A good quality medium scale topographic map is an invaluable tool in inventory, plan formulation and management of such natural resources as forests, water, recreation areas, grazing lands and wildlife. Such maps, commonly referred to as "USGS quads", are compiled and published by the U.S. Geological Survey, U.S. Department of the Interior. These maps are based on quadrangles bound by either $7^1/2$ minutes or 15 minutes of latitude and longitude with scales of $1/24,000$ (1" = 2,000') and $1/62,500$ (1" = approx. 1 mile), respectively. The average $1/24,000$ scale quadrangle is approximately 15 x 22 inches in size and covers about 50 square miles of land area. Since 1949, all maps have been constructed from aerial photographs by highly precise photogrammetric methods and associated field surveys.

The development of a quadrangle topographic map from the planning stage to the point of final publication is a painstaking process involving six basic steps: (1) planning and aerial photography, (2) ground control surveys, (3) compilation of first manuscript*, (4) field checking and editing*, (5) final drafting*, and (6) printing and issue. The stages marked with an asterisk (*) are those at which "as is" advance or preliminary copies of the map are available.

Locating the map you need: The following composite index map of $7^1/2$ and 15 minute topographic map quadrangles indicates the status of topographic maps of Minnesota as of July, 1967. Using the index in conjunction with a county highway map, such as those available from the Minnesota Department of Highways, locate the quadrangle covering your area of interest. Record the corresponding latitude and longitude for each quadrangle in terms of $7^1/2$ or 15 minute coordinates, whichever the case may be. It is also possible to identify published maps by quadrangle name -- an index map for this purpose being published annually by the Geological Survey and available free of charge from the Map Information Office, Geological Survey, Washington, D. C., 20242.

Purchasing maps: Published maps for Minnesota can be obtained from the Geological Survey, Federal Center, Denver, Colorado, 80225, for 50¢ per sheet. A 20% discount is allowed on orders of $20 or more; discounts of 40% are allowed on orders of $100 or more. Preliminary map copies can be purchased for 50¢ per sheet from the Topographic Division, Geological Survey, Box 133, Rolla, Missouri, 65401. In addition to the maps, contact prints of air photos on which the mapping was based, as well as photo index sheets of individual quadrangles, are available for purchase. Information relative to purchase of aerial photography is available on request from either Rolla, Missouri or the Map Information Office in Washington, D. C.

1/ Based upon the status maps published quarterly by the U.S. Geological Survey, Topographic Division, Rolla, Missouri.
2/ Research Assistant and Professor, respectively, University of Minnesota School of Forestry.

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Index map of 7½° and 15° quadrangles