

**Tabulations of Propagation Data
Over Irregular Terrain in the
75- to 8400-MHz Frequency Range
Part V: Virginia**

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December 1991

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TABULATIONS OF PROPAGATION DATA OVER IRREGULAR TERRAIN IN THE 75- TO 8400-MHz FREQUENCY RANGE

Part V: Virginia

G. A. Hufford and F. K. Steele*

This is a supplementary fifth part to a series of reports containing tabulations and graphs of transmission loss data resulting from propagation experiments which have emphasized the UHF frequency band. The first four reports described data taken in various regions of Colorado. The present report concerns measurements taken at about the same time in the Piedmont region of Virginia and North Carolina. Data are presented for 283 paths varying in length from 0.5 to 120 km.

Keywords: elevated antennas; irregular terrain; radio propagation; UHF propagation data

1. INTRODUCTION

The purpose of this report is to present tabulations of transmission loss data obtained in radio propagation experiments carried out over the rolling, grassy, wooded terrain in the Piedmont region of Virginia and North Carolina. Path lengths varied from 0.5 to 120 km, and frequencies from 76 to 8400 MHz.

The data presented here were obtained as part of an extensive effort to study propagation in terrestrial environments. The first measurements of this program were in the VHF band and were reported by Johnson, *et al.* (1967a, 1967b, and 1967c). They were made in the plains and mountains of Colorado, and in the rolling hills of northern Ohio. A subsequent set of measurements emphasized the UHF band. A series of reports by McQuate, *et al.* (1968a, 1968b, 1970, and 1971) described such measurements made in Colorado under various environmental conditions. A companion set of measurements were made near Lynchburg, Virginia, and it is this set that is reported here.

Some of these data were previously summarized in earlier reports by Barsis, *et al.* (1969) and by Longley and Reasoner (1970), but this is the first time the individual data

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have been published. It is hoped that in this form they will be helpful in studies of radio propagation and will make useful additions to collections of propagation data.

Basic transmission losses are tabulated with frequencies, antenna heights, antenna gains, path lengths, terrain profiles, and brief comments pertinent to vegetation and structures along the paths.

2. MEASUREMENT PROGRAM AND EQUIPMENT

The region under study is a rural one with low, rolling hills. Much of it is farmed, but there are occasional groves of mostly loblolly pines and a few oak or hickory trees. Since much of the data were collected during the winter, fields were usually bare and deciduous trees had no leaves. Figure 1 shows a typical view; the photograph was taken from ground height at the transmitter site T7. It pictures a barren field with only low structures and low vegetation out to a distant horizon.

In the general plan for the measurements there were 7 frequencies spaced by about an octave, fairly high antennas at both terminals, and a large number of paths. The paths were specified by 7 different transmitter sites to each of which were assigned about 50 receiver sites having one of 8 nominal distances and one of the two conditions "open" or "concealed" as indicated in Table 1 below. An "open" site has a clear, unobstructed foreground in the direction of the other terminal, while a "concealed" site is either within a grove of trees or immediately in front of an obstruction such as a tree or building. The concealed receiver sites were usually associated with a companion open site that was within 100 m. In such cases, of course, the two propagation paths were almost identical.

Table 1. Receiver Site Schedule

Nominal path length	Open sites	Concealed sites
0.5 km	2	—
3	2	—
5	4	—
10	6	—
20	6	4
50	6	4
80	6	4
120	4	2

The transmitter site T2 was on top of Piney Mountain and surrounded by the pine trees that cover that small, 349-m high, knoll. It was, therefore, a "concealed" site. The other transmitter sites were all "open." They were either in parking lots or in open fields. Figures 2, 3, and 4 are maps of the region showing various aspects of how the terminal sites are placed. The maps are outline maps showing county boundaries and a small portion of the boundary between Virginia and North Carolina. Figure 2 shows the 7 transmitter sites; Figure 3 shows the transmitter site T1 together with its associated receiver sites; and Figure 4 illustrates how completely the paths criss-cross the region by plotting all paths longer than the 3-km set.



Figure 1. A view from the transmitter site T7.

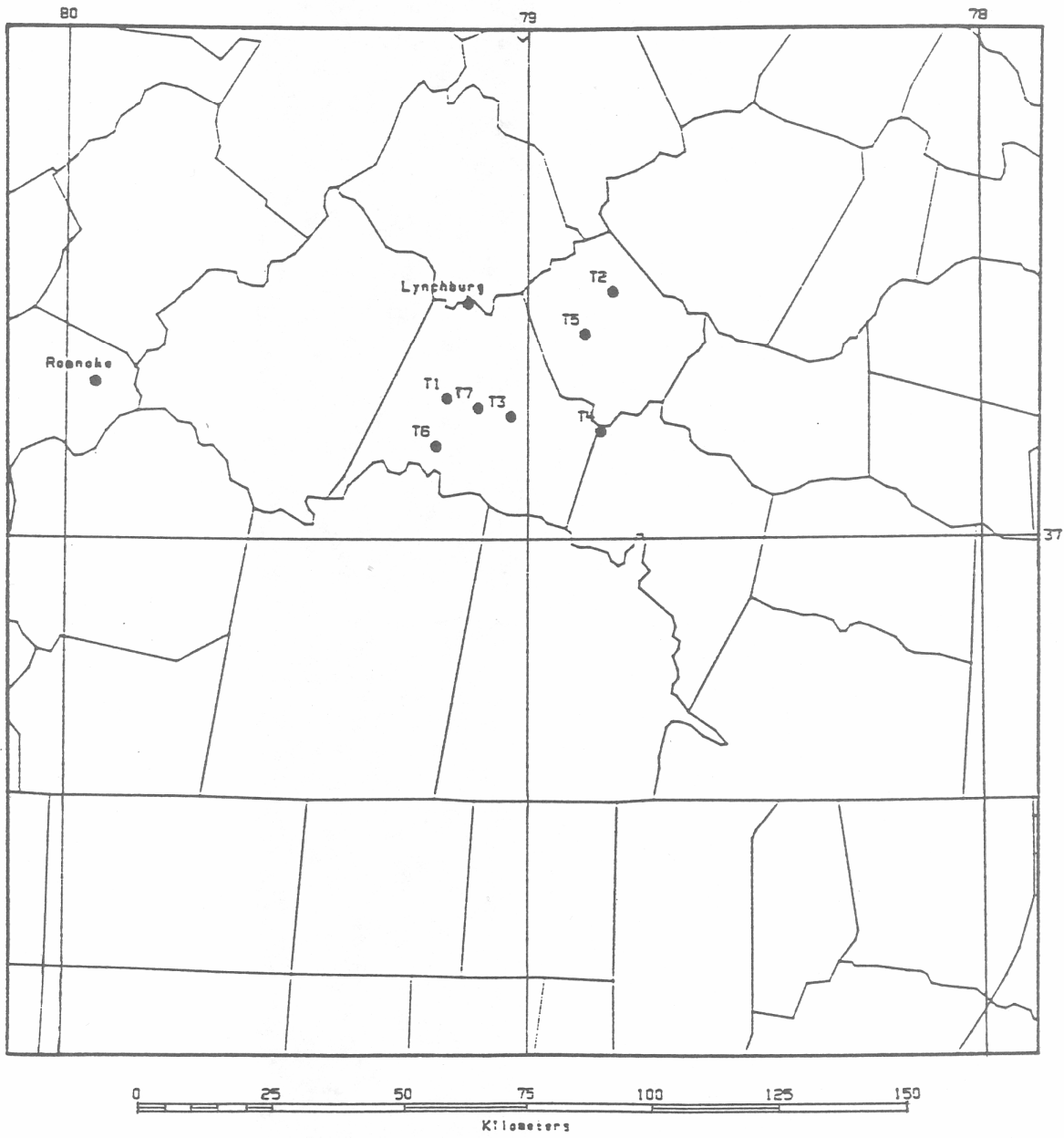


Figure 2. A map of the measurement region showing the 7 transmitter sites.



Figure 3. A map of the measurement region showing the transmitter site T1 and its associated receiver sites.

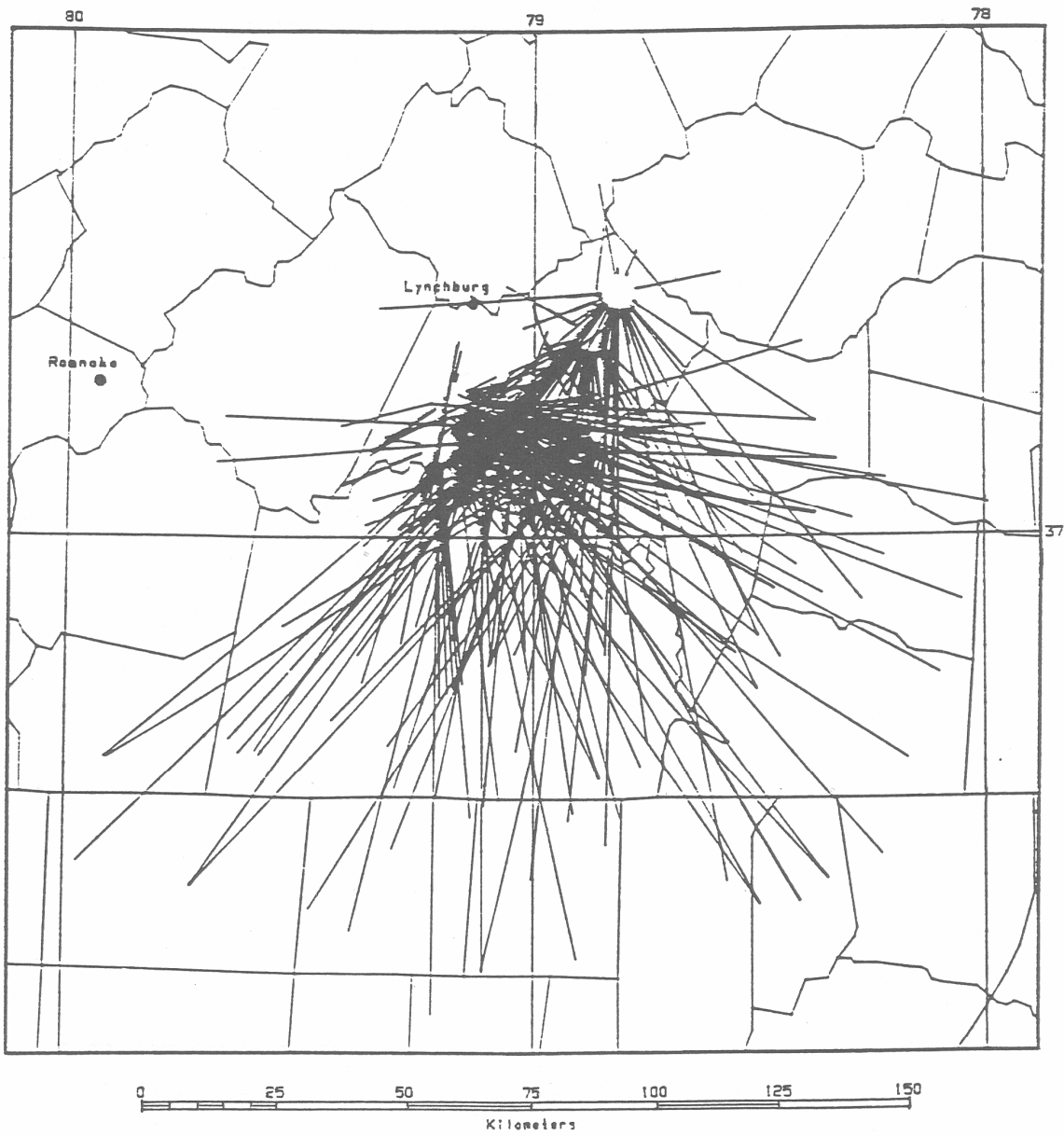


Figure 4. A map of the measurement region showing most of the 283 propagation paths.

2.1. Transmitting Equipment.

Transmitting equipment was carried in a van with a trailer-mounted collapsible 11-m antenna tower. The van carried power generators, signal generators, frequency counters, and power meters, all of which were used to control the radiated frequency and power. Continuous wave, horizontally polarized signals were radiated from antennas located 8–15 m above ground. Table 2 shows the frequencies used and the major transmitter characteristics, including antenna parameters and output powers. Antenna gains are those supplied by the manufacturers.

Table 2. Transmitter Characteristics

Frequency, MHz	Antenna type	Gain, dBi	Max Xmtr power, dBm
75.98	Yagi	9.2	49.0
172.98	Yagi	9.2	49.0
409.25	Corner reflector	12.2	47.0
950.0	Parabolic dish	18.9	49.0
2180	Parabolic dish	26.2	40.0
4820	Parabolic dish	33.3	40.0
8395	Parabolic dish	37.9	40.0

2.2. Receiving Equipment

To make the process more efficient, the receivers were duplicated and carried in two separate vans. A “short range receiver van” (van 1) was used primarily for reception on short to mid-range paths, while a “long range receiving van” (van 2) was used on the longer paths. The difference between the two was that the short range van used smaller antennas for the higher frequencies.

Each van had a trailer-mounted, collapsible, 16-m tower and a full complement of antennas. The vehicles carried power generators, receivers to cover the entire frequency range, attenuators, strip chart recorders for displaying signal amplitude, and signal generators for calibration. Table 3 shows the major receiver characteristics, the antenna gains and the receiver sensitivities expressed here as the largest basic transmission loss that could be measured.

Table 3. Receiver Characteristics
Antenna gains and maximum measurable losses

Frequency	Van 1		Van 2	
	gain, dBi	max L_b , dB	gain, dBi	max L_b , dB
75.98	9.2	181	9.2	180
172.98	9.2	184	9.2	183
409.25	12.2	188	12.2	188
950.0	13.2	181	18.9	186
2180	12.5	181	26.2	192
4820	17.4	188	33.3	207
8395	16.2	202	37.9	223

The antennas were identical to those used at the transmitter, except that the short range receiver van did not use parabolic dishes. Instead, another Yagi antenna was used at 950 MHz and horns were used at the three higher frequencies. Antenna heights were 10–15 m above ground, except for a few “low antenna” measurements that were made 2 m above ground.

3. MEASUREMENT PROCEDURES

The transmitter and receiver sites were first selected by a fairly random process from topographic maps, and then checked for suitability and accessibility. Each transmitter site would be occupied for about 6 weeks so that the installation could be relatively permanent with, for example, guyed antennas. Receiver sites were of a more temporary nature and were seldom visited for more than a day.

When a receiver site was occupied, the receiver power was turned on and the antenna tower was erected and sometimes guyed for stability. Antenna pointing azimuths were initially determined from maps and then more closely optimized by small changes in the orientation at both terminals. After warm-up, the receivers were calibrated by injection of a known signal from a signal generator. Receiver outputs were recorded on strip chart recorders which were calibrated simultaneously with the receivers in 5 dB increments. The final determination of each received signal level was a median value from about 10 minutes of strip chart recordings. On some occasions, wind shook the antennas thus causing fluctuations in the received power level; then additional time was required for stabilization.

The measured received signal levels were converted to basic transmission loss L_b using the standard formula

$$L_b = W_t - W_r + G_t + G_r - L_t - L_r$$

where W_t is the transmitter power in dBm, W_r is the received signal level in dBm, G_t and G_r are the antenna gains in dBi, and L_t and L_r are the line losses in dB.

4. ACKNOWLEDGEMENTS

The authors want to thank present and former colleagues for helpful discussions. In addition, gratitude is due to personnel at General Electric in Lynchburg, Va., for their good efforts under undoubtedly trying conditions. Finally special thanks are due to the Office of Spectrum Management at NTIA for supporting this effort.

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6. DATA TABULATIONS

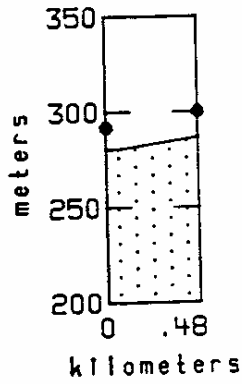
Data tabulations are presented on pages 11 through 293. Each page corresponds to one distinct path as identified in the upper left hand corner. The identification is similar to that used in the previous reports of this series. Its three parts are (1) the coded transmitter site, (2) the nominal length of the path, and (3) the receiver site, coded sequentially in the clockwise direction. For example, T3-10-R4 is the path that has the fourth receiver site on the 10-km circle around the transmitter site T3. These identifications are also used to

define the order of presentation in the following pages, for the same three parts provide a natural categorical ordering. Pairs of open and concealed sites are considered to have the same paths and their data are incorporated into one page.

The top half of each page is devoted to the path profile. These were read by hand from 1/62,500 scale maps. They are plotted against a curved earth with an effective radius based on a surface refractivity of 305 N-units, which is an average value for this area. Transmitter sites are plotted on the left and receiver sites on the right. Note also that the profiles for each circle of constant nominal radius are plotted using fixed, standard scales, both vertically and horizontally.

The actual radio data are in the table in the bottom half of the page. In a sequence of columns appear frequencies, then antenna heights, and values of basic transmission loss. While antenna heights were fairly constant, there was enough variability to make it seem necessary to include their values in each table. The tables are of variable length because a receiver site may have had more than one set of measurements made, and each set is displayed in a separate row. Note that each row of losses is accompanied by the date of the measurements and by an indication of which van took them.

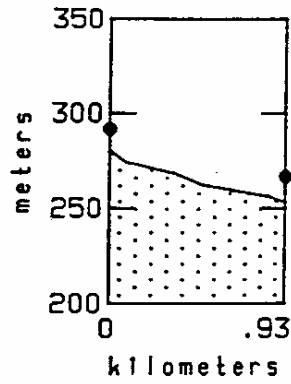
Several of the attempted measurements could not be made because the loss was too large and the received signal level was below the receiver noise level. In such cases, the situation has been identified in these tables with the word "noise" in place of a measured loss. Then the actual loss should have been comparable to, or greater than, the maximum measurable losses given in Table 3. On the other hand, if an entry in these tables is empty, then the corresponding measurement was not even attempted. This may have been either because it was not part of the planned measurements, or because there was a failure in some of the associated equipment.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
8/24/66-van 1	59.8	70.3	93.4	84.5	121.5	130.9	158.3

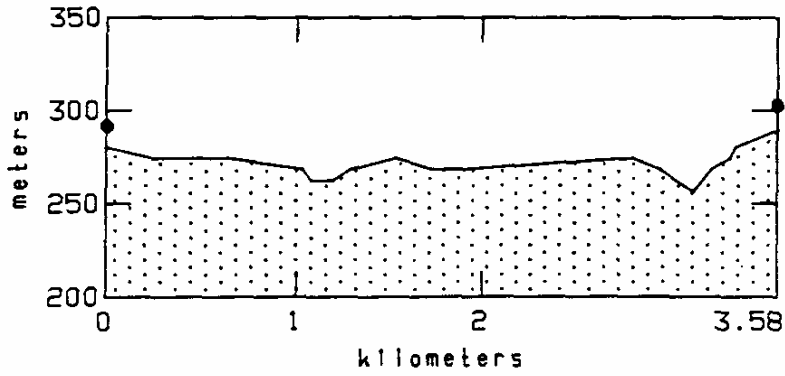
The site is in an open field; antennas are intervisible.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
8/24/66-van 1	54.8	66.3	80.4	90.5	92.5	121.9	134.3

Antennas are intervisible.



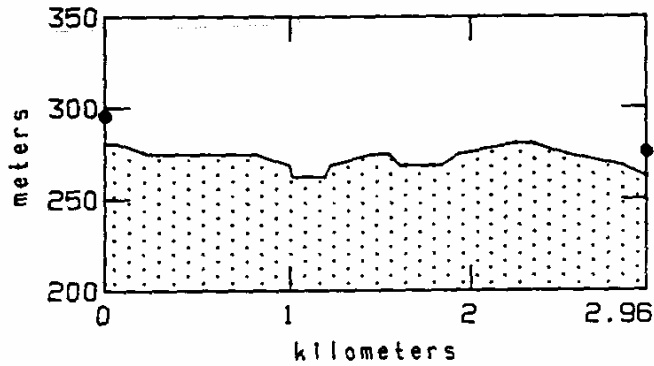
Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
8/30/66-van 1	81.4	97.7	110.6	116.9	132.6	171.9	172.3

The site is in a pasture with low trees in the foreground about 100 m away.

T1-3-R2

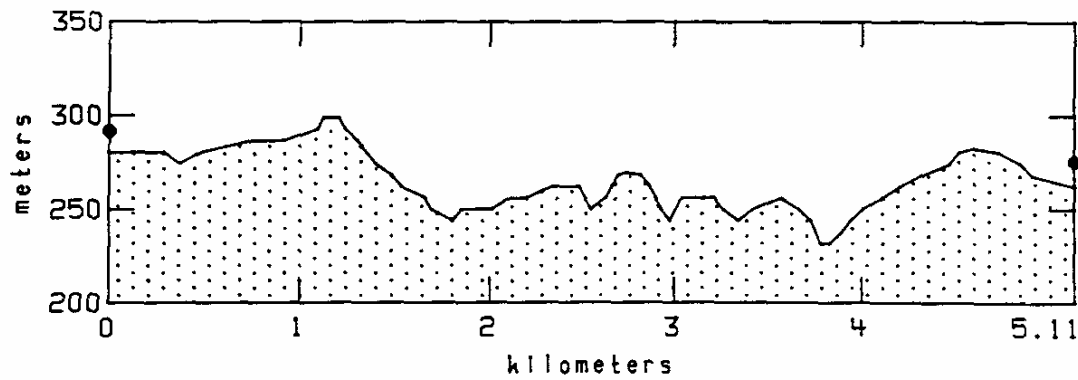
Path length, 2.96 km



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
10/21/66-van 1	82.9	95.2	100.1	107.2	119.7	137.5	141.8

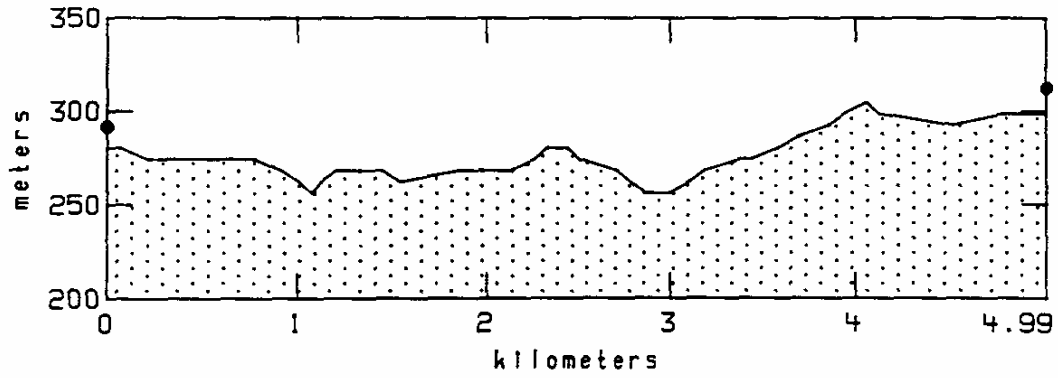
The site is in a pasture with trees about 150 m in front of the antenna tower.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
9/01/66-van 1	97.9	104.7	113.2	147.4	135.0	173.4	179.3

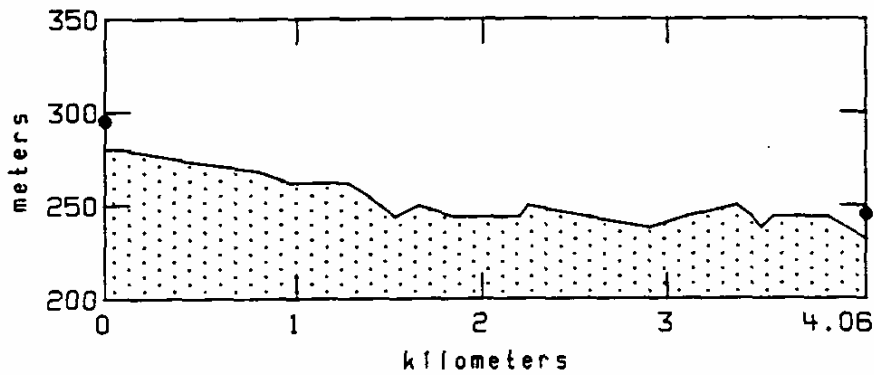
The site is in a clearing; there are oak trees about 300 m in front of the antennas.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
8/31/66-van 1	93.9	104.7	143.7	117.9	134.5	171.4	Noise
10/10/66-van 1	85.9	113.2	113.7	128.6	Noise	Noise	152.3

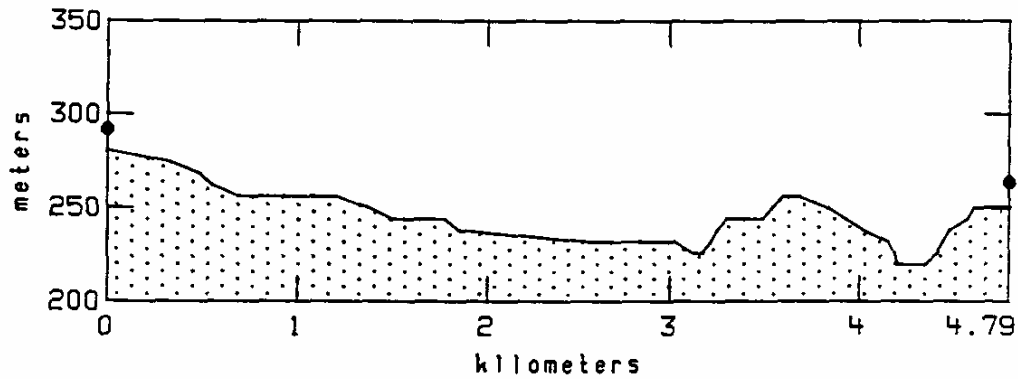
The site is in a weedy field with large trees about 800 m in front of the antennas.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
10/18/66-van 1	87.8	105.2	111.7	122.5	123.2	140.3	143.3

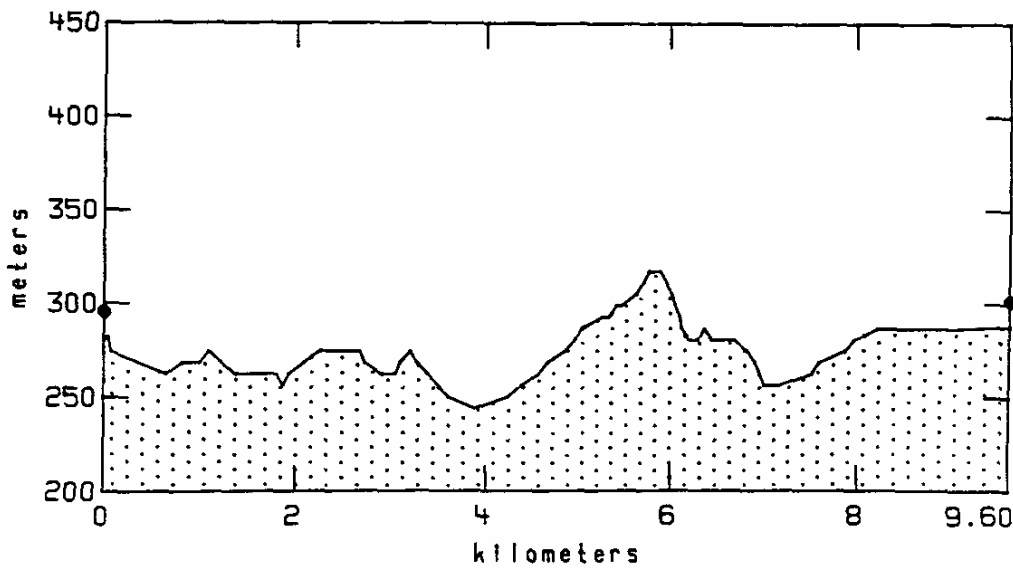
There are low trees and brush distributed along the path.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
9/06/66-van 1	90.9	-	116.7	121.3	131.7	179.5	154.1
10/11/66-van 1	89.9	102.7	110.7	128.6	131.3	172.6	167.3

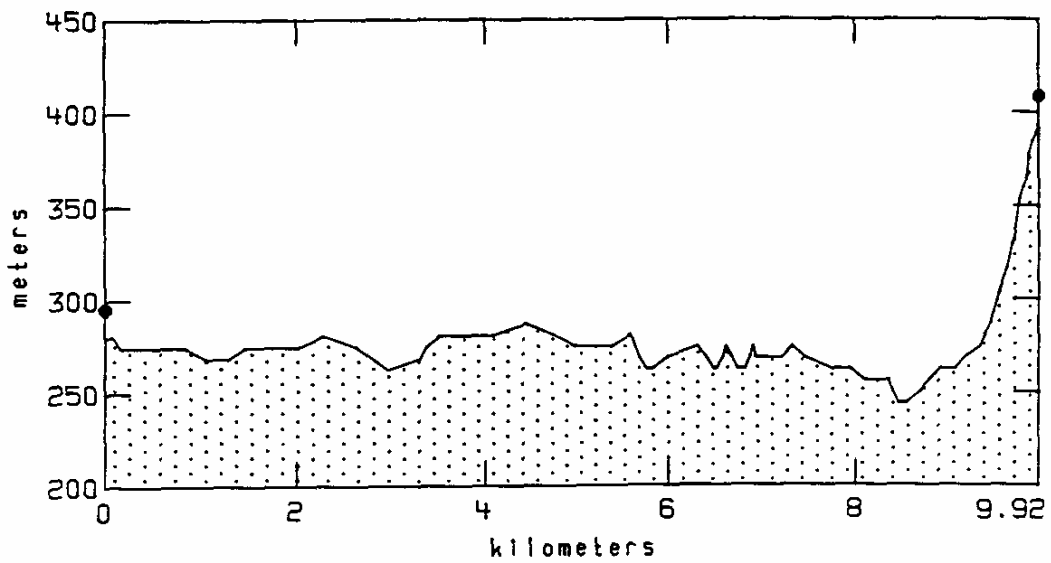
The site is in a pasture. Oak trees are about 150 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
10/13/66-van 1	107.4	117.7	125.2	135.5	143.1	156.8	169.3

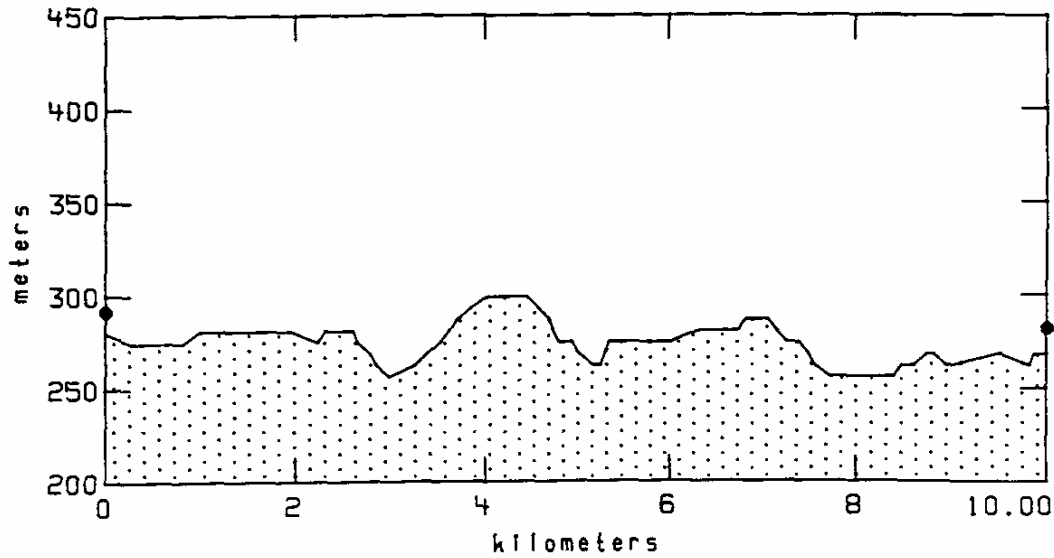
The site is across from an unimproved road. There are trees about 350 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
10/14/66-van 2	96.8	100.0	115.1	111.8	118.3	135.4	157.0
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
10/14/66-van 1	93.0	99.7	110.7	114.9	121.0	130.5	157.8

No comments are available.



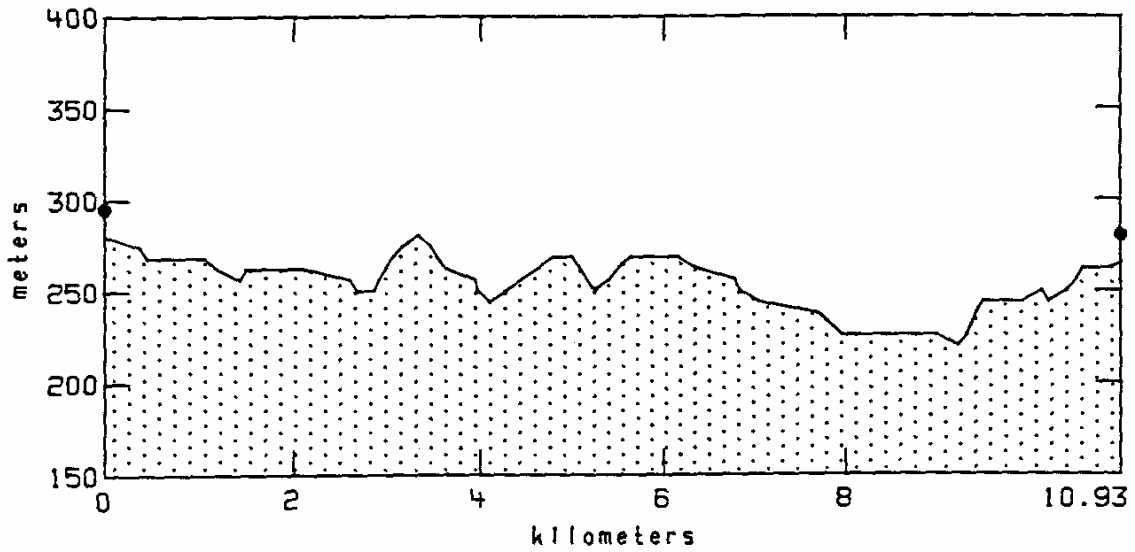
Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
9/09/66-van 1	109.5	117.7	133.8	148.8	Noise	174.0	Noise

The site is in a pasture. There are power lines about 150 m away.

T1-10-R4

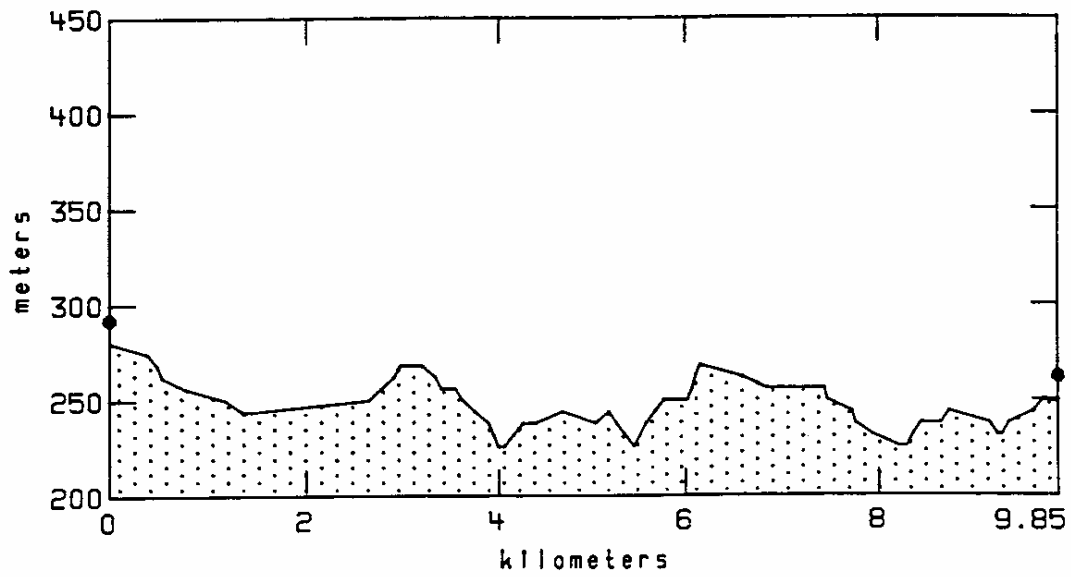
Path length, 10.93 km



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
10/13/66-van 2	104.8	121.5	134.1	144.3	151.3	167.4	169.7

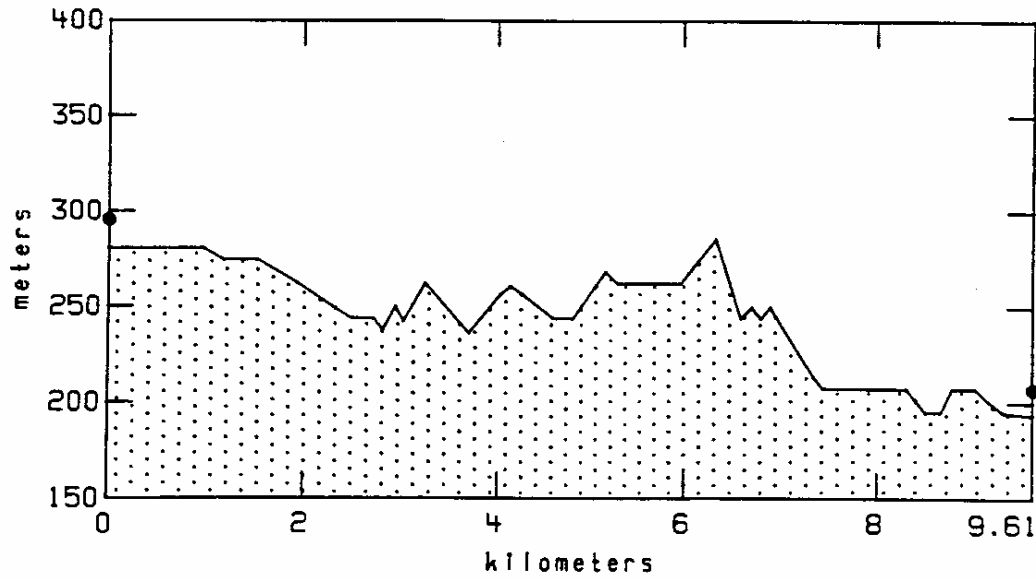
The site is in a pasture. There are large oak trees about 300 m from the antennas.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.8			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
9/09/66-van 1	101.5	118.4	132.3	144.8	144.7	162.5	164.4

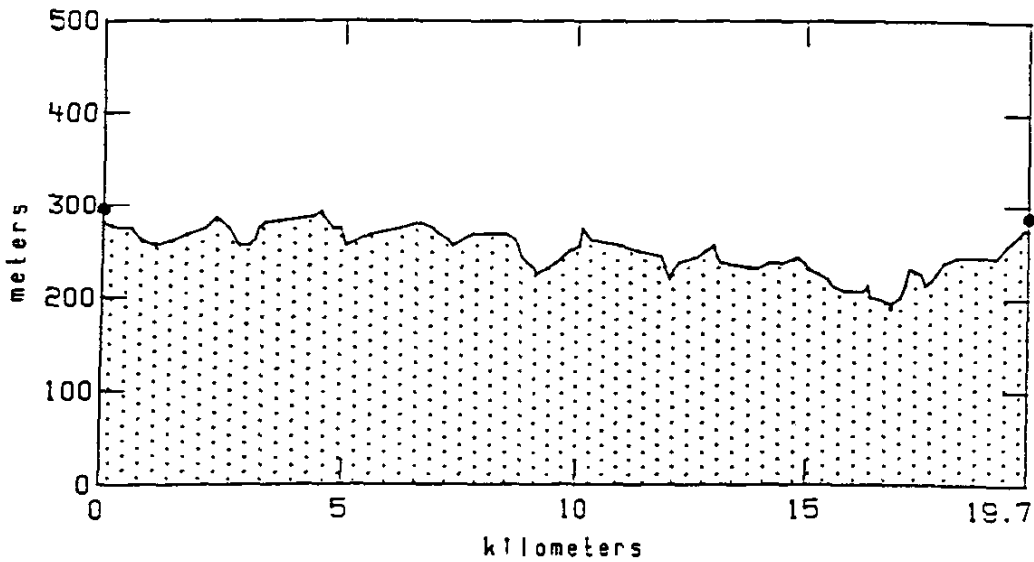
This is an open site, but there are low trees about 30 m away and large trees about 150 m distant.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
10/17/66-van 1	102.9	118.2	127.7	138.5	-	178.4	180.3

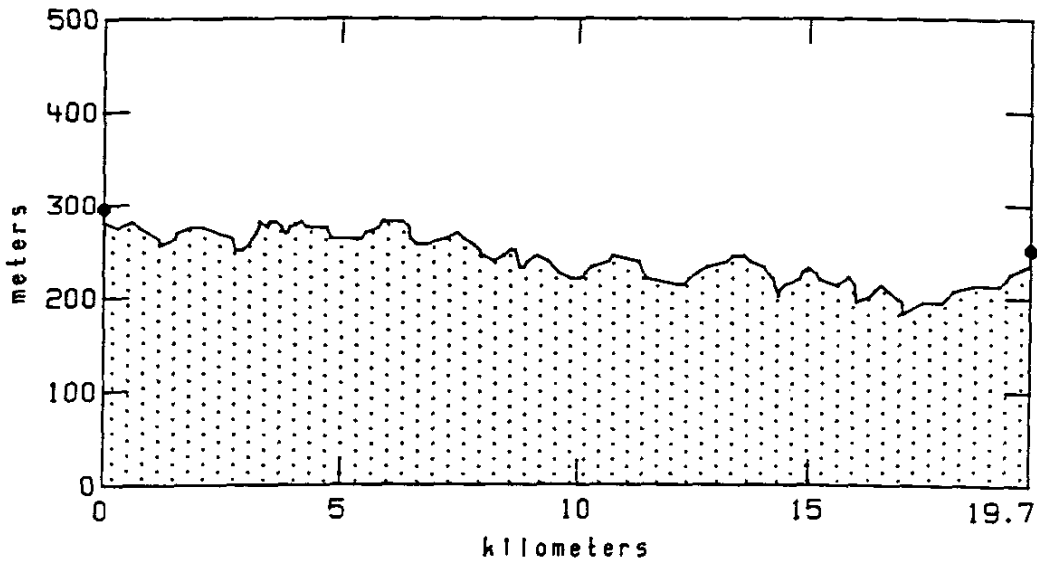
The path is clear all the way to the horizon.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
9/16/66-van 1	119.2	129.8	143.1	162.3	Noise	Noise	Noise
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
9/16/66-van 2	115.1	129.0	141.0	160.8	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
10/07/66-van 2	135.6	142.4	153.2	174.6	Noise	Noise	Noise

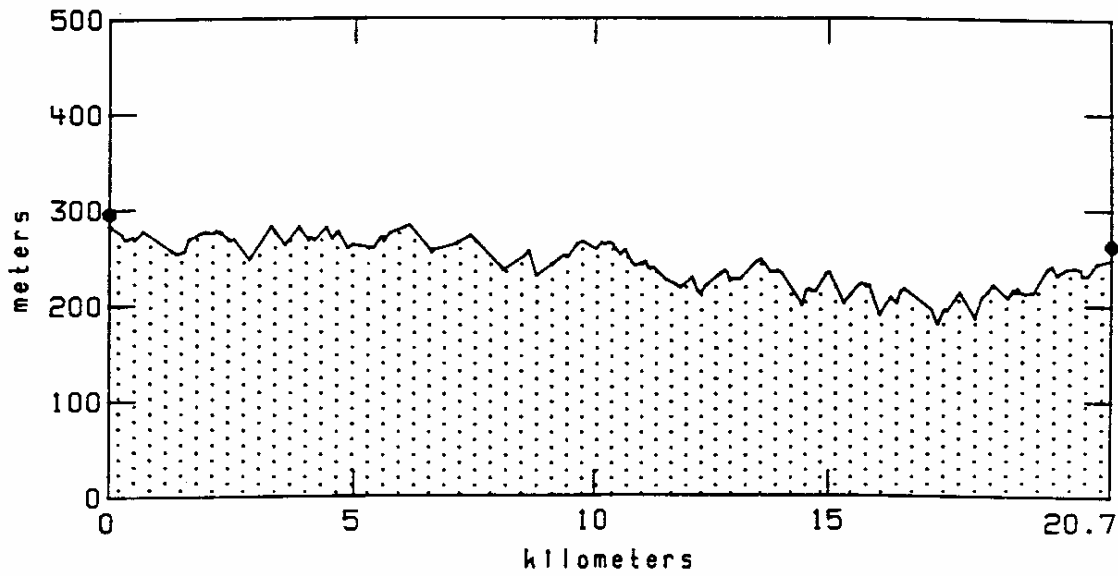
This is a concealed site with no accompanying open site. There are 20-m high trees about 15 m in front of the antennas.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
9/20/66-van 2	118.8	137.3	140.4	196.8	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
9/20/66-van 2	132.6	139.9	169.7	Noise	Noise	Noise	Noise

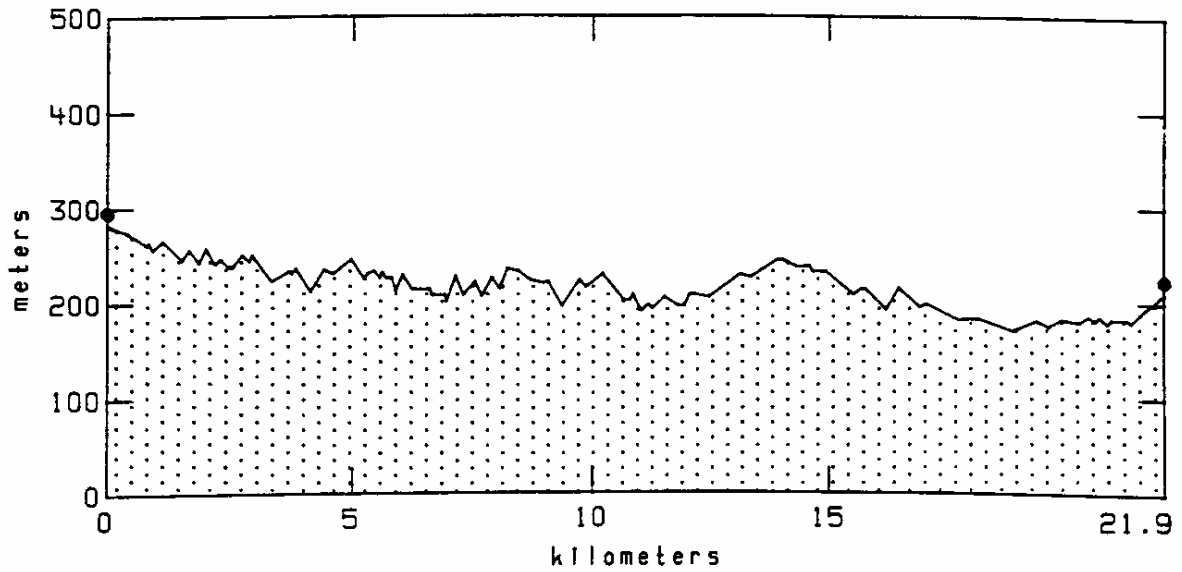
The site is in a church parking lot with dense tree foliage about 60 m away. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
10/25/66-van 1	111.9	135.7	141.7	147.5	157.0	172.5	179.3

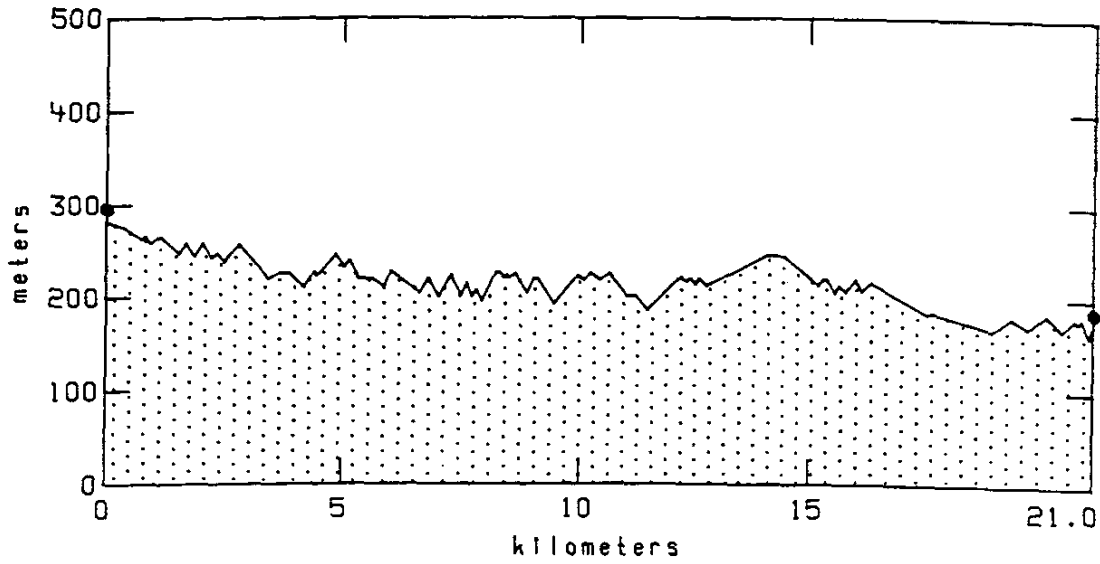
There are large trees adjacent to the path, about 250 m from the site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
10/24/66-van 1	102.4	119.2	125.7	134.9	139.0	146.5	163.3

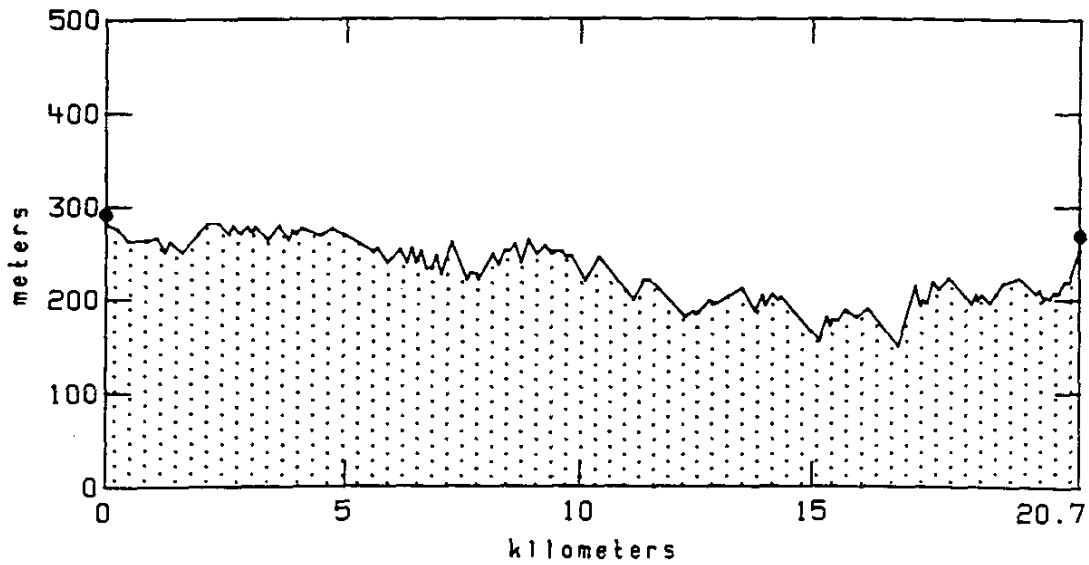
There is a cornfield in the near foreground; but the path is clear to the horizon.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
10/24/66-van 1	115.9	128.2	133.7	136.9	143.0	158.5	175.3

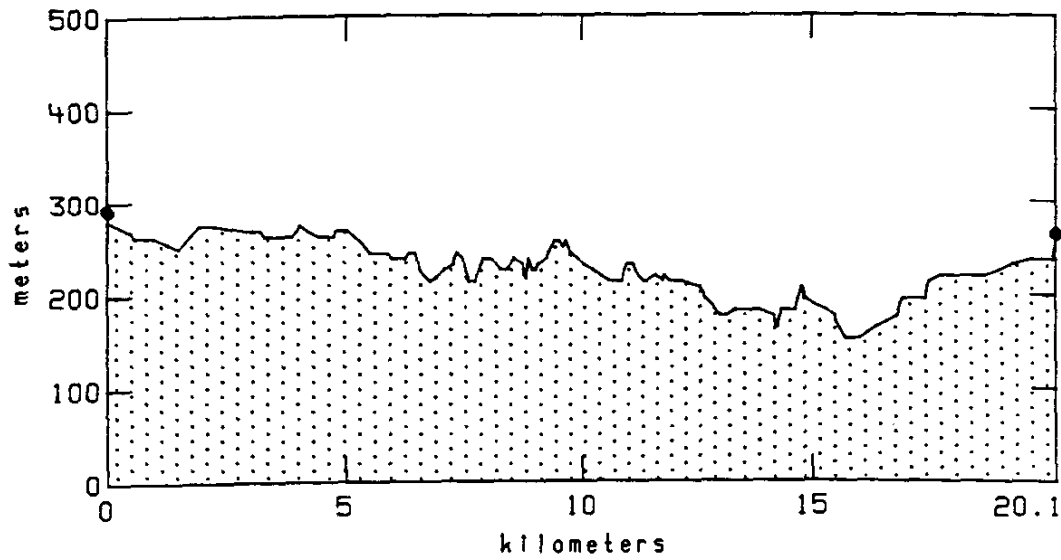
The site is open with telephone lines parallel to the path and power lines crossing it 400 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
9/26/66-van 2	109.0	119.3	131.9	176.0	Noise	175.9	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
9/26/66-van 2	118.1	119.9	139.7	175.6	Noise	177.9	Noise

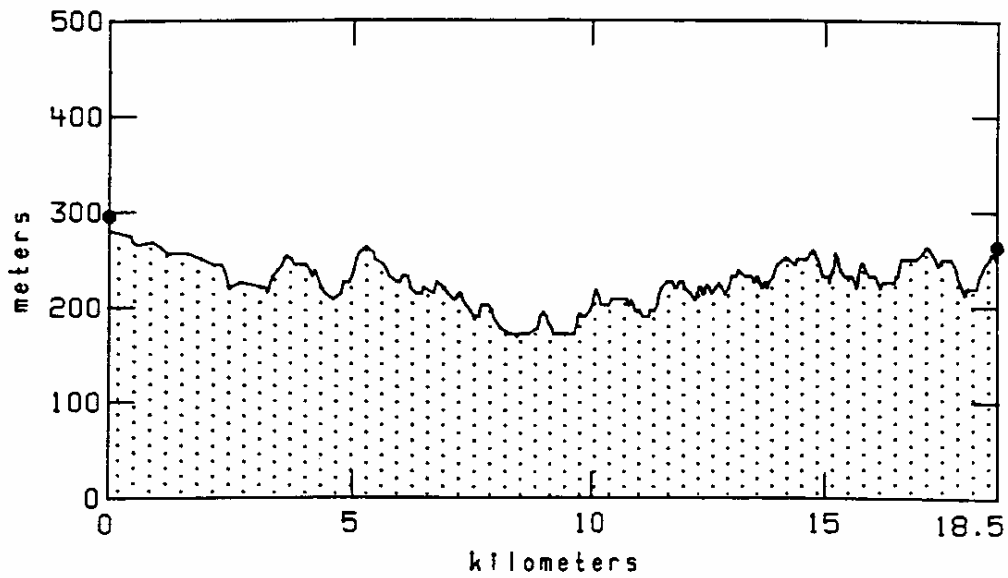
Dense trees obstruct the path about 20 m in front of the antennas. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	13.3	13.3	13.3	10.0	10.0	10.0	10.0
9/22/66-van 2	109.5	116.8	129.4	146.0	Noise	162.4	185.2
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
9/23/66-van 2	-	115.8	130.4	-	-	160.4	176.2

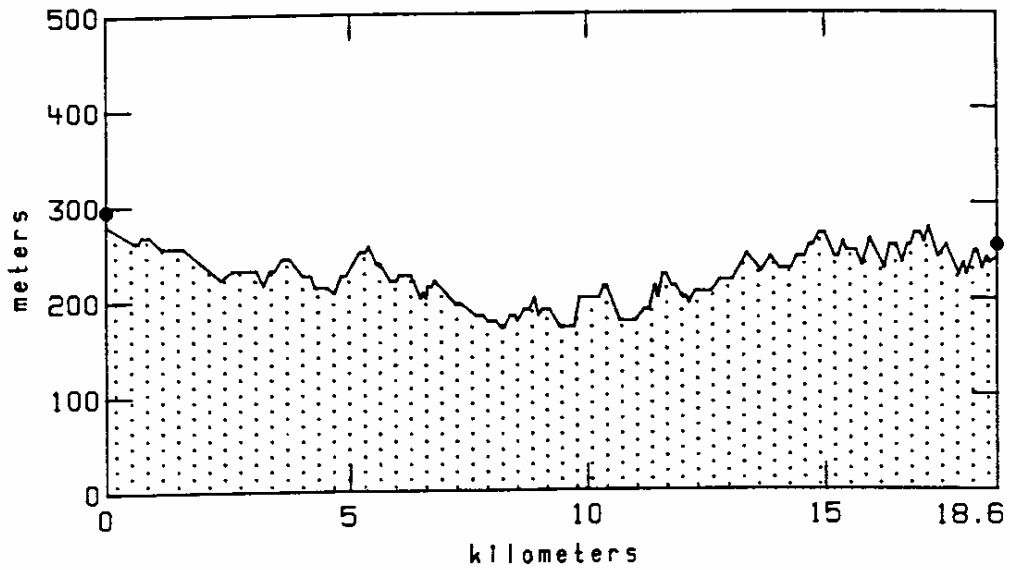
The path is clear all the way to the horizon.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
11/10/66-van 1	102.4	118.4	132.7	145.0	151.0	173.5	182.0

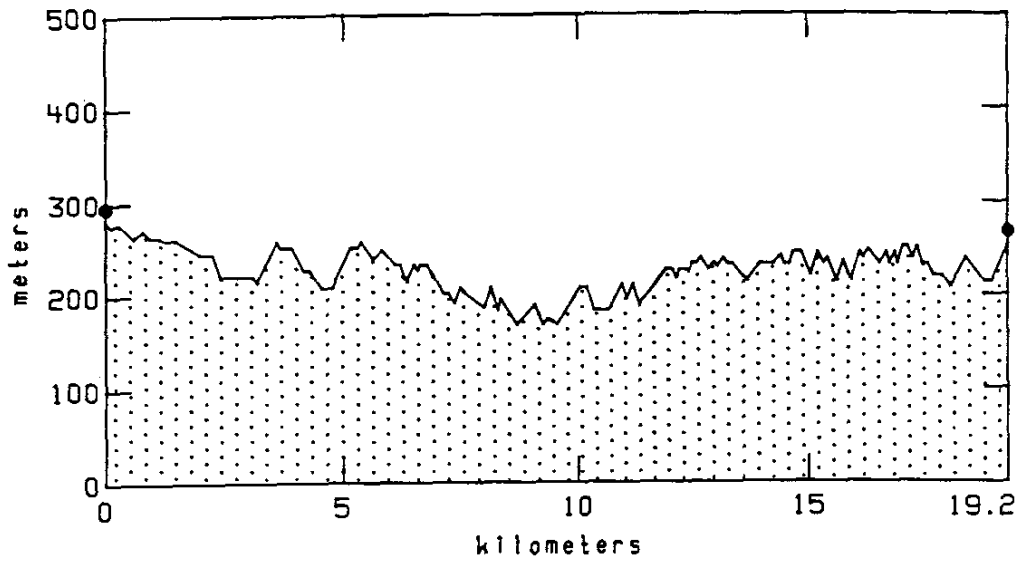
The site is in a pasture with trees adjacent to the path at a distance of about 250 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	10.0	10.0	12.4	13.9	12.9	12.9	13.4
10/03/66-van 1	117.4	131.2	141.2	151.3	Noise	174.0	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
10/03/66-van 1	129.9	140.3	151.4	172.0	Noise	Noise	Noise

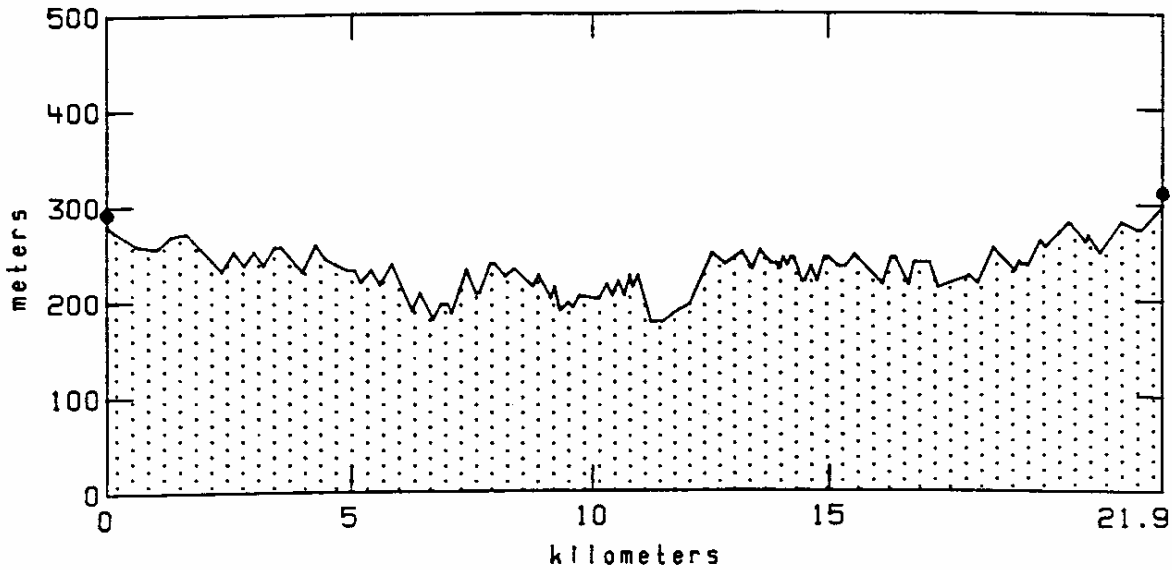
This is an open site, but there are trees about 150 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
11/09/66-van 1	100.9	123.7	131.2	139.0	136.2	148.1	165.5

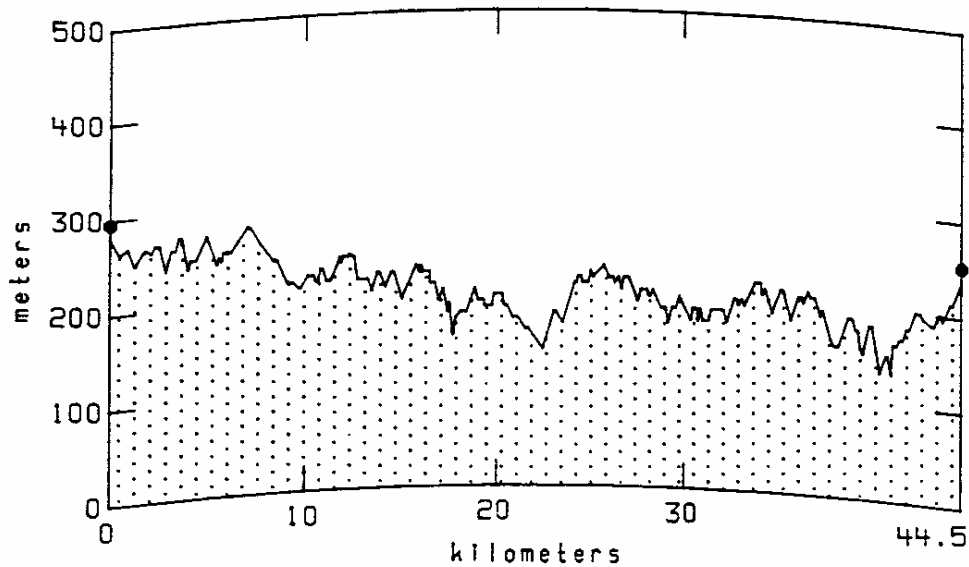
The site is in a pasture with trees about 200 m distant.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.8			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
9/23/66-van 1	108.9	121.7	128.7	143.9	Noise	165.5	165.8
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
9/30/66-van 1	-	-	-	143.6	141.3	159.5	169.3
Concealed:							
Rcvr hts, m	10.0	10.0	12.4	13.9	12.9	12.9	13.4
9/30/66-van 1	115.9	128.2	132.7	139.6	Noise	163.0	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
9/30/66-van 1	121.9	136.8	144.4	148.8	Noise	Noise	Noise

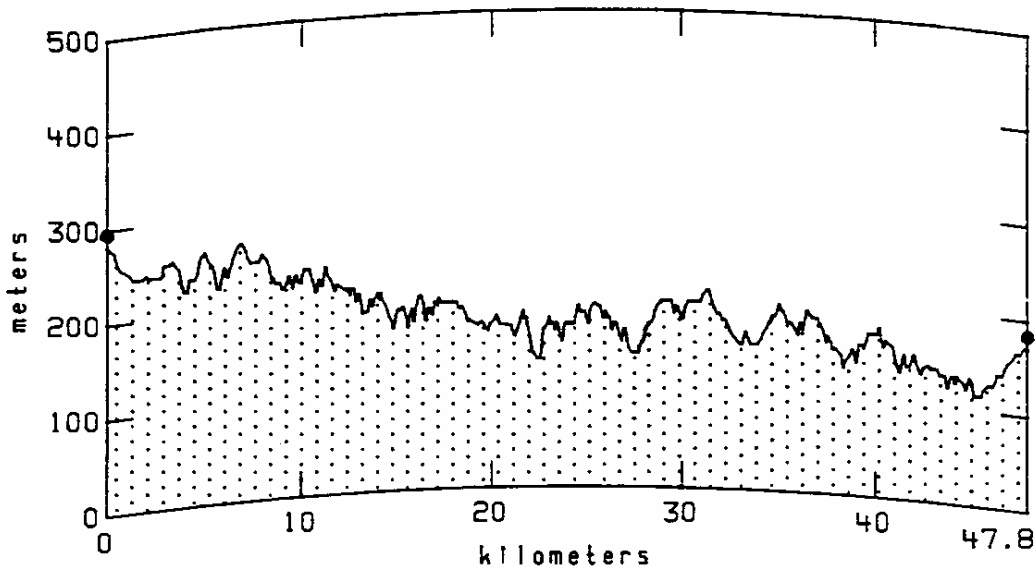
The site is in a pasture, and the path is clear to the horizon. For the concealed position, the tower was moved behind a grove of trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
10/10/66-van 2	122.0	135.0	144.2	154.3	-	178.9	186.5
Rcvr hts, m	15.0	15.0	15.0	11.7	14.0	11.7	11.7
11/02/66-van 1	-	-	-	-	158.5	-	-
Concealed:							
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
10/11/66-van 2	120.3	136.5	145.5	151.7	-	174.9	175.5
Rcvr hts, m	15.0	15.0	15.0	11.7	12.9	11.7	11.7
11/02/66-van 1	-	-	-	-	161.0	-	-
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
10/11/66-van 2	134.1	138.9	142.6	162.0	-	Noise	Noise
11/02/66-van 1	-	-	-	-	177.7	-	-

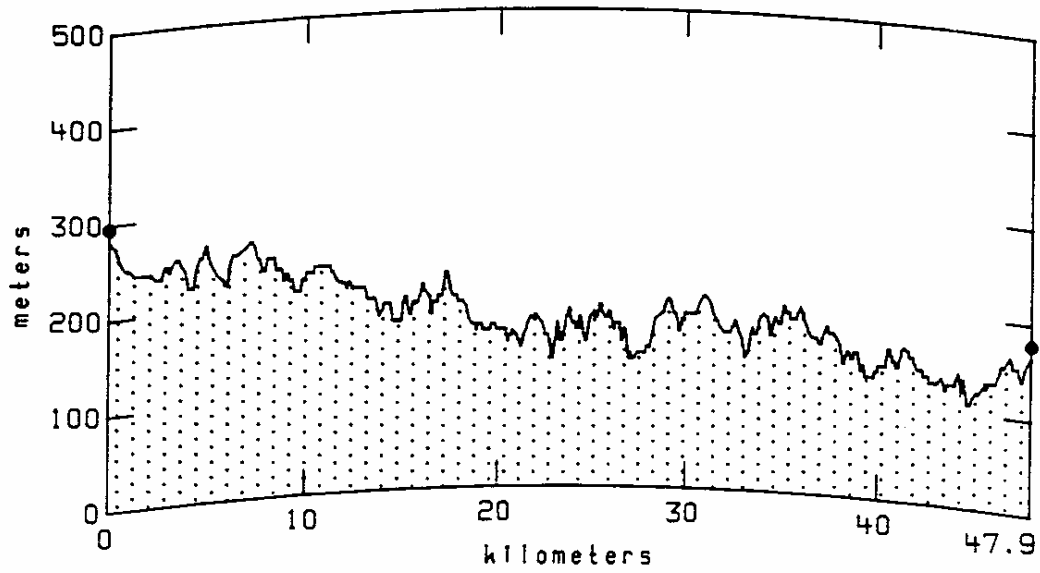
From the open position there are telephone lines crossing the path at 15 m and a large oak tree to the side, 150 m away. The 8 GHz signal of October 10 is highly variable because of winds. The concealed position is 8 m behind oak trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
11/08/66-van 1	126.9	140.2	149.2	165.5	165.5	176.5	Noise

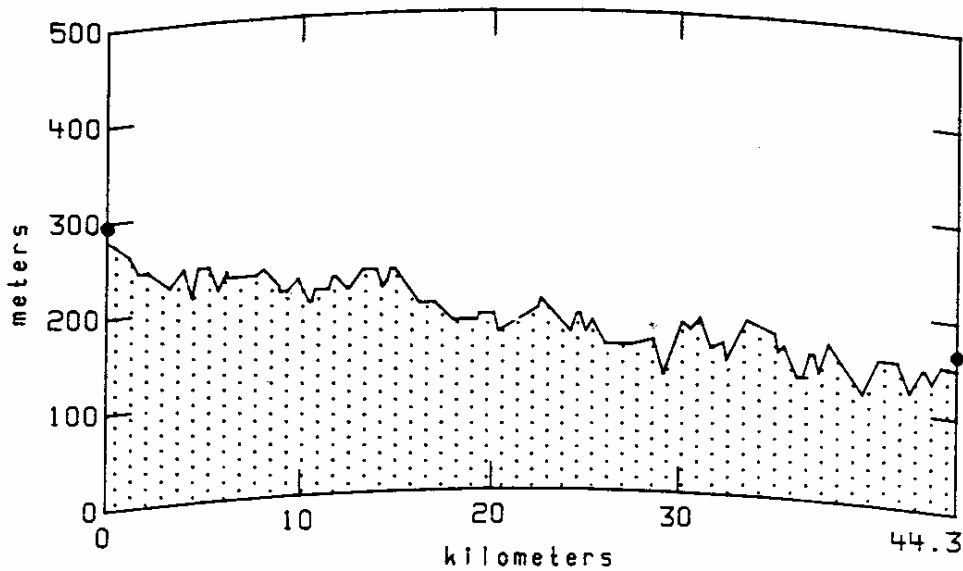
The site is by the side of a road. The path is clear to the horizon with trees on one side.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
11/07/66-van 1	128.8	142.8	150.7	168.9	165.0	185.5	Noise

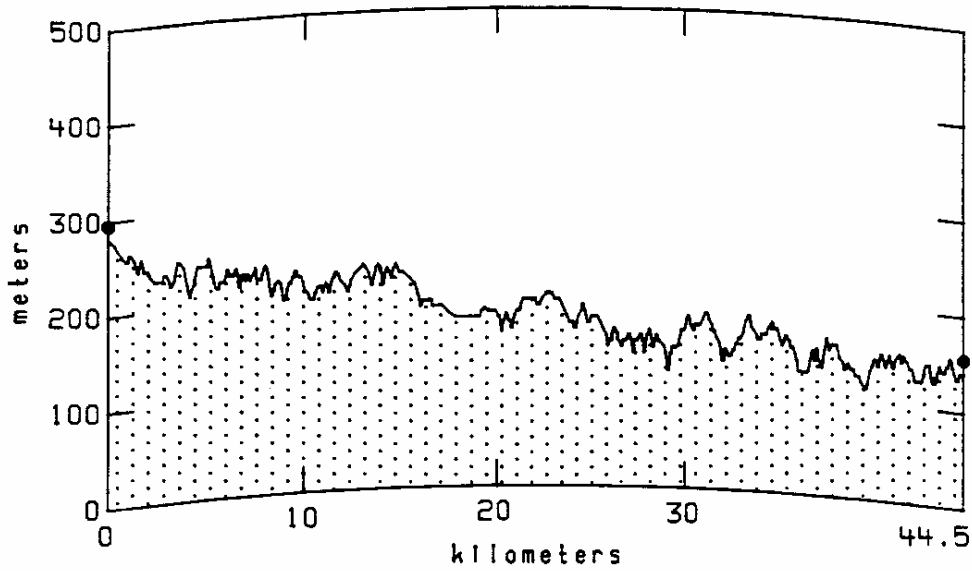
There are large trees about 500 m in front of the site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
11/11/66-van 2	130.3	148.0	162.7	173.7	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
11/11/66-van 2	143.6	-	-	Noise	Noise	Noise	Noise

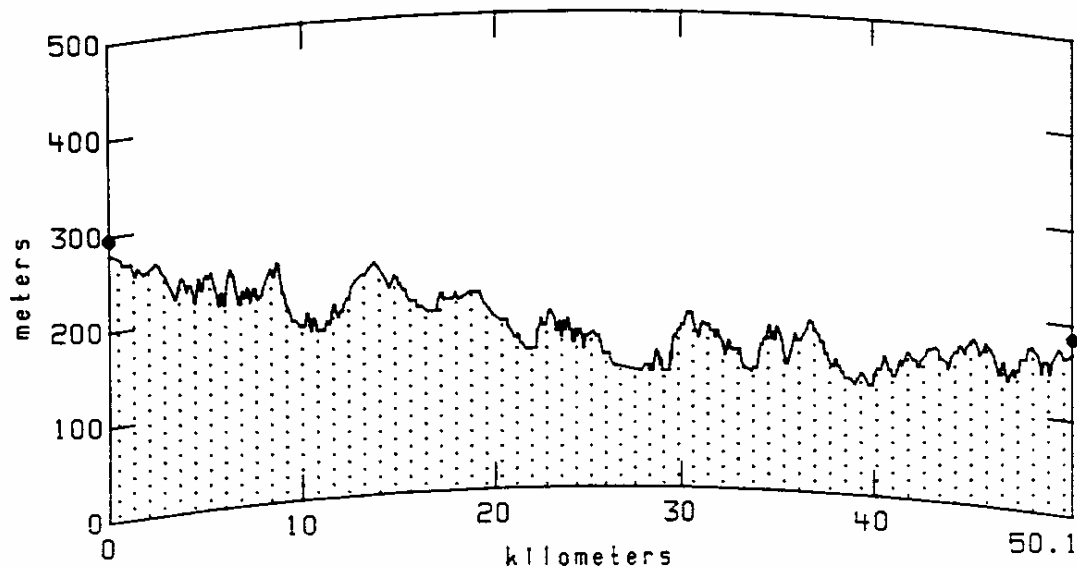
The site is obstructed by dense woods. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
10/05/66-van 1	127.9	139.7	142.9	150.3	166.5	181.0	193.3
Concealed:							
Rcvr hts, m	10.0	10.0	12.4	13.9	12.9	12.9	13.4
10/06/66-van 1	131.8	150.7	164.7	170.1	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
10/06/66-van 1	141.4	151.8	162.9	Noise	Noise	Noise	Noise

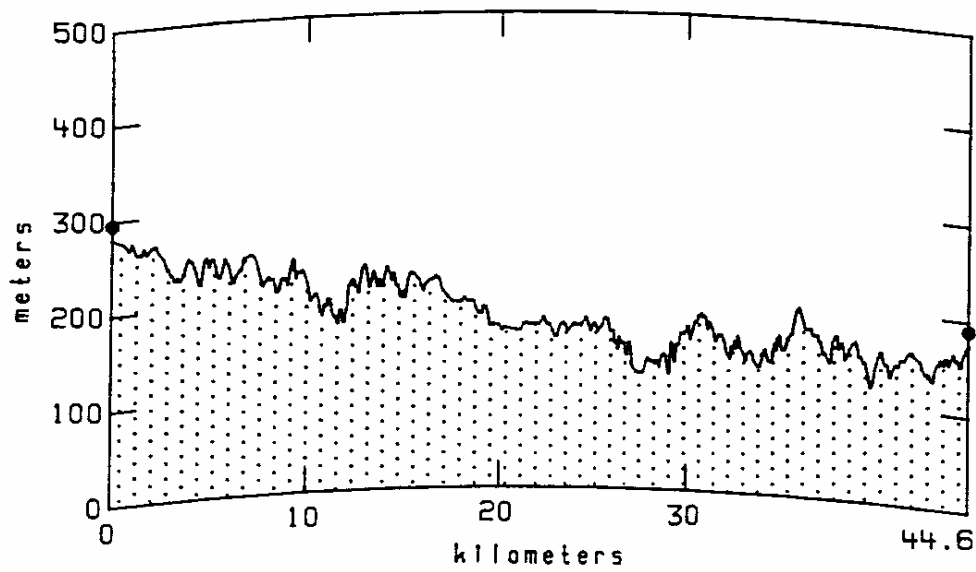
The site is in a pasture with a cornfield ahead and then large trees at about 300 m. The concealed position is behind some other large trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	14.0	11.7	11.7
10/06/66-van 2	129.8	149.5	151.7	168.2	190.4	198.9	Noise

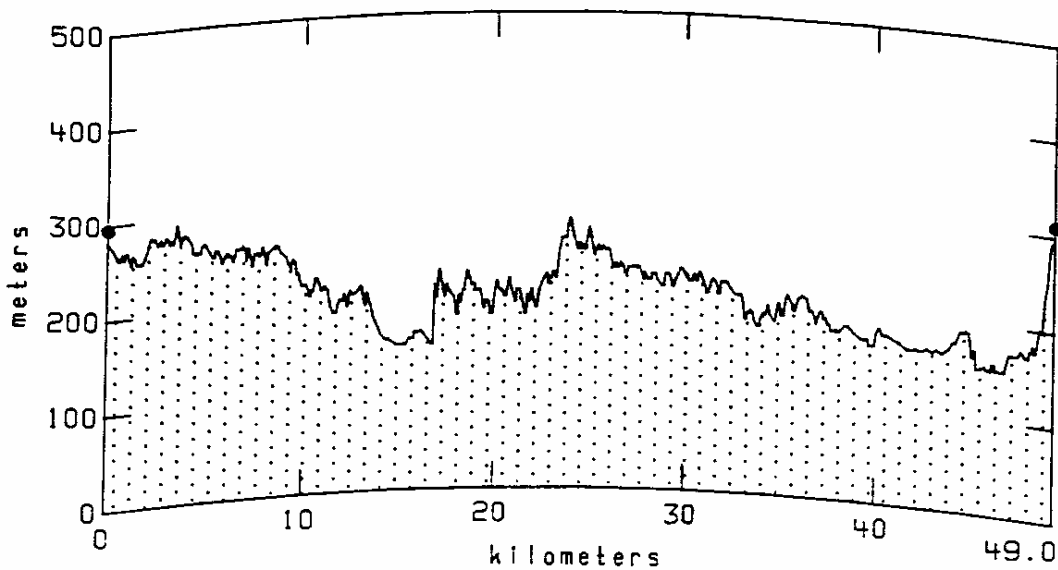
The site is in a large plowed field; there are large trees about 800 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	14.0	11.7	11.7
10/12/66-van 2	126.3	143.0	148.5	159.7	166.4	190.0	Noise

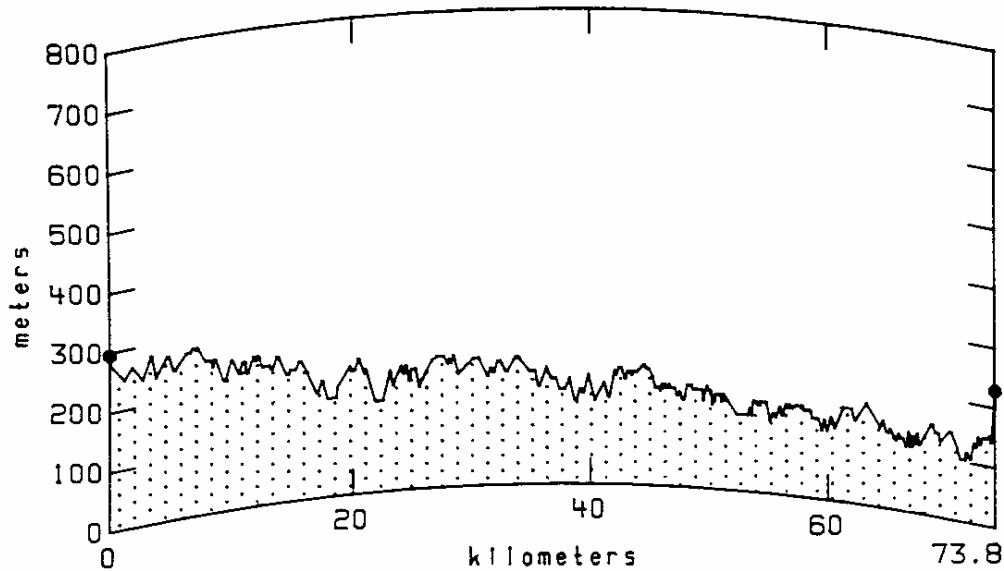
The site is in a field with low overgrowth and with large trees about 150 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	14.0	11.7	11.7
10/04/66-van 2	125.3	133.5	141.0	158.2	172.3	Noise	Noise
Concealed:							
Rcvr hts, m	10.0	10.0	12.4	13.9	12.9	12.9	13.4
10/31/66-van 1	118.9	143.5	142.1	156.4	169.0	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
11/01/66-van 1	129.9	139.8	159.4	172.3	Noise	Noise	Noise

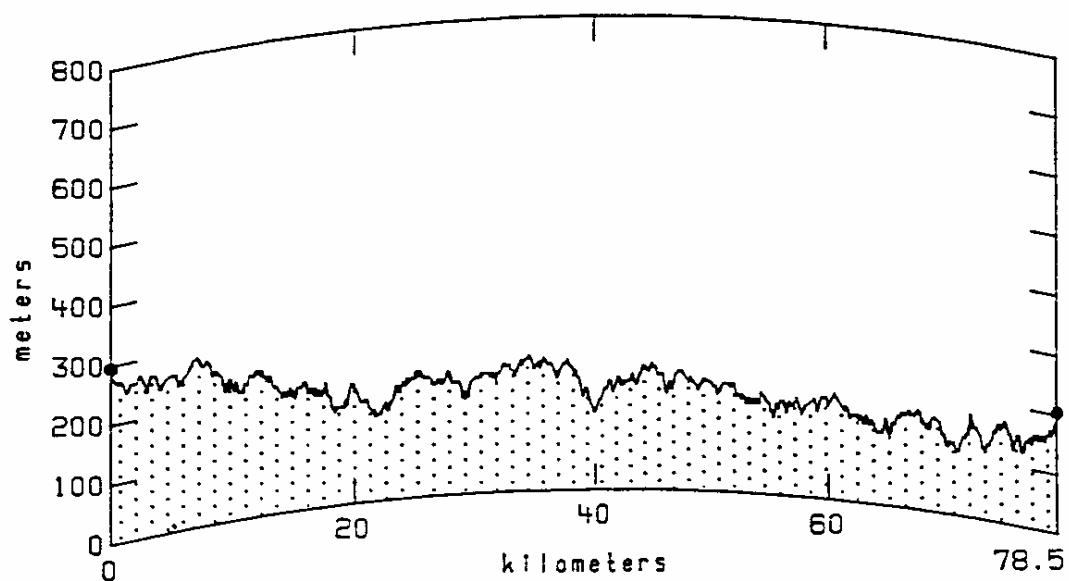
The site is in an open pasture about 150 m from large oak trees in the path. The concealed position is 10 m behind large oak trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
10/17/66-van 2	135.3	149.5	167.2	170.8	180.8	Noise	Noise
Concealed:							
Xmtr hts, m	13.3			10.0			
Rcvr hts, m	13.3	13.3	13.3	10.0	10.0	10.0	10.0
10/18/66-van 2	132.2	149.0	173.1	180.3	189.8	Noise	Noise
Xmtr hts, m	13.3			11.7			
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
10/18/66-van 2	149.1	159.9	163.2	188.6	195.7	Noise	Noise

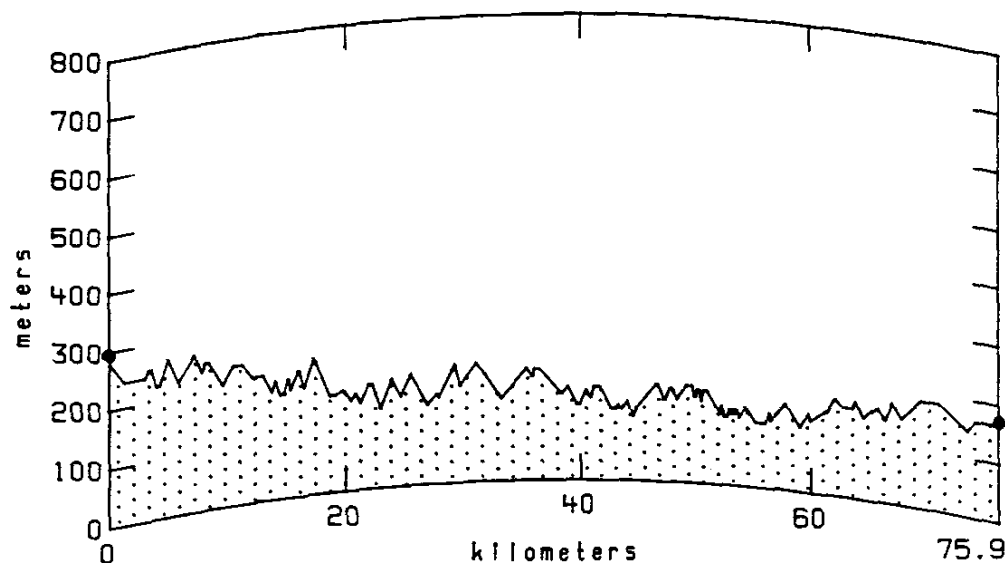
The site is on a mountain top and the path is clear all the way to the horizon. The concealed position is behind a dense grove of trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
11/08/66-van 2	132.3	160.0	177.6	185.8	Noise	Noise	Noise
Concealed:							
11/09/66-van 2	141.8	158.0	169.6	186.8	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
11/09/66-van 2	158.6	169.9	176.7	Noise	Noise	Noise	Noise

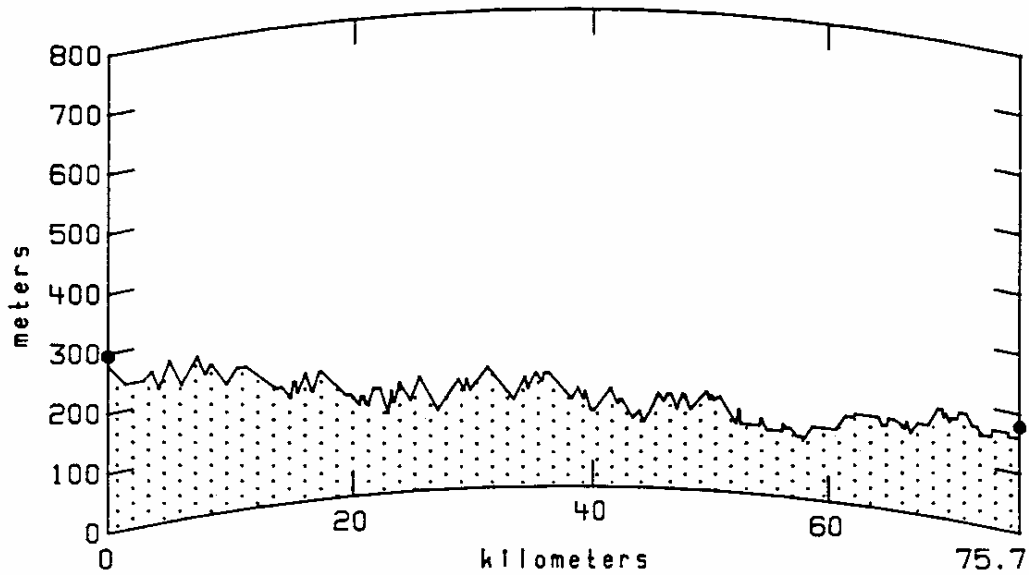
The site is in a church parking lot. A small cemetery is in the foreground and large pines stand 200 m ahead. The concealed position is about 15 m behind large oak trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	13.3	13.3	13.3	10.0	10.0	10.0	10.0
10/21/66-van 2	139.3	164.9	180.6	Noise	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
10/21/66-van 2	154.6	169.9	182.2	Noise	Noise	Noise	Noise

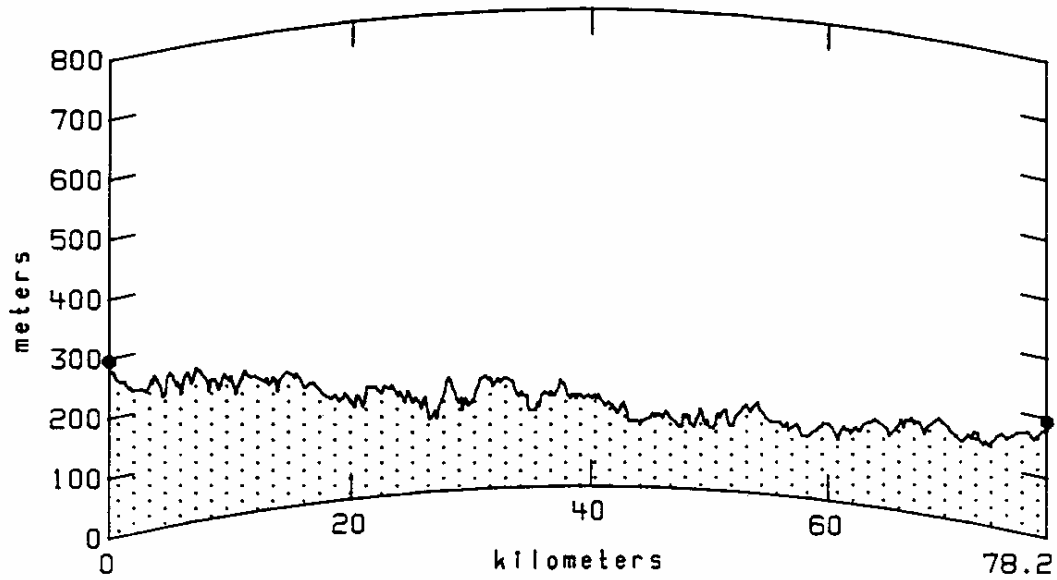
The site is behind a densely wooded area 15 m from the antennas. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	13.3	13.3	13.3	10.0	10.0	10.0	10.0
10/20/66-van 2	141.8	164.0	175.6	185.8	Noise	Noise	Noise

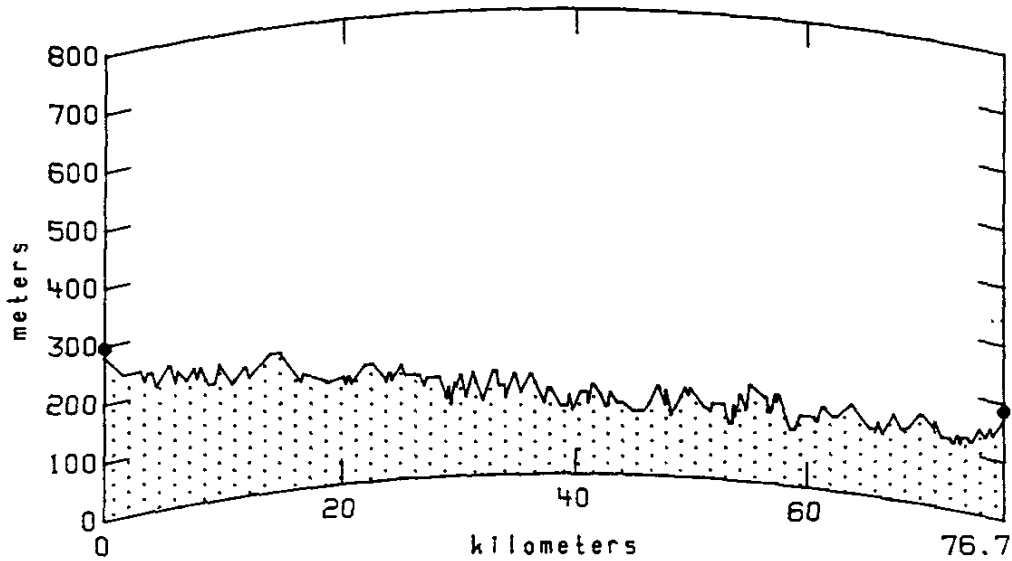
The site is on the edge of a rural road; the path crosses a plowed field before reaching trees 500 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
10/24/66-van 2	137.2	159.0	166.6	171.8	187.3	Noise	Noise

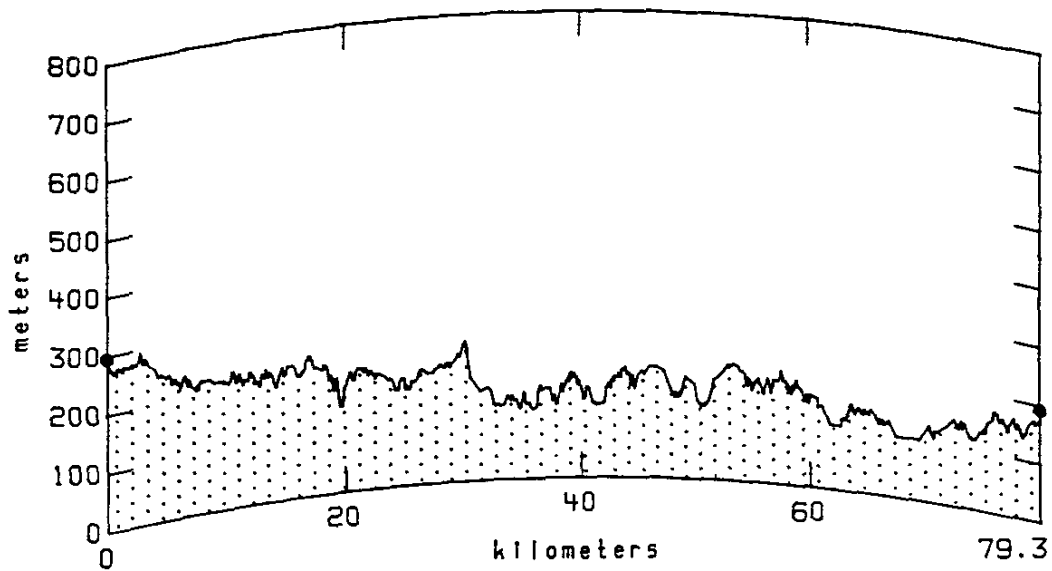
The site is in a pasture; there are large trees below the horizon at 1000 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
10/25/66-van 2	133.3	149.0	161.1	178.8	184.6	Noise	Noise
Concealed:							
Rcvr hts, m	13.3	13.3	13.3	10.0	10.0	10.0	10.0
10/26/66-van 2	134.3	155.0	168.6	179.8	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
10/26/66-van 2	151.1	162.4	168.2	184.6	Noise	Noise	Noise

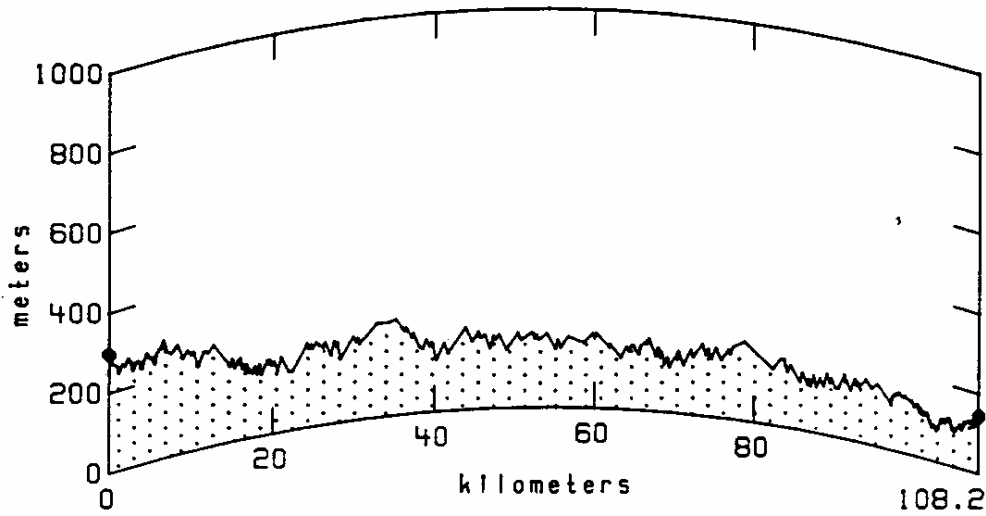
The open position has telephone and power lines across the path at 150 m. The concealed position is behind oak trees 15 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
10/29/66-van 2	140.3	159.0	178.6	179.8	Noise	Noise	Noise

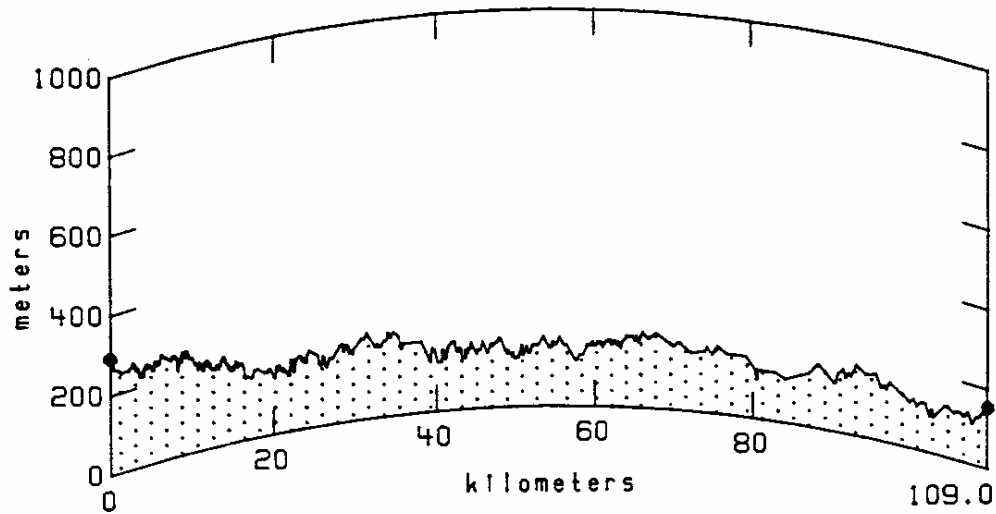
The site is in an open pasture with large trees 600 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
11/07/66-van 2	154.8	173.0	185.6	Noise	Noise	Noise	Noise

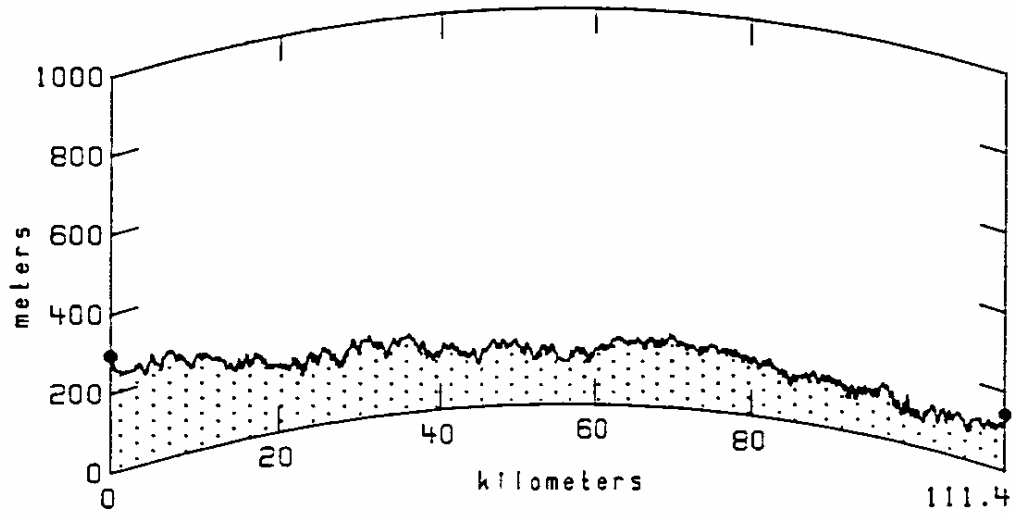
The site is in an open field with a telephone line 30 m ahead and power lines at 300 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	13.3	13.3	13.3	10.0	10.0	10.0	10.0
11/03/66-van 2	156.3	175.0	186.0	Noise	Noise	Noise	Noise
Concealed:							
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
11/04/66-van 2	154.0	175.0	191.0	Noise	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
11/04/66-van 2	179.6	183.9	198.2	Noise	Noise	Noise	Noise

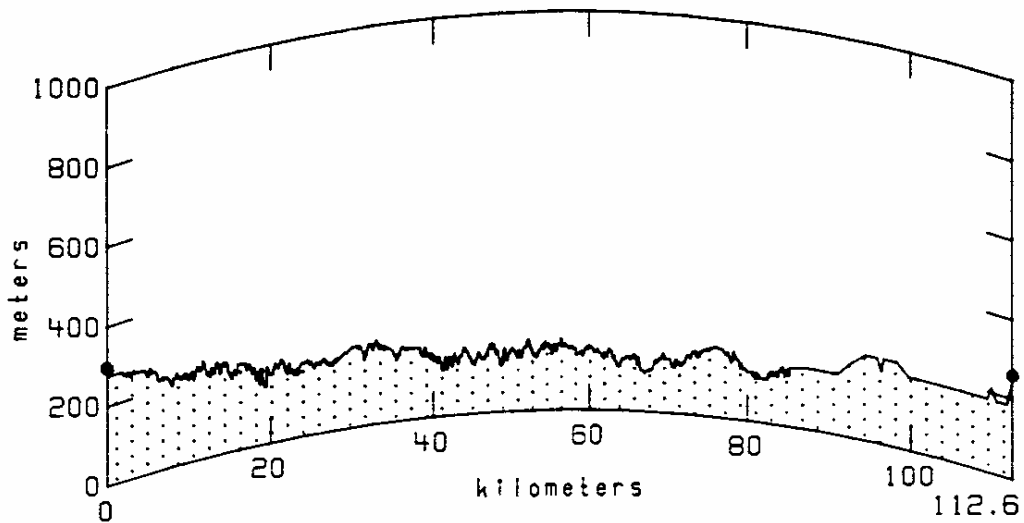
The site is in an open field; there are large trees 800 m ahead. The concealed position is 15 m behind large oak trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
11/02/66-van 2	153.3	172.0	185.6	185.8	191.3	Noise	Noise

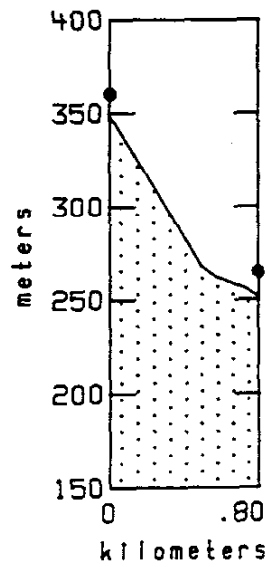
The site is in an open area; there are telephone lines at 50 m and trees at 600 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
10/31/66-van 2	156.3	167.9	Noise	Noise	Noise	Noise	Noise
Concealed:							
Rcvr hts, m	13.3	13.3	13.3	10.0	10.0	10.0	10.0
11/01/66-van 2	152.3	170.0	190.6	Noise	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
11/01/66-van 2	166.6	174.9	191.2	Noise	Noise	Noise	Noise

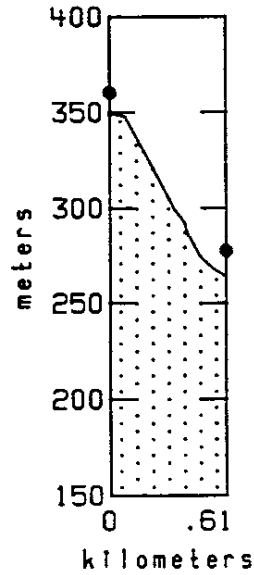
The site is on a hill top and the path is clear to the horizon. The concealed position has large trees surrounding the antennas.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
11/18/66-van 1	67.9	77.8	102.7	132.4	125.7	161.2	-

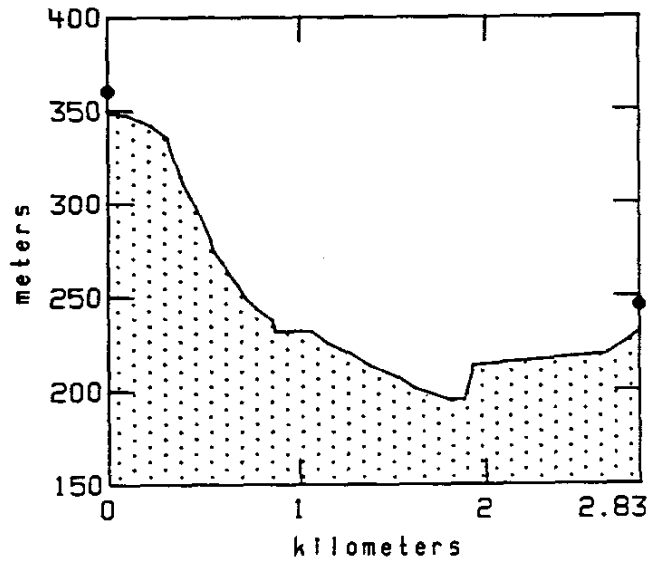
The receiving site is in an open field. Recall that the transmitting site is concealed.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
11/23/66-van 1	80.9	87.8	100.7	117.9	140.7	-	-

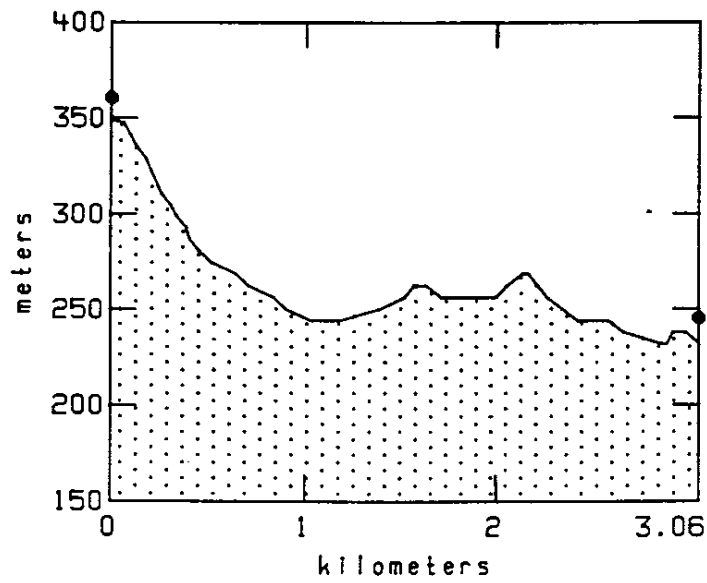
The site is semi-open with a few trees in the foreground. There are no good open sites in the region.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
11/21/66-van 1	77.9	97.9	103.2	123.8	129.7	142.7	-

There are low trees and telephone lines in the foreground.



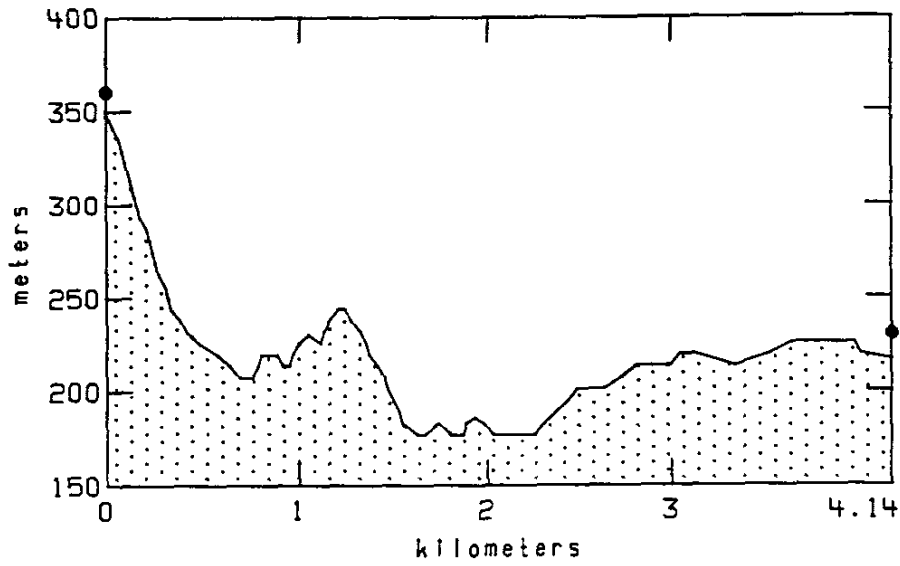
Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
11/22/66-van 1	77.9	83.3	98.2	121.4	128.7	141.2	-

There are power lines in front of the antennas.

T2-5-R1

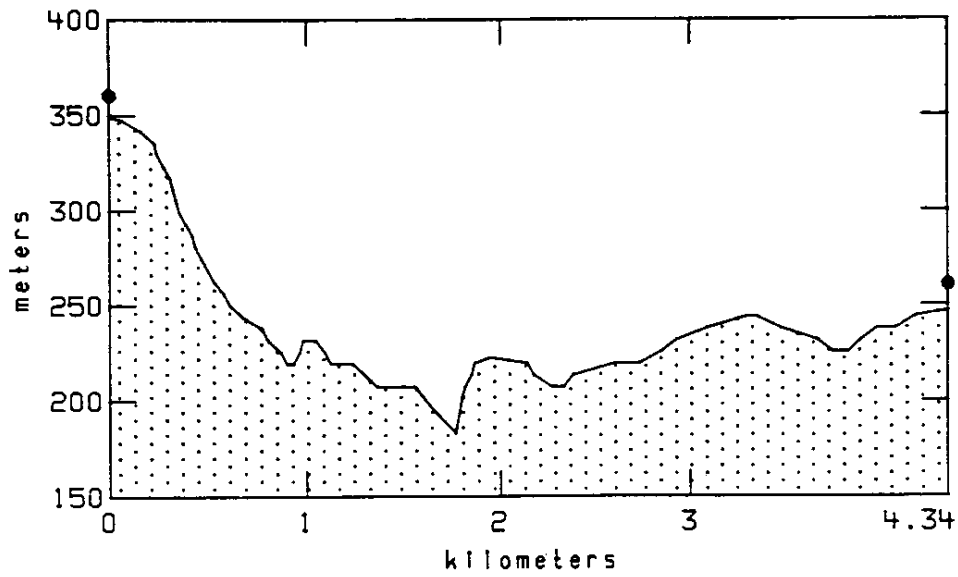
Path length, 4.14 km



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
11/28/66-van 1	75.9	100.8	100.7	124.4	156.7	-	-

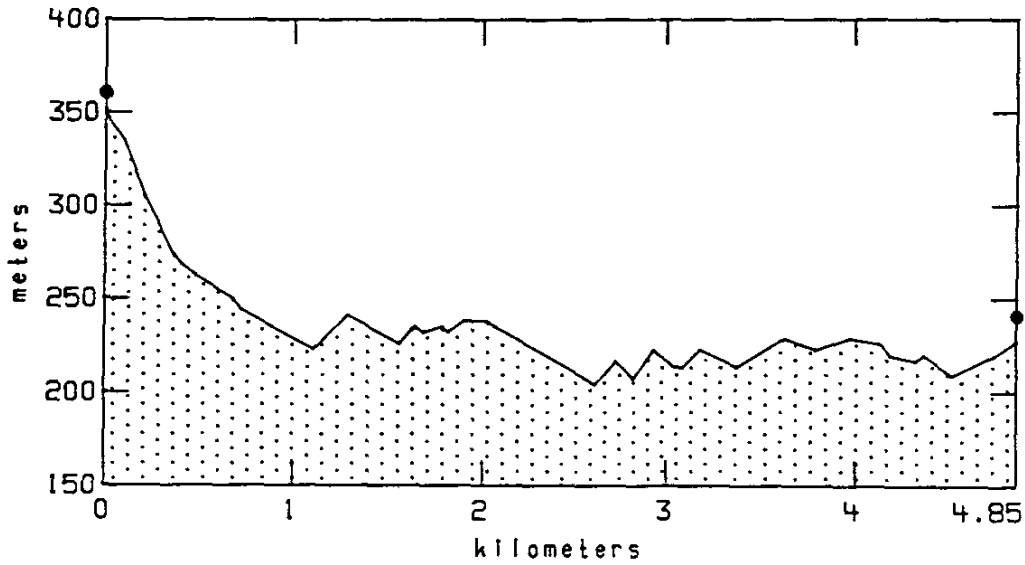
The site is clear with the transmitting site in view.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
12/01/66-van 1	77.4	99.3	104.2	131.1	140.8	154.2	171.8

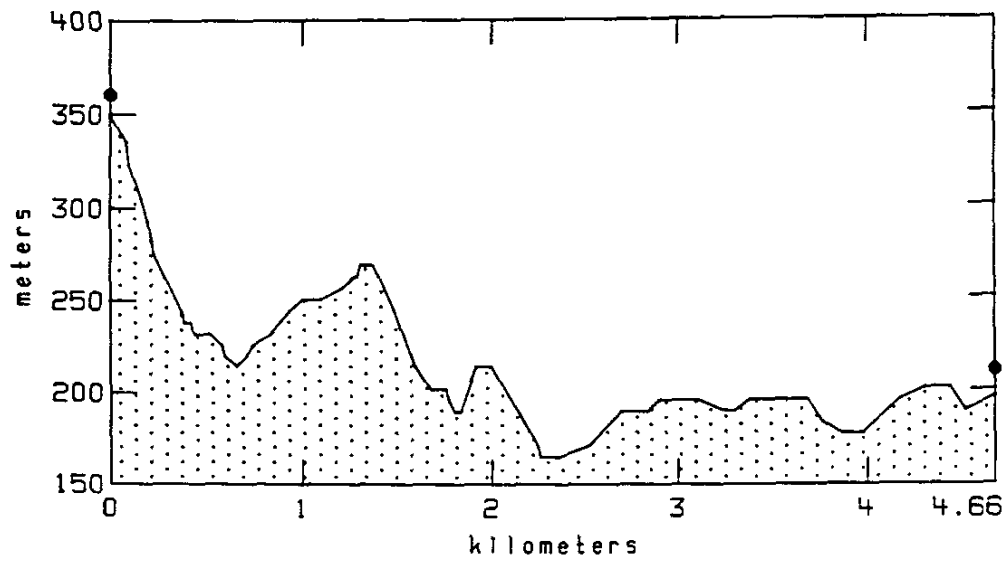
The site is in the clear and the transmitting site is in view.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
12/16/66-van 1	79.9	89.3	101.7	111.2	133.2	143.2	-

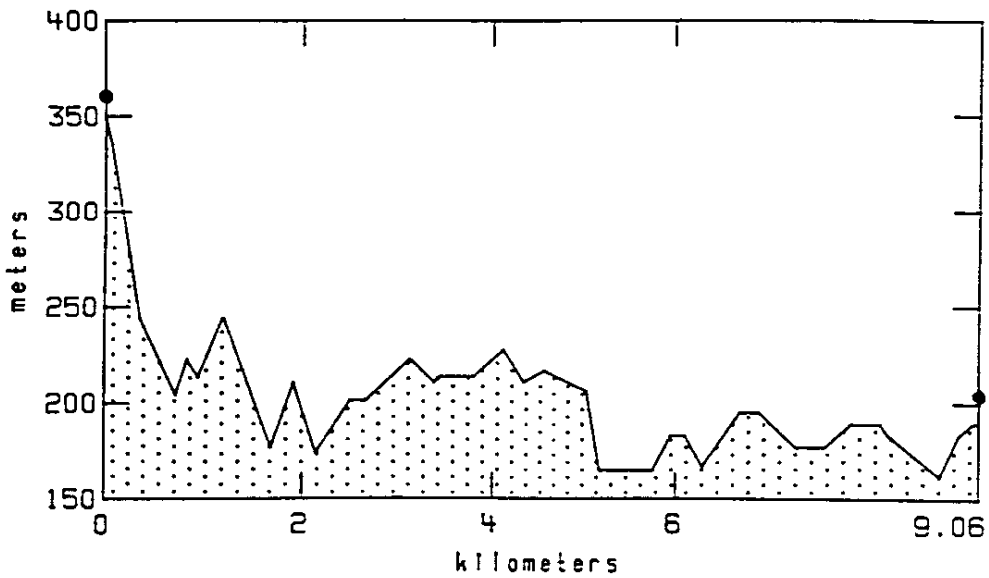
The site is clear. There are telephone lines and power lines 8 m in front of, but below, the antennas. Low trees are about 500 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
11/30/66-van 1	78.9	91.8	102.7	136.1	129.3	Noise	178.8

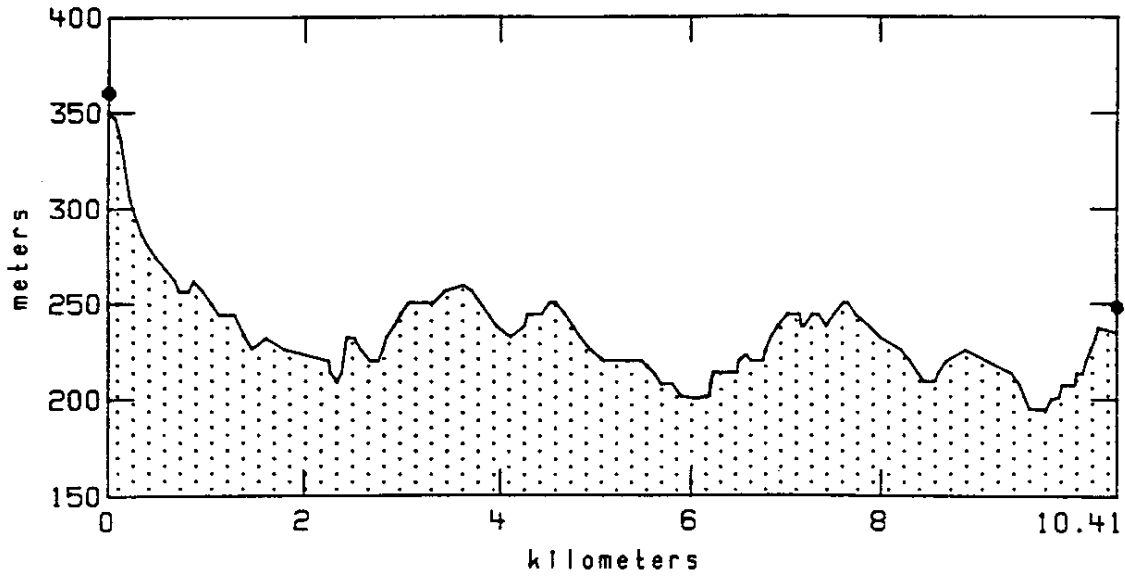
The site is in a field. There are a tin-roofed house and power lines ahead, both below antenna levels.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
12/05/66-van 1	85.1	102.8	111.2	137.6	152.8	165.7	172.3

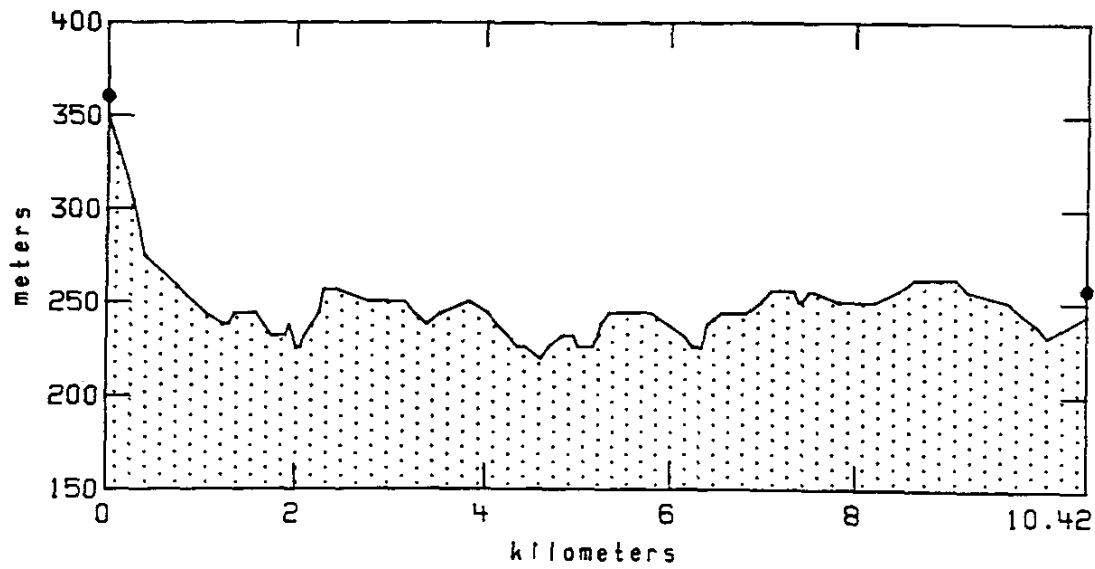
The site is in a pasture with low trees about 6 m ahead but below antenna levels.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
12/02/66-van 1	85.9	103.3	113.7	127.6	149.3	142.7	160.8

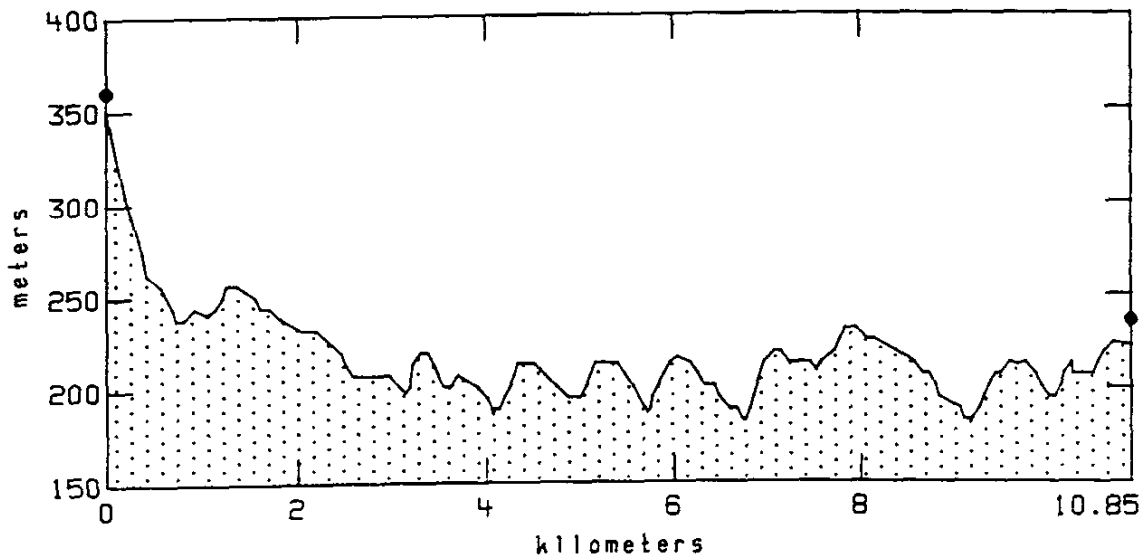
The site is a pasture. There are no obstructions.



Basic Transmission Loss, L_b (dB)

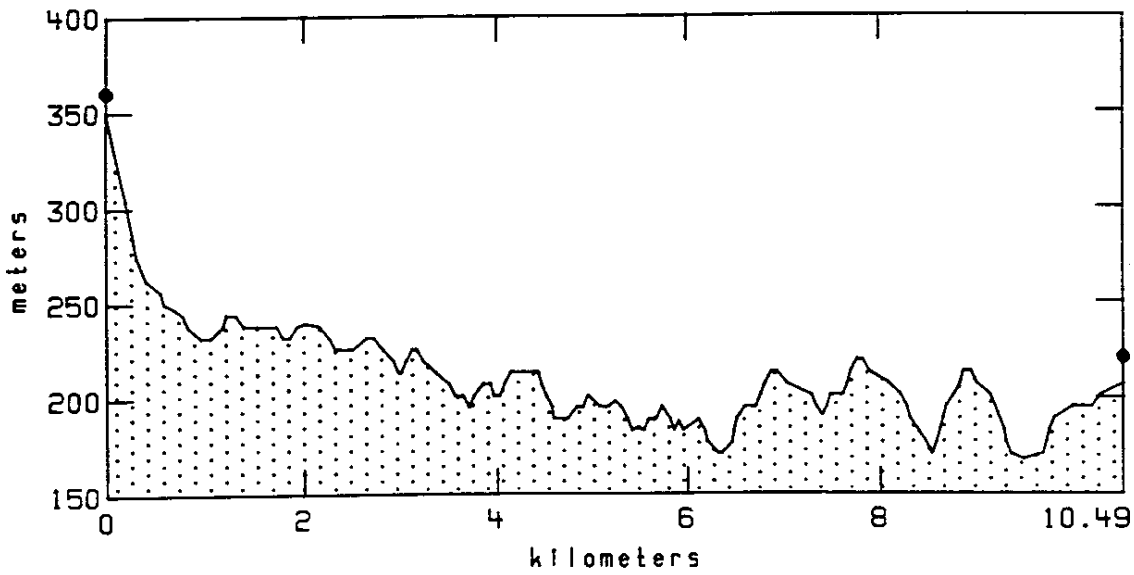
freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
12/02/66-van 1	94.9	108.8	120.7	132.6	151.3	164.7	Noise

Although the site is clear, there is a water tower about 150 m ahead.

Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
12/06/66-van 1	89.6	93.3	109.2	119.6	137.4	152.2	149.8

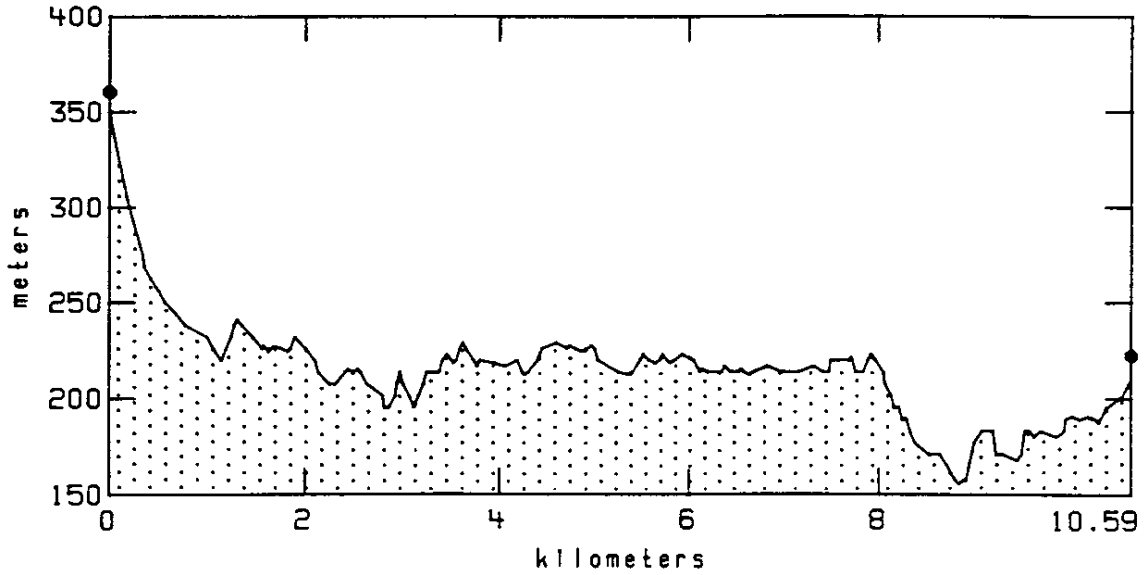
The site is aside a rural road. A plowed field stretches 450 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
12/06/66-van 1	79.6	106.8	108.2	124.9	139.6	141.8	150.8

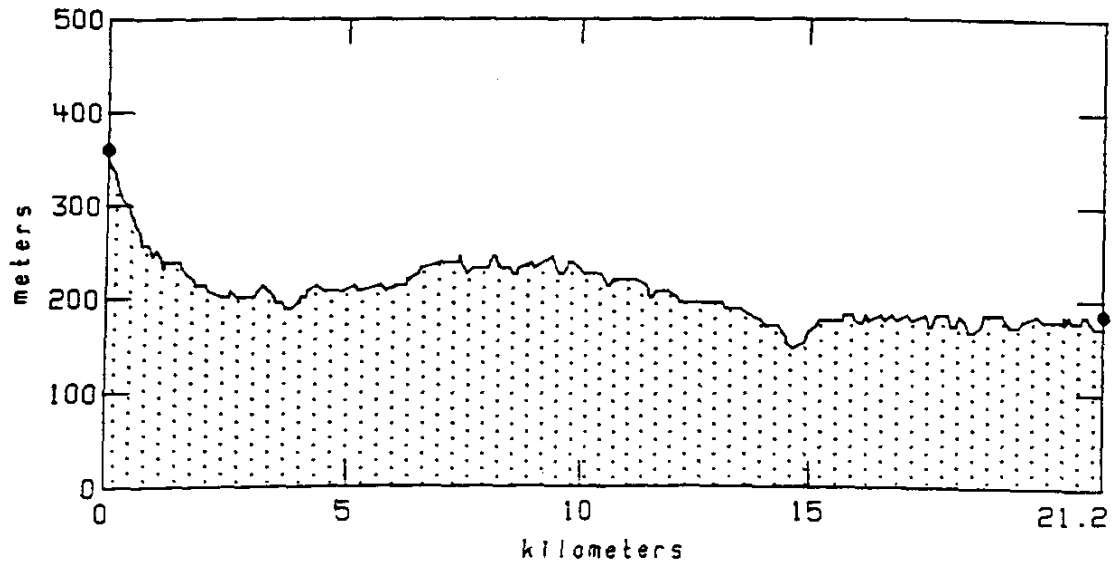
The site is on a clear hill in a pasture. The transmitter site is visible.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
11/29/66-van 1	80.9	101.8	109.2	139.4	151.7	Noise	Noise

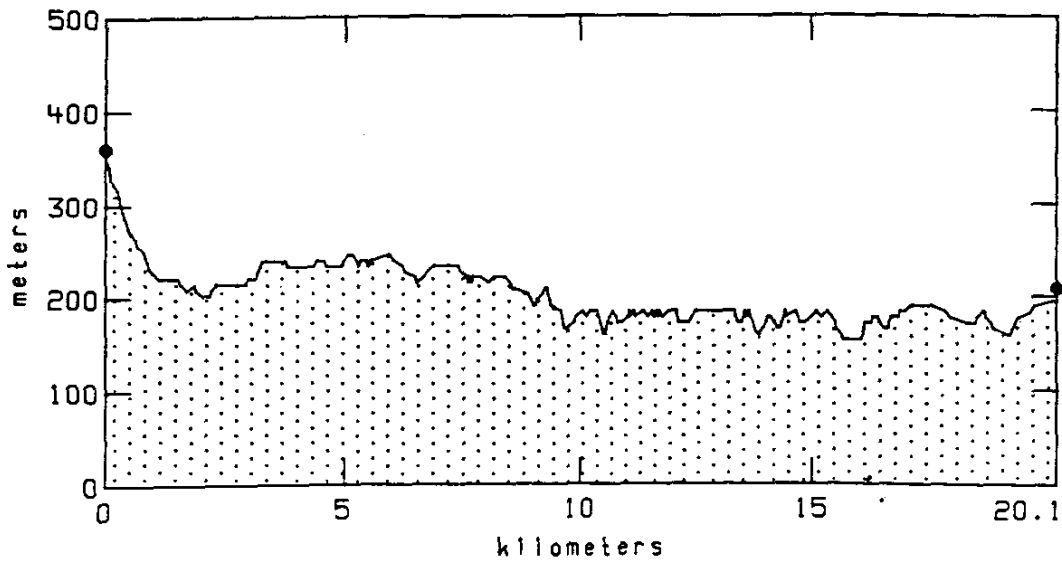
The site is in a clearing. There are trees below antenna levels about 150 m ahead. The transmitter site is visible.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
12/15/66-van 1	97.5	113.8	123.7	156.6	161.0	167.2	168.4

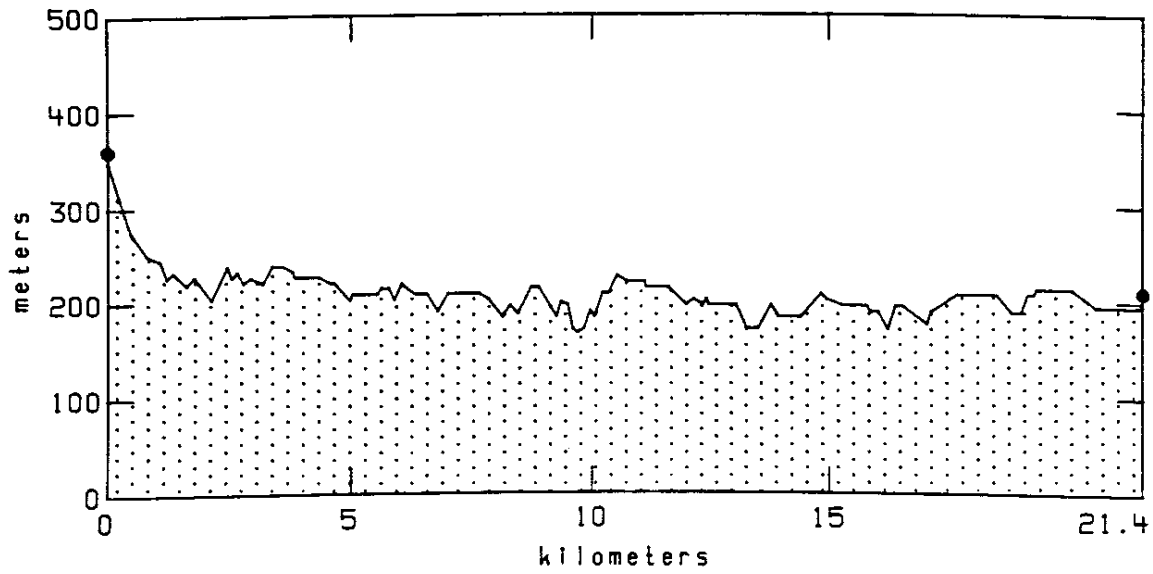
The site is in a pasture. There are 6-m high trees about 150 m in front.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
12/14/66-van 1	90.5	105.8	117.2	126.8	143.0	148.3	152.4

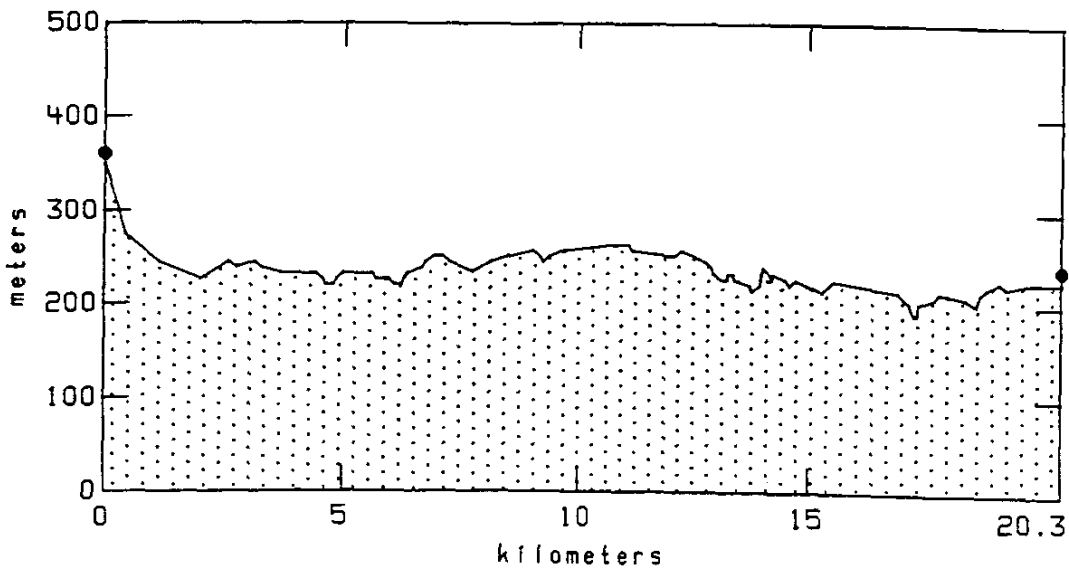
The site is at the side of a rural road. The path is clear to the horizon with telephone and power lines below antenna levels about 15 m in front.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
12/14/66-van 1	102.0	106.8	115.7	133.8	151.5	167.7	165.4

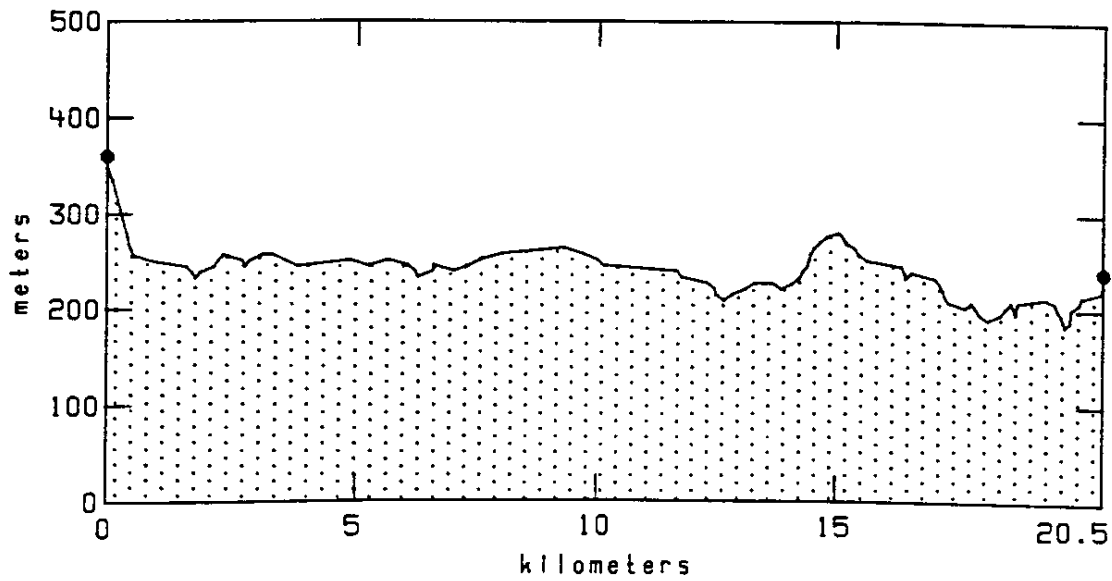
The site is in a pasture and has an unobstructed view of the horizon.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
12/16/66-van 1	104.5	113.3	126.2	136.2	143.5	147.6	156.8
Concealed:							
Rcvr hts, m	10.0	10.0	11.4	12.9	11.9	11.9	12.4
12/19/66-van 1	105.5	113.3	122.7	137.7	144.5	150.6	169.5
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
12/19/66-van 1	123.5	124.3	127.4	138.8	150.8	164.0	164.9

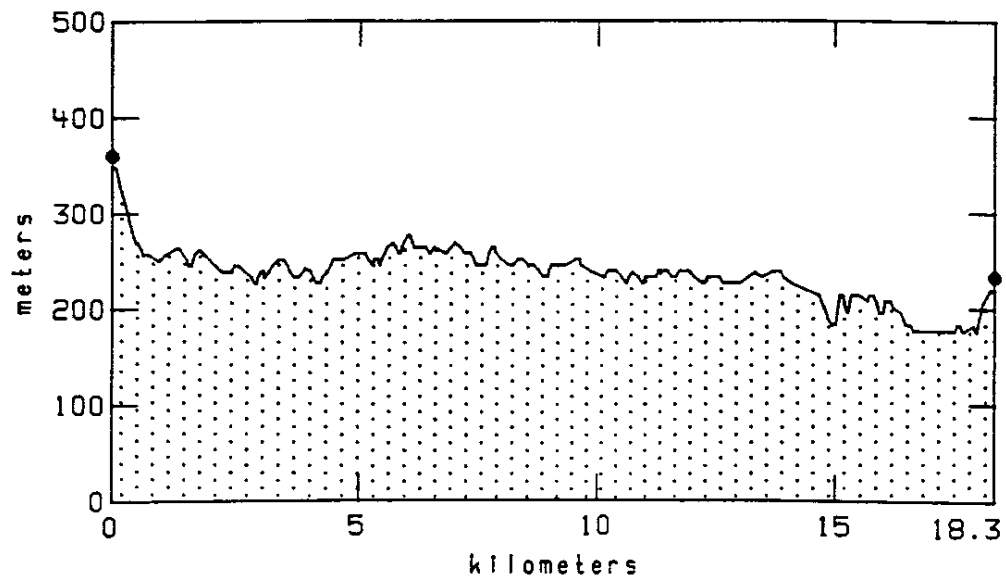
The site is at the edge of a church parking lot and has a clear view towards the transmitter. The concealed position is at the other side of the parking lot where there are large oak trees to obstruct the view.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/03/67-van 1	110.0	121.2	129.6	148.9	160.8	180.5	174.7
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1/03/67-van 1	122.0	120.3	133.4	160.8	168.8	Noise	Noise

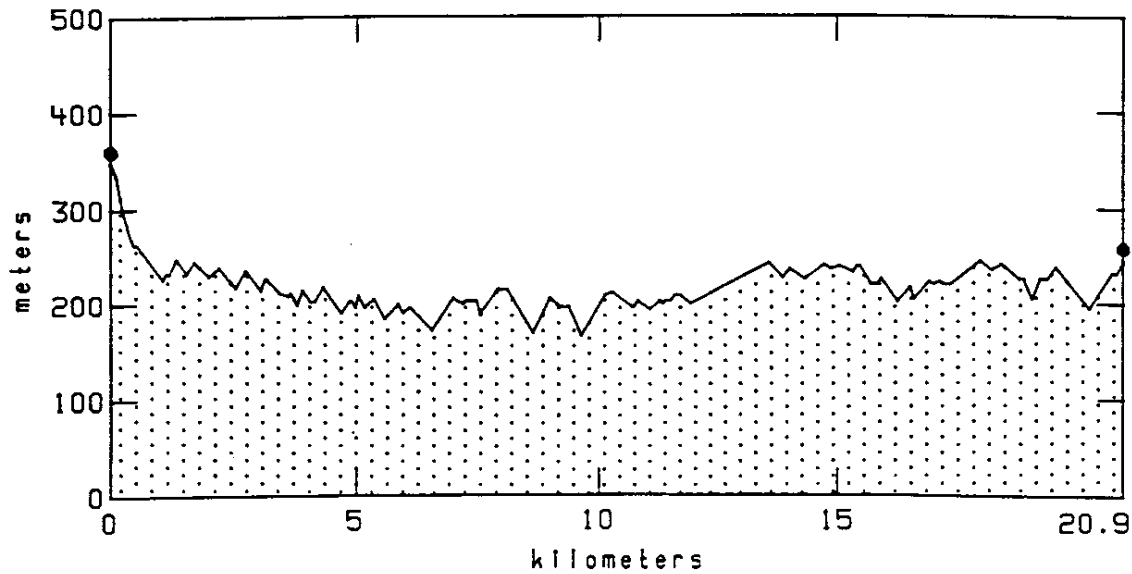
The site is in a church parking lot behind a large oak tree. There are more oak trees, 15 m high, about 120 m in front of the antennas. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
12/09/66-van 1	101.6	105.8	121.7	134.1	145.3	146.7	154.8

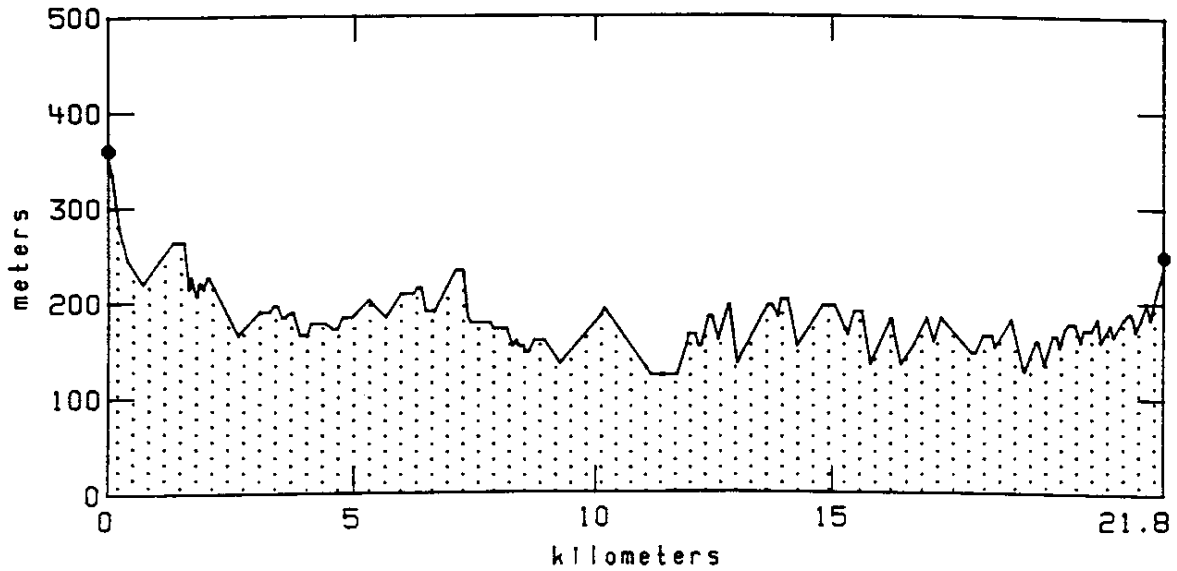
The site is in a farm pasture and has a clear view of the horizon.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
12/12/66-van 1	95.0	110.8	115.7	130.1	141.3	149.7	153.3
Concealed:							
Rcvr hts, m	10.0	10.0	11.4	12.9	11.9	11.9	12.4
12/13/66-van 1	96.5	117.8	120.7	127.3	139.2	139.7	152.9
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
12/12/66-van 1	102.5	117.3	122.9	133.8	151.3	169.0	173.3

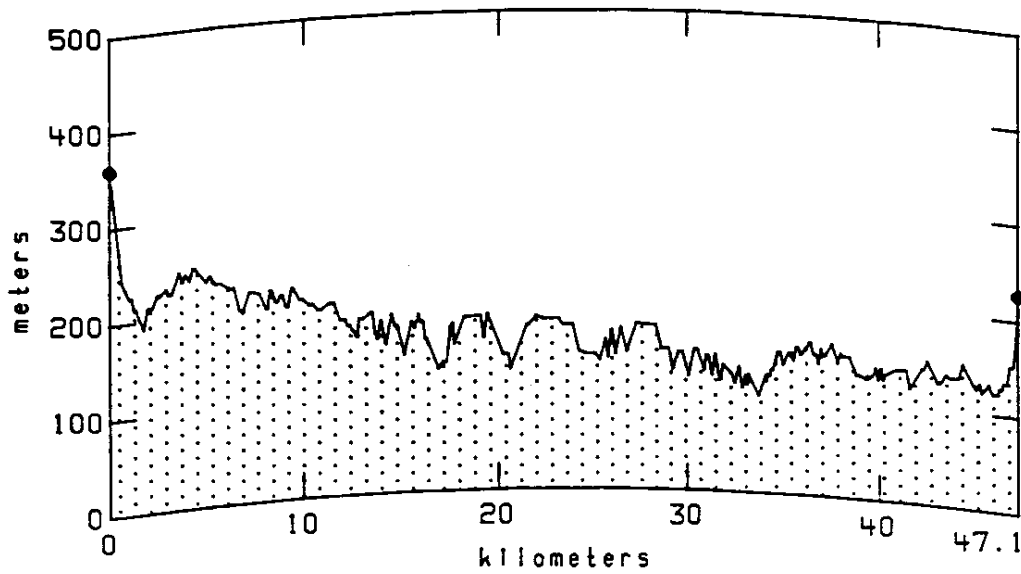
The site is on a rural road; it has a clear view through an opening in some trees. The concealed position is 5 m behind dense pine trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	10.0	10.0	11.4	12.9	11.9	11.9	12.4
12/07/66-van 1	88.0	101.8	117.2	129.1	142.8	145.2	150.8
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
12/08/66-van 1	88.5	105.3	115.4	134.3	145.8	156.0	156.5

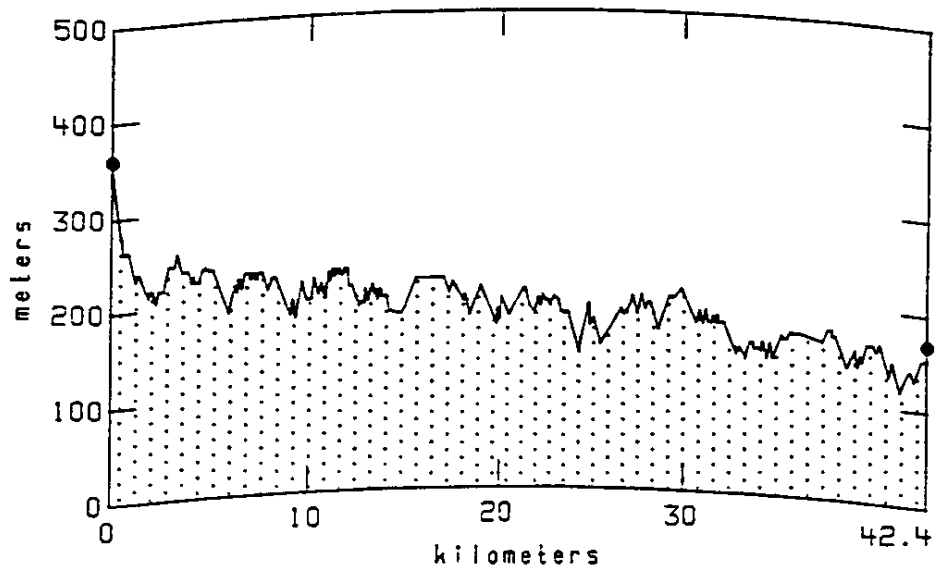
The site is on a mountain ridge and concealed by trees 15 m in front of the antennas. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
12/20/66-van 1	108.5	108.2	120.1	137.7	148.5	154.6	168.8
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
12/20/66-van 1	109.0	120.0	125.0	143.8	162.3	161.0	168.8

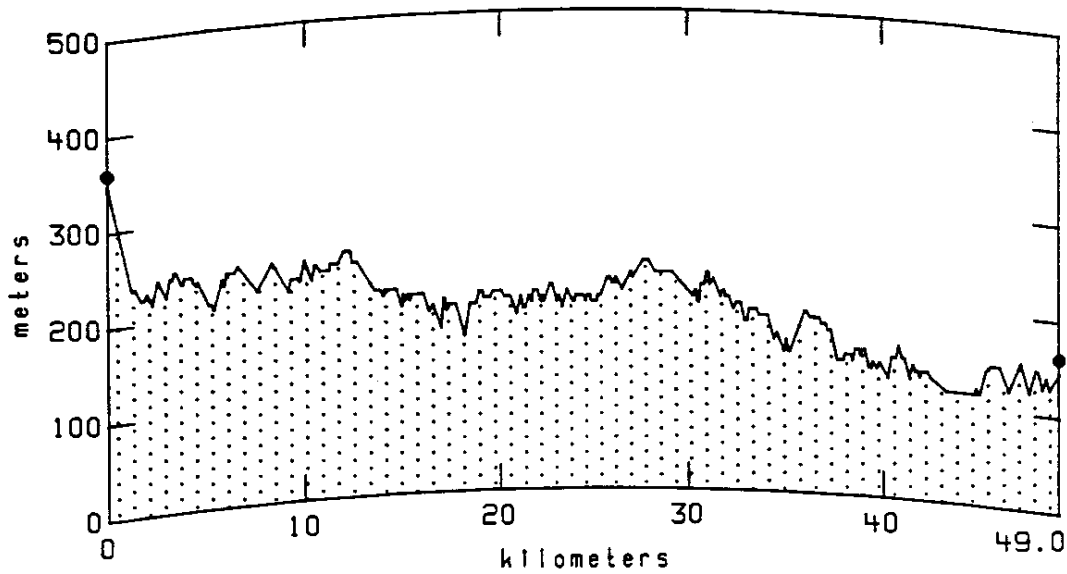
The site is concealed by dense woods. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
12/22/66-van 1	112.0	128.7	131.1	154.4	169.3	Noise	Noise
Concealed:							
Rcvr hts, m	10.0	10.0	11.4	12.9	11.4	11.4	12.4
12/23/66-van 1	115.7	125.7	140.9	156.2	168.6	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
12/23/66-van 1	124.5	138.3	148.5	165.3	183.8	Noise	Noise

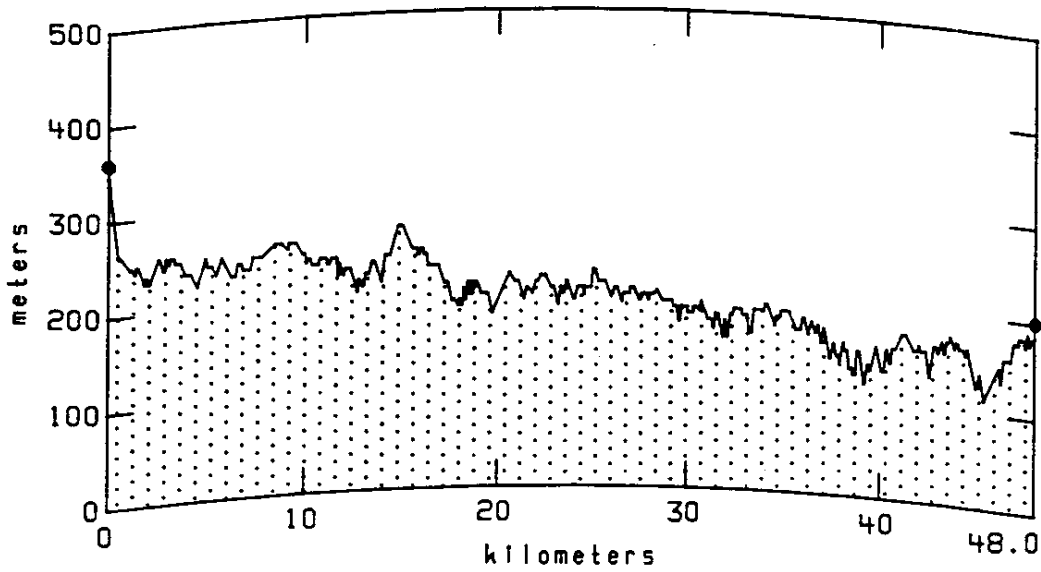
The site is in a pasture and has an unobstructed view of the horizon. The concealed position is behind a dense wood.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
12/23/66-van 2	119.9	131.5	142.7	155.0	175.2	Noise	Noise
Concealed:							
Rcvr hts, m	13.3	13.3	13.3	10.0	10.0	10.0	10.0
12/22/66-van 2	119.9	137.0	144.7	160.7	178.1	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
12/22/66-van 2	148.2	132.9	151.2	173.1	Noise	Noise	Noise

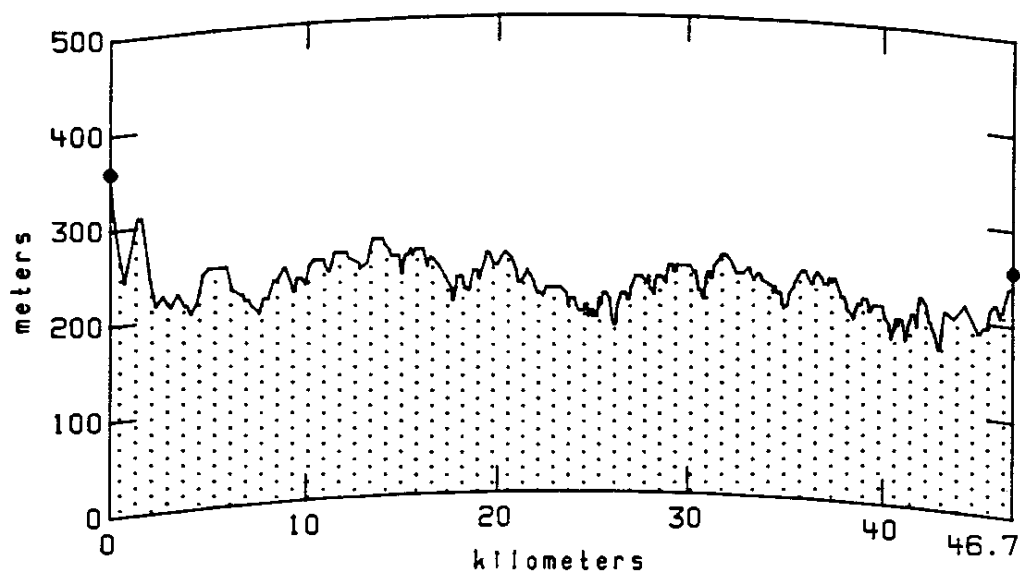
The site is in a church parking lot. There are telephone lines at 50 m and trees at 60 m. The concealed position is behind oak trees 15 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
12/09/66-van 2	123.4	126.0	148.6	154.0	155.3	174.9	181.5

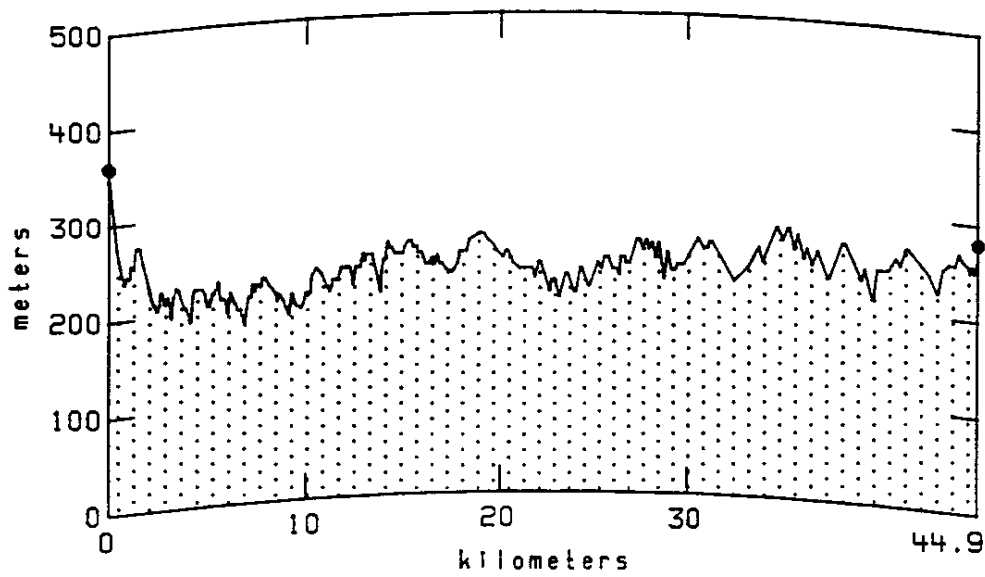
The site is in an open farm field. There is a wooden structure 15 m ahead to the right of the path.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
11/18/66-van 2	115.3	124.5	145.6	145.0	152.1	-	-

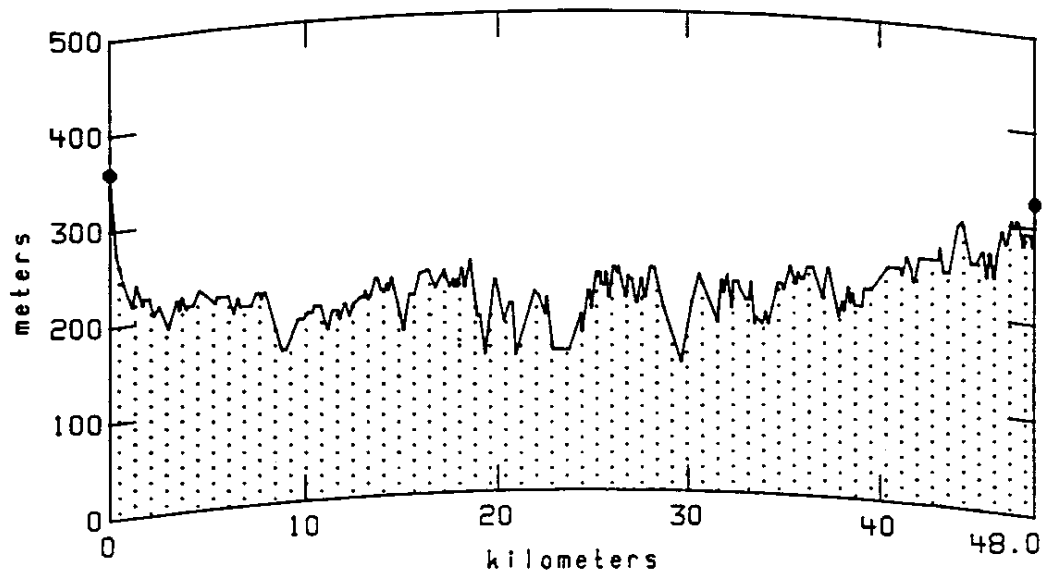
There are low trees about 25 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
12/06/66-van 2	111.9	130.5	149.1	147.0	161.6	175.4	185.5

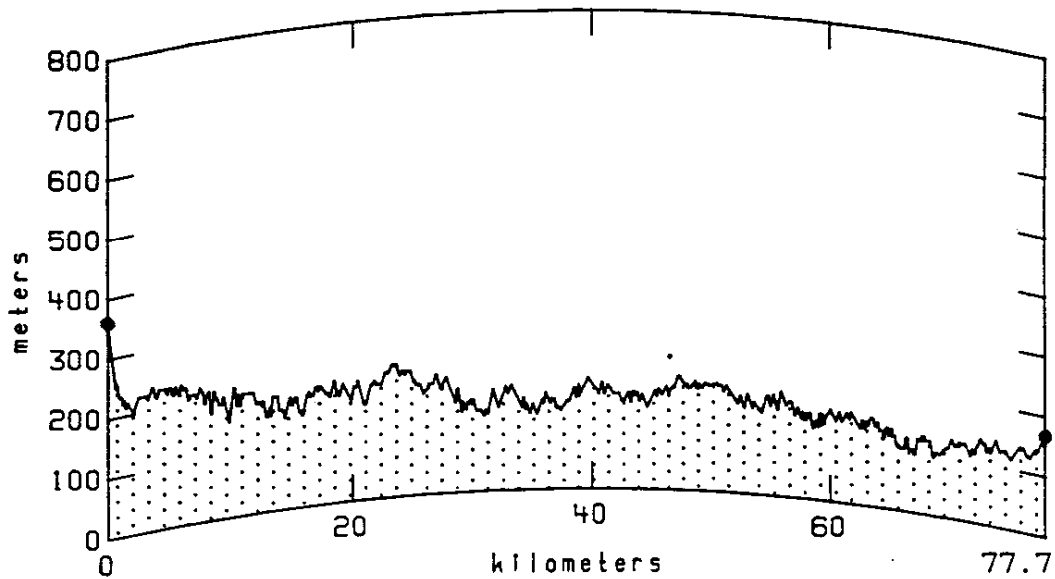
This site is in an open field. It has an unobstructed view of the horizon.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
12/07/66-van 2	110.9	120.0	137.6	140.5	154.1	173.9	177.5
Concealed:							
12/08/66-van 2	113.9	123.1	137.6	161.5	171.6	180.4	191.5
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
12/08/66-van 2	122.7	129.9	149.2	165.1	174.1	203.9	Noise

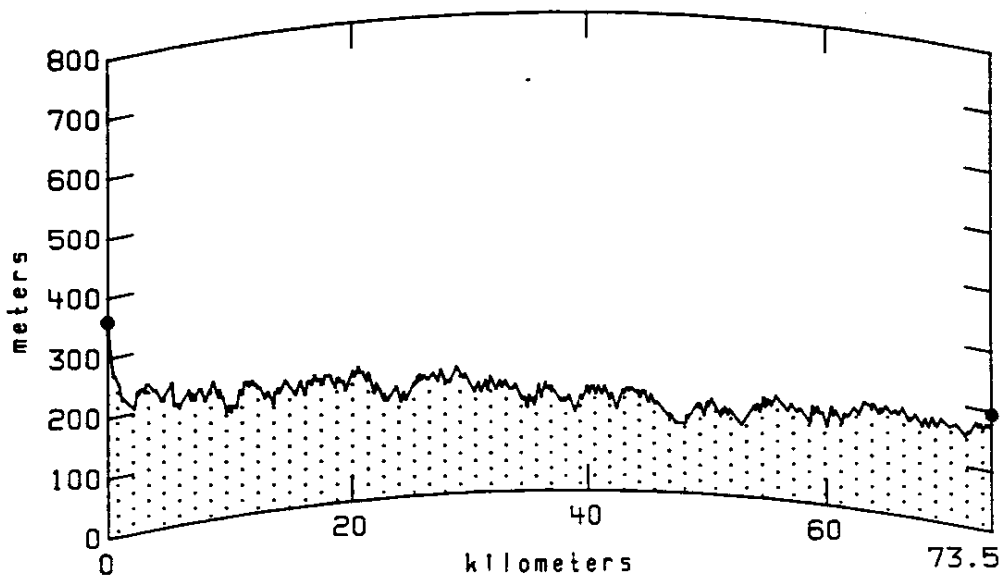
The site is in an open farm pasture with trees 500 m ahead. The concealed position is 10 m behind some trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
11/21/66-van 2	128.8	142.0	162.6	172.0	Noise	-	-
Concealed:							
11/22/66-van 2	129.3	142.5	169.6	187.0	Noise	-	-
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
11/22/66-van 2	142.6	146.9	159.6	Noise	Noise	-	-

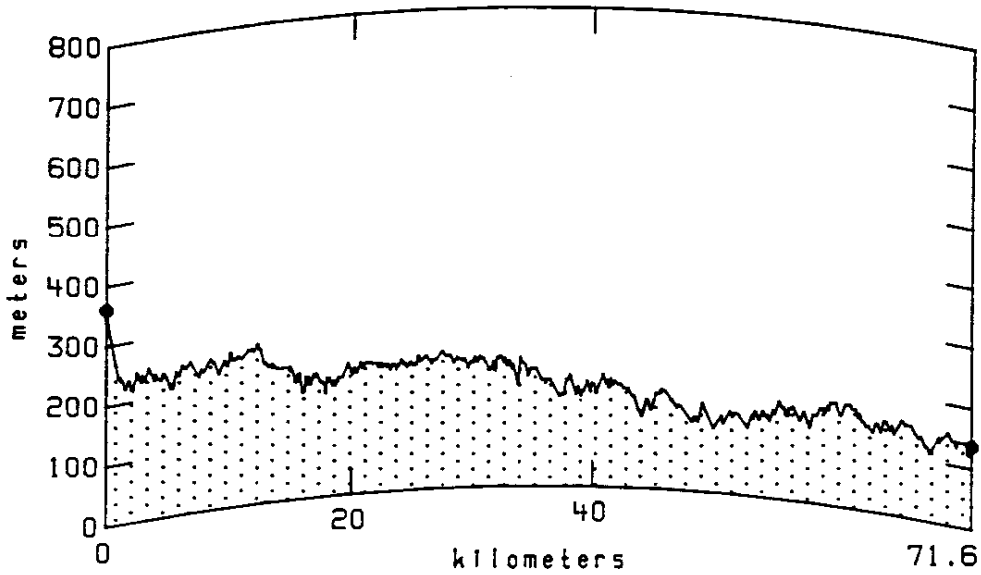
The site is in a church parking lot. The concealed position is 10 m behind some large oak trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
11/23/66-van 2	127.3	138.0	167.6	166.5	183.6	-	-

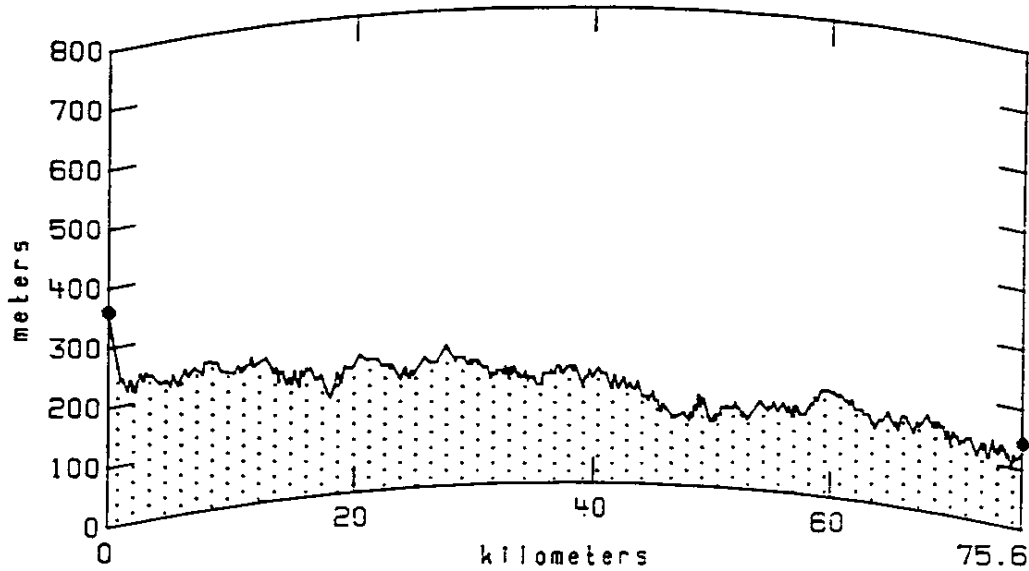
This site is in a farm pasture. There are power lines 75 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
11/30/66-van 2	129.3	137.9	163.1	176.5	177.1	Noise	Noise
Concealed:							
12/01/66-van 2	130.3	141.0	162.6	Noise	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
12/01/66-van 2	149.1	164.9	174.2	Noise	Noise	Noise	Noise

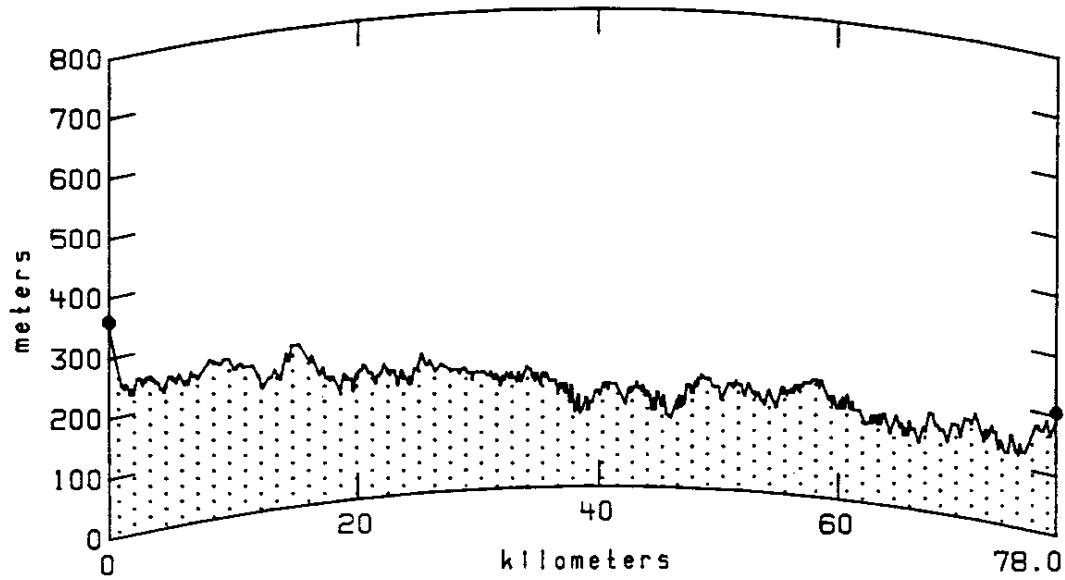
The site is in a church parking lot; it has an unobstructed view of the horizon. The concealed position is 15 m behind large oak trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
11/29/66-van 2	131.8	137.5	155.1	173.0	171.1	182.9	199.5
Concealed:							
Rcvr hts, m	13.3	13.3	13.3	10.0	10.0	10.0	10.0
12/21/66-van 2	132.4	139.5	150.9	159.5	173.6	193.4	193.5
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
12/21/66-van 2	147.2	152.9	162.2	182.6	196.7	Noise	Noise

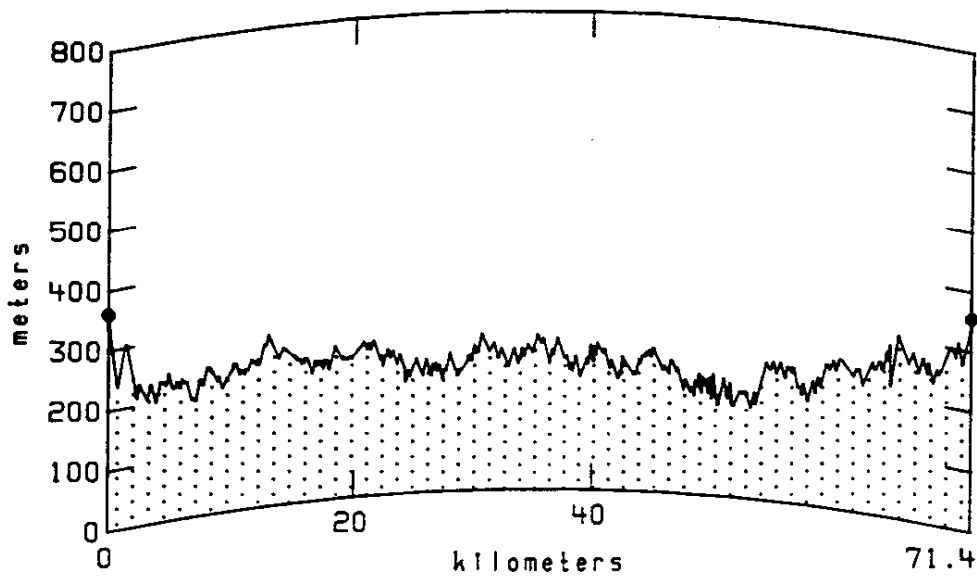
The site has a clear view of the horizon, except that there are power lines crossing the path 120 m ahead. The concealed position is 10 m behind a dense wood.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	13.3	13.3	13.3	10.0	10.0	10.0	10.0
11/23/66-van 2	132.8	146.5	169.6	167.5	175.2	-	-

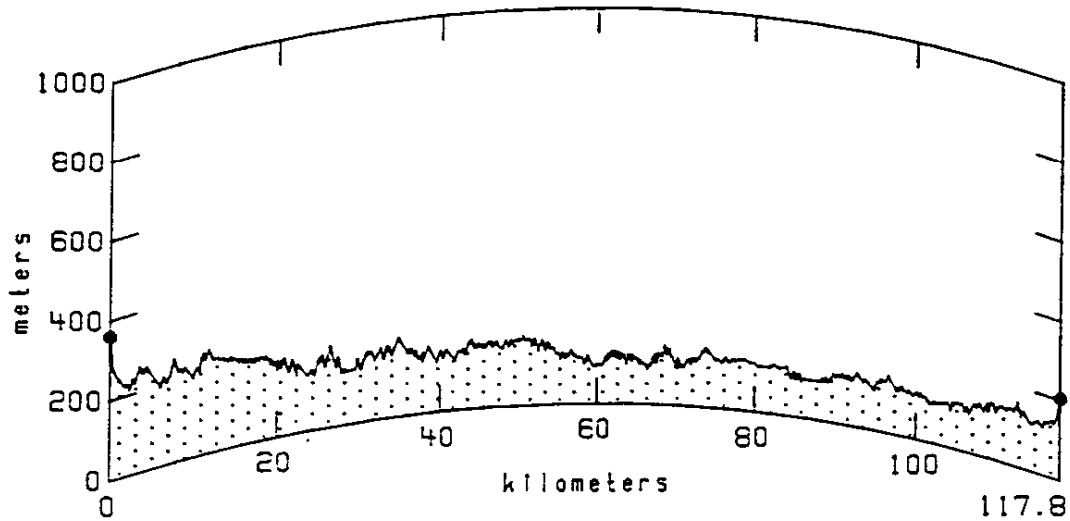
The site is open with large trees 230 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	13.3	13.3	13.3	10.0	10.0	10.0	10.0
12/02/66-van 2	119.8	123.0	142.6	143.0	157.6	175.9	189.5
Concealed:							
12/05/66-van 2	119.9	127.0	149.0	145.5	169.1	177.4	196.5
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
12/05/66-van 2	127.2	125.4	140.2	168.1	183.7	Noise	Noise

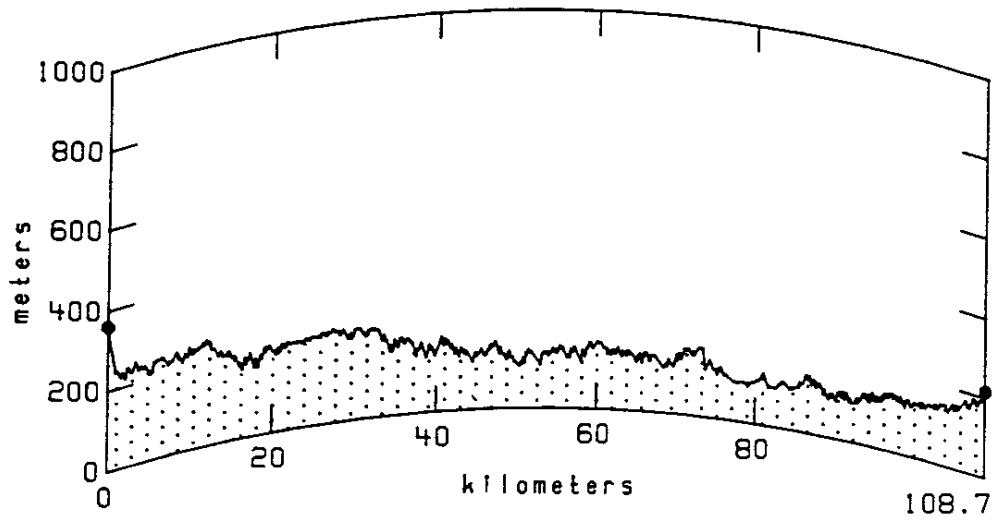
The site is in a pasture; there are power lines 120 m ahead. The concealed position is 10 m behind a dense tree grove.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
12/19/66-van 2	145.4	155.5	168.2	Noise	Noise	Noise	Noise
Concealed:							
Rcvr hts, m	13.3	13.3	13.3	10.0	10.0	10.0	10.0
12/20/66-van 2	141.4	156.0	171.2	Noise	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
12/20/66-van 2	147.2	165.9	183.7	Noise	Noise	Noise	Noise

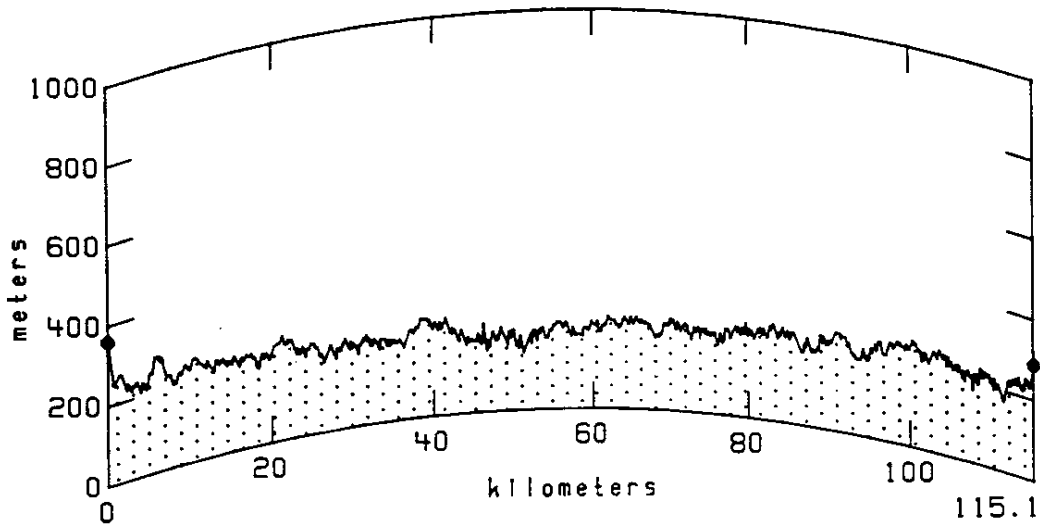
The open position has power lines which are 6 m to one side and which cross the path at 15 m. The concealed position is behind a dense wood.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Revr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
12/16/66-van 2	138.4	158.0	168.2	184.0	Noise	Noise	Noise

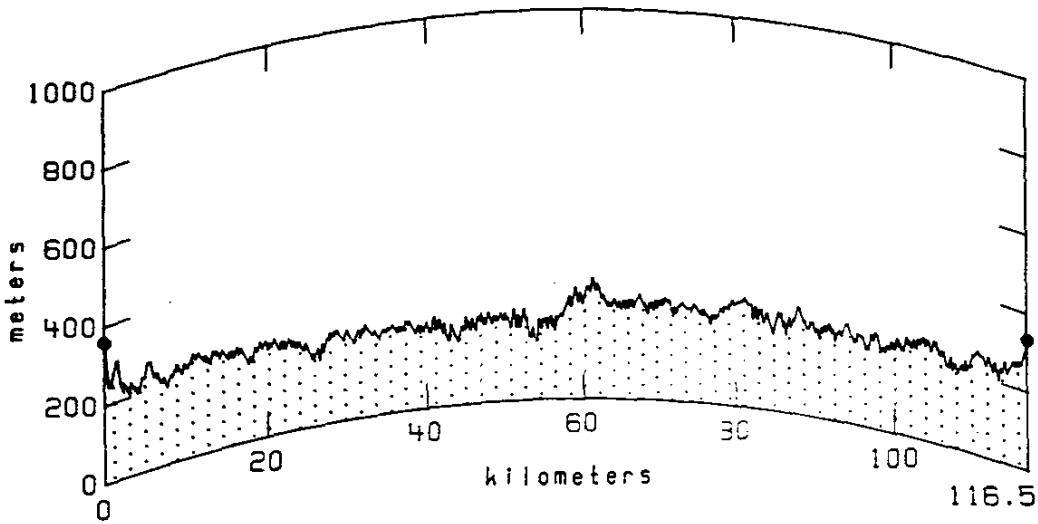
There are power lines across the path at 120 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
12/14/66-van 2	148.9	157.0	171.2	187.0	Noise	Noise	Noise
Concealed:							
12/15/66-van 2	153.9	157.0	177.5	191.0	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
12/15/66-van 2	158.2	171.9	184.3	Noise	Noise	Noise	Noise

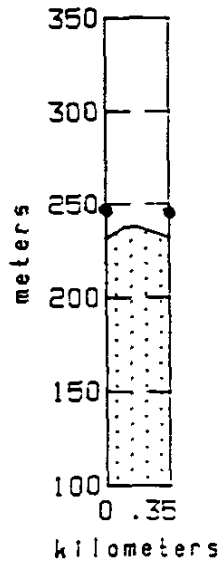
The open position has trees 80 m ahead on the path. The closed position is behind dense tree growth.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	11.3			8.0			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
12/02/66-van 2	138.9	150.0	164.6	176.0	190.6	Noise	Noise

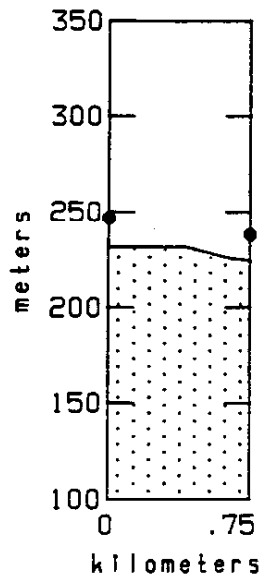
There are trees 30 m ahead on the path.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/04/67-van 1	58.8	63.7	79.6	86.7	96.7	98.3	101.4

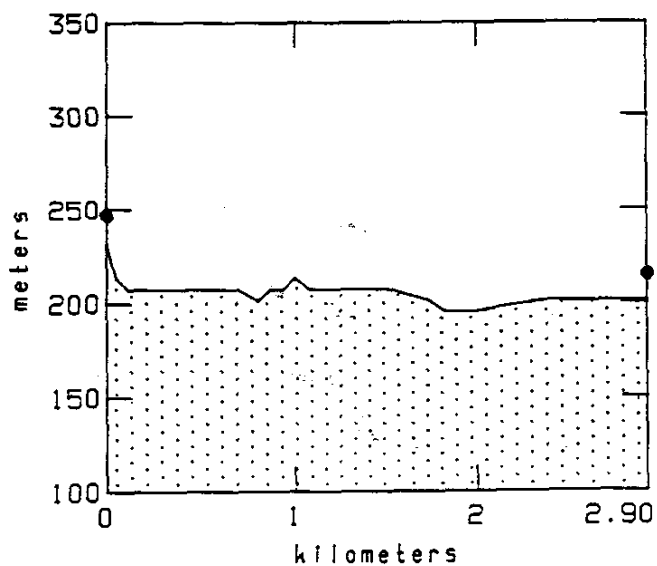
The site is in a grassy field; the two terminals are intervisible. There are 8-m high power lines about 6 m from the receiver tower, and trees begin about 150 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/05/67-van 1	75.8	71.7	81.6	86.2	101.2	105.8	106.4

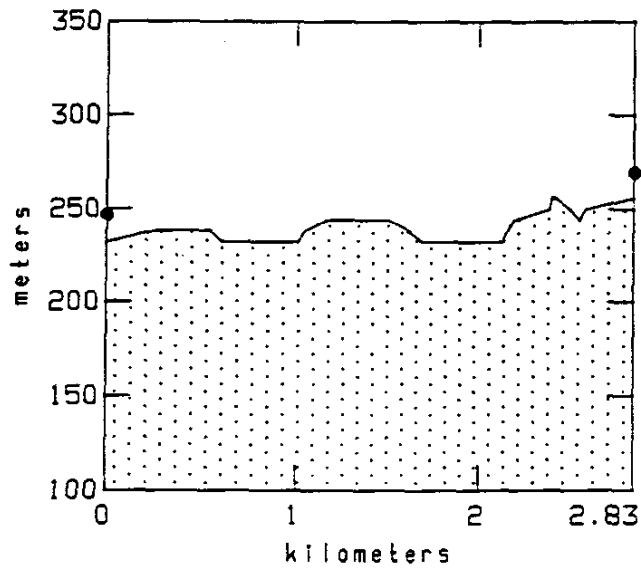
The site is in a pasture with nothing between the two towers. The snow is 5 cm deep.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/05/67-van 1	84.8	91.7	109.1	108.0	120.7	127.8	125.9

The site is in a level field with trees about 300 m ahead.



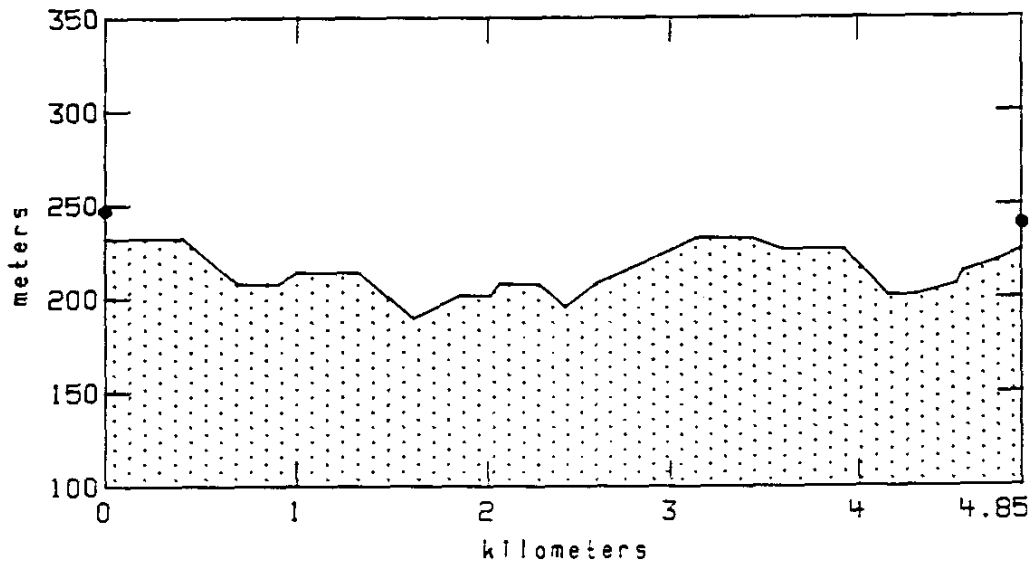
Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/09/67-van 1	87.8	91.7	106.1	104.5	118.2	120.3	121.4

The site is by the side of a road with the path extending over a rolling pasture. About 10 m ahead are power and telephone lines below antenna levels.

T3-5-R1

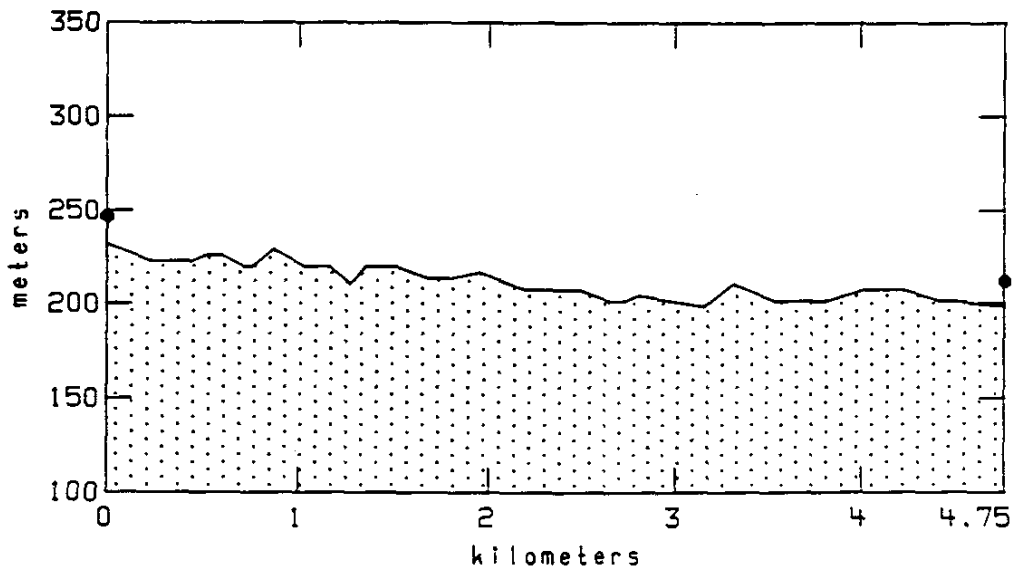
Path length, 4.85 km



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/13/67-van 1	92.3	100.9	107.4	117.3	123.6	125.8	129.1

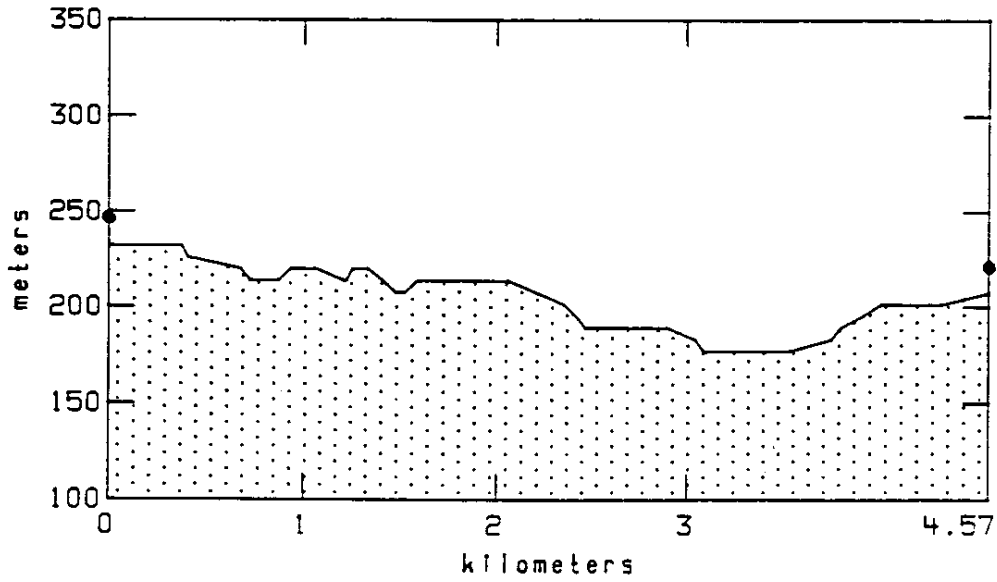
The site is in an open farm field near a road. There are trees on the horizon.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/10/67-van 1	97.8	98.7	114.6	114.5	128.9	131.3	130.4

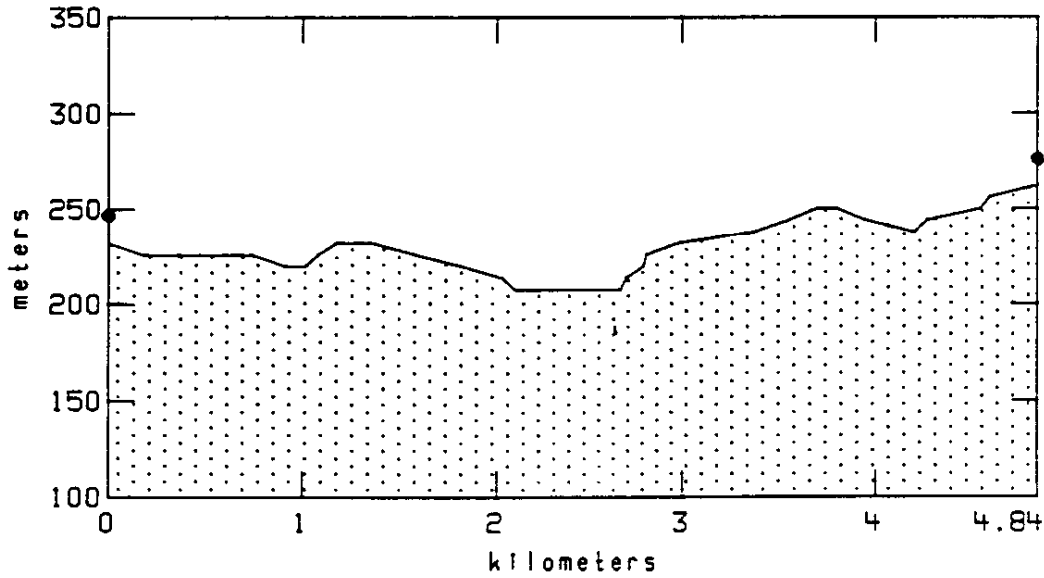
The site is in a rolling pasture. About 150 m ahead on the path is a single story brick home with a concrete building nearby.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/13/67-van 1	91.5	89.4	107.9	113.1	114.6	121.8	113.9

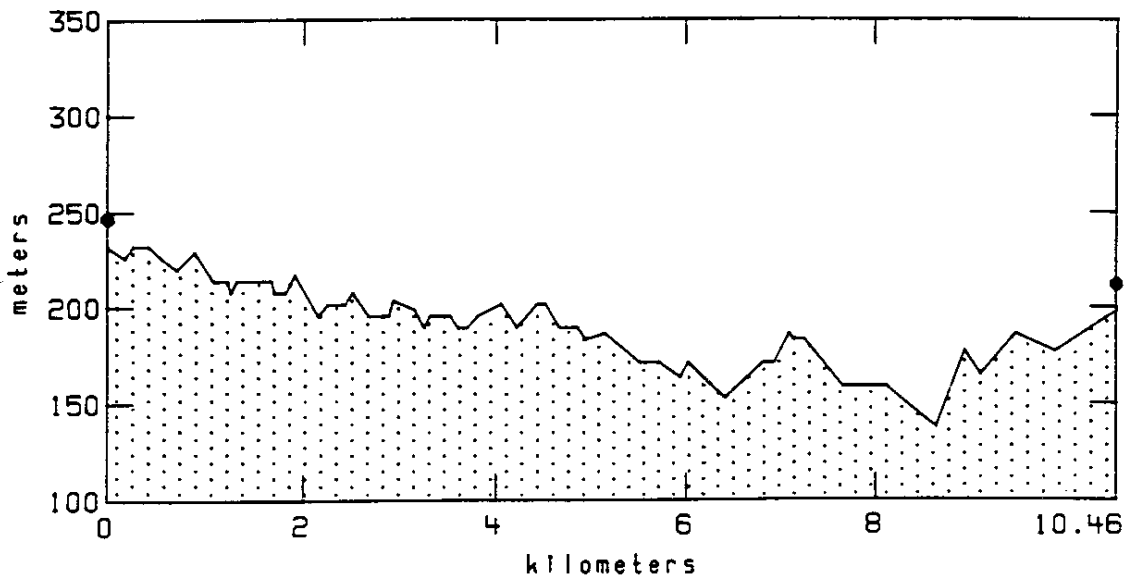
The site is in an open field by the side of the road. There are a single story brick building and a 2-story frame building about 100 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/06/67-van 1	79.8	100.7	110.6	113.0	126.7	128.5	127.9

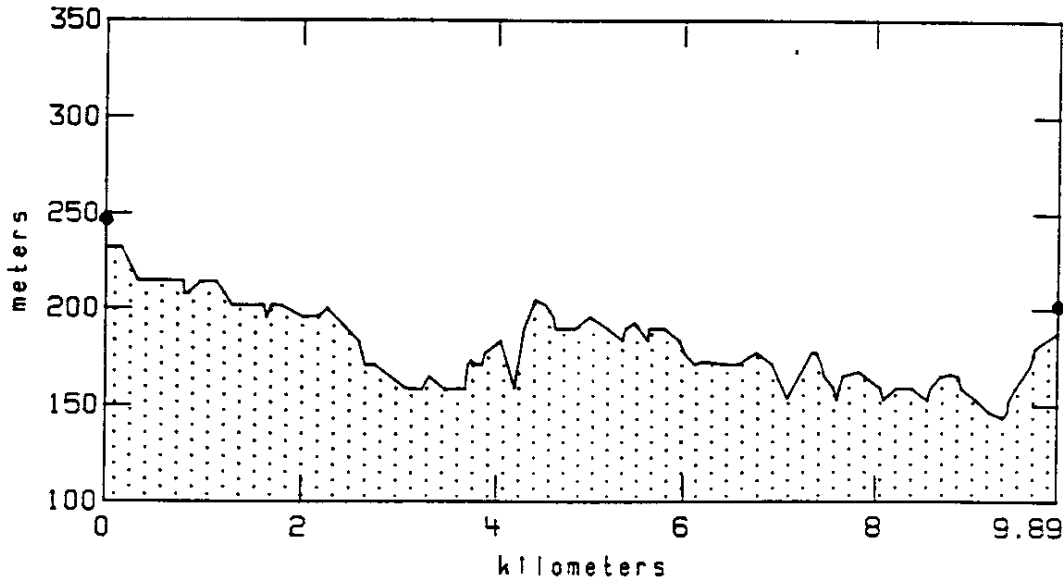
The site is in an open field. Telephone lines cross the path at 20 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/11/67-van 1	100.8	101.7	-	118.5	119.2	132.3	129.4

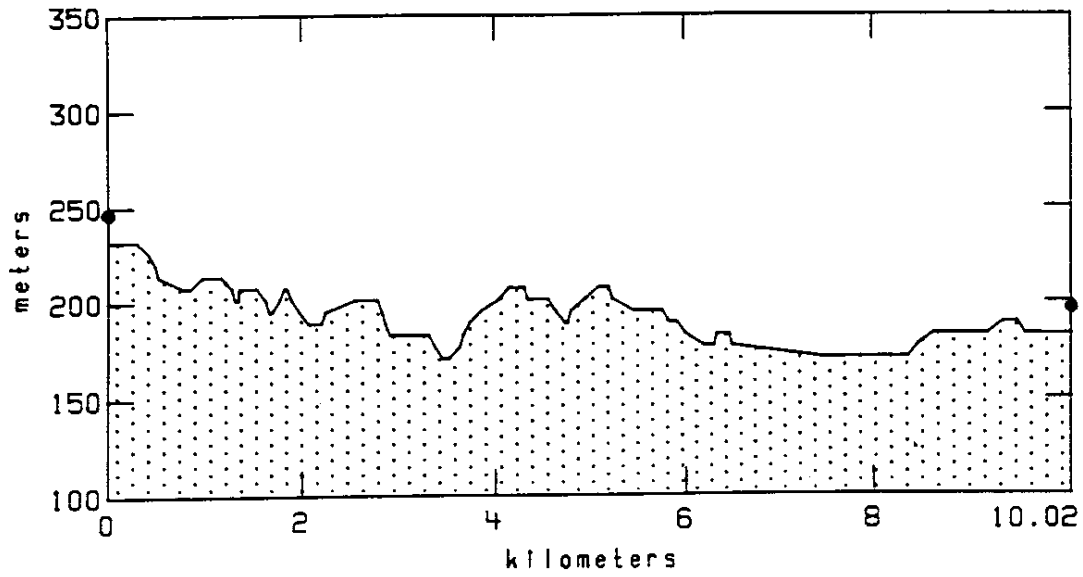
The site is in an open pasture. There are telephone lines 150 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/30/67-van 1	92.9	103.4	111.9	120.6	120.9	126.3	128.4

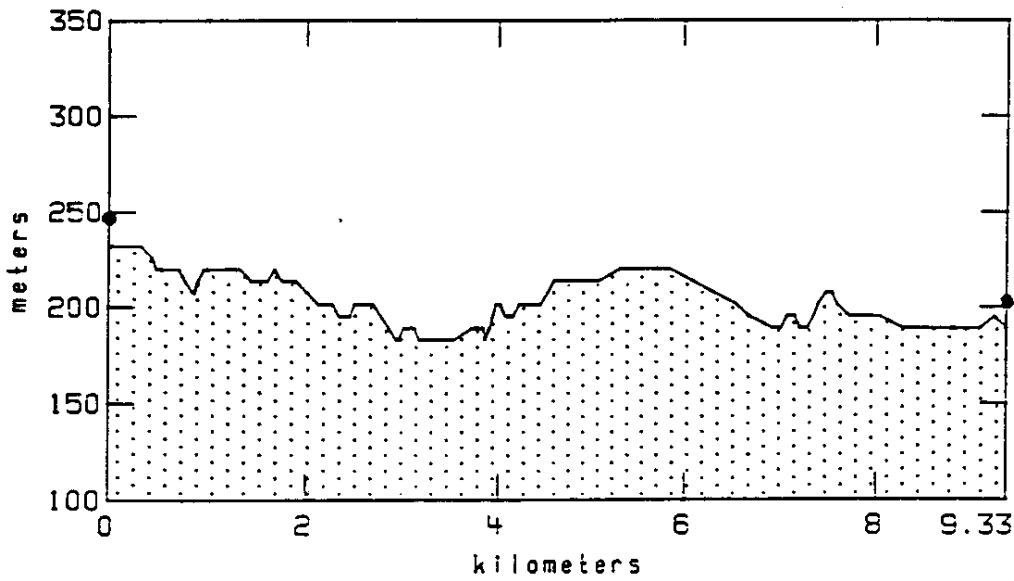
The site is in an open field with a clear view of the horizon. Below horizon level about 120 m away is a single story structure with a metal roof.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/09/67-van 1	96.8	114.2	117.6	117.5	138.2	147.3	146.9

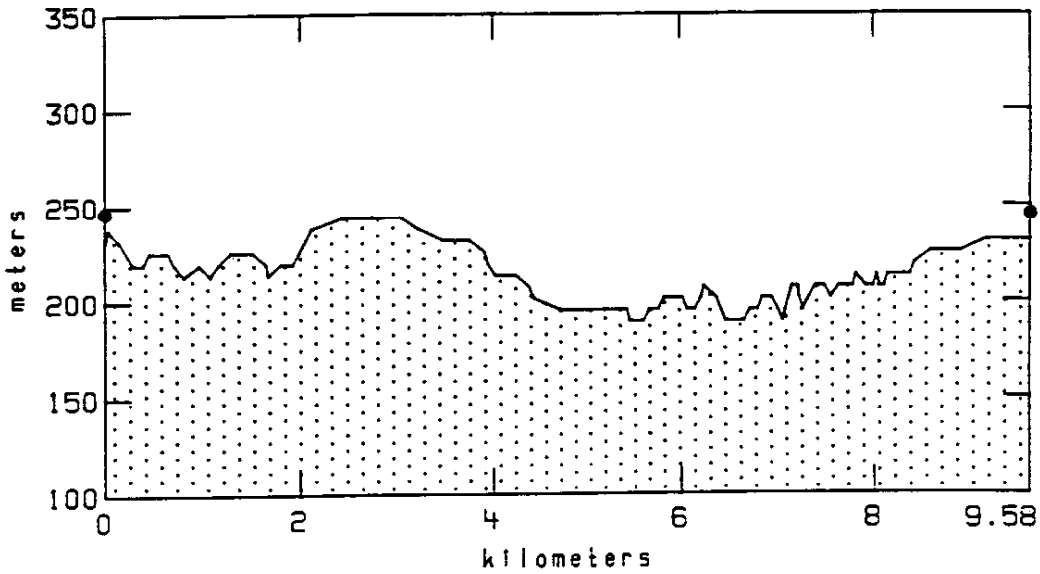
The site is in an open farm field. There is a low structure 200 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/03/67-van 1	103.0	106.9	122.7	130.1	141.5	152.8	145.9

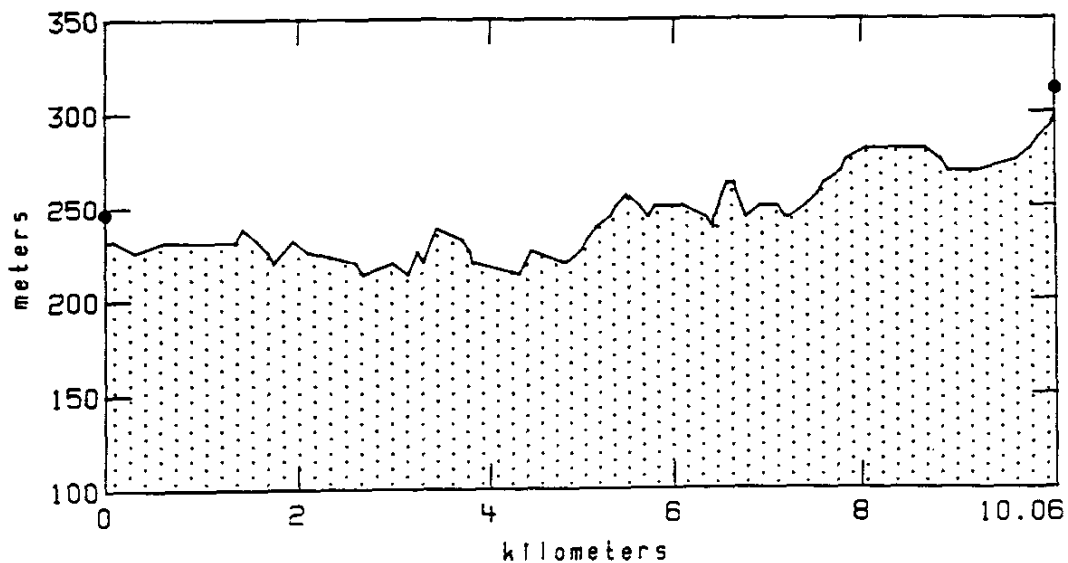
The site is in an open field. Crossing the path 6 m away are 7-m high power lines.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/12/67-van 1	100.4	110.4	113.5	128.1	133.5	149.8	156.9

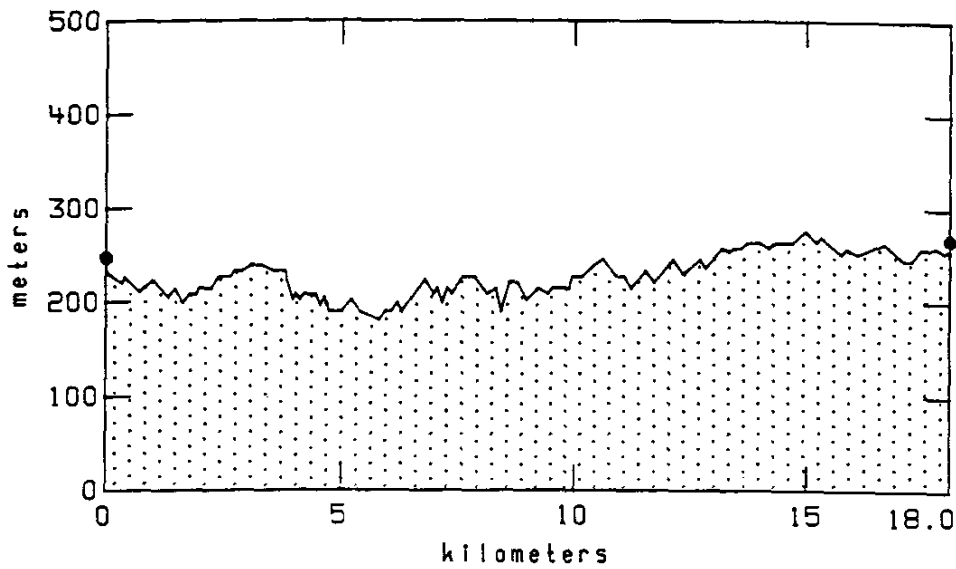
The site is in an open pasture. Trees are 150 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/10/67-van 1	908.0	100.7	121.6	123.0	131.2	136.3	133.9

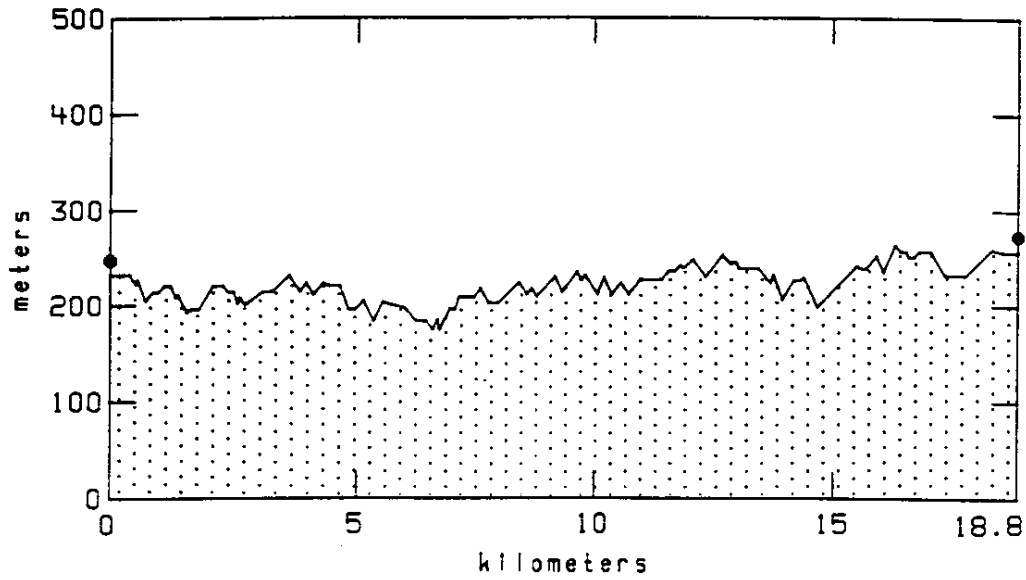
The site is in an open farm field and has a clear view of the horizon.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/30/67-van 1	107.0	122.4	135.9	148.6	156.8	167.3	176.4
Concealed:							
Rcvr hts, m	10.0	10.0	12.4	13.9	12.9	12.9	13.4
1/31/67-van 1	111.6	128.9	133.3	141.6	151.1	163.3	165.4
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1/31/67-van 1	120.4	127.8	143.9	158.1	179.2	182.8	Noise

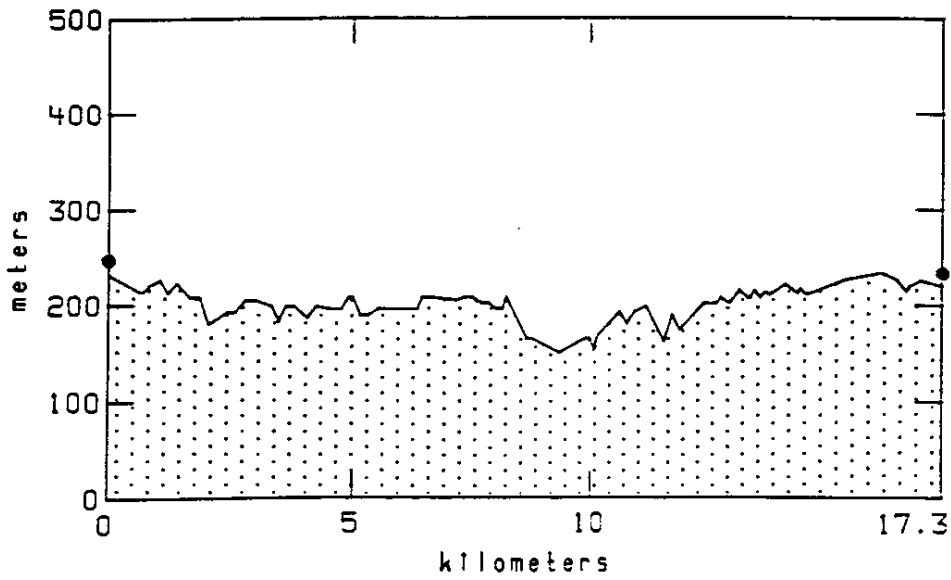
The site is in an open field with trees 150 m ahead. The concealed position is 3 m behind a large tree with dense woods 20 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
2/03/67-van 2	107.3	116.5	123.2	128.0	138.9	161.4	175.8
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2/03/67-van 2	121.6	123.9	131.6	132.6	155.2	199.9	Noise

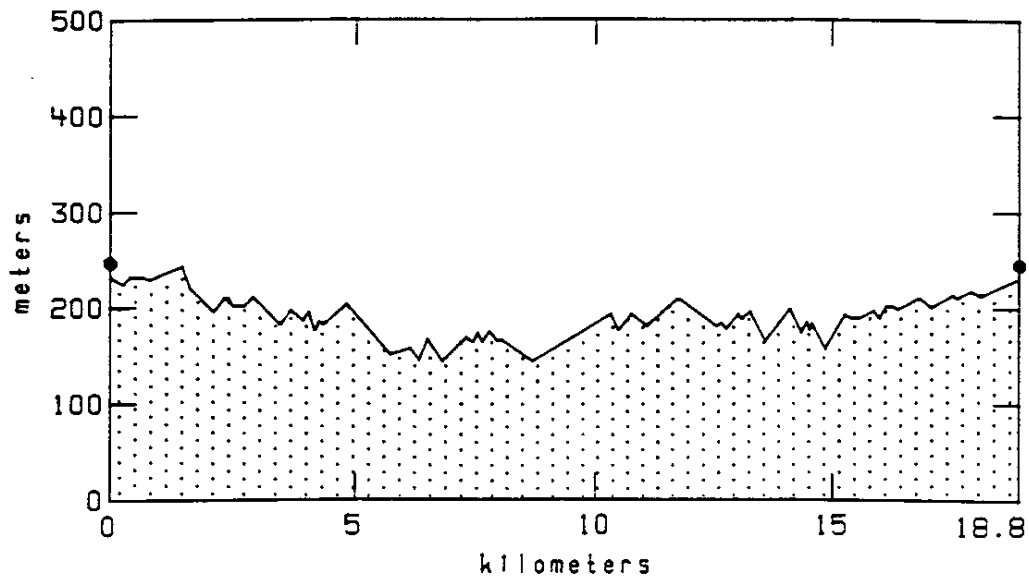
The site is in a grove of trees. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/16/67-van 1	107.5	117.9	130.4	138.9	143.6	155.3	151.2

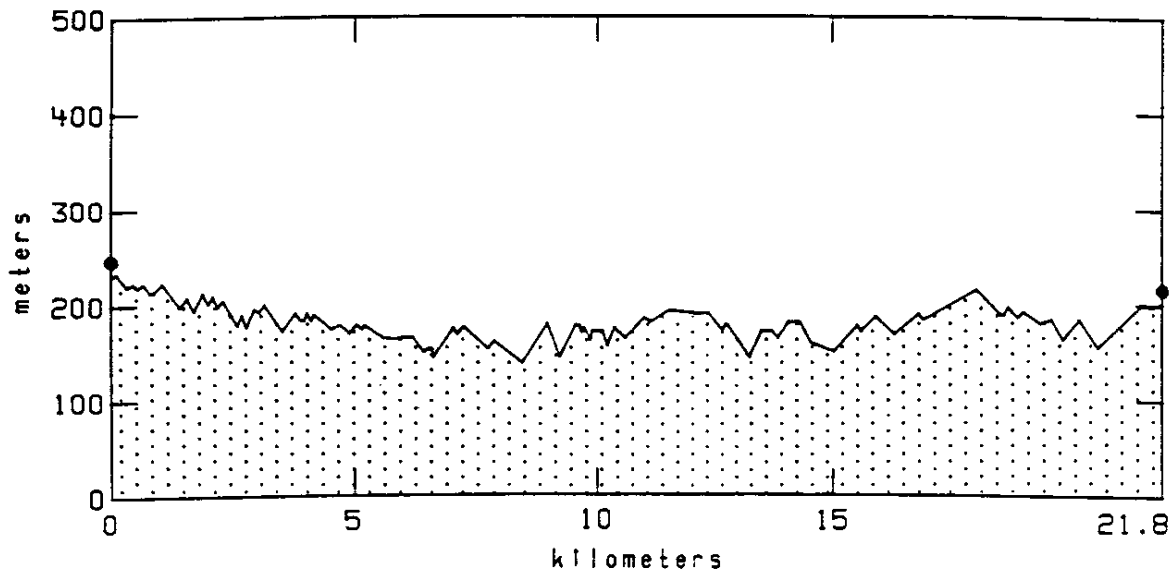
The site is in a farm field; there are 6-m high power lines crossing the path at 15 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/17/67-van 1	110.0	110.4	114.4	126.6	137.1	142.8	147.9

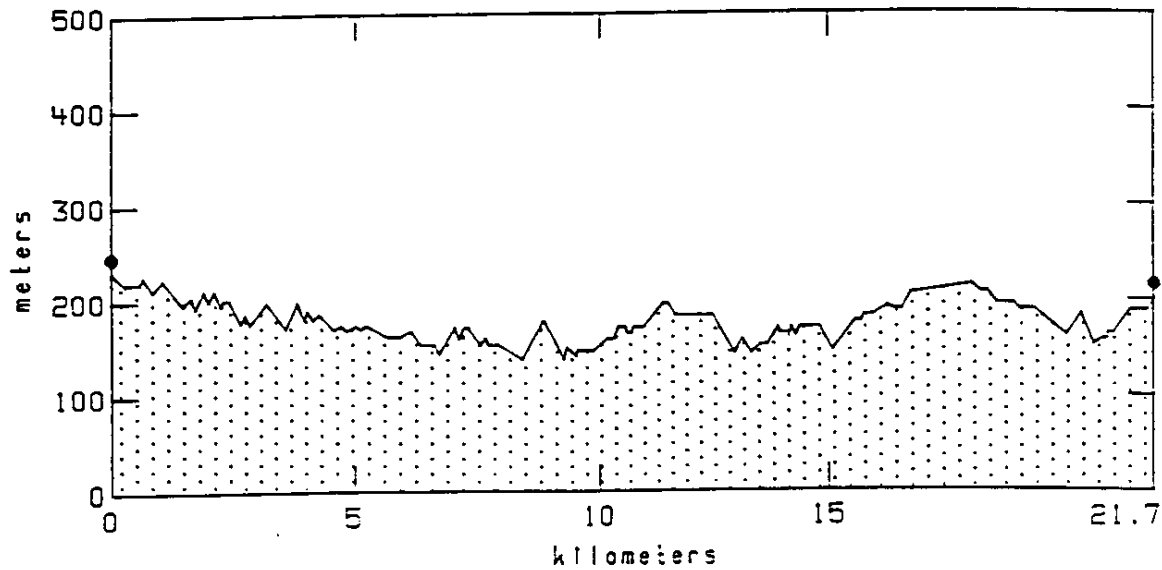
The site is on a church lawn.



Basic Transmission Loss, L_b (dB)

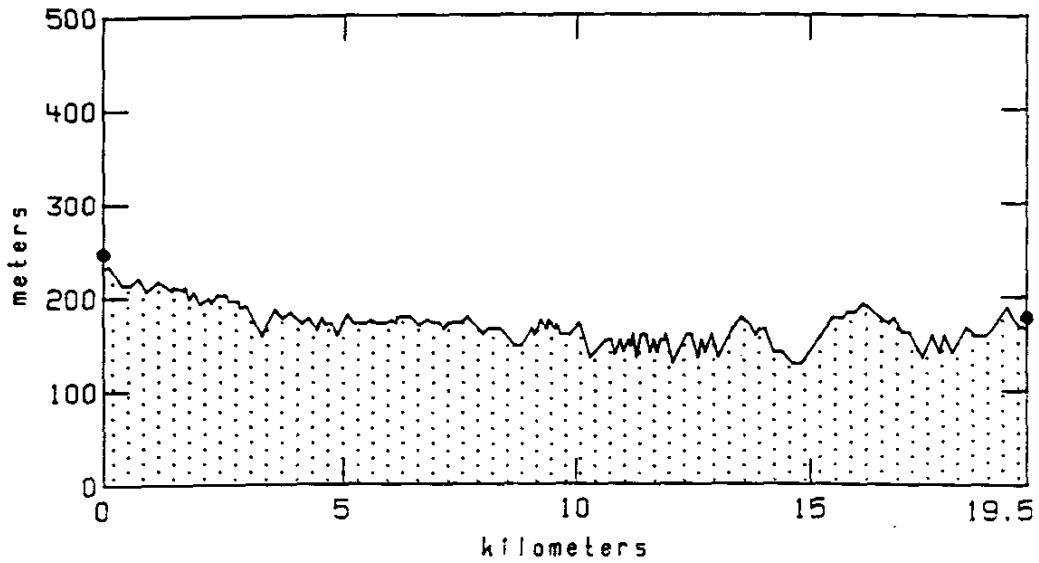
freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/18/67-van 1	107.0	115.6	123.9	135.6	139.1	144.8	141.4

The site is in a pasture. There are scattered low bushes in the near foreground and some wooden structures ahead at 300 m.

Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/16/67-van 1	106.1	113.9	126.4	137.9	146.1	143.8	148.9
Concealed:							
Rcvr hts, m	10.0	10.0	12.4	13.9	12.9	12.9	13.4
2/02/67-van 1	105.0	122.7	140.9	155.6	168.1	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2/02/67-van 1	118.0	123.5	141.9	167.9	171.2	177.8	Noise

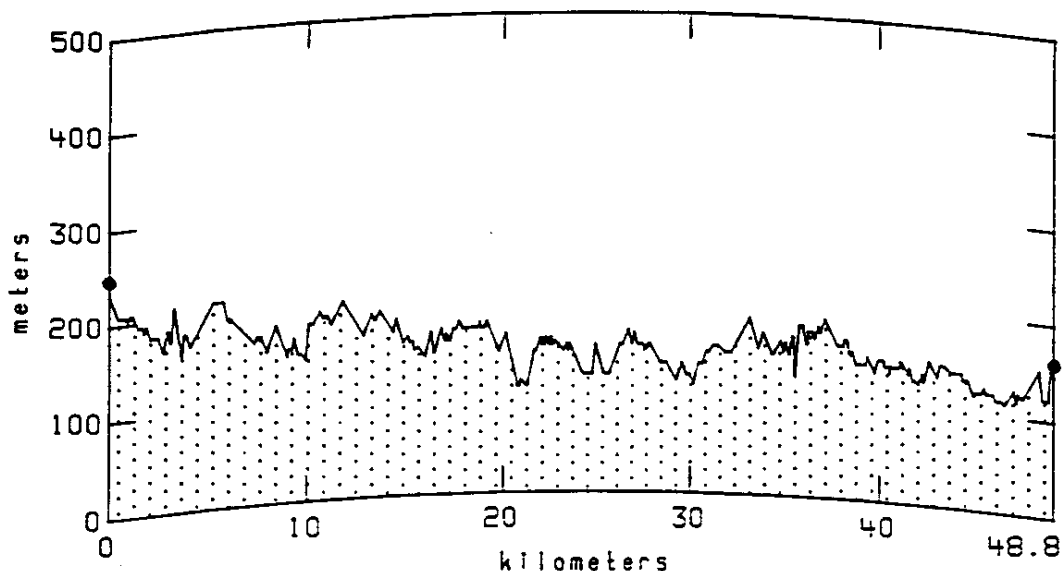
The site is in an open field with 8-m high power lines 40 m ahead. The concealed position is behind a dense wood; during the measurements it was buffeted by gusty winds.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/01/67-van 1	103.0	111.7	116.4	127.8	128.6	134.3	134.4
Concealed:							
Rcvr hts, m	10.0	10.0	12.4	13.9	12.9	12.9	13.4
2/01/67-van 1	990.0	111.9	123.9	134.1	133.6	144.3	147.4
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2/01/67-van 1	115.5	118.5	122.9	138.9	147.7	158.8	162.8

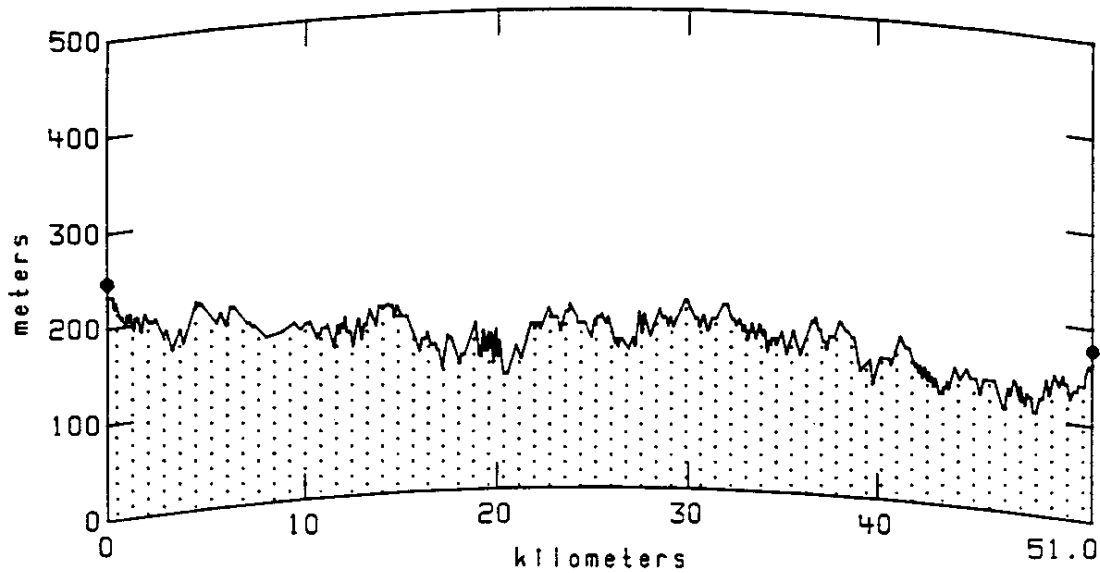
The site is in an open field. The concealed position is in a farm field behind a large leafless oak tree.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/26/67-van 1	118.5	141.9	151.4	163.1	164.7	Noise	Noise
Concealed:							
Rcvr hts, m	10.0	10.0	12.4	13.9	12.9	12.9	13.4
1/25/67-van 1	121.0	140.9	155.9	171.1	181.1	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1/25/67-van 1	138.9	148.8	158.4	168.1	185.2	Noise	Noise

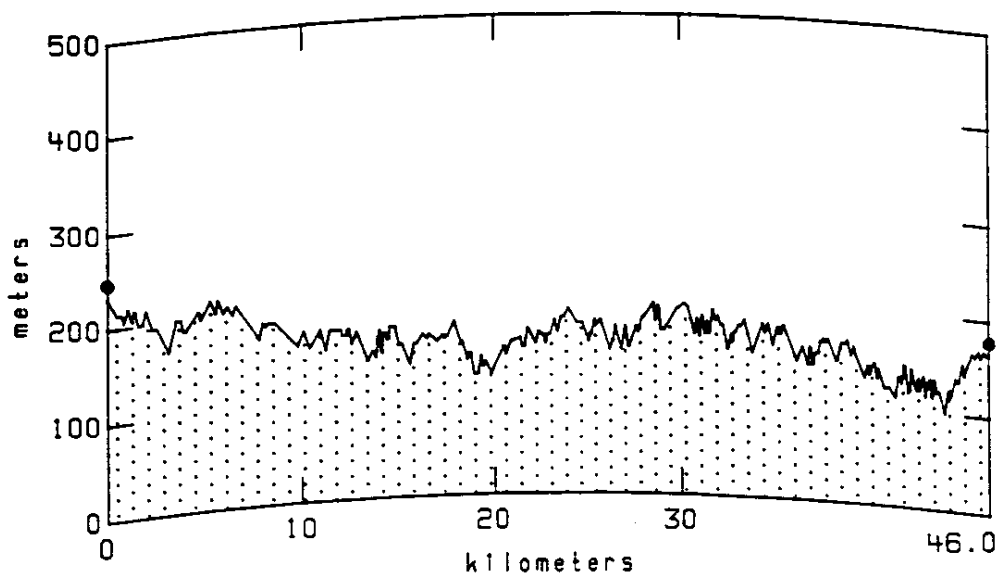
The site is on rolling farm land with 1-m high bushes in the near foreground and with only some small trees, below antenna level, out to the horizon. The concealed position is in a grove of trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/20/67-van 1	124.0	137.9	146.4	158.6	169.1	179.1	Noise

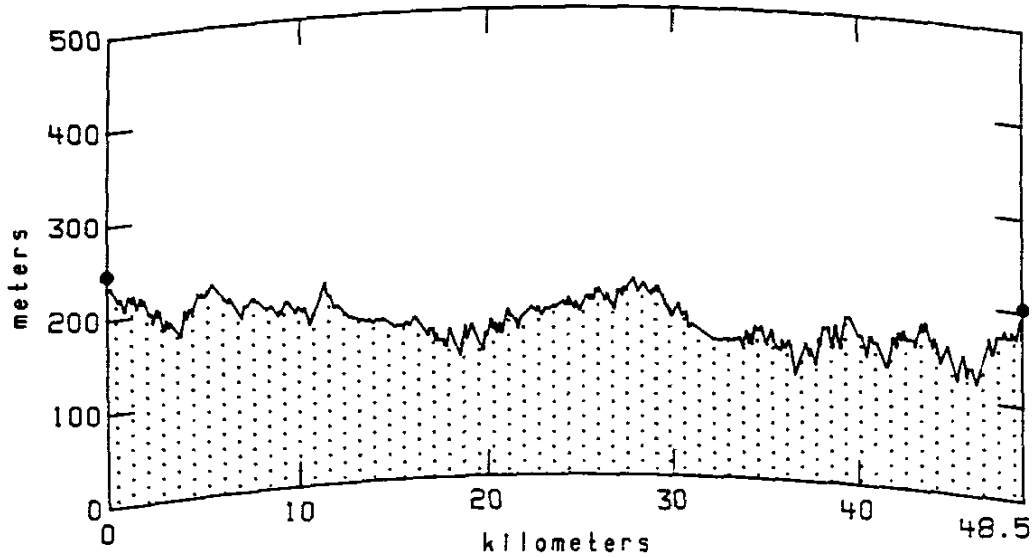
The site is near the road. There are low evergreen trees to the left of the path.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/27/67-van 1	128.5	137.4	145.9	156.3	162.8	168.8	172.9

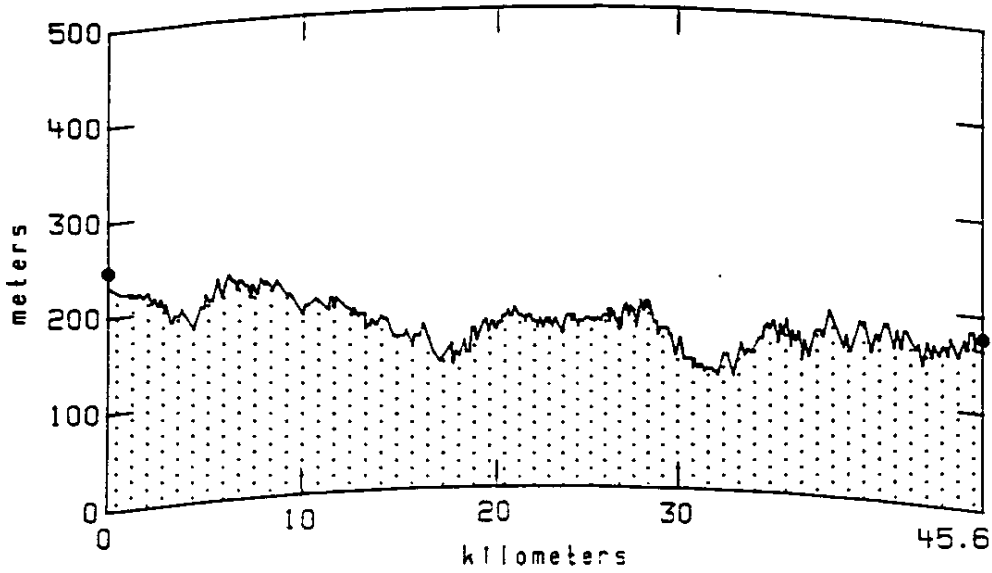
The site is in an open field; there are a low fence at 15 m and telephone lines at 50 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
1/23/67-van 1	123.0	130.9	142.1	154.1	159.1	170.3	182.4
Concealed:							
Rcvr hts, m	10.0	10.0	12.4	13.9	12.9	12.9	13.4
1/24/67-van 1	131.5	134.9	146.6	164.1	167.1	178.8	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1/24/67-van 1	139.4	144.8	154.6	Noise	Noise	Noise	Noise

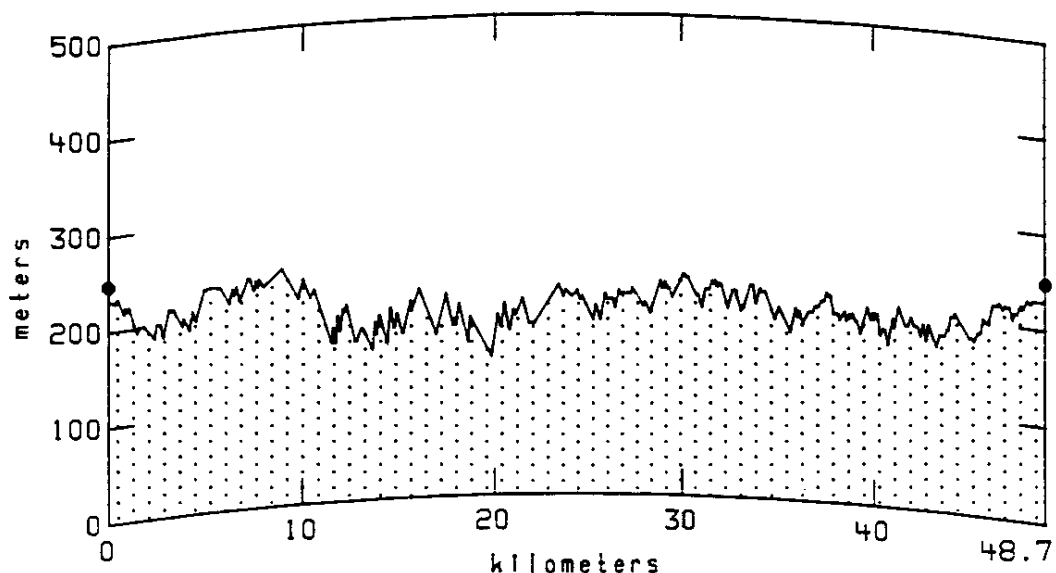
The site is in an open field with a clear view of the horizon. The concealed position is behind a thick grove of pine trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
1/30/67-van 2	125.6	130.0	146.2	155.0	166.6	197.9	205.5
Concealed:							
1/31/67-van 2	126.8	139.0	146.2	158.0	174.6	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1/31/67-van 2	141.1	149.9	161.7	175.6	Noise	Noise	Noise

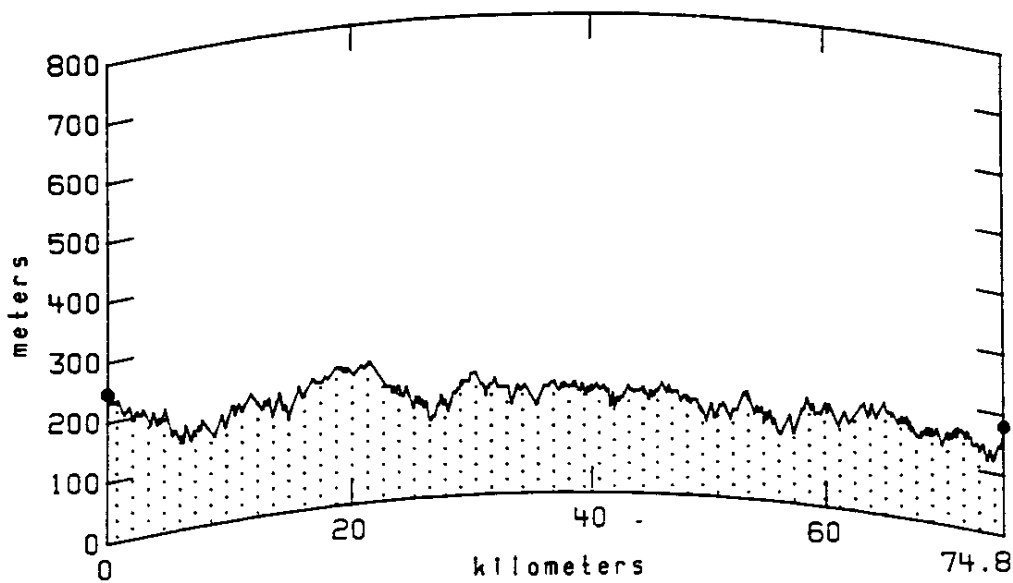
The site is in an open pasture; there are 15-m high pine trees at a distance of 70 m. The concealed position is behind a dense grove of pine trees 15 m high.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
2/01/67-van 2	126.3	136.3	147.5	158.0	187.6	Noise	Noise
Concealed:							
2/02/67-van 2	132.3	137.5	148.0	159.5	173.6	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2/02/67-van 2	150.6	148.7	170.2	178.6	Noise	Noise	Noise

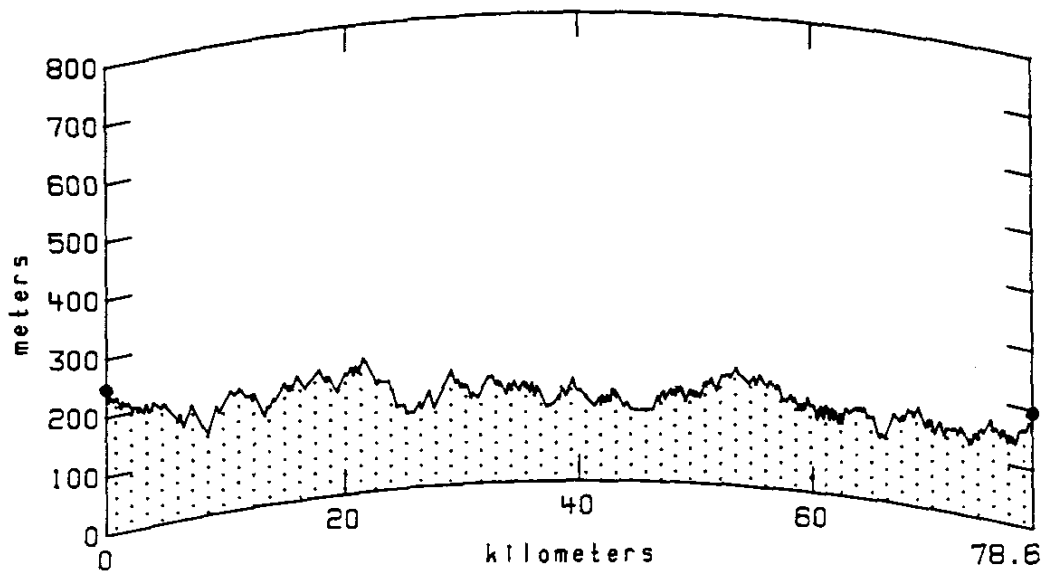
The site is in an open field. About 80 m ahead there is a single story frame house together with its utility lines. The concealed position is behind a large oak tree with brick and frame houses further down the path.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
1/18/67-van 2	141.3	154.0	169.7	186.0	Noise	Noise	Noise
Concealed:							
1/18/67-van 2	144.8	157.0	167.7	189.0	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1/18/67-van 2	149.6	156.9	185.2	Noise	Noise	Noise	Noise

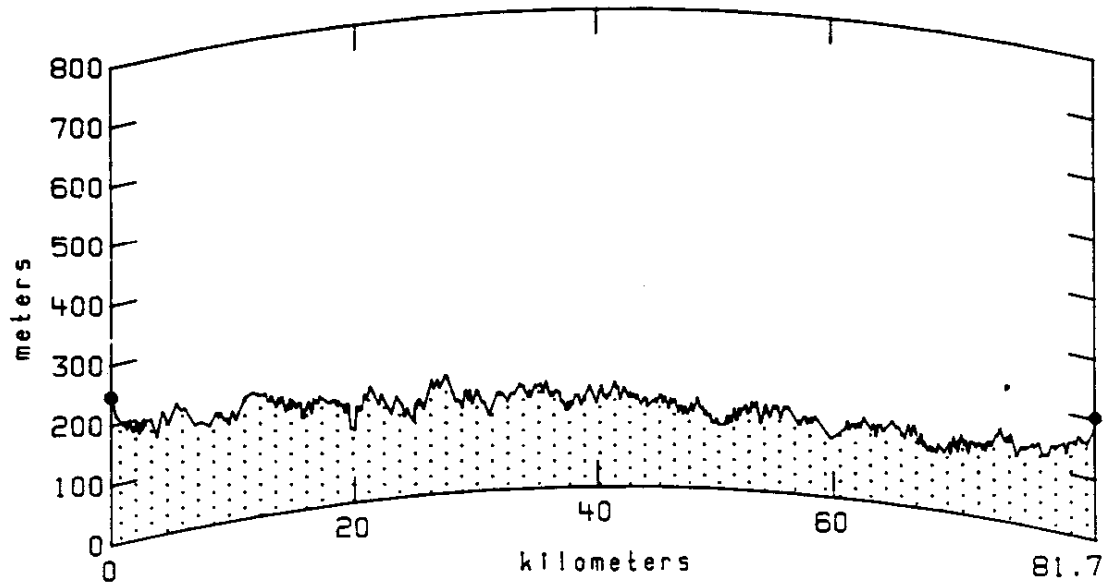
The open position is in a driveway adjacent to an open pasture. There are woods 100 m down the path. The concealed position is behind a dense growth of both deciduous and evergreen trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
1/13/67-van 2	142.3	150.0	162.0	169.0	178.6	195.9	Noise
Concealed:							
1/16/67-van 2	139.8	152.0	165.4	183.5	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1/16/67-van 2	162.6	173.9	183.2	Noise	Noise	Noise	Noise

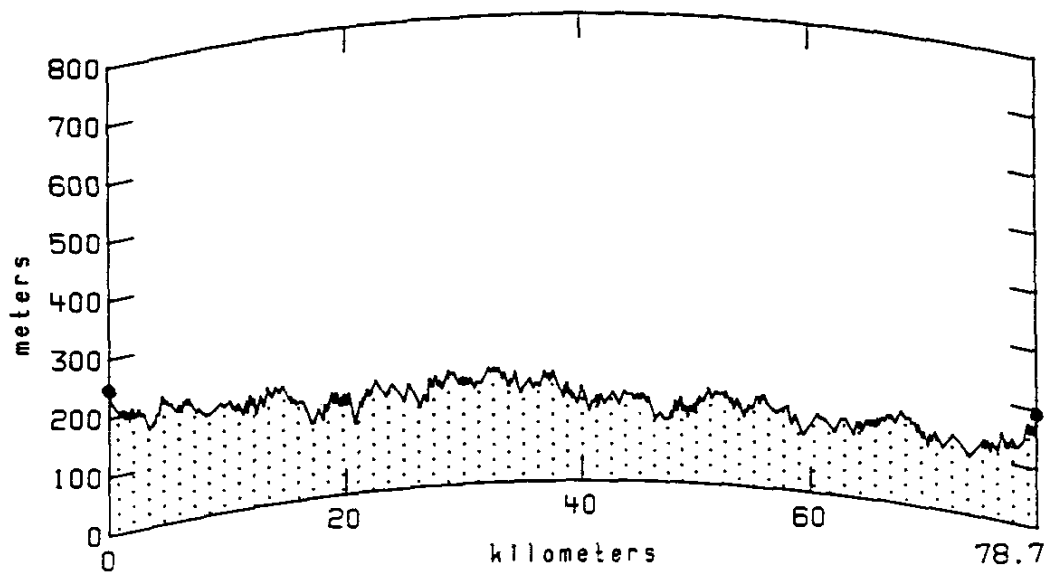
The site is on a rural road with an open field in the foreground. There is a 4-wire fence at 30 m and pine trees at 120 m. The concealed position is on the same road, behind dense evergreens.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
1/12/67-van 2	130.3	148.0	155.4	164.5	189.1	Noise	Noise

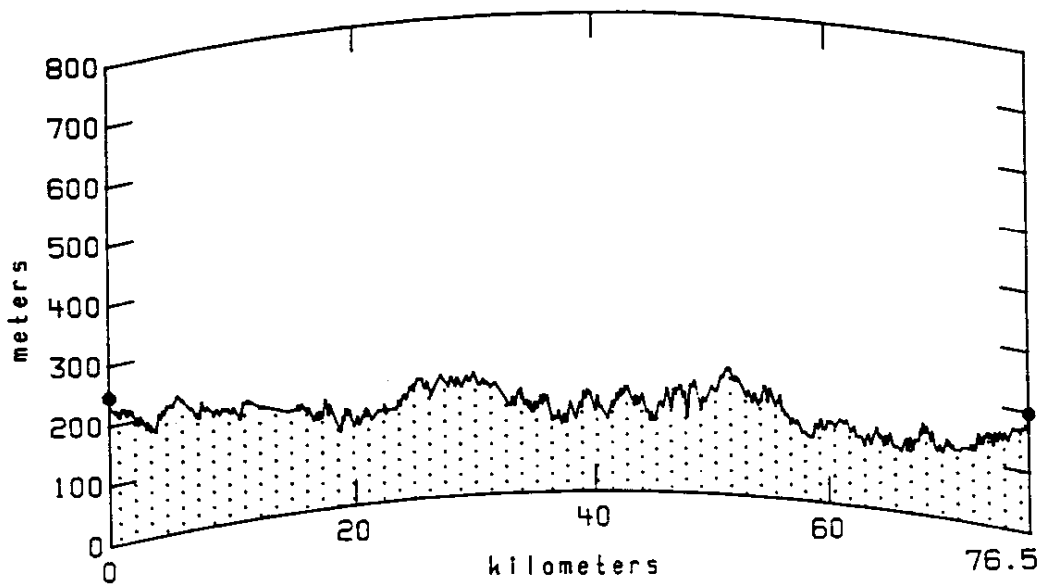
The site is in an open pasture; there are low trees 80 m down the path.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
1/10/67-van 2	133.8	152.0	158.2	170.0	184.6	Noise	Noise
Concealed:							
Rcvr hts, m	13.3	13.3	13.3	10.0	10.0	10.0	10.0
1/11/67-van 2	134.3	152.3	-	177.5	191.6	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1/11/67-van 2	149.1	-	-	195.6	Noise	Noise	Noise

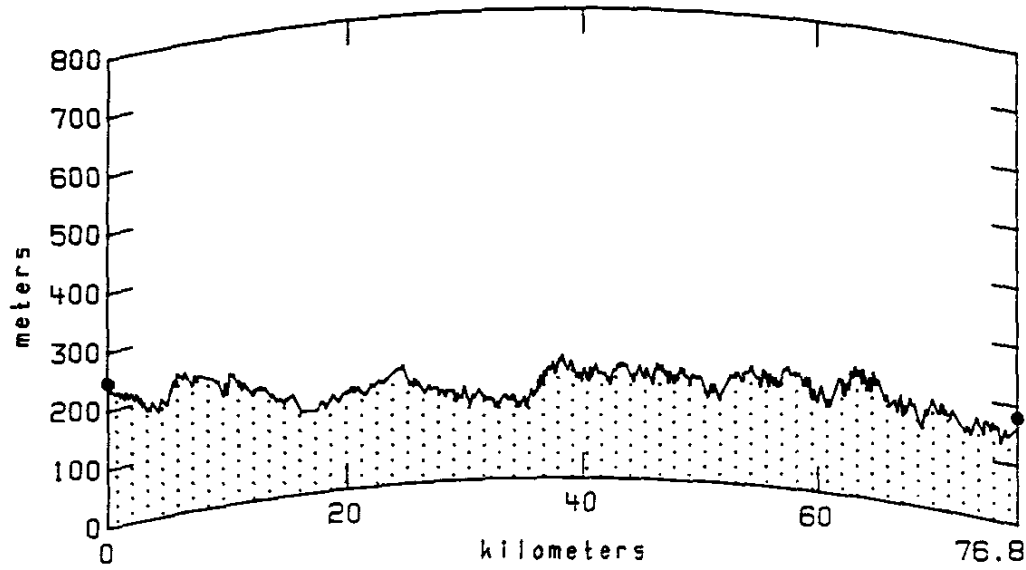
The site is in a church yard; there are large trees 100 m ahead of the antennas. The concealed position is behind a large oak tree.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
1/09/67-van 2	134.3	149.0	153.7	161.5	172.2	198.9	Noise

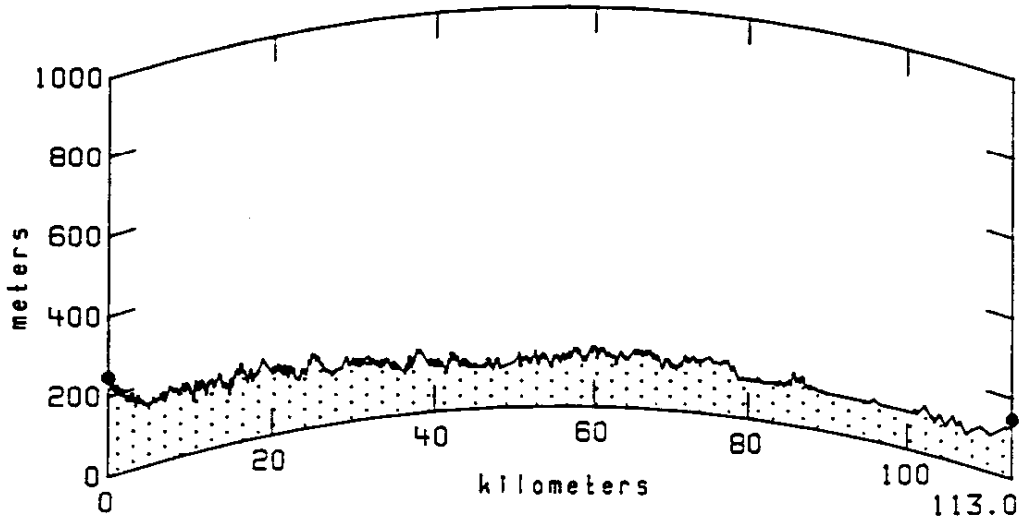
The site is on the side of the road. There are railroad tracks 6 m from the antenna tower, large trees 150 m on down the path, and utility lines behind the site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
1/05/67-van 2	140.3	149.0	162.7	175.5	190.6	Noise	Noise
Concealed:							
Rcvr hts, m	13.3	13.3	13.3	10.0	10.0	10.0	10.0
1/06/67-van 2	145.3	152.0	162.7	182.0	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1/06/67-van 2	154.1	161.9	166.2	185.7	199.2	Noise	Noise

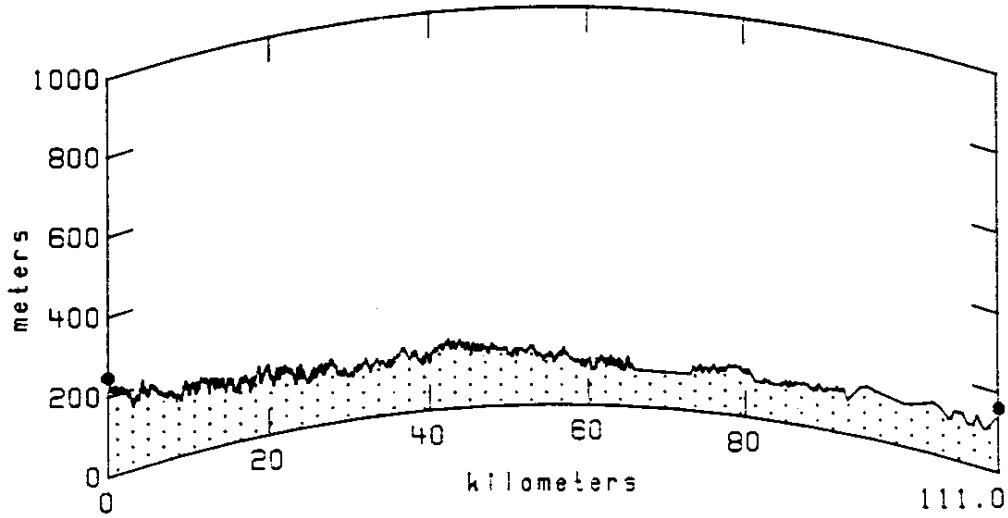
The site is beside the road. The path is through a gap in the trees and over a one story frame house. The concealed position is 10 m behind a large oak, and there are more large trees 25 m further away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	13.3	13.3	13.3	10.0	10.0	10.0	10.0
1/27/67-van 2	150.3	167.0	178.2	183.0	191.6	Noise	Noise

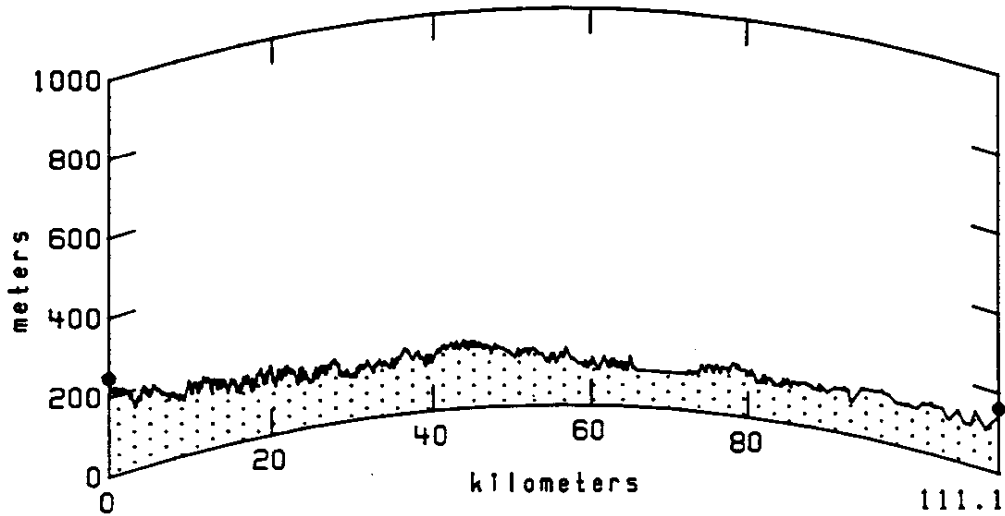
The site is on the side of the road. There are power lines 6 m ahead and a 4-wire fence at 30 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
1/25/67-van 2	144.3	162.0	180.2	191.0	Noise	Noise	Noise

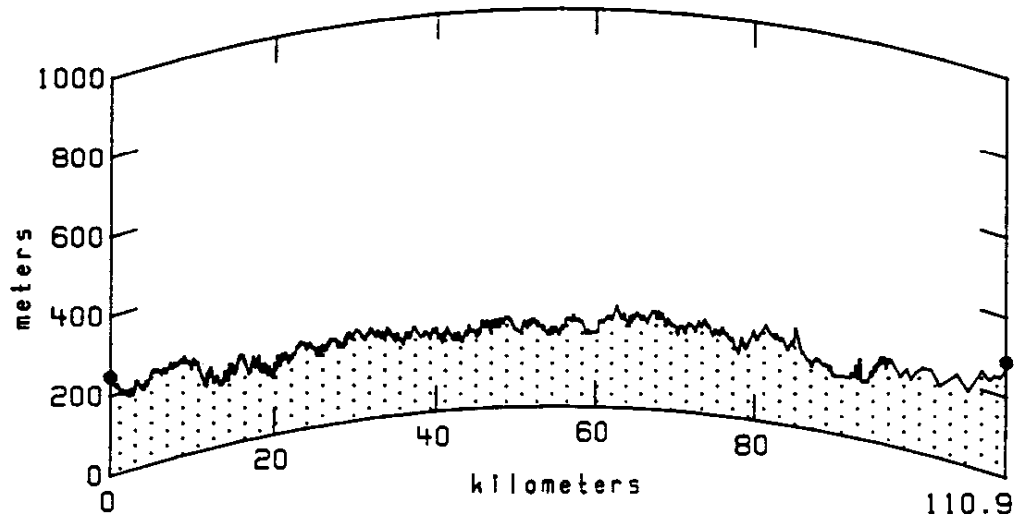
The site is in an open field. There are a one story brick house at 150 m and utility lines at 200 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
1/26/67-van 2	148.2	163.0	177.9	190.0	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1/26/67-van 2	169.6	174.9	186.2	Noise	Noise	Noise	Noise

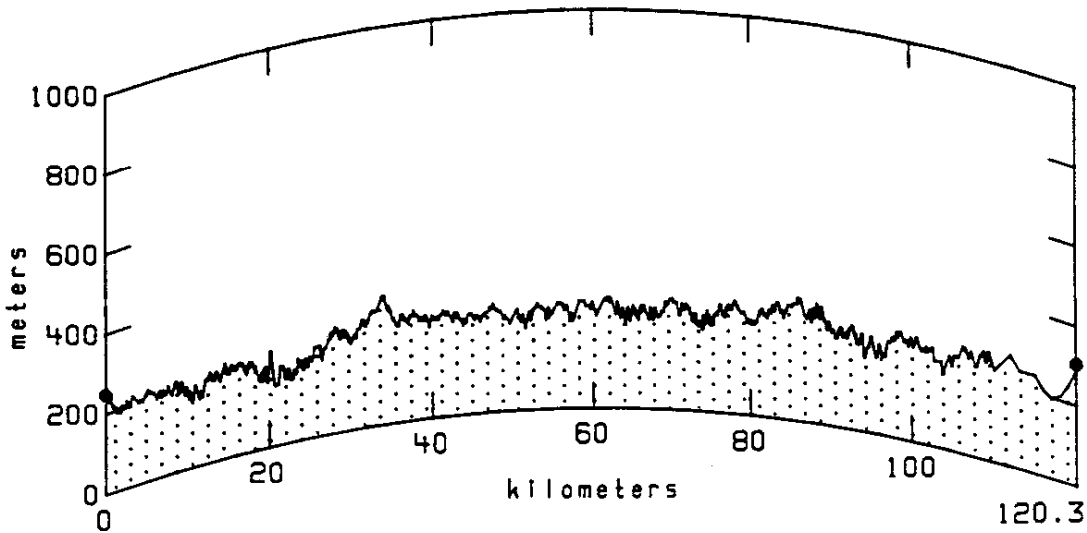
The site is in a grove of trees. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
1/24/67-van 2	152.8	164.0	182.2	189.0	Noise	Noise	Noise

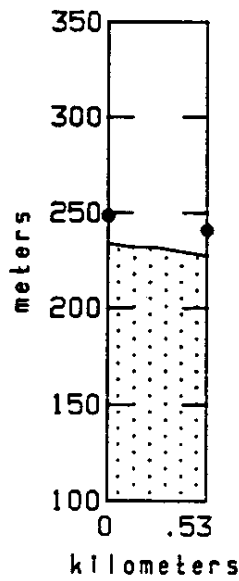
The site is in an open field. About 100 m ahead there is a one story frame house with a small tree.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
1/20/67-van 2	152.3	169.0	185.9	195.0	Noise	Noise	Noise
Concealed:							
1/23/67-van 2	155.3	168.0	184.0	Noise	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1/23/67-van 2	171.6	177.9	Noise	Noise	Noise	Noise	Noise

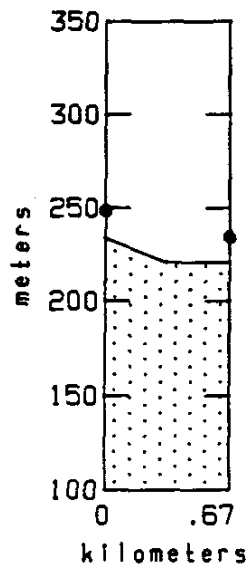
The site is in an open farm field in gently rolling terrain. There are trees, below antenna height, at 120 m. The concealed position is behind a stand of deciduous and evergreen trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/27/67-van 1	52.5	61.8	90.4	86.1	100.7	101.9	105.1
Xmtr hts, m	15.0			11.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	13.5	14.0	14.5
1/31/68-van 1	-	-	-	-	100.1	951.5	958.5

The site is at the edge of a pasture; the antennas are intervisible. There are power lines 6 m above ground and 3 m ahead of the receiver antennas.



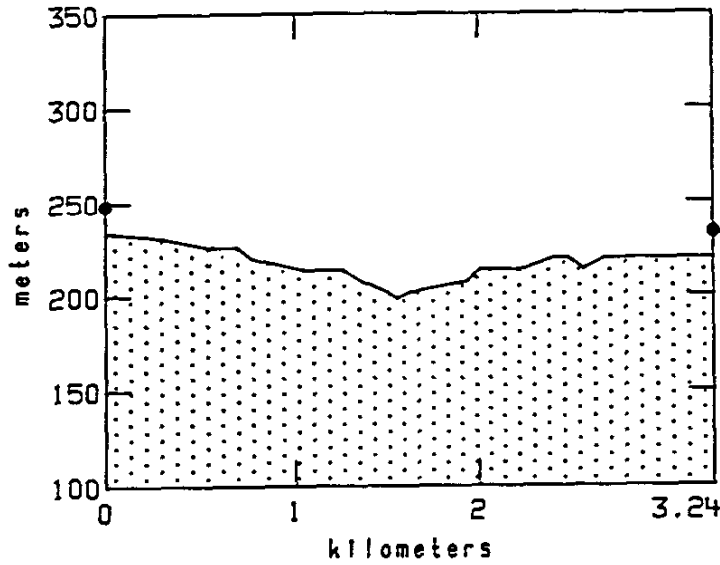
Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/27/67-van 1	68.0	70.8	97.9	90.1	96.7	106.9	111.6

The site is on the side of a rural road. The antennas are intervisible. Farm houses and barns lie between the two terminals. In particular, there are power lines 6 m above ground and 6 m ahead of the receiver terminal.

T4-3-R1

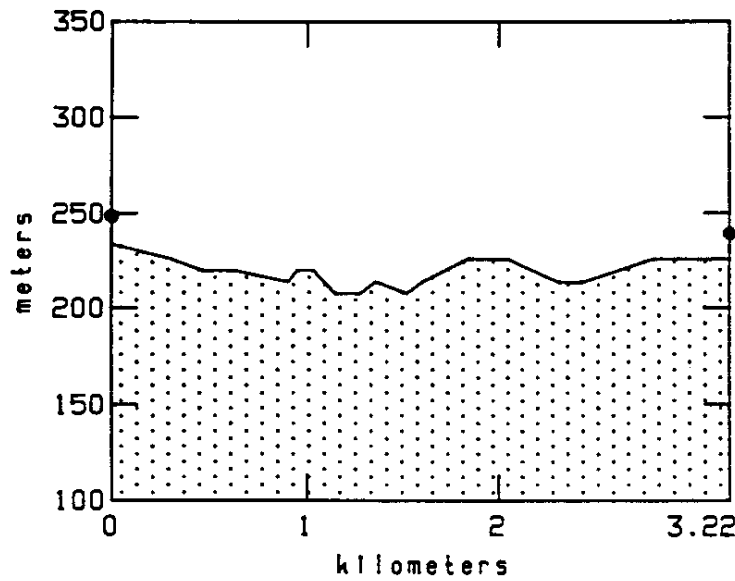
Path length, 3.24 km



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/09/67-van 1	83.0	92.8	108.4	113.4	122.9	133.3	126.0

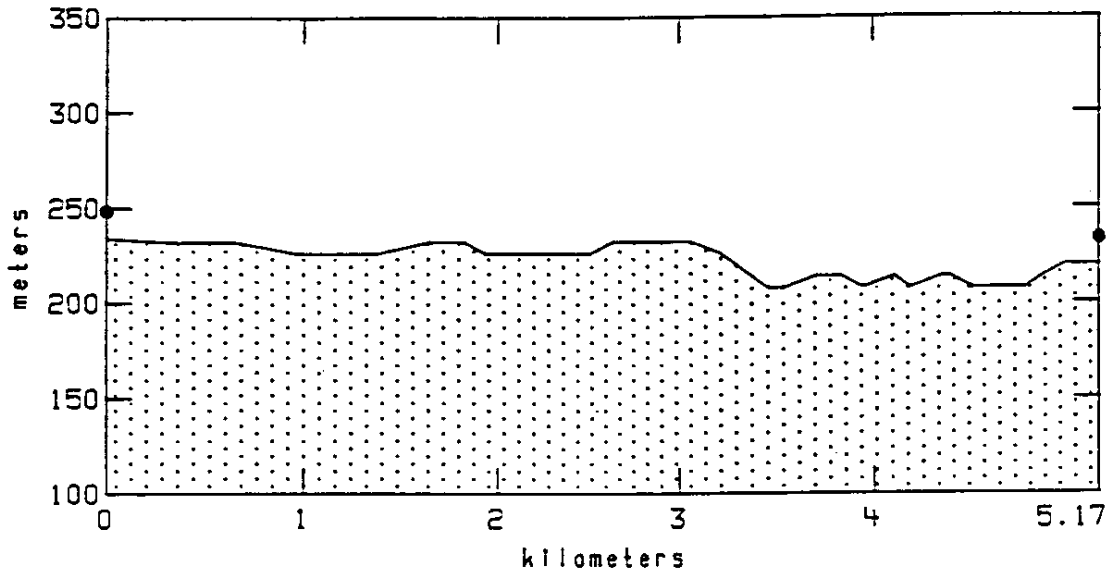
The site is open; there are telephone lines 100 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/08/67-van 1	77.5	89.3	105.9	112.1	120.4	122.3	123.5
Xmtr hts, m	11.0			11.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	13.5	14.0	14.5
2/01/67-van 1	-	-	-	-	123.0	128.0	124.7

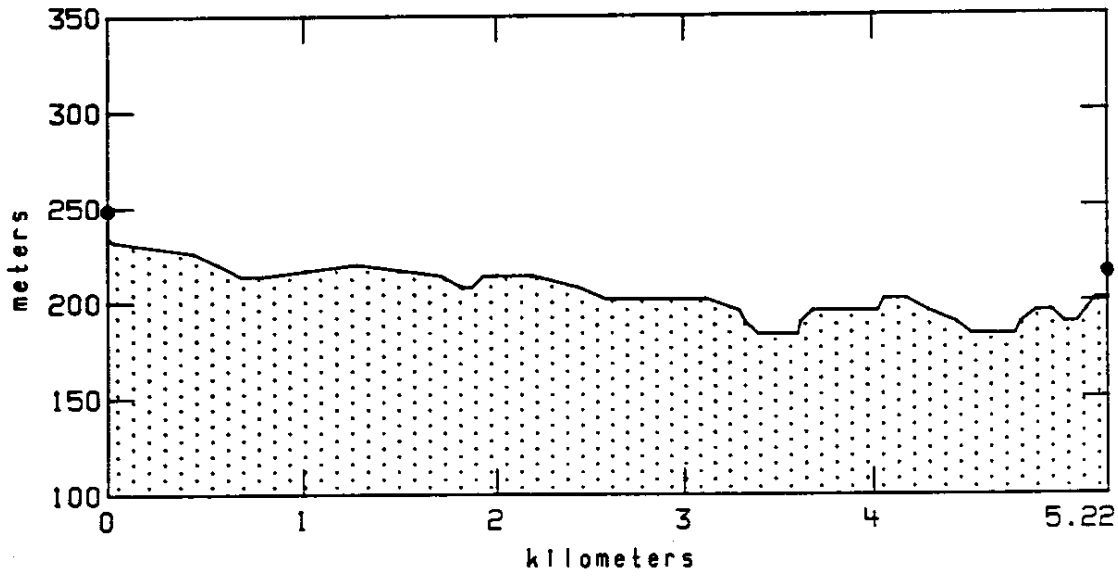
The site is on the edge of a farm field. There are telephone lines 100 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/06/67-van 1	92.0	102.3	104.9	127.6	136.4	148.8	151.5

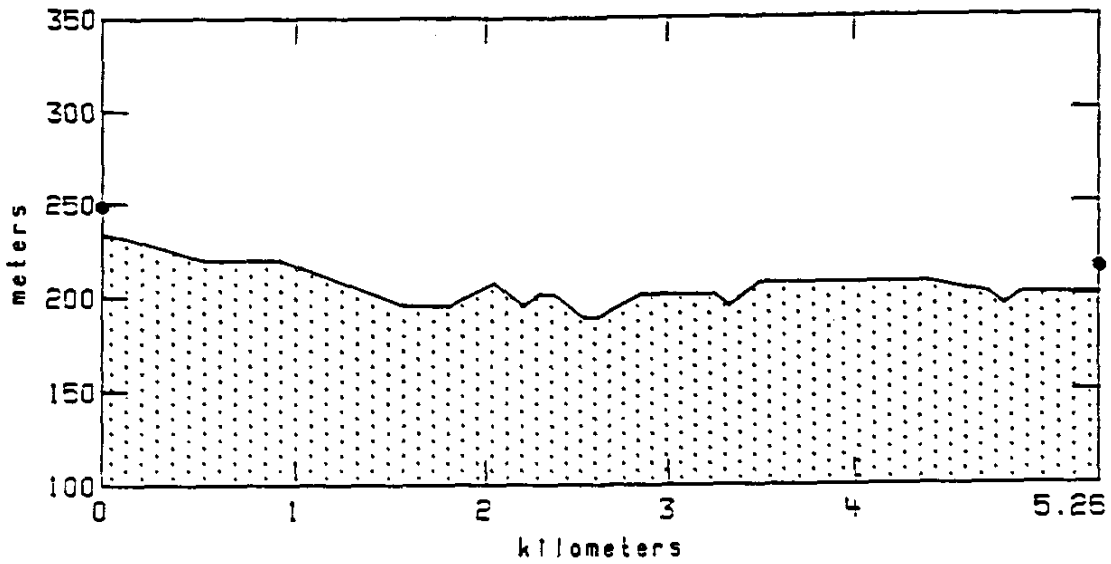
The site is in an open field. A 1-m high fence lies 10 m ahead. There are small, metal-roofed buildings below the horizon on the left, and a half-hectare pond straight ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/10/67-van 1	91.5	98.3	104.9	119.6	122.9	132.3	124.5

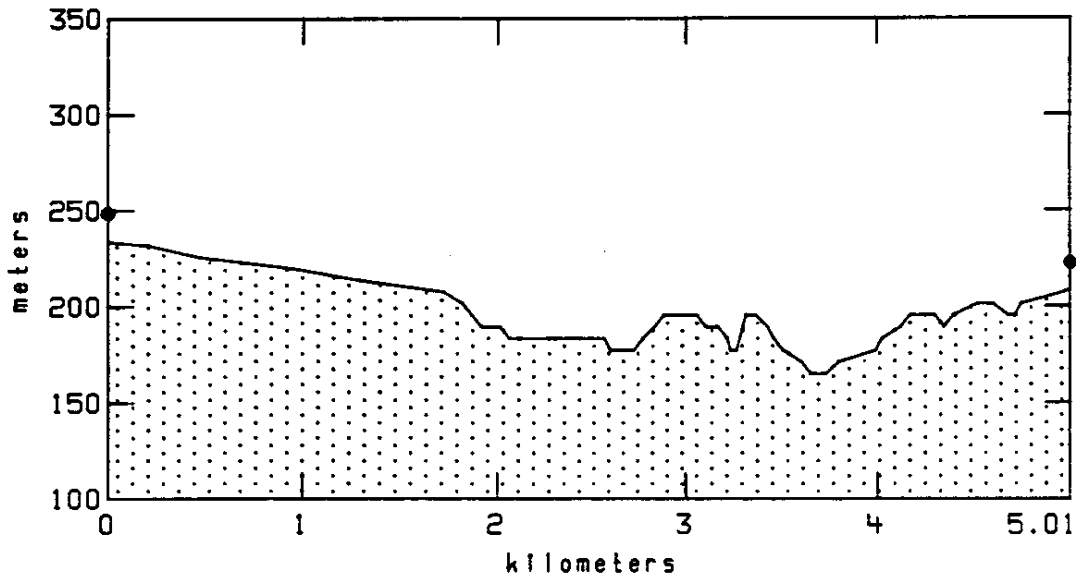
The site is in an open field with trees 150 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/07/67-van 1	95.5	92.3	113.4	119.6	123.4	145.3	141.3
Xmtr hts, m	15.0			11.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	13.5	14.0	14.5
2/08/68-van 1	-	-	-	-	129.6	150.2	147.5

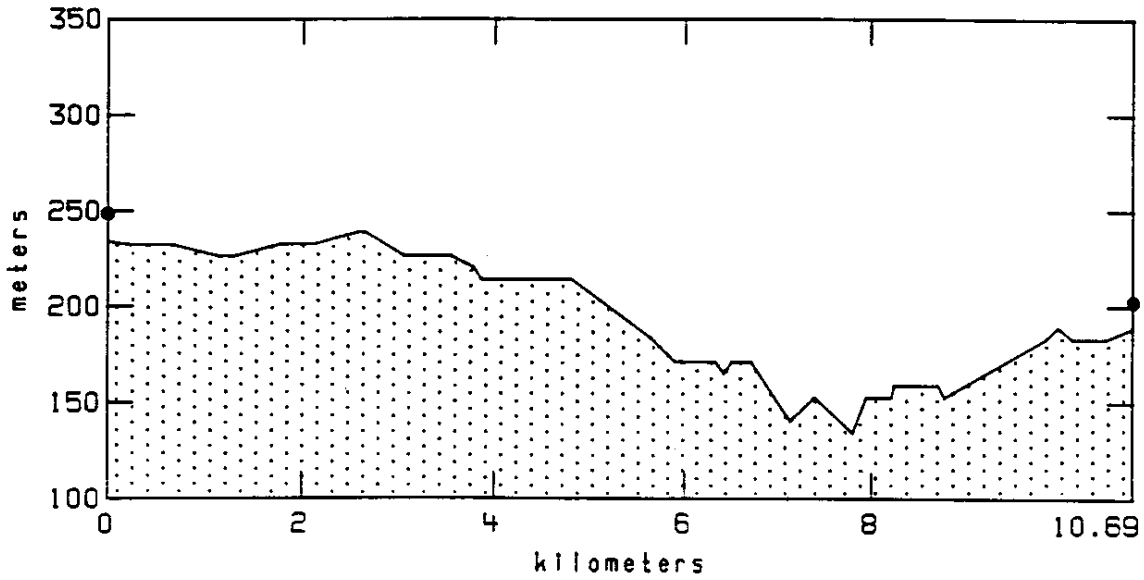
The site is on the side of a rural road; there are woods 60 m ahead. During the first run, there was a gusting wind.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/07/67-van 1	85.0	89.8	109.3	116.1	123.9	128.3	122.3

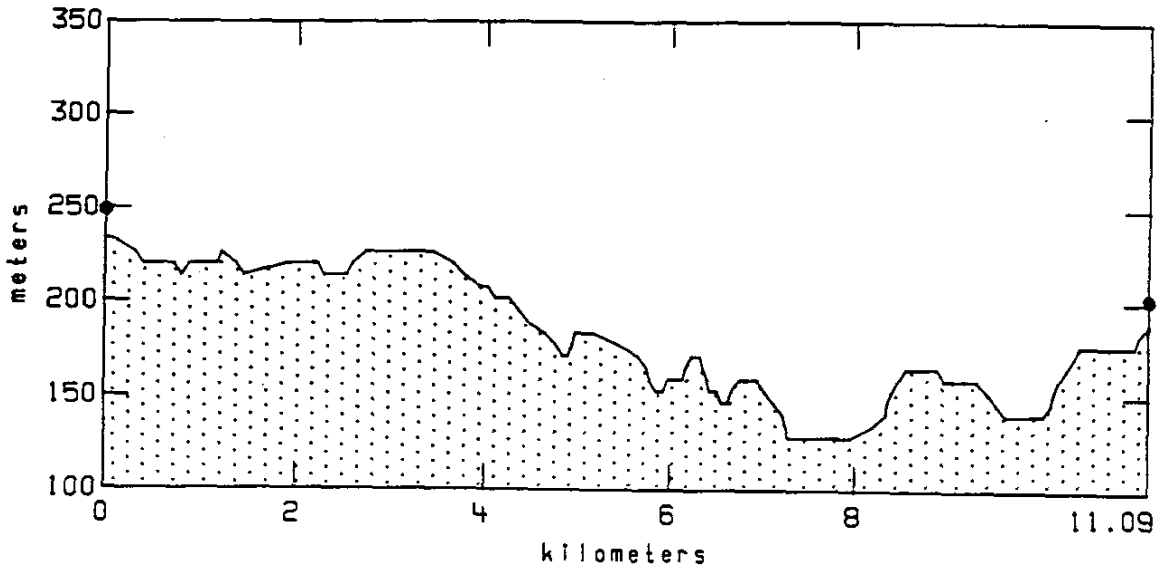
The site is at the edge of a plowed field. There are low trees 300 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/16/67-van 1	101.0	108.3	119.9	137.6	150.2	167.5	151.6
Xmtr hts, m	15.0			11.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	13.5	14.0	14.5
2/12/68-van 1	-	-	-	-	146.3	Noise	150.3

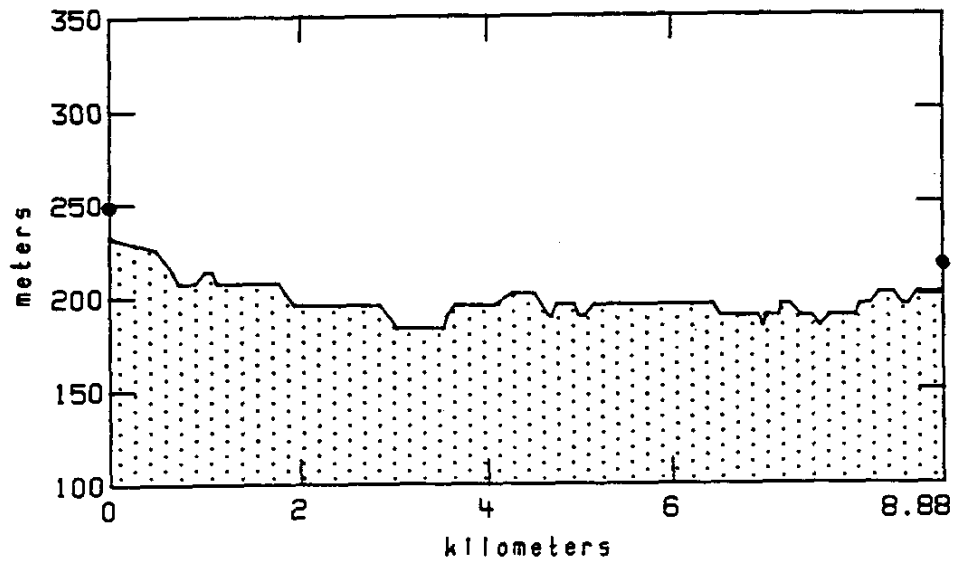
The site is in a farm field. Along the path are several single story buildings, and telephone lines at 150 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/20/67-van 1	96.0	115.3	121.4	141.6	143.2	152.9	153.9

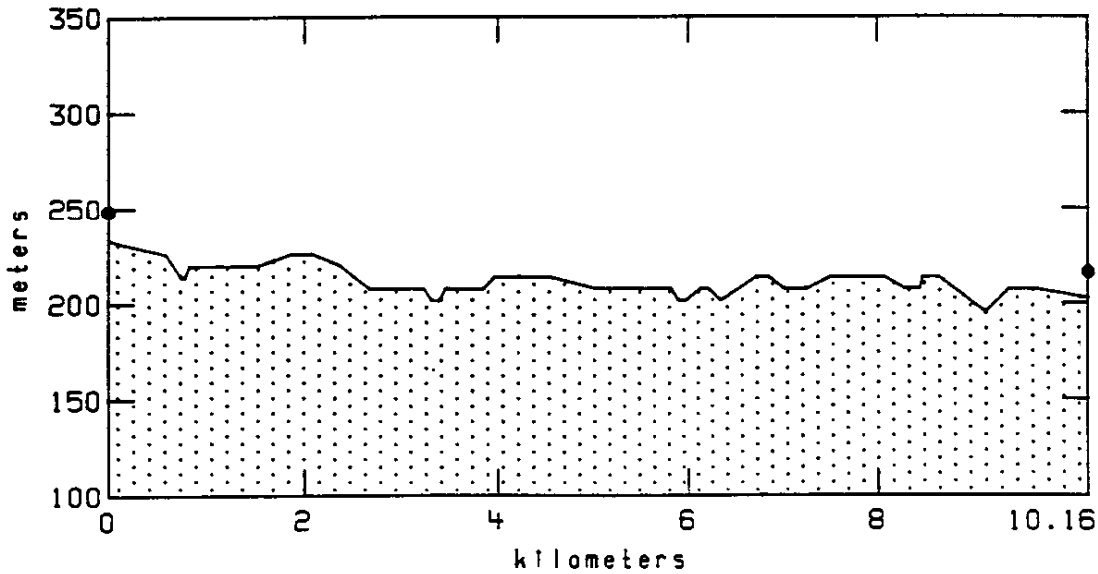
The site is on a rural road; there are low trees ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/21/67-van 1	90.5	108.8	118.9	132.6	139.2	150.9	144.9

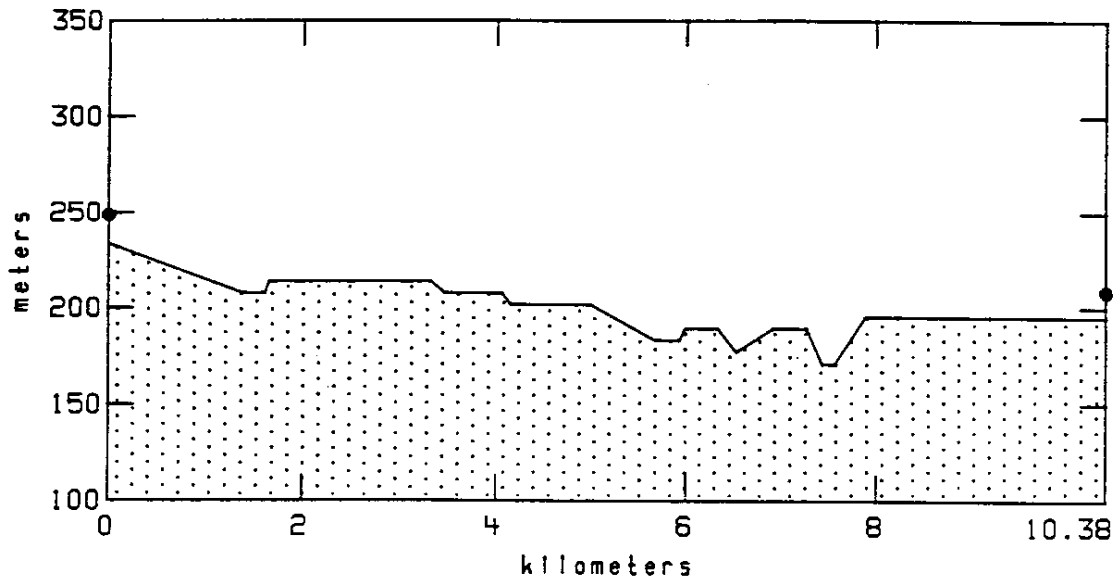
The site is in a church parking lot; tall trees lie 100 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/15/67-van 1	104.5	109.8	121.9	133.1	137.2	139.9	140.6
Xmtr hts, m	11.0			11.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	13.5	14.0	14.5
2/09/68-van 1	-	-	-	-	140.3	150.6	142.0

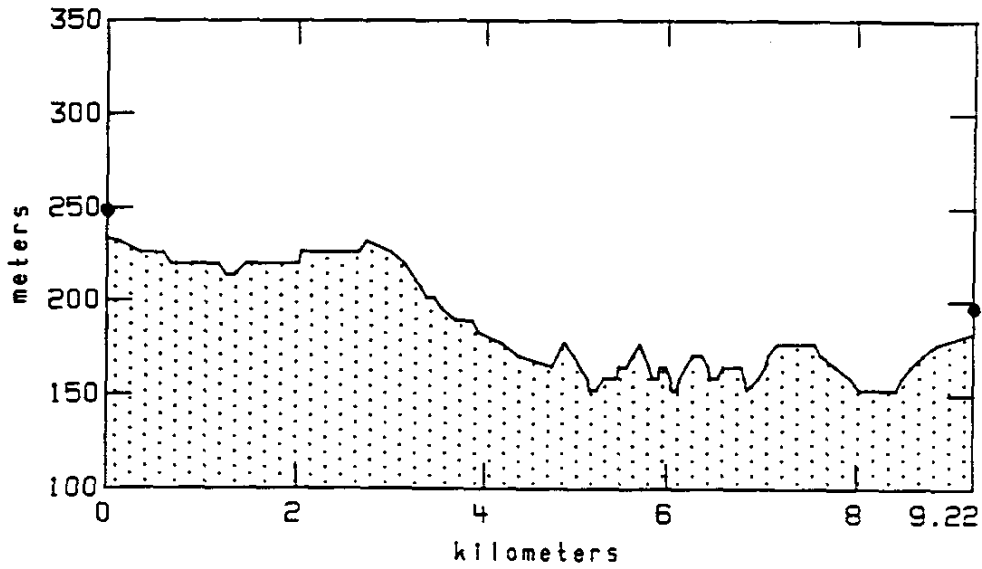
The site is in a pasture. There are telephone lines crossing the path at 15 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/15/67-van 1	106.0	114.8	126.9	138.1	148.2	171.9	171.6
Xmtr hts, m	14.0			14.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	13.5	14.0	14.5
2/09/68-van 1	-	-	-	-	147.4	173.2	Noise

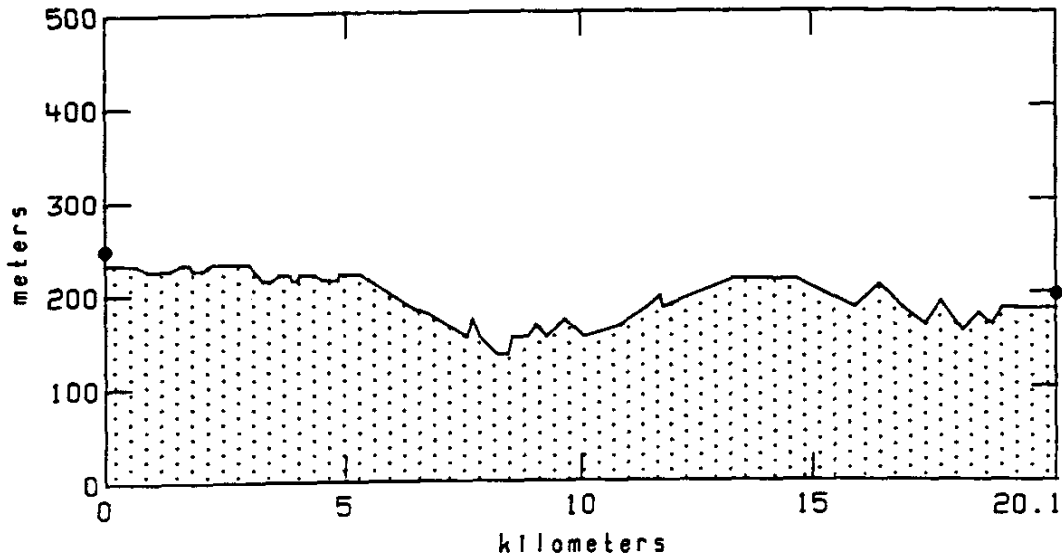
The site is in a church parking lot; there are trees 150 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/16/67-van 1	94.5	103.3	119.9	135.2	146.2	155.9	169.6

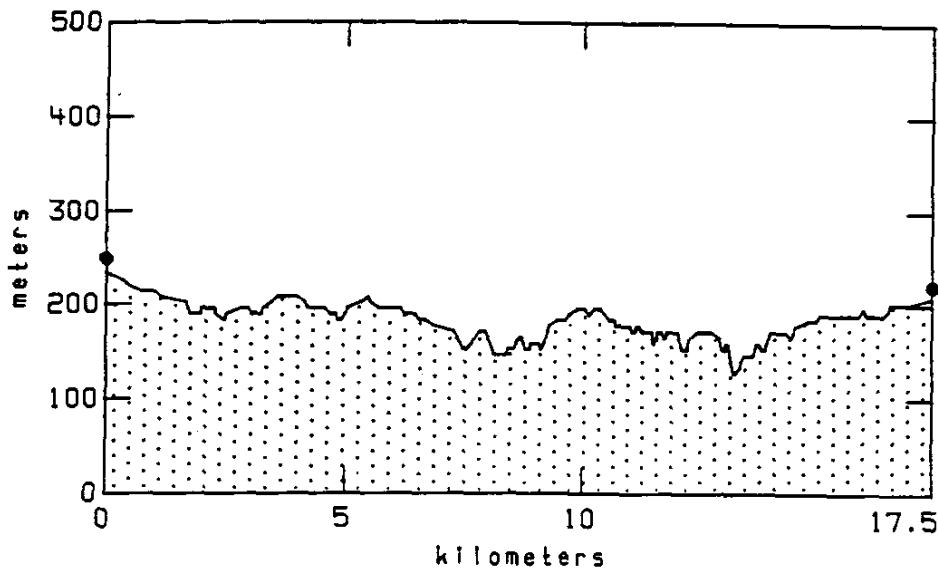
The site is at the edge of a field. There are 10-m high trees about 100 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
2/13/67-van 2	115.3	125.0	140.0	156.8	168.0	186.9	200.2
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	19.0	19.5
2/13/67-van 1	117.7	138.7	142.0	157.0	172.1	185.5	181.4
Xmtr hts, m	11.0			11.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	13.5	14.0	14.5
2/13/68-van 1	-	-	-	-	165.8	Noise	Noise
Concealed:							
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	10.0	15.0	13.5	13.9	15.0	14.0	15.0
2/14/67-van 1	119.0	126.3	145.9	163.1	172.7	179.9	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2/14/67-van 1	130.9	137.2	147.4	164.8	188.3	Noise	Noise

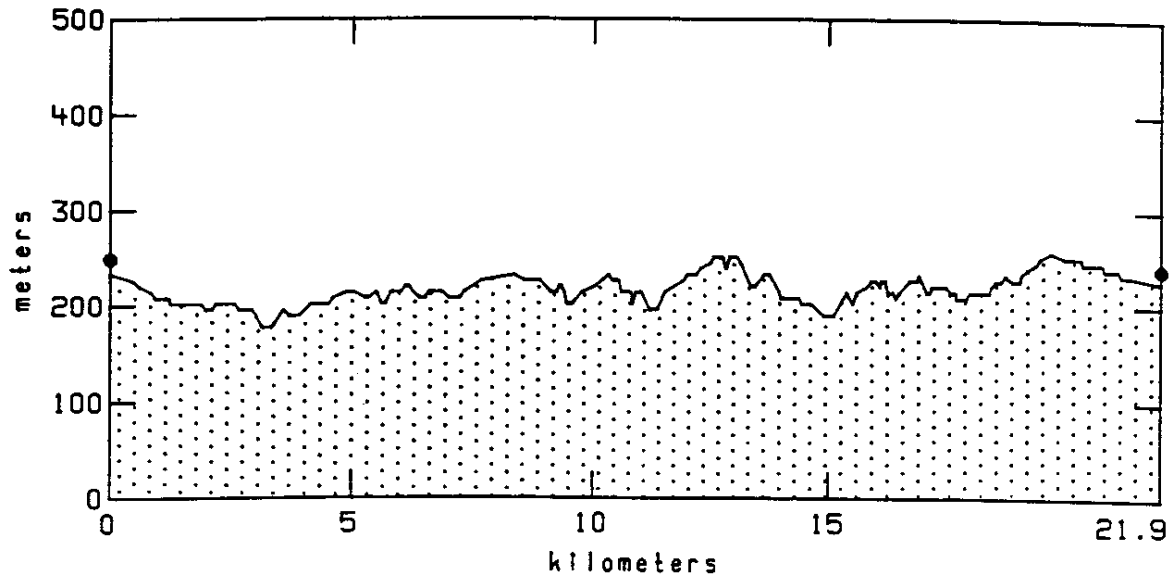
The site is in an open field. To the left of the path and 30 m ahead is a large brick school building. The concealed position is behind a large tree.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/09/67-van 1	103.0	118.3	123.9	126.6	139.3	148.7	142.1
Concealed:							
Rcvr hts, m	10.0	10.0	12.4	13.9	12.9	12.9	13.4
3/03/67-van 1	106.6	118.9	128.4	133.1	147.2	159.9	166.9
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3/03/67-van 1	114.6	122.8	135.7	140.3	157.1	170.5	176.3

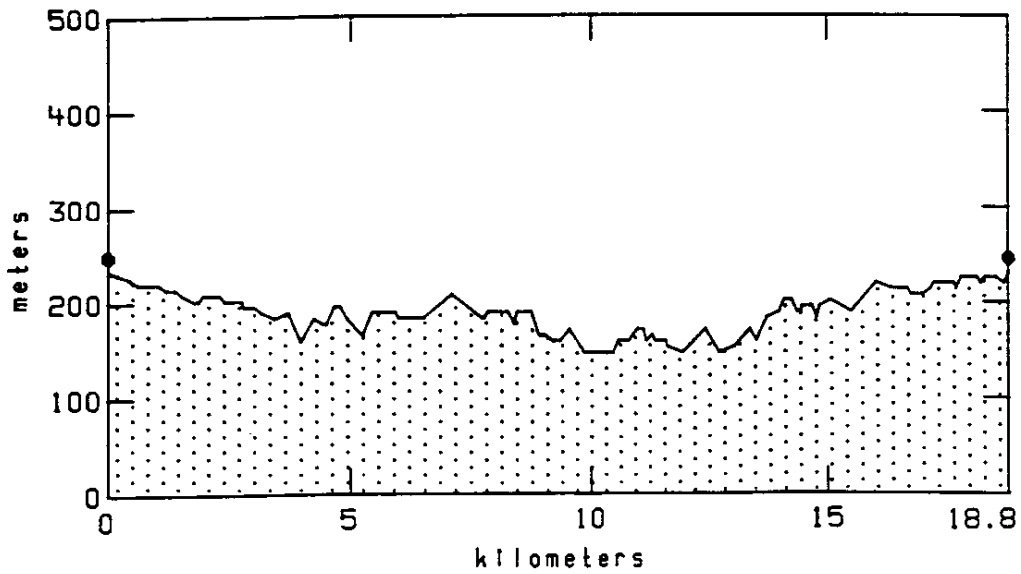
The site is in a plowed field covered by snow. There are tall trees 80 m ahead. The concealed position is at the edge of a parking lot surrounded by dense woods.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/22/67-van 1	106.5	111.8	119.9	126.6	127.2	141.9	148.9

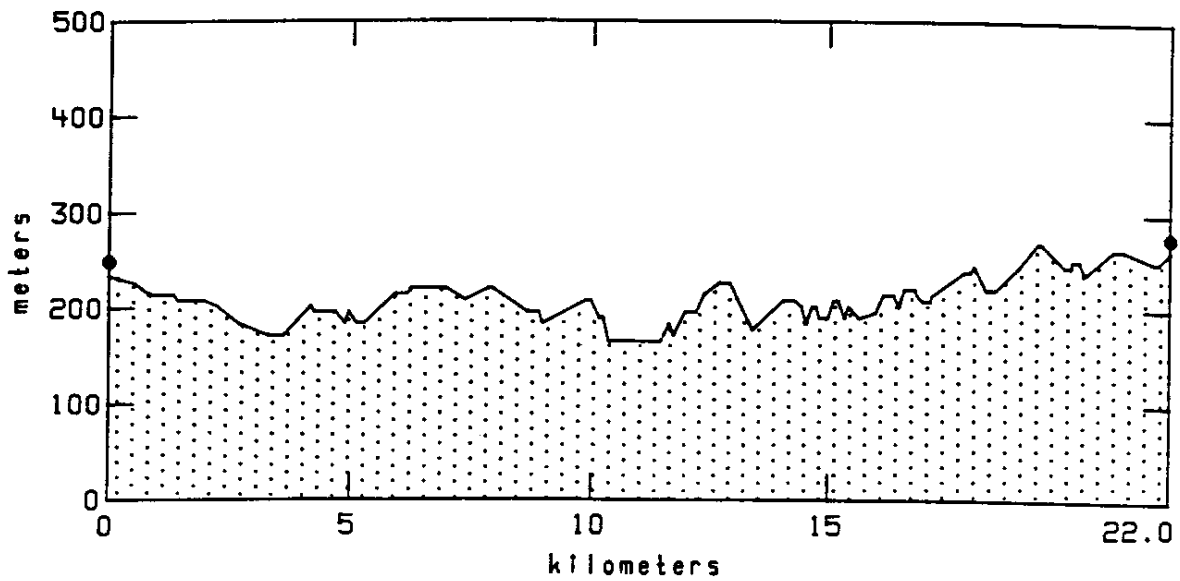
The site is in an open field; there are utility lines 25 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/07/67-van 1	109.0	107.8	114.9	126.6	128.7	136.7	135.6
Xmtr hts, m	11.0			11.0			
Rcvr hts, m	12.1	12.1	13.5	15.0	13.5	14.0	14.5
2/09/68-van 1	-	-	-	-	129.2	142.4	149.0

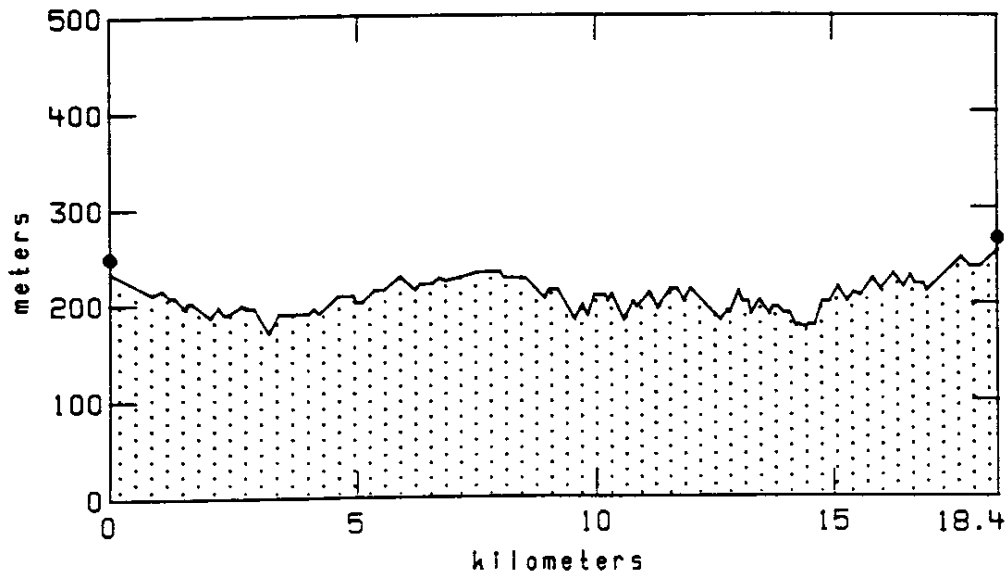
The site is in a church parking lot covered with about 10 cm of snow. Low trees lie ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/10/67-van 1	111.5	120.8	135.2	143.1	155.2	162.9	184.6

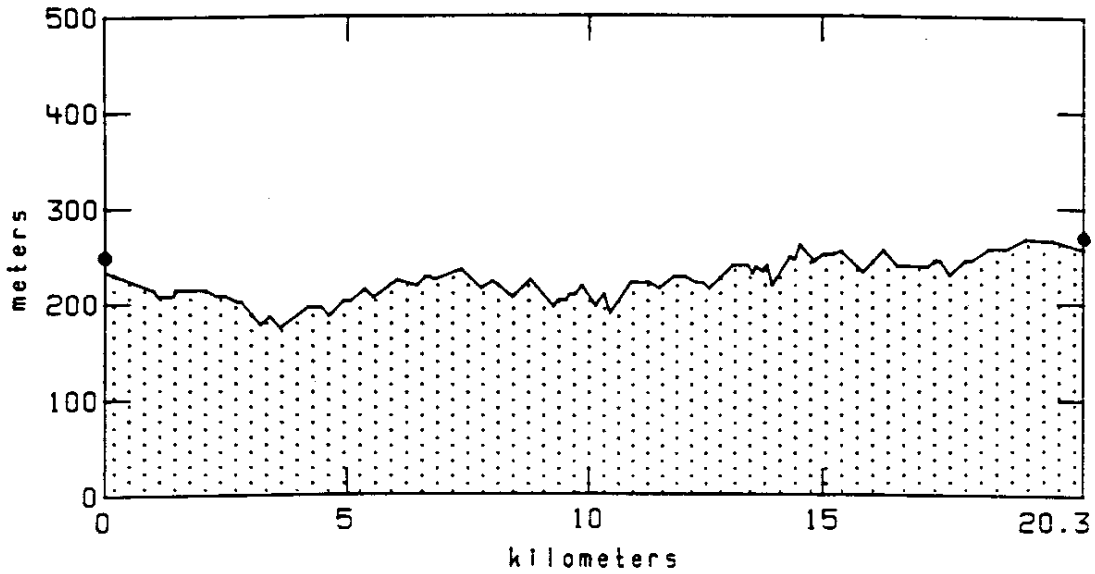
The site is in a service station parking lot. About 6 m ahead are power lines, and at about 40 m are a frame house, a barn, and a billboard.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	10.0	10.0	12.4	13.9	12.9	12.9	13.4
2/06/67-van 1	106.0	116.3	121.9	129.1	133.7	141.9	137.6
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2/06/67-van 1	115.9	123.7	132.4	139.1	144.8	153.9	159.0

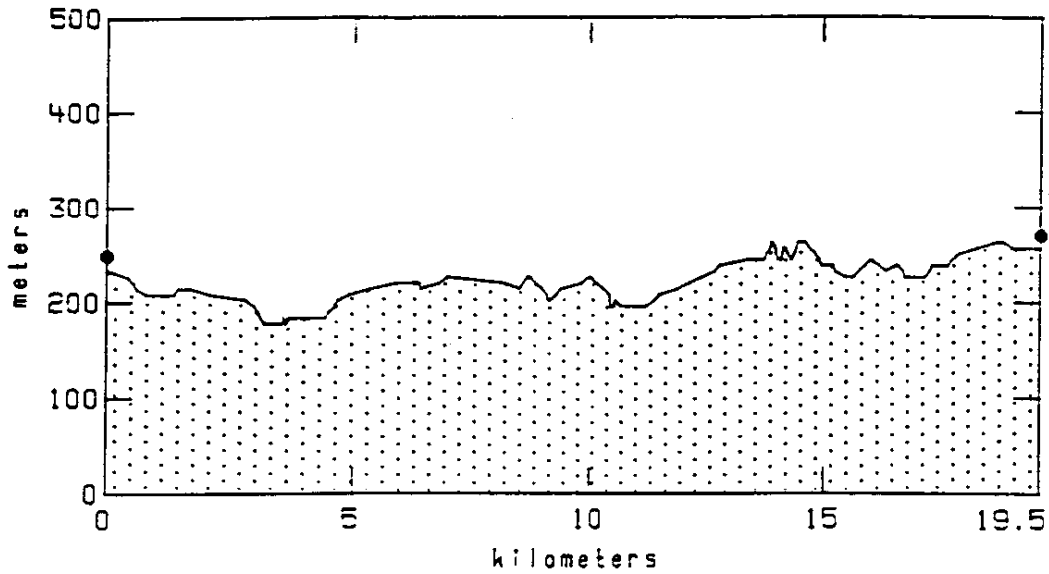
The site is behind some large oak trees. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	10.0	10.0	12.4	13.9	12.9	12.9	13.4
2/08/67-van 1	114.8	123.8	136.4	150.1	163.2	187.9	180.6
Xmtr hts, m	11.0			11.0			
Rcvr hts, m	10.0	10.0	12.4	13.9	13.5	14.0	14.5
2/12/67-van 1	-	-	-	-	159.6	Noise	Noise
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2/08/67-van 1	122.4	-	148.9	170.1	-	-	-

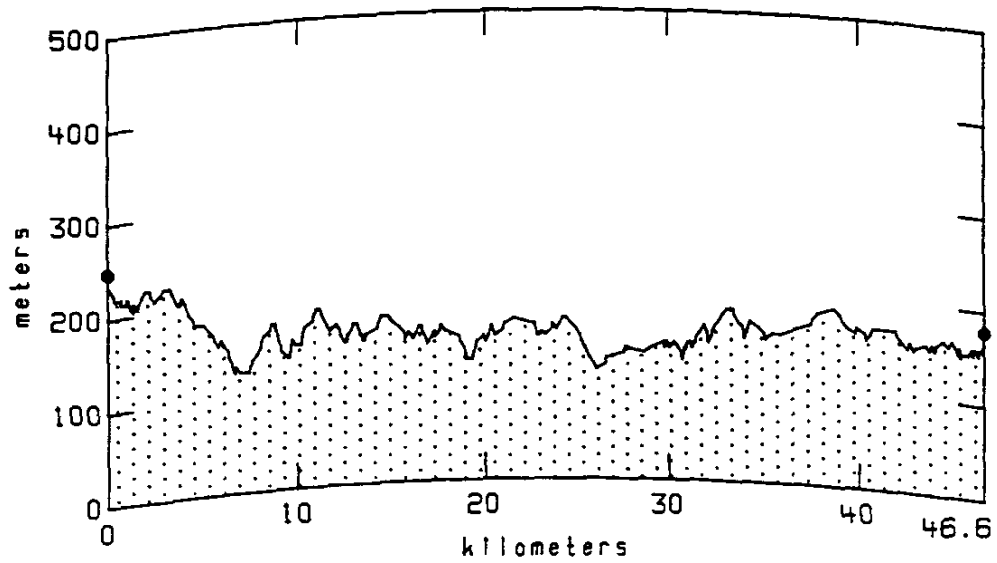
The site is in a church parking lot surrounded by large trees. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	13.4
2/10/67-van 1	116.0	120.8	129.9	139.4	153.7	167.7	163.6

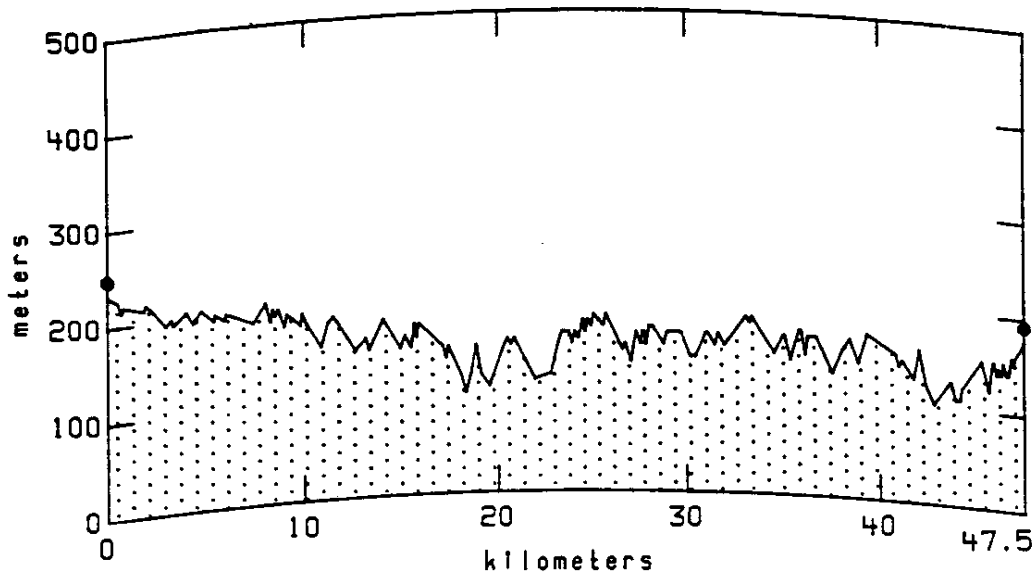
The site is in a parking lot. Ahead is a large, open, snow-covered field; and at a further distance are some trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/23/67-van 1	124.0	129.8	142.4	153.6	159.2	166.4	170.4

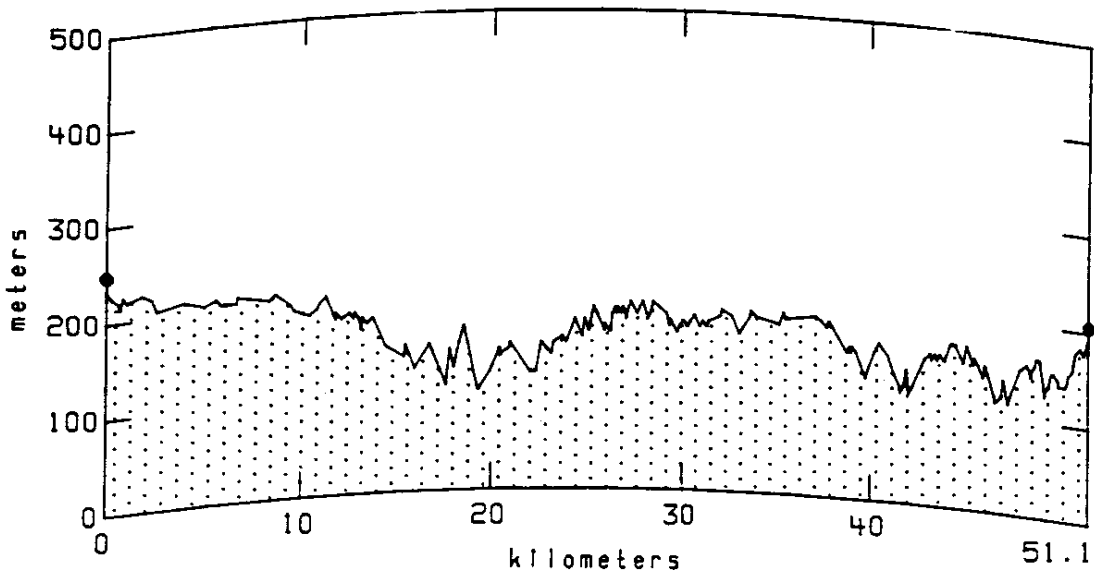
The site has no path obstructions; there are only low trees below antenna level about 60 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
3/09/67-van 2	130.3	136.0	146.5	167.3	178.5	193.9	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3/09/67-van 2	139.6	143.4	158.2	173.6	Noise	Noise	Noise

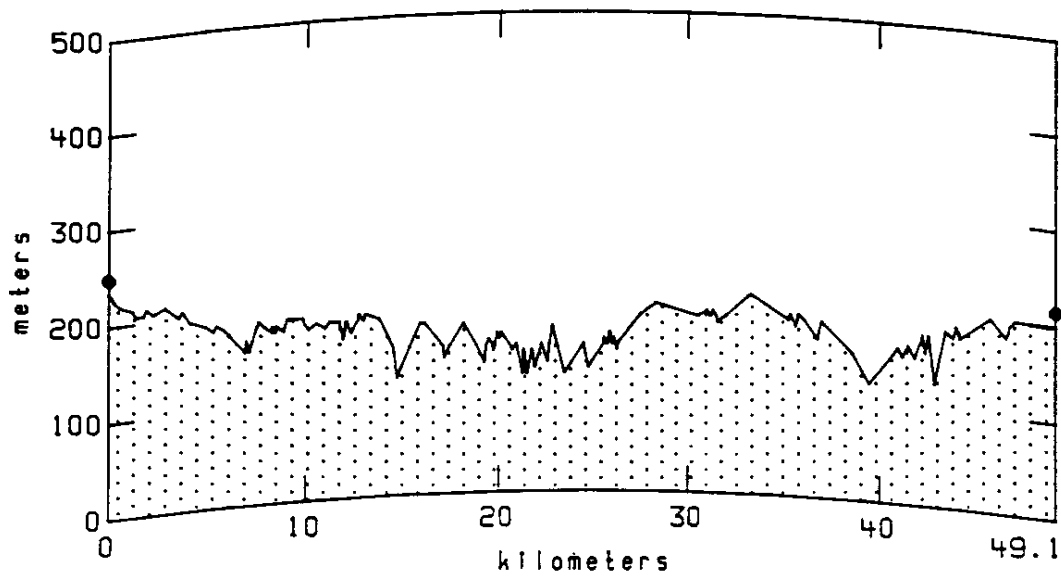
The site is behind dense evergreen and deciduous trees. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/02/67-van 1	128.1	134.4	146.9	154.1	175.2	182.9	Noise

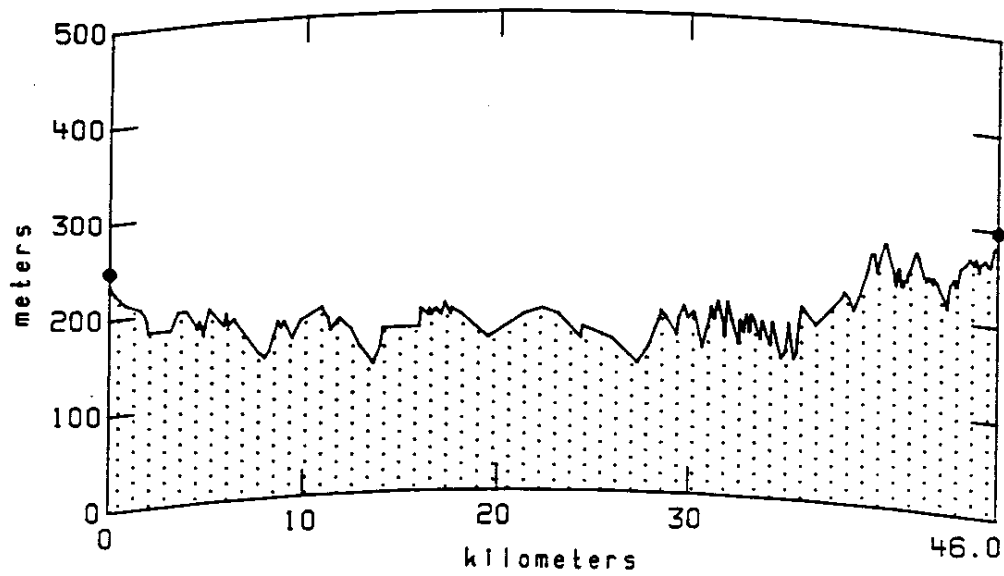
The site is at the edge of an open farm field.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
3/07/67-van 2	133.8	143.0	149.5	160.3	174.5	190.4	199.8
Concealed:							
3/08/67-van 2	133.3	146.0	155.5	174.8	194.0	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3/08/67-van 2	143.1	150.4	167.7	194.6	Noise	Noise	Noise

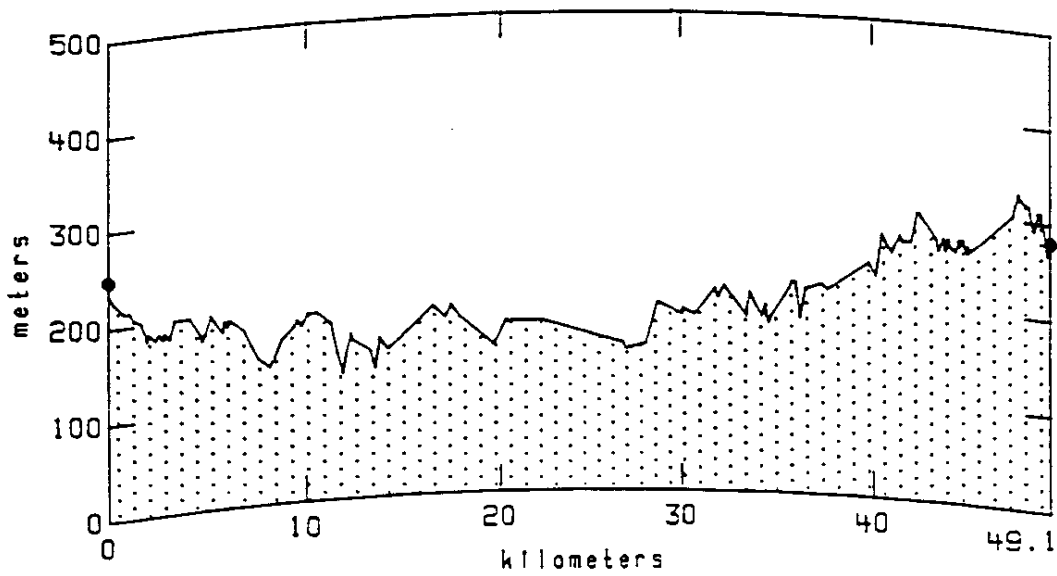
The site is in an open pasture adjacent to a grove of evergreen trees. The concealed position is 10 m behind those evergreen trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/28/67-van 1	121.0	120.3	136.4	140.6	150.7	165.4	169.9

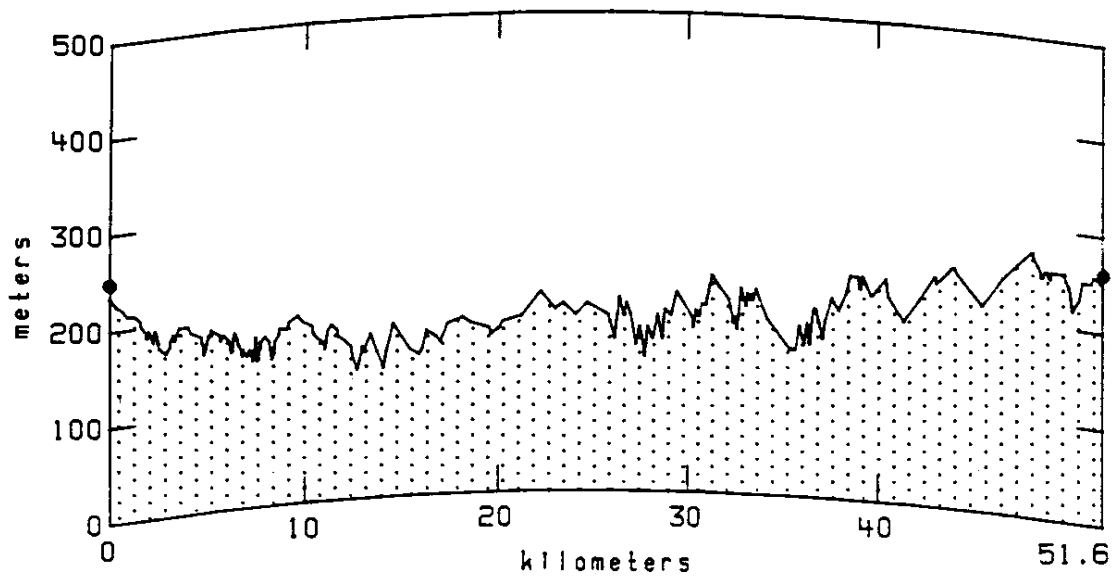
The site is in an open farm field. Power lines cross the path at 100 m and there are trees and a structure 130 m ahead below antenna levels.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	10.0	10.0	12.4	13.9	12.9	12.9	13.4
3/01/67-van 1	115.0	129.8	134.9	135.6	142.2	144.9	147.9
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3/01/67-van 1	125.9	123.2	143.4	160.1	178.3	183.9	Noise

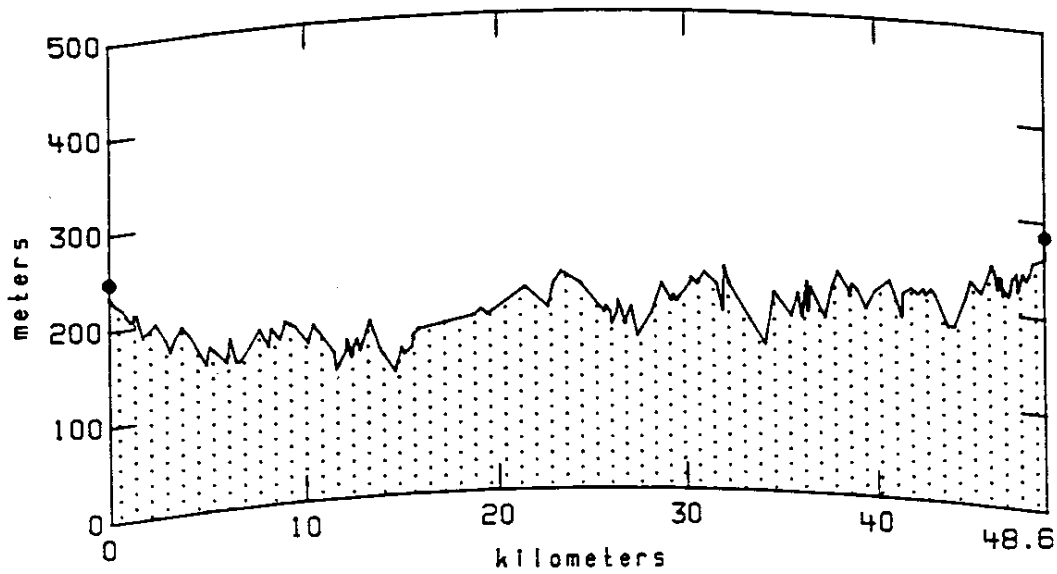
The site is in a dense wood. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
2/24/67-van 1	128.0	130.8	146.9	155.1	159.2	171.9	178.4

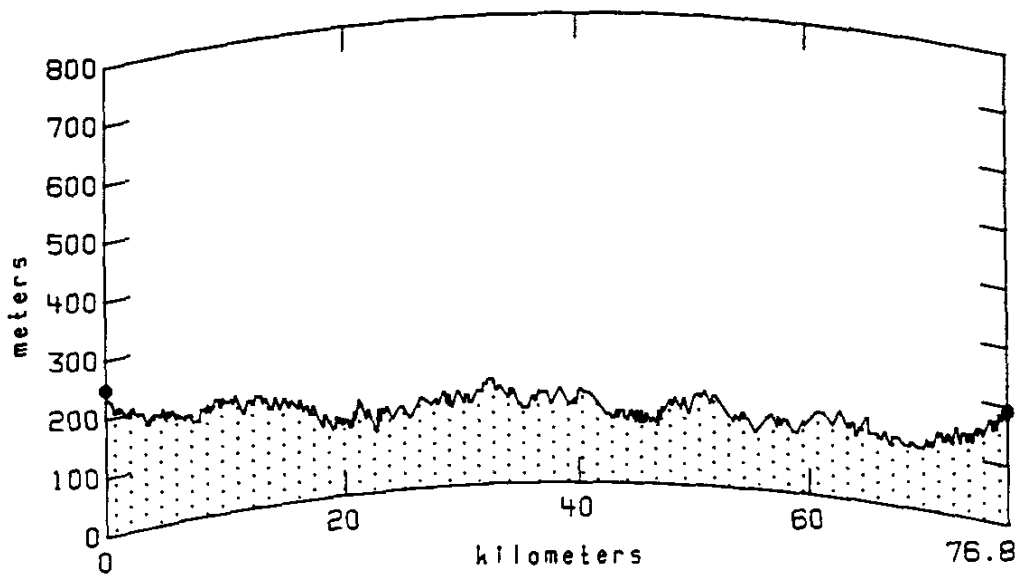
The site is in an open field. There are a house and a tin-roofed barn near the path.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
3/06/67-van 2	122.3	125.0	133.0	142.8	147.8	160.4	155.3
Concealed:							
3/10/67-van 2	122.3	131.0	136.0	144.3	156.5	167.4	164.1
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3/10/67-van 2	137.7	134.6	147.0	160.2	194.4	Noise	Noise

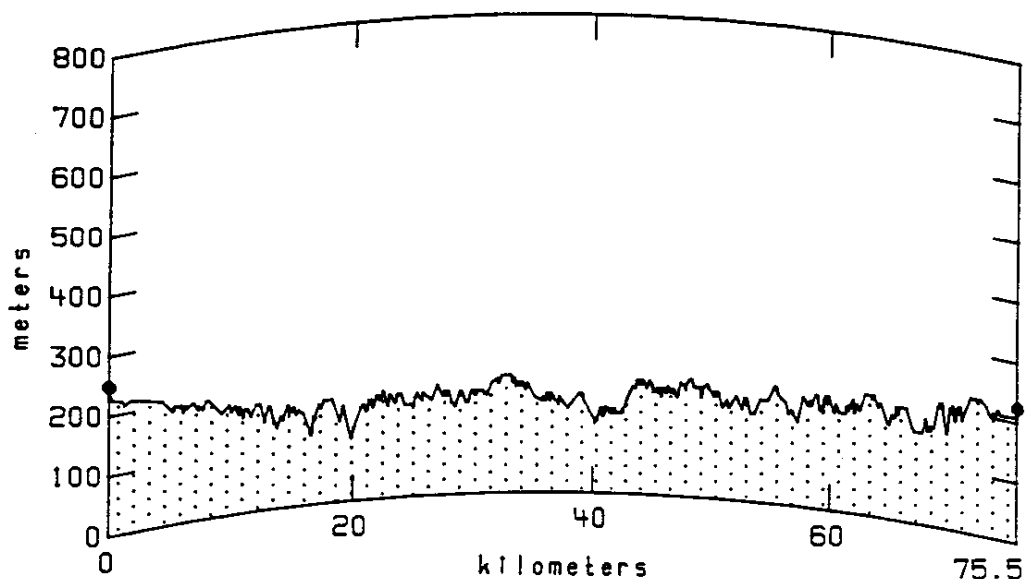
The site is in an open field with low trees on the path 60 m ahead. The concealed position is behind dense deciduous trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
3/03/67-van 2	135.3	147.0	155.5	171.8	184.0	Noise	Noise

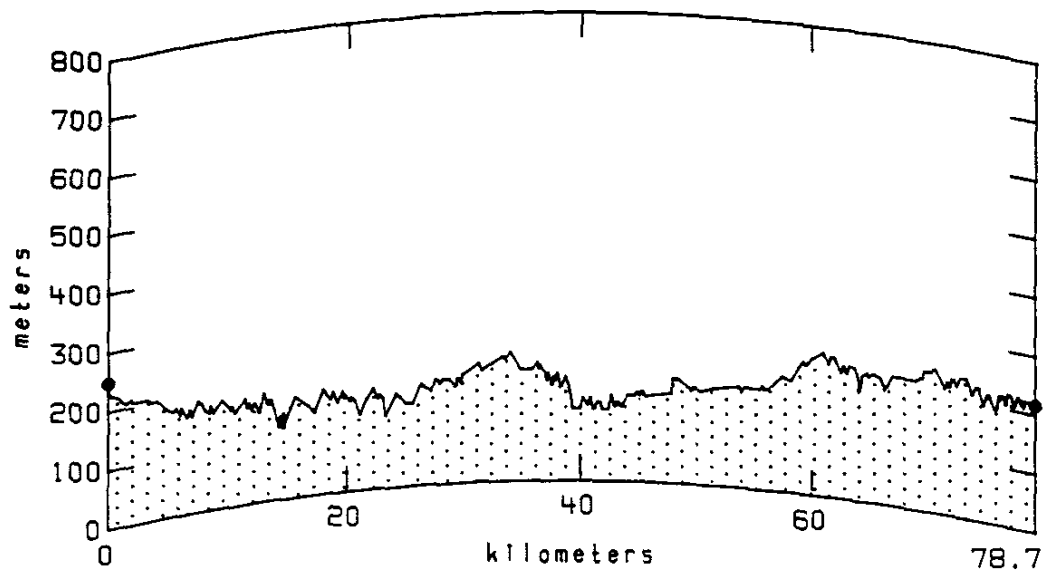
The site is in an open field. Utility lines cross the path at 15 m, and there are low trees 60 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
2/14/67-van 2	143.3	155.5	165.0	180.8	Noise	Noise	Noise

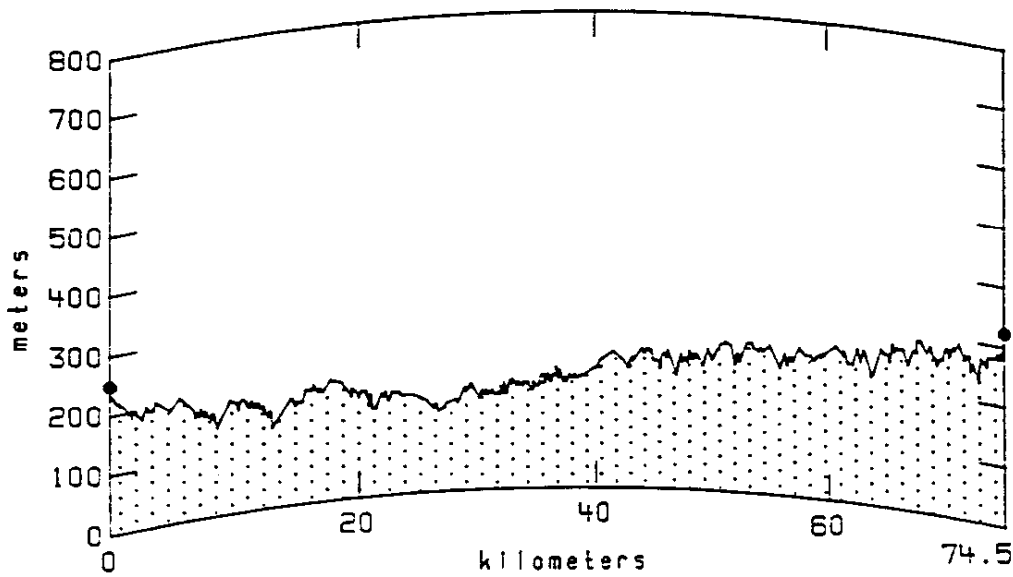
The site is in an open field. Power lines cross the path at 25 m, and there are trees and a building 100 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
2/06/67-van 2	150.3	147.5	161.2	163.5	183.1	203.9	Noise
Concealed:							
2/07/67-van 2	147.3	148.0	161.7	178.5	192.6	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2/07/67-van 2	145.6	148.9	168.2	184.6	Noise	Noise	Noise

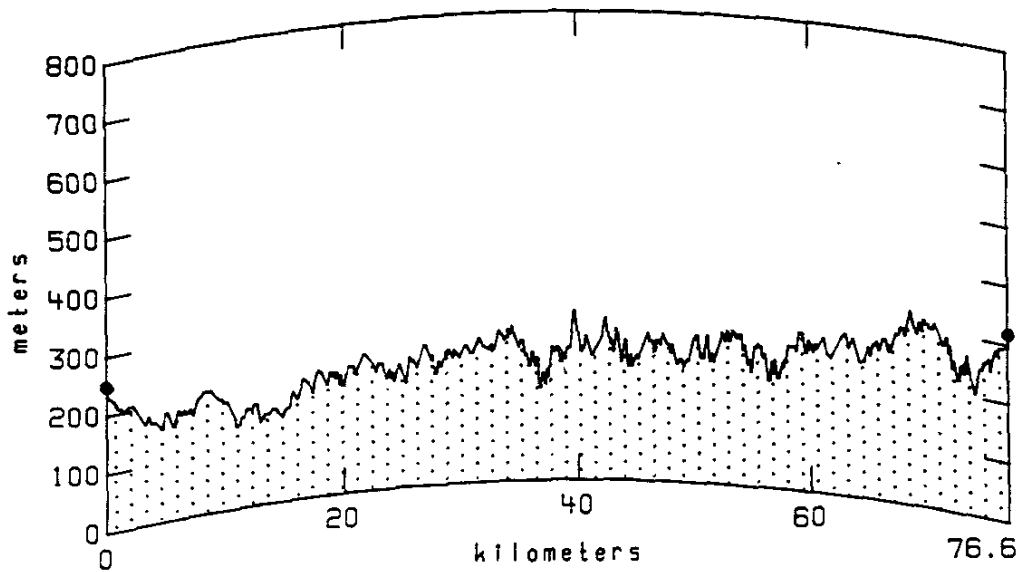
The site is in an open field with trees 60 m ahead. The concealed position is behind some large trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
2/08/67-van 2	136.1	138.0	154.5	160.0	185.6	188.9	Noise
Concealed:							
2/09/67-van 2	128.3	137.0	151.2	158.0	174.6	184.9	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2/09/67-van 2	148.6	149.9	157.7	162.6	170.7	Noise	Noise

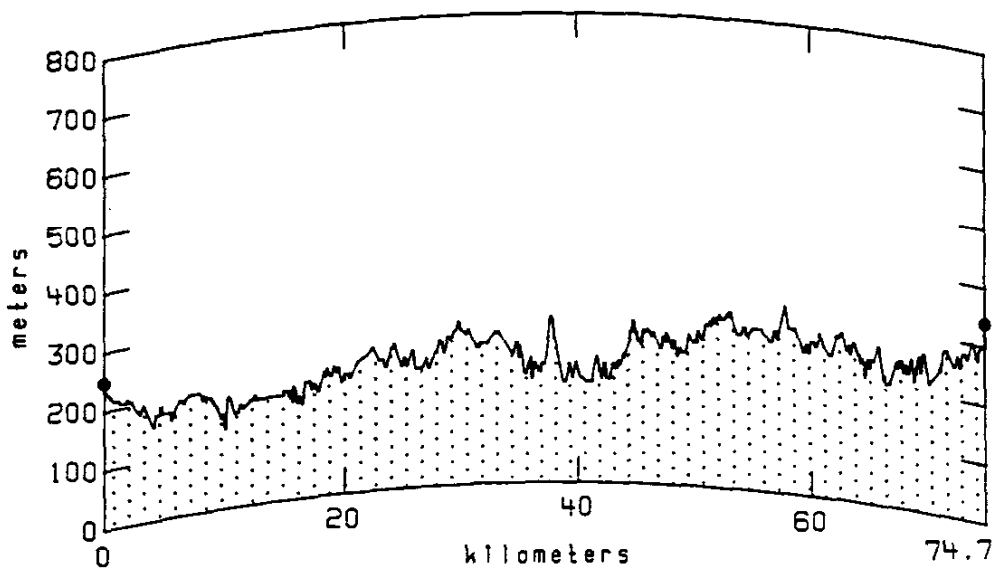
The site is in an open, snow-covered field. There are trees below antenna levels ahead. The concealed position is behind some trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
2/22/67-van 2	137.3	147.0	158.0	170.8	180.0	Noise	Noise
Concealed:							
2/22/67-van 2	135.8	148.0	158.5	171.3	178.0	200.9	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2/22/67-van 2	160.6	158.4	167.2	173.6	189.2	Noise	Noise

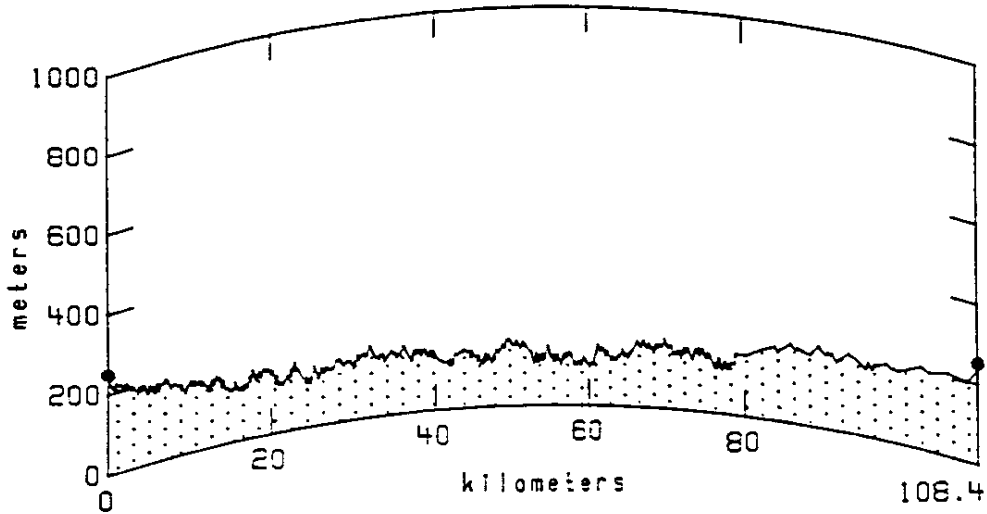
The site is in an open field. There are trees at 30 m and at 60 m, all below antenna levels. The concealed position is behind some large trees and 10 m away from a church building.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
2/15/67-van 2	131.3	137.5	158.7	163.8	178.5	193.9	201.2
Concealed:							
2/20/67-van 2	129.3	133.0	153.5	163.8	174.5	199.9	197.5
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2/20/67-van 2	154.6	153.9	156.7	176.6	190.2	Noise	Noise

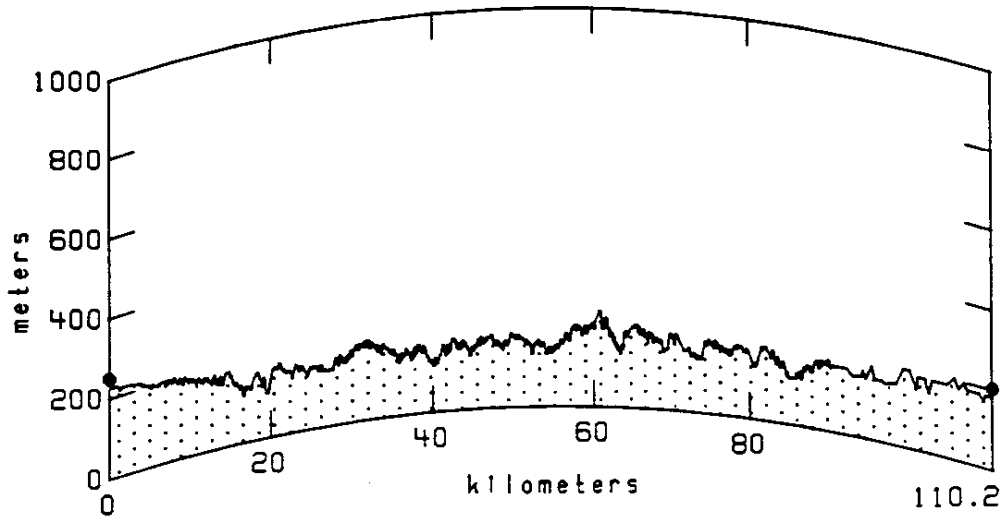
The site is on a hill with low bushes in the foreground. The path is clear to the horizon. The concealed position is behind some large trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
3/02/67-van 2	150.9	162.4	177.6	193.8	Noise	Noise	Noise
Concealed:							
3/02/67-van 2	148.9	162.9	183.6	Noise	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3/02/67-van 2	164.3	174.5	201.1	Noise	Noise	Noise	Noise

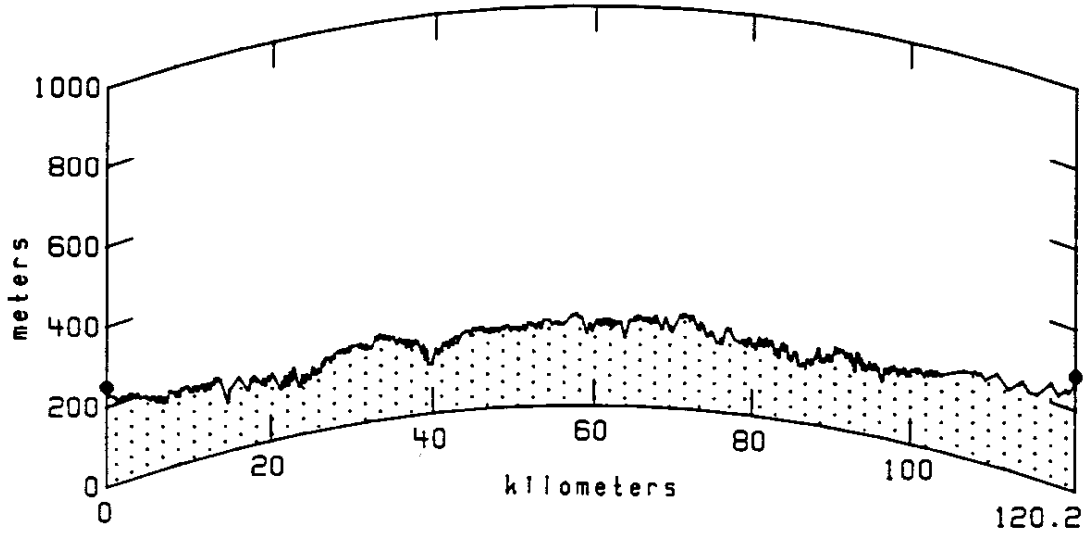
At the open position there are utility lines 25 m to the left of the path. The concealed position is behind a dense wood.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
3/01/67-van 2	154.3	170.5	180.0	Noise	Noise	Noise	Noise

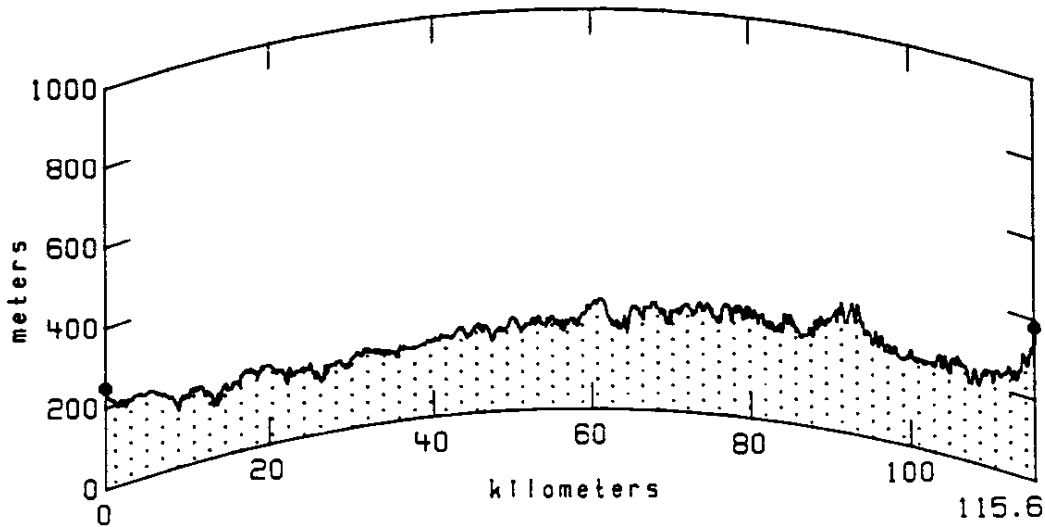
The site is in an open church yard.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
2/28/67-van 2	155.3	167.0	183.0	195.8	Noise	Noise	Noise

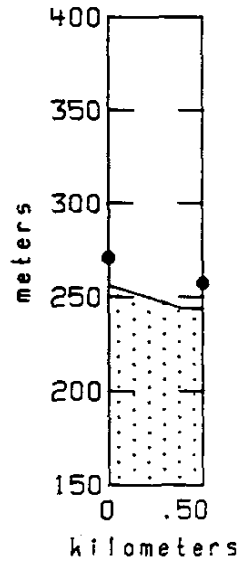
The site is in an open field. There are trees adjacent to the path at 150 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
2/23/67-van 2	146.3	165.0	168.0	183.8	193.0	Noise	Noise
Concealed:							
2/24/67-van 2	141.3	152.5	168.7	185.8	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2/24/67-van 2	144.6	152.4	172.7	187.6	Noise	Noise	Noise

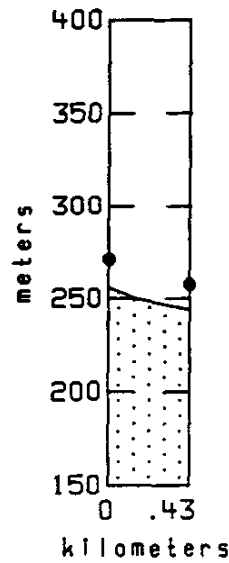
At the open position there are trees in the foreground, but they are all below antenna levels. The concealed position is behind some large trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/31/67-van 1	52.6	63.2	78.7	86.8	96.7	98.2	132.9

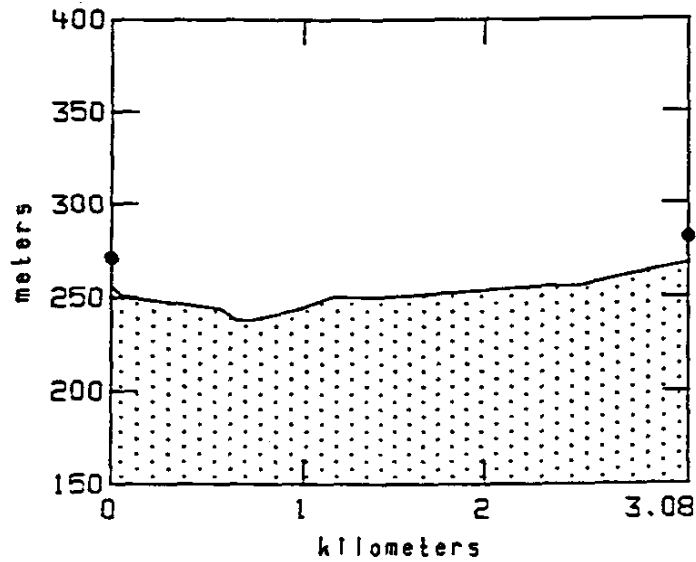
The site is in an open field 25 m from the highway. Transmitting and receiver sites are intervisible.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/31/67-van 1	50.1	63.2	98.7	86.3	91.7	98.7	103.9

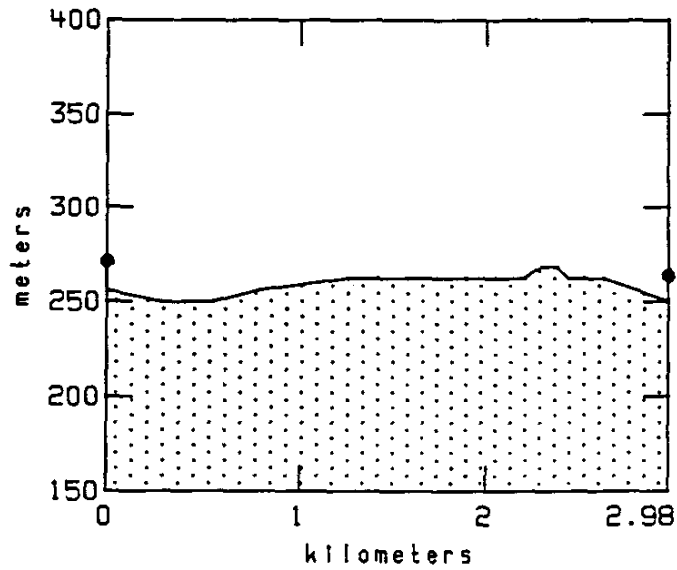
Transmitting and receiving sites are intervisible. There are a large radio tower and some trees near the path.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/13/67-van 1	82.6	88.2	103.7	114.3	-	129.2	152.9

The site is in an open field near a highway. There are power lines below antenna level about 3 m ahead. The 2 GHz signal suffered interference and could not be measured.



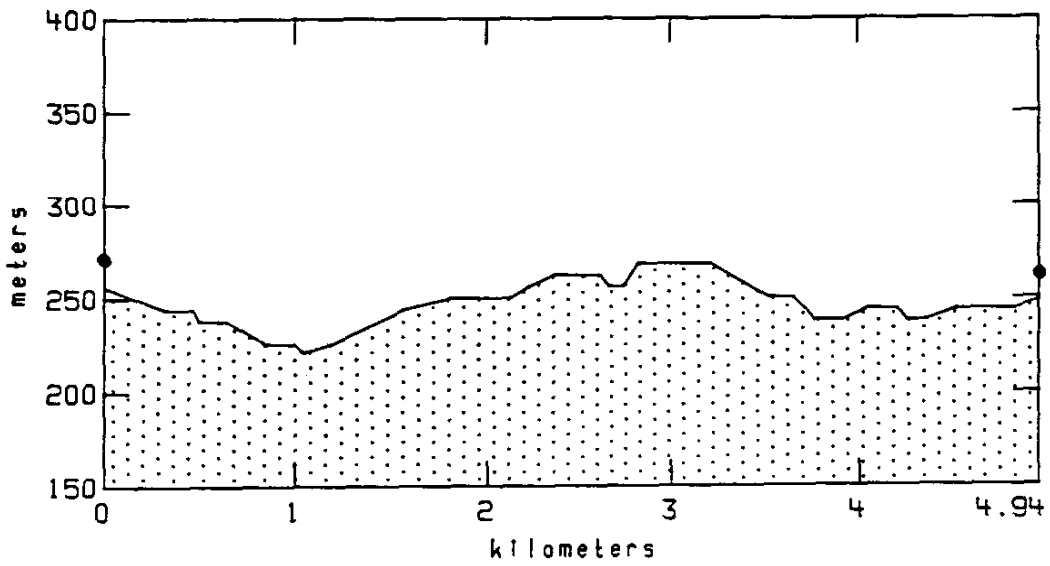
Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/23/67-van 1	89.7	95.2	105.7	110.3	124.2	132.2	134.7

The site is adjacent to railroad tracks and utility lines cross the path 10 m ahead.

T5-5-R1

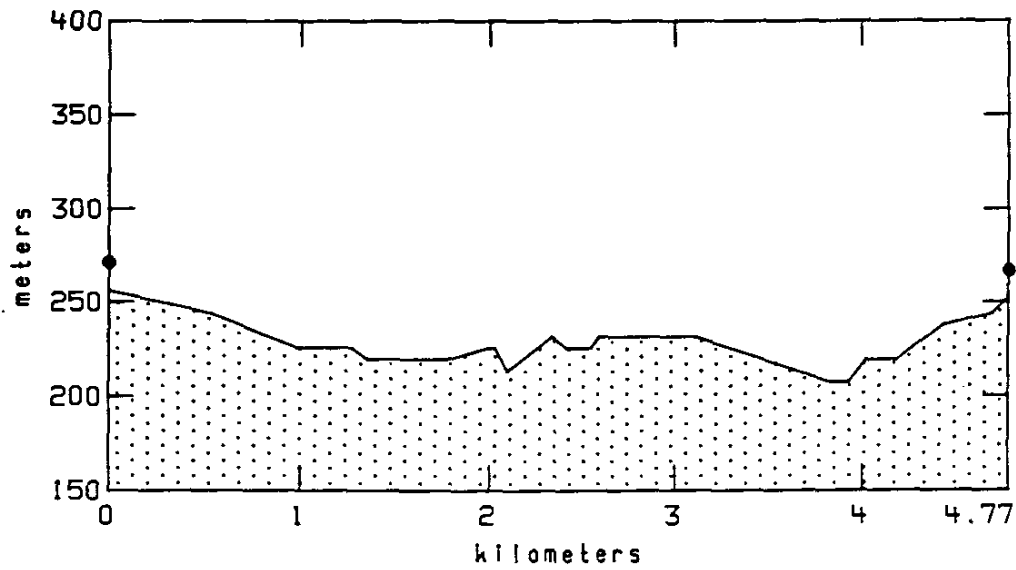
Path length, 4.94 km



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/17/67-van 1	89.6	100.2	119.2	137.8	146.7	167.7	173.1

The site is in a plowed field.



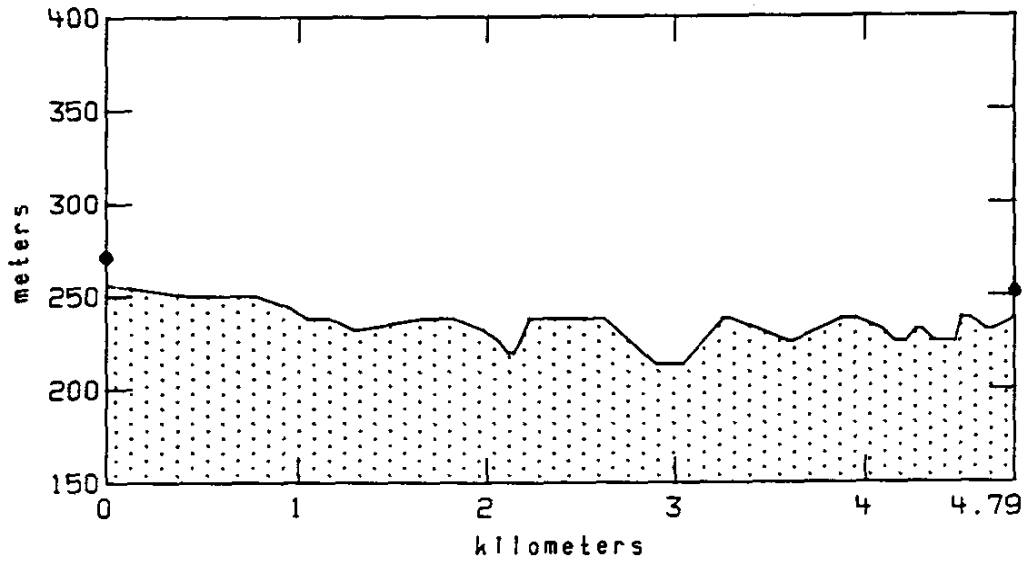
Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/20/67-van 1	83.4	94.2	102.0	111.3	112.2	126.4	125.9

The site is in a field; the path is line-of-sight. There are utility lines 25 m behind the receiving antennas.

T5-5-R3

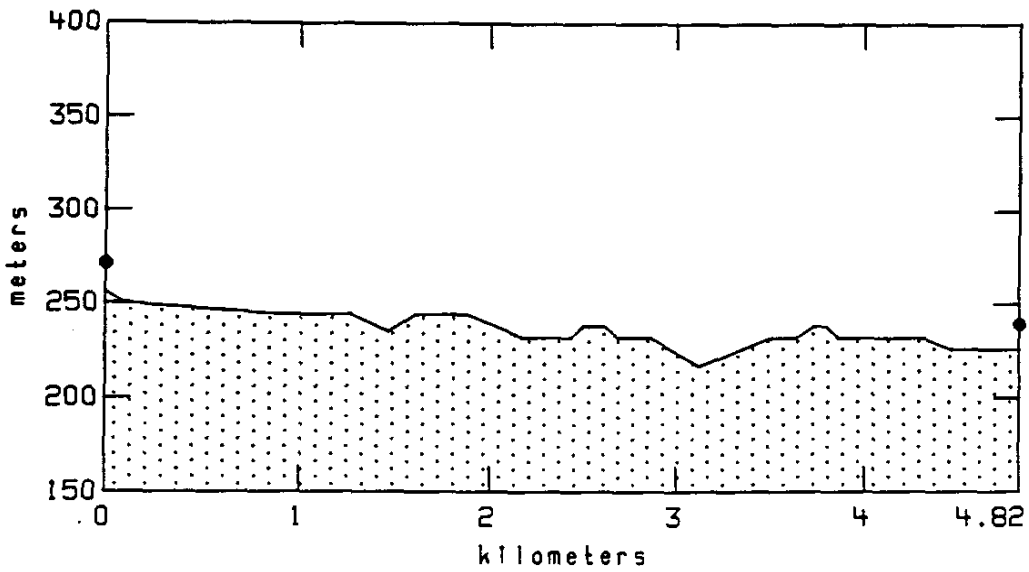
Path length, 4.79 km



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/16/67-van 1	87.6	102.2	109.7	121.3	127.2	136.7	157.4

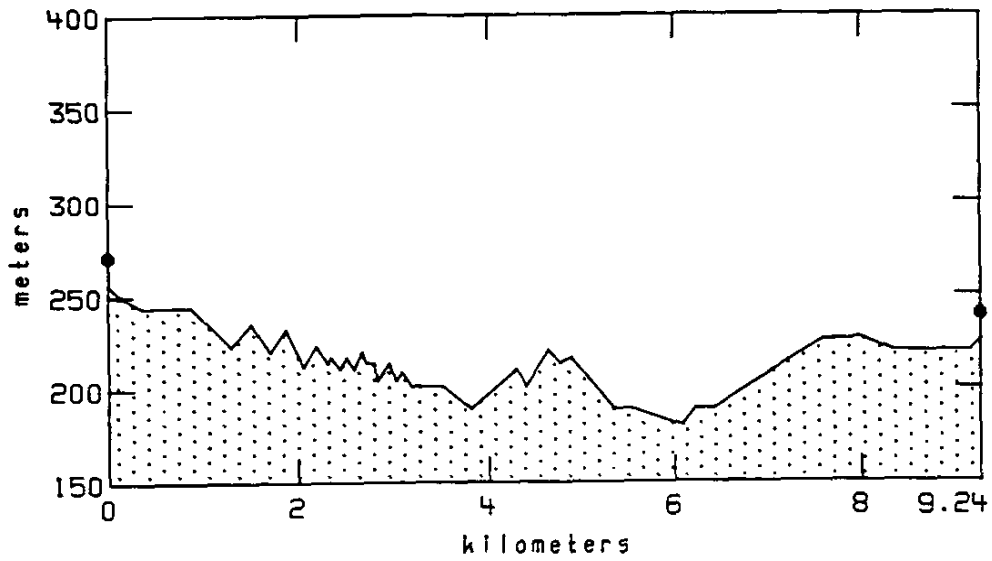
The site is in an open field with trees below antenna level 100 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/23/67-van 1	87.6	101.2	115.7	125.3	139.7	161.2	162.2

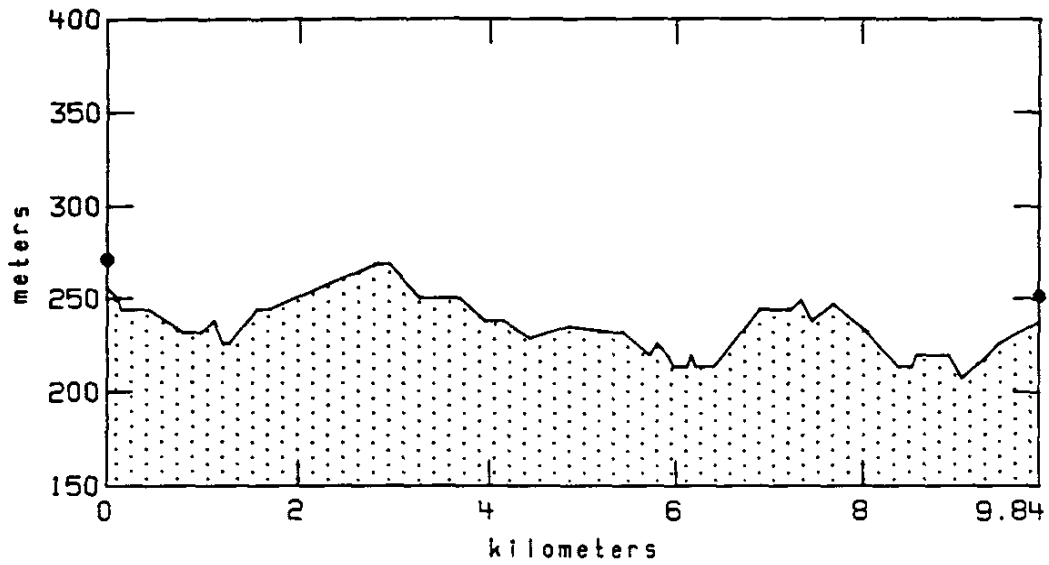
Utility lines cross the path 80 m ahead, and there are some evergreen trees below antenna level at 100 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/14/67-van 1	93.1	107.2	121.2	122.8	152.2	130.7	129.1

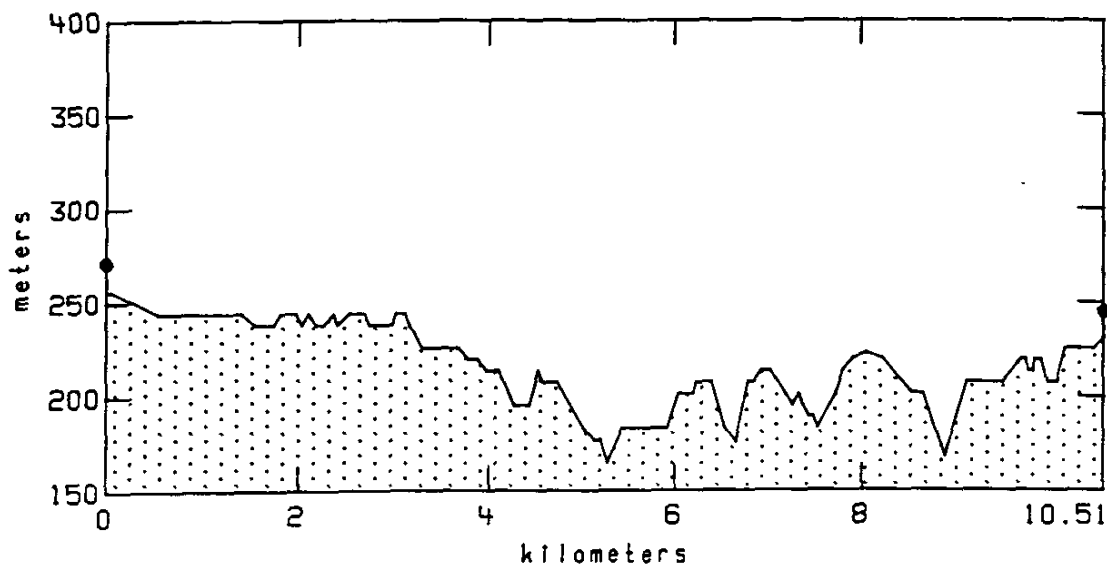
The site is in an open field. The path crosses over low trees at 100 m and at 240 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/15/67-van 1	97.1	107.2	117.7	140.8	154.7	173.2	Noise

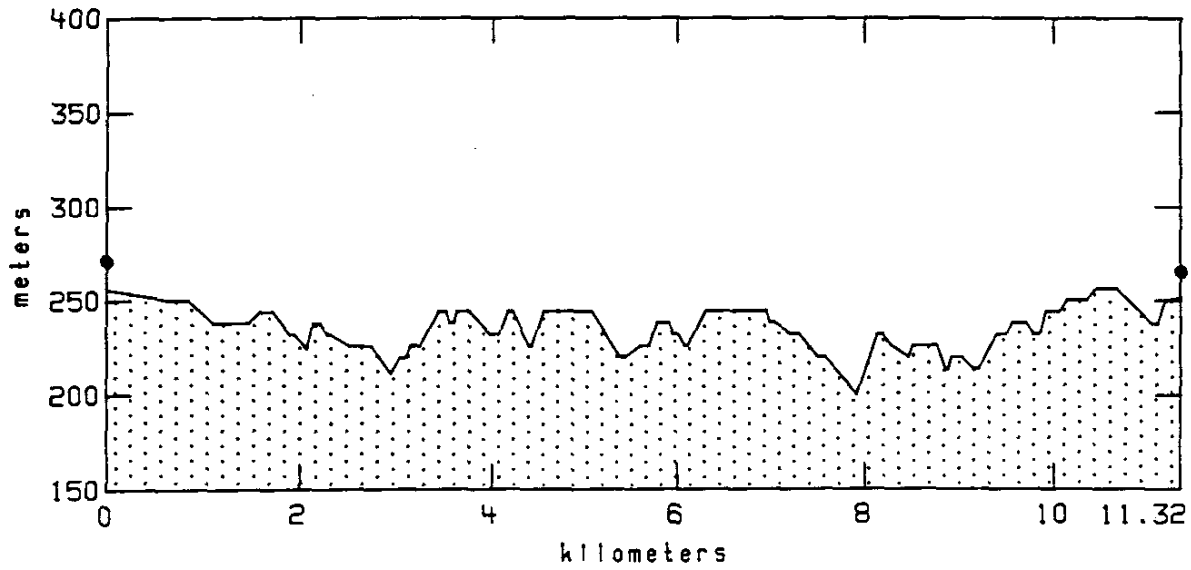
The site is in a service station parking lot. There are low trees adjacent to the path 30 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.0
3/22/67-van 1	97.1	105.2	112.7	128.3	135.7	145.7	147.9

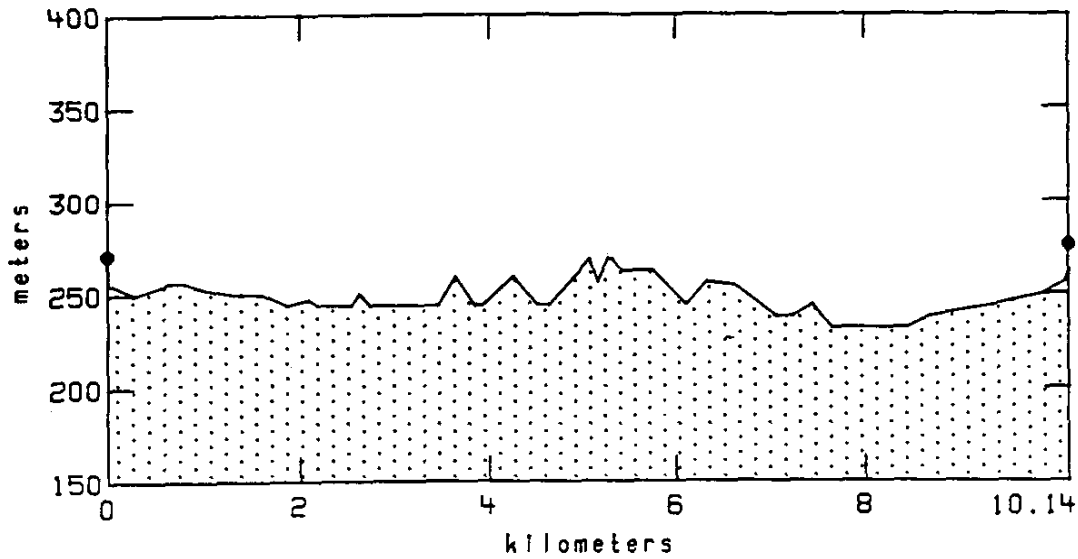
The site is in an open pasture. There are telephone lines crossing the path at 60 m and large trees extending just above the horizon at 300 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/22/67-van 1	98.1	104.2	120.7	136.3	141.7	148.7	150.9

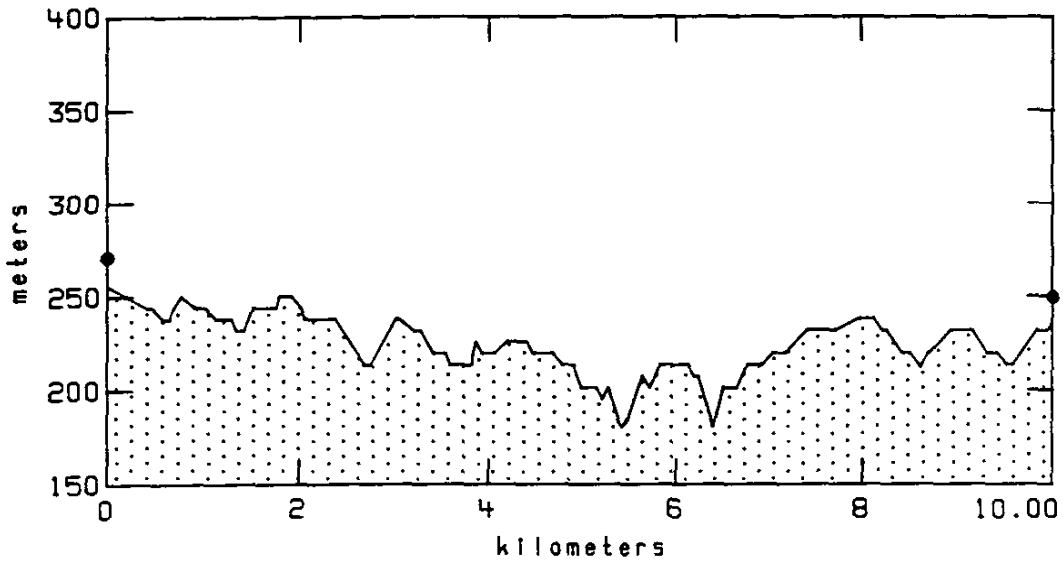
The site is in an open pasture. There are trees below the horizon 150 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/16/67-van 1	100.6	107.7	125.7	136.8	151.7	167.7	169.1

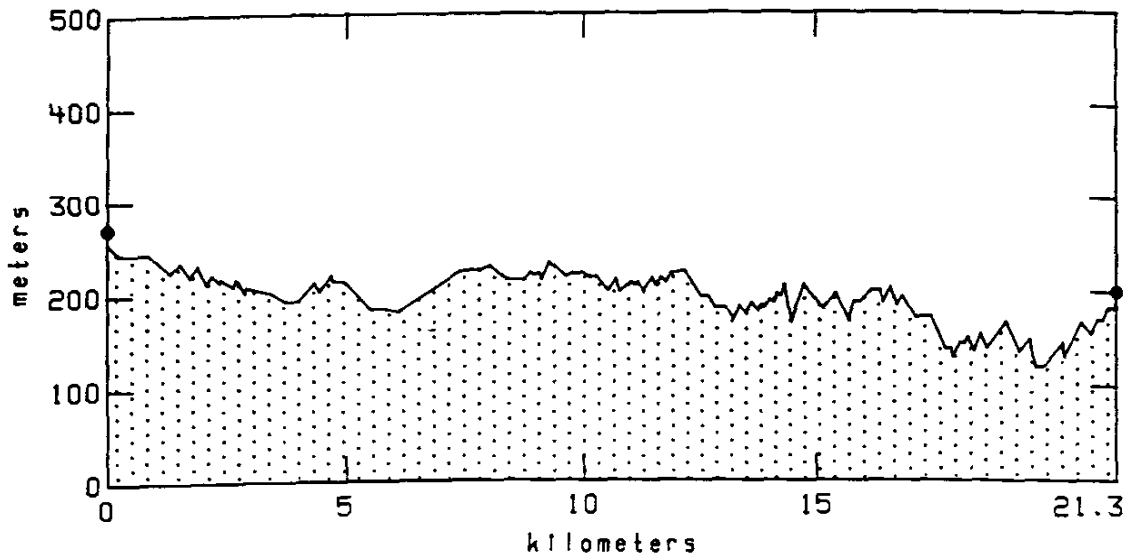
The site is in an open field. There are trees below path level 100 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/21/67-van 1	97.8	110.3	116.5	131.0	143.0	148.5	140.4

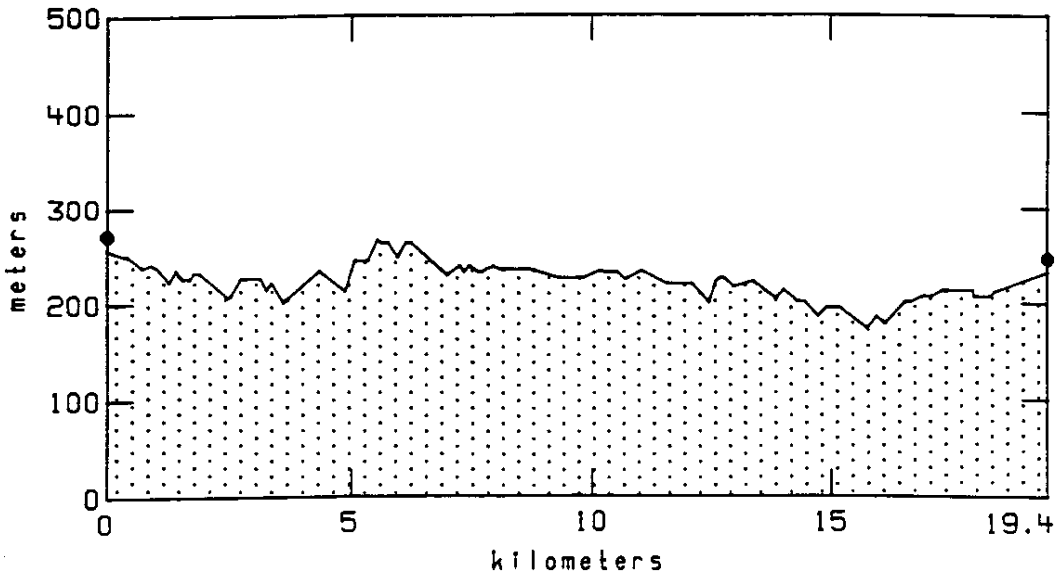
The site is in an open field.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	10.0	10.0	11.4	12.9	11.9	11.9	12.4
4/04/67-van 1	106.1	121.2	126.7	140.8	142.7	149.7	152.9
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
4/04/67-van 1	113.5	120.6	128.2	145.3	148.7	158.3	168.7

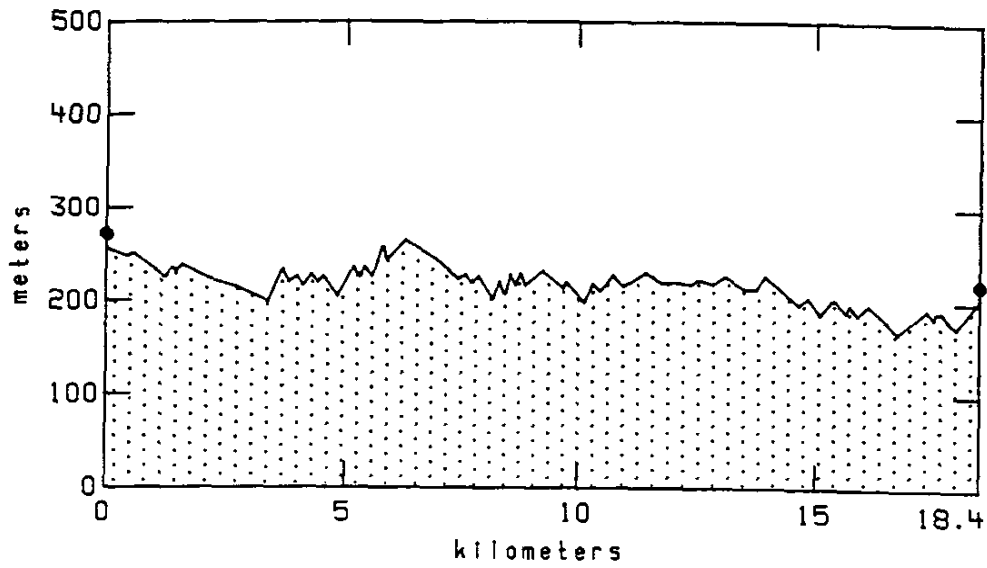
The site is off the road. Power lines cross the path 15 m away. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
4/13/67-van 1	106.1	110.4	131.7	144.8	135.2	180.3	177.4

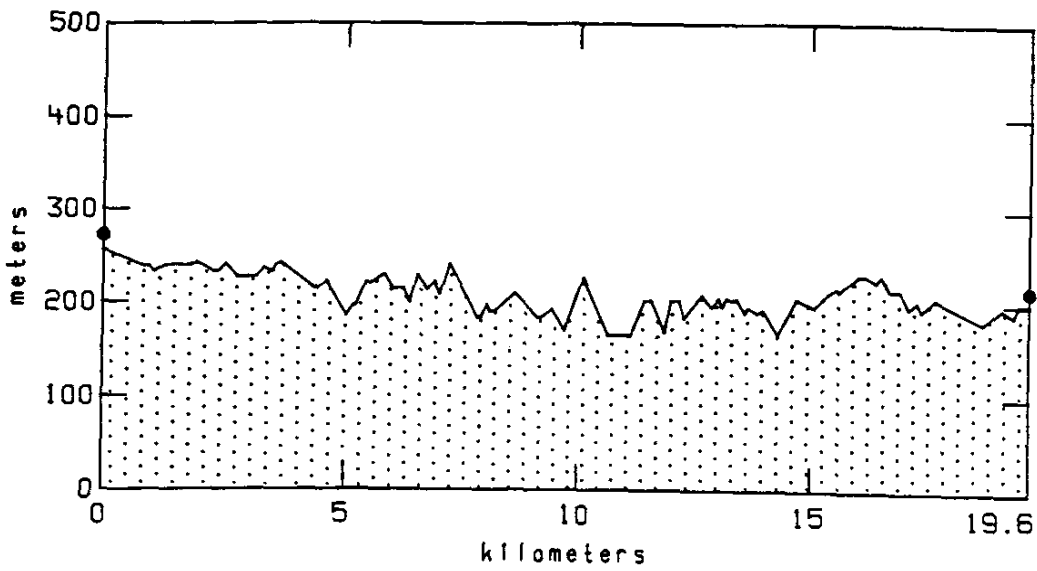
The site is in an open area in a church parking lot. There are trees 300 m ahead on the path.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/29/67-van 1	110.1	114.2	131.2	149.3	153.7	163.7	178.9

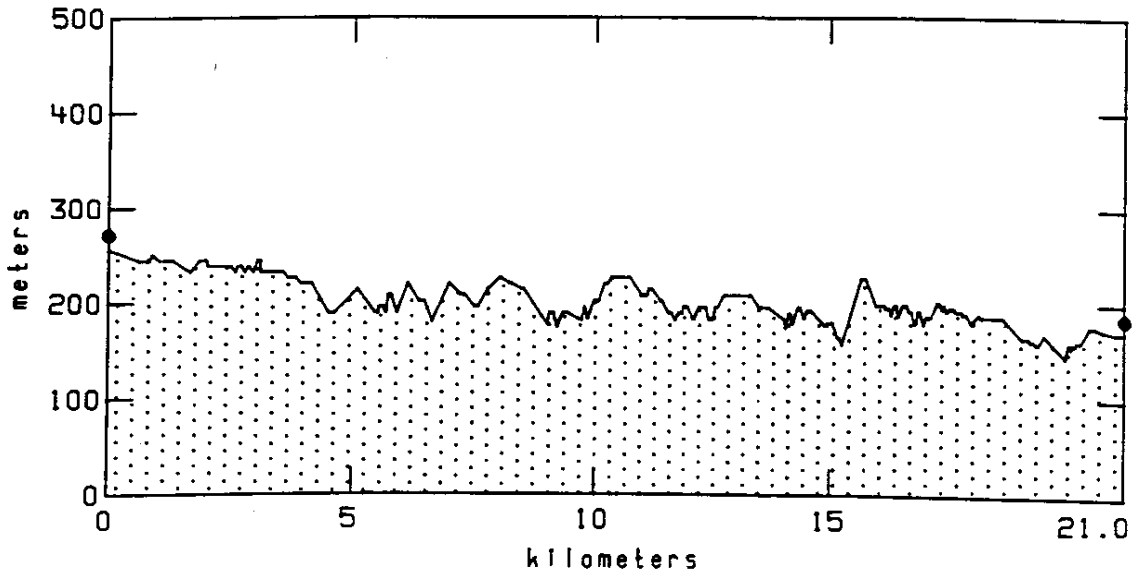
The site is in an open field. There are trees below antenna level 150 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/29/67-van 1	108.1	115.2	132.2	147.6	155.2	164.2	177.9
Concealed:							
3/30/67-van 1	114.8	115.8	134.0	157.0	167.0	180.5	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3/30/67-van 1	134.2	135.7	132.0	157.0	169.0	183.9	Noise

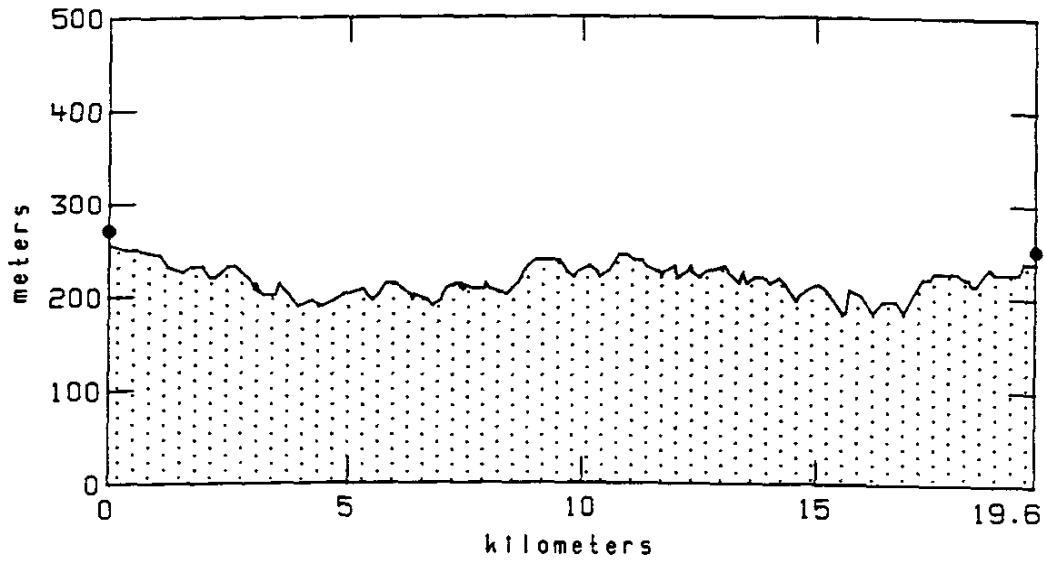
The site is in an open field. Power lines cross the path at 150 m, and from there the path is clear to the horizon about 5 km away. The concealed position is behind some large trees; a power line crosses the path 15 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/24/67-van 1	109.1	117.7	128.2	144.8	152.2	166.7	167.4
Concealed:							
Rcvr hts, m	10.0	10.0	11.4	13.9	11.9	11.9	13.5
4/03/67-van 1	106.1	124.2	135.7	150.3	156.7	167.7	177.9
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
4/03/67-van 1	114.0	125.1	134.2	152.3	166.7	173.3	171.9

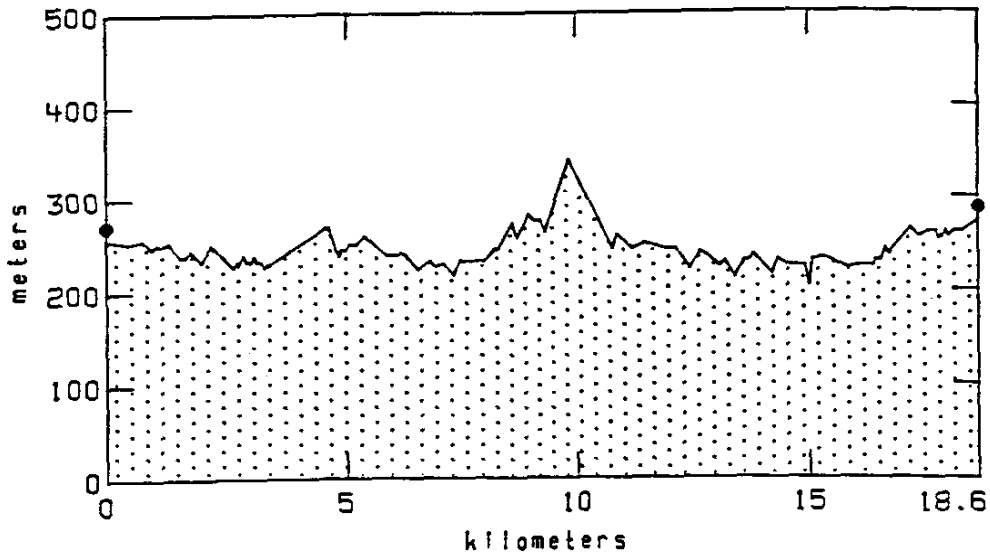
The site is on an open hill. There are evergreen trees 100 m ahead but they are below the horizon. The concealed position is behind some large trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/24/67-van 1	112.6	116.2	126.7	135.6	142.7	150.7	142.9

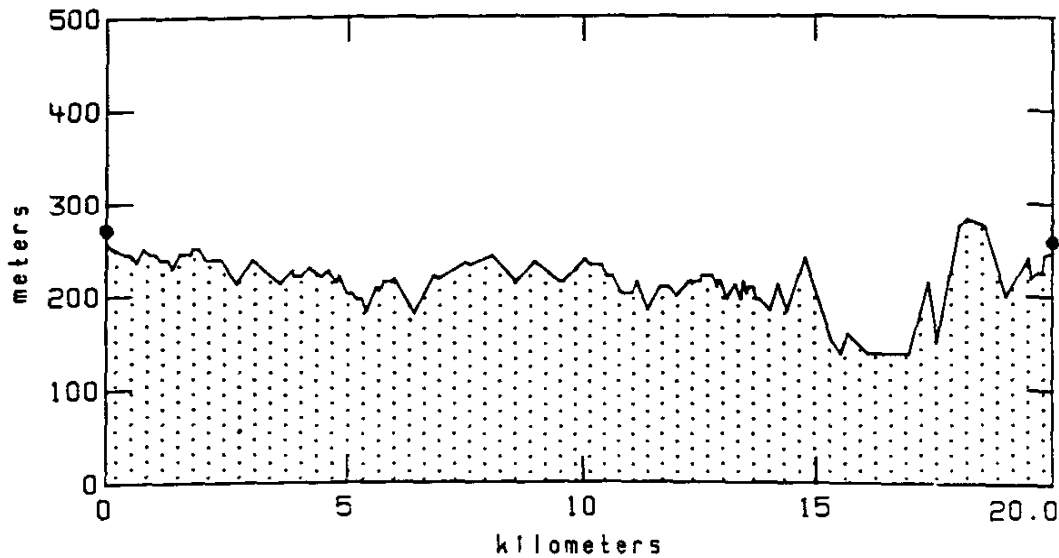
The site is on a private unfinished road. There are structures on the path from 150 m to 300 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
3/28/67-van 1	107.1	123.7	126.7	148.8	152.2	165.7	Noise

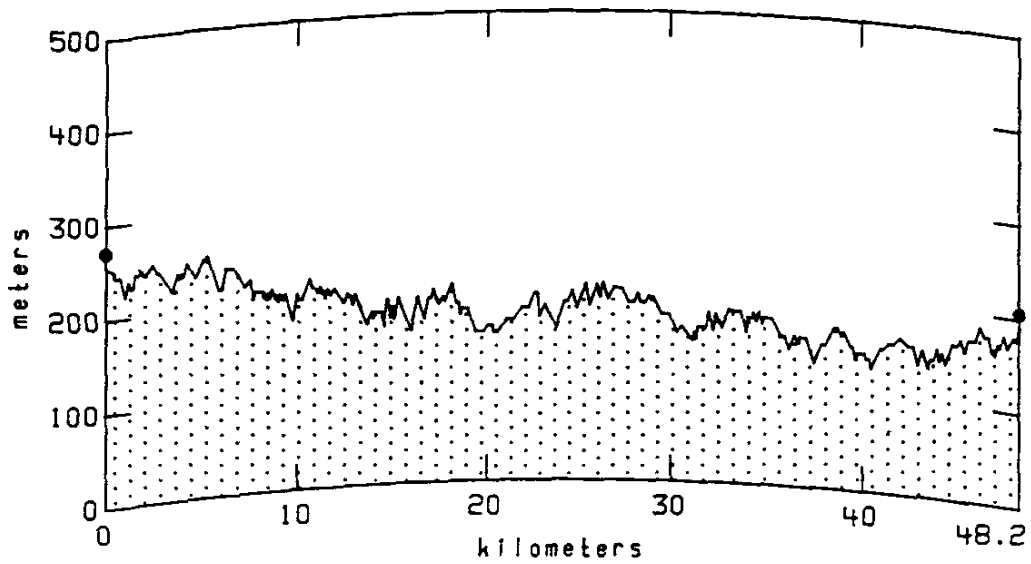
The site is unobstructed although there are 20-m high trees about 500 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	10.0	10.0	11.4	12.9	11.9	11.9	12.4
4/05/67-van 1	113.1	122.5	137.7	160.8	174.5	177.7	173.9
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
4/05/67-van 1	118.5	146.6	140.7	163.3	167.0	177.3	Noise

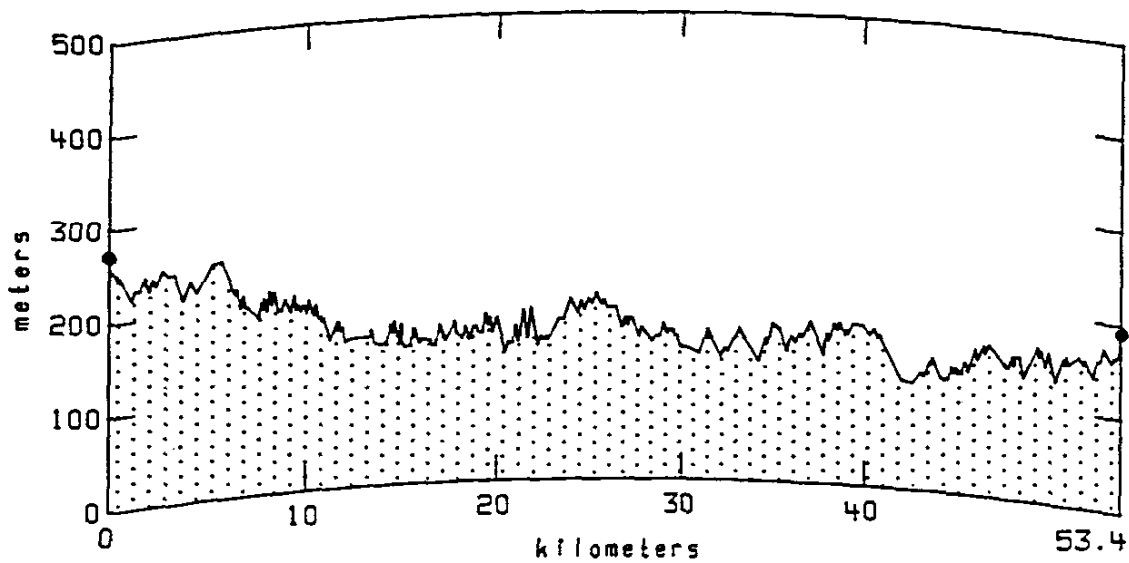
The site is concealed by large evergreen trees. Power lines cross the path at 10 m and telephone lines at 25 m. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
4/13/67-van 2	125.4	129.7	145.3	152.5	164.4	177.9	178.4

The site is at the side of the road. Telephone lines cross the path 10 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
4/14/67-van 2	128.9	138.0	148.5	155.5	171.9	193.3	Noise
Concealed:							
4/17/67-van 2	132.9	137.4	147.8	159.5	175.9	196.9	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
4/17/67-van 2	143.2	142.3	164.0	172.8	198.6	Noise	Noise

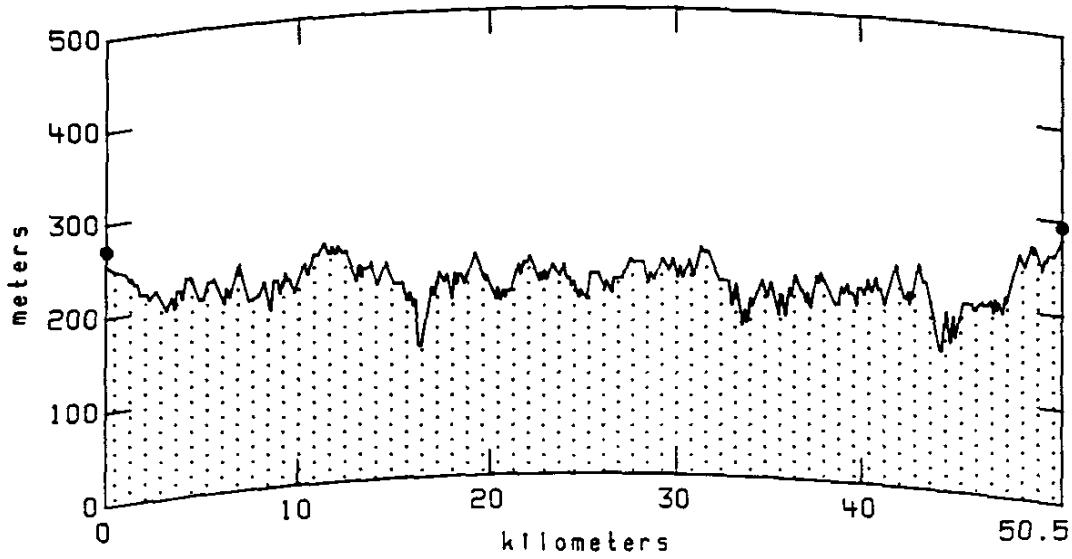
The site is in an open field. There are trees 100 m ahead. The concealed position is at the edge and just behind a dense wood.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
4/18/67-van 2	137.4	137.9	145.8	158.0	165.4	186.9	Noise
Concealed:							
4/19/67-van 2	133.4	140.9	151.3	166.5	194.4	204.8	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
4/19/67-van 2	143.2	148.8	163.5	186.8	Noise	Noise	Noise

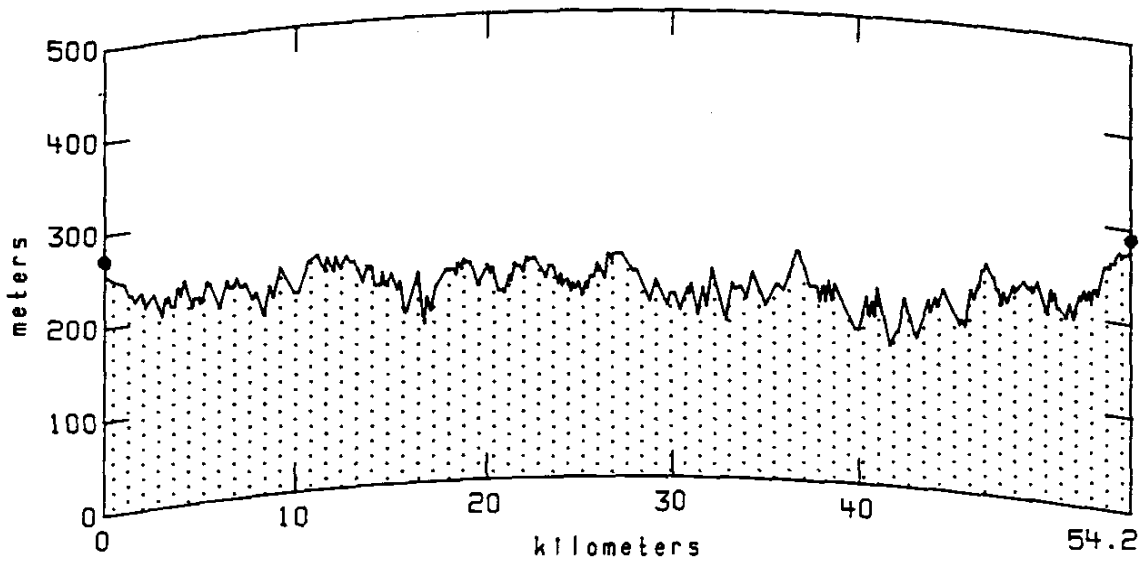
The site is in an open field. The path runs between some trees 60 m ahead. The concealed position is behind a dense wood and at the edge of a field.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
4/14/67-van 1	121.6	133.3	146.2	152.3	164.7	170.7	Noise

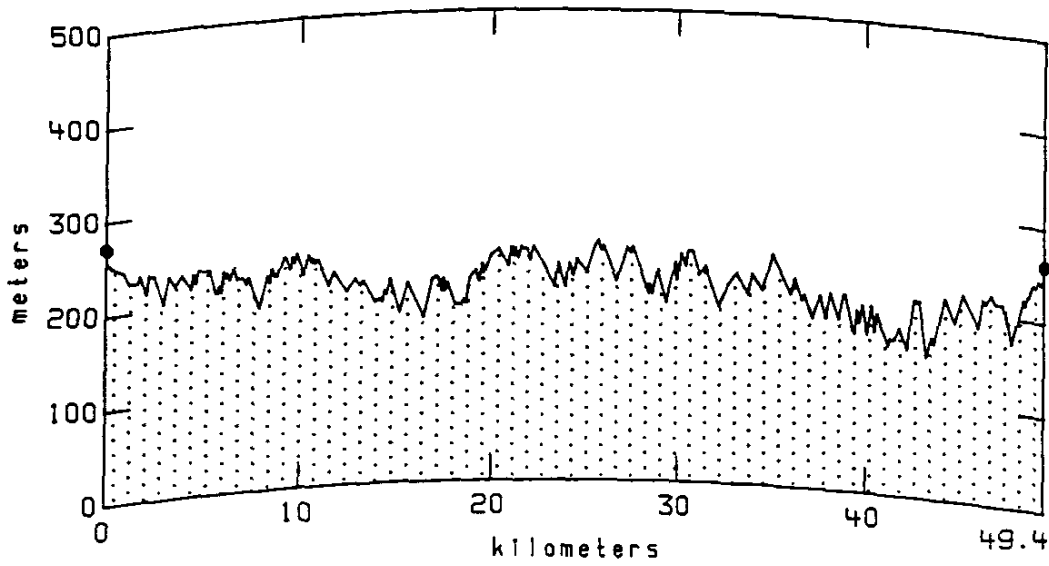
The site is in an open field and has no obstructions.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
4/17/67-van 1	119.6	134.8	130.7	153.3	163.2	149.7	172.9
Concealed:							
Rcvr hts, m	10.0	10.0	11.4	12.9	11.9	11.9	12.4
4/18/67-van 1	123.1	131.8	145.2	155.1	157.2	166.8	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
4/18/67-van 1	144.7	140.0	152.2	161.3	170.7	180.9	Noise

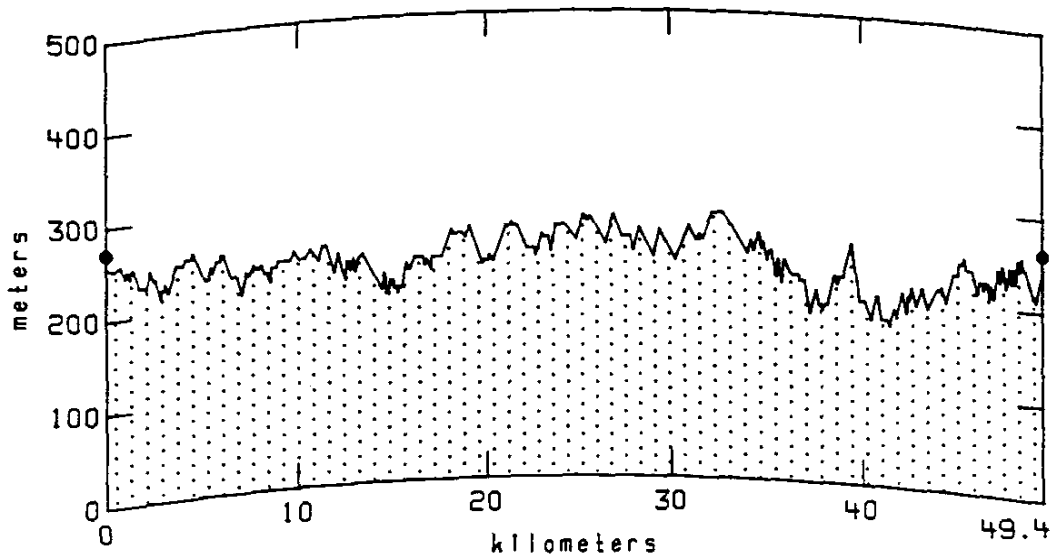
There are a few houses scattered along the path. The concealed position is behind some large trees, and there is a metal-roofed barn near the path about 25 m ahead. There was a slight rain during the 4- and 8-GHz measurements at the open position.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
4/06/67-van 1	122.1	135.7	140.7	160.8	170.2	179.3	Noise

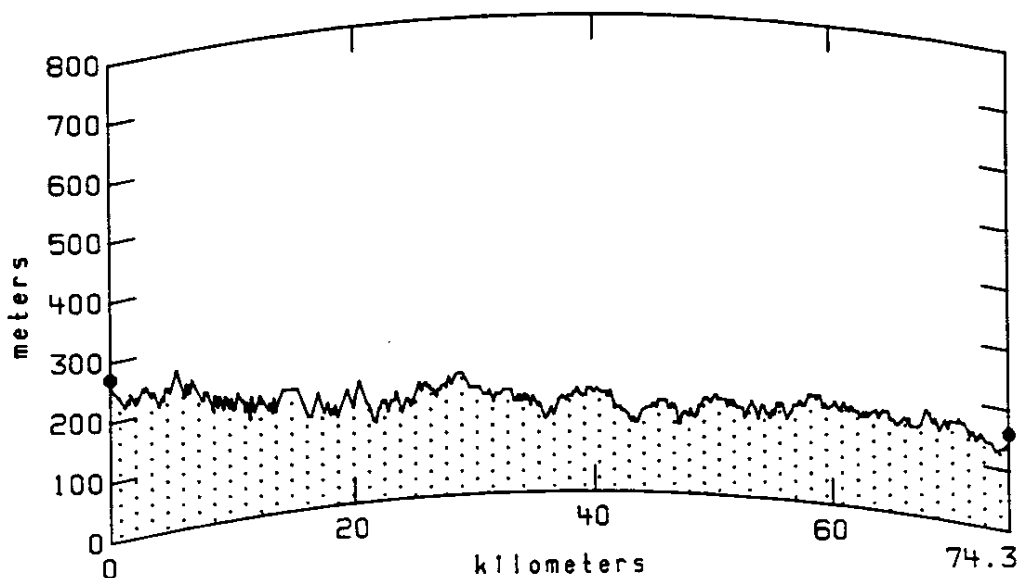
The site is at the side of the road. Telephone lines cross the path 20 m ahead; otherwise, the path is clear to the horizon.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	10.0	10.0	11.4	12.9	11.9	11.9	12.4
4/07/67-van 1	133.1	145.8	162.7	178.8	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
4/07/67-van 1	140.0	153.1	164.7	Noise	Noise	Noise	Noise

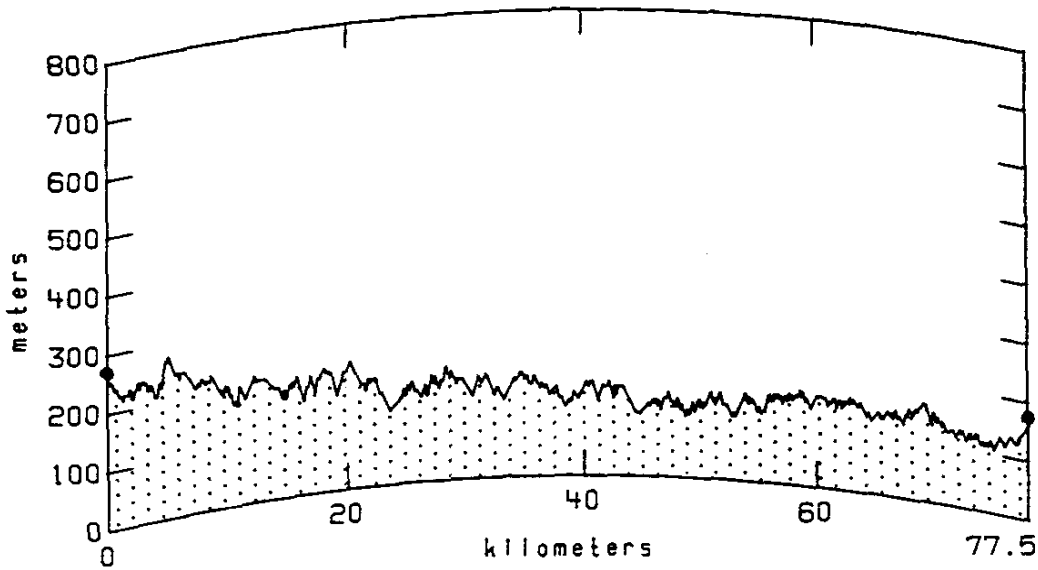
The site is behind some large trees and by a frame house about 20 m away. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
4/05/67-van 2	154.9	155.4	179.8	Noise	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
4/05/67-van 2	160.7	165.3	192.0	Noise	Noise	Noise	Noise

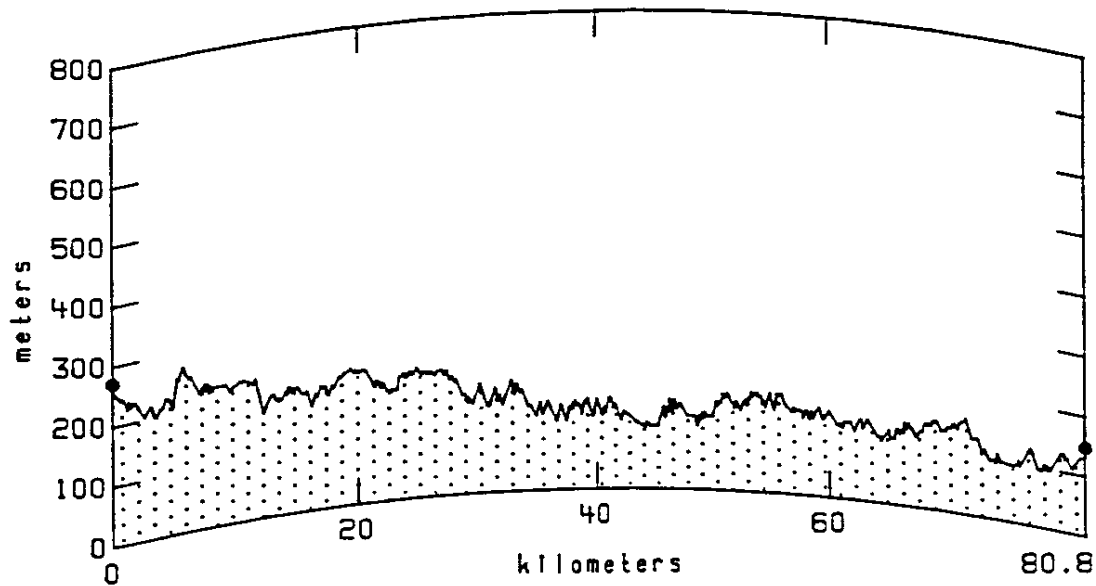
This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
3/29/67-van 2	146.9	144.4	161.8	186.0	198.4	Noise	Noise

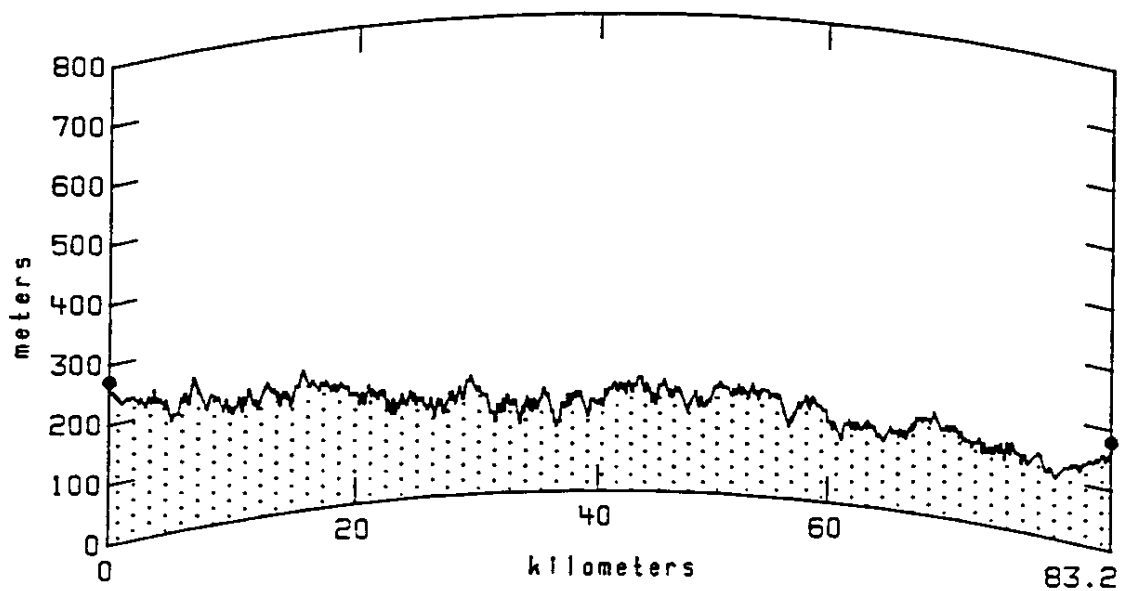
The site is in an open church parking lot. Power lines cross the path at 150 m, and from there the path is clear to the horizon.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
3/28/67-van 2	145.4	153.4	175.8	193.0	196.4	Noise	Noise

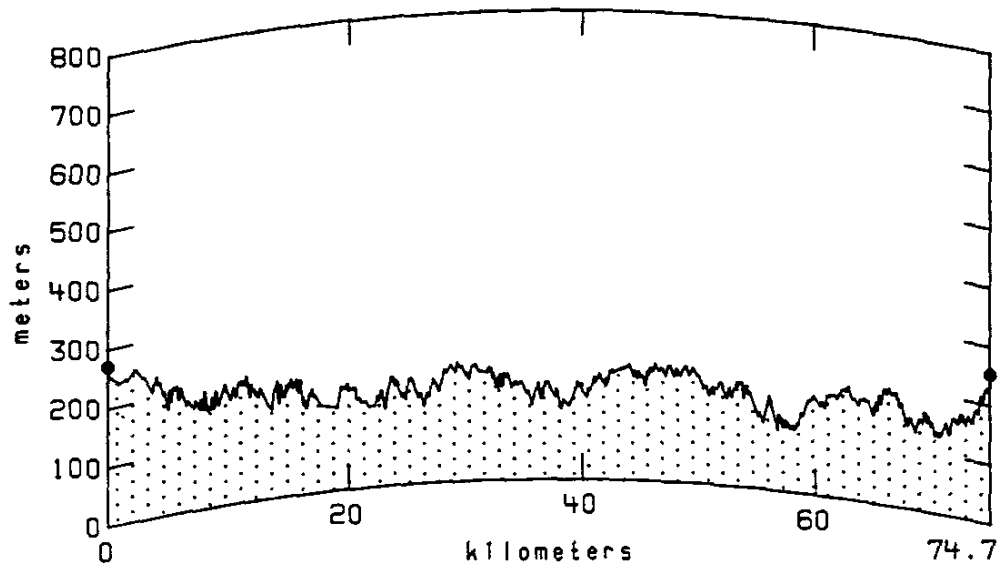
The site is in an open pasture. There are power lines 200 m ahead and 15-m high deciduous trees at 500 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
3/23/67-van 2	145.9	150.4	167.3	186.5	197.3	Noise	Noise
Concealed:							
3/24/67-van 2	145.9	152.9	166.8	192.4	203.7	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3/24/67-van 2	153.2	157.3	174.0	Noise	Noise	Noise	Noise

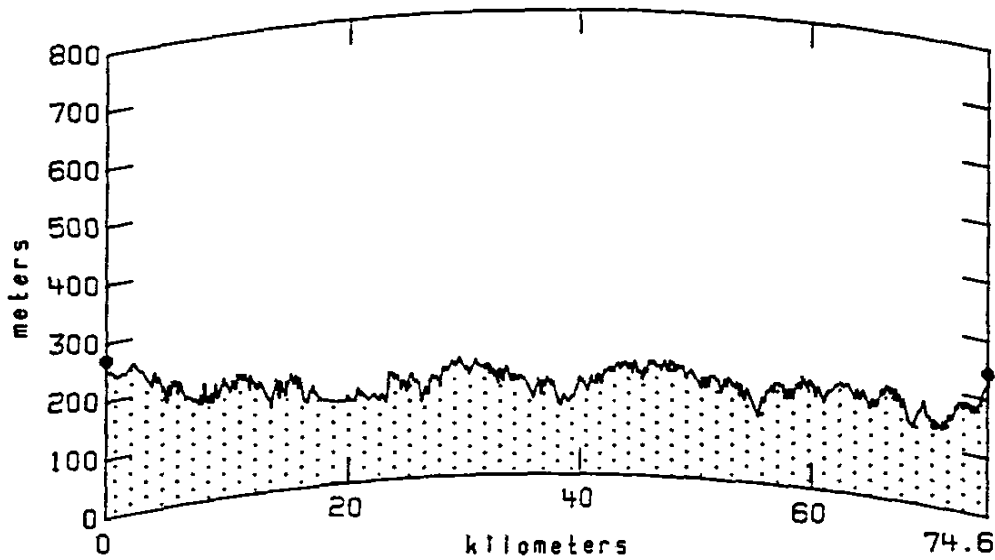
The site is in an open school yard. There is a 3-m high hedgerow 30 m ahead, and further along the path at 100 m are 20-m high trees. The concealed position is closer to the hedgerow and obscured by some large trees 15 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
3/21/67-van 2	129.9	140.9	154.6	173.5	189.7	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3/21/67-van 2	145.8	149.5	170.3	183.9	Noise	Noise	Noise

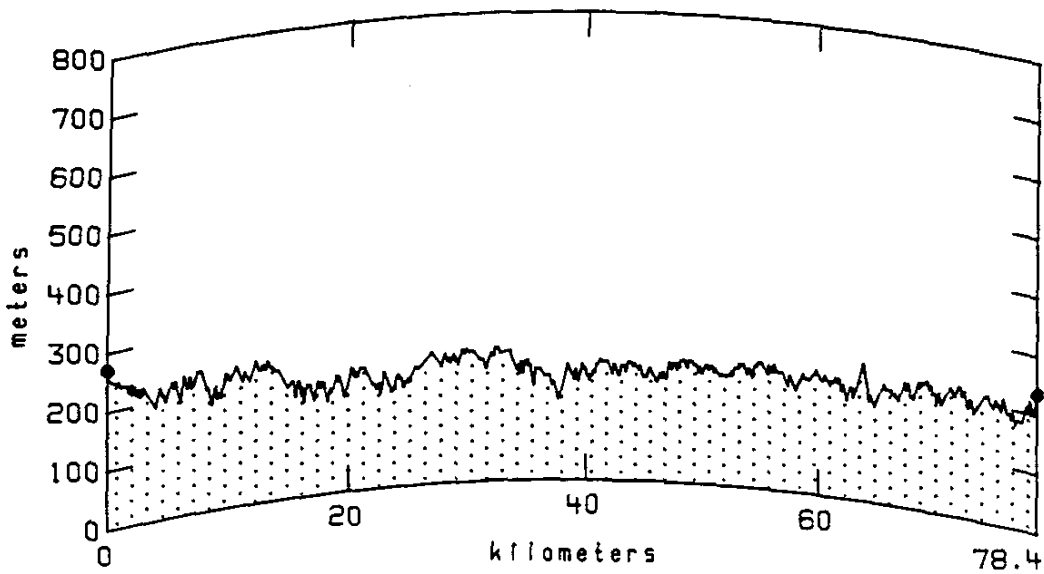
The site is behind some large trees. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
3/22/67-van 2	137.4	143.7	151.8	161.0	177.4	Noise	Noise

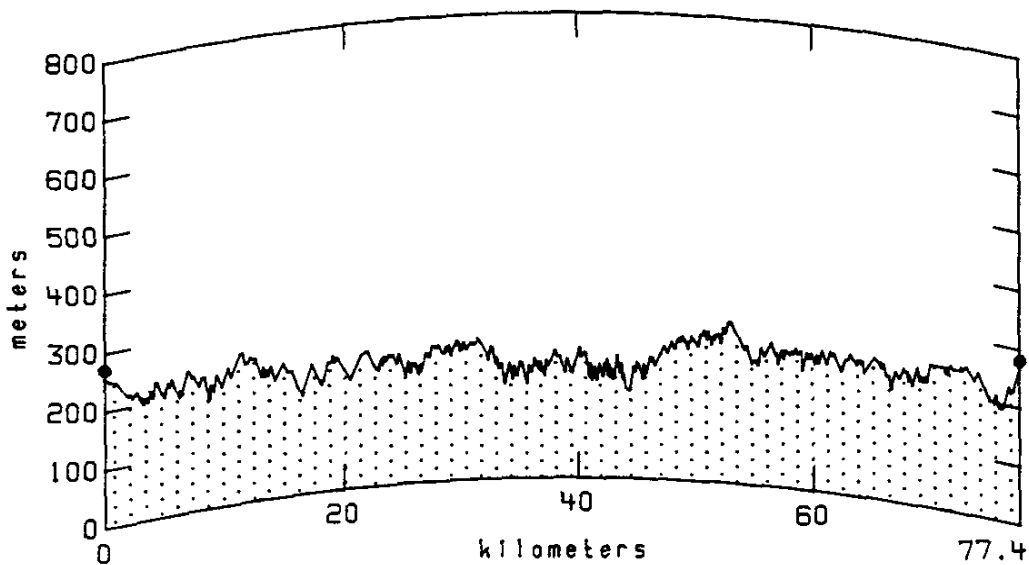
The site is in an open farm pasture. The path is clear to the horizon about 6 km ahead. There are 15-m high evergreen trees adjacent to the path and 300 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
3/16/67-van 2	145.4	154.4	175.8	183.0	198.7	Noise	Noise

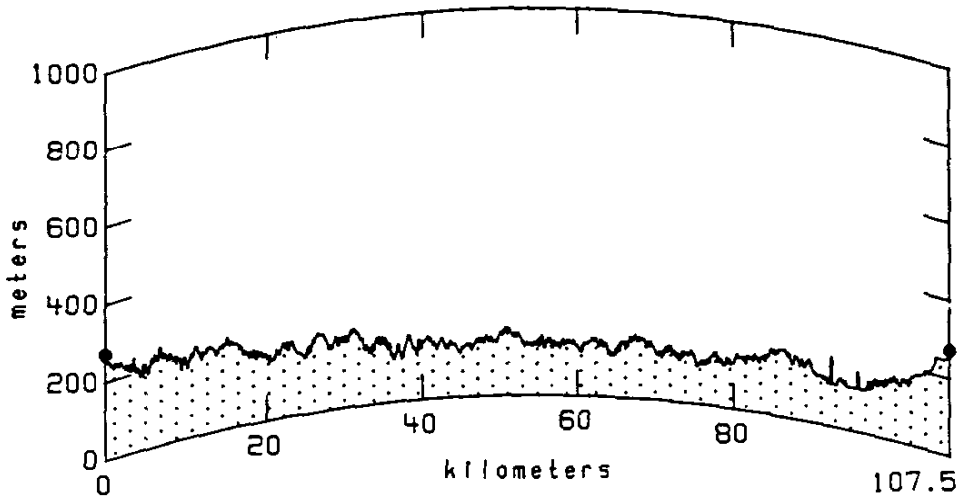
The site is in an open pasture; there are low trees 100 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
3/14/67-van 2	135.9	149.4	176.8	180.0	Noise	Noise	Noise
Concealed:							
Rcvr hts, m	13.3	13.3	13.3	10.0	10.0	10.0	10.0
3/17/67-van 2	144.9	149.4	158.8	185.0	191.1	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3/17/67-van 2	150.3	156.0	181.2	Noise	Noise	Noise	Noise

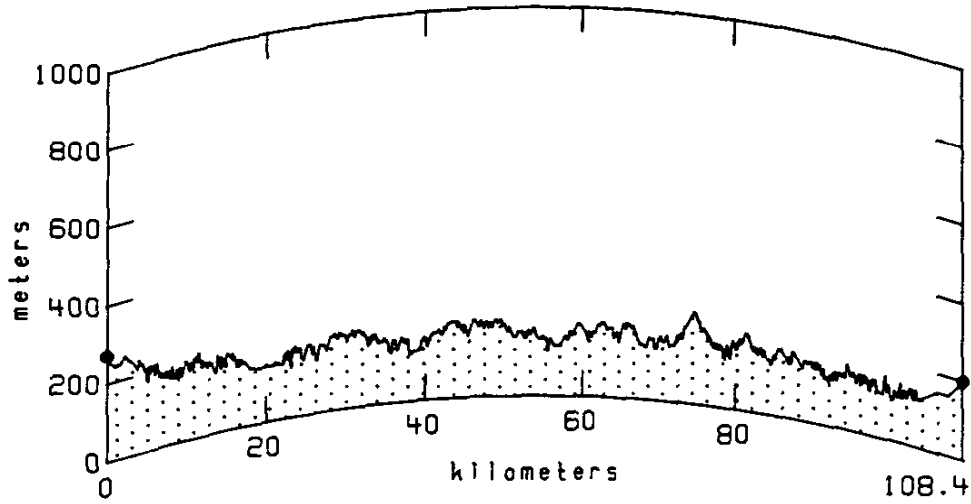
The site is near the top of a hill in an open area. There are low trees well below the antennas and the path is clear to the horizon. The concealed position is behind dense evergreen trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
4/06/67-van 2	159.4	156.4	179.8	Noise	Noise	Noise	Noise
Concealed:							
4/06/67-van 2	148.4	156.9	187.8	Noise	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
4/06/67-van 2	165.7	168.0	196.0	Noise	Noise	Noise	Noise

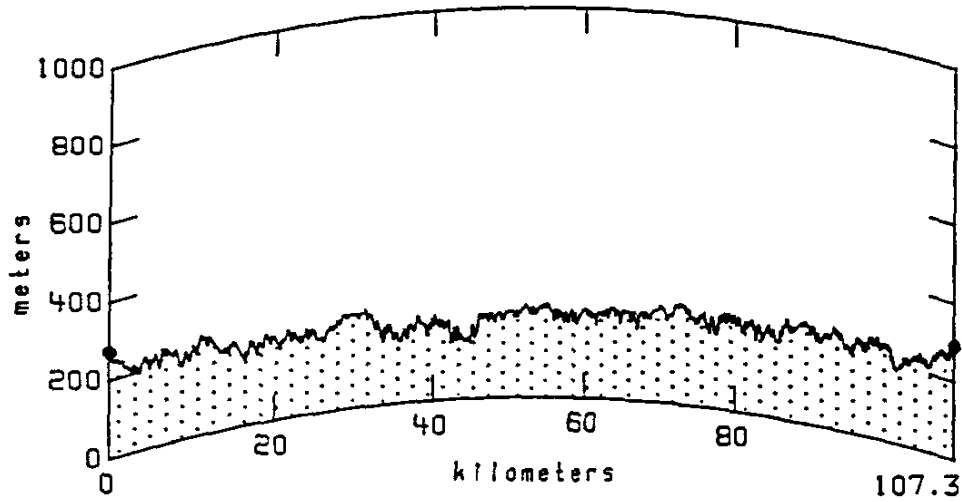
The site is on an unsurfaced rural road. Power lines cross the path at 6 m. The concealed position is behind a dense growth of trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
4/07/67-van 2	151.4	166.4	183.8	193.0	198.4	Noise	Noise

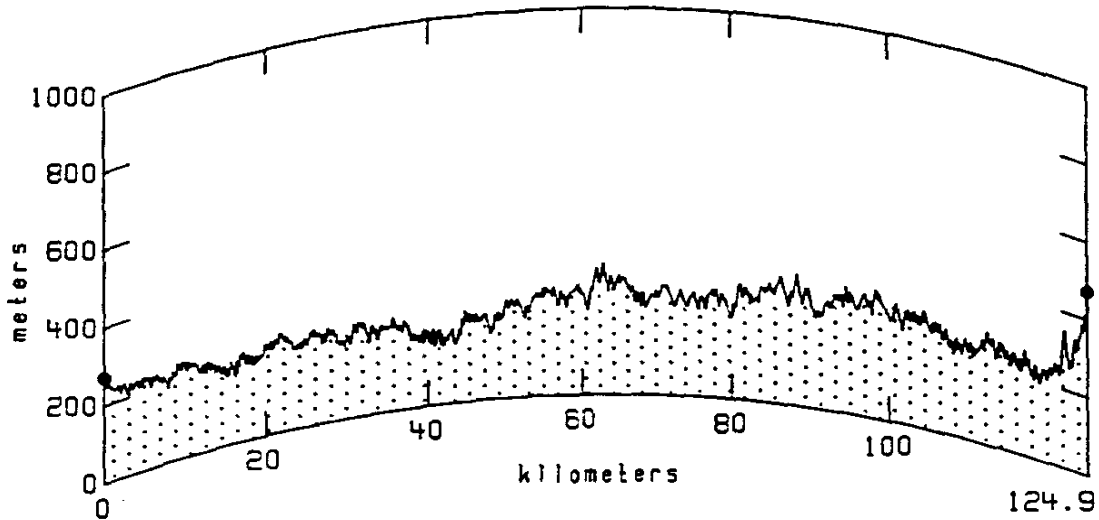
The site is in an open field. Power lines cross the path at 6 m, and there are large evergreen trees ahead at 200 m and at 300 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
4/12/67-van 2	153.4	162.4	181.8	194.0	Noise	Noise	Noise

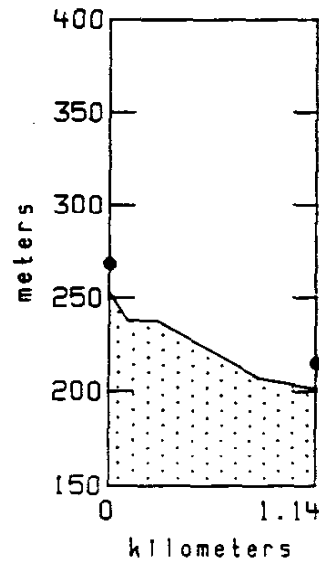
The site is in an open pasture. The path is clear all the way to the horizon.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
4/10/67-van 2	152.4	168.4	166.8	188.0	199.0	Noise	Noise
Concealed:							
4/11/67-van 2	160.4	159.4	180.8	195.0	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
4/11/67-van 2	151.7	161.3	181.0	198.8	Noise	Noise	Noise

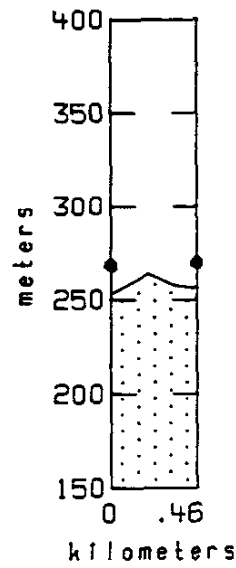
The site is in a small clearing surrounded by 6-m high evergreen trees. It is situated so as to look out towards the transmitter through an opening in the trees. The concealed position is behind some especially large trees at the edge of the clearing.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
5/01/67-van 1	50.2	65.9	84.5	88.1	92.3	97.7	110.0

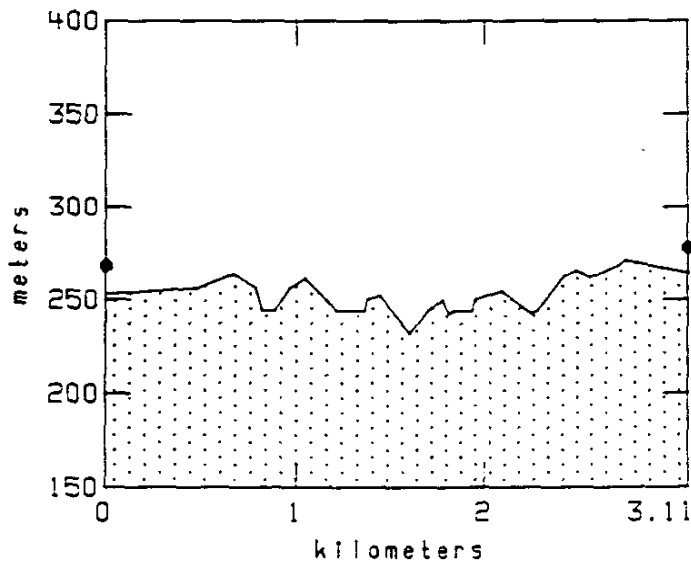
The site is in an open field; there are no obstructions between the two terminals.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
5/01/67-van 1	54.7	61.4	75.2	89.0	91.6	98.2	131.5

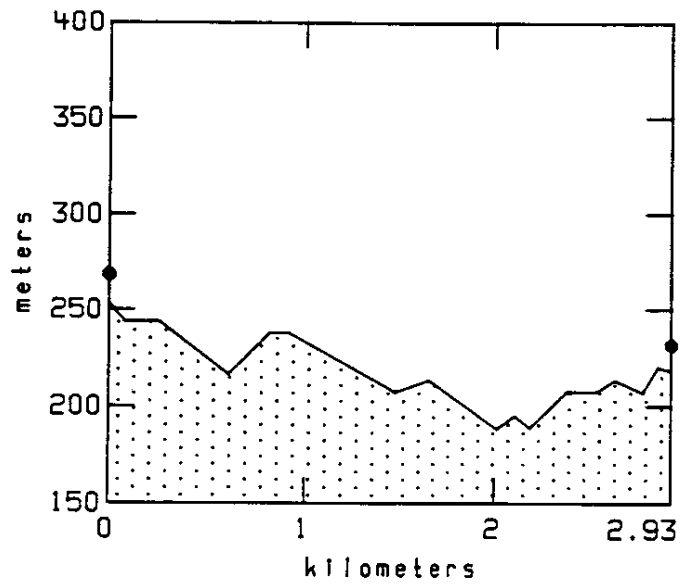
The site is in an open field. There are no obstructions on the path; however, there are large trees and a farm building adjacent to the path at 100 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
4/21/67-van 1	84.2	101.9	109.2	124.8	123.9	143.2	146.0

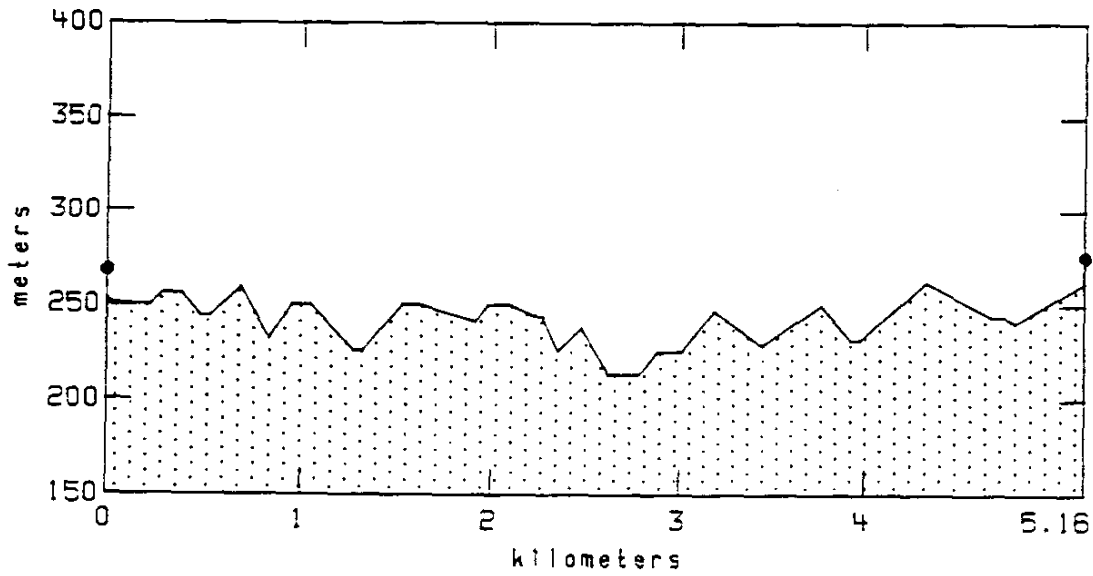
The site is on the side of an unsurfaced rural road. Utility lines cross the path at 6, 15, and 60 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
4/21/67-van 1	74.2	90.9	95.2	118.8	115.4	122.2	124.3

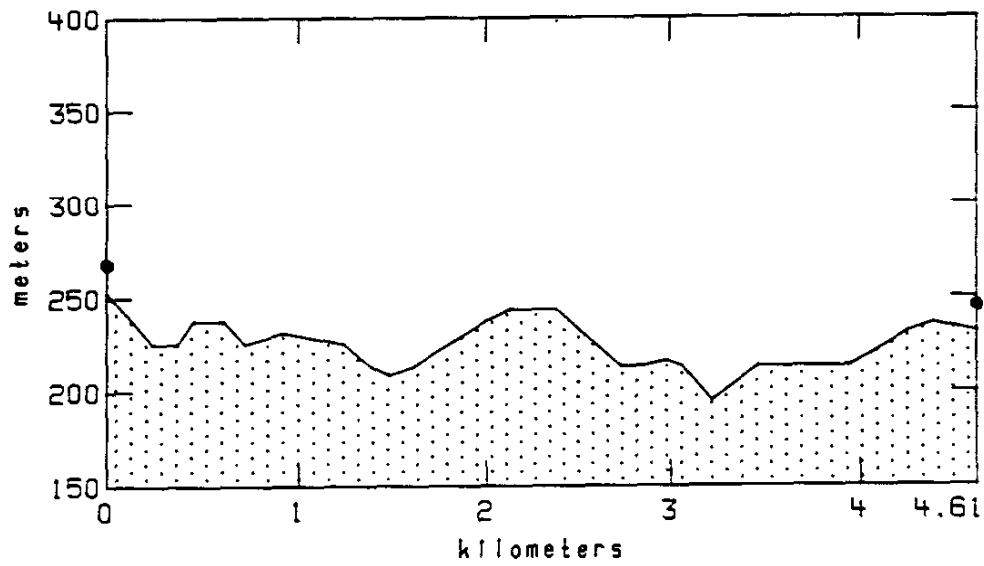
The site is in an open field and there are no obstructions until a wooded hill at about 1 km. Low trees and a structure lie adjacent to the path.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
4/24/67-van 1	81.9	99.4	106.9	117.8	118.3	125.7	131.9

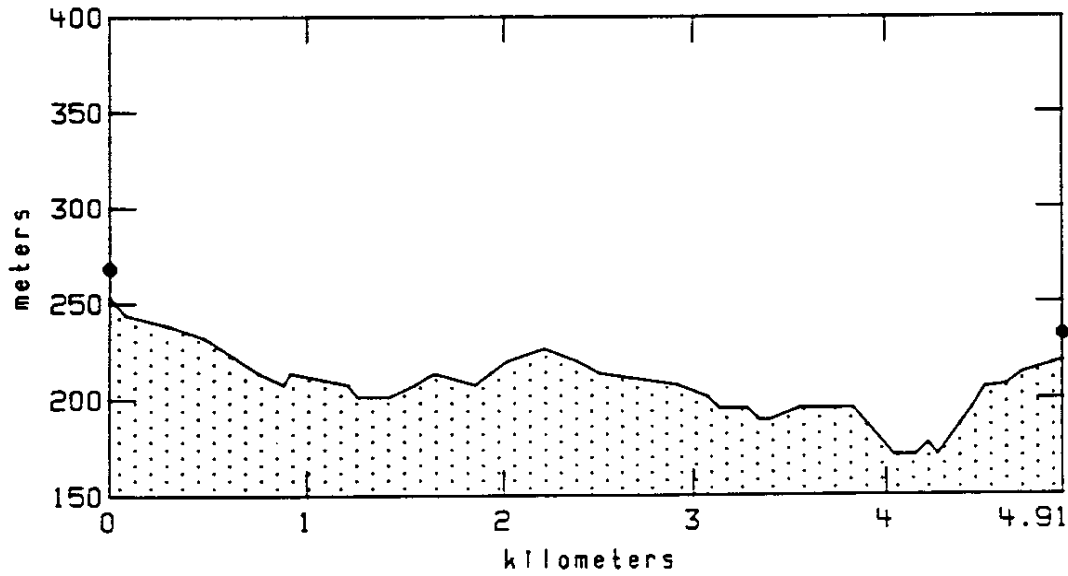
The site is in an open field. Power lines cross the path 100 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
5/08/67-van 1	74.9	96.4	108.7	118.3	121.6	141.3	138.4

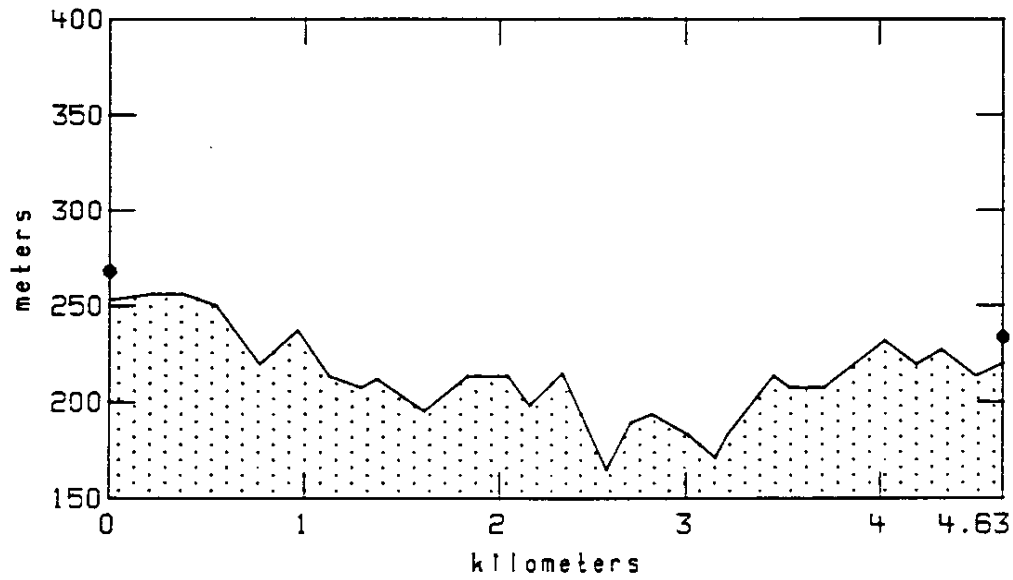
The site is in an open field. Some evergreen trees at 150 m obscure the view to the path horizon.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
4/24/67-van 1	77.2	97.7	107.2	112.8	117.3	128.7	157.9

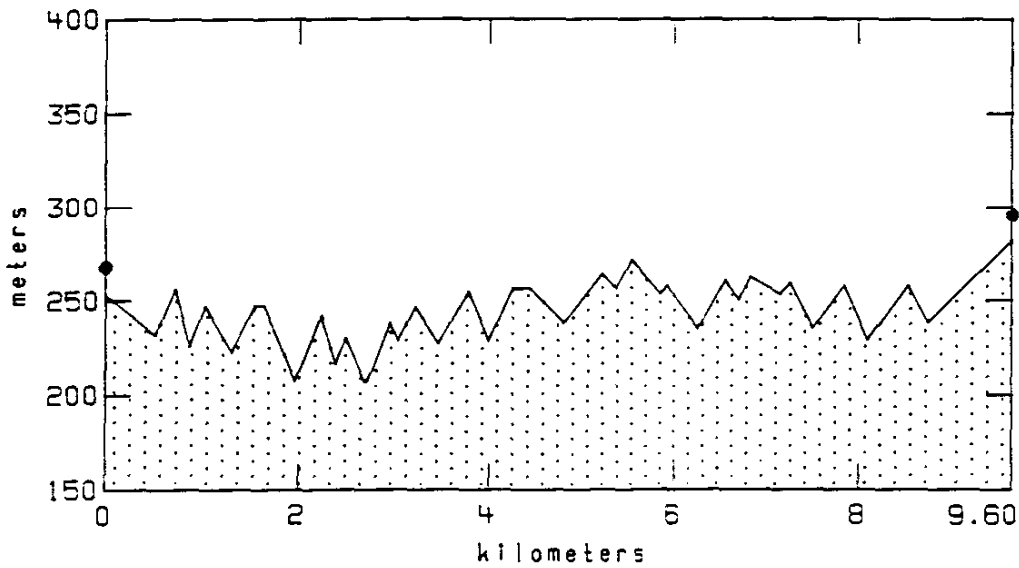
The site is on a treeless hill. The path is clear to the horizon and passes over some trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
4/25/67-van 1	90.7	107.4	119.2	132.2	135.0	149.7	154.0

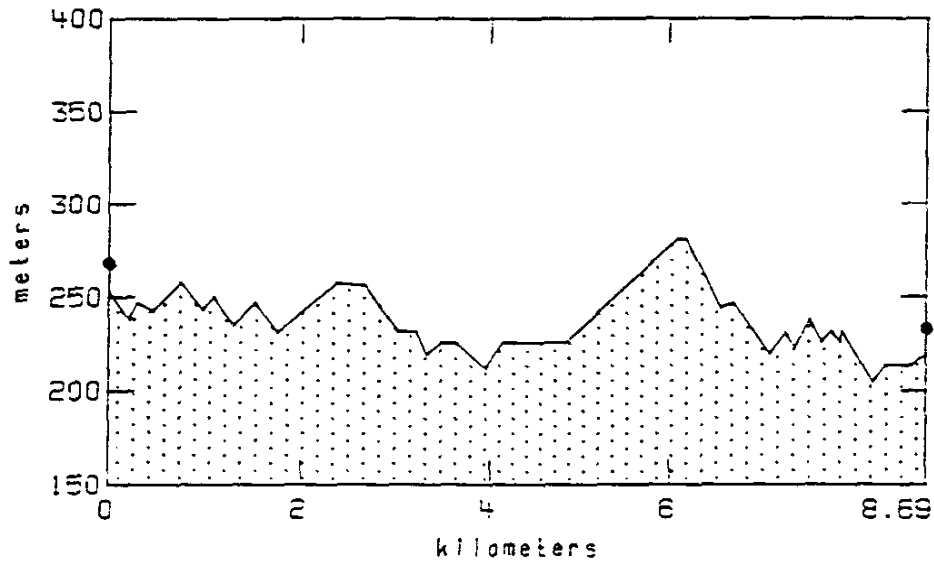
The site is in an open field. The path passes over low, metal-roofed barns to a wooded hill 800 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
4/28/67-van 1	77.7	112.1	116.0	126.5	126.9	135.7	139.5

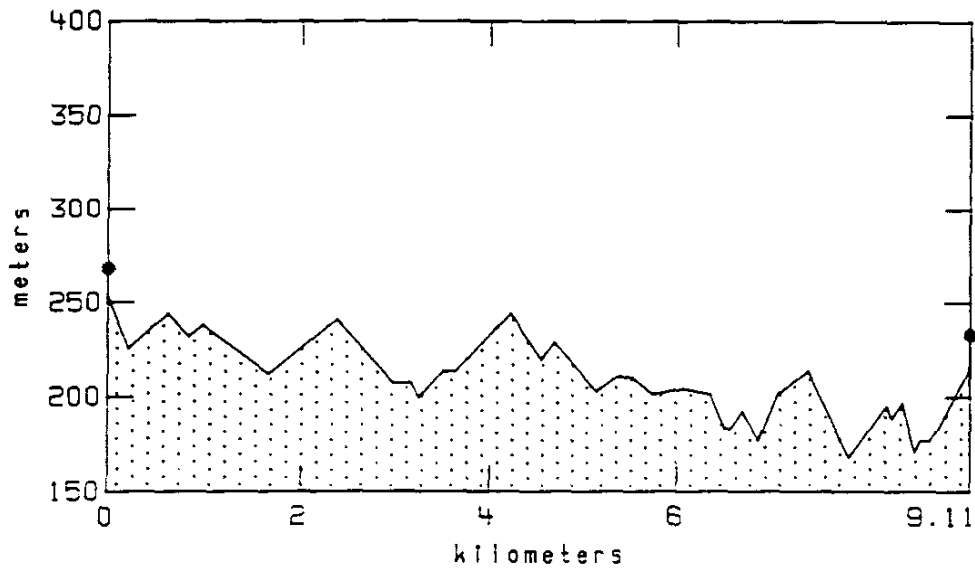
The site is in an open field near a hilltop. There are trees below antenna level at 120 m and power lines crossing the path at 10 and 100 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
4/28/67-van 1	97.7	112.6	132.2	146.3	152.9	161.7	164.7

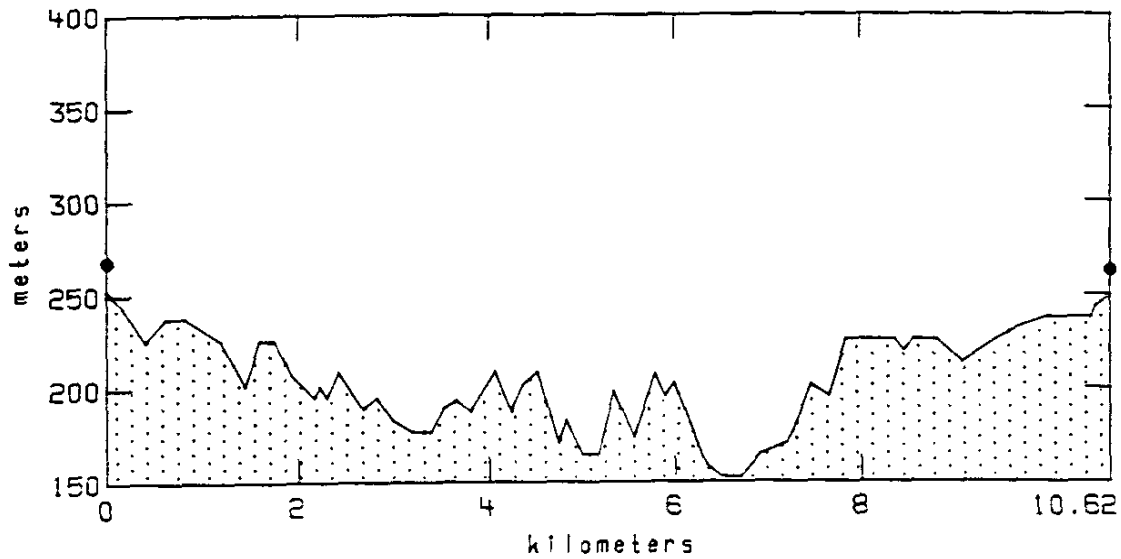
The site is in an open field. A house with 15-m high evergreen trees surrounding it is 120 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
4/27/67-van 1	90.7	103.4	117.8	132.3	136.9	147.5	148.7

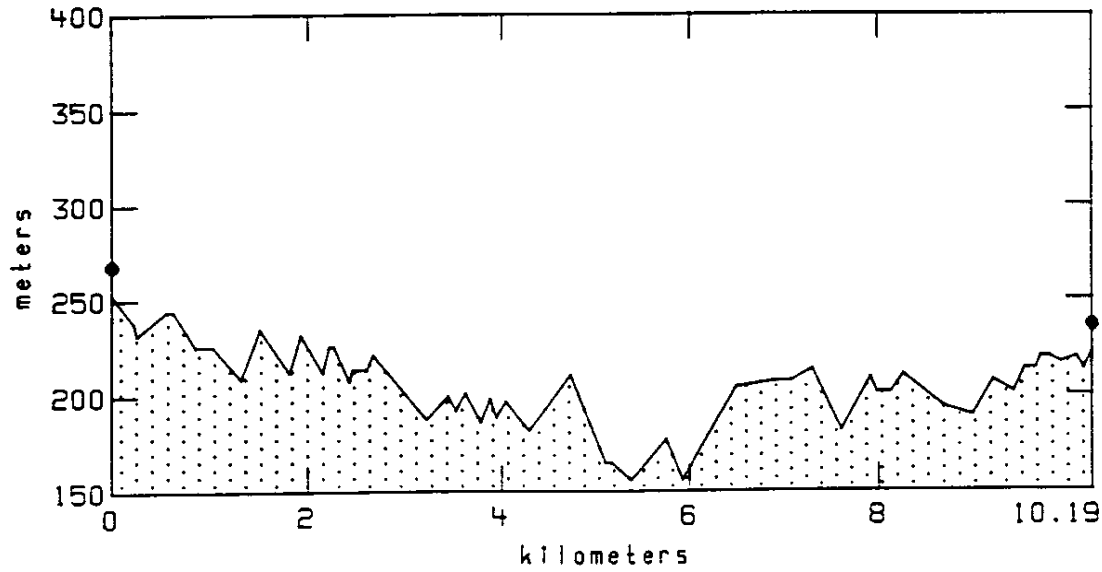
The site is in an open field on a hillside. There are trees adjacent to the path at 15 and 60 m and a farm outbuilding at 60 m near the trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
4/25/67-van 1	90.7	96.2	109.2	120.2	124.9	129.4	130.0

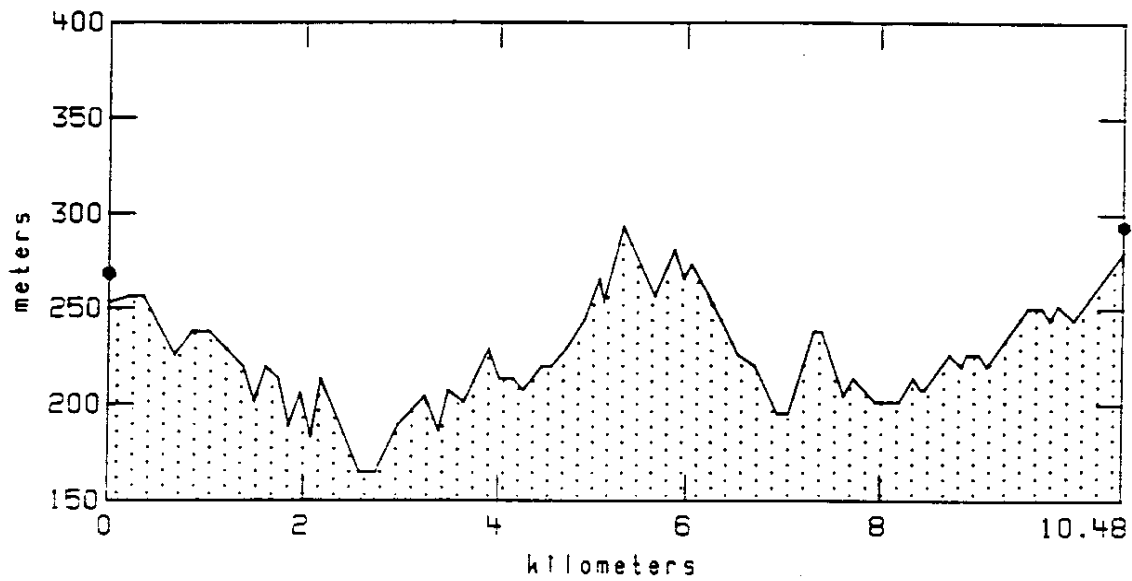
The site is in the open near a hillcrest. The path is clear to the horizon several kilometers away. There are scattered structures along the path, some utility lines 15 m behind the antennas, and a single-story concrete building 15 m to the right.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
4/26/67-van 1	90.4	102.4	116.2	125.8	152.9	153.7	153.7

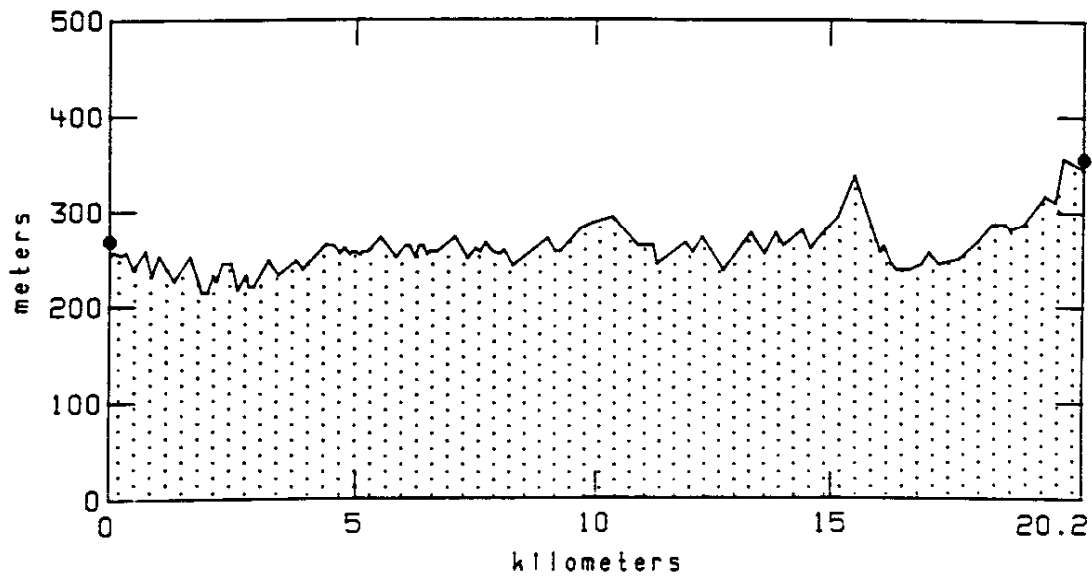
The site is in a farmyard. The path is through some scattered structures after first meeting some utility lines 10 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
4/26/67-van 1	91.7	111.4	127.7	144.8	172.9	Noise	Noise

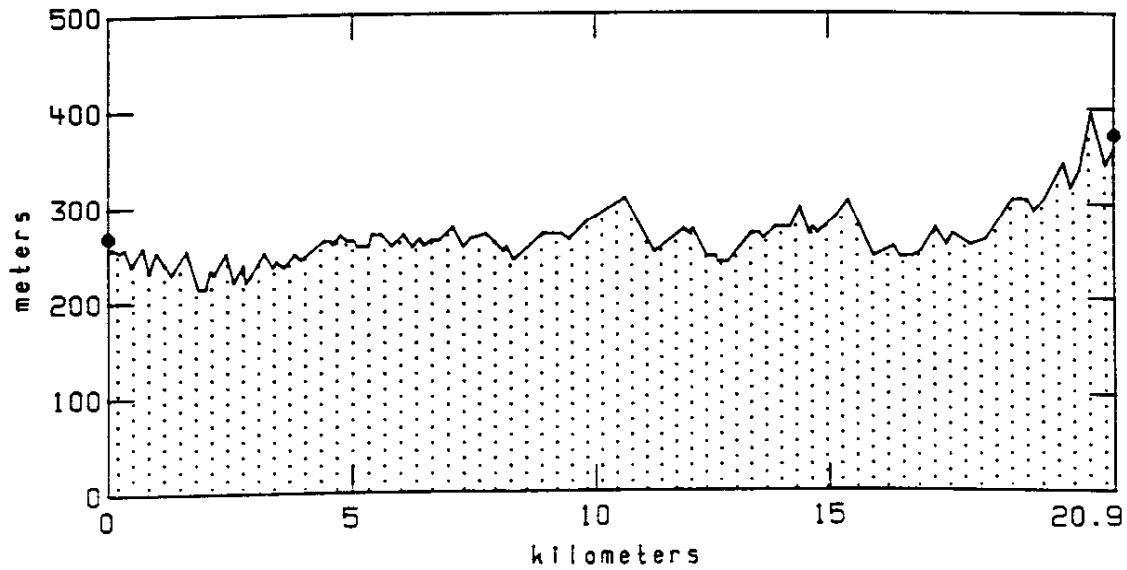
The site is at the side of a rural road. There is a 15-m tree adjacent to the path at 60 m, and this is followed by scattered trees and structures 120 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	10.0	10.0	11.4	12.9	11.9	11.9	12.4
5/04/67-van 1	111.7	125.4	143.7	147.8	153.4	171.9	Noise

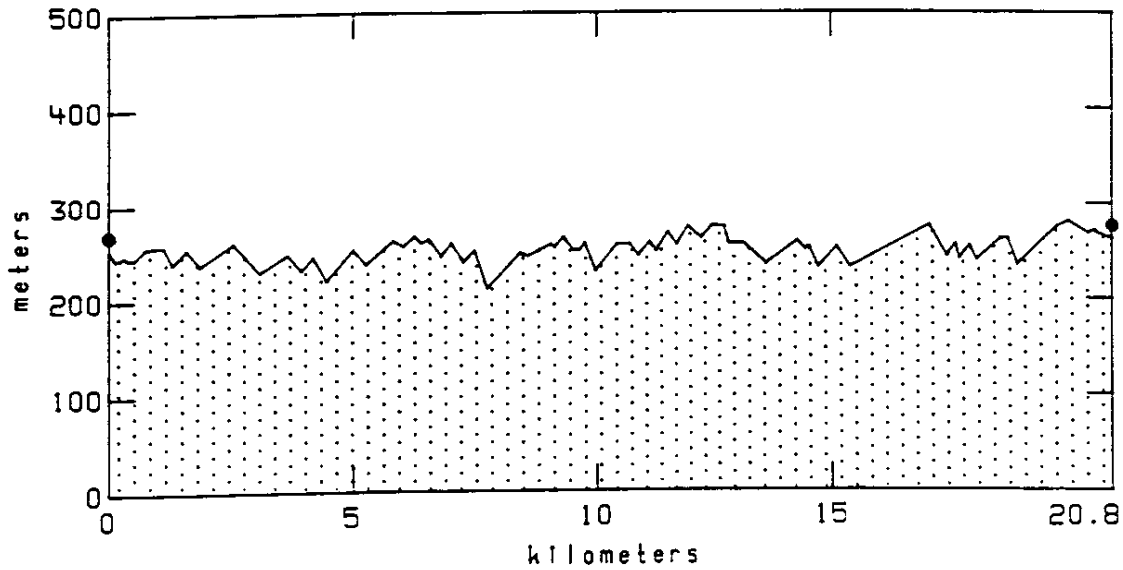
The site is in a densely wooded area on Candler's Mountain. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
5/08/67-van 1	104.7	117.4	134.7	138.2	139.6	156.6	160.6
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5/08/67-van 1	116.2	121.9	141.2	150.0	155.0	165.1	174.0

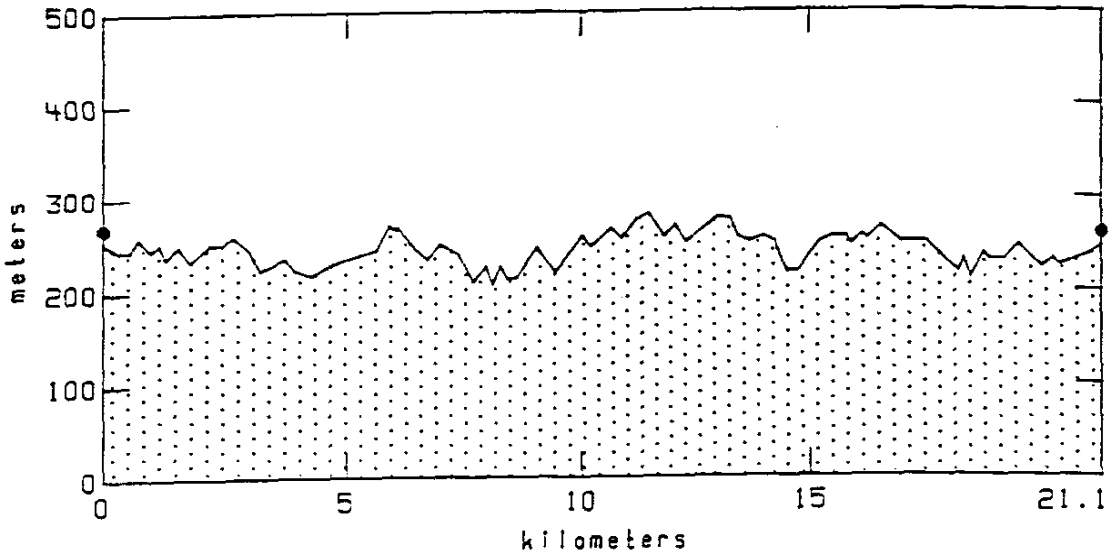
The site is at the side of a rural road in a densely wooded area. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
5/25/67-van 1	117.4	135.4	152.2	169.5	169.6	180.9	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5/25/67-van 1	132.9	148.2	161.7	177.2	Noise	Noise	Noise

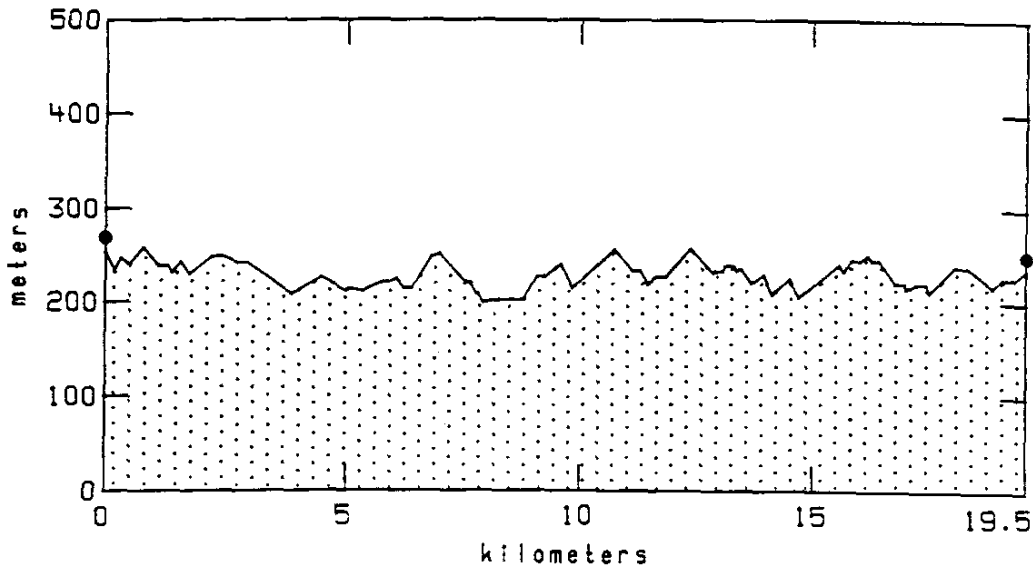
The site is on an unfinished road in a densely wooded area. Power lines cross the path 20 m away. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
5/02/67-van 1	111.7	126.8	145.2	158.8	165.7	Noise	Noise

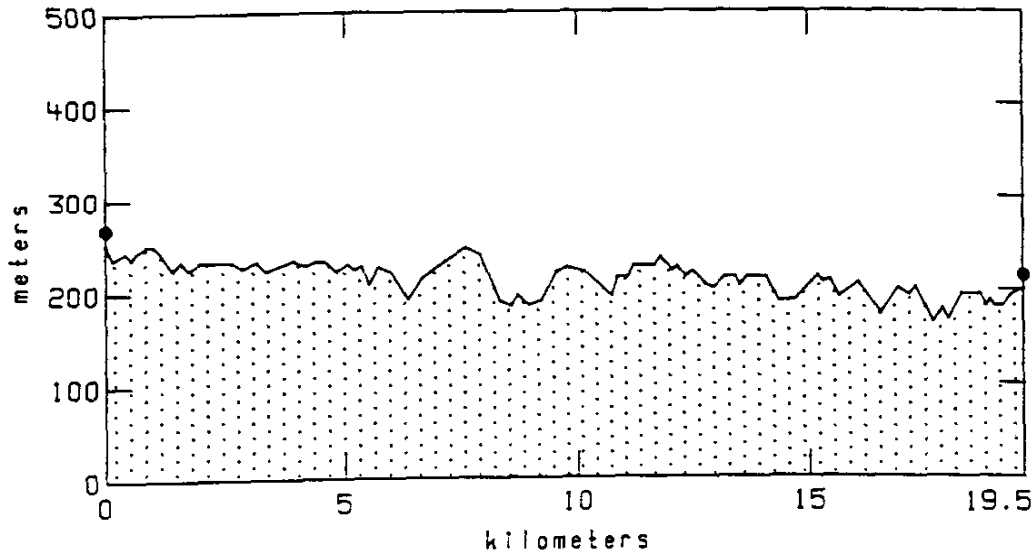
The site is in an open farmyard. Ahead on the path are a 6-m high tree at 30 m and power lines at 60 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
5/02/67-van 1	107.7	124.4	138.5	151.5	160.9	184.1	179.4

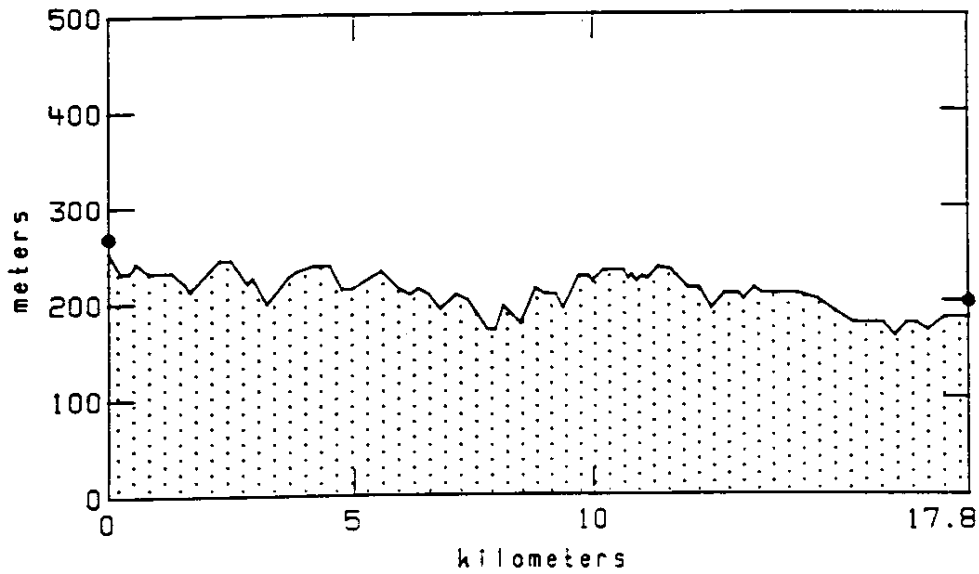
The site is in the open and has a clear unobstructed view ahead. Power lines cross the path at 30 m, and there is a house 600 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
5/03/67-van 1	106.7	121.9	136.9	146.8	152.5	168.4	172.4

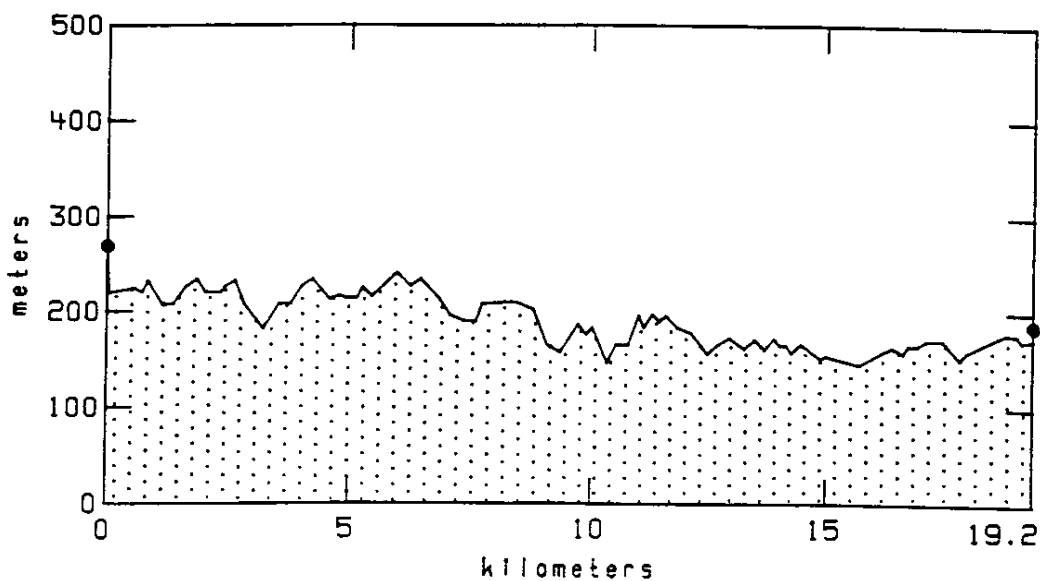
The site is in an open field. There are trees on the path at 150 m and single story buildings adjacent to the path at the same distance.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
5/03/67-van 1	110.7	122.2	138.7	148.3	153.2	163.4	169.7

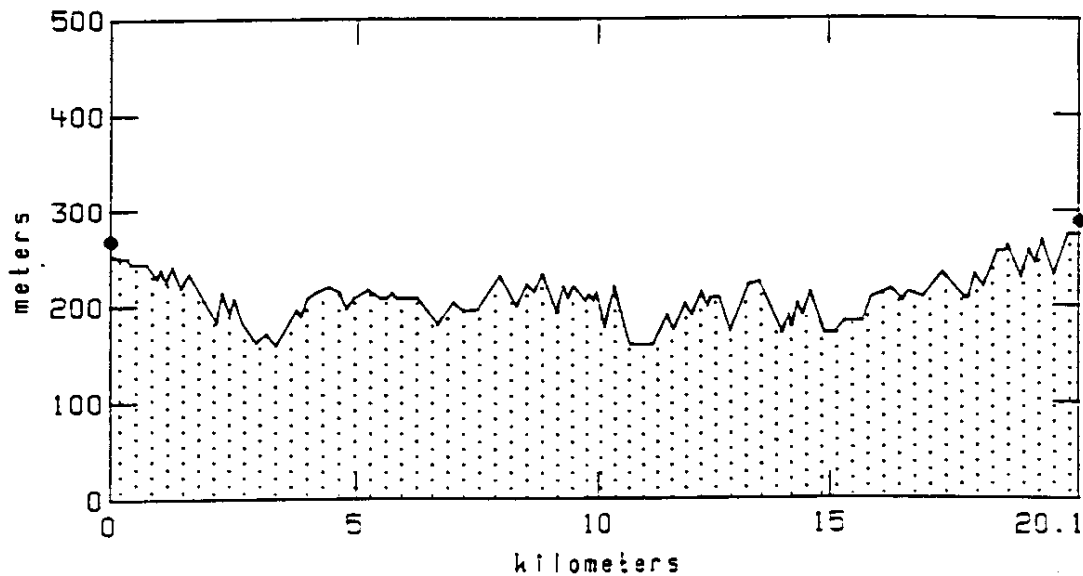
The site is in an open field. Railroad tracks and power lines cross the path at 60 m, and there are trees and a metal-roofed shed adjacent to the path at 150 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
5/24/67-van 1	106.7	113.4	131.2	144.8	151.3	170.4	Noise

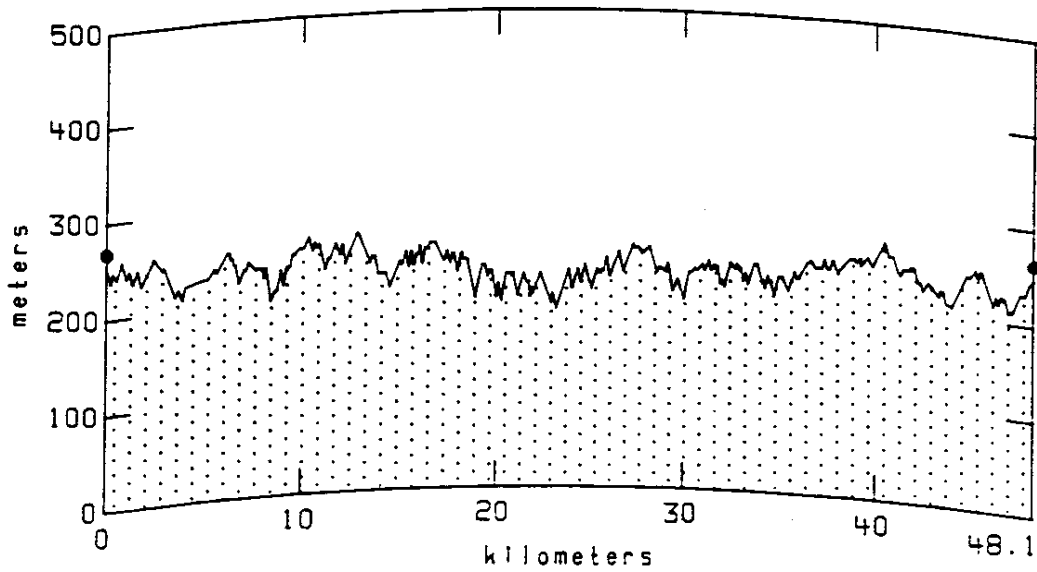
The site is in an open field, and the path is clear all the way to the horizon.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
5/05/67-van 1	102.2	106.1	117.7	126.3	137.4	149.2	144.4
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
5/26/67-van 2	104.3	108.4	115.6	121.2	131.0	146.0	151.3
Concealed:							
Rcvr hts, m	10.0	10.0	11.4	12.9	11.9	11.9	12.4
5/26/67-van 1	118.2	117.4	123.2	125.8	133.2	155.1	155.8
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5/26/67-van 1	114.2	128.5	132.7	139.0	149.5	173.7	-

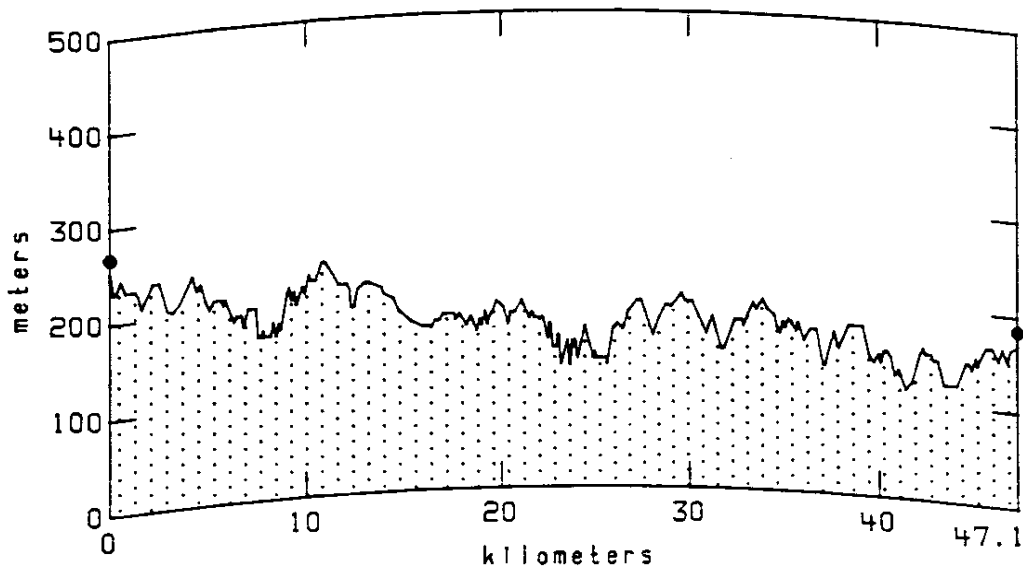
The site is in a clearing beside the road. The path is clear to the horizon, with low trees in the foreground below site level. A stone chimney stands adjacent to the path 15 m away. The concealed position is obstructed by a dense wood with power lines 8 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
4/25/67-van 2	131.8	143.5	157.6	168.7	179.8	Noise	Noise

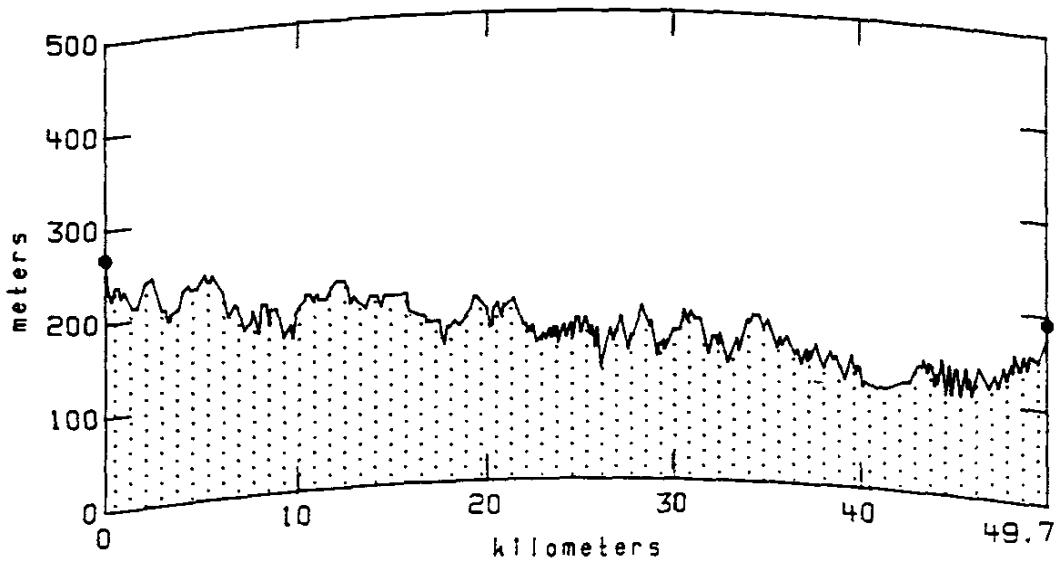
The site is in an open field; the path is clear to the horizon.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
5/25/67-van 2	132.3	141.4	149.4	159.2	170.9	186.4	206.8

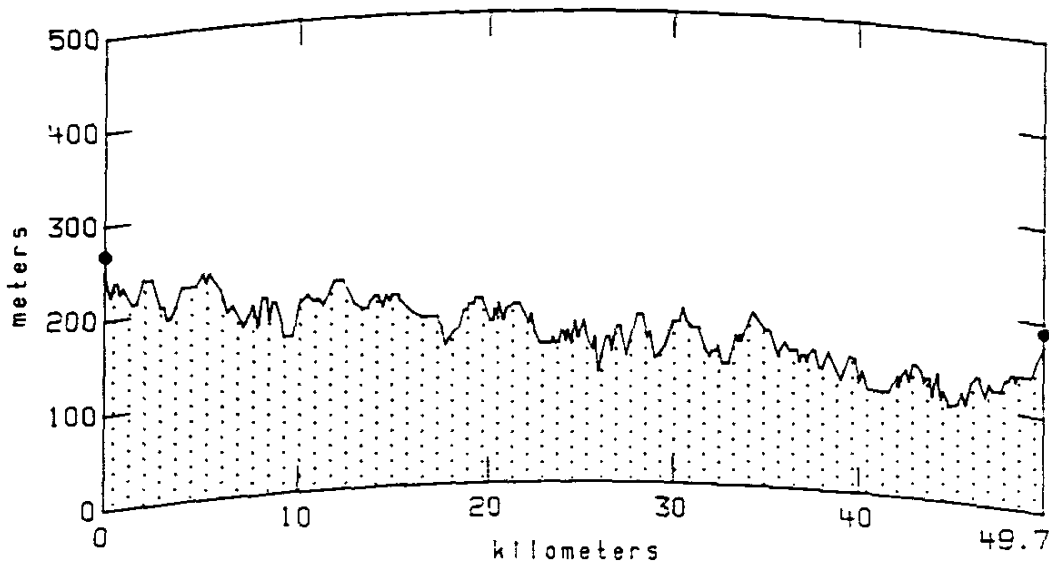
The site is in an open field. There are trees on the path at 120 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
5/15/67-van 2	138.8	133.4	140.6	163.7	183.8	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5/15/67-van 2	137.4	145.1	159.8	180.5	193.5	Noise	Noise

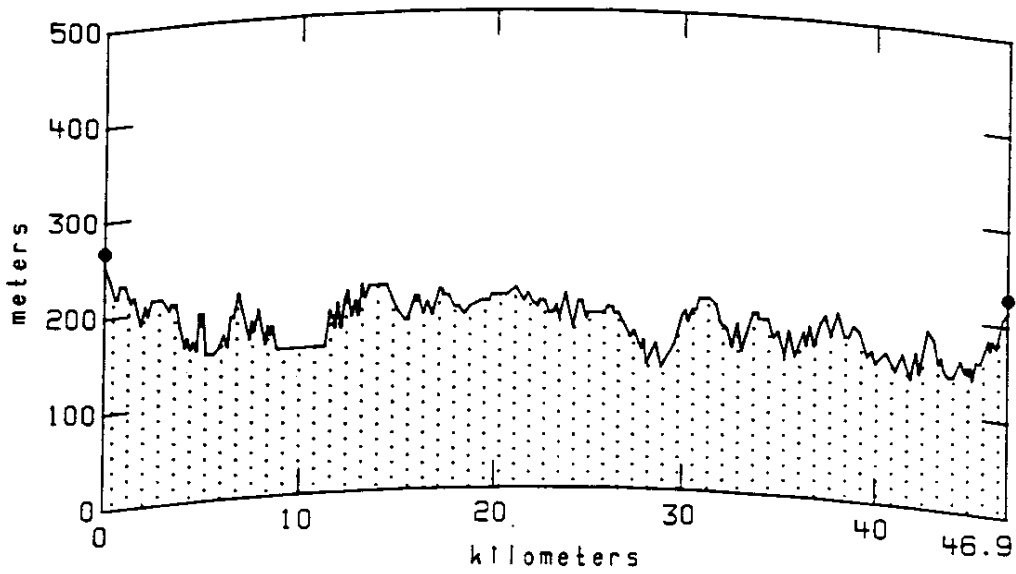
The site is at the edge of a field behind a dense tree growth. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
5/16/67-van 2	133.3	130.9	137.3	145.7	159.4	172.3	191.3

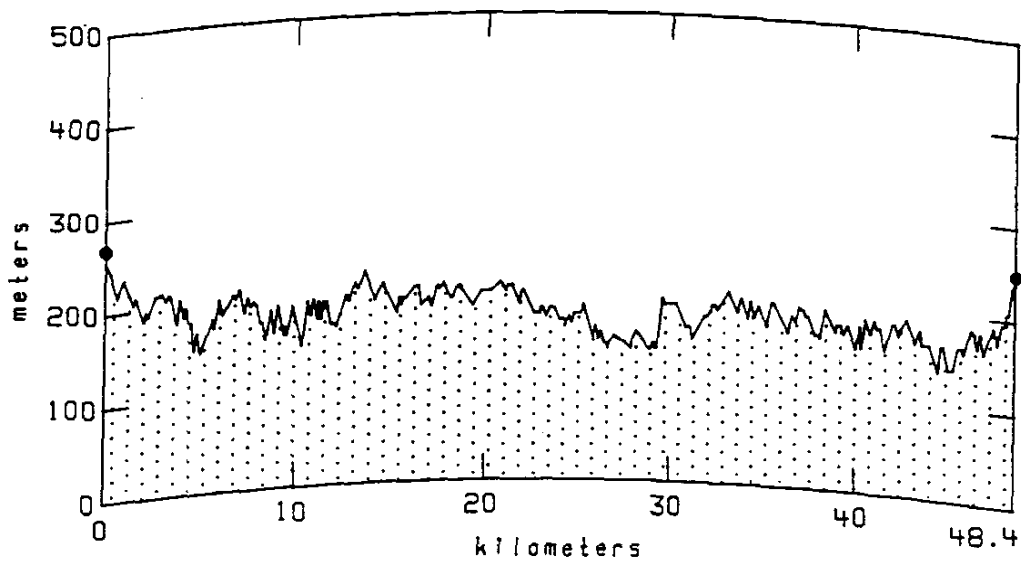
The site is in an open area. There are a low gravel pile and power lines 6 m ahead, and then there are some large trees 120 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
5/19/67-van 1	114.7	131.4	136.4	147.8	146.7	158.3	165.5

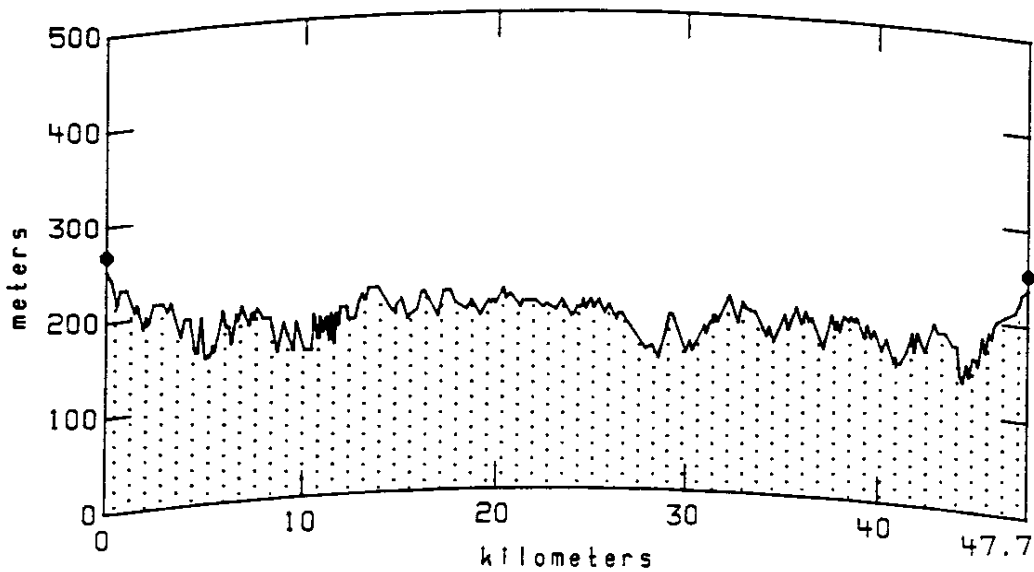
The site is in an open field. There are trees on the path at 150 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	10.0	10.0	11.4	12.9	11.9	11.9	12.4
5/22/67-van 1	110.2	126.9	148.2	150.3	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5/22/67-van 1	117.7	134.9	152.7	159.5	Noise	Noise	Noise

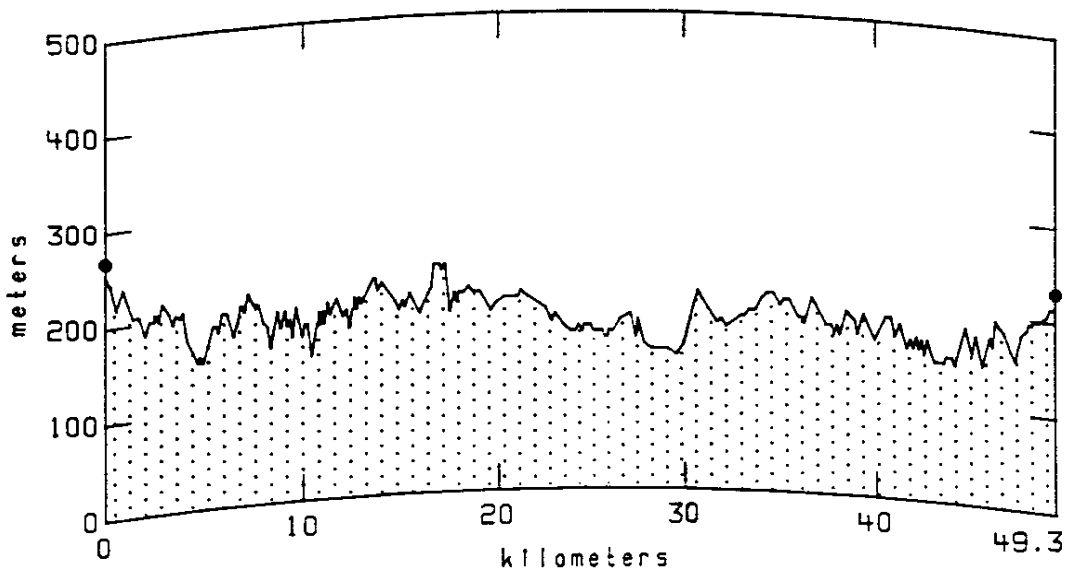
The site is at the edge of the road behind a stand of large trees. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
5/12/67-van 2	117.8	129.9	135.3	140.1	147.1	158.1	188.1
Concealed:							
5/12/67-van 2	121.8	128.9	141.3	164.7	182.1	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5/12/67-van 2	144.4	148.1	156.4	170.0	179.2	Noise	Noise

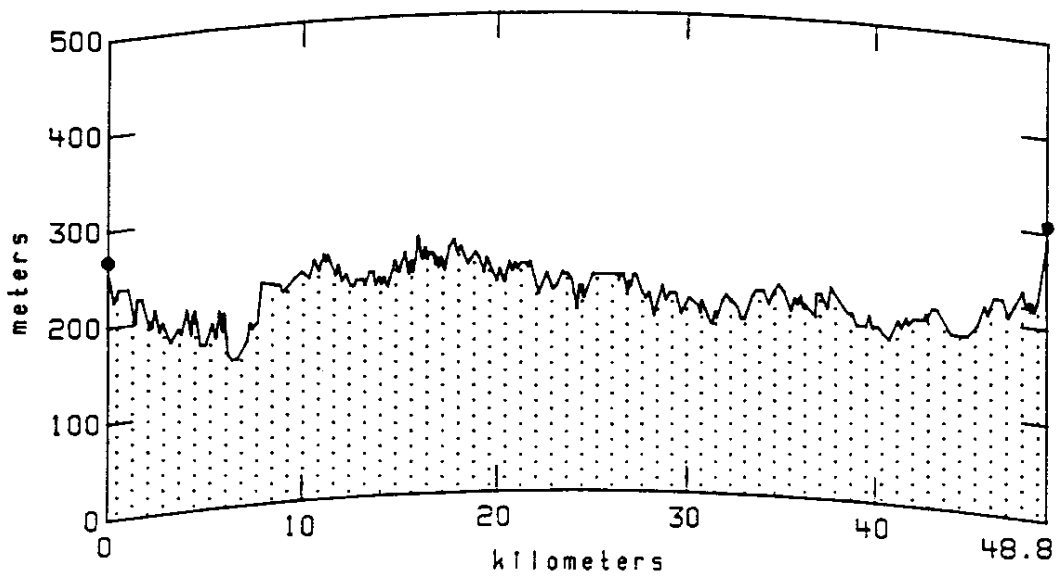
The site is in an open field near the intersection of two rural roads. There are adjacent trees. The concealed position is 20 m behind a densely wooded area. Power lines cross both paths 8 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
5/17/67-van 1	114.0	125.4	133.2	151.0	152.4	164.4	165.7
Concealed:							
Rcvr hts, m	10.0	10.0	11.4	12.9	11.9	11.9	12.4
5/18/67-van 1	116.4	139.3	139.5	154.3	157.6	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5/18/67-van 1	123.7	144.2	141.5	171.5	168.1	Noise	Noise

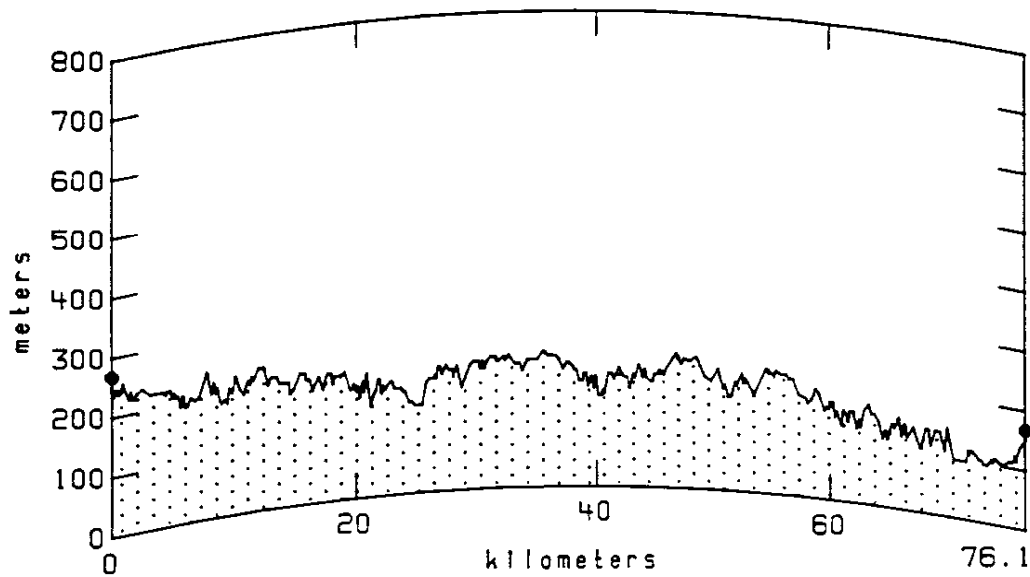
The site is at the side of the road from which the ground drops sharply away. There are utility lines at 6 and 20 m, and trees at 120 m, all below antenna level. The concealed position is obstructed by a grove of trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
5/11/67-van 2	117.3	119.8	133.6	140.7	150.1	181.1	184.8

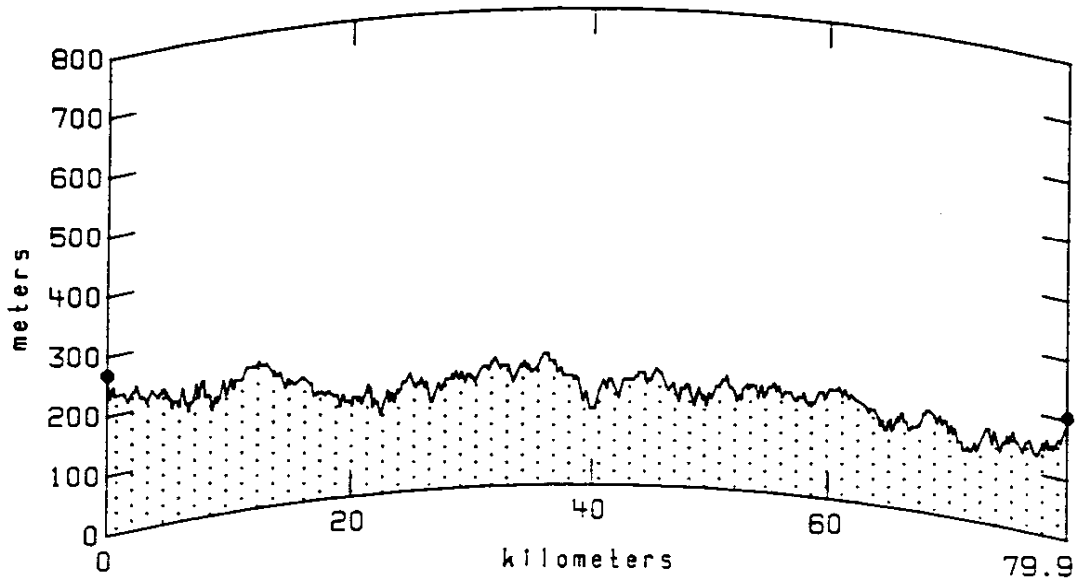
The site is in an open field. Power lines cross the path at 30 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
4/26/67-van 2	139.3	153.4	167.0	182.7	Noise	Noise	Noise

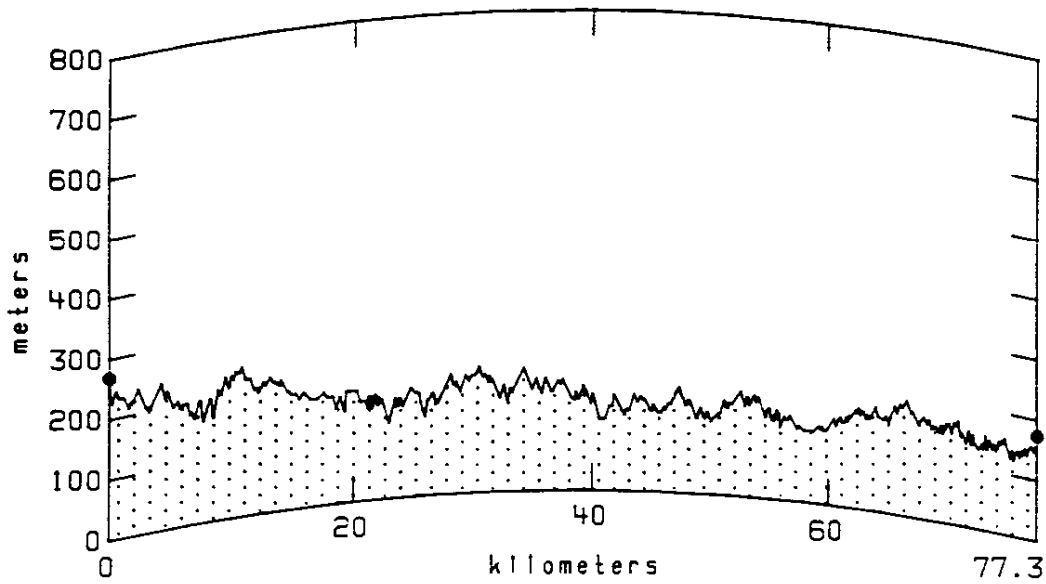
The site is in an open field with trees on the path 150 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
4/27/67-van 2	149.3	149.9	163.3	177.7	186.9	210.3	Noise
Concealed:							
4/28/67-van 2	150.8	149.2	164.6	184.7	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
4/28/67-van 2	156.4	161.1	170.1	188.5	Noise	Noise	Noise

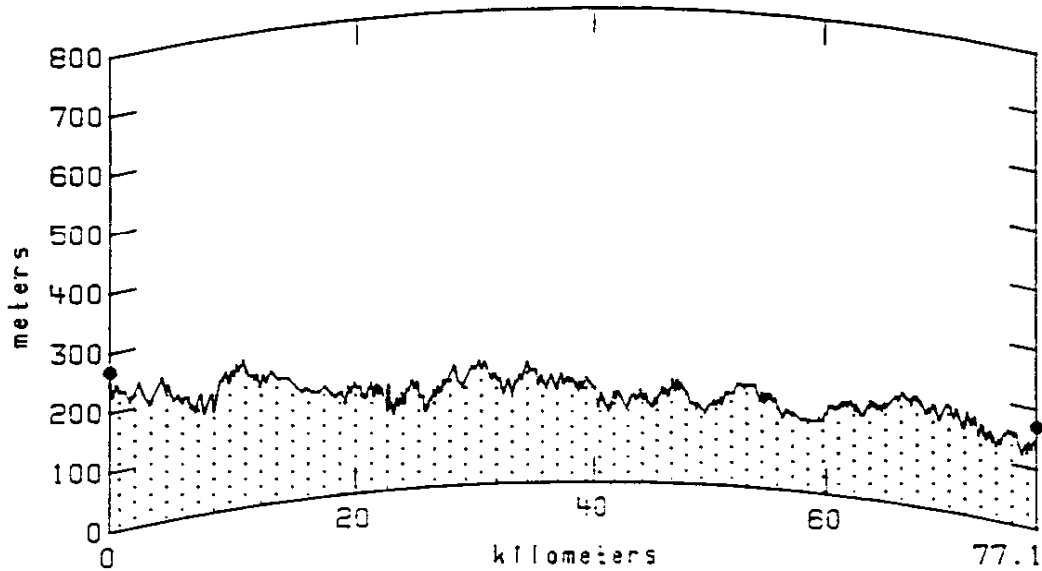
The site is in an open church yard; there are trees on the path at 100 m. The concealed position is behind a large oak tree.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
5/02/67-van 2	156.3	160.4	176.6	191.7	Noise	Noise	Noise

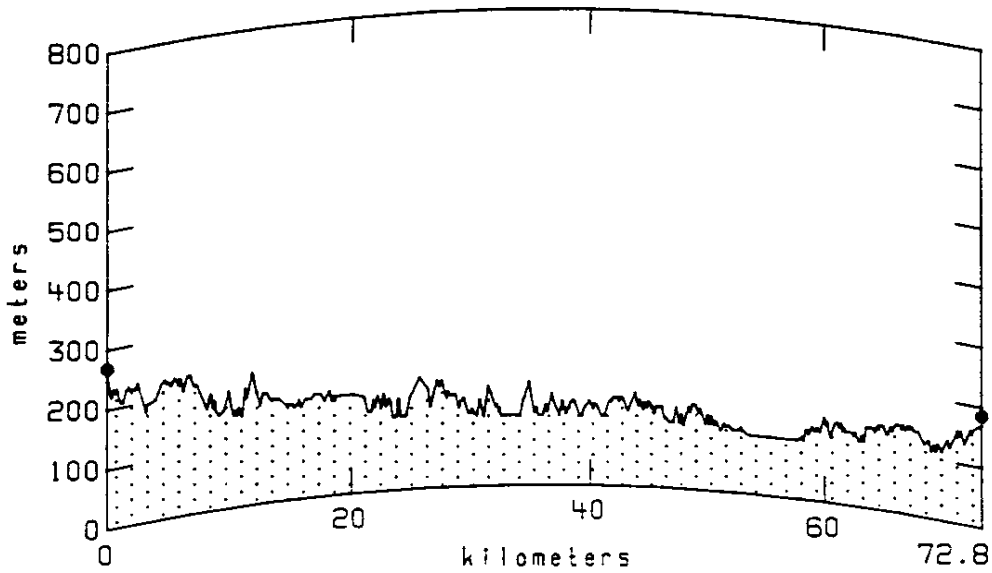
The site is at the edge of a church driveway behind some large trees. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
5/01/67-van 2	152.3	154.9	168.6	184.7	Noise	Noise	Noise

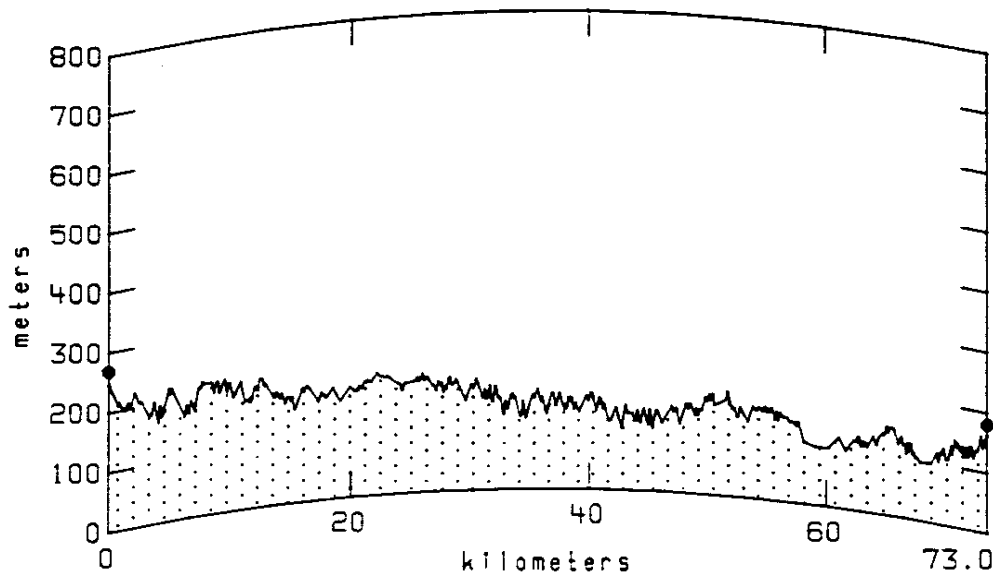
The site is in an open field; the path is clear to the horizon about 3 km away. Telephone lines are adjacent to the path at 60 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
5/03/67-van 2	141.9	142.4	143.6	164.4	171.7	Noise	Noise

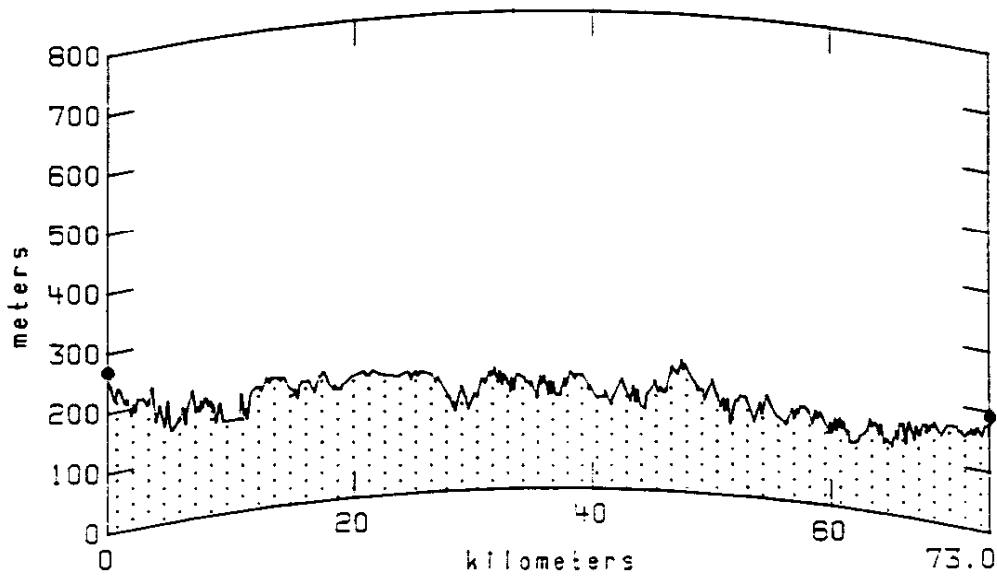
The site is at the side of the road. There is a single story brick house adjacent to the path at a distance of 100 m. Telephone lines cross the path at 120 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
5/04/67-van 2	136.3	150.4	157.3	163.2	164.6	185.2	187.6
Concealed:							
5/05/67-van 2	138.8	148.9	159.6	166.4	165.1	184.0	195.4
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5/05/67-van 2	153.4	160.1	169.3	189.5	Noise	Noise	Noise

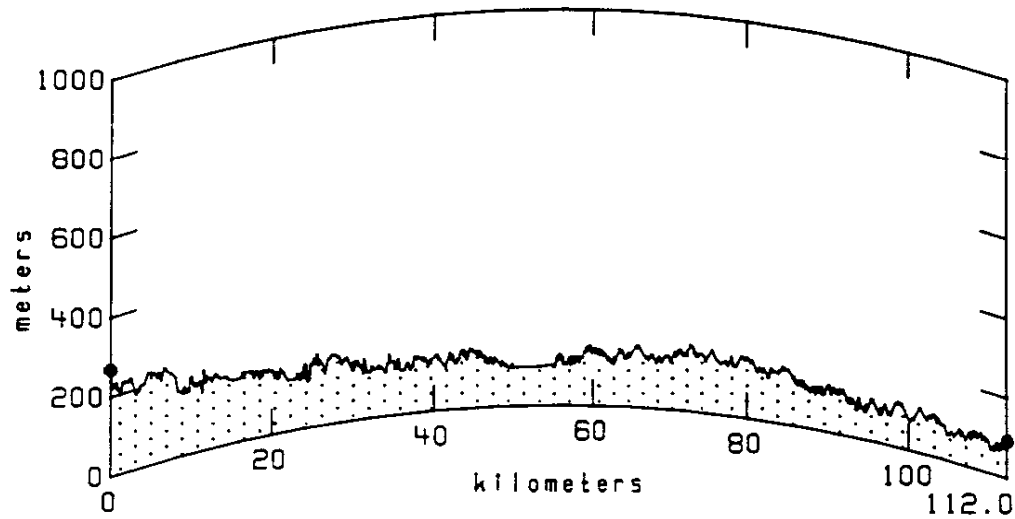
The site is in an open field. There are trees on the path 120 m away. The concealed position is at the edge of the field behind several trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
5/08/67-van 2	142.3	143.9	151.1	158.7	161.3	183.1	187.3
Concealed:							
5/09/67-van 2	138.3	148.9	155.6	164.7	177.6	203.1	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5/09/67-van 2	160.1	162.1	184.8	189.5	Noise	Noise	Noise

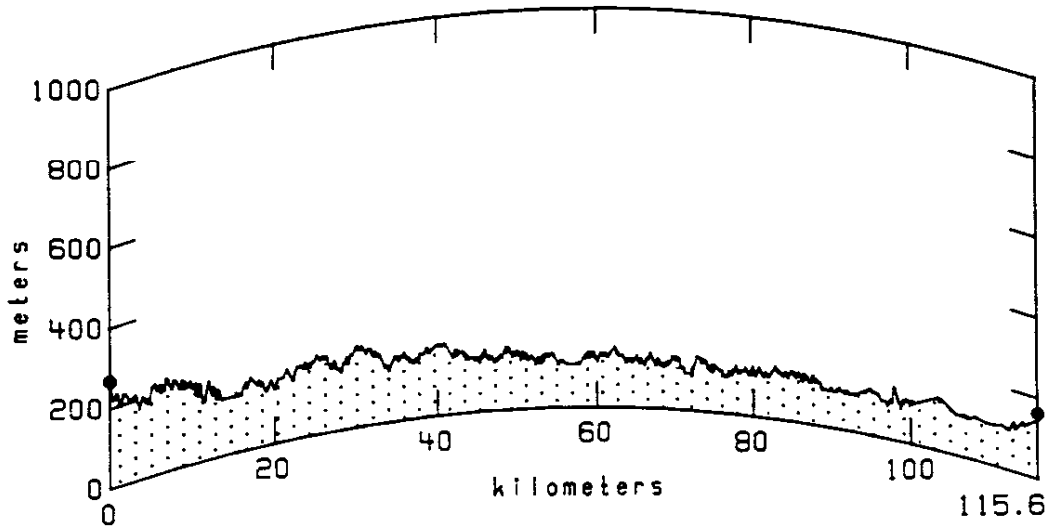
The site is in an open church yard. There are trees on the path 300 m away. The concealed position is at the edge of the church parking lot 6 m behind a large oak tree and 30 m behind a densely wooded area.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
5/23/67-van 2	152.3	162.9	179.1	188.7	Noise	Noise	Noise
Concealed:							
5/24/67-van 2	152.3	164.9	179.6	184.2	194.6	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5/24/67-van 2	165.4	170.1	185.8	Noise	Noise	Noise	Noise

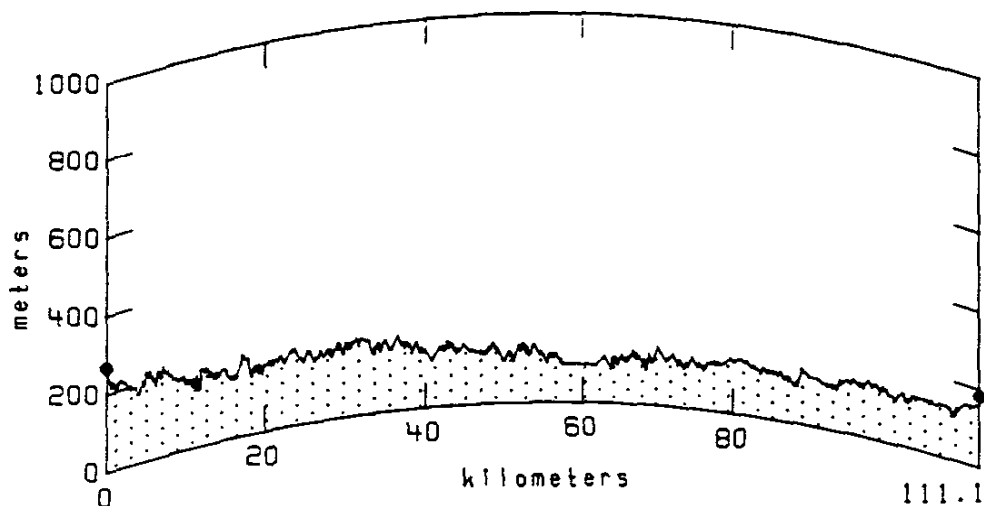
The site is in an open field. There are trees at 150 m, but from there the path is clear to the horizon. The concealed position is behind several large trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
5/22/67-van 2	150.3	168.9	185.6	Noise	Noise	Noise	Noise

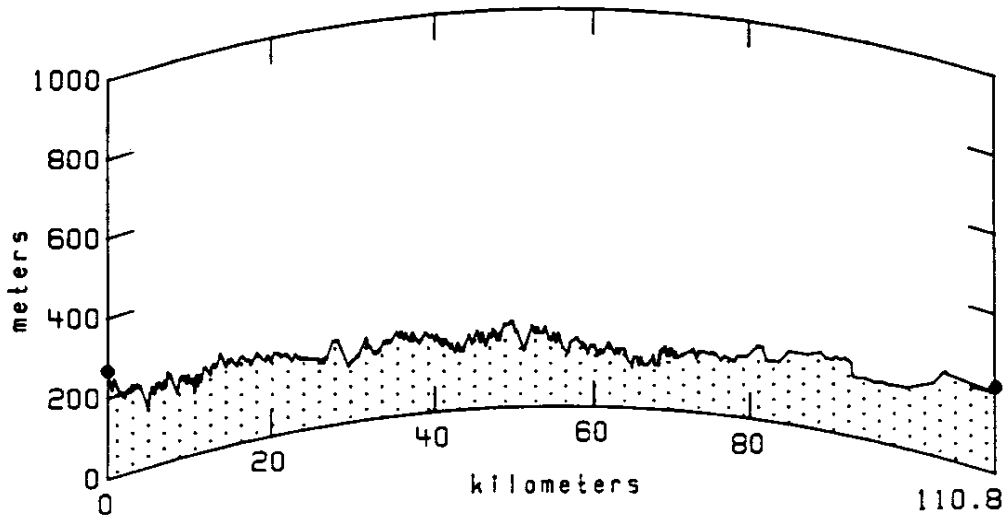
The site is in an open field. About 60 m ahead is a 20-m high service station sign, and then at 250 m are some trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
5/18/67-van 2	149.3	166.2	175.9	184.7	195.9	Noise	Noise
Concealed:							
5/19/67-van 2	156.1	165.9	175.3	191.7	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5/19/67-van 2	178.4	179.1	186.5	Noise	Noise	Noise	Noise

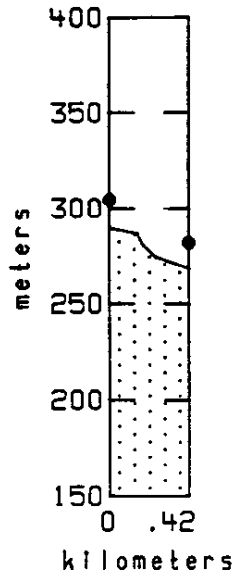
The site is in an open church parking lot. Some large trees are 100 m ahead on the path. The concealed position is behind a large oak tree.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
5/17/67-van 2	160.3	168.0	185.7	Noise	Noise	Noise	Noise

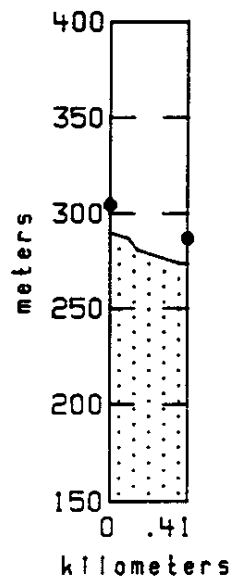
The site is in an open field. Power lines cross the path at 30 m, and farm houses and outbuildings are adjacent to the path.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/21/67-van 1	55.2	63.6	73.3	85.6	101.3	106.3	99.9

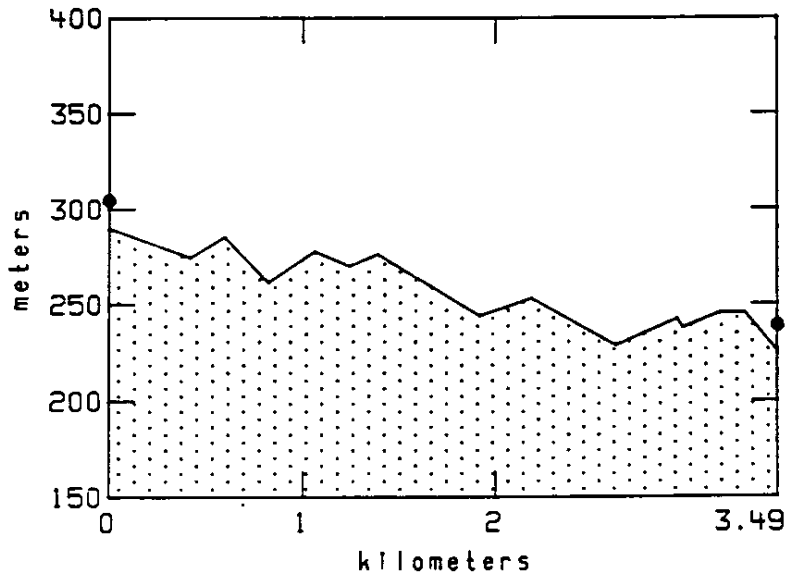
The site is in an open field. Except for one leafless tree, there is nothing to obstruct the path.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/21/67-van 1	52.7	60.6	79.8	86.4	100.1	105.0	112.9

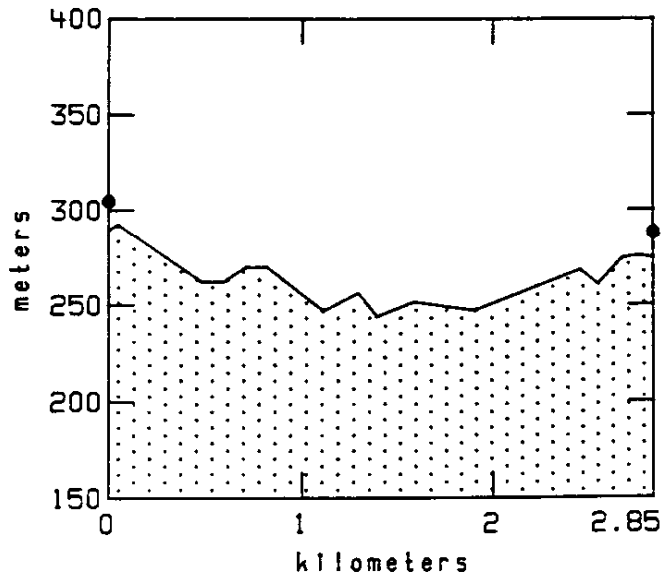
The site is in an open field. Power lines cross the path at 20 m, but otherwise there are no obstructions.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/20/67-van 1	75.3	87.0	103.8	106.6	120.6	128.1	146.4

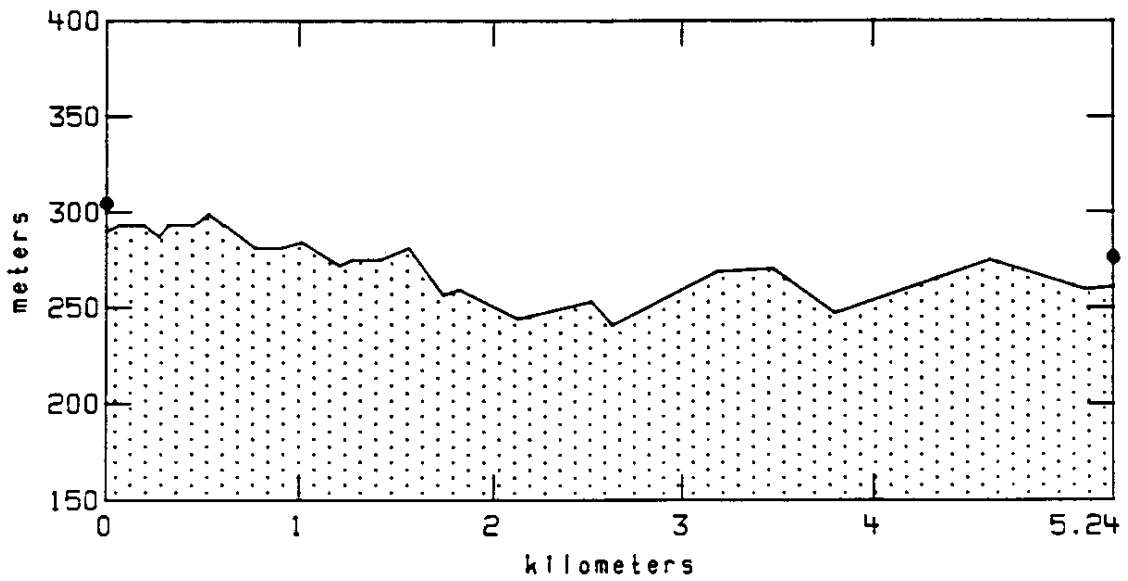
The site is in an open field. Scattered homes and outbuildings are nearby, and there are trees on the path at 200 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/29/67-van 1	71.6	84.5	100.8	108.6	120.8	123.2	139.4

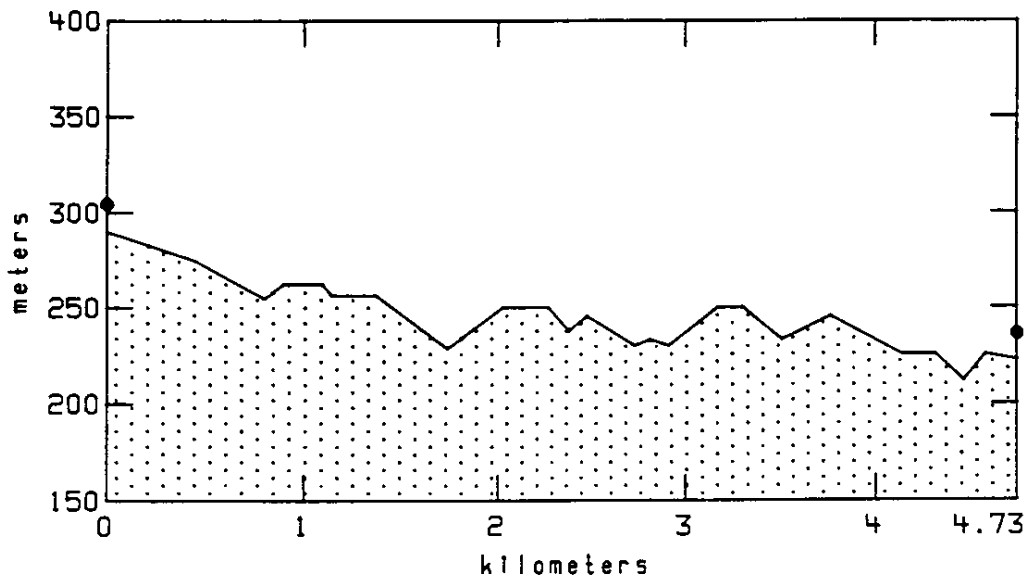
The site is in an open field. The path is clear of obstructions.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/28/67-van 2	99.2	99.6	120.4	129.6	150.6	171.6	182.6

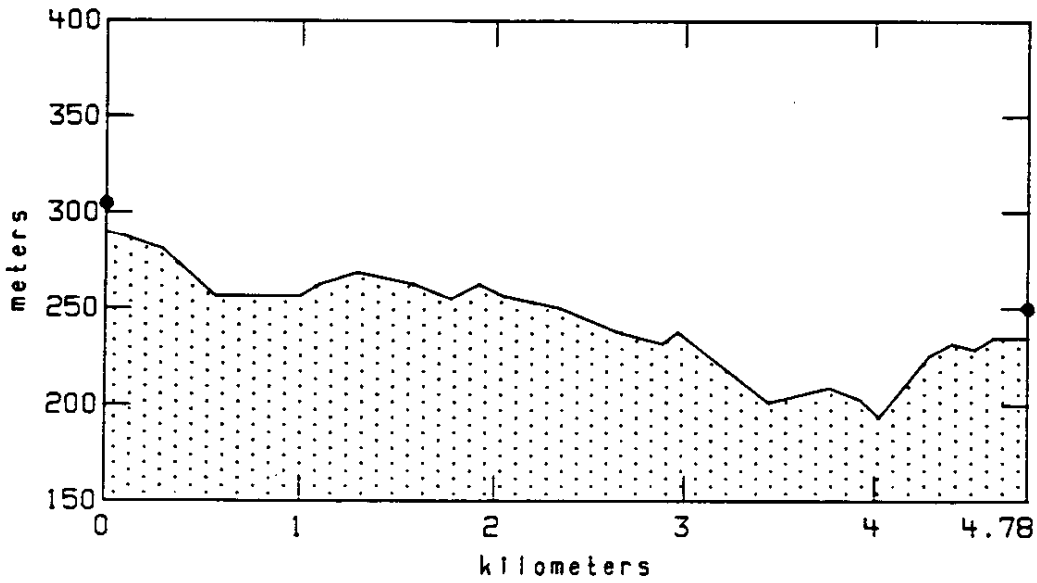
The site is in an open parking lot. The path passes over trees lying below antenna level.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/08/67-van 1	87.7	98.6	111.3	122.9	127.8	139.0	155.5

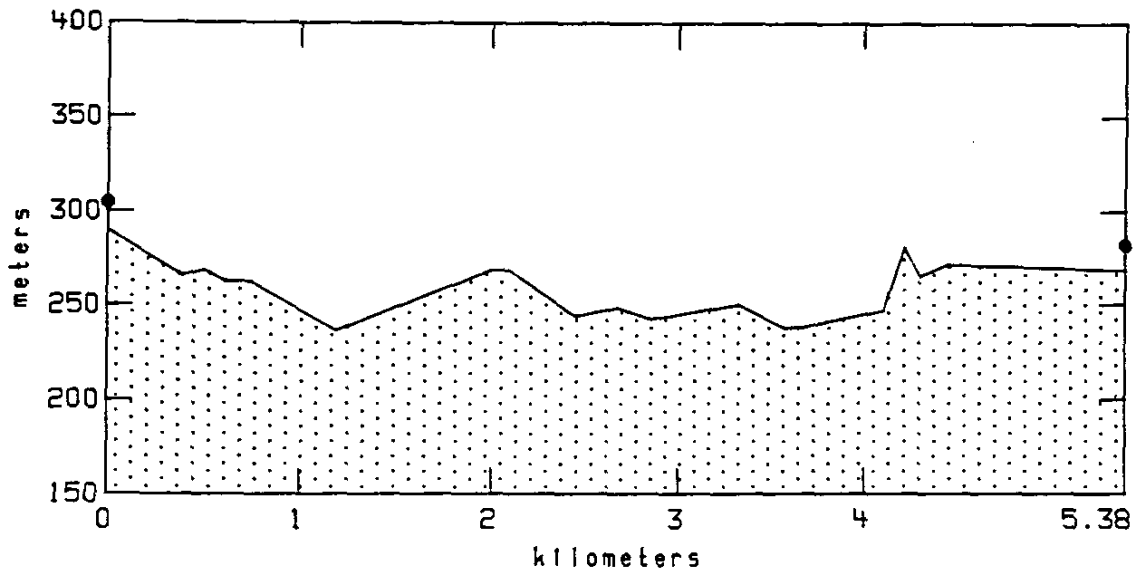
The site is in a clear field near a hilltop. The path is clear to some trees 1600 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/28/67-van 2	84.3	94.6	107.4	113.1	119.4	130.1	138.6

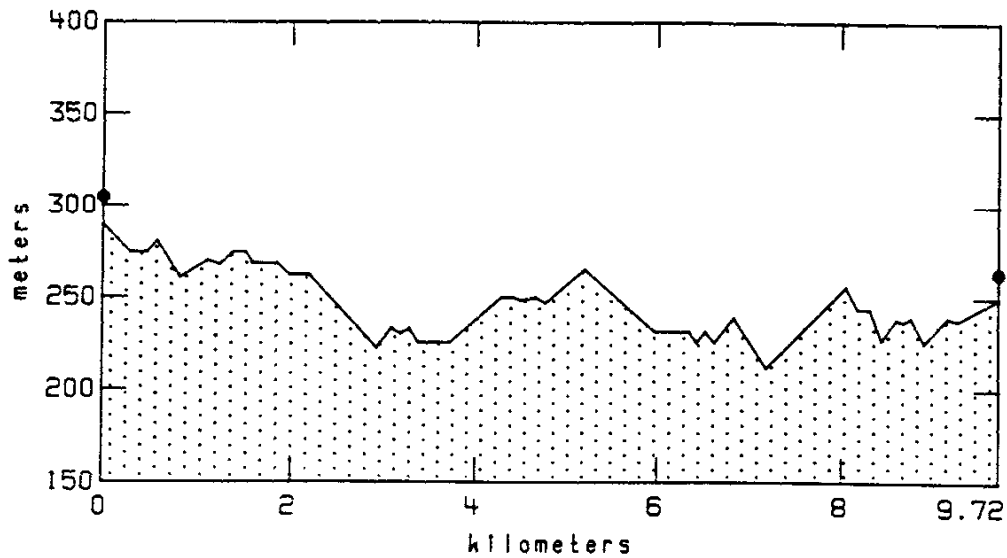
The site is at the side of a rural road. There are a low metal-roofed shed 25 m ahead and a house with a barn 60 m ahead.



Basic Transmission Loss, L_b (dB)

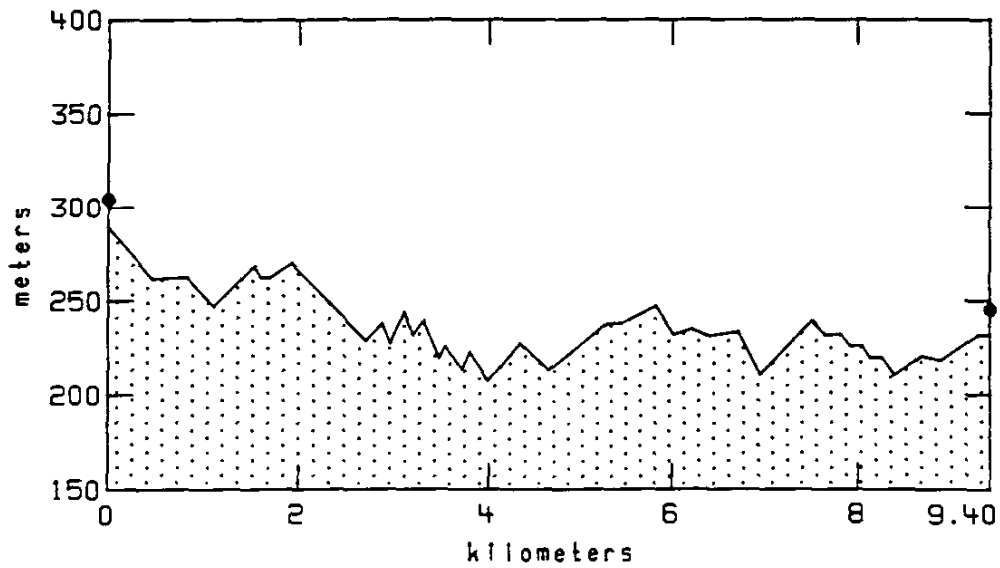
freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/07/67-van 1	81.2	111.7	111.3	126.6	132.0	145.9	161.6

The site is in an open field. There are trees 150 m ahead.

Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/06/67-van 1	94.7	107.6	122.3	131.4	137.4	161.9	172.8

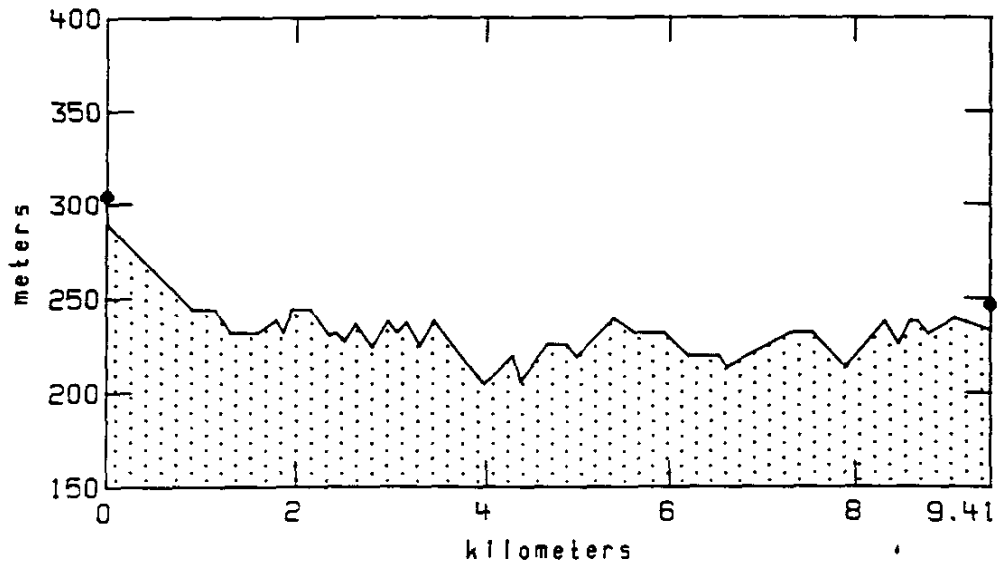
The site is beside a rural road. There is a clear view of the horizon except for some utility lines 15 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/06/67-van 1	89.2	101.6	119.8	121.6	127.4	132.4	144.3

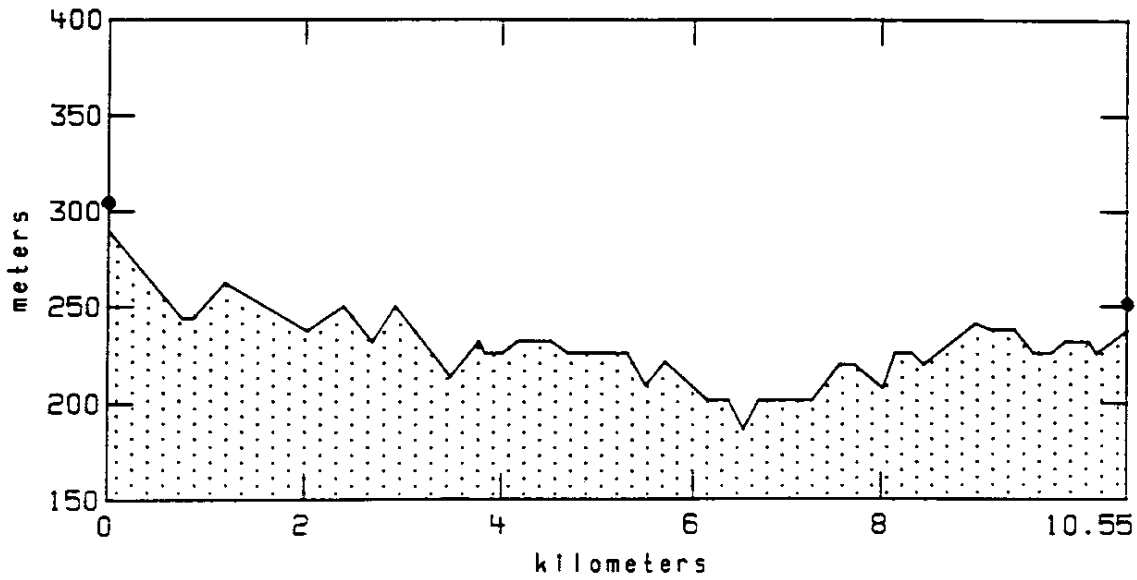
The site is beside a rural road. The immediate foreground is an open field with utility lines crossing the path at 30 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/02/67-van 1	99.2	113.6	114.5	122.1	132.5	148.5	159.4

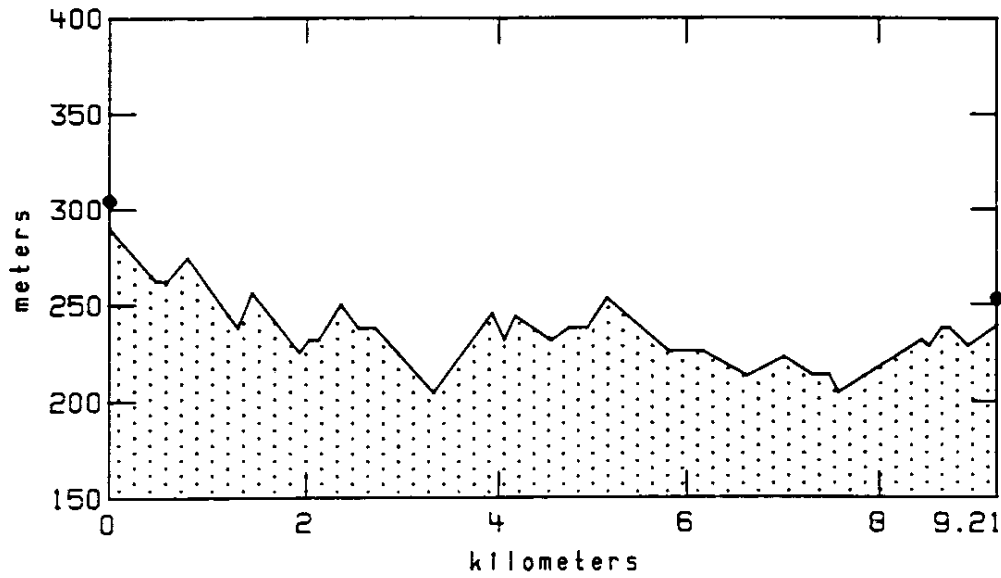
The site is in an open field. There are a barn 200 m ahead and trees at 250 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/05/67-van 1	92.7	101.6	117.8	124.1	131.2	134.5	145.0

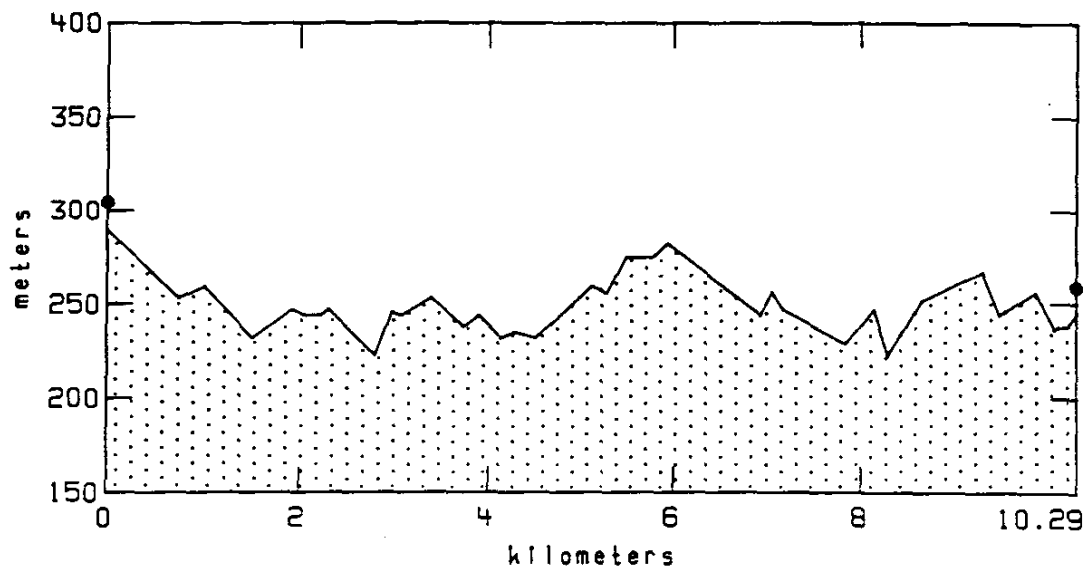
The site is in an open field. There are trees below antenna level on the path at 120 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/05/67-van 1	93.3	108.6	120.3	124.1	128.2	130.5	138.5

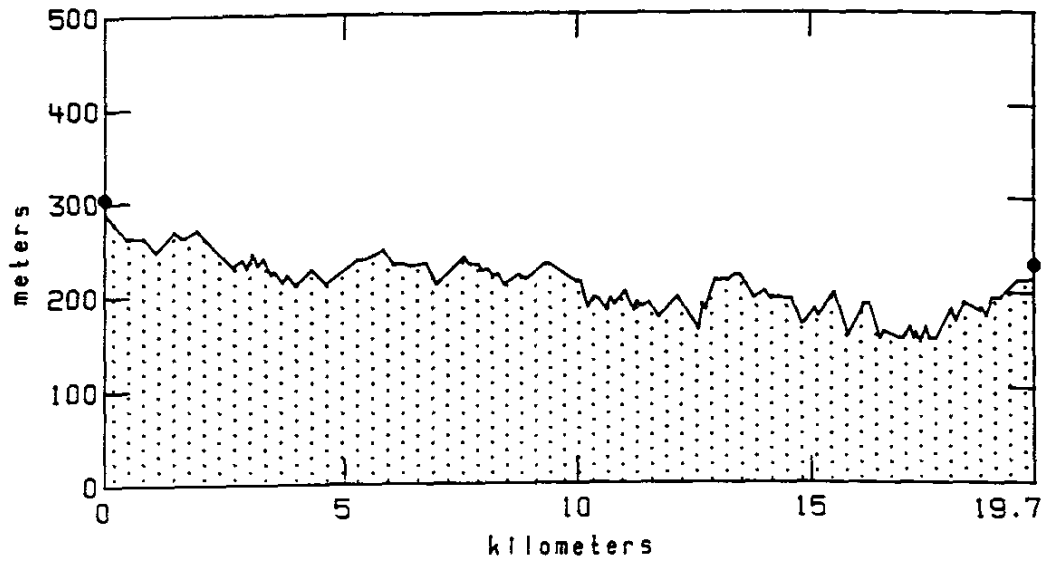
The site is at the edge of an open field. There are trees on the path at 240 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/01/67-van 1	88.7	113.6	126.3	122.1	138.7	141.4	148.3

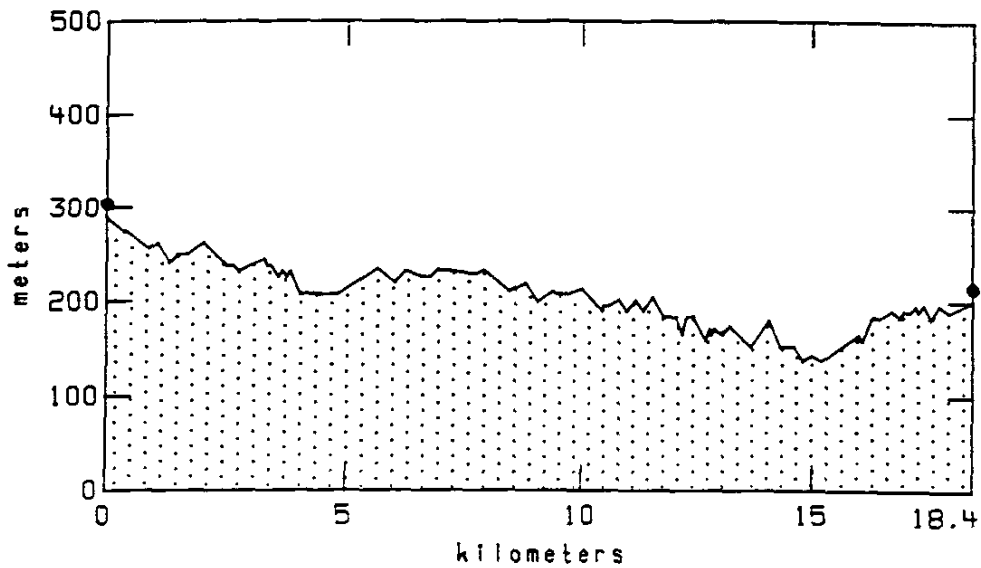
The site is in an open field. Obstructing the path at 150 m are power lines, trees, and metal-roofed barns.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/22/67-van 1	105.6	112.0	122.8	129.3	138.3	140.8	151.4

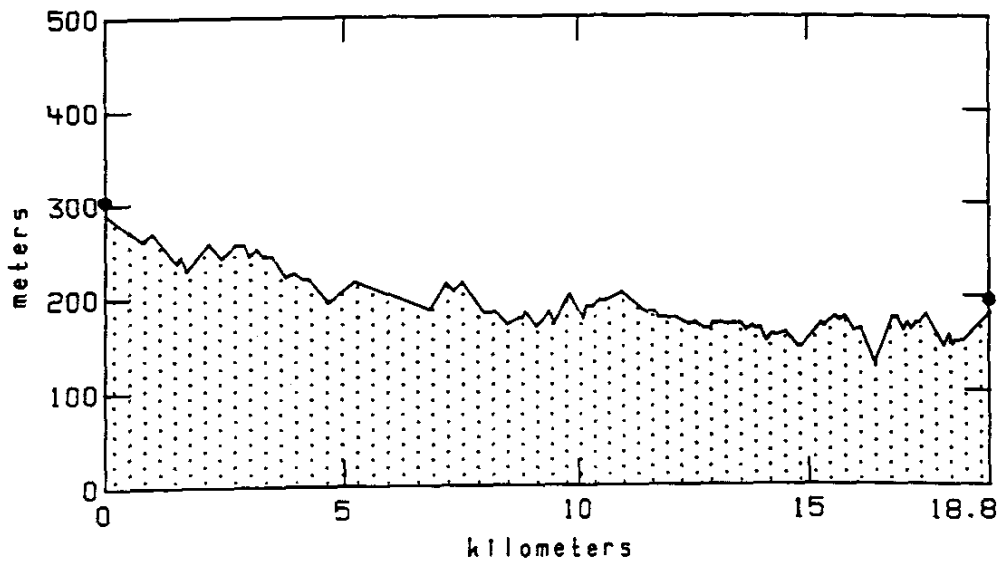
The site is on the side of the road. There are trees on the path at 240 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/27/67-van 1	101.1	110.0	120.8	128.6	130.7	142.1	147.5
Concealed:							
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/27/67-van 2	104.3	106.8	118.2	134.6	137.0	167.0	171.3
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
6/27/67-van 2	125.9	129.3	147.9	132.6	133.8	165.1	153.3

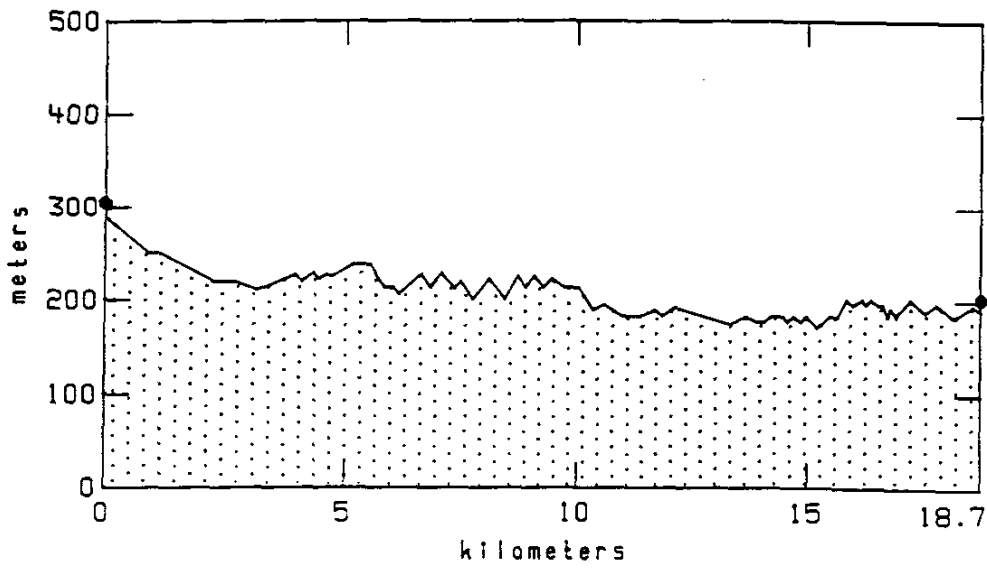
The site is in an open field. A wire fence crosses the path 10 m away. The concealed position is behind a large tree.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/22/67-van 1	100.1	113.5	127.8	129.9	140.0	144.9	155.5

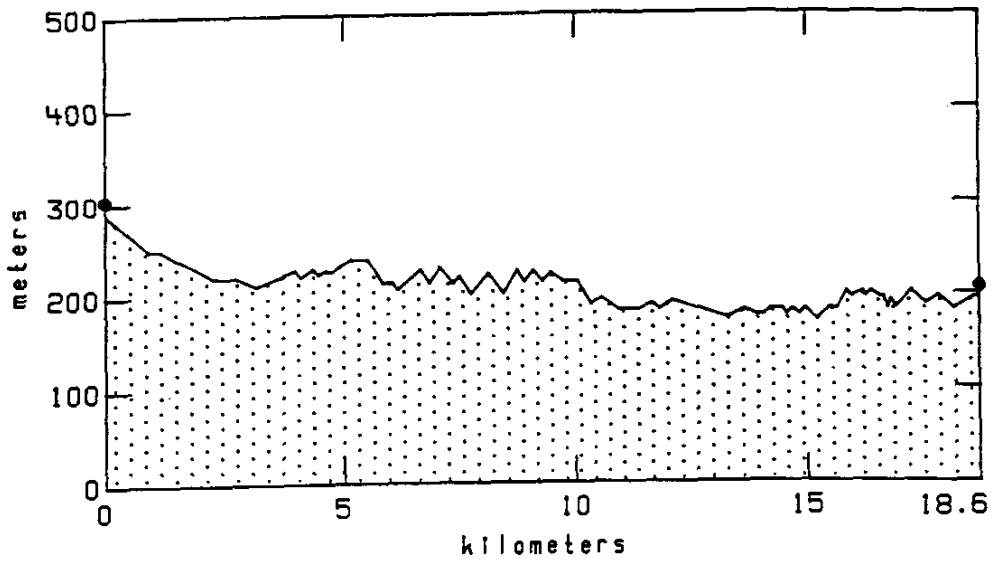
The site is in an open field. There are trees on the path at 150 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
-Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/09/67-van 1	103.7	114.6	125.8	133.1	134.2	141.3	151.3

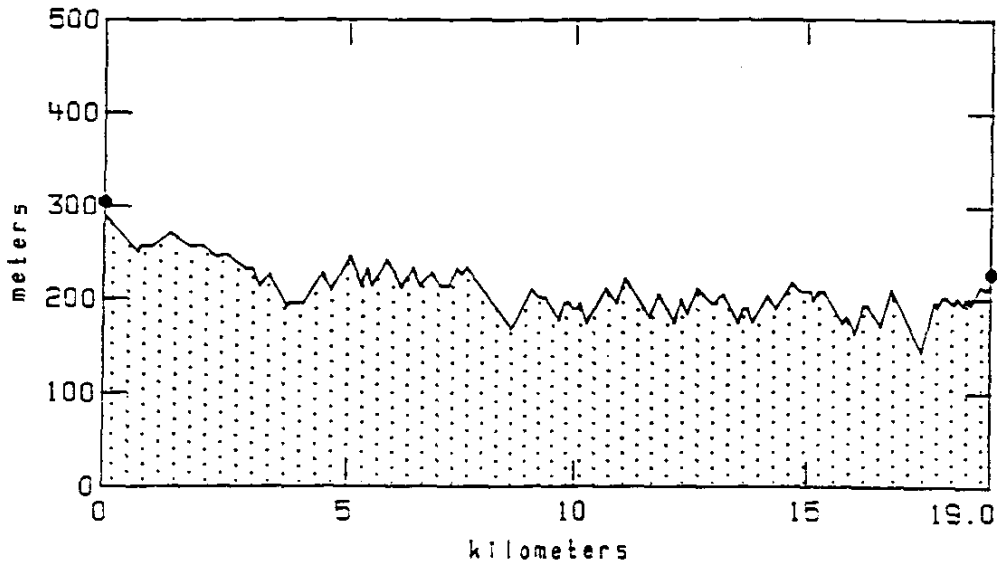
The site is in an open field. The path runs parallel to utility lines and railroad tracks, and 240 m ahead are a tree and a 2-level building.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	10.0	10.0	11.4	12.9	11.9	11.9	12.4
6/10/67-van 1	105.2	117.6	130.3	138.6	143.1	152.4	168.3
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
6/10/67-van 1	118.7	127.6	132.8	140.3	145.1	167.4	Noise

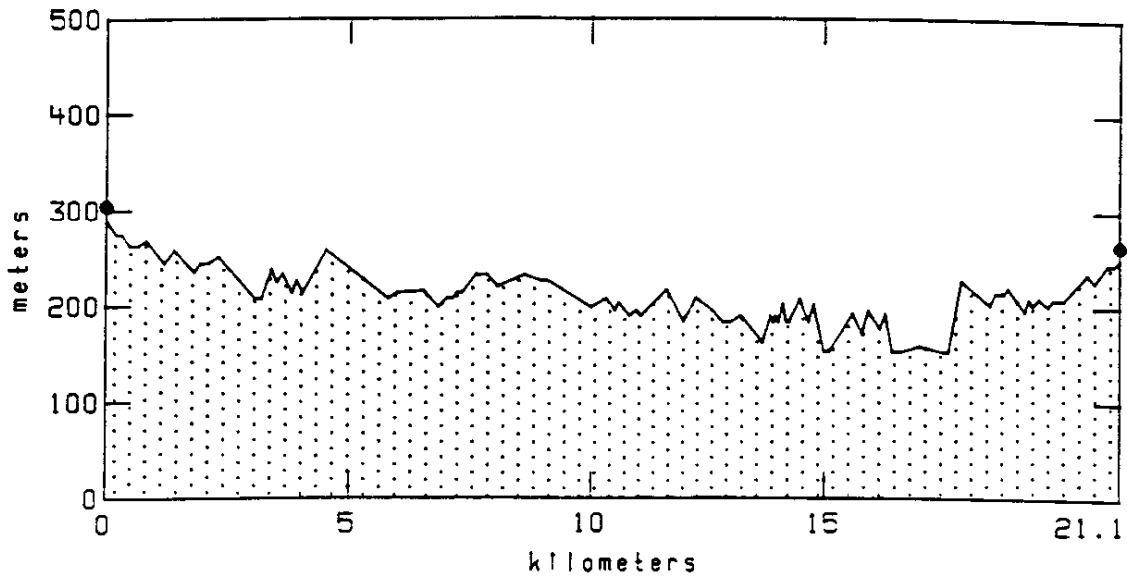
The site is located behind some large trees. This is a concealed site with no accompanying open site.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/26/67-van 1	98.6	105.0	121.8	127.6	139.9	142.1	148.3
Concealed:							
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/26/67-van 2	105.3	113.6	120.4	125.6	135.2	149.0	152.1
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
6/26/67-van 2	128.9	132.9	139.4	135.8	147.8	182.6	179.8

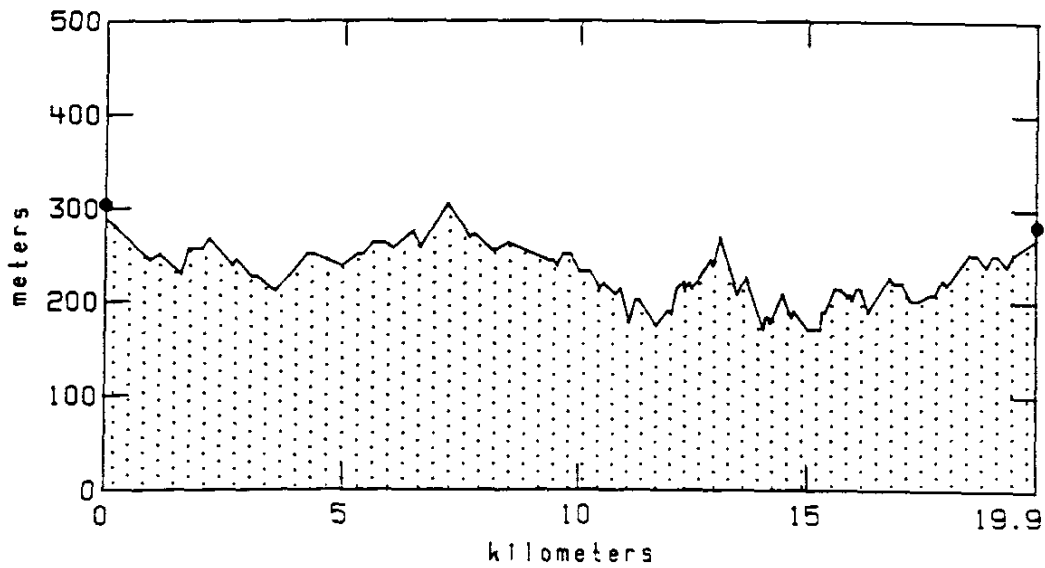
The site is in an open field near a hillcrest. The path has a clear view of the horizon about 5 km ahead. There are trees below site level 240 m ahead. The concealed position is behind some large trees; there are also power lines 20 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/08/67-van 1	100.7	110.1	117.8	124.1	129.2	146.3	147.0

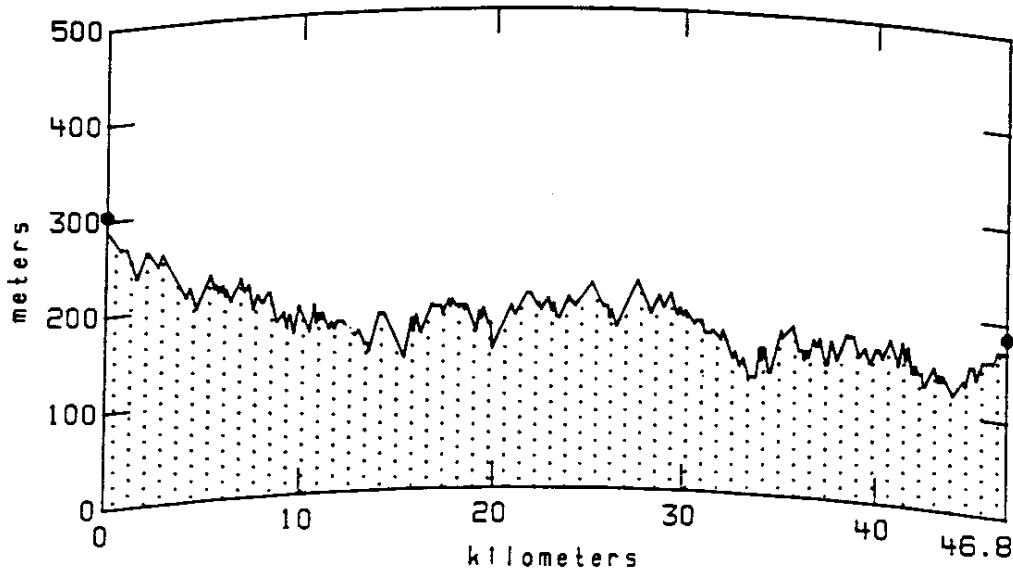
The site is near a hilltop and has a clear view of the horizon. Power lines cross the path at 15 m. There are a metal-roofed barn adjacent to the path at 100 m and a house with surrounding trees at 240 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/19/67-van 1	94.7	105.6	117.8	134.8	136.6	142.7	154.6

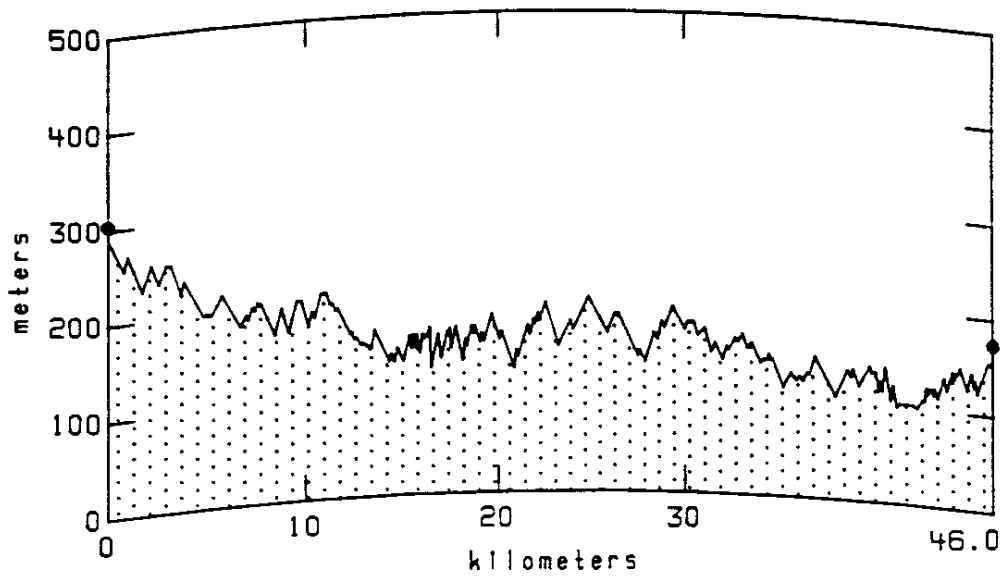
The site is open and on a hill. There are trees below antenna level 100 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
5/30/67-van 2	123.8	126.3	147.4	143.8	154.2	172.2	170.9
Concealed:							
5/31/67-van 2	126.3	127.6	155.4	154.6	170.3	195.2	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5/31/67-van 2	146.4	144.3	155.9	177.8	191.9	Noise	Noise

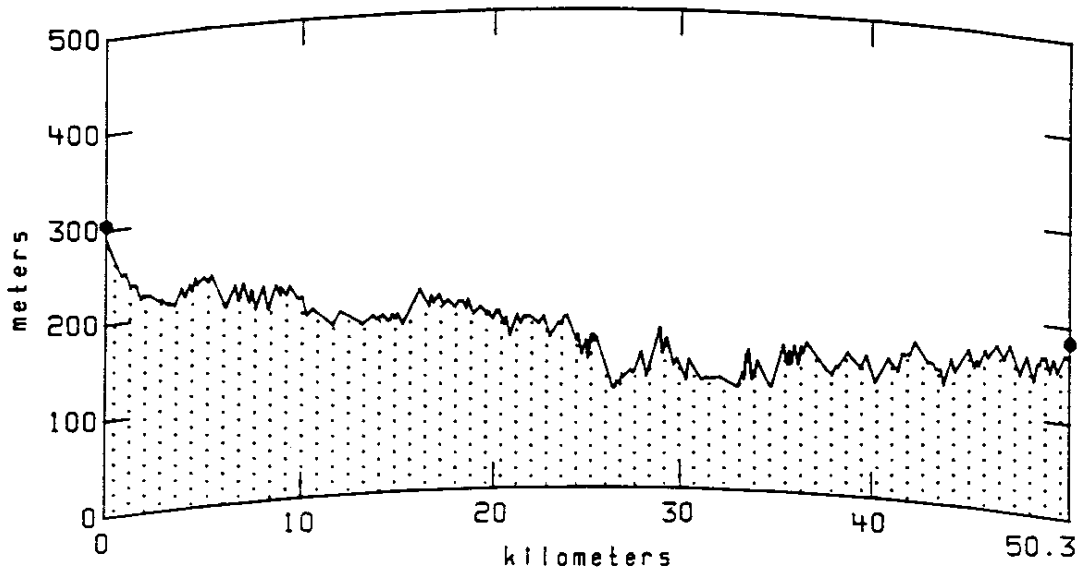
The site is in an open field. A wire fence crosses the path 60 m ahead. The concealed position is at the edge of the field behind a dense tree growth.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/21/67-van 2	122.3	127.0	134.9	137.4	145.7	157.7	161.9
Concealed:							
6/22/67-van 2	123.8	128.6	135.9	138.1	149.2	161.8	169.3
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
6/22/67-van 2	134.6	145.3	150.9	166.8	182.8	212.4	Noise

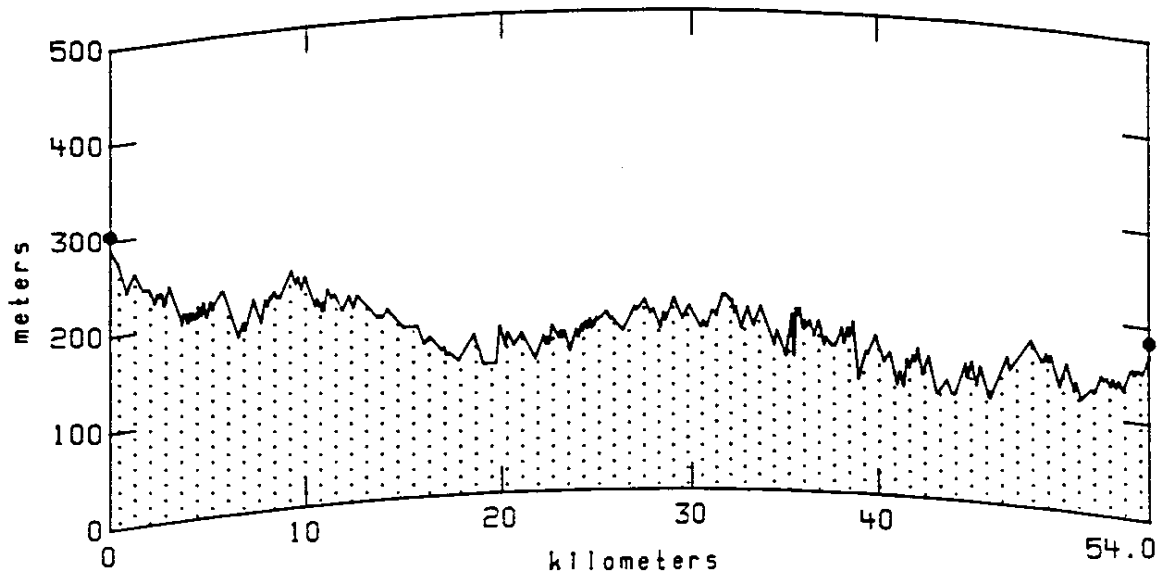
The site is in an open field. There are a wire fence and a small metal-roofed shed on the path 50 m ahead. The concealed position is at the edge of the field behind a dense grove of trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/12/67-van 1	124.7	131.6	145.5	151.6	151.9	154.4	160.1
Concealed:							
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/23/67-van 2	129.1	133.4	144.0	152.6	177.2	184.8	197.5
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
6/23/67-van 2	158.4	151.1	161.9	163.8	170.8	197.7	Noise

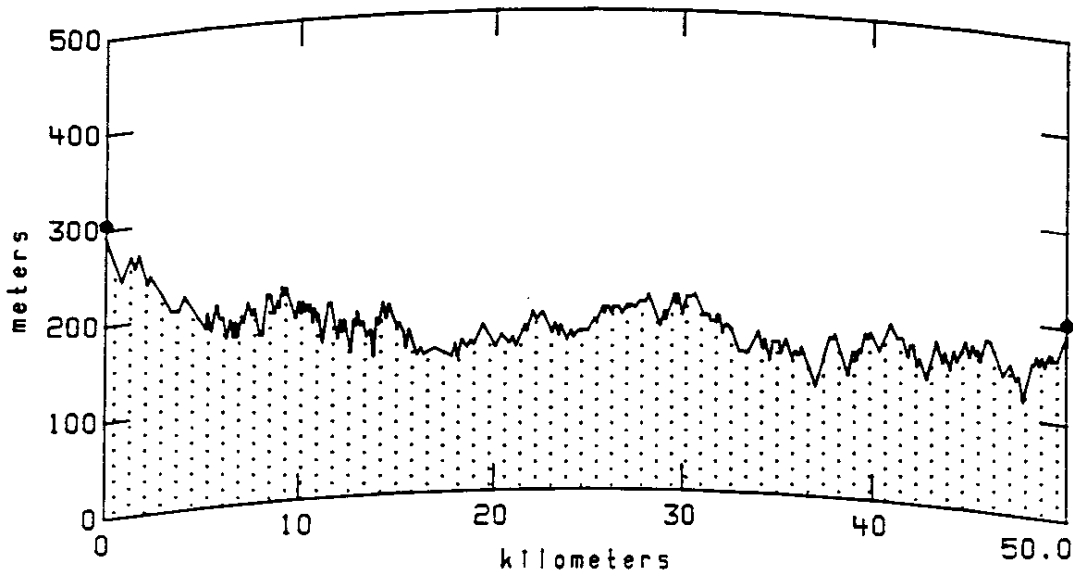
The site is at the side of a country road. The path is clear to the horizon. The concealed position is behind a grove of trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/16/67-van 1	119.7	135.1	140.8	151.6	157.9	167.2	Noise

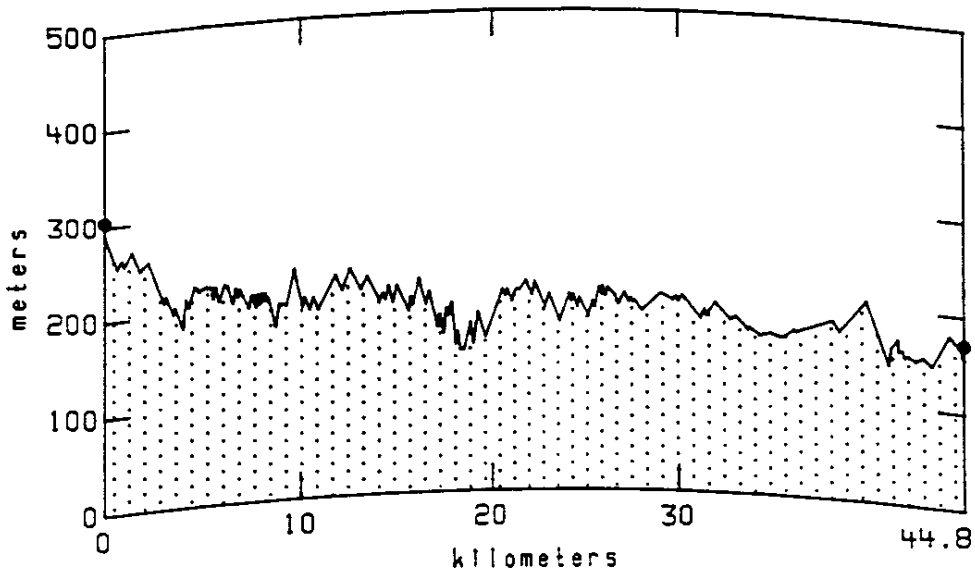
The site is at the edge of a rural road. Power lines cross the path at 15 m; there are trees ahead at 150 m; and some 1-story houses are adjacent to the path at 200 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	12.1	12.1	13.5	15.0	14.0	14.0	14.5
6/14/67-van 1	116.7	130.1	137.0	145.6	146.9	153.2	166.3
Concealed:							
Rcvr hts, m	10.0	10.0	11.4	12.9	11.9	11.9	12.4
6/15/67-van 1	117.7	131.6	144.8	148.6	156.4	174.5	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
6/15/67-van 1	134.7	141.6	148.8	154.8	175.9	Noise	Noise

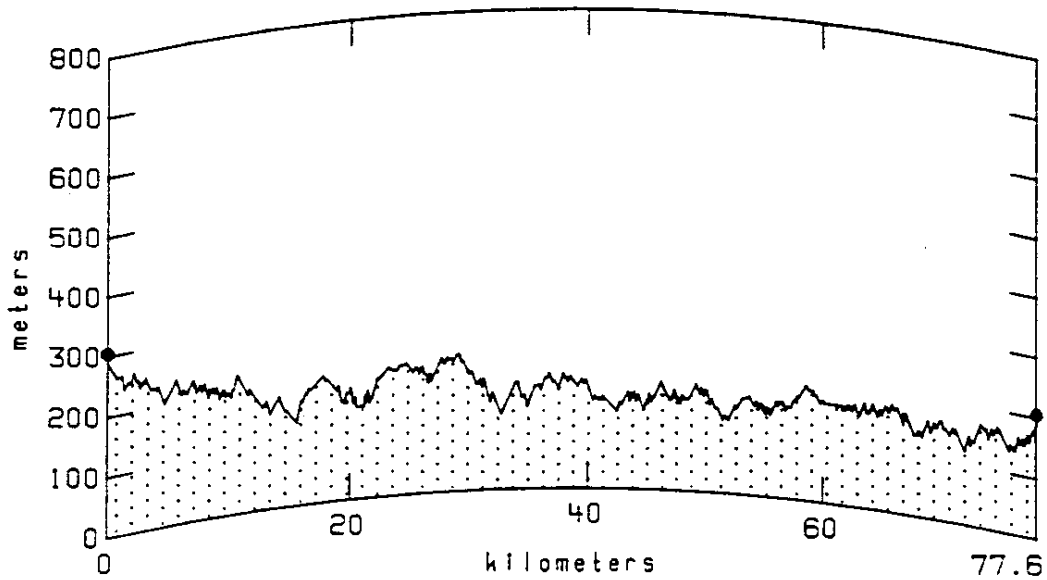
The site is at the side of a rural road. There are some trees ahead, below path level, at 240 m. From there the path is clear to the horizon 3 km away. Utility lines are behind the antenna tower. The concealed position is behind a grove of trees through which one can see a wire fence 30 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/24/67-van 2	121.8	128.6	137.4	141.6	148.7	162.9	169.9

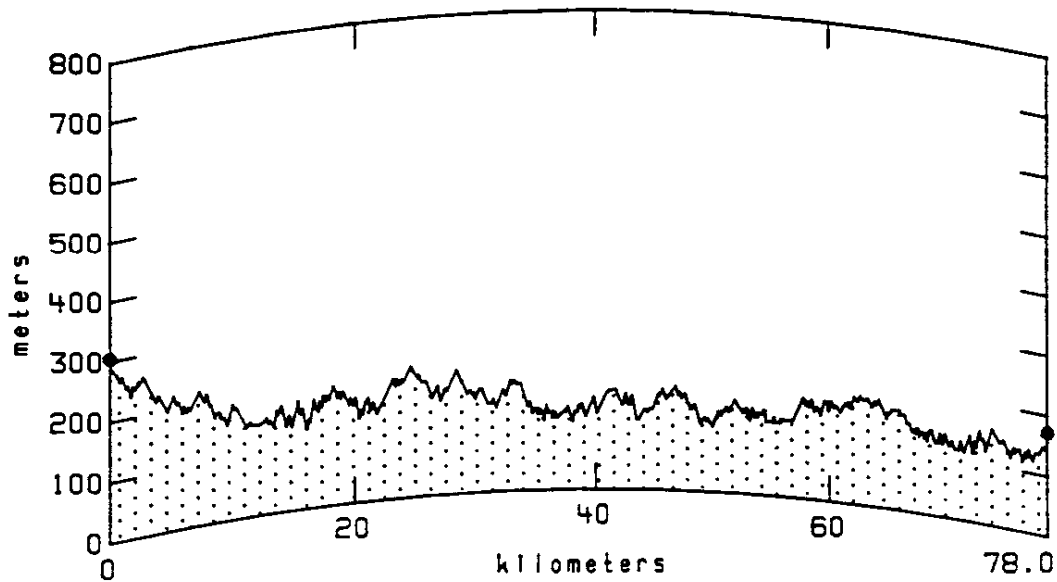
The site is in an open field. There are trees on the path 200 m ahead.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/01/67-van 2	139.8	145.4	153.4	156.6	169.5	184.0	189.9
Concealed:							
6/02/67-van 2	137.8	143.3	153.4	166.6	178.5	204.2	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
6/02/67-van 2	148.4	160.8	165.4	171.8	188.6	Noise	Noise

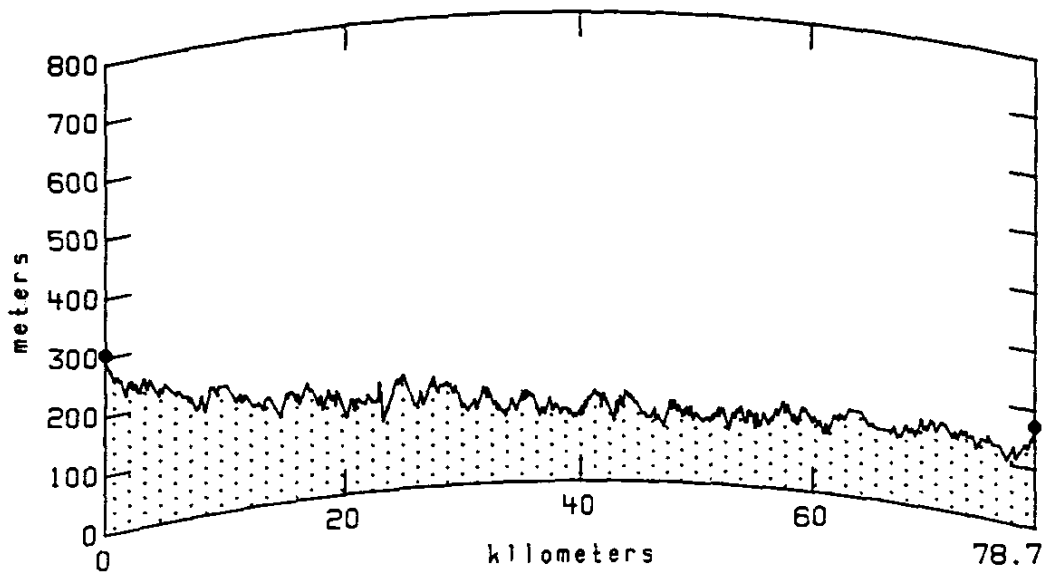
The site is in an open field. There are low trees and a wire fence on the path 150 m away.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/05/67-van 2	139.3	149.6	158.4	166.6	180.5	200.1	Noise

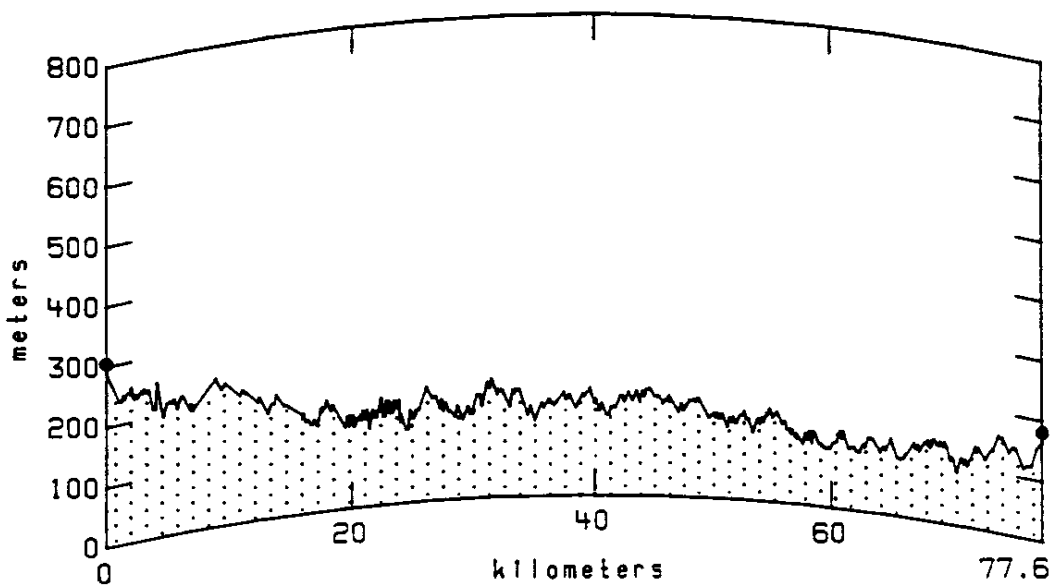
The site is at the side of a rural road. There are a wire fence at 40 m and some trees at 100 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/06/67-van 2	137.8	141.6	150.9	155.1	169.7	195.5	204.6
Concealed:							
6/07/67-van 2	134.6	142.1	153.3	163.6	186.7	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
6/07/67-van 2	151.7	152.8	166.9	169.3	178.8	213.6	Noise

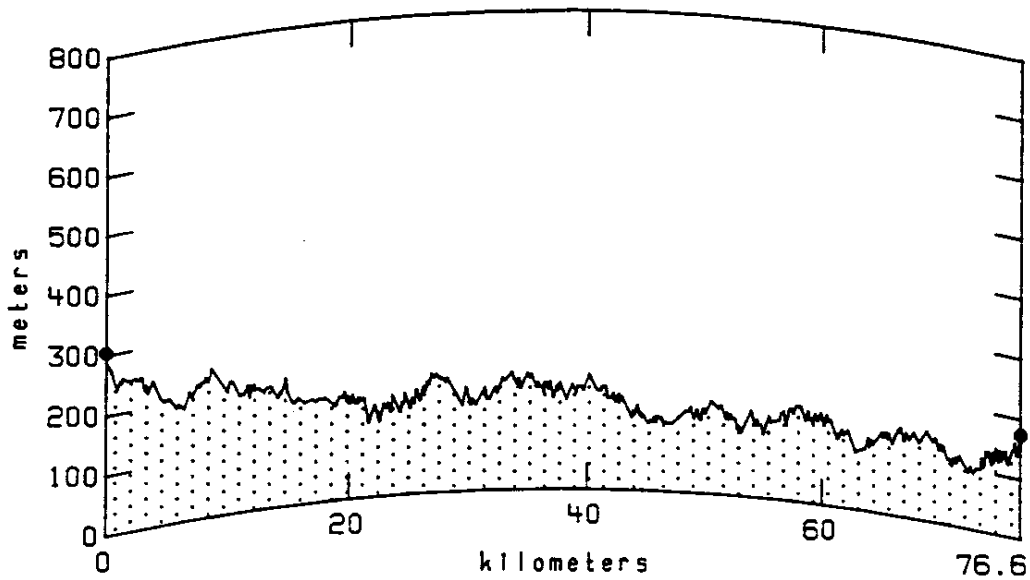
The site is in an open church yard near a hilltop. There are some trees 200 m ahead, but from there the path is clear to the horizon 3 km away. The concealed position is in a grove of trees in that same church yard.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/08/67-van 2	136.3	148.1	155.8	161.6	182.1	200.6	Noise
Concealed:							
6/09/67-van 2	137.3	142.4	145.4	165.6	183.5	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
6/09/67-van 2	162.4	160.3	173.3	175.8	Noise	Noise	Noise

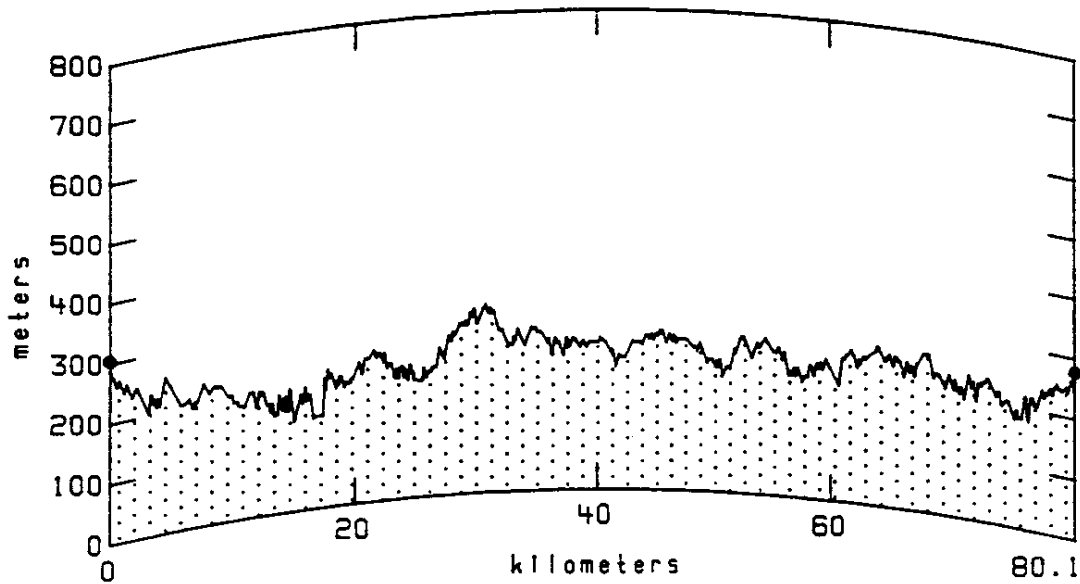
The site is in an open field. A wire fence crosses the path at 10 m, and there are trees on the path at 120 m. The concealed position is behind some large trees and some dense underbrush.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/10/67-van 2	138.3	143.6	156.4	161.6	170.9	184.0	188.1

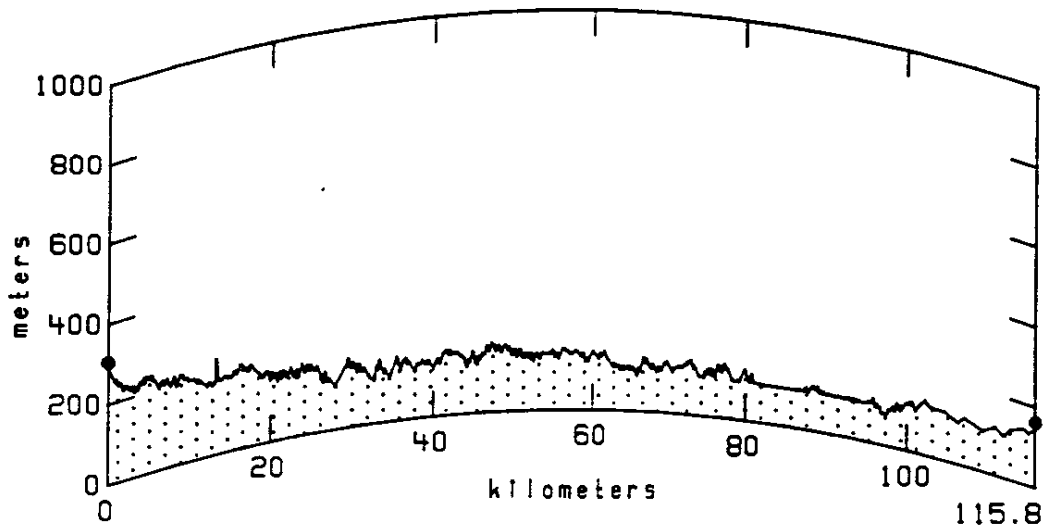
The site is in an open field. The path is through a gap in some large trees at 100 m and over a power line at that same distance.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/19/67-van 2	138.3	148.6	155.4	160.6	179.0	192.9	206.6
Concealed:							
6/20/67-van 2	139.8	148.6	159.9	169.6	192.7	207.8	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
6/20/67-van 2	152.4	173.3	181.9	191.3	Noise	Noise	Noise

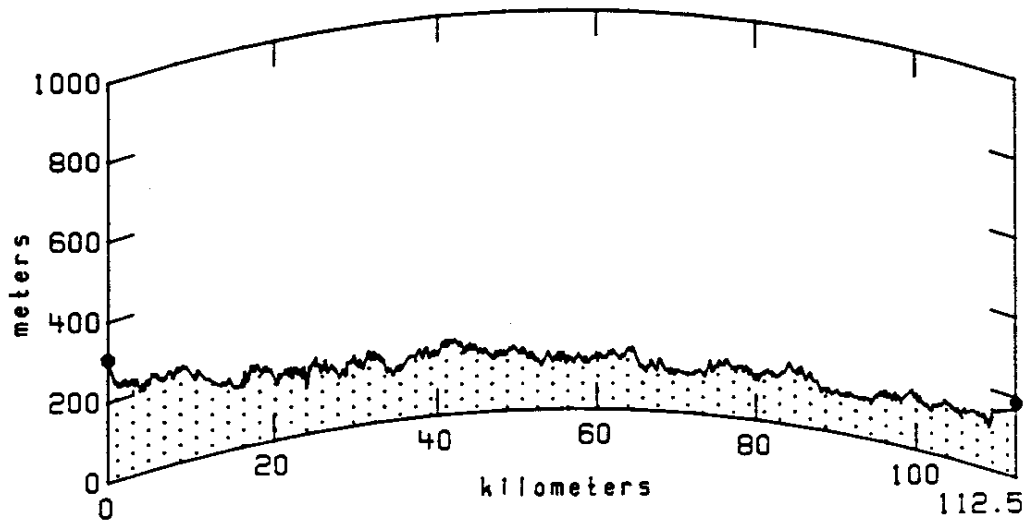
The path is in an open field surrounded by scattered houses. There is a 1-story brick house with trees on the path 100 m ahead. The concealed position is behind dense trees and underbrush.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/12/67-van 2	148.3	165.4	174.4	188.6	Noise	Noise	Noise

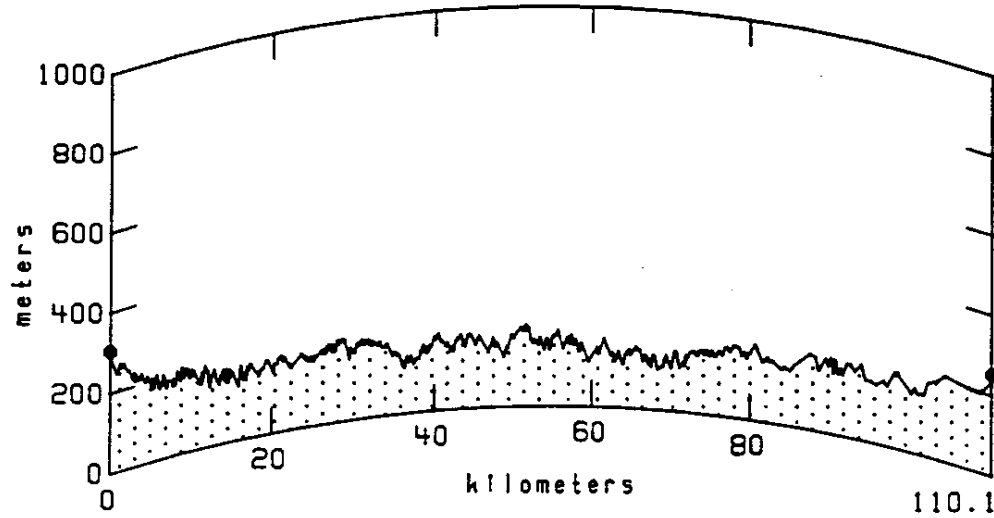
The site is in an open field. There are large signs adjacent to the path at 60 and 150 m. There are trees on the path at 300 m.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/13/67-van 2	155.3	162.6	177.4	182.6	193.7	Noise	Noise
Concealed:							
6/14/67-van 2	149.3	158.6	172.4	179.6	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
6/14/67-van 2	166.4	173.3	184.9	Noise	Noise	Noise	Noise

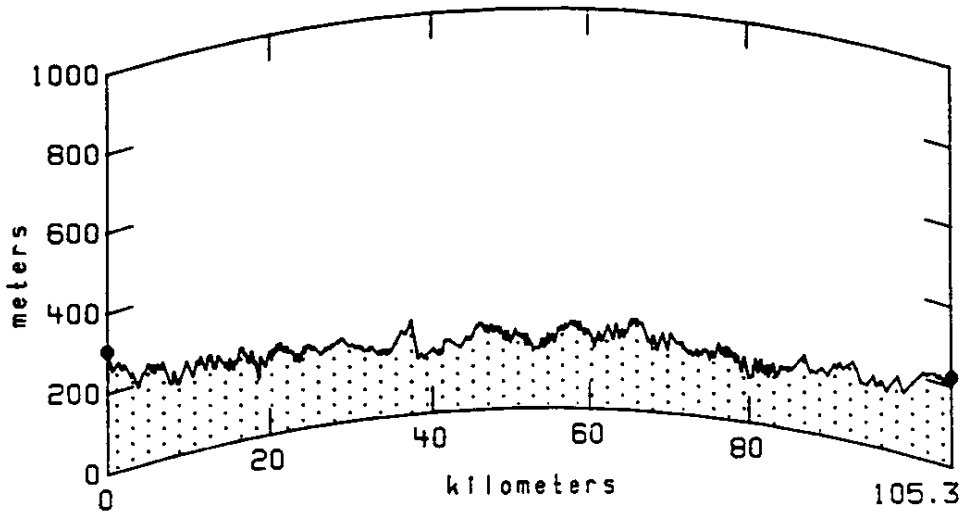
The site is in a church driveway and is surrounded by scattered houses. There are evergreen trees on the path 100 m away. The concealed position is 50 m behind a large oak tree.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/15/67-van 2	145.3	157.6	169.3	175.6	189.7	Noise	Noise
Concealed:							
6/16/67-van 2	140.3	161.6	175.4	182.6	Noise	Noise	Noise
Rcvr hts, m	2.0	2.0	2.0	2.0	2.0	2.0	2.0
6/16/67-van 2	162.7	173.3	185.9	Noise	Noise	Noise	Noise

The site is in an open field. The path is through groups of large trees 60 and 100 m away. There is a 2-story frame house with metal-roofed outbuildings on the path from 150 to 200 m ahead. Utility lines pass to the left of the site. The concealed position is at the edge of the field 10 m behind a dense growth of trees.



Basic Transmission Loss, L_b (dB)

freq, MHz	75.98	172.98	409.25	950	2180	4820	8395
Xmtr hts, m	15.0			11.7			
Rcvr hts, m	15.0	15.0	15.0	11.7	11.7	11.7	11.7
6/17/67-van 2	146.3	161.6	169.4	173.6	192.7	Noise	Noise

The site is in an open field. There is a frame house with outbuildings 240 m ahead.

Appendix. SITE COORDINATES

Transmitter site coordinates—

T1	37°14'48"N	79°11'26"W
T2	37°26'08"N	78°48'17"W
T3	37°12'53"N	79°02'31"W
T4	37°11'17"N	78°49'54"W
T5	37°21'38"N	78°52'04"W
T6	37°09'46"N	79°12'55"W
T7	37°13'48"N	79°07'08"W

Receiver site coordinates—

T1-.5-R1	37°14'57"N	79°11'10"W
T1-.5-R2	37°14'37"N	79°12'01"W
T1-3-R1	37°15'37"N	79°09'14"W
T1-3-R2	37°13'38"N	79°12'48"W
T1-5-R1	37°17'25"N	79°10'20"W
T1-5-R2	37°15'49"N	79°08'18"W
T1-5-R3	37°13'23"N	79°09'20"W
T1-5-R4	37°13'15"N	79°08'50"W
T1-10-R1	37°19'51"N	79°09'59"W
T1-10-R2	37°17'10"N	79°05'24"W
T1-10-R3	37°16'25"N	79°04'58"W
T1-10-R4	37°15'07"N	79°04'02"W
T1-10-R5	37°12'37"N	79°05'21"W
T1-10-R6	37°10'06"N	79°08'41"W
T1-20-R1	37°18'06"N	78°58'45"W
T1-20-R2	37°16'40"N	78°58'19"W
T1-20-R3	37°16'45"N	78°57'35"W
T1-20-R4	37°06'49"N	79°00'28"W
T1-20-R5	37°06'58"N	79°01'12"W
T1-20-R6	37°03'56"N	79°14'36"W
T1-20-R7	37°04'20"N	79°15'02"W
T1-20-R8	37°09'05"N	79°21'44"W
T1-20-R9	37°09'14"N	79°21'54"W
T1-20-R10	37°08'43"N	79°21'59"W
T1-20-R11	37°11'49"N	79°25'47"W
T1-50-R1	37°12'10"N	78°41'29"W
T1-50-R2	37°02'49"N	78°42'46"W
T1-50-R3	37°02'05"N	78°43'14"W
T1-50-R4	36°59'39"N	78°48'15"W
T1-50-R5	36°59'32"N	78°48'12"W
T1-50-R6	36°53'31"N	78°50'30"W
T1-50-R7	36°54'37"N	78°54'58"W

T1-50-R8	36°48'49"N	79°17'40"W
T1-80-R1	37°12'16"N	78°21'32"W
T1-80-R2	37°08'10"N	78°18'53"W
T1-80-R3	36°54'30"N	78°26'53"W
T1-80-R4	36°54'25"N	78°27'04"W
T1-80-R5	36°49'32"N	78°29'08"W
T1-80-R6	36°47'44"N	78°32'12"W
T1-80-R7	36°32'20"N	79°04'49"W
T1-120-R1	37°03'24"N	77°59'35"W
T1-120-R2	36°53'05"N	78°02'55"W
T1-120-R3	36°45'26"N	78°05'45"W
T1-120-R4	36°15'40"N	78°54'05"W
T2-.5-R1	37°25'44"N	78°48'29"W
T2-.5-R2	37°25'49"N	78°48'23"W
T2-3-R1	37°25'21"N	78°46'38"W
T2-3-R2	37°24'29"N	78°48'24"W
T2-5-R1	37°28'06"N	78°46'57"W
T2-5-R2	37°25'02"N	78°45'41"W
T2-5-R3	37°25'38"N	78°51'31"W
T2-5-R4	37°28'39"N	78°48'19"W
T2-10-R1	37°30'34"N	78°45'41"W
T2-10-R2	37°20'40"N	78°46'39"W
T2-10-R3	37°20'39"N	78°49'50"W
T2-10-R4	37°23'02"N	78°54'32"W
T2-10-R5	37°24'08"N	78°54'57"W
T2-10-R6	37°25'38"N	78°55'27"W
T2-20-R1	37°28'12"N	78°34'07"W
T2-20-R2	37°18'05"N	78°39'08"W
T2-20-R3	37°15'58"N	78°41'21"W
T2-20-R4	37°15'16"N	78°50'07"W
T2-20-R5	37°15'41"N	78°52'51"W
T2-20-R6	37°17'33"N	78°54'22"W
T2-20-R7	37°22'17"N	79°01'36"W
T2-20-R8	37°37'44"N	78°50'55"W
T2-50-R1	37°12'13"N	78°21'33"W
T2-50-R2	37°04'26"N	78°39'07"W
T2-50-R3	36°59'40"N	78°48'15"W
T2-50-R4	37°01'39"N	78°58'51"W
T2-50-R5	37°07'34"N	79°09'40"W
T2-50-R6	37°11'06"N	79°12'12"W
T2-50-R7	37°24'20"N	79°20'47"W
T2-80-R1	36°53'15"N	78°15'38"W
T2-80-R2	36°49'33"N	78°29'08"W
T2-80-R3	36°47'33"N	78°50'04"W

T2-80-R4	36°45'29"N	78°52'48"W
T2-80-R5	36°46'31"N	79°06'10"W
T2-80-R6	36°59'04"N	79°22'45"W
T2-120-R1	36°23'41"N	78°33'25"W
T2-120-R2	36°27'31"N	78°49'59"W
T2-120-R3	36°37'04"N	79°36'00"W
T2-120-R4	36°38'41"N	79°39'54"W
T3-.5-R1	37°12'52"N	79°02'17"W
T3-.5-R2	37°12'30"N	79°02'41"W
T3-3-R1	37°12'33"N	79°00'36"W
T3-3-R2	37°14'20"N	79°03'07"W
T3-5-R1	37°14'42"N	79°00'09"W
T3-5-R2	37°12'02"N	78°59'29"W
T3-5-R3	37°10'25"N	79°02'36"W
T3-5-R4	37°13'27"N	79°05'43"W
T3-10-R1	37°10'35"N	78°56'03"W
T3-10-R2	37°08'10"N	78°59'23"W
T3-10-R3	37°07'35"N	79°01'11"W
T3-10-R4	37°07'52"N	79°03'05"W
T3-10-R5	37°08'15"N	79°05'24"W
T3-10-R6	37°15'47"N	79°08'17"W
T3-20-R1	37°21'58"N	78°58'10"W
T3-20-R2	37°20'52"N	78°54'39"W
T3-20-R3	37°15'16"N	78°51'10"W
T3-20-R4	37°11'17"N	78°49'55"W
T3-20-R5	37°06'39"N	78°50'01"W
T3-20-R6	37°06'30"N	78°50'14"W
T3-20-R7	37°04'30"N	78°54'30"W
T3-50-R1	36°48'26"N	78°50'12"W
T3-50-R2	36°45'37"N	78°57'53"W
T3-50-R3	36°48'06"N	79°01'13"W
T3-50-R4	36°46'51"N	79°05'57"W
T3-50-R5	36°49'14"N	79°10'57"W
T3-50-R6	36°51'07"N	79°20'58"W
T3-80-R1	37°06'09"N	78°12'36"W
T3-80-R2	36°57'51"N	78°12'50"W
T3-80-R3	36°30'21"N	78°48'05"W
T3-80-R4	36°30'53"N	78°54'33"W
T3-80-R5	36°31'45"N	79°06'45"W
T3-80-R6	36°33'27"N	79°18'28"W
T3-120-R1	36°26'24"N	78°13'14"W
T3-120-R2	36°21'40"N	78°23'45"W
T3-120-R3	36°21'35"N	78°23'48"W
T3-120-R4	36°23'24"N	79°44'30"W

T3-120-R5	36°25'50"N	79°58'22"W
T4-.5-R1	37°11'30"N	78°49'40"W
T4-.5-R2	37°11'31"N	78°50'15"W
T4-3-R1	37°12'38"N	78°48'30"W
T4-3-R2	37°10'15"N	78°48'09"W
T4-5-R1	37°11'35"N	78°46'25"W
T4-5-R2	37°08'36"N	78°50'58"W
T4-5-R3	37°09'44"N	78°52'53"W
T4-5-R4	37°12'28"N	78°52'57"W
T4-10-R1	37°11'05"N	78°42'40"W
T4-10-R2	37°07'25"N	78°44'10"W
T4-10-R3	37°06'30"N	78°50'14"W
T4-10-R4	37°06'29"N	78°53'13"W
T4-10-R5	37°06'58"N	78°54'23"W
T4-10-R6	37°09'39"N	78°44'00"W
T4-20-R1	37°12'05"N	78°36'19"W
T4-20-R2	37°06'53"N	79°00'25"W
T4-20-R3	37°10'51"N	79°04'42"W
T4-20-R4	37°12'46"N	79°02'28"W
T4-20-R5	37°21'00"N	78°58'29"W
T4-20-R6	37°20'23"N	78°54'55"W
T4-20-R7	37°22'15"N	78°49'54"W
T4-20-R8	37°21'48"N	78°50'18"W
T4-50-R1	36°56'55"N	78°24'02"W
T4-50-R2	36°47'45"N	79°02'40"W
T4-50-R3	36°46'51"N	79°05'58"W
T4-50-R4	36°51'38"N	79°12'12"W
T4-50-R5	37°00'51"N	79°18'07"W
T4-50-R6	36°59'35"N	79°19'40"W
T4-50-R7	37°01'17"N	79°22'29"W
T4-50-R8	37°04'00"N	79°21'30"W
T4-80-R1	36°30'04"N	78°55'10"W
T4-80-R2	36°38'00"N	79°19'20"W
T4-80-R3	36°40'42"N	79°26'47"W
T4-80-R4	36°50'35"N	79°33'05"W
T4-80-R5	37°07'59"N	79°41'35"W
T4-80-R6	37°12'48"N	79°40'29"W
T4-120-R1	36°14'27"N	79°07'05"W
T4-120-R2	36°21'00"N	79°29'30"W
T4-120-R3	36°23'24"N	79°44'30"W
T4-120-R4	36°36'45"N	79°54'50"W
T5-.5-R1	37°21'41"N	78°51'44"W
T5-.5-R2	37°21'52"N	78°52'06"W
T5-3-R1	37°21'53"N	78°50'00"W

T5-3-R2	37°21'23"N	78°54'04"W
T5-5-R1	37°23'13"N	78°49'22"W
T5-5-R2	37°19'13"N	78°50'57"W
T5-5-R3	37°20'00"N	78°54'35"W
T5-5-R4	37°24'09"N	78°52'53"W
T5-10-R1	37°26'35"N	78°51'20"W
T5-10-R2	37°24'15"N	78°46'15"W
T5-10-R3	37°16'35"N	78°55'19"W
T5-10-R4	37°18'04"N	78°58'18"W
T5-10-R5	37°20'05"N	78°58'40"W
T5-10-R6	37°24'14"N	78°58'01"W
T5-20-R1	37°33'01"N	78°50'16"W
T5-20-R2	37°11'17"N	78°49'54"W
T5-20-R3	37°11'42"N	78°51'29"W
T5-20-R4	37°11'22"N	78°55'18"W
T5-20-R5	37°11'42"N	78°58'53"W
T5-20-R6	37°14'28"N	79°01'49"W
T5-20-R7	37°17'35"N	79°03'35"W
T5-20-R8	37°26'45"N	79°04'01"W
T5-50-R1	37°03'29"N	78°28'41"W
T5-50-R2	36°58'06"N	78°31'14"W
T5-50-R3	36°54'17"N	78°53'29"W
T5-50-R4	37°01'27"N	79°15'00"W
T5-50-R5	37°00'59"N	79°18'04"W
T5-50-R6	37°04'17"N	79°17'31"W
T5-50-R7	37°09'04"N	79°21'38"W
T5-80-R1	36°47'16"N	78°26'11"W
T5-80-R2	36°43'59"N	78°29'19"W
T5-80-R3	36°38'28"N	78°44'20"W
T5-80-R4	36°37'31"N	79°02'28"W
T5-80-R5	36°44'10"N	79°10'40"W
T5-80-R6	36°44'15"N	79°10'48"W
T5-80-R7	36°47'32"N	79°23'26"W
T5-80-R8	36°50'15"N	79°26'37"W
T5-120-R1	36°24'00"N	79°00'20"W
T5-120-R2	36°27'10"N	79°18'45"W
T5-120-R3	36°37'15"N	79°38'38"W
T5-120-R4	36°36'50"N	79°55'05"W
T6-.5-R1	37°09'12"N	79°12'37"W
T6-.5-R2	37°09'55"N	79°13'10"W
T6-3-R1	37°11'20"N	79°12'10"W
T6-3-R2	37°08'11"N	79°12'55"W
T6-5-R1	37°12'32"N	79°12'31"W
T6-5-R2	37°08'53"N	79°10'00"W

T6-5-R3	37°07'25"N	79°11'23"W
T6-5-R4	37°09'50"N	79°16'03"W
T6-10-R1	37°14'55"N	79°12'12"W
T6-10-R2	37°12'34"N	79°08'12"W
T6-10-R3	37°08'48"N	79°06'52"W
T6-10-R4	37°04'17"N	79°15'00"W
T6-10-R5	37°04'52"N	79°16'03"W
T6-10-R6	37°10'26"N	79°19'58"W
T6-20-R1	37°20'29"N	79°10'34"W
T6-20-R2	37°20'51"N	79°10'17"W
T6-20-R3	37°17'45"N	79°03'00"W
T6-20-R4	37°16'57"N	79°01'51"W
T6-20-R5	37°14'36"N	79°01'10"W
T6-20-R6	37°12'04"N	79°00'00"W
T6-20-R7	37°07'26"N	79°01'12"W
T6-20-R8	37°03'32"N	79°02'31"W
T6-20-R9	37°05'38"N	79°25'30"W
T6-50-R1	37°24'32"N	78°46'03"W
T6-50-R2	37°04'24"N	78°41'46"W
T6-50-R3	36°59'32"N	78°41'50"W
T6-50-R4	36°59'26"N	78°41'52"W
T6-50-R5	36°44'37"N	79°09'35"W
T6-50-R6	36°43'40"N	79°11'33"W
T6-50-R7	36°44'04"N	79°10'44"W
T6-50-R8	36°43'10"N	79°12'34"W
T6-50-R9	36°44'40"N	79°22'50"W
T6-80-R1	37°20'43"N	78°23'12"W
T6-80-R2	37°08'10"N	78°18'51"W
T6-80-R3	37°02'28"N	78°21'26"W
T6-80-R4	37°02'14"N	78°21'35"W
T6-80-R5	36°47'40"N	78°32'16"W
T6-80-R6	36°34'33"N	78°50'53"W
T6-80-R7	36°30'31"N	79°08'32"W
T6-120-R1	36°36'30"N	78°09'50"W
T6-120-R2	36°23'55"N	78°20'05"W
T6-120-R3	36°21'15"N	78°29'00"W
T6-120-R4	36°10'00"N	79°13'30"W
T7-.5-R1	37°13'47"N	79°06'51"W
T7-.5-R2	37°13'35"N	79°07'12"W
T7-3-R1	37°15'08"N	79°05'28"W
T7-3-R2	37°15'05"N	79°08'12"W
T7-5-R1	37°16'30"N	79°06'04"W
T7-5-R2	37°12'02"N	79°04'49"W
T7-5-R3	37°11'17"N	79°07'50"W

T7-5-R4	37°15'16"N	79°10'17"W
T7-10-R1	37°17'00"N	79°01'55"W
T7-10-R2	37°14'20"N	79°00'48"W
T7-10-R3	37°09'26"N	79°03'53"W
T7-10-R4	37°08'17"N	79°05'23"W
T7-10-R5	37°09'57"N	79°11'05"W
T7-10-R6	37°14'15"N	79°14'05"W
T7-20-R1	37°14'51"N	78°53'49"W
T7-20-R2	37°11'31"N	78°55'00"W
T7-20-R3	37°07'56"N	78°56'44"W
T7-20-R4	37°05'36"N	78°59'47"W
T7-20-R5	37°05'38"N	78°59'48"W
T7-20-R6	37°03'41"N	79°09'08"W
T7-20-R7	37°04'17"N	79°15'00"W
T7-20-R8	37°10'38"N	79°20'00"W
T7-50-R1	37°04'35"N	78°37'40"W
T7-50-R2	36°58'50"N	78°42'19"W
T7-50-R3	36°51'49"N	78°47'11"W
T7-50-R4	36°45'08"N	79°00'42"W
T7-50-R5	36°46'51"N	79°05'58"W
T7-50-R6	36°50'38"N	79°15'41"W
T7-80-R1	37°01'49"N	78°16'49"W
T7-80-R2	36°53'56"N	78°20'38"W
T7-80-R3	36°43'55"N	78°29'21"W
T7-80-R4	36°35'45"N	78°45'15"W
T7-80-R5	36°34'34"N	78°50'57"W
T7-80-R6	36°37'30"N	79°36'30"W
T7-120-R1	36°23'55"N	78°20'05"W
T7-120-R2	36°21'18"N	78°29'01"W
T7-120-R3	36°14'25"N	79°06'57"W
T7-120-R4	36°18'40"N	79°24'16"W

BIBLIOGRAPHIC DATA SHEET

		1. PUBLICATION NO. 91-282	2. Gov't Accession No.	3. Recipient's Accession No.
4. TITLE AND SUBTITLE Tabulations of Propagation Data Over Irregular Terrain in the 75- to 8400-MHz Frequency Range Part V: Virginia			5. Publication Date	6. Performing Organization Code NTIA/ITS
7. AUTHOR(S) G.A. Hufford and F.K. Steele			9. Project/Task/Work Unit No.	
8. PERFORMING ORGANIZATION NAME AND ADDRESS National Telecommunications and Information Admin. Institute for Telecommunication Sciences 325 Broadway Boulder, CO 80303			10. Contract/Grant No.	
11. Sponsoring Organization Name and Address NTIA Herbert C. Hoover Bldg. 14th and Constitution Avenue, N.W. Washington, DC 20230			12. Type of Report and Period Covered NTIA Report	
14. SUPPLEMENTARY NOTES			13.	
15. ABSTRACT (A 200-word or less factual summary of most significant information. If document includes a significant bibliography or literature survey, mention it here.) This is a supplementary fifth part to a series of reports containing tabulations and graphs of transmission loss data resulting from propagation experiments which have emphasized the UHF frequency band. The first four reports described data taken in various regions of Colorado. The present report concerns measurements taken at about the same time in the Piedmont region of Virginia and North Carolina. Data are presented for 283 paths varying in length from 0.5 to 120 km.				
16. Key Words (Alphabetical order, separated by semicolons) elevated antennas; irregular terrain; radio propagation; UHF propagation data				
17. AVAILABILITY STATEMENT <input checked="" type="checkbox"/> UNLIMITED. <input type="checkbox"/> FOR OFFICIAL DISTRIBUTION.		18. Security Class. (This report) Unclassified		20. Number of pages 306
		19. Security Class. (This page) Unclassified		21. Price: