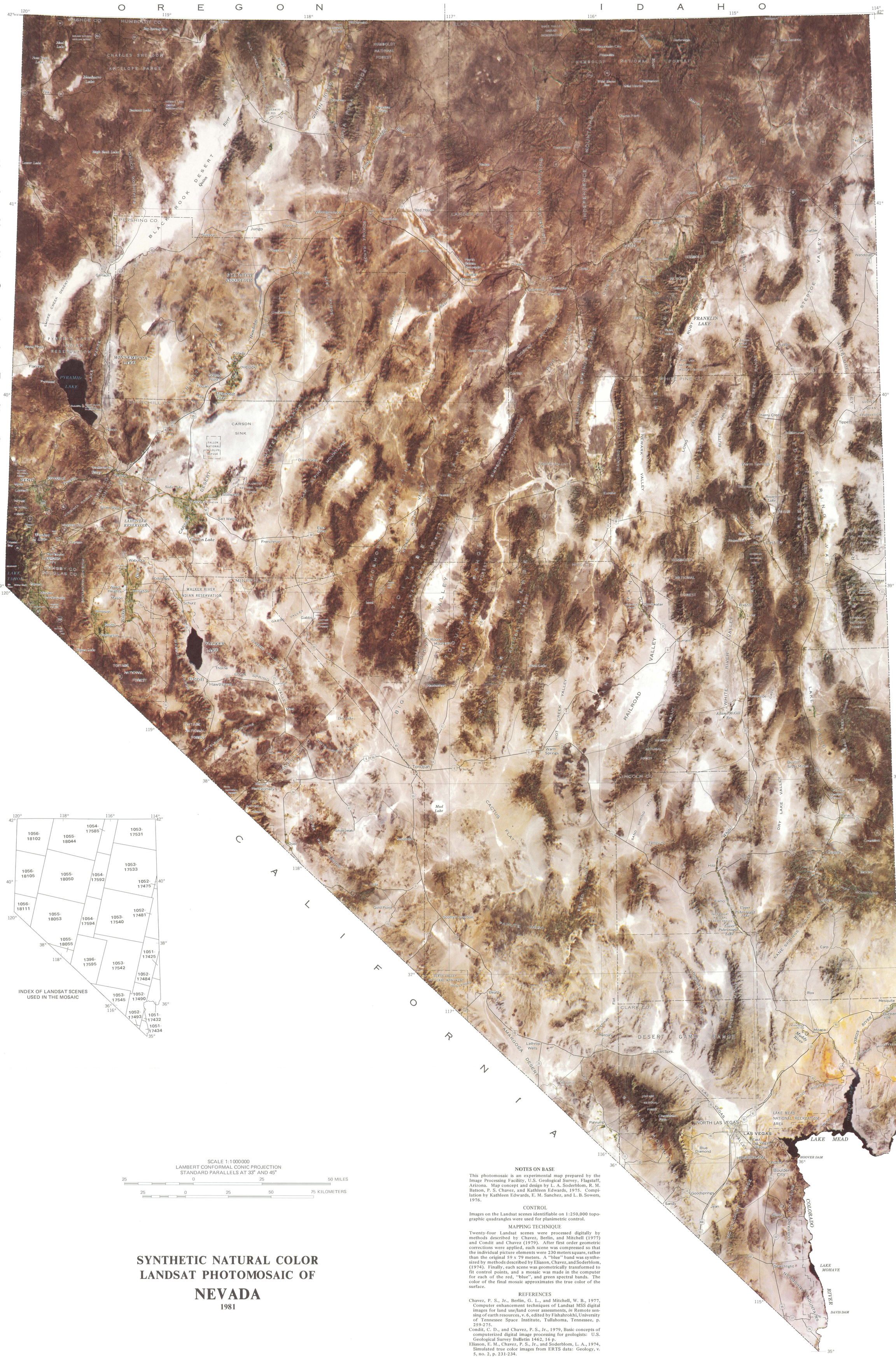

INDEX OF LANDSAT SCENES USED IN THE MOSAIC

SCALE 1:1000000
LAMBERT CONFORMAL CONIC PROJECTION
STANDARD PARALLELS AT 33° AND 45°

25 0 25 50 MILES

25 0 25 50 75 KILOMETERS

SYNTHETIC NATURAL COLOR LANDSAT PHOTOMOSAIC OF NEVADA

1981

NOTES ON BASE

This photomosaic is an experimental map prepared by the Image Processing Facility, U.S. Geological Survey, Flagstaff, Arizona. Map concept and design by L. A. Soderblom, R. M. Batson, P. S. Chavez, and Kathleen Edwards, 1975. Compilation by Kathleen Edwards, E. M. Sanchez, and L. B. Sowers, 1976.

CONTROL

Images on the Landsat scenes identifiable on 1:250,000 topographic quadrangles were used for planimetric control.

MAPPING TECHNIQUE

Twenty-four Landsat scenes were processed digitally by methods described by Chavez, Berlin, and Mitchell (1977) and Condit and Chavez (1979). After first order geometric corrections were applied, each scene was compressed so that the individual picture elements were 230 meters square, rather than the original 59 x 79 meters. A "blue" band was synthesized by methods described by Eliason, Chavez, and Soderblom, (1974). Finally, each scene was geometrically transformed to fit control points, and a mosaic was made in the computer for each of the red, "blue", and green spectral bands. The color of the final mosaic approximates the true color of the surface.

REFERENCES

Chavez, P. S., Jr., Berlin, G. L., and Mitchell, W. B., 1977, Computer enhancement techniques of Landsat MSS digital images for land use/land cover assessments, *in* Remote sensing of earth resources, v. 6, edited by Fishahrokhi, University of Tennessee Space Institute, Tullahoma, Tennessee, p. 259-275.

Condit, C. D., and Chavez, P. S., Jr., 1979, Basic concepts of computerized digital image processing for geologists: U.S. Geological Survey Bulletin 1462, 16 p.

Eliason, E. M., Chavez, P. S., Jr., and Soderblom, L. A., 1974, Simulated true color images from ERTS data: Geology, v. 5, no. 2, p. 231-234.

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