

ENGINEER'S COPY

FCC Form 340

FEDERAL COMMUNICATIONS COMMISSION

Section V-B

FM ENGINEERING DATA

Name of applicant  
Back Porch Radio Broadcasting Inc.

FOR COMMISSION USE ONLY  
File No. BPED-1,815

*New OK*

1. Purpose of authorization applied for:  
 Construct a new station  
 Make changes in authorized radio station  
If this is not for a new station, summarize briefly the nature of the changes proposed.

2. Facilities requested

Frequency: 89.7 Mhz  
Transmitter power output: 3 kw

7a. Antenna structure  
Is the proposed construction in the immediate vicinity or does it serve to modify the construction of any standard broadcast station, FM broadcast station, television broadcast station, or other class of radio station?  
If "Yes", attach as Exhibit No. complete engineering data thereon.  
 Yes  No

3. Proposed transmitter location

State: Wisconsin County: Dane City: Madison

Submit as Exhibit No. 11 a vertical plan sketch for the proposed total structure (including supporting building if any) giving heights above ground in feet for all significant features.

Street Address (or other identification):  
101 E. Mifflin st.

Overall height in feet above ground. (Without obstruction lighting): 159  
Overall height in feet above mean sea level. (Without obstruction lighting): 1074

Remote control point location

State: Wisconsin City or town: Madison

Overall height in feet above ground. (With obstruction lighting): 159  
Overall height in feet above mean sea level. (With obstruction lighting): 1074

Street Address (or other identification):  
To be determined

Height of antenna radiation center in feet above mean sea level.  
1064

Proposed location of main studio

State: Wisconsin County: Dane

Geographical Coordinates of Antenna (To nearest second)  
North Latitude: 43° 04' 34" West Longitude: 89° 23' 09"

City or town: Madison Street Address: To be determined

b. Antenna data  
Make: Gates Type No. or description: FMA-3 No. of sections: 3

Other studios proposed:  
To be determined

Effective free space field intensity at one mile in mv/m for one kilowatt antenna input power: 238.048 mv./meter  
Antenna field gain: 1.73 Antenna power gain: 3.0

5. Transmitter

Make: RCA  
Type No.: BTF-3 Rated Power: 3 kw

Is horizontal polarization proposed?  
If "No", attach as Exhibit No. complete engineering data on the antenna and the effective radiated power proposed.  
 Yes  No

(If the above transmitter has not been accepted for licensing by the F.C.C., attach as Exhibit No. complete a showing of transmitter details. Showing should include schematic diagram and full details of frequency control. If changes are to be made in licensed transmitter include schematic diagram and give full details of change.)

Is directional antenna proposed?  
If "Yes", attach as Exhibit No. complete engineering data thereon.  
 Yes  No

6. Transmission line proposed to supply power to the antenna from the transmitter

Make: DNA Type No.: RG-318-U Description: coax

8. Attach as Exhibit No. 12 a map(s) (topographic where obtainable, such as U.S. Geological Survey quadrangles) for the area within 15 miles of the proposed transmitter location and shown drawn thereon the transmitter and main studio locations accurately plotted.

Nominal transverse dimension in inches: 7/8 "  
Length in feet: 60  
Rated efficiency in percent for this length: 94.9

9. Attach as Exhibit No. 13 a sufficient number of aerial photographs taken in clear weather at appropriate altitudes and angles to show the nature of the surrounding terrain in the vicinity of the proposed transmitter site. The photographs must be marked so as to show compass directions. Photographs taken in eight different directions from an elevated position on the ground will be acceptable in lieu of the aerial photographs if the area can be clearly shown. Give date photographs were taken.



ANTENNA AND SITE INFORMATION  
(see instruction B, Section 1)

Name of applicant  
**Back Porch Radio Broadcasting, Inc**

Legal Counsel  
Address

Purpose of application (Check appropriate box)  
a. New antenna construction  **XXX**  
b. Alteration of existing antenna structures   
c. Change in location

Consulting Engineer  
**None**  
Address

2. Features of surrounding terrain  
List any natural formations or existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft and thereby minimize the aeronautical hazard of the antenna.

Class of station  
**Educational FM**

Facilities requested  
**New station**

The Wisconsin State Capital building, which is over 100 feet taller than our proposed antenna and is brightly lit at all times, is located across the street - 200 feet south - from our proposed antenna site.

1. Location of antenna  
State: **Wisconsin** County: **Dane** City or Town: **Madison**

Exact antenna location (street address) (If outside city limits, give distance and direction from, and name of nearest town)  
**101 E Mifflin Street**

Submit as Exhibit No. **15** a chart on which is plotted the exact location of the antenna site, and also the relative location of the natural formations and/or the existing man-made structures listed above.  
The chart used shall be an Instrument Approach Chart (or the landing chart on reverse side thereof), or a Sectional Aeronautical Chart, choice depending upon proximity of the antenna site to landing areas. **1/** In general, the Sectional Aeronautical Chart should be used only when the antenna site is more than 10 miles from a landing area or when an Instrument Approach Chart is unobtainable. **1/** These charts may be purchased from the U. S. Coast and Geodetic Survey, Washington 25, D. C.  
**1/** Exception - Where the proposed antenna site is within the boundary of a landing area for which no Instrument Approach Chart is available, submit a self-made, large scale map showing antenna site, runway(s) and existing man-made structures listed above.

Geographic coordinates (to be determined to nearest second. For directional antenna give coordinates of center of array.) For single vertical radiator give tower location.

North latitude: **43° 4' 34"** West longitude: **89° 23' 9"**

3. Designation, distance, and bearing to center line of nearest established airway within 5 miles **V-341 is 2 miles N315° from site**

4. List all landing areas within 10 miles of antenna site. Give distance and direction to the nearest boundary of each landing area from the antenna site.

Landing Area	Distance	Direction
(a) <b>Madison - Truax Field</b>	<b>4.7 miles</b>	<b>N 35° (NNE)</b>
(b) <b>Middleton - Morey Airport</b>	<b>7.8 miles</b>	<b>N 285° (WNW)</b>
(c) _____	_____	_____

5. Description of antenna system (If directional, give spacing and orientation of towers).  
**Horizontally polarized ring radiators mounted on 30' steel mast.**

Type \_\_\_\_\_

Description of tower(s)

Self-supporting	Guyed			Tubular (Pole) <b>XXX</b>		
	#1	#2	#3	#4	#5	#6
Tower (height figures should include obstruction lighting)						
Height of radiating elements	<b>159</b>					
Overall height above ground	<b>159</b>					
Overall height above mean sea level	<b>1074</b>					

If a combination of Standard, FM, or TV operation is proposed on the same multi-element array (either existing or proposed) submit as Exhibit No. \_\_\_\_\_ a horizontal plan for the proposed antenna system, giving heights of the elements above ground and showing their orientation and spacing in feet. Clearly indicate if any towers are existing.

Submit as Exhibit No. **11** a vertical plan sketch for the proposed total structure (including supporting building if any) giving heights above ground in feet for all significant features. Clearly indicate existing portions, noting painting and lighting.

Is the proposed antenna system designed so that obstruction lights may be installed and maintained at the uppermost point(s)? Yes  No

6. Is the proposed site the same or immediately adjoining the transmitter-antenna site of other stations authorized by the Commission or specified in another application pending before the Commission?  Yes  No

If the answer is "Yes", give: CALL LETTERS \_\_\_\_\_ FILE NUMBER \_\_\_\_\_

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

2/12/74  
(date)

Signature \_\_\_\_\_  
(check appropriate box below)  
 Technical Director  Chief Operator  Registered Professional Engineer  Consulting Engineer

Exhibit Eleven

Vertical Plan Sketch of Proposed Antenna Structure

Prepared 2/2/74

By Michael O'Connor

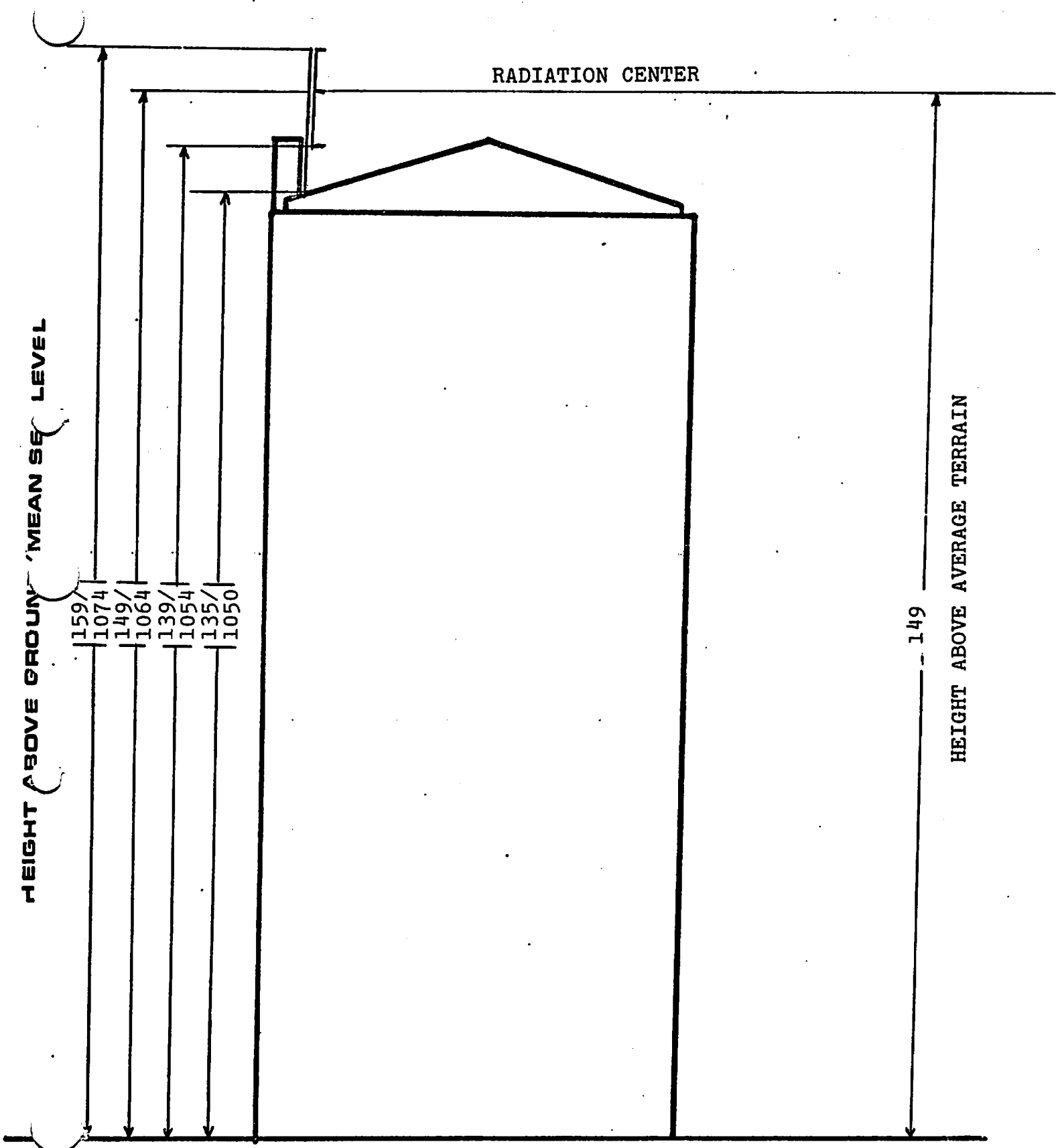
HEIGHT ABOVE GROUND MEAN SEA LEVEL

- 159/
- 1074
- 149/
- 1064
- 139/
- 1054
- 135/
- 1050

RADIATION CENTER

HEIGHT ABOVE AVERAGE TERRAIN

149



**Exhibit Twelve**

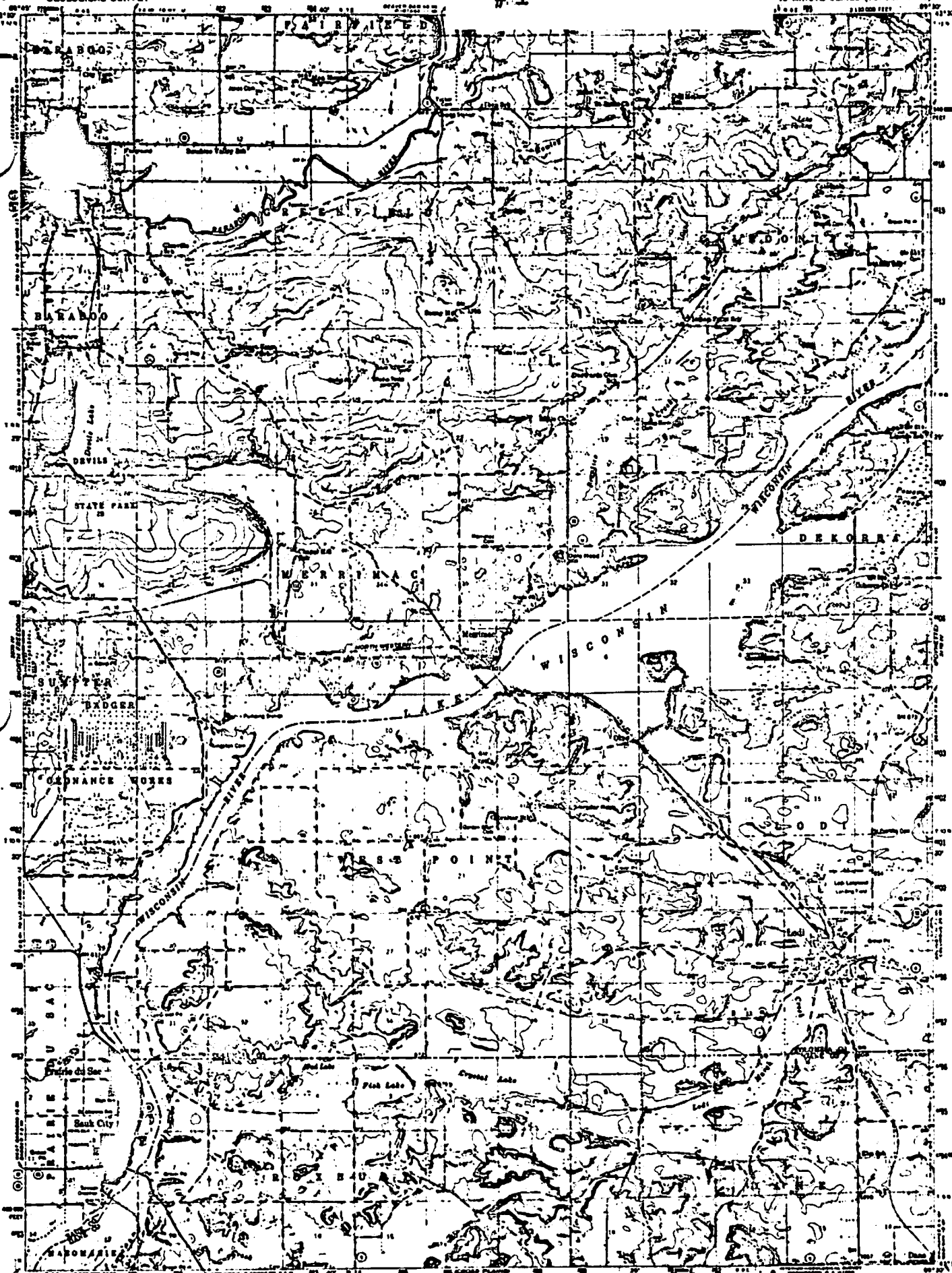
**Maps of Area Around Transmitter Site, Transmitter Location at Conversion of Radials**

**Prepared 2/2/74**

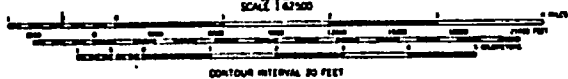
**By Michael O'Connor**

KEY TO LOCATION OF SURROUNDING QUADRANGLES

#1 Baraboo	#2 Poynette	#3 Columbus
#4 Cross Plaines	#5 Madison	#6 Sun Prairie
#7 New Glarus	#8 Evansville	#9 Stoughton



Revised, edited, and published by the Geological Survey  
in cooperation with State of Wisconsin agencies  
Control by USGS and USACGS  
Topography from aerial photographs by photogrammetric methods  
Aerial photographs taken 1956 and 1959  
Publication prepared by the Wisconsin Geological Survey  
10,000-foot grid based on Wisconsin meridian system, south and  
1000-foot Universal Transverse Mercator grid zone,  
zone 16, shown in blue  
Map has indicated areas of which only  
building buildings are shown

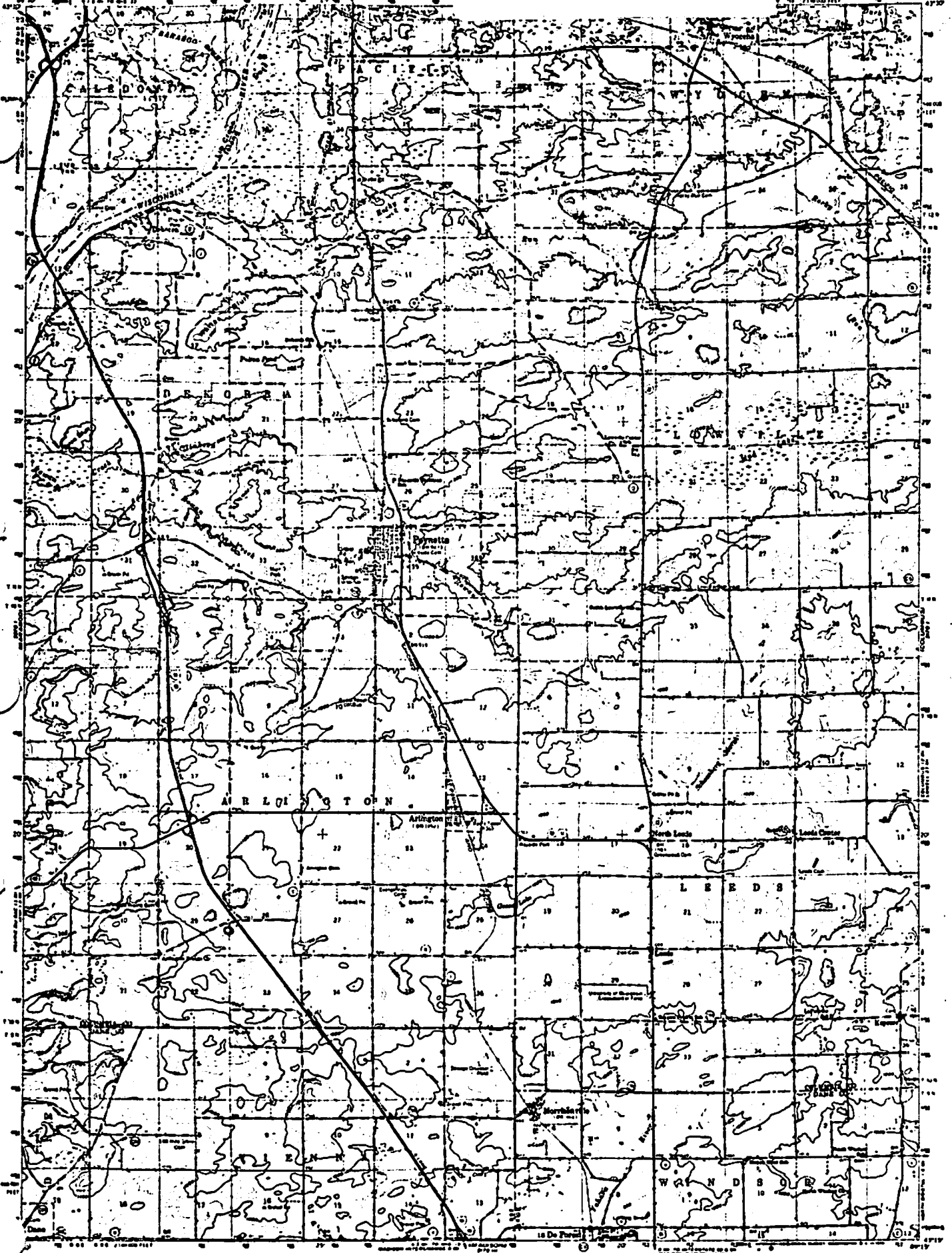


ROAD CLASSIFICATION  
 Highway Light blue  
 Main road Unshaded  
 U.S. Road  
 State Road

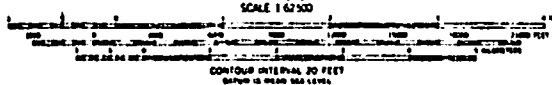


THIS MAP COMPLETES THE NATIONAL MAP ACTUARY STANDARDS  
 FOR SALE BY U.S. GEOLOGICAL SURVEY, WASHINGTON, D.C. 20542  
 AND WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY, MADISON, WISCONSIN 53706  
 A POLAR PROJECTION INFORMATION SHEET AND SYMBOLS IS AVAILABLE ON REQUEST

BARABOO, WIS.  
 84215-40950/15  
 1960  
 AND 8070 1--SERIES 6741



Revised, edited, and published by the Geological Survey  
Control by USGS and USCGS  
Topography by photogrammetry derived from aerial  
photographs taken 1949. First published 1952.  
Planner projection 1927 North American datum  
63,000-foot grid based on Wisconsin coordinate system, north and  
5000-meter Universal Transverse Mercator grid lines,  
zone 16, shown at the



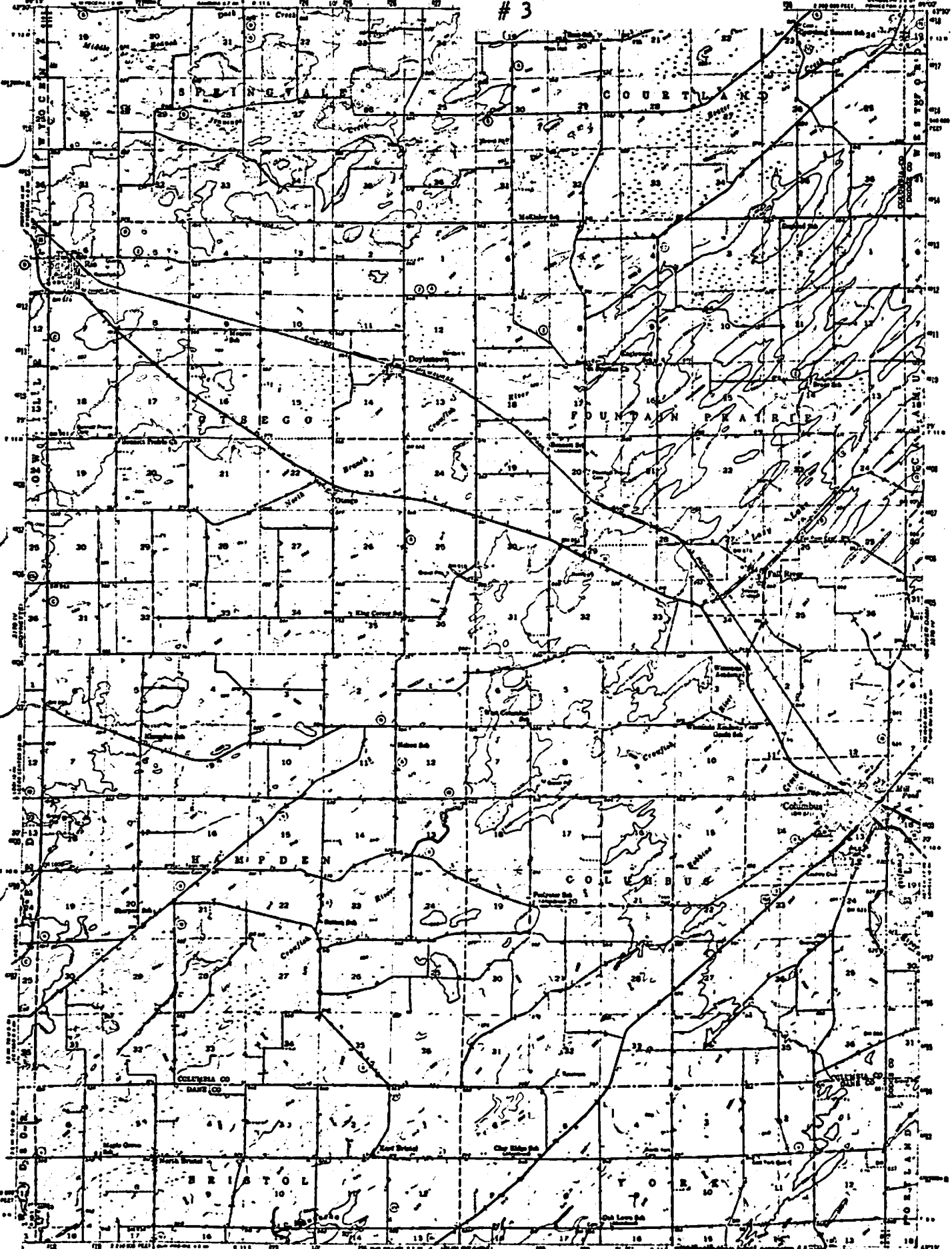
ROAD CLASSIFICATION  
Heavy-duty \_\_\_\_\_ Light-duty \_\_\_\_\_  
Medium-duty \_\_\_\_\_ Unimproved dirt \_\_\_\_\_  
○ Interstate Route □ U.S. Route ○ State Route



THIS MAP COMPLETES THE NATIONAL MAP ACTIVITY STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY WASHINGTON D.C. 20542  
AND WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY MADISON WISCONSIN 53706  
A PHOTO LITHOGRAPHIC REPRODUCTION OF THE ORIGINAL MAP

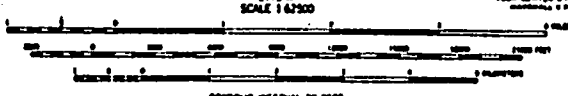


POYNETTE, WIS  
84115-00115-15  
1982



Revised, edited, and published by the Geological Survey  
in cooperation with State of Wisconsin agencies  
Control by USGS and USACE

Topography from aerial photographs by Route plane  
from photostereos from 1954. First sheet 1958.  
Political boundaries, 1977 North American datum.  
10,000-foot grid based on Wisconsin coordinate system,  
North zone.  
1000-meter Universal Transverse Mercator grid lines,  
zone 18, shown as dashed.



ROAD CLASSIFICATION  
 Mainline Road (solid line)  
 Light Road (dashed line)  
 Unimproved Rd. (dotted line)  
 U.S. Road (line with 'U.S.' label)  
 Bus Road (line with 'Bus' label)

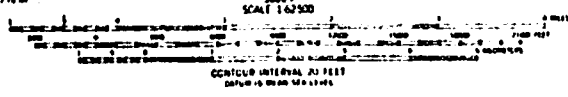
THIS MAP COMPLETES THE NATIONAL MAP ACCURACY STANDARDS  
 FOR SALE BY THE GEOLOGICAL SURVEY, WASHINGTON, D.C. 20540  
 AND WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY, MADISON, WISCONSIN 53706  
 A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

COLUMBUS, WIS.  
 84115-0000/15

# 4



Map compiled and published by the Geological Survey  
in cooperation with State of Wisconsin agencies  
Control by USGS and USCGS  
Topography by photogrammetric methods from aerial  
photographs taken 1960 and (this last) 1962  
Publication date 1967 Map in American datum  
10 000-foot grid based on Wisconsin coordinate system,  
North zone  
1000-meter Universal Transverse Mercator grid ticks,  
zone 16, shown in blue  
Red line indicates area in which only landmarks, buildings and streets

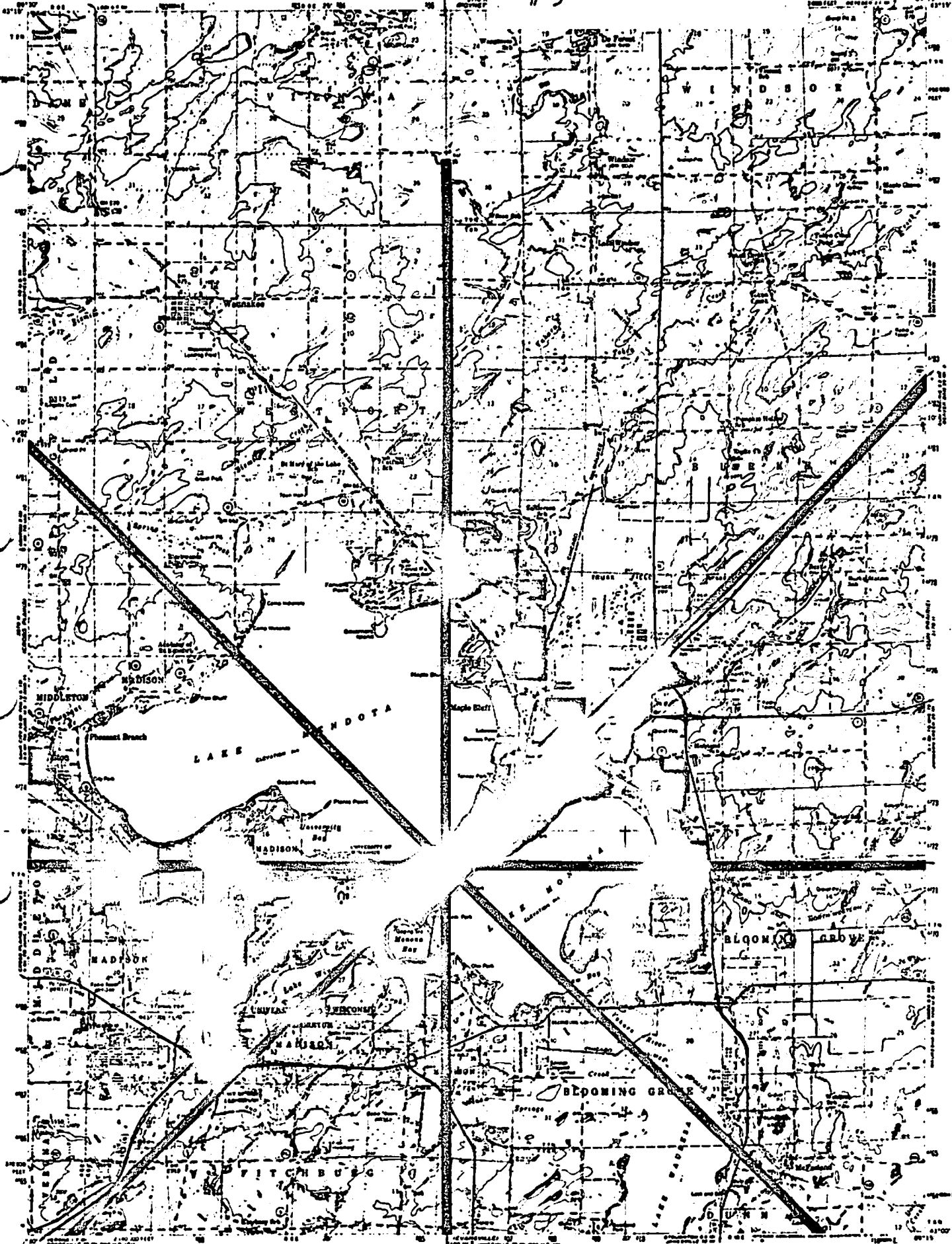


ROAD CLASSIFICATION  
Heavy duty Light duty  
Medium duty Unimproved dirt  
U.S. Road State Road

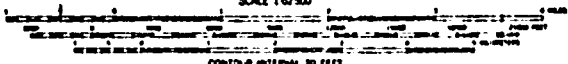


This map is one of a series of maps of Wisconsin  
FOR SALE BY U.S. GEOLOGICAL SURVEY WASHINGTON D.C. 20542  
AND WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY MADISON WISCONSIN 53706  
A POLAROID REPRODUCING TECHNOLOGY MAP AND SYMBOLS IS AVAILABLE ON REQUEST

CROSS PLAINS, WIS.  
84200-1000-15  
1967  
AND 7-70 0-10000-1000



Compiled in 1960 from 1:25,000 scale maps of Dr. Forest  
Merriman, Madison Area, and Madison East 7.5 minute  
quadrangles, Summer 1949  
Photographs from aerial photographs by photogrammetric  
methods. Aerial photographs taken 1957  
Reference projection 1927 North American Datum  
10,000 foot grid based on Meridian coordinate system, south zone  
1000 meter interval. Contour interval 20 feet.  
Scale 1:62,500  
Not for use in areas in which only  
spotmark buildings are shown



CONTOUR INTERVAL 20 FEET  
Datum is Mean Sea Level

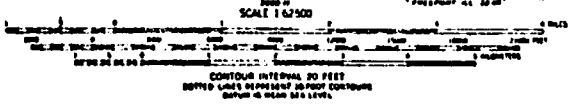
ROAD CLASSIFICATION  
Light Rail  
Unimproved dirt  
U.S. Road  
State Road  
This map was made by 1:25,000 scale maps of  
Dr. Forest Merriman, Madison Area, and  
Madison East 7.5 minute quadrangles, 1949  
MADISON, WISCONSIN  
1960  
1:62,500

This map complies with national map accuracy standards  
for sale by U.S. Geological Survey, Washington, D.C.  
and by the Wisconsin Geological and Natural History Survey, Madison, Wisconsin.  
A folder containing topographic maps and symbols is available on request.





Revised, edited, and published by the Geological Survey  
in cooperation with State of Wisconsin agencies  
Control by USGS and USCGS  
Topographic photography provided from aerial  
photographs taken 1961. Field checked 1962  
Projection: 1927 North American datum  
63,000 foot grid based on Wisconsin coordinate system, north zone  
1000 meter Universal Transverse Mercator grid lines  
and 15, 30m of true



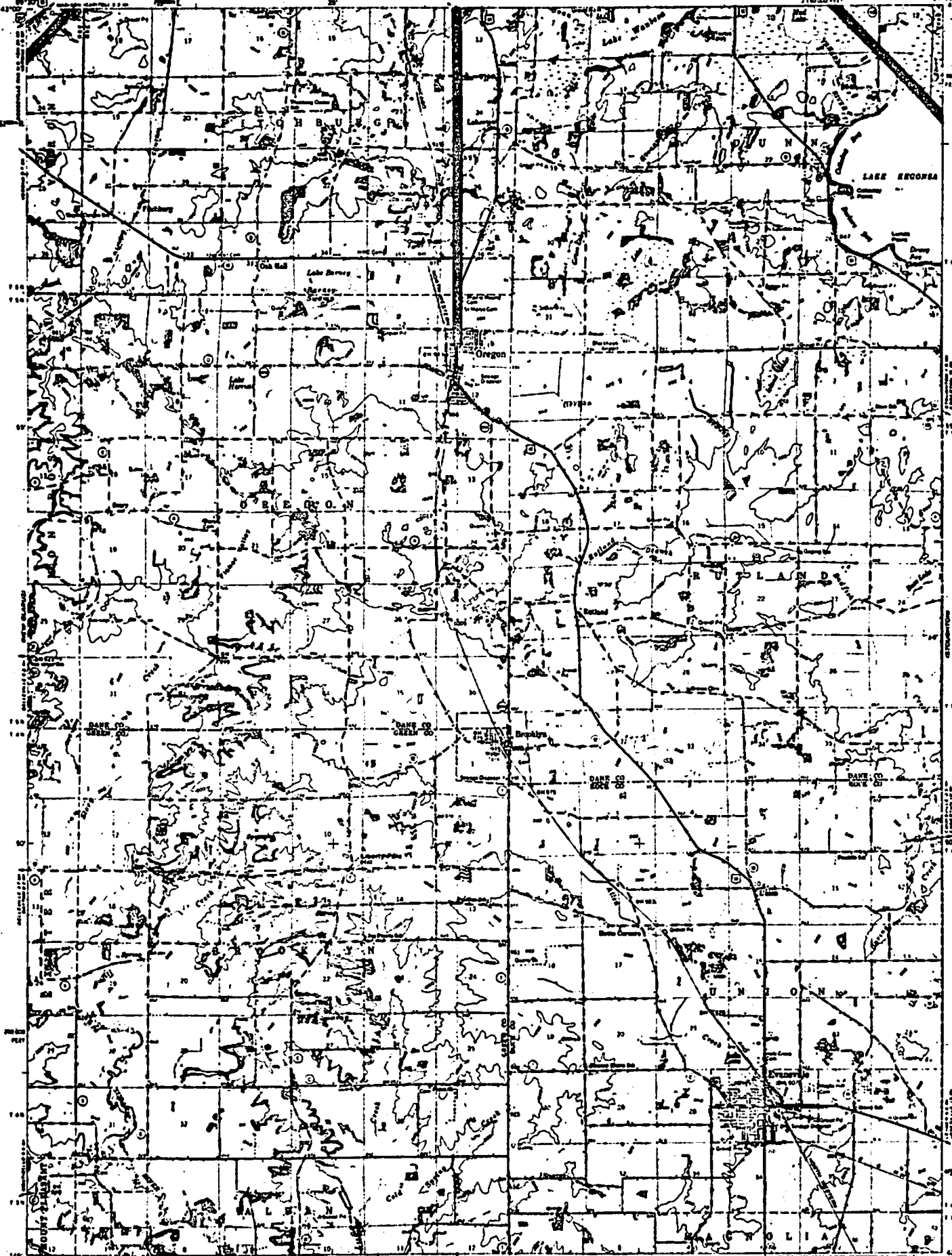
**ROAD CLASSIFICATION**

Heavy-duty	Light-duty
Unimproved dirt	State Road
U.S. Road	

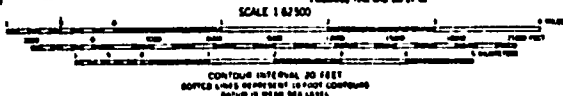


THIS MAP COMPILED FROM NATIONAL MAP ACTIVITY STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY, WASHINGTON, D.C.  
AND BY THE WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY, MADISON & WISCONSIN  
A POLAR PROJECTION TRANSMERCATOR GRID AND INTERVAL IS PROVIDED ON REQUEST

**NEW GLARUS, WIS.**  
64246-60020-15



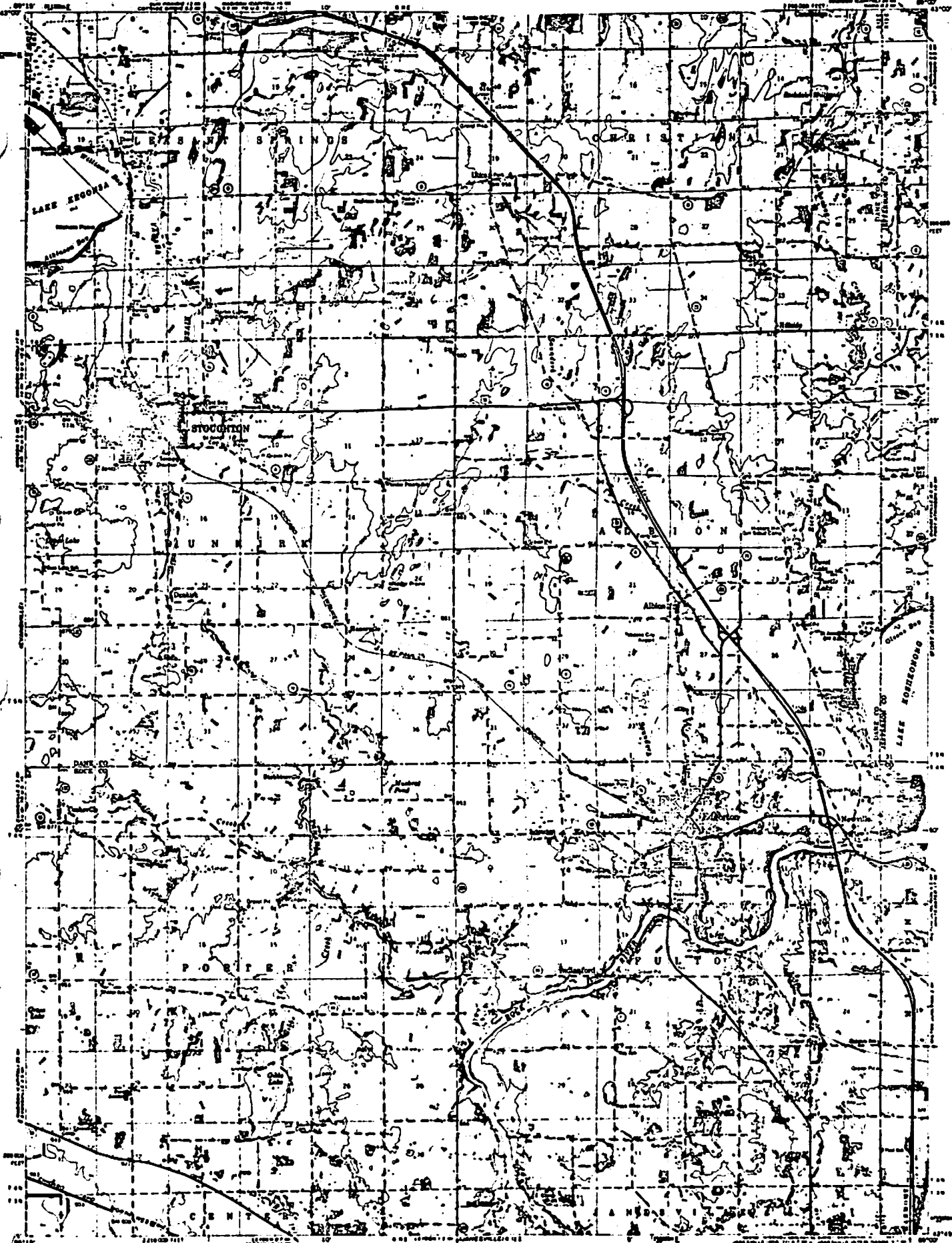
Maped, edited, and published by the Geological Survey  
in cooperation with State of Wisconsin Agencies  
Conver to USGS and USGS-403  
Topography by aneroid methods from spot  
measurements from 1903 to 1905 and 1905  
Photographic projection 1847 North American datum  
10,000-foot grid based on Wisconsin meridian system, south and  
1000-meter Universal Transverse Mercator grid lines,  
and 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000



**ROAD CLASSIFICATION**  
 Heavy Road ——— Light Road ———  
 Unimproved Rd. - - - - -  
 U.S. Road □ State Road ○

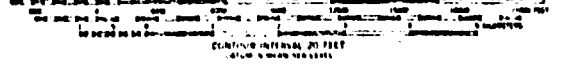
THIS MAP COMPLETES THE NATIONAL MAP RECEIVED STANDARD  
 FOR SALE BY U.S. GEOLOGICAL SURVEY, WASHINGTON, D.C.  
 AND BY THE WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY, MADISON, WISCONSIN  
 A PAPER BACKING, TRANSPARENT COPY AND STRIP COPY IS AVAILABLE ON REQUEST

EVANSVILLE, WIS.  
 84495-0911/15  
 1964



Map prepared and published by the Geological Survey  
in cooperation with State of Wisconsin agencies  
Control by USGS and USC&S  
Topography by photogrammetric methods from aerial  
photographs taken 1960. Field notes 1961.  
Projection 1927 North American datum  
10 000 foot grid based on spheroid coordinate system with zone  
1800 meter Universal Transverse Mercator (UTM) grid  
and 15' show in feet  
Red hat indicates areas in which only landmark bearings are shown  
REVISIONS TO THIS  
EDITION 1961

SCALE 1:62500



ROAD CLASSIFICATION  
Heavy Duty Light Duty  
Medium Duty Unimproved dirt  
Interstate Route U.S. Route State Route

THIS MAP COMPLETES THE NATIONAL MAP SERVICE STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY, WASHINGTON, D.C.  
AND BY THE GEOLOGICAL AND NATURAL HISTORY SURVEY, MADISON, WISCONSIN  
A PUBLISHED TOPOGRAPHIC MAP AND SYMBOLS OF NATIONAL MAP SERVICE

STOUGHTON, WIS.  
84650-80000-15  
1961

Exhibit Thirteen

Aerial Photograph

Prepared 2/25/74  
By Michael O'Connor

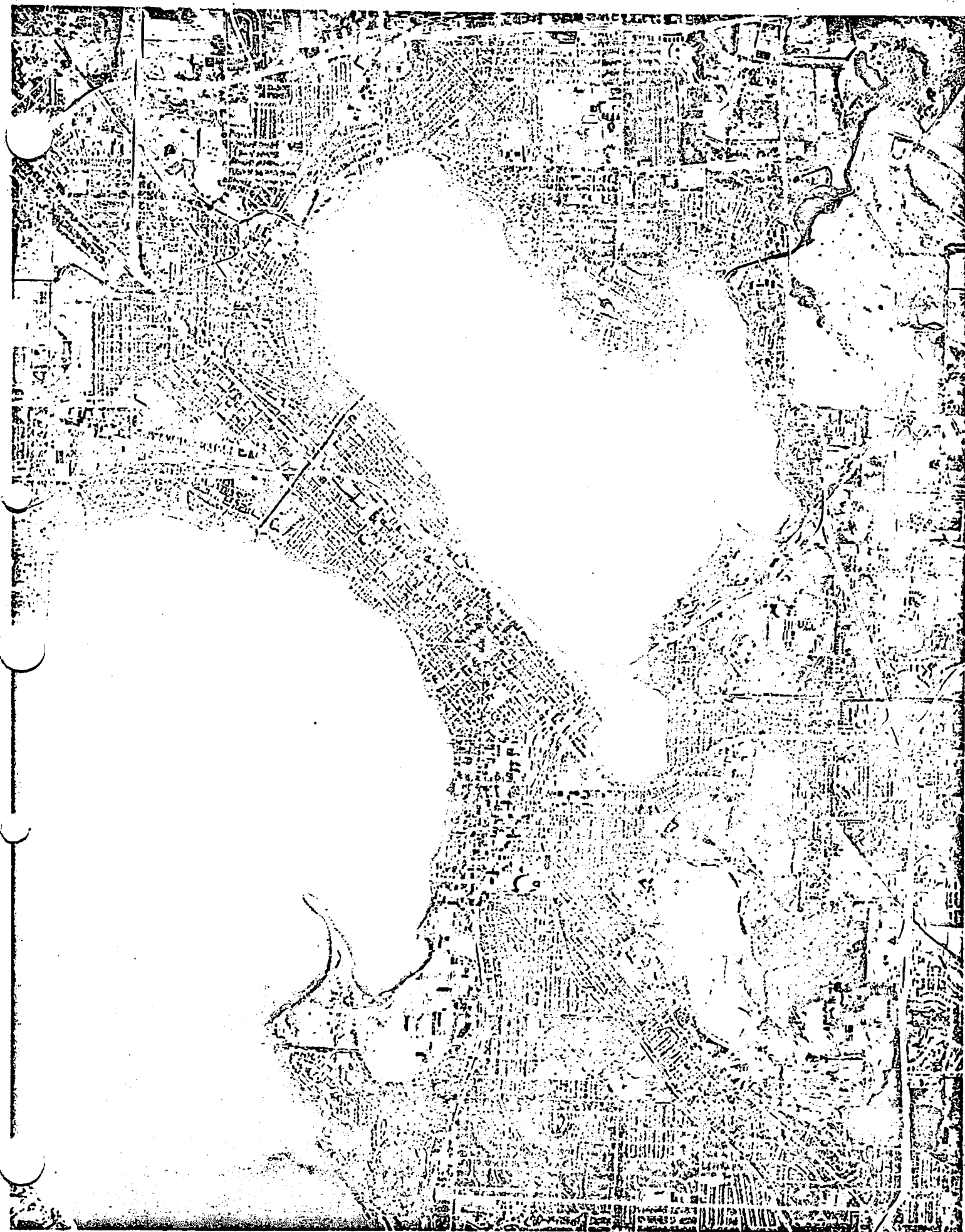
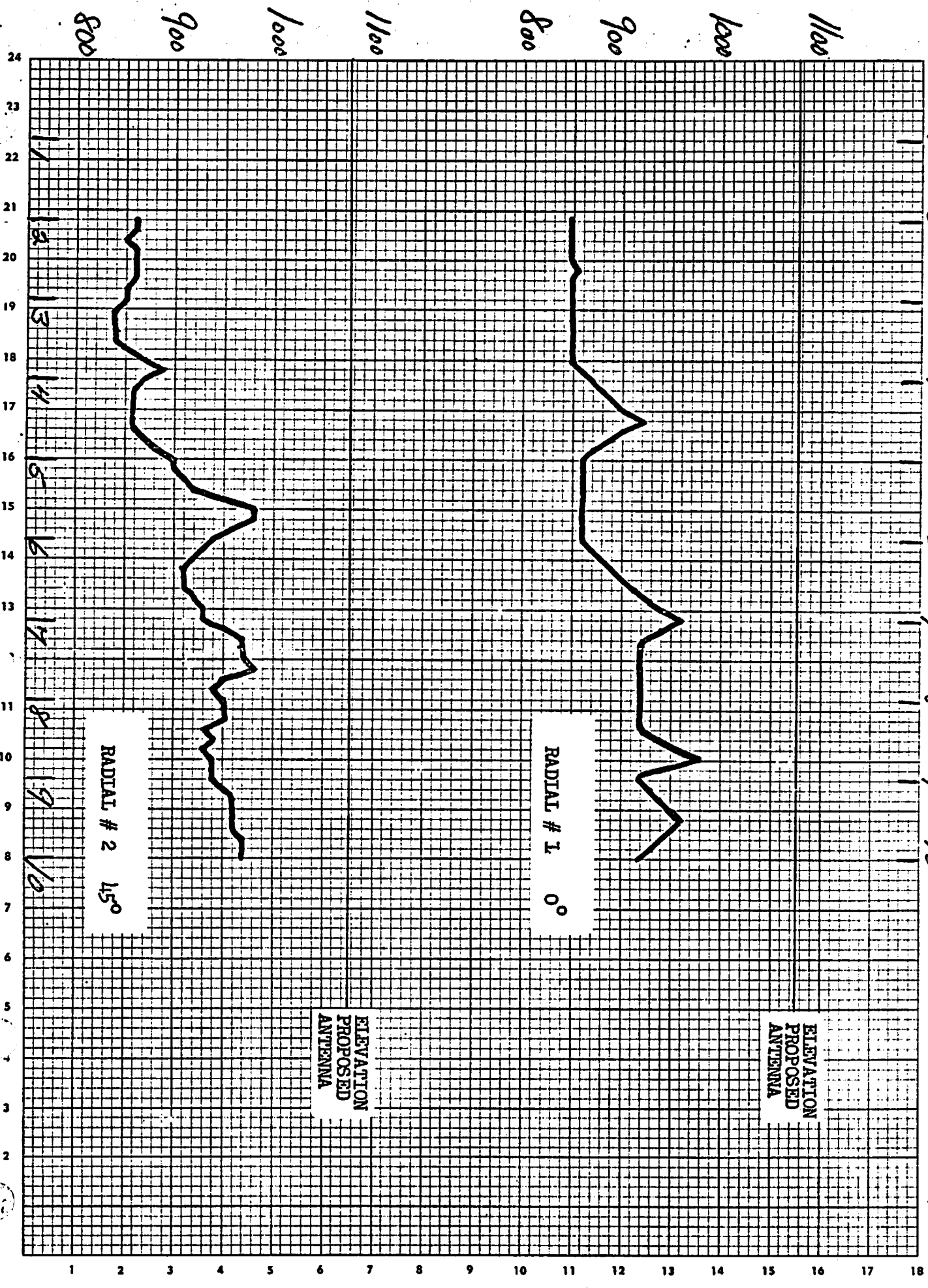


Exhibit Fourteen

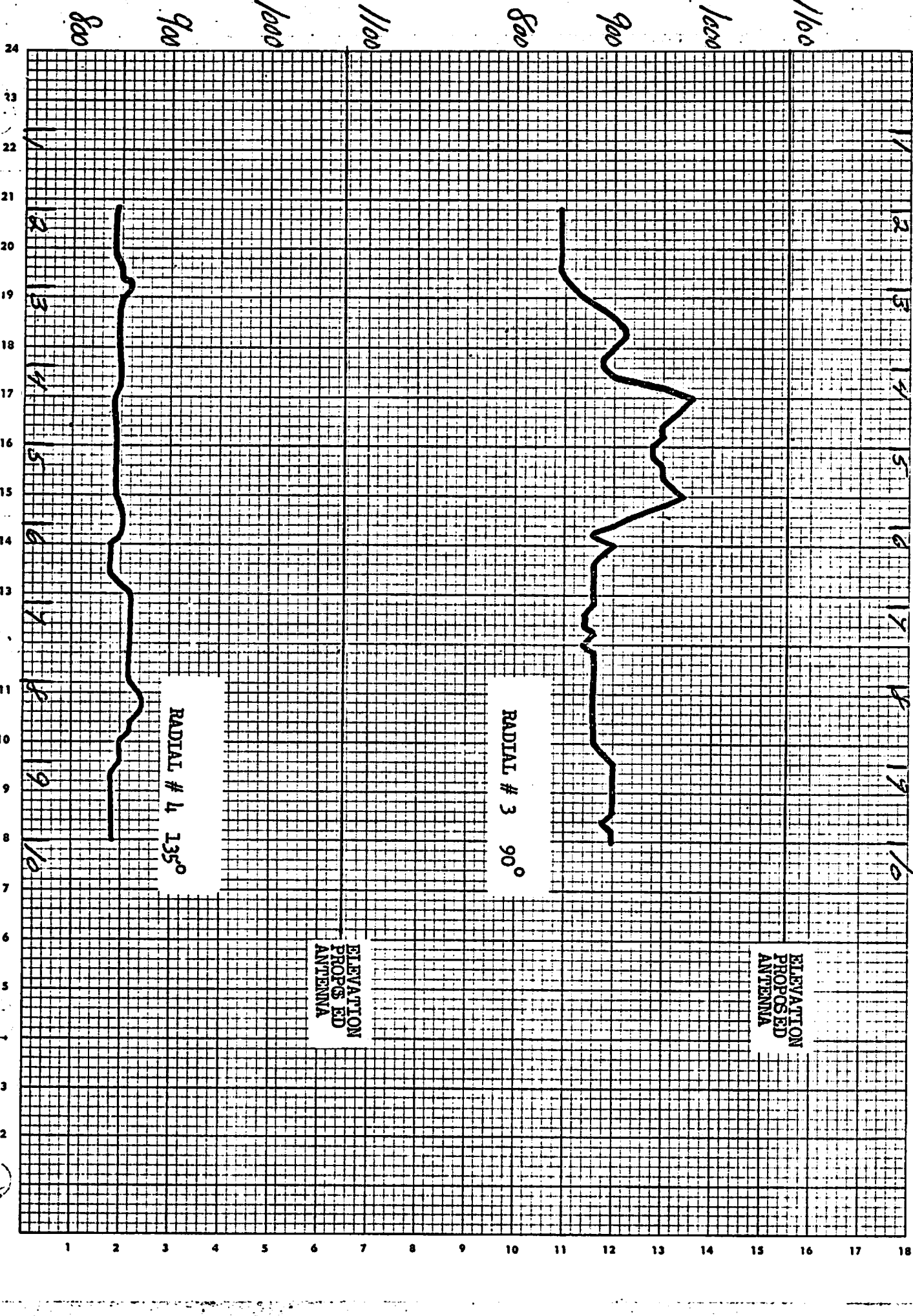
Profile Graphs of Radials From Transmitter Site

Prepared 2/2/74  
By Michael O'Connor



ELEVATION  
PROPOSED  
ANTENNA

ELEVATION  
PROPOSED  
ANTENNA



ELEVATION  
PROPOSED  
ANTENNA

RADIAL # 3 90°

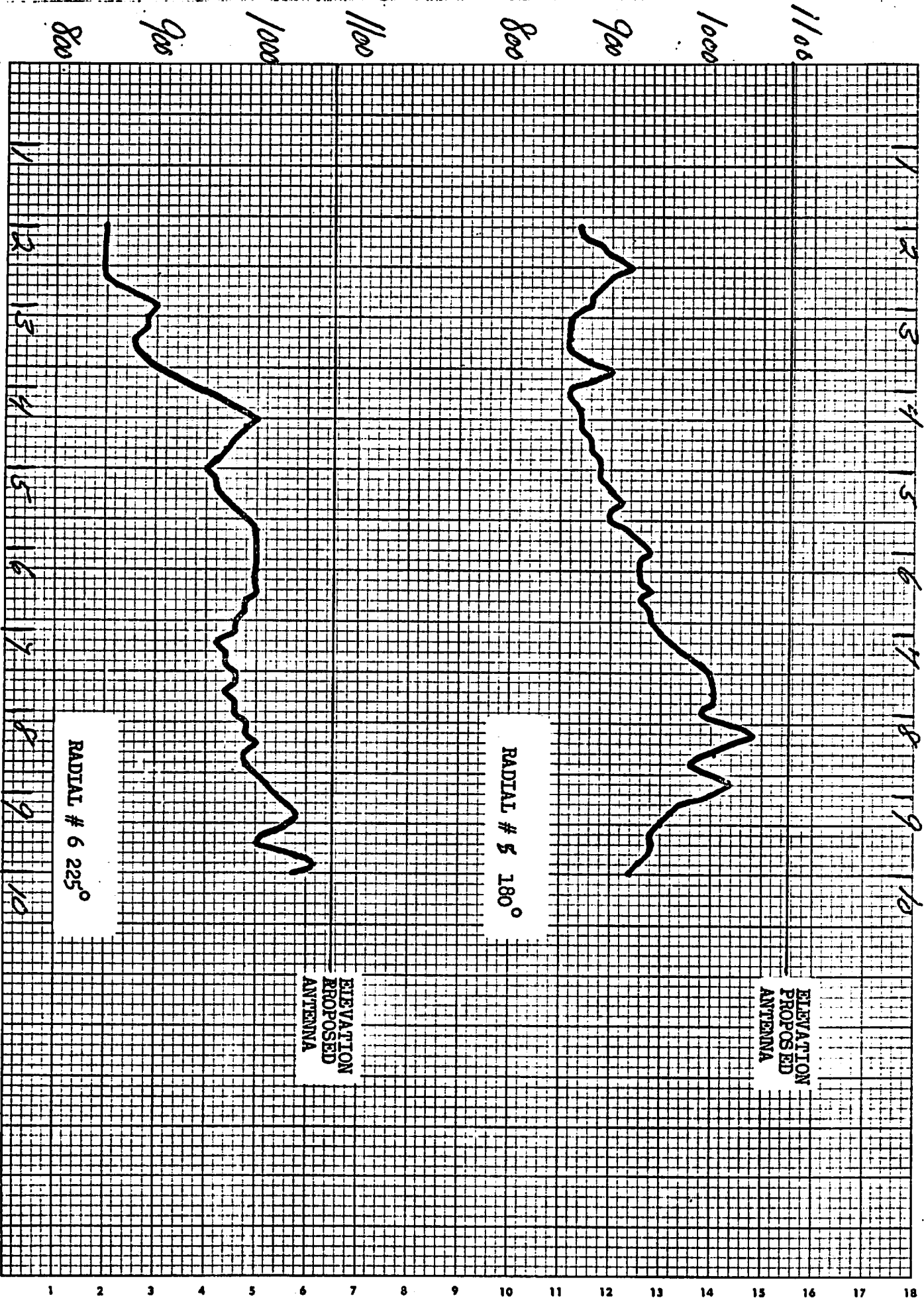
ELEVATION  
PROPOSED  
ANTENNA

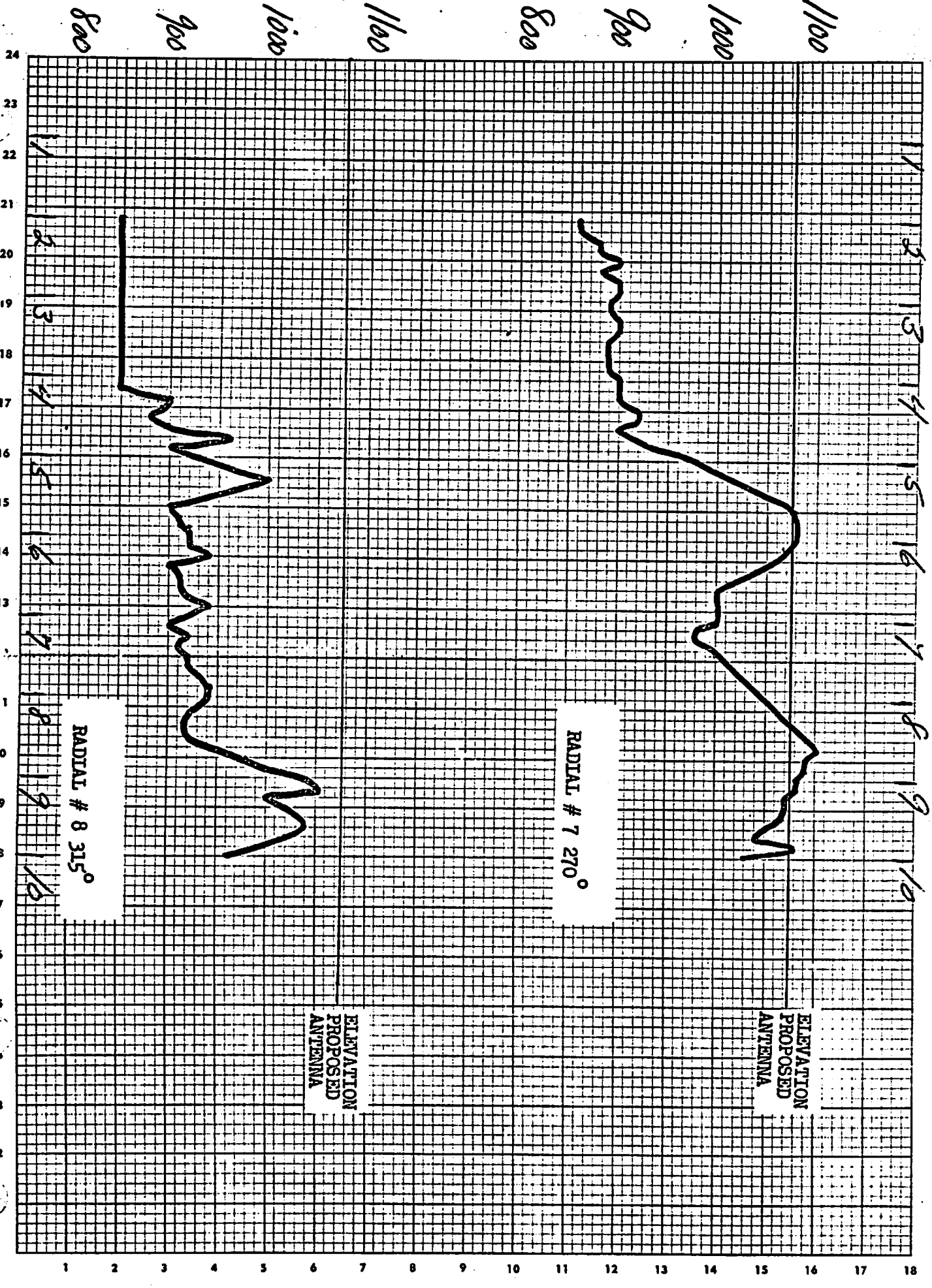
RADIAL # 4 135°

1100  
1000  
900  
800  
1100  
1000  
900  
800

24  
23  
22  
21  
20  
19  
18  
17  
16  
15  
14  
13  
12  
11  
10  
9  
8  
7  
6  
5  
4  
3  
2

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18





1100  
 1000  
 900  
 800  
 1100  
 1000  
 900  
 800

11  
 2  
 13  
 14  
 15  
 16  
 17  
 18  
 19  
 10  
 9  
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24  
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 3  
 2

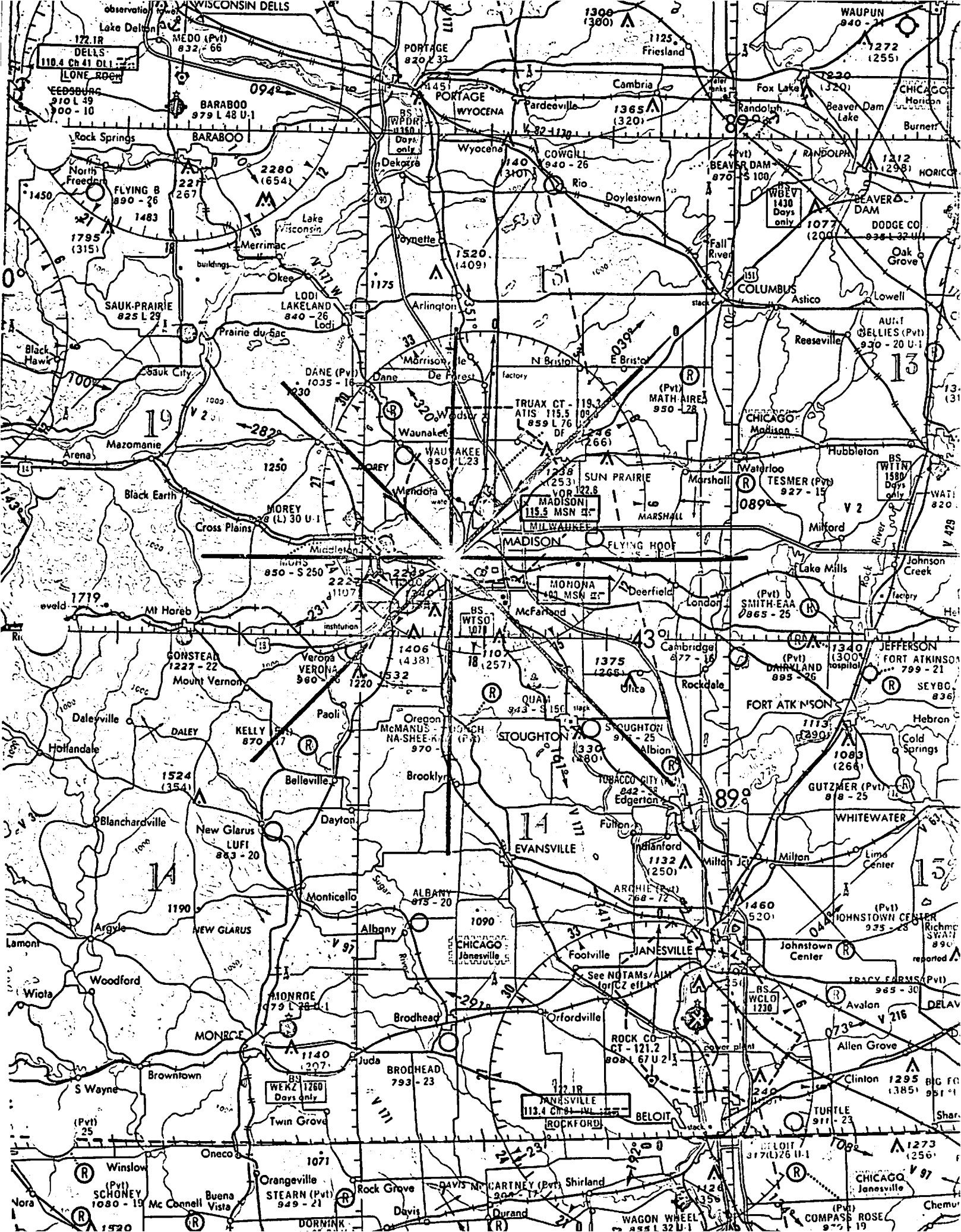
1  
 2  
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 8  
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 12  
 13  
 14  
 15  
 16  
 17  
 18

Exhibit Fifteen

Aeronautical Chart

Prepared 2/3/74

By Michael O'Connor



172 IR  
DELLS  
110.4 Ch 41 DLI  
LONE ROCK  
EEDSBURG  
310 L 49  
900 - 10

MEDO (Pvt)  
832 - 66  
BARABOO  
979 L 48 U-1  
BARABOO  
094  
2280 (654)

PORTAGE  
820 X 33  
WYOCENA  
WYOCENA  
1451  
140 (310)

1365 A (320)  
Cambria  
Pardeeville  
COWGLI  
940 - 26  
Rio  
Doylestown

1125  
Friesland  
1272 (255)  
WAUPUN  
940 - 21  
CHICAGO  
Horicon  
Burnett

1230  
Fox Lake  
Beaver Dam  
Lake  
RANDOLPH  
1212 (298)  
BEAVER DAM  
870  
1077 (200)

1312 (298)  
DODGE CO  
938 L 32 U-1  
Oak Grove

1450  
North Freedom  
FLYING B  
890 - 26  
1483  
1795 (315)

SAUK- PRAIRIE  
825 L 29  
SAUK CITY  
Prairie du Sac  
Lodi  
LAKELAND  
840 - 26  
Lodi

1175  
Arlington  
Morrison  
De Forest  
DANE (Pvt)  
1035 - 16  
1230

1520 (409)  
Arlington  
N Bristol  
E Bristol  
19.3  
TRUAX CT  
ATIS 115.5  
859 L 76  
DF  
246 (266)

1365 A (320)  
MATH AIRE  
950 - 28  
CHICAGO  
Madison

1312 (298)  
DODGE CO  
938 L 32 U-1  
Oak Grove

1312 (298)  
DODGE CO  
938 L 32 U-1  
Oak Grove

1450  
Black Hawk  
1000  
Mazomanie  
Arena  
1250

2827  
MORLEY  
1250  
MORLEY (L) 30 U-1  
Cross Plains  
Middleton  
1107

1175  
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