

## APPENDIX A

### WMLM FIELD STRENGTH MEASUREMENTS

Extracted from WMLM 1983 Full Proof of Performance (BL-19831109AH)

## WMLM

078° T. Radial

| <u>LOC<br/>NO.</u> | <u>ND<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DA-D<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DA-N<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DISTANCE<br/>MILES</u> |
|--------------------|--------------------|------------------|----------------------|------------------|----------------------|------------------|---------------------------|
|                    |                    | 7-16-83          |                      |                  |                      | 10-22-83         |                           |
| 401                | 960                | 8:57 AM          |                      |                  |                      |                  | 0.1                       |
| 402                | 310                | 9:08             |                      |                  |                      |                  | 0.2                       |
| 403                | 240                | 9:19             |                      |                  |                      |                  | 0.3                       |
| 404                | 130                | 9:23             |                      |                  |                      |                  | 0.4                       |
| 405                | 110                | 9:28             |                      |                  |                      |                  | 0.5                       |
| 406                | 95                 | 9:38             |                      |                  |                      |                  | 0.6                       |
| 407                | inaccessible       |                  |                      |                  |                      |                  | 0.7                       |
| 408                | inaccessible       |                  |                      |                  |                      |                  | 0.8                       |
| 409                | inaccessible       |                  |                      |                  |                      |                  | 0.9                       |
| 410                | 60                 | 10:24            |                      |                  | 6.2                  | 3:21 PM          | 1.0                       |
| 411                | inaccessible       |                  |                      |                  |                      |                  | 1.1                       |
| 412                | inaccessible       |                  |                      |                  |                      |                  | 1.2                       |
| 413                | inaccessible       |                  |                      |                  |                      |                  | 1.3                       |
| 414                | 31                 | 10:40            |                      |                  | 3.4                  | 3:45             | 1.4                       |
| 415                | 27                 | 11:14            |                      |                  | 3.6                  | 3:57             | 1.5                       |
| 416                | 29                 | 11:11            |                      |                  | 6.6                  | 4:08             | 1.6                       |
| 417                | 29                 | 11:04            |                      |                  | 3.3                  | 4:12             | 1.7                       |
| 418                | 26                 | 11:01            |                      |                  | 4.5                  | 4:19             | 1.8                       |
| 419                | 26                 | 10:59            |                      |                  | 3.8                  | 4:26             | 1.9                       |
| 420                | 24                 | 10:56            |                      |                  | 3.4                  | 4:34             | 2.0                       |
|                    |                    | 7-11-83          |                      |                  |                      |                  |                           |
| 421                | 19                 | 16:39 PM         |                      |                  | 3.8                  | 3:47             | 2.43                      |
|                    |                    | 7-16-83          |                      |                  |                      |                  |                           |
| * 422              | <u>15.2</u>        | 15:57 PM         |                      |                  | <u>2.3</u>           | 3:50             | <u>2.93</u>               |
| 423                | 11.2               | 16:08            |                      |                  | 3.1                  | 3:55             | 3.45                      |
| 424                | 10.6               | 16:59            |                      |                  | 2.5                  | 3:59             | 3.97                      |
| 425                | 8.7                | 17:10            |                      |                  | 1.3                  | 4:02             | 4.97                      |
| 426                | 6.45               | 18:33            |                      |                  | 4.3                  | 4:07             | 6.02                      |

\* Monitor Point

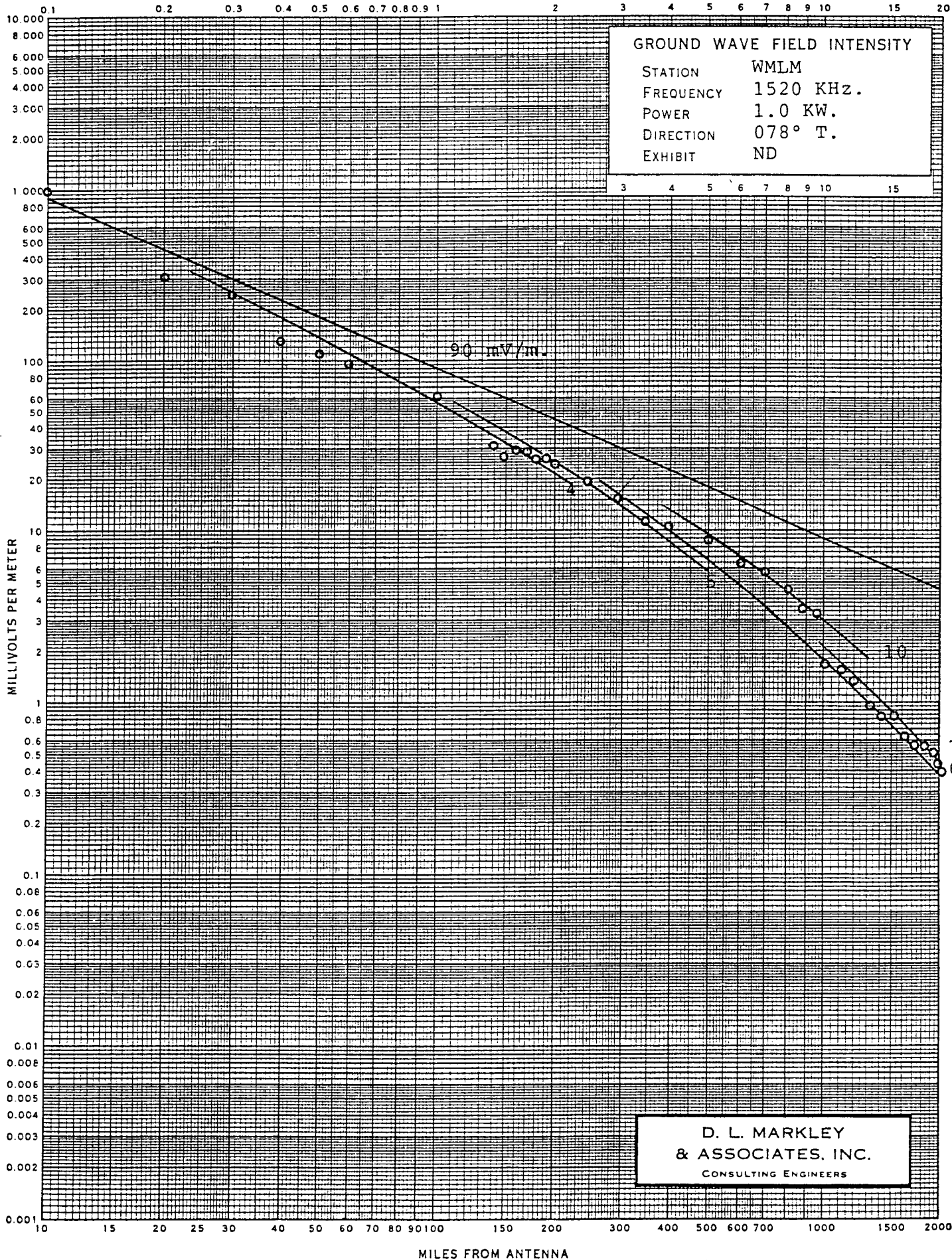
| LOC<br>NO. | ND<br>MV/M | DATE/TIME | DA-D<br>MV/M | DATE/TIME | DA-N<br>MV/M | DATE/TIME | DISTANCE<br>MILES |
|------------|------------|-----------|--------------|-----------|--------------|-----------|-------------------|
|            |            | 7-12-83   |              |           |              | 10-22-83  |                   |
| 427        | 5.60       | 18:21 AM  |              |           | .28          | 4:11 PM   | 6.98              |
| 428        | 4.43       | 18:09     |              |           | .27          | 4:14      | 8.02              |
| 429        | 3.49       | 18:02     |              |           | .44          | 4:18      | 8.83              |
| 430        | 3.19       | 17:57     |              |           | .21          | 4:22      | 9.60              |
|            |            | 7-11-83   |              |           |              |           |                   |
| 431        | 1.64       | 19:15     |              |           | .33          | 4:26      | 10.11             |
| 432        | 1.56       | 19:11     |              |           | .40          | 4:30      | 11.14             |
| 433        | 1.33       | 19:02     |              |           | .53          | 4:34      | 12.15             |
| 434        | .95        | 18:56     |              |           | .41          | 4:37      | 13.19             |
| 435        | .82        | 18:49     |              |           | .35          | 4:41      | 14.21             |
| 436        | .83        | 18:40     |              |           | .23          | 4:45      | 15.24             |
| 437        | .62        | 18:31     |              |           | .16          | 4:48      | 16.28             |
| 438        | .56        | 18:20     |              |           | .13          | 4:51      | 17.39             |
| 439        | .56        | 18:08     |              |           | .12          | 4:54      | 18.40             |
| 440        | .44        | 17:54     |              |           | .068         | 5:00      | 19.42             |
| 441        | .49        | 17:59     |              |           | .098         | 4:57      | 19.92             |
| 442        | .39        | 17:45     |              |           | .062         | 5:05      | 20.43             |

$\frac{DA}{ND} = 0.18$

MILES FROM ANTENNA

GROUND WAVE FIELD INTENSITY

STATION WMLM  
 FREQUENCY 1520 KHz.  
 POWER 1.0 KW.  
 DIRECTION 078° T.  
 EXHIBIT ND



D. L. MARKLEY  
 & ASSOCIATES, INC.  
 CONSULTING ENGINEERS

## WMLM

079° T. Radial

| <u>LOC<br/>NO.</u> | <u>ND<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DA-D<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DA-N<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DISTANCE<br/>MILES</u> |
|--------------------|--------------------|------------------|----------------------|------------------|----------------------|------------------|---------------------------|
| 7-16-83            |                    |                  |                      |                  |                      |                  |                           |
| 501                | 950                | 9:00 AM          |                      |                  |                      |                  | 0.1                       |
| 502                | 300                | 9:05             |                      |                  |                      |                  | 0.2                       |
| 503                | 240                | 9:19             |                      |                  |                      |                  | 0.3                       |
| 504                | 130                | 9:23             |                      |                  |                      |                  | 0.4                       |
| 505                | 110                | 9:28             |                      |                  |                      |                  | 0.5                       |
| 506                | 95                 | 9:35             |                      |                  |                      |                  | 0.6                       |
| 507 i              | inaccessible       |                  |                      |                  |                      |                  | 0.7                       |
| 508                | inaccessible       |                  |                      |                  |                      |                  | 0.8                       |
| 509                | inaccessible       |                  |                      |                  |                      |                  | 0.9                       |
| 510                | 60                 | 10:24            | 6.4                  | 2:29 PM          |                      |                  | 1.0                       |
| 511                | inaccessible       |                  |                      |                  |                      |                  | 1.1                       |
| 512                | inaccessible       |                  |                      |                  |                      |                  | 1.2                       |
| 513                | inaccessible       |                  |                      |                  |                      |                  | 1.3                       |
| 514                | 30                 | 10:45            | 4.4                  | 2:35             |                      |                  | 1.4                       |
| 515                | 27                 | 11:14            | 3.5                  | 2:46             |                      |                  | 1.5                       |
| 516                | 29                 | 11:11            | 4.5                  | 2:51             |                      |                  | 1.6                       |
| 517                | 29                 | 11:00            | 4.9                  | 2:53             |                      |                  | 1.7                       |
| 518                | 26                 | 11:02            | 4.5                  | 2:57             |                      |                  | 1.8                       |
| 519                | 25                 | 10:59            | 3.3                  | 3:01             |                      |                  | 1.9                       |
| 520                | 23                 | 10:57            | 2.8                  | 3:04             |                      |                  | 2.0                       |
| 10-5-83            |                    |                  |                      |                  |                      |                  |                           |
| 521                | 21                 | 16:43 PM         | 3.0                  | 4:37             |                      |                  | 2.43                      |
| * 522              | <u>15.2</u>        | 16:00            | <u>2.75</u>          | 4:43             |                      |                  | <u>2.92</u>               |
| 523                | 11.2               | 16:12            | 2.00                 | 4:52             |                      |                  | 3.45                      |
| 524                | 10.6               | 17:02            | 2.85                 | 5:05             |                      |                  | 3.95                      |
| 525                | 10.0               | 17:05            | 2.9                  | 5:08             |                      |                  | 4.34                      |
| 526                | 8.15               | 17:08            | 1.4                  | 5:12             |                      |                  | 4.95                      |

\* Monitor Point

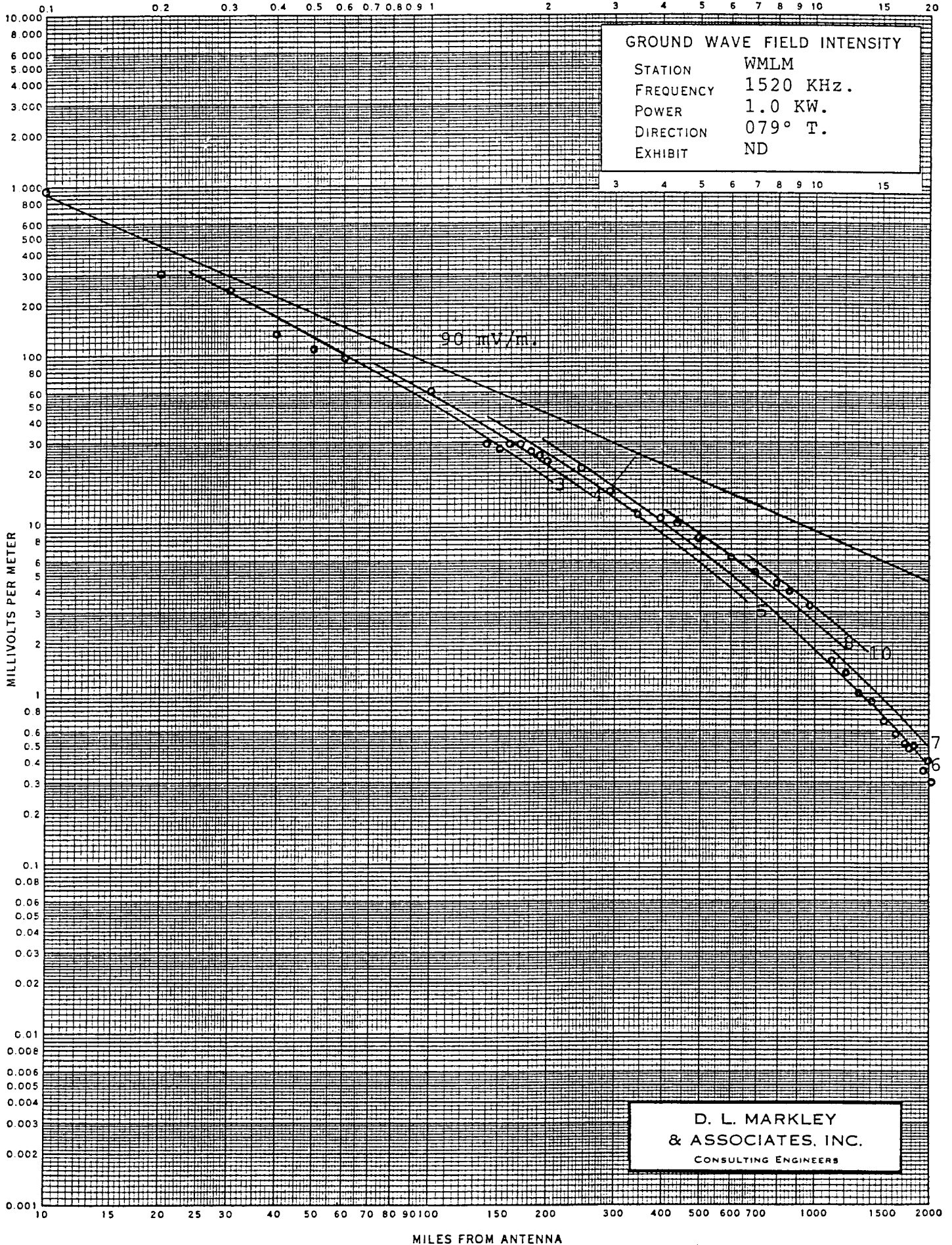
## WMLM

| <u>LOC<br/>NO.</u> | <u>ND<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DA-D<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DA-N<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DISTANCE<br/>MILES</u> |
|--------------------|--------------------|------------------|----------------------|------------------|----------------------|------------------|---------------------------|
|                    |                    | 7-12-83          |                      | 10-05-83         |                      |                  |                           |
| 527                | 6.25               | 18:31            | 1.7                  | 5:16 PM          |                      |                  | 5.99                      |
| 528                | 5.18               | 18:19            | 1.25                 | 5:21             |                      |                  | 6.96                      |
| 529                | 4.49               | 18:12            | .34                  | 5:26             |                      |                  | 7.98                      |
| 530                | 3.96               | 18:05            | .51                  | 4:05             |                      |                  | 8.50                      |
| 531                | 3.26               | 17:54            | .225                 | 4:01             |                      |                  | 9.66                      |
|                    |                    | 7-11-83          |                      |                  |                      |                  |                           |
| 532                | 1.56               | 19:09            | .11                  | 3:56             |                      |                  | 11.09                     |
| 533                | 1.32               | 19:04            | .175                 | 3:49             |                      |                  | 12.10                     |
| 534                | 1.0                | 18:53            | .115                 | 3:44             |                      |                  | 13.12                     |
| 535                | .9                 | 18:45            | .2                   | 3:33             |                      |                  | 14.15                     |
| 536                | .68                | 18:37            | .285                 | 3:30             |                      |                  | 15.18                     |
| 537                | .57                | 18:29            | .26                  | 3:24             |                      |                  | 16.19                     |
| 538                | .505               | 18:23            | .195                 | 3:13             |                      |                  | 17.30                     |
| 539                | .47                | 18:16            | .17                  | 3:09             |                      |                  | 17.81                     |
| 540                | .49                | 18:10            | .15                  | 3:01             |                      |                  | 18.32                     |
| 541                | .35                | 18:03            | .10                  | 2:56             |                      |                  | 19.34                     |
| 542                | .39                | 17:51            | .115                 | 2:52             |                      |                  | 19.84                     |
| 543                | .295               | 17:48            | .10                  | 2:48             |                      |                  | 20.34                     |

MILES FROM ANTENNA

GROUND WAVE FIELD INTENSITY

STATION WMLM  
 FREQUENCY 1520 KHz.  
 POWER 1.0 KW.  
 DIRECTION 079° T.  
 EXHIBIT ND



D. L. MARKLEY  
 & ASSOCIATES, INC.  
 CONSULTING ENGINEERS

## WMLM

090° T. Radial

| <u>LOC<br/>NO.</u> | <u>ND<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DA-D<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DA-N<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DISTANCE<br/>MILES</u> |
|--------------------|--------------------|------------------|----------------------|------------------|----------------------|------------------|---------------------------|
| 601                | 700                | 4:14 PM          |                      |                  |                      |                  | 0.1                       |
| 602                | 390                | 4:06             |                      |                  |                      |                  | 0.2                       |
| 603                | 325                | 4:01             |                      |                  |                      |                  | 0.3                       |
| 604                | 162                | 3:50             |                      |                  |                      |                  | 0.4                       |
| 605                | 150                | 3:44             |                      |                  |                      |                  | 0.5                       |
| 606                | 129                | 3:35             |                      |                  |                      |                  | 0.6                       |
| 607                | 109                | 3:11             |                      |                  |                      |                  | 0.7                       |
| 608                | inaccessible       |                  |                      |                  |                      |                  |                           |
| 609                | 98                 | 2:49             | 5.2                  | 4:00 PM          |                      |                  | 0.9                       |
| 610                | 52                 | 2:27             | 9.8                  | 3:51             |                      |                  | 1.0                       |
| 611                | 40                 | 2:20             | 7.2                  | 3:48             |                      |                  | 1.1                       |
| 612                | 42                 | 2:15             | 5.2                  | 3:44             |                      |                  | 1.2                       |
| 613                | 42                 | 2:10             | 7.2                  | 3:40             |                      |                  | 1.3                       |
| 614                | 39                 | 2:05             | 9.4                  | 3:35             |                      |                  | 1.4                       |
| 615                | 37                 | 1:58             | 8.2                  | 3:31             |                      |                  | 1.5                       |
| 616                | 40                 | 1:52             | 7.0                  | 3:27             |                      |                  | 1.6                       |
| 617                | 33.5               | 1:45             | 1.9                  | 3:23             |                      |                  | 1.7                       |
| 618                | 31.8               | 1:39             | 2.25                 | 3:17             |                      |                  | 1.8                       |
| 619                | 30.8               | 1:32             | inaccessible         |                  |                      |                  | 1.9                       |
| 620                | 30.8               | 1:27             | inaccessible         |                  |                      |                  | 2.0                       |
|                    | 7-16-83            |                  |                      | 10-6-83          |                      |                  |                           |
| 621                | 24.3               | 17:37 AM         | 2.95                 | 10:28 AM         |                      |                  | 2.38                      |
| * 622              | 20.8               | 17:32            | 3.1                  | 10:32            |                      |                  | 2.88                      |
| 623                | 14                 | 17:33            | .8                   | 10:38            |                      |                  | 3.38                      |
| 624                | 15.3               | 17:22            | 1.5                  | 10:42            |                      |                  | 3.88                      |
| 625                | 10                 | 17:20            | 1.85                 | 10:50            |                      |                  | 4.38                      |
| 626                | 10.2               | 17:15            | 1.7                  | 10:53            |                      |                  | 4.88                      |
| 627                | 8.2                | 1:24 PM          | 1.4                  | 10:57            |                      |                  | 5.87                      |
| 628                | 7.0                | 1:29             | .34                  | 11:01            |                      |                  | 6.82                      |

\* Monitor Point



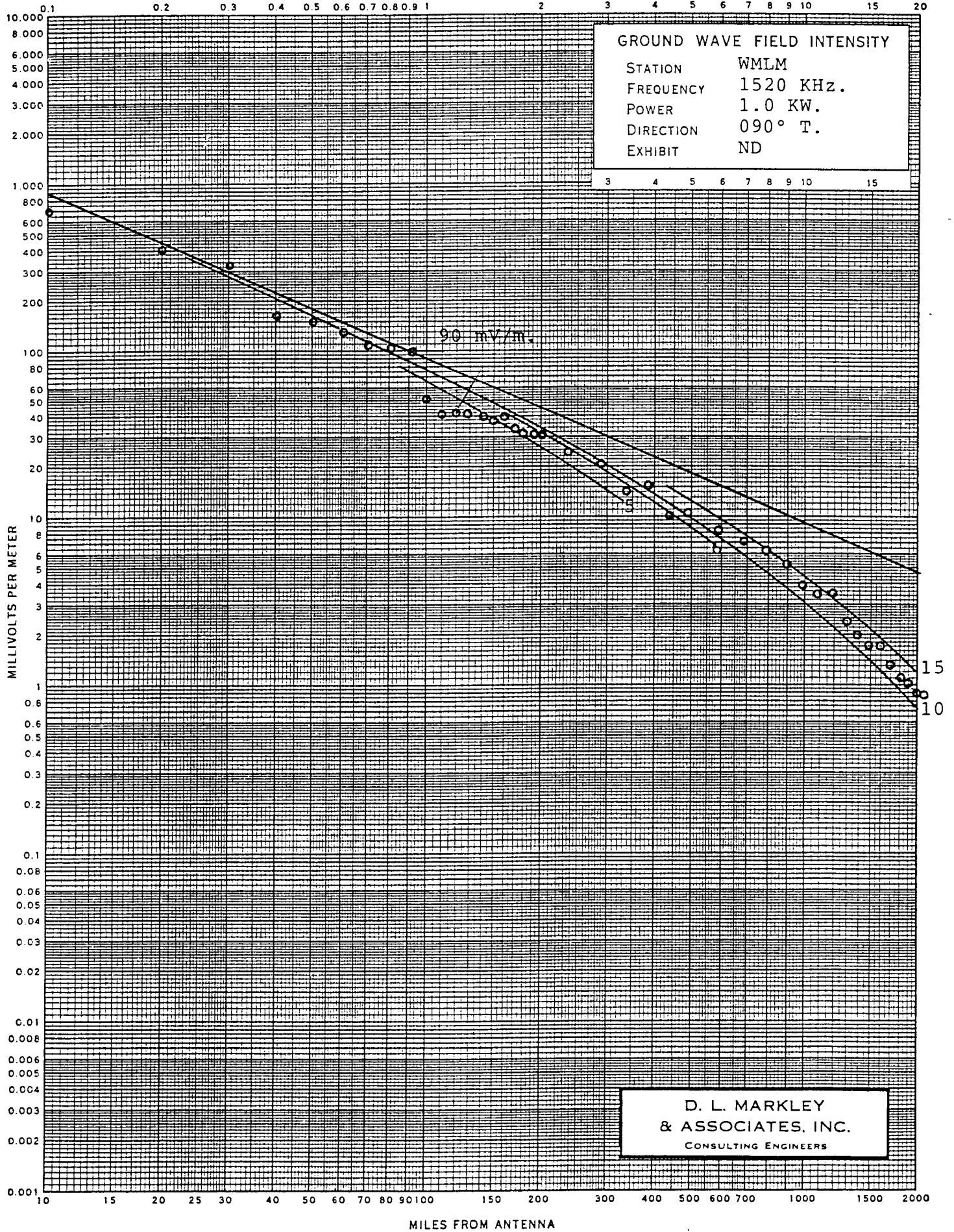
| WMLM       |            |           |              |           |              |           |                   |
|------------|------------|-----------|--------------|-----------|--------------|-----------|-------------------|
| LOC<br>NO. | ND<br>MV/M | DATE/TIME | DA-D<br>MV/M | DATE/TIME | DA-N<br>MV/M | DATE/TIME | DISTANCE<br>MILES |
|            |            | 7-16-83   |              | 10-6-83   |              |           |                   |
| 629        | 6.3        | 1:33 PM   | .23          | 11:05 AM  |              |           | 7.84              |
| 630        | 5.2        | 1:39      | .65          | 11:09     |              |           | 8.84              |
| 631        | 3.8        | 1:44      | .65          | 11:13     |              |           | 9.86              |
| 632        | 3.5        | 1:49      | .42          | 11:16     |              |           | 10.87             |
| 633        | 3.4        | 1:54      | .39          | 11:20     |              |           | 11.88             |
| 634        | 2.4        | 2:02      | .225         | 11:26     |              |           | 12.86             |
| 635        | 2.0        | 2:07      | .21          | 11:31     |              |           | 13.86             |
| 636        | 1.7        | 2:26      | .1           | 11:39     |              |           | 14.86             |
| 637        | 1.7        | 2:32      | .095         | 11:46     |              |           | 15.89             |
| 638        | 1.3        | 2:38      | .17          | 11:51     |              |           | 16.99             |
| 639        | 1.1        | 2:42      | .16          | 11:55     |              |           | 17.98             |
| 640        | 1.0        | 2:48      | .14          | 11:59     |              |           | 18.97             |
| 641        | .9         | 2:52      | .145         | 12:03 PM  |              |           | 19.93             |
| 642        | .86        | 2:56      | .1           | 12:11     |              |           | 20.94             |
| 643        | .6         | 3:00      | .06          | 12:21     |              |           | 21.94             |

LR = 0.1058  
AR = 0.1231

MILES FROM ANTENNA

GROUND WAVE FIELD INTENSITY

STATION WMLM  
FREQUENCY 1520 KHz.  
POWER 1.0 KW.  
DIRECTION 090° T.  
EXHIBIT ND



D. L. MARKLEY  
& ASSOCIATES, INC.  
CONSULTING ENGINEERS

## WMLM

112° T. Radial

| <u>LOC<br/>NO.</u> | <u>ND<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DA-D<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DA-N<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DISTANCE<br/>MILES</u> |
|--------------------|--------------------|------------------|----------------------|------------------|----------------------|------------------|---------------------------|
| 702                | 320                | 6:02 PM          |                      |                  |                      |                  | 0.2                       |
| 703                | 220                | 5:56             |                      |                  |                      |                  | 0.3                       |
| 704                | 160                | 5:49             |                      |                  |                      |                  | 0.4                       |
| 705                | 165                | 5:44             |                      |                  |                      |                  | 0.5                       |
| 706                | 120                | 5:38             |                      |                  |                      |                  | 0.6                       |
| 707                | 110                | 5:34             |                      |                  |                      |                  | 0.7                       |
| 708                | inaccessible       |                  |                      |                  |                      |                  | 0.8                       |
| 709                | inaccessible       |                  |                      |                  |                      |                  | 0.9                       |
| 10-21-83           |                    |                  |                      |                  |                      |                  |                           |
| 710                | 59                 | 3:57             |                      |                  | 5.0                  | 4:35 PM          | 1.0                       |
| 711                | 47                 | 3:59             |                      |                  | 5.0                  | 4:40             | 1.1                       |
| 712                | 26                 | 3:50             |                      |                  | 5.3                  | 4:46             | 1.2                       |
| 713                | 32                 | 3:44             |                      |                  | 4.4                  | 4:50             | 1.3                       |
| 714                | 39                 | 3:40             |                      |                  | 3.6                  | 5:00             | 1.4                       |
| 10-08-83           |                    |                  |                      |                  |                      |                  |                           |
| 715                | 38                 | 3:36             |                      |                  | 3.5                  | 3:48 PM          | 1.5                       |
| 716                | 36                 | 3:30             |                      |                  | 3.0                  | 3:41             | 1.6                       |
| 717                | 35                 | 3:26             |                      |                  | 3.0                  | 3:34             | 1.7                       |
| 718                | 36                 | 3:28             |                      |                  | 3.0                  | 3:30             | 1.8                       |
| 719                | 31                 | 3:09             |                      |                  | 2.65                 | 3:26             | 1.9                       |
| 720                | 29.5               | 3:00             |                      |                  | 3.2                  | 3:20             | 2.01                      |
| 7-09-83            |                    |                  |                      |                  |                      |                  |                           |
| 721                | 23                 | 2:34 PM          |                      |                  | 2.25                 | 3:16 PM          | 2.55                      |
| * 722              | <u>22.5</u>        | 2:50             |                      |                  | <u>2.3</u>           | 3:22             | <u>3.08</u>               |
| 723                | 17.5               | 3:02             |                      |                  | 1.85                 | 3:40             | 3.64                      |
| 724                | 14.2               | 4:00             |                      |                  | 1.2                  | 3:48             | 4.18                      |
| 725                | 9.0                | 4:15             |                      |                  | 1.2                  | 3:53             | 5.25                      |
| 726                | 8.4                | 4:23             |                      |                  | 1.02                 | 3:56             | 5.73                      |

\* Monitor Point

## WMLM

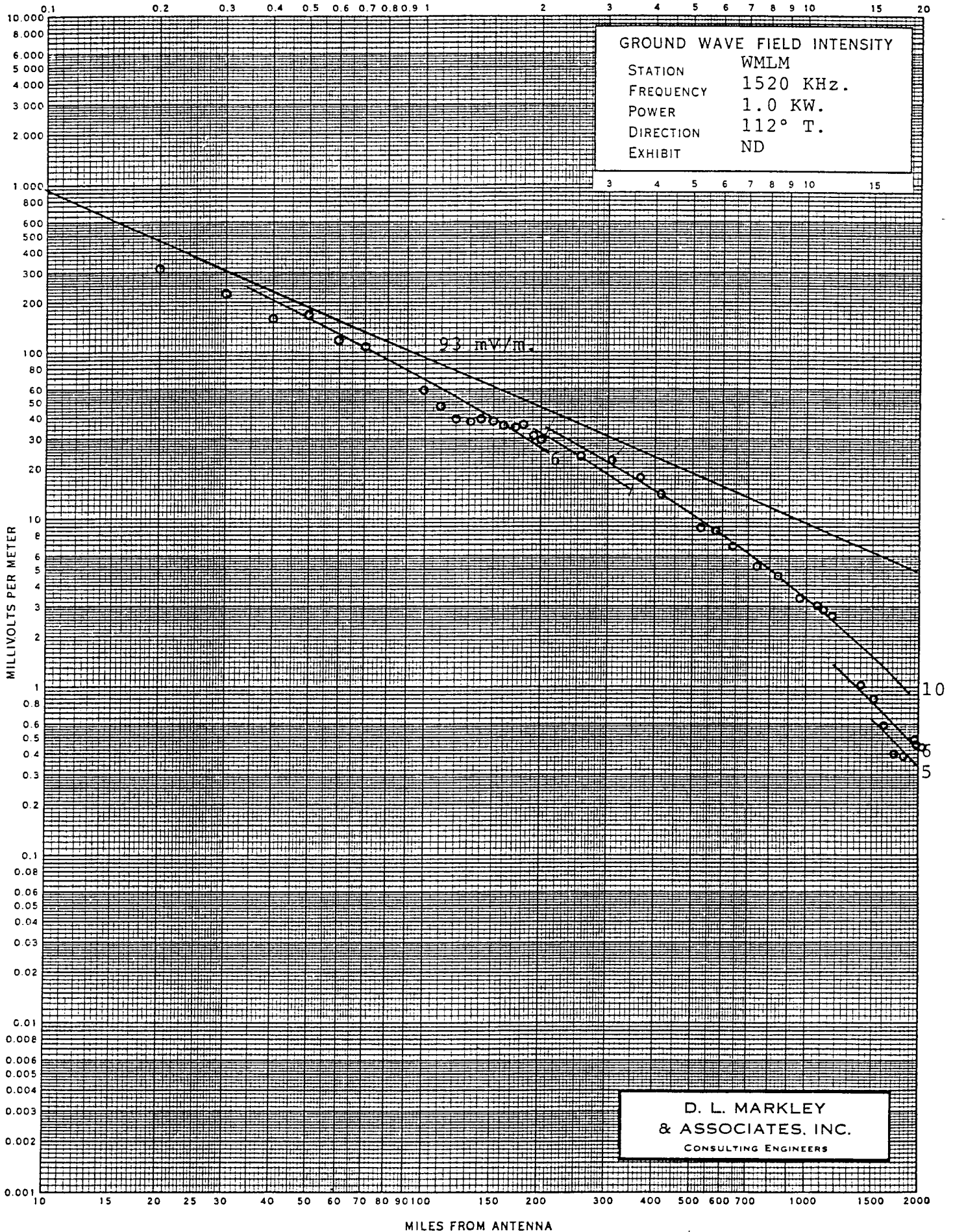
| <u>LOC<br/>NO.</u> | <u>ND<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DA-D<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DA-N<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DISTANCE<br/>MILES</u> |
|--------------------|--------------------|------------------|----------------------|------------------|----------------------|------------------|---------------------------|
|                    |                    | 07-09-83         |                      |                  |                      | 10-07-83         |                           |
| 727                | 6.7                | 4:27 PM          |                      |                  | 0.7                  | 4:00 PM          | 6.34                      |
| 728                | 5.3                | 4:36             |                      |                  | .50                  | 4:05             | 7.38                      |
| 729                | 4.6                | 4:45             |                      |                  | .44                  | 4:08             | 8.39                      |
| 730                | 3.3                | 5:05             |                      |                  | .40                  | 4:15             | 9.59                      |
| 731                | 3.0                | 5:19             |                      |                  | .38                  | 4:20             | 10.68                     |
| 732                | 2.82               | 5:24             |                      |                  | .26                  | 4:24             | 11.05                     |
| 733                | 2.6                | 5:27             |                      |                  | .14                  | 4:28             | 11.77                     |
| 734                | 1.0                | 5:43             |                      |                  | .10                  | 4:35             | 13.96                     |
| 735                | .84                | 5:51             |                      |                  | .12                  | 4:44             | 15.05                     |
| 736                | .59                | 6:00             |                      |                  | .05                  | 4:50             | 16.15                     |
| 737                | .40                | 6:06             |                      |                  | .05                  | 4:54             | 17.25                     |
| 738                | .39                | 6:13             |                      |                  | .04                  | 4:58             | 18.35                     |
| 739                | .47                | 6:31             |                      |                  | .036                 | 5:02             | 18.42                     |

L.R. 6/10/82  
11042

MILES FROM ANTENNA

GROUND WAVE FIELD INTENSITY

STATION WMLM  
 FREQUENCY 1520 KHz.  
 POWER 1.0 KW.  
 DIRECTION 112° T.  
 EXHIBIT ND



D. L. MARKLEY  
 & ASSOCIATES, INC.  
 CONSULTING ENGINEERS

## WMLM

113° T. Radial

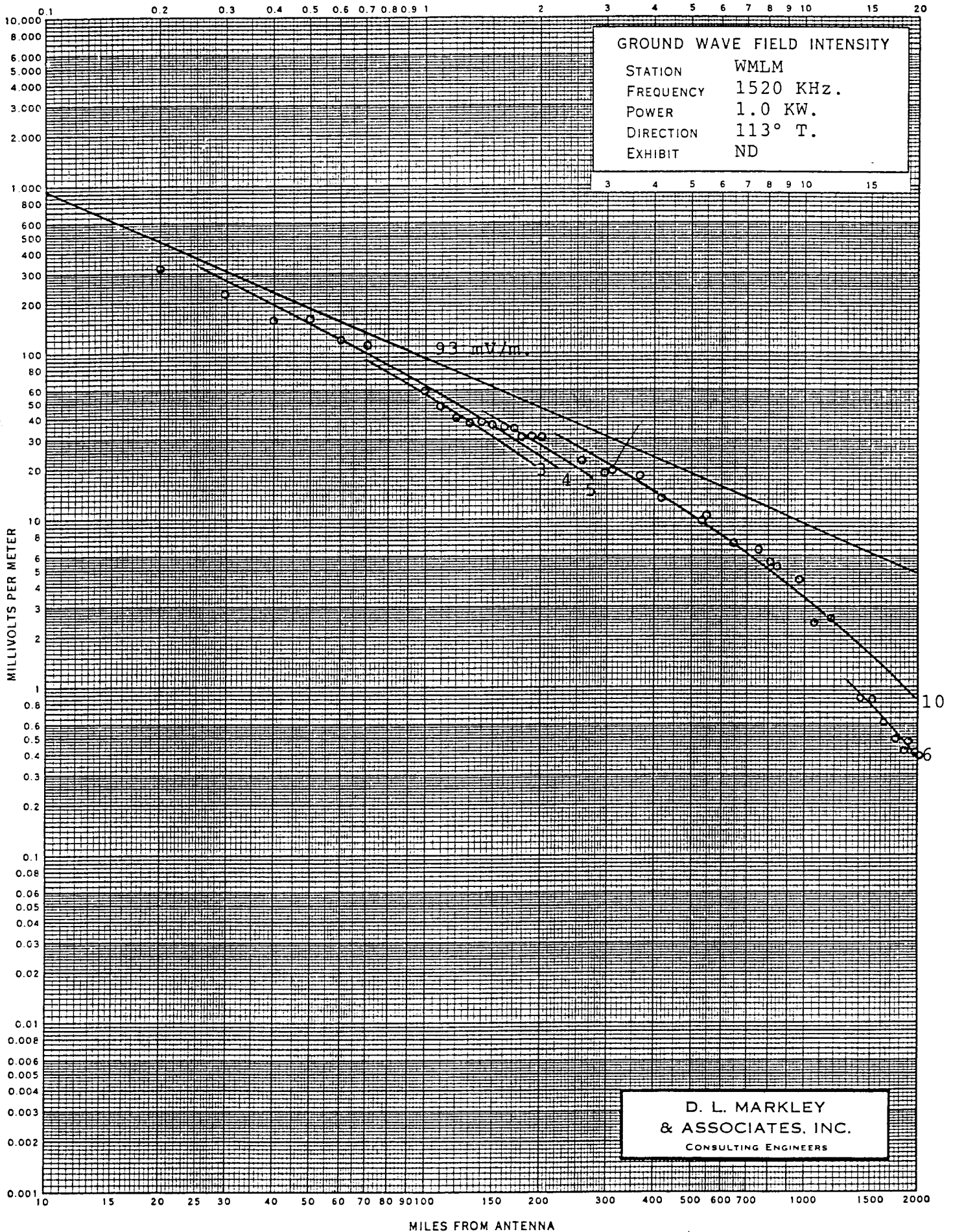
| <u>LOC</u><br><u>NO.</u> | <u>ND</u><br><u>MV/M</u> | <u>DATE/TIME</u> | <u>DA-D</u><br><u>MV/M</u> | <u>DATE/TIME</u> | <u>DA-N</u><br><u>MV/M</u> | <u>DATE/TIME</u> | <u>DISTANCE</u><br><u>MILES</u> |
|--------------------------|--------------------------|------------------|----------------------------|------------------|----------------------------|------------------|---------------------------------|
|                          |                          | 7-15-83          |                            | 10-24-83         |                            |                  |                                 |
| 802                      | 320                      | 6:02 PM          |                            |                  |                            |                  | 0.2                             |
| 803                      | 222                      | 5:55             |                            |                  |                            |                  | 0.3                             |
| 804                      | 160                      | 5:49             |                            |                  |                            |                  | 0.4                             |
| 805                      | 165                      | 5:44             |                            |                  |                            |                  | 0.5                             |
| 806                      | 120                      | 5:39             |                            |                  |                            |                  | 0.6                             |
| 807                      | 110                      | 5:33             |                            |                  |                            |                  | 0.7                             |
| 808                      | inaccessible             |                  |                            |                  |                            |                  | 0.8                             |
| 809                      | inaccessible             |                  |                            |                  |                            |                  | 0.9                             |
| 810                      | 58                       | 3:59             | inaccessbile               |                  |                            |                  | 1.0                             |
| 811                      | 47                       | 3:55             | inaccessible               |                  |                            |                  | 1.1                             |
| 812                      | 40                       | 3:50             | 1.1                        | 11:26 AM         |                            |                  | 1.2                             |
| 813                      | 37                       | 3:44             | 1.0                        | 11:22            |                            |                  | 1.3                             |
| 814                      | 39                       | 3:38             | 1.3                        | 11:17            |                            |                  | 1.4                             |
| 815                      | 37                       | 3:33             | 1.3                        | 11:13            |                            |                  | 1.5                             |
| 816                      | 35                       | 3:29             | 2.1                        | 11:08            |                            |                  | 1.6                             |
| 817                      | 35                       | 3:25             | 2.8                        | 11:03            |                            |                  | 1.7                             |
| 818                      | 31                       | 3:20             | 2.4                        | 11:00            |                            |                  | 1.8                             |
| 819                      | 31                       | 3:07             | 2.0                        | 10:56            |                            |                  | 1.9                             |
|                          |                          | 7-08-83          |                            |                  |                            |                  |                                 |
| 820                      | 30                       | 2:25             | 2.2                        | 10:51            |                            |                  | 2.03                            |
| 821                      | 22                       | 2:39             | 1.5                        | 10:46            |                            |                  | 2.57                            |
|                          |                          |                  |                            | 10-06-83         |                            |                  |                                 |
| 822                      | 19                       | 2:47             | .88                        | 2:30 PM          |                            |                  | 2.95                            |
| * <del>823</del>         | 19.8                     | 2:53             | <u>1.5</u>                 | 2:28             |                            |                  | <u>3.11</u>                     |
| 824                      | 17.5                     | 3:05             | 1.6                        | 2:24             |                            |                  | 3.06                            |
| 825                      | 13.6                     | 4:04             | 1.85                       | 2:08             |                            |                  | 4.20                            |
| 826                      | 9.5                      | 4:19             | 1.25                       | 2:04             |                            |                  | 5.29                            |
| 827                      | 10.2                     | 4:21             | .96                        | 2:00             |                            |                  | 5.53                            |

\* Monitor Point

## WMLM

| LOC<br>NO. | ND<br>MV/M | DATE/TIME | DA-D<br>MV/M | DATE/TIME | DA-N<br>MV/M | DATE/TIME | DISTANCE<br>MILES |
|------------|------------|-----------|--------------|-----------|--------------|-----------|-------------------|
|            |            | 7-08-83   |              | 10-06-83  |              |           |                   |
| 828        | 7.0        | 4:29 PM   | .37          | 1:58 PM   |              |           | 6.39              |
| 829        | 6.5        | 4:38      | .18          | 1:53      |              |           | 7.43              |
| 830        | 5.5        | 4:41      | .09          | 1:48      |              |           | 8.05              |
| 831        | 5.3        | 4:49      | .145         | 1:45      |              |           | 8.55              |
| 832        | 4.5        | 4:57      | .23          | 1:41      |              |           | 9.65              |
| 833        | 2.45       | 5:11      | .165         | 1:37      |              |           | 10.62             |
| 834        | 2.6        | 5:30      | .245         | 1:33      |              |           | 11.83             |
| 835        | .89        | 5:47      | .11          | 1:24      |              |           | 14.08             |
| 836        | .84        | 5:54      | .08          | 1:20      |              |           | 15.17             |
| 837        | .61        | 6:02      | .05          | 1:15      |              |           | 16.28             |
| 838        | .48        | 6:08      | .06          | 1:11      |              |           | 17.39             |
| 839        | .42        | 6:21      | .09          | 1:05      |              |           | 18.47             |
| 840        | .47        | 6:26      | .06          | 1:02      |              |           | 19.02             |
| 841        | .41        | 6:47      | .055         | 12:56     |              |           | 19.57             |
| 842        | .38        | 6:56      | .06          | 12:49     |              |           | 20.66             |
| 843        | .32        | 7:00      | .05          | 12:42     |              |           | 21.75             |

MILES FROM ANTENNA





## WMLM

140° T. Radial

| <u>LOC</u><br><u>NO.</u> | <u>ND</u><br><u>MV/M</u> | <u>DATE/TIME</u> | <u>DA-D</u><br><u>MV/M</u> | <u>DATE/TIME</u> | <u>DA-N</u><br><u>MV/M</u> | <u>DATE/TIME</u> | <u>DISTANCE</u><br><u>MILES</u> |
|--------------------------|--------------------------|------------------|----------------------------|------------------|----------------------------|------------------|---------------------------------|
|                          |                          | 7-14-83          |                            |                  |                            | 10-21-83         |                                 |
| 901                      | 117                      | 5:56 PM          |                            |                  |                            |                  | 0.1                             |
| 902                      | 430                      | 6:00             |                            |                  |                            |                  | 0.2                             |
| 903                      | 280                      | 6:07             |                            |                  |                            |                  | 0.3                             |
| 904                      | 215                      | 6:14             |                            |                  |                            |                  | 0.4                             |
| 905                      | 200                      | 12:35            |                            |                  |                            |                  | 0.5                             |
| 906                      | 148                      | 7:03             |                            |                  |                            |                  | 0.6                             |
|                          |                          | 7-16-83          |                            |                  |                            |                  |                                 |
| 907                      | 120                      | 12:28 PM         |                            |                  |                            |                  | 0.7                             |
| 908                      | 98                       | 12:20            |                            |                  |                            |                  | 0.8                             |
| 909                      | 78                       | 12:13            |                            |                  |                            |                  | 0.9                             |
| 910                      | 56                       | 12:09            |                            |                  |                            |                  | 1.0                             |
| 911                      | 45                       | 11:57            |                            |                  | 3.7                        | 1:57 PM          | 1.1                             |
| 912                      | 36                       | 11:47            |                            |                  | 4.0                        | 1:52             | 1.2                             |
| 913                      | 37                       | 11:44            |                            |                  | 2.65                       | 1:49             | 1.3                             |
| 914                      | 30                       | 11:41            |                            |                  | 2.45                       | 1:47             | 1.4                             |
| 915                      | 30.1                     | 11:00            |                            |                  | 2.65                       | 2:10             | 1.5                             |
| 916                      | 24.7                     | 10:55            |                            |                  | 1.9                        | 2:05             | 1.6                             |
| 917                      | 23                       | 10:47            |                            |                  | 1.95                       | 1:59             | 1.7                             |
| 918                      | 24.5                     | 10:38            |                            |                  | 2.1                        | 1:58             | 1.8                             |
| 919                      | 24.2                     | 10:34            |                            |                  | 2.0                        | 1:55             | 1.9                             |
| 920                      | 24.2                     | 10:30            |                            |                  | 1.8                        | 1:52             | 2.0                             |
|                          |                          | 7-10-83          |                            |                  |                            | 10-08-83         |                                 |
| * 921                    | 18.5                     | 9:25 AM          |                            |                  | 1.55                       | 9:56 AM          | 2.81                            |
| 922                      | 17.5                     | 9:32             |                            |                  | 1.1                        | 9:59             | 2.93                            |
| 923                      | 14.2                     | 9:54             |                            |                  | .99                        | 10:18            | 3.47                            |
| 924                      | 12.0                     | 10:07            |                            |                  | .90                        | 10:22            | 4.12                            |
| 925                      | 10.4                     | 10:15            |                            |                  | .89                        | 10:26            | 4.48                            |
| 926                      | 9.5                      | 10:25            |                            |                  | .83                        | 10:31            | 5.44                            |

\* Monitor Point

## WMLM

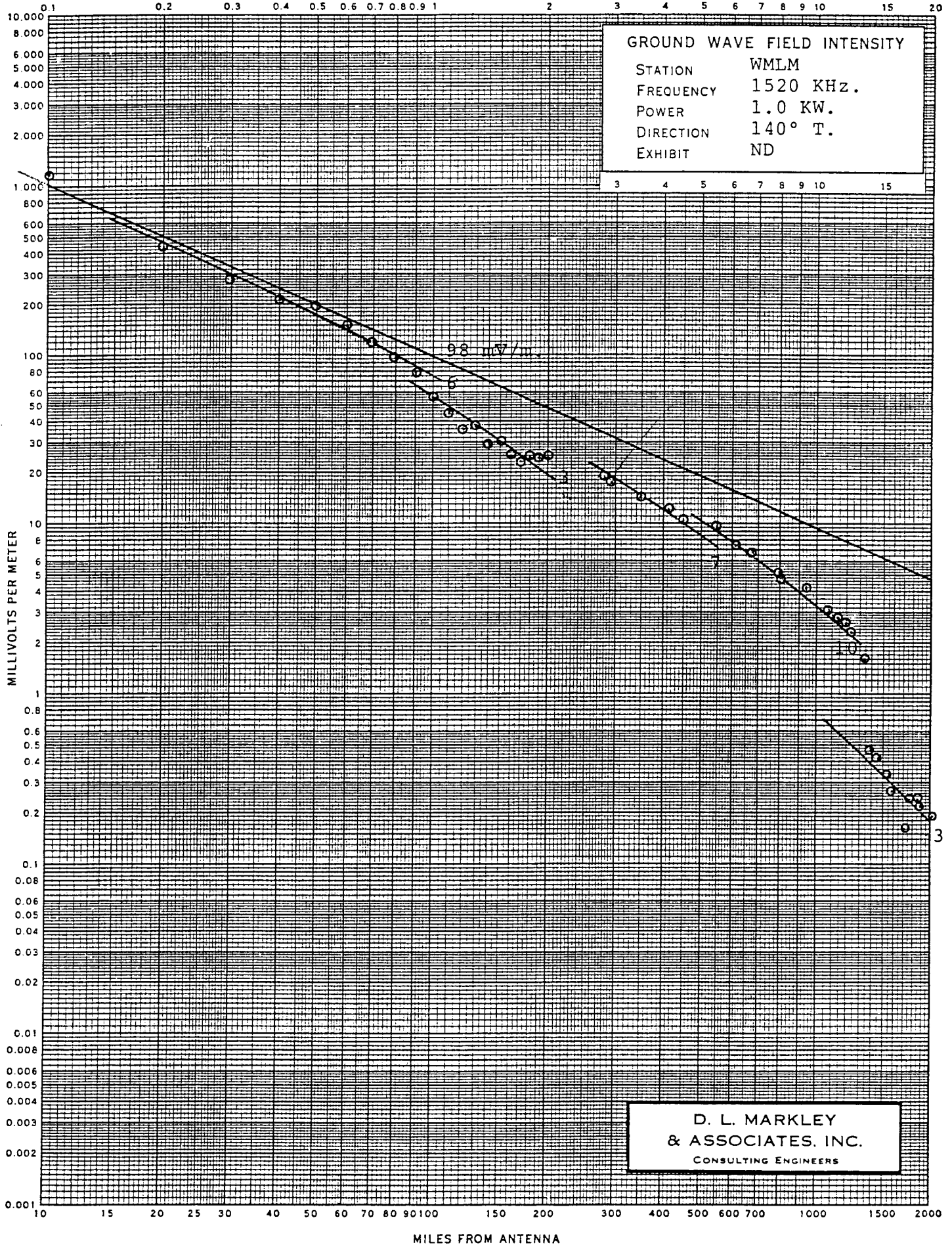
| LOC<br>NO. | ND<br>MV/M | DATE/TIME | DA-D<br>MV/M | DATE/TIME | DA-N<br>MV/M | DATE/TIME | DISTANCE<br>MILES |
|------------|------------|-----------|--------------|-----------|--------------|-----------|-------------------|
|            |            | 7-10-83   |              |           |              | 10-08-83  |                   |
| 927        | 7.4        | 10:33 AM  |              |           | .81          | 10:36 AM  | 6.08              |
| 928        | 6.8        | 10:40     |              |           | .66          | 10:41     | 6.73              |
| 929        | 5.1        | 10:40     |              |           | .49          | 10:44     | 7.95              |
| 930        | 4.9        | 10:50     |              |           | .44          | 10:46     | 8.06              |
| 931        | 4.2        | 11:01     |              |           | .33          | 10:51     | 9.35              |
| 932        | 3.1        | 11:09     |              |           | .34          | 10:57     | 10.73             |
| 933        | 2.8        | 11:14     |              |           | .33          | 11:06     | 11.29             |
| 934        | 2.6        | 11:21     |              |           | .37          | 11:12     | 11.95             |
| 935        | 2.3        | 11:26     |              |           | .36          | 11:15     | 12.33             |
| 936        | 1.6        | 11:32     |              |           | .27          | 11:19     | 13.28             |
| 937        | .47        | 11:39     |              |           | .17          | 11:22     | 13.91             |
| 938        | .42        | 11:45     |              |           | .14          | 11:27     | 14.56             |
| 939        | .33        | 11:51     |              |           | .15          | 11:31     | 15.51             |
| 940        | 2.7        | 11:58     |              |           | .125         | 11:34     | 15.85             |
| 941        | .16        | 12:09 PM  |              |           | .074         | 11:40     | 17.10             |
| 942        | .24        | 12:14     |              |           | .115         | 11:43     | 17.50             |
| 943        | .24        | 12:20     |              |           | .12          | 11:50     | 18.48             |
| 944        | .22        | 12:25     |              |           | .11          | 11:53     | 18.83             |
| 945        | .19        | 12:33     |              |           | .09          | 11:59     | 20.22             |

LR 0.1220  
LA 0.129  
0.174 AR

# MILES FROM ANTENNA

## GROUND WAVE FIELD INTENSITY

STATION WMLM  
 FREQUENCY 1520 KHz.  
 POWER 1.0 KW.  
 DIRECTION 140° T.  
 EXHIBIT ND



D. L. MARKLEY  
 & ASSOCIATES, INC.  
 CONSULTING ENGINEERS

## WMLM

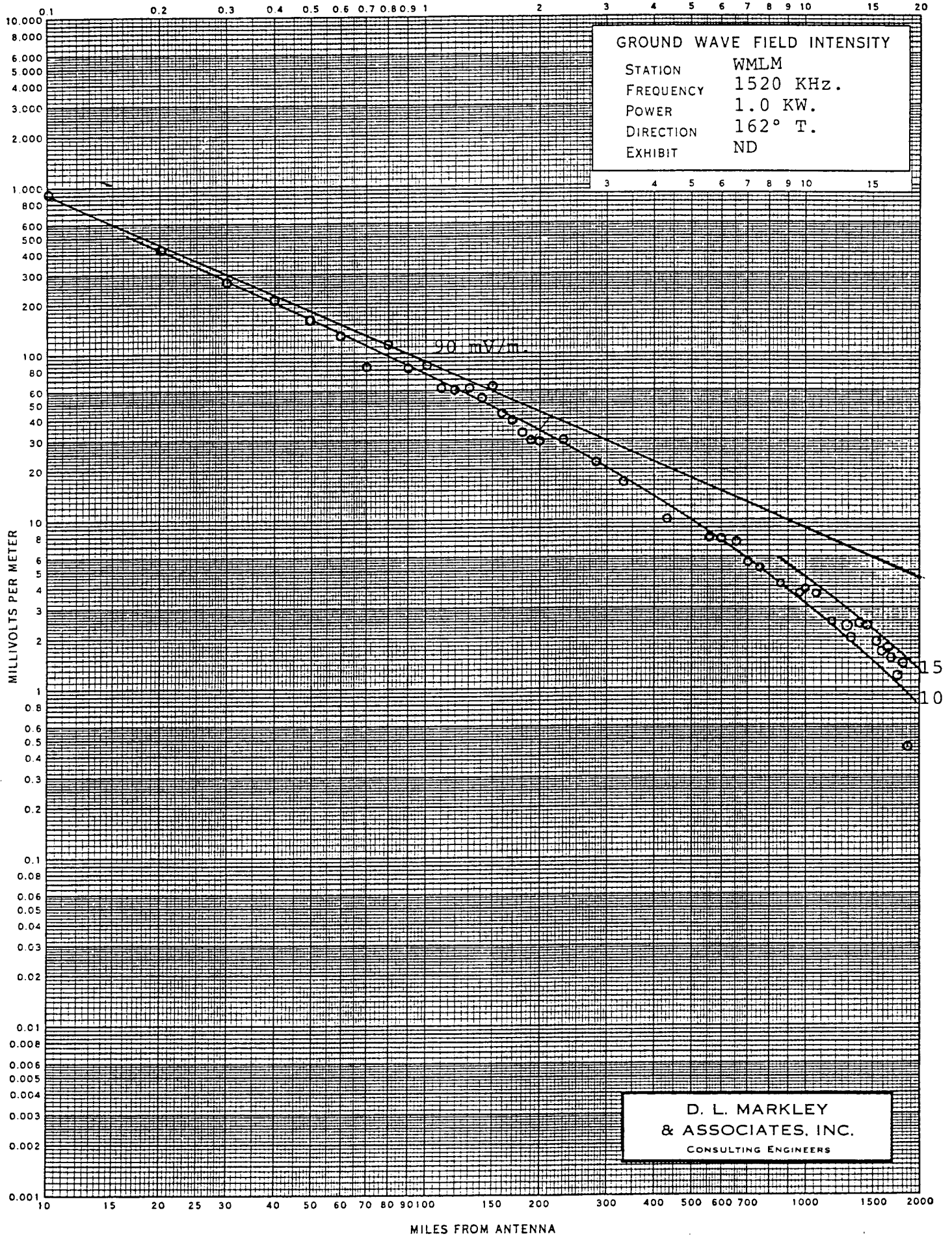
162° T. Radial

| <u>LOC<br/>NO.</u> | <u>ND<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DA-D<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DA-N<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DISTANCE<br/>MILES</u> |
|--------------------|--------------------|------------------|----------------------|------------------|----------------------|------------------|---------------------------|
|                    |                    | 7-13-83          |                      | 10-23-83         |                      | 10-21-83         |                           |
| 1001               | 920                | 5:55 PM          |                      |                  |                      |                  | 0.1                       |
| 1002               | 415                | 5:48             |                      |                  |                      |                  | 0.2                       |
| 1003               | 271                | 5:43             |                      |                  |                      |                  | 0.3                       |
| 1004               | 210                | 5:38             |                      |                  |                      |                  | 0.4                       |
| 1005               | 159                | 5:32             |                      |                  |                      |                  | 0.5                       |
| 1006               | 128                | 5:26             |                      |                  |                      |                  | 0.6                       |
| 1007               | 84                 | 5:19             |                      |                  |                      |                  | 0.7                       |
| 1008               | 112                | 5:14             | 45                   | 1:32 PM          | 15                   | 1:20 PM          | 0.8                       |
| 1009               | 82                 | 5:05             | 34                   | 1:28             | 12.5                 | 1:17             | 0.9                       |
| 1010               | 85                 | 4:56             | 35                   | 1:15             | 11                   | 1:10             | 1.0                       |
| 1011               | 62                 | 4:45             | 29                   | 1:10             | 9                    | 1:07             | 1.1                       |
| 1012               | 60                 | 4:30             | 26                   | 1:03             | 8.3                  | 1:01             | 1.2                       |
| 1013               | 62                 | 4:22             | 27                   | 12:59            | 8.5                  | 12:56            | 1.3                       |
| 1014               | 54                 | 4:16             | 25                   | 12:55            | 7.3                  | 12:52            | 1.4                       |
| 1015               | 63.5               | 4:11             | 22                   | 12:36            | 7.2                  | 12:49            | 1.5                       |
| 1016               | 43.5               | 4:00             | 20.5                 | 12:28            | 5.8                  | 12:42            | 1.6                       |
| 1017               | 39                 | 3:55             | 18                   | 12:24            | 5.5                  | 12:39            | 1.7                       |
| 1018               | 33                 | 3:45             | 18                   | 12:20            | 4.7                  | 12:36            | 1.8                       |
| 1019               | 30                 | 3:29             | 16                   | 12:09            | 4.2                  | 12:31            | 1.9                       |
|                    |                    | 7-13-83          |                      | 10-10-83         |                      | 10-08-83         |                           |
| 1020               | 29.5               | 3:23             | 17                   | 9:50 AM          | 4.5                  | 2:28 PM          | 2.0                       |
| 1021               | 29                 | 3:42             | 13.5                 | 9:55             | 4.0                  | 2:23             | 2.28                      |
| 1022               | 22                 | 3:40             | 12.2                 | 9:58             | 3.6                  | 2:20             | 2.80                      |
| 1023               | 17                 | 3:37             | 9                    | 10:00            | 2.7                  | 2:19             | 3.33                      |
| 1024               | 10                 | 3:31             | 5.8                  | 10:07            | 2.1                  | 2:13             | 4.38                      |
| 1025               | 7.6                | 3:21             | 3.7                  | 10:13            | 1.6                  | 2:09             | 5.53                      |
| 1026               | 7.8                | 3:10             | 3.8                  | 10:20            | 1.7                  | 2:01             | 5.97                      |

## WMLM

| LOC<br>NO. | ND<br>MV/M | DATE/TIME | DA-D<br>MV/M | DATE/TIME | DA-N<br>MV/M | DATE/TIME | DISTANCE<br>MILES |
|------------|------------|-----------|--------------|-----------|--------------|-----------|-------------------|
|            |            | 7-13-83   |              | 10-10-83  |              | 10-08-83  |                   |
| 1027       | 74         | 3:17      | 3.7          | 10:25 AM  | 1.5          | 1:56 PM   | 6.49              |
| 1028       | 5.6        | 2:58      | 2.7          | 10:28     | 1.4          | 1:53      | 7.02              |
| 1029       | 5.2        | 2:52      | 2.5          | 10:31     | 1.15         | 1:49      | 7.54              |
| 1030       | 4.2        | 2:46      | 2            | 10:41     | .99          | 1:44      | 8.60              |
| 1031       | 3.7        | 2:40      | 1.9          | 10:45     | .87          | 1:40      | 9.65              |
| 1032       | 3.9        | 2:36      | 1.9          | 10:47     | .82          | 1:37      | 9.98              |
| 1033       | 3.5        | 2:32      | 1.7          | 10:51     | .77          | 1:33      | 10.71             |
| 1034       | 2.5        | 2:24      | 1.4          | 10:55     | .58          | 1:28      | 11.76             |
| 1035       | 2.3        | 2:16      | 1.25         | 11:00     | .52          | 1:20      | 12.81             |
| 1036       | 2.0        | 2:11      | 1.1          | 11:02     | .45          | 1:17      | 13.22             |
| 1037       | 2.4        | 2:06      | 1.2          | 11:05     | .53          | 1:12      | 13.86             |
| 1038       | 2.3        | 2:01      | 1.1          | 11:08     | .52          | 1:08      | 14.40             |
| 1039       | 1.9        | 1:54      | 1.0          | 11:13     | .44          | 1:02      | 15.45             |
| 1040       | 1.7        | 1:49      | .83          | 11:17     | .41          | 12:58     | 15.98             |
| 1041       | 1.7        | 1:44      | .86          | 11:20     | .39          | 12:55     | 16.50             |
| 1042       | 1.5        | 1:38      | .69          | 11:22     | .37          | 12:51     | 17.04             |
| 1043       | 1.2        | 1:32      | .65          | 11:26     | .33          | 12:46     | 17.55             |
| 1044       | 1.4        | 1:18      | .64          | 11:30     | .30          | 12:31     | 19.09             |
| 1045       | .45        | 1:11      | .56          | 11:34     | .27          | 12:26     | 18.62             |

MILES FROM ANTENNA



## WMLM

180° T. Radial

| <u>LOC</u><br><u>NO.</u> | <u>ND</u><br><u>MV/M</u> | <u>DATE/TIME</u> | <u>DA-D</u><br><u>MV/M</u> | <u>DATE/TIME</u> | <u>DA-N</u><br><u>MV/M</u> | <u>DATE/TIME</u> | <u>DISTANCE</u><br><u>MILES</u> |
|--------------------------|--------------------------|------------------|----------------------------|------------------|----------------------------|------------------|---------------------------------|
|                          |                          | 7-12-83          |                            |                  |                            |                  |                                 |
| 1101                     | 128                      | 5:06 PM          |                            |                  |                            |                  | 0.1                             |
| 1102                     | 415                      | 5:14             |                            |                  |                            |                  | 0.2                             |
| 1103                     | 283                      | 5:19             |                            |                  |                            |                  | 0.3                             |
| 1104                     | 215                      | 5:24             |                            |                  |                            |                  | 0.4                             |
| 1105                     | 171                      | 5:30             |                            |                  |                            |                  | 0.5                             |
| 1106                     | 148                      | 5:38             |                            |                  |                            |                  | 0.6                             |
| 1107                     | 112                      | 5:46             |                            |                  |                            |                  | 0.7                             |
|                          |                          |                  |                            |                  |                            | 10-21-83         |                                 |
| 1108                     | 101                      | 5:53             |                            |                  | 9.3                        | 11:00 AM         | 0.8                             |
| 1109                     | 95                       | 5:57             |                            |                  | 7.0                        | 10:58            | 0.9                             |
| 1110                     | 90                       | 6:05             |                            |                  | 5.5                        | 10:56            | 1.0                             |
| 1111                     | 72                       | 6:12             |                            |                  | 4.2                        | 10:53            | 1.1                             |
| 1112                     | 78                       | 6:19             |                            |                  | 3.9                        | 10:50            | 1.2                             |
| 1113                     | 70                       | 6:24             |                            |                  | 3.6                        | 10:47            | 1.3                             |
| 1114                     | 60                       | 6:31             |                            |                  | 2.3                        | 10:42            | 1.4                             |
| 1115                     | 52                       | 6:35             |                            |                  | 2.0                        | 10:39            | 1.5                             |
| 1116                     | 48.5                     | 6:41             |                            |                  | 2.6                        | 10:36            | 1.6                             |
| 1117                     | 44                       | 6:48             |                            |                  | 2.7                        | 10:33            | 1.7                             |
| 1118                     | 46                       | 6:53             |                            |                  | 3.6                        | 10:30            | 1.8                             |
| 1119                     | 41.5                     | 6:56             |                            |                  | 3.7                        | 10:27            | 1.9                             |
| 1120                     | 38                       | 7:01             |                            |                  | 3.6                        | 10:24            | 2.0                             |
|                          |                          | 7-10-83          |                            |                  |                            | 10-15-83         |                                 |
| * 1121                   | 32                       | 5:01 PM          |                            |                  | 3.3                        | 3:43 PM          | 2.16                            |
| 1122                     | 32                       | 5:07             |                            |                  | 1.8                        | 3:46             | 2.66                            |
| 1123                     | 24                       | 5:11             |                            |                  | 2.2                        | 3:49             | 3.15                            |
| 1124                     | 10                       | 5:18             |                            |                  | .90                        | 3:52             | 3.60                            |
| 1125                     | 15                       | 5:22             |                            |                  | 1.3                        | 3:54             | 4.18                            |
| 1126                     | 12                       | 5:26             |                            |                  | 2.2                        | 3:58             | 4.67                            |

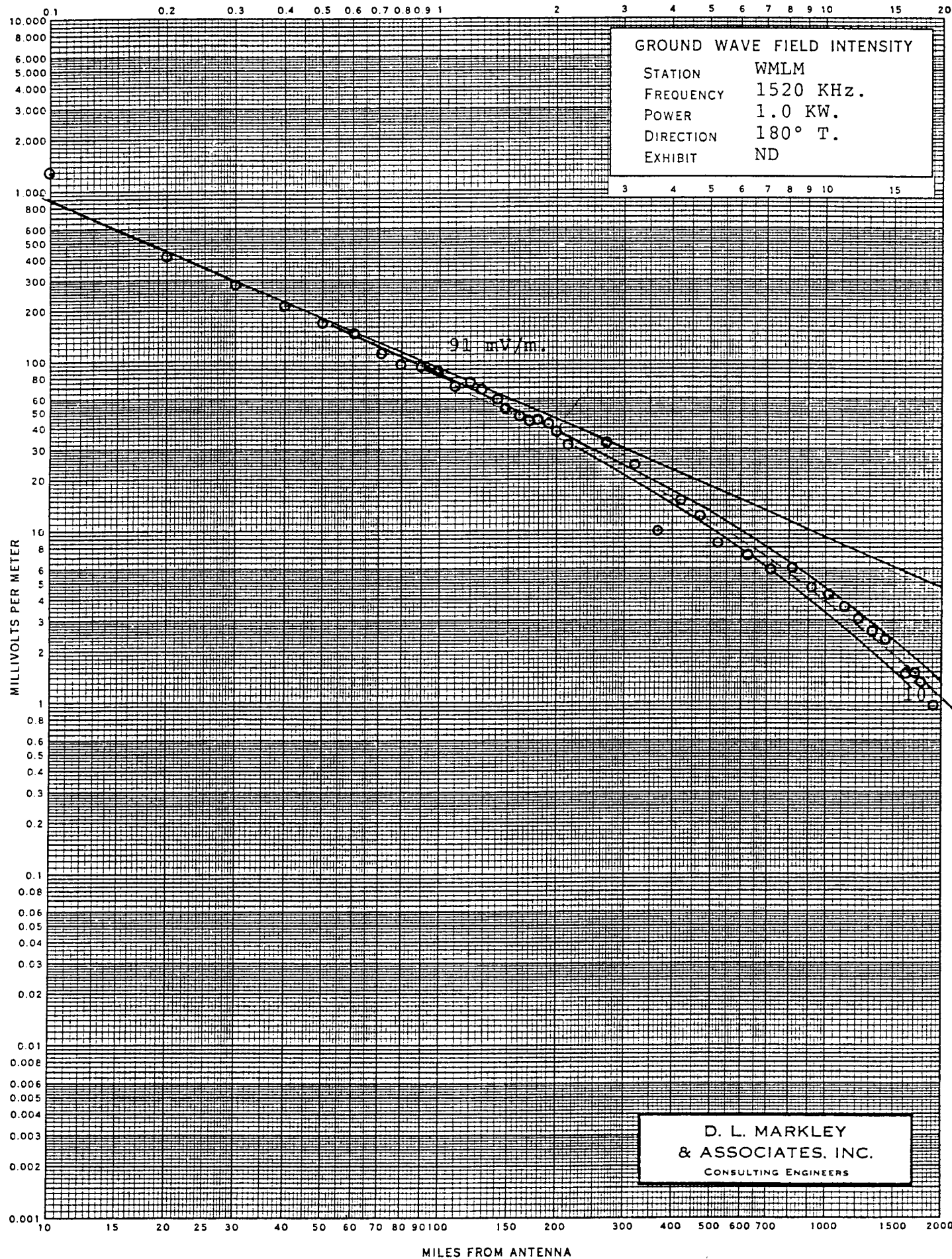
\* Monitor Point

| WMLM       |            |           |              |           |              |           |                   |
|------------|------------|-----------|--------------|-----------|--------------|-----------|-------------------|
| LOC<br>NO. | ND<br>MV/M | DATE/TIME | DA-D<br>MV/M | DATE/TIME | DA-N<br>MV/M | DATE/TIME | DISTANCE<br>MILES |
|            |            | 7-10-83   |              |           |              | 10-15-83  |                   |
| 1127       | 8.6        | 5:32 PM   |              |           | 1.3          | 4:02 PM   | 5.18              |
| 1128       | 7.0        | 5:36      |              |           | 1.1          | 4:06      | 6.18              |
| 1129       | 6.0        | 5:42      |              |           | .72          | 4:09      | 7.16              |
| 1130       | 5.8        | 5:46      |              |           | .57          | 4:12      | 8.18              |
| 1131       | 4.7        | 5:51      |              |           | .59          | 4:16      | 9.18              |
| 1132       | 4.2        | 5:56      |              |           | .55          | 4:20      | 10.18             |
| 1133       | 3.6        | 6:01      |              |           | .54          | 4:23      | 11.18             |
| 1134       | 3.1        | 6:08      |              |           | .54          | 4:27      | 12.15             |
| 1135       | 2.6        | 6:13      |              |           | .41          | 4:31      | 13.18             |
| 1136       | 2.3        | 6:19      |              |           | .33          | 4:35      | 14.18             |
| 1137       | 1.5        | 6:29      |              |           | .24          | 4:40      | 16.18             |
| 1138       | 1.5        | 6:37      |              |           | .22          | 4:44      | 17.12             |
| 1139       | 1.3        | 6:43      |              |           | .19          | 4:50      | 17.62             |
| 1140       | .95        | 6:50      |              |           | .16          | 4:55      | 19.14             |

UR = .0957  
AR = .105



MILES FROM ANTENNA



## WMLM

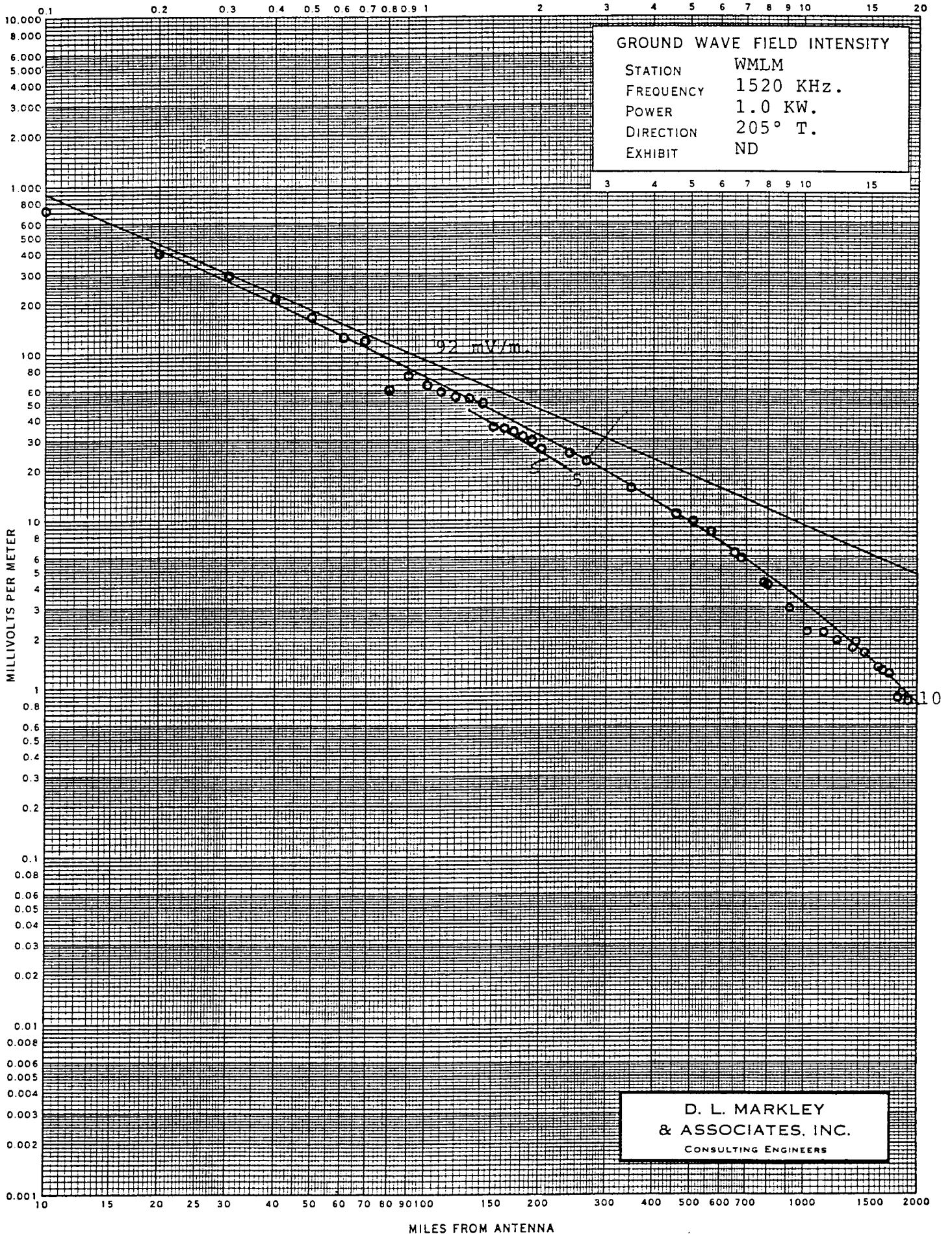
205° T. Radial

| <u>LOC</u><br><u>NO.</u> | <u>ND</u><br><u>MV/M</u> | <u>DATE/TIME</u> | <u>DA-D</u><br><u>MV/M</u> | <u>DATE/TIME</u> | <u>DA-N</u><br><u>MV/M</u> | <u>DATE/TIME</u> | <u>DISTANCE</u><br><u>MILES</u> |
|--------------------------|--------------------------|------------------|----------------------------|------------------|----------------------------|------------------|---------------------------------|
|                          |                          | 7-13-83          |                            |                  |                            |                  |                                 |
| 1201                     | 725                      | 8:42 AM          |                            |                  |                            |                  | 0.1                             |
| 1202                     | 400                      | 8:46             |                            |                  |                            |                  | 0.2                             |
| 1203                     | 280                      | 8:51             |                            |                  |                            |                  | 0.3                             |
| 1204                     | 213                      | 8:57             |                            |                  |                            |                  | 0.4                             |
| 1205                     | 160                      | 9:02             |                            |                  |                            |                  | 0.5                             |
| 1206                     | 120                      | 9:07             |                            |                  |                            |                  | 0.6                             |
| 1207                     | 120                      | 9:14             |                            |                  |                            |                  | 0.7                             |
|                          |                          |                  |                            |                  |                            | 10-21-83         |                                 |
| 1208                     | 60                       | 9:31             |                            |                  | 24                         | 12:39 PM         | 0.8                             |
| 1209                     | 71                       | 9:39             |                            |                  | 24                         | 12:43            | 0.9                             |
| 1210                     | 64                       | 9:45             |                            |                  | 21.5                       | 12:46            | 1.0                             |
| 1211                     | 58                       | 9:50             |                            |                  | 16                         | 12:48            | 1.1                             |
| 1212                     | 54                       | 9:56             |                            |                  | 17                         | 12:51            | 1.2                             |
| 1213                     | 53                       | 10:02            |                            |                  | 16.5                       | 12:53            | 1.3                             |
| 1214                     | 49.5                     | 10:06            |                            |                  | 13                         | 12:57            | 1.4                             |
| 1215                     | 36.5                     | 11:05            |                            |                  | 12                         | 1:00             | 1.5                             |
|                          |                          |                  |                            |                  |                            | 10-08-83         |                                 |
| 1216                     | 35.5                     | 11:19            |                            |                  | 12.2                       | 13:32 PM         | 1.6                             |
| 1217                     | 33                       | 10:51            |                            |                  | 10.8                       | 13:39            | 1.7                             |
| 1218                     | 31                       | 11:25            |                            |                  | 10                         | 13:43            | 1.8                             |
| 1219                     | 29.2                     | 11:32            |                            |                  | 9                          | 13:49            | 1.9                             |
|                          |                          | 7-13-83          |                            |                  |                            |                  |                                 |
| 1220                     | 25.5                     | 11:38 AM         |                            |                  | 8.8                        | 13:55            | 2.0                             |
| 1221                     | 24.5                     | 11:33            |                            |                  | 11                         | 13:18            | 2.4                             |
|                          |                          | 7-11-83          |                            |                  |                            |                  |                                 |
| 1222                     | 22.5                     | 9:43 AM          |                            |                  | 8.6                        | 13:13            | 2.64                            |
| 1223                     | 15.4                     | 9:50             |                            |                  | 6.0                        | 13:09            | 3.48                            |
| 1224                     | 10.8                     | 10:02            |                            |                  | 3.6                        | 13:05            | 4.60                            |
| 1225                     | 9.6                      | 10:08            |                            |                  | 2.8                        | 13:02            | 5.04                            |

## WMLM

| LOC<br>NO. | ND<br>MV/M | DATE/TIME | DA-D<br>MV/M | DATE/TIME | DA-N<br>MV/M | DATE/TIME | DISTANCE<br>MILES |
|------------|------------|-----------|--------------|-----------|--------------|-----------|-------------------|
|            |            | 7-11-83   |              |           |              | 10-08-83  |                   |
| 1226       | 8.4        | 10:14 AM  |              |           | 2.9          | 12:54     | 5.69              |
| 1227       | 6.4        | 10:22     |              |           | 2.2          | 12:51     | 6.58              |
| 1228       | 6.0        | 10:25     |              |           | 2.25         | 12:49     | 6.81              |
| 1229       | 4.1        | 10:31     |              |           | 1.3          | 12:46     | 7.77              |
| 1230       | 4.1        | 10:35     |              |           | 1.35         | 12:42     | 7.91              |
| 1231       | 2.9        | 10:44     |              |           | 1.05         | 12:37     | 9.04              |
| 1232       | 2.15       | 10:50     |              |           | .97          | 12:33     | 10.14             |
| 1233       | 2.1        | 10:57     |              |           | .85          | 12:29     | 11.25             |
| 1234       | 1.9        | 11:02     |              |           | .78          | 12:26     | 12.31             |
| 1235       | 1.75       | 11:22     |              |           | .74          | 12:22     | 13.43             |
| 1236       | 1.85       | 11:25     |              |           | .74          | 12:20     | 13.57             |
| 1237       | 1.60       | 11:31     |              |           | .55          | 12:16     | 14.55             |
|            |            | 7-16-83   |              |           |              |           |                   |
| 1238       | 1.32       | 4:16 PM   |              |           | .52          | 12:12     | 15.66             |
| 1239       | 1.3        | 4:21      |              |           | .50          | 12:10     | 15.95             |
| 1240       | 1.2        | 4:26      |              |           | .45          | 12:07     | 16.76             |
| 1241       | .85        | 4:32      |              |           | .38          | 12:01     | 17.75             |
| 1242       | .94        | 4:36      |              |           | .30          | 11:58     | 18.20             |
| 1243       | .84        | 4:39      |              |           | .23          | 11:55     | 18.77             |

# MILES FROM ANTENNA



## WMLM

218° T. Radial

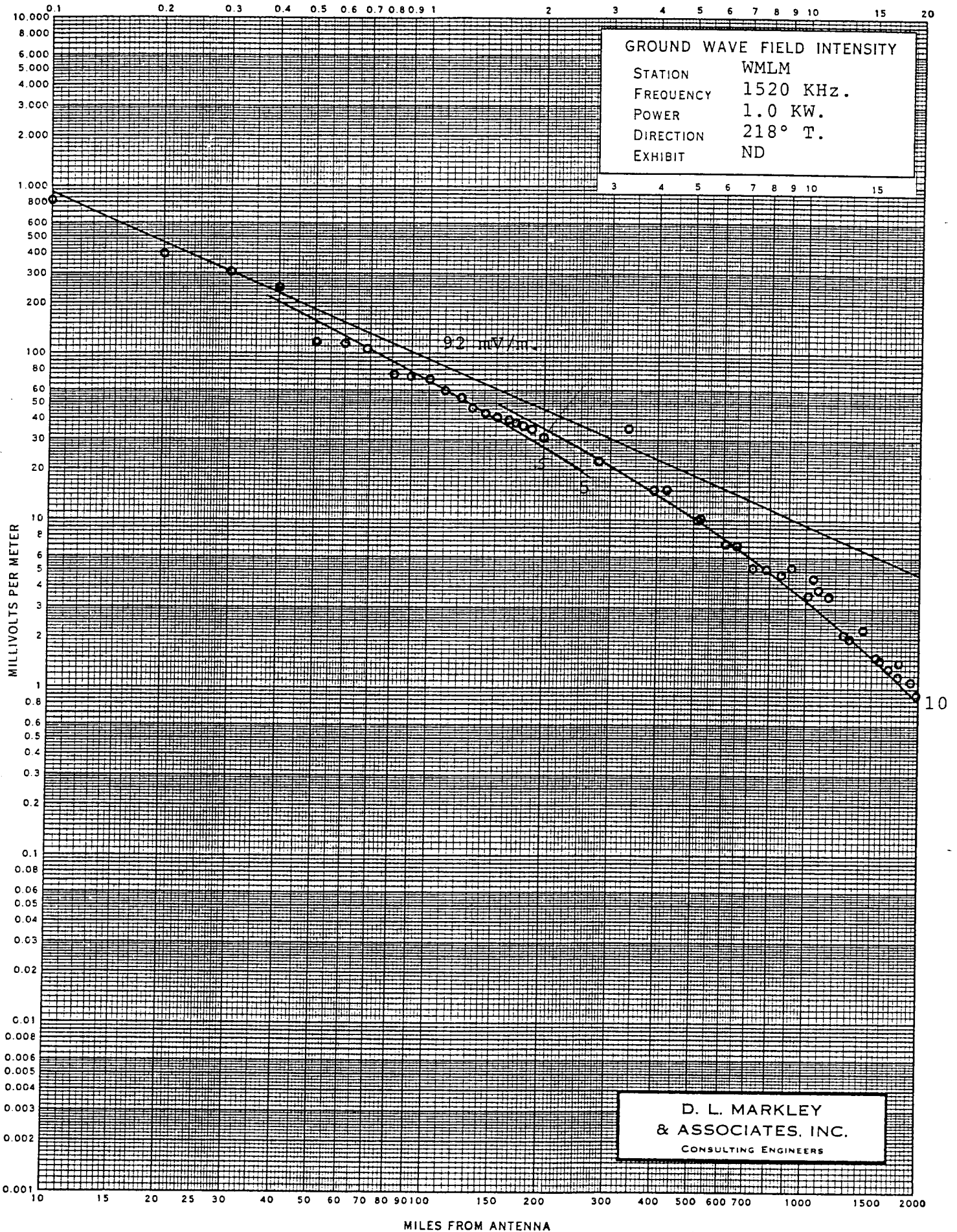
| LOC<br>NO. | ND<br>MV/M | DATE/TIME | DA-D<br>MV/M | DATE/TIME | DA-N<br>MV/M | DATE/TIME | DISTANCE<br>MILES |
|------------|------------|-----------|--------------|-----------|--------------|-----------|-------------------|
| 1301       | 810        | 1:45 PM   |              |           |              |           | 0.1               |
| 1302       | 380        | 1:41      |              |           |              |           | 0.2               |
| 1303       | 296        | 1:36      |              |           |              |           | 0.3               |
| 1304       | 245        | 1:32      |              |           |              |           | 0.4               |
| 1305       | 116        | 1:22      |              |           |              |           | 0.5               |
| 1306       | 116        | 1:16      |              |           |              |           | 0.6               |
| 10-24-83   |            |           |              |           |              |           |                   |
| 1307       | 103        | 1:11      |              |           |              |           | 0.7               |
| 1308       | 76         | 1:05      | 58           | 4:58 PM   |              |           | 0.8               |
| 1309       | 73.5       | 12:59     | 54           | 4:53      |              |           | 0.9               |
| 1310       | 66         | 12:55     | 50           | 4:48      |              |           | 1.0               |
| 1311       | 60         | 12:50     | 46           | 4:42      |              |           | 1.1               |
| 1312       | 54         | 12:40     | 42           | 4:39      |              |           | 1.2               |
| 1313       | 46.5       | 12:32     | 35           | 4:35      |              |           | 1.3               |
| 1314       | 43.3       | 12:27     | 34           | 4:31      |              |           | 1.4               |
| 1315       | 41         | 12:23     | 31           | 4:26      |              |           | 1.5               |
| 1316       | 39         | 12:19     | 28           | 4:22      |              |           | 1.6               |
| 1317       | 38         | 12:15     | 26.4         | 4:19      |              |           | 1.7               |
| 1318       | 36         | 12:10     | 26           | 4:15      |              |           | 1.8               |
| 1319       | 35         | 12:06     | 24           | 4:11      |              |           | 1.9               |
| 7-13-83    |            |           |              |           |              |           |                   |
| 1320       | 30.7       | 12:00 PM  | 22.8         | 4:08      |              |           | 2.0               |
| 1321       | 22         | 3:53      | 16           | 3:55      |              |           | 2.73              |
| 10-10-83   |            |           |              |           |              |           |                   |
| 1322       | 34         | 4:13      | 14           | 2:05      |              |           | 3.36              |
| 1323       | 15         | 4:34      | 9.8          | 1:47      |              |           | 3.99              |
| 1324       | 15         | 4:37      | 8.6          | 1:45      |              |           | 4.25              |
| 1325       | 9.8        | 5:20      | 8.0          | 1:41      |              |           | 5.09              |

| WMLM       |            |           |              |           |              |           |                   |
|------------|------------|-----------|--------------|-----------|--------------|-----------|-------------------|
| LOC<br>NO. | ND<br>MV/M | DATE/TIME | DA-D<br>MV/M | DATE/TIME | DA-N<br>MV/M | DATE/TIME | DISTANCE<br>MILES |
|            |            | 7-13-83   |              | 10-10-83  |              |           |                   |
| 1326       | 10         | 5:16 PM   | 6.7          | 1:37 PM   |              |           | 5.27              |
| 1327       | 7.2        | 5:26      | 6.1          | 1:34      |              |           | 6.13              |
| 1328       | 7.0        | 5:30      | 5.5          | 1:31      |              |           | 6.52              |
| 1329       | 5.2        | 5:36      | 4.3          | 1:27      |              |           | 7.16              |
| 1330       | 5.0        | 5:40      | 3.6          | 1:23      |              |           | 7.80              |
| 1331       | 4.8        | 5:45      | 3.3          | 1:20      |              |           | 8.58              |
| 1332       | 5.3        | 5:49      | 3.2          | 1:16      |              |           | 9.08              |
| 1333       | 3.6        | 5:57      | 2.45         | 1:12      |              |           | 10.09             |
| 1334       | 4.4        | 6:00      | 2.2          | 1:10      |              |           | 10.37             |
| 1335       | 3.8        | 6:04      | 2.0          | 1:00      |              |           | 10.91             |
| 1336       | 3.5        | 6:14      | 1.95         | 12:51     |              |           | 11.63             |
| 1337       | 2.1        | 6:18      | 1.5          | 12:44     |              |           | 12.57             |
| 1338       | 2.0        | 6:21      | 1.3          | 12:42     |              |           | 12.89             |
| 1339       | 2.2        | 6:25      | 1.25         | 12:38     |              |           | 14.13             |
| 1340       | 1.5        | 6:34      | 1.12         | 12:33     |              |           | 15.40             |
| 1341       | 1.5        | 6:37      | 1.1          | 12:29     |              |           | 15.83             |
| 1342       | 1.3        | 6:40      | .98          | 12:24     |              |           | 16.66             |
| 1343       | 1.4        | 6:47      | .75          | 12:20     |              |           | 17.50             |
| 1344       | 1.2        | 6:50      | .72          | 12:18     |              |           | 17.92             |
| 1345       | 1.1        | 6:55      | .68          | 12:13     |              |           | 19.05             |
| 1346       | .9         | 6:58      | .41          | 12:08     |              |           | 19.80             |

MILES FROM ANTENNA

GROUND WAVE FIELD INTENSITY

STATION WMLM  
FREQUENCY 1520 KHz.  
POWER 1.0 KW.  
DIRECTION 218° T.  
EXHIBIT ND



D. L. MARKLEY  
& ASSOCIATES, INC.  
CONSULTING ENGINEERS

## WMLM

228.5° T. Radial

| <u>LOC<br/>NO.</u> | <u>ND<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DA-D<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DA-N<br/>MV/M</u> | <u>DATE/TIME</u> | <u>DISTANCE<br/>MILES</u> |
|--------------------|--------------------|------------------|----------------------|------------------|----------------------|------------------|---------------------------|
| 1401               | 760                | 1:51 PM          |                      |                  |                      | 10-16-83         | 0.1                       |
| 1402               | 370                | 1:46             |                      |                  |                      |                  | 0.2                       |
| 1403               | 252                | 1:42             |                      |                  |                      |                  | 0.3                       |
| 1404               | 185                | 1:37             |                      |                  |                      |                  | 0.4                       |
| 1405               | 146                | 1:29             |                      |                  |                      |                  | 0.5                       |
| 1406               | 110                | 1:25             |                      |                  |                      |                  | 0.6                       |
| 1407               | 96                 | 1:19             |                      |                  |                      |                  | 0.7                       |
| 1408               | 77                 | 1:09             |                      |                  | 10.5                 | 10:34 AM         | 0.8                       |
| 1409               | 73                 | 12:54            |                      |                  | 11                   | 10:42            | 0.9                       |
| 1410               | 62                 | 12:48            |                      |                  | 11                   | 10:47            | 1.0                       |
|                    |                    |                  |                      |                  |                      | 10-21-83         |                           |
| 1411               | 56.2               | 12:44            |                      |                  | 10                   | 12:25            | 1.1                       |
| 1412               | 55                 | 12:40            |                      |                  | 9.1                  | 12:21            | 1.2                       |
| 1413               | 44.2               | 12:34            |                      |                  | 10.5                 | 12:16            | 1.3                       |
| 1414               | 46                 | 12:30            |                      |                  | 9.0                  | 12:11            | 1.4                       |
| 1415               | 42                 | 12:25            |                      |                  | 7.5                  | 12:08            | 1.5                       |
|                    |                    |                  |                      |                  |                      | 10-08-83         |                           |
| 1416               | 40                 | 12:17            |                      |                  | 8.1                  | 14:20 PM         | 1.6                       |
| 1417               | 41                 | 12:12            |                      |                  | 8.0                  | 14:14            | 1.7                       |
| 1418               | 36.5               | 12:05            |                      |                  | 7.7                  | 14:32            | 1.8                       |
|                    |                    | 7-14-83          |                      |                  |                      |                  |                           |
| 1419               | 32                 | 11:53 AM         |                      |                  | 7.0                  | 14:36            | 1.9                       |
| 1420               | 31.2               | 12:01 PM         |                      |                  | 6.3                  | 14:56            | 2.0                       |
| 1421               | 33                 | 12:15            |                      |                  | 5.7                  | 14:47            | 2.15                      |
|                    |                    | 7-13-83          |                      |                  |                      |                  |                           |
| 1422               | 17                 | 4:22 PM          |                      |                  | 5.2                  | 10:10 AM         | 2.81                      |
| 1423               | 17                 | 4:25             |                      |                  | 3.9                  | 10:14            | 3.23                      |
| 1424               | 14                 | 4:34             |                      |                  | 3.6                  | 10:17            | 3.50                      |
| * 1425             | 14                 | 4:29             |                      |                  | 4.0                  | 10:21            | 4.18                      |

\* Monitor Point



## WMLM

| LOC<br>NO. | ND<br>MV/M | DATE/TIME | DA-D<br>MV/M | DATE/TIME | DA-N<br>MV/M | DATE/TIME | DISTANCE<br>MILES |
|------------|------------|-----------|--------------|-----------|--------------|-----------|-------------------|
|            |            | 7-13-83   |              |           |              | 10-08-83  |                   |
| 1426       | 11         | 4:39 PM   |              |           | 2.4          | 10:24 AM  | 4.73              |
| 1427       | 9          | 4:44      |              |           | 1.4          | 10:27     | 5.53              |
| 1428       | 6.2        | 4:49      |              |           | 1.0          | 10:30     | 6.22              |
| 1429       | 6.0        | 4:53      |              |           | .95          | 10:32     | 6.40              |
| 1430       | 5.4        | 5:03      |              |           | .95          | 10:36     | 7.07              |
| 1431       | 4.8        | 5:12      |              |           | .85          | 10:38     | 7.34              |
| 1432       | 3.8        | 5:18      |              |           | .45          | 10:42     | 8.31              |
| 1433       | 2.7        | 5:20      |              |           | .42          | 10:45     | 9.23              |
| 1434       | 2.3        | 5:29      |              |           | .40          | 10:52     | 10.74             |
| 1435       | 1.6        | 5:33      |              |           | .32          | 10:56     | 11.68             |
| 1436       | 1.5        | 5:36      |              |           | .30          | 10:58     | 12.25             |
| 1437       | 1.5        | 5:39      |              |           | .30          | 11:02     | 13.02             |
| 1438       | 1.5        | 5:42      |              |           | .26          | 11:06     | 13.71             |
| 1439       | 1.3        | 5:47      |              |           | .21          | 11:09     | 14.46             |
| 1440       | 1.2        | 5:50      |              |           | .20          | 11:13     | 15.20             |
| 1441       | 1.0        | 5:54      |              |           | .17          | 11:17     | 15.66             |
| 1442       | .88        | 5:59      |              |           |              |           | 16.48             |
| 1443       | .62        | 6:17      |              |           |              |           | 17.34             |
| 1444       | .56        | 6:21      |              |           |              |           | 18.16             |
| 1445       | .52        | 6:24      |              |           |              |           | 18.35             |
| 1446       | .52        | 6:29      |              |           |              |           | 19.70             |

MILES FROM ANTENNA

