



# Minnesota Forestry Research Notes

AN INDEX TO AERIAL PHOTOGRAPHY IN MINNESOTA

Joseph J. Ulliman and Merle P. Meyer<sup>1/</sup>

Over the past two decades, the aerial photograph has been developed into one of the most important working tools the natural resource manager has available. During the same period, and beginning with the initial flights in 1937, a great deal of aerial photography has been flown in Minnesota. In fact, such a variety of photographic types, area locations and purchasers has become involved that it is becoming difficult to ascertain just what is available for any given area. This index, complete as of the spring of 1966, is intended to meet this need and was made possible through the assistance of the following agencies and concerns from whom prints, or information relating to their procurement, can be obtained:

ASCS<sup>2/</sup> Eastern Laboratory, Aerial Photography Division  
ASCS-USDA  
45 South French Broad Avenue  
Asheville, North Carolina 28801

For ASCS coverage from 1936 through 1941, address inquiries to:

National Archives and Records Service, Cartographic Branch  
General Services Administration  
Washington, D. C. 20408

ASCS photography is on panchromatic film flown in the summer or, rarely, in early fall and is at a scale of 1:20,000 (3.2" = 1 mile).

Individual County: Many of the forested counties of Minnesota have purchased their own aerial photography and, in most cases, have arrangements for the purchase of prints. In such instances (indicated on the index maps), inquiries should be sent to the County Board of Commissioners.

USGS: U. S. Geological Survey  
Box 133  
Rolla, Missouri 65401

This panchromatic photography is usually obtained in spring or fall with leaves off the trees, and at scales varying from 1:17,000 to 1:30,000.

USFS: Chief, United States Forest Service  
U. S. Department of Agriculture  
Washington, D. C. 20250

Flown for forestry purposes in the summer with infrared film at a scale of 1:15,840 (4" = 1 mile).

- <sup>1/</sup> Research Assistant and Professor, respectively, of the University of Minnesota School of Forestry.  
<sup>2/</sup> Formerly the CSS, PMA and AAA.

BIA: Bureau of Indian Affairs  
3rd Floor, Federal Building  
Bemidji, Minnesota 56601

Flown for forestry purposes in the summer with infrared film at a scale of 1:15,840 (4" = 1 mile).

SCS: Soil Conservation Service, Cartographic Division  
Federal Center Building  
Hyattsville, Maryland 20781

No contact prints for sale -- only mosaics of certain areas.

Boise Cascade: The 1962 coverage of Koochiching County was purchased jointly by the County Board, Boise Cascade Corporation and the Minnesota Department of Conservation. Information obtainable from:

County Land Commissioner  
Koochiching County Courthouse  
International Falls, Minnesota 56649

Inquiries regarding the 1951 coverage should be addressed to:

Research and Management Forester  
Mando Division, Boise Cascade Corporation  
Big Falls, Minnesota 56627

Costs for photography vary somewhat but price lists, and in some cases requisition forms, are available upon request. Prices per print usually decrease as quantities ordered increase; for example, both the ASCS and the USGS charge \$1.00 each for 1-5 double weight 9x9" contact prints, but reduce the per-print cost to \$0.70 per print with orders of over 100.

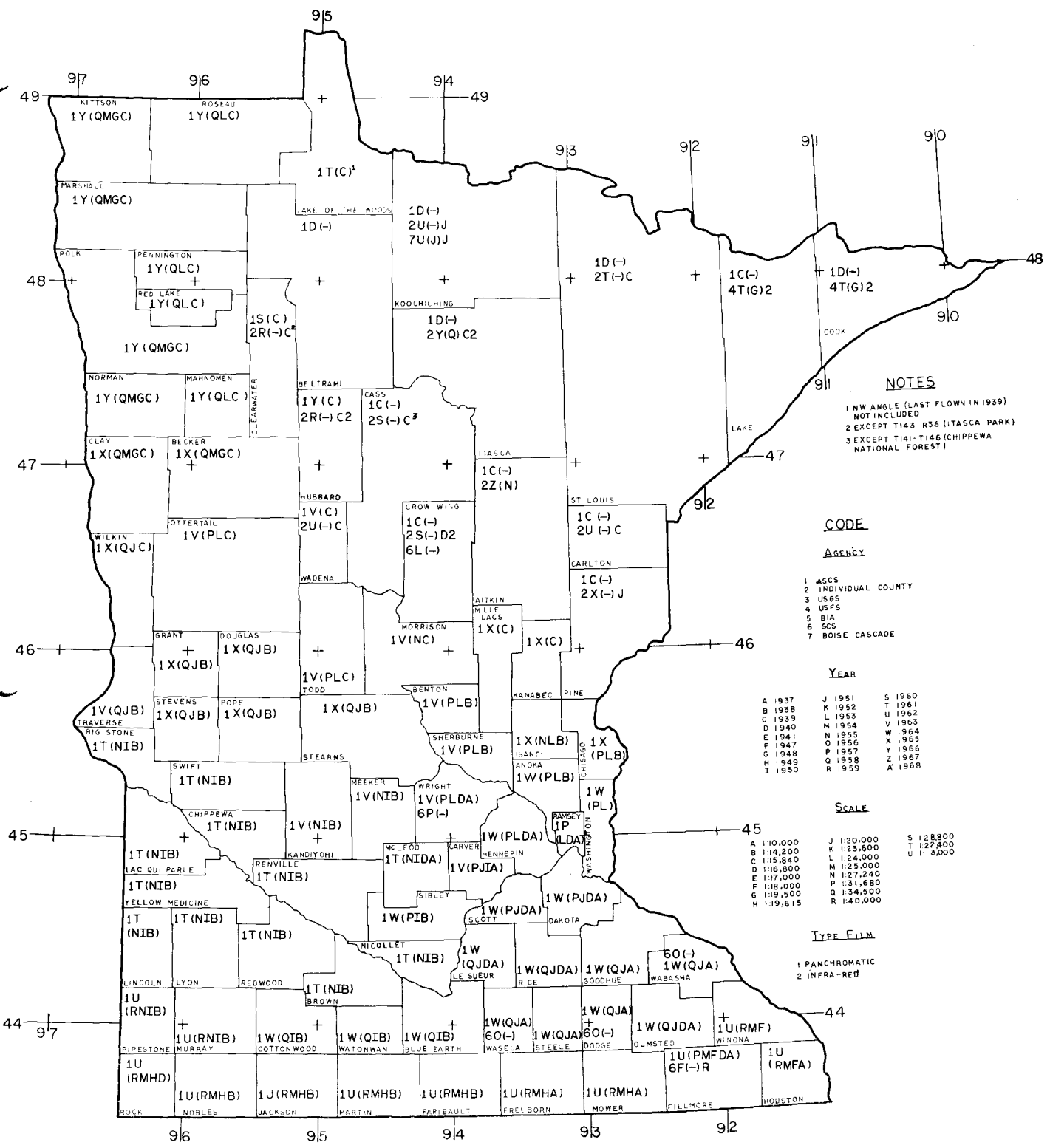
This index consists of two maps and an accompanying code for determining the area of coverage, date, type and source of photography. Index Map No. 1 indicates only that coverage which, with minor exceptions, is complete by counties. Index Map No. 2 indicates irregular coverage, either by special area (e.g., National Forest) or by USGS quadrangles. Code information on the maps is in the form of letter-number equations as shown in this example:

<u>Agency or Firm</u>	<u>Year</u>	<u>Previous Photography, Years</u>	<u>Photo Scale</u>	<u>Type of Film</u>
(ASCS)	(1965)	(1958, 1954, 1940)	(1:20,000)	(Infrared)
1	X	( Q M D ) J	2	

In cases where photography of an area is flown by an agency or firm for the first time, this is indicated by the symbol (-) in that part of the equation referring to "Previous Photography, Years". If no scale or film type is listed, the following rules apply: (1) ASCS and SCS photography is at a scale of 1:20,000, (2) USFS and BIA photography is at a scale of 1:15,840, (3) all photography is on panchromatic film unless otherwise noted, and (4) all SCS photography is in the form of mosaics.

To further illustrate the use of the coded equation, refer to the 3Y(F)L equation on Index Map No. 2 for Ramsey County and portions of Hennepin, Anoka, Washington, Dakota and Scott counties, which indicates the following:

"USGS photography obtained in 1966 at a scale of 1:24,000 with panchromatic film; area flown previously by USGS in 1947."



**NOTES**  
 1 NW ANGLE (LAST FLOWN IN 1939) NOT INCLUDED  
 2 EXCEPT T143 R36 (ITASCA PARK)  
 3 EXCEPT T141-T146 (CHIPPEWA NATIONAL FOREST)

**CODE**

**AGENCY**

- 1 ASCS
- 2 INDIVIDUAL COUNTY
- 3 USGS
- 4 USFS
- 5 BIA
- 6 SCS
- 7 BOISE CASCADE

**YEAR**

- |        |        |        |
|--------|--------|--------|
| A 1937 | J 1951 | S 1960 |
| B 1938 | K 1952 | T 1961 |
| C 1939 | L 1953 | U 1962 |
| D 1940 | M 1954 | V 1963 |
| E 1941 | N 1955 | W 1964 |
| F 1942 | O 1956 | X 1965 |
| G 1943 | P 1957 | Y 1966 |
| H 1944 | Q 1958 | Z 1967 |
| I 1945 | R 1959 | A 1968 |

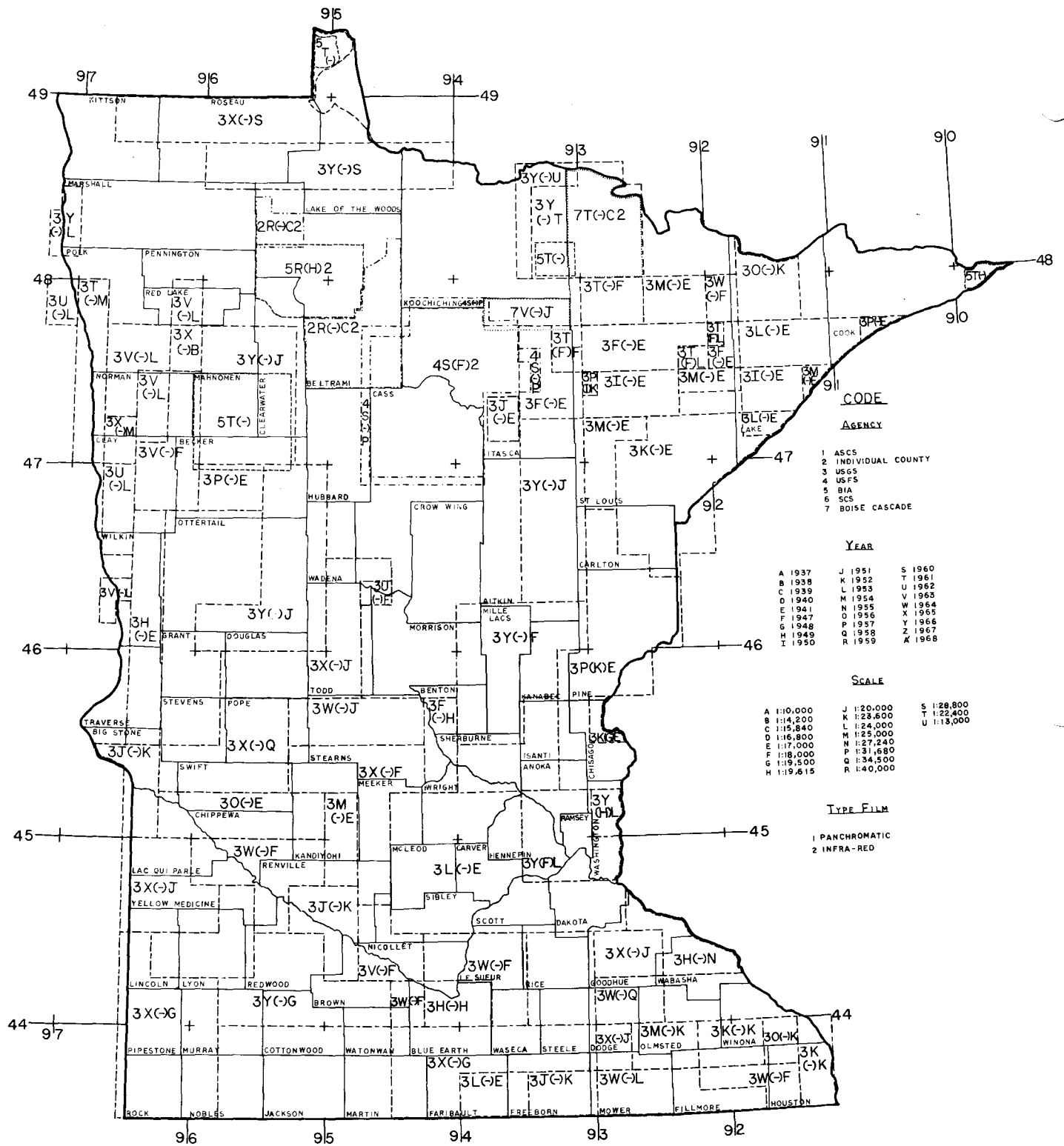
**SCALE**

- |           |           |           |
|-----------|-----------|-----------|
| A 110,000 | J 120,000 | S 128,800 |
| B 114,200 | K 123,600 | T 122,400 |
| C 115,840 | L 124,000 | U 113,000 |
| D 116,800 | M 125,000 |           |
| E 117,000 | N 127,240 |           |
| F 118,000 | P 131,680 |           |
| G 119,500 | Q 134,500 |           |
| H 119,615 | R 140,000 |           |

**TYPE FILM**

- 1 PANCHROMATIC
- 2 INFRA-RED

Index Map No. 1 -- Individual County Coverage



Index Map No. 2 -- Irregular Area Coverage