

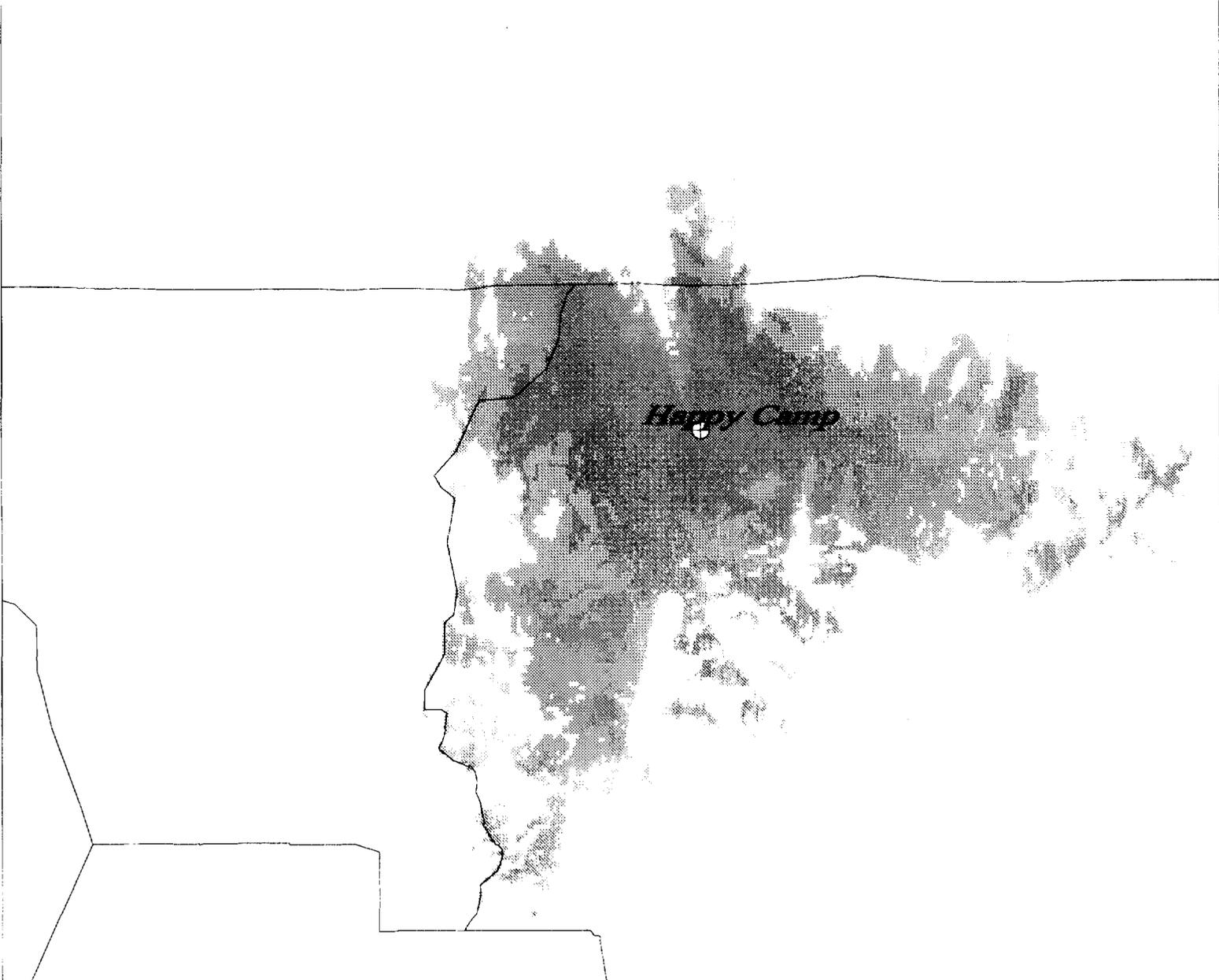
HAPPY CAMP - SISKIYOU COUNTY, CALIFORNIA

Presently covers large part of County, as shown in blue. Coverage would be reduced to green area under proposed power/HAAT restriction. Additional sites difficult, if not impossible, to develop to restore necessary coverage.

Freq : 155.0 Mhz  
A/Ht : 100.0 Ft.  
HAAT : 1038.3 Ft.

**APCO Docket 92-235**  
**Happy Camp**

Lat : 41 51 40.0  
Long : 123 21 20.0  
Elev : 4107.6 Ft.



dBu (NOT FOR FCC) : dB



15 29 97  
**MOTOROLA, INC.**  
0.0 5.0 10.0 15.0 20  
SCALE : 10.00 MILES PER INCH  
Job # : 204342543  
Engineer : Visitor1  
Date : 12/10/1992  
Time : 15:12:04

**Base To Mobile Study**  
Field Unit On Street  
Base ERP : 132.0W(51.2dBm)  
Base Ant Az: 0.0°  
H BeamWidth: 360.0°  
FU ERS : 1.58µV(-103.0dBm)  
FU Ant Ht : 5.0 Ft.  
FU Ant Type:

Calculated values are derived using average loss values for surroundings. Some low lying, heavily wooded or urban areas may result in lower values than those indicated

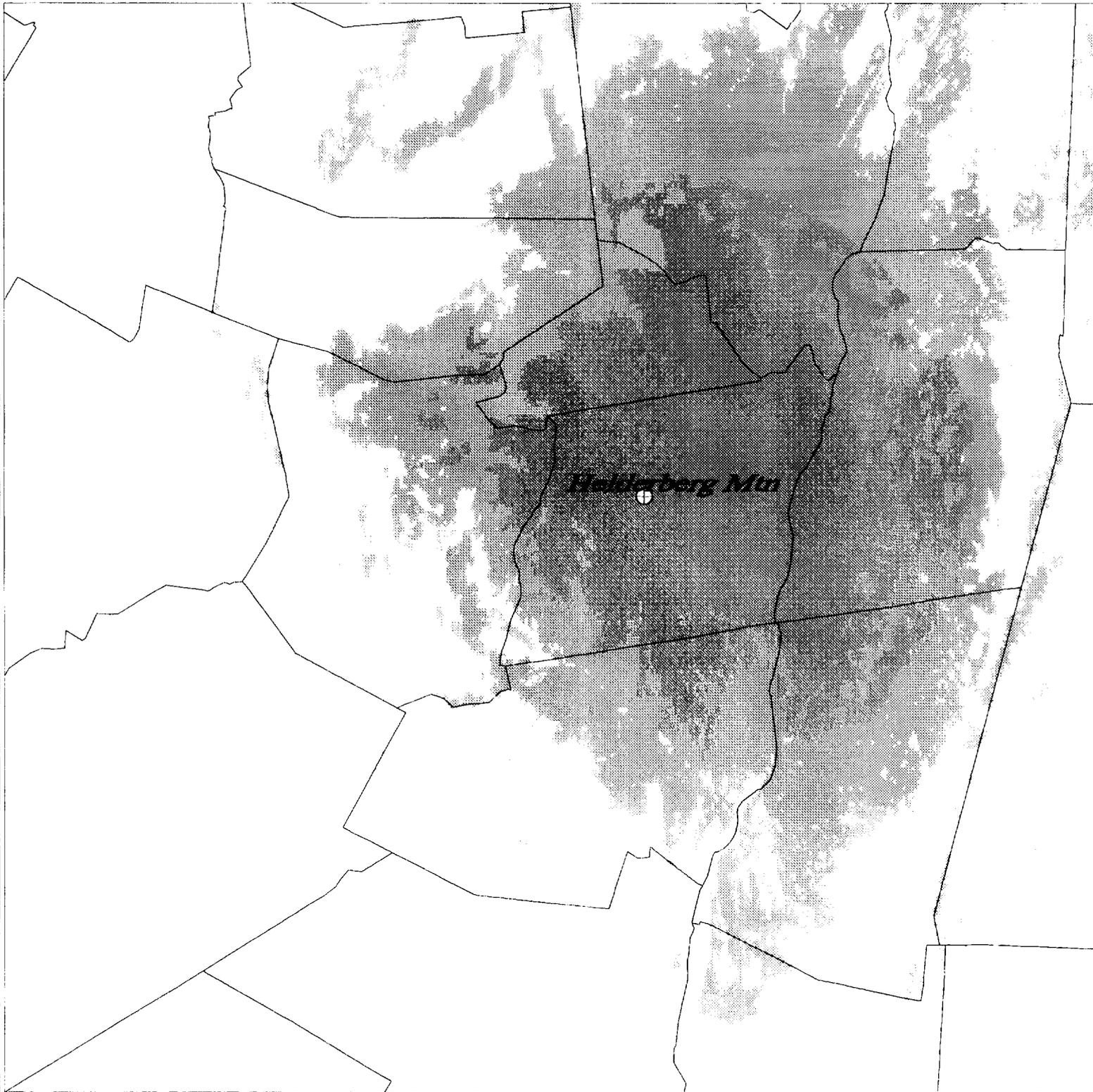
HELDERBERG MOUNTAIN, ALBANY, NEW YORK

Multi-agency site used for wide area coverage. In particular, this is a major site for the New York State Police.

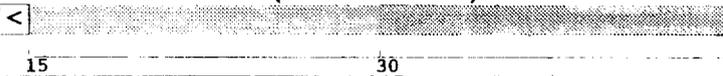
Freq : 155.0 Mhz  
A/Ht : 150.0 Ft.  
HAAT : 1006.3 Ft.

**APCO Docket 92 - 235**  
**Helderberg Mtn**

Lat : 42 37 36.0  
Long : 74 0 46.0  
Elev : 1699.5 Ft.



dBu (NOT FOR FCC) : dB



**MOTOROLA, INC.**

**Base To Mobile Study**  
**Field Unit On Street**

SCALE : 12.00 MILES PER INCH  
Job # : 1310530575  
Engineer : mcgng37  
Date : 12/10/1992  
Time : 15:39:35

Base ERP : 164.0W(52.1dBm)  
Base Ant Az: 0.0°  
H BeamWidth: 360.0°  
FU ERS : 1.58µv(-103.0dBm)  
FU Ant Ht : 5.0 Ft.  
FU Ant Type:

Calculated values are derived using average loss values for surroundings. Some low lying, heavily wooded or urban areas may result in lower values than those indicated

HUNTERDON COUNTY, NEW JERSEY

Multi-agency county/state site. Looses coverage along the western boundary (Delaware River) which is the border with Pennsylvania. Additional sites in Pennsylvania would be required to cover the river area.

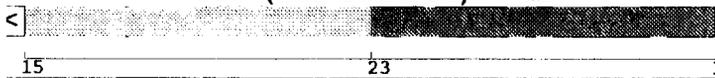
Freq : 155.0 Mhz  
A/Ht : 210.0 Ft.  
HAAT : 488.9 Ft.

**APCO Docket 92-235**  
Hunterdon Co

Lat : 40 33 16.0  
Long : 74 54 15.0  
Elev : 623.4 Ft.



dBu (NOT FOR FCC) : dB



**MOTOROLA, INC.**  
0.0 5.0 10.0 15.0 20  
SCALE : 10.00 MILES PER INCH  
Job # : 3741194  
Engineer : mcgng37  
Date : 12/10/1992  
Time : 11:58:02

**Base To Mobile Study**  
Field Unit On Street  
Base ERP : 200.0W(53.0dBm)  
Base Ant Az: 0.0°  
H BeamWidth: 360.0°  
FU ERS : 1.58µv(-103.0dBm)  
FU Ant Ht : 5.0 Ft.  
FU Ant Type:

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MIRAMONTE - FRESNO COUNTY, CALIFORNIA

Proves fallacy of HAAT. Reduced power (as shown by green vs. blue) makes little difference as terrain is the limiting factor from high level site. Coverage shown is at 450 MHz from an omnidirectional 5.5 dB gain antenna.

The site elevation is 4,200 feet about sea level. However, due to the much higher elevation of mountains (to over 14,000 feet) within 10 miles to the east of the site, HAAT is only 332.5 feet, requiring a minimal reduction in ERP.

At 4,200 feet, portable coverage to the west over the San Joaquin Valley, with an average valley HAAT of 200 feet, is to the radio horizon at about 110 miles.

This site is typical of those that exist throughout the Rocky Mountain and Western states which have steep slopes leading to high elevations.

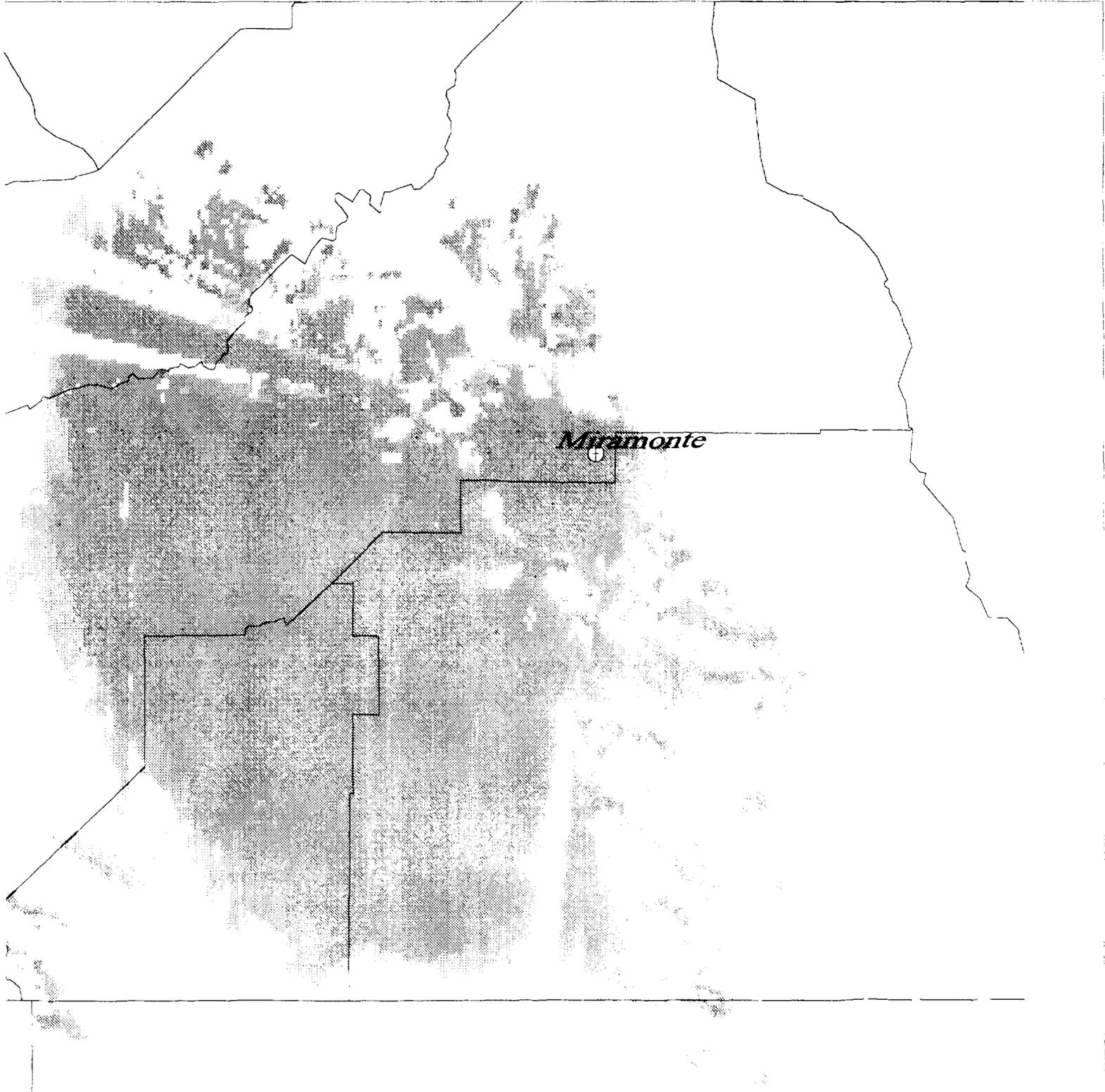
It is more appropriate to use directional antennas and shaped patterns (both horizontal and vertical) to control coverage.

11/25

Freq : 460.0 Mhz  
A/Ht : 70.0 Ft.  
HAAT : 332.5 Ft.

**APCO Docket 92-235**  
**Miramonte**

Lat : 36 42 25.0  
Long : 119 1 24.0  
Elev : 4199.5 Ft.



dBu (NOT FOR FCC) : dB



25 27 170

**MOTOROLA, INC.**

0.0 5.0 10.0 15.0 20.0 25.0 30

SCALE : 15.78 MILES PER INCH  
Job # : 1579952401  
Engineer : mcgng37  
Date : 12/10/1992  
Time : 18:10:56

**Base To Mobile Study**  
**Field Unit On Street**

Base ERP : 110.9W(50.4dBm)  
Base Ant Az: 0.0°  
H BeamWidth: 360.0°  
FU ERS : 1.58μv(-103.0dBm)  
FU Ant Ht : 5.0 Ft.  
FU Ant Type:

Calculated values are derived using average loss values for surroundings. Some low lying, heavily wooded or urban areas may result in lower values than those indicated

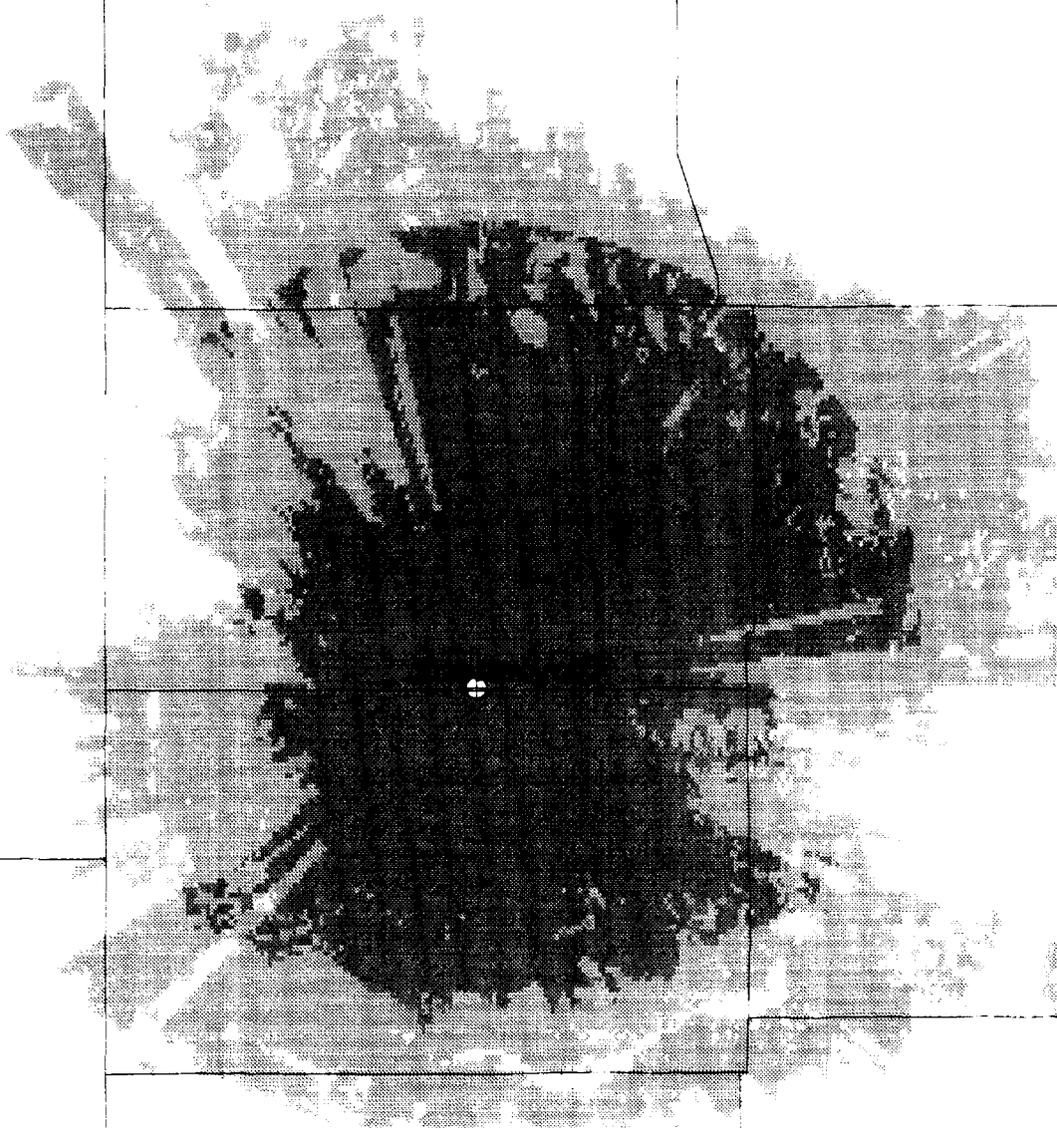
SCOTTSBLUFF, NEBRASKA

This is a typical site in Nebraska used by county and state public safety users.

Freq : 155.0 Mhz  
A/Ht : 300.0 Ft.  
HAAT : 721.5 Ft.

**APCO Docket 92-235**  
**Scottsbluff**

Lat : 41 42 0.0  
Long : 103 39 30.0  
Elev : 4680.0 Ft.



dBu (NOT FOR FCC) : dB



15 27 94  
**MOTOROLA, INC.**  
0.0 5.0 10.0 15.0 20

SCALE : 10.00 MILES PER INCH  
Job # : 1040527888  
Engineer : mcgng37  
Date : 12/11/1992  
Time : 17:17:01

**Base To Mobile Study**  
**Field Unit On Street**  
Base ERP : 72.4W(48.6dBm)  
Base Ant Az: 0.0°  
H BeamWidth: 360.0°  
FU ERS : 1.58µv(-103.0dBm)  
FU Ant Ht : 5.0 Ft.  
FU Ant Type:

Calculated values are derived using average loss values for surroundings. Some low lying, heavily wooded or urban areas may result in lower values than those indicated

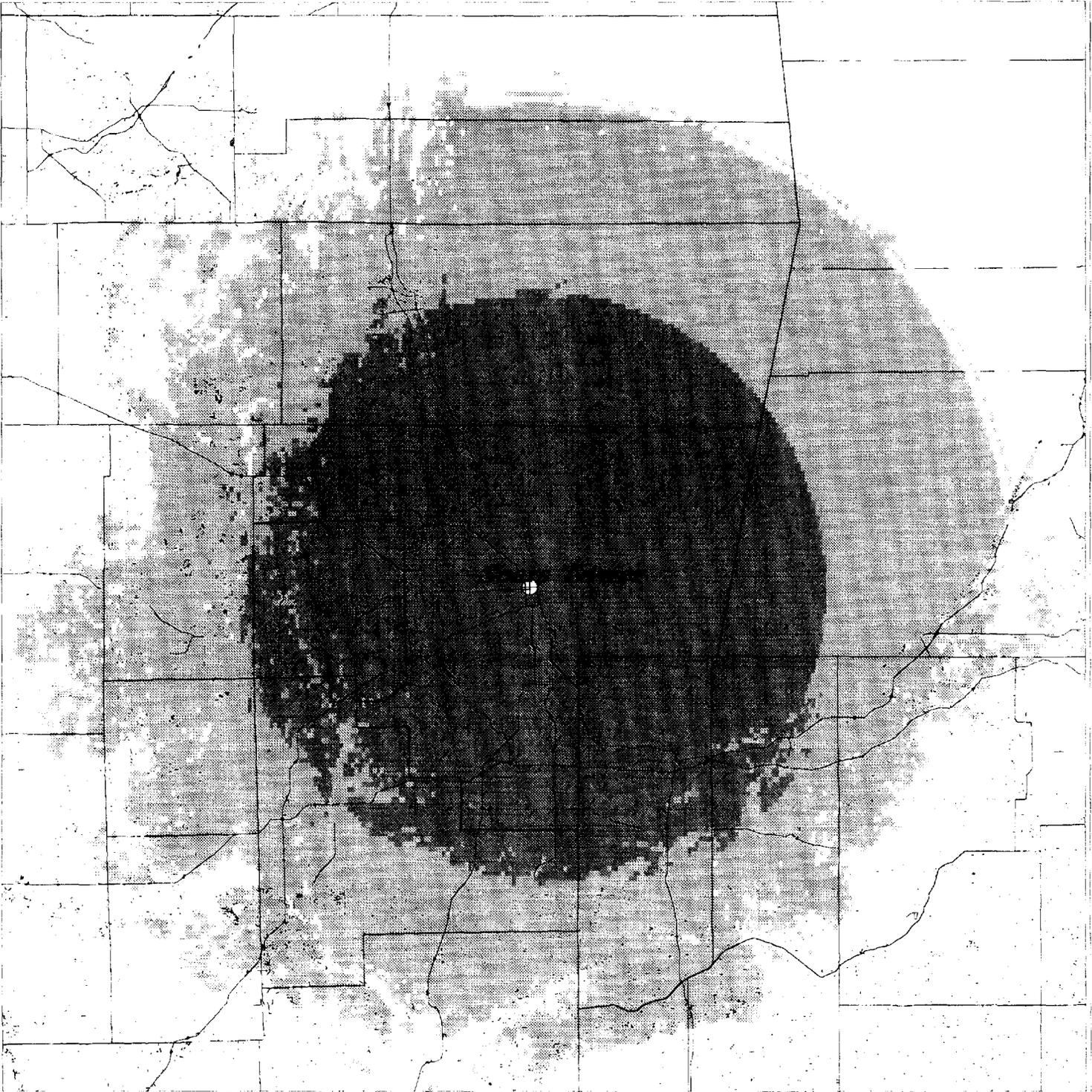
SEARS TOWER, CHICAGO, ILLINOIS

Used by state and regional systems. It is evident coverage into parts of Cooke County will be lost in addition to coverage of many of the surrounding counties.

Freq : 850.0 Mhz  
A/Ht : 1250.0 Ft.  
HAAT : 1254.4 Ft.

**APCO Docket 92-235**  
**Sears Tower**

Lat : 41 52 44.0  
Long : 87 38 10.0  
Elev : 595.0 Ft.



dBu (NOT FOR FCC) : dB

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25 40 177  
**MOTOROLA, INC.**  
0.0 5.0 10.0 15.0 20.0 25.0 30

SCALE : 15.78 MILES PER INCH  
Job # : 991965969  
Engineer : mcgng37  
Date : 12/11/1992  
Time : 18:13:40

**Base To Mobile Study**  
**Field Unit On Street**

Base ERP : 163.7W(52.1dBm)  
Base Ant Az: 0.0°  
H BeamWidth: 360.0°  
FU ERS : 1.58μV(-103.0dBm)  
FU Ant Ht : 4.9 Ft.  
FU Ant Type:

Calculated values are derived using average loss values for surroundings. Some low lying, heavily wooded or urban areas may result in lower values than those indicated

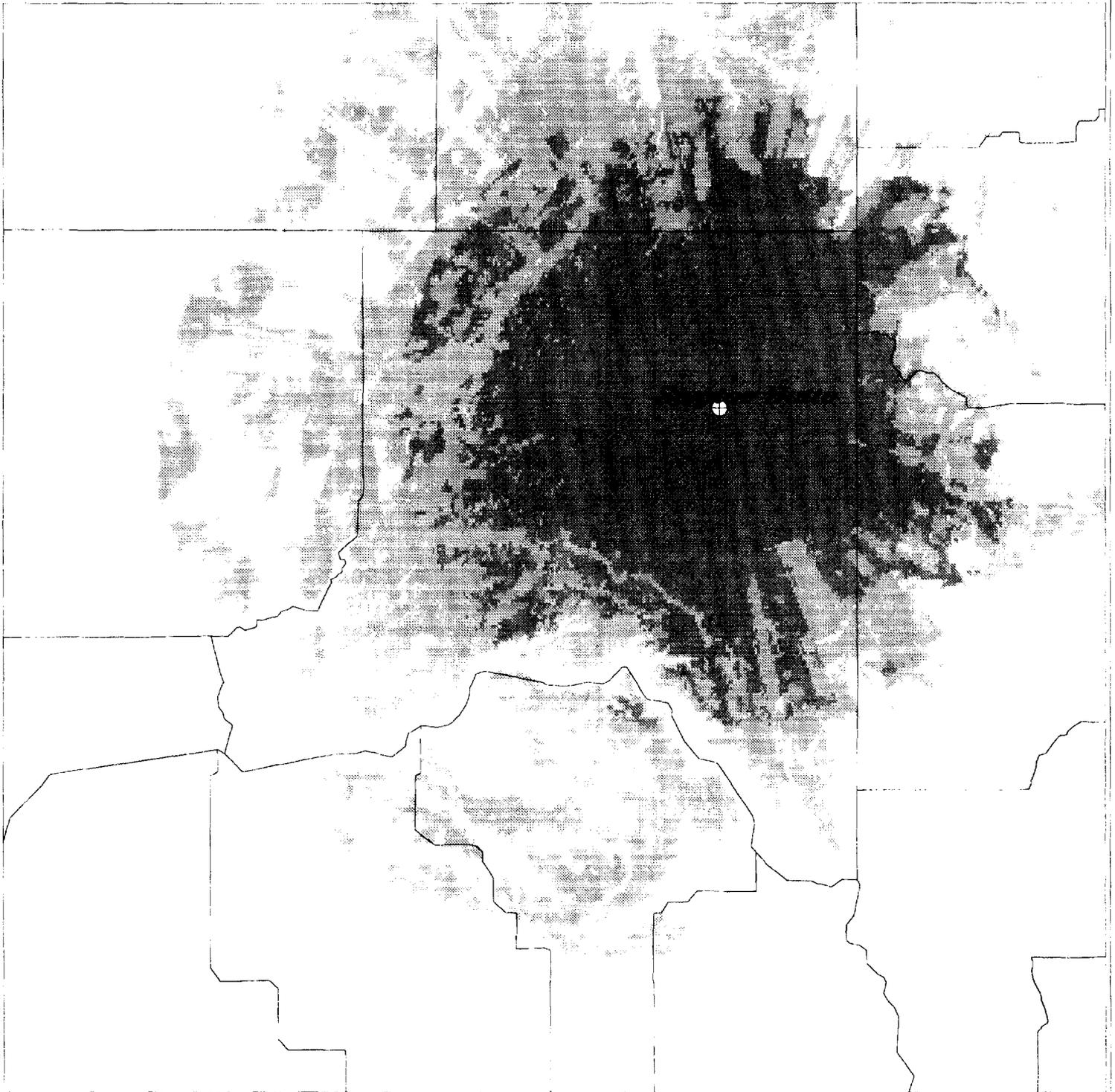
STEPTOE BUTTE, WASHINGTON

Located in Whitman County, Washington, this site is used by many public safety agencies to cover Whitman County and adjoining area. This is flat wheat-growing country with few available sites to use to fill in the areas list.

Freq : 155.0 Mhz  
A/Ht : 70.0 Ft.  
HAAT : 1196.8 Ft.

**APCO Docket 92-235**  
**Steptoe Butte**

Lat : 47 1 57.0  
Long : 117 17 46.0  
Elev : 3594.0 Ft.



dBu (NOT FOR FCC) : dB



15 27 95  
**MOTOROLA, INC.**  
0.0 5.0 10.0 15.0 20  
SCALE : 12.00 MILES PER INCH  
Job # : 1260982798  
Engineer : visitor1  
Date : 12/11/1992  
Time : 14:48:22

**Base To Mobile Study**  
Field Unit On Street  
Base ERP : 74.1W(48.7dBm)  
Base Ant Az: 0.0°  
H BeamWidth: 360.0°  
FU ERS : 1.58µv(-103.0dBm)  
FU Ant Ht : 5.0 Ft.  
FU Ant Type:

Calculated values are derived using average loss values for surroundings. Some low lying, heavily wooded or urban areas may result in lower values than those indicated