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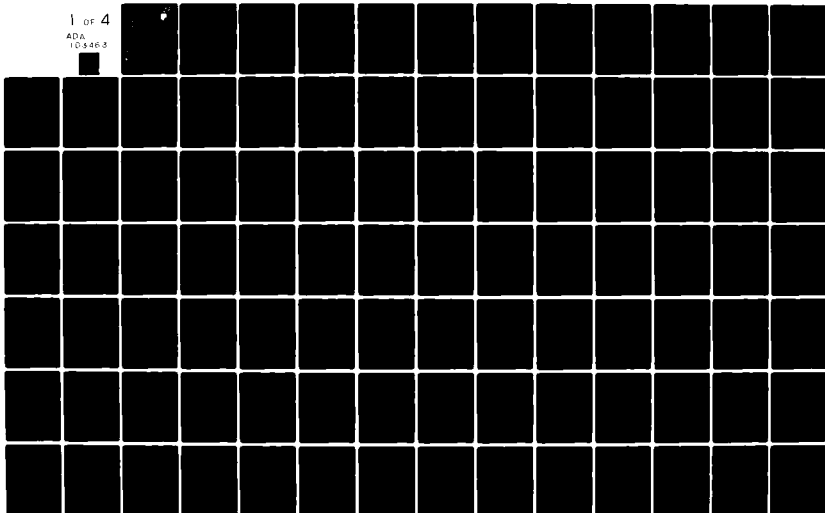
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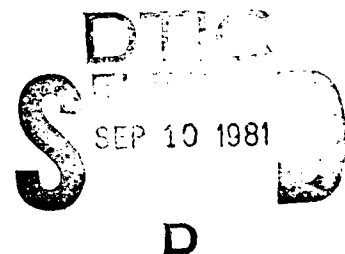


HEIGHT-GAIN ATLAS FOR AN ELEMENTAL VERTICAL ELECTRIC DIPOLE ABOVE A FLAT EARTH

**John L. Heckscher
Eli J. Tichovolsky**

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**ROME AIR DEVELOPMENT CENTER
Air Force Systems Command
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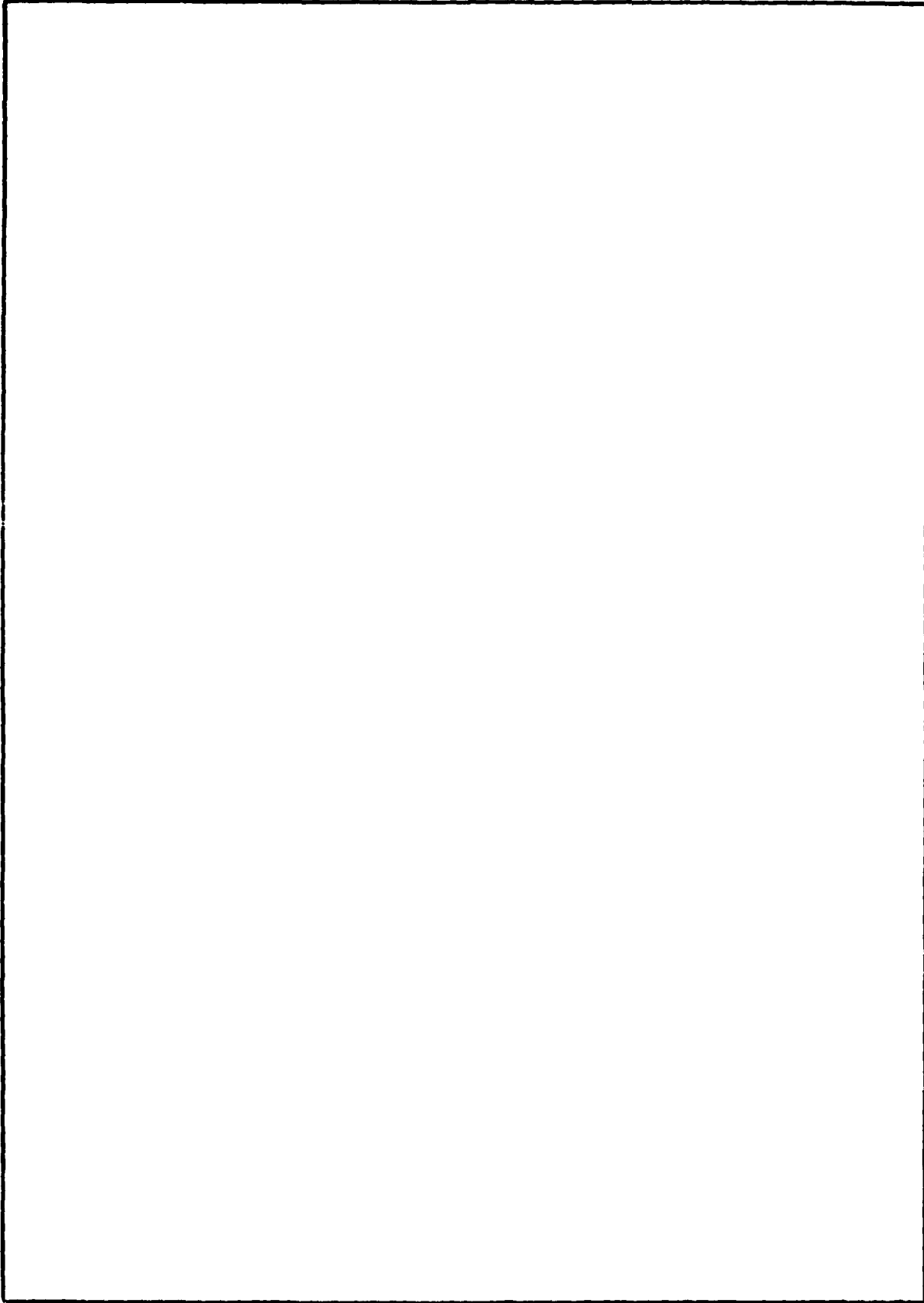
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Preface

We are grateful to Dr. E. A. Lewis for generous support of this project, and to J. P. Turtle and W. I. Klemetti for assistance in producing the numerous figures.

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Height-Gain Atlas for an Elemental Vertical Electric Dipole Above a Flat Earth

1. INTRODUCTION

The purpose of this report is to provide practical information on the height distribution of the electromagnetic fields from an elementary vertical electric dipole (VED) above five flat, homogeneous earth surfaces representative of sea water, well-conducting earth, poorly conducting earth, fresh water, and ice. Over the last several decades the need for such data has grown, primarily because of increased use of communication and navigation systems aboard aircraft. These data also could be of value in assessing the performance of a vertical distribution of VEDs.

Historically, the problem of the elementary VED above a plane, homogeneous earth dates back to Sommerfeld.¹ Since then, numerous authors have given mathematical expressions for the fields (for example, the work of Norton,^{2, 3} Wait,^{4, 5} Banos,⁶ and King⁷), and extensive numerical calculations for the fields as functions of distance along the surface have been provided (see work by Norton,⁸ Terman,⁹ Wait and Campbell,¹⁰ Wait and Howe,¹¹ and Wait,¹²). On the other hand, much less attention has been paid to the height-gain functions. Some results are available for certain frequencies and distances (such as was obtained by Norton,⁸ Wait and Campbell,¹⁰ and King et al^{13, 14}), while other data are given in the form of universal curves which require the user to calculate appropriate

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Because of the large number of references cited above, they will not be listed here. See References, page 333.

quantities.⁹ In this report both tables and curves are given with parameters selected for applicability to current AF systems.

Although strictly for an infinitesimal dipole, the data may be useful for source antennas as much as a half-wavelength in size. These data no longer represent the true height-gain when the free-space radiation pattern of the source differs appreciably from that of the infinitesimal dipole.

2. PRESENTATION OF RESULTS

This atlas presents height-gain data for each of the five representative earth surfaces, and Table 1 lists their assigned electromagnetic parameters. The air is assigned $\sigma_2 = 0$ and $\kappa_2 = (1.0003)$.² The magnetic permeability of both air and earth is $\mu_1 = \mu_2 = 4\pi \times 10^{-7}$ H/m.

Table 1. Conductivity and Dielectric Constants Adopted for Various Earth Surfaces

Type of Surface	σ_1 (S/m)	κ_1
Sea Water	4	80
Fresh Water	10^{-3}	80
Ice	2×10^{-5}	5
Well Conducting Soil	10^{-2}	20
Poorly Conducting Soil	10^{-3}	10

The vertical and radial electric fields E_z and E_ρ and the azimuthal magnetic field H_ϕ are given by Eqs. (A1), (A2), and (A3), respectively, in Appendix A. The height-gain amplitudes are computed as the ratios

$$E_z(\sigma_1, z)/E_z(\infty, 0) \quad (1)$$

$$E_\rho(\sigma_1, z)/E_z(\infty, 0) \quad (2)$$

and

$$H_\phi(\sigma_1, z)/H_\phi(\infty, 0) \quad (3)$$

where the normalization factor is either the vertical electrical or the azimuthal magnetic field at the surface of a perfect conductor. On the other hand, the height-gain phases are given as the phase differences

$$\arg E_z(\sigma_1, z) - \arg E_z(\infty, z) \quad (4)$$

$$\arg E_\rho(\sigma_1, z) - \arg E_\rho(\infty, z) \quad (5)$$

and

$$\arg H_\phi(\sigma_1, z) - \arg H_\phi(\infty, z) \quad (6)$$

between the fields at height z over the earth and over a perfect conductor, except in the special case of $\arg E_\rho(\infty, 0)$ which is indeterminate.

Height-gain curves for sea water are shown for E_z in Figures 1 to 24 and for E_ρ in Figures 25 to 48. Curves for H_ϕ are not given since they are practically identical to those of E_z . The figure titles give frequency, downrange distance d , and VED height. Each figure is composed of two plots: relative amplitude vs height and phase difference vs height. The relative amplitude plot contains two curves: one with the symbol X to indicate a perfect conductor ($\sigma_1 = \infty$), the other with the symbol $\blacksquare$ to denote the actual surface. The phase difference plot utilizes + and - to indicate that the phase leads or lags, respectively, the phase over a perfect conductor. The computer program to produce the plots incorporated an automatic routine to scale the amplitude and phase difference axes to within 3 dB and 3 degrees, respectively, of the maximum value calculated, to make the fullest practical use of the available space.

The height-gain functions also are given for E_z in Tables 2 to 13, E_ρ in Tables 14 to 25, and H_ϕ in Tables 26 to 37. The height interval is 1 percent of the maximum height for the lowest 30 points, and is 5 percent for the remainder.

Height-gain curves for fresh water are shown for E_z in Figures 49 to 72, and for E_ρ in Figures 73 to 96. The height gain functions also are given for E_z in Tables 38 to 49, E_ρ in Tables 50 to 61, and for H_ϕ in Tables 62 to 73.

Height-gain curves for ice are shown for E_z in Figures 97 to 121, and for E_ρ in Figures 122 to 144. The height gain functions also are given for E_z in Tables 74 to 85, E_ρ in Tables 86 to 97, and for H_ϕ in Tables 98 to 109.

Height-gain curves for well-conducting soil are shown for E_z in Figures 145 to 168 and for E_ρ in Figures 169 to 192. The height-gain functions also are given for E_z in Tables 110 to 121, E_ρ in Tables 122 to 133, and for H_ϕ in Tables 134 to 145.

Height-gain curves for poorly conducting soil are shown for E_z in Figures 192 to 216 and for E_ρ in Figures 217 to 240. The height-gain functions also are given for E_z in Tables 146 to 157, E_ρ in Tables 158 to 169 and for H_ϕ in Tables 170 to 181.

All of the values given in the above figures and tables lie within the ranges of validity derived in Appendix B.

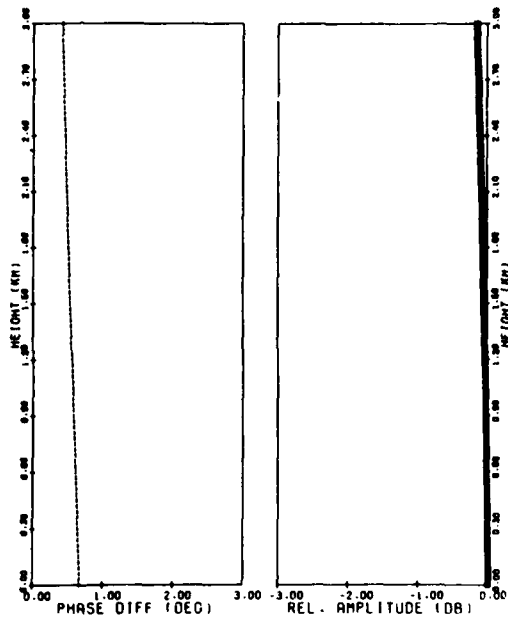


Figure 1. Vertical Electric Field
(Sea Water)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 0.00 m

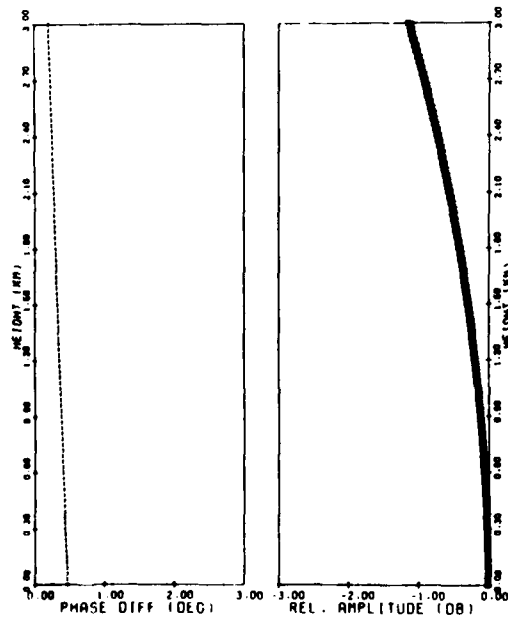


Figure 2. Vertical Electric Field
(Sea Water)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 2247.60 m

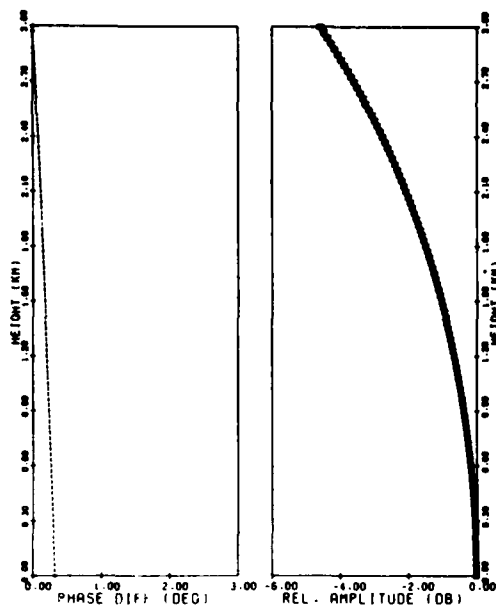


Figure 3. Vertical Electric Field
(Sea Water)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 4495.20

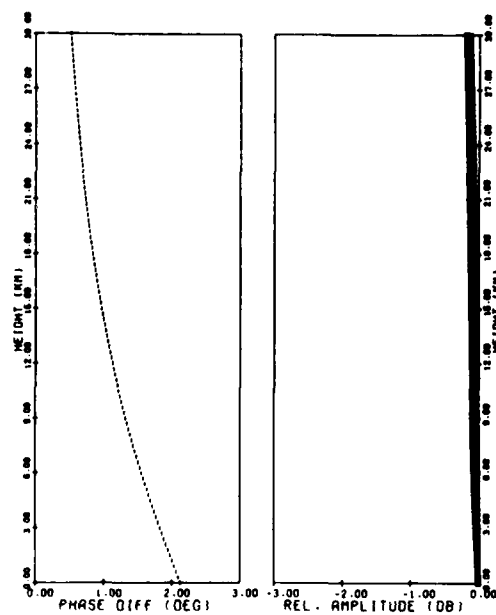


Figure 4. Vertical Electric Field
(Sea Water)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 0.00m

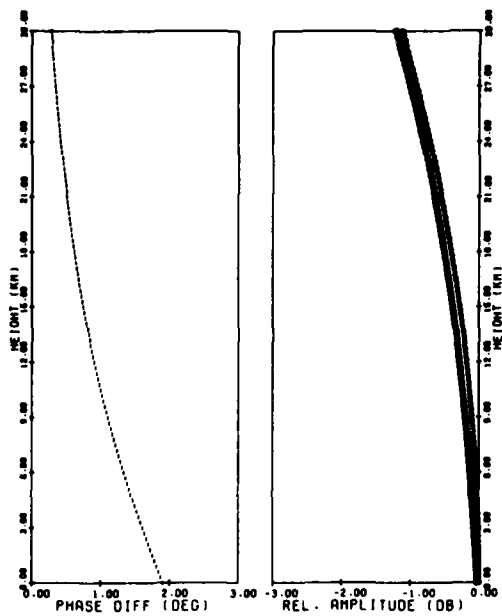


Figure 5. Vertical Electric Field
(Sea Water)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 2247.60 m

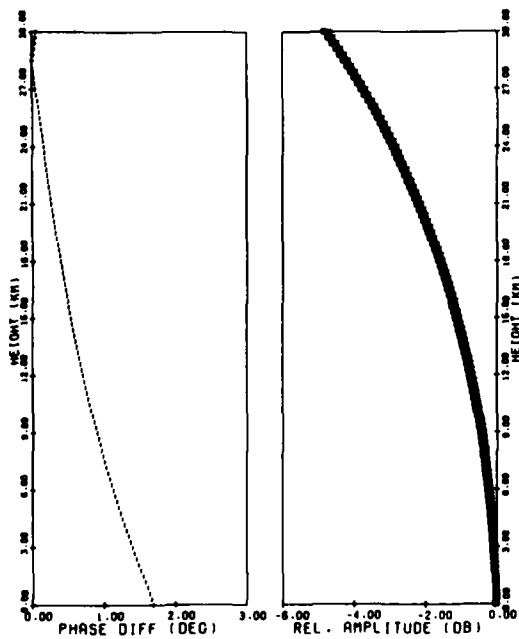


Figure 6. Vertical Electric Field
(Sea Water)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 4495.20 m

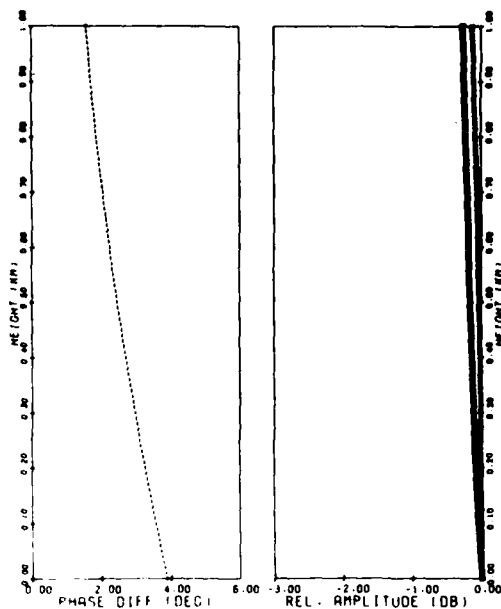


Figure 7. Vertical Electric Field
(Sea Water)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 0.00 m

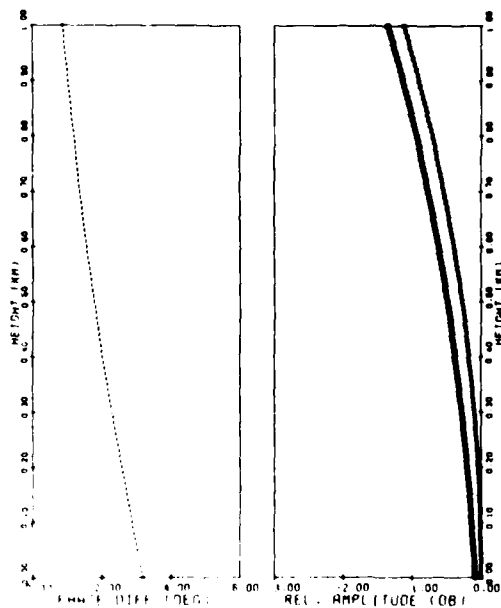


Figure 8. Vertical Electric Field
(Sea Water)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 224.76 m

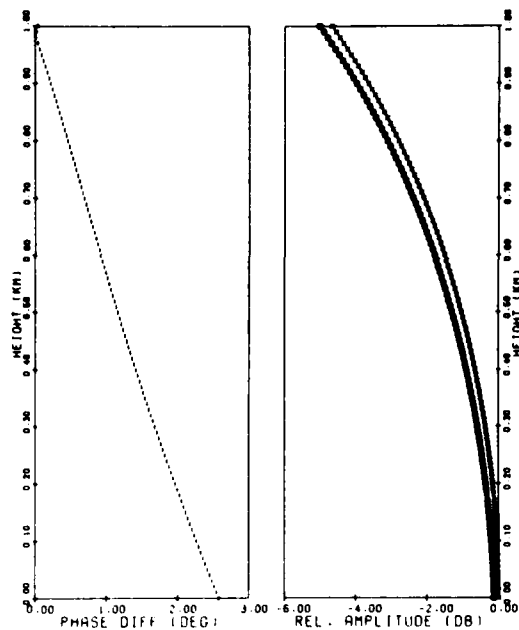


Figure 9. Vertical Electric Field
(Sea Water)
Freq. = 1.0 MHz, Dist. 100 km,
VED Height = 449.52 m

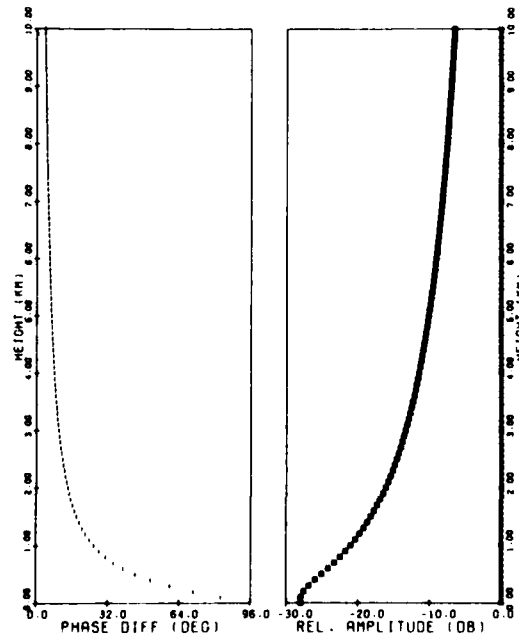


Figure 10. Vertical Electric Field
(Sea Water)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

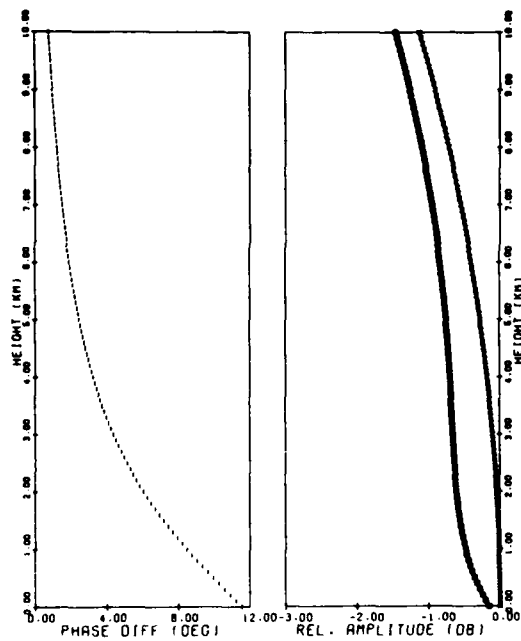


Figure 11. Vertical Electric Field
(Sea Water)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 224.76 m

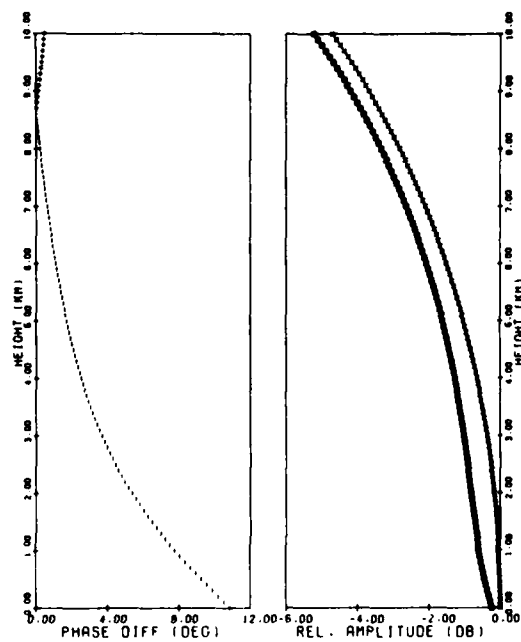


Figure 12. Vertical Electric Field
(Sea Water)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 449.52 m

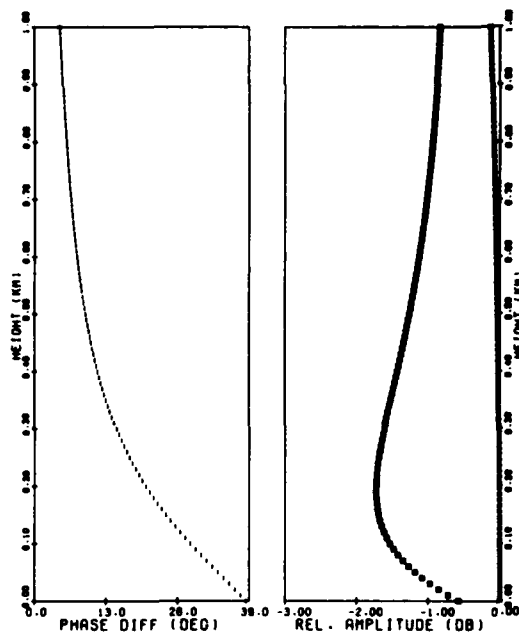


Figure 13. Vertical Electric Field
(Sea Water)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 0.00 m

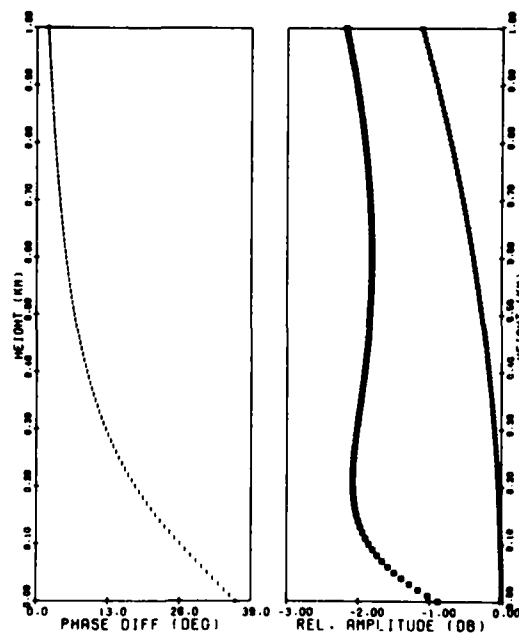


Figure 14. Vertical Electric Field
(Sea Water)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 22.48 m

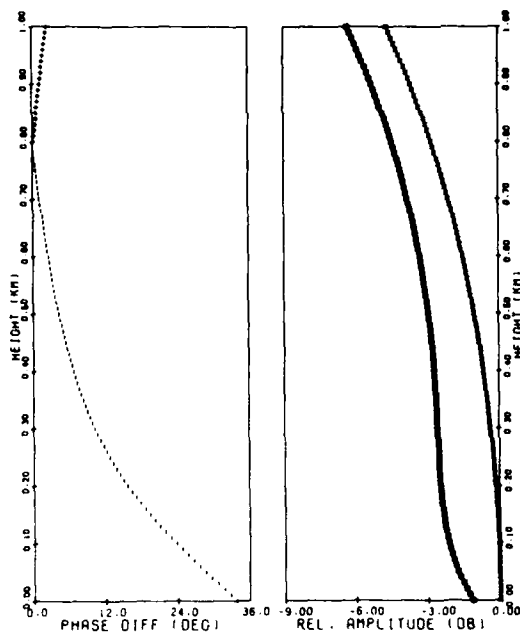


Figure 15. Vertical Electric Field
(Sea Water)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 44.95 m

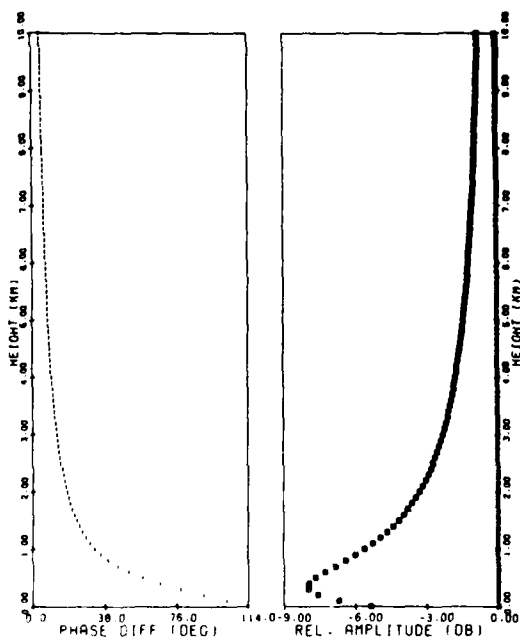


Figure 16. Vertical Electric Field
(Sea Water)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

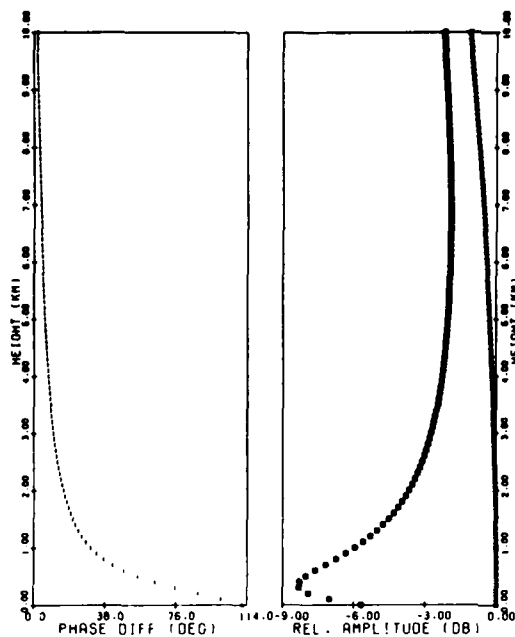


Figure 17. Vertical Electric Field
(Sea Water)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 22.48 m

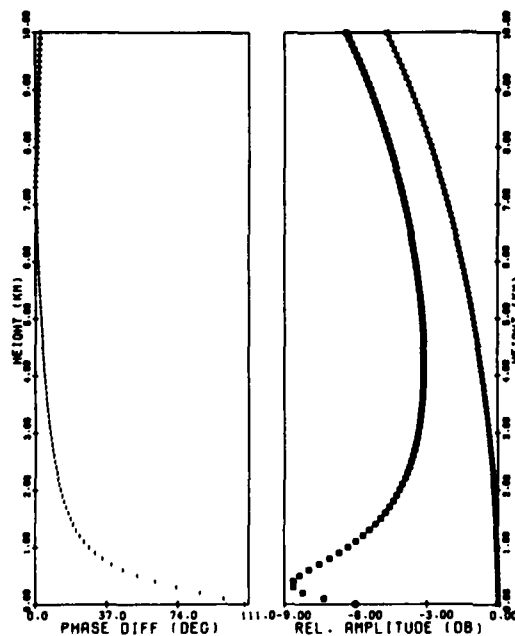


Figure 18. Vertical Electric Field
(Sea Water)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 44.95 m

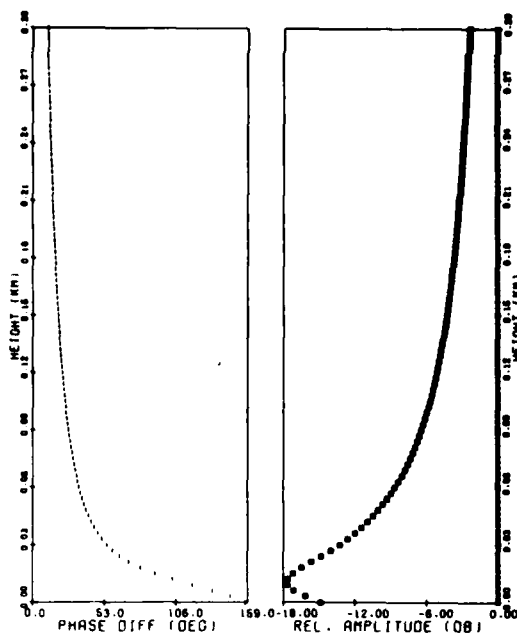


Figure 19. Vertical Electric Field
(Sea Water)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 0.00 m

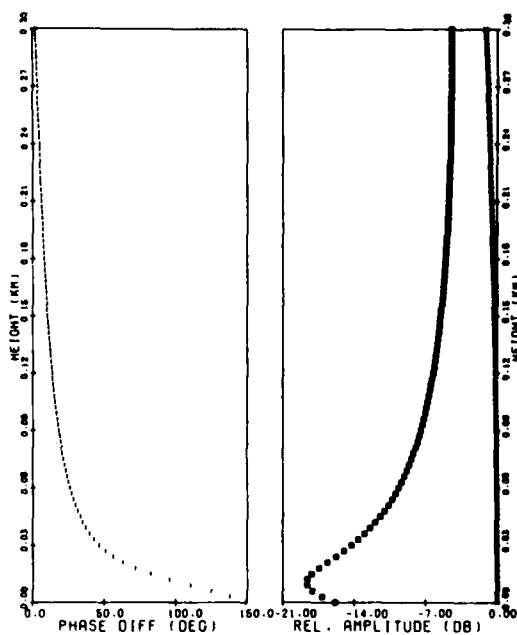


Figure 20. Vertical Electric Field
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 2.25 m

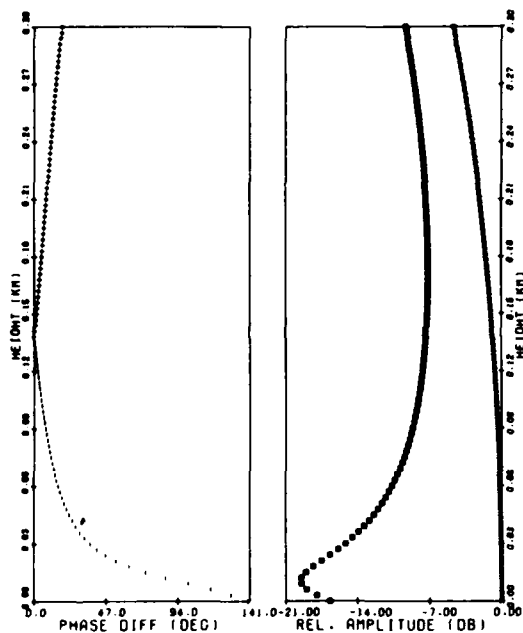


Figure 21. Vertical Electric Field
(Sea Water)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 4.50 m

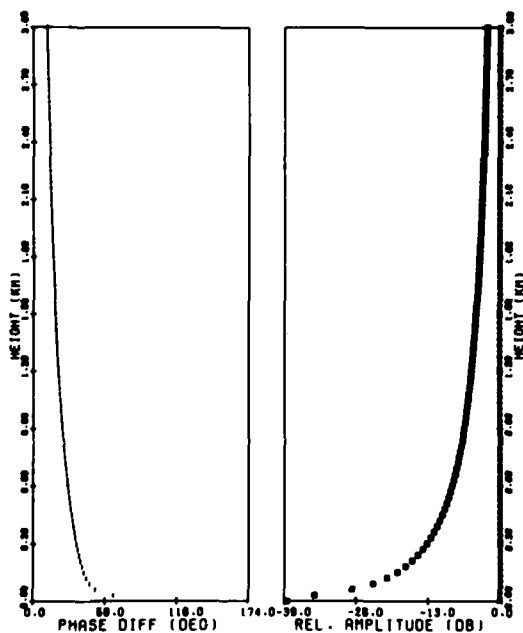


Figure 22. Vertical Electric Field
(Sea Water)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 0.00 m

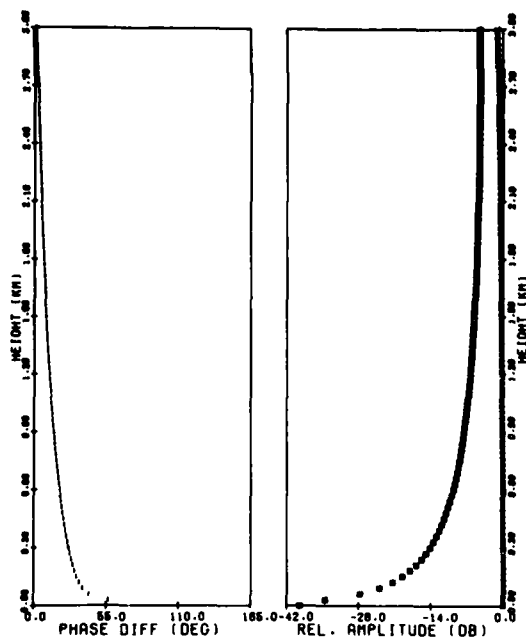


Figure 23. Vertical Electric Field
(Sea Water)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 2.25 m

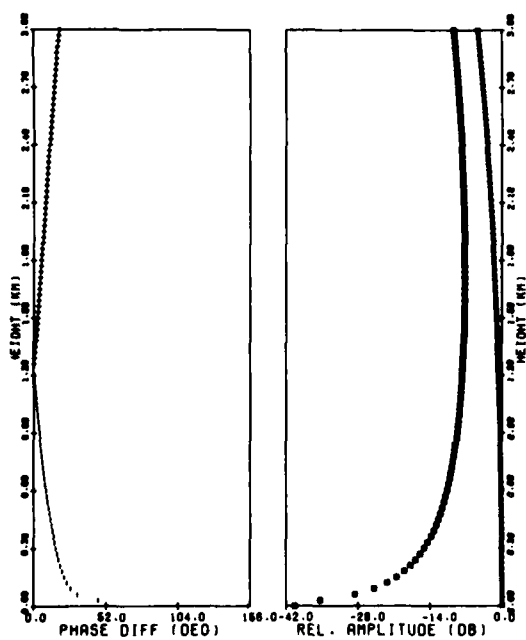


Figure 24. Vertical Electric Field
(Sea Water)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 4.50 m

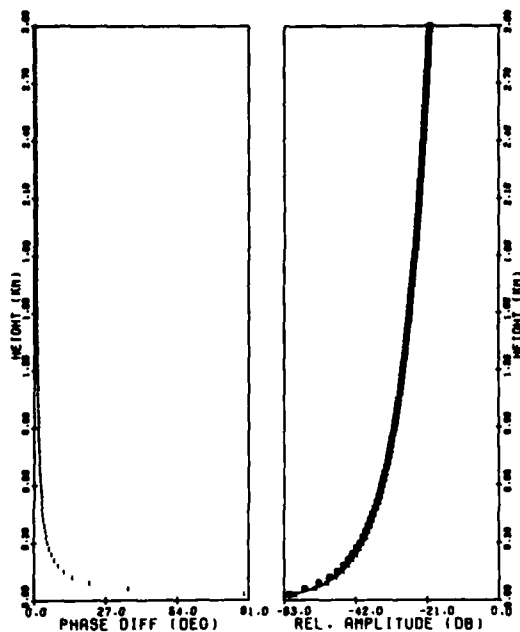


Figure 25. Radial Electric Field
(Sea Water)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 0.00 m

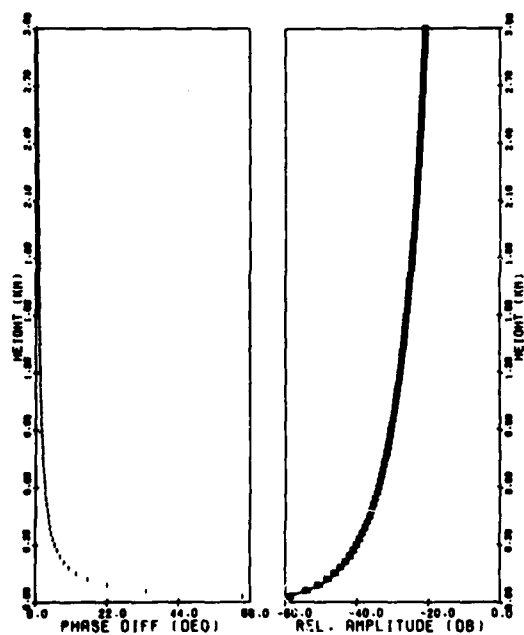


Figure 26. Radial Electric Field
(Sea Water)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 2247.60 m

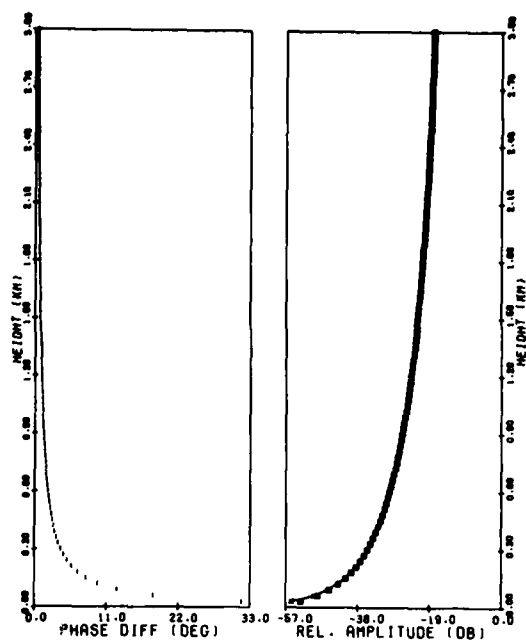


Figure 27. Radial Electric Field
(Sea Water)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 4495.20 m

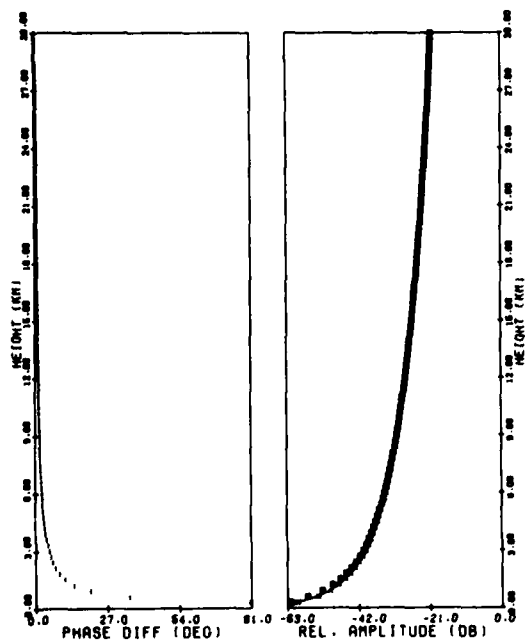


Figure 28. Radial Electric Field
(Sea Water)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 0.00 m

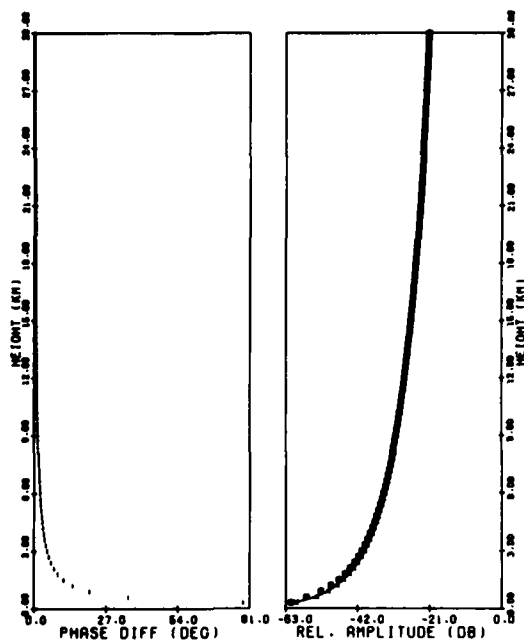


Figure 29. Radial Electric Field
(Sea Water)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 2247.60 m

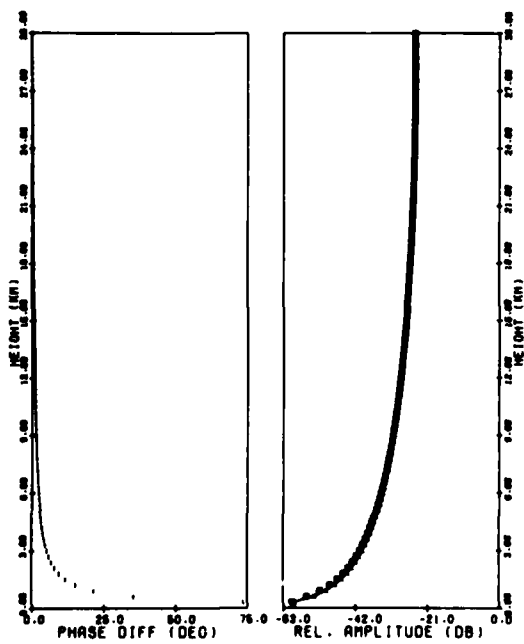


Figure 30. Radial Electric Field
(Sea Water)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 4495.20 m

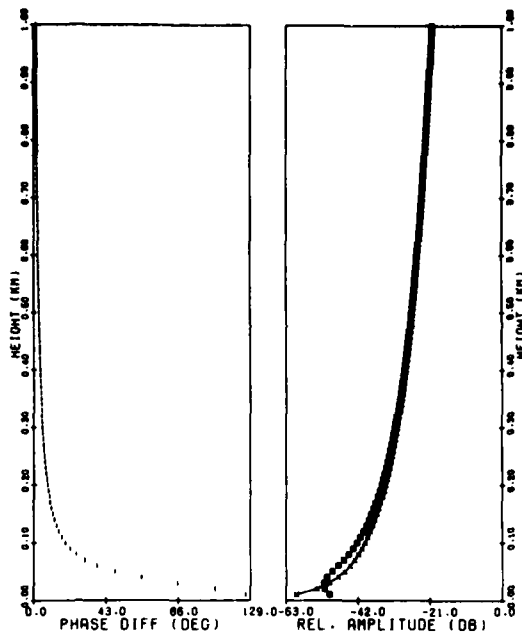


Figure 31. Radial Electric Field
(Sea Water)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 0.00 m

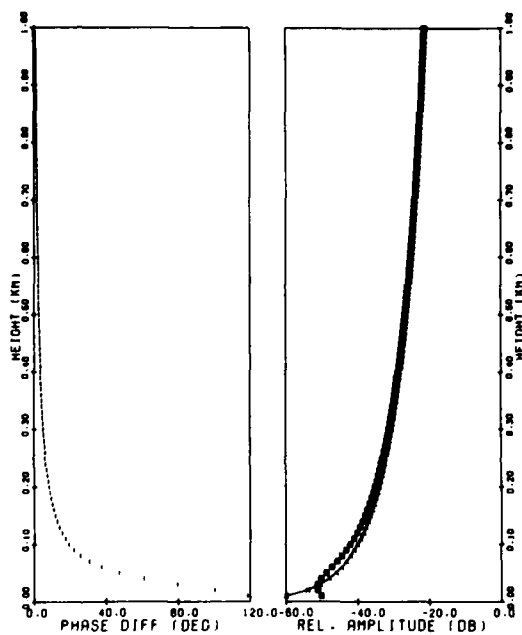


Figure 32. Radial Electric Field
(Sea Water)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 224.76 m

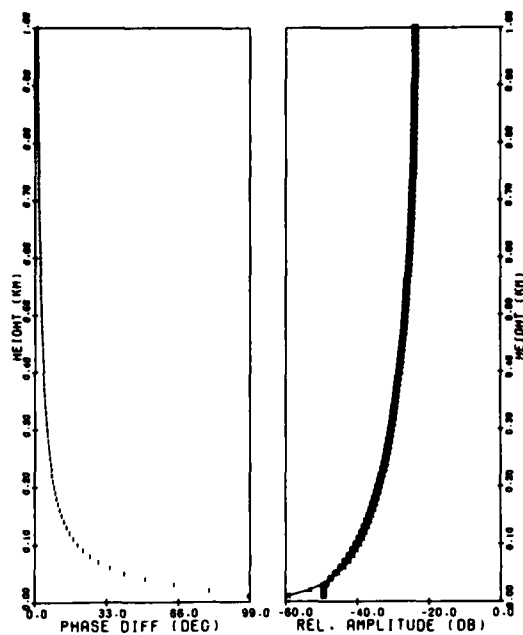


Figure 33. Radial Electric Field
(Sea Water)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 449.52 m

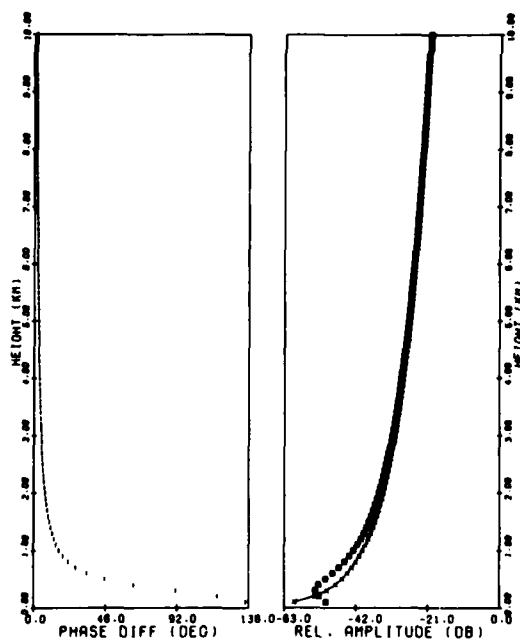


Figure 34. Radial Electric Field
(Sea Water)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

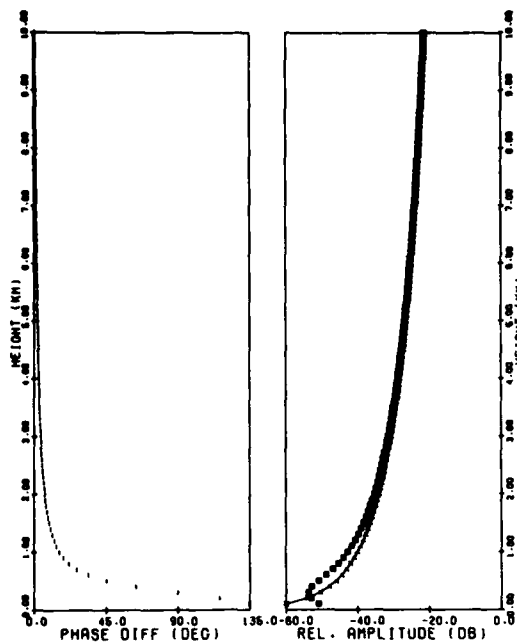


Figure 35. Radial Electric Field
(Sea Water)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 224.76 m

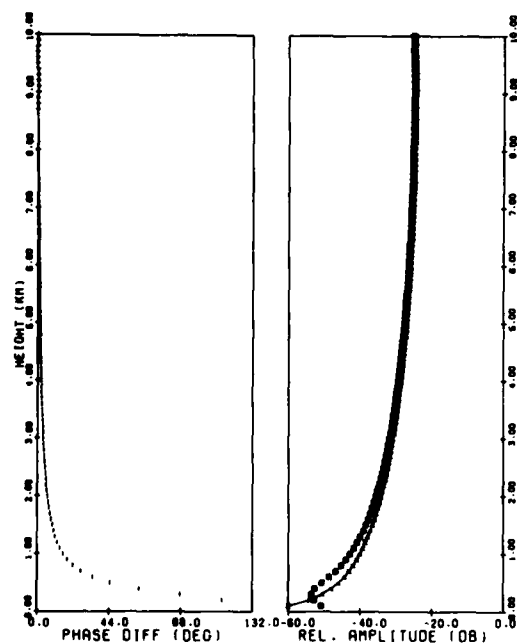


Figure 36. Radial Electric Field
(Sea Water)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 449.52 m

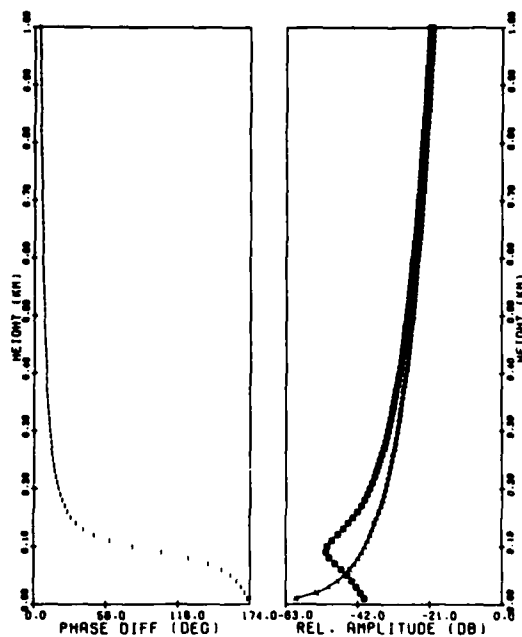


Figure 37. Radial Electric Field
(Sea Water)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 0.00 m

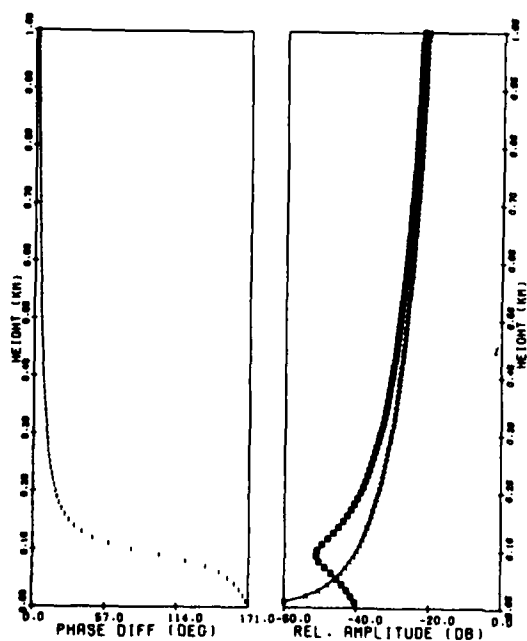


Figure 38. Radial Electric Field
(Sea Water)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 22.48 m

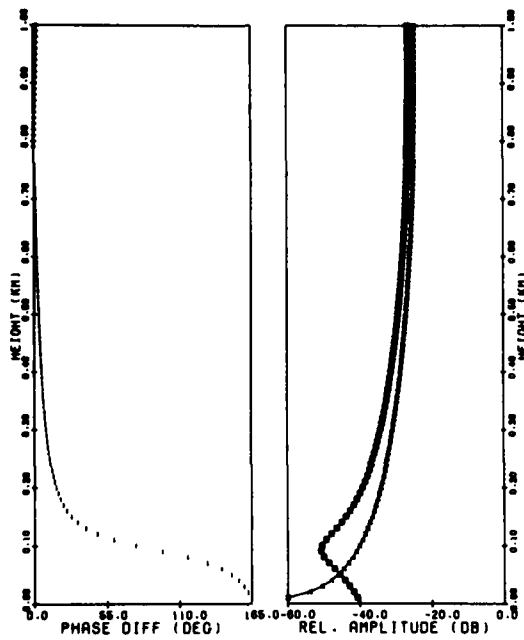


Figure 39. Radial Electric Field
(Sea Water)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 44.95 m

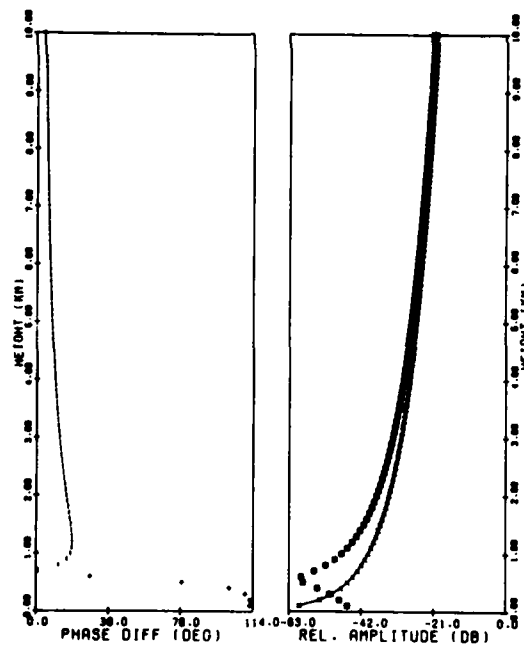


Figure 40. Radial Electric Field
(Sea Water)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

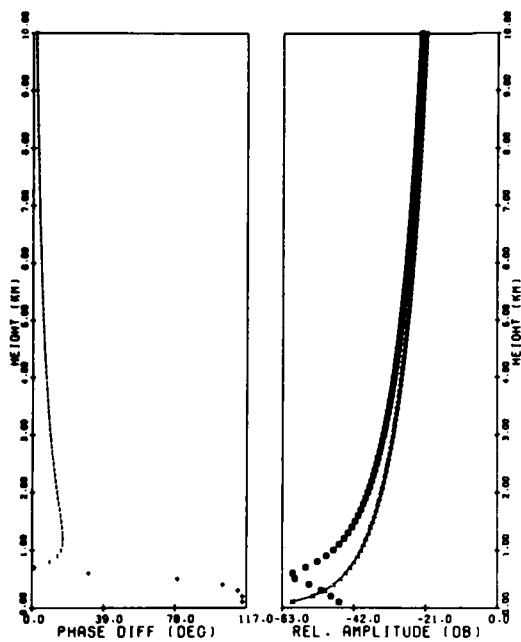


Figure 41. Radial Electric Field
(Sea Water)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 22.48 m

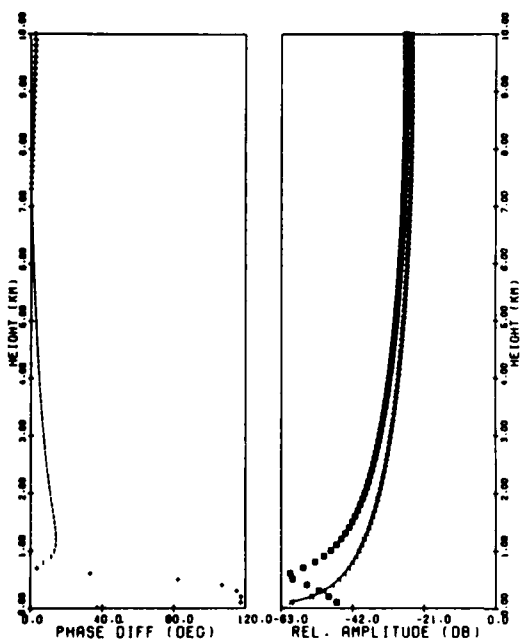


Figure 42. Radial Electric Field
(Sea Water)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 44.95 m

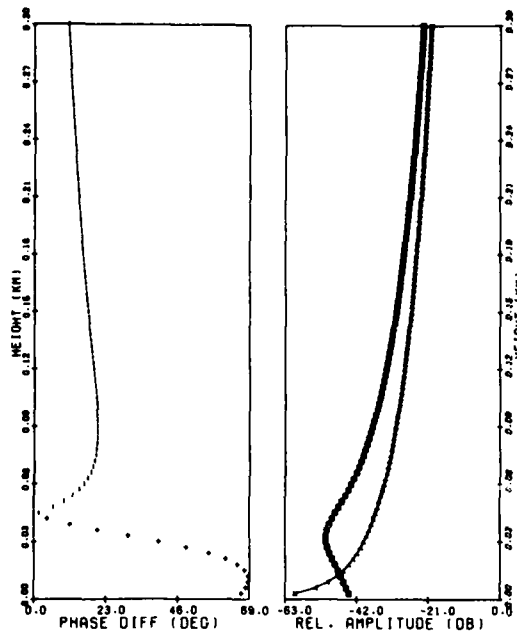


Figure 43. Radial Electric Field
(Sea Water)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 0.00 m

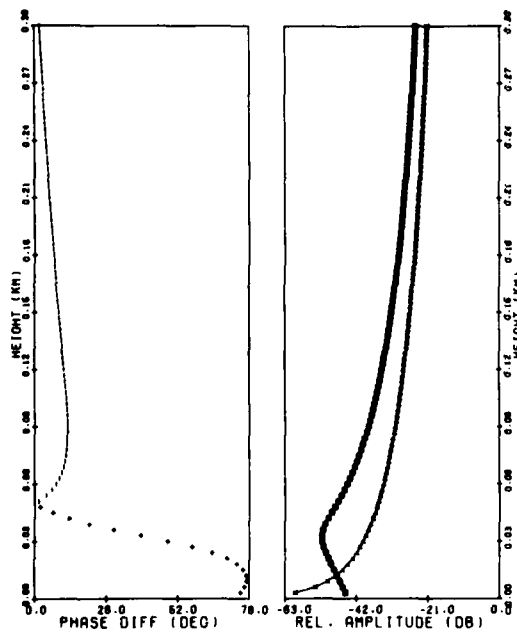


Figure 44. Radial Electric Field
(Sea Water)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 2.25 m

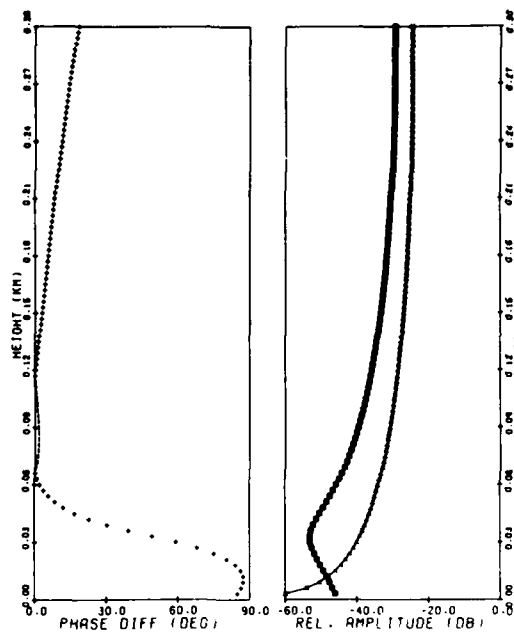


Figure 45. Radial Electric Field
(Sea Water)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 4.50 m

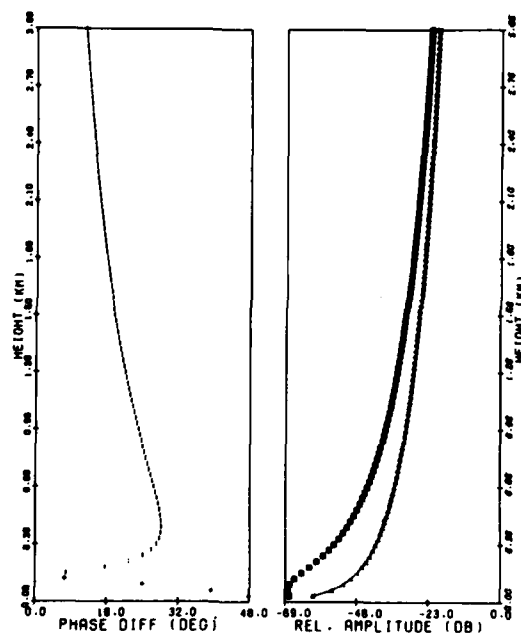


Figure 46. Radial Electric Field
(Sea Water)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 0.00 m

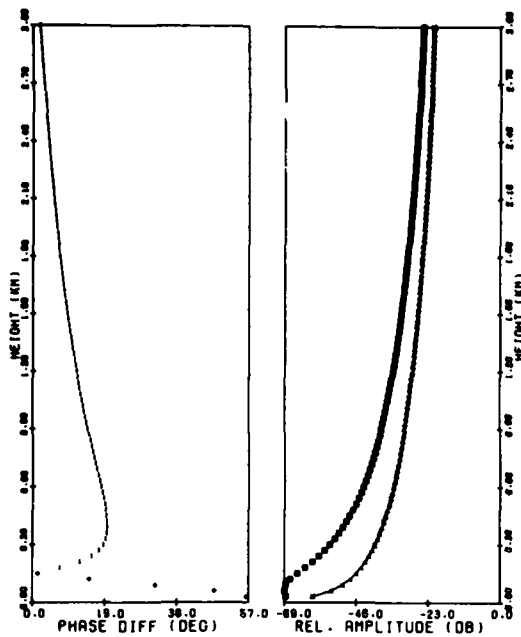


Figure 47. Radial Electric Field
(Sea Water)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 2.25 m

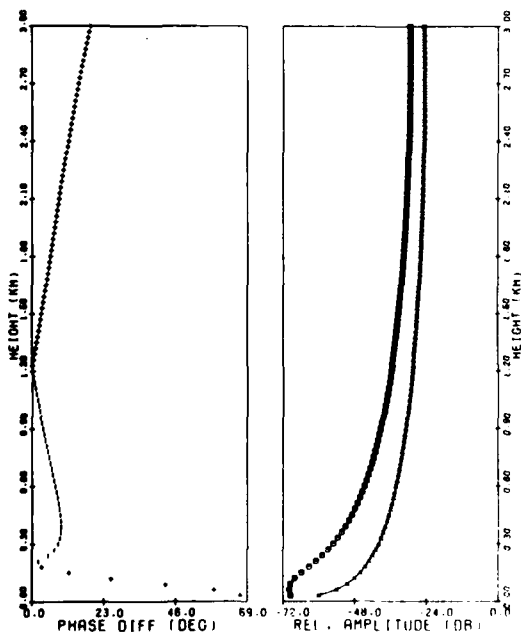


Figure 48. Radial Electric Field
(Sea Water)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 4.50 m

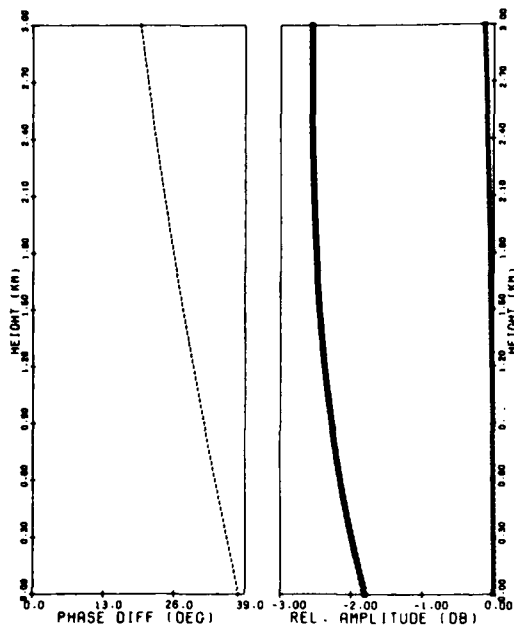


Figure 49. Vertical Electric Field
(Fresh Water)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 0.00 m

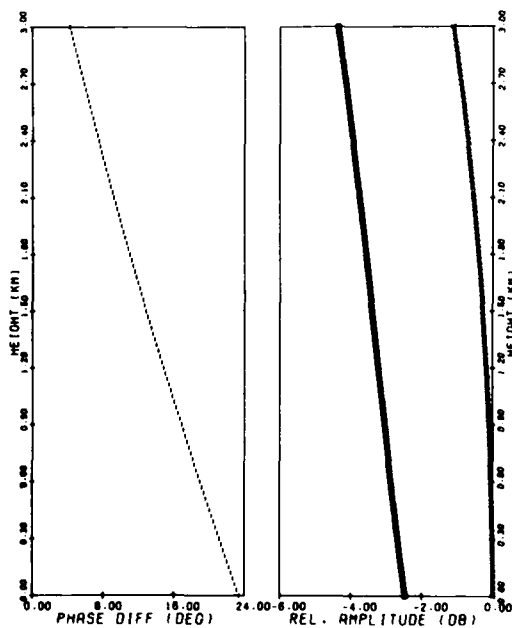


Figure 50. Vertical Electric Field
(Fresh Water)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 2247.60 m

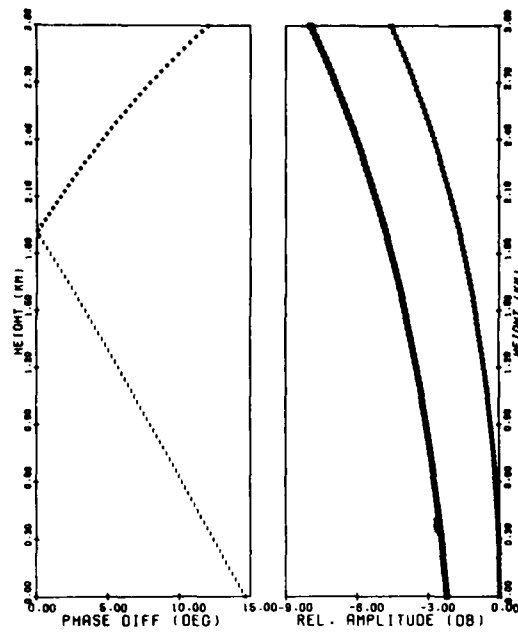


Figure 51. Vertical Electric Field
(Fresh Water)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 4495.20 m

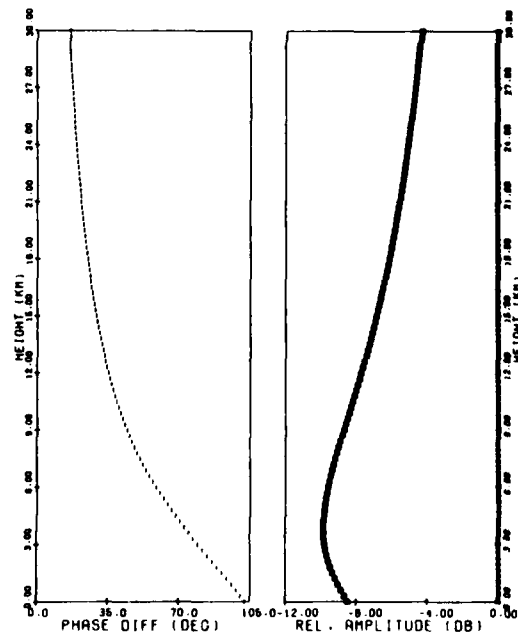


Figure 52. Vertical Electric Field
(Fresh Water)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 0.00 m

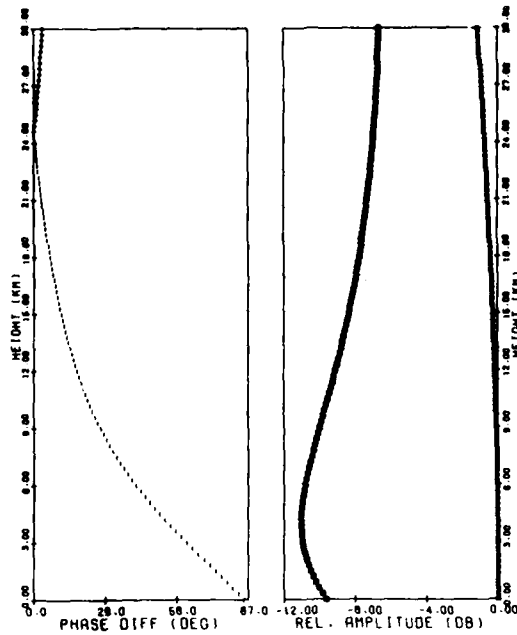


Figure 53. Vertical Electric Field
(Fresh Water)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 2247.60 m

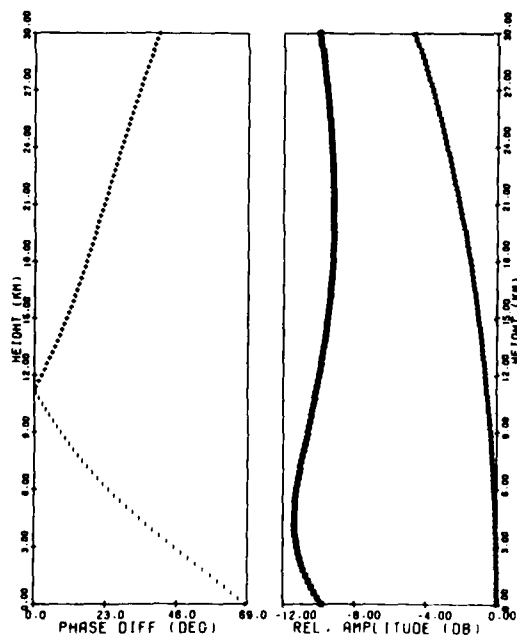


Figure 54. Vertical Electric Field
(Fresh Water)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 4495.20 m

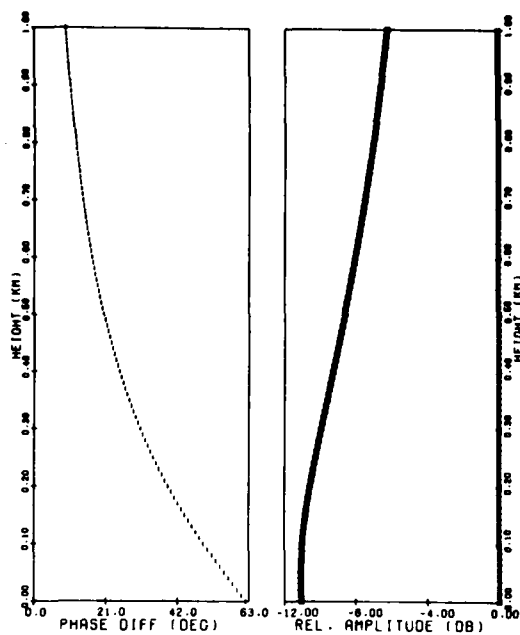


Figure 55. Vertical Electric Field
(Fresh Water)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 0.00 m

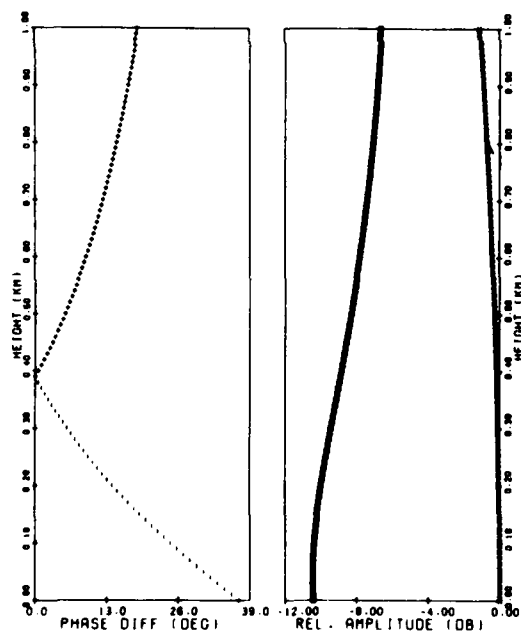


Figure 56. Vertical Electric Field
(Fresh Water)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 224.76 m

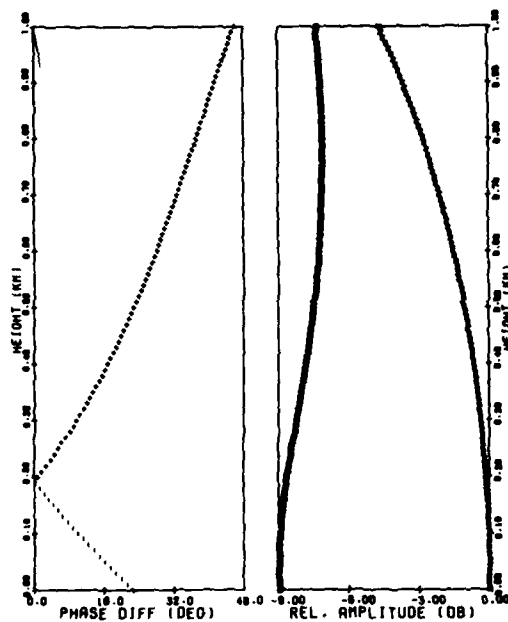


Figure 57. Vertical Electric Field
(Fresh Water)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 449.52 m

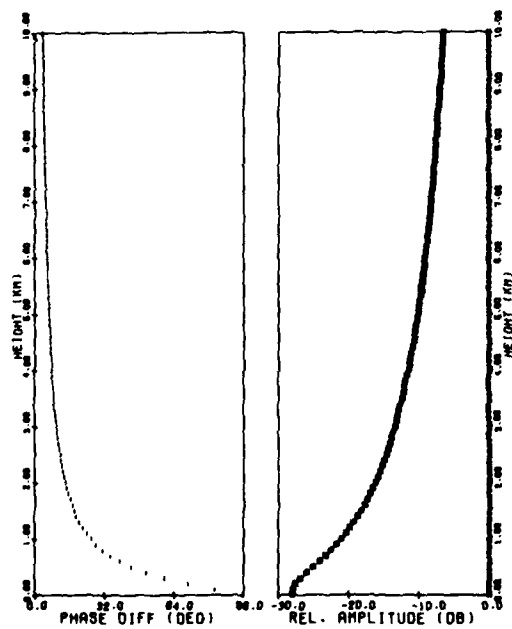


Figure 58. Vertical Electric Field
(Fresh Water)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

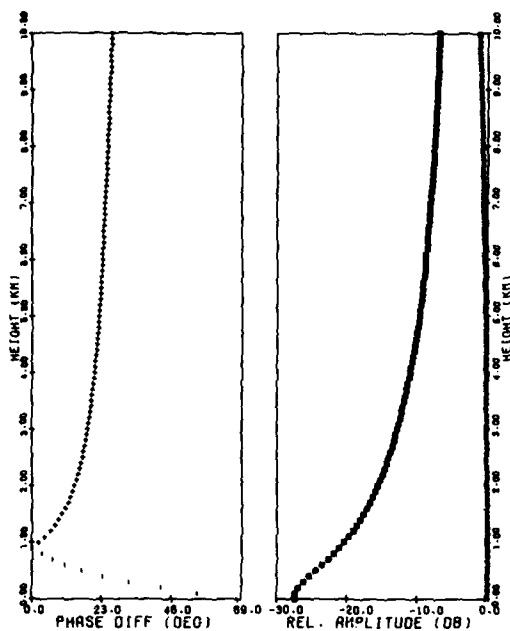


Figure 59. Vertical Electric Field
(Fresh Water)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 224.76 m

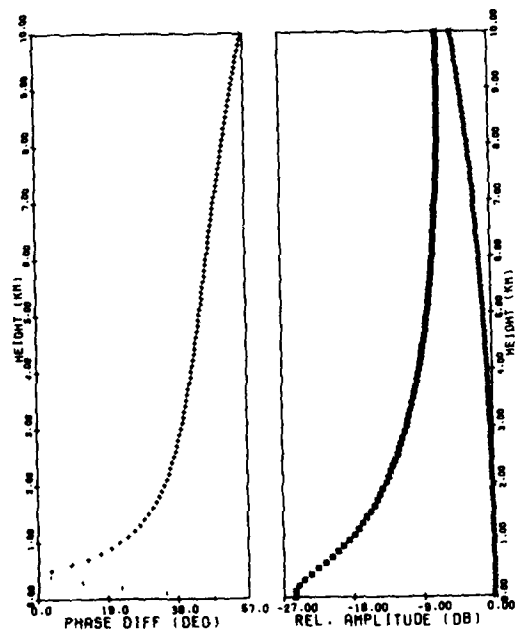


Figure 60. Vertical Electric Field
(Fresh Water)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 449.52 m

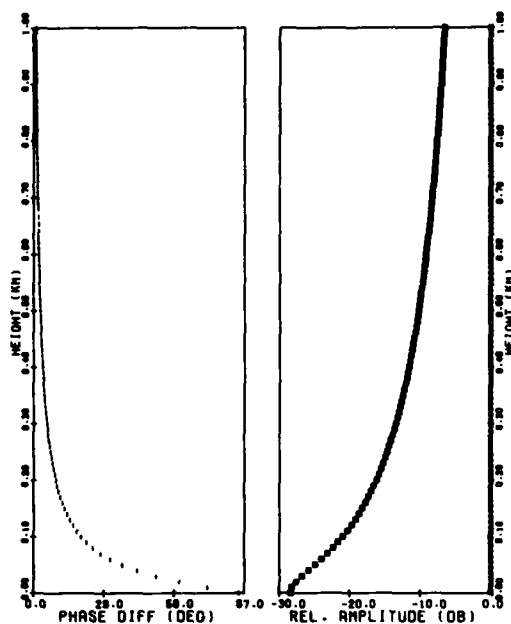


Figure 61. Vertical Electric Field
(Fresh Water)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 0.00 m

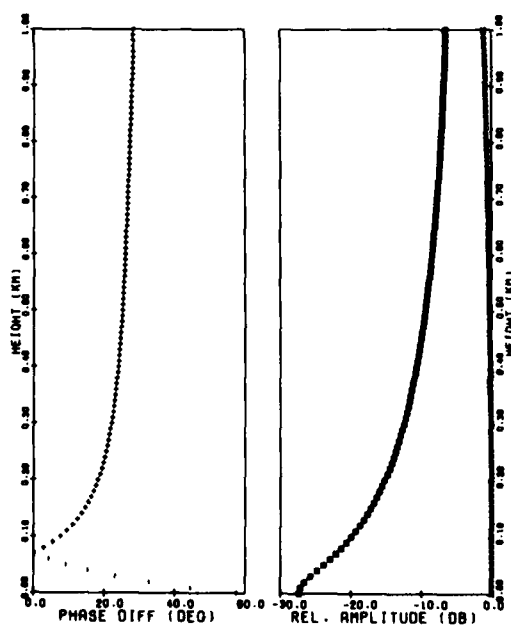


Figure 62. Vertical Electric Field
(Fresh Water)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 22.48 m

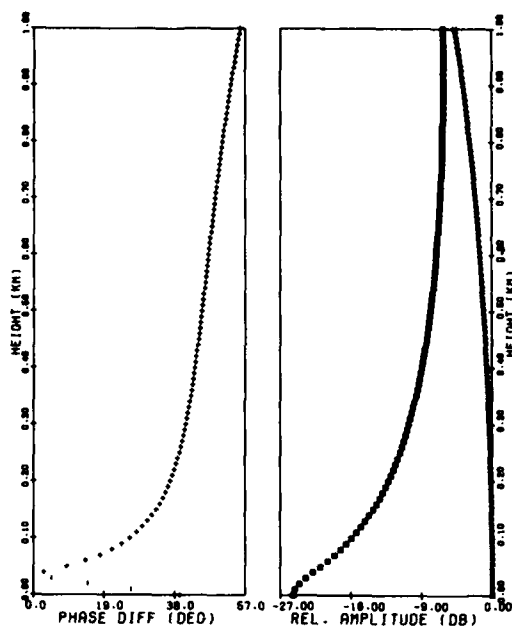


Figure 63. Vertical Electric Field
(Fresh Water)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 44.95 m

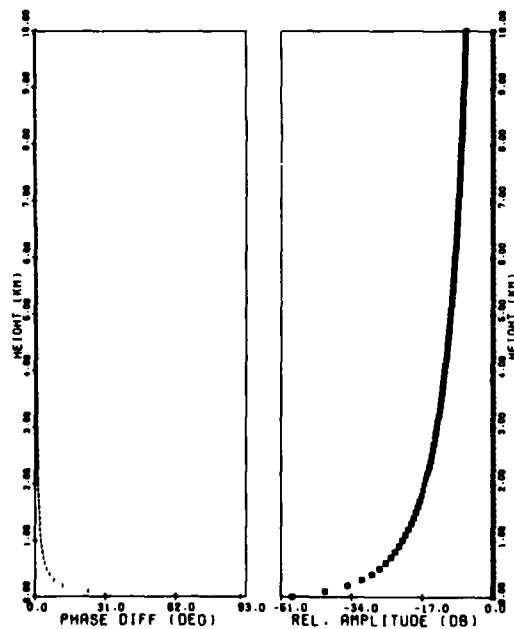


Figure 64. Vertical Electric Field
(Fresh Water)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

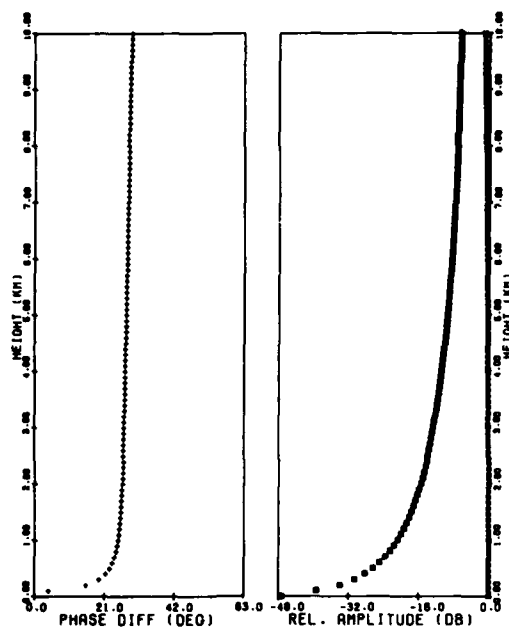


Figure 65. Vertical Electric Field
(Fresh Water)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 22.48 m

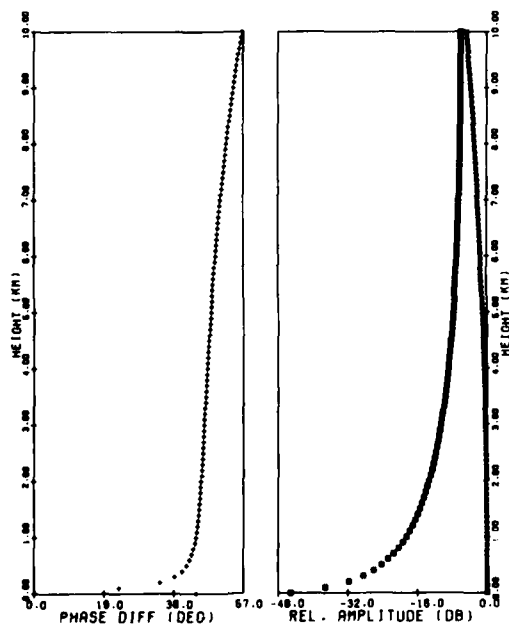


Figure 66. Vertical Electric Field
(Fresh Water)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 44.95 m

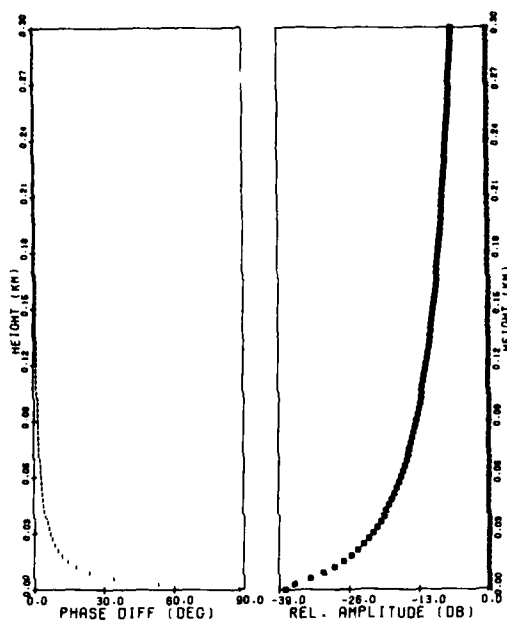


Figure 67. Vertical Electric Field
(Fresh Water)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 0.00 m

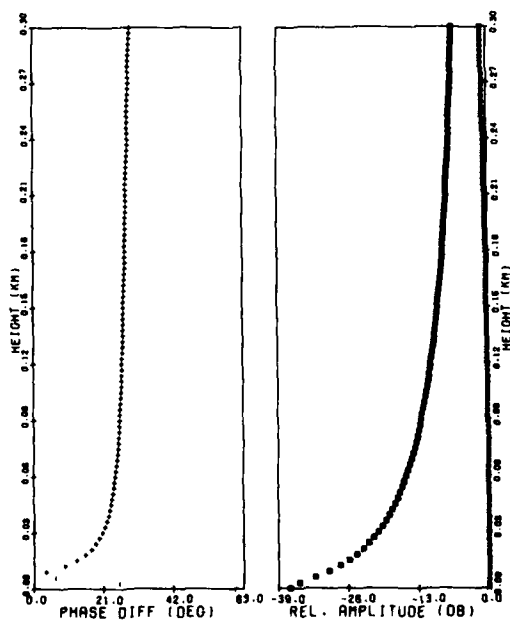


Figure 68. Vertical Electric Field
(Fresh Water)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 2.25 m

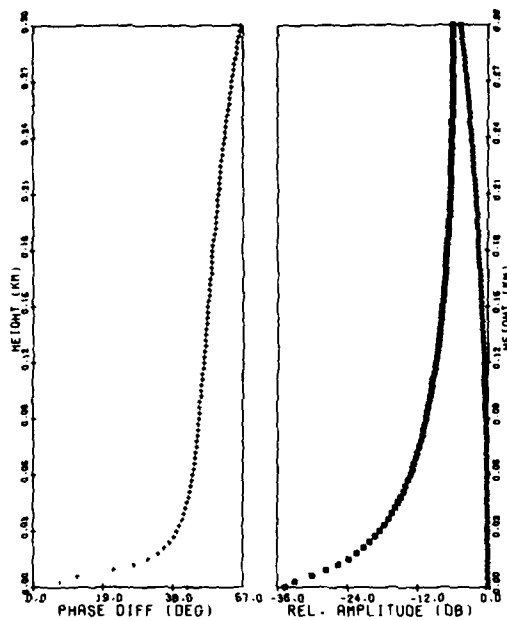


Figure 69. Vertical Electric Field
(Fresh Water)
Freq. = 100.0 MHz, Dist. $\approx$ 3 km,
VED Height = 4.50 m

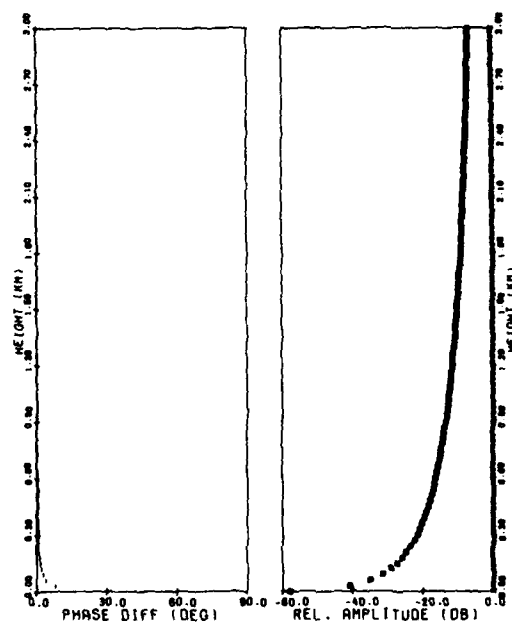


Figure 70. Vertical Electric Field
(Fresh Water)
Freq. = 100.0 MHz, Dist. $\approx$ 30 km,
VED Height = 0.00 m

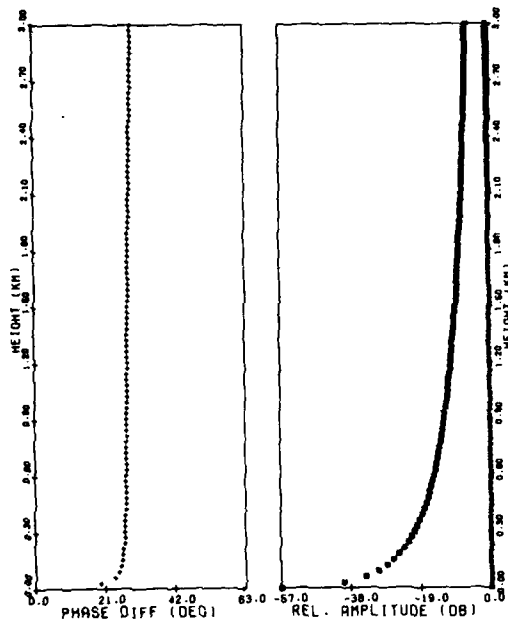


Figure 71. Vertical Electric Field
(Fresh Water)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 2.25 m

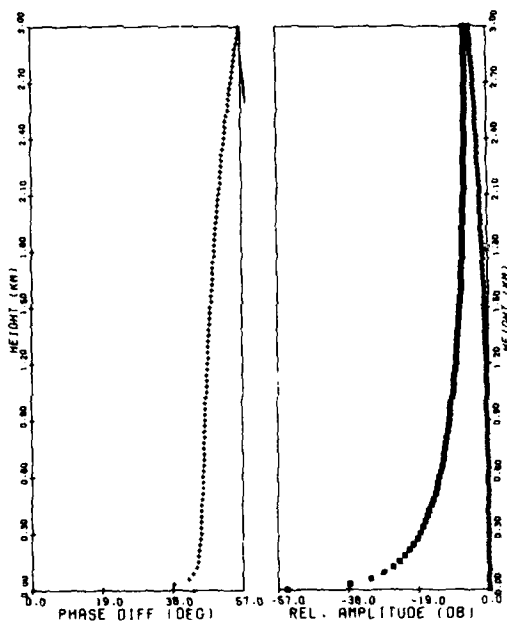


Figure 72. Vertical Electric Field
(Fresh Water)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 4.50 m

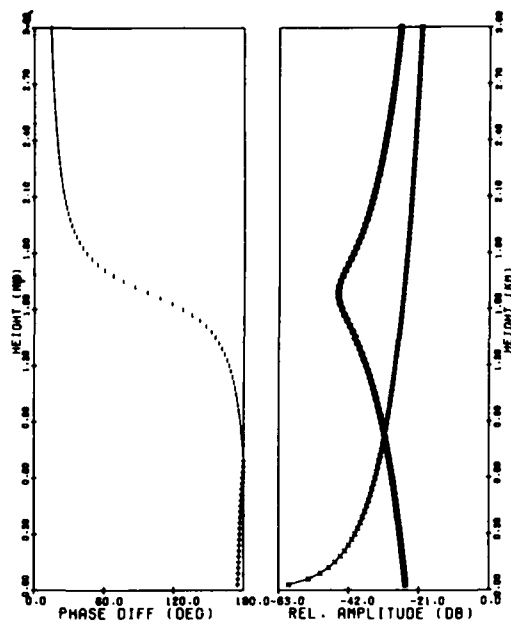


Figure 73. Radial Electric Field
(Fresh Water)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 0.00m

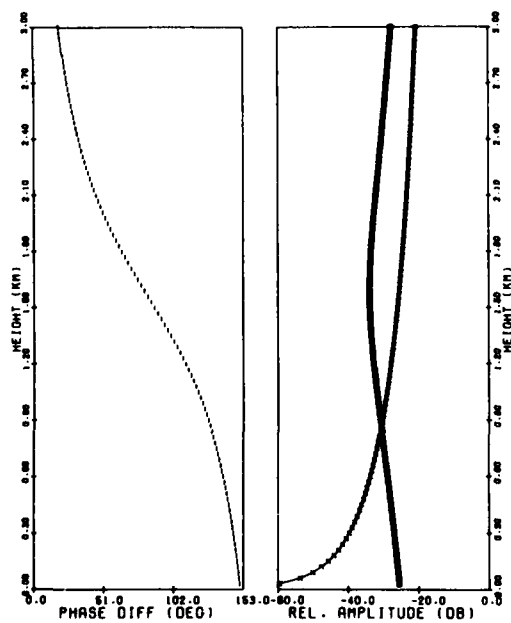


Figure 74. Radial Electric Field
(Fresh Water)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 2247.60 m

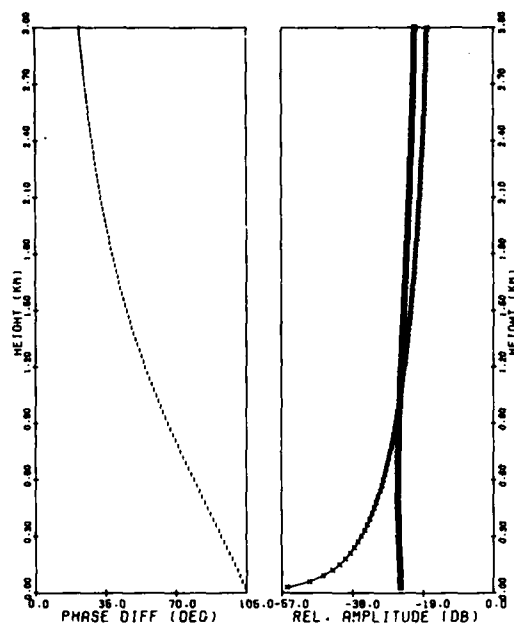


Figure 75. Radial Electric Field
(Fresh Water)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 4495.20 m

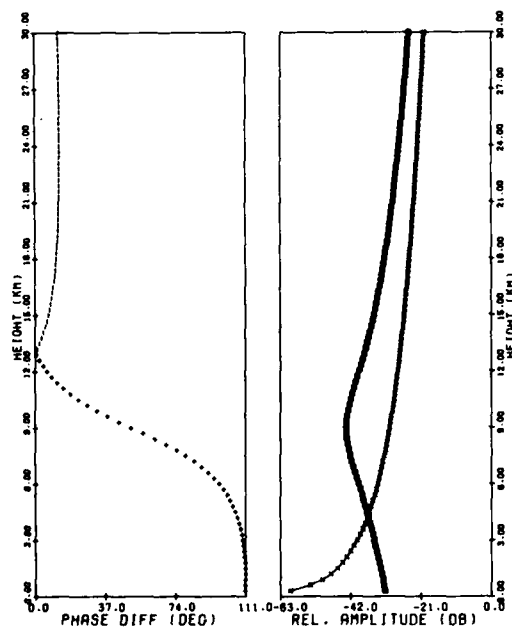


Figure 76. Radial Electric Field
(Fresh Water)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 0.00 m

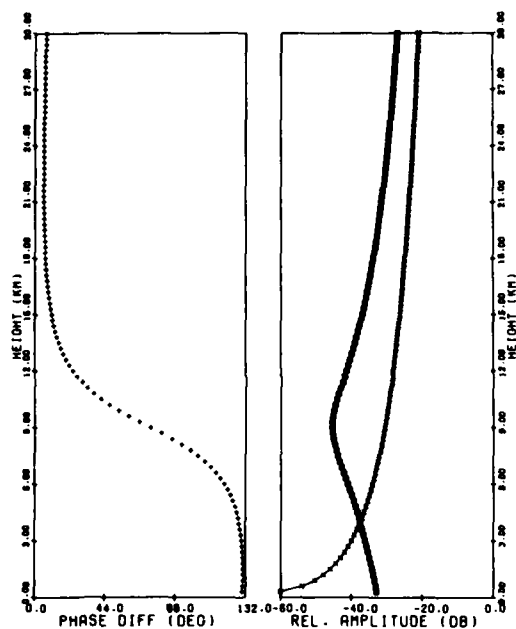


Figure 77. Radial Electric Field
(Fresh Water)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 2247.60 m

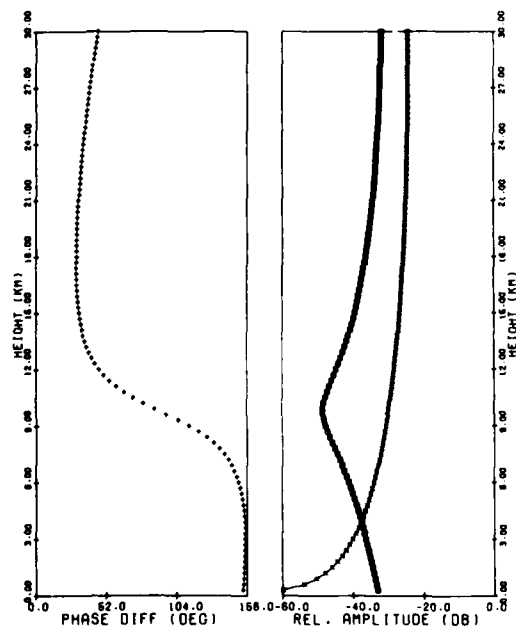


Figure 78. Radial Electric Field
(Fresh Water)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 4495.20 m

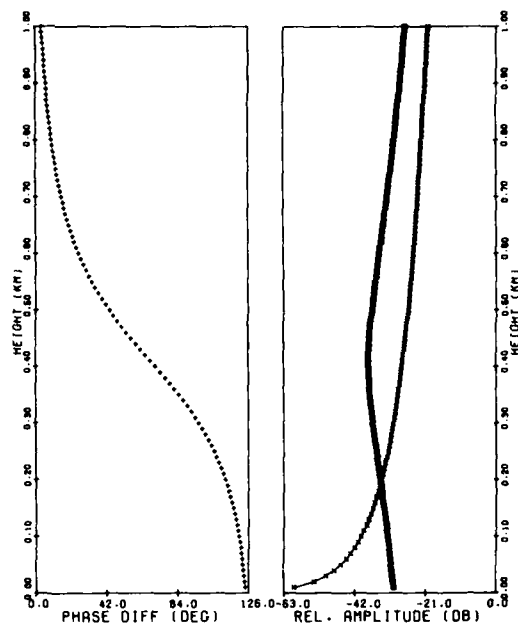


Figure 79. Radial Electric Field
(Fresh Water)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 0.00 m

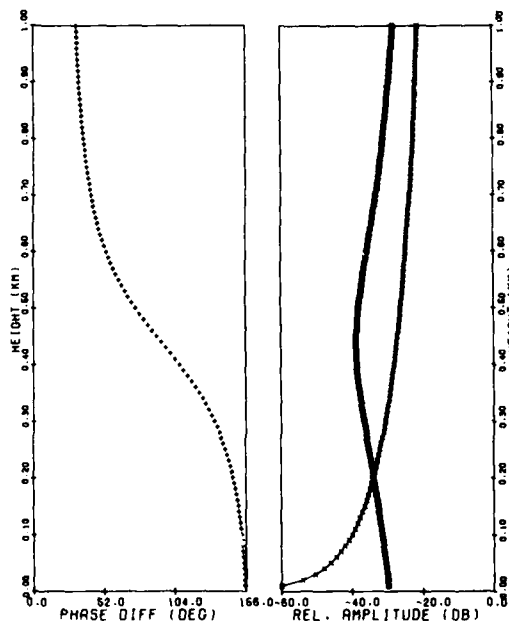


Figure 80. Radial Electric Field
(Fresh Water)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 224.76 m

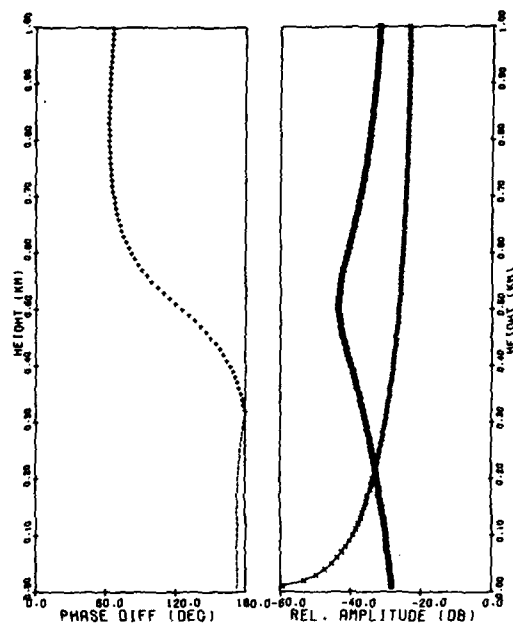


Figure 81. Radial Electric Field
(Fresh Water)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 449.52 m

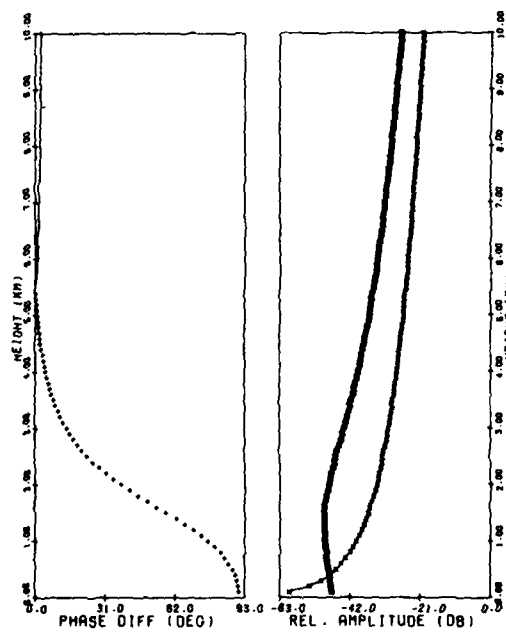


Figure 82. Radial Electric Field
(Fresh Water)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

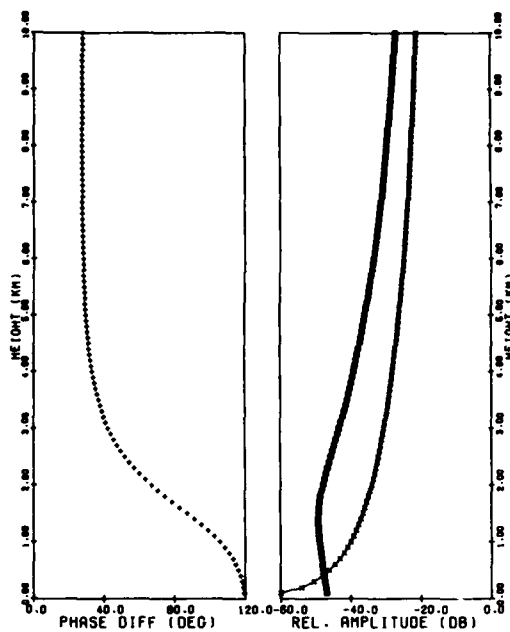


Figure 83. Radial Electric Field
(Fresh Water)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 224.76 m

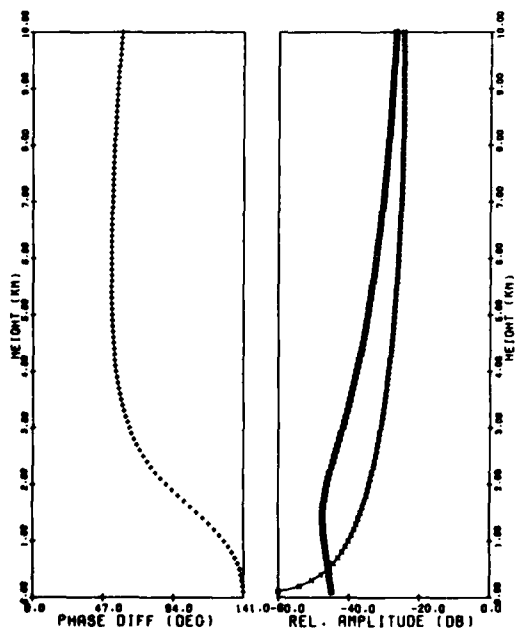


Figure 84. Radial Electric Field
(Fresh Water)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 449.52 m

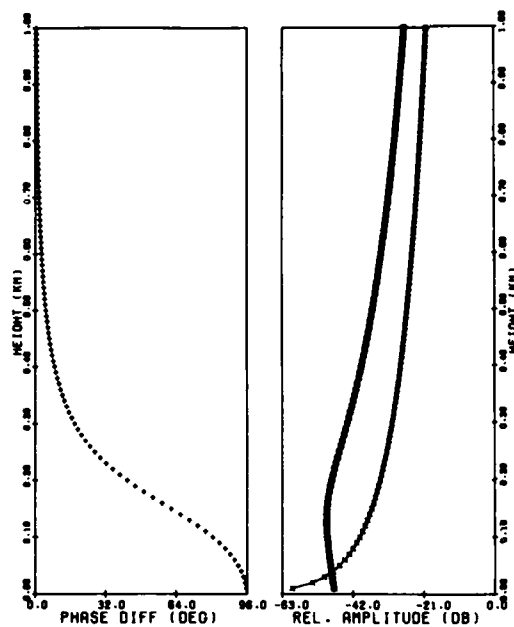


Figure 85. Radial Electric Field
(Fresh Water)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 0.00 m

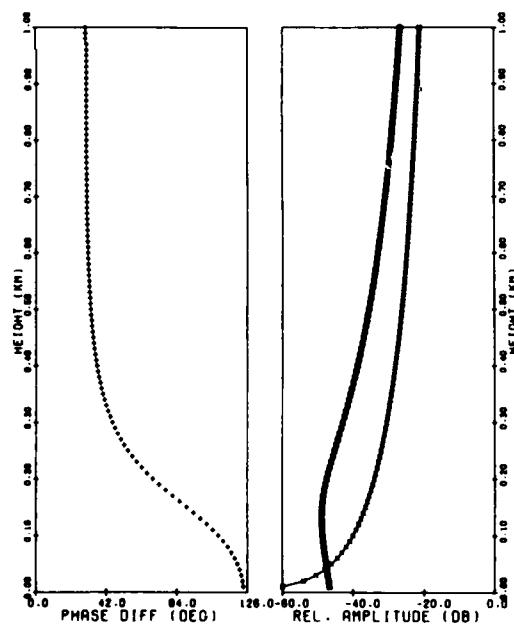


Figure 86. Radial Electric Field
(Fresh Water)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 22.48 m

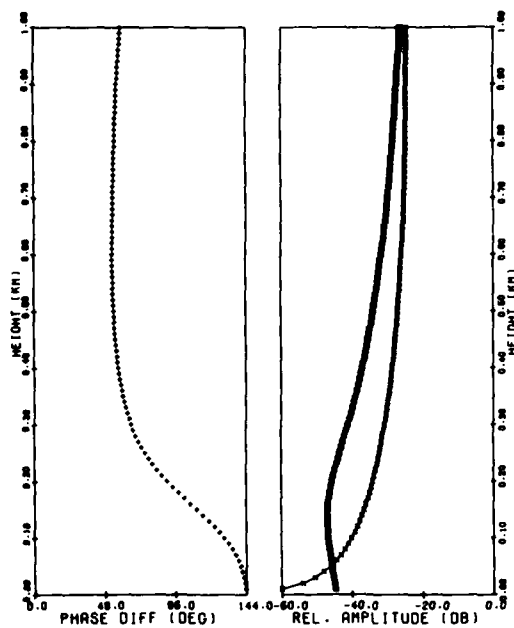


Figure 87. Radial Electric Field
(Fresh Water)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 44.95 m

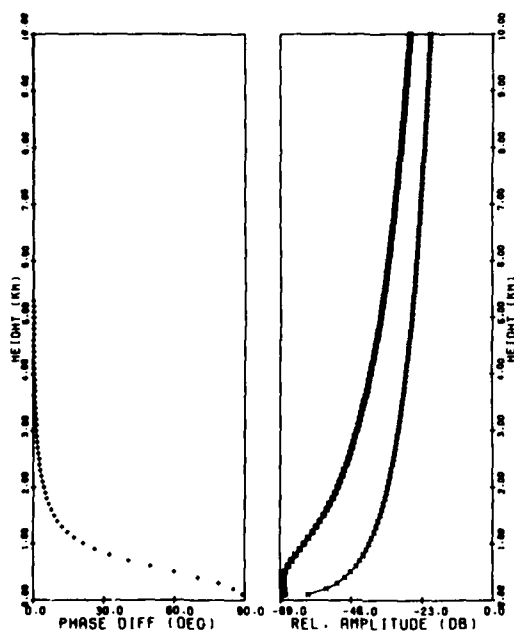


Figure 88. Radial Electric Field
(Fresh Water)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

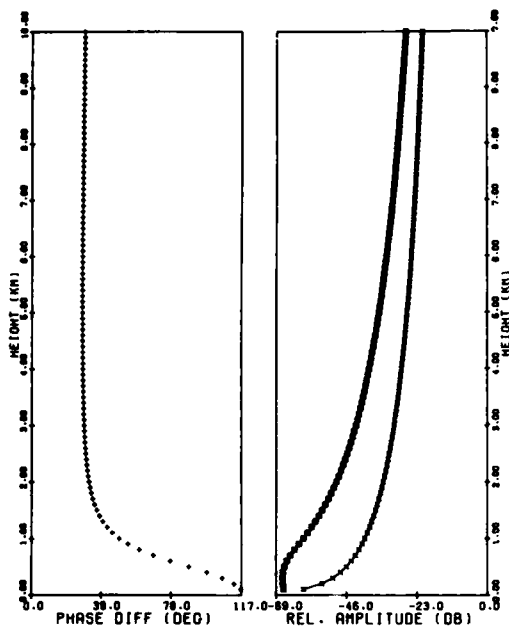


Figure 89. Radial Electric Field
(Fresh Water)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 22.48 m

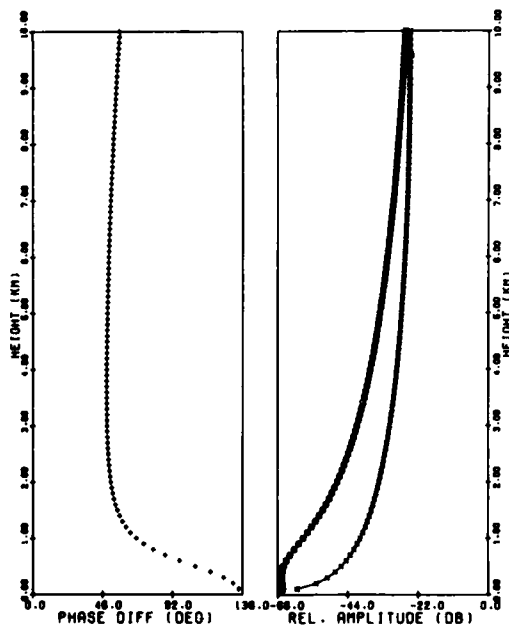


Figure 90. Radial Electric Field
(Fresh Water)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 44.95 m

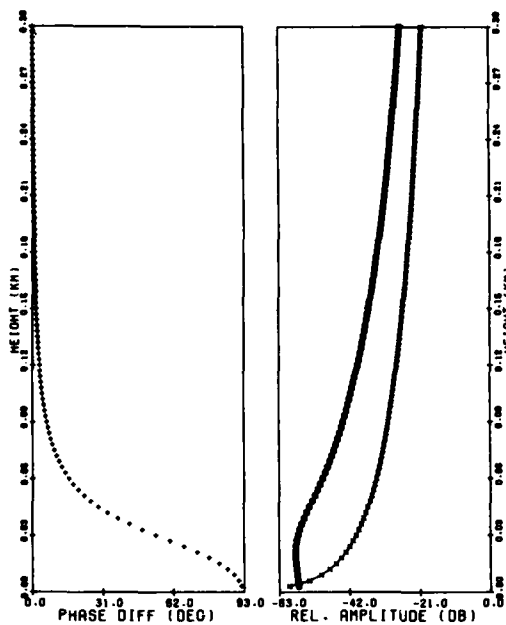


Figure 91. Radial Electric Field
(Fresh Water)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 0.00 m

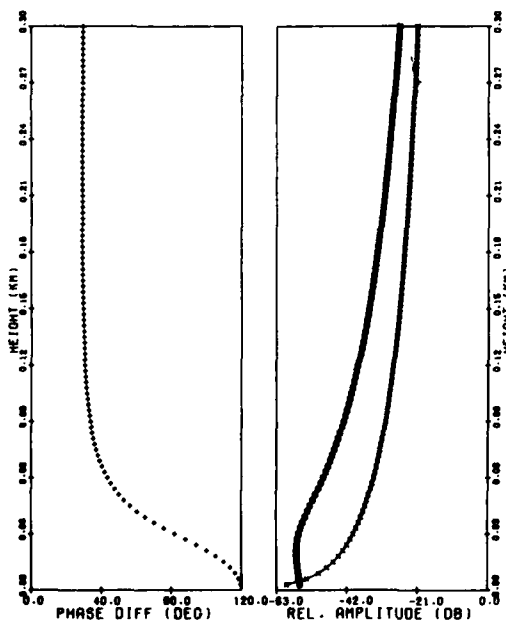


Figure 92. Radial Electric Field
(Fresh Water)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 2.25 m

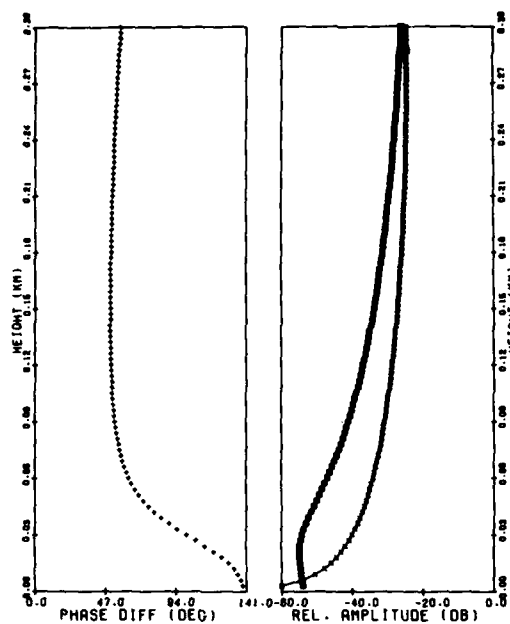


Figure 93. Radial Electric Field
(Fresh Water)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 4.50 m

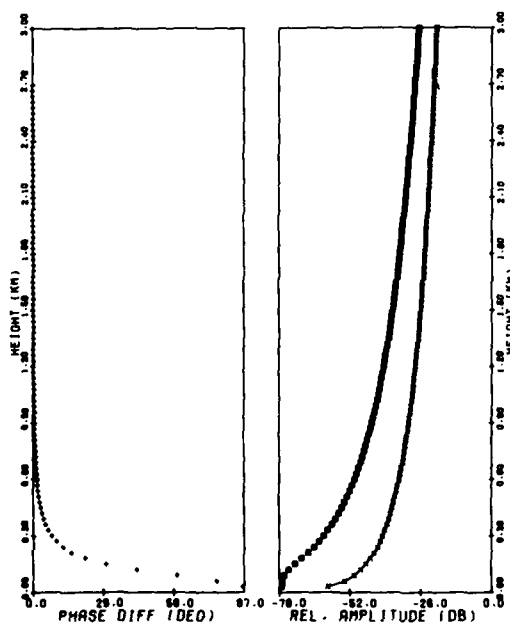


Figure 94. Radial Electric Field
(Fresh Water)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 0.00 m

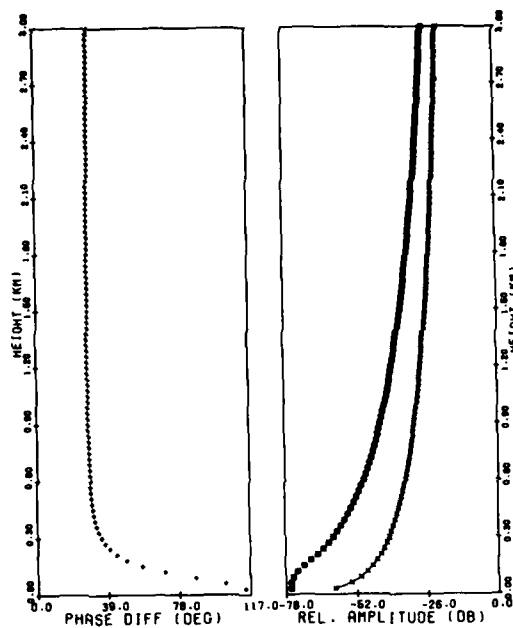


Figure 95. Radial Electric Field
(Fresh Water)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 2.25 m

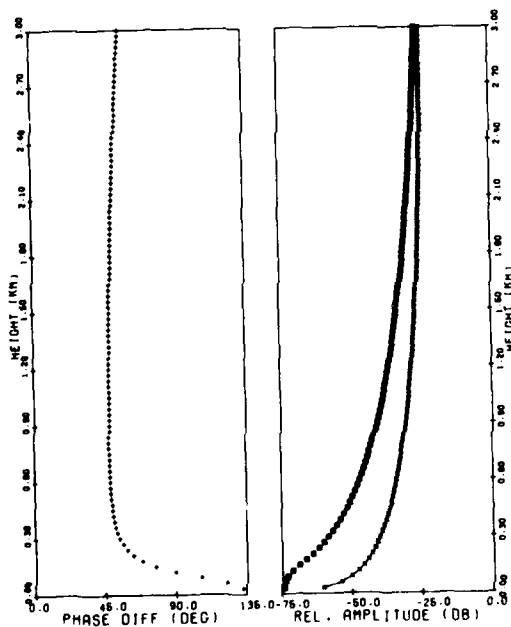


Figure 96. Radial Electric Field
(Fresh Water)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 4.50 m

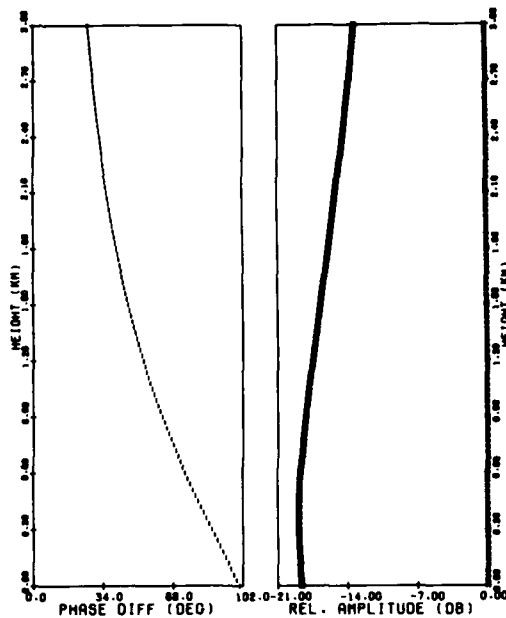


Figure 97. Vertical Electric Field
(Ice)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 0.00 m

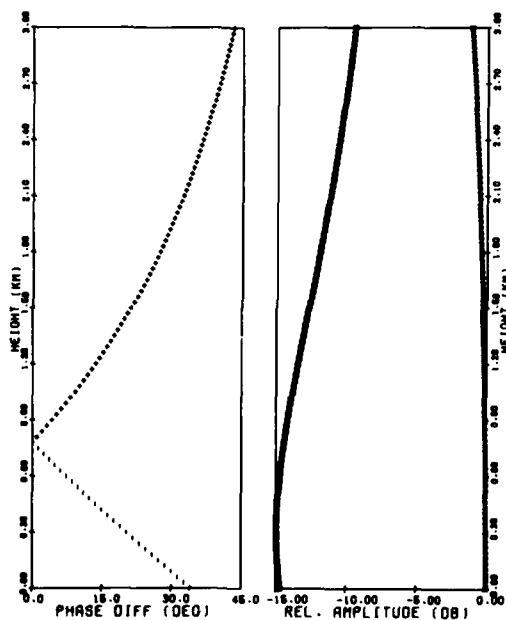


Figure 98. Vertical Electric Field
(Ice)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 2247.60 m

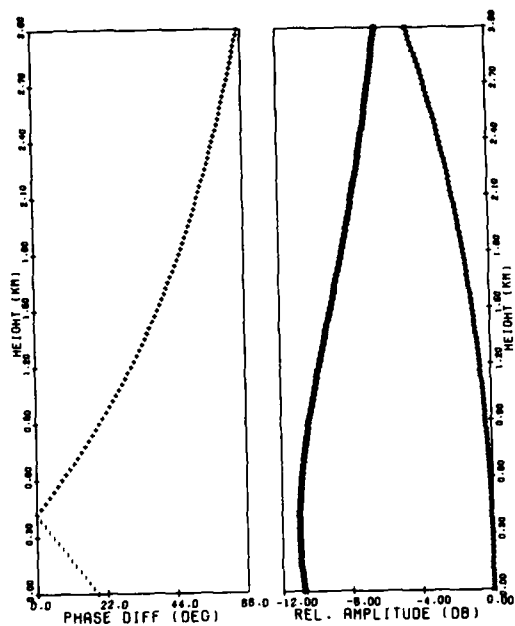


Figure 99. Vertical Electric Field
(Ice)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 4495.20 m

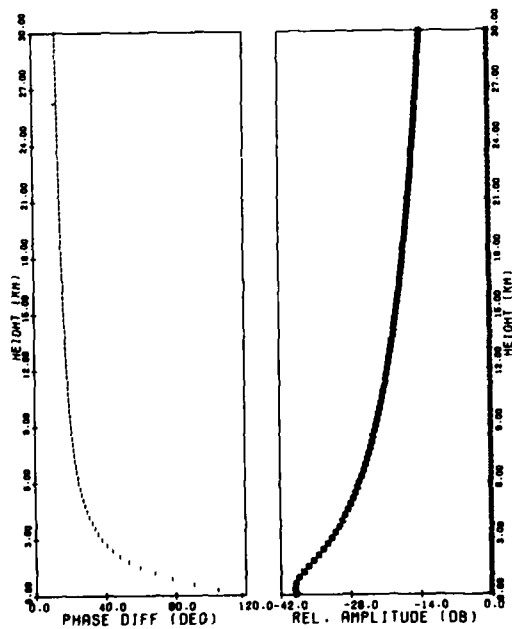


Figure 100. Vertical Electric Field
(Ice)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 0.00 m

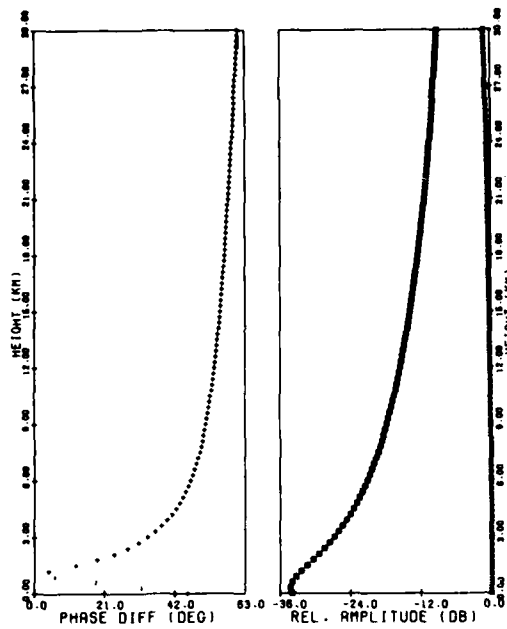


Figure 101. Vertical Electric Field
(Ice)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 2247.60 m

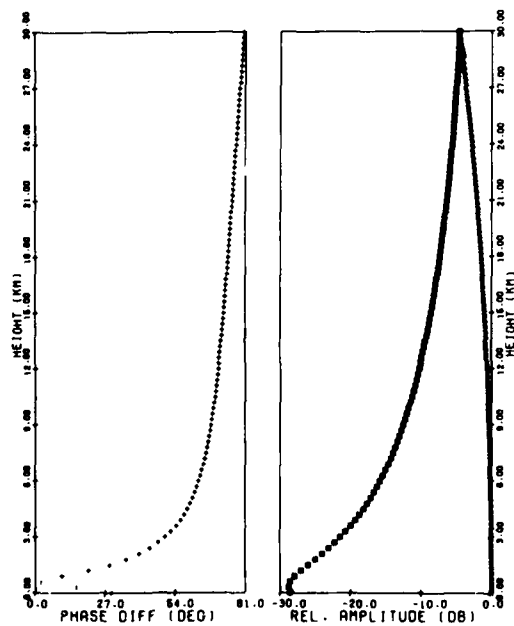


Figure 102. Vertical Electric Field
(Ice)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 4495.20 m

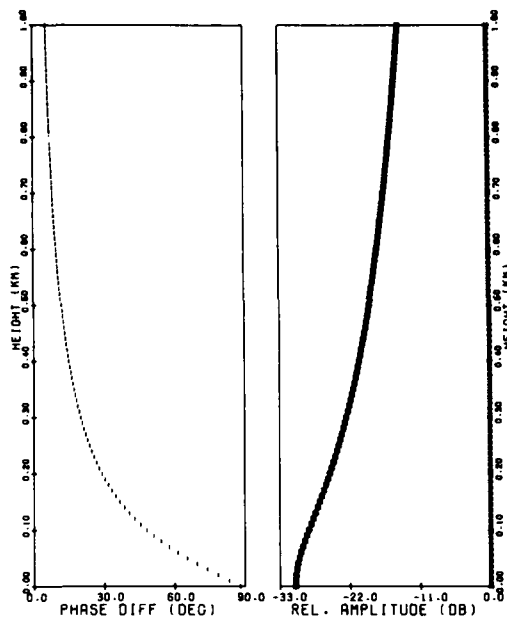


Figure 103. Vertical Electric Field
(Ice)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 0.00 m

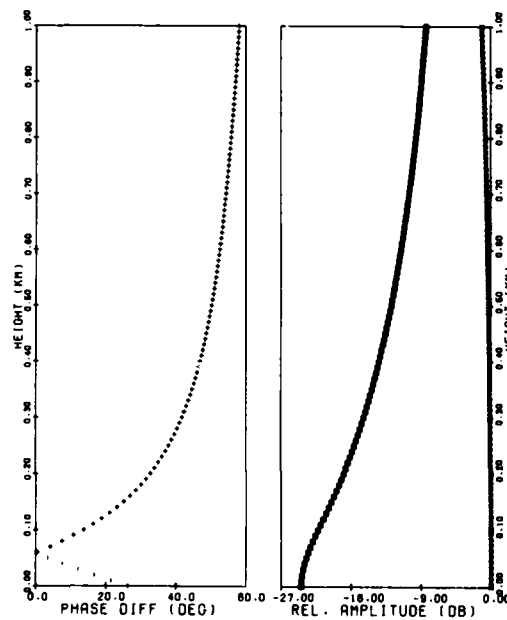


Figure 104. Vertical Electric Field
(Ice)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 224.76 m

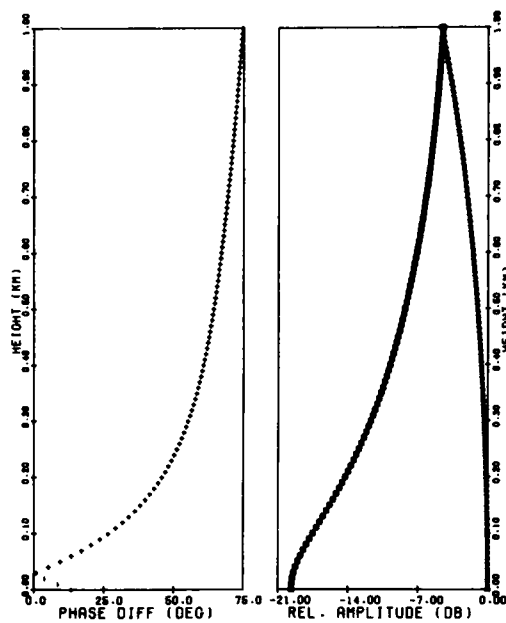


Figure 105. Vertical Electric Field
(Ice)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 449.52 m

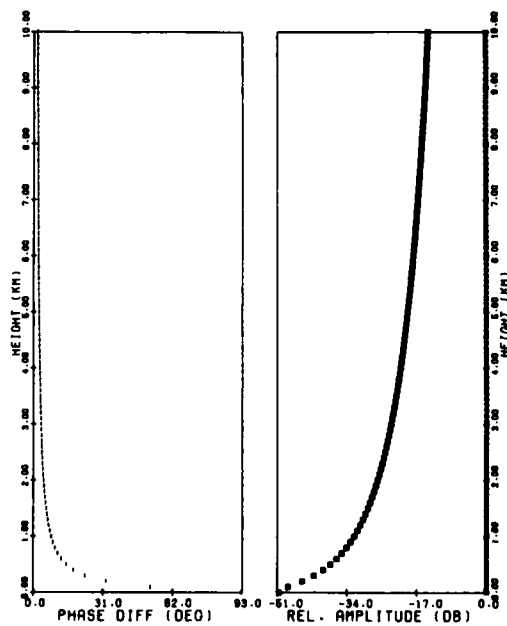


Figure 106. Vertical Electric Field
(Ice)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

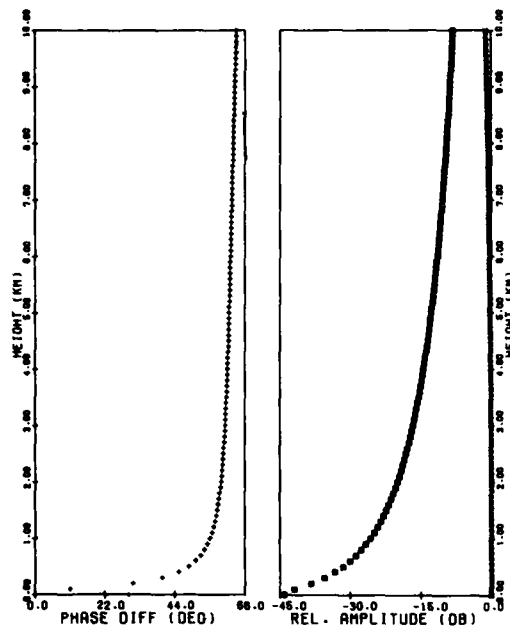


Figure 107. Vertical Electric Field
(Ice)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 224.76 m

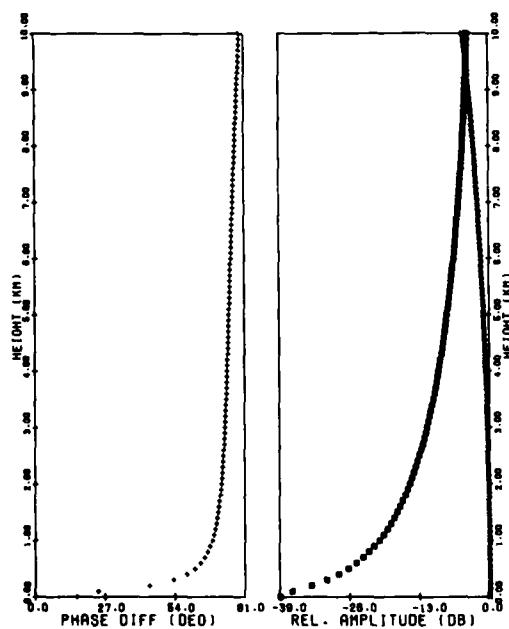


Figure 108. Vertical Electric Field
(Ice)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 449.52 m

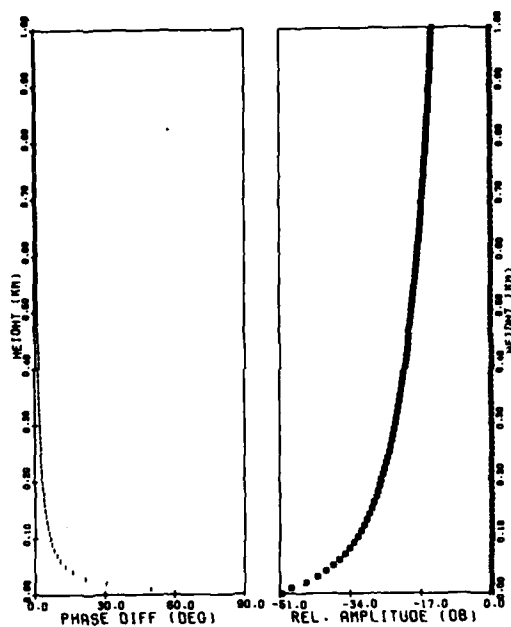


Figure 109. Vertical Electric Field
(ice)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 0.00 m

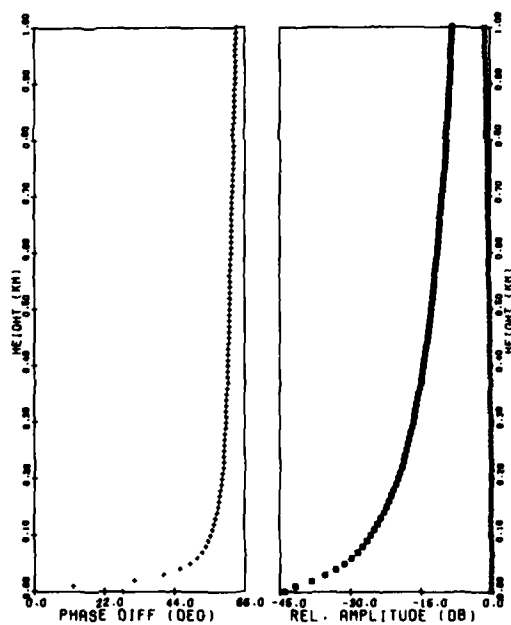


Figure 110. Vertical Electric Field
(ice)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 22.48 m

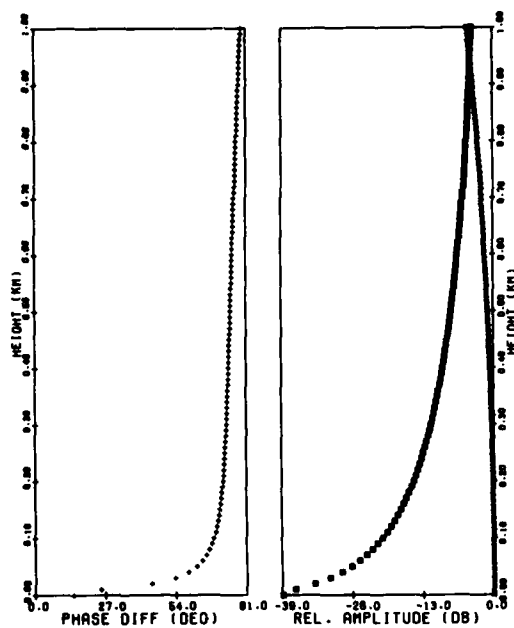


Figure 111. Vertical Electric Field (Ice)
 Freq. = 10.0 MHz, Dist. = 10 km,
 VED Height = 44.95 m

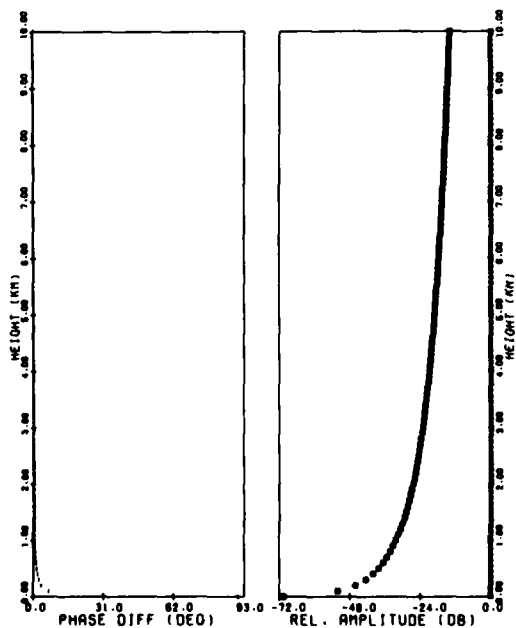


Figure 112. Vertical Electric Field (Ice)
 Freq. = 10.0 MHz, Dist. = 100 km,
 VED Height = 0.00 m

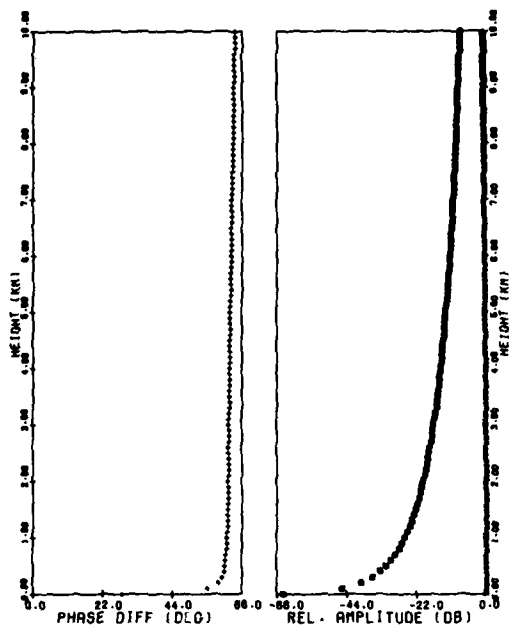


Figure 113. Vertical Electric Field
(Ice)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 22.48 m

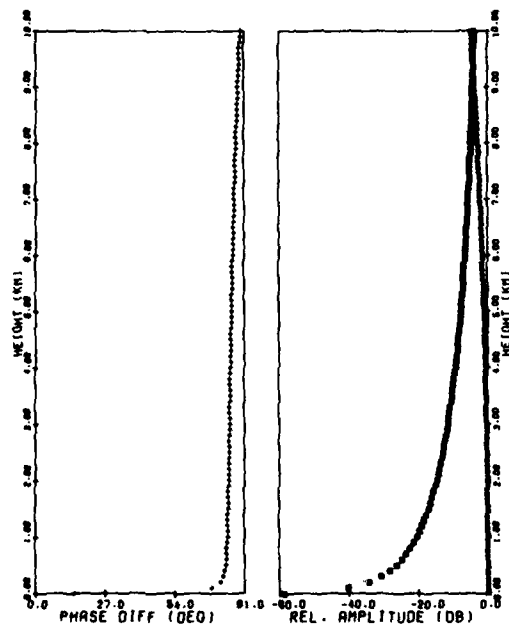


Figure 114. Vertical Electric Field
(Ice)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 44.95 m

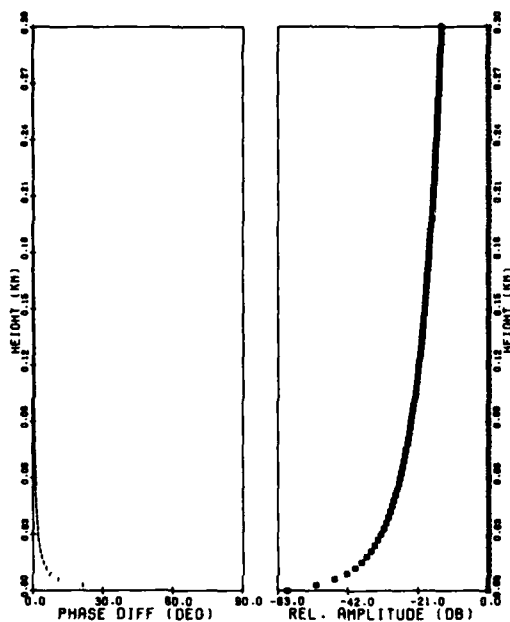


Figure 115. Vertical Electric Field
(Ice)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 0.00 m

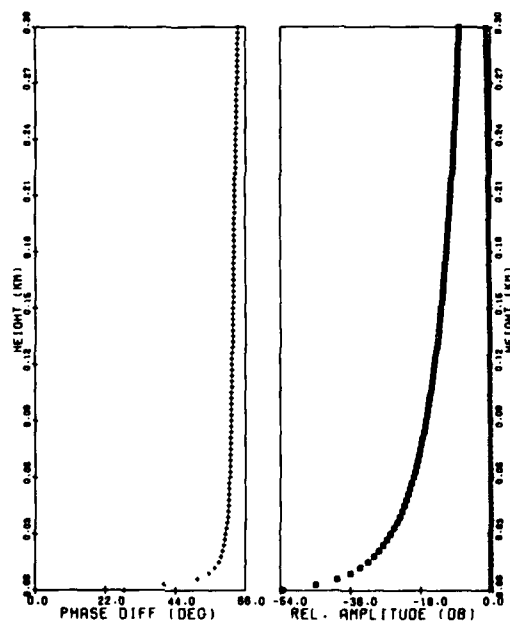


Figure 116. Vertical Electric Field
(Ice)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 2.25 m

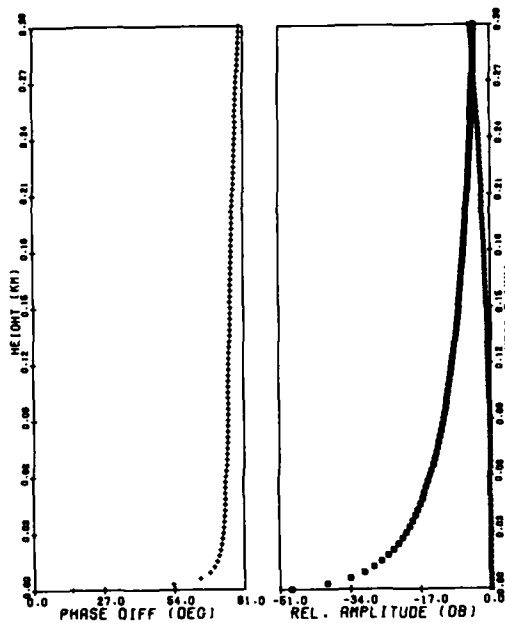


Figure 117. Vertical Electric Field (Ice)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 4.50 m

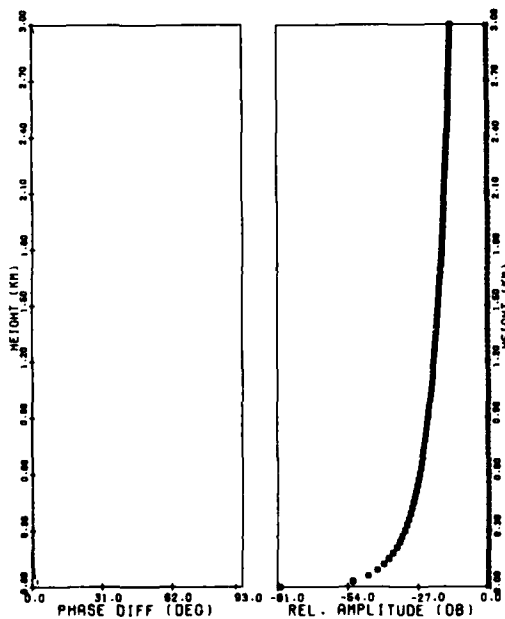


Figure 118. Vertical Electric Field (Ice)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 0.00 m

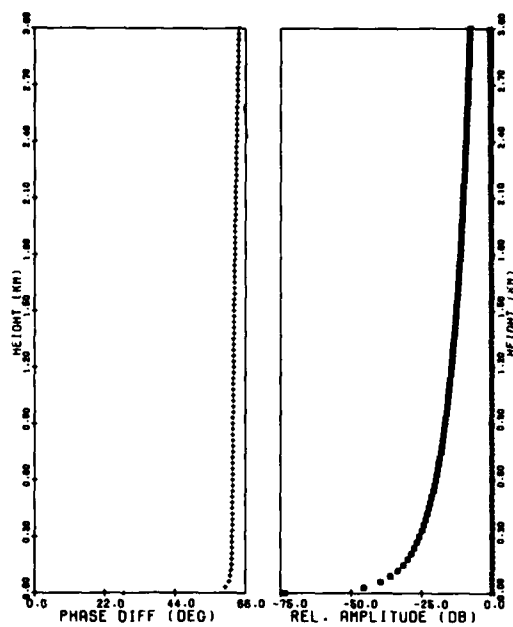


Figure 119. Vertical Electric Field (Ice)
 Freq. = 100.0 MHz, Dist. = 30 km,
 VED Height = 2.25 m

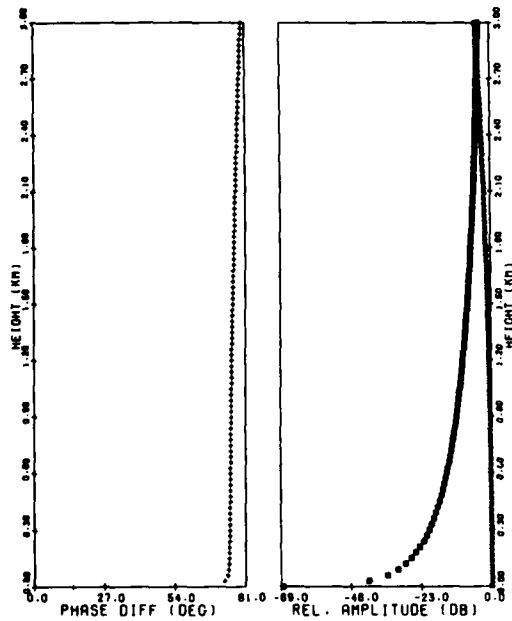


Figure 120. Vertical Electric Field (Ice)
 Freq. = 100.0 MHz, Dist. = 30 km,
 VED Height = 4.50 m

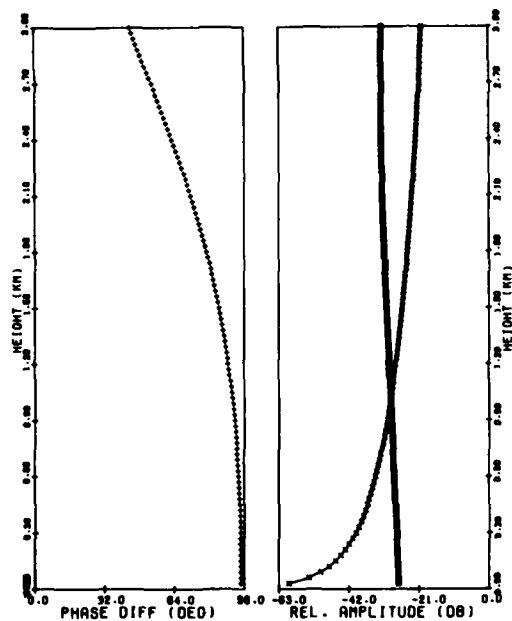


Figure 121. Radial Electric Field
(Ice)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 0.00 m

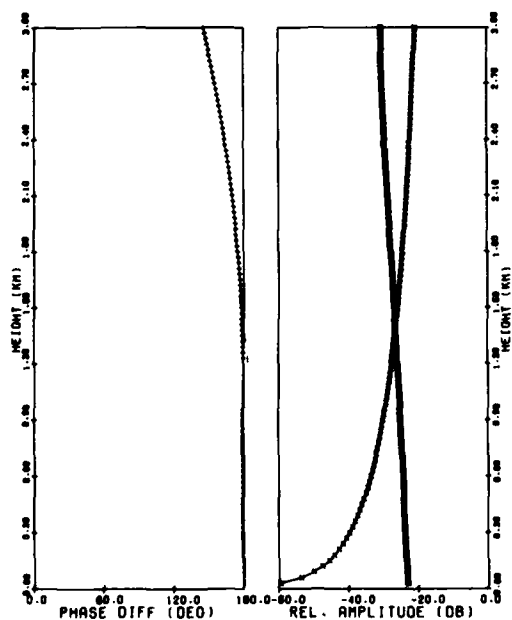


Figure 122. Radial Electric Field
(Ice)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 2247.60 m

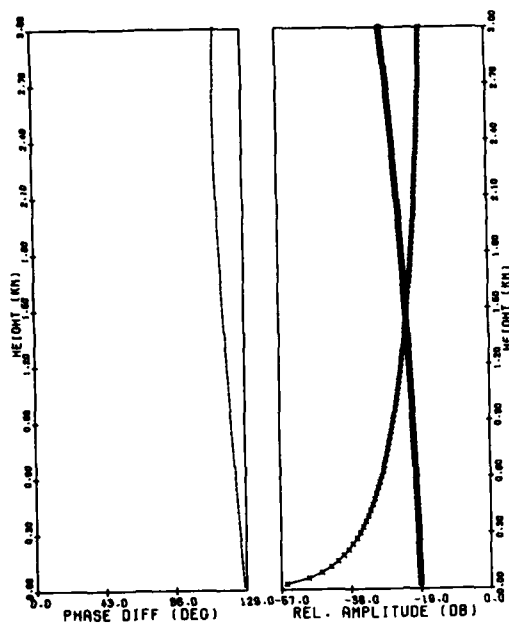


Figure 123. Radial Electric Field (Ice)
 Freq. = 0.1 MHz, Dist. = 30 km,
 VED Height = 4495.20 m

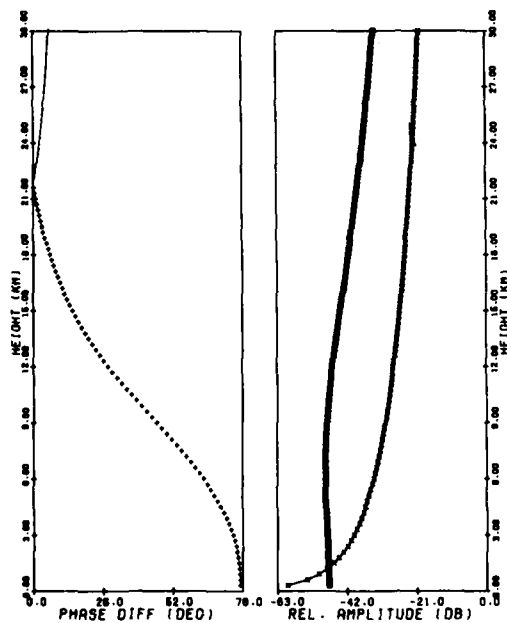


Figure 124. Radial Electric Field (Ice)
 Freq. = 0.1 MHz, Dist. = 300 km,
 VED Height = 0.00 m

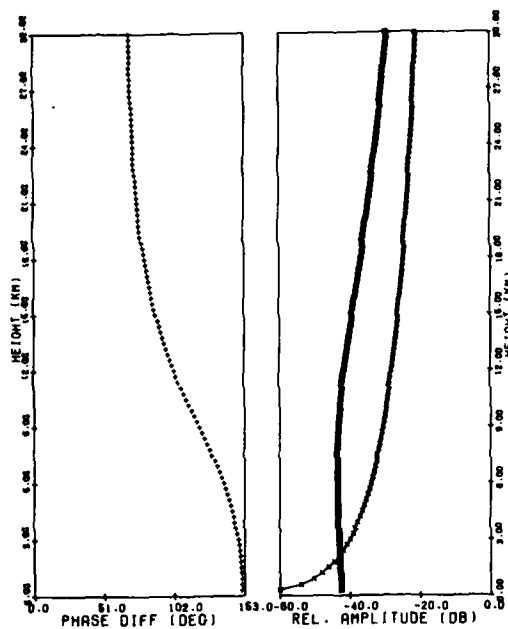


Figure 125. Radial Electric Field (Ice)
 Freq. = 0.1 MHz, Dist. = 300 km,
 VED Height = 2247.60 m

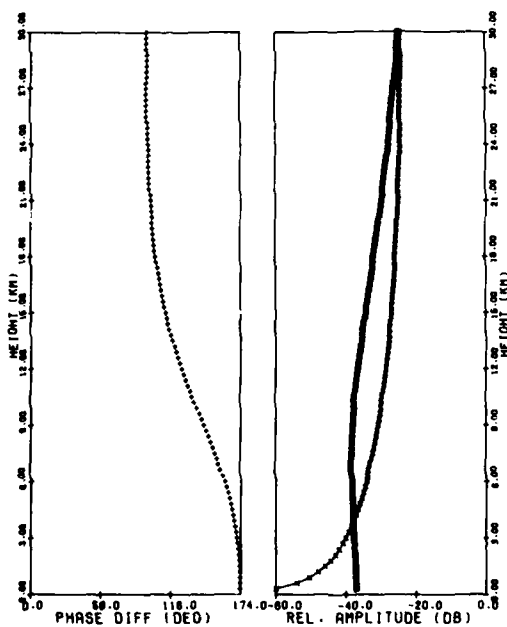


Figure 126. Radial Electric Field (Ice)
 Freq. = 0.1 MHz, Dist. = 300 km,
 VED Height = 4495.20 m

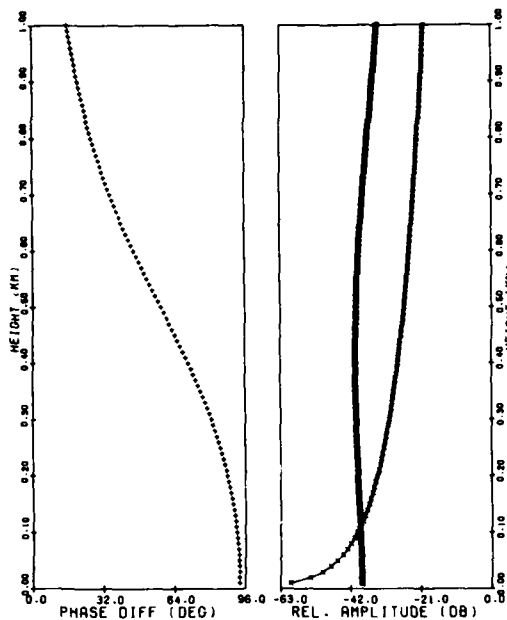


Figure 127. Radial Electric Field (Ice)
 Freq. = 1.0 MHz, Dist. = 10 km,
 VED Height = 0.00 m

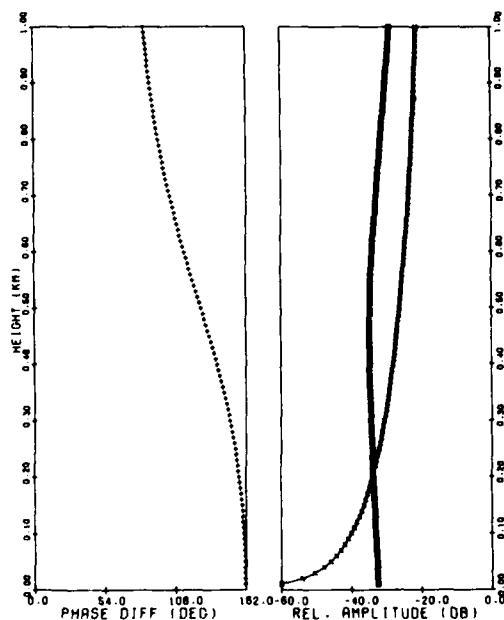


Figure 128. Radial Electric Field (Ice)
 Freq. = 1.0 MHz, Dist. = 10 km,
 VED Height = 224.76 m

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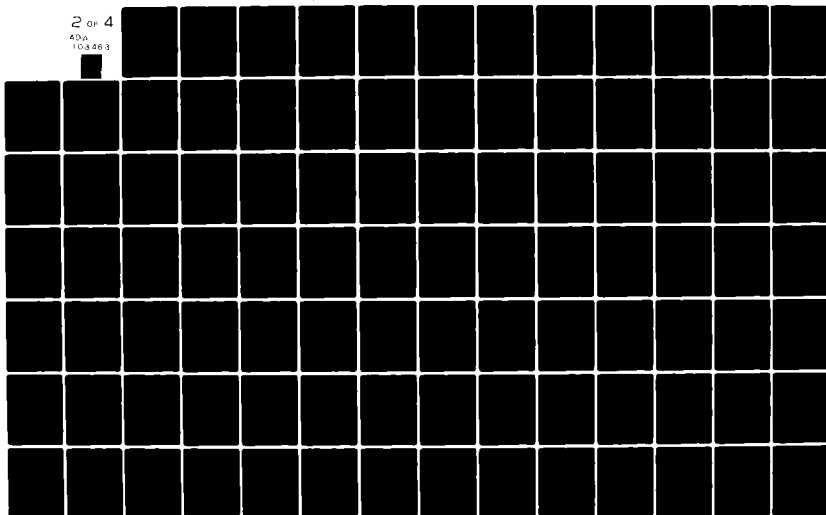
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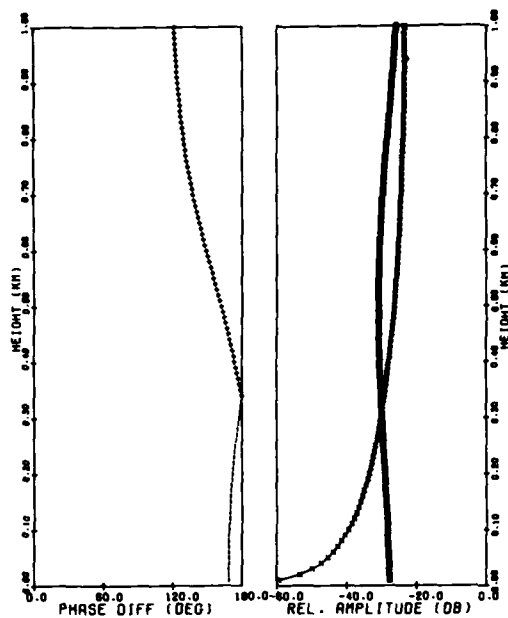


Figure 129. Radial Electric Field
(Ice)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 449.52 m

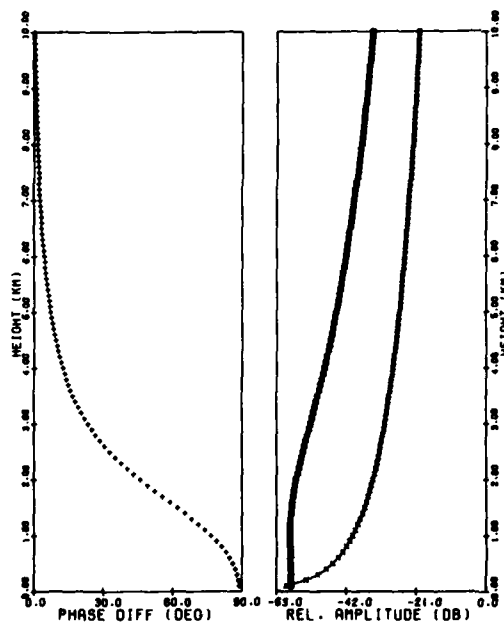


Figure 130. Radial Electric Field
(Ice)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

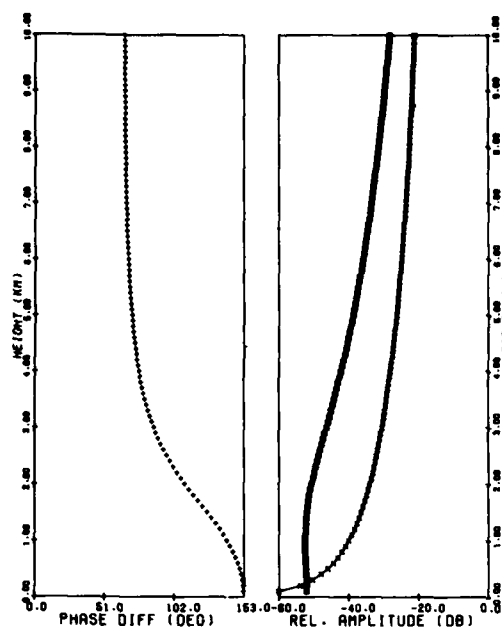


Figure 131. Radial Electric Field (Ice)
 Freq. = 1.0 MHz, Dist. = 100 km,
 VED Height = 224.76 m

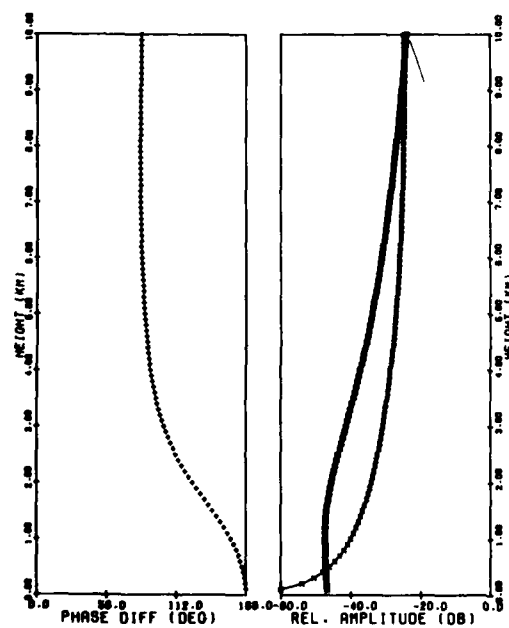


Figure 132. Radial Electric Field (Ice)
 Freq. = 1.0 MHz, Dist. = 100 km,
 VED Height = 449.52 m

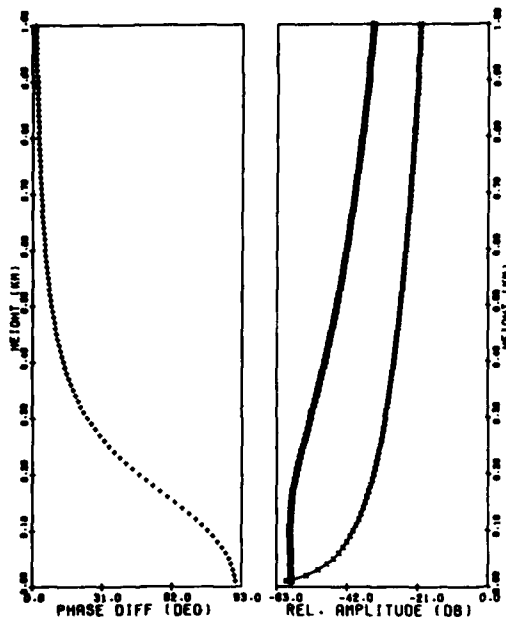


Figure 133. Radial Electric Field (Ice)
 Freq. = 10.0 MHz, Dist. = 10 km,
 VED Height = 0.00 m

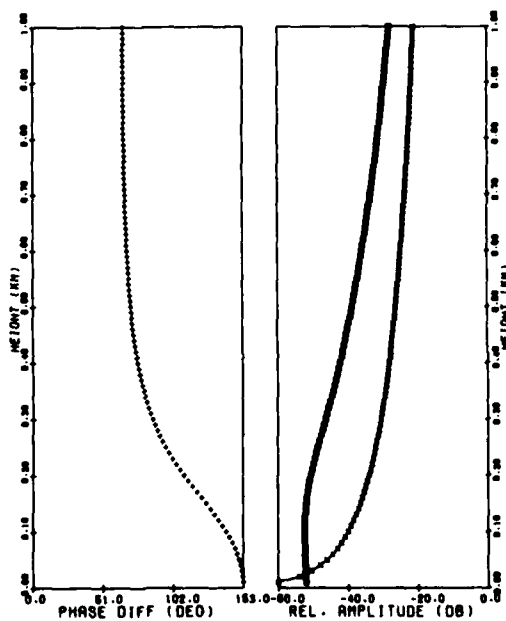


Figure 134. Radial Electric Field (Ice)
 Freq. = 10.0 MHz, Dist. = 10 km,
 VED Height = 22.48 m

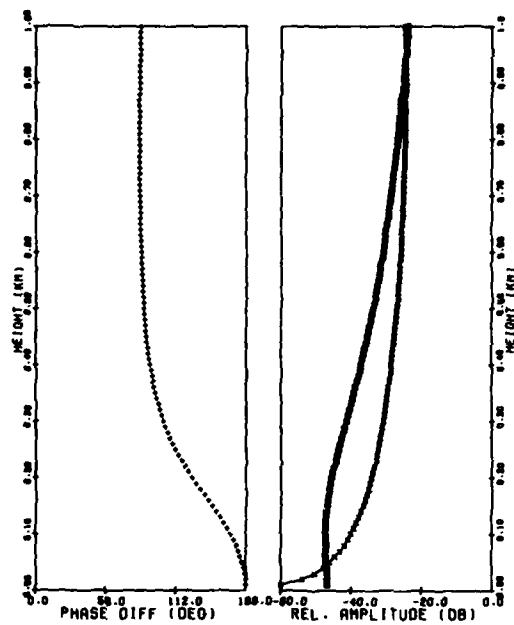


Figure 135. Radial Electric Field
(Ice)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 44.95 m

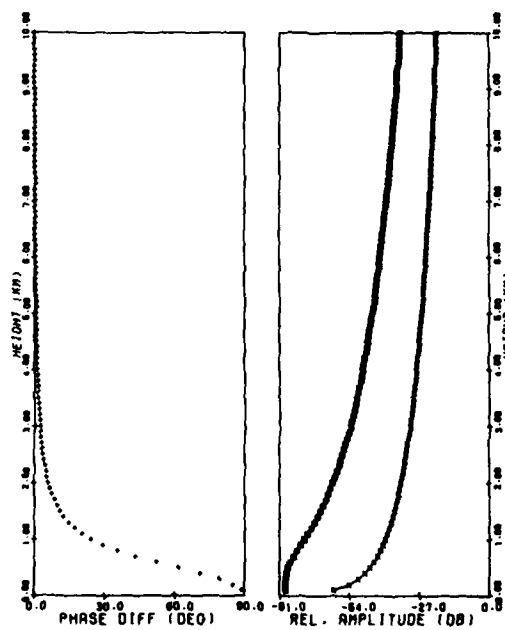


Figure 136. Radial Electric Field
(Ice)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

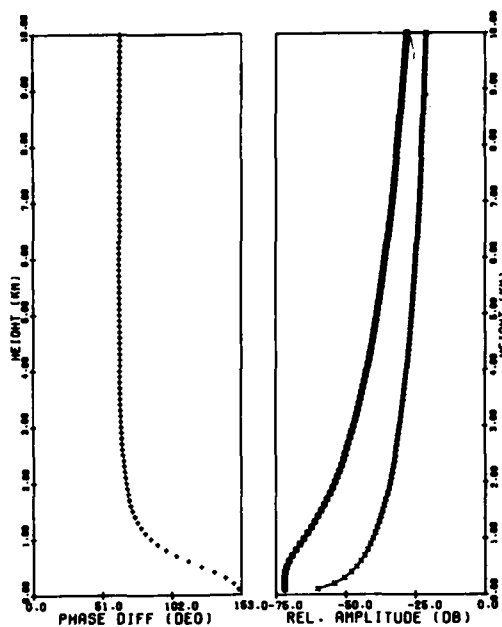


Figure 137. Radial Electric Field
(Ice)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 22.48 m

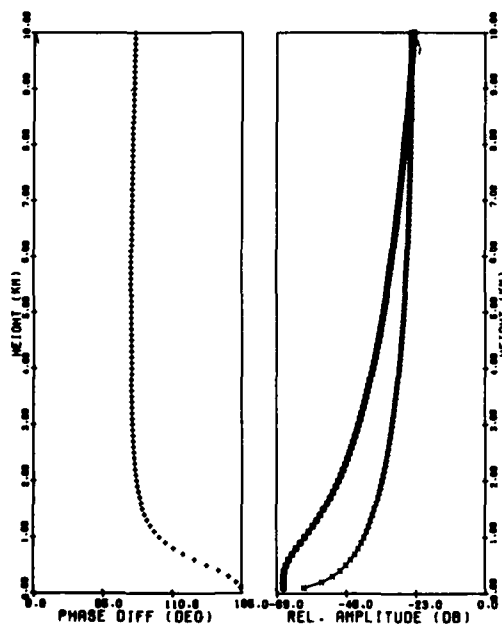


Figure 138. Radial Electric Field
(Ice)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 44.95 m

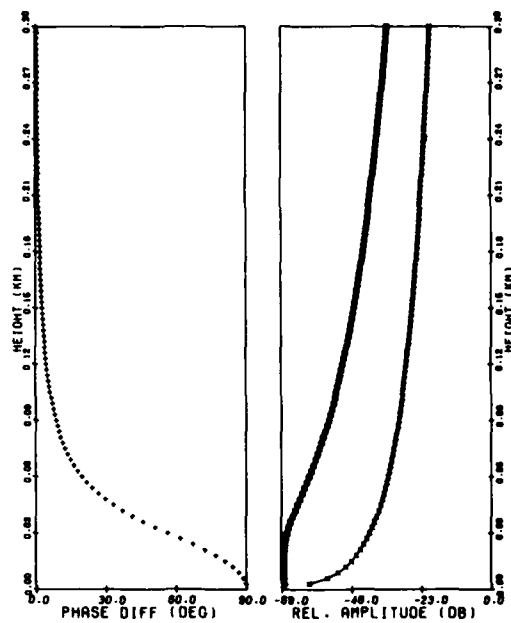


Figure 139. Radial Electric Field (Ice)
 Freq. = 100.0 MHz, Dist. = 3 km,
 VED Height = 0.00 m

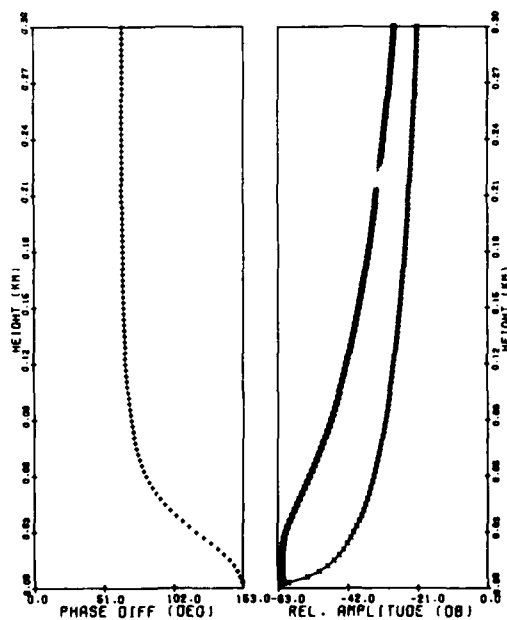


Figure 140. Radial Electric Field (Ice)
 Freq. = 100.0 MHz, Dist. = 3 km,
 VED Height = 2.25 m

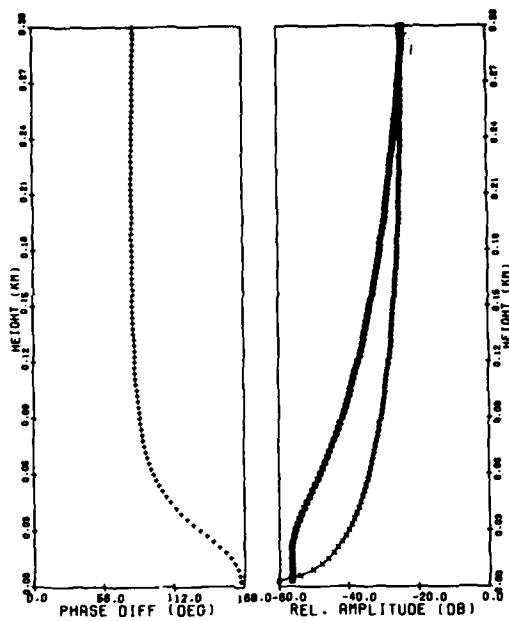


Figure 141. Radial Electric Field
(Ice)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 4.50 m

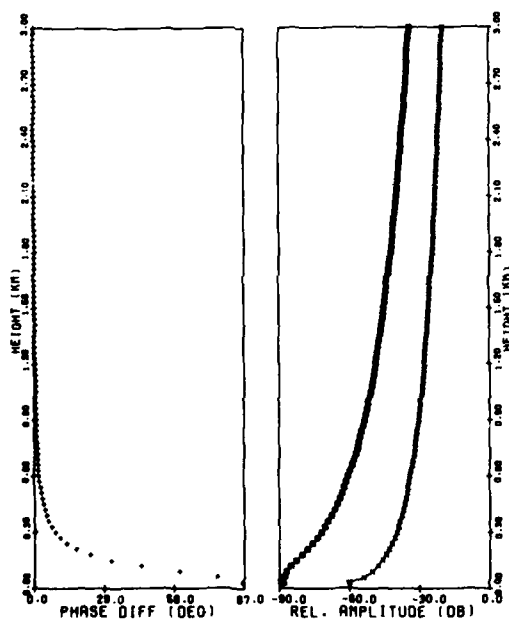


Figure 142. Radial Electric Field
(Ice)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 0.00 m

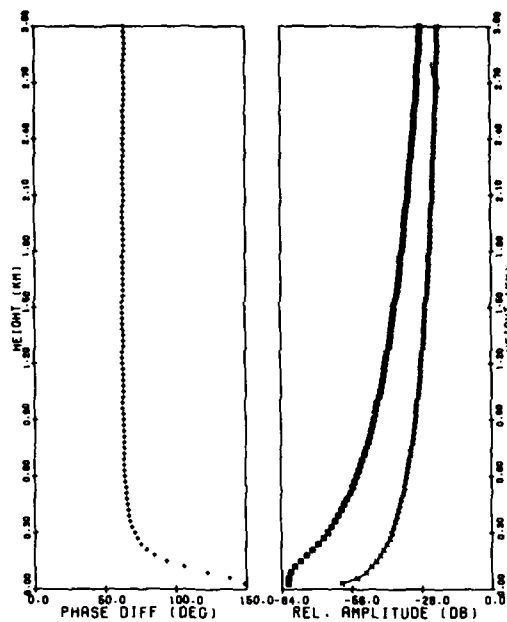


Figure 143. Radial Electric Field
(Ice)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 2.25 m

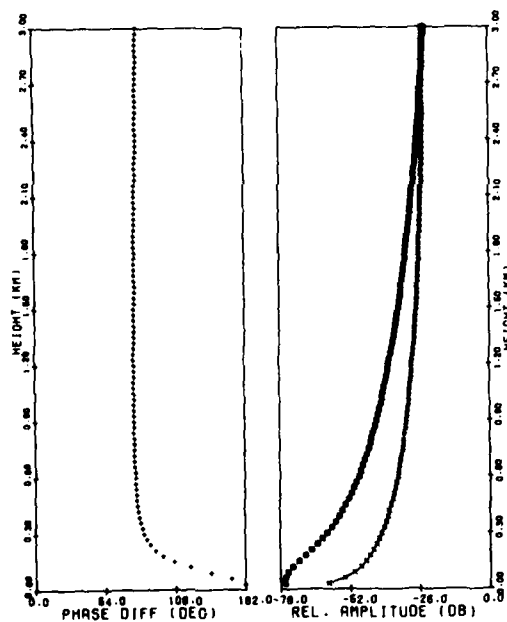


Figure 144. Radial Electric Field
(Ice)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 4.50 m

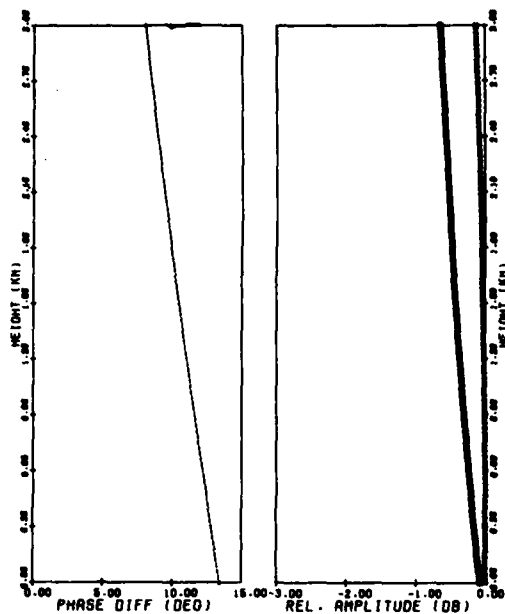


Figure 145. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 0.00 m

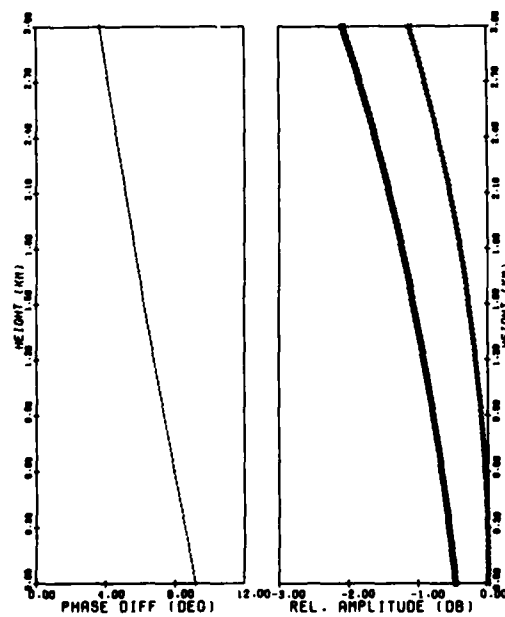


Figure 146. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 2247.60 m

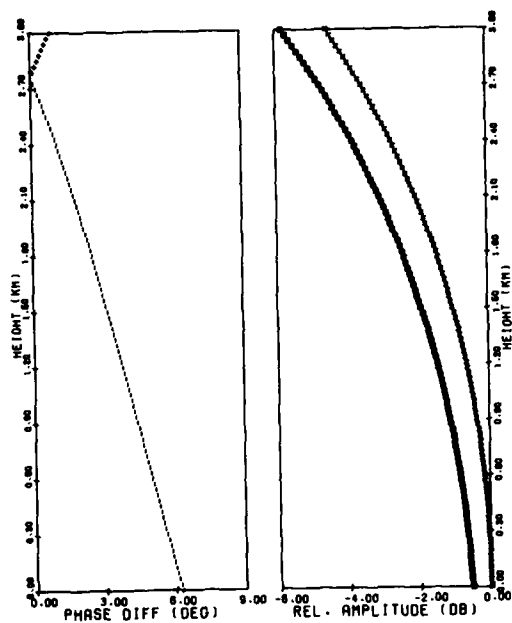


Figure 147. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 4495.20 m

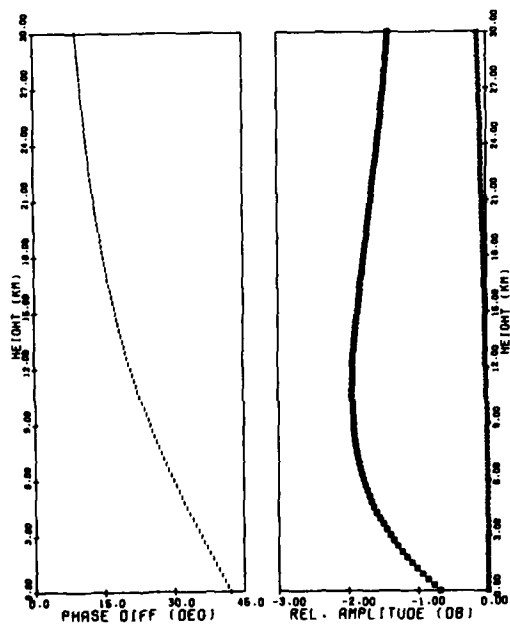


Figure 148. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 0.00 m

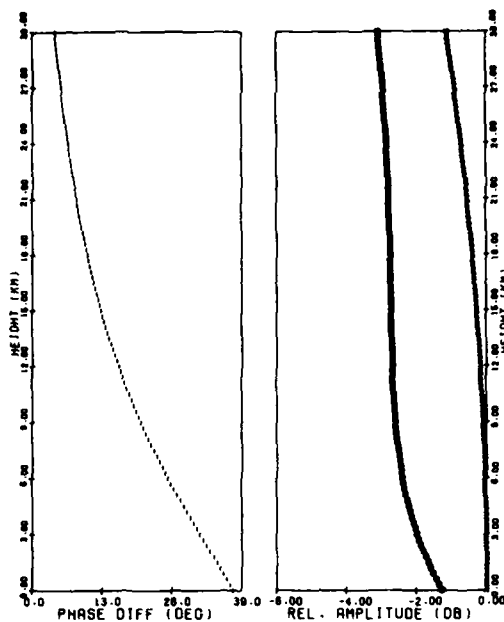


Figure 149. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 2247.60 m

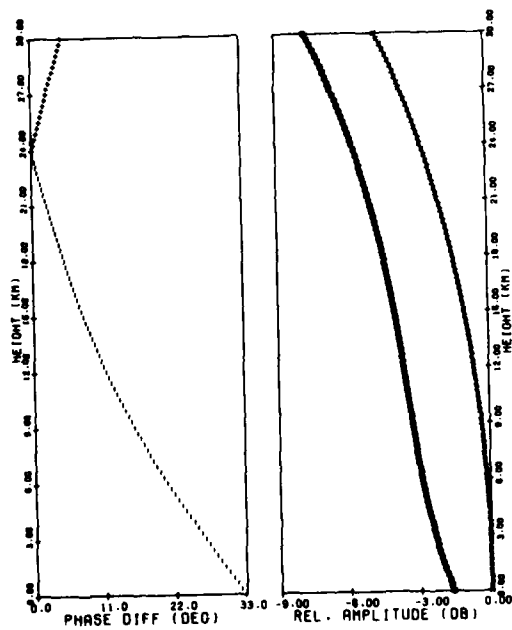


Figure 150. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 4495.20 m

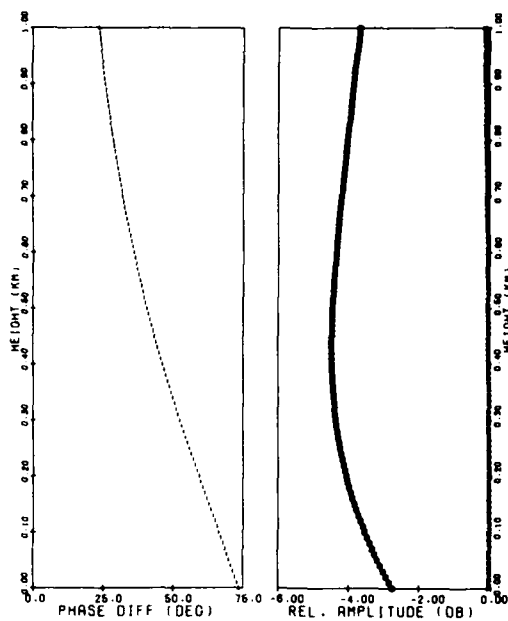


Figure 151. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 0.00 m

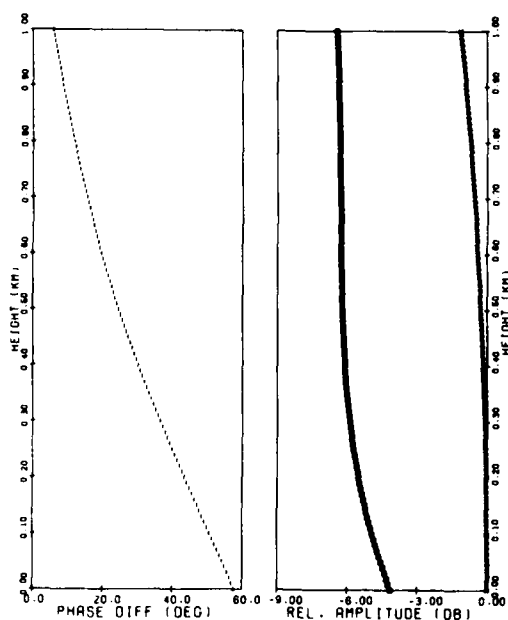


Figure 152. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 224.76 m

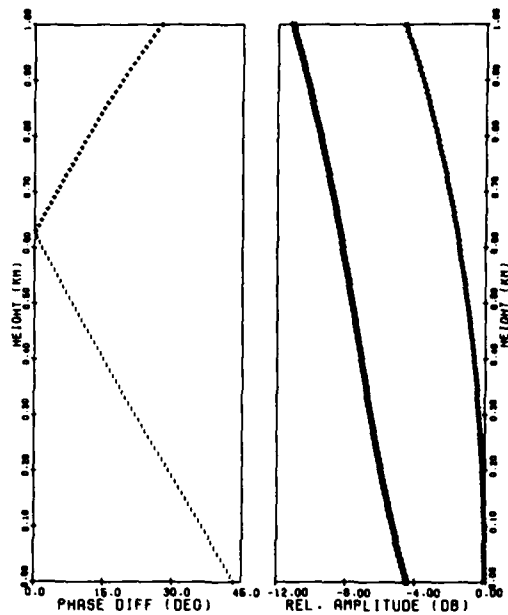


Figure 153. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 449.52 m

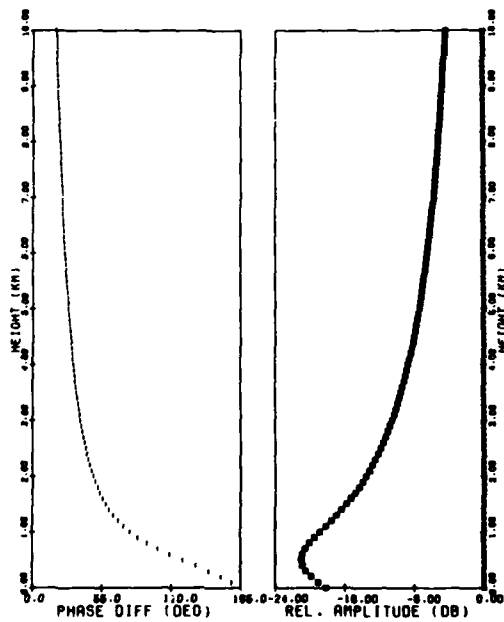


Figure 154. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

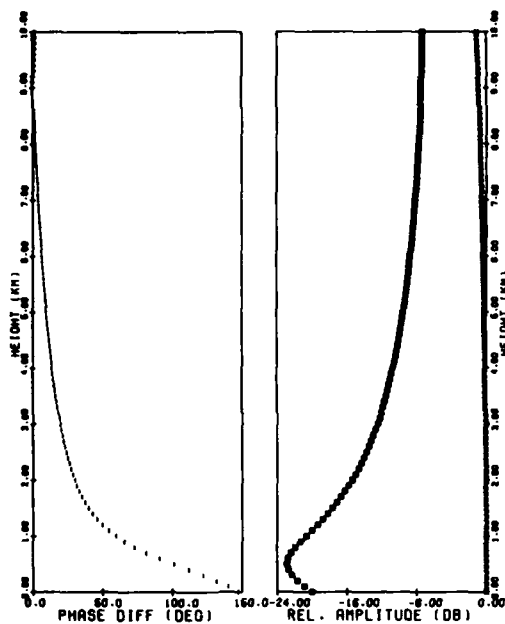


Figure 155. Vertical Electric Field
(Well- Conducting Soil)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 224.76 m

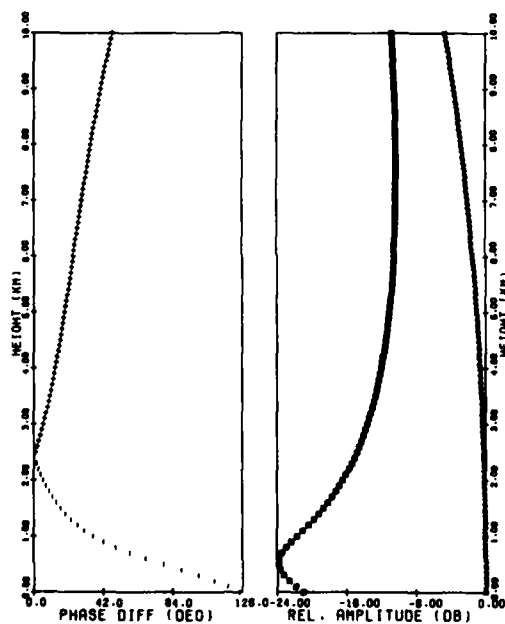


Figure 156. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 449.52 m

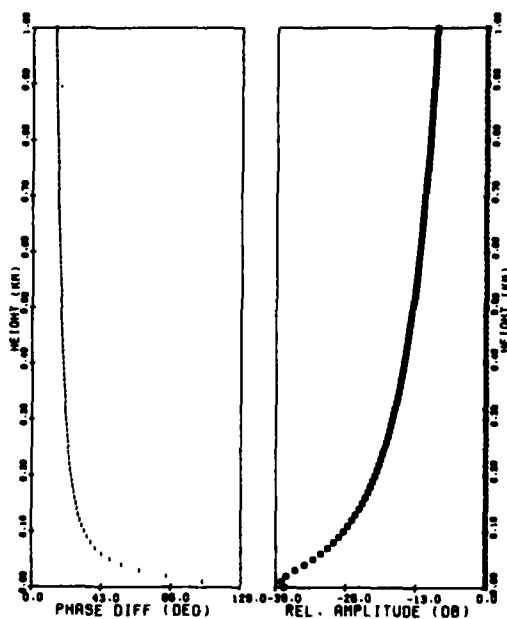


Figure 157. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 10.0 MHz, Dist. = 10km,
VED Height = 0.00 m

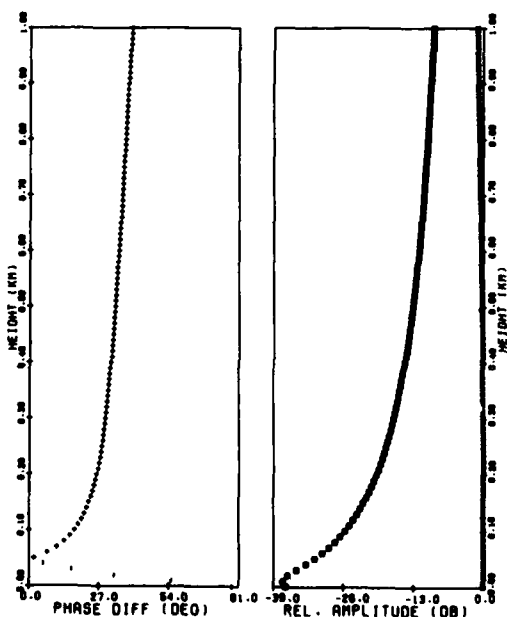


Figure 158. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 22.48 m

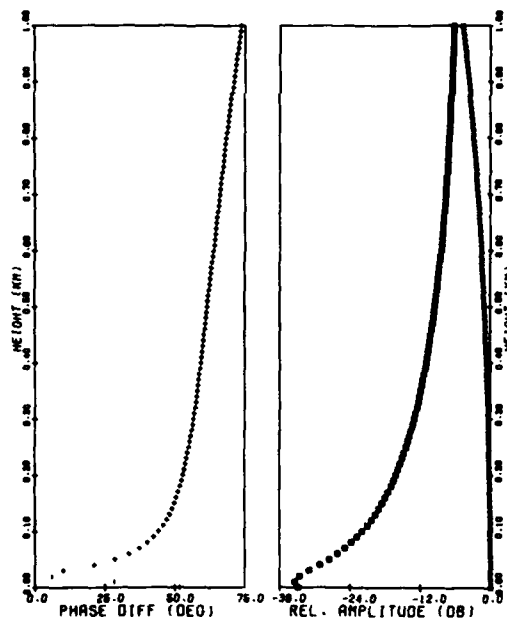


Figure 159. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 44.95 m

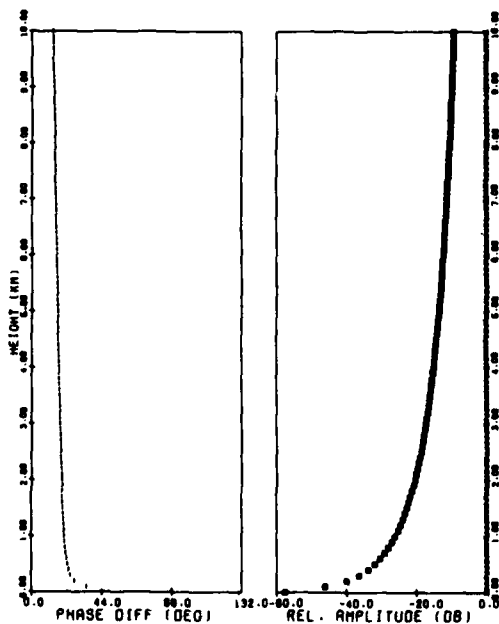


Figure 160. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

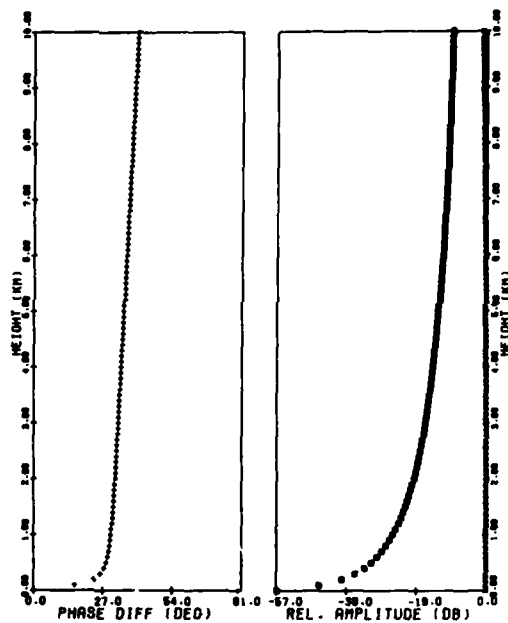


Figure 161. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 22.48 m

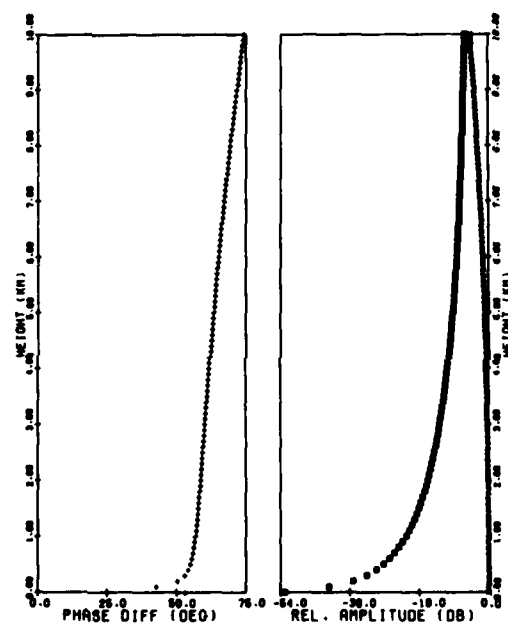


Figure 162. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 44.95 m

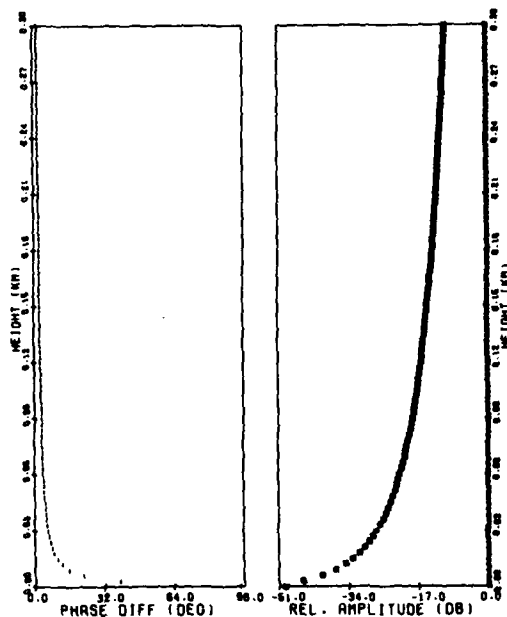


Figure 163. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 0.00 m

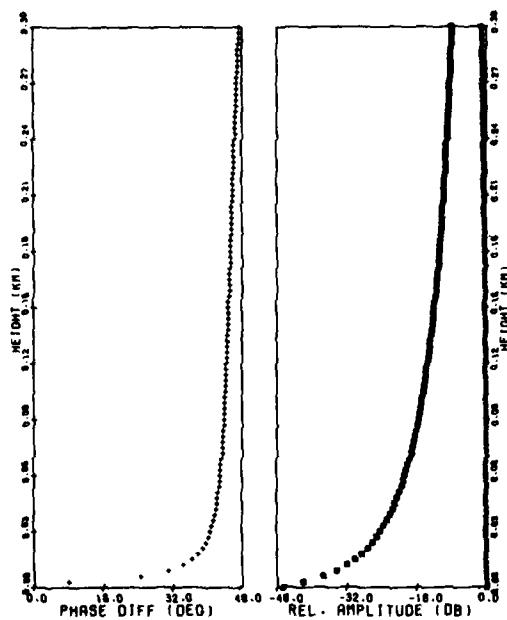


Figure 164. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 2.25 m

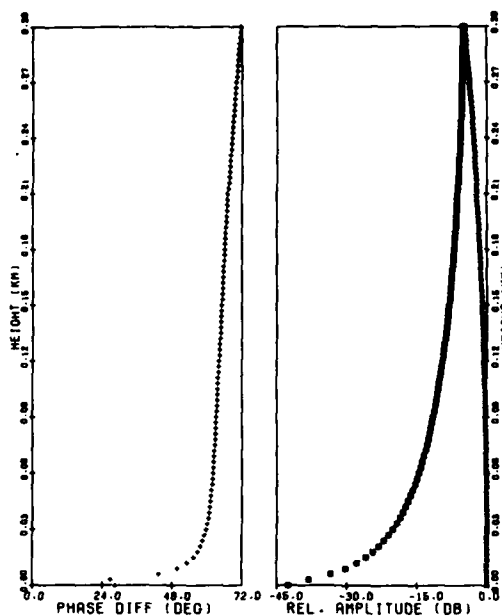


Figure 165. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 4.50 m

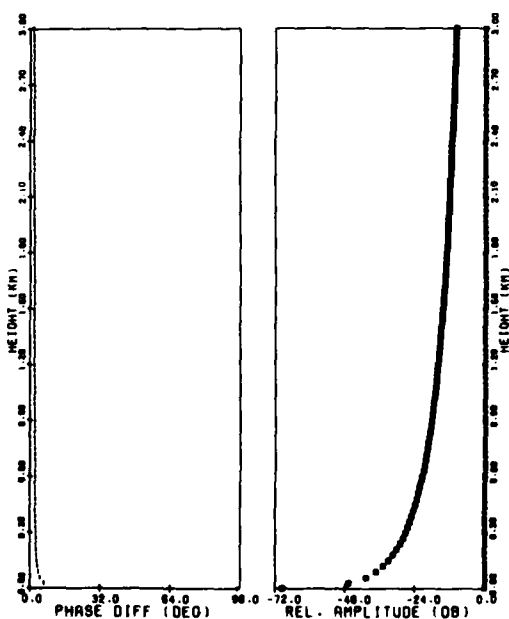


Figure 166. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 0.00 m

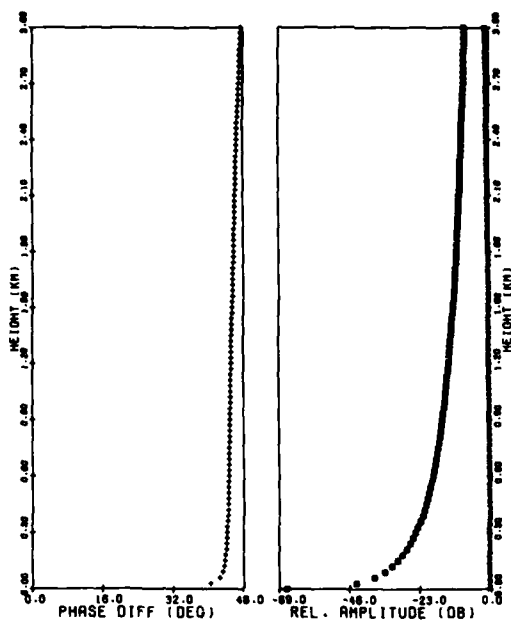


Figure 167. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 2.25 m

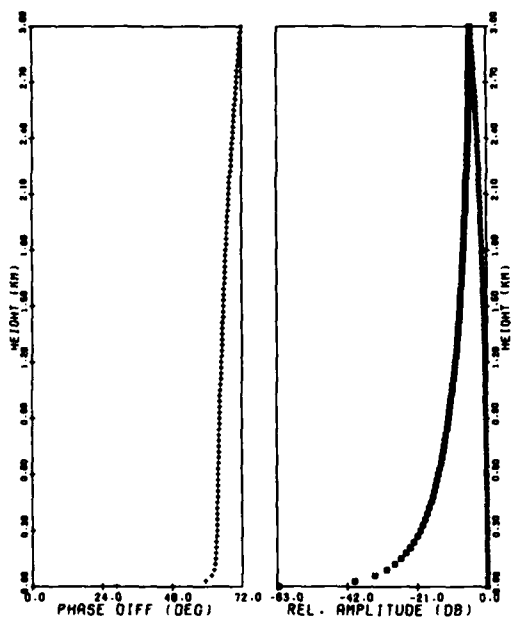


Figure 168. Vertical Electric Field
(Well-Conducting Soil)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 4.50 m

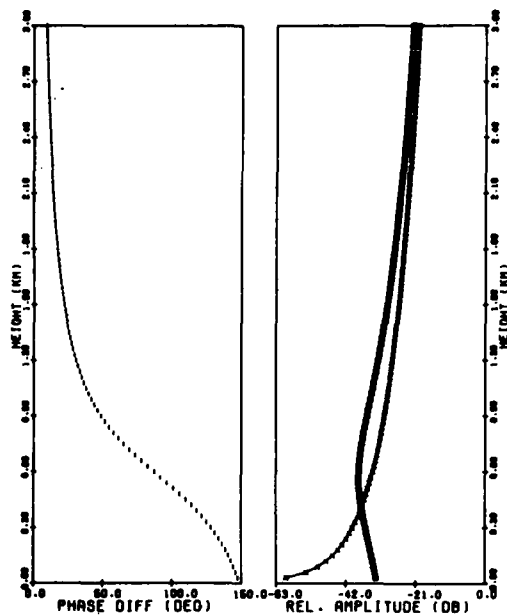


Figure 169. Radial Electric Field
(Well-Conducting Soil)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 0.00 m

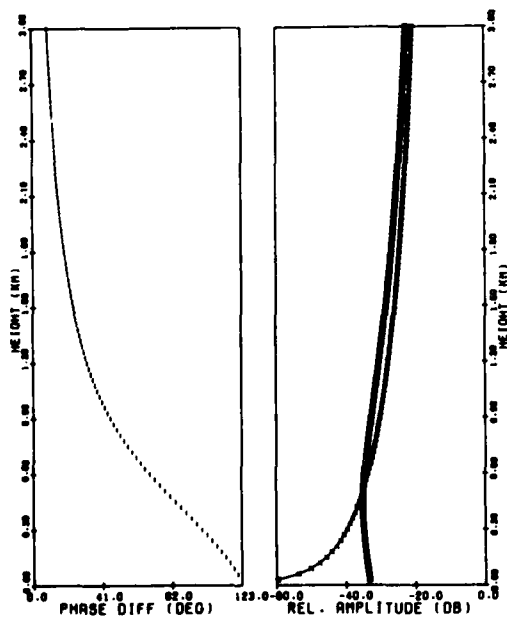


Figure 170. Radial Electric Field
(Well-Conducting Soil)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 2247.60 m

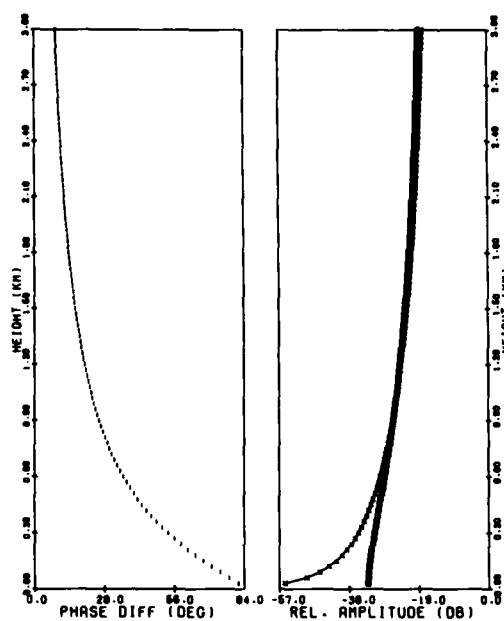


Figure 171. Radial Electric Field
(Well-Conducting Soil)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 4495.20 m

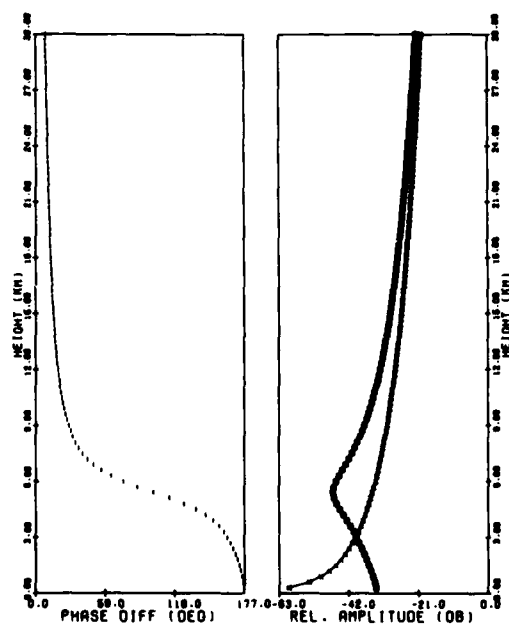


Figure 172. Radial Electric Field
(Well-Conducting Soil)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 0.00 m

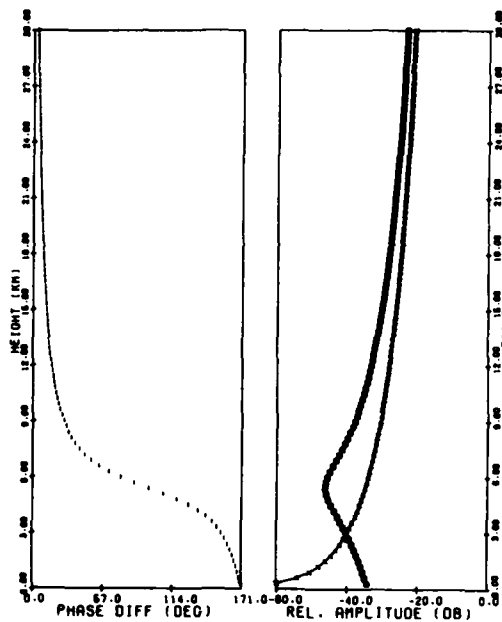


Figure 173. Radial Electric Field
(Well-Conducting Soil)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 2247.60 m

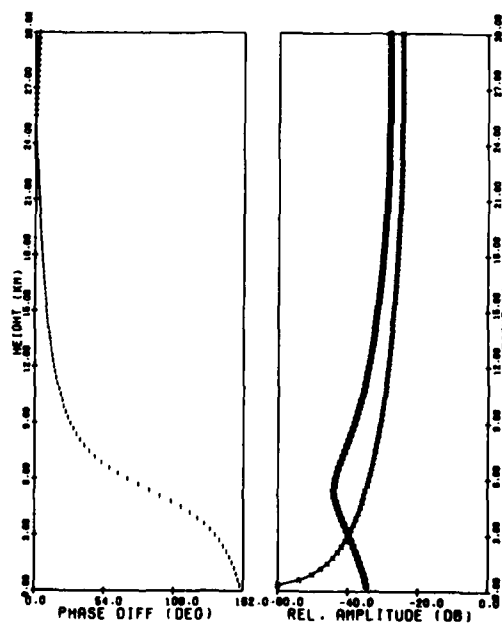


Figure 174. Radial Electric Field
(Well-Conducting Soil)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 4495.20 m

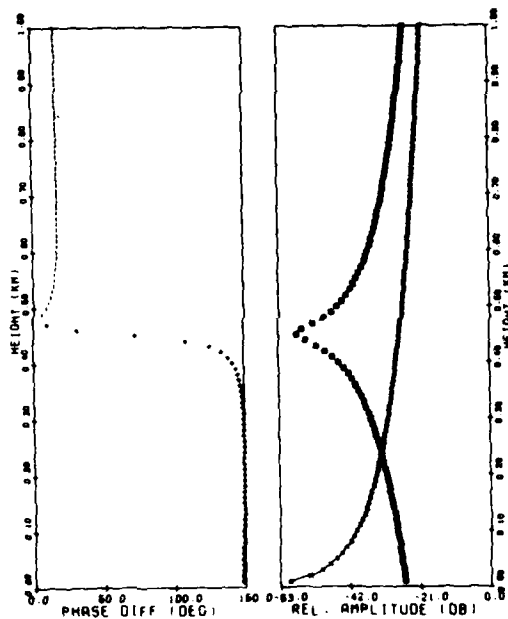


Figure 175. Radial Electric Field
(Well- Conducting Soil)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 0.00 m

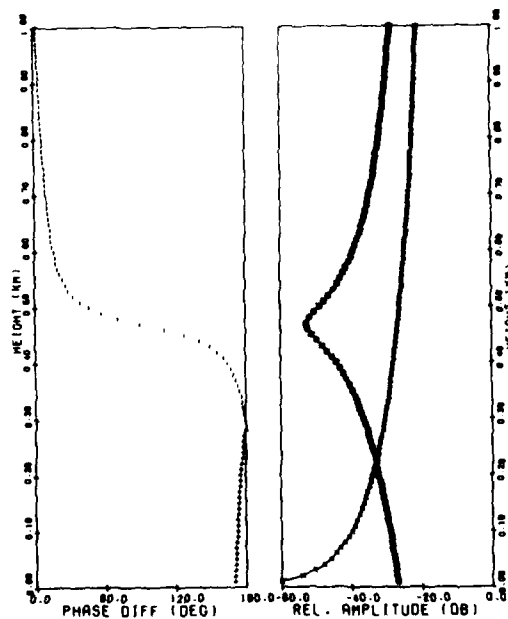


Figure 176. Radial Electric Field
(Well-Conducting Soil)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 224.76 m

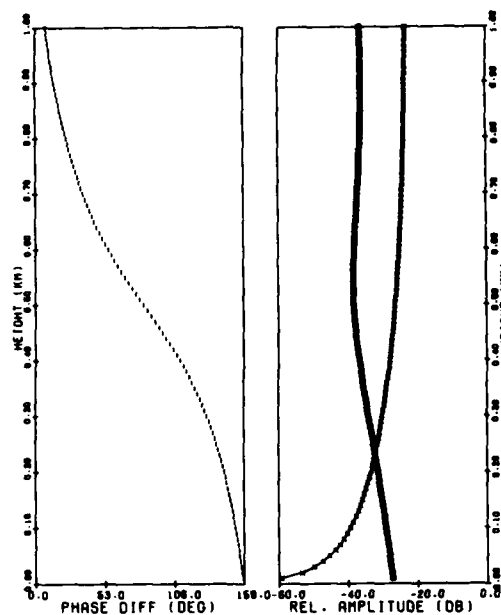


Figure 177. Radial Electric Field
(Well-Conducting Soil)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 449.52 m

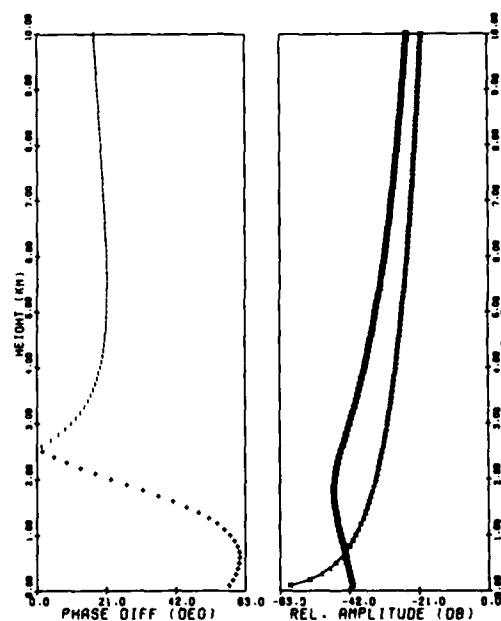


Figure 178. Radial Electric Field
(Well-Conducting Soil)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

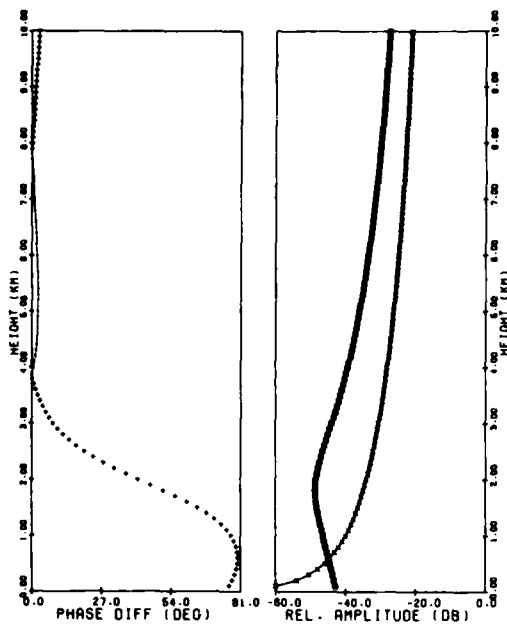


Figure 179. Radial Electric Field
(Well-Conducting Soil)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 224.76 m

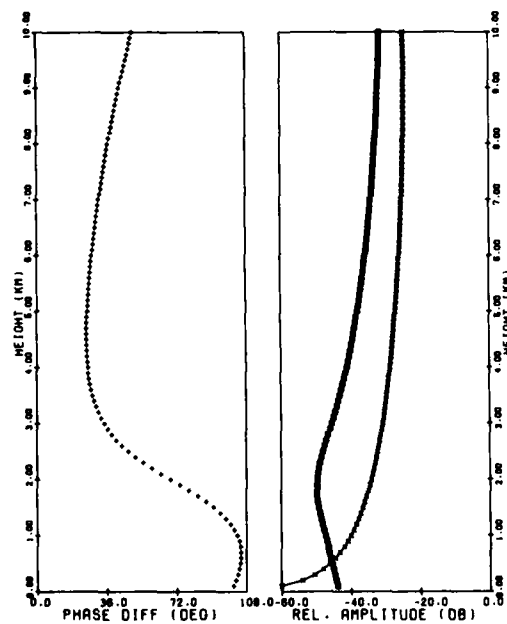


Figure 180. Radial Electric Field
(Well-Conducting Soil)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 449.52 m

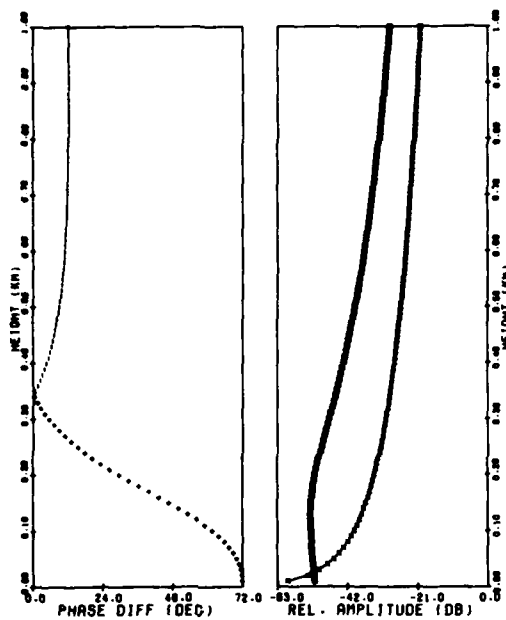


Figure 181. Radial Electric Field
(Well-Conducting Soil)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 0.00 m

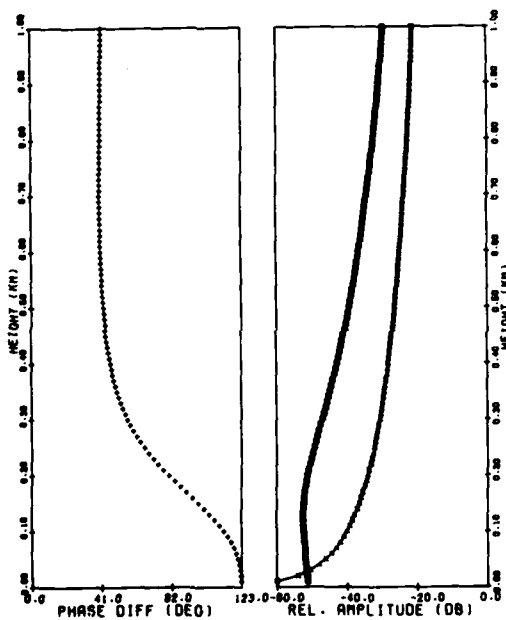


Figure 182. Radial Electric Field
(Well-Conducting Soil)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 22.48 m

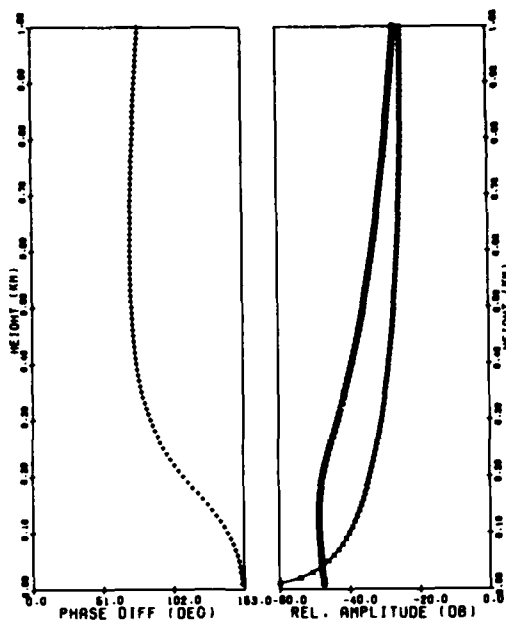


Figure 183. Radial Electric Field
(Well-Conducting Soil)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 44.95 m

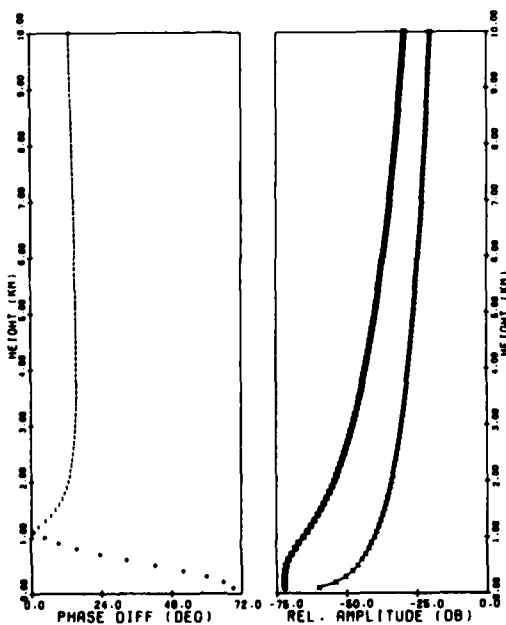


Figure 184. Radial Electric Field
(Well-Conducting Soil)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

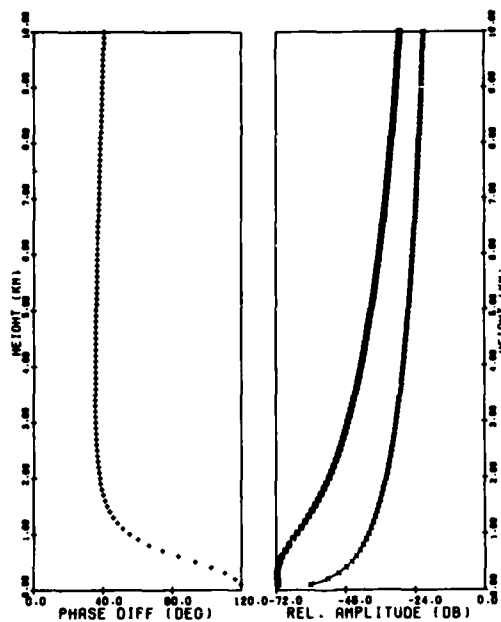


Figure 185. Radial Electric Field
(Well-Conducting Soil)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 22.48 m

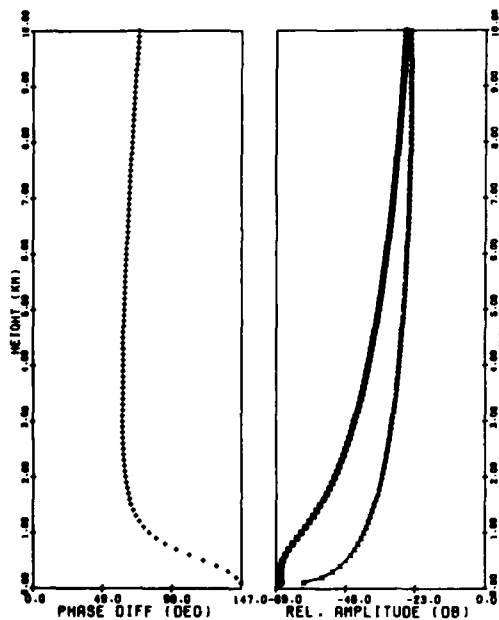


Figure 186. Radial Electric Field
(Well-Conducting Soil)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 44.95 m

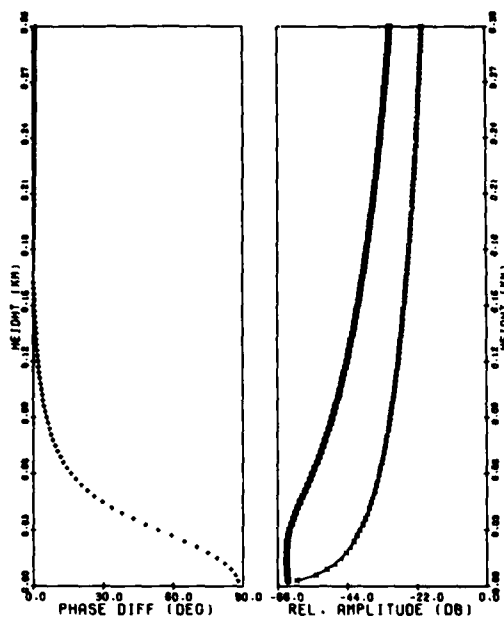


Figure 187. Radial Electric Field
(Well-Conducting Soil)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 0.00 m

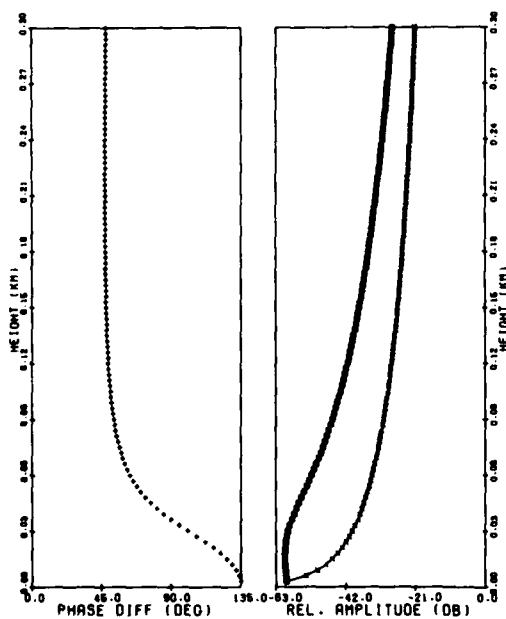


Figure 188. Radial Electric Field
(Well-Conducting Soil)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 2.25 m

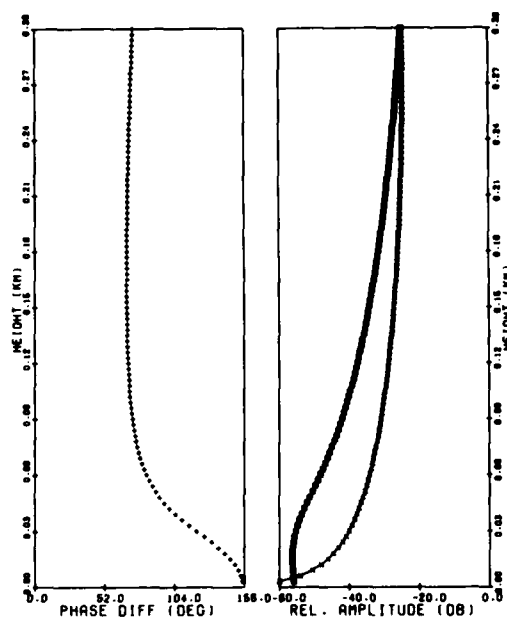


Figure 189. Radial Electric Field
(Well-Conducting Soil)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 4.50 m

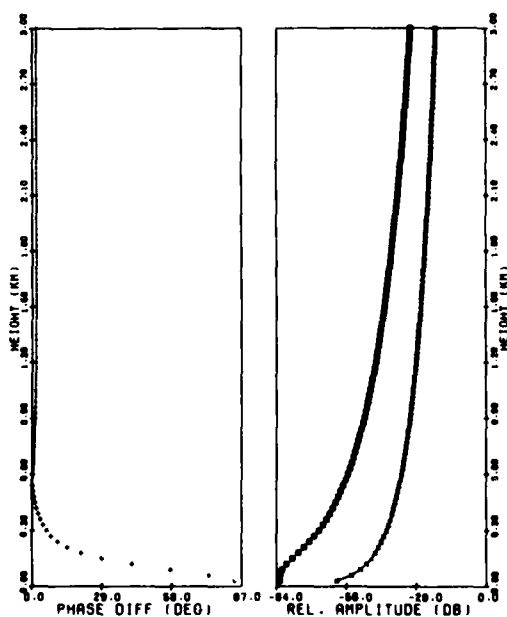


Figure 190. Radial Electric Field
(Well-Conducting Soil)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 0.00 m

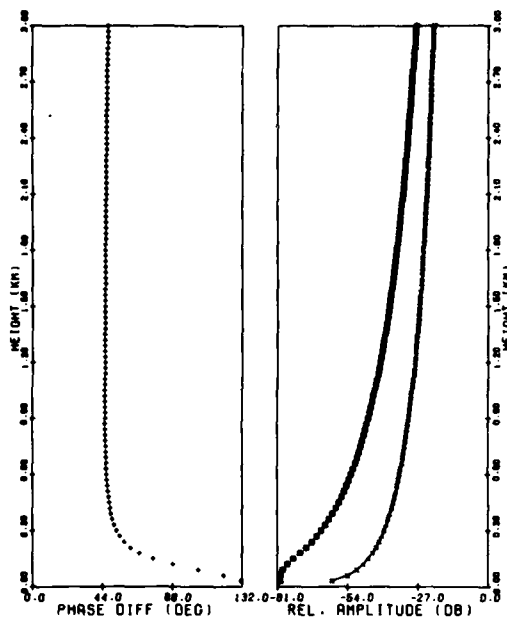


Figure 191. Radial Electric Field
(Well-Conducting Soil)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 2.25 m

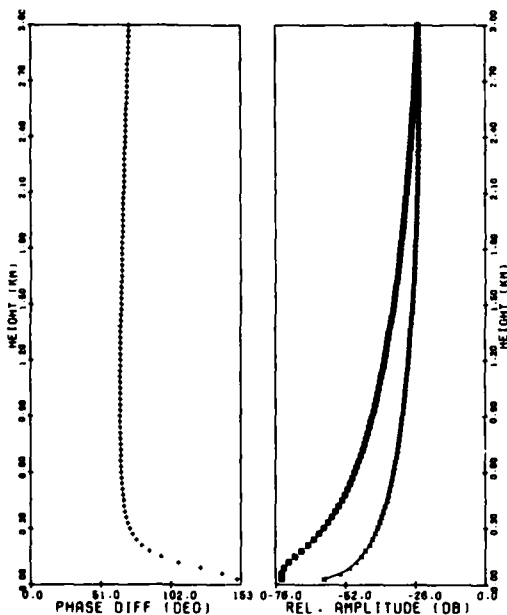


Figure 192. Radial Electric Field
(Well-Conducting Soil)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 4.50 m

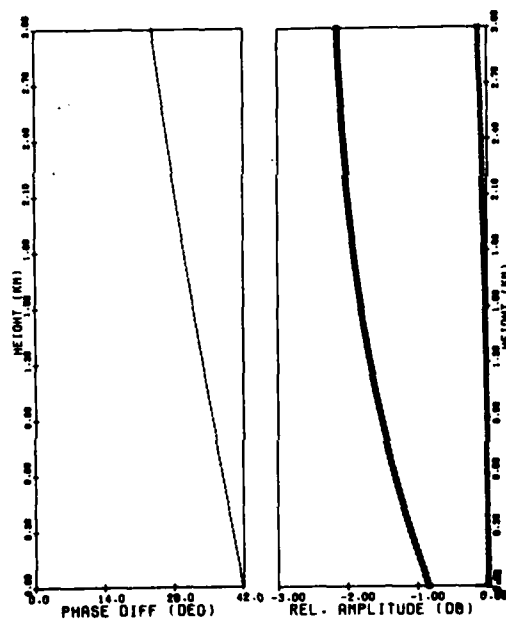


Figure 193. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 0.00 m

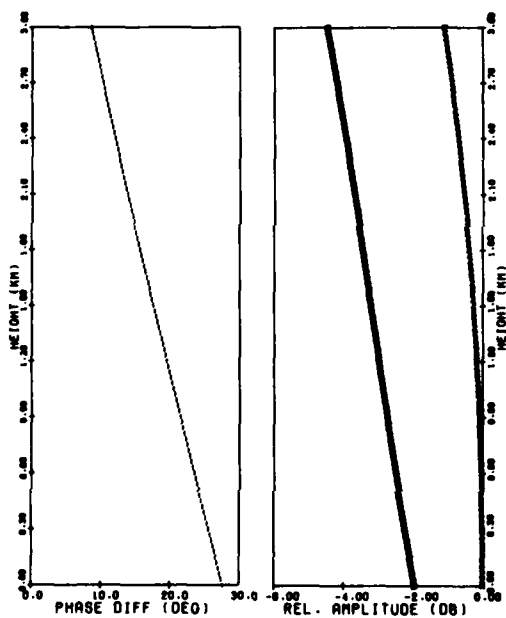


Figure 194. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 2247.60 m

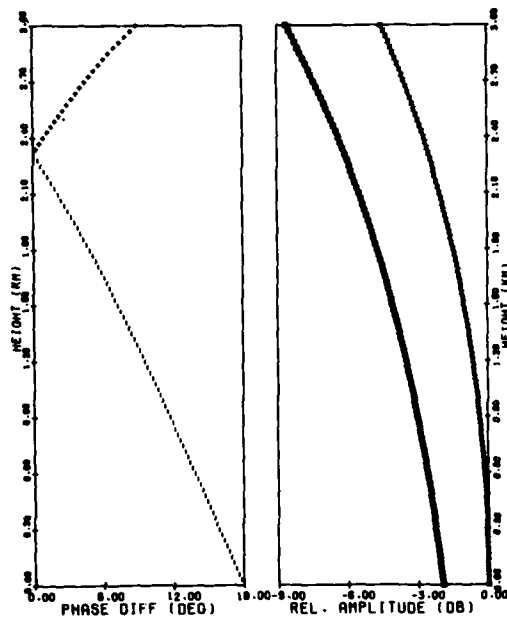


Figure 195. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 4495.20 m

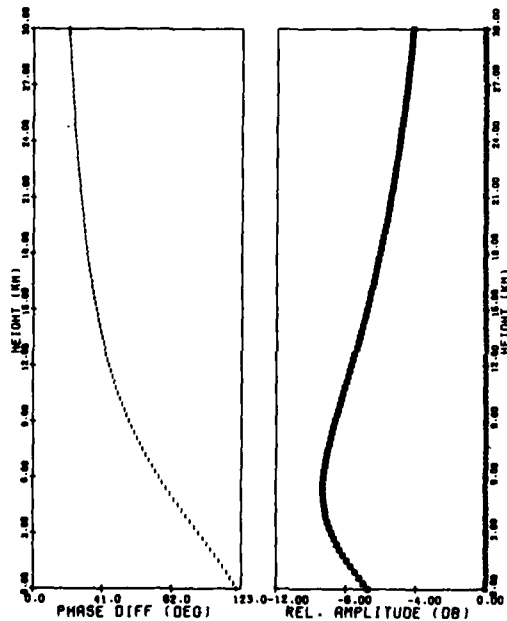


Figure 196. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 0.00 m

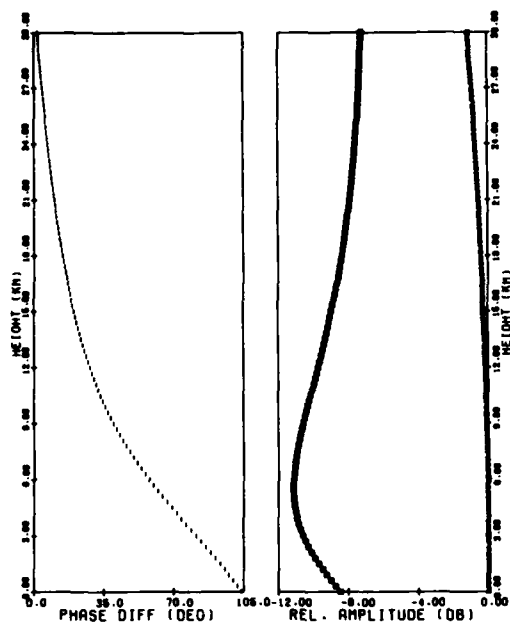


Figure 197. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 2247.60 m

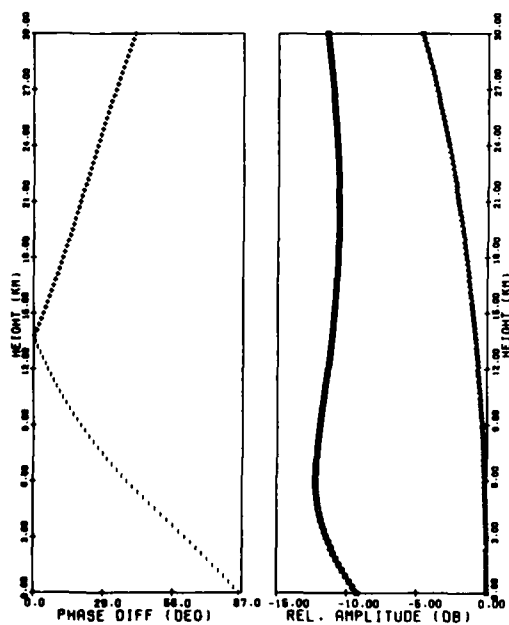


Figure 198. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 4495.20 m

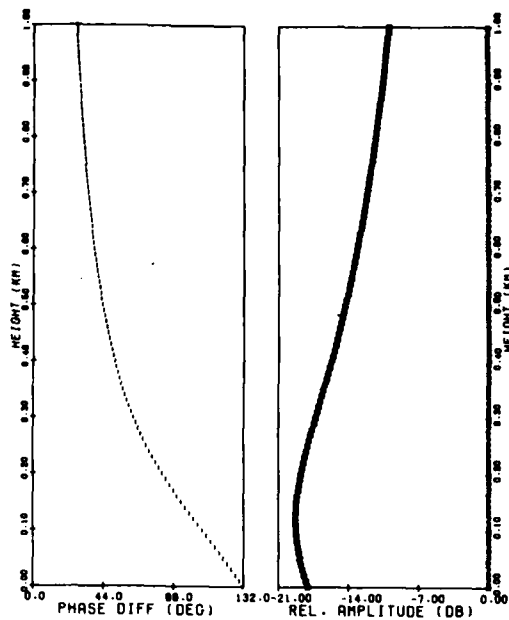


Figure 199. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 0.00 m

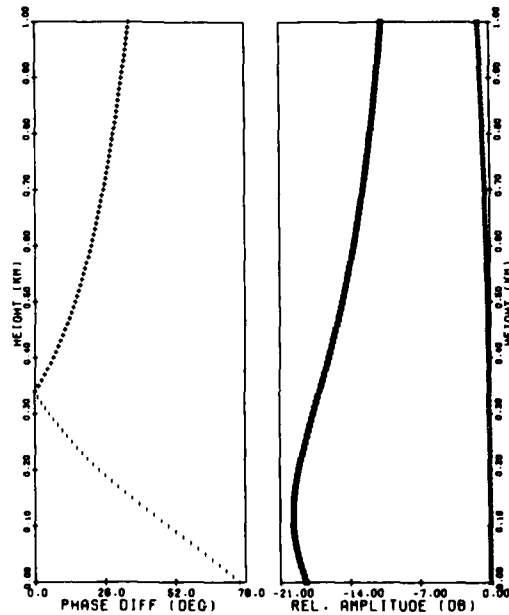


Figure 200. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 224.76 m

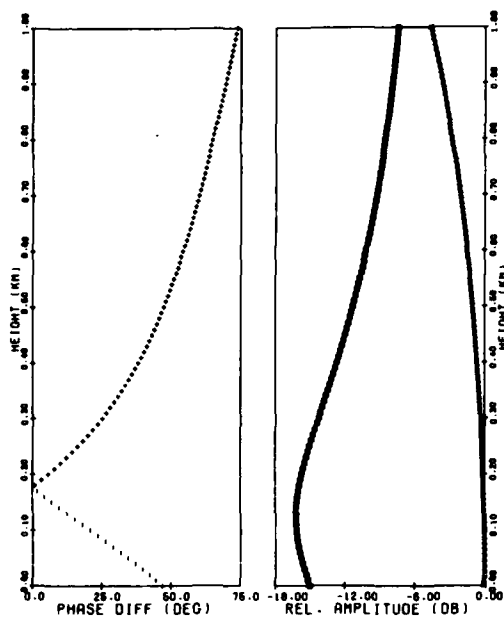


Figure 201. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 449.52 m

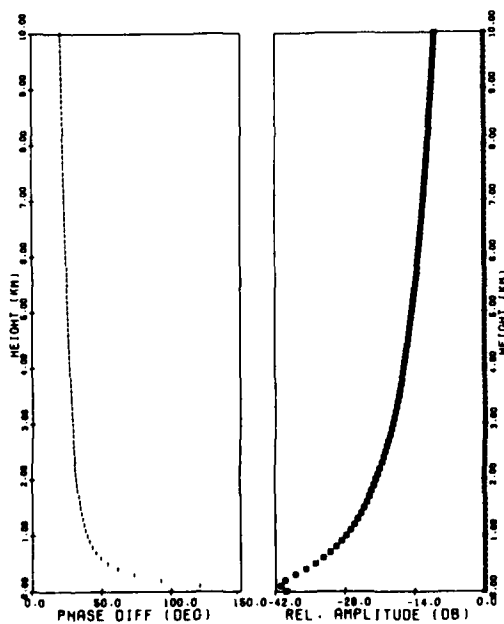


Figure 202. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

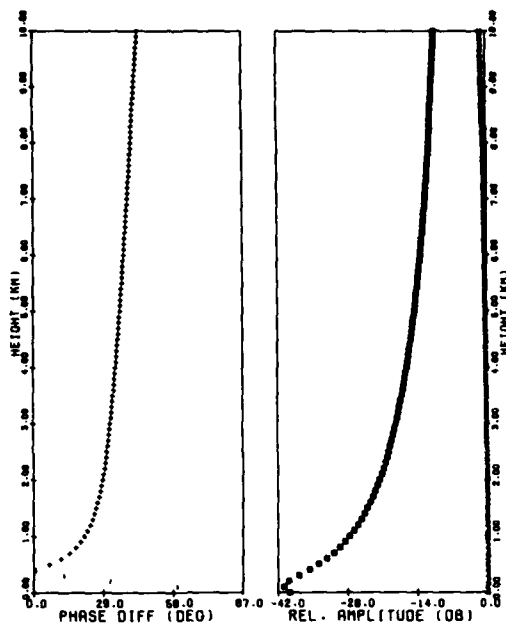


Figure 203. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 224.76 m

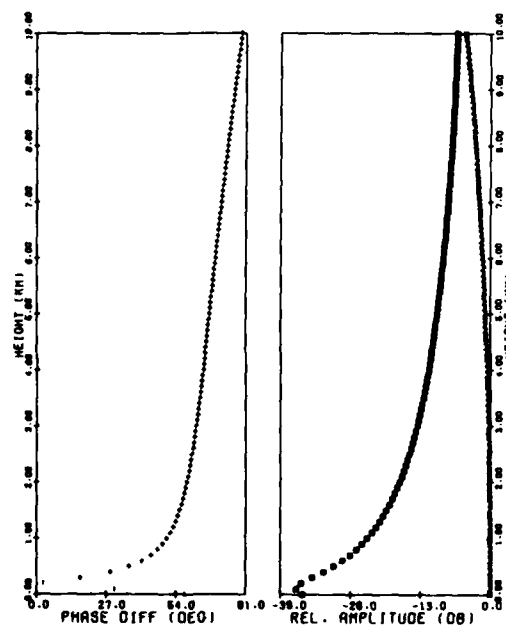


Figure 204. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 449.52 m

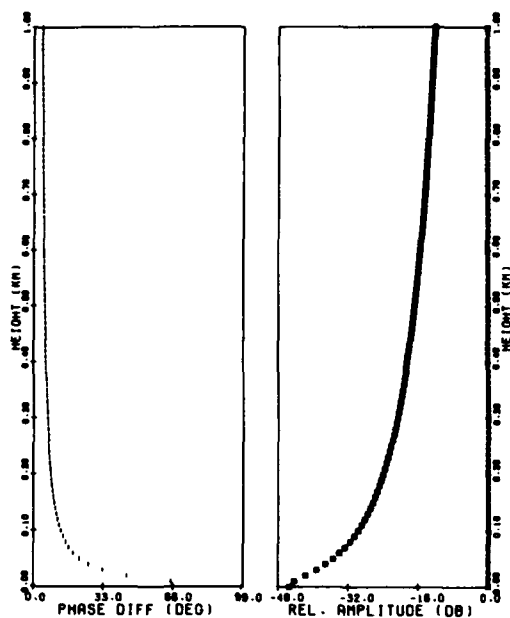


Figure 205. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 10.0 MHz, Dist. 10 km,
VED Height = 0.00 m

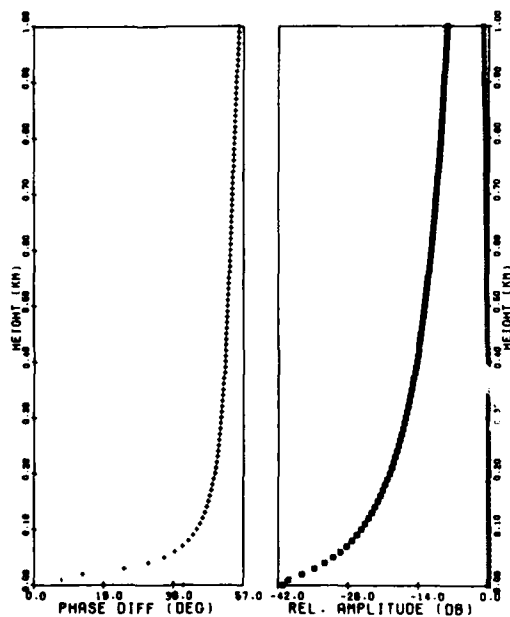


Figure 206. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 22.48 m

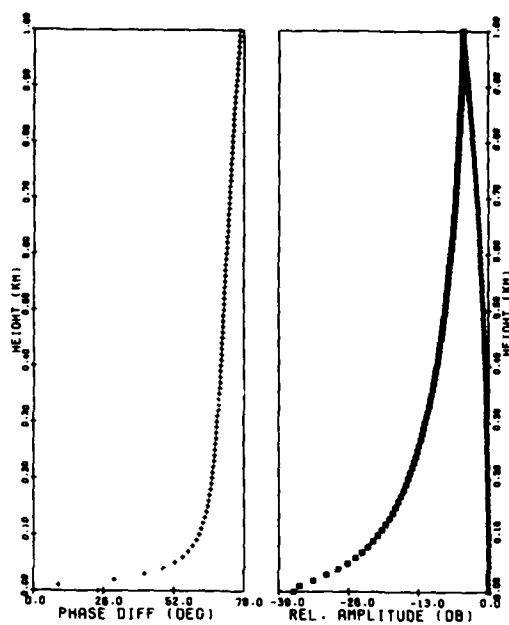


Figure 207. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 44.95 m

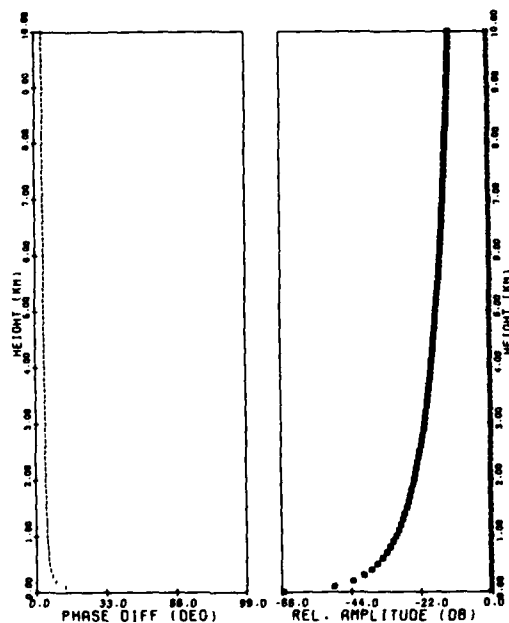


Figure 208. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

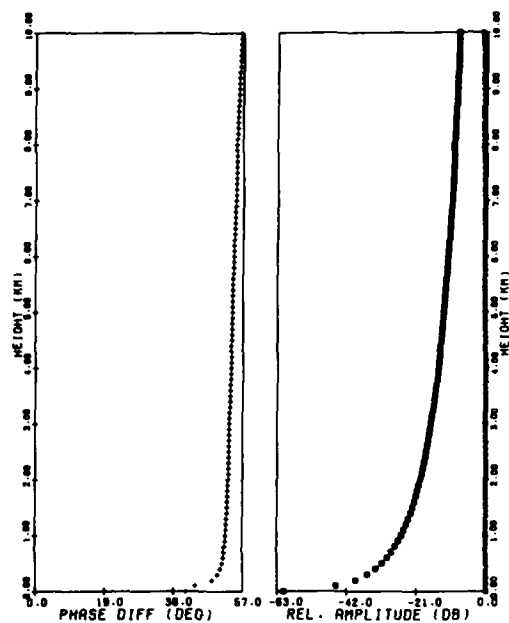


Figure 209. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 22.48 m

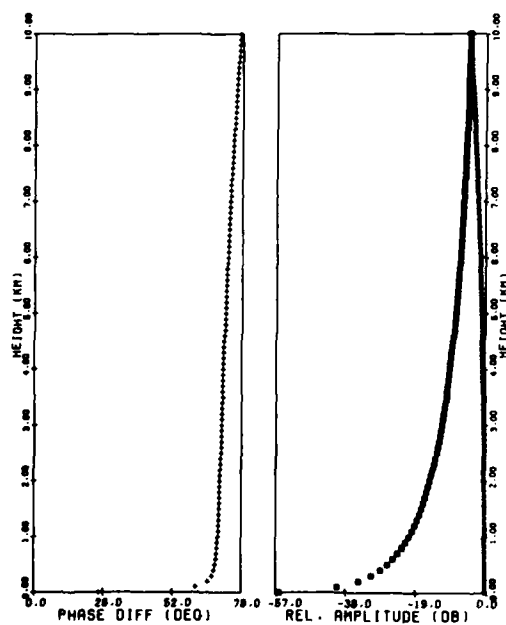


Figure 210. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 44.95 m

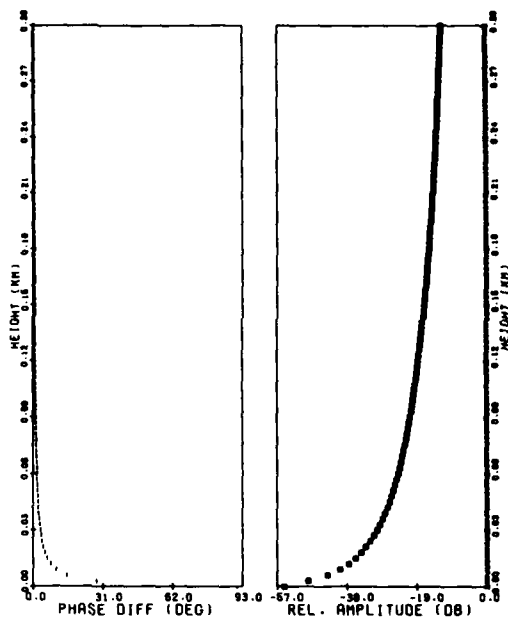


Figure 211. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 0.00 m

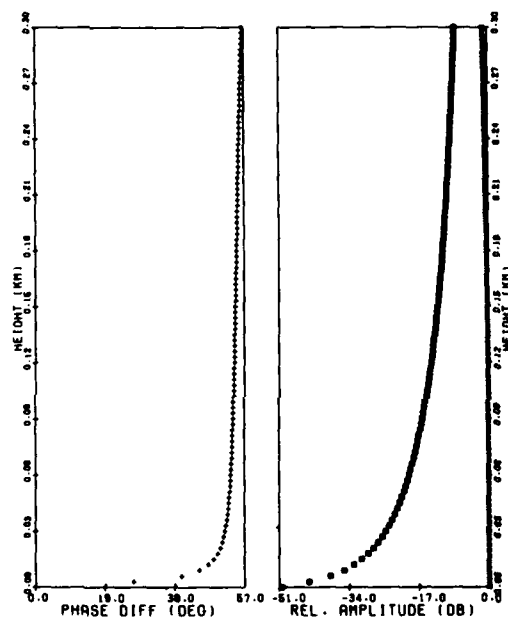


Figure 212. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 2.25 m

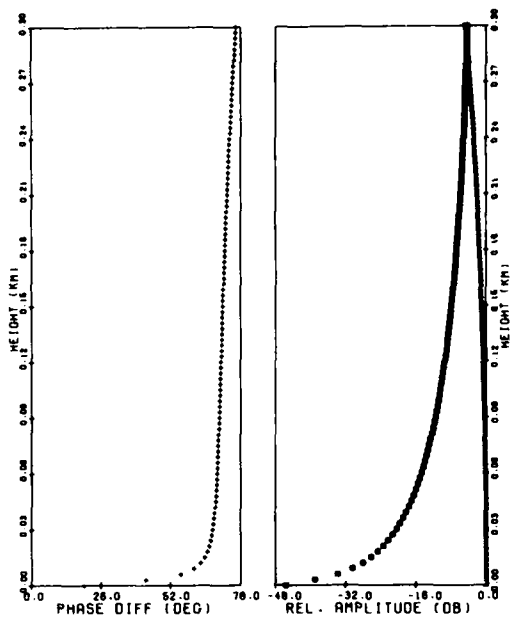


Figure 213. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 4.50 m

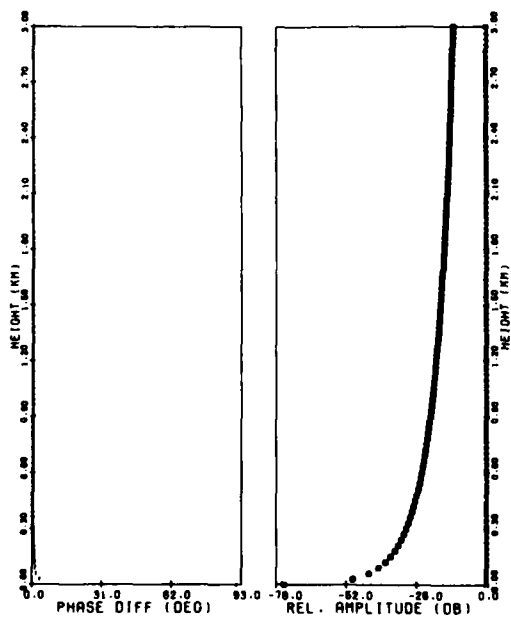


Figure 214. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 0.00 m

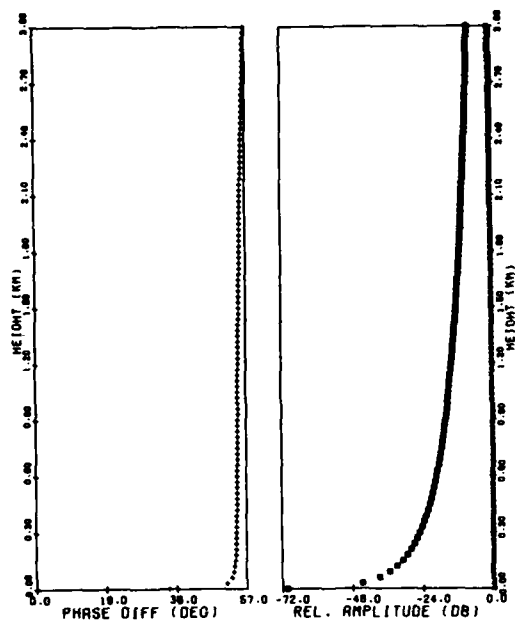


Figure 215. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 2.25 m

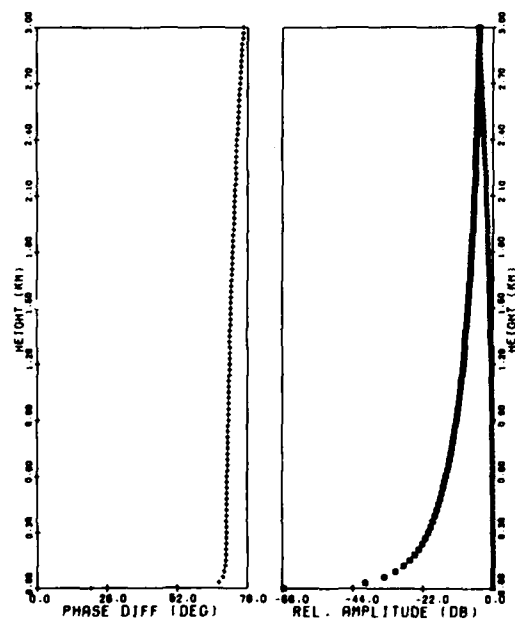


Figure 216. Vertical Electric Field
(Poorly Conducting Soil)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 4.50 m

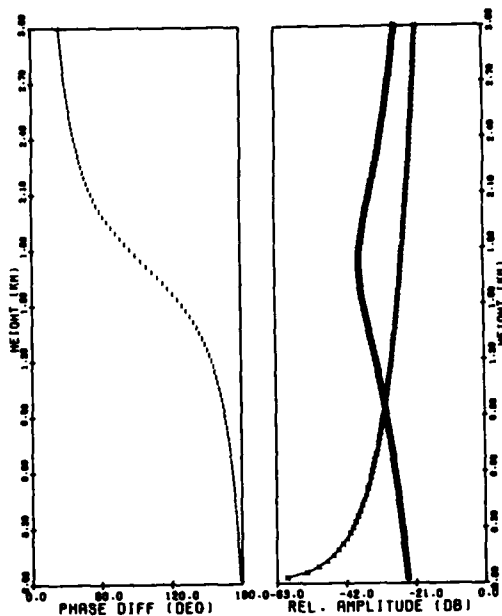


Figure 217. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 0.00 m

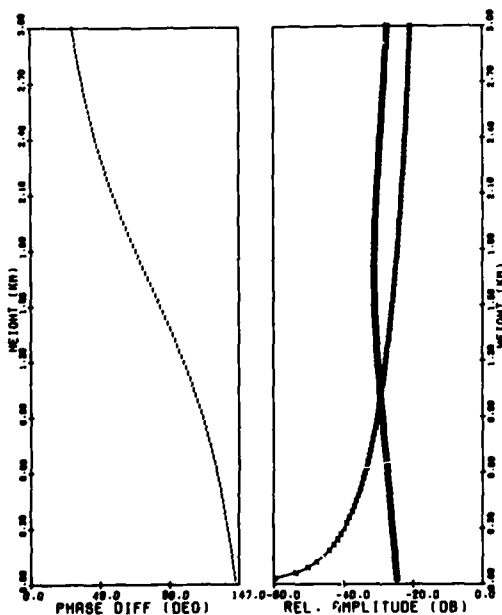


Figure 218. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 2247.60 m

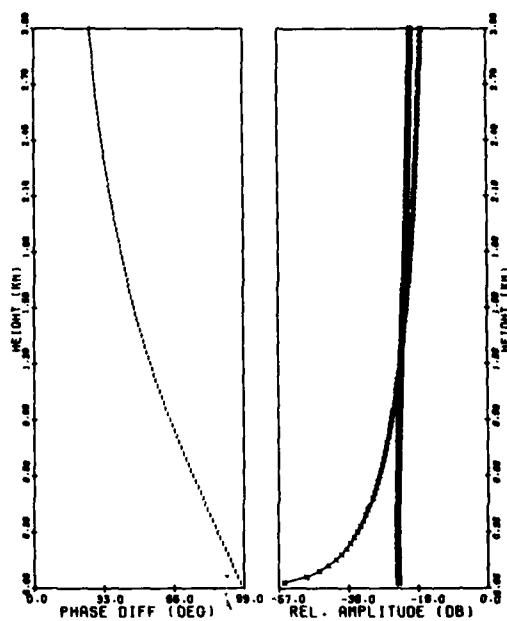


Figure 219. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 0.1 MHz, Dist. = 30 km,
VED Height = 4495.20 m

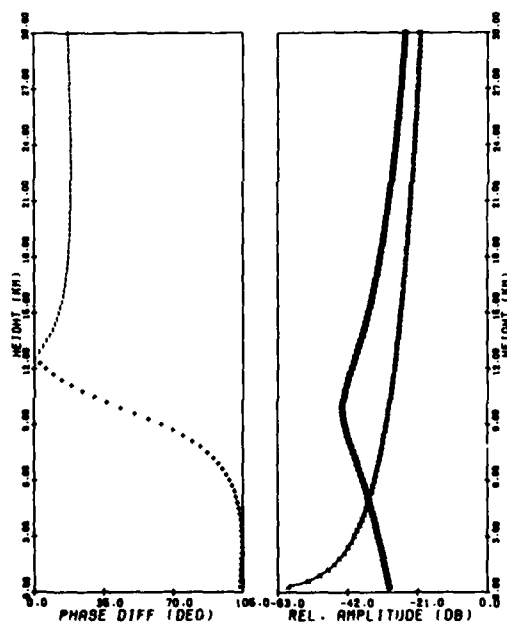


Figure 220. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 0.00 m

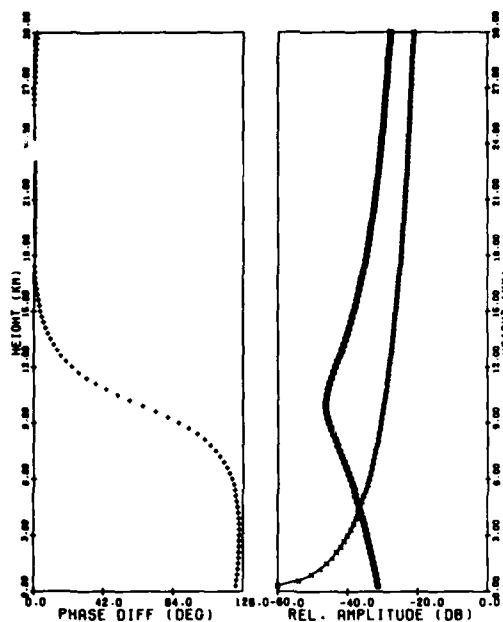


Figure 221. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 2247.60 m

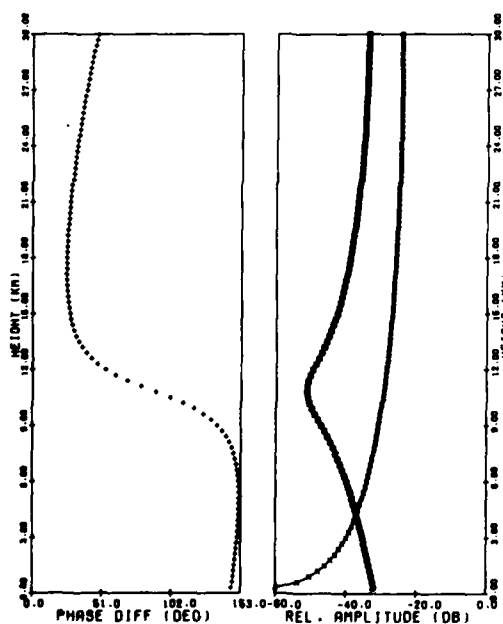


Figure 222. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 0.1 MHz, Dist. = 300 km,
VED Height = 4495.20 m

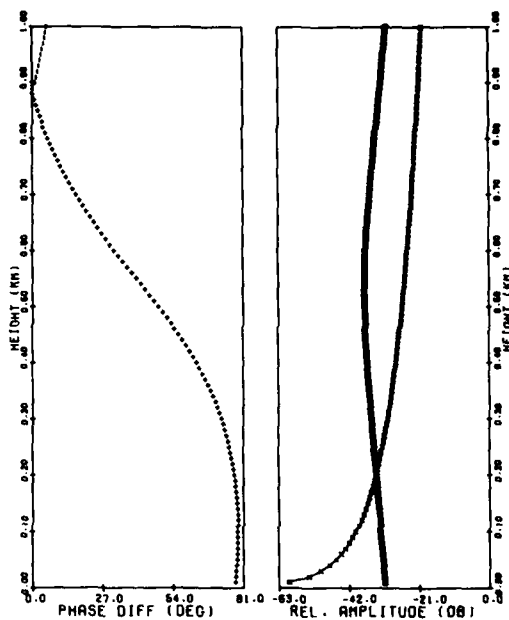


Figure 223. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 0.00 m

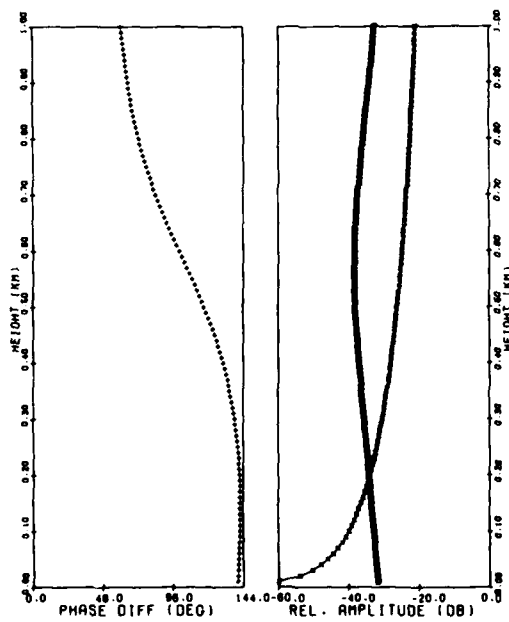


Figure 224. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 224.76 m

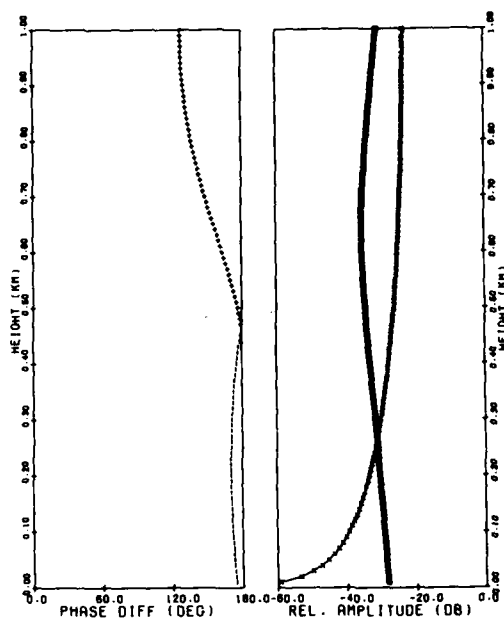


Figure 225. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 1.0 MHz, Dist. = 10 km,
VED Height = 449.52 m

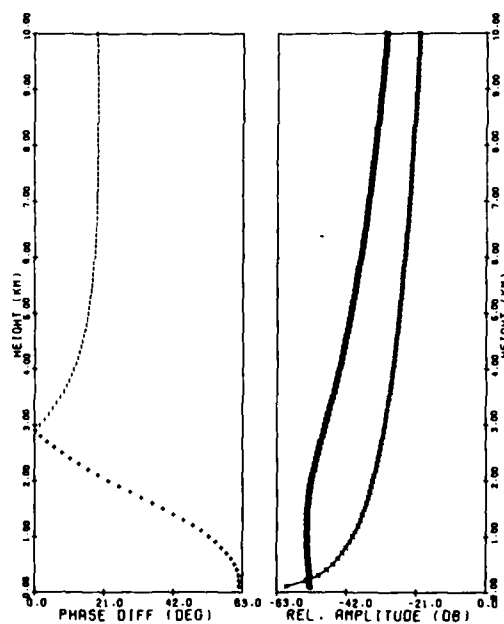


Figure 226. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

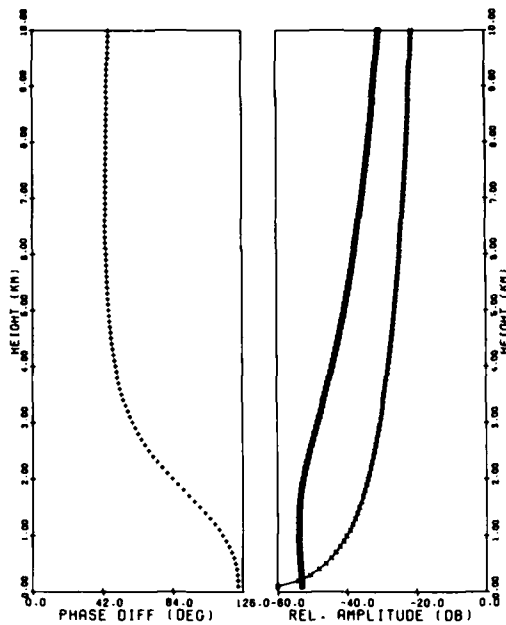


Figure 227. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 224.76 m

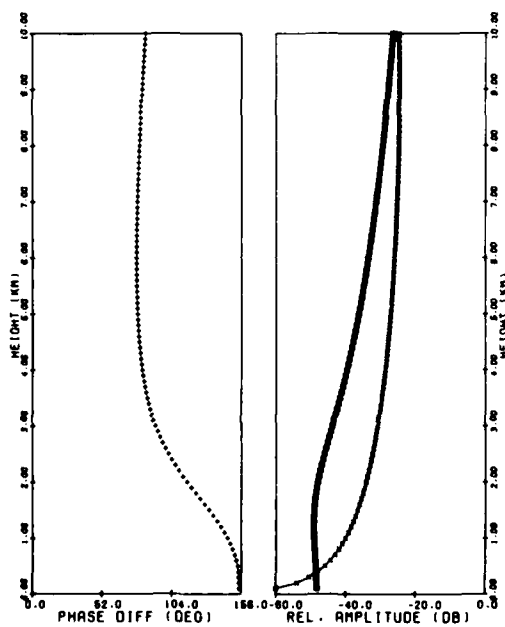


Figure 228. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 1.0 MHz, Dist. = 100 km,
VED Height = 449.52 m

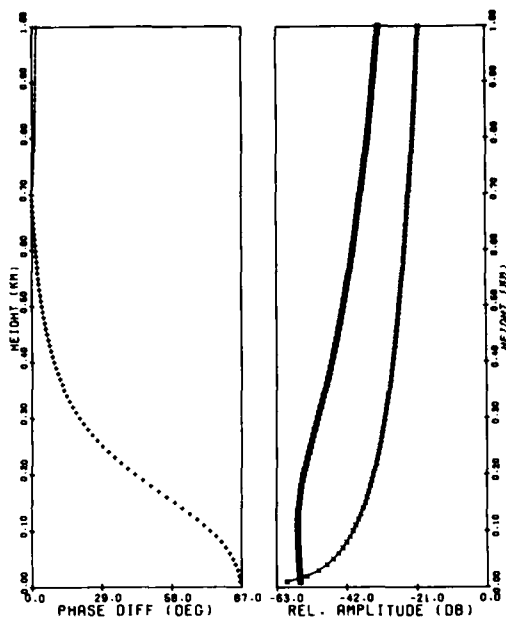


Figure 229. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 0.00 m

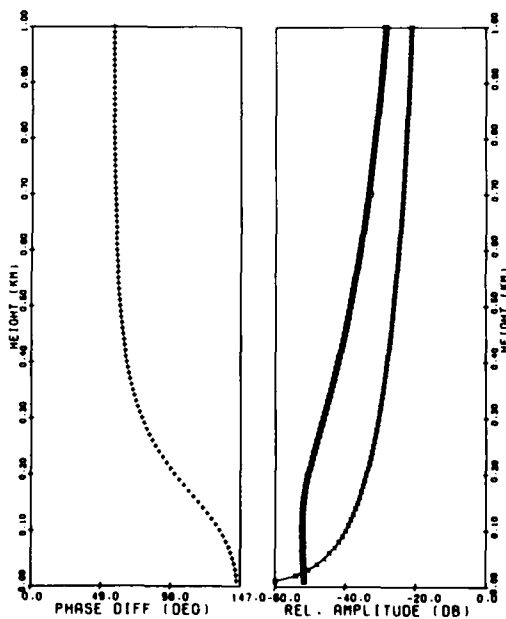


Figure 230. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 10.0 MHz, Dist. = 10 km,
VED Height = 22.48 m

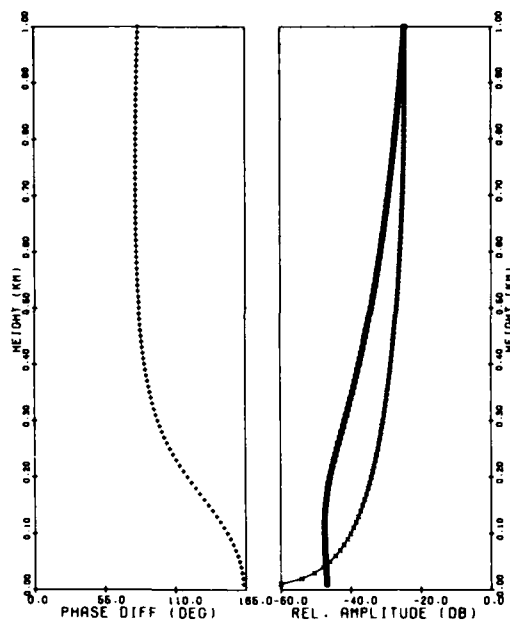


Figure 231. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 10.0 MHz, Dist = 10 km,
VED Height = 44.95 m

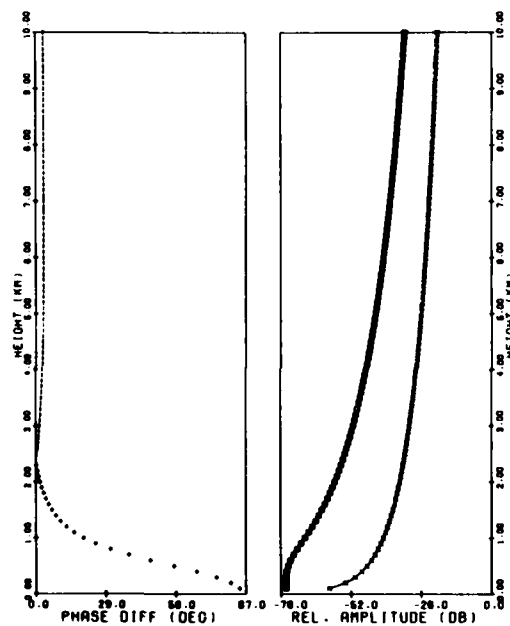


Figure 232. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 0.00 m

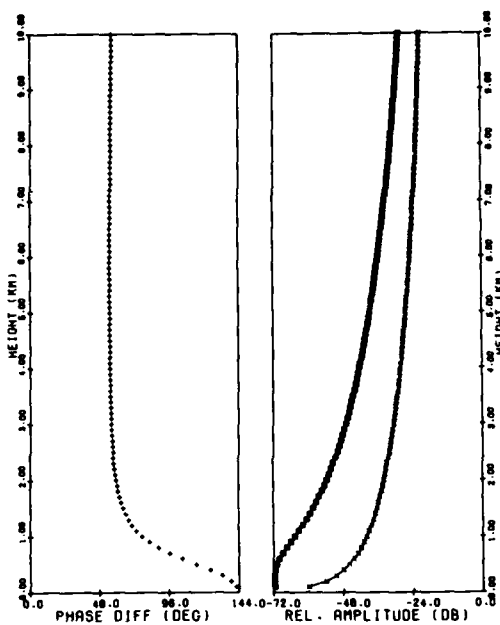


Figure 233. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 22.48 m

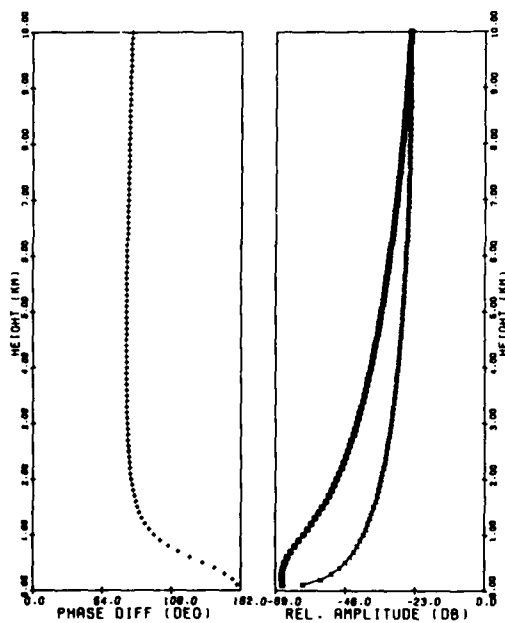


Figure 234. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 10.0 MHz, Dist. = 100 km,
VED Height = 44.95 m

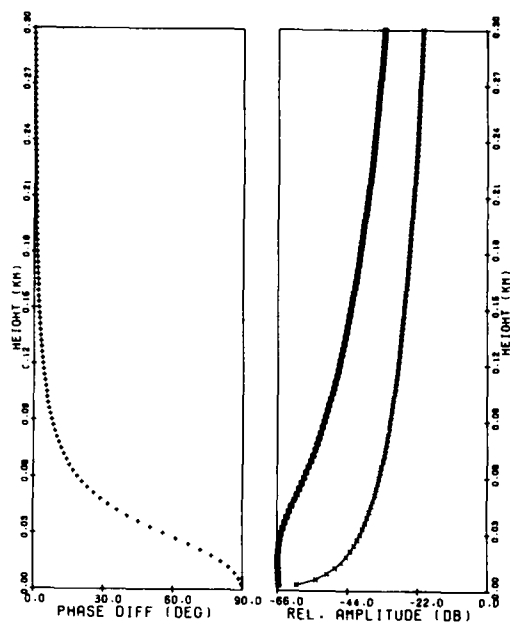


Figure 235. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 0.00 m

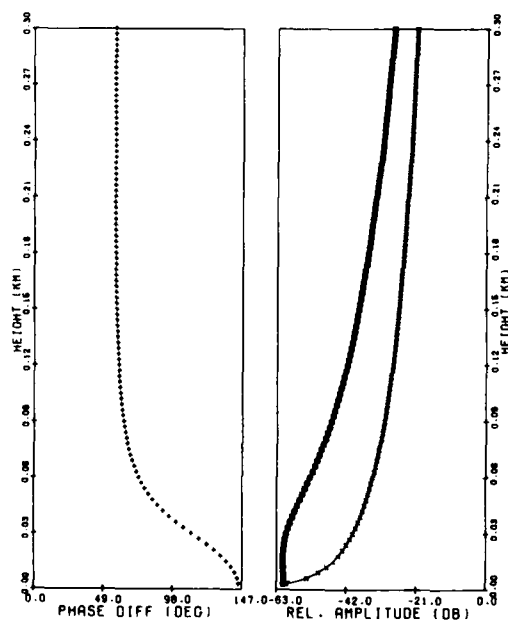


Figure 236. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 2.25 m

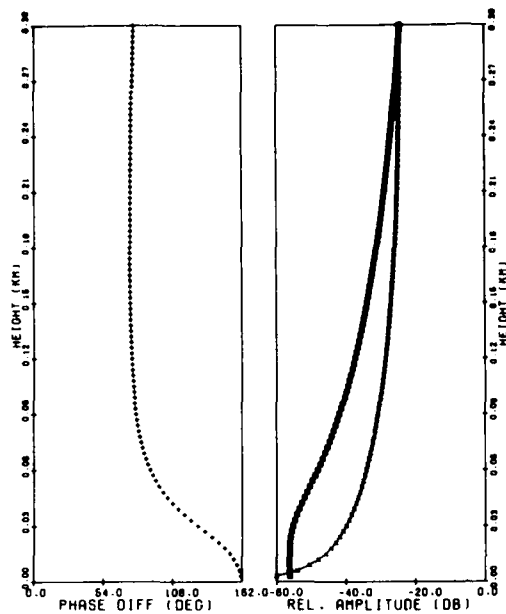


Figure 237. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 100.0 MHz, Dist. = 3 km,
VED Height = 4.50 m

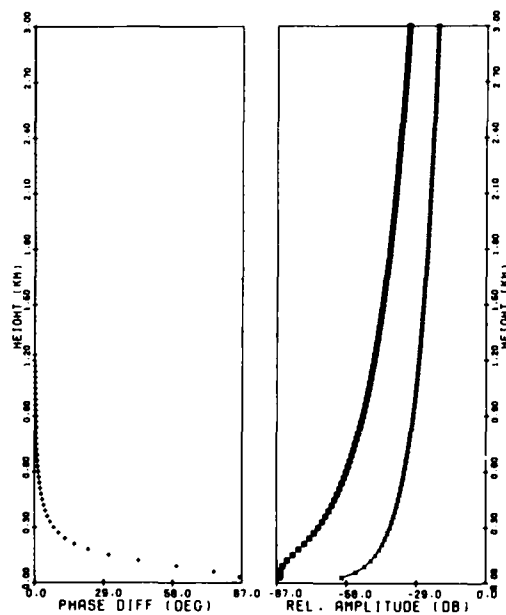


Figure 238. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 0.00 m

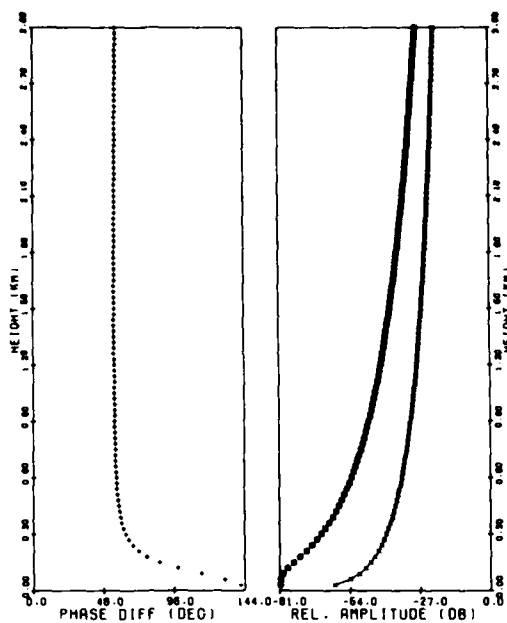


Figure 239. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 2.25 m

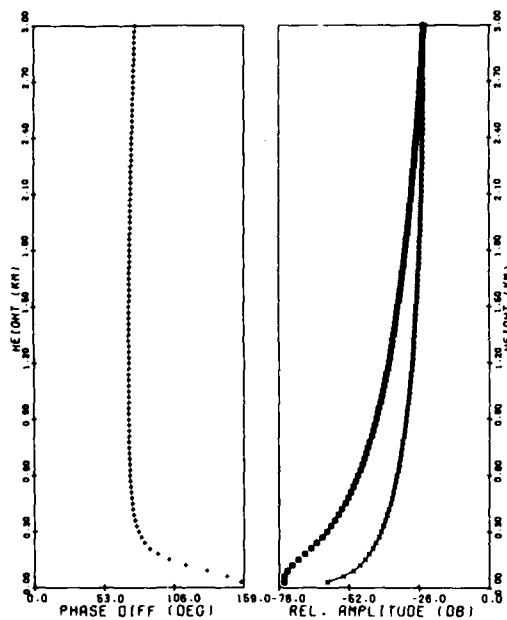


Figure 240. Radial Electric Field
(Poorly Conducting Soil)
Freq. = 100.0 MHz, Dist. = 30 km,
VED Height = 4.50 m

Table 2. Vertical Electric Field (Sea Water), Frequency = 0.1 MHz, VED Height = 0.00 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)
0.000	-0.000	-0.67	0.000	-0.001	-1.23	0.000	-0.002	-6.12	0.000	-0.002	-6.12
0.030	-0.001	-0.67	0.100	-0.002	-1.22	0.300	-0.006	-6.09	0.300	-0.006	-6.09
0.060	-0.001	-0.67	0.200	-0.004	-1.21	0.600	-0.010	-6.06	0.600	-0.010	-6.06
0.090	-0.002	-0.66	0.300	-0.005	-1.20	0.900	-0.015	-6.03	0.900	-0.015	-6.03
0.120	-0.002	-0.66	0.400	-0.007	-1.19	1.200	-0.019	-6.00	1.200	-0.019	-6.00
0.150	-0.003	-0.65	0.500	-0.008	-1.18	1.500	-0.022	-5.97	1.500	-0.022	-5.97
0.180	-0.003	-0.65	0.600	-0.009	-1.17	1.800	-0.026	-5.95	1.800	-0.026	-5.95
0.210	-0.004	-0.65	0.700	-0.011	-1.16	2.100	-0.030	-5.92	2.100	-0.030	-5.92
0.240	-0.004	-0.65	0.800	-0.012	-1.15	2.400	-0.033	-5.89	2.400	-0.033	-5.89
0.270	-0.005	-0.64	0.900	-0.014	-1.14	2.700	-0.035	-5.86	2.700	-0.035	-5.86
0.300	-0.005	-0.64	1.000	-0.015	-1.13	3.000	-0.037	-5.83	3.000	-0.037	-5.83
0.330	-0.006	-0.64	1.100	-0.017	-1.12	3.300	-0.042	-5.80	3.300	-0.042	-5.80
0.360	-0.007	-0.64	1.200	-0.018	-1.11	3.600	-0.045	-5.77	3.600	-0.045	-5.77
0.390	-0.008	-0.63	1.300	-0.019	-1.10	3.900	-0.048	-5.74	3.900	-0.048	-5.74
0.420	-0.009	-0.63	1.400	-0.021	-1.09	4.200	-0.051	-5.71	4.200	-0.051	-5.71
0.450	-0.009	-0.63	1.500	-0.022	-1.08	4.500	-0.053	-5.69	4.500	-0.053	-5.69
0.480	-0.010	-0.62	1.600	-0.024	-1.07	4.800	-0.056	-5.66	4.800	-0.056	-5.66
0.510	-0.011	-0.62	1.700	-0.025	-1.06	5.100	-0.058	-5.64	5.100	-0.058	-5.64
0.540	-0.012	-0.62	1.800	-0.026	-1.05	5.400	-0.060	-5.61	5.400	-0.060	-5.61
0.570	-0.012	-0.62	1.900	-0.028	-1.04	5.700	-0.063	-5.58	5.700	-0.063	-5.58
0.600	-0.013	-0.61	2.000	-0.029	-1.03	6.000	-0.065	-5.55	6.000	-0.065	-5.55
0.630	-0.014	-0.61	2.100	-0.031	-1.02	6.300	-0.067	-5.53	6.300	-0.067	-5.53
0.660	-0.015	-0.61	2.200	-0.032	-1.01	6.600	-0.069	-5.51	6.600	-0.069	-5.51
0.690	-0.016	-0.60	2.300	-0.033	-1.00	6.900	-0.071	-5.48	6.900	-0.071	-5.48
0.720	-0.017	-0.60	2.400	-0.035	-0.99	7.200	-0.073	-5.46	7.200	-0.073	-5.46
0.750	-0.018	-0.59	2.500	-0.036	-0.98	7.500	-0.074	-5.44	7.500	-0.074	-5.44
0.780	-0.019	-0.59	2.600	-0.037	-0.97	7.800	-0.076	-5.41	7.800	-0.076	-5.41
0.810	-0.020	-0.59	2.700	-0.039	-0.96	8.100	-0.078	-5.39	8.100	-0.078	-5.39
0.840	-0.021	-0.59	2.800	-0.040	-0.96	8.400	-0.079	-5.37	8.400	-0.079	-5.37
0.870	-0.022	-0.59	2.900	-0.042	-0.95	8.700	-0.081	-5.35	8.700	-0.081	-5.35
0.900	-0.023	-0.58	3.000	-0.043	-0.94	9.000	-0.083	-5.32	9.000	-0.083	-5.32
1.050	-0.029	-0.57	3.500	-0.050	-0.90	10.500	-0.090	-5.26	10.500	-0.090	-5.26
1.200	-0.033	-0.56	4.000	-0.057	-0.86	12.000	-0.096	-5.13	12.000	-0.096	-5.13
1.350	-0.041	-0.54	4.500	-0.065	-0.82	13.500	-0.102	-5.04	13.500	-0.102	-5.04
1.500	-0.049	-0.53	5.000	-0.073	-0.78	15.000	-0.109	-4.97	15.000	-0.109	-4.97
1.650	-0.056	-0.52	5.500	-0.081	-0.74	16.500	-0.115	-4.90	16.500	-0.115	-4.90
1.800	-0.062	-0.50	6.000	-0.089	-0.71	18.000	-0.121	-4.84	18.000	-0.121	-4.84
1.950	-0.074	-0.49	6.500	-0.098	-0.68	19.500	-0.126	-4.78	19.500	-0.126	-4.78
2.100	-0.083	-0.48	7.000	-0.107	-0.65	21.000	-0.135	-4.73	21.000	-0.135	-4.73
2.250	-0.093	-0.47	7.500	-0.117	-0.62	22.500	-0.143	-4.68	22.500	-0.143	-4.68
2.400	-0.104	-0.45	8.000	-0.127	-0.59	24.000	-0.151	-4.64	24.000	-0.151	-4.64
2.550	-0.113	-0.44	8.500	-0.138	-0.57	25.500	-0.160	-4.61	25.500	-0.160	-4.61
2.700	-0.119	-0.43	9.000	-0.149	-0.54	27.000	-0.169	-4.57	27.000	-0.169	-4.57
2.850	-0.127	-0.42	9.500	-0.161	-0.52	28.500	-0.174	-4.54	28.500	-0.174	-4.54
3.000	-0.132	-0.41	10.000	-0.173	-0.50	30.000	-0.179	-4.52	30.000	-0.179	-4.52

Table 3. Vertical Electric Field (Sea Water), Frequency = 0.1 MHz, VED Height 2247.60 m

HEIGHT (KM)	30.0 KM DOWNRANGE			100.0 KM DOWNRANGE			300.0 KM DOWNRANGE		
	MEI (V)	AMP (V)	PHASE (DEG)	MEI (V)	AMP (V)	PHASE (DEG)	MEI (V)	AMP (V)	PHASE (DEG)
0.000	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.030	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.060	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.090	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.120	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.150	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.180	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.210	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.240	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.270	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.300	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.330	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.360	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.390	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.420	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.450	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.480	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.510	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.540	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.570	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.600	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.630	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.660	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.690	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.720	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.750	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.780	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.810	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.840	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.870	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
0.900	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
1.050	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
1.200	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
1.350	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
1.500	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
1.650	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
1.800	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
1.950	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
2.100	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
2.250	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
2.400	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
2.550	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
2.700	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
2.850	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00
3.000	0.000	0.000	0.00	0.000	0.000	0.00	0.000	0.000	0.00

Table 4. Vertical Electric Field (Sea Water), Frequency = 0.1 MHz, VED Height = 4495.20 m

30.0 KM UPHRANGE			100.0 KM UPHRANGE			300.0 KM UPHRANGE		
MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)
0.000	-0.024	-32	0.000	-0.039	-82	0.000	-0.050	-1.89
0.030	-0.023	-32	0.100	-0.040	-81	0.500	-0.055	-1.86
0.060	-0.027	-32	0.200	-0.043	-80	1.000	-0.067	-1.63
0.090	-0.029	-31	0.300	-0.046	-79	1.500	-0.073	-1.60
0.120	-0.032	-31	0.400	-0.051	-78	2.000	-0.081	-1.54
0.150	-0.036	-31	0.500	-0.056	-77	2.500	-0.089	-1.51
0.180	-0.041	-30	0.600	-0.061	-76	3.000	-0.097	-1.48
0.210	-0.046	-30	0.700	-0.068	-75	3.500	-0.106	-1.45
0.240	-0.053	-30	0.800	-0.075	-74	4.000	-0.116	-1.42
0.270	-0.060	-29	0.900	-0.083	-73	4.500	-0.127	-1.40
0.300	-0.067	-29	1.000	-0.092	-72	5.000	-0.138	-1.37
0.330	-0.076	-29	1.100	-0.101	-71	5.500	-0.150	-1.34
0.360	-0.085	-29	1.200	-0.112	-70	6.000	-0.162	-1.31
0.390	-0.096	-28	1.300	-0.123	-69	6.500	-0.176	-1.29
0.420	-0.106	-28	1.400	-0.135	-68	7.000	-0.204	-1.26
0.450	-0.118	-28	1.500	-0.147	-67	7.500	-0.235	-1.23
0.480	-0.131	-27	1.600	-0.161	-66	8.000	-0.271	-1.21
0.510	-0.144	-27	1.700	-0.175	-65	8.500	-0.307	-1.18
0.540	-0.158	-27	1.800	-0.190	-64	9.000	-0.347	-1.06
0.570	-0.173	-26	1.900	-0.206	-63	9.500	-0.388	-1.03
0.600	-0.189	-26	2.000	-0.223	-62	10.000	-0.436	-0.99
0.630	-0.205	-26	2.100	-0.240	-61	10.500	-0.486	-0.90
0.660	-0.222	-26	2.200	-0.258	-61	11.000	-0.540	-0.79
0.690	-0.241	-25	2.300	-0.277	-60	11.500	-0.596	-0.61
0.720	-0.259	-25	2.400	-0.297	-59	12.000	-0.653	-0.53
0.750	-0.279	-25	2.500	-0.318	-58	12.500	-0.713	-0.46
0.780	-0.300	-24	2.600	-0.339	-57	13.000	-0.775	-0.39
0.810	-0.321	-24	2.700	-0.362	-56	13.500	-0.839	-0.33
0.840	-0.343	-24	2.800	-0.385	-55	14.000	-0.906	-0.27
0.870	-0.366	-24	2.900	-0.409	-54	14.500	-0.975	-0.21
0.900	-0.390	-23	3.000	-0.433	-53	15.000	-1.046	-0.15
						15.500	-1.119	-0.10
						16.000	-1.193	-0.05
						16.500	-1.269	0.00
						17.000	-1.346	0.06
						17.500	-1.424	0.11
						18.000	-1.503	0.17
						18.500	-1.582	0.22
						19.000	-1.662	0.27
						19.500	-1.742	0.32
						20.000	-1.822	0.37
						20.500	-1.902	0.42
						21.000	-1.982	0.47
						21.500	-2.062	0.52
						22.000	-2.142	0.57
						22.500	-2.222	0.62
						23.000	-2.302	0.67
						23.500	-2.382	0.72
						24.000	-2.462	0.77
						24.500	-2.542	0.82
						25.000	-2.622	0.87
						25.500	-2.702	0.92
						26.000	-2.782	0.97
						26.500	-2.862	1.02
						27.000	-2.942	1.07
						27.500	-3.022	1.12
						28.000	-3.102	1.17
						28.500	-3.182	1.22
						29.000	-3.262	1.27
						29.500	-3.342	1.32
						30.000	-3.422	1.37

Table 5. Vertical Electric Field (Sea Water), Frequency = 1.0 MHz, VED Height = 0.00 m

3.0 KM UORANGE				30.0 KM UORANGE				100.0 KM UORANGE			
ME IUNT	AMP	PHASE	ME IUNT	AMP	PHASE	ME IUNT	AMP	PHASE	ME IUNT	AMP	PHASE
(K4)	(DB)	(DEG)	(K4)	(DB)	(DEG)	(K4)	(DB)	(DEG)	(K4)	(DB)	(DEG)
.000	.000	-6.16	.000	.000	-3.08	.000	.000	-0.17	.000	.000	-0.72
.003	.003	-6.11	.010	.010	-3.05	.030	.030	-0.31	.100	.100	-1.02
.006	.006	-6.11	.020	.015	-3.02	.060	.060	-0.44	.200	.200	-1.44
.009	.009	-6.10	.030	.020	-3.78	.090	.090	-0.57	.300	.300	-1.63
.012	.012	-6.09	.040	.024	-3.75	.120	.120	-0.70	.400	.400	-2.18
.015	.015	-6.08	.050	.029	-3.72	.150	.150	-0.82	.500	.500	-2.51
.018	.018	-6.07	.060	.033	-3.69	.180	.180	-0.93	.600	.600	-2.80
.021	.021	-6.06	.070	.037	-3.66	.210	.210	-1.04	.700	.700	-3.06
.024	.024	-6.05	.080	.041	-3.63	.240	.240	-1.14	.800	.800	-3.30
.027	.027	-6.04	.090	.045	-3.59	.270	.270	-1.24	.900	.900	-3.52
.030	.030	-6.03	.100	.049	-3.56	.300	.300	-1.33	.000	.000	-3.71
.033	.033	-6.02	.110	.053	-3.53	.330	.330	-1.42	.100	.100	-3.87
.036	.036	-6.01	.120	.057	-3.50	.360	.360	-1.50	.200	.200	-4.02
.039	.039	-6.00	.130	.061	-3.47	.390	.390	-1.58	.300	.300	-4.15
.042	.042	-5.99	.140	.064	-3.44	.420	.420	-1.66	.400	.400	-4.27
.045	.045	-5.98	.150	.068	-3.41	.450	.450	-1.73	.500	.500	-4.36
.048	.048	-5.97	.160	.071	-3.38	.480	.480	-1.80	.600	.600	-4.45
.051	.051	-5.96	.170	.075	-3.35	.510	.510	-1.86	.700	.700	-4.52
.054	.054	-5.95	.180	.078	-3.32	.540	.540	-1.93	.800	.800	-4.58
.057	.057	-5.94	.190	.082	-3.29	.570	.570	-1.98	.900	.900	-4.62
.060	.060	-5.93	.200	.085	-3.26	.600	.600	-2.04	.000	.000	-4.66
.063	.063	-5.92	.210	.088	-3.23	.630	.630	-2.09	.100	.100	-4.69
.066	.066	-5.91	.220	.091	-3.20	.660	.660	-2.14	.200	.200	-4.71
.069	.069	-5.90	.230	.094	-3.17	.690	.690	-2.19	.300	.300	-4.72
.072	.072	-5.89	.240	.097	-3.14	.720	.720	-2.23	.400	.400	-4.73
.075	.075	-5.88	.250	.100	-3.11	.750	.750	-2.27	.500	.500	-4.73
.078	.078	-5.87	.260	.103	-3.08	.780	.780	-2.31	.600	.600	-4.73
.081	.081	-5.86	.270	.106	-3.05	.810	.810	-2.35	.700	.700	-4.72
.084	.084	-5.85	.280	.109	-3.02	.840	.840	-2.38	.800	.800	-4.71
.087	.087	-5.84	.290	.112	-3.00	.870	.870	-2.42	.900	.900	-4.69
.090	.090	-5.83	.300	.115	-2.97	.900	.900	-2.45	.000	.000	-4.67
.105	.051	-1.80	.450	.128	-2.83	1.050	.258	-3.83	3.500	.454	-4.45
.120	.088	-1.76	.480	.140	-2.70	1.200	.267	-3.54	4.000	.438	-3.94
.135	.075	-1.71	.450	.152	-2.58	1.350	.274	-3.27	4.500	.421	-3.51
.150	.085	-1.67	.500	.163	-2.46	1.500	.283	-3.03	5.000	.405	-3.16
.165	.075	-1.63	.550	.173	-2.35	1.650	.286	-2.81	5.500	.390	-2.87
.180	.105	-1.59	.600	.183	-2.24	1.800	.289	-2.61	6.000	.378	-2.62
.195	.118	-1.55	.650	.194	-2.14	1.950	.293	-2.44	6.500	.367	-2.41
.210	.127	-1.51	.700	.204	-2.04	2.100	.296	-2.28	7.000	.359	-2.23
.225	.136	-1.47	.750	.214	-1.95	2.250	.299	-2.14	7.500	.353	-2.08
.240	.150	-1.43	.800	.224	-1.87	2.400	.300	-2.01	8.000	.349	-1.94
.255	.158	-1.40	.850	.235	-1.79	2.550	.304	-1.89	8.500	.346	-1.82
.270	.175	-1.36	.900	.245	-1.71	2.700	.309	-1.79	9.000	.346	-1.72
.285	.188	-1.33	.950	.257	-1.64	2.850	.315	-1.69	9.500	.346	-1.62
.300	.202	-1.30	1.000	.268	-1.58	3.000	.322	-1.61	10.000	.349	-1.54

Table 6. Vertical Electric Field (Sea Water), Frequency = 1.0 MHz, VED Height = 224.76 m

3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
.000	-0.00	-0.00	.000	-0.00	-0.00	.000	-0.00	-0.00	.000	-0.00	-0.00	.000	-0.00	-0.00	.000
.003	-0.03	-1.47	.003	-0.03	-3.18	.003	-0.03	-1.08	.003	-0.03	-3.91	.003	-0.03	-1.54	.003
.006	-0.06	-1.46	.006	-0.06	-3.15	.006	-0.06	-1.22	.006	-0.06	-3.91	.006	-0.06	-1.54	.006
.009	-0.09	-1.45	.009	-0.09	-3.12	.009	-0.09	-1.36	.009	-0.09	-3.86	.009	-0.09	-1.54	.009
.012	-0.12	-1.44	.012	-0.12	-3.09	.012	-0.12	-1.50	.012	-0.12	-3.82	.012	-0.12	-1.54	.012
.015	-0.15	-1.43	.015	-0.15	-3.06	.015	-0.15	-1.64	.015	-0.15	-3.77	.015	-0.15	-1.54	.015
.018	-0.18	-1.42	.018	-0.18	-3.03	.018	-0.18	-1.78	.018	-0.18	-3.72	.018	-0.18	-1.54	.018
.021	-0.21	-1.41	.021	-0.21	-3.00	.021	-0.21	-1.92	.021	-0.21	-3.67	.021	-0.21	-1.54	.021
.024	-0.24	-1.40	.024	-0.24	-2.97	.024	-0.24	-2.06	.024	-0.24	-3.62	.024	-0.24	-1.54	.024
.027	-0.27	-1.39	.027	-0.27	-2.94	.027	-0.27	-2.20	.027	-0.27	-3.57	.027	-0.27	-1.54	.027
.030	-0.30	-1.38	.030	-0.30	-2.91	.030	-0.30	-2.34	.030	-0.30	-3.52	.030	-0.30	-1.54	.030
.033	-0.33	-1.37	.033	-0.33	-2.88	.033	-0.33	-2.48	.033	-0.33	-3.47	.033	-0.33	-1.54	.033
.036	-0.36	-1.36	.036	-0.36	-2.85	.036	-0.36	-2.62	.036	-0.36	-3.42	.036	-0.36	-1.54	.036
.039	-0.39	-1.35	.039	-0.39	-2.82	.039	-0.39	-2.76	.039	-0.39	-3.37	.039	-0.39	-1.54	.039
.042	-0.42	-1.34	.042	-0.42	-2.79	.042	-0.42	-2.90	.042	-0.42	-3.32	.042	-0.42	-1.54	.042
.045	-0.45	-1.33	.045	-0.45	-2.76	.045	-0.45	-3.04	.045	-0.45	-3.27	.045	-0.45	-1.54	.045
.048	-0.48	-1.32	.048	-0.48	-2.73	.048	-0.48	-3.18	.048	-0.48	-3.22	.048	-0.48	-1.54	.048
.051	-0.51	-1.31	.051	-0.51	-2.70	.051	-0.51	-3.32	.051	-0.51	-3.17	.051	-0.51	-1.54	.051
.054	-0.54	-1.30	.054	-0.54	-2.67	.054	-0.54	-3.46	.054	-0.54	-3.12	.054	-0.54	-1.54	.054
.057	-0.57	-1.29	.057	-0.57	-2.64	.057	-0.57	-3.60	.057	-0.57	-3.07	.057	-0.57	-1.54	.057
.060	-0.60	-1.28	.060	-0.60	-2.61	.060	-0.60	-3.74	.060	-0.60	-3.02	.060	-0.60	-1.54	.060
.063	-0.63	-1.27	.063	-0.63	-2.58	.063	-0.63	-3.88	.063	-0.63	-2.97	.063	-0.63	-1.54	.063
.066	-0.66	-1.26	.066	-0.66	-2.55	.066	-0.66	-4.02	.066	-0.66	-2.92	.066	-0.66	-1.54	.066
.069	-0.69	-1.25	.069	-0.69	-2.52	.069	-0.69	-4.16	.069	-0.69	-2.87	.069	-0.69	-1.54	.069
.072	-0.72	-1.24	.072	-0.72	-2.49	.072	-0.72	-4.30	.072	-0.72	-2.82	.072	-0.72	-1.54	.072
.075	-0.75	-1.23	.075	-0.75	-2.46	.075	-0.75	-4.44	.075	-0.75	-2.77	.075	-0.75	-1.54	.075
.078	-0.78	-1.22	.078	-0.78	-2.43	.078	-0.78	-4.58	.078	-0.78	-2.72	.078	-0.78	-1.54	.078
.081	-0.81	-1.21	.081	-0.81	-2.40	.081	-0.81	-4.72	.081	-0.81	-2.67	.081	-0.81	-1.54	.081
.084	-0.84	-1.20	.084	-0.84	-2.37	.084	-0.84	-4.86	.084	-0.84	-2.62	.084	-0.84	-1.54	.084
.087	-0.87	-1.19	.087	-0.87	-2.34	.087	-0.87	-5.00	.087	-0.87	-2.57	.087	-0.87	-1.54	.087
.090	-0.90	-1.18	.090	-0.90	-2.31	.090	-0.90	-5.14	.090	-0.90	-2.52	.090	-0.90	-1.54	.090
.105	-1.05	-1.14	.105	-1.05	-2.25	.105	-1.05	-5.28	.105	-1.05	-2.46	.105	-1.05	-1.54	.105
.120	-1.20	-1.10	.120	-1.20	-2.19	.120	-1.20	-5.42	.120	-1.20	-2.40	.120	-1.20	-1.54	.120
.135	-1.35	-1.06	.135	-1.35	-2.13	.135	-1.35	-5.56	.135	-1.35	-2.34	.135	-1.35	-1.54	.135
.150	-1.50	-1.01	.150	-1.50	-2.07	.150	-1.50	-5.70	.150	-1.50	-2.28	.150	-1.50	-1.54	.150
.165	-1.65	-0.97	.165	-1.65	-2.01	.165	-1.65	-5.84	.165	-1.65	-2.22	.165	-1.65	-1.54	.165
.180	-1.80	-0.93	.180	-1.80	-1.95	.180	-1.80	-5.98	.180	-1.80	-2.16	.180	-1.80	-1.54	.180
.195	-1.95	-0.89	.195	-1.95	-1.89	.195	-1.95	-6.12	.195	-1.95	-2.10	.195	-1.95	-1.54	.195
.210	-2.10	-0.85	.210	-2.10	-1.83	.210	-2.10	-6.26	.210	-2.10	-2.04	.210	-2.10	-1.54	.210
.225	-2.25	-0.81	.225	-2.25	-1.77	.225	-2.25	-6.40	.225	-2.25	-1.98	.225	-2.25	-1.54	.225
.240	-2.40	-0.77	.240	-2.40	-1.71	.240	-2.40	-6.54	.240	-2.40	-1.92	.240	-2.40	-1.54	.240
.255	-2.55	-0.74	.255	-2.55	-1.65	.255	-2.55	-6.68	.255	-2.55	-1.86	.255	-2.55	-1.54	.255
.270	-2.70	-0.70	.270	-2.70	-1.59	.270	-2.70	-6.82	.270	-2.70	-1.80	.270	-2.70	-1.54	.270
.285	-2.85	-0.66	.285	-2.85	-1.53	.285	-2.85	-6.96	.285	-2.85	-1.74	.285	-2.85	-1.54	.285
.300	-3.00	-0.63	.300	-3.00	-1.47	.300	-3.00	-7.10	.300	-3.00	-1.68	.300	-3.00	-1.54	.300

Table 7. Vertical Electric Field (Sea Water), Frequency = 1.0 MHz, VED Height = 449.52 m

3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
.000	-0.00	-1.00	.000	-1.25	-2.58	.000	-1.10	-2.58	.000	-1.10	-2.58	.000	-1.10	-2.58	.000
.003	-0.01	-1.01	.010	-1.30	-2.59	.010	-1.15	-2.59	.010	-1.15	-2.59	.010	-1.15	-2.59	.010
.006	-0.02	-1.02	.020	-1.35	-2.60	.020	-1.20	-2.60	.020	-1.20	-2.60	.020	-1.20	-2.60	.020
.009	-0.03	-1.03	.030	-1.40	-2.61	.030	-1.25	-2.61	.030	-1.25	-2.61	.030	-1.25	-2.61	.030
.012	-0.04	-1.04	.040	-1.45	-2.62	.040	-1.30	-2.62	.040	-1.30	-2.62	.040	-1.30	-2.62	.040
.015	-0.05	-1.05	.050	-1.50	-2.63	.050	-1.35	-2.63	.050	-1.35	-2.63	.050	-1.35	-2.63	.050
.018	-0.06	-1.06	.060	-1.55	-2.64	.060	-1.40	-2.64	.060	-1.40	-2.64	.060	-1.40	-2.64	.060
.021	-0.07	-1.07	.070	-1.60	-2.65	.070	-1.45	-2.65	.070	-1.45	-2.65	.070	-1.45	-2.65	.070
.024	-0.08	-1.08	.080	-1.65	-2.66	.080	-1.50	-2.66	.080	-1.50	-2.66	.080	-1.50	-2.66	.080
.027	-0.09	-1.09	.090	-1.70	-2.67	.090	-1.55	-2.67	.090	-1.55	-2.67	.090	-1.55	-2.67	.090
.030	-0.10	-1.10	.100	-1.75	-2.68	.100	-1.60	-2.68	.100	-1.60	-2.68	.100	-1.60	-2.68	.100
.033	-0.11	-1.11	.110	-1.80	-2.69	.110	-1.65	-2.69	.110	-1.65	-2.69	.110	-1.65	-2.69	.110
.036	-0.12	-1.12	.120	-1.85	-2.70	.120	-1.70	-2.70	.120	-1.70	-2.70	.120	-1.70	-2.70	.120
.039	-0.13	-1.13	.130	-1.90	-2.71	.130	-1.75	-2.71	.130	-1.75	-2.71	.130	-1.75	-2.71	.130
.042	-0.14	-1.14	.140	-1.95	-2.72	.140	-1.80	-2.72	.140	-1.80	-2.72	.140	-1.80	-2.72	.140
.045	-0.15	-1.15	.150	-2.00	-2.73	.150	-1.85	-2.73	.150	-1.85	-2.73	.150	-1.85	-2.73	.150
.048	-0.16	-1.16	.160	-2.05	-2.74	.160	-1.90	-2.74	.160	-1.90	-2.74	.160	-1.90	-2.74	.160
.051	-0.17	-1.17	.170	-2.10	-2.75	.170	-1.95	-2.75	.170	-1.95	-2.75	.170	-1.95	-2.75	.170
.054	-0.18	-1.18	.180	-2.15	-2.76	.180	-2.00	-2.76	.180	-2.00	-2.76	.180	-2.00	-2.76	.180
.057	-0.19	-1.19	.190	-2.20	-2.77	.190	-2.05	-2.77	.190	-2.05	-2.77	.190	-2.05	-2.77	.190
.060	-0.20	-1.20	.200	-2.25	-2.78	.200	-2.10	-2.78	.200	-2.10	-2.78	.200	-2.10	-2.78	.200
.063	-0.21	-1.21	.210	-2.30	-2.79	.210	-2.15	-2.79	.210	-2.15	-2.79	.210	-2.15	-2.79	.210
.066	-0.22	-1.22	.220	-2.35	-2.80	.220	-2.20	-2.80	.220	-2.20	-2.80	.220	-2.20	-2.80	.220
.069	-0.23	-1.23	.230	-2.40	-2.81	.230	-2.25	-2.81	.230	-2.25	-2.81	.230	-2.25	-2.81	.230
.072	-0.24	-1.24	.240	-2.45	-2.82	.240	-2.30	-2.82	.240	-2.30	-2.82	.240	-2.30	-2.82	.240
.075	-0.25	-1.25	.250	-2.50	-2.83	.250	-2.35	-2.83	.250	-2.35	-2.83	.250	-2.35	-2.83	.250
.078	-0.26	-1.26	.260	-2.55	-2.84	.260	-2.40	-2.84	.260	-2.40	-2.84	.260	-2.40	-2.84	.260
.081	-0.27	-1.27	.270	-2.60	-2.85	.270	-2.45	-2.85	.270	-2.45	-2.85	.270	-2.45	-2.85	.270
.084	-0.28	-1.28	.280	-2.65	-2.86	.280	-2.50	-2.86	.280	-2.50	-2.86	.280	-2.50	-2.86	.280
.087	-0.29	-1.29	.290	-2.70	-2.87	.290	-2.55	-2.87	.290	-2.55	-2.87	.290	-2.55	-2.87	.290
.090	-0.30	-1.30	.300	-2.75	-2.88	.300	-2.60	-2.88	.300	-2.60	-2.88	.300	-2.60	-2.88	.300
.105	-0.35	-1.35	.350	-2.85	-2.93	.350	-2.70	-2.93	.350	-2.70	-2.93	.350	-2.70	-2.93	.350
.120	-0.40	-1.40	.400	-2.95	-2.98	.400	-2.80	-2.98	.400	-2.80	-2.98	.400	-2.80	-2.98	.400
.135	-0.45	-1.45	.450	-3.05	-3.03	.450	-2.90	-3.03	.450	-2.90	-3.03	.450	-2.90	-3.03	.450
.150	-0.50	-1.50	.500	-3.15	-3.08	.500	-3.00	-3.08	.500	-3.00	-3.08	.500	-3.00	-3.08	.500
.165	-0.55	-1.55	.550	-3.25	-3.13	.550	-3.10	-3.13	.550	-3.10	-3.13	.550	-3.10	-3.13	.550
.180	-0.60	-1.60	.600	-3.35	-3.18	.600	-3.20	-3.18	.600	-3.20	-3.18	.600	-3.20	-3.18	.600
.195	-0.65	-1.65	.650	-3.45	-3.23	.650	-3.30	-3.23	.650	-3.30	-3.23	.650	-3.30	-3.23	.650
.210	-0.70	-1.70	.700	-3.55	-3.28	.700	-3.40	-3.28	.700	-3.40	-3.28	.700	-3.40	-3.28	.700
.225	-0.75	-1.75	.750	-3.65	-3.33	.750	-3.50	-3.33	.750	-3.50	-3.33	.750	-3.50	-3.33	.750
.240	-0.80	-1.80	.800	-3.75	-3.38	.800	-3.60	-3.38	.800	-3.60	-3.38	.800	-3.60	-3.38	.800
.255	-0.85	-1.85	.850	-3.85	-3.43	.850	-3.70	-3.43	.850	-3.70	-3.43	.850	-3.70	-3.43	.850
.270	-0.90	-1.90	.900	-3.95	-3.48	.900	-3.80	-3.48	.900	-3.80	-3.48	.900	-3.80	-3.48	.900
.285	-0.95	-1.95	.950	-4.05	-3.53	.950	-3.90	-3.53	.950	-3.90	-3.53	.950	-3.90	-3.53	.950
.300	-1.00	-2.00	1.000	-4.15	-3.58	1.000	-4.00	-3.58	1.000	-4.00	-3.58	1.000	-4.00	-3.58	1.000

Table 8. Vertical Electric Field (Sea Water), Frequency = 10.0 MHz, VED Height = 0.00 m

3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)
0.00	-1.01	-21.14	0.00	-1.07	-65.66	0.00	-1.07	-65.66	0.00	-5.358	-113.58	0.00	-5.358	-113.58
0.03	-1.03	-20.84	0.03	-1.20	-57.46	0.03	-1.20	-57.46	0.03	-6.689	-102.56	0.03	-6.689	-102.56
0.06	-1.06	-20.56	0.06	-1.25	-56.43	0.06	-1.25	-56.43	0.06	-7.576	-90.27	0.06	-7.576	-90.27
0.09	-1.09	-20.29	0.09	-1.30	-55.40	0.09	-1.30	-55.40	0.09	-8.464	-78.01	0.09	-8.464	-78.01
0.12	-1.12	-19.97	0.12	-1.35	-54.36	0.12	-1.35	-54.36	0.12	-9.351	-65.97	0.12	-9.351	-65.97
0.15	-1.15	-19.67	0.15	-1.40	-53.32	0.15	-1.40	-53.32	0.15	-10.238	-53.92	0.15	-10.238	-53.92
0.18	-1.18	-19.36	0.18	-1.45	-52.29	0.18	-1.45	-52.29	0.18	-11.125	-41.87	0.18	-11.125	-41.87
0.21	-1.21	-19.06	0.21	-1.50	-51.25	0.21	-1.50	-51.25	0.21	-12.012	-29.82	0.21	-12.012	-29.82
0.24	-1.24	-18.75	0.24	-1.55	-50.21	0.24	-1.55	-50.21	0.24	-12.900	-17.77	0.24	-12.900	-17.77
0.27	-1.27	-18.45	0.27	-1.60	-49.17	0.27	-1.60	-49.17	0.27	-13.787	-5.72	0.27	-13.787	-5.72
0.30	-1.30	-18.15	0.30	-1.65	-48.13	0.30	-1.65	-48.13	0.30	-14.674	6.33	0.30	-14.674	6.33
0.33	-1.33	-17.85	0.33	-1.70	-47.09	0.33	-1.70	-47.09	0.33	-15.561	18.38	0.33	-15.561	18.38
0.36	-1.36	-17.55	0.36	-1.75	-46.05	0.36	-1.75	-46.05	0.36	-16.448	30.43	0.36	-16.448	30.43
0.39	-1.39	-17.25	0.39	-1.80	-45.01	0.39	-1.80	-45.01	0.39	-17.335	42.48	0.39	-17.335	42.48
0.42	-1.42	-16.95	0.42	-1.85	-43.97	0.42	-1.85	-43.97	0.42	-18.222	54.53	0.42	-18.222	54.53
0.45	-1.45	-16.65	0.45	-1.90	-42.93	0.45	-1.90	-42.93	0.45	-19.109	66.58	0.45	-19.109	66.58
0.48	-1.48	-16.35	0.48	-1.95	-41.89	0.48	-1.95	-41.89	0.48	-20.000	78.63	0.48	-20.000	78.63
0.51	-1.51	-16.05	0.51	-2.00	-40.85	0.51	-2.00	-40.85	0.51	-20.887	90.68	0.51	-20.887	90.68
0.54	-1.54	-15.75	0.54	-2.05	-39.81	0.54	-2.05	-39.81	0.54	-21.774	102.73	0.54	-21.774	102.73
0.57	-1.57	-15.45	0.57	-2.10	-38.77	0.57	-2.10	-38.77	0.57	-22.661	114.78	0.57	-22.661	114.78
0.60	-1.60	-15.15	0.60	-2.15	-37.73	0.60	-2.15	-37.73	0.60	-23.548	126.83	0.60	-23.548	126.83
0.63	-1.63	-14.85	0.63	-2.20	-36.69	0.63	-2.20	-36.69	0.63	-24.435	138.88	0.63	-24.435	138.88
0.66	-1.66	-14.55	0.66	-2.25	-35.65	0.66	-2.25	-35.65	0.66	-25.322	150.93	0.66	-25.322	150.93
0.69	-1.69	-14.25	0.69	-2.30	-34.61	0.69	-2.30	-34.61	0.69	-26.209	162.98	0.69	-26.209	162.98
0.72	-1.72	-13.95	0.72	-2.35	-33.57	0.72	-2.35	-33.57	0.72	-27.096	175.03	0.72	-27.096	175.03
0.75	-1.75	-13.65	0.75	-2.40	-32.53	0.75	-2.40	-32.53	0.75	-27.983	187.08	0.75	-27.983	187.08
0.78	-1.78	-13.35	0.78	-2.45	-31.49	0.78	-2.45	-31.49	0.78	-28.870	199.13	0.78	-28.870	199.13
0.81	-1.81	-13.05	0.81	-2.50	-30.45	0.81	-2.50	-30.45	0.81	-29.757	211.18	0.81	-29.757	211.18
0.84	-1.84	-12.75	0.84	-2.55	-29.41	0.84	-2.55	-29.41	0.84	-30.644	223.23	0.84	-30.644	223.23
0.87	-1.87	-12.45	0.87	-2.60	-28.37	0.87	-2.60	-28.37	0.87	-31.531	235.28	0.87	-31.531	235.28
0.90	-1.90	-12.15	0.90	-2.65	-27.33	0.90	-2.65	-27.33	0.90	-32.418	247.33	0.90	-32.418	247.33
1.05	-2.05	-11.85	1.05	-2.75	-26.29	1.05	-2.75	-26.29	1.05	-33.305	259.38	1.05	-33.305	259.38
1.20	-2.20	-11.35	1.20	-2.90	-25.25	1.20	-2.90	-25.25	1.20	-34.192	271.43	1.20	-34.192	271.43
1.35	-2.35	-10.85	1.35	-3.05	-24.21	1.35	-3.05	-24.21	1.35	-35.079	283.48	1.35	-35.079	283.48
1.50	-2.50	-10.35	1.50	-3.20	-23.17	1.50	-3.20	-23.17	1.50	-35.966	295.53	1.50	-35.966	295.53
1.65	-2.65	-9.85	1.65	-3.35	-22.13	1.65	-3.35	-22.13	1.65	-36.853	307.58	1.65	-36.853	307.58
1.80	-2.80	-9.35	1.80	-3.50	-21.09	1.80	-3.50	-21.09	1.80	-37.740	319.63	1.80	-37.740	319.63
1.95	-2.95	-8.85	1.95	-3.65	-20.05	1.95	-3.65	-20.05	1.95	-38.627	331.68	1.95	-38.627	331.68
2.10	-3.10	-8.35	2.10	-3.80	-19.01	2.10	-3.80	-19.01	2.10	-39.514	343.73	2.10	-39.514	343.73
2.25	-3.25	-7.85	2.25	-3.95	-17.97	2.25	-3.95	-17.97	2.25	-40.401	355.78	2.25	-40.401	355.78
2.40	-3.40	-7.35	2.40	-4.10	-16.93	2.40	-4.10	-16.93	2.40	-41.288	367.83	2.40	-41.288	367.83
2.55	-3.55	-6.85	2.55	-4.25	-15.89	2.55	-4.25	-15.89	2.55	-42.175	379.88	2.55	-42.175	379.88
2.70	-3.70	-6.35	2.70	-4.40	-14.85	2.70	-4.40	-14.85	2.70	-43.062	391.93	2.70	-43.062	391.93
2.85	-3.85	-5.85	2.85	-4.55	-13.81	2.85	-4.55	-13.81	2.85	-43.949	403.98	2.85	-43.949	403.98
3.00	-4.00	-5.35	3.00	-4.70	-12.77	3.00	-4.70	-12.77	3.00	-44.836	416.03	3.00	-44.836	416.03

Table 9. Vertical Electric Field (Sea Water), Frequency = 10.0 MHz, VED Height = 22.48 m

3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
0.00	-4.57	-16.91	0.00	-1.884	-35.18	0.00	-1.994	-63.35	0.00	-5.890	-111.27	0.00	-5.890	-111.27	0.00
0.03	-5.11	-16.60	0.10	-1.029	-35.16	0.30	-2.417	-60.25	0.100	-7.020	-100.24	0.100	-7.020	-100.24	0.100
0.06	-5.54	-16.30	0.20	-1.163	-34.13	0.60	-2.777	-57.03	0.200	-7.908	-87.96	0.200	-7.908	-87.96	0.200
0.09	-5.95	-16.00	0.30	-1.285	-33.09	0.90	-3.075	-53.76	0.300	-8.307	-75.70	0.300	-8.307	-75.70	0.300
0.12	-6.34	-17.69	0.40	-1.395	-32.06	1.20	-3.313	-50.50	0.400	-8.499	-64.66	0.400	-8.499	-64.66	0.400
0.15	-6.72	-17.39	0.50	-1.496	-31.02	1.50	-3.494	-47.31	0.500	-8.024	-55.42	0.500	-8.024	-55.42	0.500
0.18	-7.08	-17.08	0.60	-1.586	-29.99	1.80	-3.625	-44.23	0.600	-7.627	-47.97	0.600	-7.627	-47.97	0.600
0.21	-7.42	-16.78	0.70	-1.666	-28.98	2.10	-3.711	-41.30	0.700	-7.183	-42.05	0.700	-7.183	-42.05	0.700
0.24	-7.75	-16.48	0.80	-1.737	-27.98	2.40	-3.759	-38.54	0.800	-6.743	-37.33	0.800	-6.743	-37.33	0.800
0.27	-8.07	-16.18	0.90	-1.799	-27.00	2.70	-3.776	-35.97	0.900	-6.329	-33.51	0.900	-6.329	-33.51	0.900
0.30	-8.37	-15.88	1.00	-1.853	-26.04	3.00	-3.767	-33.58	1.000	-5.948	-30.40	1.000	-5.948	-30.40	1.000
0.33	-8.66	-15.58	1.10	-1.900	-25.11	3.30	-3.739	-31.38	1.100	-5.603	-27.81	1.100	-5.603	-27.81	1.100
0.36	-8.94	-15.29	1.20	-1.940	-24.20	3.60	-3.695	-29.36	1.200	-5.291	-25.62	1.200	-5.291	-25.62	1.200
0.39	-9.20	-15.00	1.30	-1.974	-23.32	3.90	-3.640	-27.51	1.300	-5.011	-23.76	1.300	-5.011	-23.76	1.300
0.42	-9.45	-14.71	1.40	-2.002	-22.47	4.20	-3.578	-25.82	1.400	-4.758	-22.16	1.400	-4.758	-22.16	1.400
0.45	-9.69	-14.43	1.50	-2.025	-21.65	4.50	-3.509	-24.26	1.500	-4.530	-20.76	1.500	-4.530	-20.76	1.500
0.48	-9.92	-14.15	1.60	-2.043	-20.86	4.80	-3.438	-22.87	1.600	-4.324	-19.52	1.600	-4.324	-19.52	1.600
0.51	-1.014	-13.87	1.70	-2.057	-20.09	5.10	-3.365	-21.57	1.700	-4.136	-18.42	1.700	-4.136	-18.42	1.700
0.54	-1.035	-13.60	1.80	-2.067	-19.36	5.40	-3.291	-20.34	1.800	-3.966	-17.44	1.800	-3.966	-17.44	1.800
0.57	-1.055	-13.33	1.90	-2.073	-18.65	5.70	-3.216	-19.16	1.900	-3.810	-16.56	1.900	-3.810	-16.56	1.900
0.60	-1.074	-13.06	2.00	-2.077	-17.98	6.00	-3.146	-18.32	2.000	-3.668	-15.75	2.000	-3.668	-15.75	2.000
0.63	-1.092	-12.80	2.10	-2.078	-17.33	6.30	-3.075	-17.60	2.100	-3.538	-15.02	2.100	-3.538	-15.02	2.100
0.66	-1.110	-12.54	2.20	-2.077	-16.71	6.60	-3.007	-16.56	2.200	-3.418	-14.35	2.200	-3.418	-14.35	2.200
0.69	-1.126	-12.28	2.30	-2.074	-16.11	6.90	-2.941	-15.76	2.300	-3.307	-13.74	2.300	-3.307	-13.74	2.300
0.72	-1.142	-12.03	2.40	-2.070	-15.54	7.20	-2.877	-15.07	2.400	-3.205	-13.17	2.400	-3.205	-13.17	2.400
0.75	-1.158	-11.79	2.50	-2.063	-15.00	7.50	-2.817	-14.40	2.500	-3.111	-12.64	2.500	-3.111	-12.64	2.500
0.78	-1.172	-11.55	2.60	-2.056	-14.48	7.80	-2.756	-13.78	2.600	-3.024	-12.15	2.600	-3.024	-12.15	2.600
0.81	-1.186	-11.31	2.70	-2.048	-13.98	8.10	-2.703	-13.21	2.700	-2.943	-11.69	2.700	-2.943	-11.69	2.700
0.84	-1.200	-11.08	2.80	-2.039	-13.50	8.40	-2.650	-12.67	2.800	-2.867	-11.26	2.800	-2.867	-11.26	2.800
0.87	-1.213	-10.85	2.90	-2.029	-13.05	8.70	-2.599	-12.17	2.900	-2.797	-10.86	2.900	-2.797	-10.86	2.900
0.90	-1.225	-10.62	3.00	-2.019	-12.61	9.00	-2.551	-11.71	3.000	-2.732	-10.48	3.000	-2.732	-10.48	3.000
1.05	-1.282	-9.57	3.50	-1.965	-10.70	1.050	-2.346	-9.76	3.500	-2.465	-8.89	3.500	-2.465	-8.89	3.500
1.20	-1.331	-8.61	4.00	-1.913	-9.16	1.200	-2.191	-8.29	4.000	-2.274	-7.66	4.000	-2.274	-7.66	4.000
1.35	-1.377	-7.75	4.50	-1.870	-7.92	1.350	-2.077	-7.15	4.500	-2.137	-6.67	4.500	-2.137	-6.67	4.500
1.50	-1.421	-6.96	5.00	-1.836	-6.89	1.500	-1.996	-6.23	5.000	-2.041	-5.86	5.000	-2.041	-5.86	5.000
1.65	-1.467	-6.24	5.50	-1.814	-6.04	1.650	-1.941	-5.47	5.500	-1.976	-5.19	5.500	-1.976	-5.19	5.500
1.80	-1.514	-5.67	6.00	-1.814	-5.42	1.800	-1.910	-4.84	6.000	-1.938	-4.61	6.000	-1.938	-4.61	6.000
1.95	-1.560	-5.11	6.50	-1.821	-4.71	1.950	-1.898	-4.30	6.500	-1.920	-4.11	6.500	-1.920	-4.11	6.500
2.10	-1.602	-4.61	7.00	-1.840	-4.19	2.100	-1.903	-3.83	7.000	-1.921	-3.67	7.000	-1.921	-3.67	7.000
2.25	-1.643	-4.16	7.50	-1.870	-3.73	2.250	-1.923	-3.42	7.500	-1.938	-3.29	7.500	-1.938	-3.29	7.500
2.40	-1.683	-3.76	8.00	-1.912	-3.33	2.400	-1.956	-3.06	8.000	-1.969	-2.95	8.000	-1.969	-2.95	8.000
2.55	-1.724	-3.39	8.50	-1.965	-2.97	2.550	-2.002	-2.73	8.500	-2.013	-2.64	8.500	-2.013	-2.64	8.500
2.70	-1.765	-3.05	9.00	-2.027	-2.65	2.700	-2.059	-2.44	9.000	-2.069	-2.36	9.000	-2.069	-2.36	9.000
2.85	-1.806	-2.74	9.50	-2.100	-2.36	2.850	-2.127	-2.14	9.500	-2.136	-2.11	9.500	-2.136	-2.11	9.500
3.00	-1.847	-2.46	1.000	-2.182	-2.10	3.000	-2.206	-1.93	10.000	-2.213	-1.87	10.000	-2.213	-1.87	10.000

Table 10. Vertical Electric Field (Sea Water), Frequency = 10.0 MHz, VED Height = 44.95 m

3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)
0.00	-0.57	-16.70	0.00	-1.135	-33.84	0.00	-2.282	-60.96	0.00	-6.004	-108.85	0.00	-6.004	-108.85	0.00
0.03	-0.702	-16.40	0.10	-1.280	-32.83	0.30	-2.705	-57.86	0.60	-3.066	-54.65	1.00	-3.066	-54.65	1.00
0.06	-0.745	-16.09	0.20	-1.415	-31.80	0.60	-3.066	-54.65	0.90	-3.366	-51.38	1.20	-3.366	-51.38	1.20
0.09	-0.788	-15.79	0.30	-1.538	-30.76	0.90	-3.366	-51.38	1.20	-3.606	-48.13	1.50	-3.606	-48.13	1.50
0.12	-0.829	-15.49	0.40	-1.651	-29.73	1.20	-3.606	-48.13	1.50	-3.791	-44.94	1.80	-3.791	-44.94	1.80
0.15	-0.870	-15.18	0.50	-1.755	-28.70	1.50	-3.791	-44.94	1.80	-3.926	-41.87	2.00	-3.926	-41.87	2.00
0.18	-0.909	-14.88	0.60	-1.848	-27.67	1.80	-3.926	-41.87	2.10	-4.018	-38.95	2.30	-4.018	-38.95	2.30
0.21	-0.948	-14.58	0.70	-1.933	-26.66	2.10	-4.018	-38.95	2.40	-4.095	-36.19	2.60	-4.095	-36.19	2.60
0.24	-0.988	-14.28	0.80	-2.009	-25.67	2.40	-4.095	-36.19	2.70	-4.168	-33.62	2.90	-4.168	-33.62	2.90
0.27	-1.023	-13.98	0.90	-2.077	-24.70	2.70	-4.168	-33.62	3.00	-4.236	-31.23	3.20	-4.236	-31.23	3.20
0.30	-1.059	-13.69	1.00	-2.138	-23.74	3.00	-4.236	-31.23	3.30	-4.299	-29.03	3.50	-4.299	-29.03	3.50
0.33	-1.095	-13.40	1.10	-2.193	-22.81	3.30	-4.299	-29.03	3.60	-4.358	-27.01	3.80	-4.358	-27.01	3.80
0.36	-1.130	-13.10	1.20	-2.241	-21.91	3.60	-4.358	-27.01	3.90	-4.413	-25.16	4.00	-4.413	-25.16	4.00
0.39	-1.164	-12.82	1.30	-2.283	-21.03	3.90	-4.413	-25.16	4.20	-4.464	-23.46	4.30	-4.464	-23.46	4.30
0.42	-1.198	-12.53	1.40	-2.320	-20.18	4.20	-4.464	-23.46	4.40	-4.511	-21.91	4.50	-4.511	-21.91	4.50
0.45	-1.231	-12.25	1.50	-2.353	-19.36	4.50	-4.511	-21.91	4.60	-4.554	-20.49	4.70	-4.554	-20.49	4.70
0.48	-1.264	-11.97	1.60	-2.382	-18.57	4.80	-4.554	-20.49	4.90	-4.593	-19.70	5.00	-4.593	-19.70	5.00
0.51	-1.297	-11.70	1.70	-2.408	-17.81	5.10	-4.593	-19.70	5.20	-4.628	-18.92	5.30	-4.628	-18.92	5.30
0.54	-1.329	-11.43	1.80	-2.430	-17.08	5.40	-4.628	-18.92	5.50	-4.659	-18.04	5.60	-4.659	-18.04	5.60
0.57	-1.361	-11.16	1.90	-2.449	-16.37	5.70	-4.659	-18.04	5.80	-4.686	-17.23	5.90	-4.686	-17.23	5.90
0.60	-1.393	-10.89	2.00	-2.467	-15.69	6.00	-4.686	-17.23	6.10	-4.711	-16.49	6.20	-4.711	-16.49	6.20
0.63	-1.424	-10.63	2.10	-2.482	-15.04	6.30	-4.711	-16.49	6.40	-4.733	-15.81	6.50	-4.733	-15.81	6.50
0.66	-1.456	-10.38	2.20	-2.496	-14.42	6.60	-4.733	-15.81	6.70	-4.752	-15.18	6.80	-4.752	-15.18	6.80
0.69	-1.487	-10.12	2.30	-2.508	-13.82	6.90	-4.752	-15.18	7.00	-4.769	-14.61	7.10	-4.769	-14.61	7.10
0.72	-1.519	-9.87	2.40	-2.520	-13.25	7.20	-4.769	-14.61	7.30	-4.783	-14.09	7.40	-4.783	-14.09	7.40
0.75	-1.550	-9.63	2.50	-2.531	-12.70	7.50	-4.783	-14.09	7.60	-4.795	-13.61	7.70	-4.795	-13.61	7.70
0.78	-1.581	-9.39	2.60	-2.541	-12.17	7.80	-4.795	-13.61	7.90	-4.805	-13.17	8.00	-4.805	-13.17	8.00
0.81	-1.613	-9.15	2.70	-2.550	-11.67	8.10	-4.805	-13.17	8.20	-4.814	-12.74	8.30	-4.814	-12.74	8.30
0.84	-1.645	-8.92	2.80	-2.560	-11.18	8.40	-4.814	-12.74	8.50	-4.822	-12.34	8.60	-4.822	-12.34	8.60
0.87	-1.676	-8.69	2.90	-2.570	-10.72	8.70	-4.822	-12.34	8.80	-4.829	-11.92	8.90	-4.829	-11.92	8.90
0.90	-1.709	-8.46	3.00	-2.580	-10.28	9.00	-4.829	-11.92	9.10	-4.835	-11.51	9.20	-4.835	-11.51	9.20
1.05	-1.874	-7.34	3.50	-2.635	-8.32	1.05	-4.835	-11.51	9.50	-4.835	-11.51	9.50	-4.835	-11.51	9.50
1.20	-2.050	-6.41	4.00	-2.710	-6.72	1.20	-4.835	-11.51	10.00	-4.835	-11.51	10.00	-4.835	-11.51	10.00
1.35	-2.226	-5.52	4.50	-2.812	-5.40	1.35	-4.835	-11.51	10.50	-4.835	-11.51	10.50	-4.835	-11.51	10.50
1.50	-2.403	-4.69	5.00	-2.943	-4.29	1.50	-4.835	-11.51	11.00	-4.835	-11.51	11.00	-4.835	-11.51	11.00
1.65	-2.579	-3.94	5.50	-3.107	-3.35	1.65	-4.835	-11.51	11.50	-4.835	-11.51	11.50	-4.835	-11.51	11.50
1.80	-2.755	-3.24	6.00	-3.305	-2.52	1.80	-4.835	-11.51	12.00	-4.835	-11.51	12.00	-4.835	-11.51	12.00
1.95	-2.931	-2.58	6.50	-3.539	-1.78	1.95	-4.835	-11.51	12.50	-4.835	-11.51	12.50	-4.835	-11.51	12.50
2.10	-3.107	-1.97	7.00	-3.810	-1.11	2.10	-4.835	-11.51	13.00	-4.835	-11.51	13.00	-4.835	-11.51	13.00
2.25	-3.283	-1.38	7.50	-4.119	-0.44	2.25	-4.835	-11.51	13.50	-4.835	-11.51	13.50	-4.835	-11.51	13.50
2.40	-3.459	-0.81	8.00	-4.464	0.24	2.40	-4.835	-11.51	14.00	-4.835	-11.51	14.00	-4.835	-11.51	14.00
2.55	-3.635	-0.26	8.50	-4.842	0.96	2.55	-4.835	-11.51	14.50	-4.835	-11.51	14.50	-4.835	-11.51	14.50
2.70	-3.811	0.30	9.00	-5.242	1.63	2.70	-4.835	-11.51	15.00	-4.835	-11.51	15.00	-4.835	-11.51	15.00
2.85	-3.987	0.86	9.50	-5.673	2.23	2.85	-4.835	-11.51	15.50	-4.835	-11.51	15.50	-4.835	-11.51	15.50
3.00	-4.163	1.45	1.00	-6.140	2.80	3.00	-4.835	-11.51	16.00	-4.835	-11.51	16.00	-4.835	-11.51	16.00

Table 11. Vertical Electric Field (Sea Water), Frequency = 100.0 MHz, VED Height = 0.00 m

1.0 KM DOWNRANGE				3.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)
0.000	-6.032	-109.86	0.000	-28.213	-172.66	0.000	-38.478
0.001	-6.460	-106.43	0.010	-27.865	-123.44	0.010	-33.518
0.002	-6.886	-102.82	0.020	-27.607	-80.85	0.020	-28.739
0.003	-7.311	-99.06	0.030	-27.431	-63.24	0.030	-23.013
0.004	-7.736	-95.19	0.040	-27.213	-54.82	0.040	-20.472
0.005	-8.161	-91.25	0.050	-27.165	-47.77	0.050	-18.009
0.006	-8.586	-87.26	0.060	-27.152	-40.31	0.060	-17.118
0.007	-9.011	-83.33	0.070	-27.136	-33.76	0.070	-15.893
0.008	-9.436	-79.45	0.080	-27.136	-27.82	0.080	-14.860
0.009	-9.861	-75.67	0.090	-27.136	-21.88	0.090	-13.971
0.010	-10.286	-72.03	0.100	-27.136	-15.94	0.100	-13.176
0.011	-10.711	-68.34	0.110	-27.136	-10.00	0.110	-12.411
0.012	-11.136	-64.65	0.120	-27.136	-4.06	0.120	-11.676
0.013	-11.561	-60.96	0.130	-27.136	1.88	0.130	-10.971
0.014	-11.986	-57.27	0.140	-27.136	7.94	0.140	-10.306
0.015	-12.411	-53.58	0.150	-27.136	13.99	0.150	-9.681
0.016	-12.836	-49.89	0.160	-27.136	19.99	0.160	-9.096
0.017	-13.261	-46.20	0.170	-27.136	25.99	0.170	-8.551
0.018	-13.686	-42.51	0.180	-27.136	31.99	0.180	-8.046
0.019	-14.111	-38.82	0.190	-27.136	37.99	0.190	-7.581
0.020	-14.536	-35.13	0.200	-27.136	43.99	0.200	-7.156
0.021	-14.961	-31.44	0.210	-27.136	49.99	0.210	-6.771
0.022	-15.386	-27.75	0.220	-27.136	55.99	0.220	-6.426
0.023	-15.811	-24.06	0.230	-27.136	61.99	0.230	-6.121
0.024	-16.236	-20.37	0.240	-27.136	67.99	0.240	-5.856
0.025	-16.661	-16.68	0.250	-27.136	73.99	0.250	-5.631
0.026	-17.086	-12.99	0.260	-27.136	79.99	0.260	-5.446
0.027	-17.511	-9.30	0.270	-27.136	85.99	0.270	-5.301
0.028	-17.936	-5.61	0.280	-27.136	91.99	0.280	-5.196
0.029	-18.361	-1.92	0.290	-27.136	97.99	0.290	-5.121
0.030	-18.786	1.77	0.300	-27.136	103.99	0.300	-5.076
0.035	-19.636	11.44	0.350	-27.136	113.99	0.350	-4.921
0.040	-20.486	21.11	0.400	-27.136	123.99	0.400	-4.776
0.045	-21.336	30.78	0.450	-27.136	133.99	0.450	-4.651
0.050	-22.186	40.45	0.500	-27.136	143.99	0.500	-4.546
0.055	-23.036	50.12	0.550	-27.136	153.99	0.550	-4.461
0.060	-23.886	59.79	0.600	-27.136	163.99	0.600	-4.396
0.065	-24.736	69.46	0.650	-27.136	173.99	0.650	-4.351
0.070	-25.586	79.13	0.700	-27.136	183.99	0.700	-4.326
0.075	-26.436	88.80	0.750	-27.136	193.99	0.750	-4.311
0.080	-27.286	98.47	0.800	-27.136	203.99	0.800	-4.306
0.085	-28.136	108.14	0.850	-27.136	213.99	0.850	-4.311
0.090	-28.986	117.81	0.900	-27.136	223.99	0.900	-4.326
0.095	-29.836	127.48	0.950	-27.136	233.99	0.950	-4.351
1.000	-30.686	137.15	1.000	-27.136	243.99	1.000	-4.386

Table 12. Vertical Electric Field (Sea Water), Frequency = 100.0 MHz, VED Height = 2.25 m

1.0 KM DOWNRANGE				3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE			
MEIGHT	AMP	PHASE	MEIGHT	AMP	PHASE	MEIGHT	AMP	PHASE	MEIGHT	AMP	PHASE	MEIGHT	AMP	PHASE	MEIGHT
(KM)	(UB)	(DEG)	(KM)	(UB)	(DEG)	(KM)	(UB)	(DEG)	(KM)	(UB)	(DEG)	(KM)	(UB)	(DEG)	(KM)
0.000	-0.951	-101.90	0.000	-15.857	-139.20	0.000	-29.200	-104.32	0.000	-34.463	-104.94	0.000	-34.463	-104.94	0.000
0.001	-7.384	-98.48	0.003	-17.127	-138.07	0.010	-31.851	-113.09	0.030	-34.503	-96.59	0.030	-34.503	-96.59	0.030
0.002	-7.774	-98.87	0.006	-18.113	-124.75	0.020	-28.593	-72.51	0.060	-27.724	-41.88	0.060	-27.724	-41.88	0.060
0.003	-8.131	-91.11	0.009	-18.636	-110.01	0.030	-24.917	-54.93	0.090	-23.949	-37.04	0.090	-23.949	-37.04	0.090
0.004	-8.436	-87.25	0.012	-18.622	-95.39	0.040	-22.200	-40.47	0.120	-21.474	-34.30	0.120	-21.474	-34.30	0.120
0.005	-8.692	-83.31	0.015	-18.165	-82.36	0.050	-20.152	-41.42	0.150	-19.596	-32.36	0.150	-19.596	-32.36	0.150
0.006	-8.898	-79.34	0.018	-17.447	-71.81	0.060	-18.540	-37.95	0.180	-18.106	-30.85	0.180	-18.106	-30.85	0.180
0.007	-9.054	-75.40	0.021	-16.626	-63.03	0.070	-17.226	-33.34	0.210	-16.882	-29.56	0.210	-16.882	-29.56	0.210
0.008	-9.162	-71.52	0.024	-15.798	-56.24	0.080	-16.127	-33.26	0.240	-15.851	-28.42	0.240	-15.851	-28.42	0.240
0.009	-9.229	-67.74	0.027	-15.009	-50.82	0.090	-15.188	-31.52	0.270	-14.964	-27.40	0.270	-14.964	-27.40	0.270
0.010	-9.259	-64.10	0.030	-14.278	-46.42	0.100	-14.374	-30.02	0.300	-14.190	-26.46	0.300	-14.190	-26.46	0.300
0.011	-9.257	-60.61	0.033	-13.608	-42.80	0.110	-13.659	-28.71	0.330	-13.507	-25.59	0.330	-13.507	-25.59	0.330
0.012	-9.195	-57.31	0.036	-12.998	-39.75	0.120	-13.024	-27.53	0.360	-12.899	-24.78	0.360	-12.899	-24.78	0.360
0.013	-9.120	-54.18	0.039	-12.442	-37.16	0.130	-12.456	-26.46	0.390	-12.551	-24.01	0.390	-12.551	-24.01	0.390
0.014	-9.037	-51.25	0.042	-11.935	-34.92	0.140	-11.944	-25.46	0.420	-11.656	-23.29	0.420	-11.656	-23.29	0.420
0.015	-8.951	-48.51	0.045	-11.471	-32.96	0.150	-11.479	-24.58	0.450	-11.406	-22.60	0.450	-11.406	-22.60	0.450
0.016	-8.861	-45.96	0.048	-11.046	-31.23	0.160	-11.055	-23.74	0.480	-10.994	-21.94	0.480	-10.994	-21.94	0.480
0.017	-8.768	-43.57	0.051	-10.655	-29.68	0.170	-10.667	-22.95	0.510	-10.615	-21.32	0.510	-10.615	-21.32	0.510
0.018	-8.659	-41.36	0.054	-10.295	-28.29	0.180	-10.307	-22.21	0.540	-10.266	-20.72	0.540	-10.266	-20.72	0.540
0.019	-8.541	-39.30	0.057	-9.962	-26.72	0.190	-9.979	-21.51	0.570	-9.943	-20.14	0.570	-9.943	-20.14	0.570
0.020	-8.427	-37.39	0.060	-9.654	-25.87	0.200	-9.673	-20.85	0.600	-9.943	-19.59	0.600	-9.943	-19.59	0.600
0.021	-8.319	-35.61	0.063	-9.367	-24.81	0.210	-9.389	-20.22	0.630	-9.563	-19.06	0.630	-9.563	-19.06	0.630
0.022	-8.190	-33.96	0.066	-9.100	-23.94	0.220	-9.124	-19.62	0.660	-9.103	-18.55	0.660	-9.103	-18.55	0.660
0.023	-8.040	-32.42	0.069	-8.850	-22.93	0.230	-8.876	-19.06	0.690	-8.659	-18.06	0.690	-8.659	-18.06	0.690
0.024	-7.890	-30.99	0.072	-8.617	-22.06	0.240	-8.645	-18.51	0.720	-8.630	-17.59	0.720	-8.630	-17.59	0.720
0.025	-7.750	-29.65	0.075	-8.398	-21.30	0.250	-8.427	-17.99	0.750	-8.410	-17.13	0.750	-8.410	-17.13	0.750
0.026	-7.644	-28.40	0.078	-8.193	-20.56	0.260	-8.223	-17.49	0.780	-8.214	-16.69	0.780	-8.214	-16.69	0.780
0.027	-7.516	-27.23	0.081	-7.999	-19.80	0.270	-8.031	-17.01	0.810	-8.024	-16.26	0.810	-8.024	-16.26	0.810
0.028	-7.392	-26.13	0.084	-7.816	-19.20	0.280	-7.850	-16.55	0.840	-7.844	-15.85	0.840	-7.844	-15.85	0.840
0.029	-7.271	-25.10	0.087	-7.646	-18.58	0.290	-7.678	-16.11	0.870	-7.675	-15.45	0.870	-7.675	-15.45	0.870
0.030	-7.155	-24.13	0.090	-7.484	-17.99	0.300	-7.517	-15.68	0.900	-7.514	-15.06	0.900	-7.514	-15.06	0.900
0.035	-6.424	-20.06	0.105	-6.793	-15.45	0.350	-6.826	-13.75	1.050	-6.826	-13.29	1.050	-6.826	-13.29	1.050
0.040	-5.994	-16.94	0.120	-6.258	-13.40	0.400	-6.289	-12.11	1.200	-6.293	-11.75	1.200	-6.293	-11.75	1.200
0.045	-5.636	-14.40	0.135	-5.836	-11.89	0.450	-5.865	-10.69	1.350	-5.870	-10.41	1.350	-5.870	-10.41	1.350
0.050	-5.344	-12.47	0.150	-5.501	-10.24	0.500	-5.527	-9.44	1.500	-5.532	-9.21	1.500	-5.532	-9.21	1.500
0.055	-5.106	-10.81	0.165	-5.232	-8.99	0.550	-5.256	-8.33	1.650	-5.261	-8.15	1.650	-5.261	-8.15	1.650
0.060	-4.913	-9.39	0.180	-5.017	-7.89	0.600	-5.039	-7.35	1.800	-5.044	-7.19	1.800	-5.044	-7.19	1.800
0.065	-4.760	-8.17	0.195	-4.847	-6.91	0.650	-4.867	-6.51	1.950	-4.872	-6.33	1.950	-4.872	-6.33	1.950
0.070	-4.640	-7.10	0.210	-4.714	-6.03	0.700	-4.732	-5.64	2.100	-4.736	-5.54	2.100	-4.736	-5.54	2.100
0.075	-4.540	-6.16	0.225	-4.613	-5.23	0.750	-4.629	-4.90	2.250	-4.633	-4.81	2.250	-4.633	-4.81	2.250
0.080	-4.463	-5.31	0.240	-4.539	-4.51	0.800	-4.554	-4.22	2.400	-4.558	-4.14	2.400	-4.558	-4.14	2.400
0.085	-4.440	-4.54	0.255	-4.490	-3.84	0.850	-4.503	-3.59	2.550	-4.507	-4.14	2.550	-4.507	-4.14	2.550
0.090	-4.410	-3.84	0.270	-4.462	-3.22	0.900	-4.474	-3.00	2.700	-4.477	-4.14	2.700	-4.477	-4.14	2.700
0.095	-4.414	-3.19	0.285	-4.454	-2.64	0.950	-4.465	-2.44	2.850	-4.466	-4.14	2.850	-4.466	-4.14	2.850
0.100	-4.426	-2.59	0.300	-4.463	-2.10	1.000	-4.474	-1.92	3.000	-4.477	-4.14	3.000	-4.477	-4.14	3.000

Table 13. Vertical Electric Field (Sea Water), Frequency = 100.0 MHz, VED Height = 4.50 m

1.0 KM DOWNRANGE				3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE			
MEI (MT)	AMP (DB)	PHASE (DEG)		MEI (MT)	AMP (DB)	PHASE (DEG)		MEI (MT)	AMP (DB)	PHASE (DEG)		MEI (MT)	AMP (DB)	PHASE (DEG)	
0.000	-7.046	-93.25		0.000	-16.044	-139.80		0.000	-30.061	-154.15		0.000	-40.316	-156.60	
0.001	-6.060	-84.82		0.003	-17.966	-126.68		0.010	-22.714	-144.92		0.030	-35.355	-146.25	
0.002	-6.477	-80.22		0.006	-18.956	-115.36		0.020	-24.455	-142.32		0.060	-38.577	-141.54	
0.003	-6.031	-82.47		0.009	-19.486	-106.01		0.030	-25.774	-144.73		0.090	-44.053	-140.69	
0.004	-5.141	-78.61		0.012	-19.481	-95.95		0.040	-26.064	-140.27		0.120	-42.335	-142.95	
0.005	-5.403	-74.66		0.015	-19.036	-82.08		0.050	-26.101	-141.21		0.150	-20.455	-142.02	
0.006	-5.010	-70.73		0.018	-18.320	-62.08		0.060	-19.404	-127.73		0.180	-18.969	-140.48	
0.007	-5.181	-60.74		0.021	-17.504	-53.45		0.070	-18.094	-23.11		0.210	-17.747	-139.18	
0.008	-5.700	-62.91		0.024	-16.681	-46.61		0.080	-17.004	-23.11		0.240	-16.723	-138.04	
0.009	-5.975	-59.13		0.027	-15.898	-41.15		0.090	-16.070	-21.26		0.270	-15.841	-137.00	
0.010	-10.011	-55.48		0.030	-15.173	-36.71		0.100	-15.262	-19.75		0.300	-15.074	-16.05	
0.011	-10.012	-51.98		0.033	-14.509	-33.04		0.110	-14.553	-18.41		0.330	-14.397	-15.17	
0.012	-9.784	-48.66		0.036	-13.905	-29.46		0.120	-13.925	-17.22		0.360	-13.796	-14.34	
0.013	-9.730	-45.51		0.039	-13.357	-27.33		0.130	-13.365	-16.13		0.390	-13.657	-13.56	
0.014	-9.850	-42.55		0.042	-12.858	-25.08		0.140	-12.861	-15.13		0.420	-12.770	-12.81	
0.015	-9.768	-39.78		0.045	-12.403	-23.06		0.150	-12.405	-14.21		0.450	-12.329	-12.11	
0.016	-9.684	-37.19		0.048	-11.988	-21.30		0.160	-11.992	-13.34		0.480	-11.927	-11.43	
0.017	-9.552	-34.77		0.051	-11.508	-19.72		0.170	-11.614	-12.53		0.510	-11.559	-10.78	
0.018	-9.434	-32.51		0.054	-11.059	-18.29		0.180	-11.268	-11.77		0.540	-11.222	-10.16	
0.019	-9.313	-30.41		0.057	-10.637	-16.99		0.190	-10.950	-11.04		0.570	-10.911	-9.56	
0.020	-9.189	-28.45		0.060	-10.241	-15.80		0.200	-10.657	-10.36		0.600	-10.623	-8.99	
0.021	-9.065	-26.62		0.063	-10.368	-14.70		0.210	-10.380	-9.70		0.630	-10.358	-8.43	
0.022	-8.946	-24.92		0.066	-10.115	-13.69		0.220	-10.135	-9.07		0.660	-10.111	-7.89	
0.023	-8.821	-23.33		0.069	-9.880	-12.74		0.230	-9.902	-8.47		0.690	-9.882	-7.37	
0.024	-8.693	-21.84		0.072	-9.662	-11.86		0.240	-9.686	-7.90		0.720	-9.669	-6.87	
0.025	-8.567	-20.45		0.075	-9.459	-11.03		0.250	-9.485	-7.34		0.750	-9.471	-6.38	
0.026	-8.446	-19.14		0.078	-9.270	-10.25		0.260	-9.298	-6.81		0.780	-9.256	-5.90	
0.027	-8.368	-17.92		0.081	-9.095	-9.51		0.270	-9.123	-6.29		0.810	-9.114	-5.44	
0.028	-8.265	-16.76		0.084	-8.931	-8.81		0.280	-8.960	-5.79		0.840	-8.953	-4.99	
0.029	-8.168	-15.68		0.087	-8.779	-8.15		0.290	-8.808	-5.31		0.870	-8.802	-4.55	
0.030	-8.071	-14.65		0.090	-8.636	-7.51		0.300	-8.666	-4.84		0.900	-8.662	-4.13	
0.035	-7.685	-10.27		0.105	-8.056	-4.72		0.350	-8.085	-2.64		1.050	-8.080	-2.14	
0.040	-7.386	-6.82		0.120	-7.649	-2.36		0.400	-7.677	-1.76		1.200	-7.680	-1.34	
0.045	-7.162	-3.99		0.135	-7.376	-1.35		0.450	-7.402	-0.95		1.350	-7.405	-1.31	
0.050	-7.043	-1.58		0.150	-7.209	-0.47		0.500	-7.232	-0.55		1.500	-7.236	-0.86	
0.055	-7.000	0.54		0.165	-7.131	0.34		0.550	-7.151	0.07		1.650	-7.155	0.33	
0.060	-7.024	2.46		0.180	-7.130	1.14		0.600	-7.146	0.53		1.800	-7.151	0.76	
0.065	-7.112	4.24		0.195	-7.198	2.06		0.650	-7.213	0.97		1.950	-7.216	1.11	
0.070	-7.259	5.96		0.210	-7.324	3.77		0.700	-7.342	1.47		2.100	-7.344	1.54	
0.075	-7.463	7.64		0.225	-7.520	5.29		0.750	-7.530	1.97		2.250	-7.532	1.80	
0.080	-7.724	9.33		0.240	-7.770	6.89		0.800	-7.777	2.47		2.400	-7.779	2.14	
0.085	-8.040	11.07		0.255	-8.076	8.49		0.850	-8.082	3.00		2.550	-8.083	2.44	
0.090	-8.414	12.90		0.270	-8.441	10.24		0.900	-8.444	3.52		2.700	-8.444	2.73	
0.095	-8.847	14.86		0.285	-8.868	12.15		0.950	-8.866	4.04		2.850	-8.866	3.00	
0.100	-9.341	17.01		0.300	-9.351	14.25		1.000	-9.349	4.57		3.000	-9.349	3.27	

Table 14. Radial Electric Field (Sea Water), Frequency = 0.1 MHz, VED Height = 0.00 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (UG)	PHASE (DEG)		HEIGHT (KM)	AMP (UG)	PHASE (DEG)		HEIGHT (KM)	AMP (UG)	PHASE (DEG)	
0.000	-58.565	4.46		0.000	-58.565	-89.004		0.000	-58.566	4.46	
0.030	-61.526	-74.27		0.100	-61.625	-74.09		0.300	-61.787	-80.35	
0.060	-58.954	-35.46		0.200	-57.021	-35.39		0.600	-57.127	-35.21	
0.090	-52.733	-20.92		0.300	-52.770	-20.79		1.000	-52.827	-20.58	
0.120	-49.730	-14.64		0.400	-49.754	-14.53		1.500	-49.789	-14.34	
0.150	-47.458	-11.22		0.500	-47.475	-11.13		2.000	-47.501	-10.98	
0.180	-45.844	-9.08		0.600	-45.857	-9.00		2.500	-45.676	-8.89	
0.210	-44.137	-7.63		0.700	-44.147	-7.56		3.000	-44.162	-7.45	
0.240	-42.849	-6.57		0.800	-42.858	-6.51		3.500	-42.870	-6.42	
0.270	-41.727	-5.77		0.900	-41.734	-5.72		4.000	-41.744	-5.63	
0.300	-40.751	-5.14		1.000	-40.738	-5.10		4.500	-40.746	-5.02	
0.330	-39.838	-4.64		1.100	-39.843	-4.60		5.000	-39.850	-4.53	
0.360	-39.027	-4.23		1.200	-39.032	-4.19		5.500	-39.038	-4.13	
0.390	-38.286	-3.88		1.300	-38.290	-3.84		6.000	-38.295	-3.79	
0.420	-37.602	-3.59		1.400	-37.606	-3.55		6.500	-37.611	-3.50	
0.450	-36.969	-3.33		1.500	-36.972	-3.30		7.000	-36.976	-3.26	
0.480	-36.376	-3.11		1.600	-36.381	-3.08		7.500	-36.385	-3.04	
0.510	-35.825	-2.92		1.700	-35.828	-2.89		8.000	-35.831	-2.85	
0.540	-35.305	-2.75		1.800	-35.308	-2.73		8.500	-35.310	-2.69	
0.570	-34.815	-2.60		1.900	-34.817	-2.58		9.000	-34.819	-2.54	
0.600	-34.350	-2.46		2.000	-34.353	-2.44		9.500	-34.355	-2.41	
0.630	-33.910	-2.34		2.100	-33.912	-2.32		10.000	-33.913	-2.29	
0.660	-33.490	-2.23		2.200	-33.492	-2.21		10.500	-33.494	-2.18	
0.690	-33.090	-2.13		2.300	-33.092	-2.11		11.000	-33.093	-2.09	
0.720	-32.700	-2.04		2.400	-32.710	-2.02		11.500	-32.711	-2.00	
0.750	-32.342	-1.96		2.500	-32.343	-1.94		12.000	-32.344	-1.91	
0.780	-31.991	-1.88		2.600	-31.992	-1.86		12.500	-31.993	-1.84	
0.810	-31.653	-1.81		2.700	-31.654	-1.79		13.000	-31.655	-1.77	
0.840	-31.328	-1.74		2.800	-31.329	-1.72		13.500	-31.330	-1.70	
0.870	-31.015	-1.68		2.900	-31.016	-1.66		14.000	-31.017	-1.64	
0.900	-30.713	-1.62		3.000	-30.714	-1.61		14.500	-30.715	-1.59	
1.050	-29.344	-1.38		3.500	-29.344	-1.37		15.500	-29.344	-1.36	
1.200	-28.102	-1.21		4.000	-28.103	-1.20		16.000	-28.103	-1.19	
1.350	-27.025	-1.07		4.500	-27.025	-1.06		16.500	-27.025	-1.05	
1.500	-26.199	-0.96		5.000	-26.200	-0.96		17.000	-26.199	-0.95	
1.650	-25.585	-0.87		5.500	-25.585	-0.87		17.500	-25.585	-0.86	
1.800	-24.800	-0.80		6.000	-24.800	-0.80		18.000	-24.800	-0.79	
1.950	-23.900	-0.74		6.500	-23.900	-0.73		18.500	-23.900	-0.73	
2.100	-23.000	-0.69		7.000	-23.000	-0.68		19.000	-23.000	-0.68	
2.250	-22.000	-0.64		7.500	-22.000	-0.64		19.500	-22.000	-0.63	
2.400	-21.000	-0.60		8.000	-21.000	-0.60		20.000	-21.000	-0.59	
2.550	-20.000	-0.56		8.500	-20.000	-0.56		20.500	-20.000	-0.56	
2.700	-19.000	-0.53		9.000	-19.000	-0.53		21.000	-19.000	-0.53	
2.850	-18.000	-0.50		9.500	-18.000	-0.50		21.500	-18.000	-0.50	
3.000	-17.000	-0.47		10.000	-17.000	-0.47		22.000	-17.000	-0.47	

Table 15. Radial Electric Field (Sea Water), Frequency = 0.1 MHz, VED Height = 2247.60 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)
0.000	-58.561	30.54	0.000	-58.569	178.15	0.000	-58.595	93.65	0.000	-58.595	93.65
0.030	-58.535	-63.60	0.100	-60.622	-74.77	0.200	-61.453	-78.56	0.300	-61.453	-78.56
0.060	-54.472	-34.04	0.200	-56.291	-35.71	0.400	-56.908	-35.32	0.600	-56.908	-35.32
0.090	-51.024	-22.05	0.300	-52.342	-21.65	0.500	-52.717	-20.81	0.800	-52.717	-20.81
0.120	-48.420	-16.11	0.400	-49.465	-15.30	1.000	-49.725	-14.51	1.200	-49.725	-14.51
0.150	-46.376	-12.63	0.500	-47.261	-11.76	1.500	-47.465	-11.08	1.800	-47.465	-11.08
0.180	-44.767	-10.37	0.600	-45.468	-9.53	2.000	-45.655	-8.94	2.100	-45.655	-8.94
0.210	-43.297	-8.75	0.700	-44.010	-7.94	2.500	-44.153	-7.47	2.800	-44.153	-7.47
0.240	-42.084	-7.61	0.800	-42.744	-6.87	3.000	-42.865	-6.41	3.200	-42.865	-6.41
0.270	-41.017	-6.71	0.900	-41.637	-6.02	3.500	-41.749	-5.61	3.800	-41.749	-5.61
0.300	-40.060	-5.94	1.000	-40.655	-5.35	4.000	-40.757	-4.97	4.200	-40.757	-4.97
0.330	-39.209	-5.31	1.100	-39.772	-4.81	4.500	-39.867	-4.47	4.800	-39.867	-4.47
0.360	-38.427	-4.73	1.200	-38.971	-4.37	5.000	-39.059	-4.05	5.200	-39.059	-4.05
0.390	-37.711	-4.23	1.300	-38.218	-4.00	5.500	-39.321	-3.70	5.800	-39.321	-3.70
0.420	-37.050	-3.76	1.400	-37.562	-3.68	6.000	-37.641	-3.40	6.200	-37.641	-3.40
0.450	-36.430	-3.34	1.500	-36.936	-3.41	6.500	-37.010	-3.15	6.800	-37.010	-3.15
0.480	-35.862	-3.03	1.600	-36.352	-3.17	7.000	-36.423	-2.93	7.200	-36.423	-2.93
0.510	-35.325	-2.74	1.700	-35.805	-2.97	7.500	-35.874	-2.74	7.800	-35.874	-2.74
0.540	-34.820	-2.49	1.800	-35.292	-2.78	8.000	-35.358	-2.56	8.200	-35.358	-2.56
0.570	-34.342	-2.26	1.900	-34.807	-2.62	8.500	-34.871	-2.41	8.800	-34.871	-2.41
0.600	-33.891	-2.06	2.000	-34.349	-2.47	9.000	-34.411	-2.28	9.200	-34.411	-2.28
0.630	-33.462	-1.87	2.100	-33.914	-2.34	9.500	-33.974	-2.15	9.800	-33.974	-2.15
0.660	-33.054	-1.68	2.200	-33.501	-2.22	10.000	-33.560	-2.04	10.200	-33.560	-2.04
0.690	-32.664	-1.46	2.300	-33.107	-2.11	10.500	-33.164	-1.94	10.800	-33.164	-1.94
0.720	-32.292	-1.25	2.400	-32.731	-2.01	11.000	-32.787	-1.85	11.200	-32.787	-1.85
0.750	-31.936	-1.04	2.500	-32.371	-1.92	11.500	-32.425	-1.76	11.800	-32.425	-1.76
0.780	-31.595	-0.83	2.600	-32.026	-1.84	12.000	-32.079	-1.68	12.200	-32.079	-1.68
0.810	-31.267	-0.62	2.700	-31.695	-1.76	12.500	-31.747	-1.61	12.800	-31.747	-1.61
0.840	-30.951	-0.41	2.800	-31.376	-1.69	13.000	-31.428	-1.55	13.200	-31.428	-1.55
0.870	-30.646	-0.21	2.900	-31.070	-1.62	13.500	-31.120	-1.48	13.800	-31.120	-1.48
0.900	-30.355	-0.04	3.000	-30.774	-1.56	14.000	-30.824	-1.42	14.200	-30.824	-1.42
1.050	-29.030	-1.50	3.500	-29.440	-1.30	16.500	-29.487	-1.19	16.800	-29.487	-1.19
1.200	-27.895	-1.34	4.000	-28.296	-1.11	17.000	-28.343	-1.01	17.200	-28.343	-1.01
1.350	-26.906	-1.18	4.500	-27.304	-0.96	17.500	-27.347	-0.87	17.800	-27.347	-0.87
1.500	-26.031	-1.04	5.000	-26.427	-0.84	18.000	-26.469	-0.76	18.200	-26.469	-0.76
1.650	-25.252	-0.93	5.500	-25.645	-0.75	18.500	-25.686	-0.67	18.800	-25.686	-0.67
1.800	-24.550	-0.84	6.000	-24.943	-0.67	19.000	-24.984	-0.59	19.200	-24.984	-0.59
1.950	-23.916	-0.77	6.500	-24.309	-0.60	19.500	-24.349	-0.53	19.800	-24.349	-0.53
2.100	-23.344	-0.70	7.000	-23.734	-0.54	20.000	-23.773	-0.48	20.200	-23.773	-0.48
2.250	-22.814	-0.65	7.500	-23.209	-0.49	20.500	-23.249	-0.43	20.800	-23.249	-0.43
2.400	-22.334	-0.60	8.000	-22.731	-0.44	21.000	-22.770	-0.39	21.200	-22.770	-0.39
2.550	-21.893	-0.55	8.500	-22.292	-0.41	21.500	-22.332	-0.35	21.800	-22.332	-0.35
2.700	-21.496	-0.51	9.000	-21.891	-0.37	22.000	-21.930	-0.32	22.200	-21.930	-0.32
2.850	-21.117	-0.48	9.500	-21.523	-0.34	22.500	-21.563	-0.29	22.800	-21.563	-0.29
3.000	-20.775	-0.45	10.000	-21.186	-0.31	30.000	-21.225	-0.26			

Table 16. Radial Electric Field, Frequency = 0.1 MHz, VED Height = 4495.20 m

30.0 KM UOMRANGE				100.0 KM UOMRANGE				300.0 KM UOMRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)
0.000	-56.493	-80	0.000	-56.295	-100.76	0.000	-56.614	-83	0.000	-56.614	-83
0.030	-53.644	-31.70	0.100	-56.112	-80.31	0.300	-56.463	-73.54	0.500	-56.151	-35.40
0.060	-48.518	-16.20	0.200	-53.982	-32.53	0.600	-52.251	-21.52	0.900	-44.400	-15.20
0.090	-43.414	-12.64	0.300	-50.586	-21.24	1.200	-44.400	-15.20	1.500	-47.213	-11.67
0.120	-41.204	-7.81	0.400	-48.024	-12.24	1.800	-45.452	-9.43	2.100	-43.983	-7.88
0.150	-41.204	-7.81	0.500	-46.011	-10.05	2.400	-42.726	-6.76	2.700	-40.653	-5.23
0.180	-39.474	-6.55	0.600	-44.363	-8.52	3.000	-39.774	-4.68	3.300	-38.986	-4.24
0.210	-38.451	-5.85	0.700	-42.973	-7.37	3.600	-38.261	-3.86	3.900	-37.595	-3.54
0.240	-37.324	-4.97	0.800	-41.713	-6.30	4.200	-36.976	-3.27	4.500	-36.404	-3.03
0.270	-36.326	-4.43	0.900	-40.718	-5.30	4.800	-35.868	-2.82	5.100	-35.365	-2.64
0.300	-35.435	-4.00	1.000	-39.776	-4.63	5.400	-34.892	-2.47	5.700	-34.446	-2.14
0.330	-34.626	-3.65	1.100	-38.931	-4.16	6.000	-34.023	-2.07	6.300	-33.623	-1.86
0.360	-33.867	-3.35	1.200	-38.161	-3.76	6.600	-33.243	-1.86	6.900	-32.881	-1.77
0.390	-33.207	-3.10	1.300	-37.455	-3.43	7.200	-32.535	-1.68	7.500	-32.206	-1.60
0.420	-32.578	-2.86	1.400	-36.804	-3.17	7.800	-31.890	-1.53	8.100	-31.588	-1.46
0.450	-31.972	-2.70	1.500	-36.200	-2.94	8.400	-31.299	-1.40	8.700	-31.021	-1.28
0.480	-31.445	-2.53	1.600	-35.637	-2.76	9.000	-30.811	-1.28	9.300	-30.593	-1.14
0.510	-30.931	-2.39	1.700	-35.111	-2.61	9.600	-30.317	-1.17	10.000	-29.785	-1.04
0.540	-30.446	-2.26	1.800	-34.617	-2.48	10.500	-29.050	-1.04	11.000	-28.757	-0.94
0.570	-29.991	-2.14	1.900	-34.151	-2.36	11.500	-28.437	-0.94	12.000	-28.165	-0.86
0.600	-29.556	-2.04	2.000	-33.711	-2.23	12.500	-27.806	-0.86	13.000	-27.550	-0.79
0.630	-29.147	-1.94	2.100	-33.294	-2.13	13.500	-27.270	-0.79	14.000	-26.550	-0.74
0.660	-28.756	-1.86	2.200	-32.899	-2.03	14.500	-26.819	-0.74	15.000	-26.035	-0.69
0.690	-28.383	-1.76	2.300	-32.522	-1.94	15.500	-26.444	-0.69	16.000	-25.609	-0.64
0.720	-28.027	-1.70	2.400	-32.164	-1.86	16.500	-26.134	-0.64	17.000	-25.284	-0.60
0.750	-27.686	-1.64	2.500	-31.822	-1.77	17.500	-24.894	-0.59	18.000	-24.994	-0.56
0.780	-27.356	-1.58	2.600	-31.494	-1.68	18.500	-24.622	-0.56	19.000	-24.796	-0.52
0.810	-27.046	-1.52	2.700	-31.181	-1.60	19.500	-24.365	-0.52	20.000	-24.666	-0.48
0.840	-26.745	-1.47	2.800	-30.881	-1.50	20.500	-24.105	-0.48	21.000	-24.609	-0.44
0.870	-26.455	-1.42	2.900	-30.593	-1.40	21.500	-23.844	-0.44	22.000	-24.616	-0.40
0.900	-26.176	-1.37	3.000	-30.317	-1.31	22.500	-23.594	-0.40	23.000	-24.647	-0.36
1.050	-24.946	-1.16	3.500	-29.050	-1.04	23.500	-23.344	-0.36	24.000	-24.691	-0.32
1.200	-23.653	-1.03	4.000	-27.806	-0.94	24.500	-23.094	-0.32	25.000	-24.735	-0.28
1.350	-22.433	-0.92	4.500	-26.550	-0.86	25.500	-22.844	-0.28	26.000	-24.779	-0.24
1.500	-21.294	-0.83	5.000	-25.270	-0.79	26.500	-22.594	-0.24	27.000	-24.823	-0.20
1.650	-20.244	-0.76	5.500	-24.011	-0.74	27.500	-22.344	-0.20	28.000	-24.867	-0.16
1.800	-19.174	-0.69	6.000	-22.770	-0.69	28.500	-22.094	-0.16	29.000	-24.911	-0.12
1.950	-18.142	-0.64	6.500	-21.522	-0.64	29.500	-21.844	-0.12	30.000	-24.955	-0.08
2.100	-17.142	-0.60	7.000	-20.282	-0.60	30.500	-21.594	-0.08			
2.250	-16.166	-0.56	7.500	-19.042	-0.56						
2.400	-15.200	-0.52	8.000	-17.802	-0.52						
2.550	-14.244	-0.48	8.500	-16.562	-0.48						
2.700	-13.300	-0.44	9.000	-15.322	-0.44						
2.850	-12.366	-0.40	9.500	-14.082	-0.40						
3.000	-11.442	-0.36	10.000	-12.842	-0.36						

Table 17. Radial Electric Field (Sea Water), Frequency = 1.0 MHz, VED Height = 0.00 m

3.0 KM UPHRADE				10.0 KM UPHRADE				30.0 KM UPHRADE				100.0 KM UPHRADE			
MEIUNT	AMP	PHASE		MEIUNT	AMP	PHASE		MEIUNT	AMP	PHASE		MEIUNT	AMP	PHASE	
(RM)	(DB)	(DEG)		(RM)	(DB)	(DEG)		(RM)	(DB)	(DEG)		(RM)	(DB)	(DEG)	
0.000	-60.571	39.50		0.000	-60.571	39.50		0.000	-60.566	-1.0		0.000	-60.620	144.01	
0.003	-50.531	-124.30		0.003	-50.531	-124.30		0.003	-50.564	-124.71		0.003	-50.751	-135.01	
0.006	-51.500	-100.10		0.006	-51.771	-100.10		0.006	-52.114	-111.46		0.006	-52.038	-117.04	
0.009	-51.500	-83.97		0.009	-52.185	-83.96		0.009	-52.724	-87.44		0.009	-53.071	-91.14	
0.012	-50.400	-63.46		0.012	-51.271	-63.44		0.012	-51.826	-64.30		0.012	-52.924	-66.14	
0.015	-44.306	-37.00		0.015	-44.810	-37.00		0.015	-50.076	-47.52		0.015	-50.000	-55.52	
0.018	-7.003	-37.00		0.018	-47.813	-37.00		0.018	-6.600	-38.52		0.018	-48.740	-34.13	
0.021	-46.070	-30.70		0.021	-46.742	-30.62		0.021	-44.842	-30.62		0.021	-46.050	-26.94	
0.024	-44.057	-24.04		0.024	-44.742	-24.04		0.024	-44.980	-24.20		0.024	-45.230	-22.22	
0.027	-33.394	-22.00		0.027	-44.354	-18.78		0.027	-42.871	-20.64		0.027	-44.016	-18.86	
0.030	-42.630	-14.23		0.030	-44.354	-16.78		0.030	-42.871	-17.94		0.030	-44.507	-18.41	
0.033	-31.627	-7.15		0.033	-41.334	-10.92		0.033	-41.830	-13.94		0.033	-44.507	-14.51	
0.036	-40.343	-1.40		0.036	-40.108	-14.91		0.036	-40.880	-14.24		0.036	-44.507	-13.01	
0.039	-34.504	13.30		0.039	-39.566	-13.30		0.039	-39.633	-14.90		0.039	-39.633	-11.81	
0.042	-30.744	12.60		0.042	-38.744	-12.34		0.042	-38.051	-11.70		0.042	-38.047	-10.01	
0.045	-30.034	-11.00		0.045	-38.003	-11.36		0.045	-37.135	-10.04		0.045	-37.100	-9.97	
0.048	-37.303	-10.02		0.048	-37.024	-10.32		0.048	-37.005	-10.05		0.048	-37.441	-9.25	
0.051	-30.773	-10.02		0.051	-36.010	-9.00		0.051	-36.046	-9.36		0.051	-36.004	-8.65	
0.054	-36.067	-9.43		0.054	-35.035	-9.17		0.054	-36.000	-8.62		0.054	-36.274	-8.12	
0.057	-35.067	-8.86		0.057	-35.046	-8.61		0.057	-35.722	-8.23		0.057	-35.731	-7.60	
0.060	-35.161	-8.30		0.060	-35.167	-8.12		0.060	-35.210	-7.77		0.060	-35.215	-7.24	
0.063	-34.062	-7.81		0.063	-34.700	-7.08		0.063	-34.720	-7.35		0.063	-34.728	-6.87	
0.066	-34.062	-7.30		0.066	-34.250	-6.24		0.066	-34.260	-6.96		0.066	-34.260	-6.24	
0.069	-33.757	-7.13		0.069	-33.816	-6.93		0.069	-33.836	-6.64		0.069	-33.830	-6.24	
0.072	-33.303	-6.50		0.072	-33.004	-6.01		0.072	-33.017	-6.34		0.072	-33.013	-5.97	
0.075	-32.890	-6.00		0.075	-33.004	-6.30		0.075	-33.020	-6.06		0.075	-33.016	-5.73	
0.078	-32.810	-5.50		0.078	-32.831	-5.05		0.078	-32.841	-5.01		0.078	-32.830	-5.20	
0.081	-32.630	-5.07		0.081	-32.651	-4.56		0.081	-32.670	-4.93		0.081	-32.672	-4.59	
0.084	-31.909	-3.74		0.084	-31.922	-3.56		0.084	-31.942	-3.93		0.084	-31.923	-3.10	
0.087	-31.370	-3.52		0.087	-31.506	-3.17		0.087	-31.534	-3.16		0.087	-31.509	-2.92	
0.090	-31.030	-3.32		0.090	-31.066	-2.93		0.090	-31.072	-2.98		0.090	-31.054	-2.70	
0.105	-24.000	-4.150		0.105	-24.013	-4.38		0.105	-24.017	-4.423		0.105	-24.004	-4.008	
0.120	-20.200	-3.150		0.120	-20.273	-3.30		0.120	-20.274	-3.64		0.120	-20.260	-3.208	
0.135	-17.000	-3.44		0.135	-17.000	-3.36		0.135	-17.000	-3.27		0.135	-17.000	-3.14	
0.150	-15.000	-3.10		0.150	-15.000	-3.01		0.150	-15.000	-2.94		0.150	-15.000	-2.608	
0.165	-13.000	-2.74		0.165	-13.000	-2.73		0.165	-13.000	-2.66		0.165	-13.000	-2.408	
0.180	-10.000	-2.55		0.180	-10.000	-2.44		0.180	-10.000	-2.44		0.180	-10.000	-2.24	
0.195	-8.000	-2.33		0.195	-8.000	-2.30		0.195	-8.000	-2.26		0.195	-8.000	-2.152	
0.210	-5.000	-2.17		0.210	-5.000	-2.13		0.210	-5.000	-2.09		0.210	-5.000	-1.942	
0.225	-2.000	-2.00		0.225	-2.000	-2.00		0.225	-2.000	-1.99		0.225	-2.000	-1.880	
0.240	-2.000	-1.70		0.240	-2.000	-1.68		0.240	-2.000	-1.68		0.240	-2.000	-1.595	
0.255	-2.000	-1.70		0.255	-2.000	-1.70		0.255	-2.000	-1.74		0.255	-2.000	-1.680	
0.270	-2.000	-1.60		0.270	-2.000	-1.66		0.270	-2.000	-1.74		0.270	-2.000	-1.604	
0.285	-2.000	-1.50		0.285	-2.000	-1.57		0.285	-2.000	-1.64		0.285	-2.000	-1.508	
0.300	-2.000	-1.51		0.300	-2.000	-1.57		0.300	-2.000	-1.56		0.300	-2.000	-1.508	
0.315	-2.000	-1.51		0.315	-2.000	-1.57		0.315	-2.000	-1.56		0.315	-2.000	-1.508	
0.330	-2.000	-1.51		0.330	-2.000	-1.57		0.330	-2.000	-1.56		0.330	-2.000	-1.508	
0.345	-2.000	-1.51		0.345	-2.000	-1.57		0.345	-2.000	-1.56		0.345	-2.000	-1.508	
0.360	-2.000	-1.51		0.360	-2.000	-1.57		0.360	-2.000	-1.56		0.360	-2.000	-1.508	
0.375	-2.000	-1.51		0.375	-2.000	-1.57		0.375	-2.000	-1.56		0.375	-2.000	-1.508	
0.390	-2.000	-1.51		0.390	-2.000	-1.57		0.390	-2.000	-1.56		0.390	-2.000	-1.508	
0.405	-2.000	-1.51		0.405	-2.000	-1.57		0.405	-2.000	-1.56		0.405	-2.000	-1.508	
0.420	-2.000	-1.51		0.420	-2.000	-1.57		0.420	-2.000	-1.56		0.420	-2.000	-1.508	
0.435	-2.000	-1.51		0.435	-2.000	-1.57		0.435	-2.000	-1.56		0.435	-2.000	-1.508	
0.450	-2.000	-1.51		0.450	-2.000	-1.57		0.450	-2.000	-1.56		0.450	-2.000	-1.508	
0.465	-2.000	-1.51		0.465	-2.000	-1.57		0.465	-2.000	-1.56		0.465	-2.000	-1.508	
0.480	-2.000	-1.51		0.480	-2.000	-1.57		0.480	-2.000	-1.56		0.480	-2.000	-1.508	
0.495	-2.000	-1.51		0.495	-2.000	-1.57		0.495	-2.000	-1.56		0.495	-2.000	-1.508	
0.510	-2.000	-1.51		0.510	-2.000	-1.57		0.510	-2.000	-1.56		0.510	-2.000	-1.508	
0.525	-2.000	-1.51		0.525	-2.000	-1.57		0.525	-2.000	-1.56		0.525	-2.000	-1.508	
0.540	-2.000	-1.51		0.540	-2.000	-1.57		0.540	-2.000	-1.56		0.540	-2.000	-1.508	
0.555	-2.000	-1.51		0.555	-2.000	-1.57		0.555	-2.000	-1.56		0.555	-2.000	-1.508	
0.570	-2.000	-1.51		0.570	-2.000	-1.57		0.570	-2.000	-1.56		0.570	-2.000	-1.508	
0.585	-2.000	-1.51		0.585	-2.000	-1.57		0.585	-2.000	-1.56		0.585	-2.000	-1.508	
0.600	-2.000	-1.51		0.600	-2.000	-1.57		0.600	-2.000	-1.56		0.600	-2.000	-1.508	
0.615	-2.000	-1.51		0.615	-2.000	-1.57		0.615	-2.000	-1.56		0.615	-2.000	-1.508	
0.630	-2.000	-1.51		0.630	-2.000	-1.57		0.630	-2.000	-1.56		0.630	-2.000	-1.508	
0.645	-2.000	-1.51		0.645	-2.000	-1.57		0.645	-2.000	-1.56		0.645	-2.000	-1.508	
0.660	-2.000	-1.51		0.660	-2.000	-1.57		0.660	-2.000	-1.56		0.660	-2.000	-1.508	
0.675	-2.000	-1.51		0.675	-2.000	-1.57		0.675	-2.000	-1.56		0.675	-2.000	-1.508	
0.690	-2.000	-1.51		0.690	-2.000	-1.57		0.690	-2.000	-1.56		0.690	-2.000	-1.508	
0.705	-2.000	-1.51		0.705	-2.000	-1.57		0.705	-2.000	-1.56		0.705	-2.000	-1.508	
0.720	-2.000	-1.51		0.720	-2.000	-1.57		0.720	-2.000	-1.56		0.720	-2.000	-1.508	
0.735	-2.000	-1.51		0.735	-2.000	-1.57		0.735	-2.000	-1.56		0.735	-2.000	-1.508	
0.750	-2.000	-1.51		0.750	-2.000	-1.57		0.750	-2.000	-1.56		0.750	-2.000	-1.508	
0.765	-2.000	-1.51		0.765	-2.000	-1.57		0.765	-2.000	-1.56		0.765	-2.000	-1.508	
0.780	-2.000	-1.51		0.780	-2.000	-1.57		0.780	-2.000	-1.56		0.780	-2.000	-1.508	
0.795	-2.000	-1.51		0.795	-2.000	-1.57		0.795	-2.000	-1.56		0.795	-2.000	-1.508	
0.810	-2.000	-1.51		0.810	-2.000	-1.57		0.810	-2.000	-1.56		0.810	-2.000	-1.508	
0.825	-2.000	-1.51		0.825	-2.000	-1.57		0.825	-2.000	-1.56		0.825	-2.000	-1.508	
0.840	-2.000	-1.51		0.840	-2.000	-1.57		0.840	-2.000	-1.56		0.840	-2.000	-1.508	
0.855	-2.000	-1.51		0.855	-2.000	-1.57		0.855	-2.000	-1.56		0.855	-2.000	-1.508	
0.870	-2.000	-1.51		0.870	-2.000	-1.57		0.870	-2.000	-1.56		0.870	-2.000	-1.508	
0.885	-2.000	-1.51		0.885	-2.000	-1.57		0.885	-2.000	-1.56		0.885	-2.000	-1.508	
0.900	-2.000	-1.51		0.900	-2.000	-1.57		0.900	-2.000	-1.56		0.900	-2.000	-1.508	
0.915	-2.000	-1.51		0.915	-2.000	-1.57		0.915	-2.000	-1.56		0.915	-2.000	-1.508	
0.930	-2.000	-1.51		0.930	-2.000	-1.57		0.930	-2.000	-1.56		0.930	-2.000	-1.508	

Table 18. Radial Electric Field (Sea Water), Frequency = 1.0 MHz, VED Height = 224.76 m

3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)
0.000	-48.649	-150.45	0.000	-48.649	-94.06	0.000	-48.673	-2.68	0.000	-50.472	-126.59	0.000	-48.719	-34.98	0.000
0.003	-49.453	-101.04	0.010	-50.156	-118.59	0.030	-51.970	-100.29	0.060	-51.970	-100.29	0.100	-50.825	-134.68	0.100
0.006	-49.576	-83.34	0.020	-51.181	-100.29	0.040	-51.212	-74.52	0.080	-52.427	-85.05	0.200	-52.861	-116.32	0.200
0.009	-49.762	-66.73	0.030	-51.212	-74.52	0.060	-50.231	-60.99	0.120	-51.507	-63.13	0.300	-53.835	-84.90	0.300
0.012	-47.605	-53.32	0.040	-50.231	-60.99	0.080	-48.739	-47.17	0.160	-49.831	-47.06	0.400	-52.886	-63.44	0.400
0.015	-46.460	-43.29	0.060	-47.181	-37.51	0.100	-45.676	-30.74	0.180	-46.041	-36.36	0.500	-50.986	-45.02	0.500
0.018	-45.099	-35.94	0.070	-45.676	-30.74	0.120	-44.337	-25.86	0.200	-44.918	-24.20	0.600	-48.771	-33.69	0.600
0.021	-43.854	-30.68	0.080	-44.337	-25.86	0.140	-43.135	-22.22	0.220	-42.621	-20.58	0.800	-46.911	-26.54	0.800
0.024	-42.714	-26.33	0.090	-43.135	-22.22	0.160	-42.056	-19.42	0.240	-41.443	-17.85	1.000	-45.306	-21.77	1.000
0.027	-41.675	-23.11	0.100	-42.056	-19.42	0.180	-41.083	-17.21	0.260	-40.516	-15.72	1.200	-43.702	-18.39	1.200
0.030	-40.728	-20.55	0.110	-41.083	-17.21	0.200	-40.199	-15.43	0.280	-39.674	-14.03	1.400	-42.127	-15.89	1.400
0.033	-39.866	-18.47	0.120	-40.199	-15.43	0.220	-39.391	-13.97	0.300	-38.903	-12.65	1.600	-40.665	-12.47	1.600
0.036	-39.080	-16.75	0.130	-39.391	-13.97	0.240	-38.648	-12.74	0.320	-38.153	-11.51	1.800	-39.279	-11.24	1.800
0.039	-38.336	-15.22	0.140	-38.648	-12.74	0.260	-37.962	-11.70	0.340	-38.463	-10.34	2.000	-37.905	-10.23	2.000
0.042	-37.631	-13.81	0.150	-37.962	-11.70	0.280	-37.324	-10.81	0.360	-37.535	-9.72	2.200	-36.608	-8.67	2.200
0.045	-37.016	-12.41	0.160	-37.324	-10.81	0.300	-36.729	-10.04	0.380	-36.924	-8.91	2.400	-35.466	-8.05	2.400
0.048	-36.460	-11.14	0.170	-36.729	-10.04	0.320	-36.171	-9.37	0.400	-36.352	-8.39	2.600	-34.406	-7.51	2.600
0.051	-35.947	-10.04	0.180	-36.171	-9.37	0.340	-35.647	-8.77	0.420	-35.815	-7.94	2.800	-33.462	-7.04	2.800
0.054	-35.463	-9.01	0.190	-35.647	-8.77	0.360	-35.152	-8.24	0.440	-35.310	-7.36	3.000	-32.551	-6.62	3.000
0.057	-35.000	-8.05	0.200	-35.152	-8.24	0.380	-34.684	-7.77	0.460	-34.833	-6.93	3.200	-31.689	-6.25	3.200
0.060	-34.566	-7.25	0.210	-34.684	-7.77	0.400	-34.241	-7.35	0.480	-34.381	-6.55	3.400	-30.843	-5.91	3.400
0.063	-34.160	-6.50	0.220	-34.241	-7.35	0.420	-33.814	-6.96	0.500	-33.922	-6.20	3.600	-30.058	-5.61	3.600
0.066	-33.780	-5.80	0.230	-33.814	-6.96	0.440	-33.417	-6.61	0.520	-33.543	-5.88	3.800	-29.328	-5.33	3.800
0.069	-33.410	-5.19	0.240	-33.417	-6.61	0.460	-33.033	-6.29	0.540	-33.153	-5.59	4.000	-28.643	-5.08	4.000
0.072	-33.053	-4.67	0.250	-33.033	-6.29	0.480	-32.666	-5.90	0.560	-32.781	-5.33	4.200	-28.001	-4.85	4.200
0.075	-32.700	-4.25	0.260	-32.666	-5.90	0.500	-32.314	-5.73	0.580	-32.424	-5.09	4.400	-27.403	-4.64	4.400
0.078	-32.350	-3.85	0.270	-32.314	-5.73	0.520	-31.976	-5.49	0.600	-32.034	-4.87	4.600	-26.849	-4.45	4.600
0.081	-32.000	-3.45	0.280	-31.976	-5.49	0.540	-31.652	-5.26	0.620	-31.754	-4.66	4.800	-26.337	-4.27	4.800
0.084	-31.650	-3.05	0.290	-31.652	-5.26	0.560	-31.340	-5.05	0.640	-31.436	-4.47	5.000	-25.853	-4.10	5.000
0.087	-31.300	-2.65	0.300	-31.340	-5.05	0.580	-31.036	-4.84	0.660	-31.136	-4.28	5.200	-25.393	-3.94	5.200
0.090	-30.950	-2.25	0.310	-31.036	-4.84	0.600	-30.734	-4.63	0.680	-30.834	-4.09	5.400	-24.953	-3.79	5.400
0.093	-30.600	-1.85	0.320	-30.734	-4.63	0.620	-30.432	-4.42	0.700	-30.532	-3.90	5.600	-24.533	-3.64	5.600
0.096	-30.250	-1.45	0.330	-30.432	-4.42	0.640	-30.130	-4.21	0.720	-30.230	-3.71	5.800	-24.133	-3.49	5.800
0.099	-29.900	-1.05	0.340	-30.130	-4.21	0.660	-29.828	-4.00	0.740	-29.928	-3.52	6.000	-23.753	-3.34	6.000
0.102	-29.550	-0.65	0.350	-29.828	-4.00	0.680	-29.526	-3.79	0.760	-29.626	-3.33	6.200	-23.393	-3.19	6.200
0.105	-29.200	-0.25	0.360	-29.526	-3.79	0.700	-29.224	-3.58	0.780	-29.324	-3.12	6.400	-23.053	-3.04	6.400
0.108	-28.850	0.15	0.370	-29.224	-3.58	0.720	-28.922	-3.37	0.800	-29.022	-2.93	6.600	-22.733	-2.89	6.600
0.111	-28.500	0.55	0.380	-28.922	-3.37	0.740	-28.620	-3.16	0.820	-28.720	-2.72	6.800	-22.433	-2.74	6.800
0.114	-28.150	0.95	0.390	-28.620	-3.16	0.760	-28.318	-2.95	0.840	-28.418	-2.51	7.000	-22.153	-2.59	7.000
0.117	-27.800	1.35	0.400	-28.318	-2.95	0.780	-28.016	-2.74	0.860	-28.116	-2.30	7.200	-21.893	-2.44	7.200
0.120	-27.450	1.75	0.410	-28.016	-2.74	0.800	-27.714	-2.53	0.880	-27.814	-2.09	7.400	-21.653	-2.29	7.400
0.123	-27.100	2.15	0.420	-27.714	-2.53	0.820	-27.412	-2.32	0.900	-27.512	-1.88	7.600	-21.433	-2.14	7.600
0.126	-26.750	2.55	0.430	-27.412	-2.32	0.840	-27.110	-2.11	0.920	-27.210	-1.67	7.800	-21.233	-1.99	7.800
0.129	-26.400	2.95	0.440	-27.110	-2.11	0.860	-26.808	-1.90	0.940	-26.908	-1.46	8.000	-21.053	-1.84	8.000
0.132	-26.050	3.35	0.450	-26.808	-1.90	0.880	-26.506	-1.69	0.960	-26.606	-1.25	8.200	-20.893	-1.69	8.200
0.135	-25.700	3.75	0.460	-26.506	-1.69	0.900	-26.204	-1.48	0.980	-26.304	-1.04	8.400	-20.753	-1.54	8.400
0.138	-25.350	4.15	0.470	-26.204	-1.48	0.920	-25.902	-1.27	1.000	-26.002	-0.83	8.600	-20.633	-1.39	8.600
0.141	-25.000	4.55	0.480	-25.902	-1.27	0.940	-25.600	-1.06	1.020	-25.700	-0.62	8.800	-20.533	-1.24	8.800
0.144	-24.650	4.95	0.490	-25.600	-1.06	0.960	-25.300	-0.85	1.040	-25.400	-0.41	9.000	-20.453	-1.09	9.000
0.147	-24.300	5.35	0.500	-25.300	-0.85	0.980	-25.000	-0.64	1.060	-25.100	-0.20	9.200	-20.393	-0.94	9.200
0.150	-23.950	5.75	0.510	-25.000	-0.64	1.000	-24.700	-0.43	1.080	-24.800	0.01	9.400	-20.353	-0.79	9.400
0.153	-23.600	6.15	0.520	-24.700	-0.43	1.020	-24.400	-0.22	1.100	-24.500	0.22	9.600	-20.333	-0.64	9.600
0.156	-23.250	6.55	0.530	-24.400	-0.22	1.040	-24.100	0.01	1.120	-24.200	0.43	9.800	-20.333	-0.49	9.800
0.159	-22.900	6.95	0.540	-24.100	0.01	1.060	-23.800	0.22	1.140	-23.900	0.64	10.000	-20.353	-0.34	10.000
0.162	-22.550	7.35	0.550	-23.800	0.22	1.080	-23.500	0.43	1.160	-23.600	0.85				
0.165	-22.200	7.75	0.560	-23.500	0.43	1.100	-23.200	0.64	1.180	-23.300	1.06				
0.168	-21.850	8.15	0.570	-23.200	0.64	1.120	-22.900	0.85	1.200	-23.000	1.27				
0.171	-21.500	8.55	0.580	-22.900	0.85	1.140	-22.600	1.06	1.220	-22.700	1.48				
0.174	-21.150	8.95	0.590	-22.600	1.06	1.160	-22.300	1.27	1.240	-22.400	1.69				
0.177	-20.800	9.35	0.600	-22.300	1.27	1.180	-22.000	1.48	1.260	-22.100	1.90				
0.180	-20.450	9.75	0.610	-22.000	1.48	1.200	-21.700	1.69	1.280	-21.800	2.11				
0.183	-20.100	10.15	0.620	-21.700	1.69	1.220	-21.400	1.90	1.300	-21.500	2.32				
0.186	-19.750	10.55	0.630	-21.400	1.90	1.240	-21.100	2.11	1.320	-21.200	2.53				
0.189	-19.400	10.95	0.640	-21.100	2.11	1.260	-20.800	2.32	1.340	-20.900	2.74				
0.192	-19.050	11.35	0.650	-20.800	2.32	1.280	-20.500	2.53	1.360	-20.600	2.95				
0.195	-18.700	11.75	0.660	-20.500	2.53	1.300	-20.200	2.74	1.380	-20.300	3.16				
0.198	-18.350	12.15	0.670	-20.200	2.74	1.320	-19.900	2.95	1.400	-20.000	3.37				
0.201	-18.000	12.55	0.680	-19.900	2.95	1.340	-19.600	3.16	1.420	-19.700	3.58				
0.204	-17.650	12.95	0.690	-19.600	3.16	1.360	-19.300	3.37	1.440	-19.400	3.79				
0.207	-17.300	13.35	0.700	-19.300	3.37	1.380	-19.000	3.58	1.460	-19.100	4.00				
0.210	-16.950	13.75	0.710	-19.000	3.58	1.400	-18.700	3.79	1.480	-18.800	4.21				
0.213	-16.600	14.15	0.720	-18.700	3.79	1.420	-18.400	4.00	1.500	-18.500	4.42				
0.216	-16.250	14.55	0.730	-18.400	4.00	1.440	-18.100	4.21	1.520	-18.200	4.63				
0.219	-15.900	14.95	0.740	-18.100	4.21	1.460	-17.800	4.42	1.540	-17.900	4.84				
0.222	-15.550	15.35	0.750	-17.800	4.42	1.480	-1								

Table 19. Radial Electric Field (Sea Water), Frequency = 1.0 MHz, VED Height = 449.52 m

3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					30.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
HEIGHT (M)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	
0.00	-48.546	-5.12	0.00	-48.681	77.45	-48.734	-118.77	0.00	-48.734	0.00	-48.734	-118.77	0.00	-48.734	-118.77	0.00	-48.734	-118.77	
0.03	-47.420	-3.42	0.03	-47.420	-3.42	-47.420	-3.42	0.03	-47.420	0.03	-47.420	-3.42	0.03	-47.420	-3.42	0.03	-47.420	-3.42	
0.06	-45.342	-4.342	0.06	-45.342	-4.342	-45.342	-4.342	0.06	-45.342	0.06	-45.342	-4.342	0.06	-45.342	-4.342	0.06	-45.342	-4.342	
0.09	-43.171	-3.342	0.09	-43.171	-3.342	-43.171	-3.342	0.09	-43.171	0.09	-43.171	-3.342	0.09	-43.171	-3.342	0.09	-43.171	-3.342	
0.12	-41.171	-2.7105	0.12	-41.171	-2.7105	-41.171	-2.7105	0.12	-41.171	0.12	-41.171	-2.7105	0.12	-41.171	-2.7105	0.12	-41.171	-2.7105	
0.15	-39.322	-2.2105	0.15	-39.322	-2.2105	-39.322	-2.2105	0.15	-39.322	0.15	-39.322	-2.2105	0.15	-39.322	-2.2105	0.15	-39.322	-2.2105	
0.18	-37.440	-1.7105	0.18	-37.440	-1.7105	-37.440	-1.7105	0.18	-37.440	0.18	-37.440	-1.7105	0.18	-37.440	-1.7105	0.18	-37.440	-1.7105	
0.21	-35.510	-1.2105	0.21	-35.510	-1.2105	-35.510	-1.2105	0.21	-35.510	0.21	-35.510	-1.2105	0.21	-35.510	-1.2105	0.21	-35.510	-1.2105	
0.24	-33.645	-0.7105	0.24	-33.645	-0.7105	-33.645	-0.7105	0.24	-33.645	0.24	-33.645	-0.7105	0.24	-33.645	-0.7105	0.24	-33.645	-0.7105	
0.27	-31.781	-0.2105	0.27	-31.781	-0.2105	-31.781	-0.2105	0.27	-31.781	0.27	-31.781	-0.2105	0.27	-31.781	-0.2105	0.27	-31.781	-0.2105	
0.30	-29.915	0.2827	0.30	-29.915	0.2827	-29.915	0.2827	0.30	-29.915	0.30	-29.915	0.2827	0.30	-29.915	0.2827	0.30	-29.915	0.2827	
0.33	-28.051	0.7827	0.33	-28.051	0.7827	-28.051	0.7827	0.33	-28.051	0.33	-28.051	0.7827	0.33	-28.051	0.7827	0.33	-28.051	0.7827	
0.36	-26.187	1.2827	0.36	-26.187	1.2827	-26.187	1.2827	0.36	-26.187	0.36	-26.187	1.2827	0.36	-26.187	1.2827	0.36	-26.187	1.2827	
0.39	-24.323	1.7827	0.39	-24.323	1.7827	-24.323	1.7827	0.39	-24.323	0.39	-24.323	1.7827	0.39	-24.323	1.7827	0.39	-24.323	1.7827	
0.42	-22.459	2.2827	0.42	-22.459	2.2827	-22.459	2.2827	0.42	-22.459	0.42	-22.459	2.2827	0.42	-22.459	2.2827	0.42	-22.459	2.2827	
0.45	-20.595	2.7827	0.45	-20.595	2.7827	-20.595	2.7827	0.45	-20.595	0.45	-20.595	2.7827	0.45	-20.595	2.7827	0.45	-20.595	2.7827	
0.48	-18.731	3.2827	0.48	-18.731	3.2827	-18.731	3.2827	0.48	-18.731	0.48	-18.731	3.2827	0.48	-18.731	3.2827	0.48	-18.731	3.2827	
0.51	-16.867	3.7827	0.51	-16.867	3.7827	-16.867	3.7827	0.51	-16.867	0.51	-16.867	3.7827	0.51	-16.867	3.7827	0.51	-16.867	3.7827	
0.54	-15.003	4.2827	0.54	-15.003	4.2827	-15.003	4.2827	0.54	-15.003	0.54	-15.003	4.2827	0.54	-15.003	4.2827	0.54	-15.003	4.2827	
0.57	-13.139	4.7827	0.57	-13.139	4.7827	-13.139	4.7827	0.57	-13.139	0.57	-13.139	4.7827	0.57	-13.139	4.7827	0.57	-13.139	4.7827	
0.60	-11.275	5.2827	0.60	-11.275	5.2827	-11.275	5.2827	0.60	-11.275	0.60	-11.275	5.2827	0.60	-11.275	5.2827	0.60	-11.275	5.2827	
0.63	-9.411	5.7827	0.63	-9.411	5.7827	-9.411	5.7827	0.63	-9.411	0.63	-9.411	5.7827	0.63	-9.411	5.7827	0.63	-9.411	5.7827	
0.66	-7.547	6.2827	0.66	-7.547	6.2827	-7.547	6.2827	0.66	-7.547	0.66	-7.547	6.2827	0.66	-7.547	6.2827	0.66	-7.547	6.2827	
0.69	-5.683	6.7827	0.69	-5.683	6.7827	-5.683	6.7827	0.69	-5.683	0.69	-5.683	6.7827	0.69	-5.683	6.7827	0.69	-5.683	6.7827	
0.72	-3.819	7.2827	0.72	-3.819	7.2827	-3.819	7.2827	0.72	-3.819	0.72	-3.819	7.2827	0.72	-3.819	7.2827	0.72	-3.819	7.2827	
0.75	-1.955	7.7827	0.75	-1.955	7.7827	-1.955	7.7827	0.75	-1.955	0.75	-1.955	7.7827	0.75	-1.955	7.7827	0.75	-1.955	7.7827	
0.78	0.000	8.2827	0.78	0.000	8.2827	0.000	8.2827	0.78	0.000	0.78	0.000	8.2827	0.78	0.000	8.2827	0.78	0.000	8.2827	
0.81	2.136	8.7827	0.81	2.136	8.7827	2.136	8.7827	0.81	2.136	0.81	2.136	8.7827	0.81	2.136	8.7827	0.81	2.136	8.7827	
0.84	4.272	9.2827	0.84	4.272	9.2827	4.272	9.2827	0.84	4.272	0.84	4.272	9.2827	0.84	4.272	9.2827	0.84	4.272	9.2827	
0.87	6.408	9.7827	0.87	6.408	9.7827	6.408	9.7827	0.87	6.408	0.87	6.408	9.7827	0.87	6.408	9.7827	0.87	6.408	9.7827	
0.90	8.544	10.2827	0.90	8.544	10.2827	8.544	10.2827	0.90	8.544	0.90	8.544	10.2827	0.90	8.544	10.2827	0.90	8.544	10.2827	
0.93	10.680	10.7827	0.93	10.680	10.7827	10.680	10.7827	0.93	10.680	0.93	10.680	10.7827	0.93	10.680	10.7827	0.93	10.680	10.7827	
0.96	12.816	11.2827	0.96	12.816	11.2827	12.816	11.2827	0.96	12.816	0.96	12.816	11.2827	0.96	12.816	11.2827	0.96	12.816	11.2827	
0.99	14.952	11.7827	0.99	14.952	11.7827	14.952	11.7827	0.99	14.952	0.99	14.952	11.7827	0.99	14.952	11.7827	0.99	14.952	11.7827	
1.02	17.088	12.2827	1.02	17.088	12.2827	17.088	12.2827	1.02	17.088	1.02	17.088	12.2827	1.02	17.088	12.2827	1.02	17.088	12.2827	
1.05	19.224	12.7827	1.05	19.224	12.7827	19.224	12.7827	1.05	19.224	1.05	19.224	12.7827	1.05	19.224	12.7827	1.05	19.224	12.7827	
1.08	21.360	13.2827	1.08	21.360	13.2827	21.360	13.2827	1.08	21.360	1.08	21.360	13.2827	1.08	21.360	13.2827	1.08	21.360	13.2827	
1.11	23.496	13.7827	1.11	23.496	13.7827	23.496	13.7827	1.11	23.496	1.11	23.496	13.7827	1.11	23.496	13.7827	1.11	23.496	13.7827	
1.14	25.632	14.2827	1.14	25.632	14.2827	25.632	14.2827	1.14	25.632	1.14	25.632	14.2827	1.14	25.632	14.2827	1.14	25.632	14.2827	
1.17	27.768	14.7827	1.17	27.768	14.7827	27.768	14.7827	1.17	27.768	1.17	27.768	14.7827	1.17	27.768	14.7827	1.17	27.768	14.7827	
1.20	29.904	15.2827	1.20	29.904	15.2827	29.904	15.2827	1.20	29.904	1.20	29.904	15.2827	1.20	29.904	15.2827	1.20	29.904	15.2827	
1.23	32.040	15.7827	1.23	32.040	15.7827	32.040	15.7827	1.23	32.040	1.23	32.040	15.7827	1.23	32.040	15.7827	1.23	32.040	15.7827	
1.26	34.176	16.2827	1.26	34.176	16.2827	34.176	16.2827	1.26	34.176	1.26	34.176	16.2827	1.26	34.176	16.2827	1.26	34.176	16.2827	
1.29	36.312	16.7827	1.29	36.312	16.7827	36.312	16.7827	1.29	36.312	1.29	36.312	16.7827	1.29	36.312	16.7827	1.29	36.312	16.7827	
1.32	38.448	17.2827	1.32	38.448	17.2827	38.448	17.2827	1.32	38.448	1.32	38.448	17.2827	1.32	38.448	17.2827	1.32	38.448	17.2827	
1.35	40.584	17.7827	1.35	40.584	17.7827	40.584	17.7827	1.35	40.584	1.35	40.584	17.7827	1.35	40.584	17.7827	1.35	40.584	17.7827	
1.38	42.720	18.2827	1.38	42.720	18.2827	42.720	18.2827	1.38	42.720	1.38	42.720	18.2827	1.38	42.720	18.2827	1.38	42.720	18.2827	
1.41	44.856	18.7827	1.41	44.856	18.7827	44.856	18.7827	1.41	44.856	1.41	44.856	18.7827	1.41	44.856	18.7827	1.41	44.856	18.7827	
1.44	46.992	19.2827	1.44	46.992	19.2827	46.992	19.2827	1.44	46.992	1.44	46.992	19.2827	1.44	46.992	19.2827	1.44	46.992	19.2827	
1.47	49.128	19.7827	1.47	49.128	19.7827	49.128	19.7827	1.47	49.128	1.47	49.128	19.7827	1.47	49.128	19.7827	1.47	49.128	19.7827	
1.50	51.264	20.2827	1.50	51.264	20.2827	51.264	20.2827	1.50	51.264	1.50	51.264	20.2827	1.50	51.264	20.2827	1.50	51.264	20.2827	
1.53	53.400	20.7827	1.53	53.400	20.7827	53.400	20.7827	1.53	53.400	1.53	53.400	20.7827	1.53	53.400	20.7827	1.53	53.400	20.7827	
1.56	55.536	21.2827	1.56	55.536	21.2827	55.536	21.2827	1.56	55.536	1.56	55.536	21.2827	1.56	55.536	21.2827	1.56	55.536	21.2827	
1.59	57.672	21.7827	1.59	57.672	21.7827	57.672	21.7827	1.59	57.672	1.59	57.672	21.7827	1.59	57.672	21.7827	1.59	57.672	21.7827	
1.62	59.808	22.2827	1.62	59.808	22.2827	59.808	22.2827	1.62	59.808	1.62	59.808	22.2827	1.62	59.808	22.2827	1.62	59.808	22.2827	
1.65	61.944	22.7827	1.65	61.944	22.7827	61.944	22.7827	1.65	61.944	1.65	61.944	22.7827	1.65	61.944	22.7827	1.65	61.944	22.7827	
1.68	64.080	23.2827	1.68	64.080	23.2827	64.080	23.2827	1.68	64.080	1.68	64.080	23.2827	1.68	64.080	23.2827	1.68	64.080	23.2827	
1.71	66.216	23.7827	1.71	66.216	23.7827	66.216	23.7827	1.71	66.216	1.71	66.216	23.7827	1.71	66.216	23.7827	1.71	66.216	23.7827	
1.74	68.352	24.2827	1.74	68.352	24.28														

Table 20. Radial Electric Field (Sea Water), Frequency = 10.0 MHz, VED Height = 0.00 m

3.0 KM UPHRANGE					10.0 KM UPHRANGE					100.0 KM UPHRANGE				
REL HT (KM)	AMP (UB)	PHASE (DEG)	REL HT (KM)	AMP (UB)	PHASE (DEG)	REL HT (KM)	AMP (UB)	PHASE (DEG)	REL HT (KM)	AMP (UB)	PHASE (DEG)	REL HT (KM)	AMP (UB)	PHASE (DEG)
0.000	-36.746	-14.94	0.000	-39.140	116.10	0.000	-40.237	-42.24	0.000	-41.423	-44.89	0.000	-42.923	-48.59
0.003	-34.505	-15.02	0.000	-40.116	116.07	0.000	-41.595	160.00	0.100	-43.382	112.37	0.100	-45.017	112.37
0.006	-40.312	-15.05	0.000	-42.385	-167.07	0.000	-43.126	161.16	0.200	-45.207	109.87	0.200	-47.773	101.48
0.009	-41.166	-14.745	0.000	-44.385	-167.07	0.000	-44.908	162.63	0.300	-47.805	164.55	0.300	-50.444	76.70
0.012	-42.069	-14.745	0.000	-46.385	-167.07	0.000	-46.908	164.55	0.400	-50.444	164.55	0.400	-53.552	28.25
0.015	-43.001	-13.761	0.000	-48.385	-167.07	0.000	-48.908	166.74	0.500	-53.552	171.40	0.500	-56.660	-11.17
0.018	-43.933	-13.761	0.000	-50.385	-167.07	0.000	-50.908	168.93	0.600	-56.660	-11.17	0.600	-59.768	-44.89
0.021	-44.865	-12.681	0.000	-52.385	-167.07	0.000	-52.908	171.12	0.700	-59.768	-44.89	0.700	-62.876	-78.59
0.024	-45.797	-11.601	0.000	-54.385	-167.07	0.000	-54.908	173.31	0.800	-62.876	-78.59	0.800	-65.984	-112.37
0.027	-46.729	-10.521	0.000	-56.385	-167.07	0.000	-56.908	175.50	0.900	-65.984	-112.37	0.900	-69.092	-146.07
0.030	-47.661	-9.441	0.000	-58.385	-167.07	0.000	-58.908	177.69	1.000	-69.092	-146.07	1.000	-72.200	-180.00
0.033	-48.593	-8.361	0.000	-60.385	-167.07	0.000	-60.908	179.88	1.100	-72.200	-180.00	1.100	-75.308	-213.69
0.036	-49.525	-7.281	0.000	-62.385	-167.07	0.000	-62.908	182.07	1.200	-75.308	-213.69	1.200	-78.416	-247.31
0.039	-50.457	-6.201	0.000	-64.385	-167.07	0.000	-64.908	184.26	1.300	-78.416	-247.31	1.300	-81.524	-280.93
0.042	-51.389	-5.121	0.000	-66.385	-167.07	0.000	-66.908	186.45	1.400	-81.524	-280.93	1.400	-84.632	-314.55
0.045	-52.321	-4.041	0.000	-68.385	-167.07	0.000	-68.908	188.64	1.500	-84.632	-314.55	1.500	-87.740	-348.17
0.048	-53.253	-2.961	0.000	-70.385	-167.07	0.000	-70.908	190.83	1.600	-87.740	-348.17	1.600	-90.848	-381.79
0.051	-54.185	-1.881	0.000	-72.385	-167.07	0.000	-72.908	193.02	1.700	-90.848	-348.17	1.700	-93.956	-415.41
0.054	-55.117	-0.801	0.000	-74.385	-167.07	0.000	-74.908	195.21	1.800	-93.956	-348.17	1.800	-97.064	-449.03
0.057	-56.049	0.279	0.000	-76.385	-167.07	0.000	-76.908	197.40	1.900	-97.064	-348.17	1.900	-100.172	-482.65
0.060	-56.981	1.199	0.000	-78.385	-167.07	0.000	-78.908	199.59	2.000	-100.172	-482.65	2.000	-103.280	-516.27
0.063	-57.913	2.119	0.000	-80.385	-167.07	0.000	-80.908	201.78	2.100	-103.280	-516.27	2.100	-106.388	-549.89
0.066	-58.845	3.039	0.000	-82.385	-167.07	0.000	-82.908	203.97	2.200	-106.388	-549.89	2.200	-109.496	-583.51
0.069	-59.777	3.959	0.000	-84.385	-167.07	0.000	-84.908	206.16	2.300	-109.496	-583.51	2.300	-112.604	-617.13
0.072	-60.709	4.879	0.000	-86.385	-167.07	0.000	-86.908	208.35	2.400	-112.604	-617.13	2.400	-115.712	-650.75
0.075	-61.641	5.799	0.000	-88.385	-167.07	0.000	-88.908	210.54	2.500	-115.712	-650.75	2.500	-118.820	-684.37
0.078	-62.573	6.719	0.000	-90.385	-167.07	0.000	-90.908	212.73	2.600	-118.820	-684.37	2.600	-121.928	-717.99
0.081	-63.505	7.639	0.000	-92.385	-167.07	0.000	-92.908	214.92	2.700	-121.928	-717.99	2.700	-125.036	-751.61
0.084	-64.437	8.559	0.000	-94.385	-167.07	0.000	-94.908	217.11	2.800	-125.036	-751.61	2.800	-128.144	-785.23
0.087	-65.369	9.479	0.000	-96.385	-167.07	0.000	-96.908	219.30	2.900	-128.144	-785.23	2.900	-131.252	-818.85
0.090	-66.301	10.399	0.000	-98.385	-167.07	0.000	-98.908	221.49	3.000	-131.252	-818.85	3.000	-134.360	-852.47
0.105	-34.504	-14.98	0.000	-39.140	116.11	0.000	-40.237	-42.24	0.000	-41.423	-44.89	0.000	-42.923	-48.59
0.120	-30.000	-10.00	0.000	-34.505	-15.02	0.000	-36.746	-14.94	0.000	-39.140	116.10	0.000	-40.116	116.07
0.135	-26.746	-8.36	0.000	-30.000	-10.00	0.000	-34.505	-15.02	0.000	-36.746	-14.94	0.000	-39.140	116.10
0.150	-24.505	-6.20	0.000	-26.746	-8.36	0.000	-30.000	-10.00	0.000	-34.505	-15.02	0.000	-36.746	-14.94
0.165	-22.069	-4.04	0.000	-24.505	-6.20	0.000	-26.746	-8.36	0.000	-30.000	-10.00	0.000	-34.505	-15.02
0.180	-20.312	-2.96	0.000	-22.069	-4.04	0.000	-24.505	-6.20	0.000	-26.746	-8.36	0.000	-30.000	-10.00
0.195	-18.505	-1.88	0.000	-20.312	-2.96	0.000	-22.069	-4.04	0.000	-24.505	-6.20	0.000	-26.746	-8.36
0.210	-16.746	-0.80	0.000	-18.505	-1.88	0.000	-20.312	-2.96	0.000	-22.069	-4.04	0.000	-24.505	-6.20
0.225	-15.000	0.28	0.000	-16.746	-0.80	0.000	-18.505	-1.88	0.000	-20.312	-2.96	0.000	-22.069	-4.04
0.240	-13.253	1.19	0.000	-15.000	0.28	0.000	-16.746	-0.80	0.000	-18.505	-1.88	0.000	-20.312	-2.96
0.255	-11.505	2.11	0.000	-13.253	1.19	0.000	-15.000	0.28	0.000	-16.746	-0.80	0.000	-18.505	-1.88
0.270	-9.746	3.03	0.000	-11.505	2.11	0.000	-13.253	1.19	0.000	-15.000	0.28	0.000	-16.746	-0.80
0.285	-8.000	3.95	0.000	-9.746	3.03	0.000	-11.505	2.11	0.000	-13.253	1.19	0.000	-15.000	0.28
0.300	-6.253	4.87	0.000	-8.000	3.95	0.000	-9.746	3.03	0.000	-11.505	2.11	0.000	-13.253	1.19

Table 21. Radial Electric Field (Sea Water), Frequency 10.0 MHz, VED Height = 22.48 m

3.0 KM UPRANGE				10.0 KM UPRANGE				30.0 KM UPRANGE				100.0 KM UPRANGE			
MEIUMT	AMP (DB)	PHASE (DEG)	(K)	MEIUMT	AMP (DB)	PHASE (DEG)	(K)	MEIUMT	AMP (DB)	PHASE (DEG)	(K)	MEIUMT	AMP (DB)	PHASE (DEG)	(K)
0.00	-39.031	-139.57	0.000	0.000	-39.449	120.10	0.000	0.000	-40.559	-63.07	0.000	0.000	-44.255	-27.60	0.000
0.03	-39.772	-142.57	0.010	0.010	-40.421	-109.09	0.000	0.000	-41.910	162.54	0.000	0.000	-46.349	114.78	0.000
0.06	-40.555	-146.43	0.020	0.020	-41.996	-160.86	0.000	0.000	-43.446	163.54	0.000	0.000	-48.714	114.78	0.000
0.09	-42.637	-156.07	0.030	0.030	-42.674	-163.96	0.000	0.000	-45.226	163.24	0.000	0.000	-51.540	112.30	0.000
0.12	-43.115	-152.89	0.040	0.040	-43.996	-160.16	0.000	0.000	-47.370	167.22	0.000	0.000	-55.110	103.95	0.000
0.15	-43.967	-125.69	0.050	0.050	-45.478	-154.98	0.000	0.000	-50.102	170.21	0.000	0.000	-59.249	79.22	0.000
0.18	-45.750	-125.69	0.060	0.060	-47.124	-147.64	0.000	0.000	-53.917	175.77	0.000	0.000	-63.925	50.61	0.000
0.21	-47.750	-107.48	0.070	0.070	-49.479	-136.88	0.000	0.000	-57.172	167.97	0.000	0.000	-69.090	1.27	0.000
0.24	-49.374	-107.48	0.080	0.080	-50.490	-121.09	0.000	0.000	-60.440	-62.03	0.000	0.000	-75.652	-9.49	0.000
0.27	-49.757	-97.01	0.090	0.090	-51.582	-100.03	0.000	0.000	-63.254	-37.614	0.000	0.000	-80.064	-13.84	0.000
0.30	-49.812	-87.05	0.100	0.100	-51.017	-77.78	0.000	0.000	-65.502	-27.75	0.000	0.000	-83.947	-15.72	0.000
0.33	-49.556	-74.61	0.110	0.110	-49.671	-59.79	0.000	0.000	-67.427	-23.64	0.000	0.000	-86.321	-16.46	0.000
0.36	-49.900	-60.60	0.120	0.120	-48.000	-47.27	0.000	0.000	-69.173	-21.24	0.000	0.000	-88.905	-16.63	0.000
0.39	-49.830	-50.00	0.130	0.130	-46.373	-36.71	0.000	0.000	-70.400	-19.62	0.000	0.000	-91.679	-16.49	0.000
0.42	-49.433	-38.84	0.140	0.140	-44.902	-26.85	0.000	0.000	-71.939	-18.35	0.000	0.000	-94.599	-16.19	0.000
0.45	-48.262	-26.54	0.150	0.150	-43.596	-18.59	0.000	0.000	-72.699	-17.31	0.000	0.000	-97.634	-15.79	0.000
0.48	-46.139	-30.11	0.160	0.160	-42.437	-12.32	0.000	0.000	-73.620	-16.43	0.000	0.000	-100.760	-15.35	0.000
0.51	-44.927	-30.11	0.170	0.170	-41.402	-22.81	0.000	0.000	-74.620	-15.66	0.000	0.000	-103.964	-14.88	0.000
0.54	-44.139	-30.82	0.180	0.180	-40.472	-26.06	0.000	0.000	-75.813	-14.97	0.000	0.000	-107.231	-14.40	0.000
0.57	-43.424	-28.04	0.190	0.190	-39.629	-19.15	0.000	0.000	-77.039	-14.35	0.000	0.000	-110.553	-13.93	0.000
0.60	-42.750	-23.69	0.200	0.200	-38.860	-17.77	0.000	0.000	-78.331	-13.78	0.000	0.000	-113.922	-13.47	0.000
0.63	-42.100	-23.69	0.210	0.210	-38.153	-16.60	0.000	0.000	-79.679	-13.26	0.000	0.000	-117.333	-13.03	0.000
0.66	-41.480	-21.97	0.220	0.220	-37.501	-15.59	0.000	0.000	-81.075	-12.77	0.000	0.000	-120.779	-12.60	0.000
0.69	-40.800	-20.46	0.230	0.230	-36.895	-14.72	0.000	0.000	-82.512	-12.31	0.000	0.000	-124.258	-12.18	0.000
0.72	-40.160	-19.00	0.240	0.240	-36.329	-13.94	0.000	0.000	-83.984	-11.98	0.000	0.000	-127.765	-11.79	0.000
0.75	-39.563	-17.91	0.250	0.250	-35.800	-13.25	0.000	0.000	-85.489	-11.48	0.000	0.000	-131.299	-11.41	0.000
0.78	-38.966	-16.86	0.260	0.260	-35.302	-12.63	0.000	0.000	-86.921	-11.10	0.000	0.000	-134.856	-11.05	0.000
0.81	-38.407	-15.93	0.270	0.270	-34.833	-12.03	0.000	0.000	-88.378	-10.74	0.000	0.000	-138.434	-10.70	0.000
0.84	-37.889	-15.00	0.280	0.280	-34.389	-11.50	0.000	0.000	-89.858	-10.40	0.000	0.000	-142.031	-10.37	0.000
0.87	-37.409	-14.02	0.290	0.290	-33.968	-11.09	0.000	0.000	-91.358	-10.08	0.000	0.000	-145.646	-10.05	0.000
0.90	-36.959	-13.03	0.300	0.300	-33.567	-10.60	0.000	0.000	-92.877	-9.77	0.000	0.000	-149.277	-9.75	0.000
1.05	-31.097	-79.93	0.350	0.350	-31.018	-69.93	0.000	0.000	-31.697	-69.43	0.000	0.000	-31.691	-69.42	0.000
1.20	-30.929	-79.07	0.400	0.400	-30.985	-70.60	0.000	0.000	-30.906	-70.35	0.000	0.000	-30.272	-70.33	0.000
1.35	-30.426	-78.71	0.450	0.450	-29.913	-69.67	0.000	0.000	-29.9123	-69.46	0.000	0.000	-29.101	-69.44	0.000
1.50	-29.173	-68.60	0.500	0.500	-29.132	-68.60	0.000	0.000	-29.097	-69.71	0.000	0.000	-28.083	-69.69	0.000
1.65	-28.123	-59.62	0.550	0.550	-28.1220	-59.19	0.000	0.000	-28.1195	-59.08	0.000	0.000	-27.185	-59.06	0.000
1.80	-26.934	-50.14	0.600	0.600	-26.9411	-49.63	0.000	0.000	-26.9394	-49.53	0.000	0.000	-26.387	-49.51	0.000
1.95	-25.705	-40.57	0.650	0.650	-25.6899	-40.14	0.000	0.000	-25.6777	-40.05	0.000	0.000	-25.672	-40.03	0.000
2.10	-24.053	-34.16	0.700	0.700	-24.0540	-33.71	0.000	0.000	-24.0331	-33.63	0.000	0.000	-24.028	-33.61	0.000
2.25	-22.926	-31.65	0.750	0.750	-22.9452	-33.33	0.000	0.000	-22.9446	-33.26	0.000	0.000	-22.928	-33.24	0.000
2.40	-22.346	-31.20	0.800	0.800	-22.9319	-29.99	0.000	0.000	-22.9415	-29.93	0.000	0.000	-22.913	-29.91	0.000
2.55	-22.340	-26.99	0.850	0.850	-22.9344	-26.69	0.000	0.000	-22.9431	-26.62	0.000	0.000	-22.930	-26.60	0.000
2.70	-22.992	-26.65	0.900	0.900	-22.9491	-26.41	0.000	0.000	-22.9489	-26.35	0.000	0.000	-22.948	-26.33	0.000
2.85	-22.960	-22.39	0.950	0.950	-22.9587	-22.10	0.000	0.000	-22.9686	-22.10	0.000	0.000	-22.968	-22.08	0.000
3.00	-22.418	-22.14	1.000	1.000	-22.4218	-21.92	0.000	0.000	-22.4217	-21.87	0.000	0.000	-22.4217	-21.85	0.000

Table 22. Radial Electric Field (Sea Water), Frequency = 10.0 MHz, VED Height = 44.95 m

3.0 KM UOMRANGE				10.0 KM UOMRANGE				100.0 KM UOMRANGE			
REL	AMP	PHASE	REL	AMP	PHASE	REL	AMP	PHASE	REL	AMP	PHASE
(KM)	(DB)	(DEG)	(KM)	(DB)	(DEG)	(KM)	(DB)	(DEG)	(KM)	(DB)	(DEG)
0.000	-37.221	-14.50	0.000	-37.700	-148.48	0.000	-40.847	-80.99	0.000	-44.569	-25.28
0.003	-37.903	-140.89	0.010	-40.657	-164.78	0.030	-42.200	165.80	0.100	-46.863	117.39
0.006	-41.610	-137.68	0.020	-41.706	-162.33	0.060	-43.726	166.92	0.200	-49.030	117.46
0.009	-41.334	-133.01	0.030	-42.881	-159.21	0.090	-45.500	166.92	0.300	-51.859	115.05
0.012	-42.059	-127.99	0.040	-44.139	-155.14	0.120	-47.631	170.70	0.400	-55.442	106.85
0.015	-42.782	-122.07	0.050	-45.553	-149.66	0.150	-50.338	174.01	0.500	-59.681	62.28
0.018	-43.507	-115.10	0.060	-47.092	-142.05	0.180	-53.036	-179.83	0.600	-60.366	33.20
0.021	-43.997	-110.29	0.070	-48.679	-131.25	0.210	-55.531	-184.09	0.700	-56.993	3.54
0.024	-44.367	-106.24	0.080	-50.073	-118.11	0.240	-57.531	-17.75	0.800	-53.034	-11.50
0.027	-44.499	-102.25	0.090	-50.810	-98.84	0.270	-59.455	-27.94	0.900	-48.372	-13.34
0.030	-44.439	-98.87	0.100	-50.513	-78.74	0.300	-61.336	-38.14	1.000	-43.700	-14.06
0.033	-44.180	-95.88	0.110	-49.379	-59.94	0.330	-63.167	-48.42	1.100	-38.028	-14.21
0.036	-43.702	-93.07	0.120	-47.908	-41.67	0.360	-64.942	-58.75	1.200	-31.364	-13.74
0.039	-43.160	-90.41	0.130	-46.424	-24.85	0.390	-66.662	-69.02	1.300	-23.610	-12.89
0.042	-42.505	-87.13	0.140	-45.046	-8.85	0.420	-68.327	-79.26	1.400	-14.868	-11.92
0.045	-41.777	-83.82	0.150	-43.809	-28.30	0.450	-69.937	-89.48	1.500	-5.000	-10.97
0.048	-41.004	-80.29	0.160	-42.609	-48.84	0.480	-71.492	-99.68	1.600	4.000	-10.07
0.051	-40.192	-76.44	0.170	-41.570	-69.75	0.510	-73.000	-109.83	1.700	13.000	-9.05
0.054	-39.344	-72.10	0.180	-40.683	-90.75	0.540	-74.462	-119.92	1.800	21.000	-8.05
0.057	-38.461	-67.35	0.190	-39.987	-111.15	0.570	-75.882	-129.96	1.900	28.000	-7.08
0.060	-37.541	-62.92	0.200	-39.424	-131.58	0.600	-77.262	-139.96	2.000	34.000	-6.13
0.063	-36.597	-58.80	0.210	-38.956	-152.05	0.630	-78.602	-149.92	2.100	39.000	-5.24
0.066	-35.637	-54.95	0.220	-38.524	-172.52	0.660	-79.902	-159.83	2.200	43.000	-4.42
0.069	-34.663	-51.33	0.230	-38.138	-193.02	0.690	-81.162	-169.68	2.300	46.000	-3.65
0.072	-33.675	-47.88	0.240	-37.793	-213.57	0.720	-82.382	-179.48	2.400	48.000	-2.94
0.075	-32.673	-44.54	0.250	-37.493	-234.11	0.750	-83.562	-189.24	2.500	49.000	-2.28
0.078	-31.657	-41.34	0.260	-37.233	-254.75	0.780	-84.702	-198.96	2.600	49.000	-1.67
0.081	-30.629	-38.28	0.270	-37.008	-275.48	0.810	-85.802	-208.63	2.700	48.000	-1.10
0.084	-29.591	-35.36	0.280	-36.823	-296.28	0.840	-86.862	-218.26	2.800	46.000	-0.57
0.087	-28.543	-32.58	0.290	-36.673	-317.15	0.870	-87.882	-227.85	2.900	43.000	-0.08
0.090	-27.485	-29.94	0.300	-36.553	-338.08	0.900	-88.862	-237.39	3.000	39.000	0.37
0.093	-26.417	-27.45	0.310	-36.453	-359.08	0.930	-89.802	-246.88	3.100	34.000	0.84
0.096	-25.349	-25.09	0.320	-36.373	-380.15	0.960	-90.702	-256.33	3.200	28.000	1.32
0.099	-24.281	-22.86	0.330	-36.313	-401.28	0.990	-91.562	-265.74	3.300	21.000	1.81
0.102	-23.213	-20.74	0.340	-36.273	-422.48	1.020	-92.382	-275.11	3.400	13.000	2.30
0.105	-22.145	-18.74	0.350	-36.253	-443.75	1.050	-93.162	-284.44	3.500	4.000	2.79
0.108	-21.077	-16.86	0.360	-36.253	-465.08	1.080	-93.902	-293.74	3.600	-4.000	3.28
0.111	-20.009	-15.09	0.370	-36.273	-486.48	1.110	-94.602	-303.01	3.700	-13.000	3.77
0.114	-18.941	-13.44	0.380	-36.313	-507.95	1.140	-95.262	-312.26	3.800	-21.000	4.26
0.117	-17.873	-11.90	0.390	-36.373	-529.48	1.170	-95.882	-321.58	3.900	-28.000	4.75
0.120	-16.805	-10.47	0.400	-36.453	-551.08	1.200	-96.462	-330.96	4.000	-34.000	5.24
0.123	-15.737	-9.14	0.410	-36.553	-572.75	1.230	-97.002	-340.41	4.100	-39.000	5.73
0.126	-14.669	-7.91	0.420	-36.673	-594.48	1.260	-97.502	-349.92	4.200	-43.000	6.22
0.129	-13.601	-6.78	0.430	-36.823	-616.28	1.290	-97.962	-359.48	4.300	-46.000	6.71
0.132	-12.533	-5.74	0.440	-36.903	-638.15	1.320	-98.382	-369.08	4.400	-48.000	7.20
0.135	-11.465	-4.79	0.450	-37.003	-660.08	1.350	-98.762	-378.74	4.500	-49.000	7.69
0.138	-10.397	-3.94	0.460	-37.123	-682.08	1.380	-99.102	-388.44	4.600	-49.000	8.18
0.141	-9.329	-3.19	0.470	-37.263	-704.15	1.410	-99.402	-398.11	4.700	-48.000	8.67
0.144	-8.261	-2.54	0.480	-37.423	-726.28	1.440	-99.662	-407.74	4.800	-46.000	9.16
0.147	-7.193	-1.99	0.490	-37.593	-748.48	1.470	-99.882	-417.44	4.900	-43.000	9.65
0.150	-6.125	-1.54	0.500	-37.783	-770.75	1.500	-100.062	-427.11	5.000	-39.000	10.14
0.153	-5.057	-1.19	0.510	-37.993	-793.08	1.530	-100.202	-436.85	5.100	-34.000	10.63
0.156	-3.989	-0.94	0.520	-38.223	-815.48	1.560	-100.302	-446.58	5.200	-28.000	11.12
0.159	-2.921	-0.79	0.530	-38.473	-837.95	1.590	-100.362	-456.33	5.300	-21.000	11.61
0.162	-1.853	-0.74	0.540	-38.743	-860.48	1.620	-100.382	-466.08	5.400	-13.000	12.10
0.165	-0.785	-0.79	0.550	-39.033	-883.08	1.650	-100.362	-475.83	5.500	-4.000	12.59
0.168	0.283	-0.94	0.560	-39.343	-905.75	1.680	-100.302	-485.58	5.600	4.000	13.08
0.171	1.355	-1.19	0.570	-39.673	-928.48	1.710	-100.202	-495.33	5.700	13.000	13.57
0.174	2.427	-1.54	0.580	-40.023	-951.28	1.740	-100.062	-505.08	5.800	21.000	14.06
0.177	3.499	-1.99	0.590	-40.393	-974.15	1.770	-99.882	-514.83	5.900	28.000	14.55
0.180	4.571	-2.54	0.600	-40.783	-997.08	1.800	-99.662	-524.58	6.000	34.000	15.04
0.183	5.643	-3.19	0.610	-41.193	-1020.08	1.830	-99.402	-534.33	6.100	39.000	15.53
0.186	6.715	-3.94	0.620	-41.623	-1043.15	1.860	-99.102	-544.08	6.200	43.000	16.02
0.189	7.787	-4.79	0.630	-42.073	-1066.28	1.890	-98.762	-553.83	6.300	46.000	16.51
0.192	8.859	-5.74	0.640	-42.543	-1089.48	1.920	-98.382	-563.58	6.400	48.000	17.00
0.195	9.931	-6.79	0.650	-43.033	-1112.75	1.950	-97.962	-573.33	6.500	49.000	17.49
0.198	10.999	-7.94	0.660	-43.543	-1136.08	1.980	-97.502	-583.08	6.600	49.000	17.98
0.201	12.067	-9.19	0.670	-44.073	-1159.48	2.010	-97.002	-592.83	6.700	48.000	18.47
0.204	13.135	-10.54	0.680	-44.623	-1182.95	2.040	-96.462	-602.58	6.800	46.000	18.96
0.207	14.203	-11.99	0.690	-45.193	-1206.48	2.070	-95.882	-612.33	6.900	43.000	19.45
0.210	15.271	-13.54	0.700	-45.783	-1230.08	2.100	-95.262	-622.08	7.000	39.000	19.94
0.213	16.339	-15.19	0.710	-46.393	-1253.75	2.130	-94.602	-631.83	7.100	34.000	20.43
0.216	17.407	-16.94	0.720	-47.023	-1277.48	2.160	-93.902	-641.58	7.200	28.000	20.92
0.219	18.475	-18.79	0.730	-47.673	-1301.28	2.190	-93.162	-651.33	7.300	21.000	21.41
0.222	19.543	-20.74	0.740	-48.343	-1325.15	2.220	-92.402	-661.08	7.400	13.000	21.90
0.225	20.611	-22.79	0.750	-49.033	-1349.08	2.250	-91.602	-670.83	7.500	4.000	22.39
0.228	21.679	-24.94	0.760	-49.743	-1373.08	2.280	-90.762	-680.58	7.600	-4.000	22.88
0.231	22.747	-27.19	0.770	-50.473	-1397.15	2.310	-90.002	-690.33	7.700	-13.000	23.37
0.234	23.815	-29.54	0.780	-51.223	-1421.28	2.340	-89.202	-700.08	7.800	-21.000	23.86
0.237	24.883	-31.99	0.790	-52.003	-1445.48	2.370	-88.362	-709.83	7.900	-28.000	24.35
0.240	25.951	-34.54	0.800	-52.813	-1470.08	2.400	-87.502	-719.58	8.000	-34.000	24.84
0.243	27.019	-37.19	0.810	-53.643	-1494.75	2.430	-86.602	-729.33	8.100	-39.000	25.33
0.246	28.087	-39.94	0.820	-54.493	-1519.48	2.460	-85.662	-739.08	8.200	-43.000	25.82
0.249	29.155	-42.79	0.830	-55.363	-1544.28	2.490	-84.682	-748.83	8.300	-46.000	26.31
0.252	30.223	-45.74	0.840	-56.253	-1569.08	2.520	-83.662	-758.58	8.400	-48.000	26.80
0.255	31.291	-48.79	0.850	-57.163	-1593.95	2.550	-82.602	-768.33	8.500	-49.000	27.29
0.258	32.359	-51.94	0.860	-58.093	-1618.88	2.580	-81.502	-778.08	8.600	-49.000	27.78
0.261	33.427	-55.19	0.870	-59.043	-1643.95	2.610	-80.362	-787.83	8.700	-48.000	28.27
0.264	34.495	-58.54	0.880	-59.993	-1669.08	2.640	-79.182	-797.58	8.800	-46.000	28.76
0.267	35.563	-61.99	0.890	-60.963	-1694.28	2.670	-77.962	-807.33	8.900	-43.000	29.25
0.270	36.631	-65.54	0.900	-61.953	-1719.58	2.700	-76.702	-817.08	9.000	-39.000	29.74
0.273	37.699	-69.19	0.910	-62.963	-1744.95	2.730	-75.402	-826.83	9.100</		

Table 23. Radial Electric Field (Sea Water), Frequency = 100.0 MHz, VED Height = 0.00 m

1.0 KM UPHRANGE			3.0 KM UPHRANGE			10.0 KM UPHRANGE			30.0 KM UPHRANGE		
RE (V/M)	AMP (V/M)	PHASE (DEG)	RE (V/M)	AMP (V/M)	PHASE (DEG)	RE (V/M)	AMP (V/M)	PHASE (DEG)	RE (V/M)	AMP (V/M)	PHASE (DEG)
0.000	-34.865	43.83	0.000	-43.476	-13.83	0.000	-56.800	-91.85	0.000	-67.070	-14.49
0.001	-35.257	112.30	0.001	-44.272	66.46	0.001	-57.390	51.25	0.001	-68.010	39.47
0.002	-35.591	112.69	0.002	-45.071	61.91	0.002	-58.570	47.32	0.002	-69.010	39.47
0.003	-35.876	112.91	0.003	-45.883	64.83	0.003	-59.570	40.56	0.003	-70.010	39.47
0.004	-36.114	112.99	0.004	-46.715	64.53	0.004	-60.570	35.42	0.004	-71.010	39.47
0.005	-36.301	112.90	0.005	-47.565	61.11	0.005	-61.570	31.04	0.005	-72.010	39.47
0.006	-36.443	112.61	0.006	-48.421	61.34	0.006	-62.570	25.42	0.006	-73.010	39.47
0.007	-36.543	112.06	0.007	-49.274	61.34	0.007	-63.570	20.84	0.007	-74.010	39.47
0.008	-36.603	111.16	0.008	-50.051	55.31	0.008	-64.570	16.26	0.008	-75.010	39.47
0.009	-36.633	109.84	0.009	-50.875	50.84	0.009	-65.570	11.69	0.009	-76.010	39.47
0.010	-36.643	108.04	0.010	-51.675	46.01	0.010	-66.570	6.11	0.010	-77.010	39.47
0.011	-36.633	105.84	0.011	-52.443	41.34	0.011	-67.570	1.53	0.011	-78.010	39.47
0.012	-36.603	103.46	0.012	-53.175	36.84	0.012	-68.570	-3.05	0.012	-79.010	39.47
0.013	-36.553	100.91	0.013	-53.875	32.35	0.013	-69.570	-7.53	0.013	-80.010	39.47
0.014	-36.483	98.21	0.014	-54.543	27.84	0.014	-70.570	-12.01	0.014	-81.010	39.47
0.015	-36.393	95.31	0.015	-55.175	23.35	0.015	-71.570	-16.48	0.015	-82.010	39.47
0.016	-36.283	92.16	0.016	-55.775	18.84	0.016	-72.570	-20.96	0.016	-83.010	39.47
0.017	-36.153	88.76	0.017	-56.343	14.35	0.017	-73.570	-25.43	0.017	-84.010	39.47
0.018	-36.003	85.11	0.018	-56.875	9.84	0.018	-74.570	-29.91	0.018	-85.010	39.47
0.019	-35.833	81.21	0.019	-57.375	5.31	0.019	-75.570	-34.38	0.019	-86.010	39.47
0.020	-35.643	77.06	0.020	-57.843	0.84	0.020	-76.570	-38.86	0.020	-87.010	39.47
0.021	-35.433	72.66	0.021	-58.275	-4.69	0.021	-77.570	-43.34	0.021	-88.010	39.47
0.022	-35.203	68.01	0.022	-58.675	-9.17	0.022	-78.570	-47.81	0.022	-89.010	39.47
0.023	-34.953	63.11	0.023	-59.043	-13.64	0.023	-79.570	-52.29	0.023	-90.010	39.47
0.024	-34.683	57.96	0.024	-59.375	-18.11	0.024	-80.570	-56.77	0.024	-91.010	39.47
0.025	-34.393	52.56	0.025	-59.675	-22.58	0.025	-81.570	-61.25	0.025	-92.010	39.47
0.026	-34.083	46.91	0.026	-60.043	-26.91	0.026	-82.570	-65.73	0.026	-93.010	39.47
0.027	-33.753	41.01	0.027	-60.375	-31.38	0.027	-83.570	-70.21	0.027	-94.010	39.47
0.028	-33.403	34.86	0.028	-60.675	-35.86	0.028	-84.570	-74.69	0.028	-95.010	39.47
0.029	-33.033	28.46	0.029	-60.943	-40.41	0.029	-85.570	-79.17	0.029	-96.010	39.47
0.030	-32.643	21.81	0.030	-61.275	-44.96	0.030	-86.570	-83.65	0.030	-97.010	39.47
0.035	-30.866	-17.06	0.035	-59.591	-17.06	0.035	-84.591	-17.06	0.035	-94.954	-21.04
0.040	-30.179	-17.31	0.040	-59.263	-17.41	0.040	-84.263	-17.41	0.040	-94.954	-21.04
0.045	-29.476	-16.99	0.045	-58.940	-17.71	0.045	-83.940	-17.71	0.045	-94.954	-21.04
0.050	-28.767	-16.44	0.050	-58.621	-18.04	0.050	-83.621	-18.04	0.050	-94.954	-21.04
0.055	-28.057	-15.80	0.055	-58.302	-18.34	0.055	-83.302	-18.34	0.055	-94.954	-21.04
0.060	-27.347	-15.14	0.060	-57.983	-18.61	0.060	-82.983	-18.61	0.060	-94.954	-21.04
0.065	-26.637	-14.46	0.065	-57.664	-18.86	0.065	-82.664	-18.86	0.065	-94.954	-21.04
0.070	-25.927	-13.79	0.070	-57.345	-19.09	0.070	-82.345	-19.09	0.070	-94.954	-21.04
0.075	-25.217	-13.11	0.075	-57.026	-19.30	0.075	-82.026	-19.30	0.075	-94.954	-21.04
0.080	-24.507	-12.43	0.080	-56.707	-19.49	0.080	-81.707	-19.49	0.080	-94.954	-21.04
0.085	-23.797	-11.75	0.085	-56.388	-19.66	0.085	-81.388	-19.66	0.085	-94.954	-21.04
0.090	-23.087	-11.07	0.090	-56.069	-19.81	0.090	-81.069	-19.81	0.090	-94.954	-21.04
0.095	-22.377	-10.39	0.095	-55.750	-19.94	0.095	-80.750	-19.94	0.095	-94.954	-21.04
0.100	-21.667	-9.71	0.100	-55.431	-20.06	0.100	-80.431	-20.06	0.100	-94.954	-21.04

Table 24. Radial Electric Field (Sea Water), Frequency = 100.0 MHz, VED Height = 2.25 m

1.0 KM DOWNRANGE				3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE			
TELENT (M)	AMP (UB)	PHASE (DEG)	TELENT (KM)	AMP (UB)	PHASE (DEG)	TELENT (KM)	AMP (UB)	PHASE (DEG)	TELENT (KM)	AMP (UB)	PHASE (DEG)	TELENT (KM)	AMP (UB)	PHASE (DEG)	TELENT (KM)
0.00	-35.543	51.40	0.00	-44.449	-41.81	0.00	-57.792	-33.54	0.00	-68.055	-6.11	0.00	-88.536	56.32	0.00
0.01	-36.116	120.95	0.03	-45.243	74.02	0.10	-58.375	37.05	0.30	-68.996	47.88	1.00	-89.596	52.36	3.00
0.02	-36.632	121.36	0.06	-46.043	74.02	0.20	-59.557	55.73	0.60	-70.189	14.98	1.50	-90.801	1.47	6.00
0.03	-37.210	121.56	0.09	-46.856	74.02	0.30	-60.740	74.05	0.90	-92.000	17.00	2.00	-92.000	-12.47	9.00
0.04	-37.815	121.70	0.12	-47.688	74.05	0.40	-61.924	74.05	1.20	-93.211	-7.21	2.50	-93.211	-15.64	12.00
0.05	-38.443	121.87	0.15	-48.542	74.05	0.50	-63.108	74.05	1.50	-94.424	-17.00	3.00	-94.424	-18.67	15.00
0.06	-39.093	121.93	0.18	-49.417	74.05	0.60	-64.292	74.05	1.80	-95.637	-27.00	3.50	-95.637	-20.67	18.00
0.07	-39.764	121.95	0.21	-50.300	74.05	0.70	-65.466	74.05	2.10	-96.850	-37.00	4.00	-96.850	-22.67	21.00
0.08	-40.456	121.95	0.24	-51.193	74.05	0.80	-66.635	74.05	2.40	-98.063	-47.00	4.50	-98.063	-24.67	24.00
0.09	-41.168	121.95	0.27	-52.096	74.05	0.90	-67.804	74.05	2.70	-99.276	-57.00	5.00	-99.276	-26.67	27.00
0.10	-41.890	121.95	0.30	-52.999	74.05	1.00	-68.973	74.05	3.00	-100.489	-67.00	5.50	-100.489	-28.67	30.00
0.11	-42.622	121.95	0.33	-53.902	74.05	1.10	-70.142	74.05	3.30	-101.702	-77.00	6.00	-101.702	-30.67	33.00
0.12	-43.364	121.95	0.36	-54.805	74.05	1.20	-71.311	74.05	3.60	-102.915	-87.00	6.50	-102.915	-32.67	36.00
0.13	-44.116	121.95	0.39	-55.708	74.05	1.30	-72.480	74.05	3.90	-104.128	-97.00	7.00	-104.128	-34.67	39.00
0.14	-44.878	121.95	0.42	-56.611	74.05	1.40	-73.649	74.05	4.20	-105.341	-107.00	7.50	-105.341	-36.67	42.00
0.15	-45.640	121.95	0.45	-57.514	74.05	1.50	-74.818	74.05	4.50	-106.554	-117.00	8.00	-106.554	-38.67	45.00
0.16	-46.402	121.95	0.48	-58.417	74.05	1.60	-75.987	74.05	4.80	-107.767	-127.00	8.50	-107.767	-40.67	48.00
0.17	-47.164	121.95	0.51	-59.320	74.05	1.70	-77.156	74.05	5.10	-108.980	-137.00	9.00	-108.980	-42.67	51.00
0.18	-47.926	121.95	0.54	-60.223	74.05	1.80	-78.325	74.05	5.40	-110.193	-147.00	9.50	-110.193	-44.67	54.00
0.19	-48.688	121.95	0.57	-61.126	74.05	1.90	-79.494	74.05	5.70	-111.406	-157.00	10.00	-111.406	-46.67	57.00
0.20	-49.450	121.95	0.60	-62.029	74.05	2.00	-80.663	74.05	6.00	-112.619	-167.00	10.50	-112.619	-48.67	60.00
0.21	-50.212	121.95	0.63	-62.932	74.05	2.10	-81.832	74.05	6.30	-113.832	-177.00	11.00	-113.832	-50.67	63.00
0.22	-50.974	121.95	0.66	-63.835	74.05	2.20	-83.001	74.05	6.60	-115.045	-187.00	11.50	-115.045	-52.67	66.00
0.23	-51.736	121.95	0.69	-64.738	74.05	2.30	-84.170	74.05	6.90	-116.258	-197.00	12.00	-116.258	-54.67	69.00
0.24	-52.498	121.95	0.72	-65.641	74.05	2.40	-85.339	74.05	7.20	-117.471	-207.00	12.50	-117.471	-56.67	72.00
0.25	-53.260	121.95	0.75	-66.544	74.05	2.50	-86.508	74.05	7.50	-118.684	-217.00	13.00	-118.684	-58.67	75.00
0.26	-54.022	121.95	0.78	-67.447	74.05	2.60	-87.677	74.05	7.80	-119.897	-227.00	13.50	-119.897	-60.67	78.00
0.27	-54.784	121.95	0.81	-68.350	74.05	2.70	-88.846	74.05	8.10	-121.110	-237.00	14.00	-121.110	-62.67	81.00
0.28	-55.546	121.95	0.84	-69.253	74.05	2.80	-90.015	74.05	8.40	-122.323	-247.00	14.50	-122.323	-64.67	84.00
0.29	-56.308	121.95	0.87	-70.156	74.05	2.90	-91.184	74.05	8.70	-123.536	-257.00	15.00	-123.536	-66.67	87.00
0.30	-57.070	121.95	0.90	-71.059	74.05	3.00	-92.353	74.05	9.00	-124.749	-267.00	15.50	-124.749	-68.67	90.00
0.31	-57.832	121.95	0.93	-71.962	74.05	3.10	-93.522	74.05	3.10	-125.962	-277.00	16.00	-125.962	-70.67	93.00
0.32	-58.594	121.95	0.96	-72.865	74.05	3.20	-94.691	74.05	3.20	-127.175	-287.00	16.50	-127.175	-72.67	96.00
0.33	-59.356	121.95	0.99	-73.768	74.05	3.30	-95.860	74.05	3.30	-128.388	-297.00	17.00	-128.388	-74.67	99.00
0.34	-60.118	121.95	1.02	-74.671	74.05	3.40	-97.029	74.05	3.40	-129.601	-307.00	17.50	-129.601	-76.67	102.00
0.35	-60.880	121.95	1.05	-75.574	74.05	3.50	-98.198	74.05	3.50	-130.814	-317.00	18.00	-130.814	-78.67	105.00
0.36	-61.642	121.95	1.08	-76.477	74.05	3.60	-99.367	74.05	3.60	-132.027	-327.00	18.50	-132.027	-80.67	108.00
0.37	-62.404	121.95	1.11	-77.380	74.05	3.70	-100.536	74.05	3.70	-133.240	-337.00	19.00	-133.240	-82.67	111.00
0.38	-63.166	121.95	1.14	-78.283	74.05	3.80	-101.705	74.05	3.80	-134.453	-347.00	19.50	-134.453	-84.67	114.00
0.39	-63.928	121.95	1.17	-79.186	74.05	3.90	-102.874	74.05	3.90	-135.666	-357.00	20.00	-135.666	-86.67	117.00
0.40	-64.690	121.95	1.20	-80.089	74.05	4.00	-104.043	74.05	4.00	-136.879	-367.00	20.50	-136.879	-88.67	120.00
0.41	-65.452	121.95	1.23	-80.992	74.05	4.10	-105.212	74.05	4.10	-138.092	-377.00	21.00	-138.092	-90.67	123.00
0.42	-66.214	121.95	1.26	-81.895	74.05	4.20	-106.381	74.05	4.20	-139.305	-387.00	21.50	-139.305	-92.67	126.00
0.43	-66.976	121.95	1.29	-82.798	74.05	4.30	-107.550	74.05	4.30	-140.518	-397.00	22.00	-140.518	-94.67	129.00
0.44	-67.738	121.95	1.32	-83.701	74.05	4.40	-108.719	74.05	4.40	-141.731	-407.00	22.50	-141.731	-96.67	132.00
0.45	-68.500	121.95	1.35	-84.604	74.05	4.50	-109.888	74.05	4.50	-142.944	-417.00	23.00	-142.944	-98.67	135.00
0.46	-69.262	121.95	1.38	-85.507	74.05	4.60	-111.057	74.05	4.60	-144.157	-427.00	23.50	-144.157	-100.67	138.00
0.47	-70.024	121.95	1.41	-86.410	74.05	4.70	-112.226	74.05	4.70	-145.370	-437.00	24.00	-145.370	-102.67	141.00
0.48	-70.786	121.95	1.44	-87.313	74.05	4.80	-113.395	74.05	4.80	-146.583	-447.00	24.50	-146.583	-104.67	144.00
0.49	-71.548	121.95	1.47	-88.216	74.05	4.90	-114.564	74.05	4.90	-147.796	-457.00	25.00	-147.796	-106.67	147.00
0.50	-72.310	121.95	1.50	-89.119	74.05	5.00	-115.733	74.05	5.00	-149.009	-467.00	25.50	-149.009	-108.67	150.00

Table 25. Radial Electric Field (Sea Water), Frequency = 100.0 MHz, VED Height = 4.50 m

1.0 KM DOWNRANGE					3.0 KM DOWNRANGE					10.0 KM DOWNRANGE				
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	RELUMT (RM)	PHASE (DEG)	AMP (UB)	PHASE (DEG)	RELUMT (RM)	PHASE (DEG)	AMP (UB)	RELUMT (RM)	PHASE (DEG)	AMP (UB)	PHASE (DEG)	RELUMT (RM)
0.00	-36.230	135.19	0.000	-75.280	-75.280	135.15	0.000	-75.280	-75.280	135.15	0.000	-75.280	135.15	0.000
0.01	-36.671	131.53	0.003	-76.078	-76.078	126.90	0.003	-76.078	-76.078	126.90	0.003	-76.078	126.90	0.003
0.02	-37.324	126.01	0.006	-76.877	-76.877	118.42	0.006	-76.877	-76.877	118.42	0.006	-76.877	118.42	0.006
0.03	-38.000	120.40	0.009	-77.671	-77.671	109.85	0.009	-77.671	-77.671	109.85	0.009	-77.671	109.85	0.009
0.04	-38.702	114.81	0.012	-78.467	-78.467	101.28	0.012	-78.467	-78.467	101.28	0.012	-78.467	101.28	0.012
0.05	-39.433	109.21	0.015	-79.266	-79.266	92.70	0.015	-79.266	-79.266	92.70	0.015	-79.266	92.70	0.015
0.06	-40.194	103.60	0.018	-80.067	-80.067	84.11	0.018	-80.067	-80.067	84.11	0.018	-80.067	84.11	0.018
0.07	-40.985	98.00	0.021	-80.870	-80.870	75.51	0.021	-80.870	-80.870	75.51	0.021	-80.870	75.51	0.021
0.08	-41.806	92.39	0.024	-81.675	-81.675	66.92	0.024	-81.675	-81.675	66.92	0.024	-81.675	66.92	0.024
0.09	-42.657	86.78	0.027	-82.482	-82.482	58.33	0.027	-82.482	-82.482	58.33	0.027	-82.482	58.33	0.027
0.10	-43.538	81.17	0.030	-83.291	-83.291	49.74	0.030	-83.291	-83.291	49.74	0.030	-83.291	49.74	0.030
0.11	-44.449	75.56	0.033	-84.102	-84.102	41.15	0.033	-84.102	-84.102	41.15	0.033	-84.102	41.15	0.033
0.12	-45.390	69.95	0.036	-84.914	-84.914	32.56	0.036	-84.914	-84.914	32.56	0.036	-84.914	32.56	0.036
0.13	-46.361	64.34	0.039	-85.727	-85.727	23.97	0.039	-85.727	-85.727	23.97	0.039	-85.727	23.97	0.039
0.14	-47.372	58.73	0.042	-86.541	-86.541	15.38	0.042	-86.541	-86.541	15.38	0.042	-86.541	15.38	0.042
0.15	-48.423	53.12	0.045	-87.356	-87.356	6.79	0.045	-87.356	-87.356	6.79	0.045	-87.356	6.79	0.045
0.16	-49.514	47.51	0.048	-88.172	-88.172	-1.80	0.048	-88.172	-88.172	-1.80	0.048	-88.172	-1.80	0.048
0.17	-50.645	41.90	0.051	-88.989	-88.989	-10.19	0.051	-88.989	-88.989	-10.19	0.051	-88.989	-10.19	0.051
0.18	-51.816	36.29	0.054	-89.807	-89.807	-18.58	0.054	-89.807	-89.807	-18.58	0.054	-89.807	-18.58	0.054
0.19	-53.027	30.68	0.057	-90.626	-90.626	-26.97	0.057	-90.626	-90.626	-26.97	0.057	-90.626	-26.97	0.057
0.20	-54.278	25.07	0.060	-91.446	-91.446	-35.36	0.060	-91.446	-91.446	-35.36	0.060	-91.446	-35.36	0.060
0.21	-55.569	19.46	0.063	-92.267	-92.267	-43.75	0.063	-92.267	-92.267	-43.75	0.063	-92.267	-43.75	0.063
0.22	-56.900	13.85	0.066	-93.089	-93.089	-52.14	0.066	-93.089	-93.089	-52.14	0.066	-93.089	-52.14	0.066
0.23	-58.271	8.24	0.069	-93.912	-93.912	-60.53	0.069	-93.912	-93.912	-60.53	0.069	-93.912	-60.53	0.069
0.24	-59.682	2.63	0.072	-94.736	-94.736	-68.92	0.072	-94.736	-94.736	-68.92	0.072	-94.736	-68.92	0.072
0.25	-61.133	-2.98	0.075	-95.561	-95.561	-77.31	0.075	-95.561	-95.561	-77.31	0.075	-95.561	-77.31	0.075
0.26	-62.624	-8.59	0.078	-96.387	-96.387	-85.70	0.078	-96.387	-96.387	-85.70	0.078	-96.387	-85.70	0.078
0.27	-64.155	-14.20	0.081	-97.214	-97.214	-94.09	0.081	-97.214	-97.214	-94.09	0.081	-97.214	-94.09	0.081
0.28	-65.726	-19.81	0.084	-98.042	-98.042	-102.48	0.084	-98.042	-98.042	-102.48	0.084	-98.042	-102.48	0.084
0.29	-67.337	-25.42	0.087	-98.871	-98.871	-110.87	0.087	-98.871	-98.871	-110.87	0.087	-98.871	-110.87	0.087
0.30	-68.988	-31.03	0.090	-99.701	-99.701	-119.26	0.090	-99.701	-99.701	-119.26	0.090	-99.701	-119.26	0.090
0.35	-76.639	-42.64	0.105	-102.231	-102.231	-145.05	0.105	-102.231	-102.231	-145.05	0.105	-102.231	-145.05	0.105
0.40	-84.290	-54.25	0.120	-104.761	-104.761	-170.84	0.120	-104.761	-104.761	-170.84	0.120	-104.761	-170.84	0.120
0.45	-91.941	-65.86	0.135	-107.291	-107.291	-196.63	0.135	-107.291	-107.291	-196.63	0.135	-107.291	-196.63	0.135
0.50	-99.592	-77.47	0.150	-109.821	-109.821	-222.42	0.150	-109.821	-109.821	-222.42	0.150	-109.821	-222.42	0.150
0.55	-107.243	-89.08	0.165	-112.351	-112.351	-248.21	0.165	-112.351	-112.351	-248.21	0.165	-112.351	-248.21	0.165
0.60	-114.894	-100.69	0.180	-114.881	-114.881	-274.00	0.180	-114.881	-114.881	-274.00	0.180	-114.881	-274.00	0.180
0.65	-122.545	-112.30	0.195	-117.411	-117.411	-300.00	0.195	-117.411	-117.411	-300.00	0.195	-117.411	-300.00	0.195
0.70	-130.196	-123.91	0.210	-119.941	-119.941	-326.00	0.210	-119.941	-119.941	-326.00	0.210	-119.941	-326.00	0.210
0.75	-137.847	-135.52	0.225	-122.471	-122.471	-352.00	0.225	-122.471	-122.471	-352.00	0.225	-122.471	-352.00	0.225
0.80	-145.498	-147.13	0.240	-125.001	-125.001	-378.00	0.240	-125.001	-125.001	-378.00	0.240	-125.001	-378.00	0.240
0.85	-153.149	-158.74	0.255	-127.531	-127.531	-404.00	0.255	-127.531	-127.531	-404.00	0.255	-127.531	-404.00	0.255
0.90	-160.800	-170.35	0.270	-130.061	-130.061	-430.00	0.270	-130.061	-130.061	-430.00	0.270	-130.061	-430.00	0.270
0.95	-168.451	-181.96	0.285	-132.591	-132.591	-456.00	0.285	-132.591	-132.591	-456.00	0.285	-132.591	-456.00	0.285
1.00	-176.102	-193.57	0.300	-135.121	-135.121	-482.00	0.300	-135.121	-135.121	-482.00	0.300	-135.121	-482.00	0.300

Table 26. Azimuthal Magnetic Field (Sea Water), Frequency = 0.1 MHz, VED Height = 0.00 m

30.0 KM DOWNRANGE					100.0 KM DOWNRANGE					300.0 KM DOWNRANGE				
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)
0.00	-0.000	-0.07	0.00	-0.001	-1.23	0.00	-0.001	-1.23	0.00	-0.002	-2.12	0.00	-0.002	-2.12
.30	-0.001	-0.07	.30	-0.002	-1.22	.30	-0.002	-1.22	.30	-0.006	-2.09	.30	-0.006	-2.09
.60	-0.001	-0.07	.60	-0.004	-1.21	.60	-0.004	-1.21	.60	-0.010	-2.06	.60	-0.010	-2.06
.90	-0.002	-0.06	.90	-0.005	-1.20	.90	-0.005	-1.20	.90	-0.015	-2.03	.90	-0.015	-2.03
1.20	-0.002	-0.06	1.20	-0.006	-1.19	1.20	-0.006	-1.19	1.20	-0.018	-2.00	1.20	-0.018	-2.00
1.50	-0.003	-0.06	1.50	-0.008	-1.18	1.50	-0.008	-1.18	1.50	-0.022	-1.97	1.50	-0.022	-1.97
1.80	-0.003	-0.05	1.80	-0.009	-1.17	1.80	-0.009	-1.17	1.80	-0.026	-1.95	1.80	-0.026	-1.95
2.10	-0.004	-0.05	2.10	-0.011	-1.16	2.10	-0.011	-1.16	2.10	-0.029	-1.92	2.10	-0.029	-1.92
2.40	-0.004	-0.05	2.40	-0.012	-1.15	2.40	-0.012	-1.15	2.40	-0.033	-1.89	2.40	-0.033	-1.89
2.70	-0.005	-0.04	2.70	-0.013	-1.14	2.70	-0.013	-1.14	2.70	-0.036	-1.86	2.70	-0.036	-1.86
3.00	-0.005	-0.04	3.00	-0.015	-1.13	3.00	-0.015	-1.13	3.00	-0.039	-1.83	3.00	-0.039	-1.83
3.30	-0.006	-0.04	3.30	-0.016	-1.12	3.30	-0.016	-1.12	3.30	-0.042	-1.80	3.30	-0.042	-1.80
3.60	-0.006	-0.04	3.60	-0.017	-1.11	3.60	-0.017	-1.11	3.60	-0.045	-1.77	3.60	-0.045	-1.77
3.90	-0.007	-0.03	3.90	-0.017	-1.10	3.90	-0.017	-1.10	3.90	-0.047	-1.74	3.90	-0.047	-1.74
4.20	-0.008	-0.03	4.20	-0.019	-1.09	4.20	-0.019	-1.09	4.20	-0.050	-1.72	4.20	-0.050	-1.72
4.50	-0.008	-0.03	4.50	-0.021	-1.08	4.50	-0.021	-1.08	4.50	-0.052	-1.69	4.50	-0.052	-1.69
4.80	-0.009	-0.02	4.80	-0.023	-1.07	4.80	-0.023	-1.07	4.80	-0.055	-1.66	4.80	-0.055	-1.66
5.10	-0.010	-0.02	5.10	-0.024	-1.06	5.10	-0.024	-1.06	5.10	-0.057	-1.64	5.10	-0.057	-1.64
5.40	-0.010	-0.02	5.40	-0.025	-1.05	5.40	-0.025	-1.05	5.40	-0.059	-1.61	5.40	-0.059	-1.61
5.70	-0.011	-0.02	5.70	-0.026	-1.04	5.70	-0.026	-1.04	5.70	-0.061	-1.58	5.70	-0.061	-1.58
6.00	-0.012	-0.01	6.00	-0.027	-1.03	6.00	-0.027	-1.03	6.00	-0.063	-1.55	6.00	-0.063	-1.55
6.30	-0.012	-0.01	6.30	-0.027	-1.02	6.30	-0.027	-1.02	6.30	-0.065	-1.53	6.30	-0.065	-1.53
6.60	-0.013	-0.01	6.60	-0.030	-1.01	6.60	-0.030	-1.01	6.60	-0.067	-1.51	6.60	-0.067	-1.51
6.90	-0.014	-0.00	6.90	-0.031	-1.00	6.90	-0.031	-1.00	6.90	-0.068	-1.49	6.90	-0.068	-1.49
7.20	-0.014	-0.00	7.20	-0.032	-0.99	7.20	-0.032	-0.99	7.20	-0.070	-1.46	7.20	-0.070	-1.46
7.50	-0.015	-0.00	7.50	-0.033	-0.98	7.50	-0.033	-0.98	7.50	-0.072	-1.44	7.50	-0.072	-1.44
7.80	-0.015	-0.00	7.80	-0.035	-0.97	7.80	-0.035	-0.97	7.80	-0.073	-1.41	7.80	-0.073	-1.41
8.10	-0.016	-0.00	8.10	-0.036	-0.96	8.10	-0.036	-0.96	8.10	-0.075	-1.39	8.10	-0.075	-1.39
8.40	-0.016	-0.00	8.40	-0.037	-0.95	8.40	-0.037	-0.95	8.40	-0.076	-1.37	8.40	-0.076	-1.37
8.70	-0.016	-0.00	8.70	-0.037	-0.95	8.70	-0.037	-0.95	8.70	-0.077	-1.35	8.70	-0.077	-1.35
9.00	-0.017	-0.00	9.00	-0.037	-0.94	9.00	-0.037	-0.94	9.00	-0.079	-1.32	9.00	-0.079	-1.32
1.350	-0.063	-0.57	1.350	-0.095	-0.90	1.350	-0.095	-0.90	1.350	-0.084	-1.22	1.350	-0.084	-1.22
1.400	-0.069	-0.56	1.400	-0.099	-0.86	1.400	-0.099	-0.86	1.400	-0.087	-1.19	1.400	-0.087	-1.19
1.450	-0.073	-0.54	1.450	-0.105	-0.82	1.450	-0.105	-0.82	1.450	-0.094	-1.16	1.450	-0.094	-1.16
1.500	-0.078	-0.52	1.500	-0.108	-0.78	1.500	-0.108	-0.78	1.500	-0.096	-1.14	1.500	-0.096	-1.14
1.550	-0.083	-0.50	1.550	-0.113	-0.74	1.550	-0.113	-0.74	1.550	-0.102	-1.10	1.550	-0.102	-1.10
1.600	-0.087	-0.48	1.600	-0.117	-0.71	1.600	-0.117	-0.71	1.600	-0.105	-1.08	1.600	-0.105	-1.08
1.650	-0.092	-0.46	1.650	-0.122	-0.68	1.650	-0.122	-0.68	1.650	-0.109	-1.05	1.650	-0.109	-1.05
1.700	-0.096	-0.44	1.700	-0.126	-0.65	1.700	-0.126	-0.65	1.700	-0.114	-1.03	1.700	-0.114	-1.03
1.750	-0.100	-0.43	1.750	-0.130	-0.62	1.750	-0.130	-0.62	1.750	-0.118	-1.00	1.750	-0.118	-1.00
1.800	-0.104	-0.41	1.800	-0.134	-0.59	1.800	-0.134	-0.59	1.800	-0.123	-0.97	1.800	-0.123	-0.97
1.850	-0.108	-0.40	1.850	-0.138	-0.57	1.850	-0.138	-0.57	1.850	-0.126	-0.94	1.850	-0.126	-0.94
1.900	-0.112	-0.38	1.900	-0.142	-0.54	1.900	-0.142	-0.54	1.900	-0.130	-0.91	1.900	-0.130	-0.91
1.950	-0.116	-0.37	1.950	-0.146	-0.52	1.950	-0.146	-0.52	1.950	-0.134	-0.89	1.950	-0.134	-0.89
2.000	-0.120	-0.35	2.000	-0.150	-0.50	2.000	-0.150	-0.50	2.000	-0.138	-0.86	2.000	-0.138	-0.86
2.050	-0.124	-0.34	2.050	-0.154	-0.48	2.050	-0.154	-0.48	2.050	-0.142	-0.84	2.050	-0.142	-0.84
2.100	-0.128	-0.32	2.100	-0.158	-0.46	2.100	-0.158	-0.46	2.100	-0.146	-0.81	2.100	-0.146	-0.81
2.150	-0.132	-0.31	2.150	-0.162	-0.44	2.150	-0.162	-0.44	2.150	-0.150	-0.79	2.150	-0.150	-0.79
2.200	-0.136	-0.29	2.200	-0.166	-0.42	2.200	-0.166	-0.42	2.200	-0.154	-0.77	2.200	-0.154	-0.77
2.250	-0.140	-0.28	2.250	-0.170	-0.40	2.250	-0.170	-0.40	2.250	-0.158	-0.75	2.250	-0.158	-0.75
2.300	-0.144	-0.26	2.300	-0.174	-0.38	2.300	-0.174	-0.38	2.300	-0.162	-0.73	2.300	-0.162	-0.73
2.350	-0.148	-0.25	2.350	-0.178	-0.36	2.350	-0.178	-0.36	2.350	-0.166	-0.71	2.350	-0.166	-0.71
2.400	-0.152	-0.23	2.400	-0.182	-0.34	2.400	-0.182	-0.34	2.400	-0.170	-0.69	2.400	-0.170	-0.69
2.450	-0.156	-0.22	2.450	-0.186	-0.32	2.450	-0.186	-0.32	2.450	-0.174	-0.67	2.450	-0.174	-0.67
2.500	-0.160	-0.20	2.500	-0.190	-0.30	2.500	-0.190	-0.30	2.500	-0.178	-0.65	2.500	-0.178	-0.65
2.550	-0.164	-0.19	2.550	-0.194	-0.28	2.550	-0.194	-0.28	2.550	-0.182	-0.63	2.550	-0.182	-0.63
2.600	-0.168	-0.17	2.600	-0.198	-0.26	2.600	-0.198	-0.26	2.600	-0.186	-0.61	2.600	-0.186	-0.61
2.650	-0.172	-0.16	2.650	-0.202	-0.24	2.650	-0.202	-0.24	2.650	-0.190	-0.59	2.650	-0.190	-0.59
2.700	-0.176	-0.14	2.700	-0.206	-0.22	2.700	-0.206	-0.22	2.700	-0.194	-0.57	2.700	-0.194	-0.57
2.750	-0.180	-0.13	2.750	-0.210	-0.20	2.750	-0.210	-0.20	2.750	-0.198	-0.55	2.750	-0.198	-0.55
2.800	-0.184	-0.11	2.800	-0.214	-0.18	2.800	-0.214	-0.18	2.800	-0.202	-0.53	2.800	-0.202	-0.53
2.850	-0.188	-0.10	2.850	-0.218	-0.16	2.850	-0.218	-0.16	2.850	-0.206	-0.51	2.850	-0.206	-0.51
2.900	-0.192	-0.08	2.900	-0.222	-0.14	2.900	-0.222	-0.14	2.900	-0.210	-0.49	2.900	-0.210	-0.49
2.950	-0.196	-0.07	2.950	-0.226	-0.12	2.950	-0.226	-0.12	2.950	-0.214	-0.47	2.950	-0.214	-0.47
3.000	-0.200	-0.05	3.000	-0.230	-0.10	3.000	-0.230	-0.10	3.000	-0.218	-0.45	3.000	-0.218	-0.45

Table 27. Azimuthal Magnetic Field (Sea Water), Frequency = 0.1 MHz, VED Height = 2247.60 m

300.0 KM DISTANCE				1000 KM DISTANCE				3000 KM DISTANCE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	RELINT (KM)	AMP (UB)	PHASE (DEG)	RELINT (KM)	AMP (UB)	RELINT (KM)	AMP (UB)	PHASE (DEG)	RELINT (KM)
0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.030	-0.001	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.060	-0.002	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.090	-0.003	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.120	-0.004	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.150	-0.005	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.180	-0.006	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.210	-0.007	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.240	-0.008	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.270	-0.009	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.300	-0.010	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.330	-0.011	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.360	-0.012	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.390	-0.013	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.420	-0.014	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.450	-0.015	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.480	-0.016	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.510	-0.017	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.540	-0.018	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.570	-0.019	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.600	-0.020	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.630	-0.021	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.660	-0.022	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.690	-0.023	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.720	-0.024	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.750	-0.025	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.780	-0.026	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.810	-0.027	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.840	-0.028	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.870	-0.029	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
0.900	-0.030	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
1.050	-0.101	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
1.200	-0.202	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
1.350	-0.404	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
1.500	-0.606	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
1.650	-0.808	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
1.800	-1.010	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
1.950	-1.212	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
2.100	-1.414	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
2.250	-1.616	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
2.400	-1.818	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
2.550	-2.020	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
2.700	-2.222	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
2.850	-2.424	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000
3.000	-2.626	-0.00	0.000	-0.000	-0.00	0.000	-0.000	0.000	-0.00	-0.00	0.000

Table 28. Azimuthal Magnetic Field (Sea Water), Frequency = 0.1 MHz, VED Height = 4495.20 m

30.0 KM DISTANCE				100.0 KM DISTANCE				300.0 KM DISTANCE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)
0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.030	-0.003	-0.03	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.060	-0.006	-0.06	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.090	-0.009	-0.09	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.120	-0.012	-0.12	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.150	-0.015	-0.15	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.180	-0.018	-0.18	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.210	-0.021	-0.21	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.240	-0.024	-0.24	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.270	-0.027	-0.27	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.300	-0.030	-0.30	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.330	-0.033	-0.33	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.360	-0.036	-0.36	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.390	-0.039	-0.39	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.420	-0.042	-0.42	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.450	-0.045	-0.45	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.480	-0.048	-0.48	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.510	-0.051	-0.51	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.540	-0.054	-0.54	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.570	-0.057	-0.57	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.600	-0.060	-0.60	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.630	-0.063	-0.63	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.660	-0.066	-0.66	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.690	-0.069	-0.69	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.720	-0.072	-0.72	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.750	-0.075	-0.75	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.780	-0.078	-0.78	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.810	-0.081	-0.81	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.840	-0.084	-0.84	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.870	-0.087	-0.87	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.900	-0.090	-0.90	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
1.050	-0.511	-0.51	3.000	-0.500	-0.50	10.000	-0.500	-0.50	10.000	-0.500	-0.50
1.200	-0.804	-0.80	4.000	-0.722	-0.72	10.000	-0.722	-0.72	10.000	-0.722	-0.72
1.350	-1.043	-1.04	5.000	-0.901	-0.90	10.000	-0.901	-0.90	10.000	-0.901	-0.90
1.500	-1.204	-1.20	6.000	-1.037	-1.04	10.000	-1.037	-1.04	10.000	-1.037	-1.04
1.650	-1.294	-1.29	7.000	-1.135	-1.14	10.000	-1.135	-1.14	10.000	-1.135	-1.14
1.800	-1.317	-1.32	8.000	-1.199	-1.20	10.000	-1.199	-1.20	10.000	-1.199	-1.20
2.000	-1.350	-1.35	9.000	-1.240	-1.24	10.000	-1.240	-1.24	10.000	-1.240	-1.24
2.250	-1.384	-1.38	10.000	-1.264	-1.26	10.000	-1.264	-1.26	10.000	-1.264	-1.26
2.500	-1.406	-1.41	10.000	-1.276	-1.28	10.000	-1.276	-1.28	10.000	-1.276	-1.28
2.750	-1.419	-1.42	10.000	-1.284	-1.28	10.000	-1.284	-1.28	10.000	-1.284	-1.28
3.000	-1.427	-1.43	10.000	-1.289	-1.29	10.000	-1.289	-1.29	10.000	-1.289	-1.29
3.250	-1.431	-1.43	10.000	-1.291	-1.29	10.000	-1.291	-1.29	10.000	-1.291	-1.29
3.500	-1.433	-1.43	10.000	-1.292	-1.29	10.000	-1.292	-1.29	10.000	-1.292	-1.29
3.750	-1.434	-1.43	10.000	-1.293	-1.29	10.000	-1.293	-1.29	10.000	-1.293	-1.29
4.000	-1.435	-1.43	10.000	-1.294	-1.29	10.000	-1.294	-1.29	10.000	-1.294	-1.29
4.250	-1.436	-1.43	10.000	-1.295	-1.29	10.000	-1.295	-1.29	10.000	-1.295	-1.29
4.500	-1.437	-1.43	10.000	-1.296	-1.29	10.000	-1.296	-1.29	10.000	-1.296	-1.29
4.750	-1.438	-1.43	10.000	-1.297	-1.29	10.000	-1.297	-1.29	10.000	-1.297	-1.29
5.000	-1.439	-1.43	10.000	-1.298	-1.29	10.000	-1.298	-1.29	10.000	-1.298	-1.29
5.250	-1.440	-1.44	10.000	-1.299	-1.29	10.000	-1.299	-1.29	10.000	-1.299	-1.29
5.500	-1.441	-1.44	10.000	-1.300	-1.30	10.000	-1.300	-1.30	10.000	-1.300	-1.30
5.750	-1.442	-1.44	10.000	-1.301	-1.30	10.000	-1.301	-1.30	10.000	-1.301	-1.30
6.000	-1.443	-1.44	10.000	-1.302	-1.30	10.000	-1.302	-1.30	10.000	-1.302	-1.30
6.250	-1.444	-1.44	10.000	-1.303	-1.30	10.000	-1.303	-1.30	10.000	-1.303	-1.30
6.500	-1.445	-1.44	10.000	-1.304	-1.30	10.000	-1.304	-1.30	10.000	-1.304	-1.30
6.750	-1.446	-1.44	10.000	-1.305	-1.30	10.000	-1.305	-1.30	10.000	-1.305	-1.30
7.000	-1.447	-1.44	10.000	-1.306	-1.30	10.000	-1.306	-1.30	10.000	-1.306	-1.30
7.250	-1.448	-1.44	10.000	-1.307	-1.30	10.000	-1.307	-1.30	10.000	-1.307	-1.30
7.500	-1.449	-1.44	10.000	-1.308	-1.30	10.000	-1.308	-1.30	10.000	-1.308	-1.30
7.750	-1.450	-1.45	10.000	-1.309	-1.30	10.000	-1.309	-1.30	10.000	-1.309	-1.30
8.000	-1.451	-1.45	10.000	-1.310	-1.30	10.000	-1.310	-1.30	10.000	-1.310	-1.30
8.250	-1.452	-1.45	10.000	-1.311	-1.30	10.000	-1.311	-1.30	10.000	-1.311	-1.30
8.500	-1.453	-1.45	10.000	-1.312	-1.30	10.000	-1.312	-1.30	10.000	-1.312	-1.30
8.750	-1.454	-1.45	10.000	-1.313	-1.30	10.000	-1.313	-1.30	10.000	-1.313	-1.30
9.000	-1.455	-1.45	10.000	-1.314	-1.30	10.000	-1.314	-1.30	10.000	-1.314	-1.30
9.250	-1.456	-1.45	10.000	-1.315	-1.30	10.000	-1.315	-1.30	10.000	-1.315	-1.30
9.500	-1.457	-1.45	10.000	-1.316	-1.30	10.000	-1.316	-1.30	10.000	-1.316	-1.30
9.750	-1.458	-1.45	10.000	-1.317	-1.30	10.000	-1.317	-1.30	10.000	-1.317	-1.30
10.000	-1.459	-1.45	10.000	-1.318	-1.30	10.000	-1.318	-1.30	10.000	-1.318	-1.30

Table 30. Azimuthal Magnetic Field (Sea Water), Frequency = 1.0 MHz, VED Height = 224.76 m

3.0 KM DUE RANGE				10.0 KM DUE RANGE				30.0 KM DUE RANGE				100.0 KM DUE RANGE			
REL HT (KM)	AMP (UB)	PHASE (DEG)	REL HT (KM)	AMP (UB)	PHASE (DEG)	REL HT (KM)	AMP (UB)	PHASE (DEG)	REL HT (KM)	AMP (UB)	PHASE (DEG)	REL HT (KM)	AMP (UB)	PHASE (DEG)	REL HT (KM)
.000	-1.000	-1.46	.000	-1.000	-3.16	.000	-1.000	-5.01	.000	-1.000	-8.01	.000	-1.000	-11.54	.000
.003	-1.007	-1.44	.003	-1.006	-3.15	.003	-1.005	-5.00	.003	-1.004	-6.91	.003	-1.003	-11.52	.003
.006	-1.008	-1.43	.006	-1.006	-3.14	.006	-1.005	-4.99	.006	-1.004	-6.90	.006	-1.003	-11.51	.006
.009	-1.009	-1.42	.009	-1.006	-3.13	.009	-1.005	-4.98	.009	-1.004	-6.89	.009	-1.003	-11.50	.009
.012	-1.010	-1.41	.012	-1.006	-3.12	.012	-1.005	-4.97	.012	-1.004	-6.88	.012	-1.003	-11.49	.012
.015	-1.011	-1.40	.015	-1.006	-3.11	.015	-1.005	-4.96	.015	-1.004	-6.87	.015	-1.003	-11.48	.015
.018	-1.012	-1.39	.018	-1.006	-3.10	.018	-1.005	-4.95	.018	-1.004	-6.86	.018	-1.003	-11.47	.018
.021	-1.013	-1.38	.021	-1.006	-3.09	.021	-1.005	-4.94	.021	-1.004	-6.85	.021	-1.003	-11.46	.021
.024	-1.014	-1.37	.024	-1.006	-3.08	.024	-1.005	-4.93	.024	-1.004	-6.84	.024	-1.003	-11.45	.024
.027	-1.015	-1.36	.027	-1.006	-3.07	.027	-1.005	-4.92	.027	-1.004	-6.83	.027	-1.003	-11.44	.027
.030	-1.016	-1.35	.030	-1.006	-3.06	.030	-1.005	-4.91	.030	-1.004	-6.82	.030	-1.003	-11.43	.030
.033	-1.017	-1.34	.033	-1.006	-3.05	.033	-1.005	-4.90	.033	-1.004	-6.81	.033	-1.003	-11.42	.033
.036	-1.018	-1.33	.036	-1.006	-3.04	.036	-1.005	-4.89	.036	-1.004	-6.80	.036	-1.003	-11.41	.036
.039	-1.019	-1.32	.039	-1.006	-3.03	.039	-1.005	-4.88	.039	-1.004	-6.79	.039	-1.003	-11.40	.039
.042	-1.020	-1.31	.042	-1.006	-3.02	.042	-1.005	-4.87	.042	-1.004	-6.78	.042	-1.003	-11.39	.042
.045	-1.021	-1.30	.045	-1.006	-3.01	.045	-1.005	-4.86	.045	-1.004	-6.77	.045	-1.003	-11.38	.045
.048	-1.022	-1.29	.048	-1.006	-3.00	.048	-1.005	-4.85	.048	-1.004	-6.76	.048	-1.003	-11.37	.048
.051	-1.023	-1.28	.051	-1.006	-2.99	.051	-1.005	-4.84	.051	-1.004	-6.75	.051	-1.003	-11.36	.051
.054	-1.024	-1.27	.054	-1.006	-2.98	.054	-1.005	-4.83	.054	-1.004	-6.74	.054	-1.003	-11.35	.054
.057	-1.025	-1.26	.057	-1.006	-2.97	.057	-1.005	-4.82	.057	-1.004	-6.73	.057	-1.003	-11.34	.057
.060	-1.026	-1.25	.060	-1.006	-2.96	.060	-1.005	-4.81	.060	-1.004	-6.72	.060	-1.003	-11.33	.060
.063	-1.027	-1.24	.063	-1.006	-2.95	.063	-1.005	-4.80	.063	-1.004	-6.71	.063	-1.003	-11.32	.063
.066	-1.028	-1.23	.066	-1.006	-2.94	.066	-1.005	-4.79	.066	-1.004	-6.70	.066	-1.003	-11.31	.066
.069	-1.029	-1.22	.069	-1.006	-2.93	.069	-1.005	-4.78	.069	-1.004	-6.69	.069	-1.003	-11.30	.069
.072	-1.030	-1.21	.072	-1.006	-2.92	.072	-1.005	-4.77	.072	-1.004	-6.68	.072	-1.003	-11.29	.072
.075	-1.031	-1.20	.075	-1.006	-2.91	.075	-1.005	-4.76	.075	-1.004	-6.67	.075	-1.003	-11.28	.075
.078	-1.032	-1.19	.078	-1.006	-2.90	.078	-1.005	-4.75	.078	-1.004	-6.66	.078	-1.003	-11.27	.078
.081	-1.033	-1.18	.081	-1.006	-2.89	.081	-1.005	-4.74	.081	-1.004	-6.65	.081	-1.003	-11.26	.081
.084	-1.034	-1.17	.084	-1.006	-2.88	.084	-1.005	-4.73	.084	-1.004	-6.64	.084	-1.003	-11.25	.084
.087	-1.035	-1.16	.087	-1.006	-2.87	.087	-1.005	-4.72	.087	-1.004	-6.63	.087	-1.003	-11.24	.087
.090	-1.036	-1.15	.090	-1.006	-2.86	.090	-1.005	-4.71	.090	-1.004	-6.62	.090	-1.003	-11.23	.090
.105	-1.039	-1.15	.105	-1.006	-2.85	.105	-1.005	-4.70	.105	-1.004	-6.61	.105	-1.003	-11.22	.105
.120	-1.042	-1.14	.120	-1.006	-2.84	.120	-1.005	-4.69	.120	-1.004	-6.60	.120	-1.003	-11.21	.120
.135	-1.045	-1.13	.135	-1.006	-2.83	.135	-1.005	-4.68	.135	-1.004	-6.59	.135	-1.003	-11.20	.135
.150	-1.048	-1.12	.150	-1.006	-2.82	.150	-1.005	-4.67	.150	-1.004	-6.58	.150	-1.003	-11.19	.150
.165	-1.051	-1.11	.165	-1.006	-2.81	.165	-1.005	-4.66	.165	-1.004	-6.57	.165	-1.003	-11.18	.165
.180	-1.054	-1.10	.180	-1.006	-2.80	.180	-1.005	-4.65	.180	-1.004	-6.56	.180	-1.003	-11.17	.180
.195	-1.057	-1.09	.195	-1.006	-2.79	.195	-1.005	-4.64	.195	-1.004	-6.55	.195	-1.003	-11.16	.195
.210	-1.060	-1.08	.210	-1.006	-2.78	.210	-1.005	-4.63	.210	-1.004	-6.54	.210	-1.003	-11.15	.210
.225	-1.063	-1.07	.225	-1.006	-2.77	.225	-1.005	-4.62	.225	-1.004	-6.53	.225	-1.003	-11.14	.225
.240	-1.066	-1.06	.240	-1.006	-2.76	.240	-1.005	-4.61	.240	-1.004	-6.52	.240	-1.003	-11.13	.240
.255	-1.069	-1.05	.255	-1.006	-2.75	.255	-1.005	-4.60	.255	-1.004	-6.51	.255	-1.003	-11.12	.255
.270	-1.072	-1.04	.270	-1.006	-2.74	.270	-1.005	-4.59	.270	-1.004	-6.50	.270	-1.003	-11.11	.270
.285	-1.075	-1.03	.285	-1.006	-2.73	.285	-1.005	-4.58	.285	-1.004	-6.49	.285	-1.003	-11.10	.285
.300	-1.078	-1.02	.300	-1.006	-2.72	.300	-1.005	-4.57	.300	-1.004	-6.48	.300	-1.003	-11.09	.300

Table 29. Azimuthal Magnetic Field (Sea Water), Frequency = 1.0 MHz, VED Height = 0.00 m

3.00 AM DARKNESS				10.00 AM DARKNESS				3.00 PM DARKNESS				10.00 PM DARKNESS			
HEIGHT	AMP	PHASE	RELUNT	AMP	PHASE	RELUNT	AMP	PHASE	RELUNT	AMP	PHASE	RELUNT	AMP	PHASE	RELUNT
(M)	(DB)	(DEG)	(M)	(DB)	(DEG)	(M)	(DB)	(DEG)	(M)	(DB)	(DEG)	(M)	(DB)	(DEG)	(M)
0.003	-0.002	-2.12	0.000	-0.000	-3.08	0.000	-0.017	-0.72	0.000	-0.031	-0.72	0.000	-0.035	-1.25	0.000
0.003	-0.003	-2.11	0.010	-0.011	-3.05	0.000	-0.030	-0.62	0.000	-0.044	-0.53	0.000	-0.102	-1.24	0.000
0.009	-0.006	-2.10	0.020	-0.015	-3.02	0.000	-0.064	-0.43	0.000	-0.094	-0.33	0.000	-0.146	-1.12	0.000
0.012	-0.008	-2.09	0.030	-0.020	-3.00	0.000	-0.057	-0.43	0.000	-0.057	-0.43	0.000	-0.163	-1.10	0.000
0.015	-0.009	-2.08	0.040	-0.024	-3.00	0.000	-0.070	-0.42	0.000	-0.070	-0.42	0.000	-0.168	-1.09	0.000
0.018	-0.010	-2.07	0.050	-0.026	-3.00	0.000	-0.083	-0.41	0.000	-0.083	-0.41	0.000	-0.170	-1.08	0.000
0.021	-0.012	-2.06	0.060	-0.033	-3.00	0.000	-0.093	-0.40	0.000	-0.093	-0.40	0.000	-0.170	-1.08	0.000
0.024	-0.013	-2.05	0.070	-0.037	-3.00	0.000	-0.103	-0.40	0.000	-0.103	-0.40	0.000	-0.170	-1.08	0.000
0.027	-0.014	-2.04	0.080	-0.041	-3.00	0.000	-0.114	-0.39	0.000	-0.114	-0.39	0.000	-0.170	-1.08	0.000
0.030	-0.015	-2.04	0.090	-0.045	-3.00	0.000	-0.125	-0.38	0.000	-0.125	-0.38	0.000	-0.170	-1.08	0.000
0.033	-0.016	-2.03	0.100	-0.049	-3.00	0.000	-0.135	-0.37	0.000	-0.135	-0.37	0.000	-0.170	-1.08	0.000
0.036	-0.017	-2.02	0.110	-0.053	-3.00	0.000	-0.145	-0.36	0.000	-0.145	-0.36	0.000	-0.170	-1.08	0.000
0.039	-0.018	-2.01	0.120	-0.057	-3.00	0.000	-0.155	-0.35	0.000	-0.155	-0.35	0.000	-0.170	-1.08	0.000
0.042	-0.019	-2.00	0.130	-0.060	-3.00	0.000	-0.165	-0.34	0.000	-0.165	-0.34	0.000	-0.170	-1.08	0.000
0.045	-0.020	-1.99	0.140	-0.063	-3.00	0.000	-0.175	-0.33	0.000	-0.175	-0.33	0.000	-0.170	-1.08	0.000
0.048	-0.021	-1.98	0.150	-0.067	-3.00	0.000	-0.185	-0.32	0.000	-0.185	-0.32	0.000	-0.170	-1.08	0.000
0.051	-0.022	-1.97	0.160	-0.070	-3.00	0.000	-0.195	-0.31	0.000	-0.195	-0.31	0.000	-0.170	-1.08	0.000
0.054	-0.023	-1.96	0.170	-0.074	-3.00	0.000	-0.205	-0.30	0.000	-0.205	-0.30	0.000	-0.170	-1.08	0.000
0.057	-0.024	-1.95	0.180	-0.077	-3.00	0.000	-0.215	-0.29	0.000	-0.215	-0.29	0.000	-0.170	-1.08	0.000
0.060	-0.025	-1.94	0.190	-0.081	-3.00	0.000	-0.225	-0.28	0.000	-0.225	-0.28	0.000	-0.170	-1.08	0.000
0.063	-0.026	-1.93	0.200	-0.085	-3.00	0.000	-0.235	-0.27	0.000	-0.235	-0.27	0.000	-0.170	-1.08	0.000
0.066	-0.027	-1.92	0.210	-0.089	-3.00	0.000	-0.245	-0.26	0.000	-0.245	-0.26	0.000	-0.170	-1.08	0.000
0.069	-0.028	-1.91	0.220	-0.093	-3.00	0.000	-0.255	-0.25	0.000	-0.255	-0.25	0.000	-0.170	-1.08	0.000
0.072	-0.029	-1.90	0.230	-0.097	-3.00	0.000	-0.265	-0.24	0.000	-0.265	-0.24	0.000	-0.170	-1.08	0.000
0.075	-0.031	-1.89	0.240	-0.099	-3.01	0.000	-0.275	-0.23	0.000	-0.275	-0.23	0.000	-0.170	-1.08	0.000
0.078	-0.033	-1.88	0.250	-0.103	-3.01	0.000	-0.285	-0.22	0.000	-0.285	-0.22	0.000	-0.170	-1.08	0.000
0.081	-0.034	-1.87	0.260	-0.107	-3.02	0.000	-0.295	-0.21	0.000	-0.295	-0.21	0.000	-0.170	-1.08	0.000
0.084	-0.036	-1.86	0.270	-0.110	-3.02	0.000	-0.305	-0.20	0.000	-0.305	-0.20	0.000	-0.170	-1.08	0.000
0.087	-0.037	-1.85	0.280	-0.113	-3.00	0.000	-0.315	-0.19	0.000	-0.315	-0.19	0.000	-0.170	-1.08	0.000
0.090	-0.039	-1.84	0.290	-0.116	-3.00	0.000	-0.325	-0.18	0.000	-0.325	-0.18	0.000	-0.170	-1.08	0.000
0.093	-0.041	-1.83	0.300	-0.119	-3.00	0.000	-0.335	-0.17	0.000	-0.335	-0.17	0.000	-0.170	-1.08	0.000
0.096	-0.043	-1.82	0.310	-0.122	-3.00	0.000	-0.345	-0.16	0.000	-0.345	-0.16	0.000	-0.170	-1.08	0.000
0.099	-0.045	-1.81	0.320	-0.125	-3.00	0.000	-0.355	-0.15	0.000	-0.355	-0.15	0.000	-0.170	-1.08	0.000
0.102	-0.047	-1.80	0.330	-0.128	-3.00	0.000	-0.365	-0.14	0.000	-0.365	-0.14	0.000	-0.170	-1.08	0.000
0.105	-0.050	-1.79	0.340	-0.131	-3.00	0.000	-0.375	-0.13	0.000	-0.375	-0.13	0.000	-0.170	-1.08	0.000
0.108	-0.052	-1.78	0.350	-0.134	-3.00	0.000	-0.385	-0.12	0.000	-0.385	-0.12	0.000	-0.170	-1.08	0.000
0.111	-0.054	-1.77	0.360	-0.137	-3.00	0.000	-0.395	-0.11	0.000	-0.395	-0.11	0.000	-0.170	-1.08	0.000
0.114	-0.056	-1.76	0.370	-0.140	-3.00	0.000	-0.405	-0.10	0.000	-0.405	-0.10	0.000	-0.170	-1.08	0.000
0.117	-0.058	-1.75	0.380	-0.143	-3.00	0.000	-0.415	-0.09	0.000	-0.415	-0.09	0.000	-0.170	-1.08	0.000
0.120	-0.060	-1.74	0.390	-0.146	-3.00	0.000	-0.425	-0.08	0.000	-0.425	-0.08	0.000	-0.170	-1.08	0.000
0.123	-0.062	-1.73	0.400	-0.149	-3.00	0.000	-0.435	-0.07	0.000	-0.435	-0.07	0.000	-0.170	-1.08	0.000
0.126	-0.064	-1.72	0.410	-0.152	-3.00	0.000	-0.445	-0.06	0.000	-0.445	-0.06	0.000	-0.170	-1.08	0.000
0.129	-0.066	-1.71	0.420	-0.155	-3.00	0.000	-0.455	-0.05	0.000	-0.455	-0.05	0.000	-0.170	-1.08	0.000
0.132	-0.068	-1.70	0.430	-0.158	-3.00	0.000	-0.465	-0.04	0.000	-0.465	-0.04	0.000	-0.170	-1.08	0.000
0.135	-0.070	-1.69	0.440	-0.161	-3.00	0.000	-0.475	-0.03	0.000	-0.475	-0.03	0.000	-0.170	-1.08	0.000
0.138	-0.072	-1.68	0.450	-0.164	-3.00	0.000	-0.485	-0.02	0.000	-0.485	-0.02	0.000	-0.170	-1.08	0.000
0.141	-0.074	-1.67	0.460	-0.167	-3.00	0.000	-0.495	-0.01	0.000	-0.495	-0.01	0.000	-0.170	-1.08	0.000
0.144	-0.076	-1.66	0.470	-0.170	-3.00	0.000	-0.505	0.00	0.000	-0.505	0.00	0.000	-0.170	-1.08	0.000
0.147	-0.078	-1.65	0.480	-0.173	-3.00	0.000	-0.515	0.01	0.000	-0.515	0.01	0.000	-0.170	-1.08	0.000
0.150	-0.080	-1.64	0.490	-0.176	-3.00	0.000	-0.525	0.02	0.000	-0.525	0.02	0.000	-0.170	-1.08	0.000
0.153	-0.082	-1.63	0.500	-0.179	-3.00	0.000	-0.535	0.03	0.000	-0.535	0.03	0.000	-0.170	-1.08	0.000
0.156	-0.084	-1.62	0.510	-0.182	-3.00	0.000	-0.545	0.04	0.000	-0.545	0.04	0.000	-0.170	-1.08	0.000
0.159	-0.086	-1.61	0.520	-0.185	-3.00	0.000	-0.555	0.05	0.000	-0.555	0.05	0.000	-0.170	-1.08	0.000
0.162	-0.088	-1.60	0.530	-0.188	-3.00	0.000	-0.565	0.06	0.000	-0.565	0.06	0.000	-0.170	-1.08	0.000
0.165	-0.090	-1.59	0.540	-0.191	-3.00	0.000	-0.575	0.07	0.000	-0.575	0.07	0.000	-0.170	-1.08	0.000
0.168	-0.092	-1.58	0.550	-0.194	-3.00	0.000	-0.585	0.08	0.000	-0.585	0.08	0.000	-0.170	-1.08	0.000
0.171	-0.094	-1.57	0.560	-0.197	-3.00	0.000	-0.595	0.09	0.000	-0.595	0.09	0.000	-0.170	-1.08	0.000
0.174	-0.096	-1.56	0.570	-0.200	-3.00	0.000	-0.605	0.10	0.000	-0.605	0.10	0.000	-0.170	-1.08	0.000
0.177	-0.098	-1.55	0.580	-0.203	-3.00	0.000	-0.615	0.11	0.000	-0.615	0.11	0.000	-0.170	-1.08	0.000
0.180	-0.100	-1.54	0.590	-0.206	-3.00	0.000	-0.625	0.12	0.000	-0.625	0.12	0.000	-0.170	-1.08	0.000
0.183	-0.102	-1.53	0.600	-0.209	-3.00	0.000	-0.635	0.13	0.000	-0.635	0.13	0.000	-0.170	-1.08	0.000
0.186	-0.104	-1.52	0.610	-0.212	-3.00	0.000	-0.645	0.14	0.000	-0.645	0.14	0.000	-0.170	-1.08	0.000
0.189	-0.106	-1.51	0.620	-0.215	-3.00	0.000	-0.655	0.15	0.000	-0.655	0.15	0.000	-0.170	-1.08	0.000
0.192	-0.108	-1.50	0.630	-0.218	-3.00	0.000	-0.665	0.16	0.000	-0.665	0.16	0.000	-0.170	-1.08	0.000
0.195	-0.110	-1.49	0.640	-0.221	-3.00	0.000	-0.675	0.17	0.000	-0.675	0.17	0.000	-0.170	-1.08	0.000
0.198	-0.112	-1.48	0.650	-0.224	-3.00	0.000	-0.685	0.18	0.000	-0.685	0.18	0.000	-0.170	-1.08	0.000
0.201	-0.114	-1.47	0.660	-0.227	-3.00	0.000	-0.695	0.19	0.000	-0.695	0.19	0.000	-0.170	-1.08	0.000
0.204	-0.116	-1.46	0.670	-0.230	-3.00	0.000	-0.705	0.20	0.000	-0.705	0.20	0.000	-0.170	-1.08	0.000
0.207	-0.118	-1.45	0.680	-0.233	-3.00	0.000	-0.715	0.21	0.000	-0.715	0.21	0.000	-0.170	-1.08	0.000
0.210	-0.120	-1.44	0.690	-0.236	-3.00	0.000	-0.725	0.22	0.000	-0.725	0.22	0.000	-0.170	-1.08	0.000
0.213	-0.122	-1.43	0.700	-0.239	-3.00	0.000	-0.735	0.23	0.000	-0.735	0.23	0.000	-0.170	-1.08	0.000
0.216	-0.124	-1.42	0.710	-0.242	-3.00	0.000	-0.745	0.24	0.000	-0.745	0.24	0.000	-0.170	-1.08	0.000
0.219	-0.126	-1.41	0.720	-0.245	-3.00	0.000	-0.755	0.25	0.000	-0.755	0.25	0.000	-0.170	-1.08	0.000
0.222	-0.128	-1.40	0.730	-0.248	-3.00	0.000	-0.765	0.26	0.000	-0.765	0.26	0.000	-0.170	-1.08	0.000
0.225	-0.130	-1.39	0.740	-0.251	-3.00	0.000	-0.775	0.27	0.000	-0.775	0.27	0.000	-0.170	-1.08	0.000
0.228	-0.132	-1.38	0.750	-0.254	-3.00	0.000	-0.785	0.28	0.000	-0.785	0.28	0.000	-0.170	-1.08	0.000
0.231	-0.1														

Table 30. Azimuthal Magnetic Field (Sea Water), Frequency = 1.0 MHz, VED Height = 224.76 m

30.0 KM DISTANCE				100.0 KM DISTANCE				300.0 KM DISTANCE				1000.0 KM DISTANCE			
REL. INT.	AMP.	PHASE	REL. INT.	AMP.	PHASE	REL. INT.	AMP.	PHASE	REL. INT.	AMP.	PHASE	REL. INT.	AMP.	PHASE	REL. INT.
(RM)	(DB)	(DEG)	(RM)	(DB)	(DEG)	(RM)	(DB)	(DEG)	(RM)	(DB)	(DEG)	(RM)	(DB)	(DEG)	(RM)
0.000	-1.000	-1.047	0.000	-1.000	-3.10	0.000	-1.000	-5.01	0.000	-1.000	-8.01	0.000	-1.000	-11.54	0.000
0.003	-1.001	-1.046	0.010	-0.991	-3.13	0.030	-0.980	-3.16	0.100	-0.960	-3.21	0.300	-0.940	-11.22	1.100
0.006	-1.000	-1.045	0.020	-0.976	-3.16	0.060	-0.960	-3.19	0.600	-0.900	-3.24	0.600	-0.880	-10.91	1.100
0.009	-1.000	-1.044	0.030	-0.961	-3.19	0.090	-0.945	-3.22	0.900	-0.880	-3.25	0.900	-0.860	-10.59	1.100
0.012	-1.000	-1.043	0.040	-0.946	-3.22	0.120	-0.930	-3.25	1.200	-0.860	-3.28	1.200	-0.840	-10.27	1.100
0.015	-1.000	-1.042	0.050	-0.931	-3.25	0.150	-0.915	-3.28	1.500	-0.840	-3.31	1.500	-0.820	-9.96	1.100
0.018	-1.000	-1.041	0.060	-0.916	-3.28	0.180	-0.900	-3.31	1.800	-0.820	-3.34	1.800	-0.800	-9.66	1.100
0.021	-1.000	-1.040	0.070	-0.901	-3.31	0.210	-0.885	-3.34	2.100	-0.800	-3.37	2.100	-0.780	-9.35	1.100
0.024	-1.000	-1.039	0.080	-0.886	-3.34	0.240	-0.870	-3.37	2.400	-0.780	-3.40	2.400	-0.760	-9.05	1.100
0.027	-1.000	-1.038	0.090	-0.871	-3.37	0.270	-0.855	-3.40	2.700	-0.760	-3.43	2.700	-0.740	-8.75	1.100
0.030	-1.000	-1.037	0.100	-0.856	-3.40	0.300	-0.840	-3.43	3.000	-0.740	-3.46	3.000	-0.720	-8.45	1.100
0.033	-1.000	-1.036	0.110	-0.841	-3.43	0.330	-0.825	-3.46	3.300	-0.720	-3.49	3.300	-0.700	-8.15	1.100
0.036	-1.000	-1.035	0.120	-0.826	-3.46	0.360	-0.810	-3.49	3.600	-0.700	-3.52	3.600	-0.680	-7.85	1.100
0.039	-1.000	-1.034	0.130	-0.811	-3.49	0.390	-0.795	-3.52	3.900	-0.680	-3.55	3.900	-0.660	-7.55	1.100
0.042	-1.000	-1.033	0.140	-0.796	-3.52	0.420	-0.780	-3.55	4.200	-0.660	-3.58	4.200	-0.640	-7.25	1.100
0.045	-1.000	-1.032	0.150	-0.781	-3.55	0.450	-0.765	-3.58	4.500	-0.640	-3.61	4.500	-0.620	-6.95	1.100
0.048	-1.000	-1.031	0.160	-0.766	-3.58	0.480	-0.750	-3.61	4.800	-0.620	-3.64	4.800	-0.600	-6.65	1.100
0.051	-1.000	-1.030	0.170	-0.751	-3.61	0.510	-0.735	-3.64	5.100	-0.600	-3.67	5.100	-0.580	-6.35	1.100
0.054	-1.000	-1.029	0.180	-0.736	-3.64	0.540	-0.720	-3.67	5.400	-0.580	-3.70	5.400	-0.560	-6.05	1.100
0.057	-1.000	-1.028	0.190	-0.721	-3.67	0.570	-0.705	-3.70	5.700	-0.560	-3.73	5.700	-0.540	-5.75	1.100
0.060	-1.000	-1.027	0.200	-0.706	-3.70	0.600	-0.690	-3.73	6.000	-0.540	-3.76	6.000	-0.520	-5.45	1.100
0.063	-1.000	-1.026	0.210	-0.691	-3.73	0.630	-0.675	-3.76	6.300	-0.520	-3.79	6.300	-0.500	-5.15	1.100
0.066	-1.000	-1.025	0.220	-0.676	-3.76	0.660	-0.660	-3.79	6.600	-0.500	-3.82	6.600	-0.480	-4.85	1.100
0.069	-1.000	-1.024	0.230	-0.661	-3.79	0.690	-0.645	-3.82	6.900	-0.480	-3.85	6.900	-0.460	-4.55	1.100
0.072	-1.000	-1.023	0.240	-0.646	-3.82	0.720	-0.630	-3.85	7.200	-0.460	-3.88	7.200	-0.440	-4.25	1.100
0.075	-1.000	-1.022	0.250	-0.631	-3.85	0.750	-0.615	-3.88	7.500	-0.440	-3.91	7.500	-0.420	-3.95	1.100
0.078	-1.000	-1.021	0.260	-0.616	-3.88	0.780	-0.600	-3.91	7.800	-0.420	-3.94	7.800	-0.400	-3.65	1.100
0.081	-1.000	-1.020	0.270	-0.601	-3.91	0.810	-0.585	-3.94	8.100	-0.400	-3.97	8.100	-0.380	-3.35	1.100
0.084	-1.000	-1.019	0.280	-0.586	-3.94	0.840	-0.570	-3.97	8.400	-0.380	-4.00	8.400	-0.360	-3.05	1.100
0.087	-1.000	-1.018	0.290	-0.571	-3.97	0.870	-0.555	-4.00	8.700	-0.360	-4.03	8.700	-0.340	-2.75	1.100
0.090	-1.000	-1.017	0.300	-0.556	-4.00	0.900	-0.540	-4.03	9.000	-0.340	-4.06	9.000	-0.320	-2.45	1.100
0.093	-1.000	-1.016	0.310	-0.541	-4.03	0.930	-0.525	-4.06	9.300	-0.320	-4.09	9.300	-0.300	-2.15	1.100
0.096	-1.000	-1.015	0.320	-0.526	-4.06	0.960	-0.510	-4.09	9.600	-0.300	-4.12	9.600	-0.280	-1.85	1.100
0.099	-1.000	-1.014	0.330	-0.511	-4.09	0.990	-0.495	-4.12	9.900	-0.280	-4.15	9.900	-0.260	-1.55	1.100
0.102	-1.000	-1.013	0.340	-0.496	-4.12	1.020	-0.480	-4.15	10.200	-0.260	-4.18	10.200	-0.240	-1.25	1.100
0.105	-1.000	-1.012	0.350	-0.481	-4.15	1.050	-0.465	-4.18	10.500	-0.240	-4.21	10.500	-0.220	-0.95	1.100
0.108	-1.000	-1.011	0.360	-0.466	-4.18	1.080	-0.450	-4.21	10.800	-0.220	-4.24	10.800	-0.200	-0.65	1.100
0.111	-1.000	-1.010	0.370	-0.451	-4.21	1.110	-0.435	-4.24	11.100	-0.200	-4.27	11.100	-0.180	-0.35	1.100
0.114	-1.000	-1.009	0.380	-0.436	-4.24	1.140	-0.420	-4.27	11.400	-0.180	-4.30	11.400	-0.160	-0.05	1.100
0.117	-1.000	-1.008	0.390	-0.421	-4.27	1.170	-0.405	-4.30	11.700	-0.160	-4.33	11.700	-0.140	0.25	1.100
0.120	-1.000	-1.007	0.400	-0.406	-4.30	1.200	-0.390	-4.33	12.000	-0.140	-4.36	12.000	-0.120	0.55	1.100
0.123	-1.000	-1.006	0.410	-0.391	-4.33	1.230	-0.375	-4.36	12.300	-0.120	-4.39	12.300	-0.100	0.85	1.100
0.126	-1.000	-1.005	0.420	-0.376	-4.36	1.260	-0.360	-4.39	12.600	-0.100	-4.42	12.600	-0.080	1.15	1.100
0.129	-1.000	-1.004	0.430	-0.361	-4.39	1.290	-0.345	-4.42	12.900	-0.080	-4.45	12.900	-0.060	1.45	1.100
0.132	-1.000	-1.003	0.440	-0.346	-4.42	1.320	-0.330	-4.45	13.200	-0.060	-4.48	13.200	-0.040	1.75	1.100
0.135	-1.000	-1.002	0.450	-0.331	-4.45	1.350	-0.315	-4.48	13.500	-0.040	-4.51	13.500	-0.020	2.05	1.100
0.138	-1.000	-1.001	0.460	-0.316	-4.48	1.380	-0.300	-4.51	13.800	-0.020	-4.54	13.800	0.000	2.35	1.100
0.141	-1.000	-1.000	0.470	-0.301	-4.51	1.410	-0.285	-4.54	14.100	0.000	-4.57	14.100	0.020	2.65	1.100
0.144	-1.000	-0.999	0.480	-0.286	-4.54	1.440	-0.270	-4.57	14.400	0.020	-4.60	14.400	0.040	2.95	1.100
0.147	-1.000	-0.998	0.490	-0.271	-4.57	1.470	-0.255	-4.60	14.700	0.040	-4.63	14.700	0.060	3.25	1.100
0.150	-1.000	-0.997	0.500	-0.256	-4.60	1.500	-0.240	-4.63	15.000	0.060	-4.66	15.000	0.080	3.55	1.100
0.153	-1.000	-0.996	0.510	-0.241	-4.63	1.530	-0.225	-4.66	15.300	0.080	-4.69	15.300	0.100	3.85	1.100
0.156	-1.000	-0.995	0.520	-0.226	-4.66	1.560	-0.210	-4.69	15.600	0.100	-4.72	15.600	0.120	4.15	1.100
0.159	-1.000	-0.994	0.530	-0.211	-4.69	1.590	-0.195	-4.72	15.900	0.120	-4.75	15.900	0.140	4.45	1.100
0.162	-1.000	-0.993	0.540	-0.196	-4.72	1.620	-0.180	-4.75	16.200	0.140	-4.78	16.200	0.160	4.75	1.100
0.165	-1.000	-0.992	0.550	-0.181	-4.75	1.650	-0.165	-4.78	16.500	0.160	-4.81	16.500	0.180	5.05	1.100
0.168	-1.000	-0.991	0.560	-0.166	-4.78	1.680	-0.150	-4.81	16.800	0.180	-4.84	16.800	0.200	5.35	1.100
0.171	-1.000	-0.990	0.570	-0.151	-4.81	1.710	-0.135	-4.84	17.100	0.200	-4.87	17.100	0.220	5.65	1.100
0.174	-1.000	-0.989	0.580	-0.136	-4.84	1.740	-0.120	-4.87	17.400	0.220	-4.90	17.400	0.240	5.95	1.100
0.177	-1.000	-0.988	0.590	-0.121	-4.87	1.770	-0.105	-4.90	17.700	0.240	-4.93	17.700	0.260	6.25	1.100
0.180	-1.000	-0.987	0.600	-0.106	-4.90	1.800	-0.090	-4.93	18.000	0.260	-4.96	18.000	0.280	6.55	1.100
0.183	-1.000	-0.986	0.610	-0.091	-4.93	1.830	-0.075	-4.96	18.300	0.280	-4.99	18.300	0.300	6.85	1.100
0.186	-1.000	-0.985	0.620	-0.076	-4.96	1.860	-0.060	-4.99	18.600	0.300	-5.02	18.600	0.320	7.15	1.100
0.189	-1.000	-0.984	0.630	-0.061	-4.99	1.890	-0.045	-5.02	18.900	0.320	-5.05	18.900	0.340	7.45	1.100
0.192	-1.000	-0.983	0.640	-0.046	-5.02	1.920	-0.030	-5.05	19.200	0.340	-5.08	19.200	0.360	7.75	1.100
0.195	-1.000	-0.982	0.650	-0.031	-5.05	1.950	-0.015	-5.08	19.500	0.360	-5.11	19.500	0.380	8.05	1.100
0.198	-1.000	-0.981	0.660	-0.016	-5.08	1.980	0.000	-5.11	19.800	0.380	-5.14	19.800	0.400	8.35	1.100
0.201	-1.000	-0.980	0.670	0.000	-5.11	2.010	0.015	-5.14	20.100	0.400	-5.17	20.100	0.420	8.65	1.100
0.204	-1.000	-0.979	0.680	0.015	-5.14	2.040	0.030	-5.17	20.400	0.420	-5.20	20.400	0.440	8.95	1.100
0.207	-1.000	-0.978	0.690	0.030	-5.17	2.070	0.045	-5.20	20.700	0.440	-5.23	20.700	0.460	9.25	1.100
0.210	-1.000	-0.977	0.700	0.045	-5.20	2.100	0.060	-5.23	21.000	0.460	-5.26	21.000	0.480	9.55	1.100
0.213	-1.000	-0.976	0.710	0.060	-5.23	2.130	0.075	-5.26	21.300	0.480	-5.29	21.300	0.500	9.85	1.100
0.216	-1.000	-0.975	0.720	0.075	-5.26	2.160	0.090	-5.29	21.600	0.500	-5.32				

Table 31. Azimuthal Magnetic Field (Sea Water), Frequency = 1.0 MHz, VED Height = 449.52 m

Station	JAN 1961			JAN 1961			JAN 1961			JAN 1961		
	TIME	WIND	WAVE	TIME	WIND	WAVE	TIME	WIND	WAVE	TIME	WIND	WAVE
101	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
102	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
103	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
104	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
105	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
106	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
107	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
108	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
109	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
110	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
111	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
112	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
113	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
114	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
115	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
116	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
117	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
118	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
119	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0
120	0800	10	1.0	0800	10	1.0	0800	10	1.0	0800	10	1.0

Table 32. Azimuthal Magnetic Field (Sea Water), Frequency = 10.0 MHz, VED Height = 0.00 m

[illegible]

Table 33. Azimuthal Magnetic Field (Sea Water), Frequency = 10.0 MHz, VED Height = 22.48 m

3.0 KM UPRANGE				30.0 KM UPRANGE				100.0 KM UPRANGE			
RE	AMP	PHASE		RE	AMP	PHASE		RE	AMP	PHASE	
(M)	(DB)	(DEG)		(M)	(DB)	(DEG)		(M)	(DB)	(DEG)	
0.000	-1.07	-10.94		0.000	-1.994	-64.35		0.000	-5.690	-111.27	
0.003	-2.11	-10.00		0.010	-2.417	-64.25		0.100	-7.020	-100.24	
0.006	-3.55	-10.00		0.020	-3.777	-54.03		0.200	-8.307	-87.96	
0.009	-4.99	-10.00		0.030	-5.075	-53.76		0.300	-9.507	-75.70	
0.012	-6.34	-17.64		0.040	-6.345	-50.06		0.400	-10.629	-64.66	
0.015	-7.67	-17.39		0.050	-7.644	-47.31		0.500	-11.628	-55.42	
0.018	-8.98	-17.08		0.060	-8.965	-44.23		0.600	-12.627	-47.97	
0.021	-10.28	-16.78		0.070	-10.266	-41.98		0.700	-13.613	-42.05	
0.024	-11.55	-16.48		0.080	-11.537	-39.54		0.800	-14.583	-37.33	
0.027	-12.81	-16.18		0.090	-12.799	-37.75		0.900	-15.548	-33.21	
0.030	-14.06	-15.88		0.100	-14.053	-36.05		1.000	-16.508	-30.40	
0.033	-15.29	-15.59		0.110	-15.300	-34.38		1.100	-17.462	-27.81	
0.036	-16.53	-15.29		0.120	-16.546	-32.76		1.200	-18.410	-25.82	
0.039	-17.75	-14.99		0.130	-17.793	-31.12		1.300	-19.352	-23.76	
0.042	-18.98	-14.71		0.140	-19.040	-29.47		1.400	-20.289	-21.80	
0.045	-20.20	-14.43		0.150	-20.284	-27.83		1.500	-21.221	-20.76	
0.048	-21.43	-14.15		0.160	-21.527	-26.08		1.600	-22.148	-19.52	
0.051	-22.65	-13.87		0.170	-22.769	-24.34		1.700	-23.070	-18.22	
0.054	-23.88	-13.60		0.180	-23.010	-22.57		1.800	-23.985	-17.44	
0.057	-25.10	-13.33		0.190	-23.250	-20.80		1.900	-24.895	-16.56	
0.060	-26.32	-13.06		0.200	-23.487	-19.03		2.000	-25.800	-15.75	
0.063	-27.54	-12.80		0.210	-23.723	-17.25		2.100	-26.700	-15.02	
0.066	-28.76	-12.54		0.220	-23.958	-15.47		2.200	-27.600	-14.35	
0.069	-29.98	-12.29		0.230	-24.192	-13.69		2.300	-28.500	-13.74	
0.072	-31.20	-12.04		0.240	-24.425	-11.91		2.400	-29.400	-13.17	
0.075	-32.42	-11.79		0.250	-24.657	-10.13		2.500	-30.300	-12.64	
0.078	-33.64	-11.55		0.260	-24.889	-8.35		2.600	-31.200	-12.15	
0.081	-34.86	-11.31		0.270	-25.120	-6.57		2.700	-32.100	-11.69	
0.084	-36.08	-11.08		0.280	-25.350	-4.79		2.800	-33.000	-11.26	
0.087	-37.30	-10.85		0.290	-25.580	-3.02		2.900	-33.900	-10.86	
0.090	-38.52	-10.63		0.300	-25.810	-1.24		3.000	-34.800	-10.48	
0.105	-42.77	-9.57		0.350	-26.959	-10.70		3.500	-36.959	-8.09	
0.120	-43.60	-9.61		0.400	-28.108	-9.16		4.000	-38.267	-7.06	
0.135	-44.38	-9.68		0.450	-29.257	-7.61		4.500	-39.575	-6.07	
0.150	-45.11	-9.74		0.500	-30.406	-6.06		5.000	-40.883	-5.08	
0.165	-45.84	-9.80		0.550	-31.555	-4.51		5.500	-42.191	-4.09	
0.180	-46.57	-9.86		0.600	-32.704	-2.96		6.000	-43.499	-3.10	
0.195	-47.30	-9.92		0.650	-33.853	-1.41		6.500	-44.807	-2.11	
0.210	-48.03	-9.98		0.700	-35.002	0.14		7.000	-46.115	-1.12	
0.225	-48.76	-10.04		0.750	-36.151	1.59		7.500	-47.423	-0.13	
0.240	-49.49	-10.10		0.800	-37.300	3.04		8.000	-48.731	0.86	
0.255	-50.22	-10.16		0.850	-38.449	4.49		8.500	-49.939	1.87	
0.270	-50.95	-10.22		0.900	-39.598	5.94		9.000	-51.147	2.88	
0.285	-51.68	-10.28		0.950	-40.747	7.39		9.500	-52.355	3.89	
0.300	-52.41	-10.34		1.000	-41.896	8.84		10.000	-53.563	4.90	

Table 34. Azimuthal Magnetic Field (Sea Water), Frequency = 10.0 MHz, VED Height = 44.95 m

3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					30.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)		
0.000	-0.537	-10.70	0.000	-1.135	-33.84	0.000	-2.282	-60.96	0.000	-6.004	-108.85	0.000	-7.335	-97.83	0.000	-8.627	-73.30		
0.003	-0.702	-10.40	0.010	-1.280	-32.83	0.010	-3.415	-51.80	0.010	-7.335	-97.83	0.010	-8.627	-73.30	0.010	-9.961	-52.01		
0.006	-0.745	-10.09	0.020	-1.415	-31.80	0.020	-4.548	-40.76	0.020	-8.627	-73.30	0.020	-9.961	-52.01	0.020	-11.296	-30.51		
0.009	-0.788	-9.78	0.030	-1.548	-30.76	0.030	-5.681	-29.73	0.030	-9.961	-52.01	0.030	-11.296	-30.51	0.030	-12.641	-8.01		
0.012	-0.829	-9.47	0.040	-1.681	-29.73	0.040	-6.814	-18.70	0.040	-11.296	-30.51	0.040	-12.641	-8.01	0.040	-13.986	14.00		
0.015	-0.870	-9.16	0.050	-1.814	-28.70	0.050	-7.947	-7.67	0.050	-12.641	-8.01	0.050	-13.986	14.00	0.050	-15.331	36.00		
0.018	-0.909	-8.85	0.060	-1.947	-27.67	0.060	-9.080	3.36	0.060	-13.986	14.00	0.060	-15.331	36.00	0.060	-16.676	58.00		
0.021	-0.948	-8.54	0.070	-2.080	-26.64	0.070	-10.213	14.39	0.070	-15.331	36.00	0.070	-16.676	58.00	0.070	-18.021	80.00		
0.024	-0.986	-8.23	0.080	-2.213	-25.61	0.080	-11.346	25.42	0.080	-16.676	58.00	0.080	-18.021	80.00	0.080	-19.366	102.00		
0.027	-1.024	-7.92	0.090	-2.346	-24.58	0.090	-12.479	36.45	0.090	-18.021	80.00	0.090	-19.366	102.00	0.090	-20.711	124.00		
0.030	-1.062	-7.61	0.100	-2.479	-23.55	0.100	-13.612	47.48	0.100	-19.366	102.00	0.100	-20.711	124.00	0.100	-22.056	146.00		
0.033	-1.099	-7.30	0.110	-2.612	-22.52	0.110	-14.745	58.51	0.110	-20.711	124.00	0.110	-22.056	146.00	0.110	-23.401	168.00		
0.036	-1.137	-6.99	0.120	-2.745	-21.49	0.120	-15.878	69.54	0.120	-22.056	146.00	0.120	-23.401	168.00	0.120	-24.746	190.00		
0.039	-1.175	-6.68	0.130	-2.878	-20.46	0.130	-17.011	80.57	0.130	-23.401	168.00	0.130	-24.746	190.00	0.130	-26.091	212.00		
0.042	-1.213	-6.37	0.140	-3.011	-19.43	0.140	-18.144	91.60	0.140	-24.746	190.00	0.140	-26.091	212.00	0.140	-27.436	234.00		
0.045	-1.250	-6.06	0.150	-3.144	-18.40	0.150	-19.277	102.63	0.150	-26.091	212.00	0.150	-27.436	234.00	0.150	-28.781	256.00		
0.048	-1.288	-5.75	0.160	-3.277	-17.37	0.160	-20.410	113.66	0.160	-27.436	234.00	0.160	-28.781	256.00	0.160	-30.126	278.00		
0.051	-1.326	-5.44	0.170	-3.410	-16.34	0.170	-21.543	124.69	0.170	-28.781	256.00	0.170	-30.126	278.00	0.170	-31.471	300.00		
0.054	-1.363	-5.13	0.180	-3.543	-15.31	0.180	-22.676	135.72	0.180	-30.126	278.00	0.180	-31.471	300.00	0.180	-32.816	322.00		
0.057	-1.400	-4.82	0.190	-3.676	-14.28	0.190	-23.809	146.75	0.190	-31.471	300.00	0.190	-32.816	322.00	0.190	-34.161	344.00		
0.060	-1.437	-4.51	0.200	-3.809	-13.25	0.200	-24.942	157.78	0.200	-32.816	322.00	0.200	-34.161	344.00	0.200	-35.506	366.00		
0.063	-1.474	-4.20	0.210	-3.942	-12.22	0.210	-26.075	168.81	0.210	-34.161	344.00	0.210	-35.506	366.00	0.210	-36.851	388.00		
0.066	-1.511	-3.89	0.220	-4.075	-11.19	0.220	-27.208	179.84	0.220	-35.506	366.00	0.220	-36.851	388.00	0.220	-38.196	410.00		
0.069	-1.548	-3.58	0.230	-4.208	-10.16	0.230	-28.341	190.87	0.230	-36.851	388.00	0.230	-38.196	410.00	0.230	-39.541	432.00		
0.072	-1.585	-3.27	0.240	-4.341	-9.13	0.240	-29.474	201.90	0.240	-38.196	410.00	0.240	-39.541	432.00	0.240	-40.886	454.00		
0.075	-1.622	-2.96	0.250	-4.474	-8.10	0.250	-30.607	212.93	0.250	-39.541	432.00	0.250	-40.886	454.00	0.250	-42.231	476.00		
0.078	-1.659	-2.65	0.260	-4.607	-7.07	0.260	-31.740	223.96	0.260	-40.886	454.00	0.260	-42.231	476.00	0.260	-43.576	498.00		
0.081	-1.696	-2.34	0.270	-4.740	-6.04	0.270	-32.873	234.99	0.270	-42.231	476.00	0.270	-43.576	498.00	0.270	-44.921	520.00		
0.084	-1.733	-2.03	0.280	-4.873	-5.01	0.280	-34.006	246.02	0.280	-43.576	498.00	0.280	-44.921	520.00	0.280	-46.266	542.00		
0.087	-1.770	-1.72	0.290	-5.006	-3.98	0.290	-35.139	257.05	0.290	-44.921	520.00	0.290	-46.266	542.00	0.290	-47.611	564.00		
0.090	-1.807	-1.41	0.300	-5.139	-2.95	0.300	-36.272	268.08	0.300	-46.266	542.00	0.300	-47.611	564.00	0.300	-48.956	586.00		

Table 35. Azimuthal Magnetic Field (Sea Water), Frequency = 100.0 MHz, VED Height = 0.00 m

1.00 KM DOWNRANGE				3.00 KM DOWNRANGE			
REL IONT (RM)	AMP (DB)	PHASE (DEG)	REL IONT (RM)	AMP (DB)	PHASE (DEG)	REL IONT (RM)	AMP (DB)
.000	-6.000	-100.00	.000	-6.000	-100.00	.000	-6.000
.001	-6.000	-100.00	.001	-6.000	-100.00	.001	-6.000
.002	-6.000	-100.00	.002	-6.000	-100.00	.002	-6.000
.003	-6.000	-100.00	.003	-6.000	-100.00	.003	-6.000
.004	-6.000	-100.00	.004	-6.000	-100.00	.004	-6.000
.005	-6.000	-100.00	.005	-6.000	-100.00	.005	-6.000
.006	-6.000	-100.00	.006	-6.000	-100.00	.006	-6.000
.007	-6.000	-100.00	.007	-6.000	-100.00	.007	-6.000
.008	-6.000	-100.00	.008	-6.000	-100.00	.008	-6.000
.009	-6.000	-100.00	.009	-6.000	-100.00	.009	-6.000
.010	-6.000	-100.00	.010	-6.000	-100.00	.010	-6.000
.011	-6.000	-100.00	.011	-6.000	-100.00	.011	-6.000
.012	-6.000	-100.00	.012	-6.000	-100.00	.012	-6.000
.013	-6.000	-100.00	.013	-6.000	-100.00	.013	-6.000
.014	-6.000	-100.00	.014	-6.000	-100.00	.014	-6.000
.015	-6.000	-100.00	.015	-6.000	-100.00	.015	-6.000
.016	-6.000	-100.00	.016	-6.000	-100.00	.016	-6.000
.017	-6.000	-100.00	.017	-6.000	-100.00	.017	-6.000
.018	-6.000	-100.00	.018	-6.000	-100.00	.018	-6.000
.019	-6.000	-100.00	.019	-6.000	-100.00	.019	-6.000
.020	-6.000	-100.00	.020	-6.000	-100.00	.020	-6.000
.021	-6.000	-100.00	.021	-6.000	-100.00	.021	-6.000
.022	-6.000	-100.00	.022	-6.000	-100.00	.022	-6.000
.023	-6.000	-100.00	.023	-6.000	-100.00	.023	-6.000
.024	-6.000	-100.00	.024	-6.000	-100.00	.024	-6.000
.025	-6.000	-100.00	.025	-6.000	-100.00	.025	-6.000
.026	-6.000	-100.00	.026	-6.000	-100.00	.026	-6.000
.027	-6.000	-100.00	.027	-6.000	-100.00	.027	-6.000
.028	-6.000	-100.00	.028	-6.000	-100.00	.028	-6.000
.029	-6.000	-100.00	.029	-6.000	-100.00	.029	-6.000
.030	-6.000	-100.00	.030	-6.000	-100.00	.030	-6.000
.035	-5.500	-95.00	.035	-5.500	-95.00	.035	-5.500
.040	-5.000	-90.00	.040	-5.000	-90.00	.040	-5.000
.045	-4.500	-85.00	.045	-4.500	-85.00	.045	-4.500
.050	-4.000	-80.00	.050	-4.000	-80.00	.050	-4.000
.055	-3.500	-75.00	.055	-3.500	-75.00	.055	-3.500
.060	-3.000	-70.00	.060	-3.000	-70.00	.060	-3.000
.065	-2.500	-65.00	.065	-2.500	-65.00	.065	-2.500
.070	-2.000	-60.00	.070	-2.000	-60.00	.070	-2.000
.075	-1.500	-55.00	.075	-1.500	-55.00	.075	-1.500
.080	-1.000	-50.00	.080	-1.000	-50.00	.080	-1.000
.085	-.500	-45.00	.085	-.500	-45.00	.085	-.500
.090	0.000	-40.00	.090	0.000	-40.00	.090	0.000
.095	.500	-35.00	.095	.500	-35.00	.095	.500
.100	1.000	-30.00	.100	1.000	-30.00	.100	1.000

Table 36. Azimuthal Magnetic Field (Sea Water), Frequency = 100.0 MHz, VED Height = 2.25 m

1.0 KM DOWNRANGE				3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
0.000	-6.951	-101.90	0.000	-15.857	-149.20	0.000	-29.200	-16.32	0.000	-34.603	-164.94	0.000	-39.503	-164.94	0.000
0.001	-7.384	-98.48	0.003	-17.127	-138.07	0.010	-31.851	-113.09	0.030	-34.503	-56.59	0.060	-37.724	-41.88	0.100
0.002	-7.779	-94.87	0.006	-18.113	-110.01	0.030	-34.593	-72.51	0.060	-37.724	-37.04	0.100	-41.479	-34.30	0.150
0.003	-8.131	-91.11	0.009	-18.636	-93.39	0.040	-36.200	-46.47	0.080	-41.596	-32.38	0.120	-44.596	-30.85	0.200
0.004	-8.430	-87.25	0.012	-18.822	-82.37	0.050	-38.154	-31.42	0.100	-46.106	-29.58	0.150	-49.851	-27.40	0.250
0.005	-8.692	-83.31	0.015	-18.185	-71.61	0.060	-40.152	-23.34	0.120	-50.882	-26.42	0.200	-53.851	-24.40	0.300
0.006	-8.917	-79.35	0.018	-17.447	-60.03	0.070	-42.200	-16.52	0.140	-55.851	-23.46	0.250	-56.851	-20.40	0.350
0.007	-9.103	-75.40	0.021	-16.820	-48.43	0.080	-44.200	-10.54	0.160	-60.851	-20.46	0.300	-59.851	-17.40	0.400
0.008	-9.250	-71.52	0.024	-15.798	-36.82	0.090	-46.200	-4.56	0.180	-65.851	-17.46	0.350	-62.851	-14.40	0.450
0.009	-9.424	-67.74	0.027	-15.009	-25.20	0.100	-48.200	-1.52	0.200	-70.851	-14.46	0.400	-65.851	-11.40	0.500
0.010	-9.629	-64.10	0.030	-14.278	-13.58	0.110	-50.200	1.52	0.220	-75.851	-11.46	0.450	-68.851	-8.40	0.550
0.011	-9.857	-60.50	0.033	-13.608	-1.94	0.120	-52.200	4.56	0.240	-80.851	-8.46	0.500	-71.851	-5.40	0.600
0.012	-10.109	-56.94	0.036	-12.998	9.73	0.130	-54.200	7.60	0.260	-85.851	-5.46	0.550	-74.851	-2.40	0.650
0.013	-10.384	-53.42	0.039	-12.441	17.10	0.140	-56.200	10.64	0.280	-90.851	-2.46	0.600	-77.851	0.60	0.700
0.014	-10.680	-49.94	0.042	-11.934	24.56	0.150	-58.200	13.68	0.300	-95.851	0.60	0.650	-80.851	3.60	0.750
0.015	-10.997	-46.50	0.045	-11.470	32.02	0.160	-60.200	16.72	0.320	-100.851	3.60	0.700	-83.851	6.60	0.800
0.016	-11.334	-43.10	0.048	-11.055	39.48	0.170	-62.200	19.76	0.340	-105.851	6.60	0.750	-86.851	9.60	0.850
0.017	-11.691	-39.74	0.051	-10.684	46.94	0.180	-64.200	22.80	0.360	-110.851	9.60	0.800	-89.851	12.60	0.900
0.018	-12.068	-36.42	0.054	-10.354	54.40	0.190	-66.200	25.84	0.380	-115.851	12.60	0.850	-92.851	15.60	0.950
0.019	-12.465	-33.14	0.057	-10.064	61.86	0.200	-68.200	28.88	0.400	-120.851	15.60	0.900	-95.851	18.60	1.000
0.020	-12.882	-29.90	0.060	-9.812	69.32	0.210	-70.200	31.92	0.420	-125.851	18.60	0.950	-98.851	21.60	1.050
0.021	-13.319	-26.70	0.063	-9.598	76.78	0.220	-72.200	34.96	0.440	-130.851	21.60	1.000	-101.851	24.60	1.100
0.022	-13.776	-23.54	0.066	-9.424	84.24	0.230	-74.200	38.00	0.460	-135.851	24.60	1.050	-104.851	27.60	1.150
0.023	-14.253	-20.42	0.069	-9.289	91.70	0.240	-76.200	41.04	0.480	-140.851	27.60	1.100	-107.851	30.60	1.200
0.024	-14.750	-17.34	0.072	-9.193	99.16	0.250	-78.200	44.08	0.500	-145.851	30.60	1.150	-110.851	33.60	1.250
0.025	-15.267	-14.30	0.075	-9.136	106.62	0.260	-80.200	47.12	0.520	-150.851	33.60	1.200	-113.851	36.60	1.300
0.026	-15.804	-11.30	0.078	-9.118	114.08	0.270	-82.200	50.16	0.540	-155.851	36.60	1.250	-116.851	39.60	1.350
0.027	-16.361	-8.34	0.081	-9.129	121.54	0.280	-84.200	53.20	0.560	-160.851	39.60	1.300	-119.851	42.60	1.400
0.028	-16.938	-5.42	0.084	-9.160	129.00	0.290	-86.200	56.24	0.580	-165.851	42.60	1.350	-122.851	45.60	1.450
0.029	-17.535	-2.54	0.087	-9.211	136.46	0.300	-88.200	59.28	0.600	-170.851	45.60	1.400	-125.851	48.60	1.500
0.030	-18.152	0.40	0.090	-9.282	143.92	0.310	-90.200	62.32	0.620	-175.851	48.60	1.450	-128.851	51.60	1.550
0.035	-20.424	-20.07	0.105	-10.768	-13.45	0.350	-105.851	-13.75	0.650	-185.851	51.60	1.500	-135.851	54.60	1.600
0.040	-22.980	-16.95	0.120	-12.254	-11.40	0.400	-120.851	-12.11	0.700	-200.851	54.60	1.550	-140.851	57.60	1.650
0.045	-25.800	-14.48	0.135	-13.740	-9.84	0.450	-135.851	-10.64	0.750	-215.851	57.60	1.600	-145.851	60.60	1.700
0.050	-28.884	-12.48	0.150	-15.226	-8.24	0.500	-150.851	-9.33	0.800	-230.851	60.60	1.650	-150.851	63.60	1.750
0.055	-32.234	-10.81	0.165	-16.712	-6.59	0.550	-165.851	-8.04	0.850	-245.851	63.60	1.700	-155.851	66.60	1.800
0.060	-35.848	-9.40	0.180	-18.198	-4.89	0.600	-180.851	-6.84	0.900	-260.851	66.60	1.750	-160.851	69.60	1.850
0.065	-39.724	-8.17	0.195	-19.684	-3.14	0.650	-195.851	-5.72	0.950	-275.851	69.60	1.800	-165.851	72.60	1.900
0.070	-43.862	-7.11	0.210	-21.170	-1.34	0.700	-210.851	-4.68	1.000	-290.851	72.60	1.850	-170.851	75.60	1.950
0.075	-48.262	-6.21	0.225	-22.656	0.51	0.750	-225.851	-3.72	1.050	-305.851	75.60	1.900	-175.851	78.60	2.000
0.080	-52.924	-5.42	0.240	-24.142	2.26	0.800	-240.851	-2.84	1.100	-320.851	78.60	1.950	-180.851	81.60	2.050
0.085	-57.848	-4.74	0.255	-25.628	3.96	0.850	-255.851	-2.04	1.150	-335.851	81.60	2.000	-185.851	84.60	2.100
0.090	-63.034	-4.16	0.270	-27.114	5.62	0.900	-270.851	-1.32	1.200	-350.851	84.60	2.050	-190.851	87.60	2.150
0.095	-68.482	-3.68	0.285	-28.600	7.24	0.950	-285.851	-0.68	1.250	-365.851	87.60	2.100	-195.851	90.60	2.200
0.100	-74.192	-3.30	0.300	-30.086	8.82	1.000	-300.851	-0.12	1.300	-380.851	90.60	2.150	-200.851	93.60	2.250

Table 37. Azimuthal Magnetic Field (Sea Water), Frequency = 100.0 MHz, VED Height = 4.50 m

10.0 KM UPHRANGE				30.0 KM UPHRANGE				100.0 KM UPHRANGE				300.0 KM UPHRANGE			
RELUMT	AMP	PHASE	RELUMT	AMP	PHASE	RELUMT	AMP	PHASE	RELUMT	AMP	PHASE	RELUMT	AMP	PHASE	RELUMT
(RM)	(DB)	(DEG)	(RM)	(DB)	(DEG)	(RM)	(DB)	(DEG)	(RM)	(DB)	(DEG)	(RM)	(DB)	(DEG)	(RM)
0.000	-7.080	-73.25	0.000	-16.694	-139.80	0.000	-30.061	-154.15	0.000	-45.316	-150.60	0.000	-59.316	-150.60	0.000
0.001	-6.960	-69.82	0.003	-17.966	-128.60	0.010	-32.714	-104.92	0.030	-35.355	-96.25	0.060	-38.577	-91.94	0.090
0.002	-6.877	-66.22	0.006	-18.956	-115.30	0.020	-34.956	-82.32	0.060	-38.577	-81.94	0.100	-41.853	-76.87	0.130
0.003	-6.831	-62.47	0.009	-19.486	-100.61	0.030	-36.780	-64.74	0.090	-41.853	-64.74	0.120	-44.953	-62.35	0.150
0.004	-6.811	-58.61	0.012	-19.481	-85.76	0.040	-38.064	-48.27	0.100	-44.953	-48.27	0.150	-47.953	-44.95	0.180
0.005	-6.802	-54.69	0.015	-19.032	-72.69	0.050	-41.018	-31.21	0.120	-47.953	-31.21	0.180	-50.953	-22.02	0.210
0.006	-6.810	-50.73	0.018	-18.320	-62.08	0.060	-44.009	-14.73	0.150	-50.953	-14.73	0.210	-53.953	-2.04	0.240
0.007	-6.831	-46.74	0.021	-17.305	-53.45	0.070	-46.070	2.51	0.180	-53.953	2.51	0.240	-56.953	11.98	0.270
0.008	-6.877	-42.72	0.024	-16.062	-44.62	0.080	-48.070	10.75	0.210	-56.953	10.75	0.270	-59.953	21.00	0.300
0.009	-6.975	-38.74	0.027	-15.048	-36.15	0.090	-50.041	19.41	0.240	-59.953	19.41	0.300	-62.953	30.00	0.330
0.010	-7.011	-35.49	0.030	-15.173	-30.71	0.100	-51.953	28.41	0.270	-62.953	28.41	0.330	-65.953	39.00	0.360
0.011	-7.011	-31.99	0.033	-14.509	-23.05	0.110	-53.853	37.41	0.300	-65.953	37.41	0.360	-68.953	48.00	0.390
0.012	-7.004	-28.00	0.036	-13.705	-16.97	0.120	-55.753	46.41	0.330	-68.953	46.41	0.390	-71.953	57.00	0.420
0.013	-7.000	-24.52	0.039	-13.351	-12.34	0.130	-57.653	55.41	0.360	-71.953	55.41	0.420	-74.953	66.00	0.450
0.014	-7.000	-21.56	0.042	-12.856	-8.50	0.140	-59.553	64.41	0.390	-74.953	64.41	0.450	-77.953	77.00	0.480
0.015	-7.000	-19.17	0.045	-12.403	-5.07	0.150	-61.453	73.41	0.420	-77.953	73.41	0.480	-80.953	90.00	0.510
0.016	-7.003	-17.19	0.048	-11.987	-2.10	0.160	-63.353	82.41	0.450	-80.953	82.41	0.510	-83.953	103.00	0.540
0.017	-7.052	-15.77	0.051	-11.607	1.72	0.170	-65.253	91.41	0.480	-83.953	91.41	0.540	-86.953	116.00	0.570
0.018	-7.124	-14.82	0.054	-11.258	5.29	0.180	-67.153	100.41	0.510	-86.953	100.41	0.570	-89.953	129.00	0.600
0.019	-7.212	-14.42	0.057	-10.930	8.99	0.190	-69.053	109.41	0.540	-89.953	109.41	0.600	-92.953	142.00	0.630
0.020	-7.309	-14.40	0.060	-10.640	12.80	0.200	-70.953	118.41	0.570	-92.953	118.41	0.630	-95.953	155.00	0.660
0.021	-7.405	-14.63	0.063	-10.380	16.71	0.210	-72.853	127.41	0.600	-95.953	127.41	0.660	-98.953	168.00	0.690
0.022	-7.501	-15.13	0.066	-10.113	20.69	0.220	-74.753	136.41	0.630	-98.953	136.41	0.690	-101.953	181.00	0.720
0.023	-7.600	-15.84	0.069	-9.875	24.75	0.230	-76.653	145.41	0.660	-101.953	145.41	0.720	-104.953	194.00	0.750
0.024	-7.701	-16.85	0.072	-9.660	28.90	0.240	-78.553	154.41	0.690	-104.953	154.41	0.750	-107.953	207.00	0.780
0.025	-7.800	-18.15	0.075	-9.457	33.10	0.250	-80.453	163.41	0.720	-107.953	163.41	0.780	-110.953	220.00	0.810
0.026	-7.904	-19.72	0.078	-9.260	37.41	0.260	-82.353	172.41	0.750	-110.953	172.41	0.810	-113.953	233.00	0.840
0.027	-8.000	-20.57	0.081	-9.072	41.80	0.270	-84.253	181.41	0.780	-113.953	181.41	0.840	-116.953	246.00	0.870
0.028	-8.103	-21.77	0.084	-8.892	46.31	0.280	-86.153	190.41	0.810	-116.953	190.41	0.870	-119.953	259.00	0.900
0.029	-8.203	-23.40	0.087	-8.726	50.95	0.290	-88.053	199.41	0.840	-119.953	199.41	0.900	-122.953	272.00	0.930
0.030	-8.303	-25.50	0.090	-8.563	55.71	0.300	-89.953	208.41	0.870	-122.953	208.41	0.930	-125.953	285.00	0.960
0.035	-7.801	-19.40	0.105	-8.051	44.72	0.350	-84.853	181.41	0.950	-116.953	181.41	0.950	-116.953	208.41	0.950
0.040	-7.301	-14.63	0.120	-7.543	32.36	0.400	-79.753	154.41	1.000	-111.953	154.41	1.000	-111.953	177.41	1.000
0.045	-6.801	-10.00	0.135	-7.036	20.00	0.450	-74.653	127.41	1.050	-106.953	127.41	1.050	-106.953	150.41	1.050
0.050	-6.301	-5.37	0.150	-6.529	8.60	0.500	-69.553	100.41	1.100	-101.953	100.41	1.100	-101.953	123.41	1.100
0.055	-5.801	-0.74	0.165	-6.022	-2.79	0.550	-64.453	73.41	1.150	-96.953	73.41	1.150	-96.953	96.41	1.150
0.060	-5.301	3.89	0.180	-5.515	11.40	0.600	-59.353	46.41	1.200	-91.953	46.41	1.200	-91.953	69.41	1.200
0.065	-4.801	9.52	0.195	-5.008	20.00	0.650	-54.253	20.00	1.250	-86.953	20.00	1.250	-86.953	42.41	1.250
0.070	-4.301	15.55	0.210	-4.501	28.60	0.700	-49.153	0.00	1.300	-81.953	0.00	1.300	-81.953	15.41	1.300
0.075	-3.801	21.58	0.225	-4.000	37.19	0.750	-44.053	-28.41	1.350	-76.953	-28.41	1.350	-76.953	38.41	1.350
0.080	-3.301	27.61	0.240	-3.500	45.78	0.800	-38.953	-56.81	1.400	-71.953	-56.81	1.400	-71.953	67.41	1.400
0.085	-2.801	33.64	0.255	-3.000	54.37	0.850	-33.853	-85.22	1.450	-66.953	-85.22	1.450	-66.953	96.41	1.450
0.090	-2.301	39.67	0.270	-2.500	62.96	0.900	-28.753	-113.63	1.500	-61.953	-113.63	1.500	-61.953	125.41	1.500
0.095	-1.801	45.70	0.285	-2.000	71.55	0.950	-23.653	-142.04	1.550	-56.953	-142.04	1.550	-56.953	154.41	1.550
0.100	-1.301	51.73	0.300	-1.500	80.14	1.000	-18.553	-170.45	1.600	-51.953	-170.45	1.600	-51.953	183.41	1.600

Table 38. Vertical Electric Field (Fresh Water), Frequency = 0.1 MHz, VED Height = 0.00 m

30.0 KM UPHRANGE				100.0 KM UPHRANGE				300.0 KM UPHRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
0.000	-1.000	-37.02	0.000	-3.985	-65.84	0.000	-8.484	0.000	-8.484	-102.38	0.000
0.030	-1.027	-37.00	0.100	-4.034	-66.91	0.300	-8.688	0.300	-8.688	-100.20	0.300
0.060	-1.048	-37.00	0.200	-4.121	-68.19	0.600	-8.877	0.600	-8.877	-97.96	0.600
0.090	-1.068	-37.01	0.300	-4.185	-69.40	0.900	-9.050	0.900	-9.050	-95.69	0.900
0.120	-1.088	-36.74	0.400	-4.246	-70.73	1.200	-9.207	1.200	-9.207	-93.38	1.200
0.150	-1.107	-36.52	0.500	-4.305	-72.00	1.500	-9.347	1.500	-9.347	-91.04	1.500
0.180	-1.126	-36.31	0.600	-4.361	-73.27	1.800	-9.470	1.800	-9.470	-88.69	1.800
0.210	-1.145	-36.10	0.700	-4.414	-74.54	2.100	-9.575	2.100	-9.575	-86.33	2.100
0.240	-1.163	-35.89	0.800	-4.465	-75.80	2.400	-9.663	2.400	-9.663	-83.97	2.400
0.270	-1.181	-35.68	0.900	-4.514	-77.07	2.700	-9.734	2.700	-9.734	-81.63	2.700
0.300	-1.199	-35.46	1.000	-4.559	-78.34	3.000	-9.788	3.000	-9.788	-79.30	3.000
0.330	-1.216	-35.25	1.100	-4.601	-79.61	3.300	-9.826	3.300	-9.826	-77.01	3.300
0.360	-1.233	-35.04	1.200	-4.644	-80.88	3.600	-9.857	3.600	-9.857	-74.75	3.600
0.390	-1.249	-34.82	1.300	-4.682	-82.15	3.900	-9.881	3.900	-9.881	-72.54	3.900
0.420	-1.265	-34.61	1.400	-4.716	-83.42	4.200	-9.899	4.200	-9.899	-70.38	4.200
0.450	-1.281	-34.40	1.500	-4.752	-84.69	4.500	-9.913	4.500	-9.913	-68.27	4.500
0.480	-1.297	-34.19	1.600	-4.783	-85.96	4.800	-9.924	4.800	-9.924	-66.25	4.800
0.510	-1.312	-33.98	1.700	-4.812	-87.23	5.100	-9.931	5.100	-9.931	-64.33	5.100
0.540	-1.327	-33.76	1.800	-4.839	-88.50	5.400	-9.935	5.400	-9.935	-62.44	5.400
0.570	-1.341	-33.55	1.900	-4.863	-89.77	5.700	-9.936	5.700	-9.936	-60.60	5.700
0.600	-1.355	-33.34	2.000	-4.886	-91.04	6.000	-9.934	6.000	-9.934	-58.81	6.000
0.630	-1.369	-33.13	2.100	-4.908	-92.31	6.300	-9.929	6.300	-9.929	-57.07	6.300
0.660	-1.383	-32.92	2.200	-4.924	-93.58	6.600	-9.921	6.600	-9.921	-55.33	6.600
0.690	-1.396	-32.71	2.300	-4.941	-94.85	6.900	-9.910	6.900	-9.910	-53.75	6.900
0.720	-1.409	-32.50	2.400	-4.955	-96.12	7.200	-9.896	7.200	-9.896	-52.24	7.200
0.750	-1.421	-32.29	2.500	-4.968	-97.39	7.500	-9.879	7.500	-9.879	-50.79	7.500
0.780	-1.434	-32.08	2.600	-4.978	-98.67	7.800	-9.859	7.800	-9.859	-49.34	7.800
0.810	-1.446	-31.87	2.700	-4.987	-99.94	8.100	-9.836	8.100	-9.836	-48.06	8.100
0.840	-1.457	-31.66	2.800	-4.995	-101.21	8.400	-9.811	8.400	-9.811	-46.79	8.400
0.870	-1.469	-31.45	2.900	-5.000	-102.48	8.700	-9.784	8.700	-9.784	-45.57	8.700
0.900	-1.480	-31.24	3.000	-5.003	-103.75	9.000	-9.756	9.000	-9.756	-44.44	9.000
1.050	-2.031	-30.47	3.500	-5.004	-105.02	10.500	-9.700	10.500	-9.700	-43.50	10.500
1.100	-2.047	-30.26	4.000	-4.973	-106.29	11.000	-9.655	11.000	-9.655	-42.61	11.000
1.150	-2.061	-30.05	4.500	-4.918	-107.56	11.500	-9.610	11.500	-9.610	-41.71	11.500
1.200	-2.075	-29.84	5.000	-4.845	-108.83	12.000	-9.565	12.000	-9.565	-40.81	12.000
1.250	-2.089	-29.63	5.500	-4.758	-110.10	12.500	-9.520	12.500	-9.520	-40.00	12.500
1.300	-2.103	-29.42	6.000	-4.661	-111.37	13.000	-9.475	13.000	-9.475	-39.19	13.000
1.350	-2.117	-29.21	6.500	-4.555	-112.64	13.500	-9.430	13.500	-9.430	-38.38	13.500
1.400	-2.131	-29.00	7.000	-4.440	-113.91	14.000	-9.385	14.000	-9.385	-37.57	14.000
1.450	-2.145	-28.79	7.500	-4.315	-115.18	14.500	-9.340	14.500	-9.340	-36.76	14.500
1.500	-2.159	-28.58	8.000	-4.190	-116.45	15.000	-9.295	15.000	-9.295	-35.95	15.000
1.550	-2.173	-28.37	8.500	-4.065	-117.72	15.500	-9.250	15.500	-9.250	-35.14	15.500
1.600	-2.187	-28.16	9.000	-3.940	-118.99	16.000	-9.205	16.000	-9.205	-34.33	16.000
1.650	-2.201	-27.95	9.500	-3.815	-120.26	16.500	-9.160	16.500	-9.160	-33.52	16.500
1.700	-2.215	-27.74	10.000	-3.690	-121.53	17.000	-9.115	17.000	-9.115	-32.71	17.000
1.750	-2.229	-27.53	10.500	-3.565	-122.80	17.500	-9.070	17.500	-9.070	-31.90	17.500
1.800	-2.243	-27.32	11.000	-3.440	-124.07	18.000	-9.025	18.000	-9.025	-31.09	18.000
1.850	-2.257	-27.11	11.500	-3.315	-125.34	18.500	-8.980	18.500	-8.980	-30.28	18.500
1.900	-2.271	-26.90	12.000	-3.190	-126.61	19.000	-8.935	19.000	-8.935	-29.47	19.000
1.950	-2.285	-26.69	12.500	-3.065	-127.88	19.500	-8.890	19.500	-8.890	-28.66	19.500
2.000	-2.299	-26.48	13.000	-2.940	-129.15	20.000	-8.845	20.000	-8.845	-27.85	20.000
2.050	-2.313	-26.27	13.500	-2.815	-130.42	20.500	-8.800	20.500	-8.800	-27.04	20.500
2.100	-2.327	-26.06	14.000	-2.690	-131.69	21.000	-8.755	21.000	-8.755	-26.23	21.000
2.150	-2.341	-25.85	14.500	-2.565	-132.96	21.500	-8.710	21.500	-8.710	-25.42	21.500
2.200	-2.355	-25.64	15.000	-2.440	-134.23	22.000	-8.665	22.000	-8.665	-24.61	22.000
2.250	-2.369	-25.43	15.500	-2.315	-135.50	22.500	-8.620	22.500	-8.620	-23.80	22.500
2.300	-2.383	-25.22	16.000	-2.190	-136.77	23.000	-8.575	23.000	-8.575	-23.00	23.000
2.350	-2.397	-25.01	16.500	-2.065	-138.04	23.500	-8.530	23.500	-8.530	-22.19	23.500
2.400	-2.411	-24.80	17.000	-1.940	-139.31	24.000	-8.485	24.000	-8.485	-21.38	24.000
2.450	-2.425	-24.59	17.500	-1.815	-140.58	24.500	-8.440	24.500	-8.440	-20.57	24.500
2.500	-2.439	-24.38	18.000	-1.690	-141.85	25.000	-8.395	25.000	-8.395	-19.76	25.000
2.550	-2.453	-24.17	18.500	-1.565	-143.12	25.500	-8.350	25.500	-8.350	-18.95	25.500
2.600	-2.467	-23.96	19.000	-1.440	-144.39	26.000	-8.305	26.000	-8.305	-18.14	26.000
2.650	-2.481	-23.75	19.500	-1.315	-145.66	26.500	-8.260	26.500	-8.260	-17.33	26.500
2.700	-2.495	-23.54	20.000	-1.190	-146.93	27.000	-8.215	27.000	-8.215	-16.52	27.000
2.750	-2.509	-23.33	20.500	-1.065	-148.20	27.500	-8.170	27.500	-8.170	-15.71	27.500
2.800	-2.523	-23.12	21.000	-0.940	-149.47	28.000	-8.125	28.000	-8.125	-14.90	28.000
2.850	-2.537	-22.91	21.500	-0.815	-150.74	28.500	-8.080	28.500	-8.080	-14.09	28.500
2.900	-2.551	-22.70	22.000	-0.690	-152.01	29.000	-8.035	29.000	-8.035	-13.28	29.000
2.950	-2.565	-22.49	22.500	-0.565	-153.28	29.500	-8.000	29.500	-8.000	-12.47	29.500
3.000	-2.579	-22.28	23.000	-0.440	-154.55	30.000	-7.955	30.000	-7.955	-11.66	30.000

Table 39. Vertical Electric Field (Fresh Water), Frequency = 0.1 MHz, VED Height = 2247.60 m

3000 KM DOWNRANGE				10000 KM DOWNRANGE				30000 KM DOWNRANGE			
RELJNT (RM)	AMP (UB)	PHASE (DEG)	RELJNT (RM)	AMP (UB)	PHASE (DEG)	RELJNT (RM)	AMP (UB)	PHASE (DEG)	RELJNT (RM)	AMP (UB)	PHASE (DEG)
0.000	-6.460	-23.36	0.000	-4.720	-43.75	0.000	-9.820	-85.17	0.000	-9.820	-85.17
.030	-6.460	-23.14	.100	-4.795	-43.75	.300	-9.824	-85.17	.300	-9.824	-85.17
.060	-6.460	-22.92	.200	-5.062	-43.75	.600	-10.014	-85.17	.600	-10.014	-85.17
.090	-6.460	-22.70	.300	-5.121	-43.75	.900	-10.180	-85.17	.900	-10.180	-85.17
.120	-6.460	-22.48	.400	-5.189	-43.75	1.200	-10.347	-85.17	1.200	-10.347	-85.17
.150	-6.460	-22.26	.500	-5.249	-43.75	1.500	-10.489	-85.17	1.500	-10.489	-85.17
.180	-6.460	-22.04	.600	-5.307	-43.75	1.800	-10.614	-85.17	1.800	-10.614	-85.17
.210	-6.460	-21.82	.700	-5.362	-43.75	2.100	-10.722	-85.17	2.100	-10.722	-85.17
.240	-6.460	-21.60	.800	-5.415	-43.75	2.400	-10.815	-85.17	2.400	-10.815	-85.17
.270	-6.460	-21.38	.900	-5.466	-43.75	2.700	-10.888	-85.17	2.700	-10.888	-85.17
.300	-6.460	-21.16	1.000	-5.514	-43.75	3.000	-10.948	-85.17	3.000	-10.948	-85.17
.330	-6.460	-20.94	1.100	-5.561	-43.75	3.300	-11.001	-85.17	3.300	-11.001	-85.17
.360	-6.460	-20.72	1.200	-5.609	-43.75	3.600	-11.046	-85.17	3.600	-11.046	-85.17
.390	-6.460	-20.51	1.300	-5.647	-43.75	3.900	-11.084	-85.17	3.900	-11.084	-85.17
.420	-6.460	-20.29	1.400	-5.686	-43.75	4.200	-11.124	-85.17	4.200	-11.124	-85.17
.450	-6.460	-20.07	1.500	-5.724	-43.75	4.500	-11.166	-85.17	4.500	-11.166	-85.17
.480	-6.460	-19.86	1.600	-5.761	-43.75	4.800	-11.209	-85.17	4.800	-11.209	-85.17
.510	-6.460	-19.64	1.700	-5.793	-43.75	5.100	-11.254	-85.17	5.100	-11.254	-85.17
.540	-6.460	-19.43	1.800	-5.825	-43.75	5.400	-11.299	-85.17	5.400	-11.299	-85.17
.570	-6.460	-19.21	1.900	-5.855	-43.75	5.700	-11.346	-85.17	5.700	-11.346	-85.17
.600	-6.460	-19.00	2.000	-5.883	-43.75	6.000	-11.394	-85.17	6.000	-11.394	-85.17
.630	-6.460	-18.78	2.100	-5.909	-43.75	6.300	-11.443	-85.17	6.300	-11.443	-85.17
.660	-6.460	-18.57	2.200	-5.933	-43.75	6.600	-11.493	-85.17	6.600	-11.493	-85.17
.690	-6.460	-18.36	2.300	-5.956	-43.75	6.900	-11.544	-85.17	6.900	-11.544	-85.17
.720	-6.460	-18.15	2.400	-5.977	-43.75	7.200	-11.596	-85.17	7.200	-11.596	-85.17
.750	-6.460	-17.94	2.500	-5.997	-43.75	7.500	-11.649	-85.17	7.500	-11.649	-85.17
.780	-6.460	-17.73	2.600	-6.015	-43.75	7.800	-11.703	-85.17	7.800	-11.703	-85.17
.810	-6.460	-17.52	2.700	-6.031	-43.75	8.100	-11.758	-85.17	8.100	-11.758	-85.17
.840	-6.460	-17.31	2.800	-6.046	-43.75	8.400	-11.814	-85.17	8.400	-11.814	-85.17
.870	-6.460	-17.10	2.900	-6.060	-43.75	8.700	-11.871	-85.17	8.700	-11.871	-85.17
.900	-6.460	-16.89	3.000	-6.072	-43.75	9.000	-11.929	-85.17	9.000	-11.929	-85.17
1.050	-3.160	-15.87	3.500	-6.111	-43.75	10.500	-12.533	-85.17	10.500	-12.533	-85.17
1.200	-3.160	-14.86	4.000	-6.137	-43.75	12.000	-13.101	-85.17	12.000	-13.101	-85.17
1.350	-3.160	-13.87	4.500	-6.140	-43.75	13.500	-13.644	-85.17	13.500	-13.644	-85.17
1.500	-3.160	-12.90	5.000	-6.129	-43.75	15.000	-14.163	-85.17	15.000	-14.163	-85.17
1.650	-3.160	-11.95	5.500	-6.111	-43.75	16.500	-14.659	-85.17	16.500	-14.659	-85.17
1.800	-3.160	-11.03	6.000	-6.089	-43.75	18.000	-15.134	-85.17	18.000	-15.134	-85.17
1.950	-3.160	-10.12	6.500	-6.066	-43.75	19.500	-15.587	-85.17	19.500	-15.587	-85.17
2.100	-3.160	-9.23	7.000	-6.040	-43.75	21.000	-16.019	-85.17	21.000	-16.019	-85.17
2.250	-3.160	-8.36	7.500	-6.019	-43.75	22.500	-16.433	-85.17	22.500	-16.433	-85.17
2.400	-3.160	-7.51	8.000	-6.014	-43.75	24.000	-16.830	-85.17	24.000	-16.830	-85.17
2.550	-3.160	-6.68	8.500	-6.016	-43.75	25.500	-17.211	-85.17	25.500	-17.211	-85.17
2.700	-3.160	-5.87	9.000	-6.010	-43.75	27.000	-17.577	-85.17	27.000	-17.577	-85.17
2.850	-3.160	-5.08	9.500	-6.006	-43.75	28.500	-17.931	-85.17	28.500	-17.931	-85.17
3.000	-3.160	-4.30	10.000	-6.002	-43.75	30.000	-18.274	-85.17	30.000	-18.274	-85.17

Table 40. Vertical Electric Field (Fresh Water), Frequency = 0.1 MHz, VED Height = 4495.20 m

30.0 KM DOWNRAILAGE				100.0 KM DOWNRAILAGE				300.0 KM DOWNRAILAGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	RE DIST (KM)	AMP (UB)	PHASE (DEG)	RE DIST (KM)	AMP (UB)	PHASE (DEG)	RE DIST (KM)	AMP (UB)	PHASE (DEG)
0.000	-6.410	-14.04	0.000	-4.092	-36.22	0.000	0.000	-9.031	0.000	-9.031	-68.31
0.030	-6.437	-14.42	0.100	-4.061	-35.49	0.300	-10.030	-68.12	0.000	-10.030	-68.12
0.060	-6.458	-14.76	0.200	-4.029	-34.76	0.600	-10.227	-68.08	0.000	-10.227	-68.08
0.090	-6.476	-15.07	0.300	-4.006	-34.03	0.900	-10.405	-68.00	0.000	-10.405	-68.00
0.120	-6.490	-15.35	0.400	-3.981	-33.30	1.200	-10.567	-67.94	0.000	-10.567	-67.94
0.150	-6.502	-15.60	0.500	-3.954	-32.56	1.500	-10.715	-67.85	0.000	-10.715	-67.85
0.180	-6.512	-15.83	0.600	-3.926	-31.82	1.800	-10.846	-67.74	0.000	-10.846	-67.74
0.210	-6.521	-16.04	0.700	-3.898	-31.09	2.100	-10.963	-67.61	0.000	-10.963	-67.61
0.240	-6.529	-16.23	0.800	-3.869	-30.35	2.400	-11.065	-67.46	0.000	-11.065	-67.46
0.270	-6.536	-16.40	0.900	-3.840	-29.61	2.700	-11.154	-67.30	0.000	-11.154	-67.30
0.300	-6.542	-16.54	1.000	-3.811	-28.86	3.000	-11.231	-67.14	0.000	-11.231	-67.14
0.330	-6.547	-16.67	1.100	-3.782	-28.14	3.300	-11.294	-66.97	0.000	-11.294	-66.97
0.360	-6.551	-16.79	1.200	-3.753	-27.41	3.600	-11.344	-66.80	0.000	-11.344	-66.80
0.390	-6.554	-16.90	1.300	-3.724	-26.67	3.900	-11.384	-66.63	0.000	-11.384	-66.63
0.420	-6.557	-17.00	1.400	-3.695	-25.94	4.200	-11.415	-66.46	0.000	-11.415	-66.46
0.450	-6.559	-17.09	1.500	-3.666	-25.21	4.500	-11.435	-66.30	0.000	-11.435	-66.30
0.480	-6.561	-17.18	1.600	-3.637	-24.48	4.800	-11.453	-66.14	0.000	-11.453	-66.14
0.510	-6.562	-17.26	1.700	-3.608	-23.75	5.100	-11.467	-65.98	0.000	-11.467	-65.98
0.540	-6.563	-17.34	1.800	-3.579	-23.02	5.400	-11.478	-65.82	0.000	-11.478	-65.82
0.570	-6.564	-17.41	1.900	-3.550	-22.29	5.700	-11.486	-65.67	0.000	-11.486	-65.67
0.600	-6.565	-17.48	2.000	-3.521	-21.56	6.000	-11.492	-65.52	0.000	-11.492	-65.52
0.630	-6.566	-17.55	2.100	-3.492	-20.83	6.300	-11.496	-65.37	0.000	-11.496	-65.37
0.660	-6.567	-17.61	2.200	-3.463	-20.10	6.600	-11.498	-65.22	0.000	-11.498	-65.22
0.690	-6.568	-17.67	2.300	-3.434	-19.37	6.900	-11.499	-65.07	0.000	-11.499	-65.07
0.720	-6.569	-17.73	2.400	-3.405	-18.64	7.200	-11.500	-64.92	0.000	-11.500	-64.92
0.750	-6.570	-17.79	2.500	-3.376	-17.91	7.500	-11.500	-64.77	0.000	-11.500	-64.77
0.780	-6.571	-17.84	2.600	-3.347	-17.18	7.800	-11.500	-64.62	0.000	-11.500	-64.62
0.810	-6.572	-17.89	2.700	-3.318	-16.45	8.100	-11.500	-64.47	0.000	-11.500	-64.47
0.840	-6.573	-17.94	2.800	-3.289	-15.72	8.400	-11.500	-64.32	0.000	-11.500	-64.32
0.870	-6.574	-17.99	2.900	-3.260	-14.99	8.700	-11.500	-64.17	0.000	-11.500	-64.17
0.900	-6.575	-18.04	3.000	-3.231	-14.26	9.000	-11.500	-64.02	0.000	-11.500	-64.02
1.050	-3.401	-3.73	3.200	-3.174	-13.53	10.500	-11.500	-63.87	0.000	-11.500	-63.87
1.200	-3.401	-3.73	3.400	-3.134	-12.80	12.000	-11.500	-63.72	0.000	-11.500	-63.72
1.350	-3.401	-3.73	3.600	-3.094	-12.07	13.500	-11.500	-63.57	0.000	-11.500	-63.57
1.500	-3.401	-3.73	3.800	-3.054	-11.34	15.000	-11.500	-63.42	0.000	-11.500	-63.42
1.650	-3.401	-3.73	4.000	-3.014	-10.61	16.500	-11.500	-63.27	0.000	-11.500	-63.27
1.800	-3.401	-3.73	4.200	-2.974	-9.88	18.000	-11.500	-63.12	0.000	-11.500	-63.12
1.950	-3.401	-3.73	4.400	-2.934	-9.15	19.500	-11.500	-62.97	0.000	-11.500	-62.97
2.100	-3.401	-3.73	4.600	-2.894	-8.42	21.000	-11.500	-62.82	0.000	-11.500	-62.82
2.250	-3.401	-3.73	4.800	-2.854	-7.69	22.500	-11.500	-62.67	0.000	-11.500	-62.67
2.400	-3.401	-3.73	5.000	-2.814	-6.96	24.000	-11.500	-62.52	0.000	-11.500	-62.52
2.550	-3.401	-3.73	5.200	-2.774	-6.23	25.500	-11.500	-62.37	0.000	-11.500	-62.37
2.700	-3.401	-3.73	5.400	-2.734	-5.50	27.000	-11.500	-62.22	0.000	-11.500	-62.22
2.850	-3.401	-3.73	5.600	-2.694	-4.77	28.500	-11.500	-62.07	0.000	-11.500	-62.07
3.000	-3.401	-3.73	5.800	-2.654	-4.04	30.000	-11.500	-61.92	0.000	-11.500	-61.92

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ROME AIR DEVELOPMENT CENTER GRIFFISS AFB NY

F/G 8/14

HEIGHT-GAIN ATLAS FOR AN ELEMENTAL VERTICAL ELECTRIC DIPOLE ABO--ETC(U)

MAR 81 J L HECKSCHER, E J TICHOVOLSKY

UNCLASSIFIED

RADC-TR-81-39

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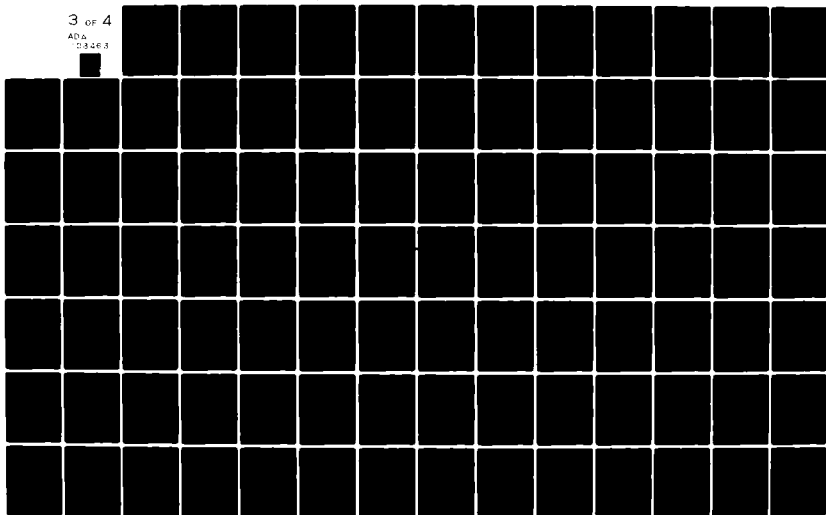


Table 41. Vertical Electric Field (Fresh Water), Frequency = 1.0 MHz, VED Height = 0.00 m

3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					30.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
RE (M)	AMP (DB)	PHASE (DEG)	RE (M)	AMP (DB)	PHASE (DEG)	RE (M)	AMP (DB)	PHASE (DEG)	RE (M)	AMP (DB)	PHASE (DEG)	RE (M)	AMP (DB)	PHASE (DEG)	RE (M)	AMP (DB)	PHASE (DEG)		
0.000	-6.000	-90.00	0.000	-11.000	-90.00	0.000	-15.000	-90.00	0.000	-27.000	-90.00	0.000	-47.000	-90.00	0.000	-87.000	-90.00		
0.003	-6.003	-89.97	0.003	-11.003	-89.97	0.003	-15.003	-89.97	0.003	-27.003	-89.97	0.003	-47.003	-89.97	0.003	-87.003	-89.97		
0.006	-6.006	-89.94	0.006	-11.006	-89.94	0.006	-15.006	-89.94	0.006	-27.006	-89.94	0.006	-47.006	-89.94	0.006	-87.006	-89.94		
0.009	-6.009	-89.91	0.009	-11.009	-89.91	0.009	-15.009	-89.91	0.009	-27.009	-89.91	0.009	-47.009	-89.91	0.009	-87.009	-89.91		
0.012	-6.012	-89.88	0.012	-11.012	-89.88	0.012	-15.012	-89.88	0.012	-27.012	-89.88	0.012	-47.012	-89.88	0.012	-87.012	-89.88		
0.015	-6.015	-89.85	0.015	-11.015	-89.85	0.015	-15.015	-89.85	0.015	-27.015	-89.85	0.015	-47.015	-89.85	0.015	-87.015	-89.85		
0.018	-6.018	-89.82	0.018	-11.018	-89.82	0.018	-15.018	-89.82	0.018	-27.018	-89.82	0.018	-47.018	-89.82	0.018	-87.018	-89.82		
0.021	-6.021	-89.79	0.021	-11.021	-89.79	0.021	-15.021	-89.79	0.021	-27.021	-89.79	0.021	-47.021	-89.79	0.021	-87.021	-89.79		
0.024	-6.024	-89.76	0.024	-11.024	-89.76	0.024	-15.024	-89.76	0.024	-27.024	-89.76	0.024	-47.024	-89.76	0.024	-87.024	-89.76		
0.027	-6.027	-89.73	0.027	-11.027	-89.73	0.027	-15.027	-89.73	0.027	-27.027	-89.73	0.027	-47.027	-89.73	0.027	-87.027	-89.73		
0.030	-6.030	-89.70	0.030	-11.030	-89.70	0.030	-15.030	-89.70	0.030	-27.030	-89.70	0.030	-47.030	-89.70	0.030	-87.030	-89.70		
0.033	-6.033	-89.67	0.033	-11.033	-89.67	0.033	-15.033	-89.67	0.033	-27.033	-89.67	0.033	-47.033	-89.67	0.033	-87.033	-89.67		
0.036	-6.036	-89.64	0.036	-11.036	-89.64	0.036	-15.036	-89.64	0.036	-27.036	-89.64	0.036	-47.036	-89.64	0.036	-87.036	-89.64		
0.039	-6.039	-89.61	0.039	-11.039	-89.61	0.039	-15.039	-89.61	0.039	-27.039	-89.61	0.039	-47.039	-89.61	0.039	-87.039	-89.61		
0.042	-6.042	-89.58	0.042	-11.042	-89.58	0.042	-15.042	-89.58	0.042	-27.042	-89.58	0.042	-47.042	-89.58	0.042	-87.042	-89.58		
0.045	-6.045	-89.55	0.045	-11.045	-89.55	0.045	-15.045	-89.55	0.045	-27.045	-89.55	0.045	-47.045	-89.55	0.045	-87.045	-89.55		
0.048	-6.048	-89.52	0.048	-11.048	-89.52	0.048	-15.048	-89.52	0.048	-27.048	-89.52	0.048	-47.048	-89.52	0.048	-87.048	-89.52		
0.051	-6.051	-89.49	0.051	-11.051	-89.49	0.051	-15.051	-89.49	0.051	-27.051	-89.49	0.051	-47.051	-89.49	0.051	-87.051	-89.49		
0.054	-6.054	-89.46	0.054	-11.054	-89.46	0.054	-15.054	-89.46	0.054	-27.054	-89.46	0.054	-47.054	-89.46	0.054	-87.054	-89.46		
0.057	-6.057	-89.43	0.057	-11.057	-89.43	0.057	-15.057	-89.43	0.057	-27.057	-89.43	0.057	-47.057	-89.43	0.057	-87.057	-89.43		
0.060	-6.060	-89.40	0.060	-11.060	-89.40	0.060	-15.060	-89.40	0.060	-27.060	-89.40	0.060	-47.060	-89.40	0.060	-87.060	-89.40		
0.063	-6.063	-89.37	0.063	-11.063	-89.37	0.063	-15.063	-89.37	0.063	-27.063	-89.37	0.063	-47.063	-89.37	0.063	-87.063	-89.37		
0.066	-6.066	-89.34	0.066	-11.066	-89.34	0.066	-15.066	-89.34	0.066	-27.066	-89.34	0.066	-47.066	-89.34	0.066	-87.066	-89.34		
0.069	-6.069	-89.31	0.069	-11.069	-89.31	0.069	-15.069	-89.31	0.069	-27.069	-89.31	0.069	-47.069	-89.31	0.069	-87.069	-89.31		
0.072	-6.072	-89.28	0.072	-11.072	-89.28	0.072	-15.072	-89.28	0.072	-27.072	-89.28	0.072	-47.072	-89.28	0.072	-87.072	-89.28		
0.075	-6.075	-89.25	0.075	-11.075	-89.25	0.075	-15.075	-89.25	0.075	-27.075	-89.25	0.075	-47.075	-89.25	0.075	-87.075	-89.25		
0.078	-6.078	-89.22	0.078	-11.078	-89.22	0.078	-15.078	-89.22	0.078	-27.078	-89.22	0.078	-47.078	-89.22	0.078	-87.078	-89.22		
0.081	-6.081	-89.19	0.081	-11.081	-89.19	0.081	-15.081	-89.19	0.081	-27.081	-89.19	0.081	-47.081	-89.19	0.081	-87.081	-89.19		
0.084	-6.084	-89.16	0.084	-11.084	-89.16	0.084	-15.084	-89.16	0.084	-27.084	-89.16	0.084	-47.084	-89.16	0.084	-87.084	-89.16		
0.087	-6.087	-89.13	0.087	-11.087	-89.13	0.087	-15.087	-89.13	0.087	-27.087	-89.13	0.087	-47.087	-89.13	0.087	-87.087	-89.13		
0.090	-6.090	-89.10	0.090	-11.090	-89.10	0.090	-15.090	-89.10	0.090	-27.090	-89.10	0.090	-47.090	-89.10	0.090	-87.090	-89.10		
0.105	-5.993	-88.01	0.105	-10.993	-88.01	0.105	-14.993	-88.01	0.105	-26.993	-88.01	0.105	-46.993	-88.01	0.105	-86.993	-88.01		
0.120	-5.939	-86.56	0.120	-10.939	-86.56	0.120	-14.939	-86.56	0.120	-26.939	-86.56	0.120	-46.939	-86.56	0.120	-86.939	-86.56		
0.135	-5.879	-85.18	0.135	-10.879	-85.18	0.135	-14.879	-85.18	0.135	-26.879	-85.18	0.135	-46.879	-85.18	0.135	-86.879	-85.18		
0.150	-5.815	-83.86	0.150	-10.815	-83.86	0.150	-14.815	-83.86	0.150	-26.815	-83.86	0.150	-46.815	-83.86	0.150	-86.815	-83.86		
0.165	-5.746	-82.55	0.165	-10.746	-82.55	0.165	-14.746	-82.55	0.165	-26.746	-82.55	0.165	-46.746	-82.55	0.165	-86.746	-82.55		
0.180	-5.675	-81.24	0.180	-10.675	-81.24	0.180	-14.675	-81.24	0.180	-26.675	-81.24	0.180	-46.675	-81.24	0.180	-86.675	-81.24		
0.195	-5.602	-79.93	0.195	-10.602	-79.93	0.195	-14.602	-79.93	0.195	-26.602	-79.93	0.195	-46.602	-79.93	0.195	-86.602	-79.93		
0.210	-5.528	-78.61	0.210	-10.528	-78.61	0.210	-14.528	-78.61	0.210	-26.528	-78.61	0.210	-46.528	-78.61	0.210	-86.528	-78.61		
0.225	-5.453	-77.30	0.225	-10.453	-77.30	0.225	-14.453	-77.30	0.225	-26.453	-77.30	0.225	-46.453	-77.30	0.225	-86.453	-77.30		
0.240	-5.378	-75.99	0.240	-10.378	-75.99	0.240	-14.378	-75.99	0.240	-26.378	-75.99	0.240	-46.378	-75.99	0.240	-86.378	-75.99		
0.255	-5.303	-74.68	0.255	-10.303	-74.68	0.255	-14.303	-74.68	0.255	-26.303	-74.68	0.255	-46.303	-74.68	0.255	-86.303	-74.68		
0.270	-5.228	-73.37	0.270	-10.228	-73.37	0.270	-14.228	-73.37	0.270	-26.228	-73.37	0.270	-46.228	-73.37	0.270	-86.228	-73.37		
0.285	-5.153	-72.06	0.285	-10.153	-72.06	0.285	-14.153	-72.06	0.285	-26.153	-72.06	0.285	-46.153	-72.06	0.285	-86.153	-72.06		
0.300	-5.078	-70.75	0.300	-10.078	-70.75	0.300	-14.078	-70.75	0.300	-26.078	-70.75	0.300	-46.078	-70.75	0.300	-86.078	-70.75		

Table 42. Vertical Electric Field (Fresh Water), Frequency = 1.0 MHz, VED Height = 224.76 m

HEIGHT (KM)	3.0 KM DOWNRANGE			10.0 KM DOWNRANGE			30.0 KM DOWNRANGE			100.0 KM DOWNRANGE		
	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)
0.00	-5.381	-18.41	0.000	-10.417	-37.03	0.000	-17.514	-55.24	0.000	-27.378	-67.62	0.000
.003	-5.367	-18.01	.010	-10.436	-35.72	.010	-17.556	-51.30	.010	-27.367	-54.52	.010
.006	-5.351	-17.62	.020	-10.449	-34.41	.020	-17.559	-47.41	.020	-26.939	-42.30	.020
.009	-5.336	-17.22	.030	-10.457	-33.12	.030	-17.520	-43.60	.030	-26.218	-31.81	.030
.012	-5.300	-16.83	.040	-10.460	-31.84	.040	-17.443	-39.90	.040	-25.546	-23.24	.040
.015	-5.303	-16.44	.050	-10.458	-30.58	.050	-17.333	-36.34	.050	-24.427	-16.41	.050
.018	-5.307	-16.05	.060	-10.452	-29.33	.060	-17.194	-32.93	.060	-23.521	-10.96	.060
.021	-5.309	-15.66	.070	-10.441	-28.10	.070	-17.029	-29.70	.070	-22.658	-5.07	.070
.024	-5.312	-15.28	.080	-10.426	-26.89	.080	-16.844	-26.64	.080	-21.849	-1.16	.080
.027	-5.316	-14.90	.090	-10.406	-25.69	.090	-16.642	-23.77	.090	-21.097	2.45	.090
.030	-5.317	-14.52	.100	-10.383	-24.52	.100	-16.427	-21.07	.100	-20.400	6.29	.100
.033	-5.319	-14.14	.110	-10.357	-23.37	.110	-16.203	-18.56	.110	-19.753	10.03	.110
.036	-5.319	-13.77	.120	-10.327	-22.24	.120	-15.972	-16.21	.120	-19.153	13.59	.120
.039	-5.320	-13.40	.130	-10.294	-21.13	.130	-15.737	-14.02	.130	-18.595	17.02	.130
.042	-5.320	-13.03	.140	-10.257	-20.04	.140	-15.500	-11.98	.140	-18.074	20.32	.140
.045	-5.321	-12.67	.150	-10.219	-18.96	.150	-15.262	-10.08	.150	-17.598	23.59	.150
.048	-5.321	-12.30	.160	-10.177	-17.94	.160	-15.025	-8.31	.160	-17.132	26.84	.160
.051	-5.320	-11.94	.170	-10.133	-16.92	.170	-14.791	-6.67	.170	-16.704	30.07	.170
.054	-5.320	-11.59	.180	-10.088	-15.93	.180	-14.560	-5.13	.180	-16.301	33.27	.180
.057	-5.319	-11.23	.190	-10.040	-14.96	.190	-14.332	-3.70	.190	-15.921	36.44	.190
.060	-5.318	-10.88	.200	-9.990	-14.01	.200	-14.106	-2.37	.200	-15.561	39.59	.200
.063	-5.317	-10.53	.210	-9.939	-13.08	.210	-13.889	-1.12	.210	-15.221	42.64	.210
.066	-5.316	-10.18	.220	-9.886	-12.16	.220	-13.675	.05	.220	-14.899	45.69	.220
.069	-5.315	-9.84	.230	-9.832	-11.30	.230	-13.466	1.14	.230	-14.592	48.74	.230
.072	-5.313	-9.50	.240	-9.777	-10.44	.240	-13.262	2.17	.240	-14.300	51.79	.240
.075	-5.311	-9.16	.250	-9.721	-9.61	.250	-13.063	3.13	.250	-14.022	54.84	.250
.078	-5.309	-8.83	.260	-9.665	-8.75	.260	-12.869	4.04	.260	-13.757	57.89	.260
.081	-5.307	-8.49	.270	-9.607	-7.90	.270	-12.681	4.89	.270	-13.503	60.94	.270
.084	-5.305	-8.16	.280	-9.549	-7.23	.280	-12.497	5.70	.280	-13.261	63.99	.280
.087	-5.302	-7.83	.290	-9.490	-6.56	.290	-12.314	6.45	.290	-13.029	67.04	.290
.090	-5.300	-7.51	.300	-9.432	-5.74	.300	-12.140	7.17	.300	-12.800	70.09	.300
.105	-5.300	-5.93	.350	-9.135	-2.96	.350	-11.342	10.23	.350	-11.518	19.59	.350
.120	-5.311	-4.41	.400	-8.841	.50	.400	-10.555	12.62	.400	-10.998	28.58	.400
.135	-5.325	-2.96	.450	-8.556	3.19	.450	-10.054	14.53	.450	-10.307	37.58	.450
.150	-5.340	-1.57	.500	-8.289	5.47	.500	-9.524	16.04	.500	-9.719	46.58	.500
.165	-5.360	-.24	.550	-8.037	7.49	.550	-9.070	17.40	.550	-9.213	55.58	.550
.180	-5.374	1.03	.600	-7.804	9.26	.600	-8.685	18.52	.600	-8.779	64.57	.600
.195	-5.395	2.25	.650	-7.590	10.87	.650	-8.315	19.49	.650	-8.397	73.56	.650
.210	-5.429	3.41	.700	-7.396	12.31	.700	-8.000	20.35	.700	-8.060	82.55	.700
.225	-5.470	4.53	.750	-7.220	13.61	.750	-7.735	21.12	.750	-7.779	91.54	.750
.240	-5.507	5.61	.800	-7.063	14.80	.800	-7.498	21.82	.800	-7.529	100.53	.800
.255	-5.507	6.65	.850	-6.924	15.89	.850	-7.292	22.46	.850	-7.312	109.52	.850
.270	-5.521	7.65	.900	-6.803	16.89	.900	-7.100	23.06	.900	-7.125	118.51	.900
.285	-5.540	8.61	.950	-6.696	17.83	.950	-6.924	23.63	.950	-6.964	127.50	.950
.300	-5.564	9.55	1.000	-6.609	18.71	1.000	-6.824	24.17	1.000	-6.827	136.49	1.000

Table 43. Vertical Electric Field (Fresh Water), Frequency = 1.0 MHz, VED Height = 449.52 m

3.0 KM DOWNRANGE					30.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)
0.000	-4.177	-9.18	0.000	-6.933	-22.58	0.000	-13.820	-37.27	0.000	-25.487	-47.777	0.000	-25.487	-47.777
0.003	-4.162	-9.78	0.010	-6.951	-21.26	0.030	-15.863	-33.33	0.100	-25.476	-34.67	0.200	-25.476	-34.67
0.006	-4.167	-9.38	0.020	-6.964	-19.96	0.060	-15.864	-29.43	0.300	-25.469	-22.44	0.400	-25.469	-22.44
0.009	-4.172	-7.98	0.030	-6.973	-18.56	0.090	-15.867	-25.61	0.500	-25.464	-11.94	0.600	-25.464	-11.94
0.012	-4.177	-7.58	0.040	-6.978	-17.36	0.120	-15.873	-21.90	0.700	-25.458	-3.36	0.800	-25.458	-3.36
0.015	-4.182	-7.18	0.050	-6.979	-16.11	0.150	-15.886	-18.43	0.900	-25.450	3.50	1.000	-25.450	3.50
0.018	-4.187	-6.80	0.060	-6.976	-14.85	0.180	-15.910	-14.90	1.100	-25.435	8.96	1.200	-25.435	8.96
0.021	-4.192	-6.42	0.070	-6.973	-13.61	0.210	-15.935	-11.40	1.300	-25.417	13.94	1.400	-25.417	13.94
0.024	-4.197	-6.03	0.080	-6.968	-12.39	0.240	-15.970	-8.57	1.500	-25.398	18.90	1.600	-25.398	18.90
0.027	-4.202	-5.64	0.090	-6.960	-11.19	0.270	-16.010	-5.66	1.700	-25.378	23.87	1.800	-25.378	23.87
0.030	-4.207	-5.25	0.100	-6.950	-10.00	0.300	-16.050	-2.74	1.900	-25.358	28.84	2.000	-25.358	28.84
0.033	-4.212	-4.86	0.110	-6.941	-8.83	0.330	-16.090	0.18	2.100	-25.338	33.81	2.200	-25.338	33.81
0.036	-4.217	-4.47	0.120	-6.930	-7.68	0.360	-16.130	3.06	2.300	-25.318	38.78	2.400	-25.318	38.78
0.039	-4.222	-4.08	0.130	-6.919	-6.54	0.390	-16.170	5.94	2.500	-25.298	43.75	2.600	-25.298	43.75
0.042	-4.227	-3.69	0.140	-6.908	-5.41	0.420	-16.210	8.82	2.700	-25.278	48.72	2.800	-25.278	48.72
0.045	-4.232	-3.30	0.150	-6.897	-4.28	0.450	-16.250	11.70	2.900	-25.258	53.69	3.000	-25.258	53.69
0.048	-4.237	-2.91	0.160	-6.886	-3.15	0.480	-16.290	14.58	3.100	-25.238	58.66	3.200	-25.238	58.66
0.051	-4.242	-2.52	0.170	-6.875	-2.02	0.510	-16.330	17.46	3.300	-25.218	63.63	3.400	-25.218	63.63
0.054	-4.247	-2.13	0.180	-6.864	-0.89	0.540	-16.370	20.34	3.500	-25.198	68.60	3.600	-25.198	68.60
0.057	-4.252	-1.74	0.190	-6.853	0.24	0.570	-16.410	23.22	3.700	-25.178	73.57	3.800	-25.178	73.57
0.060	-4.257	-1.35	0.200	-6.842	1.11	0.600	-16.450	26.10	3.900	-25.158	78.54	4.000	-25.158	78.54
0.063	-4.262	-0.96	0.210	-6.831	2.00	0.630	-16.490	28.98	4.100	-25.138	83.51	4.200	-25.138	83.51
0.066	-4.267	-0.57	0.220	-6.820	2.87	0.660	-16.530	31.86	4.300	-25.118	88.48	4.400	-25.118	88.48
0.069	-4.272	-0.18	0.230	-6.809	3.75	0.690	-16.570	34.74	4.500	-25.098	93.45	4.600	-25.098	93.45
0.072	-4.277	0.21	0.240	-6.798	4.62	0.720	-16.610	37.62	4.700	-25.078	98.42	4.800	-25.078	98.42
0.075	-4.282	0.60	0.250	-6.787	5.50	0.750	-16.650	40.50	4.900	-25.058	103.39	5.000	-25.058	103.39
0.078	-4.287	0.99	0.260	-6.776	6.37	0.780	-16.690	43.38	5.100	-25.038	108.36	5.200	-25.038	108.36
0.081	-4.292	1.38	0.270	-6.765	7.25	0.810	-16.730	46.26	5.300	-25.018	113.33	5.400	-25.018	113.33
0.084	-4.297	1.77	0.280	-6.754	8.12	0.840	-16.770	49.14	5.500	-24.998	118.30	5.600	-24.998	118.30
0.087	-4.302	2.16	0.290	-6.743	9.00	0.870	-16.810	52.02	5.700	-24.978	123.27	5.800	-24.978	123.27
0.090	-4.307	2.55	0.300	-6.732	9.87	0.900	-16.850	54.90	5.900	-24.958	128.24	6.000	-24.958	128.24
0.105	-4.337	3.82	0.350	-6.800	13.42	1.050	-17.000	68.46	6.500	-25.000	140.00	6.600	-25.000	140.00
0.120	-4.367	5.09	0.400	-6.868	16.84	1.200	-17.150	82.02	7.000	-25.040	151.76	7.100	-25.040	151.76
0.135	-4.397	6.36	0.450	-6.936	20.26	1.350	-17.300	95.58	7.500	-25.080	163.52	7.600	-25.080	163.52
0.150	-4.427	7.63	0.500	-6.999	23.68	1.500	-17.450	109.14	8.000	-25.120	175.28	8.100	-25.120	175.28
0.165	-4.457	8.90	0.550	-7.062	27.10	1.650	-17.600	122.70	8.500	-25.160	187.04	8.600	-25.160	187.04
0.180	-4.487	10.17	0.600	-7.125	30.52	1.800	-17.750	136.26	9.000	-25.200	198.80	9.100	-25.200	198.80
0.195	-4.517	11.44	0.650	-7.188	33.94	1.950	-17.900	149.82	9.500	-25.240	210.56	9.600	-25.240	210.56
0.210	-4.547	12.71	0.700	-7.251	37.36	2.100	-18.050	163.38	10.000	-25.280	222.32	10.100	-25.280	222.32
0.225	-4.577	13.98	0.750	-7.314	40.78	2.250	-18.200	176.94	10.500	-25.320	234.08	10.600	-25.320	234.08
0.240	-4.607	15.25	0.800	-7.377	44.20	2.400	-18.350	190.50	11.000	-25.360	245.84	11.100	-25.360	245.84
0.255	-4.637	16.52	0.850	-7.440	47.62	2.550	-18.500	204.06	11.500	-25.400	257.60	11.600	-25.400	257.60
0.270	-4.667	17.79	0.900	-7.503	51.04	2.700	-18.650	217.62	12.000	-25.440	269.36	12.100	-25.440	269.36
0.285	-4.697	19.06	0.950	-7.566	54.46	2.850	-18.800	231.18	12.500	-25.480	281.12	12.600	-25.480	281.12
0.300	-4.727	20.33	1.000	-7.629	57.88	3.000	-18.950	244.74	13.000	-25.520	292.88	13.100	-25.520	292.88

Table 44. Vertical Electric Field (Fresh Water), Frequency = 10.0 MHz, VED Height = 0.00 m

3.0 KM UMRANGE				10.0 KM UMRANGE				30.0 KM UMRANGE				100.0 KM UMRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
0.000	-16.706	-76.99	0.000	-26.368	-84.80	0.000	-37.812	-89.06	0.000	-48.282	-90.61	0.000	-58.905	-92.43	0.000
0.003	-16.690	-69.02	0.010	-26.162	-71.76	0.030	-36.155	-84.15	0.100	-46.867	-83.44	0.300	-57.525	-85.34	0.500
0.006	-16.632	-62.15	0.020	-27.572	-60.10	0.060	-35.254	-76.73	0.200	-45.139	-80.32	0.500	-55.742	-84.24	0.700
0.009	-16.530	-61.40	0.030	-26.748	-50.39	0.120	-34.654	-68.44	0.300	-43.970	-75.18	0.500	-53.542	-83.70	0.700
0.012	-16.405	-57.81	0.040	-25.864	-42.60	0.200	-33.571	-61.64	0.500	-42.364	-70.40	0.700	-51.444	-83.27	0.900
0.015	-16.243	-54.39	0.050	-24.886	-36.44	0.300	-32.324	-54.40	0.500	-40.800	-65.99	0.700	-49.502	-82.85	0.900
0.018	-16.057	-51.15	0.070	-23.981	-31.55	0.400	-31.046	-47.54	0.600	-39.402	-61.30	0.800	-47.804	-82.43	1.000
0.021	-17.851	-48.11	0.080	-23.127	-27.54	0.500	-29.834	-41.85	0.700	-38.067	-57.42	0.900	-46.202	-82.02	1.100
0.024	-17.620	-45.27	0.090	-22.331	-24.46	0.600	-28.710	-37.84	0.800	-36.834	-53.70	1.000	-44.705	-81.61	1.200
0.027	-17.394	-42.27	0.090	-21.594	-21.85	0.700	-27.587	-34.70	0.900	-35.695	-50.14	1.100	-43.317	-81.20	1.300
0.030	-17.150	-40.14	0.100	-20.871	-20.34	0.800	-26.462	-31.47	1.000	-34.551	-46.66	1.200	-42.064	-80.79	1.400
0.033	-16.901	-37.85	0.110	-20.276	-19.84	0.900	-25.314	-28.12	1.100	-33.404	-43.29	1.300	-40.904	-80.38	1.500
0.036	-16.649	-35.72	0.120	-19.687	-18.64	1.000	-24.164	-24.80	1.200	-32.254	-40.04	1.400	-39.737	-79.97	1.600
0.039	-16.390	-33.74	0.130	-19.139	-17.53	1.100	-23.014	-21.47	1.300	-31.104	-36.84	1.500	-38.564	-79.56	1.700
0.042	-16.143	-31.91	0.140	-18.639	-16.47	1.200	-21.864	-18.14	1.400	-29.954	-33.64	1.600	-37.387	-79.15	1.800
0.045	-15.892	-30.21	0.150	-18.146	-15.46	1.300	-20.714	-14.80	1.500	-28.804	-30.44	1.700	-36.204	-78.74	1.900
0.048	-15.644	-28.64	0.160	-17.698	-14.53	1.400	-19.564	-11.47	1.600	-27.654	-27.24	1.800	-35.024	-78.33	2.000
0.051	-15.400	-27.17	0.170	-17.275	-13.05	1.500	-18.414	-8.14	1.700	-26.504	-24.04	1.900	-33.844	-77.92	2.100
0.054	-15.160	-25.81	0.180	-16.871	-11.53	1.600	-17.264	-4.80	1.800	-25.354	-20.84	2.000	-32.664	-77.51	2.200
0.057	-14.925	-24.55	0.190	-16.500	-9.70	1.700	-16.114	-1.47	1.900	-24.204	-17.64	2.100	-31.484	-77.10	2.300
0.060	-14.694	-23.37	0.200	-16.164	-7.94	1.800	-14.964	1.84	2.000	-23.054	-14.44	2.200	-30.304	-76.69	2.400
0.063	-14.469	-22.27	0.210	-15.862	-6.13	1.900	-13.814	5.17	2.100	-21.904	-11.24	2.300	-29.124	-76.28	2.500
0.066	-14.250	-21.25	0.220	-15.584	-4.30	2.000	-12.664	8.50	2.200	-20.754	-8.04	2.400	-27.944	-75.87	2.600
0.069	-14.032	-20.24	0.230	-15.317	-2.47	2.100	-11.514	11.84	2.300	-19.604	-4.84	2.500	-26.764	-75.46	2.700
0.072	-13.820	-19.24	0.240	-15.067	-0.64	2.200	-10.364	15.17	2.400	-18.454	-1.64	2.600	-25.584	-75.05	2.800
0.075	-13.613	-18.26	0.250	-14.824	1.19	2.300	-9.214	18.50	2.500	-17.304	1.54	2.700	-24.404	-74.64	2.900
0.078	-13.412	-17.31	0.260	-14.584	2.94	2.400	-8.064	21.84	2.600	-16.154	4.87	2.800	-23.224	-74.23	3.000
0.081	-13.216	-16.38	0.270	-14.344	4.79	2.500	-6.914	25.17	2.700	-15.004	8.20	2.900	-22.044	-73.82	3.100
0.084	-13.024	-15.46	0.280	-14.104	6.64	2.600	-5.764	28.50	2.800	-13.854	11.54	3.000	-20.864	-73.41	3.200
0.087	-12.836	-14.56	0.290	-13.864	8.49	2.700	-4.614	31.84	2.900	-12.704	14.87	3.100	-19.684	-73.00	3.300
0.090	-12.653	-13.67	0.300	-13.624	10.34	2.800	-3.464	35.17	3.000	-11.554	18.20	3.200	-18.504	-72.59	3.400
0.105	-11.882	-12.40	0.350	-12.375	-4.30	3.500	-16.427	-1.04	4.000	-10.304	-7.04	4.500	-9.054	-65.43	5.000
0.120	-11.142	-10.47	0.400	-11.528	-3.76	4.000	-15.267	-1.57	4.500	-9.154	-7.57	5.000	-7.904	-64.00	5.500
0.135	-10.507	-8.92	0.450	-10.805	-3.20	4.500	-14.094	-2.10	5.000	-8.004	-8.10	5.500	-6.754	-62.57	6.000
0.150	-9.874	-7.68	0.500	-10.179	-2.61	5.000	-12.924	-2.64	5.500	-6.854	-8.64	6.000	-5.604	-61.14	6.500
0.165	-9.243	-6.68	0.550	-9.530	-2.04	5.500	-11.754	-3.17	6.000	-5.704	-9.17	6.500	-4.454	-59.71	7.000
0.180	-8.614	-5.86	0.600	-8.884	-1.47	6.000	-10.584	-3.70	6.500	-4.554	-9.70	7.000	-3.304	-58.28	7.500
0.195	-8.004	-5.10	0.650	-8.234	-0.90	6.500	-9.414	-4.23	7.000	-3.404	-10.23	7.500	-2.154	-56.85	8.000
0.210	-7.404	-4.41	0.700	-7.584	-0.33	7.000	-8.244	-4.76	7.500	-2.254	-10.76	8.000	-1.004	-55.42	8.500
0.225	-6.814	-3.82	0.750	-6.934	0.24	7.500	-7.074	-5.29	8.000	-1.104	-11.29	8.500	0.154	-54.00	9.000
0.240	-6.234	-3.23	0.800	-6.284	0.81	8.000	-5.904	-5.82	8.500	0.004	-11.82	9.000	1.004	-52.57	9.500
0.255	-5.654	-2.64	0.850	-5.634	1.38	8.500	-4.734	-6.35	9.000	0.854	-12.35	9.500	1.854	-51.14	10.000
0.270	-5.074	-2.05	0.900	-4.984	1.95	9.000	-3.564	-6.88	9.500	1.704	-12.88	10.000	2.704	-49.71	10.500
0.285	-4.494	-1.46	0.950	-4.334	2.52	9.500	-2.394	-7.41	10.000	2.554	-13.41	10.500	3.554	-48.28	11.000
0.300	-3.914	-0.87	1.000	-3.684	3.09	10.000	-1.224	-7.94							

Table 45. Vertical Electric Field (Fresh Water), Frequency = 10.0 MHz, VED Height = 22.48 m

3.0 KM UOMRANGE					10.0 KM UOMRANGE					100.0 KM UOMRANGE				
ME/LMT	AMP	PHASE	ME/LMT	AMP	PHASE	ME/LMT	AMP	PHASE	ME/LMT	AMP	PHASE	ME/LMT	AMP	PHASE
(KM)	(DB)	(DEG)	(KM)	(DB)	(DEG)	(KM)	(DB)	(DEG)	(KM)	(DB)	(DEG)	(KM)	(DB)	(DEG)
0.00	-17.76	-46.88	0.00	-27.30	-57.51	0.00	-36.81	-61.45	0.00	-47.25	-62.88	0.00	-47.25	-62.88
.003	-17.76	-46.88	.003	-27.30	-57.51	.003	-36.81	-61.45	.003	-47.25	-62.88	.003	-47.25	-62.88
.006	-17.76	-46.88	.006	-27.30	-57.51	.006	-36.81	-61.45	.006	-47.25	-62.88	.006	-47.25	-62.88
.009	-17.76	-46.88	.009	-27.30	-57.51	.009	-36.81	-61.45	.009	-47.25	-62.88	.009	-47.25	-62.88
.012	-17.76	-46.88	.012	-27.30	-57.51	.012	-36.81	-61.45	.012	-47.25	-62.88	.012	-47.25	-62.88
.015	-17.76	-46.88	.015	-27.30	-57.51	.015	-36.81	-61.45	.015	-47.25	-62.88	.015	-47.25	-62.88
.018	-17.76	-46.88	.018	-27.30	-57.51	.018	-36.81	-61.45	.018	-47.25	-62.88	.018	-47.25	-62.88
.021	-17.76	-46.88	.021	-27.30	-57.51	.021	-36.81	-61.45	.021	-47.25	-62.88	.021	-47.25	-62.88
.024	-17.76	-46.88	.024	-27.30	-57.51	.024	-36.81	-61.45	.024	-47.25	-62.88	.024	-47.25	-62.88
.027	-17.76	-46.88	.027	-27.30	-57.51	.027	-36.81	-61.45	.027	-47.25	-62.88	.027	-47.25	-62.88
.030	-17.76	-46.88	.030	-27.30	-57.51	.030	-36.81	-61.45	.030	-47.25	-62.88	.030	-47.25	-62.88
.033	-17.76	-46.88	.033	-27.30	-57.51	.033	-36.81	-61.45	.033	-47.25	-62.88	.033	-47.25	-62.88
.036	-17.76	-46.88	.036	-27.30	-57.51	.036	-36.81	-61.45	.036	-47.25	-62.88	.036	-47.25	-62.88
.039	-17.76	-46.88	.039	-27.30	-57.51	.039	-36.81	-61.45	.039	-47.25	-62.88	.039	-47.25	-62.88
.042	-17.76	-46.88	.042	-27.30	-57.51	.042	-36.81	-61.45	.042	-47.25	-62.88	.042	-47.25	-62.88
.045	-17.76	-46.88	.045	-27.30	-57.51	.045	-36.81	-61.45	.045	-47.25	-62.88	.045	-47.25	-62.88
.048	-17.76	-46.88	.048	-27.30	-57.51	.048	-36.81	-61.45	.048	-47.25	-62.88	.048	-47.25	-62.88
.051	-17.76	-46.88	.051	-27.30	-57.51	.051	-36.81	-61.45	.051	-47.25	-62.88	.051	-47.25	-62.88
.054	-17.76	-46.88	.054	-27.30	-57.51	.054	-36.81	-61.45	.054	-47.25	-62.88	.054	-47.25	-62.88
.057	-17.76	-46.88	.057	-27.30	-57.51	.057	-36.81	-61.45	.057	-47.25	-62.88	.057	-47.25	-62.88
.060	-17.76	-46.88	.060	-27.30	-57.51	.060	-36.81	-61.45	.060	-47.25	-62.88	.060	-47.25	-62.88
.063	-17.76	-46.88	.063	-27.30	-57.51	.063	-36.81	-61.45	.063	-47.25	-62.88	.063	-47.25	-62.88
.066	-17.76	-46.88	.066	-27.30	-57.51	.066	-36.81	-61.45	.066	-47.25	-62.88	.066	-47.25	-62.88
.069	-17.76	-46.88	.069	-27.30	-57.51	.069	-36.81	-61.45	.069	-47.25	-62.88	.069	-47.25	-62.88
.072	-17.76	-46.88	.072	-27.30	-57.51	.072	-36.81	-61.45	.072	-47.25	-62.88	.072	-47.25	-62.88
.075	-17.76	-46.88	.075	-27.30	-57.51	.075	-36.81	-61.45	.075	-47.25	-62.88	.075	-47.25	-62.88
.078	-17.76	-46.88	.078	-27.30	-57.51	.078	-36.81	-61.45	.078	-47.25	-62.88	.078	-47.25	-62.88
.081	-17.76	-46.88	.081	-27.30	-57.51	.081	-36.81	-61.45	.081	-47.25	-62.88	.081	-47.25	-62.88
.084	-17.76	-46.88	.084	-27.30	-57.51	.084	-36.81	-61.45	.084	-47.25	-62.88	.084	-47.25	-62.88
.087	-17.76	-46.88	.087	-27.30	-57.51	.087	-36.81	-61.45	.087	-47.25	-62.88	.087	-47.25	-62.88
.090	-17.76	-46.88	.090	-27.30	-57.51	.090	-36.81	-61.45	.090	-47.25	-62.88	.090	-47.25	-62.88
.105	-17.76	-46.88	.105	-27.30	-57.51	.105	-36.81	-61.45	.105	-47.25	-62.88	.105	-47.25	-62.88
.120	-17.76	-46.88	.120	-27.30	-57.51	.120	-36.81	-61.45	.120	-47.25	-62.88	.120	-47.25	-62.88
.135	-17.76	-46.88	.135	-27.30	-57.51	.135	-36.81	-61.45	.135	-47.25	-62.88	.135	-47.25	-62.88
.150	-17.76	-46.88	.150	-27.30	-57.51	.150	-36.81	-61.45	.150	-47.25	-62.88	.150	-47.25	-62.88
.165	-17.76	-46.88	.165	-27.30	-57.51	.165	-36.81	-61.45	.165	-47.25	-62.88	.165	-47.25	-62.88
.180	-17.76	-46.88	.180	-27.30	-57.51	.180	-36.81	-61.45	.180	-47.25	-62.88	.180	-47.25	-62.88
.195	-17.76	-46.88	.195	-27.30	-57.51	.195	-36.81	-61.45	.195	-47.25	-62.88	.195	-47.25	-62.88
.210	-17.76	-46.88	.210	-27.30	-57.51	.210	-36.81	-61.45	.210	-47.25	-62.88	.210	-47.25	-62.88
.225	-17.76	-46.88	.225	-27.30	-57.51	.225	-36.81	-61.45	.225	-47.25	-62.88	.225	-47.25	-62.88
.240	-17.76	-46.88	.240	-27.30	-57.51	.240	-36.81	-61.45	.240	-47.25	-62.88	.240	-47.25	-62.88
.255	-17.76	-46.88	.255	-27.30	-57.51	.255	-36.81	-61.45	.255	-47.25	-62.88	.255	-47.25	-62.88
.270	-17.76	-46.88	.270	-27.30	-57.51	.270	-36.81	-61.45	.270	-47.25	-62.88	.270	-47.25	-62.88
.285	-17.76	-46.88	.285	-27.30	-57.51	.285	-36.81	-61.45	.285	-47.25	-62.88	.285	-47.25	-62.88
.300	-17.76	-46.88	.300	-27.30	-57.51	.300	-36.81	-61.45	.300	-47.25	-62.88	.300	-47.25	-62.88

Table 46. Vertical Electric Field (Fresh Water), Frequency = 10.0 MHz, VED Height = 44.95 m

3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
RELIGHT (KM)	AMP (UB)	PHASE (DEG)	RELIGHT (KM)	AMP (UB)	PHASE (DEG)	RELIGHT (KM)	AMP (UB)	PHASE (DEG)	RELIGHT (KM)	AMP (UB)	PHASE (DEG)	RELIGHT (KM)	AMP (UB)	PHASE (DEG)
0.000	-15.944	-30.24	0.000	-25.357	-37.37	0.000	-34.704	-42.40	0.000	-45.113	-44.07	0.000	-57.132	23.05
0.003	-15.877	-26.20	0.010	-25.150	-26.33	0.000	-33.045	-41.84	0.000	-47.178	34.22	0.000	-57.178	34.22
0.006	-15.860	-22.37	0.020	-24.501	-4.93	0.000	-30.144	11.54	0.000	-48.378	38.20	0.000	-57.178	34.22
0.009	-15.765	-18.61	0.030	-23.736	-4.93	0.000	-27.606	21.60	0.000	-48.378	38.20	0.000	-57.178	34.22
0.012	-15.576	-13.00	0.040	-22.815	2.87	0.000	-25.352	27.40	0.000	-48.378	38.20	0.000	-57.178	34.22
0.015	-15.434	-11.57	0.050	-21.879	9.05	0.000	-23.873	31.11	0.000	-48.378	38.20	0.000	-57.178	34.22
0.018	-15.257	-8.31	0.060	-20.976	13.96	0.000	-22.409	33.64	0.000	-48.378	38.20	0.000	-57.178	34.22
0.021	-15.050	-5.25	0.070	-20.126	17.90	0.000	-21.269	35.43	0.000	-48.378	38.20	0.000	-57.178	34.22
0.024	-14.834	-2.37	0.080	-19.334	21.10	0.000	-20.426	36.94	0.000	-48.378	38.20	0.000	-57.178	34.22
0.027	-14.611	0.32	0.090	-18.600	23.74	0.000	-19.531	38.06	0.000	-48.378	38.20	0.000	-57.178	34.22
0.030	-14.375	2.65	0.100	-17.921	25.95	0.000	-18.592	38.95	0.000	-48.378	38.20	0.000	-57.178	34.22
0.033	-14.134	5.16	0.110	-17.292	27.81	0.000	-17.617	39.70	0.000	-48.378	38.20	0.000	-57.178	34.22
0.036	-13.891	7.34	0.120	-16.708	29.41	0.000	-16.689	40.32	0.000	-48.378	38.20	0.000	-57.178	34.22
0.039	-13.640	9.36	0.130	-16.160	30.78	0.000	-15.800	40.85	0.000	-48.378	38.20	0.000	-57.178	34.22
0.042	-13.402	11.25	0.140	-15.650	31.99	0.000	-15.020	41.32	0.000	-48.378	38.20	0.000	-57.178	34.22
0.045	-13.161	13.00	0.150	-15.188	33.04	0.000	-14.343	41.72	0.000	-48.378	38.20	0.000	-57.178	34.22
0.048	-12.923	14.63	0.160	-14.746	33.98	0.000	-13.762	42.08	0.000	-48.378	38.20	0.000	-57.178	34.22
0.051	-12.689	16.15	0.170	-14.331	34.82	0.000	-13.267	42.40	0.000	-48.378	38.20	0.000	-57.178	34.22
0.054	-12.460	17.57	0.180	-13.941	35.57	0.000	-12.846	42.69	0.000	-48.378	38.20	0.000	-57.178	34.22
0.057	-12.230	18.90	0.190	-13.573	36.25	0.000	-12.486	42.95	0.000	-48.378	38.20	0.000	-57.178	34.22
0.060	-12.017	20.15	0.200	-13.226	36.87	0.000	-12.186	43.18	0.000	-48.378	38.20	0.000	-57.178	34.22
0.063	-11.804	21.31	0.210	-12.898	37.44	0.000	-11.946	43.43	0.000	-48.378	38.20	0.000	-57.178	34.22
0.066	-11.596	22.41	0.220	-12.587	37.96	0.000	-11.766	43.64	0.000	-48.378	38.20	0.000	-57.178	34.22
0.069	-11.395	23.43	0.230	-12.292	38.44	0.000	-11.636	43.83	0.000	-48.378	38.20	0.000	-57.178	34.22
0.072	-11.199	24.40	0.240	-12.011	38.89	0.000	-11.556	44.02	0.000	-48.378	38.20	0.000	-57.178	34.22
0.075	-11.009	25.36	0.250	-11.743	39.30	0.000	-11.526	44.19	0.000	-48.378	38.20	0.000	-57.178	34.22
0.078	-10.825	26.18	0.260	-11.491	39.69	0.000	-11.446	44.36	0.000	-48.378	38.20	0.000	-57.178	34.22
0.081	-10.647	27.00	0.270	-11.249	40.00	0.000	-11.416	44.52	0.000	-48.378	38.20	0.000	-57.178	34.22
0.084	-10.474	27.77	0.280	-11.018	40.40	0.000	-11.386	44.67	0.000	-48.378	38.20	0.000	-57.178	34.22
0.087	-10.307	28.50	0.290	-10.796	40.73	0.000	-11.356	44.81	0.000	-48.378	38.20	0.000	-57.178	34.22
0.090	-10.145	29.20	0.300	-10.587	41.03	0.000	-11.326	44.96	0.000	-48.378	38.20	0.000	-57.178	34.22
0.105	-9.410	32.24	0.350	-9.861	42.36	0.000	-10.586	45.42	0.000	-48.378	38.20	0.000	-57.178	34.22
0.120	-8.707	34.72	0.400	-9.109	43.50	0.000	-9.853	46.23	0.000	-48.378	38.20	0.000	-57.178	34.22
0.135	-8.020	36.60	0.450	-8.292	44.47	0.000	-9.120	46.84	0.000	-48.378	38.20	0.000	-57.178	34.22
0.150	-7.360	38.61	0.500	-7.740	45.41	0.000	-8.387	47.45	0.000	-48.378	38.20	0.000	-57.178	34.22
0.165	-6.723	40.24	0.550	-7.170	46.30	0.000	-7.654	48.06	0.000	-48.378	38.20	0.000	-57.178	34.22
0.180	-6.104	41.74	0.600	-6.591	47.17	0.000	-6.921	48.57	0.000	-48.378	38.20	0.000	-57.178	34.22
0.195	-5.502	43.16	0.650	-6.034	47.94	0.000	-6.188	49.08	0.000	-48.378	38.20	0.000	-57.178	34.22
0.210	-4.912	44.53	0.700	-5.481	48.74	0.000	-5.455	49.59	0.000	-48.378	38.20	0.000	-57.178	34.22
0.225	-4.333	45.89	0.750	-4.931	49.44	0.000	-4.905	50.10	0.000	-48.378	38.20	0.000	-57.178	34.22
0.240	-3.764	47.25	0.800	-4.381	50.15	0.000	-4.355	50.61	0.000	-48.378	38.20	0.000	-57.178	34.22
0.255	-3.205	48.63	0.850	-3.831	50.86	0.000	-3.805	51.12	0.000	-48.378	38.20	0.000	-57.178	34.22
0.270	-2.646	50.00	0.900	-3.281	51.57	0.000	-3.255	51.63	0.000	-48.378	38.20	0.000	-57.178	34.22
0.285	-2.087	51.34	0.950	-2.731	52.28	0.000	-2.705	52.14	0.000	-48.378	38.20	0.000	-57.178	34.22
0.300	-1.528	52.64	1.000	-2.181	52.99	0.000	-2.155	52.65	0.000	-48.378	38.20	0.000	-57.178	34.22

Table 47. Vertical Electric Field (Fresh Water), Frequency = 100.0 MHz, VED Height = 0.00 m

10.0 KM UMBRANCE				30.0 KM UMBRANCE				100.0 KM UMBRANCE				300.0 KM UMBRANCE			
ME (GMT)	AMP (UB)	PHASE (DEG)	ME (GMT)	AMP (UB)	PHASE (DEG)	ME (GMT)	AMP (UB)	ME (GMT)	AMP (UB)	PHASE (DEG)	ME (GMT)	AMP (UB)	PHASE (DEG)	ME (GMT)	AMP (UB)
0.000	-20.300	-83.09	0.000	-37.021	-07.72	0.000	-48.286	0.000	-48.286	-07.06	0.000	-57.007	-04.91	0.000	-57.007
0.001	-20.103	-70.00	0.001	-36.122	-23.14	0.001	-46.253	0.001	-46.253	-26.43	0.001	-46.253	-04.06	0.001	-46.253
0.002	-27.257	-57.09	0.002	-33.220	-33.70	0.002	-34.852	0.002	-34.852	-11.74	0.002	-34.852	-04.01	0.002	-34.852
0.003	-26.121	-44.96	0.003	-30.087	-28.01	0.003	-31.516	0.003	-31.516	-7.77	0.003	-31.516	-04.01	0.003	-31.516
0.004	-25.777	-31.75	0.004	-28.038	-19.26	0.004	-29.132	0.004	-29.132	-5.76	0.004	-29.132	-04.01	0.004	-29.132
0.005	-24.001	-35.05	0.005	-26.961	-14.59	0.005	-27.267	0.005	-27.267	-4.55	0.005	-27.267	-04.01	0.005	-27.267
0.006	-23.926	-30.82	0.006	-25.957	-12.07	0.006	-25.786	0.006	-25.786	-3.74	0.006	-25.786	-04.01	0.006	-25.786
0.007	-23.104	-26.94	0.007	-24.357	-10.23	0.007	-23.524	0.007	-23.524	-3.10	0.007	-23.524	-04.01	0.007	-23.524
0.008	-22.310	-23.80	0.008	-23.314	-8.84	0.008	-22.447	0.008	-22.447	-2.73	0.008	-22.447	-04.01	0.008	-22.447
0.009	-21.574	-21.21	0.009	-22.394	-7.76	0.009	-21.500	0.009	-21.500	-2.34	0.009	-21.500	-04.01	0.009	-21.500
0.010	-20.893	-19.06	0.010	-21.572	-6.89	0.010	-20.650	0.010	-20.650	-2.13	0.010	-20.650	-04.01	0.010	-20.650
0.011	-20.200	-17.44	0.011	-20.833	-6.17	0.011	-20.004	0.011	-20.004	-1.91	0.011	-20.004	-04.01	0.011	-20.004
0.012	-19.503	-15.89	0.012	-20.100	-5.58	0.012	-19.269	0.012	-19.269	-1.73	0.012	-19.269	-04.01	0.012	-19.269
0.013	-18.813	-14.36	0.013	-19.346	-5.08	0.013	-18.504	0.013	-18.504	-1.57	0.013	-18.504	-04.01	0.013	-18.504
0.014	-18.113	-12.81	0.014	-18.580	-4.63	0.014	-17.786	0.014	-17.786	-1.44	0.014	-17.786	-04.01	0.014	-17.786
0.015	-17.413	-11.31	0.015	-17.810	-4.27	0.015	-17.069	0.015	-17.069	-1.33	0.015	-17.069	-04.01	0.015	-17.069
0.016	-16.700	-9.81	0.016	-17.040	-3.95	0.016	-16.304	0.016	-16.304	-1.23	0.016	-16.304	-04.01	0.016	-16.304
0.017	-16.000	-8.31	0.017	-16.270	-3.67	0.017	-15.546	0.017	-15.546	-1.14	0.017	-15.546	-04.01	0.017	-15.546
0.018	-15.300	-6.81	0.018	-15.500	-3.41	0.018	-14.786	0.018	-14.786	-1.07	0.018	-14.786	-04.01	0.018	-14.786
0.019	-14.600	-5.31	0.019	-14.730	-3.19	0.019	-14.024	0.019	-14.024	-1.00	0.019	-14.024	-04.01	0.019	-14.024
0.020	-13.900	-3.81	0.020	-14.000	-2.94	0.020	-13.269	0.020	-13.269	-0.94	0.020	-13.269	-04.01	0.020	-13.269
0.021	-13.200	-2.31	0.021	-13.270	-2.69	0.021	-12.511	0.021	-12.511	-0.86	0.021	-12.511	-04.01	0.021	-12.511
0.022	-12.500	-0.81	0.022	-12.500	-2.40	0.022	-11.752	0.022	-11.752	-0.80	0.022	-11.752	-04.01	0.022	-11.752
0.023	-11.800	0.69	0.023	-11.770	-2.04	0.023	-11.000	0.023	-11.000	-0.74	0.023	-11.000	-04.01	0.023	-11.000
0.024	-11.100	2.19	0.024	-11.040	-1.69	0.024	-10.246	0.024	-10.246	-0.74	0.024	-10.246	-04.01	0.024	-10.246
0.025	-10.400	3.69	0.025	-10.330	-1.35	0.025	-9.492	0.025	-9.492	-0.71	0.025	-9.492	-04.01	0.025	-9.492
0.026	-9.700	5.19	0.026	-9.630	-1.00	0.026	-8.738	0.026	-8.738	-0.67	0.026	-8.738	-04.01	0.026	-8.738
0.027	-9.000	6.69	0.027	-8.930	-0.65	0.027	-8.000	0.027	-8.000	-0.64	0.027	-8.000	-04.01	0.027	-8.000
0.028	-8.300	8.19	0.028	-8.230	-0.30	0.028	-7.246	0.028	-7.246	-0.61	0.028	-7.246	-04.01	0.028	-7.246
0.029	-7.600	9.69	0.029	-7.530	0.05	0.029	-6.492	0.029	-6.492	-0.58	0.029	-6.492	-04.01	0.029	-6.492
0.030	-6.900	11.19	0.030	-6.830	0.40	0.030	-5.738	0.030	-5.738	-0.56	0.030	-5.738	-04.01	0.030	-5.738
0.035	-6.200	12.69	0.035	-6.130	0.75	0.035	-5.000	0.035	-5.000	-0.54	0.035	-5.000	-04.01	0.035	-5.000
0.040	-5.500	14.19	0.040	-5.430	1.10	0.040	-4.246	0.040	-4.246	-0.51	0.040	-4.246	-04.01	0.040	-4.246
0.045	-4.800	15.69	0.045	-4.730	1.45	0.045	-3.492	0.045	-3.492	-0.48	0.045	-3.492	-04.01	0.045	-3.492
0.050	-4.100	17.19	0.050	-4.030	1.80	0.050	-2.738	0.050	-2.738	-0.46	0.050	-2.738	-04.01	0.050	-2.738
0.055	-3.400	18.69	0.055	-3.330	2.15	0.055	-1.984	0.055	-1.984	-0.43	0.055	-1.984	-04.01	0.055	-1.984
0.060	-2.700	20.19	0.060	-2.630	2.50	0.060	-1.230	0.060	-1.230	-0.40	0.060	-1.230	-04.01	0.060	-1.230
0.065	-2.000	21.69	0.065	-1.930	2.85	0.065	-0.476	0.065	-0.476	-0.36	0.065	-0.476	-04.01	0.065	-0.476
0.070	-1.300	23.19	0.070	-1.230	3.20	0.070	0.278	0.070	0.278	-0.33	0.070	0.278	-04.01	0.070	0.278
0.075	-0.600	24.69	0.075	-0.530	3.55	0.075	1.024	0.075	1.024	-0.30	0.075	1.024	-04.01	0.075	1.024
0.080	0.100	26.19	0.080	0.030	3.90	0.080	1.770	0.080	1.770	-0.27	0.080	1.770	-04.01	0.080	1.770
0.085	0.800	27.69	0.085	0.730	4.25	0.085	2.516	0.085	2.516	-0.24	0.085	2.516	-04.01	0.085	2.516
0.090	1.500	29.19	0.090	1.430	4.60	0.090	3.262	0.090	3.262	-0.21	0.090	3.262	-04.01	0.090	3.262
0.095	2.200	30.69	0.095	2.130	4.95	0.095	4.008	0.095	4.008	-0.18	0.095	4.008	-04.01	0.095	4.008
0.100	2.900	32.19	0.100	2.830	5.30	0.100	4.754	0.100	4.754	-0.15	0.100	4.754	-04.01	0.100	4.754

Table 48. Vertical Electric Field (Fresh Water), Frequency = 100.0 MHz, VED Height = 2.25 m

HEIGHT (m)	100 CM DOWNRANGE			300 CM DOWNRANGE			500 CM DOWNRANGE		
	AMPL (V)	PHASE (DEG)	RELINT (V)	AMPL (V)	PHASE (DEG)	RELINT (V)	AMPL (V)	PHASE (DEG)	RELINT (V)
0.00	-27.356	-50.531	0.000	-26.764	-50.453	0.000	-26.172	-50.375	0.000
0.01	-27.342	-50.530	0.003	-26.754	-50.453	0.010	-26.162	-50.375	0.003
0.02	-27.328	-50.529	0.006	-26.744	-50.453	0.020	-26.152	-50.375	0.006
0.03	-27.314	-50.528	0.009	-26.734	-50.453	0.030	-26.142	-50.375	0.009
0.04	-27.300	-50.527	0.012	-26.724	-50.453	0.040	-26.132	-50.375	0.012
0.05	-27.286	-50.526	0.015	-26.714	-50.453	0.050	-26.122	-50.375	0.015
0.06	-27.272	-50.525	0.018	-26.704	-50.453	0.060	-26.112	-50.375	0.018
0.07	-27.258	-50.524	0.021	-26.694	-50.453	0.070	-26.102	-50.375	0.021
0.08	-27.244	-50.523	0.024	-26.684	-50.453	0.080	-26.092	-50.375	0.024
0.09	-27.230	-50.522	0.027	-26.674	-50.453	0.090	-26.082	-50.375	0.027
0.10	-27.216	-50.521	0.030	-26.664	-50.453	0.100	-26.072	-50.375	0.030
0.11	-27.202	-50.520	0.033	-26.654	-50.453	0.110	-26.062	-50.375	0.033
0.12	-27.188	-50.519	0.036	-26.644	-50.453	0.120	-26.052	-50.375	0.036
0.13	-27.174	-50.518	0.039	-26.634	-50.453	0.130	-26.042	-50.375	0.039
0.14	-27.160	-50.517	0.042	-26.624	-50.453	0.140	-26.032	-50.375	0.042
0.15	-27.146	-50.516	0.045	-26.614	-50.453	0.150	-26.022	-50.375	0.045
0.16	-27.132	-50.515	0.048	-26.604	-50.453	0.160	-26.012	-50.375	0.048
0.17	-27.118	-50.514	0.051	-26.594	-50.453	0.170	-26.002	-50.375	0.051
0.18	-27.104	-50.513	0.054	-26.584	-50.453	0.180	-25.992	-50.375	0.054
0.19	-27.090	-50.512	0.057	-26.574	-50.453	0.190	-25.982	-50.375	0.057
0.20	-27.076	-50.511	0.060	-26.564	-50.453	0.200	-25.972	-50.375	0.060
0.21	-27.062	-50.510	0.063	-26.554	-50.453	0.210	-25.962	-50.375	0.063
0.22	-27.048	-50.509	0.066	-26.544	-50.453	0.220	-25.952	-50.375	0.066
0.23	-27.034	-50.508	0.069	-26.534	-50.453	0.230	-25.942	-50.375	0.069
0.24	-27.020	-50.507	0.072	-26.524	-50.453	0.240	-25.932	-50.375	0.072
0.25	-27.006	-50.506	0.075	-26.514	-50.453	0.250	-25.922	-50.375	0.075
0.26	-26.992	-50.505	0.078	-26.504	-50.453	0.260	-25.912	-50.375	0.078
0.27	-26.978	-50.504	0.081	-26.494	-50.453	0.270	-25.902	-50.375	0.081
0.28	-26.964	-50.503	0.084	-26.484	-50.453	0.280	-25.892	-50.375	0.084
0.29	-26.950	-50.502	0.087	-26.474	-50.453	0.290	-25.882	-50.375	0.087
0.30	-26.936	-50.501	0.090	-26.464	-50.453	0.300	-25.872	-50.375	0.090
0.31	-26.922	-50.500	0.093	-26.454	-50.453	0.310	-25.862	-50.375	0.093
0.32	-26.908	-50.499	0.096	-26.444	-50.453	0.320	-25.852	-50.375	0.096
0.33	-26.894	-50.498	0.099	-26.434	-50.453	0.330	-25.842	-50.375	0.099
0.34	-26.880	-50.497	0.102	-26.424	-50.453	0.340	-25.832	-50.375	0.102
0.35	-26.866	-50.496	0.105	-26.414	-50.453	0.350	-25.822	-50.375	0.105
0.36	-26.852	-50.495	0.108	-26.404	-50.453	0.360	-25.812	-50.375	0.108
0.37	-26.838	-50.494	0.111	-26.394	-50.453	0.370	-25.802	-50.375	0.111
0.38	-26.824	-50.493	0.114	-26.384	-50.453	0.380	-25.792	-50.375	0.114
0.39	-26.810	-50.492	0.117	-26.374	-50.453	0.390	-25.782	-50.375	0.117
0.40	-26.796	-50.491	0.120	-26.364	-50.453	0.400	-25.772	-50.375	0.120
0.41	-26.782	-50.490	0.123	-26.354	-50.453	0.410	-25.762	-50.375	0.123
0.42	-26.768	-50.489	0.126	-26.344	-50.453	0.420	-25.752	-50.375	0.126
0.43	-26.754	-50.488	0.129	-26.334	-50.453	0.430	-25.742	-50.375	0.129
0.44	-26.740	-50.487	0.132	-26.324	-50.453	0.440	-25.732	-50.375	0.132
0.45	-26.726	-50.486	0.135	-26.314	-50.453	0.450	-25.722	-50.375	0.135
0.46	-26.712	-50.485	0.138	-26.304	-50.453	0.460	-25.712	-50.375	0.138
0.47	-26.698	-50.484	0.141	-26.294	-50.453	0.470	-25.702	-50.375	0.141
0.48	-26.684	-50.483	0.144	-26.284	-50.453	0.480	-25.692	-50.375	0.144
0.49	-26.670	-50.482	0.147	-26.274	-50.453	0.490	-25.682	-50.375	0.147
0.50	-26.656	-50.481	0.150	-26.264	-50.453	0.500	-25.672	-50.375	0.150
0.51	-26.642	-50.480	0.153	-26.254	-50.453	0.510	-25.662	-50.375	0.153
0.52	-26.628	-50.479	0.156	-26.244	-50.453	0.520	-25.652	-50.375	0.156
0.53	-26.614	-50.478	0.159	-26.234	-50.453	0.530	-25.642	-50.375	0.159
0.54	-26.600	-50.477	0.162	-26.224	-50.453	0.540	-25.632	-50.375	0.162
0.55	-26.586	-50.476	0.165	-26.214	-50.453	0.550	-25.622	-50.375	0.165
0.56	-26.572	-50.475	0.168	-26.204	-50.453	0.560	-25.612	-50.375	0.168
0.57	-26.558	-50.474	0.171	-26.194	-50.453	0.570	-25.602	-50.375	0.171
0.58	-26.544	-50.473	0.174	-26.184	-50.453	0.580	-25.592	-50.375	0.174
0.59	-26.530	-50.472	0.177	-26.174	-50.453	0.590	-25.582	-50.375	0.177
0.60	-26.516	-50.471	0.180	-26.164	-50.453	0.600	-25.572	-50.375	0.180
0.61	-26.502	-50.470	0.183	-26.154	-50.453	0.610	-25.562	-50.375	0.183
0.62	-26.488	-50.469	0.186	-26.144	-50.453	0.620	-25.552	-50.375	0.186
0.63	-26.474	-50.468	0.189	-26.134	-50.453	0.630	-25.542	-50.375	0.189
0.64	-26.460	-50.467	0.192	-26.124	-50.453	0.640	-25.532	-50.375	0.192
0.65	-26.446	-50.466	0.195	-26.114	-50.453	0.650	-25.522	-50.375	0.195
0.66	-26.432	-50.465	0.198	-26.104	-50.453	0.660	-25.512	-50.375	0.198
0.67	-26.418	-50.464	0.201	-26.094	-50.453	0.670	-25.502	-50.375	0.201
0.68	-26.404	-50.463	0.204	-26.084	-50.453	0.680	-25.492	-50.375	0.204
0.69	-26.390	-50.462	0.207	-26.074	-50.453	0.690	-25.482	-50.375	0.207
0.70	-26.376	-50.461	0.210	-26.064	-50.453	0.700	-25.472	-50.375	0.210
0.71	-26.362	-50.460	0.213	-26.054	-50.453	0.710	-25.462	-50.375	0.213
0.72	-26.348	-50.459	0.216	-26.044	-50.453	0.720	-25.452	-50.375	0.216
0.73	-26.334	-50.458	0.219	-26.034	-50.453	0.730	-25.442	-50.375	0.219
0.74	-26.320	-50.457	0.222	-26.024	-50.453	0.740	-25.432	-50.375	0.222
0.75	-26.306	-50.456	0.225	-26.014	-50.453	0.750	-25.422	-50.375	0.225
0.76	-26.292	-50.455	0.228	-26.004	-50.453	0.760	-25.412	-50.375	0.228
0.77	-26.278	-50.454	0.231	-25.994	-50.453	0.770	-25.402	-50.375	0.231
0.78	-26.264	-50.453	0.234	-25.984	-50.453	0.780	-25.392	-50.375	0.234
0.79	-26.250	-50.452	0.237	-25.974	-50.453	0.790	-25.382	-50.375	0.237
0.80	-26.236	-50.451	0.240	-25.964	-50.453	0.800	-25.372	-50.375	0.240
0.81	-26.222	-50.450	0.243	-25.954	-50.453	0.810	-25.362	-50.375	0.243
0.82	-26.208	-50.449	0.246	-25.944	-50.453	0.820	-25.352	-50.375	0.246
0.83	-26.194	-50.448	0.249	-25.934	-50.453	0.830	-25.342	-50.375	0.249
0.84	-26.180	-50.447	0.252	-25.924	-50.453	0.840	-25.332	-50.375	0.252
0.85	-26.166	-50.446	0.255	-25.914	-50.453	0.850	-25.322	-50.375	0.255
0.86	-26.152	-50.445	0.258	-25.904	-50.453	0.860	-25.312	-50.375	0.258
0.87	-26.138	-50.444	0.261	-25.894	-50.453	0.870	-25.302	-50.375	0.261
0.88	-26.124	-50.443	0.264	-25.884	-50.453	0.880	-25.292	-50.375	0.264
0.89	-26.110	-50.442	0.267	-25.874	-50.453	0.890	-25.282	-50.375	0.267
0.90	-26.096	-50.441	0.270	-25.864	-50.453	0.900	-25.272	-50.375	0.270
0.91	-26.082	-50.440	0.273	-25.854	-50.453	0.910	-25.262	-50.375	0.273
0.92	-26.068	-50.439	0.276	-25.844	-50.453	0.920	-25.252	-50.375	0.276
0.93	-26.054	-50.438	0.279	-25.834	-50.453	0.930	-25.242	-50.375	0.279
0.94	-26.040	-50.437	0.282	-25.824	-50.453	0.940	-25.232	-50.375	0.282
0.95	-26.026	-50.436	0.285	-25.814	-50.453	0.950	-25.222	-50.375	0.285
0.96	-26.012	-50.435	0.288	-25.804	-50.453	0.960	-25.212	-50.375	0.288
0.97	-26.000	-50.434	0.291	-25.794	-50.453	0.970	-25.202	-50.375	0.291
0.98	-25.986	-50.433	0.294	-25.784	-50.453	0.980	-25.192	-50.375	0.294
0.99	-25.972	-50.432	0.297	-25.774	-50.453	0.990	-25.182	-50.375	0.297
1.00	-25.958	-50.431	0.300	-25.764	-50.453	1.000	-25.172	-50.375	0.300

Table 49. Vertical Electric Field (Fresh Water), Frequency = 100.0 MHz, VED Height = 4.50 m

10.0 KM UPLINKANCE					10.0 KM DOWNLINKANCE				
Alt (m)	AMP (dB)	PHASE (deg)	Alt (m)	AMP (dB)	PHASE (deg)	Alt (m)	AMP (dB)	PHASE (deg)	Alt (m)
1.05	-25.000	30.000	1.05	-25.000	30.000	1.05	-25.000	30.000	1.05
1.10	-25.000	30.000	1.10	-25.000	30.000	1.10	-25.000	30.000	1.10
1.15	-25.000	30.000	1.15	-25.000	30.000	1.15	-25.000	30.000	1.15
1.20	-25.000	30.000	1.20	-25.000	30.000	1.20	-25.000	30.000	1.20
1.25	-25.000	30.000	1.25	-25.000	30.000	1.25	-25.000	30.000	1.25
1.30	-25.000	30.000	1.30	-25.000	30.000	1.30	-25.000	30.000	1.30
1.35	-25.000	30.000	1.35	-25.000	30.000	1.35	-25.000	30.000	1.35
1.40	-25.000	30.000	1.40	-25.000	30.000	1.40	-25.000	30.000	1.40
1.45	-25.000	30.000	1.45	-25.000	30.000	1.45	-25.000	30.000	1.45
1.50	-25.000	30.000	1.50	-25.000	30.000	1.50	-25.000	30.000	1.50
1.55	-25.000	30.000	1.55	-25.000	30.000	1.55	-25.000	30.000	1.55
1.60	-25.000	30.000	1.60	-25.000	30.000	1.60	-25.000	30.000	1.60
1.65	-25.000	30.000	1.65	-25.000	30.000	1.65	-25.000	30.000	1.65
1.70	-25.000	30.000	1.70	-25.000	30.000	1.70	-25.000	30.000	1.70
1.75	-25.000	30.000	1.75	-25.000	30.000	1.75	-25.000	30.000	1.75
1.80	-25.000	30.000	1.80	-25.000	30.000	1.80	-25.000	30.000	1.80
1.85	-25.000	30.000	1.85	-25.000	30.000	1.85	-25.000	30.000	1.85
1.90	-25.000	30.000	1.90	-25.000	30.000	1.90	-25.000	30.000	1.90
1.95	-25.000	30.000	1.95	-25.000	30.000	1.95	-25.000	30.000	1.95
2.00	-25.000	30.000	2.00	-25.000	30.000	2.00	-25.000	30.000	2.00
2.05	-25.000	30.000	2.05	-25.000	30.000	2.05	-25.000	30.000	2.05
2.10	-25.000	30.000	2.10	-25.000	30.000	2.10	-25.000	30.000	2.10
2.15	-25.000	30.000	2.15	-25.000	30.000	2.15	-25.000	30.000	2.15
2.20	-25.000	30.000	2.20	-25.000	30.000	2.20	-25.000	30.000	2.20
2.25	-25.000	30.000	2.25	-25.000	30.000	2.25	-25.000	30.000	2.25
2.30	-25.000	30.000	2.30	-25.000	30.000	2.30	-25.000	30.000	2.30
2.35	-25.000	30.000	2.35	-25.000	30.000	2.35	-25.000	30.000	2.35
2.40	-25.000	30.000	2.40	-25.000	30.000	2.40	-25.000	30.000	2.40
2.45	-25.000	30.000	2.45	-25.000	30.000	2.45	-25.000	30.000	2.45
2.50	-25.000	30.000	2.50	-25.000	30.000	2.50	-25.000	30.000	2.50
2.55	-25.000	30.000	2.55	-25.000	30.000	2.55	-25.000	30.000	2.55
2.60	-25.000	30.000	2.60	-25.000	30.000	2.60	-25.000	30.000	2.60
2.65	-25.000	30.000	2.65	-25.000	30.000	2.65	-25.000	30.000	2.65
2.70	-25.000	30.000	2.70	-25.000	30.000	2.70	-25.000	30.000	2.70
2.75	-25.000	30.000	2.75	-25.000	30.000	2.75	-25.000	30.000	2.75
2.80	-25.000	30.000	2.80	-25.000	30.000	2.80	-25.000	30.000	2.80
2.85	-25.000	30.000	2.85	-25.000	30.000	2.85	-25.000	30.000	2.85
2.90	-25.000	30.000	2.90	-25.000	30.000	2.90	-25.000	30.000	2.90
2.95	-25.000	30.000	2.95	-25.000	30.000	2.95	-25.000	30.000	2.95
3.00	-25.000	30.000	3.00	-25.000	30.000	3.00	-25.000	30.000	3.00

Table 50. Radial Electric Field (Fresh Water), Frequency = 0.1 MHz, VED Height = 0.00 m

3100 KM CUMULATIVE				1000 KM CUMULATIVE				3100 KM CUMULATIVE			
HEIGHT (FT)	WVF (DB)	PMASE (DB)	RE LUMT (FT)	HEIGHT (FT)	WVF (DB)	PMASE (DB)	RE LUMT (FT)	HEIGHT (FT)	WVF (DB)	PMASE (DB)	RE LUMT (FT)
1.00	-17.612	-10.73	0.000	1.00	-26.931	-10.73	0.000	1.00	-31.467	-10.73	0.000
1.30	-17.676	-10.73	0.000	1.30	-26.931	-10.73	0.000	1.30	-31.467	-10.73	0.000
1.60	-17.740	-10.73	0.000	1.60	-26.931	-10.73	0.000	1.60	-31.467	-10.73	0.000
1.90	-17.804	-10.73	0.000	1.90	-26.931	-10.73	0.000	1.90	-31.467	-10.73	0.000
2.20	-17.868	-10.73	0.000	2.20	-26.931	-10.73	0.000	2.20	-31.467	-10.73	0.000
2.50	-17.932	-10.73	0.000	2.50	-26.931	-10.73	0.000	2.50	-31.467	-10.73	0.000
2.80	-17.996	-10.73	0.000	2.80	-26.931	-10.73	0.000	2.80	-31.467	-10.73	0.000
3.10	-18.060	-10.73	0.000	3.10	-26.931	-10.73	0.000	3.10	-31.467	-10.73	0.000
3.40	-18.124	-10.73	0.000	3.40	-26.931	-10.73	0.000	3.40	-31.467	-10.73	0.000
3.70	-18.188	-10.73	0.000	3.70	-26.931	-10.73	0.000	3.70	-31.467	-10.73	0.000
4.00	-18.252	-10.73	0.000	4.00	-26.931	-10.73	0.000	4.00	-31.467	-10.73	0.000
4.30	-18.316	-10.73	0.000	4.30	-26.931	-10.73	0.000	4.30	-31.467	-10.73	0.000
4.60	-18.380	-10.73	0.000	4.60	-26.931	-10.73	0.000	4.60	-31.467	-10.73	0.000
4.90	-18.444	-10.73	0.000	4.90	-26.931	-10.73	0.000	4.90	-31.467	-10.73	0.000
5.20	-18.508	-10.73	0.000	5.20	-26.931	-10.73	0.000	5.20	-31.467	-10.73	0.000
5.50	-18.572	-10.73	0.000	5.50	-26.931	-10.73	0.000	5.50	-31.467	-10.73	0.000
5.80	-18.636	-10.73	0.000	5.80	-26.931	-10.73	0.000	5.80	-31.467	-10.73	0.000
6.10	-18.700	-10.73	0.000	6.10	-26.931	-10.73	0.000	6.10	-31.467	-10.73	0.000
6.40	-18.764	-10.73	0.000	6.40	-26.931	-10.73	0.000	6.40	-31.467	-10.73	0.000
6.70	-18.828	-10.73	0.000	6.70	-26.931	-10.73	0.000	6.70	-31.467	-10.73	0.000
7.00	-18.892	-10.73	0.000	7.00	-26.931	-10.73	0.000	7.00	-31.467	-10.73	0.000
7.30	-18.956	-10.73	0.000	7.30	-26.931	-10.73	0.000	7.30	-31.467	-10.73	0.000
7.60	-19.020	-10.73	0.000	7.60	-26.931	-10.73	0.000	7.60	-31.467	-10.73	0.000
7.90	-19.084	-10.73	0.000	7.90	-26.931	-10.73	0.000	7.90	-31.467	-10.73	0.000
8.20	-19.148	-10.73	0.000	8.20	-26.931	-10.73	0.000	8.20	-31.467	-10.73	0.000
8.50	-19.212	-10.73	0.000	8.50	-26.931	-10.73	0.000	8.50	-31.467	-10.73	0.000
8.80	-19.276	-10.73	0.000	8.80	-26.931	-10.73	0.000	8.80	-31.467	-10.73	0.000
9.10	-19.340	-10.73	0.000	9.10	-26.931	-10.73	0.000	9.10	-31.467	-10.73	0.000
9.40	-19.404	-10.73	0.000	9.40	-26.931	-10.73	0.000	9.40	-31.467	-10.73	0.000
9.70	-19.468	-10.73	0.000	9.70	-26.931	-10.73	0.000	9.70	-31.467	-10.73	0.000
10.00	-19.532	-10.73	0.000	10.00	-26.931	-10.73	0.000	10.00	-31.467	-10.73	0.000
10.30	-19.596	-10.73	0.000	10.30	-26.931	-10.73	0.000	10.30	-31.467	-10.73	0.000
10.60	-19.660	-10.73	0.000	10.60	-26.931	-10.73	0.000	10.60	-31.467	-10.73	0.000
10.90	-19.724	-10.73	0.000	10.90	-26.931	-10.73	0.000	10.90	-31.467	-10.73	0.000
11.20	-19.788	-10.73	0.000	11.20	-26.931	-10.73	0.000	11.20	-31.467	-10.73	0.000
11.50	-19.852	-10.73	0.000	11.50	-26.931	-10.73	0.000	11.50	-31.467	-10.73	0.000
11.80	-19.916	-10.73	0.000	11.80	-26.931	-10.73	0.000	11.80	-31.467	-10.73	0.000
12.10	-19.980	-10.73	0.000	12.10	-26.931	-10.73	0.000	12.10	-31.467	-10.73	0.000
12.40	-20.044	-10.73	0.000	12.40	-26.931	-10.73	0.000	12.40	-31.467	-10.73	0.000
12.70	-20.108	-10.73	0.000	12.70	-26.931	-10.73	0.000	12.70	-31.467	-10.73	0.000
13.00	-20.172	-10.73	0.000	13.00	-26.931	-10.73	0.000	13.00	-31.467	-10.73	0.000
13.30	-20.236	-10.73	0.000	13.30	-26.931	-10.73	0.000	13.30	-31.467	-10.73	0.000
13.60	-20.300	-10.73	0.000	13.60	-26.931	-10.73	0.000	13.60	-31.467	-10.73	0.000
13.90	-20.364	-10.73	0.000	13.90	-26.931	-10.73	0.000	13.90	-31.467	-10.73	0.000
14.20	-20.428	-10.73	0.000	14.20	-26.931	-10.73	0.000	14.20	-31.467	-10.73	0.000
14.50	-20.492	-10.73	0.000	14.50	-26.931	-10.73	0.000	14.50	-31.467	-10.73	0.000
14.80	-20.556	-10.73	0.000	14.80	-26.931	-10.73	0.000	14.80	-31.467	-10.73	0.000
15.10	-20.620	-10.73	0.000	15.10	-26.931	-10.73	0.000	15.10	-31.467	-10.73	0.000
15.40	-20.684	-10.73	0.000	15.40	-26.931	-10.73	0.000	15.40	-31.467	-10.73	0.000
15.70	-20.748	-10.73	0.000	15.70	-26.931	-10.73	0.000	15.70	-31.467	-10.73	0.000
16.00	-20.812	-10.73	0.000	16.00	-26.931	-10.73	0.000	16.00	-31.467	-10.73	0.000
16.30	-20.876	-10.73	0.000	16.30	-26.931	-10.73	0.000	16.30	-31.467	-10.73	0.000
16.60	-20.940	-10.73	0.000	16.60	-26.931	-10.73	0.000	16.60	-31.467	-10.73	0.000
16.90	-21.004	-10.73	0.000	16.90	-26.931	-10.73	0.000	16.90	-31.467	-10.73	0.000
17.20	-21.068	-10.73	0.000	17.20	-26.931	-10.73	0.000	17.20	-31.467	-10.73	0.000
17.50	-21.132	-10.73	0.000	17.50	-26.931	-10.73	0.000	17.50	-31.467	-10.73	0.000
17.80	-21.196	-10.73	0.000	17.80	-26.931	-10.73	0.000	17.80	-31.467	-10.73	0.000
18.10	-21.260	-10.73	0.000	18.10	-26.931	-10.73	0.000	18.10	-31.467	-10.73	0.000
18.40	-21.324	-10.73	0.000	18.40	-26.931	-10.73	0.000	18.40	-31.467	-10.73	0.000
18.70	-21.388	-10.73	0.000	18.70	-26.931	-10.73	0.000	18.70	-31.467	-10.73	0.000
19.00	-21.452	-10.73	0.000	19.00	-26.931	-10.73	0.000	19.00	-31.467	-10.73	0.000
19.30	-21.516	-10.73	0.000	19.30	-26.931	-10.73	0.000	19.30	-31.467	-10.73	0.000
19.60	-21.580	-10.73	0.000	19.60	-26.931	-10.73	0.000	19.60	-31.467	-10.73	0.000
19.90	-21.644	-10.73	0.000	19.90	-26.931	-10.73	0.000	19.90	-31.467	-10.73	0.000
20.20	-21.708	-10.73	0.000	20.20	-26.931	-10.73	0.000	20.20	-31.467	-10.73	0.000
20.50	-21.772	-10.73	0.000	20.50	-26.931	-10.73	0.000	20.50	-31.467	-10.73	0.000
20.80	-21.836	-10.73	0.000	20.80	-26.931	-10.73	0.000	20.80	-31.467	-10.73	0.000
21.10	-21.900	-10.73	0.000	21.10	-26.931	-10.73	0.000	21.10	-31.467	-10.73	0.000
21.40	-21.964	-10.73	0.000	21.40	-26.931	-10.73	0.000	21.40	-31.467	-10.73	0.000
21.70	-22.028	-10.73	0.000	21.70	-26.931	-10.73	0.000	21.70	-31.467	-10.73	0.000
22.00	-22.092	-10.73	0.000	22.00	-26.931	-10.73	0.000	22.00	-31.467	-10.73	0.000
22.30	-22.156	-10.73	0.000	22.30	-26.931	-10.73	0.000	22.30	-31.467	-10.73	0.000
22.60	-22.220	-10.73	0.000	22.60	-26.931	-10.73	0.000	22.60	-31.467	-10.73	0.000
22.90	-22.284	-10.73	0.000	22.90	-26.931	-10.73	0.000	22.90	-31.467	-10.73	0.000
23.20	-22.348	-10.73	0.000	23.20	-26.931	-10.73	0.000	23.20	-31.467	-10.73	0.000
23.50	-22.412	-10.73	0.000	23.50	-26.931	-10.73	0.000	23.50	-31.467	-10.73	0.000
23.80	-22.476	-10.73	0.000	23.80	-26.931	-10.73	0.000	23.80	-31.467	-10.73	0.000
24.10	-22.540	-10.73	0.000	24.10	-26.931	-10.73	0.000	24.10	-31.467	-10.73	0.000
24.40	-22.604	-10.73	0.000	24.40	-26.931	-10.73	0.000	24.40	-31.467	-10.73	0.000
24.70	-22.668	-10.73	0.000	24.70	-26.931	-10.73	0.000	24.70	-31.467	-10.73	0.000
25.00	-22.732	-10.73	0.000	25.00	-26.931	-10.73	0.000	25.00	-31.467	-10.73	0.000
25.30	-22.796	-10.73	0.000	25.30	-26.931	-10.73	0.000	25.30	-31.467	-10.73	0.000
25.60	-22.860	-10.73	0.000	25.60	-26.931	-10.73	0.000	25.60	-31.467	-10.73	0.000
25.90	-22.924	-10.73	0.000	25.90	-26.931	-10.73	0.000	25.90	-31.467	-10.73	0.000
26.20	-22.988	-10.73	0.000	26.20	-26.931	-10.73	0.000	26.20	-31.467	-10.73	0.000
26.50	-23.052	-10.73	0.000	26.50	-26.931	-10.73	0.000	26.50	-31.467	-10.73	0.000
26.80	-23.116	-10.73	0.000	26.80	-26.931	-10.73	0.000	26.80	-31.467	-10.73	0.000
27.10	-23.180	-10.73	0.000	27.10	-26.931	-10.73	0.000	27.10	-31.467	-10.73	0.000
27.40	-23.244	-10.73	0.000	27.40	-26.931	-10.73	0.000	27.40	-31.467	-10.73	0.000
27.70	-23.308	-10.73	0.000	27.70	-26.931	-10.73	0.000	27.70	-31.467	-10.73	0.000
28.00	-23.372	-10.73	0.000	28.00	-26.931	-10.73	0.000	28.00	-31.467	-10.73	0.000
28.30	-23.436	-10.73	0.000	28.30	-26.931	-10.73	0.000	28.30	-31.467	-10.73	0.000
28.60	-23.500	-10.73	0.000	28.60	-26.931	-10.73	0.000	28.60	-31.467	-10.73	0.000
28.90	-23.564	-10.73	0.000	28.90	-26.931	-10.73	0.000	28.90	-31.467	-10.73	0.000
29.20	-23.628	-10.73	0.000	29.20							

Table 51. Radial Electric Field (Fresh Water), Frequency = 0.1 MHz, VED Height = 2247.60 m

37.00 m (121.36 ft)				100.00 m (327.94 ft)				200.00 m (656.17 ft)			
Wavelength (m)	h (m)	E (V/m)	E (dB)	Wavelength (m)	h (m)	E (V/m)	E (dB)	Wavelength (m)	h (m)	E (V/m)	E (dB)
1.00	37.00	-26.000	11.70	1.00	100.00	-26.000	11.70	1.00	200.00	-26.000	11.70
1.01	37.03	-26.000	11.70	1.01	100.03	-26.000	11.70	1.01	200.03	-26.000	11.70
1.02	37.06	-26.000	11.70	1.02	100.06	-26.000	11.70	1.02	200.06	-26.000	11.70
1.03	37.09	-26.000	11.70	1.03	100.09	-26.000	11.70	1.03	200.09	-26.000	11.70
1.04	37.12	-26.000	11.70	1.04	100.12	-26.000	11.70	1.04	200.12	-26.000	11.70
1.05	37.15	-26.000	11.70	1.05	100.15	-26.000	11.70	1.05	200.15	-26.000	11.70
1.06	37.18	-26.000	11.70	1.06	100.18	-26.000	11.70	1.06	200.18	-26.000	11.70
1.07	37.21	-26.000	11.70	1.07	100.21	-26.000	11.70	1.07	200.21	-26.000	11.70
1.08	37.24	-26.000	11.70	1.08	100.24	-26.000	11.70	1.08	200.24	-26.000	11.70
1.09	37.27	-26.000	11.70	1.09	100.27	-26.000	11.70	1.09	200.27	-26.000	11.70
1.10	37.30	-26.000	11.70	1.10	100.30	-26.000	11.70	1.10	200.30	-26.000	11.70
1.11	37.33	-26.000	11.70	1.11	100.33	-26.000	11.70	1.11	200.33	-26.000	11.70
1.12	37.36	-26.000	11.70	1.12	100.36	-26.000	11.70	1.12	200.36	-26.000	11.70
1.13	37.39	-26.000	11.70	1.13	100.39	-26.000	11.70	1.13	200.39	-26.000	11.70
1.14	37.42	-26.000	11.70	1.14	100.42	-26.000	11.70	1.14	200.42	-26.000	11.70
1.15	37.45	-26.000	11.70	1.15	100.45	-26.000	11.70	1.15	200.45	-26.000	11.70
1.16	37.48	-26.000	11.70	1.16	100.48	-26.000	11.70	1.16	200.48	-26.000	11.70
1.17	37.51	-26.000	11.70	1.17	100.51	-26.000	11.70	1.17	200.51	-26.000	11.70
1.18	37.54	-26.000	11.70	1.18	100.54	-26.000	11.70	1.18	200.54	-26.000	11.70
1.19	37.57	-26.000	11.70	1.19	100.57	-26.000	11.70	1.19	200.57	-26.000	11.70
1.20	37.60	-26.000	11.70	1.20	100.60	-26.000	11.70	1.20	200.60	-26.000	11.70
1.21	37.63	-26.000	11.70	1.21	100.63	-26.000	11.70	1.21	200.63	-26.000	11.70
1.22	37.66	-26.000	11.70	1.22	100.66	-26.000	11.70	1.22	200.66	-26.000	11.70
1.23	37.69	-26.000	11.70	1.23	100.69	-26.000	11.70	1.23	200.69	-26.000	11.70
1.24	37.72	-26.000	11.70	1.24	100.72	-26.000	11.70	1.24	200.72	-26.000	11.70
1.25	37.75	-26.000	11.70	1.25	100.75	-26.000	11.70	1.25	200.75	-26.000	11.70
1.26	37.78	-26.000	11.70	1.26	100.78	-26.000	11.70	1.26	200.78	-26.000	11.70
1.27	37.81	-26.000	11.70	1.27	100.81	-26.000	11.70	1.27	200.81	-26.000	11.70
1.28	37.84	-26.000	11.70	1.28	100.84	-26.000	11.70	1.28	200.84	-26.000	11.70
1.29	37.87	-26.000	11.70	1.29	100.87	-26.000	11.70	1.29	200.87	-26.000	11.70
1.30	37.90	-26.000	11.70	1.30	100.90	-26.000	11.70	1.30	200.90	-26.000	11.70
1.31	37.93	-26.000	11.70	1.31	100.93	-26.000	11.70	1.31	200.93	-26.000	11.70
1.32	37.96	-26.000	11.70	1.32	100.96	-26.000	11.70	1.32	200.96	-26.000	11.70
1.33	37.99	-26.000	11.70	1.33	100.99	-26.000	11.70	1.33	200.99	-26.000	11.70
1.34	38.02	-26.000	11.70	1.34	101.02	-26.000	11.70	1.34	201.02	-26.000	11.70
1.35	38.05	-26.000	11.70	1.35	101.05	-26.000	11.70	1.35	201.05	-26.000	11.70
1.36	38.08	-26.000	11.70	1.36	101.08	-26.000	11.70	1.36	201.08	-26.000	11.70
1.37	38.11	-26.000	11.70	1.37	101.11	-26.000	11.70	1.37	201.11	-26.000	11.70
1.38	38.14	-26.000	11.70	1.38	101.14	-26.000	11.70	1.38	201.14	-26.000	11.70
1.39	38.17	-26.000	11.70	1.39	101.17	-26.000	11.70	1.39	201.17	-26.000	11.70
1.40	38.20	-26.000	11.70	1.40	101.20	-26.000	11.70	1.40	201.20	-26.000	11.70
1.41	38.23	-26.000	11.70	1.41	101.23	-26.000	11.70	1.41	201.23	-26.000	11.70
1.42	38.26	-26.000	11.70	1.42	101.26	-26.000	11.70	1.42	201.26	-26.000	11.70
1.43	38.29	-26.000	11.70	1.43	101.29	-26.000	11.70	1.43	201.29	-26.000	11.70
1.44	38.32	-26.000	11.70	1.44	101.32	-26.000	11.70	1.44	201.32	-26.000	11.70
1.45	38.35	-26.000	11.70	1.45	101.35	-26.000	11.70	1.45	201.35	-26.000	11.70
1.46	38.38	-26.000	11.70	1.46	101.38	-26.000	11.70	1.46	201.38	-26.000	11.70
1.47	38.41	-26.000	11.70	1.47	101.41	-26.000	11.70	1.47	201.41	-26.000	11.70
1.48	38.44	-26.000	11.70	1.48	101.44	-26.000	11.70	1.48	201.44	-26.000	11.70
1.49	38.47	-26.000	11.70	1.49	101.47	-26.000	11.70	1.49	201.47	-26.000	11.70
1.50	38.50	-26.000	11.70	1.50	101.50	-26.000	11.70	1.50	201.50	-26.000	11.70
1.51	38.53	-26.000	11.70	1.51	101.53	-26.000	11.70	1.51	201.53	-26.000	11.70
1.52	38.56	-26.000	11.70	1.52	101.56	-26.000	11.70	1.52	201.56	-26.000	11.70
1.53	38.59	-26.000	11.70	1.53	101.59	-26.000	11.70	1.53	201.59	-26.000	11.70
1.54	38.62	-26.000	11.70	1.54	101.62	-26.000	11.70	1.54	201.62	-26.000	11.70
1.55	38.65	-26.000	11.70	1.55	101.65	-26.000	11.70	1.55	201.65	-26.000	11.70
1.56	38.68	-26.000	11.70	1.56	101.68	-26.000	11.70	1.56	201.68	-26.000	11.70
1.57	38.71	-26.000	11.70	1.57	101.71	-26.000	11.70	1.57	201.71	-26.000	11.70
1.58	38.74	-26.000	11.70	1.58	101.74	-26.000	11.70	1.58	201.74	-26.000	11.70
1.59	38.77	-26.000	11.70	1.59	101.77	-26.000	11.70	1.59	201.77	-26.000	11.70
1.60	38.80	-26.000	11.70	1.60	101.80	-26.000	11.70	1.60	201.80	-26.000	11.70
1.61	38.83	-26.000	11.70	1.61	101.83	-26.000	11.70	1.61	201.83	-26.000	11.70
1.62	38.86	-26.000	11.70	1.62	101.86	-26.000	11.70	1.62	201.86	-26.000	11.70
1.63	38.89	-26.000	11.70	1.63	101.89	-26.000	11.70	1.63	201.89	-26.000	11.70
1.64	38.92	-26.000	11.70	1.64	101.92	-26.000	11.70	1.64	201.92	-26.000	11.70
1.65	38.95	-26.000	11.70	1.65	101.95	-26.000	11.70	1.65	201.95	-26.000	11.70
1.66	38.98	-26.000	11.70	1.66	101.98	-26.000	11.70	1.66	201.98	-26.000	11.70
1.67	39.01	-26.000	11.70	1.67	102.01	-26.000	11.70	1.67	202.01	-26.000	11.70
1.68	39.04	-26.000	11.70	1.68	102.04	-26.000	11.70	1.68	202.04	-26.000	11.70
1.69	39.07	-26.000	11.70	1.69	102.07	-26.000	11.70	1.69	202.07	-26.000	11.70
1.70	39.10	-26.000	11.70	1.70	102.10	-26.000	11.70	1.70	202.10	-26.000	11.70
1.71	39.13	-26.000	11.70	1.71	102.13	-26.000	11.70	1.71	202.13	-26.000	11.70
1.72	39.16	-26.000	11.70	1.72	102.16	-26.000	11.70	1.72	202.16	-26.000	11.70
1.73	39.19	-26.000	11.70	1.73	102.19	-26.000	11.70	1.73	202.19	-26.000	11.70
1.74	39.22	-26.000	11.70	1.74	102.22	-26.000	11.70	1.74	202.22	-26.000	11.70
1.75	39.25	-26.000	11.70	1.75	102.25	-26.000	11.70	1.75	202.25	-26.000	11.70
1.76	39.28	-26.000	11.70	1.76	102.28	-26.000	11.70	1.76	202.28	-26.000	11.70
1.77	39.31	-26.000	11.70	1.77	102.31	-26.000	11.70	1.77	202.31	-26.000	11.70
1.78	39.34	-26.000	11.70	1.78	102.34	-26.000	11.70	1.78	202.34	-26.000	11.70
1.79	39.37	-26.000	11.70	1.79	102.37	-26.000	11.70	1.79	202.37	-26.000	11.70
1.80	39.40	-26.000	11.70	1.80	102.40	-26.000	11.70	1.80	202.40	-26.000	11.70
1.81	39.43	-26.000	11.70	1.81	102.43	-26.000	11.70	1.81	202.43	-26.000	11.70
1.82	39.46	-26.000	11.70	1.82	102.46	-26.000	11.70	1.82	202.46	-26.000	11.70
1.83	39.49	-26.000	11.70	1.83	102.49	-26.000	11.70	1.83	202.49	-26.000	11.70
1.84	39.52	-26.000	11.70	1.84	102.52	-26.000	11.70	1.84	202.52	-26.000	11.70
1.85	39.55	-26.000	11.70	1.85	102.55	-26.000	11.70	1.85	202.55	-26.000	11.70
1.86	39.58	-26.000	11.70	1.86	102.58	-26.000	11.70	1.86	202.58	-26.000	11.70
1.87	39.61	-26.000	11.70	1.87	102.61	-26.000	11.70	1.87	202.61	-26.000	11.70
1.88	39.64	-26.000	11.70	1.88	102.64	-26.000	11.70	1.88	202.64	-26.000	11.70
1.89	39.67	-26.000	11.70	1.89	102.67	-26.000	11.70	1.89	202.67	-26.000	11.70
1.90	39.70	-26.000	11.70	1.90	102.70	-26.000	11.70	1.90	202.70	-26.000	11.70
1.91	39.73	-26.000	11.70	1.91	102.73	-26.000	11.70	1.91	202.73	-26.000	11.70
1.92	39.76	-26.000	11.70	1.92	102.76	-26.000	11.70	1.92	202.76	-26.000	11.70
1.93	39.79	-26.000	11.70	1.93	102.79	-26.000	11.70	1.93	202.79	-26.000	11.70
1.94	39.82	-26.000	11.70	1.94	102.82	-26.000	1				

Table 52. Radial Electric Field (Fresh Water), Frequency = 0.1 MHz, VED Height = 4495.20 m

3000 KM DISTANCE				1000 KM DISTANCE				3000 KM DISTANCE			
HEIGHT (KM)	AMP (V)	PHASE (DEG)		HEIGHT (KM)	AMP (V)	PHASE (DEG)		HEIGHT (KM)	AMP (V)	PHASE (DEG)	
0.00	-25.000	-25.00		0.00	-27.569	-147.64		0.00	-32.775	-71.91	
0.30	-25.131	-104.33		0.30	-26.035	-134.81		0.30	-33.093	152.77	
0.60	-25.194	-103.07		0.60	-26.244	-134.32		0.60	-33.417	153.31	
0.90	-25.255	-101.63		0.90	-26.456	-133.81		0.90	-33.747	153.63	
1.20	-25.311	-100.15		1.20	-26.675	-133.29		1.20	-34.084	153.91	
1.50	-25.363	-98.67		1.50	-26.896	-132.75		1.50	-34.429	154.16	
1.80	-25.414	-97.19		1.80	-27.121	-132.19		1.80	-34.783	154.37	
2.10	-25.460	-95.69		2.10	-27.350	-131.61		2.10	-35.146	154.55	
2.40	-25.502	-94.17		2.40	-27.584	-131.00		2.40	-35.519	154.67	
2.70	-25.540	-92.63		2.70	-27.822	-130.36		2.70	-35.903	154.75	
3.00	-25.574	-91.06		3.00	-28.064	-129.69		3.00	-36.298	154.79	
3.30	-25.603	-89.46		3.30	-28.310	-128.99		3.30	-36.706	154.79	
3.60	-25.628	-87.83		3.60	-28.560	-128.26		3.60	-37.128	154.63	
3.90	-25.649	-86.17		3.90	-28.814	-127.50		3.90	-37.565	154.45	
4.20	-25.667	-84.48		4.20	-29.072	-126.71		4.20	-38.017	154.16	
4.50	-25.681	-82.76		4.50	-29.334	-125.89		4.50	-38.485	153.84	
4.80	-25.693	-81.01		4.80	-29.600	-125.04		4.80	-38.969	153.49	
5.10	-25.702	-79.23		5.10	-29.870	-124.16		5.10	-39.469	153.12	
5.40	-25.709	-77.43		5.40	-30.144	-123.25		5.40	-39.984	152.72	
5.70	-25.714	-75.60		5.70	-30.422	-122.31		5.70	-40.515	152.29	
6.00	-25.717	-73.74		6.00	-30.704	-121.34		6.00	-41.061	151.83	
6.30	-25.718	-71.85		6.30	-30.990	-120.34		6.30	-41.622	151.34	
6.60	-25.717	-69.93		6.60	-31.280	-119.31		6.60	-42.198	150.82	
6.90	-25.714	-67.98		6.90	-31.574	-118.25		6.90	-42.789	150.27	
7.20	-25.709	-66.00		7.20	-31.872	-117.16		7.20	-43.395	149.69	
7.50	-25.702	-64.00		7.50	-32.174	-116.04		7.50	-44.017	149.08	
7.80	-25.693	-61.97		7.80	-32.480	-114.89		7.80	-44.655	148.44	
8.10	-25.681	-59.91		8.10	-32.790	-113.71		8.10	-45.309	147.77	
8.40	-25.667	-57.82		8.40	-33.104	-112.50		8.40	-45.979	147.07	
8.70	-25.650	-55.70		8.70	-33.422	-111.26		8.70	-46.665	146.34	
9.00	-25.630	-53.55		9.00	-33.744	-109.99		9.00	-47.367	145.58	
9.30	-25.607	-51.37		9.30	-34.070	-108.69		9.30	-48.085	144.79	
9.60	-25.581	-49.16		9.60	-34.400	-107.36		9.60	-48.819	143.97	
9.90	-25.552	-46.92		9.90	-34.734	-105.99		9.90	-49.569	143.12	
10.20	-25.520	-44.65		10.20	-35.072	-104.59		10.20	-50.335	142.24	
10.50	-25.485	-42.35		10.50	-35.414	-103.16		10.50	-51.117	141.33	
10.80	-25.447	-40.02		10.80	-35.760	-101.70		10.80	-51.915	140.39	
11.10	-25.406	-37.66		11.10	-36.110	-100.21		11.10	-52.729	139.42	
11.40	-25.362	-35.27		11.40	-36.464	-98.69		11.40	-53.559	138.42	
11.70	-25.315	-32.85		11.70	-36.822	-97.14		11.70	-54.405	137.39	
12.00	-25.266	-30.40		12.00	-37.184	-95.56		12.00	-55.267	136.33	
12.30	-25.214	-27.92		12.30	-37.550	-93.95		12.30	-56.145	135.24	
12.60	-25.159	-25.41		12.60	-37.920	-92.31		12.60	-57.039	134.12	
12.90	-25.101	-22.87		12.90	-38.294	-90.64		12.90	-57.949	132.97	
13.20	-25.040	-20.30		13.20	-38.672	-88.94		13.20	-58.875	131.79	
13.50	-24.976	-17.70		13.50	-39.054	-87.21		13.50	-59.817	130.58	
13.80	-24.909	-15.07		13.80	-39.440	-85.45		13.80	-60.775	129.34	
14.10	-24.839	-12.41		14.10	-39.830	-83.66		14.10	-61.749	128.07	
14.40	-24.766	-9.72		14.40	-40.224	-81.84		14.40	-62.739	126.77	
14.70	-24.690	-7.01		14.70	-40.622	-80.00		14.70	-63.745	125.44	
15.00	-24.611	-4.28		15.00	-41.024	-78.13		15.00	-64.767	124.08	
15.30	-24.529	-1.53		15.30	-41.430	-76.23		15.30	-65.805	122.69	
15.60	-24.444	1.24		15.60	-41.840	-74.30		15.60	-66.859	121.27	
15.90	-24.356	3.97		15.90	-42.254	-72.34		15.90	-67.929	119.82	
16.20	-24.265	6.69		16.20	-42.672	-70.35		16.20	-69.015	118.34	
16.50	-24.171	9.39		16.50	-43.094	-68.33		16.50	-70.117	116.83	
16.80	-24.074	12.07		16.80	-43.520	-66.28		16.80	-71.235	115.29	
17.10	-23.974	14.72		17.10	-43.950	-64.20		17.10	-72.369	113.72	
17.40	-23.871	17.35		17.40	-44.384	-62.09		17.40	-73.519	112.12	
17.70	-23.765	20.00		17.70	-44.822	-59.95		17.70	-74.685	110.49	
18.00	-23.656	22.62		18.00	-45.264	-57.78		18.00	-75.867	108.83	
18.30	-23.544	25.22		18.30	-45.710	-55.58		18.30	-77.065	107.14	
18.60	-23.429	27.79		18.60	-46.160	-53.35		18.60	-78.279	105.42	
18.90	-23.311	30.33		18.90	-46.614	-51.09		18.90	-79.509	103.67	
19.20	-23.190	32.84		19.20	-47.072	-48.80		19.20	-80.755	101.89	
19.50	-23.066	35.32		19.50	-47.534	-46.48		19.50	-82.017	100.08	
19.80	-22.939	37.77		19.80	-48.000	-44.13		19.80	-83.295	98.24	
20.10	-22.809	40.20		20.10	-48.470	-41.75		20.10	-84.589	96.37	
20.40	-22.676	42.60		20.40	-48.944	-39.34		20.40	-85.899	94.47	
20.70	-22.540	45.00		20.70	-49.422	-36.90		20.70	-87.225	92.54	
21.00	-22.401	47.37		21.00	-49.904	-34.43		21.00	-88.567	90.58	
21.30	-22.259	49.72		21.30	-50.390	-31.93		21.30	-89.925	88.59	
21.60	-22.114	52.05		21.60	-50.880	-29.40		21.60	-91.299	86.57	
21.90	-21.966	54.36		21.90	-51.374	-26.84		21.90	-92.689	84.52	
22.20	-21.815	56.65		22.20	-51.872	-24.25		22.20	-94.095	82.44	
22.50	-21.661	58.92		22.50	-52.374	-21.63		22.50	-95.517	80.33	
22.80	-21.504	61.17		22.80	-52.880	-18.98		22.80	-96.955	78.19	
23.10	-21.344	63.40		23.10	-53.390	-16.30		23.10	-98.409	76.02	
23.40	-21.181	65.60		23.40	-53.904	-13.59		23.40	-99.879	73.82	
23.70	-21.016	67.77		23.70	-54.422	-10.85		23.70	-101.365	71.59	
24.00	-20.849	69.91		24.00	-54.944	-8.08		24.00	-102.867	69.33	
24.30	-20.680	72.02		24.30	-55.470	-5.28		24.30	-104.385	67.04	
24.60	-20.508	74.10		24.60	-56.000	-2.45		24.60	-105.919	64.72	
24.90	-20.333	76.15		24.90	-56.534	0.40		24.90	-107.469	62.37	
25.20	-20.156	78.17		25.20	-57.072	3.22		25.20	-109.035	59.99	
25.50	-19.976	80.16		25.50	-57.614	6.01		25.50	-110.617	57.58	
25.80	-19.793	82.12		25.80	-58.160	8.77		25.80	-112.215	55.14	
26.10	-19.607	84.05		26.10	-58.710	11.50		26.10	-113.829	52.67	
26.40	-19.418	85.95		26.40	-59.264	14.20		26.40	-115.459	50.17	
26.70	-19.226	87.82		26.70	-59.822	16.87		26.70	-117.105	47.64	
27.00	-19.031	89.66		27.00	-60.384	19.51		27.00	-118.767	45.08	
27.30	-18.833	91.47		27.30	-60.950	22.12		27.30	-120.445	42.49	
27.60	-18.632	93.25		27.60	-61.520	24.70		27.60	-122.139	39.87	
27.90	-18.428	95.00		27.90	-62.094	27.25		27.90	-123.849	37.22	
28.20	-18.221	96.72		28.20	-62.672	29.77		28.20	-125.575	34.54	
28.50	-18.011	98.41		28.50	-63.254	32.26		28.50	-127.317	31.83	
28.80	-17.798	100.07		28.80	-63.840	34.72		28.80	-129.075	29.09	
29.10	-17.582	101.70		29.10	-64.430	37.15		29.10	-130.849	26.32	
29.40	-17.363	103.30		29.40	-65.024	39.55		29.40	-132.639	23.52	
29.70	-17.141	104.87		29.70	-65.622	41.92		29.70	-134.445	20.69	
30.00	-16.916	106.41		30.00	-66.224	44.26		30.00	-136.267	17.83	

Table 53. Radial Electric Field (Fresh Water), Frequency 1.0 MHz, VED Height 0.00 m

[illegible]

Table 54. Radial Electric Field (Fresh Water), Frequency = 1.0 MHz, VED Height = 224.76 m

300 KM DISTANCE				100 KM DISTANCE				100 KM DISTANCE			
HEIGHT (KM)	AMP (UE)	PHASE (UEG)	HEIGHT (KM)	AMP (UE)	PHASE (UEG)	HEIGHT (KM)	AMP (UE)	HEIGHT (KM)	AMP (UE)	PHASE (UEG)	HEIGHT (KM)
0.00	-24.504	133.30	0.00	-24.504	133.30	0.00	-24.504	0.00	-24.504	-129.77	0.00
0.03	-24.501	132.91	0.03	-24.501	132.91	0.03	-24.501	0.03	-24.501	119.18	0.03
0.06	-24.498	132.50	0.06	-24.498	132.50	0.06	-24.498	0.06	-24.498	118.88	0.06
0.09	-24.495	132.09	0.09	-24.495	132.09	0.09	-24.495	0.09	-24.495	118.51	0.09
0.12	-24.492	131.68	0.12	-24.492	131.68	0.12	-24.492	0.12	-24.492	118.14	0.12
0.15	-24.489	131.27	0.15	-24.489	131.27	0.15	-24.489	0.15	-24.489	117.77	0.15
0.18	-24.486	130.86	0.18	-24.486	130.86	0.18	-24.486	0.18	-24.486	117.40	0.18
0.21	-24.483	130.45	0.21	-24.483	130.45	0.21	-24.483	0.21	-24.483	117.03	0.21
0.24	-24.480	130.04	0.24	-24.480	130.04	0.24	-24.480	0.24	-24.480	116.66	0.24
0.27	-24.477	129.63	0.27	-24.477	129.63	0.27	-24.477	0.27	-24.477	116.29	0.27
0.30	-24.474	129.22	0.30	-24.474	129.22	0.30	-24.474	0.30	-24.474	115.92	0.30
0.33	-24.471	128.81	0.33	-24.471	128.81	0.33	-24.471	0.33	-24.471	115.55	0.33
0.36	-24.468	128.40	0.36	-24.468	128.40	0.36	-24.468	0.36	-24.468	115.18	0.36
0.39	-24.465	127.99	0.39	-24.465	127.99	0.39	-24.465	0.39	-24.465	114.81	0.39
0.42	-24.462	127.58	0.42	-24.462	127.58	0.42	-24.462	0.42	-24.462	114.44	0.42
0.45	-24.459	127.17	0.45	-24.459	127.17	0.45	-24.459	0.45	-24.459	114.07	0.45
0.48	-24.456	126.76	0.48	-24.456	126.76	0.48	-24.456	0.48	-24.456	113.70	0.48
0.51	-24.453	126.35	0.51	-24.453	126.35	0.51	-24.453	0.51	-24.453	113.33	0.51
0.54	-24.450	125.94	0.54	-24.450	125.94	0.54	-24.450	0.54	-24.450	112.96	0.54
0.57	-24.447	125.53	0.57	-24.447	125.53	0.57	-24.447	0.57	-24.447	112.59	0.57
0.60	-24.444	125.12	0.60	-24.444	125.12	0.60	-24.444	0.60	-24.444	112.22	0.60
0.63	-24.441	124.71	0.63	-24.441	124.71	0.63	-24.441	0.63	-24.441	111.85	0.63
0.66	-24.438	124.30	0.66	-24.438	124.30	0.66	-24.438	0.66	-24.438	111.48	0.66
0.69	-24.435	123.89	0.69	-24.435	123.89	0.69	-24.435	0.69	-24.435	111.11	0.69
0.72	-24.432	123.48	0.72	-24.432	123.48	0.72	-24.432	0.72	-24.432	110.74	0.72
0.75	-24.429	123.07	0.75	-24.429	123.07	0.75	-24.429	0.75	-24.429	110.37	0.75
0.78	-24.426	122.66	0.78	-24.426	122.66	0.78	-24.426	0.78	-24.426	110.00	0.78
0.81	-24.423	122.25	0.81	-24.423	122.25	0.81	-24.423	0.81	-24.423	109.63	0.81
0.84	-24.420	121.84	0.84	-24.420	121.84	0.84	-24.420	0.84	-24.420	109.26	0.84
0.87	-24.417	121.43	0.87	-24.417	121.43	0.87	-24.417	0.87	-24.417	108.89	0.87
0.90	-24.414	121.02	0.90	-24.414	121.02	0.90	-24.414	0.90	-24.414	108.52	0.90
0.93	-24.411	120.61	0.93	-24.411	120.61	0.93	-24.411	0.93	-24.411	108.15	0.93
0.96	-24.408	120.20	0.96	-24.408	120.20	0.96	-24.408	0.96	-24.408	107.78	0.96
0.99	-24.405	119.79	0.99	-24.405	119.79	0.99	-24.405	0.99	-24.405	107.41	0.99
1.02	-24.402	119.38	1.02	-24.402	119.38	1.02	-24.402	1.02	-24.402	107.04	1.02
1.05	-24.399	118.97	1.05	-24.399	118.97	1.05	-24.399	1.05	-24.399	106.67	1.05
1.08	-24.396	118.56	1.08	-24.396	118.56	1.08	-24.396	1.08	-24.396	106.30	1.08
1.11	-24.393	118.15	1.11	-24.393	118.15	1.11	-24.393	1.11	-24.393	105.93	1.11
1.14	-24.390	117.74	1.14	-24.390	117.74	1.14	-24.390	1.14	-24.390	105.56	1.14
1.17	-24.387	117.33	1.17	-24.387	117.33	1.17	-24.387	1.17	-24.387	105.19	1.17
1.20	-24.384	116.92	1.20	-24.384	116.92	1.20	-24.384	1.20	-24.384	104.82	1.20
1.23	-24.381	116.51	1.23	-24.381	116.51	1.23	-24.381	1.23	-24.381	104.45	1.23
1.26	-24.378	116.10	1.26	-24.378	116.10	1.26	-24.378	1.26	-24.378	104.08	1.26
1.29	-24.375	115.69	1.29	-24.375	115.69	1.29	-24.375	1.29	-24.375	103.71	1.29
1.32	-24.372	115.28	1.32	-24.372	115.28	1.32	-24.372	1.32	-24.372	103.34	1.32
1.35	-24.369	114.87	1.35	-24.369	114.87	1.35	-24.369	1.35	-24.369	102.97	1.35
1.38	-24.366	114.46	1.38	-24.366	114.46	1.38	-24.366	1.38	-24.366	102.60	1.38
1.41	-24.363	114.05	1.41	-24.363	114.05	1.41	-24.363	1.41	-24.363	102.23	1.41
1.44	-24.360	113.64	1.44	-24.360	113.64	1.44	-24.360	1.44	-24.360	101.86	1.44
1.47	-24.357	113.23	1.47	-24.357	113.23	1.47	-24.357	1.47	-24.357	101.49	1.47
1.50	-24.354	112.82	1.50	-24.354	112.82	1.50	-24.354	1.50	-24.354	101.12	1.50
1.53	-24.351	112.41	1.53	-24.351	112.41	1.53	-24.351	1.53	-24.351	100.75	1.53
1.56	-24.348	112.00	1.56	-24.348	112.00	1.56	-24.348	1.56	-24.348	100.38	1.56
1.59	-24.345	111.59	1.59	-24.345	111.59	1.59	-24.345	1.59	-24.345	100.01	1.59
1.62	-24.342	111.18	1.62	-24.342	111.18	1.62	-24.342	1.62	-24.342	99.64	1.62
1.65	-24.339	110.77	1.65	-24.339	110.77	1.65	-24.339	1.65	-24.339	99.27	1.65
1.68	-24.336	110.36	1.68	-24.336	110.36	1.68	-24.336	1.68	-24.336	98.90	1.68
1.71	-24.333	109.95	1.71	-24.333	109.95	1.71	-24.333	1.71	-24.333	98.53	1.71
1.74	-24.330	109.54	1.74	-24.330	109.54	1.74	-24.330	1.74	-24.330	98.16	1.74
1.77	-24.327	109.13	1.77	-24.327	109.13	1.77	-24.327	1.77	-24.327	97.79	1.77
1.80	-24.324	108.72	1.80	-24.324	108.72	1.80	-24.324	1.80	-24.324	97.42	1.80
1.83	-24.321	108.31	1.83	-24.321	108.31	1.83	-24.321	1.83	-24.321	97.05	1.83
1.86	-24.318	107.90	1.86	-24.318	107.90	1.86	-24.318	1.86	-24.318	96.68	1.86
1.89	-24.315	107.49	1.89	-24.315	107.49	1.89	-24.315	1.89	-24.315	96.31	1.89
1.92	-24.312	107.08	1.92	-24.312	107.08	1.92	-24.312	1.92	-24.312	95.94	1.92
1.95	-24.309	106.67	1.95	-24.309	106.67	1.95	-24.309	1.95	-24.309	95.57	1.95
1.98	-24.306	106.26	1.98	-24.306	106.26	1.98	-24.306	1.98	-24.306	95.20	1.98
2.01	-24.303	105.85	2.01	-24.303	105.85	2.01	-24.303	2.01	-24.303	94.83	2.01
2.04	-24.300	105.44	2.04	-24.300	105.44	2.04	-24.300	2.04	-24.300	94.46	2.04
2.07	-24.297	105.03	2.07	-24.297	105.03	2.07	-24.297	2.07	-24.297	94.09	2.07
2.10	-24.294	104.62	2.10	-24.294	104.62	2.10	-24.294	2.10	-24.294	93.72	2.10
2.13	-24.291	104.21	2.13	-24.291	104.21	2.13	-24.291	2.13	-24.291	93.35	2.13
2.16	-24.288	103.80	2.16	-24.288	103.80	2.16	-24.288	2.16	-24.288	92.98	2.16
2.19	-24.285	103.39	2.19	-24.285	103.39	2.19	-24.285	2.19	-24.285	92.61	2.19
2.22	-24.282	102.98	2.22	-24.282	102.98	2.22	-24.282	2.22	-24.282	92.24	2.22
2.25	-24.279	102.57	2.25	-24.279	102.57	2.25	-24.279	2.25	-24.279	91.87	2.25
2.28	-24.276	102.16	2.28	-24.276	102.16	2.28	-24.276	2.28	-24.276	91.50	2.28
2.31	-24.273	101.75	2.31	-24.273	101.75	2.31	-24.273	2.31	-24.273	91.13	2.31
2.34	-24.270	101.34	2.34	-24.270	101.34	2.34	-24.270	2.34	-24.270	90.76	2.34
2.37	-24.267	100.93	2.37	-24.267	100.93	2.37	-24.267	2.37	-24.267	90.39	2.37
2.40	-24.264	100.52	2.40	-24.264	100.52	2.40	-24.264	2.40	-24.264	90.02	2.40
2.43	-24.261	100.11	2.43	-24.261	100.11	2.43	-24.261	2.43	-24.261	89.65	2.43
2.46	-24.258	99.70	2.46	-24.258	99.70	2.46	-24.258	2.46	-24.258	89.28	2.46
2.49	-24.255	99.29	2.49	-24.255	99.29	2.49	-24.255	2.49	-24.255	88.91	2.49
2.52	-24.252	98.88	2.52	-24.252	98.88	2.52	-24.252	2.52	-24.252	88.54	2.52
2.55	-24.249	98.47	2.55	-24.249	98.47	2.55	-24.249	2.55	-24.249	88.17	2.55
2.58	-24.246	98.06	2.58	-24.246	98.06	2.58	-24.246	2.58	-24.246	87.80	2.58
2.61	-24.243	97.65	2.61	-24.243	97.65	2.61	-24.243	2.61	-24.243	87.43	2.61
2.64	-24.240	97.24	2.64	-24.240	97.24	2.64	-24.240	2.64	-24.240	87.06	2.64
2.67	-24.237	96.83	2.67	-24.237	96.83	2.67	-24.237	2.67	-24.237	86.69	2.67
2.70	-24.234	96.42	2.70	-24.234	96.42	2.70	-24.234	2.70	-24.234	86.32	2.70
2.73	-24.231	96.01	2.73	-24.231	96.01	2.73	-24.231	2.73	-24.231	85.95	2.73
2.76	-24.228	95.60	2.76	-24.228	95.60	2.76	-24.228	2.76	-24.228	85.58	2.76
2.79	-24.225	95.19	2.79	-24.225	95.19	2.79	-24.225	2.79	-24.225	85.21	2.79
2.82	-24.222	94.78	2.82	-24.222	94.78	2.82	-24.222	2.82	-24.222	84.84	2.82
2.85	-										

Table 55. Radial Electric Field (Fresh Water), Frequency = 1.0 MHz, VED Height = 449.52 m

3.0 KM URMANCE					10.0 KM URMANCE					100.0 KM URMANCE				
TE (GMT)	AMP (UB)	PHASE (DEG)	TE (GMT)	AMP (UB)	PHASE (DEG)	TE (GMT)	AMP (UB)	PHASE (DEG)	TE (GMT)	AMP (UB)	PHASE (DEG)	TE (GMT)	AMP (UB)	PHASE (DEG)
0.000	-23.467	-47.00	0.000	-20.111	-13.13	0.000	-35.000	-73.44	0.000	-44.675	-136.61	0.000	-44.675	-136.61
0.003	-23.450	-126.02	0.010	-20.452	-13.07	0.030	-35.221	157.01	0.100	-44.710	-140.89	0.200	-44.710	-140.89
0.006	-23.430	-125.33	0.020	-20.452	-13.07	0.060	-35.441	150.73	0.300	-44.710	-140.89	0.400	-44.710	-140.89
0.009	-23.417	-124.82	0.030	-20.452	-13.07	0.090	-35.662	150.55	0.500	-44.710	-140.89	0.600	-44.710	-140.89
0.012	-23.400	-124.09	0.040	-20.452	-13.07	0.120	-35.883	150.37	0.700	-44.710	-140.89	0.800	-44.710	-140.89
0.015	-23.380	-123.14	0.050	-20.452	-13.07	0.150	-36.104	150.19	0.900	-44.710	-140.89	1.000	-44.710	-140.89
0.018	-23.360	-122.14	0.060	-20.452	-13.07	0.180	-36.325	149.99	1.100	-44.710	-140.89	1.200	-44.710	-140.89
0.021	-23.340	-121.14	0.070	-20.452	-13.07	0.210	-36.546	149.79	1.300	-44.710	-140.89	1.400	-44.710	-140.89
0.024	-23.320	-120.14	0.080	-20.452	-13.07	0.240	-36.767	149.59	1.500	-44.710	-140.89	1.600	-44.710	-140.89
0.027	-23.300	-119.14	0.090	-20.452	-13.07	0.270	-36.988	149.39	1.700	-44.710	-140.89	1.800	-44.710	-140.89
0.030	-23.280	-118.14	0.100	-20.452	-13.07	0.300	-37.209	149.19	1.900	-44.710	-140.89	2.000	-44.710	-140.89
0.033	-23.260	-117.14	0.110	-20.452	-13.07	0.330	-37.430	148.99	2.100	-44.710	-140.89	2.200	-44.710	-140.89
0.036	-23.240	-116.14	0.120	-20.452	-13.07	0.360	-37.651	148.79	2.300	-44.710	-140.89	2.400	-44.710	-140.89
0.039	-23.220	-115.14	0.130	-20.452	-13.07	0.390	-37.872	148.59	2.500	-44.710	-140.89	2.600	-44.710	-140.89
0.042	-23.200	-114.14	0.140	-20.452	-13.07	0.420	-38.093	148.39	2.700	-44.710	-140.89	2.800	-44.710	-140.89
0.045	-23.180	-113.14	0.150	-20.452	-13.07	0.450	-38.314	148.19	2.900	-44.710	-140.89	3.000	-44.710	-140.89
0.048	-23.160	-112.14	0.160	-20.452	-13.07	0.480	-38.535	147.99	3.100	-44.710	-140.89	3.200	-44.710	-140.89
0.051	-23.140	-111.14	0.170	-20.452	-13.07	0.510	-38.756	147.79	3.300	-44.710	-140.89	3.400	-44.710	-140.89
0.054	-23.120	-110.14	0.180	-20.452	-13.07	0.540	-38.977	147.59	3.500	-44.710	-140.89	3.600	-44.710	-140.89
0.057	-23.100	-109.14	0.190	-20.452	-13.07	0.570	-39.198	147.39	3.700	-44.710	-140.89	3.800	-44.710	-140.89
0.060	-23.080	-108.14	0.200	-20.452	-13.07	0.600	-39.419	147.19	3.900	-44.710	-140.89	4.000	-44.710	-140.89
0.063	-23.060	-107.14	0.210	-20.452	-13.07	0.630	-39.640	146.99	4.100	-44.710	-140.89	4.200	-44.710	-140.89
0.066	-23.040	-106.14	0.220	-20.452	-13.07	0.660	-39.861	146.79	4.300	-44.710	-140.89	4.400	-44.710	-140.89
0.069	-23.020	-105.14	0.230	-20.452	-13.07	0.690	-40.082	146.59	4.500	-44.710	-140.89	4.600	-44.710	-140.89
0.072	-23.000	-104.14	0.240	-20.452	-13.07	0.720	-40.303	146.39	4.700	-44.710	-140.89	4.800	-44.710	-140.89
0.075	-22.980	-103.14	0.250	-20.452	-13.07	0.750	-40.524	146.19	4.900	-44.710	-140.89	5.000	-44.710	-140.89
0.078	-22.960	-102.14	0.260	-20.452	-13.07	0.780	-40.745	145.99	5.100	-44.710	-140.89	5.200	-44.710	-140.89
0.081	-22.940	-101.14	0.270	-20.452	-13.07	0.810	-40.966	145.79	5.300	-44.710	-140.89	5.400	-44.710	-140.89
0.084	-22.920	-100.14	0.280	-20.452	-13.07	0.840	-41.187	145.59	5.500	-44.710	-140.89	5.600	-44.710	-140.89
0.087	-22.900	-99.14	0.290	-20.452	-13.07	0.870	-41.408	145.39	5.700	-44.710	-140.89	5.800	-44.710	-140.89
0.090	-22.880	-98.14	0.300	-20.452	-13.07	0.900	-41.629	145.19	5.900	-44.710	-140.89	6.000	-44.710	-140.89
0.093	-22.860	-97.14	0.310	-20.452	-13.07	0.930	-41.850	144.99	6.100	-44.710	-140.89	6.200	-44.710	-140.89
0.096	-22.840	-96.14	0.320	-20.452	-13.07	0.960	-42.071	144.79	6.300	-44.710	-140.89	6.400	-44.710	-140.89
0.099	-22.820	-95.14	0.330	-20.452	-13.07	0.990	-42.292	144.59	6.500	-44.710	-140.89	6.600	-44.710	-140.89
0.102	-22.800	-94.14	0.340	-20.452	-13.07	1.020	-42.513	144.39	6.700	-44.710	-140.89	6.800	-44.710	-140.89
0.105	-22.780	-93.14	0.350	-20.452	-13.07	1.050	-42.734	144.19	6.900	-44.710	-140.89	7.000	-44.710	-140.89
0.108	-22.760	-92.14	0.360	-20.452	-13.07	1.080	-42.955	143.99	7.100	-44.710	-140.89	7.200	-44.710	-140.89
0.111	-22.740	-91.14	0.370	-20.452	-13.07	1.110	-43.176	143.79	7.300	-44.710	-140.89	7.400	-44.710	-140.89
0.114	-22.720	-90.14	0.380	-20.452	-13.07	1.140	-43.397	143.59	7.500	-44.710	-140.89	7.600	-44.710	-140.89
0.117	-22.700	-89.14	0.390	-20.452	-13.07	1.170	-43.618	143.39	7.700	-44.710	-140.89	7.800	-44.710	-140.89
0.120	-22.680	-88.14	0.400	-20.452	-13.07	1.200	-43.839	143.19	7.900	-44.710	-140.89	8.000	-44.710	-140.89
0.123	-22.660	-87.14	0.410	-20.452	-13.07	1.230	-44.060	142.99	8.100	-44.710	-140.89	8.200	-44.710	-140.89
0.126	-22.640	-86.14	0.420	-20.452	-13.07	1.260	-44.281	142.79	8.300	-44.710	-140.89	8.400	-44.710	-140.89
0.129	-22.620	-85.14	0.430	-20.452	-13.07	1.290	-44.502	142.59	8.500	-44.710	-140.89	8.600	-44.710	-140.89
0.132	-22.600	-84.14	0.440	-20.452	-13.07	1.320	-44.723	142.39	8.700	-44.710	-140.89	8.800	-44.710	-140.89
0.135	-22.580	-83.14	0.450	-20.452	-13.07	1.350	-44.944	142.19	8.900	-44.710	-140.89	9.000	-44.710	-140.89
0.138	-22.560	-82.14	0.460	-20.452	-13.07	1.380	-45.165	141.99	9.100	-44.710	-140.89	9.200	-44.710	-140.89
0.141	-22.540	-81.14	0.470	-20.452	-13.07	1.410	-45.386	141.79	9.300	-44.710	-140.89	9.400	-44.710	-140.89
0.144	-22.520	-80.14	0.480	-20.452	-13.07	1.440	-45.607	141.59	9.500	-44.710	-140.89	9.600	-44.710	-140.89
0.147	-22.500	-79.14	0.490	-20.452	-13.07	1.470	-45.828	141.39	9.700	-44.710	-140.89	9.800	-44.710	-140.89
0.150	-22.480	-78.14	0.500	-20.452	-13.07	1.500	-46.049	141.19	9.900	-44.710	-140.89	10.000	-44.710	-140.89

Table 56. Radial Electric Field (Fresh Water), Frequency = 10 MHz, VED Height = 0.00 m

3.0 KM DISTANCE				10.0 KM DISTANCE				30.0 KM DISTANCE				100.0 KM DISTANCE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	ME (UNT)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	ME (UNT)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	ME (UNT)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	ME (UNT)
0.00	-37.570	-110.74	0.000	0.00	-47.432	27.74	0.000	0.00	-50.896	-112.72	0.000	0.00	-67.346	-50.95	0.000
0.03	-36.006	107.37	0.00	0.00	-47.084	75.02	0.00	0.00	-57.132	90.03	0.00	0.00	-67.574	88.61	0.00
0.06	-36.016	107.00	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.890	78.76	0.00
0.09	-36.033	106.04	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.770	70.17	0.00
0.12	-36.056	105.10	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.306	60.11	0.00
0.15	-36.074	104.51	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	49.81	0.00
0.18	-36.097	104.01	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	40.83	0.00
0.21	-36.122	103.50	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	32.57	0.00
0.24	-36.145	103.10	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	24.29	0.00
0.27	-36.175	102.70	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	17.56	0.00
0.30	-36.200	102.30	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	14.57	0.00
0.33	-36.227	101.90	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	12.21	0.00
0.36	-36.250	101.50	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	10.36	0.00
0.39	-36.270	101.10	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	8.80	0.00
0.42	-36.285	100.70	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	7.56	0.00
0.45	-36.300	100.30	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	6.54	0.00
0.48	-36.315	100.00	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	5.66	0.00
0.51	-36.330	99.70	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	4.97	0.00
0.54	-36.345	99.40	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	4.36	0.00
0.57	-36.360	99.10	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	3.84	0.00
0.60	-36.375	98.80	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	3.40	0.00
0.63	-36.390	98.50	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	3.02	0.00
0.66	-36.405	98.20	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	2.68	0.00
0.69	-36.420	97.90	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	2.34	0.00
0.72	-36.435	97.60	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	2.01	0.00
0.75	-36.450	97.30	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	1.71	0.00
0.78	-36.465	97.00	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	1.44	0.00
0.81	-36.480	96.70	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	1.20	0.00
0.84	-36.495	96.40	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	1.00	0.00
0.87	-36.510	96.10	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.84	0.00
0.90	-36.525	95.80	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.71	0.00
0.93	-36.540	95.50	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.60	0.00
0.96	-36.555	95.20	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.51	0.00
0.99	-36.570	94.90	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.44	0.00
1.02	-36.585	94.60	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.38	0.00
1.05	-36.600	94.30	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.33	0.00
1.08	-36.615	94.00	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.29	0.00
1.11	-36.630	93.70	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.26	0.00
1.14	-36.645	93.40	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.23	0.00
1.17	-36.660	93.10	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.21	0.00
1.20	-36.675	92.80	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.19	0.00
1.23	-36.690	92.50	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.17	0.00
1.26	-36.705	92.20	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.16	0.00
1.29	-36.720	91.90	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.15	0.00
1.32	-36.735	91.60	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.14	0.00
1.35	-36.750	91.30	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.13	0.00
1.38	-36.765	91.00	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.12	0.00
1.41	-36.780	90.70	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.11	0.00
1.44	-36.795	90.40	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.10	0.00
1.47	-36.810	90.10	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.09	0.00
1.50	-36.825	89.80	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.08	0.00
1.53	-36.840	89.50	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.07	0.00
1.56	-36.855	89.20	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.06	0.00
1.59	-36.870	88.90	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.05	0.00
1.62	-36.885	88.60	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.04	0.00
1.65	-36.900	88.30	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.03	0.00
1.68	-36.915	88.00	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.02	0.00
1.71	-36.930	87.70	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.01	0.00
1.74	-36.945	87.40	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.00	0.00
1.77	-36.960	87.10	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.00	0.00
1.80	-36.975	86.80	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.00	0.00
1.83	-36.990	86.50	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.00	0.00
1.86	-37.005	86.20	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.00	0.00
1.89	-37.020	85.90	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.00	0.00
1.92	-37.035	85.60	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.00	0.00
1.95	-37.050	85.30	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.00	0.00
1.98	-37.065	85.00	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.00	0.00
2.01	-37.080	84.70	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.00	0.00
2.04	-37.095	84.40	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.00	0.00
2.07	-37.110	84.10	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.00	0.00
2.10	-37.125	83.80	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.00	0.00
2.13	-37.140	83.50	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.00	0.00
2.16	-37.155	83.20	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0.00	0.00
2.19	-37.170	82.90	0.00	0.00	-47.113	75.13	0.00	0.00	-57.132	90.03	0.00	0.00	-67.454	0	

Table 57. Radial Electric Field (Fresh Water), Frequency 10 MHz, VED Height = 22.48 m

30.0 KM DISTANCE				30.0 KM DISTANCE				100.0 KM DISTANCE			
HEIGHT (M)	AMP (UB)	PHASE (DEG)	HEIGHT (M)	AMP (UB)	PHASE (DEG)	HEIGHT (M)	AMP (UB)	PHASE (DEG)	HEIGHT (M)	AMP (UB)	PHASE (DEG)
0.00	-36.860	135.74	0.00	-46.900	123.73	0.00	-55.895	119.01	0.00	-66.337	-23.26
0.03	-37.038	135.74	0.03	-46.900	123.73	0.03	-55.895	119.01	0.03	-66.337	-23.26
0.06	-37.216	135.74	0.06	-46.900	123.73	0.06	-55.895	119.01	0.06	-66.337	-23.26
0.09	-37.394	135.74	0.09	-46.900	123.73	0.09	-55.895	119.01	0.09	-66.337	-23.26
0.12	-37.572	135.74	0.12	-46.900	123.73	0.12	-55.895	119.01	0.12	-66.337	-23.26
0.15	-37.750	135.74	0.15	-46.900	123.73	0.15	-55.895	119.01	0.15	-66.337	-23.26
0.18	-37.928	135.74	0.18	-46.900	123.73	0.18	-55.895	119.01	0.18	-66.337	-23.26
0.21	-38.106	135.74	0.21	-46.900	123.73	0.21	-55.895	119.01	0.21	-66.337	-23.26
0.24	-38.284	135.74	0.24	-46.900	123.73	0.24	-55.895	119.01	0.24	-66.337	-23.26
0.27	-38.462	135.74	0.27	-46.900	123.73	0.27	-55.895	119.01	0.27	-66.337	-23.26
0.30	-38.640	135.74	0.30	-46.900	123.73	0.30	-55.895	119.01	0.30	-66.337	-23.26
0.33	-38.818	135.74	0.33	-46.900	123.73	0.33	-55.895	119.01	0.33	-66.337	-23.26
0.36	-38.996	135.74	0.36	-46.900	123.73	0.36	-55.895	119.01	0.36	-66.337	-23.26
0.39	-39.174	135.74	0.39	-46.900	123.73	0.39	-55.895	119.01	0.39	-66.337	-23.26
0.42	-39.352	135.74	0.42	-46.900	123.73	0.42	-55.895	119.01	0.42	-66.337	-23.26
0.45	-39.530	135.74	0.45	-46.900	123.73	0.45	-55.895	119.01	0.45	-66.337	-23.26
0.48	-39.708	135.74	0.48	-46.900	123.73	0.48	-55.895	119.01	0.48	-66.337	-23.26
0.51	-39.886	135.74	0.51	-46.900	123.73	0.51	-55.895	119.01	0.51	-66.337	-23.26
0.54	-40.064	135.74	0.54	-46.900	123.73	0.54	-55.895	119.01	0.54	-66.337	-23.26
0.57	-40.242	135.74	0.57	-46.900	123.73	0.57	-55.895	119.01	0.57	-66.337	-23.26
0.60	-40.420	135.74	0.60	-46.900	123.73	0.60	-55.895	119.01	0.60	-66.337	-23.26
0.63	-40.598	135.74	0.63	-46.900	123.73	0.63	-55.895	119.01	0.63	-66.337	-23.26
0.66	-40.776	135.74	0.66	-46.900	123.73	0.66	-55.895	119.01	0.66	-66.337	-23.26
0.69	-40.954	135.74	0.69	-46.900	123.73	0.69	-55.895	119.01	0.69	-66.337	-23.26
0.72	-41.132	135.74	0.72	-46.900	123.73	0.72	-55.895	119.01	0.72	-66.337	-23.26
0.75	-41.310	135.74	0.75	-46.900	123.73	0.75	-55.895	119.01	0.75	-66.337	-23.26
0.78	-41.488	135.74	0.78	-46.900	123.73	0.78	-55.895	119.01	0.78	-66.337	-23.26
0.81	-41.666	135.74	0.81	-46.900	123.73	0.81	-55.895	119.01	0.81	-66.337	-23.26
0.84	-41.844	135.74	0.84	-46.900	123.73	0.84	-55.895	119.01	0.84	-66.337	-23.26
0.87	-42.022	135.74	0.87	-46.900	123.73	0.87	-55.895	119.01	0.87	-66.337	-23.26
0.90	-42.200	135.74	0.90	-46.900	123.73	0.90	-55.895	119.01	0.90	-66.337	-23.26
1.05	-44.100	135.74	1.05	-46.900	123.73	1.05	-55.895	119.01	1.05	-66.337	-23.26
1.20	-46.000	135.74	1.20	-46.900	123.73	1.20	-55.895	119.01	1.20	-66.337	-23.26
1.35	-47.900	135.74	1.35	-46.900	123.73	1.35	-55.895	119.01	1.35	-66.337	-23.26
1.50	-49.800	135.74	1.50	-46.900	123.73	1.50	-55.895	119.01	1.50	-66.337	-23.26
1.65	-51.700	135.74	1.65	-46.900	123.73	1.65	-55.895	119.01	1.65	-66.337	-23.26
1.80	-53.600	135.74	1.80	-46.900	123.73	1.80	-55.895	119.01	1.80	-66.337	-23.26
1.95	-55.500	135.74	1.95	-46.900	123.73	1.95	-55.895	119.01	1.95	-66.337	-23.26
2.10	-57.400	135.74	2.10	-46.900	123.73	2.10	-55.895	119.01	2.10	-66.337	-23.26
2.25	-59.300	135.74	2.25	-46.900	123.73	2.25	-55.895	119.01	2.25	-66.337	-23.26
2.40	-61.200	135.74	2.40	-46.900	123.73	2.40	-55.895	119.01	2.40	-66.337	-23.26
2.55	-63.100	135.74	2.55	-46.900	123.73	2.55	-55.895	119.01	2.55	-66.337	-23.26
2.70	-65.000	135.74	2.70	-46.900	123.73	2.70	-55.895	119.01	2.70	-66.337	-23.26
2.85	-66.900	135.74	2.85	-46.900	123.73	2.85	-55.895	119.01	2.85	-66.337	-23.26
3.00	-68.800	135.74	3.00	-46.900	123.73	3.00	-55.895	119.01	3.00	-66.337	-23.26

Table 58. Radial Electric Field (Fresh Water), Frequency = 10.0 MHz, VED Height = 44.95 m

300 KM DUNNKNVUE					300 KM DUNNKNVUE					1000 KM DUNNKNVUE				
HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)	PHASE (DEG)
0.00	-34.971	-16.00	0.00	-44.000	-44.00	0.00	-33.786	-50.87	0.00	-33.786	-50.87	0.00	-33.786	-50.87
0.33	-33.106	135.31	0.33	-44.000	-44.00	0.33	-34.063	130.27	0.33	-34.063	130.27	0.33	-34.063	130.27
0.65	-32.237	125.16	0.65	-44.000	-44.00	0.65	-34.259	137.14	0.65	-34.259	137.14	0.65	-34.259	137.14
0.98	-31.367	115.01	0.98	-44.000	-44.00	0.98	-34.446	142.43	0.98	-34.446	142.43	0.98	-34.446	142.43
1.30	-30.496	104.86	1.30	-44.000	-44.00	1.30	-34.633	147.72	1.30	-34.633	147.72	1.30	-34.633	147.72
1.63	-29.626	94.71	1.63	-44.000	-44.00	1.63	-34.820	153.01	1.63	-34.820	153.01	1.63	-34.820	153.01
1.95	-28.755	84.56	1.95	-44.000	-44.00	1.95	-35.007	158.30	1.95	-35.007	158.30	1.95	-35.007	158.30
2.28	-27.885	74.41	2.28	-44.000	-44.00	2.28	-35.194	163.59	2.28	-35.194	163.59	2.28	-35.194	163.59
2.60	-27.014	64.26	2.60	-44.000	-44.00	2.60	-35.381	168.88	2.60	-35.381	168.88	2.60	-35.381	168.88
2.93	-26.144	54.11	2.93	-44.000	-44.00	2.93	-35.568	174.17	2.93	-35.568	174.17	2.93	-35.568	174.17
3.25	-25.273	43.96	3.25	-44.000	-44.00	3.25	-35.755	179.46	3.25	-35.755	179.46	3.25	-35.755	179.46
3.58	-24.403	33.81	3.58	-44.000	-44.00	3.58	-35.942	184.75	3.58	-35.942	184.75	3.58	-35.942	184.75
3.90	-23.532	23.66	3.90	-44.000	-44.00	3.90	-36.129	190.04	3.90	-36.129	190.04	3.90	-36.129	190.04
4.23	-22.662	13.51	4.23	-44.000	-44.00	4.23	-36.316	195.33	4.23	-36.316	195.33	4.23	-36.316	195.33
4.55	-21.791	3.36	4.55	-44.000	-44.00	4.55	-36.503	200.62	4.55	-36.503	200.62	4.55	-36.503	200.62
4.88	-20.921	-7.79	4.88	-44.000	-44.00	4.88	-36.690	205.91	4.88	-36.690	205.91	4.88	-36.690	205.91
5.20	-20.050	-17.94	5.20	-44.000	-44.00	5.20	-36.877	211.20	5.20	-36.877	211.20	5.20	-36.877	211.20
5.53	-19.180	-28.09	5.53	-44.000	-44.00	5.53	-37.064	216.49	5.53	-37.064	216.49	5.53	-37.064	216.49
5.85	-18.309	-38.24	5.85	-44.000	-44.00	5.85	-37.251	221.78	5.85	-37.251	221.78	5.85	-37.251	221.78
6.18	-17.439	-48.39	6.18	-44.000	-44.00	6.18	-37.438	227.07	6.18	-37.438	227.07	6.18	-37.438	227.07
6.50	-16.568	-58.54	6.50	-44.000	-44.00	6.50	-37.625	232.36	6.50	-37.625	232.36	6.50	-37.625	232.36
6.83	-15.698	-68.69	6.83	-44.000	-44.00	6.83	-37.812	237.65	6.83	-37.812	237.65	6.83	-37.812	237.65
7.15	-14.827	-78.84	7.15	-44.000	-44.00	7.15	-38.000	242.94	7.15	-38.000	242.94	7.15	-38.000	242.94
7.48	-13.957	-88.99	7.48	-44.000	-44.00	7.48	-38.187	248.23	7.48	-38.187	248.23	7.48	-38.187	248.23
7.80	-13.086	-99.14	7.80	-44.000	-44.00	7.80	-38.374	253.52	7.80	-38.374	253.52	7.80	-38.374	253.52
8.13	-12.216	-109.29	8.13	-44.000	-44.00	8.13	-38.561	258.81	8.13	-38.561	258.81	8.13	-38.561	258.81
8.45	-11.345	-119.44	8.45	-44.000	-44.00	8.45	-38.748	264.10	8.45	-38.748	264.10	8.45	-38.748	264.10
8.78	-10.475	-129.59	8.78	-44.000	-44.00	8.78	-38.935	269.39	8.78	-38.935	269.39	8.78	-38.935	269.39
9.10	-9.604	-139.74	9.10	-44.000	-44.00	9.10	-39.122	274.68	9.10	-39.122	274.68	9.10	-39.122	274.68
9.43	-8.734	-149.89	9.43	-44.000	-44.00	9.43	-39.310	279.97	9.43	-39.310	279.97	9.43	-39.310	279.97
9.75	-7.863	-159.04	9.75	-44.000	-44.00	9.75	-39.497	285.26	9.75	-39.497	285.26	9.75	-39.497	285.26
10.08	-6.993	-169.19	10.08	-44.000	-44.00	10.08	-39.684	290.55	10.08	-39.684	290.55	10.08	-39.684	290.55
10.40	-6.122	-179.34	10.40	-44.000	-44.00	10.40	-39.871	295.84	10.40	-39.871	295.84	10.40	-39.871	295.84
10.73	-5.252	-189.49	10.73	-44.000	-44.00	10.73	-40.058	301.13	10.73	-40.058	301.13	10.73	-40.058	301.13
11.05	-4.381	-199.64	11.05	-44.000	-44.00	11.05	-40.245	306.42	11.05	-40.245	306.42	11.05	-40.245	306.42
11.38	-3.511	-209.79	11.38	-44.000	-44.00	11.38	-40.432	311.71	11.38	-40.432	311.71	11.38	-40.432	311.71
11.70	-2.640	-219.94	11.70	-44.000	-44.00	11.70	-40.620	317.00	11.70	-40.620	317.00	11.70	-40.620	317.00
12.03	-1.770	-230.09	12.03	-44.000	-44.00	12.03	-40.807	322.29	12.03	-40.807	322.29	12.03	-40.807	322.29
12.35	-0.900	-240.24	12.35	-44.000	-44.00	12.35	-40.994	327.58	12.35	-40.994	327.58	12.35	-40.994	327.58
12.68	0.000	-250.39	12.68	-44.000	-44.00	12.68	-41.181	332.87	12.68	-41.181	332.87	12.68	-41.181	332.87
13.00	0.870	-260.54	13.00	-44.000	-44.00	13.00	-41.368	338.16	13.00	-41.368	338.16	13.00	-41.368	338.16
13.33	1.740	-270.69	13.33	-44.000	-44.00	13.33	-41.555	343.45	13.33	-41.555	343.45	13.33	-41.555	343.45
13.65	2.610	-280.84	13.65	-44.000	-44.00	13.65	-41.742	348.74	13.65	-41.742	348.74	13.65	-41.742	348.74
13.98	3.480	-290.99	13.98	-44.000	-44.00	13.98	-41.930	354.03	13.98	-41.930	354.03	13.98	-41.930	354.03
14.30	4.350	-301.14	14.30	-44.000	-44.00	14.30	-42.117	359.32	14.30	-42.117	359.32	14.30	-42.117	359.32
14.63	5.220	-311.29	14.63	-44.000	-44.00	14.63	-42.304	364.61	14.63	-42.304	364.61	14.63	-42.304	364.61
14.95	6.090	-321.44	14.95	-44.000	-44.00	14.95	-42.491	369.90	14.95	-42.491	369.90	14.95	-42.491	369.90
15.28	6.960	-331.59	15.28	-44.000	-44.00	15.28	-42.678	375.19	15.28	-42.678	375.19	15.28	-42.678	375.19
15.60	7.830	-341.74	15.60	-44.000	-44.00	15.60	-42.865	380.48	15.60	-42.865	380.48	15.60	-42.865	380.48
15.93	8.700	-351.89	15.93	-44.000	-44.00	15.93	-43.052	385.77	15.93	-43.052	385.77	15.93	-43.052	385.77
16.25	9.570	-362.04	16.25	-44.000	-44.00	16.25	-43.240	391.06	16.25	-43.240	391.06	16.25	-43.240	391.06
16.58	10.440	-372.19	16.58	-44.000	-44.00	16.58	-43.427	396.35	16.58	-43.427	396.35	16.58	-43.427	396.35
16.90	11.310	-382.34	16.90	-44.000	-44.00	16.90	-43.614	401.64	16.90	-43.614	401.64	16.90	-43.614	401.64
17.23	12.180	-392.49	17.23	-44.000	-44.00	17.23	-43.801	406.93	17.23	-43.801	406.93	17.23	-43.801	406.93
17.55	13.050	-402.64	17.55	-44.000	-44.00	17.55	-43.988	412.22	17.55	-43.988	412.22	17.55	-43.988	412.22
17.88	13.920	-412.79	17.88	-44.000	-44.00	17.88	-44.175	417.51	17.88	-44.175	417.51	17.88	-44.175	417.51
18.20	14.790	-422.94	18.20	-44.000	-44.00	18.20	-44.362	422.80	18.20	-44.362	422.80	18.20	-44.362	422.80
18.53	15.660	-433.09	18.53	-44.000	-44.00	18.53	-44.550	428.09	18.53	-44.550	428.09	18.53	-44.550	428.09
18.85	16.530	-443.24	18.85	-44.000	-44.00	18.85	-44.737	433.38	18.85	-44.737	433.38	18.85	-44.737	433.38
19.18	17.400	-453.39	19.18	-44.000	-44.00	19.18	-44.924	438.67	19.18	-44.924	438.67	19.18	-44.924	438.67
19.50	18.270	-463.54	19.50	-44.000	-44.00	19.50	-45.111	443.96	19.50	-45.111	443.96	19.50	-45.111	443.96
19.83	19.140	-473.69	19.83	-44.000	-44.00	19.83	-45.298	449.25	19.83	-45.298	449.25	19.83	-45.298	449.25
20.15	20.010	-483.84	20.15	-44.000	-44.00	20.15	-45.485	454.54	20.15	-45.485	454.54	20.15	-45.485	454.54
20.48	20.880	-493.99	20.48	-44.000	-44.00	20.48	-45.672	459.83	20.48	-45.672	459.83	20.48	-45.672	459.83
20.80	21.750	-504.14	20.80	-44.000	-44.00	20.80	-45.860	465.12	20.80	-45.860	465.12	20.80	-45.860	465.12
21.13	22.620	-514.29	21.13	-44.000	-44.00	21.13	-46.047	470.41	21.13	-46.047	470.41	21.13	-46.047	470.41
21.45	23.490	-524.44	21.45	-44.000	-44.00	21.45	-46.234	475.70	21.45	-46.234	475.70	21.45	-46.234	475.70
21.78	24.360	-534.59	21.78	-44.000	-44.00	21.78	-46.421	481.00	21.78	-46.421	481.00	21.78	-46.421	481.00
22.10	25.230	-544.74	22.10	-44.000	-44.00	22.10	-46.608	486.29	22.10	-46.608	486.29	22.10	-46.608	486.29
22.43	26.100	-554.89	22.43	-44.000	-44.00	22.43	-46.795	491.58	22.43	-46.795	491.58	22.43	-46.795	491.58
22.75	26.970	-565.04	22.75	-44.000	-44.00	22.75	-46.982	496.87	22.75	-46.982	496.87	22.75	-46.982	496.87
23.08	27.840	-575.19	23.08	-44.000	-44.00	23.08	-47.170	502.16	23.08	-47.170	502.16	23.08	-47.170	502.16
23.40	28.710	-585.34	23.40	-44.000	-44.00	23.40	-47.357	507.45	23.40	-47.357	507.45	23.40	-47.357	507.45
23.73	29.580	-595.49	23.73	-44.000	-44.00	23.73	-47.544	512.74	23.73	-47.544	512.74	23.73	-47.544	512.74
24.0														

Table 59. Radial Electric Field (Fresh Water), Frequency = 100.0 MHz, VED Height = 0.00 m

1.0 KM DOWNRANGE					3.0 KM DOWNRANGE					30.0 KM DOWNRANGE				
RE (M)	AMP (DB)	PHASE (DEG)	RE (M)	AMP (DB)	PHASE (DEG)	RE (M)	AMP (DB)	PHASE (DEG)	RE (M)	AMP (DB)	PHASE (DEG)	RE (M)	AMP (DB)	PHASE (DEG)
0.00	-47.471	25.22	0.00	-50.704	-112.13	0.00	-57.384	-50.38	0.00	-67.344	-50.38	0.00	-76.090	27.21
0.01	-47.773	45.15	0.01	-51.373	91.74	0.01	-57.582	89.53	0.01	-67.541	89.53	0.01	-76.277	46.49
0.02	-47.936	73.67	0.02	-51.573	116.57	0.02	-57.789	116.57	0.02	-67.749	116.57	0.02	-76.474	75.53
0.03	-48.111	94.71	0.03	-51.780	134.51	0.03	-57.996	134.51	0.03	-67.956	134.51	0.03	-76.670	94.26
0.04	-48.295	93.05	0.04	-51.996	144.50	0.04	-58.203	144.50	0.04	-68.163	144.50	0.04	-76.867	42.83
0.05	-48.481	74.55	0.05	-52.211	154.50	0.05	-58.410	154.50	0.05	-68.370	154.50	0.05	-77.063	30.21
0.06	-48.668	70.71	0.06	-52.427	164.50	0.06	-58.617	164.50	0.06	-68.577	164.50	0.06	-77.260	21.05
0.07	-48.857	55.74	0.07	-52.643	174.50	0.07	-58.824	174.50	0.07	-68.784	174.50	0.07	-77.457	15.98
0.08	-49.047	38.74	0.08	-52.859	184.50	0.08	-59.031	184.50	0.08	-68.991	184.50	0.08	-77.654	12.15
0.09	-49.238	21.02	0.09	-53.075	194.50	0.09	-59.238	194.50	0.09	-69.198	194.50	0.09	-77.851	7.48
0.10	-49.430	5.02	0.10	-53.291	204.50	0.10	-59.445	204.50	0.10	-69.405	204.50	0.10	-78.048	0.15
0.11	-49.623	7.73	0.11	-53.507	214.50	0.11	-59.652	214.50	0.11	-69.612	214.50	0.11	-78.245	0.15
0.12	-49.817	74.14	0.12	-53.723	224.50	0.12	-59.859	224.50	0.12	-69.819	224.50	0.12	-78.442	5.08
0.13	-49.991	70.31	0.13	-53.939	234.50	0.13	-60.066	234.50	0.13	-70.026	234.50	0.13	-78.639	4.26
0.14	-50.176	65.30	0.14	-54.155	244.50	0.14	-60.273	244.50	0.14	-70.233	244.50	0.14	-78.836	3.00
0.15	-50.362	54.15	0.15	-54.371	254.50	0.15	-60.480	254.50	0.15	-70.440	254.50	0.15	-79.033	3.08
0.16	-50.549	37.79	0.16	-54.587	264.50	0.16	-60.687	264.50	0.16	-70.647	264.50	0.16	-79.230	2.06
0.17	-50.736	23.05	0.17	-54.803	274.50	0.17	-60.894	274.50	0.17	-70.854	274.50	0.17	-79.427	2.31
0.18	-50.923	49.81	0.18	-55.019	284.50	0.18	-61.101	284.50	0.18	-71.061	284.50	0.18	-79.624	2.03
0.19	-51.110	43.73	0.19	-55.235	294.50	0.19	-61.308	294.50	0.19	-71.268	294.50	0.19	-79.821	1.79
0.20	-51.297	42.26	0.20	-55.451	304.50	0.20	-61.515	304.50	0.20	-71.475	304.50	0.20	-80.018	1.50
0.21	-51.484	36.33	0.21	-55.667	314.50	0.21	-61.722	314.50	0.21	-71.682	314.50	0.21	-80.215	1.41
0.22	-51.671	35.65	0.22	-55.883	324.50	0.22	-61.929	324.50	0.22	-71.889	324.50	0.22	-80.412	1.26
0.23	-51.858	34.72	0.23	-56.099	334.50	0.23	-62.136	334.50	0.23	-72.096	334.50	0.23	-80.609	1.13
0.24	-52.045	30.74	0.24	-56.315	344.50	0.24	-62.343	344.50	0.24	-72.303	344.50	0.24	-80.806	1.02
0.25	-52.232	27.80	0.25	-56.531	354.50	0.25	-62.550	354.50	0.25	-72.510	354.50	0.25	-81.003	0.92
0.26	-52.419	23.37	0.26	-56.747	364.50	0.26	-62.757	364.50	0.26	-72.717	364.50	0.26	-81.200	0.83
0.27	-52.606	21.55	0.27	-56.963	374.50	0.27	-62.964	374.50	0.27	-72.924	374.50	0.27	-81.397	0.76
0.28	-52.793	19.70	0.28	-57.179	384.50	0.28	-63.171	384.50	0.28	-73.131	384.50	0.28	-81.594	0.69
0.29	-52.980	15.40	0.29	-57.395	394.50	0.29	-63.378	394.50	0.29	-73.338	394.50	0.29	-81.791	0.63
0.30	-53.167	13.40	0.30	-57.611	404.50	0.30	-63.585	404.50	0.30	-73.545	404.50	0.30	-81.988	0.58
0.31	-53.354	12.14	0.31	-57.827	414.50	0.31	-63.792	414.50	0.31	-73.752	414.50	0.31	-82.185	0.53
0.32	-53.541	10.73	0.32	-58.043	424.50	0.32	-64.000	424.50	0.32	-73.959	424.50	0.32	-82.382	0.48
0.33	-53.728	9.14	0.33	-58.259	434.50	0.33	-64.207	434.50	0.33	-74.166	434.50	0.33	-82.579	0.43
0.34	-53.915	7.34	0.34	-58.475	444.50	0.34	-64.414	444.50	0.34	-74.373	444.50	0.34	-82.776	0.38
0.35	-54.102	5.34	0.35	-58.691	454.50	0.35	-64.621	454.50	0.35	-74.580	454.50	0.35	-82.973	0.33
0.36	-54.289	3.14	0.36	-58.907	464.50	0.36	-64.828	464.50	0.36	-74.787	464.50	0.36	-83.170	0.28
0.37	-54.476	0.74	0.37	-59.123	474.50	0.37	-65.035	474.50	0.37	-74.994	474.50	0.37	-83.367	0.23
0.38	-54.663	0.14	0.38	-59.339	484.50	0.38	-65.242	484.50	0.38	-75.201	484.50	0.38	-83.564	0.18
0.39	-54.850	0.04	0.39	-59.555	494.50	0.39	-65.449	494.50	0.39	-75.408	494.50	0.39	-83.761	0.13
0.40	-55.037	0.00	0.40	-59.771	504.50	0.40	-65.656	504.50	0.40	-75.615	504.50	0.40	-83.958	0.08
0.41	-55.224	0.00	0.41	-59.987	514.50	0.41	-65.863	514.50	0.41	-75.822	514.50	0.41	-84.155	0.03
0.42	-55.411	0.00	0.42	-60.203	524.50	0.42	-66.070	524.50	0.42	-76.029	524.50	0.42	-84.352	0.00
0.43	-55.598	0.00	0.43	-60.419	534.50	0.43	-66.277	534.50	0.43	-76.236	534.50	0.43	-84.549	0.00
0.44	-55.785	0.00	0.44	-60.635	544.50	0.44	-66.484	544.50	0.44	-76.443	544.50	0.44	-84.746	0.00
0.45	-55.972	0.00	0.45	-60.851	554.50	0.45	-66.691	554.50	0.45	-76.650	554.50	0.45	-84.943	0.00
0.46	-56.159	0.00	0.46	-61.067	564.50	0.46	-66.898	564.50	0.46	-76.857	564.50	0.46	-85.140	0.00
0.47	-56.346	0.00	0.47	-61.283	574.50	0.47	-67.105	574.50	0.47	-77.064	574.50	0.47	-85.337	0.00
0.48	-56.533	0.00	0.48	-61.499	584.50	0.48	-67.312	584.50	0.48	-77.271	584.50	0.48	-85.534	0.00
0.49	-56.720	0.00	0.49	-61.715	594.50	0.49	-67.519	594.50	0.49	-77.478	594.50	0.49	-85.731	0.00
0.50	-56.907	0.00	0.50	-61.931	604.50	0.50	-67.726	604.50	0.50	-77.685	604.50	0.50	-85.928	0.00
0.51	-57.094	0.00	0.51	-62.147	614.50	0.51	-67.933	614.50	0.51	-77.892	614.50	0.51	-86.125	0.00
0.52	-57.281	0.00	0.52	-62.363	624.50	0.52	-68.140	624.50	0.52	-78.099	624.50	0.52	-86.322	0.00
0.53	-57.468	0.00	0.53	-62.579	634.50	0.53	-68.347	634.50	0.53	-78.306	634.50	0.53	-86.519	0.00
0.54	-57.655	0.00	0.54	-62.795	644.50	0.54	-68.554	644.50	0.54	-78.513	644.50	0.54	-86.716	0.00
0.55	-57.842	0.00	0.55	-63.011	654.50	0.55	-68.761	654.50	0.55	-78.720	654.50	0.55	-86.913	0.00
0.56	-58.029	0.00	0.56	-63.227	664.50	0.56	-68.968	664.50	0.56	-78.927	664.50	0.56	-87.110	0.00
0.57	-58.216	0.00	0.57	-63.443	674.50	0.57	-69.175	674.50	0.57	-79.134	674.50	0.57	-87.307	0.00
0.58	-58.403	0.00	0.58	-63.659	684.50	0.58	-69.382	684.50	0.58	-79.341	684.50	0.58	-87.504	0.00
0.59	-58.590	0.00	0.59	-63.875	694.50	0.59	-69.589	694.50	0.59	-79.548	694.50	0.59	-87.701	0.00
0.60	-58.777	0.00	0.60	-64.091	704.50	0.60	-69.796	704.50	0.60	-79.755	704.50	0.60	-87.898	0.00
0.61	-58.964	0.00	0.61	-64.307	714.50	0.61	-70.003	714.50	0.61	-79.962	714.50	0.61	-88.095	0.00
0.62	-59.151	0.00	0.62	-64.523	724.50	0.62	-70.210	724.50	0.62	-80.169	724.50	0.62	-88.292	0.00
0.63	-59.338	0.00	0.63	-64.739	734.50	0.63	-70.417	734.50	0.63	-80.376	734.50	0.63	-88.489	0.00
0.64	-59.525	0.00	0.64	-64.955	744.50	0.64	-70.624	744.50	0.64	-80.583	744.50	0.64	-88.686	0.00
0.65	-59.712	0.00	0.65	-65.171	754.50	0.65	-70.831	754.50	0.65	-80.790	754.50	0.65	-88.883	0.00
0.66	-59.899	0.00	0.66	-65.387	764.50	0.66	-71.038	764.50	0.66	-80.997	764.50	0.66	-89.080	0.00
0.67	-60.086	0.00	0.67	-65.603	774.50	0.67	-71.245	774.50	0.67	-81.204	774.50	0.67	-89.277	0.00
0.68	-60.273	0.00	0.68	-65.819	784.50	0.68	-71.452	784.50	0.68	-81.411	784.50	0.68	-89.474	0.00
0.69	-60.460	0.00	0.69	-66.035	794.50	0.69	-71.659	794.50	0.69	-81.618	794.50	0.69	-89.671	0.00
0.70	-60.647	0.00	0.70	-66.251	804.50	0.70	-71.866	804.50	0.70	-81.825	804.50	0.70	-89.868	0.00
0.71	-60.834	0.00	0.71	-66.467	814.50	0.71	-72.073	814.50	0.71	-82.032	814.50	0.71	-90.065	0.00
0.72	-61.021	0.00	0.72	-66.683	824.50	0.72	-72.280	824.50	0.72	-82.239	824.50	0.72	-90.262	0.00
0.73	-61.208	0.00	0.73	-66.899	834.50	0.73	-72.487	834.50	0.73	-82.446	834.50	0.73	-90.459	0.00
0.74	-61.395	0.00	0.74	-67.115	844.50	0.74	-72.694	844.50	0.74	-82.653	844.50	0.74	-90.656	0.00
0.75	-61.582	0.00	0.75	-67.331	854.50	0.75	-72.901	854.50	0.75	-82.860	854.50	0.75	-90.853	0.00
0.76	-61.769	0.00	0.76	-67.547	864.50	0.76	-73.108	864.						

Table 60. Radial Electric Field (Fresh Water), Frequency = 100.0 MHz, VED Height = 2.25 m

[illegible]

Table 61. Radial Electric Field (Fresh Water), Frequency = 100.0 MHz, VED Height = 4.50 m

10.0 KM COUNTERANGE				10.0 KM COUNTERANGE				30.0 KM COUNTERANGE			
HEIGHT (M)	AMP (UB)	PHASE (DEG)	HEIGHT (M)	AMP (UB)	PHASE (DEG)	HEIGHT (M)	AMP (UB)	PHASE (DEG)	HEIGHT (M)	AMP (UB)	PHASE (DEG)
0.00	-44.015	140.17	0.00	-33.751	-45.03	0.00	-33.751	-45.03	0.00	-33.751	-45.03
0.01	-44.015	143.76	0.01	-33.751	137.36	0.01	-33.751	137.36	0.01	-33.751	137.36
0.02	-44.015	147.35	0.02	-33.751	133.96	0.02	-33.751	133.96	0.02	-33.751	133.96
0.03	-44.015	150.94	0.03	-33.751	130.56	0.03	-33.751	130.56	0.03	-33.751	130.56
0.04	-44.015	154.53	0.04	-33.751	127.16	0.04	-33.751	127.16	0.04	-33.751	127.16
0.05	-44.015	158.12	0.05	-33.751	123.76	0.05	-33.751	123.76	0.05	-33.751	123.76
0.06	-44.015	161.71	0.06	-33.751	120.36	0.06	-33.751	120.36	0.06	-33.751	120.36
0.07	-44.015	165.30	0.07	-33.751	116.96	0.07	-33.751	116.96	0.07	-33.751	116.96
0.08	-44.015	168.89	0.08	-33.751	113.56	0.08	-33.751	113.56	0.08	-33.751	113.56
0.09	-44.015	172.48	0.09	-33.751	110.16	0.09	-33.751	110.16	0.09	-33.751	110.16
0.10	-44.015	176.07	0.10	-33.751	106.76	0.10	-33.751	106.76	0.10	-33.751	106.76
0.11	-44.015	179.66	0.11	-33.751	103.36	0.11	-33.751	103.36	0.11	-33.751	103.36
0.12	-44.015	183.25	0.12	-33.751	99.96	0.12	-33.751	99.96	0.12	-33.751	99.96
0.13	-44.015	186.84	0.13	-33.751	96.56	0.13	-33.751	96.56	0.13	-33.751	96.56
0.14	-44.015	190.43	0.14	-33.751	93.16	0.14	-33.751	93.16	0.14	-33.751	93.16
0.15	-44.015	194.02	0.15	-33.751	89.76	0.15	-33.751	89.76	0.15	-33.751	89.76
0.16	-44.015	197.61	0.16	-33.751	86.36	0.16	-33.751	86.36	0.16	-33.751	86.36
0.17	-44.015	201.20	0.17	-33.751	82.96	0.17	-33.751	82.96	0.17	-33.751	82.96
0.18	-44.015	204.79	0.18	-33.751	79.56	0.18	-33.751	79.56	0.18	-33.751	79.56
0.19	-44.015	208.38	0.19	-33.751	76.16	0.19	-33.751	76.16	0.19	-33.751	76.16
0.20	-44.015	211.97	0.20	-33.751	72.76	0.20	-33.751	72.76	0.20	-33.751	72.76
0.21	-44.015	215.56	0.21	-33.751	69.36	0.21	-33.751	69.36	0.21	-33.751	69.36
0.22	-44.015	219.15	0.22	-33.751	65.96	0.22	-33.751	65.96	0.22	-33.751	65.96
0.23	-44.015	222.74	0.23	-33.751	62.56	0.23	-33.751	62.56	0.23	-33.751	62.56
0.24	-44.015	226.33	0.24	-33.751	59.16	0.24	-33.751	59.16	0.24	-33.751	59.16
0.25	-44.015	229.92	0.25	-33.751	55.76	0.25	-33.751	55.76	0.25	-33.751	55.76
0.26	-44.015	233.51	0.26	-33.751	52.36	0.26	-33.751	52.36	0.26	-33.751	52.36
0.27	-44.015	237.10	0.27	-33.751	48.96	0.27	-33.751	48.96	0.27	-33.751	48.96
0.28	-44.015	240.69	0.28	-33.751	45.56	0.28	-33.751	45.56	0.28	-33.751	45.56
0.29	-44.015	244.28	0.29	-33.751	42.16	0.29	-33.751	42.16	0.29	-33.751	42.16
0.30	-44.015	247.87	0.30	-33.751	38.76	0.30	-33.751	38.76	0.30	-33.751	38.76

Table 62. Azimuthal Magnetic Field (Fresh Water), Frequency = 0.1 MHz, VED Height = 0.00 m

3000 KM 0.00 MVE				10000 KM 0.00 MVE				30000 KM 0.00 MVE			
RELUM	AMP	PMSC	RELUM	AMP	PMSC	RELUM	AMP	PMSC	RELUM	AMP	PMSC
(m)	(uB)	(uB)	(m)	(uB)	(uB)	(m)	(uB)	(uB)	(m)	(uB)	(uB)
0.000	-1.0000	-3.7472	0.000	-3.7473	-63.004	0.000	-3.7473	-63.004	0.000	-3.7473	-102.31
0.030	-1.0027	-3.7470	0.030	-4.0334	-64.191	0.030	-4.0334	-64.191	0.030	-4.0334	-100.20
0.060	-1.0040	-3.7470	0.060	-4.1211	-64.191	0.060	-4.1211	-64.191	0.060	-4.1211	-97.94
0.090	-1.0040	-3.7470	0.090	-4.1933	-64.191	0.090	-4.1933	-64.191	0.090	-4.1933	-95.44
0.120	-1.0040	-3.7470	0.120	-4.2466	-64.191	0.120	-4.2466	-64.191	0.120	-4.2466	-93.16
0.150	-1.0040	-3.7470	0.150	-4.2901	-64.191	0.150	-4.2901	-64.191	0.150	-4.2901	-91.04
0.180	-1.0040	-3.7470	0.180	-4.3234	-64.191	0.180	-4.3234	-64.191	0.180	-4.3234	-89.05
0.210	-1.0040	-3.7470	0.210	-4.3513	-64.191	0.210	-4.3513	-64.191	0.210	-4.3513	-87.33
0.240	-1.0040	-3.7470	0.240	-4.3739	-64.191	0.240	-4.3739	-64.191	0.240	-4.3739	-85.77
0.270	-1.0040	-3.7470	0.270	-4.3913	-64.191	0.270	-4.3913	-64.191	0.270	-4.3913	-84.33
0.300	-1.0040	-3.7470	0.300	-4.4036	-64.191	0.300	-4.4036	-64.191	0.300	-4.4036	-83.00
0.330	-1.0040	-3.7470	0.330	-4.4107	-64.191	0.330	-4.4107	-64.191	0.330	-4.4107	-81.76
0.360	-1.0040	-3.7470	0.360	-4.4130	-64.191	0.360	-4.4130	-64.191	0.360	-4.4130	-80.61
0.390	-1.0040	-3.7470	0.390	-4.4107	-64.191	0.390	-4.4107	-64.191	0.390	-4.4107	-79.54
0.420	-1.0040	-3.7470	0.420	-4.4036	-64.191	0.420	-4.4036	-64.191	0.420	-4.4036	-78.53
0.450	-1.0040	-3.7470	0.450	-4.3913	-64.191	0.450	-4.3913	-64.191	0.450	-4.3913	-77.57
0.480	-1.0040	-3.7470	0.480	-4.3739	-64.191	0.480	-4.3739	-64.191	0.480	-4.3739	-76.65
0.510	-1.0040	-3.7470	0.510	-4.3513	-64.191	0.510	-4.3513	-64.191	0.510	-4.3513	-75.77
0.540	-1.0040	-3.7470	0.540	-4.3234	-64.191	0.540	-4.3234	-64.191	0.540	-4.3234	-74.93
0.570	-1.0040	-3.7470	0.570	-4.2901	-64.191	0.570	-4.2901	-64.191	0.570	-4.2901	-74.13
0.600	-1.0040	-3.7470	0.600	-4.2466	-64.191	0.600	-4.2466	-64.191	0.600	-4.2466	-73.37
0.630	-1.0040	-3.7470	0.630	-4.1933	-64.191	0.630	-4.1933	-64.191	0.630	-4.1933	-72.64
0.660	-1.0040	-3.7470	0.660	-4.1211	-64.191	0.660	-4.1211	-64.191	0.660	-4.1211	-71.94
0.690	-1.0040	-3.7470	0.690	-4.0334	-64.191	0.690	-4.0334	-64.191	0.690	-4.0334	-71.27
0.720	-1.0040	-3.7470	0.720	-3.9201	-64.191	0.720	-3.9201	-64.191	0.720	-3.9201	-70.63
0.750	-1.0040	-3.7470	0.750	-3.7813	-64.191	0.750	-3.7813	-64.191	0.750	-3.7813	-70.01
0.780	-1.0040	-3.7470	0.780	-3.6179	-64.191	0.780	-3.6179	-64.191	0.780	-3.6179	-69.41
0.810	-1.0040	-3.7470	0.810	-3.4301	-64.191	0.810	-3.4301	-64.191	0.810	-3.4301	-68.83
0.840	-1.0040	-3.7470	0.840	-3.2179	-64.191	0.840	-3.2179	-64.191	0.840	-3.2179	-68.27
0.870	-1.0040	-3.7470	0.870	-2.9813	-64.191	0.870	-2.9813	-64.191	0.870	-2.9813	-67.73
0.900	-1.0040	-3.7470	0.900	-2.7201	-64.191	0.900	-2.7201	-64.191	0.900	-2.7201	-67.20
0.930	-1.0040	-3.7470	0.930	-2.4343	-64.191	0.930	-2.4343	-64.191	0.930	-2.4343	-66.68
0.960	-1.0040	-3.7470	0.960	-2.1239	-64.191	0.960	-2.1239	-64.191	0.960	-2.1239	-66.17
0.990	-1.0040	-3.7470	0.990	-1.7891	-64.191	0.990	-1.7891	-64.191	0.990	-1.7891	-65.67
1.020	-1.0040	-3.7470	1.020	-1.4301	-64.191	1.020	-1.4301	-64.191	1.020	-1.4301	-65.18
1.050	-1.0040	-3.7470	1.050	-1.0466	-64.191	1.050	-1.0466	-64.191	1.050	-1.0466	-64.70
1.080	-1.0040	-3.7470	1.080	-0.6391	-64.191	1.080	-0.6391	-64.191	1.080	-0.6391	-64.23
1.110	-1.0040	-3.7470	1.110	-0.2079	-64.191	1.110	-0.2079	-64.191	1.110	-0.2079	-63.77
1.140	-1.0040	-3.7470	1.140	0.1479	-64.191	1.140	0.1479	-64.191	1.140	0.1479	-63.32
1.170	-1.0040	-3.7470	1.170	0.4581	-64.191	1.170	0.4581	-64.191	1.170	0.4581	-62.88
1.200	-1.0040	-3.7470	1.200	0.7291	-64.191	1.200	0.7291	-64.191	1.200	0.7291	-62.45
1.230	-1.0040	-3.7470	1.230	0.9601	-64.191	1.230	0.9601	-64.191	1.230	0.9601	-62.03
1.260	-1.0040	-3.7470	1.260	1.1513	-64.191	1.260	1.1513	-64.191	1.260	1.1513	-61.62
1.290	-1.0040	-3.7470	1.290	1.3029	-64.191	1.290	1.3029	-64.191	1.290	1.3029	-61.22
1.320	-1.0040	-3.7470	1.320	1.4151	-64.191	1.320	1.4151	-64.191	1.320	1.4151	-60.83
1.350	-1.0040	-3.7470	1.350	1.4879	-64.191	1.350	1.4879	-64.191	1.350	1.4879	-60.45
1.380	-1.0040	-3.7470	1.380	1.5213	-64.191	1.380	1.5213	-64.191	1.380	1.5213	-60.08
1.410	-1.0040	-3.7470	1.410	1.5151	-64.191	1.410	1.5151	-64.191	1.410	1.5151	-59.72
1.440	-1.0040	-3.7470	1.440	1.4691	-64.191	1.440	1.4691	-64.191	1.440	1.4691	-59.37
1.470	-1.0040	-3.7470	1.470	1.3939	-64.191	1.470	1.3939	-64.191	1.470	1.3939	-59.03
1.500	-1.0040	-3.7470	1.500	1.2891	-64.191	1.500	1.2891	-64.191	1.500	1.2891	-58.70
1.530	-1.0040	-3.7470	1.530	1.1551	-64.191	1.530	1.1551	-64.191	1.530	1.1551	-58.38
1.560	-1.0040	-3.7470	1.560	0.9929	-64.191	1.560	0.9929	-64.191	1.560	0.9929	-58.07
1.590	-1.0040	-3.7470	1.590	0.8029	-64.191	1.590	0.8029	-64.191	1.590	0.8029	-57.77
1.620	-1.0040	-3.7470	1.620	0.5851	-64.191	1.620	0.5851	-64.191	1.620	0.5851	-57.48
1.650	-1.0040	-3.7470	1.650	0.3491	-64.191	1.650	0.3491	-64.191	1.650	0.3491	-57.20
1.680	-1.0040	-3.7470	1.680	0.0951	-64.191	1.680	0.0951	-64.191	1.680	0.0951	-56.93
1.710	-1.0040	-3.7470	1.710	-0.1751	-64.191	1.710	-0.1751	-64.191	1.710	-0.1751	-56.67
1.740	-1.0040	-3.7470	1.740	-0.4691	-64.191	1.740	-0.4691	-64.191	1.740	-0.4691	-56.42
1.770	-1.0040	-3.7470	1.770	-0.7851	-64.191	1.770	-0.7851	-64.191	1.770	-0.7851	-56.18
1.800	-1.0040	-3.7470	1.800	-1.1129	-64.191	1.800	-1.1129	-64.191	1.800	-1.1129	-55.95
1.830	-1.0040	-3.7470	1.830	-1.4429	-64.191	1.830	-1.4429	-64.191	1.830	-1.4429	-55.73
1.860	-1.0040	-3.7470	1.860	-1.7651	-64.191	1.860	-1.7651	-64.191	1.860	-1.7651	-55.52
1.890	-1.0040	-3.7470	1.890	-2.0691	-64.191	1.890	-2.0691	-64.191	1.890	-2.0691	-55.32
1.920	-1.0040	-3.7470	1.920	-2.3543	-64.191	1.920	-2.3543	-64.191	1.920	-2.3543	-55.13
1.950	-1.0040	-3.7470	1.950	-2.6201	-64.191	1.950	-2.6201	-64.191	1.950	-2.6201	-54.95
1.980	-1.0040	-3.7470	1.980	-2.8669	-64.191	1.980	-2.8669	-64.191	1.980	-2.8669	-54.78
2.010	-1.0040	-3.7470	2.010	-3.0843	-64.191	2.010	-3.0843	-64.191	2.010	-3.0843	-54.62
2.040	-1.0040	-3.7470	2.040	-3.2729	-64.191	2.040	-3.2729	-64.191	2.040	-3.2729	-54.47
2.070	-1.0040	-3.7470	2.070	-3.4329	-64.191	2.070	-3.4329	-64.191	2.070	-3.4329	-54.33
2.100	-1.0040	-3.7470	2.100	-3.5643	-64.191	2.100	-3.5643	-64.191	2.100	-3.5643	-54.20
2.130	-1.0040	-3.7470	2.130	-3.6679	-64.191	2.130	-3.6679	-64.191	2.130	-3.6679	-54.08
2.160	-1.0040	-3.7470	2.160	-3.7443	-64.191	2.160	-3.7443	-64.191	2.160	-3.7443	-53.97
2.190	-1.0040	-3.7470	2.190	-3.7929	-64.191	2.190	-3.7929	-64.191	2.190	-3.7929	-53.87
2.220	-1.0040	-3.7470	2.220	-3.8139	-64.191	2.220	-3.8139	-64.191	2.220	-3.8139	-53.78
2.250	-1.0040	-3.7470	2.250	-3.8079	-64.191	2.250	-3.8079	-64.191	2.250	-3.8079	-53.70
2.280	-1.0040	-3.7470	2.280	-3.7739	-64.191	2.280	-3.7739	-64.191	2.280	-3.7739	-53.63
2.310	-1.0040	-3.7470	2.310	-3.7113	-64.191	2.310	-3.7113	-64.191	2.310	-3.7113	-53.57
2.340	-1.0040	-3.7470	2.340	-3.6201	-64.191	2.340	-3.6201	-64.191	2.340	-3.6201	-53.52
2.370	-1.0040	-3.7470	2.370	-3.5001	-64.191	2.370	-3.5001	-64.191	2.370	-3.5001	-53.48
2.400	-1.0040	-3.7470	2.400	-3.3513	-64.191	2.400	-3.3513	-64.191	2.400	-3.3513	-53.45
2.430	-1.0040	-3.7470	2.430	-3.1739	-64.191	2.430	-3.1739	-64.191	2.430	-3.1739	-53.42
2.460	-1.0040	-3.7470	2.460	-2.9679	-64.191	2.460	-2.9679	-64.191	2.460	-2.9679	-53.40
2.490	-1.0040	-3.7470	2.490	-2.7339	-64.191	2.490	-2.7339	-64.191	2.490	-2.7339	-53.38
2.520	-1.0040	-3.7470	2.520	-2.4713	-64.191	2.520	-2.4713	-64.191	2.520	-2.4713	-53.37
2.550	-1.0040	-3.7470	2.550	-2.1801	-64.191	2.550	-2.1801	-64.191	2.550	-2.1801	-53.36
2.580	-1.0040	-3.7470	2.580	-1.8601	-64.191	2.580	-1.8601	-64.191	2.580	-1.8601	-53.36
2.610	-1.0040	-3.7470	2.610	-1.5113	-64.191	2.610	-1.5113	-64.191	2.610	-1.5113	-53.36
2.640	-1.0040	-3.7470	2.640	-1.1343	-64.191	2.640	-1.1343	-64.191	2.640	-1.1343	-53.37
2.670	-1.0040	-3.7470	2.670	-0.7391	-64.191	2.670	-0.7391	-64.191	2.670	-0.7391	-53.38
2.700	-1.0040	-3.7470	2.700	-0.3251	-64.191	2.					

Table 63. Azimuthal Magnetic Field (Fresh Water), Frequency = 0.1 MHz, VED Height = 2247.60 m

[illegible]

Table 64. Azimuthal Magnetic Field (Fresh Water), Frequency = 0.1 MHz, VED Height = 4495.20 m

3000.0 KHz			3000.0 KHz		
LOCAL ANGLE			LOCAL ANGLE		
ANGLE (deg)	WAVE (dB)	FIELD (mT)	ANGLE (deg)	WAVE (dB)	FIELD (mT)
0.00	-24.210	0.000	180.00	-24.210	0.000
1.30	-24.237	0.000	181.30	-24.237	0.000
2.60	-24.264	0.000	182.60	-24.264	0.000
3.90	-24.291	0.000	183.90	-24.291	0.000
5.20	-24.318	0.000	185.20	-24.318	0.000
6.50	-24.345	0.000	186.50	-24.345	0.000
7.80	-24.372	0.000	187.80	-24.372	0.000
9.10	-24.399	0.000	189.10	-24.399	0.000
10.40	-24.426	0.000	190.40	-24.426	0.000
11.70	-24.453	0.000	191.70	-24.453	0.000
13.00	-24.480	0.000	193.00	-24.480	0.000
14.30	-24.507	0.000	194.30	-24.507	0.000
15.60	-24.534	0.000	195.60	-24.534	0.000
16.90	-24.561	0.000	196.90	-24.561	0.000
18.20	-24.588	0.000	198.20	-24.588	0.000
19.50	-24.615	0.000	199.50	-24.615	0.000
20.80	-24.642	0.000	200.80	-24.642	0.000
22.10	-24.669	0.000	202.10	-24.669	0.000
23.40	-24.696	0.000	203.40	-24.696	0.000
24.70	-24.723	0.000	204.70	-24.723	0.000
26.00	-24.750	0.000	206.00	-24.750	0.000
27.30	-24.777	0.000	207.30	-24.777	0.000
28.60	-24.804	0.000	208.60	-24.804	0.000
29.90	-24.831	0.000	209.90	-24.831	0.000
31.20	-24.858	0.000	211.20	-24.858	0.000
32.50	-24.885	0.000	212.50	-24.885	0.000
33.80	-24.912	0.000	213.80	-24.912	0.000
35.10	-24.939	0.000	215.10	-24.939	0.000
36.40	-24.966	0.000	216.40	-24.966	0.000
37.70	-24.993	0.000	217.70	-24.993	0.000
39.00	-25.020	0.000	219.00	-25.020	0.000
40.30	-25.047	0.000	220.30	-25.047	0.000
41.60	-25.074	0.000	221.60	-25.074	0.000
42.90	-25.101	0.000	222.90	-25.101	0.000
44.20	-25.128	0.000	224.20	-25.128	0.000
45.50	-25.155	0.000	225.50	-25.155	0.000
46.80	-25.182	0.000	226.80	-25.182	0.000
48.10	-25.209	0.000	228.10	-25.209	0.000
49.40	-25.236	0.000	229.40	-25.236	0.000
50.70	-25.263	0.000	230.70	-25.263	0.000
52.00	-25.290	0.000	232.00	-25.290	0.000
53.30	-25.317	0.000	233.30	-25.317	0.000
54.60	-25.344	0.000	234.60	-25.344	0.000
55.90	-25.371	0.000	235.90	-25.371	0.000
57.20	-25.398	0.000	237.20	-25.398	0.000
58.50	-25.425	0.000	238.50	-25.425	0.000
59.80	-25.452	0.000	239.80	-25.452	0.000
61.10	-25.479	0.000	241.10	-25.479	0.000
62.40	-25.506	0.000	242.40	-25.506	0.000
63.70	-25.533	0.000	243.70	-25.533	0.000
65.00	-25.560	0.000	245.00	-25.560	0.000
66.30	-25.587	0.000	246.30	-25.587	0.000
67.60	-25.614	0.000	247.60	-25.614	0.000
68.90	-25.641	0.000	248.90	-25.641	0.000
70.20	-25.668	0.000	250.20	-25.668	0.000
71.50	-25.695	0.000	251.50	-25.695	0.000
72.80	-25.722	0.000	252.80	-25.722	0.000
74.10	-25.749	0.000	254.10	-25.749	0.000
75.40	-25.776	0.000	255.40	-25.776	0.000
76.70	-25.803	0.000	256.70	-25.803	0.000
78.00	-25.830	0.000	258.00	-25.830	0.000
79.30	-25.857	0.000	259.30	-25.857	0.000
80.60	-25.884	0.000	260.60	-25.884	0.000
81.90	-25.911	0.000	261.90	-25.911	0.000
83.20	-25.938	0.000	263.20	-25.938	0.000
84.50	-25.965	0.000	264.50	-25.965	0.000
85.80	-25.992	0.000	265.80	-25.992	0.000
87.10	-26.019	0.000	267.10	-26.019	0.000
88.40	-26.046	0.000	268.40	-26.046	0.000
89.70	-26.073	0.000	269.70	-26.073	0.000
91.00	-26.100	0.000	271.00	-26.100	0.000
92.30	-26.127	0.000	272.30	-26.127	0.000
93.60	-26.154	0.000	273.60	-26.154	0.000
94.90	-26.181	0.000	274.90	-26.181	0.000
96.20	-26.208	0.000	276.20	-26.208	0.000
97.50	-26.235	0.000	277.50	-26.235	0.000
98.80	-26.262	0.000	278.80	-26.262	0.000
100.10	-26.289	0.000	280.10	-26.289	0.000
101.40	-26.316	0.000	281.40	-26.316	0.000
102.70	-26.343	0.000	282.70	-26.343	0.000
104.00	-26.370	0.000	284.00	-26.370	0.000
105.30	-26.397	0.000	285.30	-26.397	0.000
106.60	-26.424	0.000	286.60	-26.424	0.000
107.90	-26.451	0.000	287.90	-26.451	0.000
109.20	-26.478	0.000	289.20	-26.478	0.000
110.50	-26.505	0.000	290.50	-26.505	0.000
111.80	-26.532	0.000	291.80	-26.532	0.000
113.10	-26.559	0.000	293.10	-26.559	0.000
114.40	-26.586	0.000	294.40	-26.586	0.000
115.70	-26.613	0.000	295.70	-26.613	0.000
117.00	-26.640	0.000	297.00	-26.640	0.000
118.30	-26.667	0.000	298.30	-26.667	0.000
119.60	-26.694	0.000	299.60	-26.694	0.000
120.90	-26.721	0.000	300.90	-26.721	0.000
122.20	-26.748	0.000	302.20	-26.748	0.000
123.50	-26.775	0.000	303.50	-26.775	0.000
124.80	-26.802	0.000	304.80	-26.802	0.000
126.10	-26.829	0.000	306.10	-26.829	0.000
127.40	-26.856	0.000	307.40	-26.856	0.000
128.70	-26.883	0.000	308.70	-26.883	0.000
130.00	-26.910	0.000	310.00	-26.910	0.000
131.30	-26.937	0.000	311.30	-26.937	0.000
132.60	-26.964	0.000	312.60	-26.964	0.000
133.90	-26.991	0.000	313.90	-26.991	0.000
135.20	-27.018	0.000	315.20	-27.018	0.000
136.50	-27.045	0.000	316.50	-27.045	0.000
137.80	-27.072	0.000	317.80	-27.072	0.000
139.10	-27.099	0.000	319.10	-27.099	0.000
140.40	-27.126	0.000	320.40	-27.126	0.000
141.70	-27.153	0.000	321.70	-27.153	0.000
143.00	-27.180	0.000	323.00	-27.180	0.000
144.30	-27.207	0.000	324.30	-27.207	0.000
145.60	-27.234	0.000	325.60	-27.234	0.000
146.90	-27.261	0.000	326.90	-27.261	0.000
148.20	-27.288	0.000	328.20	-27.288	0.000
149.50	-27.315	0.000	329.50	-27.315	0.000
150.80	-27.342	0.000	330.80	-27.342	0.000
152.10	-27.369	0.000	332.10	-27.369	0.000
153.40	-27.396	0.000	333.40	-27.396	0.000
154.70	-27.423	0.000	334.70	-27.423	0.000
156.00	-27.450	0.000	336.00	-27.450	0.000
157.30	-27.477	0.000	337.30	-27.477	0.000
158.60	-27.504	0.000	338.60	-27.504	0.000
159.90	-27.531	0.000	339.90	-27.531	0.000
161.20	-27.558	0.000	341.20	-27.558	0.000
162.50	-27.585	0.000	342.50	-27.585	0.000
163.80	-27.612	0.000	343.80	-27.612	0.000
165.10	-27.639	0.000	345.10	-27.639	0.000
166.40	-27.666	0.000	346.40	-27.666	0.000
167.70	-27.693	0.000	347.70	-27.693	0.000
169.00	-27.720	0.000	349.00	-27.720	0.000
170.30	-27.747	0.000	350.30	-27.747	0.000
171.60	-27.774	0.000	351.60	-27.774	0.000
172.90	-27.801	0.000	352.90	-27.801	0.000
174.20	-27.828	0.000	354.20	-27.828	0.000
175.50	-27.855	0.000	355.50	-27.855	0.000
176.80	-27.882	0.000	356.80	-27.882	0.000
178.10	-27.909	0.000	358.10	-27.909	0.000
179.40	-27.936	0.000	359.40	-27.936	0.000
180.70	-27.963	0.000	360.70	-27.963	0.000
182.00	-27.990	0.000	362.00	-27.990	0.000
183.30	-28.017	0.000	363.30	-28.017	0.000
184.60	-28.044	0.000	364.60	-28.044	0.000
185.90	-28.071	0.000	365.90	-28.071	0.000
187.20	-28.098	0.000	367.20	-28.098	0.000
188.50	-28.125	0.000	368.50	-28.125	0.000
189.80	-28.152	0.000	369.80	-28.152	0.000
191.10	-28.179	0.000	371.10	-28.179	0.000
192.40	-28.206	0.000	372.40	-28.206	0.000
193.70	-28.233	0.000	373.70	-28.233	0.000
195.00	-28.260	0.000	375.00	-28.260	0.000
196.30	-28.287	0.000	376.30	-28.287	0.000
197.60	-28.314	0.000	377.60	-28.314	0.000
198.90	-28.341	0.000	378.90	-28.341	0.000
200.20	-28.368	0.000	380.20	-28.368	0.000
201.50	-28.395	0.000	381.50	-28.395	0.000
202.80	-28.422	0.000	382.80	-28.422	0.000
204.10	-28.449	0.000	384.10	-28.449	0.000
205.40	-28.476	0.000	385.40	-28.476	0.000
206.70	-28.503	0.000	386.70	-28.503	0.000
208.00	-28.530	0.000	388.00	-28.530	0.000
209.30	-28.557	0.000	389.30	-28.557	0.000
210.60	-28.584	0.000	390.60	-28.584	0.000
211.90	-28.611	0.000	391.90	-28.611	0.000
213.20	-28.638	0.000	393.20	-28.638	0.000
214.50	-28.665	0.000	394.50	-28.665	0.000
215.80	-28.692	0.000	395.80	-28.692	0.000
217.10	-28.719	0.000	397.10	-28.719	0.000
218.40	-28.746	0.000	398.40	-28.746	0.000
219.70	-28.773	0.000	399.70	-28.773	0.000
221.00	-28.800	0.000	401.00	-28.800	0.000
222.30	-28.827	0.000	402.30	-28.827	0.000
223.60	-28.854	0.000	403.60	-28.854	0.000
224.90	-28.881	0.000	404.90	-28.881	0.000
226.20	-28.908	0.000	406.20	-28.908	0.000
227.50	-28.935	0.000	407.50	-28.935	0.000</

Table 65. Azimuthal Magnetic Field (Fresh Water), Frequency = 1.0 MHz, VED Height = 0.00 m

[illegible]

Table 66. Azimuthal Magnetic Field (Fresh Water), Frequency = 1.0 MHz, VED Height = 224.76 m

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937	2938	2939	2940	2941	2942	2943	2944	2945	2946	2947	2948	2949	2950	2951	2952	2953	2954	2955	2956	2957	2958	2959	2960	2961	2962	2963	2964	2965	2966	2967	2968	2969	2970	2971	2972	2973	2974	2975	2976	2977	2978	2979	2980	2981	2982	2983	2984	2985	2986	2987	2988	2989	2990	2991	2992	2993	2994	2995	2996	2997	2998	2999	3000

Table 67. Azimuthal Magnetic Field (Fresh Water), Frequency = 1.0 MHz, VED Height = 449.52 m

3.0 KM UPRANGE			10.0 KM UPRANGE			30.0 KM UPRANGE			100.0 KM UPRANGE		
TELETYPE (M)	PHASE (DEG)	AMP (DB)	TELETYPE (M)	PHASE (DEG)	AMP (DB)	TELETYPE (M)	PHASE (DEG)	AMP (DB)	TELETYPE (M)	PHASE (DEG)	AMP (DB)
0.03	-4.17	-74.15	0.03	-4.35	-74.27	0.03	-4.53	-74.39	0.03	-4.71	-74.51
0.06	-4.18	-74.16	0.06	-4.36	-74.28	0.06	-4.54	-74.40	0.06	-4.72	-74.52
0.12	-4.19	-74.17	0.12	-4.37	-74.29	0.12	-4.55	-74.41	0.12	-4.73	-74.53
0.15	-4.20	-74.18	0.15	-4.38	-74.30	0.15	-4.56	-74.42	0.15	-4.74	-74.54
0.18	-4.21	-74.19	0.18	-4.39	-74.31	0.18	-4.57	-74.43	0.18	-4.75	-74.55
0.21	-4.22	-74.20	0.21	-4.40	-74.32	0.21	-4.58	-74.44	0.21	-4.76	-74.56
0.24	-4.23	-74.21	0.24	-4.41	-74.33	0.24	-4.59	-74.45	0.24	-4.77	-74.57
0.30	-4.24	-74.22	0.30	-4.42	-74.34	0.30	-4.60	-74.46	0.30	-4.78	-74.58
0.33	-4.25	-74.23	0.33	-4.43	-74.35	0.33	-4.61	-74.47	0.33	-4.79	-74.59
0.36	-4.26	-74.24	0.36	-4.44	-74.36	0.36	-4.62	-74.48	0.36	-4.80	-74.60
0.39	-4.27	-74.25	0.39	-4.45	-74.37	0.39	-4.63	-74.49	0.39	-4.81	-74.61
0.42	-4.28	-74.26	0.42	-4.46	-74.38	0.42	-4.64	-74.50	0.42	-4.82	-74.62
0.45	-4.29	-74.27	0.45	-4.47	-74.39	0.45	-4.65	-74.51	0.45	-4.83	-74.63
0.48	-4.30	-74.28	0.48	-4.48	-74.40	0.48	-4.66	-74.52	0.48	-4.84	-74.64
0.51	-4.31	-74.29	0.51	-4.49	-74.41	0.51	-4.67	-74.53	0.51	-4.85	-74.65
0.54	-4.32	-74.30	0.54	-4.50	-74.42	0.54	-4.68	-74.54	0.54	-4.86	-74.66
0.57	-4.33	-74.31	0.57	-4.51	-74.43	0.57	-4.69	-74.55	0.57	-4.87	-74.67
0.60	-4.34	-74.32	0.60	-4.52	-74.44	0.60	-4.70	-74.56	0.60	-4.88	-74.68
0.63	-4.35	-74.33	0.63	-4.53	-74.45	0.63	-4.71	-74.57	0.63	-4.89	-74.69
0.66	-4.36	-74.34	0.66	-4.54	-74.46	0.66	-4.72	-74.58	0.66	-4.90	-74.70
0.69	-4.37	-74.35	0.69	-4.55	-74.47	0.69	-4.73	-74.59	0.69	-4.91	-74.71
0.72	-4.38	-74.36	0.72	-4.56	-74.48	0.72	-4.74	-74.60	0.72	-4.92	-74.72
0.75	-4.39	-74.37	0.75	-4.57	-74.49	0.75	-4.75	-74.61	0.75	-4.93	-74.73
0.78	-4.40	-74.38	0.78	-4.58	-74.50	0.78	-4.76	-74.62	0.78	-4.94	-74.74
0.81	-4.41	-74.39	0.81	-4.59	-74.51	0.81	-4.77	-74.63	0.81	-4.95	-74.75
0.84	-4.42	-74.40	0.84	-4.60	-74.52	0.84	-4.78	-74.64	0.84	-4.96	-74.76
0.87	-4.43	-74.41	0.87	-4.61	-74.53	0.87	-4.79	-74.65	0.87	-4.97	-74.77
0.90	-4.44	-74.42	0.90	-4.62	-74.54	0.90	-4.80	-74.66	0.90	-4.98	-74.78
1.05	-4.50	-74.48	1.05	-4.68	-74.60	1.05	-4.86	-74.72	1.05	-5.04	-74.84
1.20	-4.56	-74.54	1.20	-4.74	-74.66	1.20	-4.92	-74.78	1.20	-5.10	-74.90
1.35	-4.61	-74.59	1.35	-4.79	-74.71	1.35	-4.97	-74.83	1.35	-5.15	-74.95
1.50	-4.66	-74.64	1.50	-4.84	-74.76	1.50	-5.02	-74.88	1.50	-5.20	-75.00
1.65	-4.71	-74.69	1.65	-4.89	-74.81	1.65	-5.07	-74.93	1.65	-5.25	-

Table 68. Azimuthal Magnetic Field (Fresh Water), Frequency = 10.0 MHz, VED Height = 0.00 m

3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
0.000	-16.700	-76.99	0.000	-26.366	-84.60	0.000	-37.812	-89.06	0.000	-48.262	-90.61	0.000	-48.262	-90.61	0.000
.003	-16.690	-69.06	.010	-26.162	-71.16	.030	-36.155	-84.15	.100	-40.262	-82.44	.300	-34.867	-12.32	.500
.006	-16.636	-63.15	.020	-27.372	-60.10	.060	-33.234	-74.73	.120	-36.714	-68.08	.300	-31.525	-8.34	.500
.009	-16.536	-61.40	.030	-26.748	-50.10	.090	-30.624	-64.64	.150	-26.978	-18.68	.300	-29.139	-6.32	.500
.012	-16.494	-57.61	.040	-25.824	-42.60	.120	-26.659	-18.68	.180	-25.371	-12.64	.300	-27.242	-5.10	.500
.015	-16.443	-54.39	.050	-24.886	-36.44	.150	-25.480	-11.55	.210	-24.369	-10.60	.300	-25.792	-4.29	.500
.018	-16.357	-51.15	.060	-23.980	-31.55	.180	-24.127	-27.64	.240	-23.324	-9.40	.300	-24.532	-3.70	.500
.021	-16.250	-48.11	.070	-23.127	-27.64	.210	-22.331	-21.65	.270	-21.402	-8.30	.300	-23.449	-3.27	.500
.024	-16.126	-45.27	.080	-22.331	-21.65	.240	-21.593	-14.67	.300	-20.838	-6.70	.300	-22.501	-2.92	.500
.027	-16.000	-42.61	.090	-21.593	-14.67	.270	-20.910	-14.67	.330	-20.150	-2.43	.300	-21.660	-2.65	.500
.030	-15.874	-40.14	.100	-20.910	-14.67	.300	-20.276	-17.84	.360	-19.550	-2.24	.300	-20.905	-2.48	.500
.033	-15.751	-37.65	.110	-20.276	-17.84	.330	-19.667	-16.28	.390	-18.983	-1.95	.300	-19.597	-2.08	.500
.036	-15.629	-35.72	.120	-19.667	-16.28	.360	-18.826	-13.77	.420	-18.459	-1.83	.300	-18.924	-1.83	.500
.039	-15.503	-33.74	.130	-19.026	-14.93	.390	-18.147	-12.75	.450	-17.972	-1.73	.300	-18.003	-1.73	.500
.042	-15.374	-31.91	.140	-18.459	-13.77	.420	-17.697	-11.85	.480	-17.518	-1.64	.300	-17.545	-1.64	.500
.045	-15.241	-30.21	.150	-17.847	-12.75	.450	-17.074	-11.05	.510	-17.043	-1.56	.300	-17.117	-1.56	.500
.048	-15.104	-28.64	.160	-17.274	-11.85	.480	-16.475	-10.34	.540	-16.604	-1.44	.300	-16.715	-1.44	.500
.051	-14.963	-27.17	.170	-16.875	-10.34	.510	-16.046	-9.70	.570	-16.317	-1.37	.300	-16.337	-1.37	.500
.054	-14.819	-25.81	.180	-16.475	-9.70	.540	-15.614	-9.12	.600	-15.962	-1.29	.300	-15.979	-1.36	.500
.057	-14.674	-24.55	.190	-16.046	-9.12	.570	-15.181	-8.60	.630	-15.626	-1.22	.300	-15.642	-1.31	.500
.060	-14.529	-23.37	.200	-15.614	-8.60	.600	-14.883	-8.13	.660	-15.307	-1.17	.300	-15.321	-1.26	.500
.063	-14.387	-22.27	.210	-15.181	-8.13	.630	-14.685	-7.70	.690	-15.004	-1.12	.300	-15.017	-1.22	.500
.066	-14.241	-21.25	.220	-14.883	-7.70	.660	-14.488	-7.30	.720	-14.715	-1.07	.300	-14.727	-1.17	.500
.069	-14.093	-20.29	.230	-14.685	-7.30	.690	-14.290	-6.94	.750	-14.439	-1.01	.300	-14.450	-1.14	.500
.072	-13.944	-19.40	.240	-14.488	-6.94	.720	-14.093	-6.61	.780	-14.176	-0.97	.300	-14.186	-1.10	.500
.075	-13.794	-18.56	.250	-14.290	-6.61	.750	-13.896	-6.30	.810	-13.925	-0.93	.300	-14.186	-1.07	.500
.078	-13.644	-17.77	.260	-14.093	-6.30	.780	-13.699	-6.02	.840	-13.683	-0.88	.300	-14.186	-1.04	.500
.081	-13.494	-17.03	.270	-13.896	-6.02	.810	-13.503	-5.75	.870	-13.483	-0.84	.300	-14.186	-1.01	.500
.084	-13.344	-16.34	.280	-13.699	-5.75	.840	-13.307	-5.50	.900	-13.283	-0.80	.300	-14.186	-1.01	.500
.087	-13.194	-15.68	.290	-13.503	-5.50	.870	-13.111	-5.25	.930	-13.083	-0.76	.300	-14.186	-1.01	.500
.090	-13.044	-15.07	.300	-13.307	-5.25	.900	-12.915	-5.00	.960	-12.883	-0.72	.300	-14.186	-1.01	.500
.105	-11.857	-12.46	.350	-12.469	-4.50	1.050	-12.422	-1.64	3.500	-12.422	-1.64	3.500	-12.422	-1.64	10.000
.120	-11.135	-10.47	.400	-11.522	-3.76	1.200	-11.560	-1.57	4.000	-11.560	-1.57	4.000	-11.560	-1.57	10.000
.135	-10.499	-8.92	.450	-10.797	-3.20	1.350	-10.826	-1.57	4.500	-10.826	-1.57	4.500	-10.826	-1.57	10.000
.150	-9.934	-7.66	.500	-10.168	-2.76	1.500	-10.190	-1.52	5.000	-10.190	-1.52	5.000	-10.190	-1.52	10.000
.165	-9.430	-6.66	.550	-9.617	-2.41	1.650	-9.634	-1.09	5.500	-9.634	-1.09	5.500	-9.634	-1.09	10.000
.180	-8.970	-5.86	.600	-9.129	-2.13	1.800	-9.143	-0.99	6.000	-9.143	-0.99	6.000	-9.143	-0.99	10.000
.195	-8.571	-5.18	.650	-8.694	-1.90	1.950	-8.705	-0.90	6.500	-8.705	-0.90	6.500	-8.705	-0.90	10.000
.210	-8.241	-4.61	.700	-8.303	-1.70	2.100	-8.312	-0.83	7.000	-8.312	-0.83	7.000	-8.312	-0.83	10.000
.225	-7.885	-4.12	.750	-7.949	-1.54	2.250	-7.957	-0.77	7.500	-7.957	-0.77	7.500	-7.957	-0.77	10.000
.240	-7.505	-3.71	.800	-7.629	-1.40	2.400	-7.635	-0.72	8.000	-7.635	-0.72	8.000	-7.635	-0.72	10.000
.255	-7.127	-3.36	.850	-7.336	-1.28	2.550	-7.342	-0.67	8.500	-7.342	-0.67	8.500	-7.342	-0.67	10.000
.270	-6.716	-3.05	.900	-7.069	-1.18	2.700	-7.073	-0.63	9.000	-7.073	-0.63	9.000	-7.073	-0.63	10.000
.285	-6.279	-2.78	.950	-6.823	-1.09	2.850	-6.827	-0.59	9.500	-6.827	-0.59	9.500	-6.827	-0.59	10.000
.300	-6.559	-2.55	1.000	-6.596	-1.01	3.000	-6.600	-0.56	10.000	-6.600	-0.56	10.000	-6.600	-0.56	10.000

Table 69. Azimuthal Magnetic Field (Fresh Water), Frequency = 10.0 MHz, VED Height = 22.48 m

3.0 KM DOWNRANGE			10.0 KM DOWNRANGE			30.0 KM DOWNRANGE			100.0 KM DOWNRANGE		
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)
0.000	-17.742	-46.04	0.000	-27.384	-57.31	0.000	-36.811	-61.45	0.000	-47.253	-62.88
0.003	-17.727	-46.72	0.010	-27.172	-58.47	0.030	-35.153	-62.53	0.100	-39.272	4.24
0.006	-17.669	-38.63	0.020	-26.588	-32.80	0.060	-32.252	-7.11	0.200	-33.858	15.40
0.009	-17.573	-35.08	0.030	-25.764	-23.04	0.090	-29.713	2.94	0.300	-30.517	19.38
0.012	-17.442	-31.48	0.040	-24.480	-15.30	0.120	-27.654	8.74	0.400	-28.131	21.41
0.015	-17.282	-28.06	0.050	-23.903	-9.13	0.150	-25.978	12.44	0.500	-26.285	22.63
0.018	-17.097	-24.82	0.060	-23.498	-4.42	0.180	-24.572	14.98	0.600	-24.786	23.45
0.021	-16.892	-21.77	0.070	-23.146	-1.31	0.210	-23.371	16.83	0.700	-23.527	24.03
0.024	-16.671	-18.92	0.080	-22.851	2.87	0.240	-22.327	18.24	0.800	-22.445	24.47
0.027	-16.436	-16.56	0.090	-22.615	5.49	0.270	-21.406	19.34	0.900	-21.448	24.82
0.030	-16.187	-14.76	0.100	-22.343	7.67	0.300	-20.585	20.22	1.000	-20.659	25.10
0.033	-15.921	-13.47	0.110	-22.041	9.51	0.330	-19.866	20.94	1.100	-19.905	25.32
0.036	-15.641	-12.74	0.120	-21.713	11.08	0.360	-19.175	21.55	1.200	-19.223	25.51
0.039	-15.341	-12.43	0.130	-21.467	12.43	0.390	-18.561	22.06	1.300	-18.602	25.68
0.042	-15.024	-12.50	0.140	-21.207	13.61	0.420	-17.997	22.50	1.400	-18.031	25.82
0.045	-14.693	-12.79	0.150	-20.931	14.64	0.450	-17.475	22.89	1.500	-17.504	25.94
0.048	-14.348	-13.20	0.160	-20.733	15.55	0.480	-16.991	23.22	1.600	-17.015	26.05
0.051	-13.986	-13.65	0.170	-20.512	16.35	0.510	-16.540	23.52	1.700	-16.560	26.14
0.054	-13.600	-14.13	0.180	-20.316	17.07	0.540	-16.117	23.78	1.800	-16.134	26.23
0.057	-13.197	-14.63	0.190	-20.142	17.72	0.570	-15.721	24.02	1.900	-15.735	26.31
0.060	-12.771	-15.13	0.200	-19.984	18.31	0.600	-15.360	24.23	2.000	-15.360	26.38
0.063	-12.325	-15.64	0.210	-19.834	18.84	0.630	-15.030	24.43	2.100	-15.006	26.45
0.066	-11.854	-16.14	0.220	-19.655	19.32	0.660	-14.663	24.60	2.200	-14.672	26.51
0.069	-11.354	-16.63	0.230	-19.453	19.76	0.690	-14.348	24.77	2.300	-14.355	26.57
0.072	-10.824	-17.11	0.240	-19.245	20.17	0.720	-14.068	24.92	2.400	-14.055	26.62
0.075	-10.260	-17.59	0.250	-19.070	20.54	0.750	-13.764	25.05	2.500	-13.769	26.67
0.078	-9.660	-18.07	0.260	-18.840	20.89	0.780	-13.492	25.18	2.600	-13.497	26.72
0.081	-9.024	-18.54	0.270	-18.597	21.21	0.810	-13.234	25.30	2.700	-13.237	26.76
0.084	-8.354	-19.00	0.280	-18.317	21.51	0.840	-12.986	25.41	2.800	-12.989	26.81
0.087	-7.650	-19.47	0.290	-18.066	21.79	0.870	-12.750	25.52	2.900	-12.752	26.85
0.090	-6.903	-19.91	0.300	-17.846	22.05	0.900	-12.523	25.62	3.000	-12.525	26.89
0.105	-11.009	14.31	0.350	-11.484	23.13	1.050	-11.520	26.03	3.500	-11.519	27.07
0.120	-10.420	16.40	0.400	-10.667	21.95	1.200	-10.684	26.37	4.000	-10.687	27.22
0.135	-9.714	18.07	0.450	-9.977	20.80	1.350	-9.990	26.65	4.500	-9.987	27.37
0.150	-9.145	19.43	0.500	-9.386	20.13	1.500	-9.394	26.89	5.000	-9.390	27.52
0.165	-8.736	20.56	0.550	-8.880	20.58	1.650	-8.882	27.12	5.500	-8.878	27.66
0.180	-8.352	21.52	0.600	-8.440	20.98	1.800	-8.438	27.33	6.000	-8.434	27.81
0.195	-7.977	22.34	0.650	-8.057	21.34	1.950	-8.053	27.54	6.500	-8.048	27.96
0.210	-7.605	23.07	0.700	-7.723	21.66	2.100	-7.716	27.74	7.000	-7.711	28.11
0.225	-7.230	23.72	0.750	-7.430	21.94	2.250	-7.422	27.94	7.500	-7.417	28.28
0.240	-6.854	24.30	0.800	-7.175	22.21	2.400	-7.166	28.14	8.000	-7.161	28.45
0.255	-6.473	24.84	0.850	-6.952	22.55	2.550	-6.942	28.35	8.500	-6.937	28.63
0.270	-6.084	25.34	0.900	-6.758	22.83	2.700	-6.747	28.56	9.000	-6.742	28.82
0.285	-5.683	25.81	0.950	-6.591	23.11	2.850	-6.579	28.78	9.500	-6.574	29.01
0.300	-5.255	26.25	1.000	-6.447	23.39	3.000	-6.435	29.01	10.000	-6.430	29.22

Table 70. Azimuthal Magnetic Field (Fresh Water), Frequency = 10.0 MHz, VED Height = 44.95 m

3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)
0.000	-15.844	-30.44	0.000	-25.357	-19.37	0.000	-34.704	-42.80	0.000	-45.113	-44.07	0.000	-55.113	-44.07	0.000
0.003	-15.878	-26.26	0.010	-25.151	-26.33	0.030	-33.045	-47.89	0.100	-31.719	34.22	0.200	-31.719	34.22	0.300
0.006	-15.921	-22.38	0.020	-24.562	-14.66	0.060	-30.145	11.54	0.150	-27.606	21.60	0.300	-28.378	38.20	0.400
0.009	-15.976	-18.62	0.030	-23.739	-4.93	0.090	-27.606	21.60	0.200	-25.553	27.41	0.400	-25.943	40.23	0.500
0.012	-15.998	-15.61	0.040	-22.817	2.67	0.120	-25.553	27.41	0.250	-23.874	31.11	0.500	-24.149	41.46	0.600
0.015	-15.991	-11.57	0.050	-21.881	9.05	0.150	-23.874	31.11	0.300	-22.469	33.67	0.600	-22.651	42.29	0.700
0.018	-15.960	-8.32	0.060	-20.978	13.96	0.180	-22.469	33.67	0.350	-21.270	35.53	0.700	-21.395	42.88	0.800
0.021	-15.900	-5.25	0.070	-20.128	17.91	0.210	-21.270	35.53	0.400	-20.315	43.36	0.800	-20.315	43.36	0.900
0.024	-15.844	-2.38	0.080	-19.336	21.11	0.240	-20.315	38.95	0.450	-19.371	43.69	0.900	-18.535	43.98	1.000
0.027	-15.816	0.31	0.090	-18.602	23.75	0.270	-19.371	38.95	0.500	-18.535	44.23	1.000	-17.785	44.43	1.100
0.030	-15.801	3.03	0.100	-17.923	25.95	0.300	-18.535	38.96	0.550	-17.785	44.43	1.100	-17.107	44.43	1.200
0.033	-15.796	5.16	0.110	-17.294	27.62	0.330	-17.785	39.70	0.600	-17.107	44.43	1.200	-16.489	44.61	1.300
0.036	-15.806	7.34	0.120	-16.710	28.91	0.360	-17.107	40.86	0.650	-16.489	44.61	1.300	-15.923	44.77	1.400
0.039	-15.832	9.37	0.130	-16.168	30.79	0.390	-16.489	41.32	0.700	-15.923	44.77	1.400	-15.400	44.92	1.500
0.042	-15.868	11.25	0.140	-15.662	31.99	0.420	-15.923	41.73	0.750	-15.400	44.92	1.500	-14.917	45.05	1.600
0.045	-15.917	13.00	0.150	-15.190	33.05	0.450	-15.400	42.04	0.800	-14.917	45.05	1.600	-14.467	45.17	1.700
0.048	-15.979	14.64	0.160	-14.747	33.99	0.480	-14.924	42.41	0.850	-14.467	45.17	1.700	-14.048	45.28	1.800
0.051	-16.055	16.16	0.170	-14.332	34.83	0.510	-14.467	42.70	0.900	-13.655	45.39	1.800	-13.655	45.48	1.900
0.054	-16.146	17.59	0.180	-13.942	35.58	0.540	-14.061	42.70	0.950	-13.286	45.58	1.900	-13.286	45.67	2.000
0.057	-16.242	18.92	0.190	-13.574	36.26	0.570	-13.671	43.21	1.000	-12.939	45.76	2.000	-12.939	45.85	2.100
0.060	-16.343	20.16	0.200	-13.227	36.88	0.600	-13.304	43.64	2.100	-12.612	45.93	2.100	-12.612	46.02	2.200
0.063	-16.449	21.33	0.210	-12.896	37.45	0.630	-12.959	44.02	2.200	-12.303	46.10	2.200	-12.303	46.27	2.300
0.066	-16.562	22.42	0.220	-12.587	37.97	0.660	-12.633	44.36	2.300	-12.010	46.27	2.300	-12.010	46.35	2.400
0.069	-16.680	23.45	0.230	-12.292	38.45	0.690	-12.325	44.65	2.400	-11.733	46.42	2.400	-11.733	46.42	2.500
0.072	-16.803	24.42	0.240	-12.011	38.90	0.720	-12.034	44.90	2.500	-11.469	46.50	2.500	-11.469	46.50	2.600
0.075	-16.931	25.34	0.250	-11.744	39.32	0.750	-11.757	45.11	2.600	-11.218	46.58	2.600	-11.218	46.58	2.700
0.078	-17.063	26.20	0.260	-11.491	39.70	0.780	-11.495	45.28	2.700	-10.980	46.67	2.700	-10.980	46.67	2.800
0.081	-17.200	27.02	0.270	-11.244	40.07	0.810	-11.245	45.43	2.800	-10.752	46.76	2.800	-10.752	46.76	2.900
0.084	-17.341	27.79	0.280	-11.011	40.41	0.840	-11.017	45.58	2.900	-10.535	46.85	2.900	-10.535	46.85	3.000
0.087	-17.484	28.53	0.290	-10.797	40.74	0.870	-10.780	45.73	3.000	-10.326	46.94	3.000	-10.326	46.94	3.100
0.090	-17.629	29.23	0.300	-10.586	41.05	0.900	-10.563	45.88							
0.105	-19.414	32.28	0.350	-9.458	42.39	1.050	-9.414	46.14							
0.120	-20.791	34.75	0.400	-8.904	43.51	1.200	-8.847	46.24							
0.135	-22.266	36.84	0.450	-8.480	44.51	1.350	-8.420	46.34							
0.150	-23.826	38.65	0.500	-7.778	45.43	1.500	-7.705	47.46							
0.165	-25.459	40.28	0.550	-7.360	46.31	1.650	-7.283	48.09							
0.180	-27.158	41.79	0.600	-7.016	46.96	1.800	-6.938	48.77							
0.195	-28.914	43.21	0.650	-6.743	48.08	1.950	-6.660	49.44							
0.210	-30.721	44.54	0.700	-6.526	49.00	2.100	-6.440	50.26							
0.225	-32.576	45.96	0.750	-6.359	49.96	2.250	-6.272	51.10							
0.240	-34.473	47.32	0.800	-6.239	50.97	2.400	-6.150	52.00							
0.255	-36.409	48.71	0.850	-6.160	52.05	2.550	-6.070	52.98							
0.270	-38.381	50.15	0.900	-6.119	53.20	2.700	-6.028	54.05							
0.285	-40.386	51.64	0.950	-6.113	54.43	2.850	-6.021	55.20							
0.300	-42.422	53.20	1.000	-6.140	55.76	3.000	-6.046	56.46							

Table 71. Azimuthal Magnetic Field (Fresh Water), Frequency = 100.0 MHz, VED Height = 0.00 m

HEIGHT (KM)	1.0 KM DOWNRANGE			3.0 KM DOWNRANGE			10.0 KM DOWNRANGE			30.0 KM DOWNRANGE		
	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
.000	-26.866	-63.64	0.000	-37.621	-67.92	0.000	-48.266	-69.46	0.000	-57.807	-69.91	0.000
.001	-26.163	-70.68	.001	-36.122	-53.19	.001	-46.253	-26.83	.001	-40.907	-8.06	.001
.002	-27.559	-59.04	.002	-33.220	-33.96	.002	-34.852	-11.74	.002	-35.029	-4.01	.002
.003	-26.721	-49.46	.003	-30.687	-24.01	.003	-31.515	-7.77	.003	-31.596	-2.65	.003
.004	-25.799	-41.75	.004	-28.637	-18.26	.004	-29.132	-2.76	.004	-29.178	-1.97	.004
.005	-24.661	-35.65	.005	-26.960	-14.59	.005	-27.287	-4.55	.005	-27.317	-1.56	.005
.006	-23.956	-30.82	.006	-25.557	-12.07	.006	-25.786	-3.74	.006	-25.809	-1.29	.006
.007	-23.104	-26.94	.007	-24.357	-10.23	.007	-24.529	-3.16	.007	-24.544	-1.10	.007
.008	-22.510	-23.60	.008	-23.313	-8.64	.008	-23.447	-2.73	.008	-23.458	-.95	.008
.009	-21.974	-21.21	.009	-22.393	-7.76	.009	-22.499	-2.39	.009	-22.509	-.84	.009
.010	-20.692	-19.06	.010	-21.572	-6.89	.010	-21.658	-2.13	.010	-21.666	-.75	.010
.011	-20.260	-17.24	.011	-20.832	-6.17	.011	-20.904	-1.91	.011	-20.910	-.67	.011
.012	-19.672	-15.69	.012	-20.160	-5.58	.012	-20.220	-1.73	.012	-20.225	-.61	.012
.013	-19.143	-14.36	.013	-19.545	-5.08	.013	-19.596	-1.57	.013	-19.601	-.56	.013
.014	-18.614	-13.21	.014	-18.979	-4.65	.014	-19.023	-1.44	.014	-19.027	-.52	.014
.015	-18.136	-12.20	.015	-18.456	-4.27	.015	-18.494	-1.33	.015	-18.497	-.48	.015
.016	-17.667	-11.31	.016	-17.969	-3.95	.016	-18.003	-1.23	.016	-18.006	-.45	.016
.017	-17.205	-10.52	.017	-17.515	-3.67	.017	-17.545	-1.14	.017	-17.548	-.42	.017
.018	-16.867	-9.81	.018	-17.090	-3.41	.018	-17.117	-1.07	.018	-17.119	-.39	.018
.019	-16.491	-9.16	.019	-16.691	-3.19	.019	-16.715	-1.00	.019	-16.717	-.37	.019
.020	-16.135	-8.61	.020	-16.315	-2.94	.020	-16.337	-.94	.020	-16.339	-.35	.020
.021	-15.797	-8.10	.021	-15.960	-2.68	.021	-15.980	-.88	.021	-15.981	-.33	.021
.022	-15.476	-7.63	.022	-15.624	-2.50	.022	-15.642	-.83	.022	-15.643	-.31	.022
.023	-15.170	-7.21	.023	-15.305	-2.34	.023	-15.321	-.79	.023	-15.323	-.30	.023
.024	-14.876	-6.82	.024	-15.002	-2.23	.024	-15.017	-.74	.024	-15.018	-.28	.024
.025	-14.600	-6.46	.025	-14.714	-2.12	.025	-14.727	-.71	.025	-14.728	-.27	.025
.026	-14.334	-6.13	.026	-14.438	-2.01	.026	-14.451	-.67	.026	-14.452	-.26	.026
.027	-14.079	-5.83	.027	-14.175	-1.91	.027	-14.187	-.64	.027	-14.188	-.25	.027
.028	-13.834	-5.55	.028	-13.924	-1.81	.028	-13.934	-.61	.028	-13.935	-.24	.028
.029	-13.600	-5.29	.029	-13.683	-1.62	.029	-13.692	-.58	.029	-13.693	-.23	.029
.030	-13.375	-5.04	.030	-13.451	-1.74	.030	-13.460	-.56	.030	-13.461	-.22	.030
.035	-12.4567	-4.05	.035	-12.422	-1.40	.035	-12.426	-.45	.035	-12.428	-.18	.035
.040	-11.950	-3.30	.040	-11.960	-1.15	.040	-11.965	-.38	.040	-11.965	-.16	.040
.045	-11.496	-2.75	.045	-11.626	-.97	.045	-11.629	-.32	.045	-11.630	-.14	.045
.050	-11.017	-2.36	.050	-11.191	-.82	.050	-11.193	-.28	.050	-11.194	-.12	.050
.055	-10.617	-2.03	.055	-10.635	-.71	.055	-10.637	-.24	.055	-10.637	-.11	.055
.060	-10.189	-1.76	.060	-10.143	-.62	.060	-10.145	-.21	.060	-10.145	-.10	.060
.065	-9.809	-1.53	.065	-9.706	-.54	.065	-9.707	-.19	.065	-9.707	-.09	.065
.070	-9.400	-1.35	.070	-9.313	-.48	.070	-9.314	-.17	.070	-9.314	-.08	.070
.075	-9.050	-1.20	.075	-8.958	-.43	.075	-8.959	-.15	.075	-8.959	-.08	.075
.080	-8.767	-1.07	.080	-8.636	-.38	.080	-8.637	-.14	.080	-8.637	-.07	.080
.085	-8.537	-.96	.085	-8.393	-.34	.085	-8.393	-.13	.085	-8.393	-.07	.085
.090	-8.369	-.86	.090	-8.174	-.31	.090	-8.174	-.12	.090	-8.174	-.06	.090
.095	-8.263	-.76	.095	-8.027	-.28	.095	-8.028	-.11	.095	-8.028	-.06	.095
.100	-8.197	-.71	.100	-7.960	-.26	.100	-7.960	-.10	.100	-7.960	-.06	.100

Table 72. Azimuthal Magnetic Field (Fresh Water), Frequency 100.0 MHz, VED Height = 2.25 m

10.0 KM DOWNRANGE			30.0 KM DOWNRANGE			50.0 KM DOWNRANGE			70.0 KM DOWNRANGE		
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)
.00	-27.308	-56.51	.00	-36.784	-65.43	.00	-46.084	-74.221	.00	-56.760	-82.27
.01	-27.143	-54.51	.01	-35.084	-63.43	.01	-43.384	-72.221	.01	-54.051	-80.27
.02	-26.978	-52.51	.02	-33.384	-61.43	.02	-41.684	-70.221	.02	-52.348	-78.27
.03	-26.813	-50.51	.03	-31.684	-59.43	.03	-39.984	-68.221	.03	-50.613	-76.27
.04	-26.648	-48.51	.04	-29.984	-57.43	.04	-38.284	-66.221	.04	-48.878	-74.27
.05	-26.483	-46.51	.05	-28.284	-55.43	.05	-36.584	-64.221	.05	-47.143	-72.27
.06	-26.318	-44.51	.06	-26.584	-53.43	.06	-34.884	-62.221	.06	-45.403	-70.27
.07	-26.153	-42.51	.07	-24.884	-51.43	.07	-33.184	-60.221	.07	-43.663	-68.27
.08	-25.988	-40.51	.08	-23.184	-49.43	.08	-31.484	-58.221	.08	-41.923	-66.27
.09	-25.823	-38.51	.09	-21.484	-47.43	.09	-29.784	-56.221	.09	-40.183	-64.27
.10	-25.658	-36.51	.10	-19.784	-45.43	.10	-28.084	-54.221	.10	-38.443	-62.27
.11	-25.493	-34.51	.11	-18.084	-43.43	.11	-26.384	-52.221	.11	-36.703	-60.27
.12	-25.328	-32.51	.12	-16.384	-41.43	.12	-24.684	-50.221	.12	-35.003	-58.27
.13	-25.163	-30.51	.13	-14.684	-39.43	.13	-22.984	-48.221	.13	-33.303	-56.27
.14	-25.000	-28.51	.14	-13.000	-37.43	.14	-21.300	-46.221	.14	-31.623	-54.27
.15	-24.835	-26.51	.15	-11.300	-35.43	.15	-19.600	-44.221	.15	-29.903	-52.27
.16	-24.670	-24.51	.16	-9.600	-33.43	.16	-17.900	-42.221	.16	-28.203	-50.27
.17	-24.505	-22.51	.17	-7.900	-31.43	.17	-16.200	-40.221	.17	-26.503	-48.27
.18	-24.340	-20.51	.18	-6.200	-29.43	.18	-14.500	-38.221	.18	-24.803	-46.27
.19	-24.175	-18.51	.19	-4.500	-27.43	.19	-12.800	-36.221	.19	-23.103	-44.27
.20	-24.010	-16.51	.20	-2.800	-25.43	.20	-11.100	-34.221	.20	-21.403	-42.27
.21	-23.845	-14.51	.21	-1.100	-23.43	.21	-9.400	-32.221	.21	-19.703	-40.27
.22	-23.680	-12.51	.22	0.600	-21.43	.22	-7.700	-30.221	.22	-18.003	-38.27
.23	-23.515	-10.51	.23	2.300	-19.43	.23	-6.000	-28.221	.23	-16.303	-36.27
.24	-23.350	-8.51	.24	4.000	-17.43	.24	-4.300	-26.221	.24	-14.603	-34.27
.25	-23.185	-6.51	.25	5.700	-15.43	.25	-2.600	-24.221	.25	-12.903	-32.27
.26	-23.020	-4.51	.26	7.400	-13.43	.26	-0.900	-22.221	.26	-11.203	-30.27
.27	-22.855	-2.51	.27	9.100	-11.43	.27	0.800	-20.221	.27	-9.503	-28.27
.28	-22.690	-0.51	.28	10.800	-9.43	.28	2.500	-18.221	.28	-7.803	-26.27
.29	-22.525	1.51	.29	12.500	-7.43	.29	4.200	-16.221	.29	-6.103	-24.27
.30	-22.360	3.51	.30	14.200	-5.43	.30	5.900	-14.221	.30	-4.403	-22.27
.35	-11.440	23.45	.35	-11.484	26.45	.35	-10.653	27.38	.35	-10.650	27.52
.40	-9.794	24.25	.40	-9.794	26.84	.40	-8.951	27.66	.40	-8.950	27.77
.45	-8.951	25.41	.45	-8.107	27.38	.45	-8.107	27.77	.45	-8.106	27.92
.50	-8.107	26.85	.50	-7.263	28.19	.50	-7.263	28.19	.50	-7.262	28.34
.55	-7.263	28.04	.55	-6.419	28.62	.55	-6.419	28.62	.55	-6.418	28.76
.60	-6.419	29.19	.60	-5.575	29.46	.60	-5.575	29.46	.60	-5.574	29.60
.65	-5.575	30.34	.65	-4.731	30.77	.65	-4.731	30.77	.65	-4.730	30.91
.70	-4.731	31.49	.70	-3.887	31.04	.70	-3.887	31.04	.70	-3.886	31.18
.75	-3.887	32.64	.75	-3.043	31.48	.75	-3.043	31.48	.75	-3.042	31.62
.80	-3.043	33.79	.80	-2.199	31.76	.80	-2.199	31.76	.80	-2.198	31.90
.85	-2.199	34.94	.85	-1.355	32.19	.85	-1.355	32.19	.85	-1.354	32.43
.90	-1.355	36.09	.90	-0.511	32.63	.90	-0.511	32.63	.90	-0.510	32.87
.95	-0.511	37.24	.95	0.333	33.05	.95	0.333	33.05	.95	0.332	33.29
.100	0.333	38.39	.100	1.177	33.48	.100	1.177	33.48	.100	1.176	33.72

Table 73. Azimuthal Magnetic Field (Fresh Water), Frequency = 100.0 MHz, VED Height = 4.50 m

1.0 KM DOWNRANGE				3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE			
HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)
0.000	-25.356	-30.555	0.000	-34.060	-41.96	0.000	-45.072	-43.22	0.000	-54.602	-43.58	0.000	-54.602	-43.58	0.000
0.01	-25.100	-29.534	0.01	-33.808	-41.23	0.01	-44.819	-42.42	0.01	-54.350	-42.86	0.01	-54.350	-42.86	0.01
0.02	-24.844	-28.513	0.02	-33.556	-40.50	0.02	-44.567	-41.61	0.02	-54.092	-42.13	0.02	-54.092	-42.13	0.02
0.03	-24.588	-27.492	0.03	-33.304	-39.77	0.03	-44.315	-40.80	0.03	-53.834	-41.40	0.03	-53.834	-41.40	0.03
0.04	-24.332	-26.471	0.04	-33.052	-39.04	0.04	-44.063	-40.00	0.04	-53.576	-40.68	0.04	-53.576	-40.68	0.04
0.05	-24.076	-25.450	0.05	-32.800	-38.31	0.05	-43.811	-39.25	0.05	-53.318	-39.95	0.05	-53.318	-39.95	0.05
0.06	-23.820	-24.429	0.06	-32.548	-37.58	0.06	-43.559	-38.50	0.06	-53.060	-39.22	0.06	-53.060	-39.22	0.06
0.07	-23.564	-23.408	0.07	-32.296	-36.85	0.07	-43.307	-37.75	0.07	-52.802	-38.49	0.07	-52.802	-38.49	0.07
0.08	-23.308	-22.387	0.08	-32.044	-36.12	0.08	-43.055	-37.00	0.08	-52.544	-37.76	0.08	-52.544	-37.76	0.08
0.09	-23.052	-21.366	0.09	-31.792	-35.39	0.09	-42.803	-36.25	0.09	-52.286	-37.03	0.09	-52.286	-37.03	0.09
0.10	-22.796	-20.345	0.10	-31.540	-34.66	0.10	-42.551	-35.50	0.10	-52.028	-36.30	0.10	-52.028	-36.30	0.10
0.11	-22.540	-19.324	0.11	-31.288	-33.93	0.11	-42.299	-34.75	0.11	-51.770	-35.57	0.11	-51.770	-35.57	0.11
0.12	-22.284	-18.303	0.12	-31.036	-33.20	0.12	-42.047	-34.00	0.12	-51.512	-34.84	0.12	-51.512	-34.84	0.12
0.13	-22.028	-17.282	0.13	-30.784	-32.47	0.13	-41.795	-33.25	0.13	-51.254	-34.11	0.13	-51.254	-34.11	0.13
0.14	-21.772	-16.261	0.14	-30.532	-31.74	0.14	-41.543	-32.50	0.14	-51.000	-33.38	0.14	-51.000	-33.38	0.14
0.15	-21.516	-15.240	0.15	-30.280	-31.01	0.15	-41.291	-31.75	0.15	-50.742	-32.65	0.15	-50.742	-32.65	0.15
0.16	-21.260	-14.219	0.16	-30.028	-30.28	0.16	-41.039	-31.00	0.16	-50.484	-31.92	0.16	-50.484	-31.92	0.16
0.17	-21.004	-13.198	0.17	-29.776	-29.55	0.17	-40.787	-30.25	0.17	-50.226	-31.19	0.17	-50.226	-31.19	0.17
0.18	-20.748	-12.177	0.18	-29.524	-28.82	0.18	-40.535	-29.50	0.18	-49.968	-30.46	0.18	-49.968	-30.46	0.18
0.19	-20.492	-11.156	0.19	-29.272	-28.09	0.19	-40.283	-28.75	0.19	-49.710	-29.73	0.19	-49.710	-29.73	0.19
0.20	-20.236	-10.135	0.20	-29.020	-27.36	0.20	-40.031	-28.00	0.20	-49.452	-29.00	0.20	-49.452	-29.00	0.20
0.21	-19.980	-9.114	0.21	-28.768	-26.63	0.21	-39.779	-27.25	0.21	-49.194	-28.27	0.21	-49.194	-28.27	0.21
0.22	-19.724	-8.093	0.22	-28.516	-25.90	0.22	-39.527	-26.50	0.22	-48.936	-27.54	0.22	-48.936	-27.54	0.22
0.23	-19.468	-7.072	0.23	-28.264	-25.17	0.23	-39.275	-25.75	0.23	-48.678	-26.81	0.23	-48.678	-26.81	0.23
0.24	-19.212	-6.051	0.24	-28.012	-24.44	0.24	-39.023	-25.00	0.24	-48.420	-26.08	0.24	-48.420	-26.08	0.24
0.25	-18.956	-5.030	0.25	-27.760	-23.71	0.25	-38.771	-24.25	0.25	-48.162	-25.35	0.25	-48.162	-25.35	0.25
0.26	-18.700	-4.009	0.26	-27.508	-22.98	0.26	-38.519	-23.50	0.26	-47.904	-24.62	0.26	-47.904	-24.62	0.26
0.27	-18.444	-2.988	0.27	-27.256	-22.25	0.27	-38.267	-22.75	0.27	-47.646	-23.89	0.27	-47.646	-23.89	0.27
0.28	-18.188	-1.967	0.28	-27.004	-21.52	0.28	-38.015	-22.00	0.28	-47.388	-23.16	0.28	-47.388	-23.16	0.28
0.29	-17.932	-0.946	0.29	-26.752	-20.79	0.29	-37.763	-21.25	0.29	-47.130	-22.43	0.29	-47.130	-22.43	0.29
0.30	-17.676	0.075	0.30	-26.500	-20.06	0.30	-37.511	-20.50	0.30	-46.872	-21.70	0.30	-46.872	-21.70	0.30
0.35	-16.611	4.633	0.35	-25.435	-19.00	0.35	-36.445	-19.44	0.35	-45.806	-20.64	0.35	-45.806	-20.64	0.35
0.40	-15.546	9.161	0.40	-24.370	-17.93	0.40	-35.380	-18.37	0.40	-44.740	-19.57	0.40	-44.740	-19.57	0.40
0.45	-14.481	13.689	0.45	-23.305	-16.86	0.45	-34.315	-17.30	0.45	-43.675	-18.50	0.45	-43.675	-18.50	0.45
0.50	-13.416	18.217	0.50	-22.240	-15.79	0.50	-33.250	-16.23	0.50	-42.610	-17.43	0.50	-42.610	-17.43	0.50
0.55	-12.351	22.745	0.55	-21.175	-14.72	0.55	-32.185	-15.16	0.55	-41.545	-16.36	0.55	-41.545	-16.36	0.55
0.60	-11.286	27.273	0.60	-20.110	-13.65	0.60	-31.120	-14.09	0.60	-40.480	-15.29	0.60	-40.480	-15.29	0.60
0.65	-10.221	31.801	0.65	-19.045	-12.58	0.65	-30.055	-13.02	0.65	-39.415	-14.22	0.65	-39.415	-14.22	0.65
0.70	-9.156	36.329	0.70	-17.980	-11.51	0.70	-29.000	-11.95	0.70	-38.350	-13.15	0.70	-38.350	-13.15	0.70
0.75	-8.091	40.857	0.75	-16.915	-10.44	0.75	-27.935	-10.88	0.75	-37.285	-12.08	0.75	-37.285	-12.08	0.75
0.80	-7.026	45.385	0.80	-15.850	-9.37	0.80	-26.870	-9.82	0.80	-36.220	-11.01	0.80	-36.220	-11.01	0.80
0.85	-5.961	49.913	0.85	-14.785	-8.30	0.85	-25.805	-8.75	0.85	-35.155	-9.94	0.85	-35.155	-9.94	0.85
0.90	-4.896	54.441	0.90	-13.720	-7.23	0.90	-24.740	-7.69	0.90	-34.090	-8.87	0.90	-34.090	-8.87	0.90
0.95	-3.831	58.969	0.95	-12.655	-6.16	0.95	-23.675	-6.62	0.95	-33.025	-7.80	0.95	-33.025	-7.80	0.95
1.00	-2.766	63.497	1.00	-11.590	-5.09	1.00	-22.610	-5.56	1.00	-31.960	-6.73	1.00	-31.960	-6.73	1.00

Table 74. Vertical Electric Field (Ice), Frequency = 0.1 MHz, VED Height = 0.00 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)	
0.000	-18.610	-100.24		0.000	-29.115	-113.92		0.000	-38.875	-117.74	
0.030	-18.660	-98.92		0.100	-29.265	-109.48		0.300	-39.165	-104.07	
0.060	-18.706	-97.60		0.200	-29.363	-104.93		0.600	-39.957	-90.35	
0.090	-18.747	-96.27		0.300	-29.407	-100.33		0.900	-38.321	-77.98	
0.120	-18.783	-94.93		0.400	-29.395	-95.75		1.200	-37.420	-67.69	
0.150	-18.814	-93.59		0.500	-29.330	-91.22		1.500	-36.407	-59.49	
0.180	-18.840	-92.25		0.600	-29.213	-86.81		1.800	-35.379	-53.04	
0.210	-18.864	-90.91		0.700	-29.051	-82.57		2.100	-34.388	-47.95	
0.240	-18.879	-89.57		0.800	-28.848	-78.52		2.400	-33.455	-43.89	
0.270	-18.891	-88.23		0.900	-28.612	-74.69		2.700	-32.585	-40.60	
0.300	-18.898	-86.90		1.000	-28.348	-71.09		3.000	-31.777	-37.90	
0.330	-18.901	-85.57		1.100	-28.063	-67.73		3.300	-31.027	-35.65	
0.360	-18.898	-84.25		1.200	-27.762	-64.60		3.600	-30.330	-33.75	
0.390	-18.892	-82.93		1.300	-27.450	-61.71		3.900	-29.681	-32.12	
0.420	-18.880	-81.63		1.400	-27.131	-59.02		4.200	-29.075	-30.72	
0.450	-18.865	-80.34		1.500	-26.808	-56.54		4.500	-28.508	-29.49	
0.480	-18.845	-79.06		1.600	-26.485	-54.25		4.800	-27.974	-28.42	
0.510	-18.821	-77.79		1.700	-26.162	-52.13		5.100	-27.472	-27.46	
0.540	-18.793	-76.53		1.800	-25.842	-50.18		5.400	-26.998	-26.61	
0.570	-18.761	-75.30		1.900	-25.527	-48.37		5.700	-26.549	-25.85	
0.600	-18.726	-74.07		2.000	-25.216	-46.69		6.000	-26.123	-25.16	
0.630	-18.687	-72.87		2.100	-24.912	-45.13		6.300	-25.718	-24.53	
0.660	-18.644	-71.66		2.200	-24.614	-43.68		6.600	-25.332	-23.96	
0.690	-18.599	-70.51		2.300	-24.322	-42.34		6.900	-24.964	-23.43	
0.720	-18.550	-69.36		2.400	-24.037	-41.08		7.200	-24.612	-22.95	
0.750	-18.498	-68.22		2.500	-23.760	-39.91		7.500	-24.276	-22.50	
0.780	-18.444	-67.11		2.600	-23.489	-38.82		7.800	-23.953	-22.09	
0.810	-18.387	-66.02		2.700	-23.225	-37.79		8.100	-23.642	-21.71	
0.840	-18.328	-64.95		2.800	-22.967	-36.83		8.400	-23.344	-21.35	
0.870	-18.268	-63.89		2.900	-22.716	-35.93		8.700	-23.057	-21.01	
0.900	-18.203	-62.86		3.000	-22.472	-35.08		9.000	-22.780	-20.70	
1.050	-17.859	-58.01		3.500	-21.341	-31.49		10.500	-21.532	-19.37	
1.200	-17.483	-53.66		4.000	-20.345	-28.73		12.000	-20.484	-18.35	
1.350	-17.090	-49.78		4.500	-19.461	-26.54		13.500	-19.536	-17.53	
1.500	-16.691	-46.31		5.000	-18.671	-24.77		15.000	-18.718	-16.85	
1.600	-16.451	-43.27		5.500	-17.960	-23.30		16.500	-17.988	-16.27	
1.800	-15.901	-40.34		6.000	-17.316	-22.06		18.000	-17.332	-15.77	
1.950	-15.320	-38.11		6.500	-16.729	-21.00		19.500	-16.737	-15.33	
2.100	-15.151	-35.94		7.000	-16.192	-20.08		21.000	-16.195	-14.94	
2.250	-14.796	-34.00		7.500	-15.699	-19.27		22.500	-15.697	-14.59	
2.400	-14.456	-32.25		8.000	-15.243	-18.56		24.000	-15.234	-14.27	
2.550	-14.131	-30.67		8.500	-14.821	-17.92		25.500	-14.815	-13.98	
2.700	-13.820	-29.24		9.000	-14.428	-17.34		27.000	-14.421	-13.71	
2.850	-13.524	-27.94		9.500	-14.062	-16.82		28.500	-14.055	-13.46	
3.000	-13.241	-26.75		10.000	-13.726	-16.35		30.000	-13.713	-13.22	

Table 75. Vertical Electric Field (Ice), Frequency = 0.1 MHz, VED Height = 2247.60 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)	
0.000	-14.729	-34.03		0.000	-24.468	-33.03		0.000	-33.920	-45.84	
.030	-14.773	-32.67		.100	-24.611	-38.54		.300	-34.203	-32.14	
.060	-14.812	-31.30		.200	-24.701	-33.96		.600	-33.985	-18.40	
.090	-14.847	-29.93		.300	-24.737	-29.33		.900	-33.341	-6.05	
.120	-14.877	-28.56		.400	-24.716	-24.72		1.200	-32.435	4.22	
.150	-14.902	-27.18		.500	-24.642	-20.18		1.500	-31.418	12.39	
.180	-14.922	-25.80		.600	-24.517	-15.76		1.800	-30.390	18.82	
.210	-14.937	-24.42		.700	-24.347	-11.52		2.100	-29.399	23.89	
.240	-14.948	-23.05		.800	-24.137	-7.47		2.400	-28.466	27.94	
.270	-14.954	-21.68		.900	-23.895	-3.65		2.700	-27.597	31.22	
.300	-14.956	-20.31		1.000	-23.625	-.06		3.000	-26.790	33.91	
.330	-14.952	-18.95		1.100	-23.336	3.28		3.300	-26.041	36.16	
.360	-14.945	-17.60		1.200	-23.031	6.39		3.600	-25.346	38.06	
.390	-14.932	-16.26		1.300	-22.716	9.28		3.900	-24.698	39.69	
.420	-14.916	-14.93		1.400	-22.395	11.95		4.200	-24.093	41.09	
.450	-14.895	-13.61		1.500	-22.070	14.41		4.500	-23.527	42.32	
.480	-14.871	-12.30		1.600	-21.745	16.64		4.800	-22.995	43.40	
.510	-14.842	-11.01		1.700	-21.422	18.80		5.100	-22.495	44.36	
.540	-14.809	-9.73		1.800	-21.102	20.75		5.400	-22.022	45.22	
.570	-14.773	-8.47		1.900	-20.787	22.56		5.700	-21.574	45.99	
.600	-14.734	-7.23		2.000	-20.477	24.23		6.000	-21.150	46.69	
.630	-14.691	-6.00		2.100	-20.173	25.74		6.300	-20.747	47.33	
.660	-14.645	-4.79		2.200	-19.876	27.23		6.600	-20.363	47.91	
.690	-14.596	-3.60		2.300	-19.586	28.58		6.900	-19.997	48.45	
.720	-14.544	-2.42		2.400	-19.302	29.83		7.200	-19.647	48.94	
.750	-14.489	-1.27		2.500	-19.026	31.01		7.500	-19.312	49.40	
.780	-14.432	-.14		2.600	-18.756	32.11		7.800	-18.991	49.83	
.810	-14.373	.98		2.700	-18.494	33.14		8.100	-18.683	50.22	
.840	-14.312	2.07		2.800	-18.239	34.11		8.400	-18.387	50.60	
.870	-14.248	3.14		2.900	-17.990	35.02		8.700	-18.102	50.95	
.900	-14.183	4.19		3.000	-17.748	35.89		9.000	-17.828	51.28	
1.050	-13.834	9.15		3.500	-16.624	39.54		10.500	-16.592	52.68	
1.200	-13.458	13.61		4.000	-15.646	42.34		12.000	-15.540	53.80	
1.350	-13.071	17.62		4.500	-14.778	44.68		13.500	-14.624	54.72	
1.500	-12.680	21.21		5.000	-14.006	46.58		15.000	-13.830	55.52	
1.650	-12.295	24.43		5.500	-13.315	48.14		16.500	-13.121	56.23	
1.800	-11.919	27.33		6.000	-12.693	49.58		18.000	-12.486	56.87	
1.950	-11.557	29.95		6.500	-12.130	50.80		19.500	-11.916	57.46	
2.100	-11.209	32.33		7.000	-11.619	51.90		21.000	-11.403	58.01	
2.250	-10.876	34.49		7.500	-11.153	52.84		22.500	-10.935	58.54	
2.400	-10.563	36.46		8.000	-10.726	53.61		24.000	-10.506	59.05	
2.550	-10.266	38.31		8.500	-10.336	54.66		25.500	-10.117	59.54	
2.700	-9.985	40.00		9.000	-9.977	55.66		27.000	-9.759	60.02	
2.850	-9.720	41.57		9.500	-9.646	56.21		28.500	-9.430	60.49	
3.000	-9.471	43.04		10.000	-9.342	56.93		30.000	-9.127	60.96	

Table 76. Vertical Electric Field (Ice), Frequency = 0.1 MHz, VED Height = 4495, 20 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
0.000	-10.770	-18.99	0.000	-19.443	-26.56	0.000	-28.513	0.000	-28.513	-29.51	0.000
0.030	-10.812	-17.65	0.100	-19.584	-22.09	0.300	-28.794	0.300	-28.794	-19.82	0.300
0.060	-10.851	-16.25	0.200	-19.674	-17.51	0.600	-28.577	0.600	-28.577	-2.10	0.600
0.090	-10.885	-14.93	0.300	-19.709	-12.69	0.900	-27.934	0.900	-27.934	10.24	0.900
0.120	-10.916	-13.56	0.400	-19.690	-8.29	1.200	-27.030	1.200	-27.030	20.50	1.200
0.150	-10.942	-12.19	0.500	-19.617	-3.76	1.500	-26.016	1.500	-26.016	28.68	1.500
0.180	-10.964	-10.81	0.600	-19.494	0.66	1.800	-24.989	1.800	-24.989	35.11	1.800
0.210	-10.982	-9.44	0.700	-19.327	4.90	2.100	-24.000	2.100	-24.000	40.19	2.100
0.240	-10.996	-8.06	0.800	-19.120	9.06	2.400	-23.068	2.400	-23.068	44.25	2.400
0.270	-11.006	-6.69	0.900	-18.881	12.79	2.700	-22.201	2.700	-22.201	47.54	2.700
0.300	-11.011	-5.32	1.000	-18.615	16.39	3.000	-21.396	3.000	-21.396	50.25	3.000
0.330	-11.013	-3.95	1.100	-18.328	19.75	3.300	-20.649	3.300	-20.649	52.51	3.300
0.360	-11.016	-2.59	1.200	-18.027	22.88	3.600	-19.955	3.600	-19.955	54.43	3.600
0.390	-11.014	-1.24	1.300	-17.715	25.79	3.900	-19.310	3.900	-19.310	56.06	3.900
0.420	-10.994	0.11	1.400	-17.397	28.48	4.200	-18.707	4.200	-18.707	57.48	4.200
0.450	-10.960	1.45	1.500	-17.076	30.97	4.500	-18.143	4.500	-18.143	58.72	4.500
0.480	-10.916	2.78	1.600	-16.754	33.28	4.800	-17.613	4.800	-17.613	59.82	4.800
0.510	-10.841	4.09	1.700	-16.434	35.42	5.100	-17.115	5.100	-17.115	60.79	5.100
0.540	-10.746	5.40	1.800	-16.117	37.39	5.400	-16.645	5.400	-16.645	61.67	5.400
0.570	-10.630	6.69	1.900	-15.805	39.23	5.700	-16.200	5.700	-16.200	62.45	5.700
0.600	-10.497	7.97	2.000	-15.498	40.93	6.000	-15.779	6.000	-15.779	63.17	6.000
0.630	-10.357	9.24	2.100	-15.198	42.52	6.300	-15.379	6.300	-15.379	63.82	6.300
0.660	-10.205	10.49	2.200	-14.904	44.00	6.600	-14.999	6.600	-14.999	64.42	6.600
0.690	-10.045	11.72	2.300	-14.617	45.37	6.900	-14.636	6.900	-14.636	64.97	6.900
0.720	-9.876	12.94	2.400	-14.337	46.66	7.200	-14.290	7.200	-14.290	65.49	7.200
0.750	-9.705	14.15	2.500	-14.064	47.87	7.500	-13.959	7.500	-13.959	65.96	7.500
0.780	-9.535	15.33	2.600	-13.798	49.00	7.800	-13.642	7.800	-13.642	66.41	7.800
0.810	-9.365	16.50	2.700	-13.539	50.07	8.100	-13.336	8.100	-13.336	66.82	8.100
0.840	-9.195	17.65	2.800	-13.288	51.07	8.400	-13.046	8.400	-13.046	67.22	8.400
0.870	-9.025	18.79	2.900	-13.043	52.02	8.700	-12.766	8.700	-12.766	67.59	8.700
0.900	-8.857	19.90	3.000	-12.805	52.91	9.000	-12.496	9.000	-12.496	67.94	9.000
1.050	-10.095	25.21	3.500	-11.706	56.74	10.500	-11.286	10.500	-11.286	69.45	10.500
1.200	-9.766	30.06	4.000	-10.752	59.77	12.000	-10.264	12.000	-10.264	70.69	12.000
1.350	-9.424	34.52	4.500	-9.914	62.26	13.500	-9.388	13.500	-9.388	71.76	13.500
1.500	-9.077	38.56	5.000	-9.176	64.36	15.000	-8.628	15.000	-8.628	72.71	15.000
1.650	-8.735	42.60	5.500	-8.523	66.18	16.500	-7.963	16.500	-7.963	73.56	16.500
1.800	-8.400	46.63	6.000	-7.943	67.79	18.000	-7.377	18.000	-7.377	74.40	18.000
1.950	-8.061	50.74	6.500	-7.427	69.25	19.500	-6.859	19.500	-6.859	75.18	19.500
2.100	-7.716	54.24	7.000	-6.966	70.66	21.000	-6.400	21.000	-6.400	75.94	21.000
2.250	-7.468	57.24	7.500	-6.554	71.85	22.500	-5.993	22.500	-5.993	76.70	22.500
2.400	-7.216	60.69	8.000	-6.187	73.03	24.000	-5.630	24.000	-5.630	77.44	24.000
2.550	-6.965	63.97	8.500	-5.858	74.16	25.500	-5.309	25.500	-5.309	78.19	25.500
2.700	-6.730	67.09	9.000	-5.565	75.24	27.000	-5.024	27.000	-5.024	78.94	27.000
2.850	-6.514	70.07	9.500	-5.305	76.29	28.500	-4.776	28.500	-4.776	79.70	28.500
3.000	-6.311	72.91	10.000	-5.074	77.31	30.000	-4.550	30.000	-4.550	80.47	30.000

Table 77. Vertical Electric Field (Ice), Frequency = 1.0 MHz, VED Height = 0.00 m

3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
3.000	-20.534	-77.92	0.000	-30.544	-68.01	0.000	-40.044	-91.38	0.000	-50.504	-92.58	0.000	-60.504	-92.58	0.000
3.03	-20.537	-76.48	0.10	-30.533	-83.22	0.30	-39.835	-77.21	0.10	-48.318	-52.04	0.30	-58.318	-52.04	0.10
3.06	-20.535	-75.05	0.20	-30.463	-78.50	0.60	-39.166	-64.69	0.20	-44.829	-32.37	0.60	-54.829	-32.37	0.20
3.09	-20.567	-73.63	0.30	-30.336	-73.91	0.90	-38.225	-54.00	0.30	-41.993	-23.06	0.90	-51.993	-23.06	0.30
3.12	-20.573	-72.22	0.40	-30.159	-69.50	1.20	-37.110	-43.72	0.40	-39.769	-17.91	1.20	-49.769	-17.91	0.40
3.15	-20.554	-70.81	0.50	-29.934	-65.30	1.50	-36.108	-39.28	0.50	-37.972	-14.68	1.50	-47.972	-14.68	0.50
3.18	-20.531	-69.43	0.60	-29.682	-61.36	1.60	-35.089	-34.24	0.60	-36.475	-12.48	1.60	-46.475	-12.48	0.60
3.21	-20.502	-68.05	0.70	-29.396	-57.67	1.70	-34.134	-30.24	0.70	-35.196	-10.89	1.70	-45.196	-10.89	0.70
3.24	-20.468	-66.69	0.80	-29.089	-54.24	1.80	-33.247	-27.03	0.80	-34.082	-9.69	1.80	-44.082	-9.69	0.80
3.27	-20.430	-65.35	0.90	-28.765	-51.06	1.90	-32.425	-24.40	0.90	-33.098	-8.75	1.90	-43.098	-8.75	0.90
3.30	-20.387	-64.03	1.00	-28.431	-48.14	2.00	-31.665	-22.22	1.00	-32.216	-8.00	2.00	-42.216	-8.00	1.00
3.33	-20.340	-62.73	1.10	-28.091	-45.44	2.10	-30.959	-20.39	1.10	-31.418	-7.38	2.10	-41.418	-7.38	1.10
3.36	-20.289	-61.45	1.20	-27.748	-42.97	2.20	-30.303	-18.64	1.20	-30.690	-6.86	2.20	-40.690	-6.86	1.20
3.39	-20.234	-60.19	1.30	-27.405	-40.64	2.30	-29.690	-17.50	1.30	-30.021	-6.42	2.30	-40.021	-6.42	1.30
3.42	-20.175	-58.95	1.40	-27.065	-38.60	2.40	-29.117	-16.34	1.40	-29.402	-6.05	2.40	-39.402	-6.05	1.40
3.45	-20.113	-57.74	1.50	-26.729	-36.67	2.50	-28.579	-15.32	1.50	-28.827	-5.72	2.50	-38.827	-5.72	1.50
3.48	-20.048	-56.55	1.60	-26.398	-34.90	2.60	-28.073	-14.42	1.60	-28.290	-5.43	2.60	-38.290	-5.43	1.60
3.51	-19.980	-55.38	1.70	-26.074	-33.26	2.70	-27.595	-13.62	1.70	-27.787	-5.18	2.70	-37.787	-5.18	1.70
3.54	-19.909	-54.24	1.80	-25.756	-31.75	2.80	-27.142	-12.91	1.80	-27.314	-4.95	2.80	-37.314	-4.95	1.80
3.57	-19.836	-53.12	1.90	-25.446	-30.35	2.90	-26.713	-12.27	1.90	-26.867	-4.75	2.90	-36.867	-4.75	1.90
3.60	-19.760	-52.03	2.00	-25.143	-29.05	3.00	-26.306	-11.64	2.00	-26.444	-4.57	3.00	-36.444	-4.57	2.00
3.63	-19.682	-50.96	2.10	-24.847	-27.84	3.10	-25.917	-11.16	2.10	-26.042	-4.40	3.10	-36.042	-4.40	2.10
3.66	-19.602	-49.91	2.20	-24.560	-26.72	3.20	-25.547	-10.68	2.20	-25.660	-4.25	3.20	-35.660	-4.25	2.20
3.69	-19.521	-48.84	2.30	-24.280	-25.68	3.30	-25.183	-10.24	2.30	-25.296	-4.12	3.30	-35.296	-4.12	2.30
3.72	-19.437	-47.89	2.40	-24.007	-24.70	3.40	-24.834	-9.84	2.40	-24.948	-3.99	3.40	-34.948	-3.99	2.40
3.75	-19.353	-46.92	2.50	-23.742	-23.74	3.50	-24.529	-9.47	2.50	-24.615	-3.87	3.50	-34.615	-3.87	2.50
3.78	-19.267	-45.97	2.60	-23.483	-22.94	3.60	-24.217	-9.13	2.60	-24.296	-3.77	3.60	-34.296	-3.77	2.60
3.81	-19.179	-45.04	2.70	-23.232	-22.14	3.70	-23.917	-8.81	2.70	-23.990	-3.67	3.70	-33.990	-3.67	2.70
3.84	-19.091	-44.14	2.80	-22.988	-21.34	3.80	-23.628	-8.51	2.80	-23.696	-3.57	3.80	-33.696	-3.57	2.80
3.87	-19.002	-43.26	2.90	-22.749	-20.68	3.90	-23.350	-8.23	2.90	-23.413	-3.49	3.90	-33.413	-3.49	2.90
3.90	-18.912	-42.40	3.00	-22.518	-20.01	4.00	-23.081	-7.97	3.00	-23.140	-3.41	4.00	-33.140	-3.41	3.00
4.05	-18.456	-38.43	3.50	-21.445	-17.19	4.50	-21.866	-6.90	3.50	-21.908	-3.07	4.50	-32.908	-3.07	3.50
4.10	-17.997	-36.45	4.00	-20.498	-15.01	5.00	-20.823	-6.09	4.00	-20.854	-2.82	5.00	-32.854	-2.82	4.00
4.15	-17.543	-34.45	4.50	-19.655	-13.29	5.50	-19.913	-5.47	4.50	-19.937	-2.61	5.50	-32.937	-2.61	4.50
4.20	-17.090	-32.41	5.00	-18.900	-11.89	6.00	-19.108	-4.96	5.00	-19.127	-2.45	6.00	-33.127	-2.45	5.00
4.25	-16.637	-30.35	5.50	-18.218	-10.74	6.50	-18.389	-4.55	5.50	-18.405	-2.32	6.50	-33.405	-2.32	5.50
4.30	-16.184	-28.27	6.00	-17.598	-9.78	7.00	-17.761	-4.20	6.00	-17.754	-2.20	7.00	-33.754	-2.20	6.00
4.35	-15.731	-26.22	6.50	-17.031	-8.96	7.50	-17.153	-3.91	6.50	-17.163	-2.11	7.50	-34.163	-2.11	6.50
4.40	-15.278	-24.17	7.00	-16.511	-8.26	8.00	-16.615	-3.66	7.00	-16.624	-2.02	8.00	-34.624	-2.02	7.00
4.45	-14.825	-22.13	7.50	-16.032	-7.66	8.50	-16.122	-3.45	7.50	-16.129	-1.95	8.50	-35.129	-1.95	7.50
4.50	-14.372	-20.08	8.00	-15.588	-7.13	9.00	-15.666	-3.26	8.00	-15.673	-1.88	9.00	-35.673	-1.88	8.00
4.55	-13.919	-18.04	8.50	-15.176	-6.66	9.50	-15.244	-3.09	8.50	-15.250	-1.82	9.50	-36.250	-1.82	8.50
4.60	-13.466	-16.01	9.00	-14.793	-6.25	10.00	-14.853	-2.94	9.00	-14.857	-1.77	10.00	-36.857	-1.77	9.00
4.65	-13.013	-14.03	9.50	-14.434	-5.88	10.50	-14.467	-2.81	9.50	-14.492	-1.72	10.50	-37.492	-1.72	9.50
4.70	-12.560	-12.05	1.000	-14.099	-5.55	11.00	-14.146	-2.69	10.00	-14.150	-1.66	11.00	-38.150	-1.66	10.00

Table 78. Vertical Electric Field (Ice), Frequency = 1.0 MHz, VED Height = 227.76 m

[illegible]

Table 79. Vertical Electric Field (Ice), Frequency = 1.0 MHz, VED Height = 449.52 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (V)	PHASE (DEG)	HEIGHT (KM)	AMP (V)	PHASE (DEG)	HEIGHT (KM)	AMP (V)	PHASE (DEG)	HEIGHT (KM)	AMP (V)	PHASE (DEG)
0.00	-11.146	-8.85	0.00	-15.817	-13.30	0.00	-28.584	-13.33	0.00	-38.835	-16.14
0.03	-11.149	-7.19	0.03	-15.817	-8.30	0.03	-28.584	1.55	0.03	-38.835	24.38
0.06	-11.149	-8.30	0.06	-15.817	-3.77	0.06	-28.584	11.55	0.06	-38.835	44.02
0.09	-11.149	-8.30	0.09	-15.817	8.30	0.09	-28.584	22.01	0.09	-38.835	53.32
0.12	-11.149	-8.87	0.12	-15.817	13.30	0.12	-28.584	30.26	0.12	-38.835	58.48
0.15	-11.149	-1.45	0.15	-15.817	18.74	0.15	-28.584	36.69	0.15	-38.835	61.71
0.18	-11.149	-7.05	0.18	-15.817	23.04	0.18	-28.584	41.74	0.18	-38.835	63.91
0.21	-11.149	1.34	0.21	-15.817	27.34	0.21	-28.584	46.71	0.21	-38.835	65.51
0.24	-11.149	6.71	0.24	-15.817	31.63	0.24	-28.584	51.56	0.24	-38.835	67.22
0.27	-11.149	11.04	0.27	-15.817	35.93	0.27	-28.584	56.43	0.27	-38.835	68.67
0.30	-11.149	15.34	0.30	-15.817	40.23	0.30	-28.584	61.30	0.30	-38.835	69.06
0.33	-11.149	19.64	0.33	-15.817	44.53	0.33	-28.584	66.17	0.33	-38.835	70.04
0.36	-11.149	23.94	0.36	-15.817	48.83	0.36	-28.584	71.04	0.36	-38.835	70.43
0.39	-11.149	28.24	0.39	-15.817	53.13	0.39	-28.584	76.04	0.39	-38.835	71.07
0.42	-11.149	32.54	0.42	-15.817	57.43	0.42	-28.584	81.04	0.42	-38.835	71.34
0.45	-11.149	36.84	0.45	-15.817	61.73	0.45	-28.584	86.04	0.45	-38.835	71.81
0.48	-11.149	41.14	0.48	-15.817	66.03	0.48	-28.584	91.04	0.48	-38.835	72.01
0.51	-11.149	45.44	0.51	-15.817	70.33	0.51	-28.584	96.04	0.51	-38.835	72.19
0.54	-11.149	49.74	0.54	-15.817	74.63	0.54	-28.584	101.04	0.54	-38.835	72.36
0.57	-11.149	54.04	0.57	-15.817	78.93	0.57	-28.584	106.04	0.57	-38.835	72.52
0.60	-11.149	58.34	0.60	-15.817	83.23	0.60	-28.584	111.04	0.60	-38.835	72.67
0.63	-11.149	62.64	0.63	-15.817	87.53	0.63	-28.584	116.04	0.63	-38.835	72.81
0.66	-11.149	66.94	0.66	-15.817	91.83	0.66	-28.584	121.04	0.66	-38.835	72.94
0.69	-11.149	71.24	0.69	-15.817	96.13	0.69	-28.584	126.04	0.69	-38.835	73.06
0.72	-11.149	75.54	0.72	-15.817	100.43	0.72	-28.584	131.04	0.72	-38.835	73.18
0.75	-11.149	79.84	0.75	-15.817	104.73	0.75	-28.584	136.04	0.75	-38.835	73.30
0.78	-11.149	84.14	0.78	-15.817	109.03	0.78	-28.584	141.04	0.78	-38.835	73.40
0.81	-11.149	88.44	0.81	-15.817	113.33	0.81	-28.584	146.04	0.81	-38.835	73.49
0.84	-11.149	92.74	0.84	-15.817	117.63	0.84	-28.584	151.04	0.84	-38.835	73.58
0.87	-11.149	97.04	0.87	-15.817	121.93	0.87	-28.584	156.04	0.87	-38.835	73.67
0.90	-11.149	101.34	0.90	-15.817	126.23	0.90	-28.584	161.04	0.90	-38.835	73.76
0.93	-11.149	105.64	0.93	-15.817	130.53	0.93	-28.584	166.04	0.93	-38.835	73.85
0.96	-11.149	109.94	0.96	-15.817	134.83	0.96	-28.584	171.04	0.96	-38.835	73.94
0.99	-11.149	114.24	0.99	-15.817	139.13	0.99	-28.584	176.04	0.99	-38.835	74.02
1.02	-11.149	118.54	1.02	-15.817	143.43	1.02	-28.584	181.04	1.02	-38.835	74.11
1.05	-11.149	122.84	1.05	-15.817	147.73	1.05	-28.584	186.04	1.05	-38.835	74.20
1.08	-11.149	127.14	1.08	-15.817	152.03	1.08	-28.584	191.04	1.08	-38.835	74.29
1.11	-11.149	131.44	1.11	-15.817	156.33	1.11	-28.584	196.04	1.11	-38.835	74.38
1.14	-11.149	135.74	1.14	-15.817	160.63	1.14	-28.584	201.04	1.14	-38.835	74.47
1.17	-11.149	140.04	1.17	-15.817	164.93	1.17	-28.584	206.04	1.17	-38.835	74.56
1.20	-11.149	144.34	1.20	-15.817	169.23	1.20	-28.584	211.04	1.20	-38.835	74.65
1.23	-11.149	148.64	1.23	-15.817	173.53	1.23	-28.584	216.04	1.23	-38.835	74.74
1.26	-11.149	152.94	1.26	-15.817	177.83	1.26	-28.584	221.04	1.26	-38.835	74.83
1.29	-11.149	157.24	1.29	-15.817	182.13	1.29	-28.584	226.04	1.29	-38.835	74.92
1.32	-11.149	161.54	1.32	-15.817	186.43	1.32	-28.584	231.04	1.32	-38.835	75.01
1.35	-11.149	165.84	1.35	-15.817	190.73	1.35	-28.584	236.04	1.35	-38.835	75.10
1.38	-11.149	170.14	1.38	-15.817	195.03	1.38	-28.584	241.04	1.38	-38.835	75.19
1.41	-11.149	174.44	1.41	-15.817	199.33	1.41	-28.584	246.04	1.41	-38.835	75.28
1.44	-11.149	178.74	1.44	-15.817	203.63	1.44	-28.584	251.04	1.44	-38.835	75.37
1.47	-11.149	183.04	1.47	-15.817	207.93	1.47	-28.584	256.04	1.47	-38.835	75.46
1.50	-11.149	187.34	1.50	-15.817	212.23	1.50	-28.584	261.04	1.50	-38.835	75.55
1.53	-11.149	191.64	1.53	-15.817	216.53	1.53	-28.584	266.04	1.53	-38.835	75.64
1.56	-11.149	195.94	1.56	-15.817	220.83	1.56	-28.584	271.04	1.56	-38.835	75.73
1.59	-11.149	200.24	1.59	-15.817	225.13	1.59	-28.584	276.04	1.59	-38.835	75.82
1.62	-11.149	204.54	1.62	-15.817	229.43	1.62	-28.584	281.04	1.62	-38.835	75.91
1.65	-11.149	208.84	1.65	-15.817	233.73	1.65	-28.584	286.04	1.65	-38.835	76.00
1.68	-11.149	213.14	1.68	-15.817	238.03	1.68	-28.584	291.04	1.68	-38.835	76.09
1.71	-11.149	217.44	1.71	-15.817	242.33	1.71	-28.584	296.04	1.71	-38.835	76.18
1.74	-11.149	221.74	1.74	-15.817	246.63	1.74	-28.584	301.04	1.74	-38.835	76.27
1.77	-11.149	226.04	1.77	-15.817	250.93	1.77	-28.584	306.04	1.77	-38.835	76.36
1.80	-11.149	230.34	1.80	-15.817	255.23	1.80	-28.584	311.04	1.80	-38.835	76.45
1.83	-11.149	234.64	1.83	-15.817	259.53	1.83	-28.584	316.04	1.83	-38.835	76.54
1.86	-11.149	238.94	1.86	-15.817	263.83	1.86	-28.584	321.04	1.86	-38.835	76.63
1.89	-11.149	243.24	1.89	-15.817	268.13	1.89	-28.584	326.04	1.89	-38.835	76.72
1.92	-11.149	247.54	1.92	-15.817	272.43	1.92	-28.584	331.04	1.92	-38.835	76.81
1.95	-11.149	251.84	1.95	-15.817	276.73	1.95	-28.584	336.04	1.95	-38.835	76.90
1.98	-11.149	256.14	1.98	-15.817	281.03	1.98	-28.584	341.04	1.98	-38.835	76.99
2.01	-11.149	260.44	2.01	-15.817	285.33	2.01	-28.584	346.04	2.01	-38.835	77.08
2.04	-11.149	264.74	2.04	-15.817	289.63	2.04	-28.584	351.04	2.04	-38.835	77.17
2.07	-11.149	269.04	2.07	-15.817	293.93	2.07	-28.584	356.04	2.07	-38.835	77.26
2.10	-11.149	273.34	2.10	-15.817	298.23	2.10	-28.584	361.04	2.10	-38.835	77.35
2.13	-11.149	277.64	2.13	-15.817	302.53	2.13	-28.584	366.04	2.13	-38.835	77.44
2.16	-11.149	281.94	2.16	-15.817	306.83	2.16	-28.584	371.04	2.16	-38.835	77.53
2.19	-11.149	286.24	2.19	-15.817	311.13	2.19	-28.584	376.04	2.19	-38.835	77.62
2.22	-11.149	290.54	2.22	-15.817	315.43	2.22	-28.584	381.04	2.22	-38.835	77.71
2.25	-11.149	294.84	2.25	-15.817	319.73	2.25	-28.584	386.04	2.25	-38.835	77.80
2.28	-11.149	299.14	2.28	-15.817	324.03	2.28	-28.584	391.04	2.28	-38.835	77.89
2.31	-11.149	303.44	2.31	-15.817	328.33	2.31	-28.584	396.04	2.31	-38.835	77.98
2.34	-11.149	307.74	2.34	-15.817	332.63	2.34	-28.584	401.04	2.34	-38.835	78.07
2.37	-11.149	312.04	2.37	-15.817	336.93	2.37	-28.584	406.04	2.37	-38.835	78.16
2.40	-11.149	316.34	2.40	-15.817	341.23	2.40	-28.584	411.04	2.40	-38.835	78.25
2.43	-11.149	320.64	2.43	-15.817	345.53	2.43	-28.584	416.04	2.43	-38.835	78.34
2.46	-11.149	324.94	2.46	-15.817	349.83	2.46	-28.584	421.04	2.46	-38.835	78.43
2.49	-11.149	329.24	2.49	-15.817	354.13	2.49	-28.584	426.04	2.49	-38.835	78.52
2.52	-11.149	333.54	2.52	-15.817	358.43	2.52	-28.584	431.04	2.52	-38.835	78.61
2.55	-11.149	337.84	2.55	-15.817	362.73	2.55	-28.584	436.04	2.55	-38.835	78.70
2.58	-11.149	342.14	2.58	-15.817	367.03	2.58	-28.584	441.04	2.58	-38.835	78.79
2.61	-11.149	346.44	2.61	-15.817	371.33	2.61	-28.584	446.04	2.61	-38.835	78.88
2.64	-11.149	350.74	2.64	-15.817	375.63	2.64	-28.584	451.04	2.64	-38.835	78.97
2.67	-11.149	355.04	2.67	-15.817	379.93	2.67	-28.584	456.04	2.67	-38.835	79.06
2.70	-11.149	359.34	2.70	-15.817	384.23	2.70	-28.584	461.04	2.70	-38.835	79.15
2.73	-11.149	363.64	2.73	-15.817	388.53	2.73	-28.584	466.04	2.73	-38.835	79.24
2.76	-11.149	367.94	2.76	-15.817	392.83	2.76	-28.584	471.04	2.76	-38.835	79.33
2.79	-11.149	372.24	2.79	-15.817	397.13	2.79	-28.584	476.04	2.79	-38.835	79.42
2.82	-11.149	376.54	2.82	-15.817	4						

Table 80. Vertical Electric Field (Ice), Frequency = 10.0 MHz, VED Height = 0.00 m

30.0 KM DOWNRANGE					50.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)
.000	-40.000	-80.000	.000	-50.000	-80.000	.000	-60.000	-80.000	.000	-70.000	-80.000	.000	-80.000	-80.000
.003	-39.000	-79.000	.003	-49.000	-79.000	.003	-59.000	-79.000	.003	-69.000	-79.000	.003	-79.000	-79.000
.006	-38.000	-78.000	.006	-48.000	-78.000	.006	-58.000	-78.000	.006	-68.000	-78.000	.006	-78.000	-78.000
.009	-37.000	-77.000	.009	-47.000	-77.000	.009	-57.000	-77.000	.009	-67.000	-77.000	.009	-77.000	-77.000
.012	-36.000	-76.000	.012	-46.000	-76.000	.012	-56.000	-76.000	.012	-66.000	-76.000	.012	-76.000	-76.000
.015	-35.000	-75.000	.015	-45.000	-75.000	.015	-55.000	-75.000	.015	-65.000	-75.000	.015	-75.000	-75.000
.018	-34.000	-74.000	.018	-44.000	-74.000	.018	-54.000	-74.000	.018	-64.000	-74.000	.018	-74.000	-74.000
.021	-33.000	-73.000	.021	-43.000	-73.000	.021	-53.000	-73.000	.021	-63.000	-73.000	.021	-73.000	-73.000
.024	-32.000	-72.000	.024	-42.000	-72.000	.024	-52.000	-72.000	.024	-62.000	-72.000	.024	-72.000	-72.000
.027	-31.000	-71.000	.027	-41.000	-71.000	.027	-51.000	-71.000	.027	-61.000	-71.000	.027	-71.000	-71.000
.030	-30.000	-70.000	.030	-40.000	-70.000	.030	-50.000	-70.000	.030	-60.000	-70.000	.030	-70.000	-70.000
.033	-29.000	-69.000	.033	-39.000	-69.000	.033	-49.000	-69.000	.033	-59.000	-69.000	.033	-69.000	-69.000
.036	-28.000	-68.000	.036	-38.000	-68.000	.036	-48.000	-68.000	.036	-58.000	-68.000	.036	-68.000	-68.000
.039	-27.000	-67.000	.039	-37.000	-67.000	.039	-47.000	-67.000	.039	-57.000	-67.000	.039	-67.000	-67.000
.042	-26.000	-66.000	.042	-36.000	-66.000	.042	-46.000	-66.000	.042	-56.000	-66.000	.042	-66.000	-66.000
.045	-25.000	-65.000	.045	-35.000	-65.000	.045	-45.000	-65.000	.045	-55.000	-65.000	.045	-65.000	-65.000
.048	-24.000	-64.000	.048	-34.000	-64.000	.048	-44.000	-64.000	.048	-54.000	-64.000	.048	-64.000	-64.000
.051	-23.000	-63.000	.051	-33.000	-63.000	.051	-43.000	-63.000	.051	-53.000	-63.000	.051	-63.000	-63.000
.054	-22.000	-62.000	.054	-32.000	-62.000	.054	-42.000	-62.000	.054	-52.000	-62.000	.054	-62.000	-62.000
.057	-21.000	-61.000	.057	-31.000	-61.000	.057	-41.000	-61.000	.057	-51.000	-61.000	.057	-61.000	-61.000
.060	-20.000	-60.000	.060	-30.000	-60.000	.060	-40.000	-60.000	.060	-50.000	-60.000	.060	-60.000	-60.000
.063	-19.000	-59.000	.063	-29.000	-59.000	.063	-39.000	-59.000	.063	-49.000	-59.000	.063	-59.000	-59.000
.066	-18.000	-58.000	.066	-28.000	-58.000	.066	-38.000	-58.000	.066	-48.000	-58.000	.066	-58.000	-58.000
.069	-17.000	-57.000	.069	-27.000	-57.000	.069	-37.000	-57.000	.069	-47.000	-57.000	.069	-57.000	-57.000
.072	-16.000	-56.000	.072	-26.000	-56.000	.072	-36.000	-56.000	.072	-46.000	-56.000	.072	-56.000	-56.000
.075	-15.000	-55.000	.075	-25.000	-55.000	.075	-35.000	-55.000	.075	-45.000	-55.000	.075	-55.000	-55.000
.078	-14.000	-54.000	.078	-24.000	-54.000	.078	-34.000	-54.000	.078	-44.000	-54.000	.078	-54.000	-54.000
.081	-13.000	-53.000	.081	-23.000	-53.000	.081	-33.000	-53.000	.081	-43.000	-53.000	.081	-53.000	-53.000
.084	-12.000	-52.000	.084	-22.000	-52.000	.084	-32.000	-52.000	.084	-42.000	-52.000	.084	-52.000	-52.000
.087	-11.000	-51.000	.087	-21.000	-51.000	.087	-31.000	-51.000	.087	-41.000	-51.000	.087	-51.000	-51.000
.090	-10.000	-50.000	.090	-20.000	-50.000	.090	-30.000	-50.000	.090	-40.000	-50.000	.090	-50.000	-50.000
.105	-21.000	-50.000	.105	-31.000	-50.000	.105	-41.000	-50.000	.105	-51.000	-50.000	.105	-61.000	-50.000
.120	-20.000	-49.000	.120	-30.000	-49.000	.120	-40.000	-49.000	.120	-50.000	-49.000	.120	-60.000	-49.000
.135	-19.000	-48.000	.135	-29.000	-48.000	.135	-39.000	-48.000	.135	-49.000	-48.000	.135	-59.000	-48.000
.150	-18.000	-47.000	.150	-28.000	-47.000	.150	-38.000	-47.000	.150	-48.000	-47.000	.150	-58.000	-47.000
.165	-17.000	-46.000	.165	-27.000	-46.000	.165	-37.000	-46.000	.165	-47.000	-46.000	.165	-57.000	-46.000
.180	-16.000	-45.000	.180	-26.000	-45.000	.180	-36.000	-45.000	.180	-46.000	-45.000	.180	-56.000	-45.000
.195	-15.000	-44.000	.195	-25.000	-44.000	.195	-35.000	-44.000	.195	-45.000	-44.000	.195	-55.000	-44.000
.210	-14.000	-43.000	.210	-24.000	-43.000	.210	-34.000	-43.000	.210	-44.000	-43.000	.210	-54.000	-43.000
.225	-13.000	-42.000	.225	-23.000	-42.000	.225	-33.000	-42.000	.225	-43.000	-42.000	.225	-53.000	-42.000
.240	-12.000	-41.000	.240	-22.000	-41.000	.240	-32.000	-41.000	.240	-42.000	-41.000	.240	-52.000	-41.000
.255	-11.000	-40.000	.255	-21.000	-40.000	.255	-31.000	-40.000	.255	-41.000	-40.000	.255	-51.000	-40.000
.270	-10.000	-39.000	.270	-20.000	-39.000	.270	-30.000	-39.000	.270	-40.000	-39.000	.270	-50.000	-39.000
.285	-9.000	-38.000	.285	-19.000	-38.000	.285	-29.000	-38.000	.285	-39.000	-38.000	.285	-49.000	-38.000
.300	-8.000	-37.000	.300	-18.000	-37.000	.300	-28.000	-37.000	.300	-38.000	-37.000	.300	-48.000	-37.000

Table 81. Vertical Electric Field (Ice), Frequency = 10.0 MHz, VED Height = 22.48 m

3.0 KM UOB RANGE				100.0 KM UOB RANGE			
MEI (M)	AMP (DB)	PHASE (DEG)	MEI (M)	AMP (DB)	PHASE (DEG)	MEI (M)	AMP (DB)
0.000	-33.010	-20.09	0.000	-33.497	-20.09	0.000	-63.946
0.03	-33.347	-12.77	0.03	-33.488	40.34	0.03	-45.434
0.06	-33.637	-0.05	0.06	-33.330	50.84	0.06	-34.480
0.09	-33.870	9.99	0.09	-33.926	54.53	0.09	-35.989
0.12	-34.067	18.05	0.12	-33.484	50.40	0.12	-35.515
0.15	-34.240	24.31	0.15	-33.503	57.53	0.15	-31.600
0.18	-34.390	29.22	0.18	-33.029	50.99	0.18	-30.039
0.21	-34.520	33.11	0.21	-28.710	50.83	0.21	-28.722
0.24	-34.630	36.23	0.24	-27.510	53.71	0.24	-27.585
0.27	-34.720	38.82	0.27	-26.337	54.04	0.27	-26.585
0.30	-34.800	40.95	0.30	-25.059	54.37	0.30	-25.585
0.33	-34.870	42.75	0.33	-24.084	50.01	0.33	-24.887
0.36	-34.930	44.20	0.36	-23.139	50.32	0.36	-24.153
0.39	-34.980	45.50	0.39	-22.473	50.30	0.39	-23.461
0.42	-35.030	46.75	0.42	-21.857	57.34	0.42	-22.860
0.45	-35.070	47.75	0.45	-21.284	57.07	0.45	-22.284
0.48	-35.110	48.04	0.48	-20.750	57.95	0.48	-21.746
0.51	-35.150	49.43	0.51	-20.249	54.21	0.51	-21.242
0.54	-35.190	50.14	0.54	-20.770	54.44	0.54	-20.769
0.57	-35.230	50.76	0.57	-20.313	50.04	0.57	-20.322
0.60	-35.270	51.35	0.60	-19.713	50.83	0.60	-19.400
0.63	-35.310	51.88	0.63	-19.213	54.00	0.63	-19.449
0.66	-35.350	52.36	0.66	-18.714	54.15	0.66	-19.119
0.69	-35.390	52.80	0.69	-18.212	54.30	0.69	-18.756
0.72	-35.430	53.21	0.72	-17.727	54.43	0.72	-18.410
0.75	-35.470	53.58	0.75	-17.247	54.55	0.75	-18.079
0.78	-35.510	53.93	0.78	-16.760	54.66	0.78	-17.762
0.81	-35.550	54.25	0.81	-16.277	54.77	0.81	-17.458
0.84	-35.590	54.56	0.84	-15.795	54.87	0.84	-17.166
0.87	-35.630	54.84	0.87	-15.302	54.90	0.87	-16.885
0.90	-35.670	55.11	0.90	-14.805	50.05	0.90	-16.614
1.05	-35.433	50.22	1.05	-15.419	60.44	1.05	-15.396
1.20	-35.409	57.09	1.20	-14.383	60.75	1.20	-14.359
1.35	-35.380	57.76	1.35	-13.485	61.01	1.35	-13.461
1.50	-35.350	58.36	1.50	-12.697	61.25	1.50	-12.673
1.65	-35.320	58.87	1.65	-11.998	61.47	1.65	-11.974
1.80	-35.290	59.31	1.80	-11.373	61.68	1.80	-11.349
1.95	-35.260	59.71	1.95	-10.811	61.88	1.95	-10.746
2.10	-35.230	60.07	2.10	-10.302	62.07	2.10	-10.278
2.25	-35.200	60.42	2.25	-9.840	62.27	2.25	-9.815
2.40	-35.170	60.74	2.40	-9.418	62.47	2.40	-9.394
2.55	-35.140	61.06	2.55	-9.033	62.67	2.55	-8.908
2.70	-35.110	61.36	2.70	-8.679	62.88	2.70	-8.655
2.85	-35.080	61.66	2.85	-8.355	63.09	2.85	-8.330
3.00	-35.050	61.96	3.00	-8.056	63.30	3.00	-8.032

Table 82. Vertical Electric Field (Ice), Frequency = 10.0 MHz, VED Height = 44.95 m

3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)
0.00	-26.595	-13.69	0.00	-36.790	-14.67	0.00	-48.271	-14.50	0.00	-58.708	-14.98	0.00	-58.708	-14.98	0.00
0.03	-26.676	21	0.03	-36.490	23.30	0.03	-39.643	53.49	0.03	-40.197	68.35	0.03	-40.197	68.35	0.03
0.06	-27.156	16.72	0.06	-33.011	44.48	0.06	-34.114	63.44	0.06	-34.243	71.74	0.06	-34.243	71.74	0.06
0.09	-28.001	26.96	0.09	-30.190	53.48	0.09	-30.704	67.63	0.09	-30.752	72.88	0.09	-30.752	72.88	0.09
0.12	-28.540	31.02	0.12	-27.987	58.67	0.12	-26.261	69.51	0.12	-26.278	73.45	0.12	-26.278	73.45	0.12
0.15	-24.480	37.24	0.15	-26.202	61.86	0.15	-26.186	70.64	0.15	-26.364	73.79	0.15	-26.364	73.79	0.15
0.18	-23.480	46.20	0.18	-24.714	64.03	0.18	-23.496	71.45	0.18	-23.490	74.20	0.18	-23.490	74.20	0.18
0.21	-22.560	49.11	0.21	-23.443	65.81	0.21	-22.365	72.36	0.21	-22.354	74.32	0.21	-22.354	74.32	0.21
0.24	-21.042	49.25	0.24	-22.355	66.91	0.24	-21.368	72.69	0.24	-21.355	74.43	0.24	-21.355	74.43	0.24
0.27	-20.069	50.83	0.27	-21.358	67.75	0.27	-20.478	72.95	0.27	-20.464	74.51	0.27	-20.464	74.51	0.27
0.30	-20.077	52.98	0.30	-20.480	68.50	0.30	-19.676	73.16	0.30	-19.661	74.58	0.30	-19.661	74.58	0.30
0.33	-19.579	55.78	0.33	-19.687	69.13	0.33	-18.946	73.35	0.33	-18.930	74.65	0.33	-18.930	74.65	0.33
0.36	-18.751	57.32	0.36	-18.964	70.09	0.36	-18.277	73.50	0.36	-18.260	74.70	0.36	-18.260	74.70	0.36
0.39	-18.120	58.85	0.39	-18.300	70.49	0.39	-17.659	73.64	0.39	-17.642	74.75	0.39	-17.642	74.75	0.39
0.42	-17.580	59.81	0.42	-17.687	70.48	0.42	-17.080	73.76	0.42	-17.068	74.74	0.42	-17.068	74.74	0.42
0.45	-17.029	60.83	0.45	-17.117	70.92	0.45	-16.551	73.87	0.45	-16.533	74.84	0.45	-16.533	74.84	0.45
0.48	-16.530	61.73	0.48	-16.586	71.11	0.48	-16.051	73.97	0.48	-16.033	74.88	0.48	-16.033	74.88	0.48
0.51	-16.039	62.94	0.51	-16.088	71.36	0.51	-15.581	74.06	0.51	-15.563	74.91	0.51	-15.563	74.91	0.51
0.54	-15.014	63.60	0.54	-15.820	71.62	0.54	-15.139	74.14	0.54	-15.120	74.95	0.54	-15.120	74.95	0.54
0.57	-14.513	64.91	0.57	-15.179	71.83	0.57	-14.720	74.22	0.57	-14.702	74.99	0.57	-14.702	74.99	0.57
0.60	-14.793	65.50	0.60	-14.367	72.21	0.60	-14.324	74.29	0.60	-14.305	75.02	0.60	-14.305	75.02	0.60
0.63	-14.412	65.94	0.63	-13.992	72.58	0.63	-13.947	74.36	0.63	-13.929	75.05	0.63	-13.929	75.05	0.63
0.66	-14.049	65.54	0.66	-13.629	72.93	0.66	-13.587	74.42	0.66	-13.571	75.09	0.66	-13.571	75.09	0.66
0.69	-13.703	65.00	0.69	-13.294	72.53	0.69	-13.249	74.54	0.69	-13.229	75.12	0.69	-13.229	75.12	0.69
0.72	-13.376	65.42	0.72	-12.964	72.61	0.72	-12.922	74.64	0.72	-12.903	75.15	0.72	-12.903	75.15	0.72
0.75	-13.055	65.81	0.75	-12.657	72.94	0.75	-12.610	74.60	0.75	-12.591	75.18	0.75	-12.591	75.18	0.75
0.78	-12.751	65.16	0.78	-12.359	73.06	0.78	-12.311	74.66	0.78	-12.292	75.22	0.78	-12.292	75.22	0.78
0.81	-12.459	65.84	0.81	-12.073	73.18	0.81	-12.024	74.71	0.81	-12.005	75.25	0.81	-12.005	75.25	0.81
0.84	-12.179	65.14	0.84	-11.798	73.29	0.84	-11.749	74.77	0.84	-11.730	75.28	0.84	-11.730	75.28	0.84
0.87	-11.910	65.14	0.87	-11.534	73.39	0.87	-11.484	74.82	0.87	-11.465	75.32	0.87	-11.465	75.32	0.87
0.90	-11.650	65.43	0.90	-11.249	73.49	0.90	-11.200	73.50	0.90	-11.180	75.35	0.90	-11.180	75.35	0.90
1.05	-10.464	69.65	1.05	-10.349	73.86	1.05	-10.299	73.87	1.05	-10.280	75.49	1.05	-10.280	75.49	1.05
1.20	-9.496	70.63	1.20	-9.350	74.27	1.20	-9.299	75.31	1.20	-9.280	75.68	1.20	-9.280	75.68	1.20
1.35	-8.606	71.46	1.35	-8.494	74.65	1.35	-8.443	75.36	1.35	-8.424	76.11	1.35	-8.424	76.11	1.35
1.50	-7.716	72.16	1.50	-7.753	75.02	1.50	-7.702	75.82	1.50	-7.683	76.35	1.50	-7.683	76.35	1.50
1.65	-6.804	72.84	1.65	-7.107	75.36	1.65	-7.055	76.10	1.65	-7.036	76.62	1.65	-7.036	76.62	1.65
1.80	-6.104	73.45	1.80	-6.539	75.74	1.80	-6.487	76.39	1.80	-6.469	76.91	1.80	-6.469	76.91	1.80
1.95	-5.605	74.03	1.95	-6.039	76.11	1.95	-5.987	76.78	1.95	-5.969	77.22	1.95	-5.969	77.22	1.95
2.10	-5.104	74.59	2.10	-5.537	76.44	2.10	-5.485	77.03	2.10	-5.467	77.56	2.10	-5.467	77.56	2.10
2.25	-4.603	75.15	2.25	-5.037	76.89	2.25	-4.985	77.39	2.25	-4.967	77.92	2.25	-4.967	77.92	2.25
2.40	-4.103	75.70	2.40	-4.537	77.31	2.40	-4.485	77.76	2.40	-4.467	78.31	2.40	-4.467	78.31	2.40
2.55	-3.603	76.25	2.55	-4.037	77.74	2.55	-3.985	78.16	2.55	-3.967	78.73	2.55	-3.967	78.73	2.55
2.70	-3.103	76.82	2.70	-3.537	78.20	2.70	-3.485	78.59	2.70	-3.467	79.17	2.70	-3.467	79.17	2.70
2.85	-2.603	77.39	2.85	-3.037	78.68	2.85	-2.985	79.04	2.85	-2.967	79.65	2.85	-2.967	79.65	2.85
3.00	-2.103	77.97	3.00	-2.537	79.18	3.00	-2.485	79.53	3.00	-2.467	80.17	3.00	-2.467	80.17	3.00

Table 83. Vertical Electric Field (Ice), Frequency = 100.0 MHz, VED Height = 0.00 m

Altitude (m)	100 KM DISTANCE				300 KM DISTANCE			
	REL (V)	AMP (V/m)	PHASE (DEG)	REL (V)	REL (V)	AMP (V/m)	PHASE (DEG)	PHASE (DEG)
0.00	0.000	-50.054	-69.00	0.000	0.000	-70.517	-69.94	-90.01
0.01	0.003	-51.426	-61.57	0.010	0.010	-52.004	-61.76	-82.28
0.02	0.006	-44.891	-41.14	0.020	0.020	-46.051	-31.39	-1.14
0.03	0.009	-42.434	-17.45	0.030	0.030	-42.554	-2.26	-76
0.04	0.012	-38.144	9.26	0.040	0.040	-40.085	-1.64	-51
0.05	0.015	-36.144	-3.51	0.050	0.050	-38.170	-1.35	-46
0.06	0.018	-35.276	-7.15	0.060	0.060	-36.806	-1.12	-38
0.07	0.021	-34.144	-10.43	0.070	0.070	-35.291	-0.96	-33
0.08	0.024	-33.144	-13.43	0.080	0.080	-34.154	-0.84	-29
0.09	0.027	-32.250	-16.23	0.090	0.090	-33.153	-0.74	-26
0.10	0.030	-31.447	-18.97	0.100	0.100	-32.259	-0.67	-23
0.11	0.033	-30.714	-21.67	0.110	0.110	-31.453	-0.60	-21
0.12	0.036	-30.041	-24.33	0.120	0.120	-30.718	-0.55	-19
0.13	0.039	-29.419	-26.95	0.130	0.130	-30.045	-0.51	-18
0.14	0.042	-28.847	-29.53	0.140	0.140	-29.423	-0.47	-17
0.15	0.045	-28.316	-32.07	0.150	0.150	-28.845	-0.44	-16
0.16	0.048	-27.824	-34.57	0.160	0.160	-28.306	-0.41	-15
0.17	0.051	-27.372	-37.03	0.170	0.170	-27.801	-0.38	-14
0.18	0.054	-26.959	-39.45	0.180	0.180	-27.326	-0.36	-13
0.19	0.057	-26.586	-41.83	0.190	0.190	-26.877	-0.34	-12
0.20	0.060	-26.253	-44.17	0.200	0.200	-26.454	-0.32	-11
0.21	0.063	-25.959	-46.47	0.210	0.210	-26.051	-0.31	-11
0.22	0.066	-25.694	-48.73	0.220	0.220	-25.668	-0.29	-10
0.23	0.069	-25.458	-50.95	0.230	0.230	-25.304	-0.28	-10
0.24	0.072	-25.250	-53.13	0.240	0.240	-24.955	-0.27	-10
0.25	0.075	-25.067	-55.27	0.250	0.250	-24.622	-0.26	-10
0.26	0.078	-24.909	-57.37	0.260	0.260	-24.303	-0.25	-09
0.27	0.081	-24.776	-59.43	0.270	0.270	-23.996	-0.24	-09
0.28	0.084	-24.667	-61.44	0.280	0.280	-23.702	-0.23	-09
0.29	0.087	-24.580	-63.41	0.290	0.290	-23.418	-0.22	-08
0.30	0.090	-24.510	-65.34	0.300	0.300	-23.145	-0.21	-08
0.35	0.105	-21.912	-71.56	0.350	0.350	-21.912	-0.14	-07
0.40	0.120	-20.858	-74.42	0.400	0.400	-20.858	-0.15	-06
0.45	0.135	-19.941	-77.42	0.450	0.450	-19.941	-0.14	-05
0.50	0.150	-19.131	-80.53	0.500	0.500	-19.131	-0.17	-05
0.55	0.165	-18.408	-83.73	0.550	0.550	-18.408	-0.11	-05
0.60	0.180	-17.757	-87.00	0.600	0.600	-17.758	-0.10	-04
0.65	0.195	-17.167	-90.34	0.650	0.650	-17.167	-0.09	-04
0.70	0.210	-16.628	-93.73	0.700	0.700	-16.628	-0.04	-04
0.75	0.225	-16.133	-97.14	0.750	0.750	-16.133	-0.04	-03
0.80	0.240	-15.677	-100.57	0.800	0.800	-15.677	-0.07	-03
0.85	0.255	-15.254	-104.03	0.850	0.850	-15.254	-0.07	-03
0.90	0.270	-14.861	-107.50	0.900	0.900	-14.862	-0.06	-03
0.95	0.285	-14.495	-110.96	0.950	0.950	-14.496	-0.06	-03
1.00	0.300	-14.154	-114.43	1.000	1.000	-14.154	-0.06	-03

Table 85. Vertical Electric Field (Ice), Frequency = 100.0 MHz, VED Height = 4.50 m

30.0 KM DOWNRANGE				300.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)		HEIGHT (KM)	AMP (UB)	PHASE (DEG)		HEIGHT (KM)	AMP (UB)	PHASE (DEG)	
0.000	-27.001	87.34		0.000	-37.896	120.01		0.000	-47.355	-141.43	
0.030	-27.159	94.56		0.100	-37.665	80.84		0.300	-47.423	77.07	
0.060	-27.227	94.53		0.200	-37.735	80.94		0.600	-47.560	77.00	
0.090	-27.295	94.53		0.300	-37.805	80.97		0.900	-47.629	76.85	
0.120	-27.364	94.53		0.400	-37.875	80.98		1.200	-47.697	76.85	
0.150	-27.433	94.53		0.500	-37.946	80.95		1.500	-47.766	76.82	
0.180	-27.502	94.50		0.600	-38.016	80.91		1.800	-47.834	76.82	
0.210	-27.571	94.48		0.700	-38.087	80.84		2.100	-47.902	76.84	
0.240	-27.641	94.45		0.800	-38.158	80.74		2.400	-47.968	76.48	
0.270	-27.711	94.41		0.900	-38.229	80.61		2.700	-48.034	76.44	
0.300	-27.781	94.38		1.000	-38.301	80.56		3.000	-48.100	76.31	
0.330	-27.852	94.31		1.100	-38.372	80.50		3.300	-48.166	76.81	
0.360	-27.922	94.25		1.200	-38.444	80.57		3.600	-48.232	76.82	
0.390	-27.993	94.18		1.300	-38.515	79.94		3.900	-48.298	76.95	
0.420	-28.063	94.10		1.400	-38.587	79.57		4.200	-48.364	68.82	
0.450	-28.133	94.01		1.500	-38.658	79.20		4.500	-48.430	68.82	
0.480	-28.203	93.92		1.600	-38.730	79.50		4.800	-48.496	68.33	
0.510	-28.273	93.84		1.700	-38.801	79.62		5.100	-48.562	68.33	
0.540	-28.343	93.71		1.800	-38.871	79.62		5.400	-48.628	68.33	
0.570	-28.413	93.59		1.900	-38.941	79.61		5.700	-48.694	68.33	
0.600	-28.483	93.46		2.000	-39.011	79.50		6.000	-48.760	68.33	
0.630	-28.553	93.32		2.100	-39.082	79.68		6.300	-48.826	68.33	
0.660	-28.623	93.17		2.200	-39.152	79.37		6.600	-48.892	68.33	
0.690	-28.693	93.01		2.300	-39.223	79.63		6.900	-48.958	68.33	
0.720	-28.763	92.85		2.400	-39.293	79.25		7.200	-49.024	68.33	
0.750	-28.833	92.69		2.500	-39.364	79.54		7.500	-49.090	68.33	
0.780	-28.903	92.40		2.600	-39.434	79.32		7.800	-49.156	68.33	
0.810	-28.973	92.24		2.700	-39.504	79.61		8.100	-49.222	68.33	
0.840	-29.043	92.08		2.800	-39.574	79.61		8.400	-49.288	68.33	
0.870	-29.113	91.92		2.900	-39.644	79.57		8.700	-49.354	68.33	
0.900	-29.183	91.63		3.000	-39.714	79.57		9.000	-49.420	68.33	
1.050	-29.613	90.36		3.500	-39.957	79.57		9.500	-49.550	68.33	
1.200	-29.993	88.76		4.000	-40.200	80.71		10.000	-49.680	68.33	
1.350	-30.373	86.74		4.500	-40.443	80.75		10.500	-49.810	68.33	
1.500	-30.753	84.51		5.000	-40.686	80.75		11.000	-49.940	68.33	
1.650	-31.133	82.28		5.500	-40.929	80.75		11.500	-50.070	68.33	
1.800	-31.513	80.05		6.000	-41.172	80.75		12.000	-50.200	68.33	
1.950	-31.893	77.82		6.500	-41.415	80.75		12.500	-50.330	68.33	
2.100	-32.273	75.59		7.000	-41.658	80.75		13.000	-50.460	68.33	
2.250	-32.653	73.36		7.500	-41.901	80.75		13.500	-50.590	68.33	
2.400	-33.033	71.13		8.000	-42.144	80.75		14.000	-50.720	68.33	
2.550	-33.413	68.90		8.500	-42.387	80.75		14.500	-50.850	68.33	
2.700	-33.793	66.67		9.000	-42.630	80.75		15.000	-50.980	68.33	
2.850	-34.173	64.44		9.500	-42.873	80.75		15.500	-51.110	68.33	
3.000	-34.553	62.21		10.000	-43.116	80.75		16.000	-51.240	68.33	

Table 86. Radial Electric Field (Ice), Frequency = 0.1 MHz, VED Height = 0.00 m

100 KM DISTANCE				100 KM DISTANCE				300 KM DISTANCE			
TELEMET (A)	AMP (DB)	PHASE (DEG)	TELEMET (A)	AMP (DB)	PHASE (DEG)	TELEMET (A)	AMP (DB)	TELEMET (A)	AMP (DB)	PHASE (DEG)	TELEMET (A)
0.00	-30.70	-14.50	0.00	-40.00	-14.50	0.00	-50.70	0.00	-60.70	-14.50	0.00
0.01	-30.70	-14.50	0.01	-39.50	-14.50	0.01	-39.50	0.01	-40.00	-14.50	0.01
0.02	-30.70	-14.50	0.02	-39.00	-14.50	0.02	-39.00	0.02	-40.00	-14.50	0.02
0.03	-30.70	-14.50	0.03	-38.50	-14.50	0.03	-38.50	0.03	-40.00	-14.50	0.03
0.04	-30.70	-14.50	0.04	-38.00	-14.50	0.04	-38.00	0.04	-40.00	-14.50	0.04
0.05	-30.70	-14.50	0.05	-37.50	-14.50	0.05	-37.50	0.05	-40.00	-14.50	0.05
0.06	-30.70	-14.50	0.06	-37.00	-14.50	0.06	-37.00	0.06	-40.00	-14.50	0.06
0.07	-30.70	-14.50	0.07	-36.50	-14.50	0.07	-36.50	0.07	-40.00	-14.50	0.07
0.08	-30.70	-14.50	0.08	-36.00	-14.50	0.08	-36.00	0.08	-40.00	-14.50	0.08
0.09	-30.70	-14.50	0.09	-35.50	-14.50	0.09	-35.50	0.09	-40.00	-14.50	0.09
0.10	-30.70	-14.50	0.10	-35.00	-14.50	0.10	-35.00	0.10	-40.00	-14.50	0.10
0.11	-30.70	-14.50	0.11	-34.50	-14.50	0.11	-34.50	0.11	-40.00	-14.50	0.11
0.12	-30.70	-14.50	0.12	-34.00	-14.50	0.12	-34.00	0.12	-40.00	-14.50	0.12
0.13	-30.70	-14.50	0.13	-33.50	-14.50	0.13	-33.50	0.13	-40.00	-14.50	0.13
0.14	-30.70	-14.50	0.14	-33.00	-14.50	0.14	-33.00	0.14	-40.00	-14.50	0.14
0.15	-30.70	-14.50	0.15	-32.50	-14.50	0.15	-32.50	0.15	-40.00	-14.50	0.15
0.16	-30.70	-14.50	0.16	-32.00	-14.50	0.16	-32.00	0.16	-40.00	-14.50	0.16
0.17	-30.70	-14.50	0.17	-31.50	-14.50	0.17	-31.50	0.17	-40.00	-14.50	0.17
0.18	-30.70	-14.50	0.18	-31.00	-14.50	0.18	-31.00	0.18	-40.00	-14.50	0.18
0.19	-30.70	-14.50	0.19	-30.50	-14.50	0.19	-30.50	0.19	-40.00	-14.50	0.19
0.20	-30.70	-14.50	0.20	-30.00	-14.50	0.20	-30.00	0.20	-40.00	-14.50	0.20
0.21	-30.70	-14.50	0.21	-29.50	-14.50	0.21	-29.50	0.21	-40.00	-14.50	0.21
0.22	-30.70	-14.50	0.22	-29.00	-14.50	0.22	-29.00	0.22	-40.00	-14.50	0.22
0.23	-30.70	-14.50	0.23	-28.50	-14.50	0.23	-28.50	0.23	-40.00	-14.50	0.23
0.24	-30.70	-14.50	0.24	-28.00	-14.50	0.24	-28.00	0.24	-40.00	-14.50	0.24
0.25	-30.70	-14.50	0.25	-27.50	-14.50	0.25	-27.50	0.25	-40.00	-14.50	0.25
0.26	-30.70	-14.50	0.26	-27.00	-14.50	0.26	-27.00	0.26	-40.00	-14.50	0.26
0.27	-30.70	-14.50	0.27	-26.50	-14.50	0.27	-26.50	0.27	-40.00	-14.50	0.27
0.28	-30.70	-14.50	0.28	-26.00	-14.50	0.28	-26.00	0.28	-40.00	-14.50	0.28
0.29	-30.70	-14.50	0.29	-25.50	-14.50	0.29	-25.50	0.29	-40.00	-14.50	0.29
0.30	-30.70	-14.50	0.30	-25.00	-14.50	0.30	-25.00	0.30	-40.00	-14.50	0.30

Table 87. Radial Electric Field (Ice), Frequency = 0.1 MHz, VED Height = 2247.60 m

[illegible]

Table 88. Radial Electric Field (Ice), Frequency = 0.1 MHz, VED Height = 4495.20 m

HEIGHT (KM)	30.0 KM DOWNRANGE			100.0 KM DOWNRANGE			300.0 KM DOWNRANGE		
	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
0.000	-19.141	-46.625	0.000	-27.913	-156.76	0.000	-36.993	-57.25	0.000
0.030	-19.107	-127.69	0.030	-28.038	-168.61	0.030	-37.059	173.37	0.030
0.060	-19.074	-127.443	0.060	-28.102	-168.48	0.060	-37.125	173.39	0.060
0.090	-19.041	-127.17	0.090	-28.166	-168.35	0.090	-37.191	173.35	0.090
0.120	-19.008	-126.92	0.120	-28.232	-168.22	0.120	-37.256	173.23	0.120
0.150	-18.975	-126.66	0.150	-28.297	-168.08	0.150	-37.322	173.04	0.150
0.180	-18.942	-126.40	0.180	-28.363	-167.95	0.180	-37.387	172.78	0.180
0.210	-18.909	-126.15	0.210	-28.428	-167.81	0.210	-37.453	172.44	0.210
0.240	-18.876	-125.89	0.240	-28.494	-167.68	0.240	-37.518	172.03	0.240
0.270	-18.843	-125.64	0.270	-28.559	-167.54	0.270	-37.584	171.54	0.270
0.300	-18.810	-125.38	0.300	-28.625	-167.40	0.300	-37.649	171.07	0.300
0.330	-18.777	-125.13	0.330	-28.690	-167.26	0.330	-37.715	170.32	0.330
0.360	-18.744	-124.88	0.360	-28.756	-167.12	0.360	-37.780	169.59	0.360
0.390	-18.711	-124.63	0.390	-28.821	-166.98	0.390	-37.846	168.78	0.390
0.420	-18.678	-124.38	0.420	-28.887	-166.84	0.420	-37.911	167.89	0.420
0.450	-18.645	-124.13	0.450	-28.952	-166.70	0.450	-37.977	166.91	0.450
0.480	-18.612	-123.88	0.480	-29.018	-166.56	0.480	-38.042	165.95	0.480
0.510	-18.579	-123.63	0.510	-29.083	-166.42	0.510	-38.108	164.71	0.510
0.540	-18.546	-123.38	0.540	-29.149	-166.28	0.540	-38.173	163.48	0.540
0.570	-18.513	-123.13	0.570	-29.214	-166.14	0.570	-38.239	162.18	0.570
0.600	-18.480	-122.88	0.600	-29.280	-166.00	0.600	-38.304	160.79	0.600
0.630	-18.447	-122.63	0.630	-29.345	-165.86	0.630	-38.370	159.33	0.630
0.660	-18.414	-122.38	0.660	-29.411	-165.72	0.660	-38.435	157.80	0.660
0.690	-18.381	-122.13	0.690	-29.476	-165.58	0.690	-38.501	156.19	0.690
0.720	-18.348	-121.88	0.720	-29.542	-165.44	0.720	-38.566	154.53	0.720
0.750	-18.315	-121.63	0.750	-29.607	-165.30	0.750	-38.632	152.80	0.750
0.780	-18.282	-121.38	0.780	-29.673	-165.16	0.780	-38.697	151.02	0.780
0.810	-18.249	-121.13	0.810	-29.738	-165.02	0.810	-38.763	149.20	0.810
0.840	-18.216	-120.88	0.840	-29.804	-164.88	0.840	-38.828	147.34	0.840
0.870	-18.183	-120.63	0.870	-29.869	-164.74	0.870	-38.894	145.46	0.870
0.900	-18.150	-120.38	0.900	-29.935	-164.60	0.900	-38.959	143.55	0.900
1.050	-21.667	-117.93	1.050	-30.550	-177.01	1.050	-37.494	134.03	1.050
1.200	-21.615	-116.63	1.200	-30.910	-174.19	1.200	-38.604	125.23	1.200
1.350	-21.563	-115.33	1.350	-31.270	-171.37	1.350	-39.714	117.77	1.350
1.500	-21.511	-114.03	1.500	-31.630	-168.55	1.500	-40.824	111.79	1.500
1.650	-21.459	-112.73	1.650	-31.990	-165.73	1.650	-41.934	107.10	1.650
1.800	-21.407	-111.43	1.800	-32.350	-162.91	1.800	-43.044	103.71	1.800
1.950	-21.355	-110.13	1.950	-32.710	-160.09	1.950	-44.154	101.13	1.950
2.100	-21.303	-108.83	2.100	-33.070	-157.27	2.100	-45.264	99.27	2.100
2.250	-21.251	-107.53	2.250	-33.430	-154.45	2.250	-46.374	97.47	2.250
2.400	-21.199	-106.23	2.400	-33.790	-151.63	2.400	-47.484	95.64	2.400
2.550	-21.147	-104.93	2.550	-34.150	-148.81	2.550	-48.594	93.84	2.550
2.700	-21.095	-103.63	2.700	-34.510	-145.99	2.700	-49.704	92.04	2.700
2.850	-21.043	-102.33	2.850	-34.870	-143.17	2.850	-50.814	90.24	2.850
3.000	-20.991	-101.03	3.000	-35.230	-140.35	3.000	-51.924	88.43	3.000

Table 89. Radial Electric Field (Ice), Frequency = 1.0 MHz, VED Height = 0.00 m

[illegible]

Table 90. Radial Electric Field (Ice), Frequency = 1.0 MHz, VED Height = 224.76 m

3.0 KM DURNRANGE				10.0 KM DURNRANGE				30.0 KM DURNRANGE				100.0 KM DURNRANGE			
TELETYPE	AMP (DB)	PHASE (DEG)	TELETYPE	AMP (DB)	PHASE (DEG)	TELETYPE	AMP (DB)	PHASE (DEG)	TELETYPE	AMP (DB)	PHASE (DEG)	TELETYPE	AMP (DB)	PHASE (DEG)	
105	-26.775	167.74	350	-32.379	150.32	1050	-41.546	112.23	3500	-44.257	80.61	105	-26.775	167.74	
120	-27.032	170.54	400	-32.441	161.36	1200	-41.554	103.63	4000	-42.443	73.26	120	-27.032	170.54	
135	-27.119	173.52	450	-32.505	161.31	1350	-39.397	90.37	4500	-40.161	60.12	135	-27.119	173.52	
150	-27.260	176.44	500	-32.635	161.24	1500	-38.166	80.48	5000	-38.764	71.15	150	-27.260	176.44	
165	-27.368	179.46	550	-32.700	161.15	1650	-36.937	69.82	5500	-37.266	61.62	165	-27.368	179.46	
180	-27.347	178.46	600	-32.766	160.93	1800	-35.741	62.17	6000	-35.302	68.52	180	-27.347	178.46	
195	-27.401	178.44	650	-32.832	160.89	1950	-34.601	79.30	6500	-34.655	67.70	195	-27.401	178.44	
210	-27.430	178.44	700	-32.899	160.72	2100	-33.524	77.04	7000	-32.951	67.10	210	-27.430	178.44	
225	-27.330	178.52	750	-32.966	160.53	2250	-31.511	75.25	7500	-31.471	66.66	225	-27.330	178.52	
240	-27.336	178.54	800	-33.034	160.31	2400	-30.765	91.76	8000	-29.711	66.34	240	-27.336	178.54	
255	-27.326	178.57	850	-33.102	160.08	2550	-30.674	72.72	8500	-29.560	65.92	255	-27.326	178.57	
270	-27.147	178.61	900	-33.170	159.79	2700	-29.834	71.83	9000	-29.711	65.90	270	-27.147	178.61	
285	-27.045	178.65	950	-33.239	159.49	2850	-28.049	71.13	9500	-28.917	65.88	285	-27.045	178.65	
300	-26.945	178.70	1000	-33.307	159.16	3000	-28.311	70.56	10000	-28.917	65.88	300	-26.945	178.70	
315	-26.910	178.74													
330	-26.875	178.76													
345	-26.841	178.76													
360	-26.807	178.74													
375	-26.774	178.69													
390	-26.741	178.64													
405	-26.708	178.59													
420	-26.675	178.54													
435	-26.642	178.49													
450	-26.609	178.44													
465	-26.576	178.39													
480	-26.543	178.34													
495	-26.510	178.29													
510	-26.477	178.24													
525	-26.444	178.19													
540	-26.411	178.14													
555	-26.378	178.09													
570	-26.345	178.04													
585	-26.312	177.99													
600	-26.279	177.94													
615	-26.246	177.89													
630	-26.213	177.84													
645	-26.180	177.79													
660	-26.147	177.74													
675	-26.114	177.69													
690	-26.081	177.64													
705	-26.048	177.59													
720	-26.015	177.54													
735	-25.982	177.49													
750	-25.949	177.44													
765	-25.916	177.39													
780	-25.883	177.34													
795	-25.850	177.29													
810	-25.817	177.24													
825	-25.784	177.19													
840	-25.751	177.14													
855	-25.718	177.09													
870	-25.685	177.04													
885	-25.652	176.99													
900	-25.619	176.94													
915	-25.586	176.89													
930	-25.553	176.84													
945	-25.520	176.79													
960	-25.487	176.74													
975	-25.454	176.69													
990	-25.421	176.64													
1005	-25.388	176.59													
1020	-25.355	176.54													
1035	-25.322	176.49													
1050	-25.289	176.44													
1065	-25.256	176.39													
1080	-25.223	176.34													
1095	-25.190	176.29													
1110	-25.157	176.24													
1125	-25.124	176.19													
1140	-25.091	176.14													
1155	-25.058	176.09													
1170	-25.025	176.04													
1185	-24.992	175.99													
1200	-24.959	175.94													
1215	-24.926	175.89													
1230	-24.893	175.84													
1245	-24.860	175.79													
1260	-24.827	175.74													
1275	-24.794	175.69													
1290	-24.761	175.64													
1305	-24.728	175.59													
1320	-24.695	175.54													
1335	-24.662	175.49													
1350	-24.629	175.44													
1365	-24.596	175.39													
1380	-24.563	175.34													
1395	-24.530	175.29													
1410	-24.497	175.24													
1425	-24.464	175.19													
1440	-24.431	175.14													
1455	-24.398	175.09													
1470	-24.365	175.04													
1485	-24.332	174.99													
1500	-24.299	174.94													
1515	-24.266	174.89													
1530	-24.233	174.84													
1545	-24.200	174.79													
1560	-24.167	174.74													
1575	-24.134	174.69													
1590	-24.101	174.64													
1605	-24.068	174.59													
1620	-24.035	174.54													
1635	-24.002	174.49													
1650	-23.969	174.44													
1665	-23.936	174.39													
1680	-23.903	174.34													
1695	-23.870	174.29													
1710	-23.837	174.24													
1725	-23.804	174.19													
1740	-23.771	174.14													
1755	-23.738	174.09													
1770	-23.705	174.04													
1785	-23.672	173.99													
1800	-23.639	173.94													
1815	-23.606	173.89													
1830	-23.573	173.84													
1845	-23.540	173.79													
1860	-23.507	173.74													
1875	-23.474	173.69													
1890	-23.441	173.64													
1905	-23.408	173.59													
1920	-23.375	173.54													
1935	-23.342	173.49													
1950	-23.309	173.44													
1965	-23.276	173.39													
1980	-23.243	173.34													
1995	-23.210	173.29													
2010	-23.177	173.24													
2025	-23.144	173.19													
2040	-23.111	173.14													
2055	-23.078	173.09													
2070	-23.045	173.04													
2085	-23.012	172.99													
2100	-22.979	172.94													
2115	-22.946	172.89													

Table 91. Radial Electric Field (Ice), Frequency = 1.0 MHz, VED Height = 449.52 m

3.0 KM UPRANGE				10.0 KM UPRANGE				30.0 KM UPRANGE				100.0 KM UPRANGE			
RELNT (RM)	AMP (DB)	PHASE (DEG)	RELNT (RM)	AMP (DB)	PHASE (DEG)	RELNT (RM)	AMP (DB)	PHASE (DEG)	RELNT (RM)	AMP (DB)	PHASE (DEG)	RELNT (RM)	AMP (DB)	PHASE (DEG)	
0.00	-10.50	-13.10	0.000	-27.50	-28.30	0.000	-36.50	-50.26	0.000	-46.70	-59.26	0.000	-46.70	159.50	
0.03	-10.50	-13.00	0.010	-27.50	-28.30	0.030	-36.50	-50.26	0.030	-46.86	-59.26	0.100	-46.86	167.73	
0.06	-10.50	-13.00	0.020	-27.71	-28.01	0.070	-36.74	-49.47	0.200	-46.92	-58.38	0.300	-46.92	167.38	
0.09	-10.50	-13.00	0.030	-27.71	-28.01	0.070	-36.74	-49.47	0.300	-46.94	-58.38	0.400	-46.94	166.79	
0.12	-10.50	-13.00	0.040	-27.83	-28.01	0.120	-36.80	-49.48	0.400	-47.05	-58.38	0.500	-47.05	165.90	
0.15	-10.50	-12.90	0.050	-27.97	-28.00	0.150	-36.87	-49.48	0.500	-47.12	-58.38	0.600	-47.12	164.87	
0.18	-10.50	-12.90	0.060	-28.00	-28.00	0.180	-36.94	-49.48	0.600	-47.18	-58.38	0.700	-47.18	163.52	
0.21	-10.50	-12.90	0.070	-28.00	-28.00	0.210	-37.01	-49.48	0.700	-47.23	-58.38	0.800	-47.23	161.92	
0.24	-10.50	-12.90	0.080	-28.00	-28.00	0.240	-37.01	-49.48	0.800	-47.26	-58.38	0.900	-47.26	160.00	
0.27	-10.50	-12.90	0.090	-28.00	-28.00	0.270	-37.01	-49.48	0.900	-47.26	-58.38	1.000	-47.26	157.96	
0.30	-10.50	-12.90	0.100	-28.00	-28.00	0.300	-37.01	-49.48	1.000	-47.26	-58.38	1.100	-47.26	155.06	
0.33	-10.50	-12.90	0.110	-28.00	-28.00	0.330	-37.01	-49.48	1.100	-47.26	-58.38	1.200	-47.26	153.08	
0.36	-10.50	-12.90	0.120	-28.00	-28.00	0.360	-37.01	-49.48	1.200	-47.26	-58.38	1.300	-47.26	150.38	
0.39	-10.50	-12.90	0.130	-28.00	-28.00	0.390	-37.01	-49.48	1.300	-47.161	-58.38	1.400	-47.051	147.38	
0.42	-10.50	-12.90	0.140	-28.00	-28.00	0.420	-37.01	-49.48	1.400	-46.903	-58.38	1.500	-46.903	144.38	
0.45	-10.50	-12.90	0.150	-28.00	-28.00	0.450	-37.01	-49.48	1.500	-46.717	-58.38	1.600	-46.717	141.11	
0.48	-10.50	-12.90	0.160	-28.00	-28.00	0.480	-37.01	-49.48	1.600	-46.492	-58.38	1.700	-46.492	137.86	
0.51	-10.50	-12.90	0.170	-28.00	-28.00	0.510	-37.01	-49.48	1.700	-46.230	-58.38	1.800	-46.230	134.59	
0.54	-10.50	-12.90	0.180	-28.00	-28.00	0.540	-37.01	-49.48	1.800	-45.932	-58.38	1.900	-45.932	131.34	
0.57	-10.50	-12.90	0.190	-28.00	-28.00	0.570	-37.01	-49.48	1.900	-45.601	-58.38	2.000	-45.601	128.15	
0.60	-10.50	-12.90	0.200	-28.00	-28.00	0.600	-37.01	-49.48	2.000	-45.242	-58.38	2.100	-45.242	125.05	
0.63	-10.50	-12.90	0.210	-28.00	-28.00	0.630	-37.01	-49.48	2.100	-44.858	-58.38	2.200	-44.858	122.00	
0.66	-10.50	-12.90	0.220	-28.00	-28.00	0.660	-37.01	-49.48	2.200	-44.454	-58.38	2.300	-44.454	119.22	
0.69	-10.50	-12.90	0.230	-28.00	-28.00	0.690	-37.01	-49.48	2.300	-44.034	-58.38	2.400	-44.034	116.52	
0.72	-10.50	-12.90	0.240	-28.00	-28.00	0.720	-37.01	-49.48	2.400	-43.603	-58.38	2.500	-43.603	113.99	
0.75	-10.50	-12.90	0.250	-28.00	-28.00	0.750	-37.01	-49.48	2.500	-43.163	-58.38	2.600	-43.163	111.62	
0.78	-10.50	-12.90	0.260	-28.00	-28.00	0.780	-37.01	-49.48	2.600	-42.717	-58.38	2.700	-42.717	109.41	
0.81	-10.50	-12.90	0.270	-28.00	-28.00	0.810	-37.01	-49.48	2.700	-42.270	-58.38	2.800	-42.270	107.36	
0.84	-10.50	-12.90	0.280	-28.00	-28.00	0.840	-37.01	-49.48	2.800	-41.822	-58.38	2.900	-41.822	105.47	
0.87	-10.50	-12.90	0.290	-28.00	-28.00	0.870	-37.01	-49.48	2.900	-41.375	-58.38	3.000	-41.375	103.71	
0.90	-10.50	-12.90	0.300	-28.00	-28.00	0.900	-37.01	-49.48	3.000	-40.928	-58.38			102.09	
0.93	-10.50	-12.90													
0.96	-10.50	-12.90													
0.99	-10.50	-12.90													
1.02	-10.50	-12.90													
1.05	-10.50	-12.90													
1.08	-10.50	-12.90													
1.11	-10.50	-12.90													
1.14	-10.50	-12.90													
1.17	-10.50	-12.90													
1.20	-10.50	-12.90													
1.23	-10.50	-12.90													
1.26	-10.50	-12.90													
1.29	-10.50	-12.90													
1.32	-10.50	-12.90													
1.35	-10.50	-12.90													
1.38	-10.50	-12.90													
1.41	-10.50	-12.90													
1.44	-10.50	-12.90													
1.47	-10.50	-12.90													
1.50	-10.50	-12.90													
1.53	-10.50	-12.90													
1.56	-10.50	-12.90													
1.59	-10.50	-12.90													
1.62	-10.50	-12.90													
1.65	-10.50	-12.90													
1.68	-10.50	-12.90													
1.71	-10.50	-12.90													
1.74	-10.50	-12.90													
1.77	-10.50	-12.90													
1.80	-10.50	-12.90													
1.83	-10.50	-12.90													
1.86	-10.50	-12.90													
1.89	-10.50	-12.90													
1.92	-10.50	-12.90													
1.95	-10.50	-12.90													
1.98	-10.50	-12.90													
2.01	-10.50	-12.90													
2.04	-10.50	-12.90													
2.07	-10.50	-12.90													
2.10	-10.50	-12.90													
2.13	-10.50	-12.90													
2.16	-10.50	-12.90													
2.19	-10.50	-12.90													
2.22	-10.50	-12.90													
2.25	-10.50	-12.90													
2.28	-10.50	-12.90													
2.31	-10.50	-12.90													
2.34	-10.50	-12.90													
2.37	-10.50	-12.90													
2.40	-10.50	-12.90													
2.43	-10.50	-12.90													
2.46	-10.50	-12.90													
2.49	-10.50	-12.90													
2.52	-10.50	-12.90													
2.55	-10.50	-12.90													
2.58	-10.50	-12.90													
2.61	-10.50	-12.90													
2.64	-10.50	-12.90													
2.67	-10.50	-12.90													
2.70	-10.50	-12.90													
2.73	-10.50	-12.90													
2.76	-10.50	-12.90													
2.79	-10.50	-12.90													
2.82	-10.50	-12.90													
2.85	-10.50	-12.90													
2.88	-10.50	-12.90													
2.91	-10.50	-12.90													
2.94	-10.50	-12.90													
2.97	-10.50	-12.90													
3.00	-10.50	-12.90													

Table 92. Radial Electric Field (Ice), Frequency = 10.0 MHz, VED Height = 0.00 m

3.0 KM UMRANGE				10.0 KM UMRANGE				100.0 KM UMRANGE			
RELUMT (KM)	AMP (UB)	PHASE (DEG)	RELUMT (KM)	AMP (UB)	PHASE (DEG)	RELUMT (KM)	AMP (UB)	PHASE (DEG)	RELUMT (KM)	AMP (UB)	PHASE (DEG)
0.00	-40.000	-120.00	0.00	-30.474	22.26	0.00	-00.016	-11.28	0.00	-78.474	-51.09
0.03	-40.009	91.51	0.03	-30.539	90.47	0.03	-00.081	89.65	0.03	-78.537	88.69
0.06	-40.134	91.39	0.06	-30.604	89.47	0.06	-00.144	88.56	0.06	-78.573	88.06
0.09	-40.219	91.20	0.09	-30.669	89.20	0.09	-00.190	88.73	0.09	-78.513	79.05
0.12	-40.285	90.93	0.12	-30.731	88.39	0.12	-00.233	88.15	0.12	-78.455	71.00
0.15	-40.350	90.59	0.15	-30.790	87.27	0.15	-00.273	86.46	0.15	-77.899	61.04
0.18	-40.415	90.11	0.18	-30.842	85.90	0.18	-00.310	84.86	0.18	-77.044	43.11
0.21	-40.480	89.67	0.21	-30.886	84.27	0.21	-00.345	83.31	0.21	-76.812	35.48
0.24	-40.543	89.09	0.24	-30.916	82.39	0.24	-00.378	81.27	0.24	-76.298	29.25
0.27	-40.605	88.43	0.27	-30.934	80.20	0.27	-00.409	79.44	0.27	-75.449	24.28
0.30	-40.660	87.69	0.30	-30.949	77.92	0.30	-00.438	77.51	0.30	-74.001	20.33
0.33	-40.724	86.87	0.33	-30.961	75.36	0.33	-00.465	75.17	0.33	-68.734	17.19
0.36	-40.779	85.96	0.36	-30.965	72.53	0.36	-00.491	72.80	0.36	-61.474	14.68
0.39	-40.831	84.97	0.39	-30.970	69.30	0.39	-00.516	70.35	0.39	-60.284	12.85
0.42	-40.880	83.90	0.42	-30.974	65.81	0.42	-00.540	68.77	0.42	-60.098	10.99
0.45	-40.923	82.74	0.45	-30.971	62.01	0.45	-00.563	67.04	0.45	-60.098	9.63
0.48	-40.961	81.51	0.48	-30.972	58.01	0.48	-00.585	65.14	0.48	-60.098	8.49
0.51	-40.996	80.19	0.51	-30.974	53.82	0.51	-00.607	63.07	0.51	-60.098	7.53
0.54	-41.027	78.80	0.54	-30.975	49.42	0.54	-00.628	60.74	0.54	-60.098	6.72
0.57	-41.053	77.33	0.57	-30.976	44.83	0.57	-00.649	58.17	0.57	-60.098	6.03
0.60	-41.074	75.79	0.60	-30.976	40.13	0.60	-00.669	55.40	0.60	-60.098	5.41
0.63	-41.093	74.18	0.63	-30.976	35.31	0.63	-00.689	52.40	0.63	-60.098	4.91
0.66	-41.107	72.51	0.66	-30.976	30.40	0.66	-00.709	49.10	0.66	-60.098	4.46
0.69	-41.117	70.78	0.69	-30.976	25.40	0.69	-00.729	45.56	0.69	-60.098	4.07
0.72	-41.123	69.01	0.72	-30.976	20.31	0.72	-00.749	41.80	0.72	-60.098	3.72
0.75	-41.126	67.18	0.75	-30.976	15.13	0.75	-00.769	37.83	0.75	-60.098	3.41
0.78	-41.126	65.33	0.78	-30.976	10.00	0.78	-00.789	33.57	0.78	-60.098	3.14
0.81	-41.123	63.44	0.81	-30.976	5.00	0.81	-00.809	29.00	0.81	-60.098	2.90
0.84	-41.117	61.51	0.84	-30.976	0.18	0.84	-00.829	24.18	0.84	-60.098	2.68
0.87	-41.107	59.64	0.87	-30.976	0.00	0.87	-00.849	19.14	0.87	-60.098	2.48
0.90	-41.093	57.84	0.90	-30.976	0.00	0.90	-00.869	14.00	0.90	-60.098	2.28
1.05	-41.123	40.29	1.05	-30.976	19.12	1.05	-00.869	0.12	1.05	-60.098	1.74
1.20	-41.093	37.79	1.20	-30.976	13.72	1.20	-00.869	4.55	1.20	-60.098	1.27
1.35	-41.050	35.06	1.35	-30.976	10.04	1.35	-00.869	3.49	1.35	-60.098	0.95
1.50	-41.001	32.70	1.50	-30.976	8.44	1.50	-00.869	2.19	1.50	-60.098	0.73
1.65	-40.942	30.13	1.65	-30.976	6.81	1.65	-00.869	1.74	1.65	-60.098	0.56
1.80	-40.877	27.49	1.80	-30.976	5.18	1.80	-00.869	1.46	1.80	-60.098	0.44
1.95	-40.803	24.83	1.95	-30.976	3.50	1.95	-00.869	1.21	1.95	-60.098	0.34
2.10	-40.720	22.13	2.10	-30.976	1.81	2.10	-00.869	1.02	2.10	-60.098	0.27
2.25	-40.630	19.49	2.25	-30.976	0.13	2.25	-00.869	0.86	2.25	-60.098	0.21
2.40	-40.537	16.81	2.40	-30.976	0.00	2.40	-00.869	0.73	2.40	-60.098	0.17
2.55	-40.441	14.11	2.55	-30.976	0.00	2.55	-00.869	0.62	2.55	-60.098	0.13
2.70	-40.345	11.41	2.70	-30.976	0.00	2.70	-00.869	0.53	2.70	-60.098	0.10
2.85	-40.250	8.71	2.85	-30.976	0.00	2.85	-00.869	0.46	2.85	-60.098	0.07
3.00	-40.154	6.01	3.00	-30.976	0.00	3.00	-00.869	0.40	3.00	-60.098	0.05

Table 93. Radial Electric Field (ke), Frequency = 10.0 MHz, VED Height = 22.48 m

3.0 KM UOMRANGE				10.0 KM UOMRANGE				30.0 KM UOMRANGE				100.0 KM UOMRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)
0.000	-61.572	-66.18	0.000	-51.937	84.00	0.000	-51.454	0.000	-51.454	-52.24	0.000	-71.903	0.000	-71.903	11.05
0.003	-61.637	155.25	0.010	-52.002	152.84	0.030	-51.514	0.030	-51.514	151.99	0.100	-71.966	0.100	-71.966	150.92
0.006	-61.702	155.15	0.020	-52.066	152.84	0.060	-51.582	0.060	-51.582	150.90	0.200	-72.003	0.200	-72.003	147.24
0.009	-61.768	154.97	0.030	-52.133	151.92	0.090	-51.637	0.090	-51.637	149.07	0.300	-71.944	0.300	-71.944	141.29
0.012	-61.834	154.71	0.040	-52.196	151.06	0.120	-51.673	0.120	-51.673	148.50	0.400	-71.886	0.400	-71.886	133.23
0.015	-61.899	154.38	0.050	-52.256	149.45	0.150	-51.674	0.150	-51.674	143.21	0.500	-71.832	0.500	-71.832	123.87
0.018	-61.966	153.98	0.060	-52.310	148.58	0.180	-51.624	0.180	-51.624	139.23	0.600	-71.786	0.600	-71.786	114.24
0.021	-62.032	153.49	0.070	-52.356	145.96	0.210	-51.501	0.210	-51.501	134.66	0.700	-69.079	0.700	-69.079	105.33
0.024	-62.098	152.93	0.080	-52.399	145.04	0.240	-51.288	0.240	-51.288	129.62	0.800	-67.734	0.800	-67.734	97.71
0.027	-62.162	152.29	0.090	-52.440	142.97	0.270	-50.973	0.270	-50.973	124.29	0.900	-66.312	0.900	-66.312	91.47
0.030	-62.225	151.56	0.100	-52.480	140.81	0.300	-50.552	0.300	-50.552	118.66	1.000	-64.886	1.000	-64.886	86.20
0.033	-62.287	150.76	0.110	-52.518	138.63	0.330	-50.029	0.330	-50.029	113.52	1.100	-63.449	1.100	-63.449	82.25
0.036	-62.346	149.87	0.120	-52.530	135.25	0.360	-49.416	0.360	-49.416	108.44	1.200	-62.173	1.200	-62.173	79.42
0.039	-62.402	148.90	0.130	-52.546	132.31	0.390	-48.736	0.390	-48.736	103.64	1.300	-60.914	1.300	-60.914	76.91
0.042	-62.454	147.84	0.140	-52.566	129.22	0.420	-48.004	0.420	-48.004	99.31	1.400	-59.725	1.400	-59.725	74.89
0.045	-62.503	146.71	0.150	-52.589	126.04	0.450	-47.240	0.450	-47.240	95.51	1.500	-58.602	1.500	-58.602	73.23
0.048	-62.546	145.49	0.160	-52.614	122.79	0.480	-46.461	0.480	-46.461	92.08	1.600	-57.542	1.600	-57.542	71.87
0.051	-62.583	144.19	0.170	-52.640	119.53	0.510	-45.661	0.510	-45.661	88.40	1.700	-56.539	1.700	-56.539	70.74
0.054	-62.614	142.82	0.180	-52.668	116.24	0.540	-44.847	0.540	-44.847	84.40	1.800	-55.590	1.800	-55.590	69.78
0.057	-62.637	141.36	0.190	-52.692	113.12	0.570	-44.014	0.570	-44.014	80.03	1.900	-54.689	1.900	-54.689	68.98
0.060	-62.651	139.84	0.200	-52.715	110.03	0.600	-43.174	0.600	-43.174	76.23	2.000	-53.833	2.000	-53.833	68.29
0.063	-62.657	138.24	0.210	-52.737	107.07	0.630	-42.324	0.630	-42.324	72.47	2.100	-53.018	2.100	-53.018	67.70
0.066	-62.652	136.58	0.220	-49.480	104.24	0.660	-41.467	0.660	-41.467	68.85	2.200	-52.240	2.200	-52.240	67.20
0.069	-62.636	134.86	0.230	-49.457	101.57	0.690	-40.607	0.690	-40.607	65.10	2.300	-51.497	2.300	-51.497	66.75
0.072	-62.609	133.09	0.240	-49.431	99.05	0.720	-39.746	0.720	-39.746	61.42	2.400	-50.786	2.400	-50.786	66.51
0.075	-62.569	131.27	0.250	-48.594	96.70	0.750	-38.884	0.750	-38.884	57.82	2.500	-50.104	2.500	-50.104	66.03
0.078	-62.517	129.41	0.260	-48.149	94.50	0.780	-38.024	0.780	-38.024	54.26	2.600	-49.449	2.600	-49.449	65.73
0.081	-62.451	127.52	0.270	-47.699	92.46	0.810	-37.169	0.810	-37.169	50.71	2.700	-48.820	2.700	-48.820	65.47
0.084	-62.372	125.60	0.280	-47.247	90.51	0.840	-36.311	0.840	-36.311	47.24	2.800	-48.214	2.800	-48.214	65.23
0.087	-62.279	123.67	0.290	-46.794	88.62	0.870	-35.454	0.870	-35.454	43.79	2.900	-47.630	2.900	-47.630	65.02
0.090	-62.172	121.74	0.300	-46.343	87.20	0.900	-34.594	0.900	-34.594	40.45	3.000	-47.066	3.000	-47.066	64.84
0.105	-61.444	112.25	0.350	-44.159	80.77	1.050	-32.844	0.350	-32.844	37.08	3.500	-44.513	3.500	-44.513	64.10
0.120	-60.449	103.66	0.400	-42.146	76.42	1.200	-31.004	0.400	-31.004	33.64	4.000	-42.318	4.000	-42.318	63.75
0.135	-59.459	96.40	0.450	-40.320	73.41	1.350	-29.164	0.450	-29.164	30.10	4.500	-40.378	4.500	-40.378	63.51
0.150	-58.461	90.53	0.500	-38.669	71.28	1.500	-27.324	0.500	-27.324	26.56	5.000	-38.675	5.000	-38.675	63.37
0.165	-57.463	85.87	0.550	-37.172	69.75	1.650	-25.484	0.550	-25.484	23.02	5.500	-37.169	5.500	-37.169	63.30
0.180	-56.465	82.22	0.600	-35.809	68.63	1.800	-23.644	0.600	-23.644	19.48	6.000	-35.788	6.000	-35.788	63.29
0.195	-55.467	79.34	0.650	-34.451	67.80	1.950	-21.804	0.650	-21.804	15.94	6.500	-34.531	6.500	-34.531	63.31
0.210	-54.469	77.08	0.700	-33.117	67.18	2.100	-20.004	0.700	-20.004	12.40	7.000	-33.376	7.000	-33.376	63.36
0.225	-53.471	75.29	0.750	-31.880	66.72	2.250	-18.204	0.750	-18.204	8.86	7.500	-32.317	7.500	-32.317	63.43
0.240	-52.473	73.86	0.800	-30.641	66.39	2.400	-16.404	0.800	-16.404	5.32	8.000	-31.335	8.000	-31.335	63.53
0.255	-51.475	72.73	0.850	-29.471	66.16	2.550	-14.604	0.850	-14.604	1.78	8.500	-30.423	8.500	-30.423	63.64
0.270	-50.477	71.83	0.900	-28.362	66.00	2.700	-12.804	0.900	-12.804	0.24	9.000	-29.573	9.000	-29.573	63.77
0.285	-49.479	71.12	0.950	-27.312	65.91	2.850	-11.004	0.950	-11.004	0.00	9.500	-28.779	9.500	-28.779	63.92
0.300	-48.481	70.56	1.000	-26.316	65.87	3.000	-9.204	1.000	-9.204	0.00	10.000	-28.035	10.000	-28.035	64.08

Table 94. Radial Electric Field (Ice), Frequency = 10.0 MHz, VED Height = 44.95 m

3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
MEI (M)	AMP (DB)	PHASE (DEG)	MEI (M)	AMP (DB)	PHASE (DEG)	MEI (M)	AMP (DB)	PHASE (DEG)	MEI (M)	AMP (DB)	PHASE (DEG)	MEI (M)	AMP (DB)	PHASE (DEG)	MEI (M)
0.000	-36.501	-56.21	0.000	-46.747	-173.83	0.000	-56.228	-34.44	0.000	-66.665	-24.07	0.000	-66.665	-24.07	0.000
0.003	-36.565	174.24	0.010	-46.812	167.80	0.030	-56.294	163.71	0.100	-66.728	164.21	0.100	-66.728	164.21	0.100
0.006	-36.630	174.20	0.020	-46.876	167.44	0.060	-56.358	164.62	0.200	-66.766	160.58	0.200	-66.766	160.58	0.200
0.009	-36.697	174.04	0.030	-46.944	166.84	0.090	-56.414	162.79	0.300	-66.799	154.58	0.300	-66.799	154.58	0.300
0.012	-36.764	173.81	0.040	-47.009	166.00	0.120	-56.452	160.23	0.400	-66.831	146.53	0.400	-66.831	146.53	0.400
0.015	-36.832	173.51	0.050	-47.072	164.90	0.150	-56.456	150.94	0.500	-66.862	137.17	0.500	-66.862	137.17	0.500
0.018	-36.901	173.13	0.060	-47.129	163.34	0.180	-56.459	152.97	0.600	-66.890	127.53	0.600	-66.890	127.53	0.600
0.021	-36.970	172.67	0.070	-47.179	161.93	0.210	-56.460	148.40	0.700	-66.916	118.62	0.700	-66.916	118.62	0.700
0.024	-37.040	172.14	0.080	-47.216	160.07	0.240	-56.462	143.36	0.800	-66.940	110.99	0.800	-66.940	110.99	0.800
0.027	-37.109	171.53	0.090	-47.242	157.96	0.270	-56.462	138.03	0.900	-66.965	104.75	0.900	-66.965	104.75	0.900
0.030	-37.178	170.84	0.100	-47.247	155.62	0.300	-56.455	132.59	1.000	-66.989	99.77	1.000	-66.989	99.77	1.000
0.033	-37.245	170.07	0.110	-47.229	153.05	0.330	-56.436	127.23	1.100	-66.989	95.83	1.100	-66.989	95.83	1.100
0.036	-37.311	169.22	0.120	-47.184	150.28	0.360	-56.424	122.12	1.200	-66.973	92.70	1.200	-66.973	92.70	1.200
0.039	-37.376	168.29	0.130	-47.107	147.33	0.390	-56.411	117.38	1.300	-66.959	90.20	1.300	-66.959	90.20	1.300
0.042	-37.441	167.27	0.140	-46.996	144.24	0.420	-56.382	113.06	1.400	-66.942	88.17	1.400	-66.942	88.17	1.400
0.045	-37.505	166.17	0.150	-46.867	141.05	0.450	-56.350	109.19	1.500	-66.922	86.53	1.500	-66.922	86.53	1.500
0.048	-37.568	164.99	0.160	-46.680	137.60	0.480	-56.302	105.75	1.600	-66.899	85.17	1.600	-66.899	85.17	1.600
0.051	-37.631	163.73	0.170	-46.434	134.52	0.510	-56.250	102.73	1.700	-66.873	84.05	1.700	-66.873	84.05	1.700
0.054	-37.694	162.39	0.180	-46.171	131.27	0.540	-56.189	100.07	1.800	-66.844	83.10	1.800	-66.844	83.10	1.800
0.057	-37.757	160.96	0.190	-45.872	128.07	0.570	-56.116	97.74	1.900	-66.812	82.31	1.900	-66.812	82.31	1.900
0.060	-37.820	159.47	0.200	-45.534	124.91	0.600	-56.031	95.91	2.000	-66.776	81.63	2.000	-66.776	81.63	2.000
0.063	-37.883	157.90	0.210	-45.180	121.74	0.630	-55.934	94.53	2.100	-66.737	81.05	2.100	-66.737	81.05	2.100
0.066	-37.946	156.26	0.220	-44.796	119.14	0.660	-55.824	93.71	2.200	-66.695	80.55	2.200	-66.695	80.55	2.200
0.069	-38.009	154.56	0.230	-44.392	116.45	0.690	-55.703	93.44	2.300	-66.650	80.12	2.300	-66.650	80.12	2.300
0.072	-38.072	152.80	0.240	-43.971	113.92	0.720	-55.572	93.72	2.400	-66.604	79.75	2.400	-66.604	79.75	2.400
0.075	-38.135	150.98	0.250	-43.540	111.55	0.750	-55.432	94.66	2.500	-66.557	79.42	2.500	-66.557	79.42	2.500
0.078	-38.198	149.13	0.260	-43.099	109.34	0.780	-55.283	96.18	2.600	-66.509	79.14	2.600	-66.509	79.14	2.600
0.081	-38.261	147.24	0.270	-42.654	107.29	0.810	-55.126	98.40	2.700	-66.460	78.89	2.700	-66.460	78.89	2.700
0.084	-38.324	145.31	0.280	-42.207	105.40	0.840	-54.962	101.03	2.800	-66.410	78.67	2.800	-66.410	78.67	2.800
0.087	-38.387	143.37	0.290	-41.759	103.64	0.870	-54.792	103.95	2.900	-66.359	78.47	2.900	-66.359	78.47	2.900
0.090	-38.450	141.42	0.300	-41.313	102.02	0.900	-54.620	107.73	3.000	-66.307	78.30	3.000	-66.307	78.30	3.000
0.105	-38.736	131.80	0.350	-39.156	95.63	1.050	-53.396	102.44	3.500	-64.401	77.70	3.500	-64.401	77.70	3.500
0.120	-39.002	123.05	0.400	-37.174	91.36	1.200	-51.257	101.04	4.000	-62.243	77.40	4.000	-62.243	77.40	4.000
0.135	-39.269	115.69	0.450	-35.386	86.46	1.350	-49.388	100.17	4.500	-60.365	77.27	4.500	-60.365	77.27	4.500
0.150	-39.536	109.60	0.500	-33.779	80.46	1.500	-47.737	99.64	5.000	-58.709	77.25	5.000	-58.709	77.25	5.000
0.165	-39.803	103.22	0.550	-32.332	75.14	1.650	-46.266	99.32	5.500	-57.235	77.32	5.500	-57.235	77.32	5.500
0.180	-40.070	97.10	0.600	-31.025	69.14	1.800	-44.944	99.20	6.000	-55.912	77.46	6.000	-55.912	77.46	6.000
0.195	-40.337	91.10	0.650	-29.839	63.50	1.950	-43.750	99.14	6.500	-54.717	77.65	6.500	-54.717	77.65	6.500
0.210	-40.604	85.14	0.700	-28.760	58.20	2.100	-42.666	99.24	7.000	-53.632	77.89	7.000	-53.632	77.89	7.000
0.225	-40.871	79.14	0.750	-27.775	53.02	2.250	-41.678	99.42	7.500	-52.640	78.17	7.500	-52.640	78.17	7.500
0.240	-41.138	73.14	0.800	-26.873	48.96	2.400	-40.774	99.65	8.000	-51.740	78.49	8.000	-51.740	78.49	8.000
0.255	-41.405	67.14	0.850	-26.045	45.07	2.550	-40.045	99.95	8.500	-50.911	78.84	8.500	-50.911	78.84	8.500
0.270	-41.672	61.14	0.900	-25.285	41.27	2.700	-39.384	100.28	9.000	-50.149	79.23	9.000	-50.149	79.23	9.000
0.285	-41.939	55.14	0.950	-24.585	37.57	2.850	-38.780	100.67	9.500	-49.449	79.66	9.500	-49.449	79.66	9.500
0.300	-42.206	49.14	1.000	-23.947	33.97	3.000	-38.234	101.12	10.000	-48.804	80.12	10.000	-48.804	80.12	10.000

Table 95. Radial Electric Field (ice), Frequency = 100.0 MHz, VED Height = 0.00 m

10.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
0.000	-50.474	25.40	0.000	-50.016	-114.14	0.000	-50.016	0.000	-50.016	-50.95	0.000
0.001	-50.540	90.37	0.003	-50.061	89.79	0.010	-50.537	0.030	-50.064	86.38	0.030
0.002	-50.605	90.01	0.006	-50.144	88.70	0.020	-50.573	0.060	-50.875	75.74	0.060
0.003	-50.669	85.39	0.009	-50.198	86.66	0.030	-50.513	0.090	-50.973	60.12	0.090
0.004	-50.731	80.53	0.012	-50.233	84.29	0.040	-50.255	0.120	-50.151	44.24	0.120
0.005	-50.790	87.41	0.015	-50.233	80.99	0.050	-50.255	0.150	-50.780	31.80	0.150
0.006	-50.843	86.03	0.018	-50.180	77.01	0.060	-50.814	0.180	-50.315	23.19	0.180
0.007	-50.886	84.40	0.021	-50.055	72.44	0.070	-50.644	0.210	-50.985	17.39	0.210
0.008	-50.918	82.52	0.024	-50.840	67.40	0.080	-50.298	0.240	-50.852	13.41	0.240
0.009	-50.934	80.39	0.027	-50.523	62.07	0.090	-50.285	0.270	-50.918	10.62	0.270
0.010	-50.930	78.03	0.030	-50.099	56.64	0.100	-50.446	0.300	-50.161	8.59	0.300
0.011	-50.901	75.44	0.033	-50.574	51.30	0.110	-50.061	0.330	-50.559	7.08	0.330
0.012	-50.845	72.66	0.036	-50.261	46.21	0.120	-50.733	0.360	-50.089	5.93	0.360
0.013	-50.750	69.71	0.039	-50.278	41.48	0.130	-50.747	0.390	-50.733	5.03	0.390
0.014	-50.634	66.62	0.042	-50.544	37.17	0.140	-50.283	0.420	-50.476	4.32	0.420
0.015	-50.471	63.44	0.045	-50.774	33.31	0.150	-50.159	0.450	-50.305	3.74	0.450
0.016	-50.271	60.20	0.048	-50.997	29.69	0.160	-50.096	0.480	-50.209	3.27	0.480
0.017	-50.033	56.94	0.051	-50.211	26.06	0.170	-50.094	0.510	-50.181	2.88	0.510
0.018	-50.758	53.71	0.054	-50.431	22.21	0.180	-50.143	0.540	-50.212	2.56	0.540
0.019	-50.447	50.55	0.057	-50.662	18.87	0.190	-50.124	0.570	-50.124	2.28	0.570
0.020	-50.105	47.47	0.060	-50.910	15.63	0.200	-50.383	0.600	-50.427	2.05	0.600
0.021	-50.336	44.52	0.063	-50.177	12.02	0.210	-50.566	0.630	-50.602	1.85	0.630
0.022	-50.344	41.70	0.066	-50.464	8.44	0.220	-50.787	0.660	-50.816	1.68	0.660
0.023	-50.344	39.04	0.069	-50.772	5.04	0.230	-50.042	0.690	-50.066	1.52	0.690
0.024	-50.350	36.53	0.072	-50.102	1.79	0.240	-50.326	0.720	-50.349	1.39	0.720
0.025	-50.362	34.18	0.075	-50.453	1.69	0.250	-50.664	0.750	-50.661	1.28	0.750
0.026	-50.364	31.99	0.078	-50.825	11.70	0.260	-50.987	0.780	-50.002	1.17	0.780
0.027	-50.362	29.95	0.081	-50.217	10.82	0.270	-50.385	0.810	-50.367	1.08	0.810
0.028	-50.370	28.06	0.084	-50.628	10.03	0.280	-50.747	0.840	-50.757	1.00	0.840
0.029	-50.373	26.31	0.087	-50.058	9.32	0.290	-50.160	0.870	-50.169	0.93	0.870
0.030	-50.360	24.69	0.090	-50.306	8.68	0.300	-50.354	0.900	-50.602	0.86	0.900
0.035	-50.604	18.24	0.105	-50.981	6.25	0.350	-50.026	1.050	-50.030	0.61	1.050
0.040	-50.577	13.84	0.120	-50.790	4.68	0.400	-50.815	1.200	-50.817	0.46	1.200
0.045	-50.573	10.77	0.135	-50.861	3.61	0.450	-50.875	1.350	-50.877	0.35	1.350
0.050	-50.503	8.56	0.150	-50.142	2.86	0.500	-50.151	1.500	-50.152	0.27	1.500
0.055	-50.345	6.93	0.165	-50.595	2.31	0.550	-50.601	1.650	-50.601	0.22	1.650
0.060	-50.157	5.70	0.180	-50.190	1.90	0.600	-50.194	1.800	-50.195	0.18	1.800
0.065	-50.083	4.76	0.195	-50.806	1.58	0.650	-50.909	1.950	-50.909	0.15	1.950
0.070	-50.708	4.02	0.210	-50.724	1.33	0.700	-50.726	2.100	-50.726	0.12	2.100
0.075	-50.619	3.42	0.225	-50.630	1.13	0.750	-50.632	2.250	-50.632	0.10	2.250
0.080	-50.606	2.95	0.240	-50.614	0.97	0.800	-50.615	2.400	-50.615	0.09	2.400
0.085	-50.609	2.55	0.255	-50.665	0.84	0.850	-50.666	2.550	-50.666	0.07	2.550
0.090	-50.712	2.23	0.270	-50.776	0.74	0.900	-50.777	2.700	-50.777	0.06	2.700
0.095	-50.938	1.96	0.285	-50.941	0.65	0.950	-50.941	2.850	-50.941	0.05	2.850
0.100	-50.151	1.73	0.300	-50.154	0.57	1.000	-50.154	3.000	-50.154	0.05	3.000

Table 96. Radial Electric Field (Ice), Frequency = 100.0 MHz, VED Height = 2.25 m

1.0 KM DOWNRANGE				3.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)
0.00	-51.967	89.03	0.00	-71.894	11.06	0.00	-61.434
0.01	-51.974	156.92	0.01	-71.957	150.95	0.01	-61.482
0.02	-52.039	156.96	0.02	-71.994	147.31	0.02	-61.523
0.03	-52.124	151.95	0.03	-71.9935	141.31	0.03	-61.592
0.04	-52.187	151.95	0.04	-71.677	133.26	0.04	-61.571
0.05	-52.247	149.97	0.05	-71.123	123.89	0.05	-61.571
0.06	-52.302	148.61	0.06	-70.237	114.27	0.06	-61.571
0.07	-52.347	148.98	0.07	-69.076	103.46	0.07	-61.571
0.08	-52.381	148.11	0.08	-67.725	97.73	0.08	-61.571
0.09	-52.400	146.94	0.09	-66.303	91.50	0.09	-61.571
0.10	-52.437	146.63	0.10	-64.877	86.52	0.10	-61.571
0.11	-52.474	146.05	0.11	-63.490	82.56	0.11	-61.571
0.12	-52.521	135.27	0.12	-62.164	79.44	0.12	-61.571
0.13	-52.571	135.32	0.13	-60.905	76.94	0.13	-61.571
0.14	-52.611	129.24	0.14	-59.716	74.91	0.14	-61.571
0.15	-52.650	128.05	0.15	-58.593	73.26	0.15	-61.571
0.16	-52.684	126.81	0.16	-57.533	71.84	0.16	-61.571
0.17	-52.714	119.95	0.17	-56.530	70.76	0.17	-61.571
0.18	-52.739	118.31	0.18	-55.581	69.81	0.18	-61.571
0.19	-52.752	116.31	0.19	-54.680	68.92	0.19	-61.571
0.20	-52.764	114.13	0.20	-53.824	68.12	0.20	-61.571
0.21	-52.774	111.05	0.21	-53.009	67.73	0.21	-61.571
0.22	-52.781	107.08	0.22	-52.231	67.22	0.22	-61.571
0.23	-52.787	103.29	0.23	-51.488	66.78	0.23	-61.571
0.24	-52.791	99.07	0.24	-50.777	66.34	0.24	-61.571
0.25	-52.794	94.71	0.25	-50.109	65.95	0.25	-61.571
0.26	-52.797	90.32	0.26	-49.481	65.55	0.26	-61.571
0.27	-52.799	85.94	0.27	-48.891	65.14	0.27	-61.571
0.28	-52.801	81.58	0.28	-48.343	64.73	0.28	-61.571
0.29	-52.803	77.21	0.29	-47.821	64.32	0.29	-61.571
0.30	-52.804	72.81	0.30	-47.325	63.91	0.30	-61.571
0.31	-52.805	68.41	0.31	-46.855	63.50	0.31	-61.571
0.32	-52.806	64.01	0.32	-46.407	63.09	0.32	-61.571
0.33	-52.807	59.61	0.33	-45.980	62.68	0.33	-61.571
0.34	-52.808	55.21	0.34	-45.573	62.27	0.34	-61.571
0.35	-52.809	50.81	0.35	-45.185	61.86	0.35	-61.571
0.36	-52.810	46.41	0.36	-44.815	61.45	0.36	-61.571
0.37	-52.811	42.01	0.37	-44.463	61.04	0.37	-61.571
0.38	-52.812	37.61	0.38	-44.129	60.63	0.38	-61.571
0.39	-52.813	33.21	0.39	-43.811	60.22	0.39	-61.571
0.40	-52.814	28.81	0.40	-43.507	59.81	0.40	-61.571
0.41	-52.815	24.41	0.41	-43.217	59.40	0.41	-61.571
0.42	-52.816	20.01	0.42	-42.939	59.00	0.42	-61.571
0.43	-52.817	15.61	0.43	-42.673	58.59	0.43	-61.571
0.44	-52.818	11.21	0.44	-42.419	58.18	0.44	-61.571
0.45	-52.819	6.81	0.45	-42.176	57.77	0.45	-61.571
0.46	-52.820	2.41	0.46	-41.943	57.36	0.46	-61.571
0.47	-52.821	-2.01	0.47	-41.720	56.95	0.47	-61.571
0.48	-52.822	-6.41	0.48	-41.507	56.54	0.48	-61.571
0.49	-52.823	-10.81	0.49	-41.303	56.13	0.49	-61.571
0.50	-52.824	-15.21	0.50	-41.108	55.72	0.50	-61.571
0.51	-52.825	-19.61	0.51	-40.922	55.31	0.51	-61.571
0.52	-52.826	-24.01	0.52	-40.745	54.90	0.52	-61.571
0.53	-52.827	-28.41	0.53	-40.577	54.49	0.53	-61.571
0.54	-52.828	-32.81	0.54	-40.417	54.08	0.54	-61.571
0.55	-52.829	-37.21	0.55	-40.265	53.67	0.55	-61.571
0.56	-52.830	-41.61	0.56	-40.121	53.26	0.56	-61.571
0.57	-52.831	-46.01	0.57	-39.984	52.85	0.57	-61.571
0.58	-52.832	-50.41	0.58	-39.854	52.44	0.58	-61.571
0.59	-52.833	-54.81	0.59	-39.730	52.03	0.59	-61.571
0.60	-52.834	-59.21	0.60	-39.612	51.62	0.60	-61.571
0.61	-52.835	-63.61	0.61	-39.500	51.21	0.61	-61.571
0.62	-52.836	-68.01	0.62	-39.393	50.80	0.62	-61.571
0.63	-52.837	-72.41	0.63	-39.291	50.39	0.63	-61.571
0.64	-52.838	-76.81	0.64	-39.193	49.98	0.64	-61.571
0.65	-52.839	-81.21	0.65	-39.100	49.57	0.65	-61.571
0.66	-52.840	-85.61	0.66	-39.011	49.16	0.66	-61.571
0.67	-52.841	-90.01	0.67	-38.926	48.75	0.67	-61.571
0.68	-52.842	-94.41	0.68	-38.845	48.34	0.68	-61.571
0.69	-52.843	-98.81	0.69	-38.768	47.93	0.69	-61.571
0.70	-52.844	-103.21	0.70	-38.695	47.52	0.70	-61.571
0.71	-52.845	-107.61	0.71	-38.626	47.11	0.71	-61.571
0.72	-52.846	-112.01	0.72	-38.561	46.70	0.72	-61.571
0.73	-52.847	-116.41	0.73	-38.499	46.29	0.73	-61.571
0.74	-52.848	-120.81	0.74	-38.441	45.88	0.74	-61.571
0.75	-52.849	-125.21	0.75	-38.386	45.47	0.75	-61.571
0.76	-52.850	-129.61	0.76	-38.334	45.06	0.76	-61.571
0.77	-52.851	-134.01	0.77	-38.284	44.65	0.77	-61.571
0.78	-52.852	-138.41	0.78	-38.236	44.24	0.78	-61.571
0.79	-52.853	-142.81	0.79	-38.191	43.83	0.79	-61.571
0.80	-52.854	-147.21	0.80	-38.148	43.42	0.80	-61.571
0.81	-52.855	-151.61	0.81	-38.107	43.01	0.81	-61.571
0.82	-52.856	-156.01	0.82	-38.067	42.60	0.82	-61.571
0.83	-52.857	-160.41	0.83	-38.028	42.19	0.83	-61.571
0.84	-52.858	-164.81	0.84	-37.990	41.78	0.84	-61.571
0.85	-52.859	-169.21	0.85	-37.953	41.37	0.85	-61.571
0.86	-52.860	-173.61	0.86	-37.917	40.96	0.86	-61.571
0.87	-52.861	-178.01	0.87	-37.882	40.55	0.87	-61.571
0.88	-52.862	-182.41	0.88	-37.848	40.14	0.88	-61.571
0.89	-52.863	-186.81	0.89	-37.815	39.73	0.89	-61.571
0.90	-52.864	-191.21	0.90	-37.783	39.32	0.90	-61.571
0.91	-52.865	-195.61	0.91	-37.752	38.91	0.91	-61.571
0.92	-52.866	-200.01	0.92	-37.721	38.50	0.92	-61.571
0.93	-52.867	-204.41	0.93	-37.691	38.09	0.93	-61.571
0.94	-52.868	-208.81	0.94	-37.661	37.68	0.94	-61.571
0.95	-52.869	-213.21	0.95	-37.632	37.27	0.95	-61.571
0.96	-52.870	-217.61	0.96	-37.603	36.86	0.96	-61.571
0.97	-52.871	-222.01	0.97	-37.574	36.45	0.97	-61.571
0.98	-52.872	-226.41	0.98	-37.546	36.04	0.98	-61.571
0.99	-52.873	-230.81	0.99	-37.518	35.63	0.99	-61.571
1.00	-52.874	-235.21	1.00	-37.490	35.22	1.00	-61.571

Table 97. Radial Electric Field (Ice), Frequency = 100.0 MHz, VED Height = 4.50 m

10.0 KM DISTANCE					30.0 KM DISTANCE					50.0 KM DISTANCE					70.0 KM DISTANCE				
TIME (UT)	AMP (V)	PHASE (DEG)	RELUM (V)	PHASE (DEG)	TIME (UT)	AMP (V)	PHASE (DEG)	RELUM (V)	PHASE (DEG)	TIME (UT)	AMP (V)	PHASE (DEG)	RELUM (V)	PHASE (DEG)	TIME (UT)	AMP (V)	PHASE (DEG)	RELUM (V)	PHASE (DEG)
00.00	-60.42	172.15	0.000	-60.223	102.17	-60.223	102.17	0.000	-60.223	102.17	-60.223	102.17	0.000	-60.223	102.17	-60.223	102.17	0.000	-60.223
00.01	-60.60	167.43	0.000	-60.353	105.71	-60.353	105.71	0.000	-60.353	105.71	-60.353	105.71	0.000	-60.353	105.71	-60.353	105.71	0.000	-60.353
00.02	-60.67	157.43	0.000	-60.309	104.02	-60.309	104.02	0.000	-60.309	104.02	-60.309	104.02	0.000	-60.309	104.02	-60.309	104.02	0.000	-60.309
00.03	-60.73	150.48	0.000	-60.273	102.05	-60.273	102.05	0.000	-60.273	102.05	-60.273	102.05	0.000	-60.273	102.05	-60.273	102.05	0.000	-60.273
00.04	-60.79	144.05	0.000	-60.244	100.00	-60.244	100.00	0.000	-60.244	100.00	-60.244	100.00	0.000	-60.244	100.00	-60.244	100.00	0.000	-60.244
00.05	-60.84	138.70	0.000	-60.215	97.94	-60.215	97.94	0.000	-60.215	97.94	-60.215	97.94	0.000	-60.215	97.94	-60.215	97.94	0.000	-60.215
00.06	-60.89	133.34	0.000	-60.186	95.88	-60.186	95.88	0.000	-60.186	95.88	-60.186	95.88	0.000	-60.186	95.88	-60.186	95.88	0.000	-60.186
00.07	-60.94	127.98	0.000	-60.157	93.82	-60.157	93.82	0.000	-60.157	93.82	-60.157	93.82	0.000	-60.157	93.82	-60.157	93.82	0.000	-60.157
00.08	-60.99	122.62	0.000	-60.128	91.76	-60.128	91.76	0.000	-60.128	91.76	-60.128	91.76	0.000	-60.128	91.76	-60.128	91.76	0.000	-60.128
00.09	-61.04	117.26	0.000	-60.099	89.70	-60.099	89.70	0.000	-60.099	89.70	-60.099	89.70	0.000	-60.099	89.70	-60.099	89.70	0.000	-60.099
00.10	-61.09	111.90	0.000	-60.070	87.64	-60.070	87.64	0.000	-60.070	87.64	-60.070	87.64	0.000	-60.070	87.64	-60.070	87.64	0.000	-60.070
00.11	-61.14	106.54	0.000	-60.041	85.58	-60.041	85.58	0.000	-60.041	85.58	-60.041	85.58	0.000	-60.041	85.58	-60.041	85.58	0.000	-60.041
00.12	-61.19	101.18	0.000	-60.012	83.52	-60.012	83.52	0.000	-60.012	83.52	-60.012	83.52	0.000	-60.012	83.52	-60.012	83.52	0.000	-60.012
00.13	-61.24	95.82	0.000	-59.983	81.46	-59.983	81.46	0.000	-59.983	81.46	-59.983	81.46	0.000	-59.983	81.46	-59.983	81.46	0.000	-59.983
00.14	-61.29	90.46	0.000	-59.954	79.40	-59.954	79.40	0.000	-59.954	79.40	-59.954	79.40	0.000	-59.954	79.40	-59.954	79.40	0.000	-59.954
00.15	-61.34	85.10	0.000	-59.925	77.34	-59.925	77.34	0.000	-59.925	77.34	-59.925	77.34	0.000	-59.925	77.34	-59.925	77.34	0.000	-59.925
00.16	-61.39	79.74	0.000	-59.896	75.28	-59.896	75.28	0.000	-59.896	75.28	-59.896	75.28	0.000	-59.896	75.28	-59.896	75.28	0.000	-59.896
00.17	-61.44	74.38	0.000	-59.867	73.22	-59.867	73.22	0.000	-59.867	73.22	-59.867	73.22	0.000	-59.867	73.22	-59.867	73.22	0.000	-59.867
00.18	-61.49	69.02	0.000	-59.838	71.16	-59.838	71.16	0.000	-59.838	71.16	-59.838	71.16	0.000	-59.838	71.16	-59.838	71.16	0.000	-59.838
00.19	-61.54	63.66	0.000	-59.809	69.10	-59.809	69.10	0.000	-59.809	69.10	-59.809	69.10	0.000	-59.809	69.10	-59.809	69.10	0.000	-59.809
00.20	-61.59	58.30	0.000	-59.780	67.04	-59.780	67.04	0.000	-59.780	67.04	-59.780	67.04	0.000	-59.780	67.04	-59.780	67.04	0.000	-59.780
00.21	-61.64	52.94	0.000	-59.751	64.98	-59.751	64.98	0.000	-59.751	64.98	-59.751	64.98	0.000	-59.751	64.98	-59.751	64.98	0.000	-59.751
00.22	-61.69	47.58	0.000	-59.722	62.92	-59.722	62.92	0.000	-59.722	62.92	-59.722	62.92	0.000	-59.722	62.92	-59.722	62.92	0.000	-59.722
00.23	-61.74	42.22	0.000	-59.693	60.86	-59.693	60.86	0.000	-59.693	60.86	-59.693	60.86	0.000	-59.693	60.86	-59.693	60.86	0.000	-59.693
00.24	-61.79	36.86	0.000	-59.664	58.80	-59.664	58.80	0.000	-59.664	58.80	-59.664	58.80	0.000	-59.664	58.80	-59.664	58.80	0.000	-59.664
00.25	-61.84	31.50	0.000	-59.635	56.74	-59.635	56.74	0.000	-59.635	56.74	-59.635	56.74	0.000	-59.635	56.74	-59.635	56.74	0.000	-59.635
00.26	-61.89	26.14	0.000	-59.606	54.68	-59.606	54.68	0.000	-59.606	54.68	-59.606	54.68	0.000	-59.606	54.68	-59.606	54.68	0.000	-59.606
00.27	-61.94	20.78	0.000	-59.577	52.62	-59.577	52.62	0.000	-59.577	52.62	-59.577	52.62	0.000	-59.577	52.62	-59.577	52.62	0.000	-59.577
00.28	-61.99	15.42	0.000	-59.548	50.56	-59.548	50.56	0.000	-59.548	50.56	-59.548	50.56	0.000	-59.548	50.56	-59.548	50.56	0.000	-59.548
00.29	-62.04	10.06	0.000	-59.519	48.50	-59.519	48.50	0.000	-59.519	48.50	-59.519	48.50	0.000	-59.519	48.50	-59.519	48.50	0.000	-59.519
00.30	-62.09	4.70	0.000	-59.490	46.44	-59.490	46.44	0.000	-59.490	46.44	-59.490	46.44	0.000	-59.490	46.44	-59.490	46.44	0.000	-59.490
00.31	-62.14	-0.66	0.000	-59.461	44.38	-59.461	44.38	0.000	-59.461	44.38	-59.461	44.38	0.000	-59.461	44.38	-59.461	44.38	0.000	-59.461
00.32	-62.19	-5.30	0.000	-59.432	42.32	-59.432	42.32	0.000	-59.432	42.32	-59.432	42.32	0.000	-59.432	42.32	-59.432	42.32	0.000	-59.432
00.33	-62.24	-9.94	0.000	-59.403	40.26	-59.403	40.26	0.000	-59.403	40.26	-59.403	40.26	0.000	-59.403	40.26	-59.403	40.26	0.000	-59.403
00.34	-62.29	-14.58	0.000	-59.374	38.20	-59.374	38.20	0.000	-59.374	38.20	-59.374	38.20	0.000	-59.374	38.20	-59.374	38.20	0.000	-59.374
00.35	-62.34	-19.22	0.000	-59.345	36.14	-59.345	36.14	0.000	-59.345	36.14	-59.345	36.14	0.000	-59.345	36.14	-59.345	36.14	0.000	-59.345
00.36	-62.39	-23.86	0.000	-59.316	34.08	-59.316	34.08	0.000	-59.316	34.08	-59.316	34.08	0.000	-59.316	34.08	-59.316	34.08	0.000	-59.316
00.37	-62.44	-28.50	0.000	-59.287	32.02	-59.287	32.02	0.000	-59.287	32.02	-59.287	32.02	0.000	-59.287	32.02	-59.287	32.02	0.000	-59.287
00.38	-62.49	-33.14	0.000	-59.258	29.96	-59.258	29.96	0.000	-59.258	29.96	-59.258	29.96	0.000	-59.258	29.96	-59.258	29.96	0.000	-59.258
00.39	-62.54	-37.78	0.000	-59.229	27.90	-59.229	27.90	0.000	-59.229	27.90	-59.229	27.90	0.000	-59.229	27.90	-59.229	27.90	0.000	-59.229
00.40	-62.59	-42.42	0.000	-59.200	25.84	-59.200	25.84	0.000	-59.200	25.84	-59.200	25.84	0.000	-59.200	25.84	-59.200	25.84	0.000	-59.200
00.41	-62.64	-47.06	0.000	-59.171	23.78	-59.171	23.78	0.000	-59.171	23.78	-59.171	23.78	0.000	-59.171	23.78	-59.171	23.78	0.000	-59.171
00.42	-62.69	-51.70	0.000	-59.142	21.72	-59.142	21.72	0.000	-59.142	21.72	-59.142	21.72	0.000	-59.142	21.72	-59.142	21.72	0.000	-59.142
00.43	-62.74	-56.34	0.000	-59.113	19.66	-59.113	19.66	0.000	-59.113	19.66	-59.113	19.66	0.000	-59.113	19.66	-59.113	19.66	0.000	-59.113
00.44	-62.79	-60.98	0.000	-59.084	17.60	-59.084	17.60	0.000	-59.084	17.60	-59.084	17.60	0.000	-59.084	17.60	-59.084	17.60	0.000	-59.084
00.45	-62.84	-65.62	0.000	-59.055	15.54	-59.055	15.54	0.000	-59.055	15.54	-59.055	15.54	0.000	-59.055	15.54	-59.055	15.54	0.000	-59.055
00.46	-62.89	-70.26	0.000	-59.026	13.48	-59.026	13.48	0.000	-59.026	13.48	-59.026	13.48	0.000	-59.026	13.48	-59.026	13.48	0.000	-59.026
00.47	-62.94	-74.90	0.000	-58.997	11.42	-58.997	11.42	0.000	-58.997	11.42	-58.997	11.42	0.000	-58.997	11.42	-58.997	11.42	0.000	-58.997
00.48	-62.99	-79.54	0.000	-58.968	9.36	-58.968	9.36	0.000	-58.968	9.36	-58.968	9.36	0.000	-58.968	9.36	-58.968	9.36	0.000	-58.968
00.49	-63.04	-84.18	0.000	-58.939	7.30	-58.939	7.30	0.000	-58.939	7.30	-58.939	7.30	0.000	-58.939	7.30	-58.939	7.30	0.000	-58.939
00.50	-63.09	-88.82	0.000	-58.910	5.24	-58.910	5.24	0.000	-58.910	5.24	-58.910	5.24	0.000	-58.910	5.24	-58.910	5.24	0.000	-58.910
00.51	-63.14	-93.46	0.000	-58.881	3.18	-58.881	3.18	0.000	-58.881	3.18	-58.881	3.18	0.000	-58.881	3.18	-58.881	3.18	0.000	-58.881
00.52	-63.19	-98.10	0.000	-58.852	1.12	-58.852	1.12	0.000	-58.852	1.12	-58.852	1.12	0.000	-58.852	1.12	-58.852	1.12	0.000	-58.852
00.53	-63.24	-102.74	0.000	-58.823	-0.94	-58.823	-0.94	0.000	-58.823	-0.94	-58.823	-0.94	0.000	-58.823	-0.94	-58.823	-0.94	0.000	-58.823
00.54	-63.29	-107.38	0.000	-58.794	-2.90	-58.794	-2.90	0.000	-58.794	-2.90	-58.794	-2.90	0.000	-58.794	-2.90	-58.794	-2.90	0.000	-58.794
00.55	-63.34	-112.02	0.000	-58.765	-4.86	-58.765	-4.86	0.000	-58.765	-4.86	-58.765	-4.86	0.000	-58.765	-4.86	-58.765	-4.86	0.000	-58.765
00.56																			

Table 98. Azimuthal Magnetic Field (Ice), Frequency = 0.1 MHz, VED Height = 0.00 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)
0.000	-18.610	-100.24	0.000	-29.115	-113.92	0.000	-38.875	-117.74	0.000	-38.875	-117.74
.030	-18.660	-98.92	.100	-29.265	-109.48	.300	-39.165	-104.07	.300	-39.165	-104.07
.060	-18.706	-97.60	.200	-29.363	-104.93	.600	-39.957	-90.35	.600	-39.957	-90.35
.090	-18.747	-96.27	.300	-29.407	-100.33	.900	-39.321	-71.98	.900	-39.321	-71.98
.120	-18.783	-94.93	.400	-29.495	-95.75	1.200	-37.420	-67.69	1.200	-37.420	-67.69
.150	-18.814	-93.59	.500	-29.530	-91.22	1.500	-36.407	-54.49	1.500	-36.407	-54.49
.180	-18.840	-92.25	.600	-29.513	-86.81	1.800	-35.379	-51.04	1.800	-35.379	-51.04
.210	-18.862	-90.91	.700	-29.451	-82.57	2.100	-34.388	-47.95	2.100	-34.388	-47.95
.240	-18.879	-89.57	.800	-29.348	-78.52	2.400	-33.454	-43.89	2.400	-33.454	-43.89
.270	-18.890	-88.23	.900	-29.212	-74.69	2.700	-32.584	-40.60	2.700	-32.584	-40.60
.300	-18.898	-86.90	1.000	-29.063	-71.09	3.000	-31.776	-37.90	3.000	-31.776	-37.90
.330	-18.900	-85.57	1.100	-28.903	-67.73	3.300	-31.027	-35.65	3.300	-31.027	-35.65
.360	-18.898	-84.25	1.200	-28.762	-64.60	3.600	-30.330	-33.75	3.600	-30.330	-33.75
.390	-18.891	-82.93	1.300	-28.650	-61.71	3.900	-29.681	-32.12	3.900	-29.681	-32.12
.420	-18.880	-81.63	1.400	-28.550	-59.02	4.200	-29.074	-30.72	4.200	-29.074	-30.72
.450	-18.864	-80.34	1.500	-28.467	-56.54	4.500	-28.507	-29.49	4.500	-28.507	-29.49
.480	-18.844	-79.06	1.600	-28.403	-54.25	4.800	-27.973	-28.42	4.800	-27.973	-28.42
.510	-18.820	-77.79	1.700	-28.361	-52.13	5.100	-27.471	-27.46	5.100	-27.471	-27.46
.540	-18.792	-76.53	1.800	-28.341	-50.18	5.400	-26.996	-26.61	5.400	-26.996	-26.61
.570	-18.760	-75.30	1.900	-28.345	-48.37	5.700	-26.547	-25.85	5.700	-26.547	-25.85
.600	-18.724	-74.07	2.000	-28.375	-46.69	6.000	-26.121	-25.16	6.000	-26.121	-25.16
.630	-18.683	-72.87	2.100	-28.430	-45.13	6.300	-25.716	-24.53	6.300	-25.716	-24.53
.660	-18.642	-71.68	2.200	-28.512	-43.68	6.600	-25.330	-23.96	6.600	-25.330	-23.96
.690	-18.596	-70.51	2.300	-28.612	-42.34	6.900	-24.962	-23.43	6.900	-24.962	-23.43
.720	-18.546	-69.36	2.400	-28.735	-41.08	7.200	-24.610	-22.95	7.200	-24.610	-22.95
.750	-18.490	-68.22	2.500	-28.877	-39.91	7.500	-24.273	-22.50	7.500	-24.273	-22.50
.780	-18.441	-67.11	2.600	-29.035	-38.82	7.800	-23.950	-22.09	7.800	-23.950	-22.09
.810	-18.384	-66.02	2.700	-29.221	-37.75	8.100	-23.639	-21.71	8.100	-23.639	-21.71
.840	-18.323	-64.95	2.800	-29.426	-36.83	8.400	-23.341	-21.35	8.400	-23.341	-21.35
.870	-18.263	-63.89	2.900	-29.653	-35.93	8.700	-23.053	-21.01	8.700	-23.053	-21.01
.900	-18.199	-62.86	3.000	-29.900	-35.08	9.000	-22.776	-20.70	9.000	-22.776	-20.70
1.050	-17.653	-56.01	3.500	-21.336	-31.49	10.500	-21.526	-19.37	10.500	-21.526	-19.37
1.200	-17.470	-53.06	4.000	-20.338	-28.73	12.000	-20.457	-18.35	12.000	-20.457	-18.35
1.350	-17.062	-49.78	4.500	-19.422	-26.54	13.500	-19.527	-17.53	13.500	-19.527	-17.53
1.500	-16.860	-46.33	5.000	-18.660	-24.71	15.000	-18.707	-16.85	15.000	-18.707	-16.85
1.650	-16.280	-43.27	5.500	-17.947	-23.30	16.500	-17.975	-16.27	16.500	-17.975	-16.27
1.800	-15.860	-40.34	6.000	-17.300	-22.06	18.000	-17.316	-15.77	18.000	-17.316	-15.77
2.000	-15.510	-38.11	6.500	-16.711	-21.00	19.500	-16.719	-15.33	19.500	-16.719	-15.33
2.250	-14.772	-34.94	7.000	-16.171	-20.08	21.000	-16.173	-14.94	21.000	-16.173	-14.94
2.400	-14.429	-32.25	7.500	-15.674	-19.27	22.500	-15.673	-14.59	22.500	-15.673	-14.59
2.550	-14.100	-30.67	8.000	-15.215	-18.56	24.000	-15.211	-14.27	24.000	-15.211	-14.27
2.700	-13.783	-29.24	8.500	-14.789	-17.92	25.500	-14.783	-13.94	25.500	-14.783	-13.94
2.850	-13.483	-27.94	9.000	-14.393	-17.34	27.000	-14.386	-13.71	27.000	-14.386	-13.71
3.000	-13.190	-26.75	10.000	-13.677	-16.55	30.000	-13.669	-13.44	30.000	-13.669	-13.44

Table 99. Azimuthal Magnetic Field (Ice), Frequency = 0.1 MHz, VED Height = 2247.60 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)	
0.000	-14.729	-34.03		0.000	-24.468	-43.03		0.000	-33.920	-43.84	
0.030	-14.775	-36.66		0.100	-24.613	-38.56		0.300	-34.205	-32.15	
0.060	-14.811	-31.33		0.200	-24.706	-33.96		0.600	-33.991	-18.41	
0.090	-14.854	-29.97		0.300	-24.745	-24.96		0.900	-33.350	-6.05	
0.120	-14.886	-28.60		0.400	-24.728	-24.75		1.200	-32.445	4.22	
0.150	-14.914	-27.24		0.500	-24.656	-20.22		1.500	-31.430	12.41	
0.180	-14.937	-25.87		0.600	-24.535	-15.80		1.800	-30.402	16.84	
0.210	-14.955	-24.50		0.700	-24.367	-11.55		2.100	-29.411	23.92	
0.240	-14.969	-23.13		0.800	-24.160	-7.50		2.400	-28.477	27.98	
0.270	-14.978	-21.76		0.900	-23.920	-3.67		2.700	-27.608	31.26	
0.300	-14.982	-20.40		1.000	-23.653	-0.07		3.000	-26.801	33.96	
0.330	-14.982	-19.05		1.100	-23.365	3.28		3.300	-26.052	36.21	
0.360	-14.977	-17.70		1.200	-23.051	6.41		3.600	-25.356	38.12	
0.390	-14.968	-16.36		1.300	-22.747	9.30		3.900	-24.708	39.74	
0.420	-14.954	-15.03		1.400	-22.427	11.98		4.200	-24.103	41.15	
0.450	-14.936	-13.71		1.500	-22.103	14.46		4.500	-23.537	42.38	
0.480	-14.914	-12.41		1.600	-21.778	16.75		4.800	-23.005	43.46	
0.510	-14.888	-11.11		1.700	-21.455	18.87		5.100	-22.503	44.42	
0.540	-14.859	-9.83		1.800	-21.136	20.82		5.400	-22.030	45.28	
0.570	-14.825	-8.57		1.900	-20.820	22.64		5.700	-21.583	46.06	
0.600	-14.788	-7.32		2.000	-20.510	24.32		6.000	-21.156	46.76	
0.630	-14.746	-6.09		2.100	-20.206	25.88		6.300	-20.755	47.39	
0.660	-14.704	-4.87		2.200	-19.909	27.34		6.600	-20.371	47.98	
0.690	-14.658	-3.66		2.300	-19.618	28.69		6.900	-20.004	48.51	
0.720	-14.608	-2.50		2.400	-19.335	29.95		7.200	-19.654	48.91	
0.750	-14.556	-1.34		2.500	-19.058	31.13		7.500	-19.319	49.27	
0.780	-14.501	-0.20		2.600	-18.788	32.24		7.800	-18.998	49.89	
0.810	-14.444	0.92		2.700	-18.526	33.27		8.100	-18.689	50.29	
0.840	-14.385	2.02		2.800	-18.270	34.25		8.400	-18.393	50.67	
0.870	-14.323	3.11		2.900	-18.020	35.17		8.700	-18.108	51.02	
0.900	-14.259	4.17		3.000	-17.778	36.03		9.000	-17.833	51.35	
1.050	-13.918	9.17		3.500	-16.857	39.70		10.500	-16.596	52.75	
1.200	-13.549	13.69		4.000	-15.872	42.57		12.000	-15.542	53.87	
1.350	-13.165	17.74		4.500	-14.801	44.67		13.500	-14.629	54.80	
1.500	-12.777	21.39		5.000	-13.826	46.07		15.000	-13.827	55.50	
1.650	-12.392	24.66		5.500	-13.332	46.39		16.500	-13.117	56.30	
1.800	-12.017	27.61		6.000	-12.707	47.06		18.000	-12.481	56.94	
1.950	-11.653	30.27		6.500	-12.144	47.01		19.500	-11.909	57.54	
2.100	-11.300	32.69		7.000	-11.627	46.12		21.000	-11.390	58.09	
2.250	-10.971	34.93		7.500	-11.158	45.12		22.500	-10.917	58.52	
2.400	-10.654	35.92		8.000	-10.728	44.04		24.000	-10.489	59.13	
2.550	-10.353	36.79		8.500	-10.334	42.89		25.500	-10.095	59.62	
2.700	-10.069	37.52		9.000	-9.971	41.70		27.000	-9.733	60.11	
2.850	-9.801	38.12		9.500	-9.637	40.46		28.500	-9.400	60.58	
3.000	-9.548	38.63		10.000	-9.326	39.19		30.000	-9.093	61.05	

Table 100. Azimuthal Magnetic Field (Ice), Frequency = 0.1 MHz, VED Height = 4495.20 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)	
0.000	-10.770	-18.99		0.000	-19.443	-26.56		0.000	-26.513	-29.51	
.030	-10.815	-17.65		.100	-19.587	-22.10		.300	-26.798	-15.83	
.060	-10.857	-16.31		.200	-19.680	-17.53		.600	-26.584	-2.11	
.090	-10.894	-14.95		.300	-19.714	-12.91		.900	-27.943	10.25	
.120	-10.928	-13.59		.400	-19.703	-8.31		1.200	-26.040	20.53	
.150	-10.957	-12.22		.500	-19.633	-3.77		1.500	-25.027	28.72	
.180	-10.983	-10.85		.600	-19.514	.65		1.800	-25.000	35.16	
.210	-11.004	-9.48		.700	-19.349	4.91		2.100	-24.010	40.25	
.240	-11.021	-8.11		.800	-19.145	8.97		2.400	-23.078	44.32	
.270	-11.034	-6.74		.900	-18.907	12.82		2.700	-22.210	47.61	
.300	-11.043	-5.37		1.000	-18.643	16.43		3.000	-21.405	50.32	
.330	-11.048	-4.00		1.100	-18.358	19.81		3.300	-20.658	52.59	
.360	-11.048	-2.64		1.200	-18.057	22.95		3.600	-19.963	54.50	
.390	-11.045	-1.28		1.300	-17.746	25.87		3.900	-19.317	56.14	
.420	-11.038	.07		1.400	-17.428	28.58		4.200	-18.714	57.56	
.450	-11.027	1.41		1.500	-17.107	31.09		4.500	-18.150	58.81	
.480	-11.013	2.75		1.600	-16.786	33.40		4.800	-17.620	59.90	
.510	-10.995	4.07		1.700	-16.466	35.55		5.100	-17.121	60.88	
.540	-10.973	5.39		1.800	-16.149	37.54		5.400	-16.651	61.75	
.570	-10.948	6.69		1.900	-15.836	39.38		5.700	-16.206	62.54	
.600	-10.919	7.98		2.000	-15.529	41.10		6.000	-15.785	63.26	
.630	-10.888	9.25		2.100	-15.228	42.69		6.300	-15.384	63.91	
.660	-10.853	10.51		2.200	-14.934	44.18		6.600	-15.003	64.51	
.690	-10.815	11.76		2.300	-14.646	45.56		6.900	-14.640	65.06	
.720	-10.775	12.99		2.400	-14.365	46.86		7.200	-14.294	65.58	
.750	-10.732	14.21		2.500	-14.092	48.07		7.500	-13.962	66.05	
.780	-10.687	15.41		2.600	-13.826	49.21		7.800	-13.645	66.50	
.810	-10.639	16.59		2.700	-13.566	50.28		8.100	-13.341	66.91	
.840	-10.589	17.76		2.800	-13.314	51.29		8.400	-13.049	67.31	
.870	-10.537	18.91		2.900	-13.069	52.24		8.700	-12.768	67.64	
.900	-10.483	20.04		3.000	-12.830	53.14		9.000	-12.496	68.03	
1.050	-10.187	23.43		3.500	-11.731	56.99		10.500	-11.287	69.55	
1.200	-9.886	30.36		4.000	-10.772	60.04		12.000	-10.263	70.79	
1.350	-9.526	37.90		4.500	-9.931	62.54		13.500	-9.385	71.86	
1.500	-9.104	45.04		5.000	-9.190	64.65		15.000	-8.623	72.81	
1.650	-8.682	42.62		5.500	-8.534	66.46		16.500	-7.955	73.68	
1.800	-8.257	40.29		6.000	-7.951	67.12		18.000	-7.367	74.51	
1.950	-7.838	37.99		6.500	-7.432	67.94		19.500	-6.847	75.30	
2.100	-7.422	35.44		7.000	-6.968	68.96		21.000	-6.385	76.07	
2.250	-7.009	32.16		7.500	-6.553	72.23		22.500	-5.974	76.83	
2.400	-6.592	27.74		8.000	-6.192	74.43		24.000	-5.609	77.58	
2.550	-6.169	23.13		8.500	-5.851	74.59		25.500	-5.283	78.34	
2.700	-5.742	18.36		9.000	-5.534	75.70		27.000	-4.995	79.10	
2.850	-5.307	13.49		9.500	-5.240	76.79		28.500	-4.739	79.87	
3.000	-4.863	8.64		10.000	-5.006	77.65		30.000	-4.513	80.65	

Table 101. Azimuthal Magnetic Field (Ice), Frequency = 1.0 MHz, VED Height = 0.00 m

3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
0.00	-50.544	-77.572	0.00	-50.544	-86.001	0.00	-50.544	-90.000	0.00	-50.544	-95.000	0.00	-50.544	-95.000	0.00
0.03	-50.557	-76.440	0.03	-50.557	-85.000	0.03	-50.557	-89.000	0.03	-50.557	-94.000	0.03	-50.557	-94.000	0.03
0.06	-50.570	-75.308	0.06	-50.570	-84.000	0.06	-50.570	-88.000	0.06	-50.570	-93.000	0.06	-50.570	-93.000	0.06
0.09	-50.583	-74.176	0.09	-50.583	-83.000	0.09	-50.583	-87.000	0.09	-50.583	-92.000	0.09	-50.583	-92.000	0.09
0.12	-50.596	-73.044	0.12	-50.596	-82.000	0.12	-50.596	-86.000	0.12	-50.596	-91.000	0.12	-50.596	-91.000	0.12
0.15	-50.609	-71.912	0.15	-50.609	-81.000	0.15	-50.609	-85.000	0.15	-50.609	-90.000	0.15	-50.609	-90.000	0.15
0.18	-50.622	-70.780	0.18	-50.622	-80.000	0.18	-50.622	-84.000	0.18	-50.622	-89.000	0.18	-50.622	-89.000	0.18
0.21	-50.635	-69.648	0.21	-50.635	-79.000	0.21	-50.635	-83.000	0.21	-50.635	-88.000	0.21	-50.635	-88.000	0.21
0.24	-50.648	-68.516	0.24	-50.648	-78.000	0.24	-50.648	-82.000	0.24	-50.648	-87.000	0.24	-50.648	-87.000	0.24
0.27	-50.661	-67.384	0.27	-50.661	-77.000	0.27	-50.661	-81.000	0.27	-50.661	-86.000	0.27	-50.661	-86.000	0.27
0.30	-50.674	-66.252	0.30	-50.674	-76.000	0.30	-50.674	-80.000	0.30	-50.674	-85.000	0.30	-50.674	-85.000	0.30
0.33	-50.687	-65.120	0.33	-50.687	-75.000	0.33	-50.687	-79.000	0.33	-50.687	-84.000	0.33	-50.687	-84.000	0.33
0.36	-50.700	-63.988	0.36	-50.700	-74.000	0.36	-50.700	-78.000	0.36	-50.700	-83.000	0.36	-50.700	-83.000	0.36
0.39	-50.713	-62.856	0.39	-50.713	-73.000	0.39	-50.713	-77.000	0.39	-50.713	-82.000	0.39	-50.713	-82.000	0.39
0.42	-50.726	-61.724	0.42	-50.726	-72.000	0.42	-50.726	-76.000	0.42	-50.726	-81.000	0.42	-50.726	-81.000	0.42
0.45	-50.739	-60.592	0.45	-50.739	-71.000	0.45	-50.739	-75.000	0.45	-50.739	-80.000	0.45	-50.739	-80.000	0.45
0.48	-50.752	-59.460	0.48	-50.752	-70.000	0.48	-50.752	-74.000	0.48	-50.752	-79.000	0.48	-50.752	-79.000	0.48
0.51	-50.765	-58.328	0.51	-50.765	-69.000	0.51	-50.765	-73.000	0.51	-50.765	-78.000	0.51	-50.765	-78.000	0.51
0.54	-50.778	-57.196	0.54	-50.778	-68.000	0.54	-50.778	-72.000	0.54	-50.778	-77.000	0.54	-50.778	-77.000	0.54
0.57	-50.791	-56.064	0.57	-50.791	-67.000	0.57	-50.791	-71.000	0.57	-50.791	-76.000	0.57	-50.791	-76.000	0.57
0.60	-50.804	-54.932	0.60	-50.804	-66.000	0.60	-50.804	-70.000	0.60	-50.804	-75.000	0.60	-50.804	-75.000	0.60
0.63	-50.817	-53.800	0.63	-50.817	-65.000	0.63	-50.817	-69.000	0.63	-50.817	-74.000	0.63	-50.817	-74.000	0.63
0.66	-50.830	-52.668	0.66	-50.830	-64.000	0.66	-50.830	-68.000	0.66	-50.830	-73.000	0.66	-50.830	-73.000	0.66
0.69	-50.843	-51.536	0.69	-50.843	-63.000	0.69	-50.843	-67.000	0.69	-50.843	-72.000	0.69	-50.843	-72.000	0.69
0.72	-50.856	-50.404	0.72	-50.856	-62.000	0.72	-50.856	-66.000	0.72	-50.856	-71.000	0.72	-50.856	-71.000	0.72
0.75	-50.869	-49.272	0.75	-50.869	-61.000	0.75	-50.869	-65.000	0.75	-50.869	-70.000	0.75	-50.869	-70.000	0.75
0.78	-50.882	-48.140	0.78	-50.882	-60.000	0.78	-50.882	-64.000	0.78	-50.882	-69.000	0.78	-50.882	-69.000	0.78
0.81	-50.895	-47.008	0.81	-50.895	-59.000	0.81	-50.895	-63.000	0.81	-50.895	-68.000	0.81	-50.895	-68.000	0.81
0.84	-50.908	-45.876	0.84	-50.908	-58.000	0.84	-50.908	-62.000	0.84	-50.908	-67.000	0.84	-50.908	-67.000	0.84
0.87	-50.921	-44.744	0.87	-50.921	-57.000	0.87	-50.921	-61.000	0.87	-50.921	-66.000	0.87	-50.921	-66.000	0.87
0.90	-50.934	-43.612	0.90	-50.934	-56.000	0.90	-50.934	-60.000	0.90	-50.934	-65.000	0.90	-50.934	-65.000	0.90
0.93	-50.947	-42.480	0.93	-50.947	-55.000	0.93	-50.947	-59.000	0.93	-50.947	-64.000	0.93	-50.947	-64.000	0.93
0.96	-50.960	-41.348	0.96	-50.960	-54.000	0.96	-50.960	-58.000	0.96	-50.960	-63.000	0.96	-50.960	-63.000	0.96
0.99	-50.973	-40.216	0.99	-50.973	-53.000	0.99	-50.973	-57.000	0.99	-50.973	-62.000	0.99	-50.973	-62.000	0.99
1.02	-50.986	-39.084	1.02	-50.986	-52.000	1.02	-50.986	-56.000	1.02	-50.986	-61.000	1.02	-50.986	-61.000	1.02
1.05	-50.999	-37.952	1.05	-50.999	-51.000	1.05	-50.999	-55.000	1.05	-50.999	-60.000	1.05	-50.999	-60.000	1.05
1.08	-51.012	-36.820	1.08	-51.012	-50.000	1.08	-51.012	-54.000	1.08	-51.012	-59.000	1.08	-51.012	-59.000	1.08
1.11	-51.025	-35.688	1.11	-51.025	-49.000	1.11	-51.025	-53.000	1.11	-51.025	-58.000	1.11	-51.025	-58.000	1.11
1.14	-51.038	-34.556	1.14	-51.038	-48.000	1.14	-51.038	-52.000	1.14	-51.038	-57.000	1.14	-51.038	-57.000	1.14
1.17	-51.051	-33.424	1.17	-51.051	-47.000	1.17	-51.051	-51.000	1.17	-51.051	-56.000	1.17	-51.051	-56.000	1.17
1.20	-51.064	-32.292	1.20	-51.064	-46.000	1.20	-51.064	-50.000	1.20	-51.064	-55.000	1.20	-51.064	-55.000	1.20
1.23	-51.077	-31.160	1.23	-51.077	-45.000	1.23	-51.077	-49.000	1.23	-51.077	-54.000	1.23	-51.077	-54.000	1.23
1.26	-51.090	-30.028	1.26	-51.090	-44.000	1.26	-51.090	-48.000	1.26	-51.090	-53.000	1.26	-51.090	-53.000	1.26
1.29	-51.103	-28.896	1.29	-51.103	-43.000	1.29	-51.103	-47.000	1.29	-51.103	-52.000	1.29	-51.103	-52.000	1.29
1.32	-51.116	-27.764	1.32	-51.116	-42.000	1.32	-51.116	-46.000	1.32	-51.116	-51.000	1.32	-51.116	-51.000	1.32
1.35	-51.129	-26.632	1.35	-51.129	-41.000	1.35	-51.129	-45.000	1.35	-51.129	-50.000	1.35	-51.129	-50.000	1.35
1.38	-51.142	-25.500	1.38	-51.142	-40.000	1.38	-51.142	-44.000	1.38	-51.142	-49.000	1.38	-51.142	-49.000	1.38
1.41	-51.155	-24.368	1.41	-51.155	-39.000	1.41	-51.155	-43.000	1.41	-51.155	-48.000	1.41	-51.155	-48.000	1.41
1.44	-51.168	-23.236	1.44	-51.168	-38.000	1.44	-51.168	-42.000	1.44	-51.168	-47.000	1.44	-51.168	-47.000	1.44
1.47	-51.181	-22.104	1.47	-51.181	-37.000	1.47	-51.181	-41.000	1.47	-51.181	-46.000	1.47	-51.181	-46.000	1.47
1.50	-51.194	-20.972	1.50	-51.194	-36.000	1.50	-51.194	-40.000	1.50	-51.194	-45.000	1.50	-51.194	-45.000	1.50
1.53	-51.207	-19.840	1.53	-51.207	-35.000	1.53	-51.207	-39.000	1.53	-51.207	-44.000	1.53	-51.207	-44.000	1.53
1.56	-51.220	-18.708	1.56	-51.220	-34.000	1.56	-51.220	-38.000	1.56	-51.220	-43.000	1.56	-51.220	-43.000	1.56
1.59	-51.233	-17.576	1.59	-51.233	-33.000	1.59	-51.233	-37.000	1.59	-51.233	-42.000	1.59	-51.233	-42.000	1.59
1.62	-51.246	-16.444	1.62	-51.246	-32.000	1.62	-51.246	-36.000	1.62	-51.246	-41.000	1.62	-51.246	-41.000	1.62
1.65	-51.259	-15.312	1.65	-51.259	-31.000	1.65	-51.259	-35.000	1.65	-51.259	-40.000	1.65	-51.259	-40.000	1.65
1.68	-51.272	-14.180	1.68	-51.272	-30.000	1.68	-51.272	-34.000	1.68	-51.272	-39.000	1.68	-51.272	-39.000	1.68
1.71	-51.285	-13.048	1.71	-51.285	-29.000	1.71	-51.285	-33.000	1.71	-51.285	-38.000	1.71	-51.285	-38.000	1.71
1.74	-51.298	-11.916	1.74	-51.298	-28.000	1.74	-51.298	-32.000	1.74	-51.298	-37.000	1.74	-51.298	-37.000	1.74
1.77	-51.311	-10.784	1.77	-51.311	-27.000	1.77	-51.311	-31.000	1.77	-51.311	-36.000	1.77	-51.311	-36.000	1.77
1.80	-51.324	-9.652	1.80	-51.324	-26.000	1.80	-51.324	-30.000	1.80	-51.324	-35.000	1.80	-51.324	-35.000	1.80
1.83	-51.337	-8.520	1.83	-51.337	-25.000	1.83	-51.337	-29.000	1.83	-51.337	-34.000	1.83	-51.337	-34.000	1.83
1.86	-51.350	-7.388	1.86	-51.350	-24.000	1.86	-51.350	-28.000	1.86	-51.350	-33.000	1.86	-51.350	-33.000	1.86
1.89	-51.363	-6.256	1.89	-51.363	-23.000	1.89	-51.363	-27.000	1.89	-51.363	-32.000	1.89	-51.363	-32.000	1.89
1.92	-51.376	-5.124	1.92	-51.376	-22.000	1.92	-51.376	-26.000	1.92	-51.376	-31.000	1.92	-51.376	-31.000	1.92
1.95	-51.389	-3.992	1.95	-51.389	-21.000	1.95	-51.389	-25.000	1.95	-51.389	-30.000	1.95	-51.389	-30.000	1.95
1.98	-51.402	-2.860	1.98	-51.402	-20.000	1.98	-51.402	-24.000	1.98	-51.402	-29.000	1.98	-51.402	-29.000	1.98
2.01	-51.415	-1.728	2.01	-51.415	-19.000	2.01	-51.415	-23.000	2.01	-51.415	-28.000	2.01	-51.415	-28.000	2.01
2.04	-51.428	-0.596	2.04	-51.428	-18.000	2.04	-51.428	-22.000	2.04	-51.428	-27.000	2.04	-51.428	-27.000	2.04
2.07	-51.441	0.536	2.07	-51.441	-17.000	2.07	-51.441	-21.000	2.07	-51.441	-26.000	2.07	-51.441	-26.000	2.07
2.10	-51.454	1.668	2.10	-51.454	-16.000	2.10	-51.454	-20.000							

Table 102. Azimuthal Magnetic Field (Ice), Frequency = 1.0 MHz, VED Height = 224.76 m

30.0 KM UMRANGE					50.0 KM UMRANGE					100.0 KM UMRANGE				
REL HT (KM)	AMP (DB)	PHASE (DEG)	REL HT (KM)	AMP (DB)	PHASE (DEG)	REL HT (KM)	AMP (DB)	PHASE (DEG)	REL HT (KM)	AMP (DB)	PHASE (DEG)	REL HT (KM)	AMP (DB)	PHASE (DEG)
0.00	-15.063	-17.062	0.00	-24.419	-26.022	0.00	-33.688	-28.558	0.00	-44.050	-29.445	0.00	-44.050	-29.445
0.03	-15.062	-16.930	0.01	-24.403	-26.911	0.03	-33.473	-29.440	0.01	-44.050	-30.74	0.03	-44.050	-30.74
0.06	-15.054	-16.971	0.02	-24.327	-16.908	0.06	-33.401	-30.74	0.02	-44.050	-30.74	0.06	-44.050	-30.74
0.09	-15.041	-16.947	0.03	-24.195	-16.808	0.09	-33.185	-30.74	0.03	-44.050	-30.74	0.09	-44.050	-30.74
0.12	-15.023	-16.904	0.04	-24.013	-16.608	0.12	-32.798	-30.74	0.04	-44.050	-30.74	0.12	-44.050	-30.74
0.15	-15.000	-16.862	0.05	-23.789	-16.477	0.15	-32.235	-30.74	0.05	-44.050	-30.74	0.15	-44.050	-30.74
0.18	-14.976	-16.822	0.06	-23.520	-16.350	0.18	-31.516	-30.74	0.06	-44.050	-30.74	0.18	-44.050	-30.74
0.21	-14.949	-16.783	0.07	-23.239	-16.230	0.21	-30.651	-30.74	0.07	-44.050	-30.74	0.21	-44.050	-30.74
0.24	-14.920	-16.746	0.08	-22.949	-16.116	0.24	-29.654	-30.74	0.08	-44.050	-30.74	0.24	-44.050	-30.74
0.27	-14.889	-16.711	0.09	-22.653	-16.008	0.27	-28.534	-30.74	0.09	-44.050	-30.74	0.27	-44.050	-30.74
0.30	-14.854	-16.678	0.10	-22.353	-15.906	0.30	-27.304	-30.74	0.10	-44.050	-30.74	0.30	-44.050	-30.74
0.33	-14.816	-16.646	0.11	-22.050	-15.810	0.33	-25.969	-30.74	0.11	-44.050	-30.74	0.33	-44.050	-30.74
0.36	-14.776	-16.615	0.12	-21.744	-15.720	0.36	-24.534	-30.74	0.12	-44.050	-30.74	0.36	-44.050	-30.74
0.39	-14.734	-16.585	0.13	-21.434	-15.636	0.39	-23.004	-30.74	0.13	-44.050	-30.74	0.39	-44.050	-30.74
0.42	-14.691	-16.556	0.14	-21.120	-15.558	0.42	-21.384	-30.74	0.14	-44.050	-30.74	0.42	-44.050	-30.74
0.45	-14.647	-16.528	0.15	-20.804	-15.486	0.45	-19.674	-30.74	0.15	-44.050	-30.74	0.45	-44.050	-30.74
0.48	-14.602	-16.501	0.16	-20.486	-15.420	0.48	-17.884	-30.74	0.16	-44.050	-30.74	0.48	-44.050	-30.74
0.51	-14.556	-16.475	0.17	-20.166	-15.360	0.51	-16.024	-30.74	0.17	-44.050	-30.74	0.51	-44.050	-30.74
0.54	-14.509	-16.450	0.18	-19.844	-15.306	0.54	-14.104	-30.74	0.18	-44.050	-30.74	0.54	-44.050	-30.74
0.57	-14.461	-16.426	0.19	-19.520	-15.258	0.57	-12.124	-30.74	0.19	-44.050	-30.74	0.57	-44.050	-30.74
0.60	-14.413	-16.402	0.20	-19.196	-15.216	0.60	-10.184	-30.74	0.20	-44.050	-30.74	0.60	-44.050	-30.74
0.63	-14.365	-16.378	0.21	-18.872	-15.180	0.63	-8.284	-30.74	0.21	-44.050	-30.74	0.63	-44.050	-30.74
0.66	-14.317	-16.355	0.22	-18.548	-15.150	0.66	-6.424	-30.74	0.22	-44.050	-30.74	0.66	-44.050	-30.74
0.69	-14.269	-16.332	0.23	-18.224	-15.126	0.69	-4.594	-30.74	0.23	-44.050	-30.74	0.69	-44.050	-30.74
0.72	-14.221	-16.309	0.24	-17.900	-15.108	0.72	-2.794	-30.74	0.24	-44.050	-30.74	0.72	-44.050	-30.74
0.75	-14.173	-16.286	0.25	-17.576	-15.096	0.75	-0.974	-30.74	0.25	-44.050	-30.74	0.75	-44.050	-30.74
0.78	-14.125	-16.264	0.26	-17.252	-15.090	0.78	0.864	-30.74	0.26	-44.050	-30.74	0.78	-44.050	-30.74
0.81	-14.077	-16.242	0.27	-16.928	-15.090	0.81	2.704	-30.74	0.27	-44.050	-30.74	0.81	-44.050	-30.74
0.84	-14.029	-16.220	0.28	-16.604	-15.096	0.84	4.524	-30.74	0.28	-44.050	-30.74	0.84	-44.050	-30.74
0.87	-13.981	-16.198	0.29	-16.280	-15.108	0.87	6.324	-30.74	0.29	-44.050	-30.74	0.87	-44.050	-30.74
0.90	-13.933	-16.176	0.30	-15.956	-15.126	0.90	8.104	-30.74	0.30	-44.050	-30.74	0.90	-44.050	-30.74
1.05	-12.017	-20.13	0.35	-15.315	-14.80	1.05	-15.540	-50.06	1.05	-15.540	-50.06	1.05	-15.540	-50.06
1.20	-12.029	-23.74	0.40	-14.362	-14.706	1.20	-14.512	-50.96	1.20	-14.512	-50.96	1.20	-14.512	-50.96
1.35	-11.970	-20.91	0.45	-13.556	-14.609	1.35	-13.610	-51.68	1.35	-13.610	-51.68	1.35	-13.610	-51.68
1.50	-11.905	-24.73	0.50	-12.818	-14.514	1.50	-12.842	-52.28	1.50	-12.842	-52.28	1.50	-12.842	-52.28
1.65	-11.830	-26.24	0.55	-12.156	-14.426	1.65	-12.134	-52.80	1.65	-12.134	-52.80	1.65	-12.134	-52.80
1.80	-11.767	-34.44	0.60	-11.558	-14.346	1.80	-11.508	-53.26	1.80	-11.508	-53.26	1.80	-11.508	-53.26
1.95	-11.697	-36.51	0.65	-11.016	-14.271	1.95	-10.945	-53.68	1.95	-10.945	-53.68	1.95	-10.945	-53.68
2.10	-11.640	-38.55	0.70	-10.522	-14.206	2.10	-10.434	-54.06	2.10	-10.434	-54.06	2.10	-10.434	-54.06
2.25	-11.576	-40.52	0.75	-10.070	-14.150	2.25	-9.969	-54.40	2.25	-9.969	-54.40	2.25	-9.969	-54.40
2.40	-11.511	-42.46	0.80	-9.656	-14.103	2.40	-9.544	-54.70	2.40	-9.544	-54.70	2.40	-9.544	-54.70
2.55	-11.444	-44.36	0.85	-9.276	-14.067	2.55	-9.155	-55.00	2.55	-9.155	-55.00	2.55	-9.155	-55.00
2.70	-11.379	-46.26	0.90	-8.925	-14.041	2.70	-8.797	-55.27	2.70	-8.797	-55.27	2.70	-8.797	-55.27
2.85	-11.313	-48.17	0.95	-8.602	-14.024	2.85	-8.468	-55.54	2.85	-8.468	-55.54	2.85	-8.468	-55.54
3.00	-11.245	-50.09	1.00	-8.304	-14.016	3.00	-8.165	-55.80	3.00	-8.165	-55.80	3.00	-8.165	-55.80

Table 103. Azimuthal Magnetic Field (Ice), Frequency = 1.0 MHz, VED Height = 449.52 m

[illegible]

Table 104. Azimuthal Magnetic Field (Ice), Frequency = 10.0 MHz, VED Height = 0.00 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE				1000.0 KM DOWNRANGE			
ME (km)	AMP (DB)	PHASE (DEG)	ME (km)	AMP (DB)	PHASE (DEG)	ME (km)	AMP (DB)	ME (km)	AMP (DB)	PHASE (DEG)	ME (km)	AMP (DB)	PHASE (DEG)	ME (km)	AMP (DB)
0.000	-40.000	-60.000	0.000	-50.517	-60.000	0.000	-70.517	0.000	-70.517	-60.000	0.000	-70.517	-60.000	0.000	-70.517
0.003	-39.807	-60.000	0.010	-40.254	-60.000	0.030	-41.433	0.030	-41.433	-60.000	0.030	-41.433	-60.000	0.030	-41.433
0.006	-39.614	-60.000	0.020	-40.508	-60.000	0.060	-42.891	0.060	-42.891	-60.000	0.060	-42.891	-60.000	0.060	-42.891
0.009	-39.421	-60.000	0.030	-40.782	-60.000	0.090	-44.380	0.090	-44.380	-60.000	0.090	-44.380	-60.000	0.090	-44.380
0.012	-39.228	-60.000	0.040	-41.056	-60.000	0.120	-45.869	0.120	-45.869	-60.000	0.120	-45.869	-60.000	0.120	-45.869
0.015	-39.035	-60.000	0.050	-41.330	-60.000	0.150	-47.359	0.150	-47.359	-60.000	0.150	-47.359	-60.000	0.150	-47.359
0.018	-38.842	-60.000	0.060	-41.604	-60.000	0.180	-48.848	0.180	-48.848	-60.000	0.180	-48.848	-60.000	0.180	-48.848
0.021	-38.649	-60.000	0.070	-41.878	-60.000	0.210	-50.338	0.210	-50.338	-60.000	0.210	-50.338	-60.000	0.210	-50.338
0.024	-38.456	-60.000	0.080	-42.152	-60.000	0.240	-51.827	0.240	-51.827	-60.000	0.240	-51.827	-60.000	0.240	-51.827
0.027	-38.263	-60.000	0.090	-42.426	-60.000	0.270	-53.317	0.270	-53.317	-60.000	0.270	-53.317	-60.000	0.270	-53.317
0.030	-38.070	-60.000	0.100	-42.700	-60.000	0.300	-54.806	0.300	-54.806	-60.000	0.300	-54.806	-60.000	0.300	-54.806
0.033	-37.877	-60.000	0.110	-42.974	-60.000	0.330	-56.296	0.330	-56.296	-60.000	0.330	-56.296	-60.000	0.330	-56.296
0.036	-37.684	-60.000	0.120	-43.248	-60.000	0.360	-57.785	0.360	-57.785	-60.000	0.360	-57.785	-60.000	0.360	-57.785
0.039	-37.491	-60.000	0.130	-43.522	-60.000	0.390	-59.275	0.390	-59.275	-60.000	0.390	-59.275	-60.000	0.390	-59.275
0.042	-37.298	-60.000	0.140	-43.796	-60.000	0.420	-60.764	0.420	-60.764	-60.000	0.420	-60.764	-60.000	0.420	-60.764
0.045	-37.105	-60.000	0.150	-44.070	-60.000	0.450	-62.254	0.450	-62.254	-60.000	0.450	-62.254	-60.000	0.450	-62.254
0.048	-36.912	-60.000	0.160	-44.344	-60.000	0.480	-63.743	0.480	-63.743	-60.000	0.480	-63.743	-60.000	0.480	-63.743
0.051	-36.719	-60.000	0.170	-44.618	-60.000	0.510	-65.233	0.510	-65.233	-60.000	0.510	-65.233	-60.000	0.510	-65.233
0.054	-36.526	-60.000	0.180	-44.892	-60.000	0.540	-66.722	0.540	-66.722	-60.000	0.540	-66.722	-60.000	0.540	-66.722
0.057	-36.333	-60.000	0.190	-45.166	-60.000	0.570	-68.212	0.570	-68.212	-60.000	0.570	-68.212	-60.000	0.570	-68.212
0.060	-36.140	-60.000	0.200	-45.440	-60.000	0.600	-69.701	0.600	-69.701	-60.000	0.600	-69.701	-60.000	0.600	-69.701
0.063	-35.947	-60.000	0.210	-45.714	-60.000	0.630	-71.191	0.630	-71.191	-60.000	0.630	-71.191	-60.000	0.630	-71.191
0.066	-35.754	-60.000	0.220	-45.988	-60.000	0.660	-72.680	0.660	-72.680	-60.000	0.660	-72.680	-60.000	0.660	-72.680
0.069	-35.561	-60.000	0.230	-46.262	-60.000	0.690	-74.170	0.690	-74.170	-60.000	0.690	-74.170	-60.000	0.690	-74.170
0.072	-35.368	-60.000	0.240	-46.536	-60.000	0.720	-75.659	0.720	-75.659	-60.000	0.720	-75.659	-60.000	0.720	-75.659
0.075	-35.175	-60.000	0.250	-46.810	-60.000	0.750	-77.149	0.750	-77.149	-60.000	0.750	-77.149	-60.000	0.750	-77.149
0.078	-34.982	-60.000	0.260	-47.084	-60.000	0.780	-78.638	0.780	-78.638	-60.000	0.780	-78.638	-60.000	0.780	-78.638
0.081	-34.789	-60.000	0.270	-47.358	-60.000	0.810	-80.128	0.810	-80.128	-60.000	0.810	-80.128	-60.000	0.810	-80.128
0.084	-34.596	-60.000	0.280	-47.632	-60.000	0.840	-81.617	0.840	-81.617	-60.000	0.840	-81.617	-60.000	0.840	-81.617
0.087	-34.403	-60.000	0.290	-47.906	-60.000	0.870	-83.107	0.870	-83.107	-60.000	0.870	-83.107	-60.000	0.870	-83.107
0.090	-34.210	-60.000	0.300	-48.180	-60.000	0.900	-84.596	0.900	-84.596	-60.000	0.900	-84.596	-60.000	0.900	-84.596
0.093	-34.017	-60.000	0.310	-48.454	-60.000	0.930	-86.086	0.930	-86.086	-60.000	0.930	-86.086	-60.000	0.930	-86.086
0.096	-33.824	-60.000	0.320	-48.728	-60.000	0.960	-87.575	0.960	-87.575	-60.000	0.960	-87.575	-60.000	0.960	-87.575
0.099	-33.631	-60.000	0.330	-49.002	-60.000	0.990	-89.065	0.990	-89.065	-60.000	0.990	-89.065	-60.000	0.990	-89.065
0.102	-33.438	-60.000	0.340	-49.276	-60.000	1.020	-90.554	1.020	-90.554	-60.000	1.020	-90.554	-60.000	1.020	-90.554
0.105	-33.245	-60.000	0.350	-49.550	-60.000	1.050	-92.044	1.050	-92.044	-60.000	1.050	-92.044	-60.000	1.050	-92.044
0.108	-33.052	-60.000	0.360	-49.824	-60.000	1.080	-93.533	1.080	-93.533	-60.000	1.080	-93.533	-60.000	1.080	-93.533
0.111	-32.859	-60.000	0.370	-50.098	-60.000	1.110	-95.023	1.110	-95.023	-60.000	1.110	-95.023	-60.000	1.110	-95.023
0.114	-32.666	-60.000	0.380	-50.372	-60.000	1.140	-96.512	1.140	-96.512	-60.000	1.140	-96.512	-60.000	1.140	-96.512
0.117	-32.473	-60.000	0.390	-50.646	-60.000	1.170	-98.002	1.170	-98.002	-60.000	1.170	-98.002	-60.000	1.170	-98.002
0.120	-32.280	-60.000	0.400	-50.920	-60.000	1.200	-99.491	1.200	-99.491	-60.000	1.200	-99.491	-60.000	1.200	-99.491
0.123	-32.087	-60.000	0.410	-51.194	-60.000	1.230	-100.981	1.230	-100.981	-60.000	1.230	-100.981	-60.000	1.230	-100.981
0.126	-31.894	-60.000	0.420	-51.468	-60.000	1.260	-102.470	1.260	-102.470	-60.000	1.260	-102.470	-60.000	1.260	-102.470
0.129	-31.701	-60.000	0.430	-51.742	-60.000	1.290	-103.960	1.290	-103.960	-60.000	1.290	-103.960	-60.000	1.290	-103.960
0.132	-31.508	-60.000	0.440	-52.016	-60.000	1.320	-105.449	1.320	-105.449	-60.000	1.320	-105.449	-60.000	1.320	-105.449
0.135	-31.315	-60.000	0.450	-52.290	-60.000	1.350	-106.939	1.350	-106.939	-60.000	1.350	-106.939	-60.000	1.350	-106.939
0.138	-31.122	-60.000	0.460	-52.564	-60.000	1.380	-108.428	1.380	-108.428	-60.000	1.380	-108.428	-60.000	1.380	-108.428
0.141	-30.929	-60.000	0.470	-52.838	-60.000	1.410	-109.918	1.410	-109.918	-60.000	1.410	-109.918	-60.000	1.410	-109.918
0.144	-30.736	-60.000	0.480	-53.112	-60.000	1.440	-111.407	1.440	-111.407	-60.000	1.440	-111.407	-60.000	1.440	-111.407
0.147	-30.543	-60.000	0.490	-53.386	-60.000	1.470	-112.897	1.470	-112.897	-60.000	1.470	-112.897	-60.000	1.470	-112.897
0.150	-30.350	-60.000	0.500	-53.660	-60.000	1.500	-114.386	1.500	-114.386	-60.000	1.500	-114.386	-60.000	1.500	-114.386
0.153	-30.157	-60.000	0.510	-53.934	-60.000	1.530	-115.876	1.530	-115.876	-60.000	1.530	-115.876	-60.000	1.530	-115.876
0.156	-30.000	-60.000	0.520	-54.208	-60.000	1.560	-117.365	1.560	-117.365	-60.000	1.560	-117.365	-60.000	1.560	-117.365
0.159	-29.800	-60.000	0.530	-54.482	-60.000	1.590	-118.855	1.590	-118.855	-60.000	1.590	-118.855	-60.000	1.590	-118.855
0.162	-29.600	-60.000	0.540	-54.756	-60.000	1.620	-120.344	1.620	-120.344	-60.000	1.620	-120.344	-60.000	1.620	-120.344
0.165	-29.400	-60.000	0.550	-55.030	-60.000	1.650	-121.834	1.650	-121.834	-60.000	1.650	-121.834	-60.000	1.650	-121.834
0.168	-29.200	-60.000	0.560	-55.304	-60.000	1.680	-123.323	1.680	-123.323	-60.000	1.680	-123.323	-60.000	1.680	-123.323
0.171	-29.000	-60.000	0.570	-55.578	-60.000	1.710	-124.813	1.710	-124.813	-60.000	1.710	-124.813	-60.000	1.710	-124.813
0.174	-28.800	-60.000	0.580	-55.852	-60.000	1.740	-126.302	1.740	-126.302	-60.000	1.740	-126.302	-60.000	1.740	-126.302
0.177	-28.600	-60.000	0.590	-56.126	-60.000	1.770	-127.792	1.770	-127.792	-60.000	1.770	-127.792	-60.000	1.770	-127.792
0.180	-28.400	-60.000	0.600	-56.400	-60.000	1.800	-129.281	1.800	-129.281	-60.000	1.800	-129.281	-60.000	1.800	-129.281
0.183	-28.200	-60.000	0.610	-56.674	-60.000	1.830	-130.771	1.830	-130.771	-60.000	1.830	-130.771	-60.000	1.830	-130.771
0.186	-28.000	-60.000	0.620	-56.948	-60.000	1.860	-132.260	1.860	-132.260	-60.000	1.860	-132.260	-60.000	1.860	-132.260
0.189	-27.800	-60.000	0.630	-57.222	-60.000	1.890	-133.750	1.890	-133.750	-60.000	1.890	-133.750	-60.000	1.890	-133.750
0.192	-27.600	-60.000	0.640	-57.496	-60.000	1.920	-135.239	1.920	-135.239	-60.000	1.920	-135.239	-60.000	1.920	-135.239
0.195	-27.400	-60.000	0.650	-57.770	-60.000	1.950	-136.729	1.950	-136.729	-60.000	1.950	-136.729	-60.000	1.950	-136.729
0.198	-27.200	-60.000	0.660	-58.044	-60.000	1.980	-138.218	1.980	-138.218	-60.000	1.980	-138.218	-60.000	1.980	-138.218
0.201	-27.000	-60.000	0.670	-58.318	-60.000	2.010	-139.708	2.010	-139.708	-60.					

Table 105. Azimuthal Magnetic Field (Ice), Frequency = 10.0 MHz, VED Height = 22.48 m

3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
0.00	-33.010	-26.89	0.00	-43.980	-27.75	0.00	-53.497	-28.00	0.00	-63.446	-28.09	0.00	-73.446	-28.09	0.00
0.03	-33.350	-26.76	0.01	-44.682	-27.63	0.01	-54.869	-28.00	0.01	-64.869	-28.00	0.01	-74.869	-28.00	0.01
0.06	-34.044	-26.55	0.02	-45.203	-27.42	0.02	-55.329	-28.00	0.02	-65.329	-28.00	0.02	-75.329	-28.00	0.02
0.09	-34.677	-26.34	0.03	-45.767	-27.21	0.03	-55.787	-28.00	0.03	-65.787	-28.00	0.03	-75.787	-28.00	0.03
0.12	-35.015	-26.13	0.04	-46.331	-27.00	0.04	-56.245	-28.00	0.04	-66.245	-28.00	0.04	-76.245	-28.00	0.04
0.15	-35.354	-25.92	0.05	-46.895	-26.79	0.05	-56.709	-28.00	0.05	-66.709	-28.00	0.05	-76.709	-28.00	0.05
0.18	-35.693	-25.71	0.06	-47.459	-26.58	0.06	-57.173	-28.00	0.06	-67.173	-28.00	0.06	-77.173	-28.00	0.06
0.21	-36.032	-25.50	0.07	-48.023	-26.37	0.07	-57.637	-28.00	0.07	-67.637	-28.00	0.07	-77.637	-28.00	0.07
0.24	-36.371	-25.29	0.08	-48.587	-26.16	0.08	-58.101	-28.00	0.08	-68.101	-28.00	0.08	-78.101	-28.00	0.08
0.27	-36.710	-25.08	0.09	-49.151	-25.95	0.09	-58.565	-28.00	0.09	-68.565	-28.00	0.09	-78.565	-28.00	0.09
0.30	-37.049	-24.87	0.10	-49.715	-25.74	0.10	-59.029	-28.00	0.10	-69.029	-28.00	0.10	-79.029	-28.00	0.10
0.33	-37.388	-24.66	0.11	-50.279	-25.53	0.11	-59.493	-28.00	0.11	-69.493	-28.00	0.11	-79.493	-28.00	0.11
0.36	-37.727	-24.45	0.12	-50.843	-25.32	0.12	-59.957	-28.00	0.12	-69.957	-28.00	0.12	-79.957	-28.00	0.12
0.39	-38.066	-24.24	0.13	-51.407	-25.11	0.13	-60.421	-28.00	0.13	-70.421	-28.00	0.13	-80.421	-28.00	0.13
0.42	-38.405	-24.03	0.14	-51.971	-24.90	0.14	-60.885	-28.00	0.14	-70.885	-28.00	0.14	-80.885	-28.00	0.14
0.45	-38.744	-23.82	0.15	-52.535	-24.69	0.15	-61.349	-28.00	0.15	-71.349	-28.00	0.15	-81.349	-28.00	0.15
0.48	-39.083	-23.61	0.16	-53.099	-24.48	0.16	-61.813	-28.00	0.16	-71.813	-28.00	0.16	-81.813	-28.00	0.16
0.51	-39.422	-23.40	0.17	-53.663	-24.27	0.17	-62.277	-28.00	0.17	-72.277	-28.00	0.17	-82.277	-28.00	0.17
0.54	-39.761	-23.19	0.18	-54.227	-24.06	0.18	-62.741	-28.00	0.18	-72.741	-28.00	0.18	-82.741	-28.00	0.18
0.57	-40.100	-22.98	0.19	-54.791	-23.85	0.19	-63.205	-28.00	0.19	-73.205	-28.00	0.19	-83.205	-28.00	0.19
0.60	-40.439	-22.77	0.20	-55.355	-23.64	0.20	-63.669	-28.00	0.20	-73.669	-28.00	0.20	-83.669	-28.00	0.20
0.63	-40.778	-22.56	0.21	-55.919	-23.43	0.21	-64.133	-28.00	0.21	-74.133	-28.00	0.21	-84.133	-28.00	0.21
0.66	-41.117	-22.35	0.22	-56.483	-23.22	0.22	-64.597	-28.00	0.22	-74.597	-28.00	0.22	-84.597	-28.00	0.22
0.69	-41.456	-22.14	0.23	-57.047	-23.01	0.23	-65.061	-28.00	0.23	-75.061	-28.00	0.23	-85.061	-28.00	0.23
0.72	-41.795	-21.93	0.24	-57.611	-22.80	0.24	-65.525	-28.00	0.24	-75.525	-28.00	0.24	-85.525	-28.00	0.24
0.75	-42.134	-21.72	0.25	-58.175	-22.59	0.25	-65.989	-28.00	0.25	-75.989	-28.00	0.25	-85.989	-28.00	0.25
0.78	-42.473	-21.51	0.26	-58.739	-22.38	0.26	-66.453	-28.00	0.26	-76.453	-28.00	0.26	-86.453	-28.00	0.26
0.81	-42.812	-21.30	0.27	-59.303	-22.17	0.27	-66.917	-28.00	0.27	-76.917	-28.00	0.27	-86.917	-28.00	0.27
0.84	-43.151	-21.09	0.28	-59.867	-21.96	0.28	-67.381	-28.00	0.28	-77.381	-28.00	0.28	-87.381	-28.00	0.28
0.87	-43.490	-20.88	0.29	-60.431	-21.75	0.29	-67.845	-28.00	0.29	-77.845	-28.00	0.29	-87.845	-28.00	0.29
0.90	-43.829	-20.67	0.30	-60.995	-21.54	0.30	-68.309	-28.00	0.30	-78.309	-28.00	0.30	-88.309	-28.00	0.30
1.05	-45.434	-20.47	0.35	-62.415	-20.46	0.35	-70.339	-28.00	0.35	-80.339	-28.00	0.35	-90.339	-28.00	0.35
1.20	-47.409	-20.15	0.40	-64.377	-20.17	0.40	-72.369	-28.00	0.40	-82.369	-28.00	0.40	-92.369	-28.00	0.40
1.35	-49.384	-20.03	0.45	-66.340	-20.03	0.45	-74.390	-28.00	0.45	-84.390	-28.00	0.45	-94.390	-28.00	0.45
1.50	-51.359	-19.91	0.50	-68.303	-19.91	0.50	-76.411	-28.00	0.50	-86.411	-28.00	0.50	-96.411	-28.00	0.50
1.65	-53.334	-19.79	0.55	-70.266	-19.79	0.55	-78.432	-28.00	0.55	-88.432	-28.00	0.55	-98.432	-28.00	0.55
1.80	-55.309	-19.67	0.60	-72.229	-19.67	0.60	-80.453	-28.00	0.60	-90.453	-28.00	0.60	-100.453	-28.00	0.60
1.95	-57.284	-19.55	0.65	-74.192	-19.55	0.65	-82.474	-28.00	0.65	-92.474	-28.00	0.65	-102.474	-28.00	0.65
2.10	-59.259	-19.43	0.70	-76.155	-19.43	0.70	-84.495	-28.00	0.70	-94.495	-28.00	0.70	-104.495	-28.00	0.70
2.25	-61.234	-19.31	0.75	-78.118	-19.31	0.75	-86.516	-28.00	0.75	-96.516	-28.00	0.75	-106.516	-28.00	0.75
2.40	-63.209	-19.19	0.80	-80.081	-19.19	0.80	-88.537	-28.00	0.80	-98.537	-28.00	0.80	-108.537	-28.00	0.80
2.55	-65.184	-19.07	0.85	-82.044	-19.07	0.85	-90.558	-28.00	0.85	-100.558	-28.00	0.85	-110.558	-28.00	0.85
2.70	-67.159	-18.95	0.90	-84.007	-18.95	0.90	-92.579	-28.00	0.90	-102.579	-28.00	0.90	-112.579	-28.00	0.90
2.85	-69.134	-18.83	0.95	-85.970	-18.83	0.95	-94.600	-28.00	0.95	-104.600	-28.00	0.95	-114.600	-28.00	0.95
3.00	-71.109	-18.71	1.00	-87.933	-18.71	1.00	-96.621	-28.00	1.00	-106.621	-28.00	1.00	-116.621	-28.00	1.00

Table 106. Azimuthal Magnetic Field (Ice), Frequency = 10.0 MHz, VED Height = 44.95 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)
0.00	-20.345	-13.09	0.00	-38.790	-14.07	0.00	-56.708
0.03	-20.627	-13.09	0.03	-38.790	-14.07	0.03	-56.708
0.06	-20.909	-13.09	0.06	-38.790	-14.07	0.06	-56.708
0.09	-21.191	-13.09	0.09	-38.790	-14.07	0.09	-56.708
0.12	-21.473	-13.09	0.12	-38.790	-14.07	0.12	-56.708
0.15	-21.755	-13.09	0.15	-38.790	-14.07	0.15	-56.708
0.18	-22.037	-13.09	0.18	-38.790	-14.07	0.18	-56.708
0.21	-22.319	-13.09	0.21	-38.790	-14.07	0.21	-56.708
0.24	-22.601	-13.09	0.24	-38.790	-14.07	0.24	-56.708
0.27	-22.883	-13.09	0.27	-38.790	-14.07	0.27	-56.708
0.30	-23.165	-13.09	0.30	-38.790	-14.07	0.30	-56.708
0.33	-23.447	-13.09	0.33	-38.790	-14.07	0.33	-56.708
0.36	-23.729	-13.09	0.36	-38.790	-14.07	0.36	-56.708
0.39	-24.011	-13.09	0.39	-38.790	-14.07	0.39	-56.708
0.42	-24.293	-13.09	0.42	-38.790	-14.07	0.42	-56.708
0.45	-24.575	-13.09	0.45	-38.790	-14.07	0.45	-56.708
0.48	-24.857	-13.09	0.48	-38.790	-14.07	0.48	-56.708
0.51	-25.139	-13.09	0.51	-38.790	-14.07	0.51	-56.708
0.54	-25.421	-13.09	0.54	-38.790	-14.07	0.54	-56.708
0.57	-25.703	-13.09	0.57	-38.790	-14.07	0.57	-56.708
0.60	-25.985	-13.09	0.60	-38.790	-14.07	0.60	-56.708
0.63	-26.267	-13.09	0.63	-38.790	-14.07	0.63	-56.708
0.66	-26.549	-13.09	0.66	-38.790	-14.07	0.66	-56.708
0.69	-26.831	-13.09	0.69	-38.790	-14.07	0.69	-56.708
0.72	-27.113	-13.09	0.72	-38.790	-14.07	0.72	-56.708
0.75	-27.395	-13.09	0.75	-38.790	-14.07	0.75	-56.708
0.78	-27.677	-13.09	0.78	-38.790	-14.07	0.78	-56.708
0.81	-27.959	-13.09	0.81	-38.790	-14.07	0.81	-56.708
0.84	-28.241	-13.09	0.84	-38.790	-14.07	0.84	-56.708
0.87	-28.523	-13.09	0.87	-38.790	-14.07	0.87	-56.708
0.90	-28.805	-13.09	0.90	-38.790	-14.07	0.90	-56.708
0.93	-29.087	-13.09	0.93	-38.790	-14.07	0.93	-56.708
0.96	-29.369	-13.09	0.96	-38.790	-14.07	0.96	-56.708
0.99	-29.651	-13.09	0.99	-38.790	-14.07	0.99	-56.708
1.02	-29.933	-13.09	1.02	-38.790	-14.07	1.02	-56.708
1.05	-30.215	-13.09	1.05	-38.790	-14.07	1.05	-56.708
1.08	-30.497	-13.09	1.08	-38.790	-14.07	1.08	-56.708
1.11	-30.779	-13.09	1.11	-38.790	-14.07	1.11	-56.708
1.14	-31.061	-13.09	1.14	-38.790	-14.07	1.14	-56.708
1.17	-31.343	-13.09	1.17	-38.790	-14.07	1.17	-56.708
1.20	-31.625	-13.09	1.20	-38.790	-14.07	1.20	-56.708
1.23	-31.907	-13.09	1.23	-38.790	-14.07	1.23	-56.708
1.26	-32.189	-13.09	1.26	-38.790	-14.07	1.26	-56.708
1.29	-32.471	-13.09	1.29	-38.790	-14.07	1.29	-56.708
1.32	-32.753	-13.09	1.32	-38.790	-14.07	1.32	-56.708
1.35	-33.035	-13.09	1.35	-38.790	-14.07	1.35	-56.708
1.38	-33.317	-13.09	1.38	-38.790	-14.07	1.38	-56.708
1.41	-33.599	-13.09	1.41	-38.790	-14.07	1.41	-56.708
1.44	-33.881	-13.09	1.44	-38.790	-14.07	1.44	-56.708
1.47	-34.163	-13.09	1.47	-38.790	-14.07	1.47	-56.708
1.50	-34.445	-13.09	1.50	-38.790	-14.07	1.50	-56.708
1.53	-34.727	-13.09	1.53	-38.790	-14.07	1.53	-56.708
1.56	-35.009	-13.09	1.56	-38.790	-14.07	1.56	-56.708
1.59	-35.291	-13.09	1.59	-38.790	-14.07	1.59	-56.708
1.62	-35.573	-13.09	1.62	-38.790	-14.07	1.62	-56.708
1.65	-35.855	-13.09	1.65	-38.790	-14.07	1.65	-56.708
1.68	-36.137	-13.09	1.68	-38.790	-14.07	1.68	-56.708
1.71	-36.419	-13.09	1.71	-38.790	-14.07	1.71	-56.708
1.74	-36.701	-13.09	1.74	-38.790	-14.07	1.74	-56.708
1.77	-36.983	-13.09	1.77	-38.790	-14.07	1.77	-56.708
1.80	-37.265	-13.09	1.80	-38.790	-14.07	1.80	-56.708
1.83	-37.547	-13.09	1.83	-38.790	-14.07	1.83	-56.708
1.86	-37.829	-13.09	1.86	-38.790	-14.07	1.86	-56.708
1.89	-38.111	-13.09	1.89	-38.790	-14.07	1.89	-56.708
1.92	-38.393	-13.09	1.92	-38.790	-14.07	1.92	-56.708
1.95	-38.675	-13.09	1.95	-38.790	-14.07	1.95	-56.708
1.98	-38.957	-13.09	1.98	-38.790	-14.07	1.98	-56.708
2.01	-39.239	-13.09	2.01	-38.790	-14.07	2.01	-56.708
2.04	-39.521	-13.09	2.04	-38.790	-14.07	2.04	-56.708
2.07	-39.803	-13.09	2.07	-38.790	-14.07	2.07	-56.708
2.10	-40.085	-13.09	2.10	-38.790	-14.07	2.10	-56.708
2.13	-40.367	-13.09	2.13	-38.790	-14.07	2.13	-56.708
2.16	-40.649	-13.09	2.16	-38.790	-14.07	2.16	-56.708
2.19	-40.931	-13.09	2.19	-38.790	-14.07	2.19	-56.708
2.22	-41.213	-13.09	2.22	-38.790	-14.07	2.22	-56.708
2.25	-41.495	-13.09	2.25	-38.790	-14.07	2.25	-56.708
2.28	-41.777	-13.09	2.28	-38.790	-14.07	2.28	-56.708
2.31	-42.059	-13.09	2.31	-38.790	-14.07	2.31	-56.708
2.34	-42.341	-13.09	2.34	-38.790	-14.07	2.34	-56.708
2.37	-42.623	-13.09	2.37	-38.790	-14.07	2.37	-56.708
2.40	-42.905	-13.09	2.40	-38.790	-14.07	2.40	-56.708
2.43	-43.187	-13.09	2.43	-38.790	-14.07	2.43	-56.708
2.46	-43.469	-13.09	2.46	-38.790	-14.07	2.46	-56.708
2.49	-43.751	-13.09	2.49	-38.790	-14.07	2.49	-56.708
2.52	-44.033	-13.09	2.52	-38.790	-14.07	2.52	-56.708
2.55	-44.315	-13.09	2.55	-38.790	-14.07	2.55	-56.708
2.58	-44.597	-13.09	2.58	-38.790	-14.07	2.58	-56.708
2.61	-44.879	-13.09	2.61	-38.790	-14.07	2.61	-56.708
2.64	-45.161	-13.09	2.64	-38.790	-14.07	2.64	-56.708
2.67	-45.443	-13.09	2.67	-38.790	-14.07	2.67	-56.708
2.70	-45.725	-13.09	2.70	-38.790	-14.07	2.70	-56.708
2.73	-46.007	-13.09	2.73	-38.790	-14.07	2.73	-56.708
2.76	-46.289	-13.09	2.76	-38.790	-14.07	2.76	-56.708
2.79	-46.571	-13.09	2.79	-38.790	-14.07	2.79	-56.708
2.82	-46.853	-13.09	2.82	-38.790	-14.07	2.82	-56.708
2.85	-47.135	-13.09	2.85	-38.790	-14.07	2.85	-56.708
2.88	-47.417	-13.09	2.88	-38.790	-14.07	2.88	-56.708
2.91	-47.699	-13.09	2.91	-38.790	-14.07	2.91	-56.708
2.94	-47.981	-13.09	2.94	-38.790	-14.07	2.94	-56.708
2.97	-48.263	-13.09	2.97	-38.790	-14.07	2.97	-56.708
3.00	-48.545	-13.09	3.00	-38.790	-14.07	3.00	-56.708

Table 107. Azimuthal Magnetic Field (ice), Frequency = 100.0 MHz, VED Height = 0.00 m

10.0 KM JOURNAL				30.0 KM JOURNAL			
MLT	AMP (UB)	PHASE (DEG)	MLT (KM)	MLT	AMP (UB)	PHASE (DEG)	MLT (KM)
01.00	-30.510	-89.52	0.000	01.00	-70.517	-89.98	0.000
01.01	-40.514	-89.53	0.003	01.01	-82.004	-89.78	0.030
01.02	-44.730	-30.43	0.006	01.02	-46.051	-3.34	0.060
01.03	-44.761	-21.33	0.009	01.03	-42.559	-2.25	0.090
01.04	-39.761	-10.25	0.012	01.04	-40.085	-1.64	0.120
01.05	-37.761	-13.08	0.015	01.05	-38.170	-1.35	0.150
01.06	-36.430	-10.71	0.018	01.06	-36.606	-1.12	0.180
01.07	-35.105	-8.16	0.021	01.07	-35.291	-0.84	0.210
01.08	-34.050	-6.10	0.024	01.08	-34.153	-0.56	0.240
01.09	-33.015	-4.23	0.027	01.09	-33.152	-0.27	0.270
01.10	-32.175	-2.48	0.030	01.10	-32.250	-0.07	0.300
01.11	-31.400	-0.87	0.033	01.11	-31.452	0.14	0.330
01.12	-30.674	0.36	0.036	01.12	-30.712	0.55	0.360
01.13	-30.000	1.43	0.039	01.13	-30.044	0.91	0.390
01.14	-29.307	2.30	0.042	01.14	-29.422	1.27	0.420
01.15	-28.615	3.23	0.045	01.15	-28.864	1.64	0.450
01.16	-28.000	4.10	0.048	01.16	-28.305	2.01	0.480
01.17	-27.377	5.00	0.051	01.17	-27.797	2.38	0.510
01.18	-26.804	5.85	0.054	01.18	-27.324	2.76	0.540
01.19	-26.250	6.75	0.057	01.19	-26.876	3.13	0.570
01.20	-25.733	7.60	0.060	01.20	-26.452	3.52	0.600
01.21	-25.250	8.50	0.063	01.21	-26.044	3.91	0.630
01.22	-24.800	9.40	0.066	01.22	-25.666	4.29	0.660
01.23	-24.367	10.30	0.069	01.23	-25.301	4.68	0.690
01.24	-23.954	11.20	0.072	01.24	-24.953	5.07	0.720
01.25	-23.567	12.10	0.075	01.25	-24.614	5.46	0.750
01.26	-23.200	13.00	0.078	01.26	-24.300	5.85	0.780
01.27	-22.850	13.90	0.081	01.27	-24.000	6.25	0.810
01.28	-22.500	14.80	0.084	01.28	-23.714	6.64	0.840
01.29	-22.167	15.70	0.087	01.29	-23.444	7.03	0.870
01.30	-21.850	16.60	0.090	01.30	-23.181	7.42	0.900
01.35	-21.470	17.50	0.105	01.35	-21.907	7.81	1.050
01.40	-20.851	18.40	0.120	01.40	-20.851	8.20	1.200
01.45	-19.967	19.30	0.135	01.45	-19.932	8.59	1.350
01.50	-18.710	20.20	0.150	01.50	-19.120	8.98	1.500
01.55	-16.393	21.10	0.165	01.55	-18.395	9.37	1.650
01.60	-14.147	22.00	0.180	01.60	-17.742	9.76	1.800
01.65	-12.147	22.90	0.195	01.65	-17.149	10.15	1.950
01.70	-10.400	23.80	0.210	01.70	-16.607	10.54	2.100
01.75	-9.100	24.70	0.225	01.75	-16.109	10.93	2.250
01.80	-8.100	25.60	0.240	01.80	-15.649	11.32	2.400
01.85	-7.300	26.50	0.255	01.85	-15.223	11.71	2.550
01.90	-6.600	27.40	0.270	01.90	-14.826	12.10	2.700
01.95	-6.000	28.30	0.285	01.95	-14.457	12.49	2.850
02.00	-5.400	29.20	0.300	02.00	-14.111	12.88	3.000

Table 108. Azimuthal Magnetic Field (Ice), Frequency = 100.0 MHz, VED Height = 2.25 m

1.0 KM DOWNRANGE				3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE			
MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)
0.00	-43.472	-27.36	0.00	-53.488	-27.83	0.00	-63.937	-27.92	0.00	-73.477	-27.95	0.00	-83.477	-27.95	0.00
0.01	-44.603	16.34	0.01	-44.853	40.45	0.01	-45.423	55.27	0.01	-45.476	59.79	0.01	-45.476	59.79	0.01
0.02	-36.185	31.46	0.02	-35.324	54.57	0.02	-35.917	54.57	0.02	-35.917	54.57	0.02	-35.917	54.57	0.02
0.03	-35.371	40.36	0.03	-35.917	54.57	0.03	-35.917	54.57	0.03	-35.917	54.57	0.03	-35.917	54.57	0.03
0.04	-33.103	45.85	0.04	-33.474	56.44	0.04	-33.474	56.44	0.04	-33.474	56.44	0.04	-33.474	56.44	0.04
0.05	-31.376	48.85	0.05	-31.573	57.57	0.05	-31.573	57.57	0.05	-31.573	57.57	0.05	-31.573	57.57	0.05
0.06	-29.609	51.00	0.06	-30.020	54.33	0.06	-30.020	54.33	0.06	-30.020	54.33	0.06	-30.020	54.33	0.06
0.07	-28.017	52.57	0.07	-28.708	58.67	0.07	-28.708	58.67	0.07	-28.708	58.67	0.07	-28.708	58.67	0.07
0.08	-26.500	53.76	0.08	-27.574	54.28	0.08	-27.574	54.28	0.08	-27.574	54.28	0.08	-27.574	54.28	0.08
0.09	-25.050	55.44	0.09	-26.575	54.85	0.09	-26.575	54.85	0.09	-26.575	54.85	0.09	-26.575	54.85	0.09
0.10	-24.855	56.06	0.10	-25.884	54.85	0.10	-25.884	54.85	0.10	-25.884	54.85	0.10	-25.884	54.85	0.10
0.11	-24.130	56.57	0.11	-24.880	60.00	0.11	-24.880	60.00	0.11	-24.880	60.00	0.11	-24.880	60.00	0.11
0.12	-23.404	57.01	0.12	-24.147	60.24	0.12	-24.147	60.24	0.12	-24.147	60.24	0.12	-24.147	60.24	0.12
0.13	-22.680	57.34	0.13	-23.475	60.34	0.13	-23.475	60.34	0.13	-23.475	60.34	0.13	-23.475	60.34	0.13
0.14	-21.956	57.71	0.14	-22.855	60.52	0.14	-22.855	60.52	0.14	-22.855	60.52	0.14	-22.855	60.52	0.14
0.15	-21.232	58.00	0.15	-22.274	60.63	0.15	-22.274	60.63	0.15	-22.274	60.63	0.15	-22.274	60.63	0.15
0.16	-20.508	58.28	0.16	-21.741	60.73	0.16	-21.741	60.73	0.16	-21.741	60.73	0.16	-21.741	60.73	0.16
0.17	-19.784	58.56	0.17	-21.238	60.82	0.17	-21.238	60.82	0.17	-21.238	60.82	0.17	-21.238	60.82	0.17
0.18	-19.060	58.84	0.18	-20.764	60.90	0.18	-20.764	60.90	0.18	-20.764	60.90	0.18	-20.764	60.90	0.18
0.19	-18.336	59.07	0.19	-20.318	60.97	0.19	-20.318	60.97	0.19	-20.318	60.97	0.19	-20.318	60.97	0.19
0.20	-17.612	59.14	0.20	-19.896	61.04	0.20	-19.896	61.04	0.20	-19.896	61.04	0.20	-19.896	61.04	0.20
0.21	-16.888	59.20	0.21	-19.495	61.10	0.21	-19.495	61.10	0.21	-19.495	61.10	0.21	-19.495	61.10	0.21
0.22	-16.164	59.24	0.22	-19.114	61.16	0.22	-19.114	61.16	0.22	-19.114	61.16	0.22	-19.114	61.16	0.22
0.23	-15.440	59.27	0.23	-18.756	61.21	0.23	-18.756	61.21	0.23	-18.756	61.21	0.23	-18.756	61.21	0.23
0.24	-14.716	59.29	0.24	-18.405	61.26	0.24	-18.405	61.26	0.24	-18.405	61.26	0.24	-18.405	61.26	0.24
0.25	-13.992	59.29	0.25	-18.074	61.31	0.25	-18.074	61.31	0.25	-18.074	61.31	0.25	-18.074	61.31	0.25
0.26	-13.268	59.29	0.26	-17.757	61.35	0.26	-17.757	61.35	0.26	-17.757	61.35	0.26	-17.757	61.35	0.26
0.27	-12.544	59.29	0.27	-17.453	61.39	0.27	-17.453	61.39	0.27	-17.453	61.39	0.27	-17.453	61.39	0.27
0.28	-11.820	59.29	0.28	-17.160	61.43	0.28	-17.160	61.43	0.28	-17.160	61.43	0.28	-17.160	61.43	0.28
0.29	-11.096	59.29	0.29	-16.879	61.47	0.29	-16.879	61.47	0.29	-16.879	61.47	0.29	-16.879	61.47	0.29
0.30	-10.372	59.29	0.30	-16.609	61.51	0.30	-16.609	61.51	0.30	-16.609	61.51	0.30	-16.609	61.51	0.30
0.35	-15.406	60.48	0.35	-15.384	61.68	0.35	-15.384	61.68	0.35	-15.384	61.68	0.35	-15.384	61.68	0.35
0.40	-14.358	60.74	0.40	-14.351	61.82	0.40	-14.351	61.82	0.40	-14.351	61.82	0.40	-14.351	61.82	0.40
0.45	-13.459	61.05	0.45	-13.451	61.96	0.45	-13.451	61.96	0.45	-13.451	61.96	0.45	-13.451	61.96	0.45
0.50	-12.619	61.29	0.50	-12.660	62.10	0.50	-12.660	62.10	0.50	-12.660	62.10	0.50	-12.660	62.10	0.50
0.55	-11.876	61.50	0.55	-11.954	62.23	0.55	-11.954	62.23	0.55	-11.954	62.23	0.55	-11.954	62.23	0.55
0.60	-11.231	61.71	0.60	-11.332	62.37	0.60	-11.332	62.37	0.60	-11.332	62.37	0.60	-11.332	62.37	0.60
0.65	-10.766	61.91	0.65	-10.767	62.52	0.65	-10.767	62.52	0.65	-10.767	62.52	0.65	-10.767	62.52	0.65
0.70	-10.274	62.11	0.70	-10.255	62.66	0.70	-10.255	62.66	0.70	-10.255	62.66	0.70	-10.255	62.66	0.70
0.75	-9.809	62.30	0.75	-9.790	62.82	0.75	-9.790	62.82	0.75	-9.790	62.82	0.75	-9.790	62.82	0.75
0.80	-9.384	62.50	0.80	-9.365	62.98	0.80	-9.365	62.98	0.80	-9.365	62.98	0.80	-9.365	62.98	0.80
0.85	-8.995	62.70	0.85	-8.976	63.14	0.85	-8.976	63.14	0.85	-8.976	63.14	0.85	-8.976	63.14	0.85
0.90	-8.638	62.90	0.90	-8.618	63.32	0.90	-8.618	63.32	0.90	-8.618	63.32	0.90	-8.618	63.32	0.90
0.95	-8.309	63.11	0.95	-8.290	63.50	0.95	-8.290	63.50	0.95	-8.290	63.50	0.95	-8.290	63.50	0.95
1.00	-8.007	63.33	1.00	-7.988	63.70	1.00	-7.988	63.70	1.00	-7.988	63.70	1.00	-7.988	63.70	1.00

Table 109. Azimuthal Magnetic Field (Ice), Frequency = 100.0 MHz, VED Height = 4.50 m

1.0 KM DOWNRANGE				3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
0.00	-30.705	-14.52	0.00	-18.200	-14.75	0.00	-20.703	-14.83	0.00	-20.703	-14.83	0.00	-20.703	-14.83	0.00
0.01	-30.477	23.33	0.01	-18.632	53.53	0.01	-20.189	68.36	0.01	-20.189	68.36	0.01	-20.189	68.36	0.01
0.02	-30.249	44.54	0.02	-19.064	63.96	0.02	-19.677	71.75	0.02	-19.677	71.75	0.02	-19.677	71.75	0.02
0.03	-30.021	53.84	0.03	-19.496	67.65	0.03	-19.500	72.89	0.03	-19.500	72.89	0.03	-19.500	72.89	0.03
0.04	-29.793	56.71	0.04	-19.324	69.53	0.04	-19.324	73.46	0.04	-19.324	73.46	0.04	-19.324	73.46	0.04
0.05	-29.565	61.09	0.05	-19.158	70.00	0.05	-19.158	73.80	0.05	-19.158	73.80	0.05	-19.158	73.80	0.05
0.06	-29.337	64.07	0.06	-18.992	71.42	0.06	-18.992	74.04	0.06	-18.992	74.04	0.06	-18.992	74.04	0.06
0.07	-29.109	67.05	0.07	-18.826	72.84	0.07	-18.826	74.21	0.07	-18.826	74.21	0.07	-18.826	74.21	0.07
0.08	-28.881	69.93	0.08	-18.660	74.26	0.08	-18.660	74.33	0.08	-18.660	74.33	0.08	-18.660	74.33	0.08
0.09	-28.653	72.81	0.09	-18.494	75.70	0.09	-18.494	74.44	0.09	-18.494	74.44	0.09	-18.494	74.44	0.09
0.10	-28.425	75.69	0.10	-18.328	77.14	0.10	-18.328	74.55	0.10	-18.328	74.55	0.10	-18.328	74.55	0.10
0.11	-28.197	78.57	0.11	-18.162	78.58	0.11	-18.162	74.66	0.11	-18.162	74.66	0.11	-18.162	74.66	0.11
0.12	-27.969	81.45	0.12	-18.000	79.53	0.12	-18.000	74.77	0.12	-18.000	74.77	0.12	-18.000	74.77	0.12
0.13	-27.741	84.33	0.13	-17.834	80.48	0.13	-17.834	74.88	0.13	-17.834	74.88	0.13	-17.834	74.88	0.13
0.14	-27.513	87.21	0.14	-17.668	81.43	0.14	-17.668	74.99	0.14	-17.668	74.99	0.14	-17.668	74.99	0.14
0.15	-27.285	90.09	0.15	-17.502	82.38	0.15	-17.502	75.10	0.15	-17.502	75.10	0.15	-17.502	75.10	0.15
0.16	-27.057	92.97	0.16	-17.336	83.33	0.16	-17.336	75.21	0.16	-17.336	75.21	0.16	-17.336	75.21	0.16
0.17	-26.829	95.85	0.17	-17.170	84.28	0.17	-17.170	75.32	0.17	-17.170	75.32	0.17	-17.170	75.32	0.17
0.18	-26.601	98.73	0.18	-17.004	85.23	0.18	-17.004	75.43	0.18	-17.004	75.43	0.18	-17.004	75.43	0.18
0.19	-26.373	101.61	0.19	-16.838	86.18	0.19	-16.838	75.54	0.19	-16.838	75.54	0.19	-16.838	75.54	0.19
0.20	-26.145	104.49	0.20	-16.672	87.13	0.20	-16.672	75.65	0.20	-16.672	75.65	0.20	-16.672	75.65	0.20
0.21	-25.917	107.37	0.21	-16.506	88.08	0.21	-16.506	75.76	0.21	-16.506	75.76	0.21	-16.506	75.76	0.21
0.22	-25.689	110.25	0.22	-16.340	89.03	0.22	-16.340	75.87	0.22	-16.340	75.87	0.22	-16.340	75.87	0.22
0.23	-25.461	113.13	0.23	-16.174	90.00	0.23	-16.174	75.98	0.23	-16.174	75.98	0.23	-16.174	75.98	0.23
0.24	-25.233	116.01	0.24	-16.008	90.95	0.24	-16.008	76.09	0.24	-16.008	76.09	0.24	-16.008	76.09	0.24
0.25	-25.005	118.89	0.25	-15.842	91.90	0.25	-15.842	76.20	0.25	-15.842	76.20	0.25	-15.842	76.20	0.25
0.26	-24.777	121.77	0.26	-15.676	92.85	0.26	-15.676	76.31	0.26	-15.676	76.31	0.26	-15.676	76.31	0.26
0.27	-24.549	124.65	0.27	-15.510	93.80	0.27	-15.510	76.42	0.27	-15.510	76.42	0.27	-15.510	76.42	0.27
0.28	-24.321	127.53	0.28	-15.344	94.75	0.28	-15.344	76.53	0.28	-15.344	76.53	0.28	-15.344	76.53	0.28
0.29	-24.093	130.41	0.29	-15.178	95.70	0.29	-15.178	76.64	0.29	-15.178	76.64	0.29	-15.178	76.64	0.29
0.30	-23.865	133.29	0.30	-15.012	96.65	0.30	-15.012	76.75	0.30	-15.012	76.75	0.30	-15.012	76.75	0.30
0.31	-23.637	136.17	0.31	-14.846	97.60	0.31	-14.846	76.86	0.31	-14.846	76.86	0.31	-14.846	76.86	0.31
0.32	-23.409	139.05	0.32	-14.680	98.55	0.32	-14.680	76.97	0.32	-14.680	76.97	0.32	-14.680	76.97	0.32
0.33	-23.181	141.93	0.33	-14.514	99.50	0.33	-14.514	77.08	0.33	-14.514	77.08	0.33	-14.514	77.08	0.33
0.34	-22.953	144.81	0.34	-14.348	100.45	0.34	-14.348	77.19	0.34	-14.348	77.19	0.34	-14.348	77.19	0.34
0.35	-22.725	147.69	0.35	-14.182	101.40	0.35	-14.182	77.30	0.35	-14.182	77.30	0.35	-14.182	77.30	0.35
0.36	-22.497	150.57	0.36	-14.016	102.35	0.36	-14.016	77.41	0.36	-14.016	77.41	0.36	-14.016	77.41	0.36
0.37	-22.269	153.45	0.37	-13.850	103.30	0.37	-13.850	77.52	0.37	-13.850	77.52	0.37	-13.850	77.52	0.37
0.38	-22.041	156.33	0.38	-13.684	104.25	0.38	-13.684	77.63	0.38	-13.684	77.63	0.38	-13.684	77.63	0.38
0.39	-21.813	159.21	0.39	-13.518	105.20	0.39	-13.518	77.74	0.39	-13.518	77.74	0.39	-13.518	77.74	0.39
0.40	-21.585	162.09	0.40	-13.352	106.15	0.40	-13.352	77.85	0.40	-13.352	77.85	0.40	-13.352	77.85	0.40
0.41	-21.357	164.97	0.41	-13.186	107.10	0.41	-13.186	77.96	0.41	-13.186	77.96	0.41	-13.186	77.96	0.41
0.42	-21.129	167.85	0.42	-13.020	108.05	0.42	-13.020	78.07	0.42	-13.020	78.07	0.42	-13.020	78.07	0.42
0.43	-20.901	170.73	0.43	-12.854	109.00	0.43	-12.854	78.18	0.43	-12.854	78.18	0.43	-12.854	78.18	0.43
0.44	-20.673	173.61	0.44	-12.688	110.00	0.44	-12.688	78.29	0.44	-12.688	78.29	0.44	-12.688	78.29	0.44
0.45	-20.445	176.49	0.45	-12.522	110.95	0.45	-12.522	78.40	0.45	-12.522	78.40	0.45	-12.522	78.40	0.45
0.46	-20.217	179.37	0.46	-12.356	111.90	0.46	-12.356	78.51	0.46	-12.356	78.51	0.46	-12.356	78.51	0.46
0.47	-19.989	182.25	0.47	-12.190	112.85	0.47	-12.190	78.62	0.47	-12.190	78.62	0.47	-12.190	78.62	0.47
0.48	-19.761	185.13	0.48	-12.024	113.80	0.48	-12.024	78.73	0.48	-12.024	78.73	0.48	-12.024	78.73	0.48
0.49	-19.533	188.01	0.49	-11.858	114.75	0.49	-11.858	78.84	0.49	-11.858	78.84	0.49	-11.858	78.84	0.49
0.50	-19.305	190.89	0.50	-11.692	115.70	0.50	-11.692	78.95	0.50	-11.692	78.95	0.50	-11.692	78.95	0.50
0.51	-19.077	193.77	0.51	-11.526	116.65	0.51	-11.526	79.06	0.51	-11.526	79.06	0.51	-11.526	79.06	0.51
0.52	-18.849	196.65	0.52	-11.360	117.60	0.52	-11.360	79.17	0.52	-11.360	79.17	0.52	-11.360	79.17	0.52
0.53	-18.621	199.53	0.53	-11.194	118.55	0.53	-11.194	79.28	0.53	-11.194	79.28	0.53	-11.194	79.28	0.53
0.54	-18.393	202.41	0.54	-11.028	119.50	0.54	-11.028	79.39	0.54	-11.028	79.39	0.54	-11.028	79.39	0.54
0.55	-18.165	205.29	0.55	-10.862	120.45	0.55	-10.862	79.50	0.55	-10.862	79.50	0.55	-10.862	79.50	0.55
0.56	-17.937	208.17	0.56	-10.696	121.40	0.56	-10.696	79.61	0.56	-10.696	79.61	0.56	-10.696	79.61	0.56
0.57	-17.709	211.05	0.57	-10.530	122.35	0.57	-10.530	79.72	0.57	-10.530	79.72	0.57	-10.530	79.72	0.57
0.58	-17.481	213.93	0.58	-10.364	123.30	0.58	-10.364	79.83	0.58	-10.364	79.83	0.58	-10.364	79.83	0.58
0.59	-17.253	216.81	0.59	-10.198	124.25	0.59	-10.198	79.94	0.59	-10.198	79.94	0.59	-10.198	79.94	0.59
0.60	-17.025	219.69	0.60	-10.032	125.20	0.60	-10.032	80.05	0.60	-10.032	80.05	0.60	-10.032	80.05	0.60
0.61	-16.797	222.57	0.61	-9.866	126.15	0.61	-9.866	80.16	0.61	-9.866	80.16	0.61	-9.866	80.16	0.61
0.62	-16.569	225.45	0.62	-9.700	127.10	0.62	-9.700	80.27	0.62	-9.700	80.27	0.62	-9.700	80.27	0.62
0.63	-16.341	228.33	0.63	-9.534	128.05	0.63	-9.534	80.38	0.63	-9.534	80.38	0.63	-9.534	80.38	0.63
0.64	-16.113	231.21	0.64	-9.368	129.00	0.64	-9.368	80.49	0.64	-9.368	80.49	0.64	-9.368	80.49	0.64
0.65	-15.885	234.09	0.65	-9.202	130.00	0.65	-9.202	80.60	0.65	-9.202	80.60	0.65	-9.202	80.60	0.65
0.66	-15.657	236.97	0.66	-9.036	130.95	0.66	-9.036	80.71	0.66	-9.036	80.71	0.66	-9.036	80.71	0.66
0.67	-15.429	239.85	0.67	-8.870	131.90	0.67	-8.870	80.82	0.67	-8.870	80.82	0.67	-8.870	80.82	0.67
0.68	-15.201	242.73	0.68	-8.704	132.85	0.68	-8.704	80.93	0.68	-8.704	80.93	0.68	-8.704	80.93	0.68
0.69	-14.973	245.61	0.69	-8.538	133.80	0.69	-8.538	81.04	0.69	-8.538	81.04	0.69	-8.538	81.04	0.69
0.70	-14.745	248.49	0.70	-8.372	134.75	0.70	-8.372	81.15	0.70	-8.372	81.15	0.70	-8.372	81.15	0.70
0.71	-14.517	251.37	0.71	-8.206	135.70	0.71	-8.206	81.26	0.71	-8.206	81.26	0.71	-8.206	81.26	0.71
0.72	-14.289	254.25	0.72	-8.040	136.65										

Table 110. Vertical Electric Field (Well-Conducting Soil), Frequency = 0.1 MHz, VED Height = 0.00 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)
0.000	-0.077	-13.42	0.000	-2.34	-24.45	0.000	-6.87	-42.09	0.000	-6.87	-42.09
0.030	-0.086	-13.36	1.00	-2.64	-24.24	1.00	-7.76	-41.48	1.00	-7.76	-41.48
0.060	-0.095	-13.30	2.00	-2.94	-24.04	2.00	-8.61	-40.86	2.00	-8.61	-40.86
0.090	-0.104	-13.24	3.00	-3.26	-23.84	3.00	-9.41	-40.25	3.00	-9.41	-40.25
0.120	-0.113	-13.18	4.00	-3.54	-23.64	4.00	-1.018	-39.62	4.00	-1.018	-39.62
0.150	-0.121	-13.12	5.00	-3.81	-23.43	5.00	-1.092	-39.00	5.00	-1.092	-39.00
0.180	-0.130	-13.06	6.00	-4.07	-23.23	6.00	-1.161	-38.37	6.00	-1.161	-38.37
0.210	-0.138	-13.00	7.00	-4.32	-23.02	7.00	-1.227	-37.74	7.00	-1.227	-37.74
0.240	-0.146	-12.94	8.00	-4.57	-22.82	8.00	-1.289	-37.12	8.00	-1.289	-37.12
0.270	-0.155	-12.87	9.00	-4.81	-22.61	9.00	-1.347	-36.49	9.00	-1.347	-36.49
0.300	-0.163	-12.81	1.000	-5.05	-22.41	1.000	-1.402	-35.87	1.000	-1.402	-35.87
0.330	-0.171	-12.75	1.100	-5.28	-22.21	1.100	-1.454	-35.25	1.100	-1.454	-35.25
0.360	-0.179	-12.69	1.200	-5.50	-22.00	1.200	-1.502	-34.63	1.200	-1.502	-34.63
0.390	-0.187	-12.63	1.300	-5.71	-21.80	1.300	-1.547	-34.02	1.300	-1.547	-34.02
0.420	-0.194	-12.57	1.400	-5.92	-21.60	1.400	-1.589	-33.42	1.400	-1.589	-33.42
0.450	-0.202	-12.51	1.500	-6.12	-21.40	1.500	-1.628	-32.82	1.500	-1.628	-32.82
0.480	-0.210	-12.45	1.600	-6.32	-21.20	1.600	-1.664	-32.22	1.600	-1.664	-32.22
0.510	-0.217	-12.39	1.700	-6.51	-21.00	1.700	-1.697	-31.64	1.700	-1.697	-31.64
0.540	-0.225	-12.33	1.800	-6.69	-20.80	1.800	-1.728	-31.06	1.800	-1.728	-31.06
0.570	-0.232	-12.27	1.900	-6.87	-20.60	1.900	-1.756	-30.49	1.900	-1.756	-30.49
0.600	-0.239	-12.21	2.000	-7.04	-20.40	2.000	-1.782	-29.92	2.000	-1.782	-29.92
0.630	-0.246	-12.15	2.100	-7.21	-20.20	2.100	-1.805	-29.37	2.100	-1.805	-29.37
0.660	-0.254	-12.09	2.200	-7.37	-20.01	2.200	-1.826	-28.82	2.200	-1.826	-28.82
0.690	-0.261	-12.03	2.300	-7.53	-19.81	2.300	-1.845	-28.29	2.300	-1.845	-28.29
0.720	-0.267	-11.97	2.400	-7.68	-19.62	2.400	-1.861	-27.76	2.400	-1.861	-27.76
0.750	-0.274	-11.91	2.500	-7.83	-19.43	2.500	-1.876	-27.24	2.500	-1.876	-27.24
0.780	-0.281	-11.85	2.600	-7.97	-19.24	2.600	-1.889	-26.74	2.600	-1.889	-26.74
0.810	-0.288	-11.80	2.700	-8.10	-19.05	2.700	-1.900	-26.24	2.700	-1.900	-26.24
0.840	-0.294	-11.74	2.800	-8.24	-18.86	2.800	-1.910	-25.75	2.800	-1.910	-25.75
0.870	-0.301	-11.68	2.900	-8.36	-18.67	2.900	-1.918	-25.28	2.900	-1.918	-25.28
0.900	-0.308	-11.62	3.000	-8.48	-18.49	3.000	-1.924	-24.81	3.000	-1.924	-24.81
1.050	-0.334	-11.33	3.500	-9.03	-17.58	3.500	-1.936	-24.62	3.500	-1.936	-24.62
1.200	-0.364	-11.04	4.000	-9.48	-16.71	4.000	-1.927	-20.67	4.000	-1.927	-20.67
1.350	-0.397	-10.76	4.500	-9.84	-15.88	4.500	-1.898	-18.95	4.500	-1.898	-18.95
1.500	-0.424	-10.48	5.000	-1.013	-15.10	5.000	-1.858	-17.43	5.000	-1.858	-17.43
1.650	-0.444	-10.21	5.500	-1.035	-14.36	5.500	-1.811	-16.08	5.500	-1.811	-16.08
1.800	-0.473	-9.93	6.000	-1.052	-13.60	6.000	-1.761	-14.90	6.000	-1.761	-14.90
1.950	-0.496	-9.69	6.500	-1.065	-12.80	6.500	-1.710	-13.86	6.500	-1.710	-13.86
2.100	-0.514	-9.44	7.000	-1.074	-12.30	7.000	-1.654	-12.93	7.000	-1.654	-12.93
2.250	-0.534	-9.19	7.500	-1.080	-11.80	7.500	-1.604	-12.11	7.500	-1.604	-12.11
2.400	-0.561	-8.95	8.000	-1.084	-11.26	8.000	-1.562	-11.38	8.000	-1.562	-11.38
2.550	-0.581	-8.72	8.500	-1.086	-10.75	8.500	-1.510	-10.72	8.500	-1.510	-10.72
2.700	-0.604	-8.49	9.000	-1.087	-10.28	9.000	-1.471	-10.14	9.000	-1.471	-10.14
2.850	-0.614	-8.27	9.500	-1.088	-9.83	9.500	-1.434	-9.61	9.500	-1.434	-9.61
3.000	-0.637	-8.06	10.000	-1.088	-9.42	10.000	-1.404	-9.13	10.000	-1.404	-9.13

Table 111. Vertical Electric Field (Well-Conducting Soil), Frequency = 0.1 MHz, VED Height = 2247.60 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)	
0.000	-4.67	-9.14		0.000	-7.38	-19.92		0.000	-1.257	-37.44	
0.030	-4.76	-9.13		0.100	-7.68	-19.71		0.300	-1.346	-36.83	
0.060	-4.85	-9.07		0.200	-7.98	-19.51		0.600	-1.431	-36.21	
0.090	-4.94	-9.01		0.300	-8.27	-19.31		0.900	-1.512	-35.60	
0.120	-5.04	-8.95		0.400	-8.55	-19.10		1.200	-1.590	-34.97	
0.150	-5.13	-8.88		0.500	-8.83	-18.90		1.500	-1.664	-34.35	
0.180	-5.23	-8.82		0.600	-9.10	-18.69		1.800	-1.735	-33.73	
0.210	-5.33	-8.76		0.700	-9.37	-18.49		2.100	-1.802	-33.10	
0.240	-5.42	-8.70		0.800	-9.63	-18.29		2.400	-1.866	-32.48	
0.270	-5.52	-8.64		0.900	-9.89	-18.08		2.700	-1.926	-31.85	
0.300	-5.62	-8.58		1.000	-1.015	-17.88		3.000	-1.983	-31.23	
0.330	-5.73	-8.51		1.100	-1.040	-17.68		3.300	-2.037	-30.61	
0.360	-5.83	-8.45		1.200	-1.064	-17.48		3.600	-2.088	-30.00	
0.390	-5.93	-8.39		1.300	-1.089	-17.27		3.900	-2.136	-29.39	
0.420	-6.04	-8.33		1.400	-1.112	-17.07		4.200	-2.181	-28.79	
0.450	-6.14	-8.27		1.500	-1.136	-16.87		4.500	-2.224	-28.19	
0.480	-6.25	-8.21		1.600	-1.158	-16.67		4.800	-2.263	-27.60	
0.510	-6.36	-8.15		1.700	-1.181	-16.47		5.100	-2.300	-27.02	
0.540	-6.47	-8.09		1.800	-1.203	-16.27		5.400	-2.335	-26.44	
0.570	-6.58	-8.03		1.900	-1.225	-16.08		5.700	-2.367	-25.87	
0.600	-6.69	-7.97		2.000	-1.246	-15.88		6.000	-2.398	-25.31	
0.630	-6.80	-7.91		2.100	-1.267	-15.69		6.300	-2.426	-24.76	
0.660	-6.92	-7.85		2.200	-1.288	-15.49		6.600	-2.452	-24.22	
0.690	-7.03	-7.79		2.300	-1.309	-15.30		6.900	-2.476	-23.68	
0.720	-7.15	-7.73		2.400	-1.329	-15.11		7.200	-2.498	-23.16	
0.750	-7.27	-7.67		2.500	-1.349	-14.92		7.500	-2.518	-22.64	
0.780	-7.38	-7.61		2.600	-1.368	-14.73		7.800	-2.537	-22.14	
0.810	-7.51	-7.55		2.700	-1.388	-14.54		8.100	-2.555	-21.64	
0.840	-7.63	-7.49		2.800	-1.407	-14.35		8.400	-2.571	-21.16	
0.870	-7.75	-7.43		2.900	-1.426	-14.17		8.700	-2.585	-20.68	
0.900	-7.87	-7.37		3.000	-1.444	-13.98		9.000	-2.599	-20.21	
1.050	-8.052	-7.08		3.500	-1.534	-13.08		10.500	-2.650	-18.03	
1.200	-8.420	-6.74		4.000	-1.614	-12.42		12.000	-2.682	-16.07	
1.350	-8.791	-6.51		4.500	-1.702	-11.40		13.500	-2.701	-14.34	
1.500	-9.167	-6.23		5.000	-1.782	-10.61		15.000	-2.715	-12.80	
1.650	-9.540	-5.95		5.500	-1.862	-9.67		16.500	-2.726	-11.44	
1.800	-9.910	-5.68		6.000	-1.942	-8.16		18.000	-2.740	-10.23	
1.950	-1.030	-5.42		6.500	-2.023	-6.44		19.500	-2.757	-9.16	
2.100	-1.141	-5.16		7.000	-2.106	-7.86		21.000	-2.780	-8.20	
2.250	-1.258	-4.90		7.500	-2.192	-7.26		22.500	-2.810	-7.34	
2.400	-1.380	-4.65		8.000	-2.280	-6.70		24.000	-2.847	-6.57	
2.550	-1.510	-4.40		8.500	-2.373	-6.17		25.500	-2.893	-5.88	
2.700	-1.630	-4.16		9.000	-2.471	-5.66		27.000	-2.947	-5.24	
2.850	-1.748	-3.92		9.500	-2.573	-5.18		28.500	-3.010	-4.67	
3.000	-1.871	-3.68		10.000	-2.680	-4.73		30.000	-3.082	-4.14	

Table 112. Vertical Electric Field (Well-Conducting Soil), Frequency = 0.1 MHz, VED Height = 4495.20 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)
0.000	-1.525	-5.26	0.000	-0.957	-15.89	0.000	-1.625	-32.83			
0.30	-1.534	-5.20	1.00	-0.987	-15.69	1.00	-1.714	-32.22			
0.60	-1.544	-5.14	2.00	-1.018	-15.49	2.00	-1.800	-31.60			
0.90	-1.555	-5.07	3.00	-1.048	-15.28	3.00	-1.883	-30.99			
1.20	-1.566	-5.01	4.00	-1.079	-15.08	4.00	-1.963	-30.37			
1.50	-1.576	-4.95	5.00	-1.109	-14.87	5.00	-2.040	-29.75			
1.80	-1.591	-4.89	6.00	-1.140	-14.67	6.00	-2.115	-29.13			
2.10	-1.604	-4.82	7.00	-1.171	-14.47	7.00	-2.186	-28.51			
2.40	-1.618	-4.76	8.00	-1.202	-14.27	8.00	-2.255	-27.89			
2.70	-1.633	-4.70	9.00	-1.234	-14.06	9.00	-2.322	-27.27			
3.00	-1.649	-4.64	1.000	-1.265	-13.86	1.000	-2.386	-26.65			
3.30	-1.665	-4.57	1.100	-1.297	-13.66	1.100	-2.447	-26.04			
3.60	-1.682	-4.51	1.200	-1.329	-13.46	1.200	-2.507	-25.43			
3.90	-1.700	-4.45	1.300	-1.361	-13.26	1.300	-2.564	-24.83			
4.20	-1.718	-4.39	1.400	-1.394	-13.06	1.400	-2.619	-24.23			
4.50	-1.737	-4.33	1.500	-1.426	-12.86	1.500	-2.672	-23.64			
4.80	-1.757	-4.27	1.600	-1.459	-12.67	1.600	-2.723	-23.05			
5.10	-1.777	-4.21	1.700	-1.493	-12.47	1.700	-2.772	-22.47			
5.40	-1.799	-4.14	1.800	-1.526	-12.27	1.800	-2.820	-21.90			
5.70	-1.821	-4.08	1.900	-1.560	-12.08	1.900	-2.866	-21.33			
6.00	-1.843	-4.02	2.000	-1.595	-11.88	2.000	-2.910	-20.78			
6.30	-1.867	-3.96	2.100	-1.629	-11.69	2.100	-2.954	-20.23			
6.60	-1.891	-3.90	2.200	-1.664	-11.49	2.200	-2.996	-19.68			
6.90	-1.916	-3.84	2.300	-1.700	-11.30	2.300	-3.036	-19.15			
7.20	-1.942	-3.78	2.400	-1.736	-11.11	2.400	-3.076	-18.63			
7.50	-1.968	-3.72	2.500	-1.772	-10.92	2.500	-3.115	-18.11			
7.80	-1.996	-3.65	2.600	-1.809	-10.73	2.600	-3.153	-17.60			
8.10	-2.024	-3.59	2.700	-1.846	-10.54	2.700	-3.190	-17.10			
8.40	-2.053	-3.53	2.800	-1.883	-10.36	2.800	-3.227	-16.61			
8.70	-2.082	-3.47	2.900	-1.922	-10.17	2.900	-3.263	-16.13			
9.00	-2.113	-3.41	3.000	-1.960	-9.98	3.000	-3.299	-15.66			
1.050	-1.277	-4.10	3.500	-2.161	-9.07	10.500	-3.472	-13.42			
1.200	-1.462	-3.80	4.000	-2.378	-8.18	12.000	-3.645	-11.39			
1.350	-1.668	-3.48	4.500	-2.611	-7.31	13.500	-3.825	-9.54			
1.500	-1.898	-3.17	5.000	-2.863	-6.46	15.000	-4.020	-7.86			
1.650	-2.151	-2.85	5.500	-3.136	-5.63	16.500	-4.231	-6.32			
1.800	-2.429	-2.52	6.000	-3.431	-4.82	18.000	-4.471	-4.89			
1.950	-2.735	-2.18	6.500	-3.755	-4.01	19.500	-4.736	-3.57			
2.100	-3.069	-1.82	7.000	-4.100	-3.20	21.000	-5.033	-2.31			
2.250	-3.433	-1.46	7.500	-4.469	-2.39	22.500	-5.366	-1.11			
2.400	-3.831	-1.08	8.000	-4.869	-1.58	24.000	-5.737	0.06			
2.550	-4.265	-0.65	8.500	-5.302	-0.71	25.500	-6.151	1.22			
2.700	-4.739	-0.20	9.000	-5.861	0.17	27.000	-6.612	2.40			
2.850	-5.250	0.29	9.500	-6.469	1.11	28.500	-7.126	3.62			
3.000	-5.801	0.84	10.000	-7.011	2.12	30.000	-7.699	4.90			

Table 113. Vertical Electric Field (Well-Conducting Soil), Frequency = 1.0 MHz, VED Height = 0.00 m

30.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
RELUMT	AMP (DB)	PHASE (DEG)	RELUMT (KM)	PHASE (DEG)	RELUMT	AMP (DB)	PHASE (DEG)	RELUMT (KM)	PHASE (DEG)
.00	-1.000	-41.44	0.000	-73.40	0.000	-7.005	-117.93	0.000	-18.174
.003	-1.003	-41.04	.010	-72.79	.030	-7.369	-115.89	.100	-19.048
.006	-1.006	-41.04	.020	-72.92	.060	-7.602	-113.78	.200	-19.832
.009	-1.009	-40.04	.030	-73.00	.090	-7.861	-111.61	.300	-20.462
.012	-1.011	-40.04	.040	-73.08	.120	-8.067	-109.37	.400	-20.870
.015	-1.013	-40.04	.050	-73.16	.150	-8.271	-107.07	.500	-21.014
.018	-1.016	-40.04	.060	-73.24	.180	-8.471	-104.73	.600	-20.890
.021	-1.019	-40.04	.070	-73.31	.210	-8.669	-102.35	.700	-20.542
.024	-1.021	-39.04	.080	-73.39	.240	-8.810	-99.94	.800	-20.036
.027	-1.024	-39.04	.090	-73.46	.270	-8.953	-97.50	.900	-19.438
.030	-1.027	-39.04	.100	-73.52	.300	-9.078	-95.05	1.000	-18.798
.033	-1.030	-39.04	.110	-73.59	.330	-9.184	-92.60	1.100	-18.152
.036	-1.033	-39.04	.120	-73.65	.360	-9.273	-90.16	1.200	-17.519
.039	-1.036	-39.04	.130	-73.71	.390	-9.345	-87.73	1.300	-16.911
.042	-1.039	-39.04	.140	-73.76	.420	-9.409	-85.33	1.400	-16.334
.045	-1.042	-39.04	.150	-73.82	.450	-9.467	-82.96	1.500	-15.790
.048	-1.045	-39.04	.160	-73.87	.480	-9.519	-80.64	1.600	-15.278
.051	-1.048	-39.04	.170	-73.92	.510	-9.565	-78.37	1.700	-14.747
.054	-1.051	-39.04	.180	-73.96	.540	-9.606	-76.15	1.800	-14.345
.057	-1.054	-39.04	.190	-74.01	.570	-9.641	-73.92	1.900	-13.920
.060	-1.057	-39.04	.200	-74.05	.600	-9.671	-71.89	2.000	-13.521
.063	-1.060	-39.04	.210	-74.09	.630	-9.700	-69.87	2.100	-13.144
.066	-1.063	-39.04	.220	-74.13	.660	-9.729	-67.91	2.200	-12.790
.069	-1.066	-39.04	.230	-74.16	.690	-9.758	-66.02	2.300	-12.454
.072	-1.069	-39.04	.240	-74.20	.720	-9.786	-64.20	2.400	-12.137
.075	-1.072	-39.04	.250	-74.23	.750	-9.815	-62.45	2.500	-11.837
.078	-1.075	-39.04	.260	-74.26	.780	-9.843	-60.77	2.600	-11.552
.081	-1.078	-39.04	.270	-74.28	.810	-9.870	-59.16	2.700	-11.282
.084	-1.081	-39.04	.280	-74.31	.840	-9.896	-57.62	2.800	-11.024
.087	-1.084	-39.04	.290	-74.33	.870	-9.921	-56.14	2.900	-10.779
.090	-1.087	-39.04	.300	-74.35	.900	-9.945	-54.72	3.000	-10.545
.105	-1.101	-39.04	.350	-74.43	1.050	-10.222	-48.49	3.500	-9.520
.120	-1.116	-39.04	.400	-74.68	1.200	-10.743	-43.48	4.000	-8.687
.135	-1.131	-39.04	.450	-74.91	1.350	-11.286	-39.41	4.500	-7.994
.150	-1.146	-39.04	.500	-75.14	1.500	-11.853	-36.06	5.000	-7.409
.165	-1.161	-39.04	.550	-75.38	1.650	-12.447	-33.27	5.500	-6.908
.180	-1.176	-39.04	.600	-75.63	1.800	-13.067	-30.92	6.000	-6.474
.195	-1.191	-39.04	.650	-75.87	1.950	-13.711	-28.91	6.500	-6.095
.210	-1.206	-39.04	.700	-76.11	2.100	-14.379	-27.18	7.000	-5.761
.225	-1.221	-39.04	.750	-76.35	2.250	-15.071	-25.66	7.500	-5.464
.240	-1.236	-39.04	.800	-76.59	2.400	-15.786	-24.33	8.000	-5.200
.255	-1.251	-39.04	.850	-76.83	2.550	-16.524	-23.15	8.500	-4.964
.270	-1.266	-39.04	.900	-77.07	2.700	-17.285	-22.09	9.000	-4.750
.285	-1.281	-39.04	.950	-77.31	2.850	-18.067	-21.13	9.500	-4.558
.300	-1.296	-39.04	1.000	-77.55	3.000	-18.878	-20.27	10.000	-4.383
.315	-1.311	-39.04							
.330	-1.326	-39.04							
.345	-1.341	-39.04							
.360	-1.356	-39.04							
.375	-1.371	-39.04							
.390	-1.386	-39.04							
.405	-1.401	-39.04							
.420	-1.416	-39.04							
.435	-1.431	-39.04							
.450	-1.446	-39.04							
.465	-1.461	-39.04							
.480	-1.476	-39.04							
.495	-1.491	-39.04							
.510	-1.506	-39.04							
.525	-1.521	-39.04							
.540	-1.536	-39.04							
.555	-1.551	-39.04							
.570	-1.566	-39.04							
.585	-1.581	-39.04							
.600	-1.596	-39.04							
.615	-1.611	-39.04							
.630	-1.626	-39.04							
.645	-1.641	-39.04							
.660	-1.656	-39.04							
.675	-1.671	-39.04							
.690	-1.686	-39.04							
.705	-1.701	-39.04							
.720	-1.716	-39.04							
.735	-1.731	-39.04							
.750	-1.746	-39.04							
.765	-1.761	-39.04							
.780	-1.776	-39.04							
.795	-1.791	-39.04							
.810	-1.806	-39.04							
.825	-1.821	-39.04							
.840	-1.836	-39.04							
.855	-1.851	-39.04							
.870	-1.866	-39.04							
.885	-1.881	-39.04							
.900	-1.896	-39.04							
.915	-1.911	-39.04							
.930	-1.926	-39.04							
.945	-1.941	-39.04							
.960	-1.956	-39.04							
.975	-1.971	-39.04							
.990	-1.986	-39.04							
.1000	-1.996	-39.04							

Table 114. Vertical Electric Field (Well-Conducting Soil), Frequency = 1.0 MHz, VED Height = 224.76 m

3.0 KM UMRANGE				10.0 KM UMRANGE				30.0 KM UMRANGE				100.0 KM UMRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)
.000	-2.053	-27.06	.000	-4.143	-57.59	.000	-8.730	-101.17	.000	-20.005	-147.13	.000	-20.005	-147.13	.000
.003	-2.060	-26.86	.010	-4.232	-56.91	.030	-8.993	-99.13	.100	-20.880	-139.90	.100	-20.880	-139.90	.100
.006	-2.100	-26.65	.020	-4.319	-56.23	.060	-9.248	-97.02	.200	-21.666	-131.53	.200	-21.666	-131.53	.200
.009	-2.133	-26.44	.030	-4.404	-55.54	.090	-9.489	-94.84	.300	-22.299	-122.06	.300	-22.299	-122.06	.300
.012	-2.160	-26.24	.040	-4.487	-54.85	.120	-9.716	-92.60	.400	-22.711	-111.76	.400	-22.711	-111.76	.400
.015	-2.186	-26.03	.050	-4.567	-54.16	.150	-9.929	-90.31	.500	-22.859	-101.14	.500	-22.859	-101.14	.500
.018	-2.216	-25.82	.060	-4.646	-53.46	.180	-10.126	-87.97	.600	-22.739	-90.61	.600	-22.739	-90.61	.600
.021	-2.246	-25.62	.070	-4.722	-52.75	.210	-10.307	-85.59	.700	-22.394	-81.30	.700	-22.394	-81.30	.700
.024	-2.276	-25.41	.080	-4.795	-52.04	.240	-10.471	-83.18	.800	-21.890	-72.89	.800	-21.890	-72.89	.800
.027	-2.306	-25.20	.090	-4.867	-51.33	.270	-10.618	-80.75	.900	-21.293	-65.66	.900	-21.293	-65.66	.900
.030	-2.336	-24.99	.100	-4.937	-50.62	.300	-10.748	-78.30	1.000	-20.654	-59.51	1.000	-20.654	-59.51	1.000
.033	-2.361	-24.79	.110	-5.004	-49.90	.330	-10.860	-75.85	1.100	-20.009	-54.30	1.100	-20.009	-54.30	1.100
.036	-2.386	-24.58	.120	-5.069	-49.19	.360	-10.954	-73.41	1.200	-19.377	-49.48	1.200	-19.377	-49.48	1.200
.039	-2.412	-24.37	.130	-5.131	-48.47	.390	-11.032	-70.98	1.300	-18.771	-46.11	1.300	-18.771	-46.11	1.300
.042	-2.437	-24.16	.140	-5.192	-47.75	.420	-11.092	-68.58	1.400	-18.196	-42.85	1.400	-18.196	-42.85	1.400
.045	-2.462	-23.96	.150	-5.250	-47.03	.450	-11.137	-66.21	1.500	-17.653	-40.02	1.500	-17.653	-40.02	1.500
.048	-2.486	-23.75	.160	-5.306	-46.32	.480	-11.167	-63.88	1.600	-17.143	-37.54	1.600	-17.143	-37.54	1.600
.051	-2.511	-23.54	.170	-5.361	-45.60	.510	-11.182	-61.60	1.700	-16.665	-35.34	1.700	-16.665	-35.34	1.700
.054	-2.536	-23.33	.180	-5.412	-44.89	.540	-11.183	-59.37	1.800	-16.216	-33.39	1.800	-16.216	-33.39	1.800
.057	-2.560	-23.13	.190	-5.462	-44.17	.570	-11.172	-57.20	1.900	-15.794	-31.63	1.900	-15.794	-31.63	1.900
.060	-2.583	-22.92	.200	-5.510	-43.46	.600	-11.150	-55.09	2.000	-15.398	-30.04	2.000	-15.398	-30.04	2.000
.063	-2.607	-22.71	.210	-5.556	-42.75	.630	-11.118	-53.05	2.100	-15.026	-28.59	2.100	-15.026	-28.59	2.100
.066	-2.631	-22.51	.220	-5.600	-42.05	.660	-11.077	-51.07	2.200	-14.675	-27.27	2.200	-14.675	-27.27	2.200
.069	-2.654	-22.30	.230	-5.642	-41.34	.690	-11.027	-49.17	2.300	-14.344	-26.05	2.300	-14.344	-26.05	2.300
.072	-2.678	-22.10	.240	-5.682	-40.65	.720	-10.970	-47.33	2.400	-14.032	-24.92	2.400	-14.032	-24.92	2.400
.075	-2.699	-21.89	.250	-5.720	-39.95	.750	-10.908	-45.56	2.500	-13.736	-23.87	2.500	-13.736	-23.87	2.500
.078	-2.721	-21.68	.260	-5.756	-39.26	.780	-10.839	-43.86	2.600	-13.456	-22.90	2.600	-13.456	-22.90	2.600
.081	-2.742	-21.48	.270	-5.791	-38.56	.810	-10.767	-42.22	2.700	-13.191	-21.98	2.700	-13.191	-21.98	2.700
.084	-2.763	-21.27	.280	-5.824	-37.90	.840	-10.690	-40.66	2.800	-12.939	-21.13	2.800	-12.939	-21.13	2.800
.087	-2.783	-21.07	.290	-5.855	-37.22	.870	-10.611	-39.15	2.900	-12.699	-20.32	2.900	-12.699	-20.32	2.900
.090	-2.803	-20.87	.300	-5.884	-36.55	.900	-10.524	-37.71	3.000	-12.471	-19.56	3.000	-12.471	-19.56	3.000
.105	-2.919	-19.65	.350	-6.010	-33.30	1.050	-10.100	-31.34	3.500	-11.480	-16.28	3.500	-11.480	-16.28	3.500
.120	-3.034	-18.85	.400	-6.102	-30.21	1.200	-9.671	-26.17	4.000	-10.686	-13.64	4.000	-10.686	-13.64	4.000
.135	-3.148	-17.66	.450	-6.166	-27.30	1.350	-9.269	-21.95	4.500	-10.038	-11.45	4.500	-10.038	-11.45	4.500
.150	-3.262	-16.88	.500	-6.214	-24.58	1.500	-8.904	-18.44	5.000	-9.504	-9.56	5.000	-9.504	-9.56	5.000
.165	-3.376	-15.92	.550	-6.244	-22.04	1.650	-8.579	-15.49	5.500	-9.059	-7.91	5.500	-9.059	-7.91	5.500
.180	-3.490	-14.98	.600	-6.265	-19.69	1.800	-8.296	-12.98	6.000	-8.688	-6.45	6.000	-8.688	-6.45	6.000
.195	-3.603	-14.04	.650	-6.279	-17.50	1.950	-8.050	-10.80	6.500	-8.377	-5.12	6.500	-8.377	-5.12	6.500
.210	-3.722	-13.13	.700	-6.291	-15.48	2.100	-7.841	-8.89	7.000	-8.117	-3.90	7.000	-8.117	-3.90	7.000
.225	-3.840	-12.23	.750	-6.302	-13.60	2.250	-7.664	-7.19	7.500	-7.901	-2.78	7.500	-7.901	-2.78	7.500
.240	-3.958	-11.34	.800	-6.317	-11.85	2.400	-7.517	-5.67	8.000	-7.723	-1.74	8.000	-7.723	-1.74	8.000
.255	-4.074	-10.47	.850	-6.335	-10.22	2.550	-7.397	-4.29	8.500	-7.578	-0.76	8.500	-7.578	-0.76	8.500
.270	-4.191	-9.62	.900	-6.359	-8.70	2.700	-7.303	-3.03	9.000	-7.463	0.16	9.000	-7.463	0.16	9.000
.285	-4.301	-8.77	.950	-6.390	-7.28	2.850	-7.232	-1.85	9.500	-7.375	1.04	9.500	-7.375	1.04	9.500
.300	-4.415	-7.94	1.000	-6.428	-5.94	3.000	-7.182	-0.76	10.000	-7.311	1.89	10.000	-7.311	1.89	10.000

Table 115. Vertical Electric Field (Well-Conducting Soil), Frequency = 1.0 MHz, VED Height = 449.52 m

3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
0.000	-1.599	-17.55	0.000	-4.445	-43.31	0.000	-9.433	-83.00	0.000	-20.976	-124.38	0.000	-20.976	-124.38	0.000
0.003	-2.024	-17.34	0.010	-4.535	-42.63	0.030	-9.699	-80.46	0.100	-21.852	-117.15	0.100	-21.852	-117.15	0.100
0.006	-2.451	-17.13	0.020	-4.823	-41.95	0.060	-10.194	-78.85	0.200	-22.643	-108.76	0.200	-22.643	-108.76	0.200
0.009	-2.879	-16.92	0.030	-4.710	-41.26	0.090	-10.431	-78.67	0.300	-23.284	-99.26	0.300	-23.284	-99.26	0.300
0.012	-3.307	-16.71	0.040	-4.795	-40.58	0.120	-10.655	-78.44	0.400	-23.707	-88.90	0.400	-23.707	-88.90	0.400
0.015	-3.735	-16.50	0.050	-4.879	-39.87	0.150	-10.855	-78.15	0.500	-23.863	-78.18	0.500	-23.863	-78.18	0.500
0.018	-4.163	-16.29	0.060	-4.962	-39.17	0.180	-11.040	-67.43	0.600	-23.750	-67.74	0.600	-23.750	-67.74	0.600
0.021	-4.590	-16.08	0.070	-5.044	-38.46	0.210	-11.222	-65.02	0.700	-23.408	-58.11	0.700	-23.408	-58.11	0.700
0.024	-5.018	-15.87	0.080	-5.124	-37.75	0.240	-11.382	-62.58	0.800	-22.905	-49.58	0.800	-22.905	-49.58	0.800
0.027	-5.446	-15.66	0.090	-5.203	-37.04	0.270	-11.526	-60.12	0.900	-22.307	-42.24	0.900	-22.307	-42.24	0.900
0.030	-5.874	-15.45	0.100	-5.280	-36.33	0.300	-11.654	-57.65	1.000	-21.668	-35.99	1.000	-21.668	-35.99	1.000
0.033	-6.302	-15.24	0.110	-5.357	-35.61	0.330	-11.766	-55.18	1.100	-21.021	-30.69	1.100	-21.021	-30.69	1.100
0.036	-6.730	-15.03	0.120	-5.432	-34.89	0.360	-11.863	-52.73	1.200	-20.384	-26.19	1.200	-20.384	-26.19	1.200
0.039	-7.158	-14.82	0.130	-5.505	-34.17	0.390	-11.944	-50.24	1.300	-19.784	-22.33	1.300	-19.784	-22.33	1.300
0.042	-7.586	-14.61	0.140	-5.578	-33.45	0.420	-12.016	-47.87	1.400	-19.210	-19.00	1.400	-19.210	-19.00	1.400
0.045	-8.014	-14.40	0.150	-5.649	-32.73	0.450	-12.082	-45.46	1.500	-18.670	-16.09	1.500	-18.670	-16.09	1.500
0.048	-8.442	-14.19	0.160	-5.719	-32.01	0.480	-12.146	-43.13	1.600	-18.163	-13.54	1.600	-18.163	-13.54	1.600
0.051	-8.870	-13.98	0.170	-5.789	-31.28	0.510	-12.208	-40.83	1.700	-17.689	-11.26	1.700	-17.689	-11.26	1.700
0.054	-9.298	-13.76	0.180	-5.857	-30.56	0.540	-12.269	-38.58	1.800	-17.245	-9.23	1.800	-17.245	-9.23	1.800
0.057	-9.726	-13.55	0.190	-5.923	-29.84	0.570	-12.329	-36.34	1.900	-16.830	-7.39	1.900	-16.830	-7.39	1.900
0.060	-10.154	-13.33	0.200	-5.989	-29.11	0.600	-12.389	-34.24	2.000	-16.441	-5.72	2.000	-16.441	-5.72	2.000
0.063	-10.582	-13.12	0.210	-6.054	-28.39	0.630	-12.449	-32.16	2.100	-16.076	-4.19	2.100	-16.076	-4.19	2.100
0.066	-11.010	-12.90	0.220	-6.118	-27.67	0.660	-12.509	-30.13	2.200	-15.734	-2.79	2.200	-15.734	-2.79	2.200
0.069	-11.438	-12.69	0.230	-6.181	-26.95	0.690	-12.569	-28.18	2.300	-15.412	-1.48	2.300	-15.412	-1.48	2.300
0.072	-11.866	-12.48	0.240	-6.243	-26.23	0.720	-12.629	-26.24	2.400	-15.109	-0.26	2.400	-15.109	-0.26	2.400
0.075	-12.294	-12.26	0.250	-6.304	-25.51	0.750	-12.689	-24.44	2.500	-14.825	1.87	2.500	-14.825	1.87	2.500
0.078	-12.722	-12.05	0.260	-6.364	-24.79	0.780	-12.749	-22.66	2.600	-14.556	3.95	2.600	-14.556	3.95	2.600
0.081	-13.150	-11.83	0.270	-6.424	-24.08	0.810	-12.809	-20.96	2.700	-14.303	6.02	2.700	-14.303	6.02	2.700
0.084	-13.578	-11.61	0.280	-6.483	-23.37	0.840	-12.869	-19.30	2.800	-14.063	8.08	2.800	-14.063	8.08	2.800
0.087	-14.006	-11.40	0.290	-6.541	-22.66	0.870	-12.929	-17.71	2.900	-13.837	10.15	2.900	-13.837	10.15	2.900
0.090	-14.434	-11.18	0.300	-6.598	-21.95	0.900	-12.989	-16.18	3.000	-13.624	12.22	3.000	-13.624	12.22	3.000
0.093	-14.862	-10.96	0.310	-6.657	-21.24	0.930	-13.049	-14.64	3.100	-13.421	14.29	3.100	-13.421	14.29	3.100
0.096	-15.290	-10.74	0.320	-6.715	-20.53	0.960	-13.109	-13.10	3.200	-13.228	16.36	3.200	-13.228	16.36	3.200
0.099	-15.718	-10.52	0.330	-6.773	-19.82	0.990	-13.169	-11.56	3.300	-13.045	18.43	3.300	-13.045	18.43	3.300
0.102	-16.146	-10.30	0.340	-6.831	-19.11	1.020	-13.229	-10.02	3.400	-12.872	20.50	3.400	-12.872	20.50	3.400
0.105	-16.574	-10.08	0.350	-6.889	-18.40	1.050	-13.289	-8.46	3.500	-12.709	22.57	3.500	-12.709	22.57	3.500
0.108	-17.002	-9.86	0.360	-6.947	-17.69	1.080	-13.349	-6.90	3.600	-12.556	24.64	3.600	-12.556	24.64	3.600
0.111	-17.430	-9.64	0.370	-7.005	-16.98	1.110	-13.409	-5.34	3.700	-12.403	26.71	3.700	-12.403	26.71	3.700
0.114	-17.858	-9.42	0.380	-7.063	-16.27	1.140	-13.469	-3.78	3.800	-12.250	28.78	3.800	-12.250	28.78	3.800
0.117	-18.286	-9.20	0.390	-7.121	-15.56	1.170	-13.529	-2.22	3.900	-12.097	30.85	3.900	-12.097	30.85	3.900
0.120	-18.714	-8.98	0.400	-7.179	-14.85	1.200	-13.589	-0.66	4.000	-11.944	32.92	4.000	-11.944	32.92	4.000
0.123	-19.142	-8.76	0.410	-7.237	-14.14	1.230	-13.649	0.90	4.100	-11.791	35.00	4.100	-11.791	35.00	4.100
0.126	-19.570	-8.54	0.420	-7.295	-13.43	1.260	-13.709	2.34	4.200	-11.638	37.07	4.200	-11.638	37.07	4.200
0.129	-20.000	-8.32	0.430	-7.353	-12.72	1.290	-13.769	3.78	4.300	-11.485	39.15	4.300	-11.485	39.15	4.300
0.132	-20.428	-8.10	0.440	-7.411	-12.01	1.320	-13.829	5.22	4.400	-11.332	41.22	4.400	-11.332	41.22	4.400
0.135	-20.856	-7.88	0.450	-7.469	-11.30	1.350	-13.889	6.66	4.500	-11.179	43.30	4.500	-11.179	43.30	4.500
0.138	-21.284	-7.66	0.460	-7.527	-10.59	1.380	-13.949	8.10	4.600	-11.026	45.37	4.600	-11.026	45.37	4.600
0.141	-21.712	-7.44	0.470	-7.585	-9.88	1.410	-14.009	9.54	4.700	-10.873	47.45	4.700	-10.873	47.45	4.700
0.144	-22.140	-7.22	0.480	-7.643	-9.17	1.440	-14.069	10.98	4.800	-10.720	49.52	4.800	-10.720	49.52	4.800
0.147	-22.568	-7.00	0.490	-7.701	-8.46	1.470	-14.129	12.42	4.900	-10.567	51.60	4.900	-10.567	51.60	4.900
0.150	-23.000	-6.78	0.500	-7.759	-7.75	1.500	-14.189	13.86	5.000	-10.414	53.67	5.000	-10.414	53.67	5.000

Table 116. Vertical Electric Field (Well-Conducting Soil), Frequency = 10.0 MHz, VED Height = 0.00 m

3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					30.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)		
0.00	-26.409	-123.34	0.00	-37.384	-128.65	0.00	-47.071	-129.90	0.00	-57.580	-130.31	0.00	-67.071	-129.90	0.00	-77.580	-130.31		
0.03	-26.791	-116.40	0.10	-37.931	-105.31	0.30	-45.056	-87.60	0.30	-55.056	-87.60	0.30	-65.056	-87.60	0.30	-75.056	-87.60		
0.06	-26.990	-109.94	0.20	-37.081	-83.04	0.60	-40.117	-44.34	0.60	-50.117	-44.34	0.60	-60.117	-44.34	0.60	-70.117	-44.34		
0.09	-27.035	-106.86	0.30	-35.446	-66.65	0.90	-36.647	-33.73	0.90	-46.647	-33.73	0.90	-56.647	-33.73	0.90	-66.647	-33.73		
0.12	-26.991	-95.85	0.40	-33.686	-55.72	1.20	-34.124	-31.42	1.20	-44.124	-31.42	1.20	-54.124	-31.42	1.20	-64.124	-31.42		
0.15	-26.807	-89.11	0.50	-32.062	-48.39	1.50	-32.167	-28.84	1.50	-42.167	-28.84	1.50	-52.167	-28.84	1.50	-62.167	-28.84		
0.18	-26.522	-80.79	0.60	-30.625	-43.27	1.80	-30.576	-27.10	1.80	-40.576	-27.10	1.80	-50.576	-27.10	1.80	-60.576	-27.10		
0.21	-26.151	-76.97	0.70	-29.362	-39.53	2.10	-29.239	-25.45	2.10	-39.239	-25.45	2.10	-49.239	-25.45	2.10	-59.239	-25.45		
0.24	-25.745	-71.72	0.80	-28.246	-36.69	2.40	-28.090	-24.89	2.40	-38.090	-24.89	2.40	-48.090	-24.89	2.40	-58.090	-24.89		
0.27	-25.277	-67.02	0.90	-27.253	-34.47	2.70	-27.082	-24.13	2.70	-37.082	-24.13	2.70	-47.082	-24.13	2.70	-57.082	-24.13		
0.30	-24.740	-62.84	1.00	-26.362	-32.68	3.00	-26.186	-23.51	3.00	-36.186	-23.51	3.00	-46.186	-23.51	3.00	-56.186	-23.51		
0.33	-24.311	-59.13	1.10	-25.556	-31.21	3.30	-25.383	-22.94	3.30	-35.383	-22.94	3.30	-45.383	-22.94	3.30	-55.383	-22.94		
0.36	-23.820	-55.84	1.20	-24.821	-29.97	3.60	-24.654	-22.54	3.60	-34.654	-22.54	3.60	-44.654	-22.54	3.60	-54.654	-22.54		
0.39	-23.360	-52.92	1.30	-24.148	-28.92	3.90	-23.986	-22.15	3.90	-33.986	-22.15	3.90	-43.986	-22.15	3.90	-53.986	-22.15		
0.42	-22.881	-50.33	1.40	-23.527	-28.01	4.20	-23.372	-21.80	4.20	-33.372	-21.80	4.20	-43.372	-21.80	4.20	-53.372	-21.80		
0.45	-22.429	-48.01	1.50	-22.951	-27.22	4.50	-22.804	-21.49	4.50	-32.804	-21.49	4.50	-42.804	-21.49	4.50	-52.804	-21.49		
0.48	-21.991	-45.93	1.60	-22.415	-26.51	4.80	-22.276	-21.21	4.80	-32.276	-21.21	4.80	-42.276	-21.21	4.80	-52.276	-21.21		
0.51	-21.570	-44.06	1.70	-21.914	-25.88	5.10	-21.782	-20.95	5.10	-31.782	-20.95	5.10	-41.782	-20.95	5.10	-51.782	-20.95		
0.54	-21.165	-42.37	1.80	-21.445	-25.32	5.40	-21.314	-20.71	5.40	-31.314	-20.71	5.40	-41.314	-20.71	5.40	-51.314	-20.71		
0.57	-20.775	-40.84	1.90	-21.003	-24.81	5.70	-20.884	-20.49	5.70	-30.884	-20.49	5.70	-40.884	-20.49	5.70	-50.884	-20.49		
0.60	-20.401	-39.45	2.00	-20.588	-24.34	6.00	-20.473	-20.28	6.00	-30.473	-20.28	6.00	-40.473	-20.28	6.00	-50.473	-20.28		
0.63	-20.042	-38.16	2.10	-20.191	-23.91	6.30	-20.084	-20.09	6.30	-30.084	-20.09	6.30	-40.084	-20.09	6.30	-50.084	-20.09		
0.66	-19.690	-37.01	2.20	-19.817	-23.52	6.60	-19.715	-19.90	6.60	-29.715	-19.90	6.60	-39.715	-19.90	6.60	-49.715	-19.90		
0.69	-19.350	-35.94	2.30	-19.461	-23.15	6.90	-19.365	-19.73	6.90	-29.365	-19.73	6.90	-39.365	-19.73	6.90	-49.365	-19.73		
0.72	-19.020	-34.95	2.40	-19.123	-22.81	7.20	-19.031	-19.56	7.20	-28.031	-19.56	7.20	-38.031	-19.56	7.20	-48.031	-19.56		
0.75	-18.702	-34.03	2.50	-18.800	-22.49	7.50	-18.712	-19.41	7.50	-27.712	-19.41	7.50	-37.712	-19.41	7.50	-47.712	-19.41		
0.78	-18.400	-33.16	2.60	-18.491	-22.19	7.80	-18.409	-19.25	7.80	-27.409	-19.25	7.80	-37.409	-19.25	7.80	-47.409	-19.25		
0.81	-18.104	-32.39	2.70	-18.196	-21.91	8.10	-18.117	-19.11	8.10	-27.117	-19.11	8.10	-37.117	-19.11	8.10	-47.117	-19.11		
0.84	-17.891	-31.65	2.80	-17.912	-21.65	8.40	-17.837	-18.97	8.40	-26.837	-18.97	8.40	-36.837	-18.97	8.40	-46.837	-18.97		
0.87	-17.627	-30.95	2.90	-17.641	-21.39	8.70	-17.569	-18.84	8.70	-26.569	-18.84	8.70	-36.569	-18.84	8.70	-46.569	-18.84		
0.90	-17.373	-30.31	3.00	-17.360	-21.16	9.00	-17.311	-18.70	9.00	-26.311	-18.70	9.00	-36.311	-18.70	9.00	-46.311	-18.70		
1.05	-16.425	-27.38	3.50	-16.210	-20.12	1.050	-16.155	-18.11	3.500	-16.132	-17.43	3.500	-16.132	-17.43	3.500	-16.132	-17.43		
1.20	-15.460	-25.49	4.00	-15.223	-19.26	1.200	-15.179	-17.58	4.000	-15.160	-17.01	4.000	-15.160	-17.01	4.000	-15.160	-17.01		
1.35	-14.599	-23.62	4.50	-14.374	-18.54	1.350	-14.338	-17.11	4.500	-14.323	-16.62	4.500	-14.323	-16.62	4.500	-14.323	-16.62		
1.50	-13.657	-22.45	5.00	-13.633	-17.91	1.500	-13.604	-16.68	5.000	-13.591	-15.91	5.000	-13.591	-15.91	5.000	-13.591	-15.91		
1.65	-12.691	-21.30	5.50	-12.980	-17.35	1.650	-12.955	-15.28	5.500	-12.945	-15.58	5.500	-12.945	-15.58	5.500	-12.945	-15.58		
1.80	-11.691	-20.32	6.00	-12.397	-16.85	1.800	-12.377	-14.90	6.000	-12.368	-15.26	6.000	-12.368	-15.26	6.000	-12.368	-15.26		
1.95	-10.691	-19.46	6.50	-11.874	-16.39	1.950	-11.857	-13.55	6.500	-11.850	-15.26	6.500	-11.850	-15.26	6.500	-11.850	-15.26		
2.10	-9.691	-18.70	7.00	-11.402	-15.97	2.100	-11.387	-13.22	7.000	-11.381	-14.96	7.000	-11.381	-14.96	7.000	-11.381	-14.96		
2.25	-8.691	-18.03	7.50	-10.972	-15.58	2.250	-10.960	-14.90	7.500	-10.955	-14.67	7.500	-10.955	-14.67	7.500	-10.955	-14.67		
2.40	-7.691	-17.42	8.00	-10.580	-15.21	2.400	-10.570	-14.60	8.000	-10.565	-14.39	8.000	-10.565	-14.39	8.000	-10.565	-14.39		
2.55	-6.691	-16.87	8.50	-10.220	-14.87	2.550	-10.211	-14.32	8.500	-10.208	-14.13	8.500	-10.208	-14.13	8.500	-10.208	-14.13		
2.70	-5.691	-16.37	9.00	-9.889	-14.55	2.700	-9.881	-14.05	9.000	-9.878	-13.87	9.000	-9.878	-13.87	9.000	-9.878	-13.87		
2.85	-4.691	-15.90	9.50	-9.583	-14.25	2.850	-9.577	-13.79	9.500	-9.574	-13.63	9.500	-9.574	-13.63	9.500	-9.574	-13.63		
3.00	-3.691	-15.48	1.000	-9.300	-13.96	3.000	-9.295	-13.54	10.000	-9.292	-13.39	10.000	-9.292	-13.39	10.000	-9.292	-13.39		

Table 117. Vertical Electric Field (Well-Conducting Soil), Frequency = 10.0 MHz, VED Height = 22.48 m

3.0 KM UPRANGE				10.0 KM UPRANGE				30.0 KM UPRANGE				100.0 KM UPRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)
0.000	-25.955	-74.32	0.000	-36.717	-78.39	0.000	-46.362	-79.37	0.000	-56.856	-79.70	0.000	-56.856	-79.70	0.000
0.003	-26.262	-67.65	0.010	-37.262	-55.01	0.030	-44.345	-17.06	0.100	-45.396	16.13	0.200	-45.396	16.13	0.300
0.006	-26.553	-60.67	0.020	-36.408	-32.74	0.060	-39.404	6.19	0.100	-39.404	6.19	0.200	-39.404	6.19	0.300
0.009	-26.516	-53.36	0.030	-34.771	-16.35	0.090	-35.934	14.79	0.150	-35.934	14.79	0.200	-35.934	14.79	0.300
0.012	-26.447	-46.53	0.040	-33.010	-5.43	0.120	-33.412	19.10	0.200	-33.412	19.10	0.300	-33.412	19.10	0.400
0.015	-26.463	-39.76	0.050	-31.485	1.90	0.150	-31.455	21.69	0.250	-31.455	21.69	0.350	-31.455	21.69	0.450
0.018	-26.473	-33.43	0.060	-29.949	7.02	0.180	-29.885	23.43	0.300	-29.885	23.43	0.400	-29.885	23.43	0.500
0.021	-26.507	-27.61	0.070	-28.666	10.76	0.210	-28.524	24.68	0.350	-28.524	24.68	0.450	-28.524	24.68	0.550
0.024	-26.564	-22.34	0.080	-27.572	13.60	0.240	-27.381	25.65	0.400	-27.381	25.65	0.500	-27.381	25.65	0.600
0.027	-26.724	-17.63	0.090	-26.560	15.83	0.270	-26.375	26.41	0.450	-26.375	26.41	0.550	-26.375	26.41	0.650
0.030	-26.844	-13.44	0.100	-25.690	17.62	0.300	-25.481	27.04	0.500	-25.481	27.04	0.600	-25.481	27.04	0.700
0.033	-27.157	-9.73	0.110	-24.885	19.10	0.330	-24.676	27.57	0.550	-24.676	27.57	0.650	-24.676	27.57	0.750
0.036	-27.471	-6.43	0.120	-24.151	20.34	0.360	-24.050	28.02	0.600	-24.050	28.02	0.700	-24.050	28.02	0.800
0.039	-27.793	-3.20	0.130	-23.479	21.34	0.390	-23.384	28.42	0.650	-23.384	28.42	0.750	-23.384	28.42	0.850
0.042	-28.121	-0.09	0.140	-22.860	22.32	0.420	-22.672	28.78	0.700	-22.672	28.78	0.800	-22.672	28.78	0.900
0.045	-28.450	1.44	0.150	-22.286	23.13	0.450	-22.107	29.10	0.750	-22.107	29.10	0.850	-22.107	29.10	0.950
0.048	-28.780	3.53	0.160	-21.752	23.84	0.480	-21.579	29.39	0.800	-21.579	29.39	0.900	-21.579	29.39	1.000
0.051	-29.116	5.41	0.170	-21.253	24.48	0.510	-21.086	29.66	0.850	-21.086	29.66	0.950	-21.086	29.66	1.050
0.054	-29.461	7.12	0.180	-20.786	25.06	0.540	-20.627	29.91	0.900	-20.627	29.91	1.000	-20.627	29.91	1.100
0.057	-29.821	8.65	0.190	-20.346	25.58	0.570	-20.194	30.15	0.950	-20.194	30.15	1.050	-20.194	30.15	1.150
0.060	-30.195	10.07	0.200	-19.932	26.06	0.600	-19.786	30.36	1.000	-19.786	30.36	1.100	-19.786	30.36	1.200
0.063	-30.578	11.46	0.210	-19.540	26.50	0.630	-19.400	30.57	1.050	-19.400	30.57	1.150	-19.400	30.57	1.250
0.066	-30.973	12.84	0.220	-19.168	26.91	0.660	-19.034	30.77	1.100	-19.034	30.77	1.200	-19.034	30.77	1.300
0.069	-31.380	14.24	0.230	-18.816	27.30	0.690	-18.687	30.96	1.150	-18.687	30.96	1.250	-18.687	30.96	1.350
0.072	-31.790	15.64	0.240	-18.480	27.65	0.720	-18.356	31.14	1.200	-18.356	31.14	1.300	-18.356	31.14	1.400
0.075	-32.207	17.05	0.250	-18.160	27.99	0.750	-18.041	31.31	1.250	-18.041	31.31	1.350	-18.041	31.31	1.450
0.078	-32.631	18.45	0.260	-17.853	28.30	0.780	-17.740	31.48	1.300	-17.740	31.48	1.400	-17.740	31.48	1.500
0.081	-33.063	19.85	0.270	-17.563	28.60	0.810	-17.452	31.64	1.350	-17.452	31.64	1.450	-17.452	31.64	1.550
0.084	-33.503	21.25	0.280	-17.284	28.89	0.840	-17.177	31.80	1.400	-17.177	31.80	1.500	-17.177	31.80	1.600
0.087	-33.950	22.65	0.290	-17.016	29.16	0.870	-16.912	31.95	1.450	-16.912	31.95	1.550	-16.912	31.95	1.650
0.090	-34.404	24.05	0.300	-16.758	29.41	0.900	-16.656	32.10	1.500	-16.656	32.10	1.600	-16.656	32.10	1.700
0.093	-34.865	25.45	0.310	-16.510	30.56	0.930	-16.410	32.79	1.550	-16.410	32.79	1.650	-16.410	32.79	1.750
0.096	-35.333	26.85	0.320	-16.272	31.53	0.960	-16.174	33.44	1.600	-16.174	33.44	1.700	-16.174	33.44	1.800
0.099	-35.807	28.25	0.330	-16.044	32.37	0.990	-15.946	34.04	1.650	-15.946	34.04	1.750	-15.946	34.04	1.850
0.102	-36.287	29.65	0.340	-15.826	33.17	1.020	-15.718	34.62	1.700	-15.718	34.62	1.800	-15.718	34.62	1.900
0.105	-36.773	31.05	0.350	-15.610	33.90	1.050	-15.490	35.19	1.750	-15.490	35.19	1.850	-15.490	35.19	1.950
0.108	-37.265	32.45	0.360	-15.394	34.59	1.080	-15.262	35.75	1.800	-15.262	35.75	1.900	-15.262	35.75	2.000
0.111	-37.763	33.85	0.370	-15.178	35.25	1.110	-15.034	36.30	1.850	-15.034	36.30	1.950	-15.034	36.30	2.050
0.114	-38.267	35.25	0.380	-14.962	35.89	1.140	-14.806	36.84	1.900	-14.806	36.84	2.000	-14.806	36.84	2.100
0.117	-38.777	36.65	0.390	-14.746	36.52	1.170	-14.578	37.39	1.950	-14.578	37.39	2.050	-14.578	37.39	2.150
0.120	-39.293	38.05	0.400	-14.530	37.14	1.200	-14.350	37.94	2.000	-14.350	37.94	2.100	-14.350	37.94	2.200
0.123	-39.815	39.45	0.410	-14.314	37.75	1.230	-14.122	38.49	2.050	-14.122	38.49	2.150	-14.122	38.49	2.250
0.126	-40.343	40.85	0.420	-14.098	38.36	1.260	-13.894	39.05	2.100	-13.894	39.05	2.200	-13.894	39.05	2.300
0.129	-40.877	42.25	0.430	-13.882	39.19	1.290	-13.666	40.19	2.150	-13.666	40.19	2.250	-13.666	40.19	2.350
0.132	-41.417	43.65	0.440	-13.666	40.00	1.320	-13.438	40.84	2.200	-13.438	40.84	2.300	-13.438	40.84	2.400
0.135	-41.963	45.05	0.450	-13.450	40.80	1.350	-13.210	41.49	2.250	-13.210	41.49	2.350	-13.210	41.49	2.450
0.138	-42.515	46.45	0.460	-13.234	41.59	1.380	-12.982	42.14	2.300	-12.982	42.14	2.400	-12.982	42.14	2.500
0.141	-43.073	47.85	0.470	-13.018	42.39	1.410	-12.754	42.79	2.350	-12.754	42.79	2.450	-12.754	42.79	2.550
0.144	-43.637	49.25	0.480	-12.802	43.19	1.440	-12.526	43.44	2.400	-12.526	43.44	2.500	-12.526	43.44	2.600
0.147	-44.207	50.65	0.490	-12.586	43.99	1.470	-12.298	44.09	2.450	-12.298	44.09	2.550	-12.298	44.09	2.650
0.150	-44.783	52.05	0.500	-12.370	44.79	1.500	-12.070	44.74	2.500	-12.070	44.74	2.600	-12.070	44.74	2.700
0.153	-45.365	53.45	0.510	-12.154	45.59	1.530	-11.842	45.39	2.550	-11.842	45.39	2.650	-11.842	45.39	2.750
0.156	-45.953	54.85	0.520	-11.938	46.39	1.560	-11.614	46.04	2.600	-11.614	46.04	2.700	-11.614	46.04	2.800
0.159	-46.547	56.25	0.530	-11.722	47.19	1.590	-11.386	46.69	2.650	-11.386	46.69	2.750	-11.386	46.69	2.850
0.162	-47.147	57.65	0.540	-11.506	47.99	1.620	-11.158	47.34	2.700	-11.158	47.34	2.800	-11.158	47.34	2.900
0.165	-47.753	59.05	0.550	-11.290	48.79	1.650	-10.930	47.99	2.750	-10.930	47.99	2.850	-10.930	47.99	2.950
0.168	-48.365	60.45	0.560	-11.074	49.59	1.680	-10.702	48.64	2.800	-10.702	48.64	2.900	-10.702	48.64	3.000
0.171	-48.983	61.85	0.570	-10.858	50.39	1.710	-10.474	49.29	2.850	-10.474	49.29	2.950	-10.474	49.29	3.050
0.174	-49.607	63.25	0.580	-10.642	51.19	1.740	-10.246	49.94	2.900	-10.246	49.94	3.000	-10.246	49.94	3.100
0.177	-50.237	64.65	0.590	-10.426	51.99	1.770	-10.018	50.59	2.950	-10.018	50.59	3.050	-10.018	50.59	3.150
0.180	-50.873	66.05	0.600	-10.210	52.79	1.800	-9.790	51.24	3.000	-9.790	51.24	3.100	-9.790	51.24	3.200
0.183	-51.515	67.45	0.610	-10.000	53.59	1.830	-9.562	51.89	3.050	-9.562	51.89	3.150	-9.562	51.89	3.250
0.186	-52.163	68.85	0.620	-9.784	54.39	1.860	-9.334	52.54	3.100	-9.334	52.54	3.200	-9.334	52.54	3.300
0.189	-52.817	70.25	0.630	-9.568	55.19	1.890	-9.106	53.19	3.150	-9.106	53.19	3.250	-9.106	53.19	3.350
0.192	-53.477	71.65	0.640	-9.352	55.99	1.920	-8.878	53.84	3.200	-8.878	53.84	3.300	-8.878	53.84	3.400
0.195	-54.143	73.05	0.650	-9.136	56.79	1.950	-8.650	54.49	3.250	-8.650	54.49	3.350	-8.650	54.49	3.450
0.198	-54.815	74.45	0.660	-8.920	57.59	1.980	-8.422	55.14	3.300	-8.422	55.14	3.400	-8.422	55.14	3.500
0.201	-55.493	75.85	0.670	-8.704	58.39	2.010	-8.194	55.79	3.350	-8.194	55.79	3.450	-8.194	55.79	3.550
0.204	-56.177	77.25	0.680	-8.488	59.19	2.040	-7.966	56.44	3.400	-7.966	56.44	3.500	-7.966	56.44	3.600
0.207	-56.867	78.65	0.690	-8.272	59.99	2.070	-7.738	57.09	3.450	-7.738	57.09	3.550	-7.738	57.09	3.650
0.210	-57.563	80.05	0.700	-8.056	60.79										

Table 118. Vertical Electric Field (Well-Conducting Soil), Frequency = 10.0 MHz, VED Height = 44.95 m

3.0 KM UMRANGE				10.0 KM UMRANGE				30.0 KM UMRANGE				100.0 KM UMRANGE			
ME [UNT	AMP	PHASE	ME [UNT	AMP	PHASE	ME [UNT	AMP	PHASE	ME [UNT	AMP	PHASE	ME [UNT	AMP	PHASE	ME [UNT
(RM)	(DB)	(DEG)	(RM)	(DB)	(DEG)	(RM)	(DB)	(DEG)	(RM)	(DB)	(DEG)	(RM)	(DB)	(DEG)	(RM)
.000	-26.433	-46.04	.000	-32.039	-51.74	.000	-42.407	-52.73	.000	-52.868	-53.06	.000	-52.868	-53.06	.000
.003	-26.736	-41.37	.010	-33.402	-28.38	.030	-40.390	7.54	.100	-41.408	42.76	.200	-41.408	42.76	.300
.006	-26.927	-34.37	.020	-32.547	-10.11	.060	-35.449	32.83	.200	-35.449	32.83	.400	-35.449	32.83	.500
.009	-26.990	-27.27	.030	-30.910	10.28	.100	-31.980	41.43	.400	-31.980	41.43	.600	-31.980	41.43	.700
.012	-26.923	-20.63	.040	-29.130	21.20	.120	-29.456	43.75	.600	-29.456	43.75	.800	-29.456	43.75	.900
.015	-26.737	-13.46	.050	-27.527	30.74	.150	-27.502	48.35	.800	-27.502	48.35	1.000	-27.502	48.35	1.100
.018	-26.449	-7.10	.060	-26.091	33.67	.180	-25.913	50.09	1.000	-25.913	50.09	1.200	-25.913	50.09	1.300
.021	-26.092	-1.26	.070	-24.629	37.42	.200	-24.576	51.36	1.200	-24.576	51.36	1.400	-24.576	51.36	1.500
.024	-21.037	4.92	.080	-23.715	40.27	.220	-23.431	52.33	1.400	-23.431	52.33	1.600	-23.431	52.33	1.700
.027	-21.000	8.76	.090	-22.724	42.51	.240	-22.426	53.11	1.600	-22.426	53.11	1.800	-22.426	53.11	1.900
.030	-20.721	12.97	.100	-21.836	44.32	.260	-21.534	53.75	1.800	-21.534	53.75	2.000	-21.534	53.75	2.100
.033	-20.234	16.72	.110	-21.032	45.82	.280	-20.733	54.29	2.000	-20.733	54.29	2.200	-20.733	54.29	2.300
.036	-19.749	20.05	.120	-20.300	47.08	.300	-20.006	54.76	2.200	-20.006	54.76	2.400	-20.006	54.76	2.500
.039	-19.276	23.01	.130	-19.630	48.18	.320	-19.343	55.18	2.400	-19.343	55.18	2.600	-19.343	55.18	2.700
.042	-18.807	25.65	.140	-19.013	49.10	.340	-18.733	55.56	2.600	-18.733	55.56	2.800	-18.733	55.56	2.900
.045	-18.330	28.01	.150	-18.441	49.72	.360	-18.169	55.90	2.800	-18.169	55.90	3.000	-18.169	55.90	3.100
.048	-17.851	30.13	.160	-17.909	50.66	.380	-17.640	56.21	3.000	-17.640	56.21	3.200	-17.640	56.21	3.300
.051	-17.362	32.05	.170	-17.413	51.32	.400	-17.157	56.50	3.200	-17.157	56.50	3.400	-17.157	56.50	3.500
.054	-16.874	33.79	.180	-16.948	51.93	.420	-16.699	56.78	3.400	-16.699	56.78	3.600	-16.699	56.78	3.700
.057	-16.384	35.37	.190	-16.512	52.44	.440	-16.270	57.03	3.600	-16.270	57.03	3.800	-16.270	57.03	3.900
.060	-15.894	36.82	.200	-16.100	52.94	.460	-15.865	57.24	3.800	-15.865	57.24	4.000	-15.865	57.24	4.100
.063	-15.404	38.13	.210	-15.712	53.40	.480	-15.442	57.52	4.000	-15.442	57.52	4.200	-15.442	57.52	4.300
.066	-14.914	39.37	.220	-15.344	53.90	.500	-15.120	57.74	4.200	-15.120	57.74	4.400	-15.120	57.74	4.500
.069	-14.424	40.51	.230	-14.975	54.31	.520	-14.777	57.96	4.400	-14.777	57.96	4.600	-14.777	57.96	4.700
.072	-13.934	41.55	.240	-14.603	54.70	.540	-14.450	58.17	4.600	-14.450	58.17	4.800	-14.450	58.17	4.900
.075	-13.444	42.54	.250	-14.234	55.07	.560	-14.140	58.36	4.800	-14.140	58.36	5.000	-14.140	58.36	5.100
.078	-12.954	43.48	.260	-13.866	55.43	.580	-13.843	58.54	5.000	-13.843	58.54	5.200	-13.843	58.54	5.300
.081	-12.464	44.36	.270	-13.498	55.78	.600	-13.560	58.74	5.200	-13.560	58.74	5.400	-13.560	58.74	5.500
.084	-11.974	45.19	.280	-13.130	56.09	.620	-13.283	58.97	5.400	-13.283	58.97	5.600	-13.283	58.97	5.700
.087	-11.484	45.97	.290	-12.762	56.40	.640	-13.030	59.17	5.600	-13.030	59.17	5.800	-13.030	59.17	5.900
.090	-10.994	46.61	.300	-12.394	56.70	.660	-12.780	59.35	5.800	-12.780	59.35	6.000	-12.780	59.35	6.100
.093	-10.504	47.24	.310	-12.026	56.98	.680	-12.530	59.52	6.000	-12.530	59.52	6.200	-12.530	59.52	6.300
.096	-10.014	47.82	.320	-11.658	57.26	.700	-12.280	59.69	6.200	-12.280	59.69	6.400	-12.280	59.69	6.500
.099	-9.524	48.39	.330	-11.290	57.54	.720	-12.030	59.86	6.400	-12.030	59.86	6.600	-12.030	59.86	6.700
.102	-9.034	48.96	.340	-10.922	57.81	.740	-11.780	59.97	6.600	-11.780	59.97	6.800	-11.780	59.97	6.900
.105	-8.544	49.53	.350	-10.554	58.07	.760	-11.530	60.14	6.800	-11.530	60.14	7.000	-11.530	60.14	7.100
.108	-8.054	50.09	.360	-10.186	58.34	.780	-11.280	60.31	7.000	-11.280	60.31	7.200	-11.280	60.31	7.300
.111	-7.564	50.66	.370	-9.818	58.61	.800	-11.030	60.47	7.200	-11.030	60.47	7.400	-11.030	60.47	7.500
.114	-7.074	51.23	.380	-9.450	58.88	.820	-10.780	60.64	7.400	-10.780	60.64	7.600	-10.780	60.64	7.700
.117	-6.584	51.79	.390	-9.082	59.15	.840	-10.530	60.81	7.600	-10.530	60.81	7.800	-10.530	60.81	7.900
.120	-6.094	52.36	.400	-8.714	59.42	.860	-10.280	60.97	7.800	-10.280	60.97	8.000	-10.280	60.97	8.100
.123	-5.604	52.93	.410	-8.346	59.69	.880	-10.030	61.14	8.000	-10.030	61.14	8.200	-10.030	61.14	8.300
.126	-5.114	53.50	.420	-7.978	59.96	.900	-9.780	61.31	8.200	-9.780	61.31	8.400	-9.780	61.31	8.500
.129	-4.624	54.07	.430	-7.610	60.23	.920	-9.530	61.48	8.400	-9.530	61.48	8.600	-9.530	61.48	8.700
.132	-4.134	54.64	.440	-7.242	60.50	.940	-9.280	61.65	8.600	-9.280	61.65	8.800	-9.280	61.65	8.900
.135	-3.644	55.21	.450	-6.874	60.77	.960	-9.030	61.82	8.800	-9.030	61.82	9.000	-9.030	61.82	9.100
.138	-3.154	55.78	.460	-6.506	61.04	.980	-8.780	61.99	9.000	-8.780	61.99	9.200	-8.780	61.99	9.300
.141	-2.664	56.35	.470	-6.138	61.31	1.000	-8.530	62.16	9.200	-8.530	62.16	9.400	-8.530	62.16	9.500
.144	-2.174	56.92	.480	-5.770	61.58	1.020	-8.280	62.33	9.400	-8.280	62.33	9.600	-8.280	62.33	9.700
.147	-1.684	57.49	.490	-5.402	61.85	1.040	-8.030	62.50	9.600	-8.030	62.50	9.800	-8.030	62.50	9.900
.150	-1.194	58.06	.500	-5.034	62.12	1.060	-7.780	62.67	9.800	-7.780	62.67	10.000	-7.780	62.67	10.100
.153	-0.704	58.63	.510	-4.666	62.39	1.080	-7.530	62.84	10.000	-7.530	62.84				
.156	-0.214	59.20	.520	-4.298	62.66	1.100	-7.280	63.01							
.159	0.276	59.77	.530	-3.930	62.93	1.120	-7.030	63.18							
.162	0.786	60.34	.540	-3.562	63.20	1.140	-6.780	63.35							
.165	1.296	60.91	.550	-3.194	63.47	1.160	-6.530	63.52							
.168	1.806	61.48	.560	-2.826	63.74	1.180	-6.280	63.69							
.171	2.316	62.05	.570	-2.458	64.01	1.200	-6.030	63.86							
.174	2.826	62.62	.580	-2.090	64.28	1.220	-5.780	64.03							
.177	3.336	63.19	.590	-1.722	64.55	1.240	-5.530	64.20							
.180	3.846	63.76	.600	-1.354	64.82	1.260	-5.280	64.37							
.183	4.356	64.33	.610	-0.986	65.09	1.280	-5.030	64.54							
.186	4.866	64.90	.620	-0.618	65.36	1.300	-4.780	64.71							
.189	5.376	65.47	.630	-0.250	65.63	1.320	-4.530	64.88							
.192	5.886	66.04	.640	0.118	65.90	1.340	-4.280	65.05							
.195	6.396	66.61	.650	0.486	66.17	1.360	-4.030	65.22							
.198	6.906	67.18	.660	0.854	66.44	1.380	-3.780	65.39							
.201	7.416	67.75	.670	1.222	66.71	1.400	-3.530	65.56							
.204	7.926	68.32	.680	1.590	66.98	1.420	-3.280	65.73							
.207	8.436	68.89	.690	1.958	67.25	1.440	-3.030	65.90							
.210	8.946	69.46	.700	2.326	67.52	1.460	-2.780	66.07							
.213	9.456	70.03	.710	2.694	67.79	1.480	-2.530	66.24							
.216	9.966	70.60	.720	3.062	68.06	1.500	-2.280	66.41							
.219	10.476	71.17	.730	3.430	68.33	1.520	-2.030	66.58							
.222	10.986	71.74	.740	3.798	68.60	1.540	-1.780	66.75							
.225	11.496	72.31	.750	4.166	68.87	1.560	-1.530	66.92							
.228	12.006	72.88	.760	4.534	69.14	1.580	-1.280	67.09							
.231	12.516	73.45	.770	4.902	69.41	1.600	-1.030	67.26							
.234	13.026	74.02	.780	5.270	69.68	1.620	-0.780	67.43							
.237	13.536	74.59	.790	5.638	69.95	1.640	-0.530	67.60							
.240	14.046	75.16	.800	6.006	70.22	1.660	-0.280	67.77							

Table 119. Vertical Electric Field (Well-Conducting Soil), Frequency = 100.0 MHz, VED Height = 0.00 m

1.0 KM DOWNRANGE				3.0 KM DOWNRANGE				10.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)
.000	-37.925	-93.114	.000	-49.474	-94.29	.000	-59.936	-94.69	.000	-69.480	-94.81
.001	-37.632	-88.331	.003	-45.096	-88.97	.010	-46.664	-84.77	.030	-46.797	-84.57
.002	-37.318	-84.942	.006	-40.373	-82.36	.020	-40.799	-81.58	.060	-40.820	-81.47
.003	-35.399	-80.008	.009	-37.155	-75.83	.030	-37.332	-81.48	.090	-37.336	-81.76
.004	-33.644	-76.446	.012	-34.785	-72.43	.040	-34.876	-81.42	.120	-34.876	-81.40
.005	-32.304	-73.244	.015	-32.925	-68.46	.050	-32.978	-81.47	.150	-32.976	-81.18
.006	-30.760	-69.555	.018	-31.400	-64.97	.060	-31.433	-81.35	.180	-31.431	-81.03
.007	-29.794	-66.881	.021	-30.112	-61.77	.070	-30.133	-81.04	.210	-30.130	-81.22
.008	-28.736	-64.700	.024	-28.997	-58.22	.080	-28.912	-81.81	.240	-28.909	-81.81
.009	-27.629	-62.804	.027	-28.017	-55.63	.090	-28.027	-81.62	.270	-28.024	-81.77
.010	-26.793	-61.609	.030	-27.143	-53.16	.100	-27.150	-81.47	.300	-27.147	-81.71
.011	-26.633	-61.258	.033	-26.356	-50.77	.110	-26.360	-81.35	.330	-26.358	-81.66
.012	-25.538	-59.885	.036	-25.639	-48.44	.120	-25.642	-81.25	.360	-25.640	-81.62
.013	-24.898	-58.886	.039	-24.983	-46.17	.130	-24.985	-81.16	.390	-24.983	-81.58
.014	-24.300	-58.18	.042	-24.378	-44.93	.140	-24.379	-81.08	.420	-24.377	-81.55
.015	-23.733	-57.558	.045	-23.817	-43.72	.150	-23.817	-81.01	.450	-23.816	-81.52
.016	-23.241	-57.006	.048	-23.294	-42.54	.160	-23.294	-80.95	.480	-23.293	-81.49
.017	-22.879	-56.509	.051	-22.806	-41.38	.170	-22.806	-80.89	.510	-22.804	-81.47
.018	-22.506	-56.119	.054	-22.347	-40.23	.180	-22.346	-80.84	.540	-22.345	-81.45
.019	-22.187	-55.874	.057	-21.915	-39.10	.190	-21.914	-80.80	.570	-21.912	-81.42
.020	-21.875	-55.679	.060	-21.506	-38.99	.200	-21.505	-80.76	.600	-21.504	-81.40
.021	-21.571	-55.521	.063	-21.120	-38.88	.210	-21.119	-80.72	.630	-21.117	-81.37
.022	-21.276	-55.392	.066	-20.753	-38.78	.220	-20.752	-80.68	.660	-20.750	-81.35
.023	-20.980	-55.286	.069	-20.403	-38.69	.230	-20.402	-80.65	.690	-20.401	-81.33
.024	-20.683	-55.200	.072	-20.070	-38.61	.240	-20.069	-80.62	.720	-20.068	-81.32
.025	-20.384	-55.134	.075	-19.752	-38.53	.250	-19.751	-80.59	.750	-19.750	-81.30
.026	-20.083	-55.083	.078	-19.448	-38.46	.260	-19.447	-80.56	.780	-19.446	-81.29
.027	-19.781	-55.041	.081	-19.157	-38.39	.270	-19.156	-80.53	.810	-19.155	-81.27
.028	-19.483	-55.008	.084	-18.877	-38.33	.280	-18.876	-80.51	.840	-18.875	-81.26
.029	-19.186	-54.986	.087	-18.609	-38.27	.290	-18.607	-80.48	.870	-18.607	-81.25
.030	-18.890	-54.977	.090	-18.350	-38.22	.300	-18.349	-80.46	.900	-18.348	-81.25
.035	-17.482	-54.76	.105	-17.190	-38.08	.350	-17.189	-80.36	1.050	-17.188	-80.19
.040	-16.600	-54.50	.120	-16.206	-38.00	.400	-16.205	-80.28	1.200	-16.205	-80.13
.045	-15.352	-54.33	.135	-15.357	-38.06	.450	-15.356	-80.21	1.350	-15.355	-80.08
.050	-14.010	-54.04	.150	-14.613	-38.23	.500	-14.612	-80.15	1.500	-14.612	-80.03
.055	-13.491	-53.94	.165	-13.954	-38.43	.550	-13.953	-80.09	1.650	-13.953	-80.00
.060	-12.803	-53.84	.180	-13.365	-38.46	.600	-13.364	-80.04	1.800	-13.364	-80.00
.065	-12.433	-53.82	.195	-12.832	-38.26	.650	-12.831	-80.00	1.950	-12.831	-80.00
.070	-11.953	-53.73	.210	-12.334	-38.16	.700	-12.334	-80.00	2.100	-12.334	-80.00
.075	-11.514	-53.62	.225	-11.916	-38.12	.750	-11.916	-80.00	2.250	-11.915	-80.00
.080	-11.145	-53.51	.240	-11.515	-38.06	.800	-11.514	-80.00	2.400	-11.514	-80.00
.085	-10.805	-53.42	.255	-11.146	-38.01	.850	-11.146	-80.00	2.550	-11.145	-80.00
.090	-10.480	-53.42	.270	-10.805	-38.00	.900	-10.805	-80.00	2.700	-10.805	-80.00
.095	-10.177	-53.33	.285	-10.490	-38.00	.950	-10.490	-80.00	2.850	-10.490	-80.00
.100	-10.177	-53.26	.300	-10.197	-38.00	1.000	-10.197	-80.00	3.000	-10.197	-80.00

Table 120. Vertical Electric Field (Well-Conducting Soil), Frequency = 100.0 MHz, VED Height = 2.25 m

1.0 KM DOWNRANGE					3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					30.0 KM DOWNRANGE				
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)		
0.000	-37.039	-46.47	0.000	-42.177	-47.42	0.000	-57.008	-47.75	0.000	-66.549	-47.85	0.000	-66.549	-47.85	0.000	-66.549	-47.85		
.001	-36.362	-21.63	.001	-42.177	7.90	.001	-43.736	36.36	.001	-43.736	36.36	.001	-43.736	36.36	.001	-43.736	36.36		
.002	-36.826	-3.25	.002	-37.456	28.51	.002	-37.456	31.03	.002	-37.456	31.03	.002	-37.456	31.03	.002	-37.456	31.03		
.003	-36.706	6.59	.003	-34.236	31.03	.003	-34.236	36.43	.003	-34.236	36.43	.003	-34.236	36.43	.003	-34.236	36.43		
.004	-36.949	16.24	.004	-31.866	36.43	.004	-31.866	40.46	.004	-31.866	40.46	.004	-31.866	40.46	.004	-31.866	40.46		
.005	-29.412	21.43	.005	-30.007	36.50	.005	-30.007	41.52	.005	-30.007	41.52	.005	-30.007	41.52	.005	-30.007	41.52		
.006	-28.074	25.12	.006	-28.483	37.90	.006	-28.483	42.16	.006	-28.507	42.59	.006	-28.507	42.59	.006	-28.507	42.59		
.007	-28.902	27.86	.007	-27.195	38.90	.007	-27.195	42.91	.007	-27.208	43.91	.007	-27.208	43.91	.007	-27.208	43.91		
.008	-25.886	29.96	.008	-26.082	39.66	.008	-26.082	43.14	.008	-26.087	44.14	.008	-26.087	44.14	.008	-26.087	44.14		
.009	-24.939	31.63	.009	-25.103	40.25	.009	-25.103	43.33	.009	-25.103	43.33	.009	-25.103	43.33	.009	-25.103	43.33		
.01	-24.104	32.96	.01	-24.230	40.73	.01	-24.230	43.48	.01	-24.230	43.48	.01	-24.230	43.48	.01	-24.230	43.48		
.011	-23.346	34.10	.011	-23.444	41.12	.011	-23.444	43.61	.011	-23.444	43.61	.011	-23.444	43.61	.011	-23.444	43.61		
.012	-22.652	35.04	.012	-22.729	41.45	.012	-22.729	43.72	.012	-22.729	43.72	.012	-22.729	43.72	.012	-22.729	43.72		
.013	-22.014	35.84	.013	-22.074	41.74	.013	-22.074	43.82	.013	-22.074	43.82	.013	-22.074	43.82	.013	-22.074	43.82		
.014	-21.423	36.53	.014	-21.471	41.98	.014	-21.471	43.94	.014	-21.471	43.94	.014	-21.471	43.94	.014	-21.471	43.94		
.015	-20.875	37.13	.015	-20.911	42.19	.015	-20.911	44.05	.015	-20.911	44.05	.015	-20.911	44.05	.015	-20.911	44.05		
.016	-20.362	37.66	.016	-20.391	42.38	.016	-20.391	44.15	.016	-20.391	44.15	.016	-20.391	44.15	.016	-20.391	44.15		
.017	-19.882	38.12	.017	-19.904	42.55	.017	-19.904	44.25	.017	-19.904	44.25	.017	-19.904	44.25	.017	-19.904	44.25		
.018	-19.431	38.54	.018	-19.447	42.71	.018	-19.447	44.31	.018	-19.447	44.31	.018	-19.447	44.31	.018	-19.447	44.31		
.019	-19.006	38.92	.019	-19.012	42.84	.019	-19.012	44.37	.019	-19.012	44.37	.019	-19.012	44.37	.019	-19.012	44.37		
.020	-18.604	39.26	.020	-18.612	42.97	.020	-18.612	44.42	.020	-18.612	44.42	.020	-18.612	44.42	.020	-18.612	44.42		
.021	-18.224	39.57	.021	-18.228	43.09	.021	-18.228	44.46	.021	-18.228	44.46	.021	-18.228	44.46	.021	-18.228	44.46		
.022	-17.862	39.86	.022	-17.863	43.20	.022	-17.863	44.50	.022	-17.863	44.50	.022	-17.863	44.50	.022	-17.863	44.50		
.023	-17.518	40.12	.023	-17.517	43.30	.023	-17.517	44.54	.023	-17.517	44.54	.023	-17.517	44.54	.023	-17.517	44.54		
.024	-17.190	40.39	.024	-17.187	43.39	.024	-17.187	44.58	.024	-17.187	44.58	.024	-17.187	44.58	.024	-17.187	44.58		
.025	-16.877	40.64	.025	-16.872	43.48	.025	-16.872	44.62	.025	-16.872	44.62	.025	-16.872	44.62	.025	-16.872	44.62		
.026	-16.578	40.80	.026	-16.571	43.56	.026	-16.571	44.66	.026	-16.571	44.66	.026	-16.571	44.66	.026	-16.571	44.66		
.027	-16.291	40.99	.027	-16.283	43.64	.027	-16.283	44.70	.027	-16.283	44.70	.027	-16.283	44.70	.027	-16.283	44.70		
.028	-16.017	41.17	.028	-16.007	43.72	.028	-16.007	44.74	.028	-16.007	44.74	.028	-16.007	44.74	.028	-16.007	44.74		
.029	-15.753	41.34	.029	-15.742	43.79	.029	-15.742	44.78	.029	-15.742	44.78	.029	-15.742	44.78	.029	-15.742	44.78		
.030	-15.499	41.51	.030	-15.487	43.86	.030	-15.487	44.82	.030	-15.487	44.82	.030	-15.487	44.82	.030	-15.487	44.82		
.035	-14.362	42.40	.035	-14.347	44.10	.035	-14.347	45.05	.035	-14.347	45.05	.035	-14.347	45.05	.035	-14.347	45.05		
.040	-13.404	42.75	.040	-13.387	44.43	.040	-13.387	45.19	.040	-13.387	45.19	.040	-13.387	45.19	.040	-13.387	45.19		
.045	-12.583	43.22	.045	-12.564	44.68	.045	-12.564	45.36	.045	-12.564	45.36	.045	-12.564	45.36	.045	-12.564	45.36		
.050	-11.874	43.62	.050	-11.850	44.91	.050	-11.850	45.53	.050	-11.850	45.53	.050	-11.850	45.53	.050	-11.850	45.53		
.055	-11.245	43.99	.055	-11.225	45.13	.055	-11.225	45.72	.055	-11.225	45.72	.055	-11.225	45.72	.055	-11.225	45.72		
.060	-10.692	44.33	.060	-10.672	45.36	.060	-10.672	45.91	.060	-10.672	45.91	.060	-10.672	45.91	.060	-10.672	45.91		
.065	-10.202	44.66	.065	-10.181	45.58	.065	-10.181	46.01	.065	-10.181	46.01	.065	-10.181	46.01	.065	-10.181	46.01		
.070	-9.764	44.97	.070	-9.743	45.81	.070	-9.743	46.11	.070	-9.743	46.11	.070	-9.743	46.11	.070	-9.743	46.11		
.075	-9.371	45.21	.075	-9.351	46.05	.075	-9.351	46.22	.075	-9.351	46.22	.075	-9.351	46.22	.075	-9.351	46.22		
.080	-8.919	45.57	.080	-8.908	46.29	.080	-8.908	46.34	.080	-8.908	46.34	.080	-8.908	46.34	.080	-8.908	46.34		
.085	-8.702	45.88	.085	-8.681	46.54	.085	-8.681	46.47	.085	-8.681	46.47	.085	-8.681	46.47	.085	-8.681	46.47		
.090	-8.417	46.18	.090	-8.396	46.80	.090	-8.396	46.50	.090	-8.396	46.50	.090	-8.396	46.50	.090	-8.396	46.50		
.095	-8.160	46.44	.095	-8.139	47.07	.095	-8.139	46.59	.095	-8.139	46.59	.095	-8.139	46.59	.095	-8.139	46.59		
.100	-7.928	46.81	.100	-7.908	47.34	.100	-7.908	46.68	.100	-7.908	46.68	.100	-7.908	46.68	.100	-7.908	46.68		

Table 121. Vertical Electric Field (Well-Conducting Soil), Frequency = 100.0 MHz, VED Height = 4.50 m

1.0 KM DOWNRANGE			3.0 KM DOWNRANGE			10.0 KM DOWNRANGE			30.0 KM DOWNRANGE		
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)
0.000	-33.053	-27.62	0.000	-42.506	-28.45	0.000	-52.933	-26.75	0.000	-62.467	-28.84
0.001	-32.376	-27.76	0.003	-38.125	26.86	0.010	-39.661	51.17	0.030	-39.784	59.40
0.002	-30.640	15.60	0.006	-33.405	43.47	0.020	-33.796	57.36	0.060	-33.808	61.51
0.003	-28.761	27.44	0.009	-30.185	50.00	0.030	-30.330	59.47	0.090	-30.325	62.22
0.004	-26.764	35.04	0.012	-27.817	53.40	0.040	-27.876	60.53	0.120	-27.866	62.58
0.005	-25.429	40.28	0.015	-25.958	55.48	0.050	-25.979	61.18	0.150	-25.967	62.81
0.006	-24.092	43.98	0.018	-24.436	56.88	0.060	-24.436	61.61	0.180	-24.424	62.97
0.007	-22.722	46.73	0.021	-23.149	57.89	0.070	-23.138	61.93	0.210	-23.126	63.09
0.008	-21.886	48.85	0.024	-22.037	58.66	0.080	-22.019	62.18	0.240	-22.007	63.18
0.009	-20.966	50.51	0.027	-21.060	59.26	0.090	-21.037	62.37	0.270	-21.025	63.26
0.010	-20.129	51.89	0.030	-20.189	59.75	0.100	-20.164	62.53	0.300	-20.152	63.33
0.011	-19.373	53.02	0.033	-19.405	60.15	0.110	-19.378	62.67	0.330	-19.366	63.39
0.012	-18.682	53.97	0.036	-18.693	60.59	0.120	-18.664	62.79	0.360	-18.652	63.45
0.013	-18.046	54.79	0.039	-18.041	60.79	0.130	-18.011	62.90	0.390	-18.999	63.51
0.014	-17.458	55.49	0.042	-17.440	61.05	0.140	-17.410	63.00	0.420	-17.398	63.56
0.015	-16.912	56.11	0.045	-16.884	61.27	0.150	-16.853	63.09	0.450	-16.842	63.61
0.016	-16.403	56.66	0.048	-16.367	61.48	0.160	-16.335	63.17	0.480	-16.324	63.66
0.017	-15.927	57.15	0.051	-15.884	61.67	0.170	-15.852	63.25	0.510	-15.841	63.70
0.018	-15.479	57.58	0.054	-15.431	61.84	0.180	-15.399	63.33	0.540	-15.388	63.75
0.019	-15.058	57.98	0.057	-15.005	61.99	0.190	-14.973	63.40	0.570	-14.962	63.80
0.020	-14.660	58.35	0.060	-14.604	62.14	0.200	-14.571	63.47	0.600	-14.561	63.85
0.021	-14.288	58.68	0.063	-14.224	62.28	0.210	-14.192	63.53	0.630	-14.181	63.89
0.022	-13.927	58.99	0.066	-13.864	62.41	0.220	-13.832	63.60	0.660	-13.822	63.94
0.023	-13.588	59.27	0.069	-13.523	62.53	0.230	-13.491	63.67	0.690	-13.480	63.99
0.024	-13.265	59.54	0.072	-13.198	62.65	0.240	-13.166	63.73	0.720	-13.156	64.04
0.025	-12.958	59.79	0.075	-12.889	62.76	0.250	-12.856	63.80	0.750	-12.846	64.09
0.026	-12.664	60.03	0.078	-12.593	62.87	0.260	-12.561	63.86	0.780	-12.551	64.14
0.027	-12.383	60.25	0.081	-12.311	62.97	0.270	-12.279	63.92	0.810	-12.269	64.19
0.028	-12.114	60.46	0.084	-12.041	63.07	0.280	-12.009	63.99	0.840	-11.999	64.25
0.029	-11.856	60.66	0.087	-11.782	63.17	0.290	-11.750	64.05	0.870	-11.740	64.30
0.030	-11.609	60.86	0.090	-11.534	63.27	0.300	-11.502	64.12	0.900	-11.492	64.36
0.35	-10.508	61.72	1.05	-10.430	63.74	3.50	-10.399	64.45	1.050	-10.389	64.65
0.40	-9.591	62.47	1.20	-9.511	64.20	4.00	-9.480	64.80	1.200	-9.471	64.97
0.45	-8.816	63.16	1.35	-8.736	64.66	4.50	-8.705	65.18	1.350	-8.696	65.32
0.50	-8.153	63.82	1.50	-8.075	65.13	5.00	-8.044	65.59	1.500	-8.036	65.72
0.55	-7.587	64.45	1.65	-7.507	65.62	5.50	-7.477	66.03	1.650	-7.469	66.14
0.60	-7.096	65.11	1.80	-7.018	66.15	6.00	-6.989	66.51	1.800	-6.980	66.61
0.65	-6.676	65.77	1.95	-6.597	66.70	6.50	-6.568	67.03	1.950	-6.559	67.12
0.70	-6.312	66.45	2.10	-6.233	67.29	7.00	-6.204	67.58	2.100	-6.196	67.67
0.75	-6.000	67.16	2.25	-5.921	67.92	7.50	-5.892	68.19	2.250	-5.884	68.26
0.80	-5.732	67.90	2.40	-5.654	68.59	8.00	-5.626	68.83	2.400	-5.618	68.90
0.85	-5.505	68.68	2.55	-5.428	69.31	8.50	-5.400	69.53	2.550	-5.392	69.59
0.90	-5.315	69.50	2.70	-5.238	70.07	9.00	-5.211	70.27	2.700	-5.203	70.33
0.95	-5.159	70.36	2.85	-5.082	70.88	9.50	-5.055	71.07	2.850	-5.047	71.12
1.00	-5.032	71.27	3.00	-4.957	71.75	1.000	-4.930	71.92	3.000	-4.922	71.97

Table 122. Radial Electric Field (Well-Conducting Soil), Frequency = 0.1 MHz, VED Height = 0.00 m

300.0 KM QUANTIZE				300.0 KM QUANTIZE			
RE (m)	AMP (dB)	R (m)	R (m)	RE (m)	AMP (dB)	R (m)	R (m)
0.000	-36.622	27.440	-11.534	0.000	-36.622	27.440	-11.534
0.030	-36.752	27.440	-11.534	0.030	-36.752	27.440	-11.534
0.060	-36.879	27.440	-11.534	0.060	-36.879	27.440	-11.534
0.090	-36.999	27.440	-11.534	0.090	-36.999	27.440	-11.534
0.120	-37.115	27.440	-11.534	0.120	-37.115	27.440	-11.534
0.150	-37.228	27.440	-11.534	0.150	-37.228	27.440	-11.534
0.180	-37.338	27.440	-11.534	0.180	-37.338	27.440	-11.534
0.210	-37.444	27.440	-11.534	0.210	-37.444	27.440	-11.534
0.240	-37.547	27.440	-11.534	0.240	-37.547	27.440	-11.534
0.270	-37.647	27.440	-11.534	0.270	-37.647	27.440	-11.534
0.300	-37.744	27.440	-11.534	0.300	-37.744	27.440	-11.534
0.330	-37.838	27.440	-11.534	0.330	-37.838	27.440	-11.534
0.360	-37.929	27.440	-11.534	0.360	-37.929	27.440	-11.534
0.390	-38.017	27.440	-11.534	0.390	-38.017	27.440	-11.534
0.420	-38.102	27.440	-11.534	0.420	-38.102	27.440	-11.534
0.450	-38.184	27.440	-11.534	0.450	-38.184	27.440	-11.534
0.480	-38.263	27.440	-11.534	0.480	-38.263	27.440	-11.534
0.510	-38.339	27.440	-11.534	0.510	-38.339	27.440	-11.534
0.540	-38.412	27.440	-11.534	0.540	-38.412	27.440	-11.534
0.570	-38.482	27.440	-11.534	0.570	-38.482	27.440	-11.534
0.600	-38.549	27.440	-11.534	0.600	-38.549	27.440	-11.534
0.630	-38.613	27.440	-11.534	0.630	-38.613	27.440	-11.534
0.660	-38.674	27.440	-11.534	0.660	-38.674	27.440	-11.534
0.690	-38.732	27.440	-11.534	0.690	-38.732	27.440	-11.534
0.720	-38.787	27.440	-11.534	0.720	-38.787	27.440	-11.534
0.750	-38.839	27.440	-11.534	0.750	-38.839	27.440	-11.534
0.780	-38.888	27.440	-11.534	0.780	-38.888	27.440	-11.534
0.810	-38.934	27.440	-11.534	0.810	-38.934	27.440	-11.534
0.840	-38.977	27.440	-11.534	0.840	-38.977	27.440	-11.534
0.870	-39.017	27.440	-11.534	0.870	-39.017	27.440	-11.534
0.900	-39.054	27.440	-11.534	0.900	-39.054	27.440	-11.534
1.050	-39.800	27.440	-11.534	1.050	-39.800	27.440	-11.534
1.200	-40.614	27.440	-11.534	1.200	-40.614	27.440	-11.534
1.350	-41.499	27.440	-11.534	1.350	-41.499	27.440	-11.534
1.500	-42.457	27.440	-11.534	1.500	-42.457	27.440	-11.534
1.650	-43.490	27.440	-11.534	1.650	-43.490	27.440	-11.534
1.800	-44.600	27.440	-11.534	1.800	-44.600	27.440	-11.534
1.950	-45.789	27.440	-11.534	1.950	-45.789	27.440	-11.534
2.100	-47.059	27.440	-11.534	2.100	-47.059	27.440	-11.534
2.250	-48.412	27.440	-11.534	2.250	-48.412	27.440	-11.534
2.400	-49.850	27.440	-11.534	2.400	-49.850	27.440	-11.534
2.550	-51.375	27.440	-11.534	2.550	-51.375	27.440	-11.534
2.700	-52.989	27.440	-11.534	2.700	-52.989	27.440	-11.534
2.850	-54.694	27.440	-11.534	2.850	-54.694	27.440	-11.534
3.000	-56.492	27.440	-11.534	3.000	-56.492	27.440	-11.534

Table 123. Radial Electric Field (Well-Conducting Soil), Frequency = 0.1 MHz, VED Height = 2247.60 m

30.0 KM UPHRANGE				100.0 KM UPHRANGE				300.0 KM UPHRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)	
0.00	-33.987	21.53		0.00	-33.281	158.91		0.00	-33.801	57.79	
0.30	-33.219	-122.60		1.00	-33.647	-147.86		3.00	-34.294	-169.90	
0.60	-33.447	-120.67		2.00	-34.023	-146.40		6.00	-34.811	-168.95	
0.90	-33.667	-118.42		3.00	-34.409	-144.81		9.00	-35.353	-167.88	
1.20	-33.874	-116.06		4.00	-34.805	-143.07		12.00	-35.923	-166.69	
1.50	-34.080	-113.59		5.00	-35.210	-141.17		15.00	-36.525	-165.33	
1.80	-34.285	-111.00		6.00	-35.623	-139.08		18.00	-37.161	-163.77	
2.10	-34.443	-108.30		7.00	-36.042	-136.79		21.00	-37.834	-161.98	
2.40	-34.600	-105.50		8.00	-36.466	-134.26		24.00	-38.549	-159.91	
2.70	-34.738	-102.60		9.00	-36.891	-131.48		27.00	-39.308	-157.46	
3.00	-34.855	-99.62		10.00	-37.313	-128.42		30.00	-40.114	-154.57	
3.30	-34.950	-96.57		11.00	-37.728	-125.06		33.00	-40.968	-151.09	
3.60	-35.020	-93.46		12.00	-38.128	-121.37		36.00	-41.866	-146.87	
3.90	-35.065	-90.31		13.00	-38.505	-117.35		39.00	-42.798	-141.70	
4.20	-35.083	-87.14		14.00	-38.850	-112.98		42.00	-43.740	-135.33	
4.50	-35.075	-83.97		15.00	-39.153	-108.29		45.00	-44.643	-127.50	
4.80	-35.041	-80.82		16.00	-39.401	-103.30		48.00	-45.430	-118.05	
5.10	-34.981	-77.70		17.00	-39.585	-98.06		51.00	-46.191	-107.07	
5.40	-34.897	-74.64		18.00	-39.697	-92.66		54.00	-46.922	-95.10	
5.70	-34.790	-71.65		19.00	-39.730	-87.17		57.00	-47.607	-83.09	
6.00	-34.662	-68.75		20.00	-39.685	-81.71		60.00	-48.244	-72.00	
6.30	-34.514	-65.93		21.00	-39.563	-76.37		63.00	-48.864	-62.40	
6.60	-34.350	-63.22		22.00	-39.371	-71.22		66.00	-49.417	-54.44	
6.90	-34.171	-60.62		23.00	-39.120	-66.35		69.00	-49.917	-47.95	
7.20	-33.976	-58.14		24.00	-38.820	-61.79		72.00	-50.353	-42.68	
7.50	-33.776	-55.76		25.00	-38.481	-57.56		75.00	-50.786	-38.38	
7.80	-33.564	-53.50		26.00	-38.114	-53.67		78.00	-51.155	-34.84	
8.10	-33.346	-51.35		27.00	-37.728	-50.12		81.00	-51.467	-31.88	
8.40	-33.122	-49.32		28.00	-37.331	-46.88		84.00	-51.715	-29.39	
8.70	-32.894	-47.39		29.00	-36.928	-43.93		87.00	-51.949	-27.27	
9.00	-32.663	-45.56		30.00	-36.525	-41.26		90.00	-52.1824	-25.44	
1.050	-31.502	-37.79		3.500	-34.590	-31.06		10.500	-35.207	-19.12	
1.200	-30.365	-31.69		4.000	-32.887	-24.46		12.500	-33.200	-15.37	
1.350	-29.347	-27.34		4.500	-31.424	-19.94		13.500	-31.590	-12.85	
1.500	-28.396	-23.76		5.000	-30.164	-16.68		15.000	-30.256	-11.01	
1.650	-27.534	-20.91		5.500	-29.069	-14.23		16.500	-29.123	-9.59	
1.800	-26.749	-18.58		6.000	-28.110	-12.31		18.000	-28.144	-8.44	
1.950	-26.035	-16.65		6.500	-27.261	-10.78		19.500	-27.280	-7.49	
2.100	-25.385	-15.03		7.000	-26.505	-9.51		21.000	-26.526	-6.67	
2.250	-24.791	-13.66		7.500	-25.827	-8.46		22.500	-25.848	-5.96	
2.400	-24.244	-12.47		8.000	-25.217	-7.55		24.000	-25.234	-5.34	
2.550	-23.752	-11.45		8.500	-24.666	-6.77		25.500	-24.684	-4.78	
2.700	-23.297	-10.52		9.000	-24.166	-6.04		27.000	-24.192	-4.27	
2.850	-22.881	-9.75		9.500	-23.713	-5.46		28.500	-23.740	-3.80	
3.000	-22.499	-9.04		10.000	-23.300	-4.93		30.000	-23.330	-3.36	

Table 124. Radial Electric Field (Well-Conducting Soil), Frequency = 0.1 MHz, VED Height = 4495.20 m

30.0 KM UORANGE				100.0 KM UORANGE				300.0 KM UORANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)	
0.000	-32.973	-5.67		0.000	-33.493	-116.17		0.000	-34.168	-30.64	
.030	-32.905	-81.63		.100	-33.773	-126.18		.300	-34.636	-157.00	
.060	-32.802	-77.96		.200	-34.050	-124.06		.600	-35.123	-157.76	
.090	-32.866	-74.39		.300	-34.323	-121.81		.900	-35.632	-150.38	
.120	-32.801	-70.94		.400	-34.591	-119.41		1.200	-36.161	-134.84	
.150	-32.811	-67.62		.500	-34.850	-116.87		1.500	-36.715	-153.11	
.180	-32.098	-64.46		.600	-35.099	-114.17		1.800	-37.292	-151.15	
.210	-31.866	-61.46		.700	-35.333	-111.33		2.100	-37.893	-146.93	
.240	-31.619	-58.62		.800	-35.551	-108.34		2.400	-38.520	-140.40	
.270	-31.360	-55.94		.900	-35.750	-105.22		2.700	-39.169	-143.49	
.300	-31.091	-53.42		1.000	-35.924	-101.96		3.000	-39.839	-140.14	
.330	-30.817	-51.06		1.100	-36.073	-98.59		3.300	-40.522	-136.25	
.360	-30.538	-48.84		1.200	-36.193	-95.12		3.600	-41.209	-131.75	
.390	-30.257	-46.76		1.300	-36.282	-91.58		3.900	-41.883	-126.52	
.420	-29.975	-44.82		1.400	-36.336	-87.99		4.200	-42.520	-123.50	
.450	-29.694	-43.00		1.500	-36.368	-84.36		4.500	-43.086	-119.65	
.480	-29.414	-41.29		1.600	-36.348	-80.79		4.800	-43.561	-106.00	
.510	-29.138	-39.69		1.700	-36.303	-77.23		5.100	-43.844	-97.73	
.540	-28.864	-38.20		1.800	-36.227	-73.73		5.400	-43.965	-89.11	
.570	-28.595	-36.79		1.900	-36.120	-70.32		5.700	-43.893	-80.53	
.600	-28.330	-35.47		2.000	-35.987	-67.03		6.000	-43.641	-72.32	
.630	-28.070	-34.24		2.100	-35.830	-63.85		6.300	-43.243	-64.78	
.660	-27.814	-33.07		2.200	-35.652	-60.81		6.600	-42.740	-58.03	
.690	-27.564	-31.97		2.300	-35.456	-57.92		6.900	-42.172	-52.12	
.720	-27.318	-30.94		2.400	-35.246	-55.17		7.200	-41.571	-46.99	
.750	-27.078	-29.96		2.500	-35.024	-52.57		7.500	-40.960	-42.56	
.780	-26.844	-29.04		2.600	-34.794	-50.12		7.800	-40.355	-38.74	
.810	-26.614	-28.17		2.700	-34.556	-47.81		8.100	-39.764	-35.43	
.840	-26.390	-27.34		2.800	-34.314	-45.64		8.400	-39.195	-32.56	
.870	-26.171	-26.56		2.900	-34.070	-43.60		8.700	-38.650	-30.04	
.900	-25.957	-25.82		3.000	-33.825	-41.68		9.000	-38.129	-27.83	
1.050	-24.958	-22.62		3.500	-32.621	-33.72		10.500	-35.883	-19.90	
1.200	-24.072	-20.09		4.000	-31.515	-27.86		12.000	-34.130	-15.01	
1.350	-23.203	-18.05		4.500	-30.535	-23.45		13.500	-32.740	-11.67	
1.500	-22.362	-16.37		5.000	-29.683	-20.05		15.000	-31.619	-9.18	
1.650	-21.557	-14.97		5.500	-28.952	-17.36		16.500	-30.709	-7.23	
1.800	-21.401	-13.78		6.000	-28.330	-15.19		18.000	-29.968	-5.63	
1.950	-20.966	-12.77		6.500	-27.808	-13.41		19.500	-29.369	-4.26	
2.100	-20.466	-11.90		7.000	-27.379	-11.92		21.000	-28.892	-3.04	
2.250	-20.077	-11.14		7.500	-27.034	-10.67		22.500	-28.526	-1.94	
2.400	-19.734	-10.47		8.000	-26.770	-9.60		24.000	-28.261	-.91	
2.550	-19.434	-9.89		8.500	-26.582	-8.68		25.500	-28.092	.08	
2.700	-19.173	-9.37		9.000	-26.469	-7.89		27.000	-28.016	1.05	
2.850	-18.950	-8.92		9.500	-26.430	-7.22		28.500	-28.035	2.02	
3.000	-18.761	-8.52		10.000	-26.463	-6.66		30.000	-28.149	3.02	

Table 125. Radial Electric Field (Well-Conducting Soil), Frequency = 1.0 MHz, VED Height = 0.00 m

3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					30.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)		
.000	-23.574	-3.01	.000	-25.322	-104.00	.000	-24.650	-11.64	.000	-24.650	-11.64	.000	-24.650	-11.64	.000	-40.748	-11.40		
.003	-23.734	-17.35	.010	-25.550	148.32	.030	-25.332	104.03	.030	-25.332	104.03	.060	-25.332	104.30	.200	-41.127	58.05		
.006	-24.005	-17.35	.020	-26.018	148.33	.060	-26.018	104.53	.090	-26.018	104.53	.120	-26.018	104.54	.300	-41.506	59.19		
.012	-24.232	-17.35	.030	-26.259	148.34	.090	-26.259	104.54	.120	-26.259	104.54	.150	-26.259	104.54	.400	-42.267	60.78		
.015	-24.406	-17.35	.040	-26.504	148.34	.120	-26.504	104.54	.150	-26.504	104.54	.180	-26.504	104.54	.500	-42.652	61.18		
.021	-24.575	-17.35	.050	-26.754	148.35	.150	-26.754	104.55	.180	-26.754	104.55	.210	-26.754	104.55	.600	-43.040	61.30		
.024	-24.750	-17.35	.060	-27.004	148.35	.180	-27.004	104.55	.210	-27.004	104.55	.240	-27.004	104.55	.700	-43.432	61.11		
.027	-24.924	-17.35	.070	-27.254	148.35	.210	-27.254	104.55	.240	-27.254	104.55	.270	-27.254	104.55	.800	-43.827	60.56		
.030	-25.100	-17.35	.080	-27.504	148.35	.240	-27.504	104.55	.270	-27.504	104.55	.300	-27.504	104.55	.900	-44.222	59.89		
.033	-25.274	-17.35	.090	-27.754	148.35	.270	-27.754	104.55	.300	-27.754	104.55	.330	-27.754	104.55	1.000	-44.615	58.40		
.036	-25.448	-17.35	.100	-28.004	148.35	.300	-28.004	104.55	.330	-28.004	104.55	.360	-28.004	104.55	1.100	-45.001	56.68		
.039	-25.622	-17.35	.110	-28.254	148.35	.330	-28.254	104.55	.360	-28.254	104.55	.390	-28.254	104.55	1.200	-45.372	54.51		
.042	-25.796	-17.35	.120	-28.504	148.35	.360	-28.504	104.55	.390	-28.504	104.55	.420	-28.504	104.55	1.300	-45.720	51.86		
.045	-25.970	-17.35	.130	-28.754	148.35	.390	-28.754	104.55	.420	-28.754	104.55	.450	-28.754	104.55	1.400	-46.033	48.72		
.048	-26.144	-17.35	.140	-29.004	148.35	.420	-29.004	104.55	.450	-29.004	104.55	.480	-29.004	104.55	1.500	-46.297	45.11		
.051	-26.318	-17.35	.150	-29.254	148.35	.450	-29.254	104.55	.480	-29.254	104.55	.510	-29.254	104.55	1.600	-46.498	41.06		
.054	-26.492	-17.35	.160	-29.504	148.35	.480	-29.504	104.55	.510	-29.504	104.55	.540	-29.504	104.55	1.700	-46.622	36.84		
.057	-26.666	-17.35	.170	-29.754	148.35	.510	-29.754	104.55	.540	-29.754	104.55	.570	-29.754	104.55	1.800	-46.657	31.94		
.060	-26.840	-17.35	.180	-30.004	148.35	.540	-30.004	104.55	.570	-30.004	104.55	.600	-30.004	104.55	1.900	-46.595	27.10		
.063	-27.014	-17.35	.190	-30.254	148.35	.570	-30.254	104.55	.600	-30.254	104.55	.630	-30.254	104.55	2.000	-46.437	22.26		
.066	-27.188	-17.35	.200	-30.504	148.35	.600	-30.504	104.55	.630	-30.504	104.55	.660	-30.504	104.55	2.100	-46.187	17.54		
.069	-27.362	-17.35	.210	-30.754	148.35	.630	-30.754	104.55	.660	-30.754	104.55	.690	-30.754	104.55	2.200	-45.856	13.06		
.072	-27.536	-17.35	.220	-31.004	148.35	.660	-31.004	104.55	.690	-31.004	104.55	.720	-31.004	104.55	2.300	-45.457	8.90		
.075	-27.710	-17.35	.230	-31.254	148.35	.690	-31.254	104.55	.720	-31.254	104.55	.750	-31.254	104.55	2.400	-45.008	5.11		
.078	-27.884	-17.35	.240	-31.504	148.35	.720	-31.504	104.55	.750	-31.504	104.55	.780	-31.504	104.55	2.500	-44.520	1.64		
.081	-28.058	-16.94	.250	-31.754	148.35	.750	-31.754	104.55	.780	-31.754	104.55	.810	-31.754	104.55	2.600	-44.008	-1.35		
.084	-28.232	-16.94	.260	-32.004	148.35	.780	-32.004	104.55	.810	-32.004	104.55	.840	-32.004	104.55	2.700	-43.482	-4.03		
.087	-28.406	-16.52	.270	-32.254	148.35	.810	-32.254	104.55	.840	-32.254	104.55	.870	-32.254	104.55	2.800	-42.951	-6.38		
.090	-28.580	-16.76	.280	-32.504	148.35	.840	-32.504	104.55	.870	-32.504	104.55	.900	-32.504	104.55	2.900	-42.420	-8.44		
			.290	-32.754	148.35	.870	-32.754	104.55	.900	-32.754	104.55	.930	-32.754	104.55	3.000	-41.895	-10.24		
.105	-31.477	-163.11	.350	-39.146	147.49	1.020	-42.914	28.70	3.500	-39.430	-16.25								
.120	-33.247	-146.38	.400	-44.146	147.49	1.200	-40.489	5.85	4.000	-37.290	-19.20								
.135	-35.017	-130.11	.450	-47.626	72.34	1.350	-37.888	-3.70	4.500	-35.449	-20.57								
.150	-36.787	-108.80	.500	-49.557	-8.01	1.500	-35.630	-11.53	5.000	-33.850	-21.10								
.165	-38.557	-81.04	.550	-49.557	-15.26	1.650	-33.782	-18.61	5.500	-32.444	-21.17								
.180	-40.327	-60.96	.600	-49.557	-22.51	1.800	-32.215	-16.26	6.000	-31.195	-20.98								
.195	-42.097	-47.89	.650	-49.557	-29.76	1.950	-30.866	-17.13	6.500	-30.075	-20.64								
.210	-43.867	-34.82	.700	-49.557	-37.01	2.100	-29.685	-17.53	7.000	-28.950	-20.21								
.225	-45.637	-31.82	.750	-49.557	-44.26	2.250	-28.636	-17.65	7.500	-28.136	-19.74								
.240	-47.407	-28.81	.800	-49.557	-51.51	2.400	-27.693	-17.42	8.000	-27.287	-19.25								
.255	-49.177	-25.81	.850	-49.557	-58.76	2.550	-26.965	-17.19	8.500	-26.504	-18.75								
.270	-50.947	-22.81	.900	-49.557	-66.01	2.700	-26.483	-16.94	9.000	-25.778	-18.26								
.285	-52.717	-19.76	.950	-49.557	-73.26	2.850	-26.107	-16.58	9.500	-25.103	-17.78								
.300	-54.487	-16.76	1.000	-49.557	-80.51	3.000	-25.316	-16.25	10.000	-24.471	-17.31								

Table 126. Radial Electric Field (Well-Conducting Soil), Frequency = 1.0 MHz, VED Height = 224.76 m

3.0 KM UPHRANGE					10.0 KM UPHRANGE					30.0 KM UPHRANGE					100.0 KM UPHRANGE				
REL HT (KM)	AMP (DB)	PHASE (DEG)	REL HT (KM)	AMP (DB)	PHASE (DEG)	REL HT (KM)	AMP (DB)	PHASE (DEG)	REL HT (KM)	AMP (DB)	PHASE (DEG)	REL HT (KM)	AMP (DB)	PHASE (DEG)	REL HT (KM)	AMP (DB)	PHASE (DEG)		
0.000	-24.562	-174.34	0.000	-26.714	-131.76	0.000	-31.303	-98.94	0.000	-42.578	-173.80	0.000	-42.578	-173.80	0.000	-42.578	-173.80		
0.03	-24.735	-145.22	0.10	-26.937	-170.36	0.300	-31.637	-122.84	0.500	-31.970	-123.21	1.000	-43.333	-77.71	2.000	-43.333	-77.71		
0.06	-24.889	-144.73	0.20	-27.104	-170.58	0.600	-32.420	-123.51	1.000	-43.712	-78.67	2.000	-43.712	-78.67	3.000	-43.712	-78.67		
0.09	-25.005	-144.23	0.30	-27.269	-171.05	1.200	-32.669	-123.74	1.500	-44.043	-79.37	2.000	-44.043	-79.37	3.000	-44.043	-79.37		
0.12	-25.142	-143.71	0.40	-27.434	-171.54	1.400	-32.914	-124.01	1.800	-44.367	-79.82	2.000	-44.367	-79.82	3.000	-44.367	-79.82		
0.15	-25.280	-143.18	0.50	-27.600	-172.03	1.600	-33.160	-124.26	2.000	-44.687	-80.27	2.500	-44.687	-80.27	3.000	-44.687	-80.27		
0.18	-25.419	-142.66	0.60	-27.767	-172.54	1.800	-33.407	-124.51	2.200	-45.007	-80.72	2.800	-45.007	-80.72	3.000	-45.007	-80.72		
0.21	-25.558	-142.14	0.70	-27.934	-173.05	2.000	-33.654	-124.76	2.400	-45.327	-81.17	2.800	-45.327	-81.17	3.000	-45.327	-81.17		
0.24	-25.697	-141.62	0.80	-28.101	-173.56	2.200	-33.901	-125.01	2.600	-45.647	-81.62	3.000	-45.647	-81.62	3.000	-45.647	-81.62		
0.27	-25.836	-141.10	0.90	-28.268	-174.07	2.400	-34.148	-125.26	2.800	-45.967	-82.07	3.200	-45.967	-82.07	3.000	-45.967	-82.07		
0.30	-25.975	-140.58	1.00	-28.435	-174.58	2.600	-34.395	-125.51	3.000	-46.287	-82.52	3.400	-46.287	-82.52	3.000	-46.287	-82.52		
0.33	-26.114	-139.61	1.10	-28.602	-175.09	2.800	-34.642	-125.76	3.200	-46.607	-82.97	3.600	-46.607	-82.97	3.000	-46.607	-82.97		
0.36	-26.253	-138.64	1.20	-28.769	-175.60	3.000	-34.889	-126.01	3.400	-46.927	-83.42	3.800	-46.927	-83.42	3.000	-46.927	-83.42		
0.39	-26.392	-137.67	1.30	-28.936	-176.11	3.200	-35.136	-126.26	3.600	-47.247	-83.87	4.000	-47.247	-83.87	3.000	-47.247	-83.87		
0.42	-26.531	-136.70	1.40	-29.103	-176.62	3.400	-35.383	-126.51	3.800	-47.567	-84.32	4.200	-47.567	-84.32	3.000	-47.567	-84.32		
0.45	-26.670	-135.73	1.50	-29.270	-177.13	3.600	-35.630	-126.76	4.000	-47.887	-84.77	4.400	-47.887	-84.77	3.000	-47.887	-84.77		
0.48	-26.809	-134.76	1.60	-29.437	-177.64	3.800	-35.877	-127.01	4.200	-48.207	-85.22	4.600	-48.207	-85.22	3.000	-48.207	-85.22		
0.51	-26.948	-133.79	1.70	-29.604	-178.15	4.000	-36.124	-127.26	4.400	-48.527	-85.67	4.800	-48.527	-85.67	3.000	-48.527	-85.67		
0.54	-27.087	-132.82	1.80	-29.771	-178.66	4.200	-36.371	-127.51	4.600	-48.847	-86.12	5.000	-48.847	-86.12	3.000	-48.847	-86.12		
0.57	-27.226	-131.85	1.90	-29.938	-179.17	4.400	-36.618	-127.76	4.800	-49.167	-86.57	5.200	-49.167	-86.57	3.000	-49.167	-86.57		
0.60	-27.365	-130.88	2.00	-30.105	-179.68	4.600	-36.865	-128.01	5.000	-49.487	-87.02	5.400	-49.487	-87.02	3.000	-49.487	-87.02		
0.63	-27.504	-129.91	2.10	-30.272	-180.19	4.800	-37.112	-128.26	5.200	-49.807	-87.47	5.600	-49.807	-87.47	3.000	-49.807	-87.47		
0.66	-27.643	-128.94	2.20	-30.439	-180.70	5.000	-37.359	-128.51	5.400	-50.127	-87.92	5.800	-50.127	-87.92	3.000	-50.127	-87.92		
0.69	-27.782	-127.97	2.30	-30.606	-181.21	5.200	-37.606	-128.76	5.600	-50.447	-88.37	6.000	-50.447	-88.37	3.000	-50.447	-88.37		
0.72	-27.921	-127.00	2.40	-30.773	-181.72	5.400	-37.853	-129.01	5.800	-50.767	-88.82	6.200	-50.767	-88.82	3.000	-50.767	-88.82		
0.75	-28.060	-126.03	2.50	-30.940	-182.23	5.600	-38.100	-129.26	6.000	-51.087	-89.27	6.400	-51.087	-89.27	3.000	-51.087	-89.27		
0.78	-28.199	-125.06	2.60	-31.107	-182.74	5.800	-38.347	-129.51	6.200	-51.407	-89.72	6.600	-51.407	-89.72	3.000	-51.407	-89.72		
0.81	-28.338	-124.09	2.70	-31.274	-183.25	6.000	-38.594	-129.76	6.400	-51.727	-90.17	6.800	-51.727	-90.17	3.000	-51.727	-90.17		
0.84	-28.477	-123.12	2.80	-31.441	-183.76	6.200	-38.841	-130.01	6.600	-52.047	-90.62	7.000	-52.047	-90.62	3.000	-52.047	-90.62		
0.87	-28.616	-122.15	2.90	-31.608	-184.27	6.400	-39.088	-130.26	6.800	-52.367	-91.07	7.200	-52.367	-91.07	3.000	-52.367	-91.07		
0.90	-28.755	-121.18	3.00	-31.775	-184.78	6.600	-39.335	-130.51	7.000	-52.687	-91.52	7.400	-52.687	-91.52	3.000	-52.687	-91.52		
1.05	-29.751	-116.20	3.50	-32.613	-174.55	7.500	-40.173	-125.55	8.000	-53.521	-85.02	8.500	-53.521	-85.02	3.000	-53.521	-85.02		
1.20	-30.402	-108.80	4.00	-33.451	-164.59	8.000	-41.011	-114.59	9.000	-54.359	-79.53	9.500	-54.359	-79.53	3.000	-54.359	-79.53		
1.35	-30.926	-100.51	4.50	-34.289	-154.63	8.500	-41.849	-104.63	9.500	-55.197	-74.04	10.000	-55.197	-74.04	3.000	-55.197	-74.04		
1.50	-31.450	-91.53	5.00	-35.127	-144.67	9.000	-42.687	-94.67	10.000	-56.035	-68.55	10.500	-56.035	-68.55	3.000	-56.035	-68.55		
1.65	-31.974	-82.54	5.50	-35.965	-134.71	9.500	-43.525	-84.71	10.500	-56.873	-63.06	11.000	-56.873	-63.06	3.000	-56.873	-63.06		
1.80	-32.498	-73.55	6.00	-36.803	-124.75	10.000	-44.363	-74.75	11.000	-57.711	-57.57	11.500	-57.711	-57.57	3.000	-57.711	-57.57		
1.95	-33.022	-64.56	6.50	-37.641	-114.79	10.500	-45.201	-64.79	11.500	-58.549	-52.08	12.000	-58.549	-52.08	3.000	-58.549	-52.08		
2.10	-33.546	-55.57	7.00	-38.479	-104.83	11.000	-46.039	-54.83	12.000	-59.387	-46.59	12.500	-59.387	-46.59	3.000	-59.387	-46.59		
2.25	-34.070	-46.58	7.50	-39.317	-94.87	11.500	-46.877	-44.87	12.500	-60.225	-41.10	13.000	-60.225	-41.10	3.000	-60.225	-41.10		
2.40	-34.594	-37.59	8.00	-40.155	-84.91	12.000	-47.715	-34.91	13.000	-61.063	-35.61	13.500	-61.063	-35.61	3.000	-61.063	-35.61		
2.55	-35.118	-28.60	8.50	-40.993	-74.95	12.500	-48.553	-24.95	13.500	-61.901	-30.12	14.000	-61.901	-30.12	3.000	-61.901	-30.12		
2.70	-35.642	-19.61	9.00	-41.831	-64.99	13.000	-49.391	-14.99	14.000	-62.739	-24.63	14.500	-62.739	-24.63	3.000	-62.739	-24.63		
2.85	-36.166	-10.62	9.50	-42.669	-55.03	13.500	-50.229	-4.03	14.500	-63.577	-19.14	15.000	-63.577	-19.14	3.000	-63.577	-19.14		
3.00	-36.690	-1.63	10.00	-43.507	-45.07	14.000	-51.067	5.07	15.000	-64.415	-13.65	15.500	-64.415	-13.65	3.000	-64.415	-13.65		

Table 127. Radial Electric Field (Well-Conducting Soil), Frequency = 1.0 MHz, VED Height = 449.52 m

3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)
0.000	-24.474	-19.96	0.000	-27.010	33.42	0.000	-32.006	-83.81	0.000	-43.549	91.41	0.000	-43.549	91.41	0.000
0.003	-24.513	-19.50	0.010	-27.205	-156.05	0.030	-32.330	147.25	0.100	-43.914	101.19	0.300	-44.280	102.47	0.600
0.006	-24.549	-19.34	0.020	-27.402	-157.51	0.060	-32.658	147.76	0.200	-44.648	103.53	0.400	-45.020	104.35	0.700
0.009	-24.586	-19.17	0.030	-27.602	-156.94	0.090	-32.992	148.26	0.300	-45.398	104.92	0.500	-45.782	105.21	0.800
0.012	-24.611	-19.04	0.040	-27.804	-156.37	0.120	-33.330	148.75	0.400	-46.173	105.21	0.600	-46.569	104.90	0.900
0.015	-24.638	-18.90	0.050	-28.010	-155.77	0.150	-33.675	149.21	0.500	-46.971	104.23	0.800	-47.375	103.18	1.000
0.018	-24.661	-18.76	0.060	-28.218	-155.15	0.180	-34.026	149.64	0.600	-48.171	99.82	0.900	-48.171	99.82	1.000
0.021	-24.686	-18.61	0.070	-28.429	-154.51	0.210	-34.385	150.05	0.700	-48.551	97.45	1.000	-48.551	97.45	1.000
0.024	-24.698	-18.50	0.080	-28.642	-153.85	0.240	-34.751	150.43	0.800	-48.904	94.58	1.000	-48.904	94.58	1.000
0.027	-24.712	-18.39	0.090	-28.859	-153.17	0.270	-35.126	150.78	0.900	-49.218	91.22	1.000	-49.218	91.22	1.000
0.030	-24.722	-18.27	0.100	-29.079	-152.46	0.300	-35.510	151.10	1.000	-49.478	87.38	1.000	-49.478	87.38	1.000
0.033	-24.732	-18.15	0.110	-29.301	-151.73	0.330	-35.904	151.37	1.000	-49.774	83.10	1.000	-49.774	83.10	1.000
0.036	-24.739	-18.04	0.120	-29.527	-150.97	0.360	-36.310	151.60	1.000	-49.879	78.48	1.000	-49.879	78.48	1.000
0.039	-24.744	-17.94	0.130	-29.756	-150.19	0.390	-36.727	151.79	1.000	-49.879	73.64	1.000	-49.879	73.64	1.000
0.042	-24.749	-17.84	0.140	-29.988	-149.37	0.420	-37.158	151.92	1.000	-49.879	68.71	1.000	-49.879	68.71	1.000
0.045	-24.752	-17.74	0.150	-30.223	-148.53	0.450	-37.603	152.00	1.000	-49.879	63.84	1.000	-49.879	63.84	1.000
0.048	-24.754	-17.64	0.160	-30.461	-147.65	0.480	-38.064	152.00	1.000	-49.879	59.17	1.000	-49.879	59.17	1.000
0.051	-24.756	-17.54	0.170	-30.702	-146.73	0.510	-38.542	151.93	1.000	-49.879	54.79	1.000	-49.879	54.79	1.000
0.054	-24.758	-17.44	0.180	-30.947	-145.76	0.540	-39.040	151.77	1.000	-49.879	50.78	1.000	-49.879	50.78	1.000
0.057	-24.762	-17.34	0.190	-31.194	-144.79	0.570	-39.557	151.51	1.000	-49.879	47.17	1.000	-49.879	47.17	1.000
0.060	-24.763	-17.24	0.200	-31.445	-143.76	0.600	-40.098	151.14	1.000	-49.879	43.96	1.000	-49.879	43.96	1.000
0.063	-24.763	-17.14	0.210	-31.698	-142.69	0.630	-40.663	150.63	1.000	-49.879	41.13	1.000	-49.879	41.13	1.000
0.066	-24.764	-17.04	0.220	-31.954	-141.57	0.660	-41.255	149.95	1.000	-49.879	38.69	1.000	-49.879	38.69	1.000
0.069	-24.765	-16.94	0.230	-32.213	-140.41	0.690	-41.877	149.09	1.000	-49.879	36.55	1.000	-49.879	36.55	1.000
0.072	-24.765	-16.84	0.240	-32.474	-139.19	0.720	-42.531	148.00	1.000	-49.879	34.70	1.000	-49.879	34.70	1.000
0.075	-24.765	-16.74	0.250	-32.738	-137.92	0.750	-43.220	146.64	1.000	-49.879	29.79	1.000	-49.879	29.79	1.000
0.078	-24.765	-16.64	0.260	-33.004	-136.60	0.780	-43.946	145.03	1.000	-49.879	26.33	1.000	-49.879	26.33	1.000
0.081	-24.765	-16.54	0.270	-33.271	-135.21	0.810	-44.710	143.82	1.000	-49.879	23.04	1.000	-49.879	23.04	1.000
0.084	-24.765	-16.44	0.280	-33.540	-133.76	0.840	-45.511	142.82	1.000	-49.879	20.04	1.000	-49.879	20.04	1.000
0.087	-24.765	-16.34	0.290	-33.810	-132.25	0.870	-46.347	140.91	1.000	-49.879	17.45	1.000	-49.879	17.45	1.000
0.090	-24.765	-16.24	0.300	-34.081	-130.67	0.900	-47.207	138.83	1.000	-49.879	15.21	1.000	-49.879	15.21	1.000
0.105	-24.773	-15.98	0.350	-35.422	-121.60	1.000	-48.616	95.46	1.000	-49.879	10.00	1.000	-49.879	10.00	1.000
0.120	-24.787	-15.51	0.400	-36.659	-110.43	1.200	-49.575	52.49	1.200	-49.879	4.00	1.200	-49.879	4.00	1.200
0.135	-24.807	-15.04	0.450	-37.641	-97.42	1.350	-50.928	34.75	1.350	-49.879	0.00	1.350	-49.879	0.00	1.350
0.150	-24.828	-14.57	0.500	-38.213	-82.77	1.500	-52.142	28.50	1.500	-49.879	0.00	1.500	-49.879	0.00	1.500
0.165	-24.850	-14.10	0.550	-38.325	-68.52	1.650	-53.079	26.48	1.650	-49.879	0.00	1.650	-49.879	0.00	1.650
0.180	-24.873	-13.63	0.600	-38.074	-55.77	1.800	-53.505	26.35	1.800	-49.879	0.00	1.800	-49.879	0.00	1.800
0.195	-24.897	-13.16	0.650	-37.631	-45.09	1.950	-53.275	27.27	1.950	-49.879	0.00	1.950	-49.879	0.00	1.950
0.210	-24.920	-12.69	0.700	-37.142	-36.46	2.100	-53.294	28.85	2.100	-49.879	0.00	2.100	-49.879	0.00	2.100
0.225	-24.943	-12.22	0.750	-36.704	-29.36	2.250	-53.521	30.93	2.250	-49.879	0.00	2.250	-49.879	0.00	2.250
0.240	-24.966	-11.75	0.800	-36.369	-23.56	2.400	-54.904	33.45	2.400	-49.879	0.00	2.400	-49.879	0.00	2.400
0.255	-24.989	-11.28	0.850	-36.164	-18.68	2.550	-56.420	36.37	2.550	-49.879	0.00	2.550	-49.879	0.00	2.550
0.270	-25.011	-10.81	0.900	-36.110	-14.49	2.700	-58.048	39.74	2.700	-49.879	0.00	2.700	-49.879	0.00	2.700
0.285	-25.034	-10.34	0.950	-36.221	-10.79	2.850	-59.772	43.57	2.850	-49.879	0.00	2.850	-49.879	0.00	2.850
0.300	-25.057	-9.87	1.000	-36.520	-7.46	3.000	-61.574	47.95	3.000	-49.879	0.00	3.000	-49.879	0.00	3.000

Table 128. Radial Electric Field (Well-Conducting Soil), Frequency = 10.0 MHz, VED Height = 0.00 m

3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					30.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)		
0.000	-40.703	-141.73	0.000	-51.797	3.99	0.000	-61.485	-133.95	0.000	-71.994	-71.05	0.000	-81.865	-133.95	0.000	-91.994	-71.05		
0.003	-41.041	76.91	0.010	-51.929	71.77	0.000	-61.615	70.29	0.000	-72.227	65.67	0.000	-81.987	65.67	0.000	-92.241	59.85		
0.006	-41.180	77.05	0.020	-52.062	71.46	0.000	-61.744	69.50	0.000	-72.481	61.86	0.000	-82.056	61.86	0.000	-92.456	51.86		
0.009	-41.320	77.12	0.030	-52.195	71.36	0.000	-61.877	69.44	0.000	-72.734	58.61	0.000	-82.209	58.61	0.000	-92.704	42.41		
0.012	-41.460	77.11	0.040	-52.328	70.81	0.000	-61.974	69.31	0.000	-73.000	42.41	0.000	-82.459	58.65	0.000	-93.000	32.53		
0.015	-41.601	77.03	0.050	-52.459	69.96	0.000	-62.075	58.65	0.000	-73.253	32.53	0.000	-82.609	58.53	0.000	-93.253	22.53		
0.018	-41.743	76.86	0.060	-52.586	69.63	0.000	-62.170	58.53	0.000	-73.500	22.53	0.000	-82.750	58.46	0.000	-93.500	12.53		
0.021	-41.886	76.62	0.070	-52.707	69.35	0.000	-62.261	58.46	0.000	-73.750	12.53	0.000	-82.899	58.38	0.000	-93.750	2.53		
0.024	-42.029	76.26	0.080	-52.817	69.06	0.000	-62.351	58.38	0.000	-74.000	2.53	0.000	-83.000	58.30	0.000	-94.000	-7.53		
0.027	-42.172	75.86	0.090	-52.914	68.76	0.000	-62.441	58.30	0.000	-74.250	-7.53	0.000	-83.146	58.22	0.000	-94.250	-17.53		
0.030	-42.314	75.45	0.100	-53.014	68.46	0.000	-62.531	58.22	0.000	-74.500	-17.53	0.000	-83.291	58.14	0.000	-94.500	-27.53		
0.033	-42.456	75.04	0.110	-53.114	68.16	0.000	-62.621	58.14	0.000	-74.750	-27.53	0.000	-83.437	58.06	0.000	-94.750	-37.53		
0.036	-42.597	74.64	0.120	-53.214	67.86	0.000	-62.711	58.06	0.000	-75.000	-37.53	0.000	-83.583	57.98	0.000	-95.000	-47.53		
0.039	-42.739	74.23	0.130	-53.314	67.56	0.000	-62.801	57.98	0.000	-75.250	-47.53	0.000	-83.729	57.90	0.000	-95.250	-57.53		
0.042	-42.881	73.83	0.140	-53.414	67.26	0.000	-62.891	57.90	0.000	-75.500	-57.53	0.000	-83.875	57.82	0.000	-95.500	-67.53		
0.045	-43.023	73.42	0.150	-53.514	66.96	0.000	-62.981	57.82	0.000	-75.750	-67.53	0.000	-84.021	57.74	0.000	-95.750	-77.53		
0.048	-43.165	73.01	0.160	-53.614	66.66	0.000	-63.071	57.74	0.000	-76.000	-77.53	0.000	-84.167	57.66	0.000	-96.000	-87.53		
0.051	-43.307	72.60	0.170	-53.714	66.36	0.000	-63.161	57.66	0.000	-76.250	-87.53	0.000	-84.313	57.58	0.000	-96.250	-97.53		
0.054	-43.449	72.19	0.180	-53.814	66.06	0.000	-63.251	57.58	0.000	-76.500	-97.53	0.000	-84.459	57.50	0.000	-96.500	-107.53		
0.057	-43.591	71.78	0.190	-53.914	65.76	0.000	-63.341	57.50	0.000	-76.750	-107.53	0.000	-84.605	57.42	0.000	-96.750	-117.53		
0.060	-43.733	71.37	0.200	-54.014	65.46	0.000	-63.431	57.42	0.000	-77.000	-117.53	0.000	-84.751	57.34	0.000	-97.000	-127.53		
0.063	-43.875	70.96	0.210	-54.114	65.16	0.000	-63.521	57.34	0.000	-77.250	-127.53	0.000	-84.897	57.26	0.000	-97.250	-137.53		
0.066	-44.017	70.55	0.220	-54.214	64.86	0.000	-63.611	57.26	0.000	-77.500	-137.53	0.000	-85.043	57.18	0.000	-97.500	-147.53		
0.069	-44.159	70.14	0.230	-54.314	64.56	0.000	-63.701	57.18	0.000	-77.750	-147.53	0.000	-85.189	57.10	0.000	-97.750	-157.53		
0.072	-44.301	69.73	0.240	-54.414	64.26	0.000	-63.791	57.10	0.000	-78.000	-157.53	0.000	-85.335	57.02	0.000	-98.000	-167.53		
0.075	-44.443	69.32	0.250	-54.514	63.96	0.000	-63.881	57.02	0.000	-78.250	-167.53	0.000	-85.481	56.94	0.000	-98.250	-177.53		
0.078	-44.585	68.91	0.260	-54.614	63.66	0.000	-63.971	56.94	0.000	-78.500	-177.53	0.000	-85.627	56.86	0.000	-98.500	-187.53		
0.081	-44.727	68.50	0.270	-54.714	63.36	0.000	-64.061	56.86	0.000	-78.750	-187.53	0.000	-85.773	56.78	0.000	-98.750	-197.53		
0.084	-44.869	68.09	0.280	-54.814	63.06	0.000	-64.151	56.78	0.000	-79.000	-197.53	0.000	-85.919	56.70	0.000	-99.000	-207.53		
0.087	-45.011	67.68	0.290	-54.914	62.76	0.000	-64.241	56.70	0.000	-79.250	-207.53	0.000	-86.065	56.62	0.000	-99.250	-217.53		
0.090	-45.153	67.27	0.300	-55.014	62.46	0.000	-64.331	56.62	0.000	-79.500	-217.53	0.000	-86.211	56.54	0.000	-99.500	-227.53		
0.105	-45.632	63.02	0.350	-55.513	62.13	0.000	-64.833	56.33	0.000	-80.000	-227.53	0.000	-86.713	56.24	0.000	-100.000	-237.53		
0.120	-46.111	58.77	0.400	-56.013	61.80	0.000	-65.335	56.04	0.000	-81.000	-237.53	0.000	-87.215	55.95	0.000	-101.000	-247.53		
0.135	-46.590	54.52	0.450	-56.513	61.47	0.000	-65.837	55.75	0.000	-82.000	-247.53	0.000	-87.717	55.66	0.000	-102.000	-257.53		
0.150	-47.069	50.27	0.500	-57.013	61.14	0.000	-66.339	55.46	0.000	-83.000	-257.53	0.000	-88.219	55.37	0.000	-103.000	-267.53		
0.165	-47.548	46.02	0.550	-57.513	60.81	0.000	-66.841	55.17	0.000	-84.000	-267.53	0.000	-88.721	55.08	0.000	-104.000	-277.53		
0.180	-48.027	41.77	0.600	-58.013	60.48	0.000	-67.343	54.88	0.000	-85.000	-277.53	0.000	-89.223	54.79	0.000	-105.000	-287.53		
0.195	-48.506	37.52	0.650	-58.513	60.15	0.000	-67.845	54.59	0.000	-86.000	-287.53	0.000	-89.725	54.50	0.000	-106.000	-297.53		
0.210	-48.985	33.27	0.700	-59.013	59.82	0.000	-68.347	54.30	0.000	-87.000	-297.53	0.000	-90.227	54.21	0.000	-107.000	-307.53		
0.225	-49.464	29.02	0.750	-59.513	59.49	0.000	-68.849	54.01	0.000	-88.000	-307.53	0.000	-90.729	53.92	0.000	-108.000	-317.53		
0.240	-49.943	24.77	0.800	-60.013	59.16	0.000	-69.351	53.72	0.000	-89.000	-317.53	0.000	-91.231	53.63	0.000	-109.000	-327.53		
0.255	-50.422	20.52	0.850	-60.513	58.83	0.000	-69.853	53.43	0.000	-90.000	-327.53	0.000	-91.733	53.34	0.000	-110.000	-337.53		
0.270	-50.901	16.27	0.900	-61.013	58.50	0.000	-70.355	53.14	0.000	-91.000	-337.53	0.000	-92.235	53.05	0.000	-111.000	-347.53		
0.285	-51.380	12.02	0.950	-61.513	58.17	0.000	-70.857	52.85	0.000	-92.000	-347.53	0.000	-92.737	52.76	0.000	-112.000	-357.53		
0.300	-51.859	7.77	1.000	-62.013	57.84	0.000	-71.359	52.56	0.000	-93.000	-357.53	0.000	-93.239	52.47	0.000	-113.000	-367.53		

Table 129. Radial Electric Field (Well-Conducting Soil), Frequency = 10.0 MHz, VED Height = 22.48 m

3.0 KM UPHRANGE				10.0 KM UPHRANGE				30.0 KM UPHRANGE				100.0 KM UPHRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
.000	-40.000	93.52	.000	-51.131	53.45	.000	-60.775	-83.53	.000	-71.275	-101.02	.000	-81.348	-119.70	.000
.003	-40.204	120.18	.010	-51.262	122.05	.030	-61.305	121.02	.100	-71.348	119.70	.200	-81.503	116.34	.300
.006	-40.504	120.35	.020	-51.394	122.59	.060	-61.514	118.68	.300	-71.518	110.53	.500	-81.684	102.54	.700
.009	-40.770	120.44	.030	-51.526	122.28	.100	-61.761	118.36	.500	-71.761	102.54	.700	-81.845	93.09	.900
.012	-40.941	120.46	.040	-51.661	121.72	.130	-61.937	118.00	.700	-71.937	93.09	.900	-82.003	83.29	1.000
.015	-41.051	120.41	.050	-51.793	120.89	.160	-62.072	117.41	.900	-72.072	83.29	1.000	-82.157	74.20	1.100
.018	-41.170	120.28	.060	-51.922	119.79	.190	-62.169	116.40	1.000	-72.169	74.20	1.100	-82.307	66.45	1.200
.021	-41.311	120.07	.070	-52.045	118.40	.220	-62.231	115.74	1.100	-72.231	66.45	1.200	-82.451	59.04	1.300
.024	-41.464	119.77	.080	-52.159	116.74	.250	-62.269	114.74	1.200	-72.269	59.04	1.300	-82.590	51.81	1.400
.027	-41.620	119.39	.090	-52.259	114.74	.280	-62.284	113.50	1.300	-72.284	51.81	1.400	-82.724	44.68	1.500
.030	-41.777	118.92	.100	-52.341	112.50	.310	-62.276	112.05	1.400	-72.276	44.68	1.500	-82.853	37.76	1.600
.033	-41.941	118.36	.110	-52.400	110.05	.340	-62.235	107.29	1.500	-72.235	37.76	1.600	-82.977	30.94	1.700
.036	-42.101	117.71	.120	-52.441	107.29	.370	-62.161	104.30	1.600	-72.161	30.94	1.700	-83.097	24.27	1.800
.039	-42.264	116.95	.130	-52.468	104.30	.400	-62.054	101.12	1.700	-72.054	24.27	1.800	-83.212	17.76	1.900
.042	-42.430	116.10	.140	-52.485	101.12	.430	-61.914	97.76	1.800	-71.914	17.76	1.900	-83.322	11.40	2.000
.045	-42.599	115.14	.150	-52.494	97.76	.460	-61.741	94.33	1.900	-71.741	11.40	2.000	-83.427	5.18	2.100
.048	-42.769	114.08	.160	-52.497	94.33	.490	-61.535	90.83	2.000	-71.535	5.18	2.100	-83.527	0.00	2.200
.051	-42.939	112.91	.170	-52.485	90.83	.520	-61.297	87.24	2.100	-71.297	0.00	2.200	-83.622	-4.18	2.300
.054	-43.109	111.64	.180	-52.458	87.24	.550	-61.029	83.59	2.200	-71.029	-4.18	2.300	-83.712	-8.36	2.400
.057	-43.279	110.28	.190	-52.416	83.59	.580	-60.734	79.89	2.300	-70.734	-8.36	2.400	-83.797	-12.54	2.500
.060	-43.449	108.83	.200	-52.363	79.89	.610	-60.404	76.14	2.400	-70.404	-12.54	2.500	-83.877	-16.72	2.600
.063	-43.619	107.38	.210	-52.301	76.14	.640	-60.049	72.34	2.500	-70.049	-16.72	2.600	-83.952	-20.90	2.700
.066	-43.789	105.93	.220	-52.230	72.34	.670	-59.669	68.49	2.600	-69.669	-20.90	2.700	-84.022	-25.08	2.800
.069	-43.959	104.48	.230	-52.149	68.49	.700	-59.264	64.60	2.700	-69.264	-25.08	2.800	-84.087	-29.26	2.900
.072	-44.129	103.03	.240	-52.058	64.60	.730	-58.834	60.66	2.800	-68.834	-29.26	2.900	-84.147	-33.44	3.000
.075	-44.299	101.58	.250	-51.957	60.66	.760	-58.379	56.67	2.900	-68.379	-33.44	3.000	-84.202	-37.62	3.100
.078	-44.469	100.13	.260	-51.846	56.67	.790	-57.899	52.63	3.000	-67.899	-37.62	3.100	-84.252	-41.80	3.200
.081	-44.639	98.68	.270	-51.725	52.63	.820	-57.394	48.54	3.100	-67.394	-41.80	3.200	-84.297	-45.98	3.300
.084	-44.809	97.23	.280	-51.594	48.54	.850	-56.864	44.40	3.200	-66.864	-45.98	3.300	-84.337	-50.16	3.400
.087	-44.979	95.78	.290	-51.453	44.40	.880	-56.309	40.21	3.300	-66.309	-50.16	3.400	-84.372	-54.34	3.500
.090	-45.149	94.33	.300	-51.302	40.21	.910	-55.729	36.07	3.400	-65.729	-54.34	3.500	-84.402	-58.52	3.600
.105	-46.263	85.23	.350	-50.684	50.31	1.050	-54.685	39.27	3.500	-64.685	-58.52	3.600	-84.527	-64.627	3.500
.120	-47.033	74.88	.400	-49.675	46.41	1.200	-53.581	36.29	4.000	-63.581	-64.627	3.500	-84.627	-70.720	4.000
.135	-47.803	64.53	.450	-48.676	42.51	1.350	-52.427	33.81	4.500	-62.427	-70.720	4.000	-84.720	-76.813	4.500
.150	-48.573	54.18	.500	-47.677	38.76	1.500	-51.223	31.33	5.000	-61.223	-76.813	4.500	-84.813	-82.906	5.000
.165	-49.343	43.83	.550	-46.678	35.01	1.650	-50.019	28.85	5.500	-60.019	-82.906	5.000	-84.906	-89.000	5.500
.180	-50.113	33.48	.600	-45.679	31.26	1.800	-48.815	26.37	6.000	-58.815	-89.000	5.500	-85.000	-95.094	6.000
.195	-50.883	23.13	.650	-44.680	27.51	1.950	-47.611	23.89	6.500	-57.611	-95.094	6.000	-85.094	-101.188	6.500
.210	-51.653	12.78	.700	-43.681	23.76	2.100	-46.407	21.41	7.000	-56.407	-101.188	6.500	-85.188	-107.282	7.000
.225	-52.423	2.43	.750	-42.682	19.01	2.250	-45.203	18.93	7.500	-55.203	-107.282	7.000	-85.282	-113.376	7.500
.240	-53.193	2.08	.800	-41.683	15.26	2.400	-44.000	16.45	8.000	-54.000	-113.376	7.500	-85.376	-119.470	8.000
.255	-53.963	1.73	.850	-40.684	11.51	2.550	-42.796	13.97	8.500	-52.796	-119.470	8.000	-85.470	-125.564	8.500
.270	-54.733	1.38	.900	-39.685	7.76	2.700	-41.592	11.49	9.000	-51.592	-125.564	8.500	-85.564	-131.658	9.000
.285	-55.503	1.03	.950	-38.686	4.01	2.850	-40.388	8.99	9.500	-50.388	-131.658	9.000	-85.658	-137.752	9.500
.300	-56.273	0.68	1.000	-37.687	0.26	3.000	-39.184	6.51	10.000	-49.184	-137.752	9.500	-85.752	-143.846	10.000

Table 130. Radial Electric Field (Well-Conducting Soil), Frequency = 10.0 MHz, VED Height = 44.95 m

3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					30.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)		
0.00	-36.846	-70.28	0.00	-36.821	-57.18	0.00	-36.821	-57.18	0.00	-36.821	-57.18	0.00	-36.821	-57.18	0.00	-36.821	-57.18		
0.03	-36.873	180.51	0.03	-36.890	145.28	0.03	-36.950	145.28	0.03	-36.950	145.28	0.03	-36.950	145.28	0.03	-36.950	145.28		
0.06	-37.103	160.71	0.06	-37.533	151.12	0.06	-37.533	151.12	0.06	-37.533	151.12	0.06	-37.533	151.12	0.06	-37.533	151.12		
0.09	-37.237	160.85	0.09	-37.666	150.78	0.09	-37.666	150.78	0.09	-37.666	150.78	0.09	-37.666	150.78	0.09	-37.666	150.78		
0.12	-37.371	160.92	0.12	-37.800	150.24	0.12	-37.800	150.24	0.12	-37.800	150.24	0.12	-37.800	150.24	0.12	-37.800	150.24		
0.15	-37.507	160.91	0.15	-37.933	149.44	0.15	-37.933	149.44	0.15	-37.933	149.44	0.15	-37.933	149.44	0.15	-37.933	149.44		
0.18	-37.643	160.84	0.18	-38.063	148.55	0.18	-38.063	148.55	0.18	-38.063	148.55	0.18	-38.063	148.55	0.18	-38.063	148.55		
0.21	-37.784	160.67	0.21	-38.188	147.50	0.21	-38.188	147.50	0.21	-38.188	147.50	0.21	-38.188	147.50	0.21	-38.188	147.50		
0.24	-37.925	160.47	0.24	-38.318	146.34	0.24	-38.318	146.34	0.24	-38.318	146.34	0.24	-38.318	146.34	0.24	-38.318	146.34		
0.27	-38.067	159.16	0.27	-38.448	145.10	0.27	-38.448	145.10	0.27	-38.448	145.10	0.27	-38.448	145.10	0.27	-38.448	145.10		
0.30	-38.211	157.76	0.30	-38.578	143.84	0.30	-38.578	143.84	0.30	-38.578	143.84	0.30	-38.578	143.84	0.30	-38.578	143.84		
0.33	-38.355	156.30	0.33	-38.704	142.58	0.33	-38.704	142.58	0.33	-38.704	142.58	0.33	-38.704	142.58	0.33	-38.704	142.58		
0.36	-38.500	154.84	0.36	-38.833	141.32	0.36	-38.833	141.32	0.36	-38.833	141.32	0.36	-38.833	141.32	0.36	-38.833	141.32		
0.39	-38.645	153.38	0.39	-38.966	140.06	0.39	-38.966	140.06	0.39	-38.966	140.06	0.39	-38.966	140.06	0.39	-38.966	140.06		
0.42	-38.790	151.93	0.42	-39.097	138.80	0.42	-39.097	138.80	0.42	-39.097	138.80	0.42	-39.097	138.80	0.42	-39.097	138.80		
0.45	-38.934	150.49	0.45	-39.233	137.54	0.45	-39.233	137.54	0.45	-39.233	137.54	0.45	-39.233	137.54	0.45	-39.233	137.54		
0.48	-39.078	149.05	0.48	-39.368	136.28	0.48	-39.368	136.28	0.48	-39.368	136.28	0.48	-39.368	136.28	0.48	-39.368	136.28		
0.51	-39.223	147.61	0.51	-39.503	135.02	0.51	-39.503	135.02	0.51	-39.503	135.02	0.51	-39.503	135.02	0.51	-39.503	135.02		
0.54	-39.368	146.17	0.54	-39.638	133.76	0.54	-39.638	133.76	0.54	-39.638	133.76	0.54	-39.638	133.76	0.54	-39.638	133.76		
0.57	-39.513	144.73	0.57	-39.773	132.50	0.57	-39.773	132.50	0.57	-39.773	132.50	0.57	-39.773	132.50	0.57	-39.773	132.50		
0.60	-39.658	143.29	0.60	-39.908	131.24	0.60	-39.908	131.24	0.60	-39.908	131.24	0.60	-39.908	131.24	0.60	-39.908	131.24		
0.63	-39.803	141.85	0.63	-40.043	130.00	0.63	-40.043	130.00	0.63	-40.043	130.00	0.63	-40.043	130.00	0.63	-40.043	130.00		
0.66	-39.948	140.41	0.66	-40.188	128.74	0.66	-40.188	128.74	0.66	-40.188	128.74	0.66	-40.188	128.74	0.66	-40.188	128.74		
0.69	-40.093	138.97	0.69	-40.333	127.48	0.69	-40.333	127.48	0.69	-40.333	127.48	0.69	-40.333	127.48	0.69	-40.333	127.48		
0.72	-40.238	137.53	0.72	-40.478	126.22	0.72	-40.478	126.22	0.72	-40.478	126.22	0.72	-40.478	126.22	0.72	-40.478	126.22		
0.75	-40.383	136.09	0.75	-40.623	124.96	0.75	-40.623	124.96	0.75	-40.623	124.96	0.75	-40.623	124.96	0.75	-40.623	124.96		
0.78	-40.528	134.65	0.78	-40.768	123.70	0.78	-40.768	123.70	0.78	-40.768	123.70	0.78	-40.768	123.70	0.78	-40.768	123.70		
0.81	-40.673	133.21	0.81	-40.913	122.44	0.81	-40.913	122.44	0.81	-40.913	122.44	0.81	-40.913	122.44	0.81	-40.913	122.44		
0.84	-40.818	131.77	0.84	-41.058	121.18	0.84	-41.058	121.18	0.84	-41.058	121.18	0.84	-41.058	121.18	0.84	-41.058	121.18		
0.87	-40.963	130.33	0.87	-41.203	119.92	0.87	-41.203	119.92	0.87	-41.203	119.92	0.87	-41.203	119.92	0.87	-41.203	119.92		
0.90	-41.108	128.89	0.90	-41.348	118.66	0.90	-41.348	118.66	0.90	-41.348	118.66	0.90	-41.348	118.66	0.90	-41.348	118.66		
1.05	-37.024	120.54	1.05	-37.047	79.47	1.05	-37.047	79.47	1.05	-37.047	79.47	1.05	-37.047	79.47	1.05	-37.047	79.47		
1.10	-37.024	110.18	1.10	-37.047	75.74	1.10	-37.047	75.74	1.10	-37.047	75.74	1.10	-37.047	75.74	1.10	-37.047	75.74		
1.15	-37.024	101.64	1.15	-37.047	71.60	1.15	-37.047	71.60	1.15	-37.047	71.60	1.15	-37.047	71.60	1.15	-37.047	71.60		
1.20	-37.024	93.33	1.20	-37.047	67.17	1.20	-37.047	67.17	1.20	-37.047	67.17	1.20	-37.047	67.17	1.20	-37.047	67.17		
1.25	-37.024	85.00	1.25	-37.047	61.10	1.25	-37.047	61.10	1.25	-37.047	61.10	1.25	-37.047	61.10	1.25	-37.047	61.10		
1.30	-37.024	77.00	1.30	-37.047	55.42	1.30	-37.047	55.42	1.30	-37.047	55.42	1.30	-37.047	55.42	1.30	-37.047	55.42		
1.35	-37.024	69.00	1.35	-37.047	49.85	1.35	-37.047	49.85	1.35	-37.047	49.85	1.35	-37.047	49.85	1.35	-37.047	49.85		
1.40	-37.024	61.00	1.40	-37.047	44.44	1.40	-37.047	44.44	1.40	-37.047	44.44	1.40	-37.047	44.44	1.40	-37.047	44.44		
1.45	-37.024	53.00	1.45	-37.047	39.14	1.45	-37.047	39.14	1.45	-37.047	39.14	1.45	-37.047	39.14	1.45	-37.047	39.14		
1.50	-37.024	45.00	1.50	-37.047	33.95	1.50	-37.047	33.95	1.50	-37.047	33.95	1.50	-37.047	33.95	1.50	-37.047	33.95		
1.55	-37.024	37.00	1.55	-37.047	28.82	1.55	-37.047	28.82	1.55	-37.047	28.82	1.55	-37.047	28.82	1.55	-37.047	28.82		
1.60	-37.024	30.00	1.60	-37.047	23.74	1.60	-37.047	23.74	1.60	-37.047	23.74	1.60	-37.047	23.74	1.60	-37.047	23.74		
1.65	-37.024	23.00	1.65	-37.047	18.71	1.65	-37.047	18.71	1.65	-37.047	18.71	1.65	-37.047	18.71	1.65	-37.047	18.71		
1.70	-37.024	16.00	1.70	-37.047	13.74	1.70	-37.047	13.74	1.70	-37.047	13.74	1.70	-37.047	13.74	1.70	-37.047	13.74		
1.75	-37.024	9.00	1.75	-37.047	8.82	1.75	-37.047	8.82	1.75	-37.047	8.82	1.75	-37.047	8.82	1.75	-37.047	8.82		
1.80	-37.024	3.00	1.80	-37.047	3.76	1.80	-37.047	3.76	1.80	-37.047	3.76	1.80	-37.047	3.76	1.80	-37.047	3.76		
1.85	-37.024	0.00	1.85	-37.047	0.00	1.85	-37.047	0.00	1.85	-37.047	0.00	1.85	-37.047	0.00	1.85	-37.047	0.00		
1.90	-37.024	0.00	1.90	-37.047	0.00	1.90	-37.047	0.00	1.90	-37.047	0.00	1.90	-37.047	0.00	1.90	-37.047	0.00		

Table 131. Radial Electric Field (Well-Conducting Soil), Frequency = 100.0 MHz, VED Height = 0.00 m

	1.0 KM DOWNRANGE				3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE			
	REL INT (dB)	AMP (V)	PHASE (DEG)	REL INT (dB)	AMP (V)	PHASE (DEG)	REL INT (dB)	AMP (V)	PHASE (DEG)	REL INT (dB)	AMP (V)	PHASE (DEG)	REL INT (dB)	AMP (V)	PHASE (DEG)	REL INT (dB)
.000	-53.171	21.26	21.26	0.000	-62.720	-110.15	0.000	-71.300	-53.24	0.000	-82.726	24.68	0.000	-92.726	24.68	0.000
.001	-53.291	21.19	21.19	.003	-62.840	86.73	.010	-73.390	86.56	.030	-82.829	84.02	.060	-92.829	84.02	.090
.002	-53.412	21.12	21.12	.006	-62.960	86.73	.020	-73.510	86.56	.060	-82.862	73.31	.120	-92.862	73.31	.240
.003	-53.533	21.05	21.05	.009	-63.080	86.73	.030	-73.630	86.56	.090	-82.905	57.50	.180	-92.905	57.50	.360
.004	-53.654	20.98	20.98	.012	-63.200	86.73	.040	-73.750	86.56	.120	-82.948	41.46	.240	-92.948	41.46	.480
.005	-53.775	20.91	20.91	.015	-63.320	86.73	.050	-73.870	86.56	.150	-82.991	25.42	.300	-92.991	25.42	.600
.006	-53.896	20.84	20.84	.018	-63.440	86.73	.060	-73.990	86.56	.180	-83.034	9.38	.360	-93.034	9.38	.720
.007	-54.017	20.77	20.77	.021	-63.560	86.73	.070	-74.110	86.56	.210	-83.077	-7.58	.420	-93.077	-7.58	.840
.008	-54.138	20.70	20.70	.024	-63.680	86.73	.080	-74.230	86.56	.240	-83.120	-21.54	.480	-93.120	-21.54	.960
.009	-54.259	20.63	20.63	.027	-63.800	86.73	.090	-74.350	86.56	.270	-83.163	-35.49	.540	-93.163	-35.49	1.080
.010	-54.380	20.56	20.56	.030	-63.920	86.73	.100	-74.470	86.56	.300	-83.206	-49.45	.600	-93.206	-49.45	1.200
.011	-54.501	20.49	20.49	.033	-64.040	86.73	.110	-74.590	86.56	.330	-83.249	-63.40	.660	-93.249	-63.40	1.320
.012	-54.622	20.42	20.42	.036	-64.160	86.73	.120	-74.710	86.56	.360	-83.292	-77.36	.720	-93.292	-77.36	1.440
.013	-54.743	20.35	20.35	.039	-64.280	86.73	.130	-74.830	86.56	.390	-83.335	-91.31	.780	-93.335	-91.31	1.560
.014	-54.864	20.28	20.28	.042	-64.400	86.73	.140	-74.950	86.56	.420	-83.378	-105.27	.840	-93.378	-105.27	1.680
.015	-54.985	20.21	20.21	.045	-64.520	86.73	.150	-75.070	86.56	.450	-83.421	-119.22	.900	-93.421	-119.22	1.800
.016	-55.106	20.14	20.14	.048	-64.640	86.73	.160	-75.190	86.56	.480	-83.464	-133.18	.960	-93.464	-133.18	1.920
.017	-55.227	20.07	20.07	.051	-64.760	86.73	.170	-75.310	86.56	.510	-83.507	-147.13	1.020	-93.507	-147.13	2.040
.018	-55.348	20.00	20.00	.054	-64.880	86.73	.180	-75.430	86.56	.540	-83.550	-161.09	1.080	-93.550	-161.09	2.160
.019	-55.469	19.93	19.93	.057	-65.000	86.73	.190	-75.550	86.56	.570	-83.593	-175.04	1.140	-93.593	-175.04	2.280
.020	-55.590	19.86	19.86	.060	-65.120	86.73	.200	-75.670	86.56	.600	-83.636	-188.99	1.200	-93.636	-188.99	2.400
.021	-55.711	19.79	19.79	.063	-65.240	86.73	.210	-75.790	86.56	.630	-83.679	-202.95	1.260	-93.679	-202.95	2.520
.022	-55.832	19.72	19.72	.066	-65.360	86.73	.220	-75.910	86.56	.660	-83.722	-216.90	1.320	-93.722	-216.90	2.640
.023	-55.953	19.65	19.65	.069	-65.480	86.73	.230	-76.030	86.56	.690	-83.765	-230.85	1.380	-93.765	-230.85	2.760
.024	-56.074	19.58	19.58	.072	-65.600	86.73	.240	-76.150	86.56	.720	-83.808	-244.81	1.440	-93.808	-244.81	2.880
.025	-56.195	19.51	19.51	.075	-65.720	86.73	.250	-76.270	86.56	.750	-83.851	-258.76	1.500	-93.851	-258.76	3.000
.026	-56.316	19.44	19.44	.078	-65.840	86.73	.260	-76.390	86.56	.780	-83.894	-272.71	1.560	-93.894	-272.71	3.120
.027	-56.437	19.37	19.37	.081	-65.960	86.73	.270	-76.510	86.56	.810	-83.937	-286.67	1.620	-93.937	-286.67	3.240
.028	-56.558	19.30	19.30	.084	-66.080	86.73	.280	-76.630	86.56	.840	-83.980	-300.62	1.680	-93.980	-300.62	3.360
.029	-56.679	19.23	19.23	.087	-66.200	86.73	.290	-76.750	86.56	.870	-84.023	-314.57	1.740	-94.023	-314.57	3.480
.030	-56.800	19.16	19.16	.090	-66.320	86.73	.300	-76.870	86.56	.900	-84.066	-328.53	1.800	-94.066	-328.53	3.600
.035	-57.040	18.84	18.84	.105	-66.560	86.73	.350	-77.110	86.56	.350	-84.306	-366.48	1.850	-94.306	-366.48	3.650
.040	-57.280	18.52	18.52	.120	-66.800	86.73	.400	-77.350	86.56	.400	-84.546	-404.43	1.900	-94.546	-404.43	3.700
.045	-57.520	18.20	18.20	.135	-67.040	86.73	.450	-77.590	86.56	.450	-84.786	-442.38	1.950	-94.786	-442.38	3.750
.050	-57.760	17.88	17.88	.150	-67.280	86.73	.500	-77.830	86.56	.500	-85.026	-480.33	2.000	-95.026	-480.33	3.800
.055	-58.000	17.56	17.56	.165	-67.520	86.73	.550	-78.070	86.56	.550	-85.266	-518.28	2.050	-95.266	-518.28	3.850
.060	-58.240	17.24	17.24	.180	-67.760	86.73	.600	-78.310	86.56	.600	-85.506	-556.23	2.100	-95.506	-556.23	3.900
.065	-58.480	16.92	16.92	.195	-68.000	86.73	.650	-78.550	86.56	.650	-85.746	-594.18	2.150	-95.746	-594.18	3.950
.070	-58.720	16.60	16.60	.210	-68.240	86.73	.700	-78.790	86.56	.700	-85.986	-632.13	2.200	-95.986	-632.13	4.000
.075	-58.960	16.28	16.28	.225	-68.480	86.73	.750	-79.030	86.56	.750	-86.226	-670.08	2.250	-96.226	-670.08	4.050
.080	-59.200	15.96	15.96	.240	-68.720	86.73	.800	-79.270	86.56	.800	-86.466	-708.03	2.300	-96.466	-708.03	4.100
.085	-59.440	15.64	15.64	.255	-68.960	86.73	.850	-79.510	86.56	.850	-86.706	-745.98	2.350	-96.706	-745.98	4.150
.090	-59.680	15.32	15.32	.270	-69.200	86.73	.900	-79.750	86.56	.900	-86.946	-783.93	2.400	-96.946	-783.93	4.200
.095	-59.920	15.00	15.00	.285	-69.440	86.73	.950	-79.990	86.56	.950	-87.186	-821.88	2.450	-97.186	-821.88	4.250
.100	-60.160	14.68	14.68	.300	-69.680	86.73	1.000	-80.230	86.56	1.000	-87.426	-859.83	2.500	-97.426	-859.83	4.300

Table 132. Radial Electric Field (Well-Conducting Soil), Frequency = 100.0 MHz, VED Height = 2.25 m

1.0 KM DOWNRANGE				3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE			
REL IONT (RM)	AMP (DB)	PHASE (DEG)	REL IONT (RM)	AMP (DB)	PHASE (DEG)	REL IONT (RM)	AMP (DB)	PHASE (DEG)	REL IONT (RM)	AMP (DB)	PHASE (DEG)	REL IONT (RM)	AMP (DB)	PHASE (DEG)	REL IONT (RM)
.000	-50.000	07.50	.000	-50.000	07.50	.000	-50.000	07.50	.000	-50.000	07.50	.000	-50.000	07.50	.000
.001	-50.000	130.47	.001	-50.000	130.47	.001	-50.000	130.47	.001	-50.000	130.47	.001	-50.000	130.47	.001
.002	-50.000	130.47	.002	-50.000	130.47	.002	-50.000	130.47	.002	-50.000	130.47	.002	-50.000	130.47	.002
.003	-50.000	130.47	.003	-50.000	130.47	.003	-50.000	130.47	.003	-50.000	130.47	.003	-50.000	130.47	.003
.004	-50.000	130.47	.004	-50.000	130.47	.004	-50.000	130.47	.004	-50.000	130.47	.004	-50.000	130.47	.004
.005	-50.000	130.47	.005	-50.000	130.47	.005	-50.000	130.47	.005	-50.000	130.47	.005	-50.000	130.47	.005
.006	-50.000	130.47	.006	-50.000	130.47	.006	-50.000	130.47	.006	-50.000	130.47	.006	-50.000	130.47	.006
.007	-50.000	130.47	.007	-50.000	130.47	.007	-50.000	130.47	.007	-50.000	130.47	.007	-50.000	130.47	.007
.008	-50.000	130.47	.008	-50.000	130.47	.008	-50.000	130.47	.008	-50.000	130.47	.008	-50.000	130.47	.008
.009	-50.000	130.47	.009	-50.000	130.47	.009	-50.000	130.47	.009	-50.000	130.47	.009	-50.000	130.47	.009
.010	-50.000	130.47	.010	-50.000	130.47	.010	-50.000	130.47	.010	-50.000	130.47	.010	-50.000	130.47	.010
.011	-50.000	130.47	.011	-50.000	130.47	.011	-50.000	130.47	.011	-50.000	130.47	.011	-50.000	130.47	.011
.012	-50.000	130.47	.012	-50.000	130.47	.012	-50.000	130.47	.012	-50.000	130.47	.012	-50.000	130.47	.012
.013	-50.000	130.47	.013	-50.000	130.47	.013	-50.000	130.47	.013	-50.000	130.47	.013	-50.000	130.47	.013
.014	-50.000	130.47	.014	-50.000	130.47	.014	-50.000	130.47	.014	-50.000	130.47	.014	-50.000	130.47	.014
.015	-50.000	130.47	.015	-50.000	130.47	.015	-50.000	130.47	.015	-50.000	130.47	.015	-50.000	130.47	.015
.016	-50.000	130.47	.016	-50.000	130.47	.016	-50.000	130.47	.016	-50.000	130.47	.016	-50.000	130.47	.016
.017	-50.000	130.47	.017	-50.000	130.47	.017	-50.000	130.47	.017	-50.000	130.47	.017	-50.000	130.47	.017
.018	-50.000	130.47	.018	-50.000	130.47	.018	-50.000	130.47	.018	-50.000	130.47	.018	-50.000	130.47	.018
.019	-50.000	130.47	.019	-50.000	130.47	.019	-50.000	130.47	.019	-50.000	130.47	.019	-50.000	130.47	.019
.020	-50.000	130.47	.020	-50.000	130.47	.020	-50.000	130.47	.020	-50.000	130.47	.020	-50.000	130.47	.020
.021	-50.000	130.47	.021	-50.000	130.47	.021	-50.000	130.47	.021	-50.000	130.47	.021	-50.000	130.47	.021
.022	-50.000	130.47	.022	-50.000	130.47	.022	-50.000	130.47	.022	-50.000	130.47	.022	-50.000	130.47	.022
.023	-50.000	130.47	.023	-50.000	130.47	.023	-50.000	130.47	.023	-50.000	130.47	.023	-50.000	130.47	.023
.024	-50.000	130.47	.024	-50.000	130.47	.024	-50.000	130.47	.024	-50.000	130.47	.024	-50.000	130.47	.024
.025	-50.000	130.47	.025	-50.000	130.47	.025	-50.000	130.47	.025	-50.000	130.47	.025	-50.000	130.47	.025
.026	-50.000	130.47	.026	-50.000	130.47	.026	-50.000	130.47	.026	-50.000	130.47	.026	-50.000	130.47	.026
.027	-50.000	130.47	.027	-50.000	130.47	.027	-50.000	130.47	.027	-50.000	130.47	.027	-50.000	130.47	.027
.028	-50.000	130.47	.028	-50.000	130.47	.028	-50.000	130.47	.028	-50.000	130.47	.028	-50.000	130.47	.028
.029	-50.000	130.47	.029	-50.000	130.47	.029	-50.000	130.47	.029	-50.000	130.47	.029	-50.000	130.47	.029
.030	-50.000	130.47	.030	-50.000	130.47	.030	-50.000	130.47	.030	-50.000	130.47	.030	-50.000	130.47	.030
.035	-43.454	51.40	.105	-43.454	50.05	.350	-43.454	46.80	1.050	-43.454	45.70	3.000	-43.454	45.70	10.000
.040	-41.407	57.34	.120	-41.407	49.32	.400	-41.407	46.80	1.200	-41.407	45.68	3.000	-41.407	45.68	10.000
.045	-39.350	54.05	.135	-39.350	48.48	.450	-39.350	46.80	1.350	-39.350	45.71	3.000	-39.350	45.71	10.000
.050	-37.303	52.77	.150	-37.303	47.95	.500	-37.303	46.80	1.500	-37.303	45.74	3.000	-37.303	45.74	10.000
.055	-35.256	51.46	.165	-35.256	47.02	.550	-35.256	46.80	1.650	-35.256	45.90	3.000	-35.256	45.90	10.000
.060	-33.209	50.14	.180	-33.209	46.10	.600	-33.209	46.80	1.800	-33.209	46.03	3.000	-33.209	46.03	10.000
.065	-31.162	48.83	.195	-31.162	45.18	.650	-31.162	46.80	1.950	-31.162	46.18	3.000	-31.162	46.18	10.000
.070	-29.115	47.51	.210	-29.115	44.26	.700	-29.115	46.80	2.100	-29.115	46.34	3.000	-29.115	46.34	10.000
.075	-27.068	46.19	.225	-27.068	43.34	.750	-27.068	46.80	2.250	-27.068	46.52	3.000	-27.068	46.52	10.000
.080	-25.021	44.87	.240	-25.021	42.42	.800	-25.021	46.80	2.400	-25.021	46.72	3.000	-25.021	46.72	10.000
.085	-22.974	43.55	.255	-22.974	41.50	.850	-22.974	46.80	2.550	-22.974	46.93	3.000	-22.974	46.93	10.000
.090	-20.927	42.23	.270	-20.927	40.58	.900	-20.927	46.80	2.700	-20.927	47.16	3.000	-20.927	47.16	10.000
.095	-18.880	40.91	.285	-18.880	39.66	.950	-18.880	46.80	2.850	-18.880	47.40	3.000	-18.880	47.40	10.000
.100	-16.833	39.59	.300	-16.833	38.74	1.000	-16.833	46.80	3.000	-16.833	47.66	3.000	-16.833	47.66	10.000

Table 133. Radial Electric Field (Well-Conducting Soil), Frequency = 100.0 MHz, VED Height = 4.50 m

1.0 KM DOWNRANGE			3.0 KM DOWNRANGE			10.0 KM DOWNRANGE			30.0 KM DOWNRANGE		
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)
0.000	-46.277	161.47	0.000	-55.752	-24.10	0.000	-66.174	106.58	0.000	-75.713	90.61
0.01	-46.414	157.10	0.01	-55.872	154.40	0.01	-66.298	154.75	0.01	-75.816	150.08
0.02	-46.551	152.83	0.02	-55.991	151.40	0.02	-66.391	149.12	0.02	-75.981	139.37
0.03	-46.688	148.56	0.03	-56.104	151.50	0.03	-66.387	143.06	0.03	-76.181	123.56
0.04	-46.825	144.29	0.04	-56.198	149.74	0.04	-66.174	134.87	0.04	-73.006	107.51
0.05	-46.962	139.92	0.05	-56.257	145.04	0.05	-65.661	125.30	0.05	-70.635	95.01
0.06	-47.100	135.56	0.06	-56.283	141.57	0.06	-64.794	115.47	0.06	-68.173	86.41
0.07	-47.237	131.20	0.07	-56.192	136.85	0.07	-63.632	106.41	0.07	-65.844	80.60
0.08	-47.375	126.84	0.08	-56.063	131.82	0.08	-62.286	96.69	0.08	-63.724	76.75
0.09	-47.512	122.48	0.09	-55.746	126.07	0.09	-60.863	96.44	0.09	-61.069	72.01
0.10	-47.650	118.12	0.10	-55.350	120.41	0.10	-59.434	87.48	0.10	-58.484	70.58
0.11	-47.787	113.76	0.11	-54.893	114.85	0.11	-58.050	83.58	0.11	-57.033	69.48
0.12	-47.925	109.40	0.12	-54.234	109.37	0.12	-56.734	80.50	0.12	-55.697	68.63
0.13	-48.062	105.04	0.13	-53.380	104.70	0.13	-55.492	78.09	0.13	-54.460	67.97
0.14	-48.199	100.68	0.14	-52.427	100.04	0.14	-54.315	76.04	0.14	-53.309	67.44
0.15	-48.337	96.32	0.15	-51.482	96.38	0.15	-53.207	74.50	0.15	-52.235	67.02
0.16	-48.474	91.96	0.16	-50.547	92.73	0.16	-52.163	73.20	0.16	-51.228	66.67
0.17	-48.611	87.60	0.17	-49.721	89.91	0.17	-51.177	72.13	0.17	-50.261	66.39
0.18	-48.748	83.24	0.18	-49.721	87.20	0.18	-50.245	71.24	0.18	-49.387	66.17
0.19	-48.885	78.88	0.19	-48.748	85.00	0.19	-49.363	70.49	0.19	-48.541	65.98
0.20	-49.022	74.52	0.20	-48.214	83.01	0.20	-48.526	69.46	0.20	-47.738	65.70
0.21	-49.159	70.16	0.21	-47.491	81.27	0.21	-47.730	69.32	0.21	-46.975	65.60
0.22	-49.296	65.80	0.22	-46.790	79.76	0.22	-46.972	68.87	0.22	-46.248	65.70
0.23	-49.433	61.44	0.23	-46.112	78.43	0.23	-46.244	68.48	0.23	-45.594	65.51
0.24	-49.570	57.08	0.24	-45.457	77.27	0.24	-45.550	68.15	0.24	-44.890	65.44
0.25	-49.707	52.72	0.25	-44.823	76.25	0.25	-44.897	67.86	0.25	-44.255	65.39
0.26	-49.844	48.36	0.26	-44.214	75.34	0.26	-44.285	67.61	0.26	-43.645	65.35
0.27	-49.981	44.00	0.27	-43.625	74.55	0.27	-43.655	67.40	0.27	-43.054	65.32
0.28	-50.118	39.64	0.28	-43.055	73.84	0.28	-43.071	67.22	0.28	-42.490	65.30
0.29	-50.255	35.28	0.29	-42.505	73.21	0.29	-42.506	67.06	0.29	-41.954	65.24
0.30	-50.392	30.92	0.30	-41.974	72.65	0.30	-41.967	66.93			
0.35	-37.564	86.42	0.35	-34.564	70.65	0.35	-34.527	66.51	1.050	-39.512	65.34
0.40	-37.574	78.50	0.40	-37.500	64.51	0.40	-37.450	66.34	1.200	-37.434	65.50
0.45	-35.635	75.96	0.45	-35.707	68.90	0.45	-35.652	66.45	1.350	-35.636	65.75
0.50	-34.681	74.36	0.50	-34.134	68.62	0.50	-34.077	66.91	1.500	-34.060	66.06
0.55	-32.905	73.35	0.55	-32.740	68.56	0.55	-32.682	66.91	1.650	-32.665	66.44
0.60	-31.060	72.77	0.60	-31.496	68.68	0.60	-31.438	67.27	1.800	-31.421	66.86
0.65	-30.552	72.51	0.65	-30.380	68.93	0.65	-30.321	67.69	1.950	-30.305	67.44
0.70	-29.546	72.48	0.70	-29.373	69.24	0.70	-29.315	68.18	2.100	-29.298	67.87
0.75	-28.635	72.65	0.75	-28.462	69.74	0.75	-28.403	68.73	2.250	-28.387	68.44
0.80	-27.808	72.98	0.80	-27.634	70.28	0.80	-27.576	69.34	2.400	-27.560	69.07
0.85	-27.055	73.45	0.85	-26.884	70.84	0.85	-26.824	70.00	2.550	-26.808	69.75
0.90	-26.364	74.02	0.90	-26.197	71.58	0.90	-26.136	70.72	2.700	-26.122	70.48
0.95	-25.714	74.76	0.95	-25.571	72.35	0.95	-25.513	71.50	2.850	-25.497	71.26
1.00	-25.174	75.54	1.00	-25.001	73.14	1.00	-24.943	72.35	3.000	-24.926	72.11

Table 134. Azimuthal Magnetic Field (Well-Conducting Soil), Frequency = 0.1 MHz, VED Height = 0.00 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)	
0.000	-0.77	-13.42		0.000	-2.34	-24.65		0.000	-0.87	-42.09	
0.030	-0.86	-13.36		0.100	-2.69	-24.24		0.300	-0.776	-41.48	
0.060	-0.95	-13.30		0.200	-2.96	-24.04		0.600	-0.861	-40.86	
0.090	-1.04	-13.24		0.300	-3.26	-23.84		0.900	-0.941	-40.25	
0.120	-1.12	-13.18		0.400	-3.54	-23.64		1.200	-1.018	-39.62	
0.150	-1.21	-13.12		0.500	-3.81	-23.43		1.500	-1.091	-39.00	
0.180	-1.30	-13.06		0.600	-4.07	-23.23		1.800	-1.161	-38.37	
0.210	-1.38	-13.00		0.700	-4.32	-23.02		2.100	-1.226	-37.74	
0.240	-1.46	-12.94		0.800	-4.57	-22.82		2.400	-1.288	-37.12	
0.270	-1.54	-12.87		0.900	-4.81	-22.62		2.700	-1.347	-36.49	
0.300	-1.62	-12.81		1.000	-5.04	-22.41		3.000	-1.402	-35.87	
0.330	-1.70	-12.75		1.100	-5.27	-22.21		3.300	-1.453	-35.25	
0.360	-1.78	-12.69		1.200	-5.49	-22.00		3.600	-1.501	-34.63	
0.390	-1.86	-12.63		1.300	-5.70	-21.80		3.900	-1.546	-34.02	
0.420	-1.94	-12.57		1.400	-5.91	-21.60		4.200	-1.588	-33.42	
0.450	-2.01	-12.51		1.500	-6.11	-21.40		4.500	-1.627	-32.82	
0.480	-2.09	-12.45		1.600	-6.31	-21.20		4.800	-1.663	-32.22	
0.510	-2.16	-12.39		1.700	-6.50	-21.00		5.100	-1.696	-31.64	
0.540	-2.23	-12.33		1.800	-6.68	-20.80		5.400	-1.727	-31.06	
0.570	-2.30	-12.27		1.900	-6.86	-20.60		5.700	-1.755	-30.49	
0.600	-2.38	-12.21		2.000	-7.03	-20.40		6.000	-1.780	-29.92	
0.630	-2.45	-12.15		2.100	-7.19	-20.20		6.300	-1.803	-29.37	
0.660	-2.51	-12.09		2.200	-7.35	-20.01		6.600	-1.824	-28.82	
0.690	-2.58	-12.03		2.300	-7.51	-19.81		6.900	-1.842	-28.29	
0.720	-2.65	-11.97		2.400	-7.66	-19.62		7.200	-1.859	-27.76	
0.750	-2.72	-11.91		2.500	-7.80	-19.43		7.500	-1.873	-27.24	
0.780	-2.78	-11.85		2.600	-7.94	-19.24		7.800	-1.886	-26.74	
0.810	-2.85	-11.80		2.700	-8.07	-19.05		8.100	-1.897	-26.24	
0.840	-2.91	-11.74		2.800	-8.20	-18.86		8.400	-1.906	-25.75	
0.870	-2.97	-11.68		2.900	-8.33	-18.67		8.700	-1.914	-25.26	
0.900	-3.04	-11.62		3.000	-8.45	-18.49		9.000	-1.920	-24.81	
1.050	-3.34	-11.33		3.500	-8.98	-17.38		10.500	-1.933	-22.62	
1.200	-3.62	-11.04		4.000	-9.41	-16.71		12.000	-1.920	-20.67	
1.350	-3.86	-10.76		4.500	-9.75	-15.88		13.500	-1.889	-18.95	
1.500	-4.13	-10.48		5.000	-10.02	-15.10		15.000	-1.847	-17.43	
1.650	-4.36	-10.21		5.500	-10.22	-14.36		16.500	-1.798	-16.08	
1.800	-4.58	-9.95		6.000	-10.37	-13.66		18.000	-1.746	-14.90	
1.950	-4.78	-9.69		6.500	-10.47	-13.00		19.500	-1.691	-13.86	
2.100	-4.97	-9.44		7.000	-10.53	-12.38		21.000	-1.638	-12.93	
2.250	-5.16	-9.19		7.500	-10.56	-11.80		22.500	-1.585	-12.11	
2.400	-5.33	-8.95		8.000	-10.56	-11.26		24.000	-1.535	-11.38	
2.550	-5.49	-8.72		8.500	-10.55	-10.75		25.500	-1.487	-10.72	
2.700	-5.65	-8.49		9.000	-10.52	-10.28		27.000	-1.442	-10.14	
2.850	-5.80	-8.27		9.500	-10.47	-9.83		28.500	-1.400	-9.61	
3.000	-5.94	-8.06		10.000	-10.42	-9.42		30.000	-1.361	-9.13	

Table 135. Azimuthal Magnetic Field (Well-Conducting Soil), Frequency = 0.1 MHz, VED Height = 2247.60 m

30.0 KM UORANGE				100.0 KM UORANGE				300.0 KM UORANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)
0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00	0.000	-0.000	-0.00
0.030	-0.030	-0.03	0.030	-0.030	-0.03	0.030	-0.030	-0.03	0.030	-0.030	-0.03
0.060	-0.060	-0.06	0.060	-0.060	-0.06	0.060	-0.060	-0.06	0.060	-0.060	-0.06
0.090	-0.090	-0.09	0.090	-0.090	-0.09	0.090	-0.090	-0.09	0.090	-0.090	-0.09
0.120	-0.120	-0.12	0.120	-0.120	-0.12	0.120	-0.120	-0.12	0.120	-0.120	-0.12
0.150	-0.150	-0.15	0.150	-0.150	-0.15	0.150	-0.150	-0.15	0.150	-0.150	-0.15
0.180	-0.180	-0.18	0.180	-0.180	-0.18	0.180	-0.180	-0.18	0.180	-0.180	-0.18
0.210	-0.210	-0.21	0.210	-0.210	-0.21	0.210	-0.210	-0.21	0.210	-0.210	-0.21
0.240	-0.240	-0.24	0.240	-0.240	-0.24	0.240	-0.240	-0.24	0.240	-0.240	-0.24
0.270	-0.270	-0.27	0.270	-0.270	-0.27	0.270	-0.270	-0.27	0.270	-0.270	-0.27
0.300	-0.300	-0.30	0.300	-0.300	-0.30	0.300	-0.300	-0.30	0.300	-0.300	-0.30
0.330	-0.330	-0.33	0.330	-0.330	-0.33	0.330	-0.330	-0.33	0.330	-0.330	-0.33
0.360	-0.360	-0.36	0.360	-0.360	-0.36	0.360	-0.360	-0.36	0.360	-0.360	-0.36
0.390	-0.390	-0.39	0.390	-0.390	-0.39	0.390	-0.390	-0.39	0.390	-0.390	-0.39
0.420	-0.420	-0.42	0.420	-0.420	-0.42	0.420	-0.420	-0.42	0.420	-0.420	-0.42
0.450	-0.450	-0.45	0.450	-0.450	-0.45	0.450	-0.450	-0.45	0.450	-0.450	-0.45
0.480	-0.480	-0.48	0.480	-0.480	-0.48	0.480	-0.480	-0.48	0.480	-0.480	-0.48
0.510	-0.510	-0.51	0.510	-0.510	-0.51	0.510	-0.510	-0.51	0.510	-0.510	-0.51
0.540	-0.540	-0.54	0.540	-0.540	-0.54	0.540	-0.540	-0.54	0.540	-0.540	-0.54
0.570	-0.570	-0.57	0.570	-0.570	-0.57	0.570	-0.570	-0.57	0.570	-0.570	-0.57
0.600	-0.600	-0.60	0.600	-0.600	-0.60	0.600	-0.600	-0.60	0.600	-0.600	-0.60
0.630	-0.630	-0.63	0.630	-0.630	-0.63	0.630	-0.630	-0.63	0.630	-0.630	-0.63
0.660	-0.660	-0.66	0.660	-0.660	-0.66	0.660	-0.660	-0.66	0.660	-0.660	-0.66
0.690	-0.690	-0.69	0.690	-0.690	-0.69	0.690	-0.690	-0.69	0.690	-0.690	-0.69
0.720	-0.720	-0.72	0.720	-0.720	-0.72	0.720	-0.720	-0.72	0.720	-0.720	-0.72
0.750	-0.750	-0.75	0.750	-0.750	-0.75	0.750	-0.750	-0.75	0.750	-0.750	-0.75
0.780	-0.780	-0.78	0.780	-0.780	-0.78	0.780	-0.780	-0.78	0.780	-0.780	-0.78
0.810	-0.810	-0.81	0.810	-0.810	-0.81	0.810	-0.810	-0.81	0.810	-0.810	-0.81
0.840	-0.840	-0.84	0.840	-0.840	-0.84	0.840	-0.840	-0.84	0.840	-0.840	-0.84
0.870	-0.870	-0.87	0.870	-0.870	-0.87	0.870	-0.870	-0.87	0.870	-0.870	-0.87
0.900	-0.900	-0.90	0.900	-0.900	-0.90	0.900	-0.900	-0.90	0.900	-0.900	-0.90
1.050	-0.840	-7.10	1.050	-1.529	-13.09	1.050	-2.645	-19.03	1.050	-4.065	-25.02
1.200	-0.913	-6.92	1.200	-1.613	-12.23	1.200	-2.675	-19.08	1.200	-4.085	-25.07
1.350	-0.985	-6.74	1.350	-1.694	-11.41	1.350	-2.705	-19.13	1.350	-4.105	-25.12
1.500	-1.058	-6.56	1.500	-1.772	-10.63	1.500	-2.735	-19.18	1.500	-4.125	-25.17
1.650	-1.136	-6.39	1.650	-1.850	-9.88	1.650	-2.765	-19.23	1.650	-4.145	-25.22
1.800	-1.216	-6.22	1.800	-1.928	-9.18	1.800	-2.795	-19.28	1.800	-4.165	-25.27
1.950	-1.303	-6.05	1.950	-2.006	-8.51	1.950	-2.825	-19.33	1.950	-4.185	-25.32
2.100	-1.394	-5.88	2.100	-2.087	-7.88	2.100	-2.855	-19.38	2.100	-4.205	-25.37
2.250	-1.488	-5.70	2.250	-2.169	-7.29	2.250	-2.885	-19.43	2.250	-4.225	-25.42
2.400	-1.588	-5.53	2.400	-2.255	-6.72	2.400	-2.915	-19.48	2.400	-4.245	-25.47
2.550	-1.692	-5.36	2.550	-2.344	-6.19	2.550	-2.945	-19.53	2.550	-4.265	-25.52
2.700	-1.801	-5.21	2.700	-2.438	-5.68	2.700	-2.975	-19.58	2.700	-4.285	-25.57
2.850	-1.915	-5.07	2.850	-2.536	-5.21	2.850	-3.005	-19.63	2.850	-4.305	-25.62
3.000	-2.035	-4.94	3.000	-2.640	-4.75	3.000	-3.035	-19.68	3.000	-4.325	-25.67

Table 136. Azimuthal Magnetic Field (Well-Conducting Soil), Frequency = 0.1 MHz, VED Height = 4495.20 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)
0.000	-1.525	-8.25	0.000	-1.957	-15.84	0.000	-1.625	-32.83	0.000	-1.625	-32.83
0.30	-1.534	-8.20	0.100	-1.987	-15.84	0.300	-1.714	-36.72	0.300	-1.714	-36.72
0.60	-1.544	-8.14	0.200	-1.018	-15.84	0.600	-1.883	-30.99	0.600	-1.883	-30.99
0.90	-1.555	-8.08	0.300	-1.048	-15.84	0.900	-1.963	-29.75	0.900	-1.963	-29.75
1.20	-1.566	-8.01	0.400	-1.079	-15.84	1.200	-2.040	-27.13	1.200	-2.040	-27.13
1.50	-1.576	-7.95	0.500	-1.110	-14.68	1.500	-2.115	-24.51	1.500	-2.115	-24.51
1.80	-1.591	-7.89	0.600	-1.140	-14.68	1.800	-2.186	-21.89	1.800	-2.186	-21.89
2.10	-1.605	-7.83	0.700	-1.171	-14.67	2.100	-2.255	-19.27	2.100	-2.255	-19.27
2.40	-1.619	-7.77	0.800	-1.202	-14.67	2.400	-2.322	-16.65	2.400	-2.322	-16.65
2.70	-1.634	-7.71	0.900	-1.234	-14.67	2.700	-2.386	-14.03	2.700	-2.386	-14.03
3.00	-1.649	-7.65	1.000	-1.265	-13.67	3.000	-2.447	-11.41	3.000	-2.447	-11.41
3.30	-1.665	-7.59	1.100	-1.297	-13.67	3.300	-2.506	-8.79	3.300	-2.506	-8.79
3.60	-1.682	-7.52	1.200	-1.329	-13.67	3.600	-2.563	-6.17	3.600	-2.563	-6.17
3.90	-1.700	-7.46	1.300	-1.361	-13.67	3.900	-2.618	-3.55	3.900	-2.618	-3.55
4.20	-1.718	-7.40	1.400	-1.393	-13.67	4.200	-2.671	-0.93	4.200	-2.671	-0.93
4.50	-1.737	-7.34	1.500	-1.426	-12.68	4.500	-2.722	1.69	4.500	-2.722	1.69
4.80	-1.757	-7.28	1.600	-1.459	-12.68	4.800	-2.771	4.07	4.800	-2.771	4.07
5.10	-1.776	-7.22	1.700	-1.492	-12.68	5.100	-2.819	6.45	5.100	-2.819	6.45
5.40	-1.794	-7.16	1.800	-1.526	-12.68	5.400	-2.865	8.83	5.400	-2.865	8.83
5.70	-1.811	-7.10	1.900	-1.560	-12.68	5.700	-2.909	11.21	5.700	-2.909	11.21
6.00	-1.828	-7.04	2.000	-1.594	-11.70	6.000	-2.952	13.59	6.000	-2.952	13.59
6.30	-1.847	-6.98	2.100	-1.628	-11.70	6.300	-2.994	15.97	6.300	-2.994	15.97
6.60	-1.867	-6.92	2.200	-1.663	-11.51	6.600	-3.035	18.35	6.600	-3.035	18.35
6.90	-1.886	-6.86	2.300	-1.699	-11.51	6.900	-3.074	20.73	6.900	-3.074	20.73
7.20	-1.906	-6.80	2.400	-1.734	-11.32	7.200	-3.113	23.11	7.200	-3.113	23.11
7.50	-1.926	-6.74	2.500	-1.770	-10.94	7.500	-3.151	25.49	7.500	-3.151	25.49
7.80	-1.945	-6.68	2.600	-1.807	-10.75	7.800	-3.188	27.87	7.800	-3.188	27.87
8.10	-1.965	-6.62	2.700	-1.844	-10.56	8.100	-3.225	30.25	8.100	-3.225	30.25
8.40	-1.985	-6.56	2.800	-1.881	-10.37	8.400	-3.260	32.63	8.400	-3.260	32.63
8.70	-1.996	-6.50	2.900	-1.919	-10.19	8.700	-3.290	35.01	8.700	-3.290	35.01
9.00	-1.111	-6.44	3.000	-1.958	-10.00	9.000	-3.320	37.39	9.000	-3.320	37.39
1.050	-1.127	-6.38	3.500	-2.150	-9.04	10.500	-3.468	41.17	10.500	-3.468	41.17
1.200	-1.146	-6.33	4.000	-2.373	-8.21	12.000	-3.640	45.95	12.000	-3.640	45.95
1.350	-1.166	-6.28	4.500	-2.605	-7.34	13.500	-3.818	50.73	13.500	-3.818	50.73
1.500	-1.189	-6.22	5.000	-2.855	-6.50	15.000	-4.011	55.51	15.000	-4.011	55.51
1.650	-1.214	-6.16	5.500	-3.127	-5.67	16.500	-4.222	60.29	16.500	-4.222	60.29
1.800	-1.240	-6.10	6.000	-3.422	-4.80	18.000	-4.458	65.07	18.000	-4.458	65.07
1.950	-1.266	-6.05	6.500	-3.742	-4.05	19.500	-4.721	69.85	19.500	-4.721	69.85
2.100	-1.292	-6.00	7.000	-4.091	-3.25	21.000	-5.015	74.63	21.000	-5.015	74.63
2.250	-1.318	-5.95	7.500	-4.472	-2.44	22.500	-5.345	79.41	22.500	-5.345	79.41
2.400	-1.345	-5.90	8.000	-4.887	-1.62	24.000	-5.713	84.19	24.000	-5.713	84.19
2.550	-1.371	-5.85	8.500	-5.341	-0.78	25.500	-6.124	88.97	25.500	-6.124	88.97
2.700	-1.398	-5.80	9.000	-5.838	0.04	27.000	-6.582	93.75	27.000	-6.582	93.75
2.850	-1.425	-5.75	9.500	-6.384	0.83	28.500	-7.093	98.53	28.500	-7.093	98.53
3.000	-1.451	-5.70	10.000	-6.984	1.62	30.000	-7.663	103.31	30.000	-7.663	103.31

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ROME AIR DEVELOPMENT CENTER GRIFFISS AFB NY

F/G 8/14

HEIGHT-GAIN ATLAS FOR AN ELEMENTAL VERTICAL ELECTRIC DIPOLE ARO--ETC(U)

MAR 81 J L HECKSCHER, E J TICHOVOLSKY

UNCLASSIFIED

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Table 137. Azimuthal Magnetic Field (Well-Conducting Soil), Frequency = 1.0 MHz, VED Height = 0.00 m

3.0 KM DUEKNANGE				10.0 KM DUEKNANGE				30.0 KM DUEKNANGE				100.0 KM DUEKNANGE				
ME (MT)	AMP (DB)	PHASE (DEG)	ME (MT)	AMP (DB)	PHASE (DEG)	ME (MT)	AMP (DB)	ME (MT)	AMP (DB)	PHASE (DEG)	ME (MT)	AMP (DB)	PHASE (DEG)	ME (MT)	AMP (DB)	PHASE (DEG)
0.000	-1.000	-41.44	0.000	-2.740	-73.46	0.000	-7.085	0.000	-7.085	-117.93	0.000	-18.174	-164.97	0.000	-18.174	-164.97
0.03	-1.033	-41.24	0.03	-2.837	-72.74	0.03	-7.349	0.03	-7.349	-115.44	0.03	-19.068	-157.74	0.03	-19.068	-157.74
0.06	-1.059	-41.04	0.06	-2.923	-72.11	0.06	-7.602	0.06	-7.602	-113.78	0.06	-19.832	-149.38	0.06	-19.832	-149.38
0.09	-1.085	-40.84	0.09	-3.007	-71.43	0.09	-7.841	0.09	-7.841	-111.61	0.09	-20.462	-139.91	0.09	-20.462	-139.91
0.12	-1.111	-40.63	0.12	-3.089	-70.74	0.12	-8.066	0.12	-8.066	-109.37	0.12	-20.870	-129.63	0.12	-20.870	-129.63
0.15	-1.136	-40.43	0.15	-3.168	-70.04	0.15	-8.277	0.15	-8.277	-107.07	0.15	-21.014	-119.03	0.15	-21.014	-119.03
0.18	-1.161	-40.23	0.18	-3.245	-69.34	0.18	-8.471	0.18	-8.471	-104.73	0.18	-20.890	-108.73	0.18	-20.890	-108.73
0.21	-1.185	-40.03	0.21	-3.319	-68.64	0.21	-8.649	0.21	-8.649	-102.35	0.21	-20.542	-98.25	0.21	-20.542	-98.25
0.24	-1.210	-39.82	0.24	-3.390	-67.93	0.24	-8.810	0.24	-8.810	-100.00	0.24	-20.036	-87.68	0.24	-20.036	-87.68
0.27	-1.235	-39.62	0.27	-3.459	-67.22	0.27	-8.952	0.27	-8.952	-97.50	0.27	-19.438	-77.08	0.27	-19.438	-77.08
0.30	-1.259	-39.42	0.30	-3.526	-66.51	0.30	-9.077	0.30	-9.077	-95.05	0.30	-18.748	-66.48	0.30	-18.748	-66.48
0.33	-1.280	-39.21	0.33	-3.590	-65.79	0.33	-9.184	0.33	-9.184	-92.60	0.33	-18.151	-55.86	0.33	-18.151	-55.86
0.36	-1.302	-39.01	0.36	-3.651	-65.07	0.36	-9.273	0.36	-9.273	-90.16	0.36	-17.516	-45.23	0.36	-17.516	-45.23
0.39	-1.325	-38.81	0.39	-3.710	-64.36	0.39	-9.344	0.39	-9.344	-87.73	0.39	-16.911	-34.60	0.39	-16.911	-34.60
0.42	-1.347	-38.60	0.42	-3.766	-63.64	0.42	-9.398	0.42	-9.398	-85.33	0.42	-16.333	-23.97	0.42	-16.333	-23.97
0.45	-1.368	-38.40	0.45	-3.820	-62.92	0.45	-9.450	0.45	-9.450	-82.96	0.45	-15.789	-13.34	0.45	-15.789	-13.34
0.48	-1.389	-38.20	0.48	-3.872	-62.20	0.48	-9.498	0.48	-9.498	-80.64	0.48	-15.277	-2.71	0.48	-15.277	-2.71
0.51	-1.410	-37.99	0.51	-3.921	-61.48	0.51	-9.545	0.51	-9.545	-78.37	0.51	-14.795	8.14	0.51	-14.795	8.14
0.54	-1.431	-37.79	0.54	-3.967	-60.76	0.54	-9.589	0.54	-9.589	-76.15	0.54	-14.343	17.59	0.54	-14.343	17.59
0.57	-1.451	-37.58	0.57	-4.012	-60.05	0.57	-9.630	0.57	-9.630	-73.99	0.57	-13.918	26.95	0.57	-13.918	26.95
0.60	-1.470	-37.38	0.60	-4.053	-59.34	0.60	-9.669	0.60	-9.669	-71.89	0.60	-13.519	36.26	0.60	-13.519	36.26
0.63	-1.489	-37.18	0.63	-4.093	-58.63	0.63	-9.708	0.63	-9.708	-69.87	0.63	-13.142	45.54	0.63	-13.142	45.54
0.66	-1.509	-36.97	0.66	-4.130	-57.92	0.66	-9.746	0.66	-9.746	-67.91	0.66	-12.787	54.84	0.66	-12.787	54.84
0.69	-1.528	-36.77	0.69	-4.165	-57.22	0.69	-9.780	0.69	-9.780	-66.02	0.69	-12.452	64.14	0.69	-12.452	64.14
0.72	-1.546	-36.57	0.72	-4.198	-56.52	0.72	-9.810	0.72	-9.810	-64.20	0.72	-12.135	73.43	0.72	-12.135	73.43
0.75	-1.564	-36.37	0.75	-4.228	-55.83	0.75	-9.837	0.75	-9.837	-62.45	0.75	-11.834	82.70	0.75	-11.834	82.70
0.78	-1.582	-36.16	0.78	-4.257	-55.14	0.78	-9.862	0.78	-9.862	-60.77	0.78	-11.549	91.94	0.78	-11.549	91.94
0.81	-1.599	-35.96	0.81	-4.283	-54.45	0.81	-9.886	0.81	-9.886	-59.16	0.81	-11.278	101.14	0.81	-11.278	101.14
0.84	-1.616	-35.76	0.84	-4.307	-53.77	0.84	-9.908	0.84	-9.908	-57.62	0.84	-11.021	110.29	0.84	-11.021	110.29
0.87	-1.633	-35.56	0.87	-4.330	-53.10	0.87	-9.929	0.87	-9.929	-56.14	0.87	-10.775	119.38	0.87	-10.775	119.38
0.90	-1.649	-35.36	0.90	-4.350	-52.43	0.90	-9.949	0.90	-9.949	-54.72	0.90	-10.541	128.41	0.90	-10.541	128.41
1.05	-1.720	-34.36	1.05	-4.425	-49.19	1.05	-10.050	1.05	-10.050	-48.49	1.05	-9.515	137.38	1.05	-9.515	137.38
1.20	-1.795	-33.36	1.20	-4.461	-46.14	1.20	-10.200	1.20	-10.200	-43.48	1.20	-8.680	146.22	1.20	-8.680	146.22
1.35	-1.858	-32.41	1.35	-4.463	-43.28	1.35	-10.350	1.35	-10.350	-39.41	1.35	-7.985	155.03	1.35	-7.985	155.03
1.50	-1.913	-31.46	1.50	-4.438	-40.53	1.50	-10.500	1.50	-10.500	-36.06	1.50	-7.398	163.78	1.50	-7.398	163.78
1.65	-1.962	-30.53	1.65	-4.393	-38.18	1.65	-10.650	1.65	-10.650	-33.27	1.65	-6.895	172.46	1.65	-6.895	172.46
1.80	-2.004	-29.63	1.80	-4.331	-35.97	1.80	-10.800	1.80	-10.800	-30.92	1.80	-6.458	181.08	1.80	-6.458	181.08
1.95	-2.042	-28.74	1.95	-4.258	-33.97	1.95	-10.950	1.95	-10.950	-28.91	1.95	-6.076	189.63	1.95	-6.076	189.63
2.10	-2.074	-27.88	2.10	-4.177	-31.98	2.10	-11.100	2.10	-11.100	-27.18	2.10	-5.739	198.11	2.10	-5.739	198.11
2.25	-2.102	-27.05	2.25	-4.091	-30.25	2.25	-11.250	2.25	-11.250	-25.66	2.25	-5.440	206.52	2.25	-5.440	206.52
2.40	-2.125	-26.24	2.40	-4.002	-28.68	2.40	-11.400	2.40	-11.400	-24.33	2.40	-5.173	214.88	2.40	-5.173	214.88
2.55	-2.144	-25.46	2.55	-3.911	-27.23	2.55	-11.550	2.55	-11.550	-23.15	2.55	-4.932	223.19	2.55	-4.932	223.19
2.70	-2.160	-24.70	2.70	-3.821	-25.91	2.70	-11.700	2.70	-11.700	-22.09	2.70	-4.715	231.43	2.70	-4.715	231.43
2.85	-2.173	-24.00	2.85	-3.732	-24.70	2.85	-11.850	2.85	-11.850	-21.13	2.85	-4.519	239.59	2.85	-4.519	239.59
3.00	-2.183	-23.27	3.00	-3.645	-23.59	3.00	-12.000	3.00	-12.000	-20.27	3.00	-4.340	247.68	3.00	-4.340	247.68

Table 138. Azimuthal Magnetic Field (Well-Conducting Soil), Frequency = 1.0 MHz, VED Height = 224.76 m

3.0 KM DOWNRANGE				30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)
0.000	-2.000	-20.00	0.000	-4.143	-57.59	0.000	-8.730	-101.17	0.000	-20.005	-147.13
0.03	-2.000	-20.00	0.10	-4.232	-56.91	0.30	-8.995	-99.13	1.00	-20.879	-139.91
0.06	-2.107	-20.00	0.20	-4.319	-56.23	0.60	-9.248	-97.02	2.00	-21.665	-131.56
0.09	-2.133	-20.45	0.30	-4.404	-55.55	0.90	-9.489	-94.84	3.00	-22.248	-122.97
0.12	-2.160	-20.45	0.40	-4.487	-54.86	1.20	-9.710	-92.61	4.00	-22.711	-111.77
0.15	-2.180	-20.04	0.50	-4.567	-54.17	1.50	-9.929	-90.32	5.00	-22.858	-101.15
0.21	-2.239	-20.03	0.70	-4.721	-52.76	1.80	-10.126	-87.98	6.00	-22.738	-90.82
0.24	-2.263	-20.43	0.80	-4.795	-52.06	2.10	-10.307	-85.60	7.00	-22.394	-81.31
0.27	-2.290	-20.22	0.90	-4.867	-51.35	2.40	-10.471	-83.19	8.00	-21.890	-72.90
0.30	-2.310	-20.02	1.00	-4.936	-50.64	2.70	-10.618	-80.76	9.00	-21.293	-65.67
0.33	-2.342	-20.81	1.10	-5.003	-49.94	3.00	-10.747	-78.32	1.000	-20.655	-59.52
0.36	-2.367	-20.61	1.20	-5.068	-49.24	3.30	-10.859	-75.87	1.100	-20.009	-54.32
0.39	-2.394	-20.40	1.30	-5.131	-48.54	3.60	-10.954	-73.43	1.200	-19.377	-49.90
0.42	-2.417	-20.20	1.40	-5.191	-47.84	3.90	-11.031	-71.00	1.300	-18.771	-46.12
0.45	-2.442	-20.00	1.50	-5.250	-47.10	4.20	-11.092	-68.60	1.400	-18.196	-42.86
0.48	-2.467	-20.79	1.60	-5.306	-46.36	4.50	-11.136	-66.23	1.500	-17.654	-40.03
0.51	-2.492	-20.58	1.70	-5.360	-45.63	4.80	-11.166	-63.90	1.600	-17.144	-37.55
0.54	-2.516	-20.38	1.80	-5.412	-44.92	5.10	-11.181	-61.62	1.700	-16.665	-35.39
0.57	-2.541	-20.17	1.90	-5.462	-44.20	5.40	-11.182	-59.39	1.800	-16.216	-33.39
0.60	-2.565	-20.00	2.00	-5.509	-43.49	5.70	-11.172	-57.23	1.900	-15.794	-31.64
0.63	-2.590	-20.76	2.10	-5.555	-42.79	6.00	-11.150	-55.12	2.000	-15.398	-30.05
0.66	-2.614	-20.55	2.20	-5.599	-42.08	6.30	-11.117	-53.08	2.100	-15.025	-28.60
0.69	-2.638	-20.35	2.30	-5.641	-41.38	6.60	-11.076	-51.10	2.200	-14.674	-27.27
0.72	-2.662	-20.15	2.40	-5.681	-40.69	6.90	-11.026	-49.20	2.300	-14.343	-26.05
0.75	-2.686	-20.00	2.50	-5.719	-39.99	7.20	-10.970	-47.36	2.400	-14.031	-24.93
0.78	-2.709	-20.74	2.60	-5.755	-39.30	7.50	-10.907	-45.59	2.500	-13.735	-23.88
0.81	-2.733	-20.54	2.70	-5.790	-38.62	7.80	-10.836	-43.89	2.600	-13.455	-22.91
0.84	-2.757	-20.34	2.80	-5.822	-37.94	8.10	-10.766	-42.25	2.700	-13.189	-22.09
0.87	-2.780	-20.14	2.90	-5.853	-37.27	8.40	-10.689	-40.68	2.800	-12.937	-21.33
0.90	-2.803	-20.00	3.00	-5.883	-36.60	8.70	-10.609	-39.18	2.900	-12.697	-20.63
						9.00	-10.527	-37.74	3.000	-12.468	-19.97
1.05	-2.919	-19.93	3.50	-6.008	-33.35	1.050	-10.098	-31.37	3.500	-11.476	-16.28
1.20	-3.034	-19.94	4.00	-6.099	-30.27	1.200	-9.966	-28.20	4.000	-10.680	-13.65
1.35	-3.147	-19.96	4.50	-6.164	-27.36	1.350	-9.826	-25.97	4.500	-10.031	-11.45
1.50	-3.260	-19.99	5.00	-6.209	-24.64	1.500	-9.697	-23.47	5.000	-9.495	-9.57
1.65	-3.373	-19.04	5.50	-6.238	-22.11	1.650	-9.571	-20.52	5.500	-9.048	-7.92
1.80	-3.486	-19.10	6.00	-6.257	-19.76	1.800	-9.445	-18.00	6.000	-8.674	-6.45
1.95	-3.600	-19.18	6.50	-6.269	-17.58	1.950	-9.323	-15.82	6.500	-8.360	-5.12
2.10	-3.715	-19.27	7.00	-6.279	-15.55	2.100	-9.205	-13.91	7.000	-8.098	-3.91
2.25	-3.832	-19.38	7.50	-6.288	-13.67	2.250	-9.090	-12.22	7.500	-7.878	-2.79
2.40	-3.951	-19.50	8.00	-6.300	-11.92	2.400	-8.974	-10.70	8.000	-7.697	-1.75
2.55	-4.073	-19.64	8.50	-6.316	-10.30	2.550	-8.857	-9.31	8.500	-7.549	-0.77
2.70	-4.197	-19.79	9.00	-6.337	-8.78	2.700	-8.737	-8.05	9.000	-7.430	0.16
2.85	-4.322	-19.95	9.50	-6.364	-7.35	2.850	-8.619	-6.88	9.500	-7.338	1.04
3.00	-4.457	-20.13	1.000	-6.400	-6.02	3.000	-8.500	-5.79	10.000	-7.270	1.88

Table 139. Azimuthal Magnetic Field (Well-Conducting Soil), Frequency = 1.0 MHz, VED Height = 449.52 m

3.0 KM DOWNRANGE					30.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
HEIGHT (KM)	AMP (UE)	PHASE (DEG)	HEIGHT (KM)	AMP (UE)	PHASE (DEG)	HEIGHT (KM)	AMP (UE)	PHASE (DEG)	HEIGHT (KM)	AMP (UE)	PHASE (DEG)	HEIGHT (KM)	AMP (UE)	PHASE (DEG)
0.000	-1.097	-17.55	0.000	-4.445	-43.31	0.000	-9.433	-83.00	0.000	-20.476	-124.38	0.000	-20.476	-124.38
0.003	-2.024	-17.34	0.010	-4.535	-42.03	0.030	-9.694	-80.96	0.100	-21.052	-117.15	0.100	-21.052	-117.15
0.006	-2.052	-17.14	0.020	-4.623	-41.95	0.060	-9.954	-78.65	0.200	-22.844	-104.77	0.200	-22.844	-104.77
0.009	-2.080	-16.93	0.030	-4.710	-41.27	0.090	-10.194	-76.68	0.300	-23.284	-99.27	0.300	-23.284	-99.27
0.012	-2.108	-16.72	0.040	-4.796	-40.58	0.120	-10.431	-74.45	0.400	-23.706	-88.91	0.400	-23.706	-88.91
0.015	-2.137	-16.52	0.050	-4.880	-39.88	0.150	-10.650	-72.18	0.500	-23.853	-78.20	0.500	-23.853	-78.20
0.018	-2.167	-16.31	0.060	-4.963	-39.18	0.180	-10.855	-69.83	0.600	-23.750	-67.76	0.600	-23.750	-67.76
0.021	-2.197	-16.10	0.070	-5.044	-38.48	0.210	-11.046	-67.45	0.700	-23.410	-58.13	0.700	-23.410	-58.13
0.024	-2.228	-15.90	0.080	-5.125	-37.78	0.240	-11.222	-65.04	0.800	-22.907	-49.60	0.800	-22.907	-49.60
0.027	-2.259	-15.69	0.090	-5.204	-37.07	0.270	-11.382	-62.50	0.900	-22.310	-42.26	0.900	-22.310	-42.26
0.030	-2.290	-15.48	0.100	-5.281	-36.36	0.300	-11.526	-60.15	1.000	-21.670	-36.01	1.000	-21.670	-36.01
0.033	-2.322	-15.27	0.110	-5.358	-35.64	0.330	-11.655	-57.68	1.100	-21.024	-30.71	1.100	-21.024	-30.71
0.036	-2.355	-15.07	0.120	-5.433	-34.93	0.360	-11.767	-55.22	1.200	-20.342	-26.21	1.200	-20.342	-26.21
0.039	-2.388	-14.86	0.130	-5.507	-34.21	0.390	-11.864	-52.76	1.300	-19.747	-22.35	1.300	-19.747	-22.35
0.042	-2.422	-14.65	0.140	-5.579	-33.49	0.420	-11.945	-50.32	1.400	-19.213	-19.01	1.400	-19.213	-19.01
0.045	-2.457	-14.44	0.150	-5.651	-32.77	0.450	-12.011	-47.91	1.500	-18.673	-16.11	1.500	-18.673	-16.11
0.048	-2.491	-14.23	0.160	-5.721	-32.05	0.480	-12.063	-45.52	1.600	-18.166	-13.55	1.600	-18.166	-13.55
0.051	-2.527	-14.02	0.170	-5.791	-31.33	0.510	-12.102	-43.18	1.700	-17.692	-11.27	1.700	-17.692	-11.27
0.054	-2.563	-13.81	0.180	-5.859	-30.61	0.540	-12.128	-40.88	1.800	-17.248	-9.24	1.800	-17.248	-9.24
0.057	-2.600	-13.60	0.190	-5.926	-29.89	0.570	-12.142	-38.63	1.900	-16.833	-7.40	1.900	-16.833	-7.40
0.060	-2.637	-13.39	0.200	-5.992	-29.17	0.600	-12.145	-36.43	2.000	-16.443	-5.73	2.000	-16.443	-5.73
0.063	-2.675	-13.18	0.210	-6.057	-28.45	0.630	-12.138	-34.29	2.100	-16.078	-4.20	2.100	-16.078	-4.20
0.066	-2.714	-12.97	0.220	-6.121	-27.73	0.660	-12.122	-32.21	2.200	-15.736	-2.79	2.200	-15.736	-2.79
0.069	-2.753	-12.76	0.230	-6.184	-27.01	0.690	-12.099	-30.18	2.300	-15.414	-1.44	2.300	-15.414	-1.44
0.072	-2.793	-12.55	0.240	-6.246	-26.30	0.720	-12.068	-28.22	2.400	-15.111	-0.27	2.400	-15.111	-0.27
0.075	-2.833	-12.34	0.250	-6.307	-25.58	0.750	-12.032	-26.33	2.500	-14.826	0.87	2.500	-14.826	0.87
0.078	-2.874	-12.12	0.260	-6.368	-24.87	0.780	-11.990	-24.49	2.600	-14.557	1.94	2.600	-14.557	1.94
0.081	-2.916	-11.91	0.270	-6.427	-24.15	0.810	-11.943	-22.72	2.700	-14.304	2.95	2.700	-14.304	2.95
0.084	-2.958	-11.70	0.280	-6.486	-23.44	0.840	-11.893	-21.01	2.800	-14.064	3.90	2.800	-14.064	3.90
0.087	-3.001	-11.49	0.290	-6.545	-22.73	0.870	-11.840	-19.35	2.900	-13.838	4.81	2.900	-13.838	4.81
0.090	-3.045	-11.27	0.300	-6.602	-22.03	0.900	-11.784	-17.75	3.000	-13.624	5.68	3.000	-13.624	5.68
0.105	-3.225	-10.19	0.350	-6.882	-18.53	1.050	-11.489	-10.56	3.500	-12.712	9.54	3.500	-12.712	9.54
0.120	-3.523	-9.09	0.400	-7.152	-15.09	1.200	-11.194	-4.48	4.000	-12.013	12.83	4.000	-12.013	12.83
0.135	-3.742	-7.97	0.450	-7.418	-11.72	1.350	-10.942	0.74	4.500	-11.475	15.78	4.500	-11.475	15.78
0.150	-4.002	-6.82	0.500	-7.685	-8.40	1.500	-10.733	5.31	5.000	-11.066	18.52	5.000	-11.066	18.52
0.165	-4.305	-5.63	0.550	-7.958	-5.12	1.650	-10.576	9.43	5.500	-10.762	21.13	5.500	-10.762	21.13
0.180	-4.734	-4.40	0.600	-8.241	-1.87	1.800	-10.472	13.22	6.000	-10.545	23.69	6.000	-10.545	23.69
0.195	-5.099	-3.11	0.650	-8.538	1.38	1.950	-10.420	16.80	6.500	-10.403	26.25	6.500	-10.403	26.25
0.210	-5.493	-1.75	0.700	-8.853	4.66	2.100	-10.417	20.25	7.000	-10.325	28.85	7.000	-10.325	28.85
0.225	-5.918	0.30	0.750	-9.187	8.00	2.250	-10.460	23.71	7.500	-10.303	31.54	7.500	-10.303	31.54
0.240	-6.378	1.25	0.800	-9.545	11.45	2.400	-10.546	27.11	8.000	-10.330	34.33	8.000	-10.330	34.33
0.255	-6.874	2.43	0.850	-9.925	15.06	2.550	-10.664	30.63	8.500	-10.401	37.29	8.500	-10.401	37.29
0.270	-7.411	3.78	0.900	-10.329	18.87	2.700	-10.825	34.29	9.000	-10.507	40.43	9.000	-10.507	40.43
0.285	-7.990	5.23	0.950	-10.754	22.95	2.850	-11.009	38.14	9.500	-10.644	43.80	9.500	-10.644	43.80
0.300	-8.616	6.84	1.000	-11.197	27.36	3.000	-11.213	42.24	10.000	-10.803	47.43	10.000	-10.803	47.43

Table 140. Azimuthal Magnetic Field (Well-Conducting Soil), Frequency = 10.0 MHz, VED Height = 0.00 m

3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)
0.00	-26.409	-123.34	0.00	-37.384	-120.52	0.00	-47.071	-124.90	0.00	-57.280	-130.31
0.03	-26.797	-110.90	0.10	-37.931	-105.31	0.30	-45.058	-67.60	1.00	-48.121	-36.88
0.06	-26.990	-102.80	0.30	-37.081	-83.04	0.60	-40.117	-44.34	2.00	-39.955	-26.94
0.09	-27.035	-102.80	0.60	-35.446	-65.65	0.90	-36.647	-35.73	3.00	-36.383	-24.44
0.12	-26.991	-95.85	0.90	-33.686	-55.72	1.20	-34.124	-31.42	4.00	-33.875	-23.16
0.15	-26.807	-89.11	1.20	-32.062	-48.39	1.50	-32.167	-28.84	5.00	-31.947	-22.36
0.18	-26.521	-82.74	1.50	-30.625	-43.27	1.80	-30.575	-27.10	6.00	-30.383	-21.80
0.21	-26.157	-76.47	1.80	-29.362	-39.53	2.10	-29.239	-25.85	7.00	-29.069	-21.38
0.24	-25.735	-71.72	2.10	-28.246	-36.69	2.40	-28.089	-24.84	8.00	-27.949	-21.03
0.27	-25.260	-67.02	2.40	-27.253	-34.47	2.70	-27.082	-24.13	9.00	-27.848	-20.75
0.30	-24.790	-62.84	2.70	-26.362	-32.68	3.00	-26.187	-23.51	1.000	-26.067	-20.50
0.33	-24.311	-59.13	3.00	-25.556	-31.21	3.30	-25.383	-22.99	1.100	-25.274	-20.28
0.36	-23.823	-55.84	3.30	-24.821	-29.97	3.60	-24.653	-22.54	1.200	-24.554	-20.09
0.39	-23.347	-52.92	3.60	-24.147	-28.92	3.90	-24.396	-22.15	1.300	-24.395	-19.91
0.42	-22.869	-50.33	3.90	-23.526	-28.01	4.20	-24.372	-21.80	1.400	-24.288	-19.74
0.45	-22.440	-48.01	4.20	-22.950	-27.22	4.50	-24.303	-21.44	1.500	-24.226	-19.58
0.48	-21.990	-45.93	4.50	-22.414	-26.51	4.80	-24.274	-21.21	1.600	-24.203	-19.44
0.51	-21.569	-44.00	4.80	-21.913	-25.86	5.10	-24.178	-20.95	1.700	-24.175	-19.30
0.54	-21.163	-42.37	5.10	-21.443	-25.32	5.40	-24.138	-20.71	1.800	-24.256	-19.17
0.57	-20.774	-40.84	5.40	-21.001	-24.81	5.70	-24.082	-20.49	1.900	-24.825	-19.04
0.60	-20.400	-39.45	5.70	-20.584	-24.34	6.00	-24.071	-20.28	2.000	-24.417	-18.92
0.63	-20.040	-38.18	6.00	-20.189	-23.91	6.30	-24.082	-20.09	2.100	-24.032	-18.80
0.66	-19.695	-37.01	6.30	-19.815	-23.52	6.60	-19.713	-19.90	2.200	-19.666	-18.69
0.69	-19.364	-35.94	6.60	-19.459	-23.15	6.90	-19.362	-19.73	2.300	-19.318	-18.58
0.72	-19.040	-34.95	6.90	-19.120	-22.81	7.20	-19.028	-19.56	2.400	-18.987	-18.47
0.75	-18.739	-34.03	7.20	-18.797	-22.49	7.50	-18.710	-19.41	2.500	-18.670	-18.36
0.78	-18.445	-33.16	7.50	-18.488	-22.19	7.80	-18.405	-19.25	2.600	-18.568	-18.26
0.81	-18.161	-32.39	7.80	-18.192	-21.91	8.10	-18.113	-19.11	2.700	-18.078	-18.16
0.84	-17.887	-31.65	8.10	-17.909	-21.65	8.40	-17.834	-18.97	2.800	-17.800	-18.06
0.87	-17.624	-30.95	8.40	-17.637	-21.39	8.70	-17.565	-18.84	2.900	-17.534	-17.97
0.90	-17.369	-30.31	8.70	-17.376	-21.16	9.00	-17.307	-18.70	3.000	-17.277	-17.87
1.05	-16.660	-27.50	1.30	-16.205	-20.12	1.050	-16.150	-18.11	3.500	-16.127	-17.43
1.20	-15.639	-25.49	1.40	-15.216	-19.26	1.200	-15.172	-17.58	4.000	-15.153	-17.01
1.35	-14.390	-23.82	1.50	-14.365	-18.54	1.350	-14.329	-17.11	4.500	-14.314	-16.62
1.50	-13.660	-22.45	1.60	-13.623	-17.91	1.500	-13.593	-16.68	5.000	-13.580	-16.26
1.65	-12.900	-21.30	1.70	-12.967	-17.35	1.650	-12.942	-16.26	5.500	-12.932	-15.91
1.80	-12.401	-20.32	1.80	-12.382	-16.85	1.800	-12.361	-15.90	6.000	-12.353	-15.58
1.95	-11.873	-19.46	1.90	-11.856	-16.39	1.950	-11.839	-15.55	6.500	-11.832	-15.26
2.10	-11.395	-18.70	2.00	-11.381	-15.97	2.100	-11.366	-15.22	7.000	-11.360	-14.96
2.25	-10.900	-18.03	2.10	-10.948	-15.58	2.250	-10.936	-14.90	7.500	-10.931	-14.67
2.40	-10.502	-17.42	2.20	-10.552	-15.21	2.400	-10.542	-14.60	8.000	-10.538	-14.39
2.55	-10.197	-16.87	2.30	-10.189	-14.87	2.550	-10.180	-14.32	8.500	-10.176	-14.13
2.70	-9.880	-16.37	2.40	-9.854	-14.55	2.700	-9.846	-14.05	9.000	-9.843	-13.87
2.85	-9.549	-15.90	2.50	-9.544	-14.25	2.850	-9.538	-13.79	9.500	-9.535	-13.63
3.00	-9.201	-15.46	1.000	-9.257	-13.96	3.000	-9.251	-13.54	10.000	-9.249	-13.39

Table 141. Azimuthal Magnetic Field (Well-Conducting Soil), Frequency = 10.0 MHz, VED Height = 2248 m

3.0 KM UMRANGE				30.0 KM UMRANGE				100.0 KM UMRANGE			
ME (GMT)	AMP (UB)	PHASE (DEG)	ME (GMT)	AMP (UB)	PHASE (DEG)	ME (GMT)	AMP (UB)	PHASE (DEG)	ME (GMT)	AMP (UB)	PHASE (DEG)
0.00	-25.755	-74.32	0.00	-36.717	-76.54	0.00	-40.362	-79.37	0.00	-50.856	-79.70
0.03	-26.626	-67.86	0.10	-37.262	-55.02	0.30	-39.405	-17.07	1.00	-45.396	16.13
0.06	-26.454	-60.69	0.20	-36.410	-52.75	0.50	-35.935	6.19	1.30	-39.230	23.67
0.09	-26.316	-53.56	0.30	-34.774	-16.36	0.70	-33.413	17.10	1.40	-35.638	26.17
0.12	-26.452	-46.29	0.40	-33.013	-5.43	1.00	-31.456	21.69	1.50	-33.151	27.45
0.15	-26.267	-39.79	0.50	-31.369	1.90	1.30	-29.866	23.43	1.60	-31.223	28.25
0.18	-25.960	-33.46	0.70	-29.752	7.02	1.60	-28.530	24.69	1.70	-29.660	28.61
0.21	-25.614	-27.04	0.80	-28.090	10.77	1.80	-27.381	25.65	1.80	-28.347	29.25
0.24	-25.191	-20.37	0.90	-27.575	13.61	2.00	-26.375	26.41	1.90	-27.218	29.59
0.27	-24.736	-17.06	1.00	-26.283	15.83	2.30	-25.481	27.04	2.00	-26.226	29.69
0.30	-24.253	-13.46	1.10	-25.093	17.63	2.60	-24.676	27.57	2.10	-25.346	30.14
0.33	-23.766	-9.74	1.20	-24.087	19.11	3.00	-23.950	28.03	2.40	-24.556	30.36
0.36	-23.261	-6.44	1.30	-23.154	20.35	3.30	-23.285	28.43	2.70	-23.838	30.57
0.39	-22.603	-3.51	1.40	-22.382	21.41	3.60	-22.672	28.78	3.00	-23.181	30.75
0.42	-21.837	1.44	1.50	-21.666	22.33	4.00	-22.106	29.11	3.30	-22.576	30.93
0.45	-21.065	4.33	1.60	-21.574	23.14	4.30	-21.574	29.40	3.60	-22.016	31.09
0.48	-21.449	5.42	1.70	-21.255	24.49	4.60	-21.088	29.67	3.90	-21.496	31.25
0.51	-21.066	5.42	1.80	-20.788	25.07	5.00	-20.627	29.92	4.20	-21.009	31.40
0.54	-20.824	7.12	1.90	-20.348	25.54	5.30	-20.194	30.15	4.50	-20.553	31.54
0.57	-20.257	6.67	2.00	-19.933	26.07	5.60	-19.785	30.37	4.80	-20.124	31.68
0.60	-19.884	10.06	2.10	-19.541	26.51	6.00	-19.399	30.58	5.10	-19.719	31.81
0.63	-19.507	11.37	2.20	-19.169	26.92	6.30	-19.033	30.77	5.40	-19.337	31.94
0.66	-19.124	12.55	2.30	-18.817	27.30	6.60	-18.686	30.96	5.70	-18.974	32.07
0.69	-18.635	13.64	2.40	-18.481	27.66	7.00	-18.355	31.14	6.00	-18.629	32.19
0.72	-18.219	14.65	2.50	-18.161	28.00	7.30	-18.039	31.31	6.30	-18.301	32.32
0.75	-17.810	15.59	2.60	-17.855	28.31	7.60	-17.736	31.48	6.60	-17.988	32.43
0.78	-17.404	17.06	2.70	-17.563	28.61	8.00	-17.450	31.64	6.90	-17.689	32.55
0.81	-17.003	18.04	2.80	-17.283	28.90	8.30	-17.174	31.80	7.20	-17.403	32.67
0.84	-16.613	18.75	2.90	-17.015	29.17	8.60	-16.910	31.95	7.50	-17.129	32.78
0.87	-16.236	19.43	3.00	-16.758	29.42	9.00	-16.656	32.10	7.80	-16.866	32.90
0.90	-15.861								8.10	-16.614	33.01
1.05	-15.731	26.26	3.30	-15.605	30.57	1.050	-15.521	32.80	8.40	-15.486	33.56
1.20	-15.714	24.51	3.40	-14.845	31.54	1.200	-14.568	33.44	8.70	-14.538	34.09
1.35	-15.752	26.34	3.50	-13.623	32.40	1.350	-13.755	34.05	9.00	-13.729	34.61
1.50	-15.615	27.86	3.60	-13.112	33.19	1.500	-13.051	34.63	9.30	-13.028	35.12
1.65	-15.615	29.61	3.70	-12.492	33.71	1.650	-12.437	35.19	9.60	-12.416	35.63
1.80	-15.606	30.40	3.80	-11.946	34.60	1.800	-11.896	35.75	9.90	-11.876	36.15
1.95	-15.579	31.48	3.90	-11.463	35.26	1.950	-11.416	36.30	10.20	-11.399	36.66
2.10	-15.579	32.47	4.00	-11.034	35.91	2.100	-10.990	36.85	10.50	-10.974	37.17
2.25	-15.579	33.40	4.10	-10.651	36.53	2.250	-10.610	37.40	10.80	-10.594	37.69
2.40	-15.579	34.27	4.20	-10.308	37.15	2.400	-10.270	37.95	11.10	-10.255	38.22
2.55	-15.579	35.11	4.30	-10.002	37.77	2.550	-9.965	38.50	11.40	-9.951	38.75
2.70	-15.579	35.92	4.40	-9.727	38.36	2.700	-9.691	39.06	11.70	-9.678	39.29
2.85	-15.579	36.71	4.50	-9.480	38.99	2.850	-9.446	39.63	12.00	-9.434	39.84
3.00	-15.579	37.47	1.000	-9.259	39.61	3.000	-9.227	40.20			

Table 142. Azimuthal Magnetic Field (Well-Conducting Soil), Frequency = 10.0 MHz, VED Height = 44.95 m

3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
ME LUT	AMP	PHASE	ME LUT	AMP	PHASE	ME LUT	AMP	PHASE	ME LUT	AMP	PHASE	ME LUT	AMP	PHASE
(KM)	(DB)	(DEG)	(KM)	(DB)	(DEG)	(KM)	(DB)	(DEG)	(KM)	(DB)	(DEG)	(KM)	(DB)	(DEG)
0.000	-26.433	-48.06	0.000	-26.854	-51.74	0.000	-42.407	-52.73	0.000	-52.868	-53.06	0.000	-52.868	-53.06
0.003	-26.739	-48.108	0.010	-33.403	-51.38	0.010	-33.403	-51.38	0.010	-41.408	-42.77	0.010	-41.408	-42.77
0.006	-26.930	-48.40	0.020	-36.551	-50.11	0.020	-36.551	-50.11	0.020	-35.243	-50.31	0.020	-35.243	-50.31
0.009	-26.994	-47.829	0.030	-30.914	-48.20	0.030	-30.914	-48.20	0.030	-31.671	-50.41	0.030	-31.671	-50.41
0.012	-26.969	-48.05	0.040	-24.154	-46.21	0.040	-24.154	-46.21	0.040	-24.164	-54.10	0.040	-24.164	-54.10
0.015	-26.744	-47.87	0.050	-27.530	-48.55	0.050	-27.530	-48.55	0.050	-27.237	-54.91	0.050	-27.237	-54.91
0.018	-26.450	-47.11	0.060	-26.044	-48.09	0.060	-26.044	-48.09	0.060	-25.675	-55.48	0.060	-25.675	-55.48
0.021	-26.093	-46.27	0.070	-24.832	-47.44	0.070	-24.832	-47.44	0.070	-24.363	-55.92	0.070	-24.363	-55.92
0.024	-21.610	-44.02	0.080	-23.719	-46.29	0.080	-23.719	-46.29	0.080	-23.235	-56.28	0.080	-23.235	-56.28
0.027	-21.212	-43.76	0.090	-22.728	-45.53	0.090	-22.728	-45.53	0.090	-22.247	-56.58	0.090	-22.247	-56.58
0.030	-20.733	-43.49	0.100	-21.835	-44.34	0.100	-21.835	-44.34	0.100	-21.369	-56.85	0.100	-21.369	-56.85
0.033	-20.247	-43.24	0.110	-21.035	-43.84	0.110	-21.035	-43.84	0.110	-20.379	-57.08	0.110	-20.379	-57.08
0.036	-19.762	-43.07	0.120	-20.303	-43.10	0.120	-20.303	-43.10	0.120	-19.863	-57.30	0.120	-19.863	-57.30
0.039	-19.283	-42.93	0.130	-19.635	-42.18	0.130	-19.635	-42.18	0.130	-19.208	-57.51	0.130	-19.208	-57.51
0.042	-18.819	-42.80	0.140	-19.015	-41.12	0.140	-19.015	-41.12	0.140	-18.605	-57.70	0.140	-18.605	-57.70
0.045	-18.360	-42.65	0.150	-18.443	-40.05	0.150	-18.443	-40.05	0.150	-18.048	-57.88	0.150	-18.048	-57.88
0.048	-17.903	-42.50	0.160	-17.911	-38.98	0.160	-17.911	-38.98	0.160	-17.530	-58.06	0.160	-17.530	-58.06
0.051	-17.451	-42.36	0.170	-17.415	-37.91	0.170	-17.415	-37.91	0.170	-17.047	-58.23	0.170	-17.047	-58.23
0.054	-17.002	-42.22	0.180	-16.950	-36.84	0.180	-16.950	-36.84	0.180	-16.594	-58.40	0.180	-16.594	-58.40
0.057	-16.553	-42.08	0.190	-16.513	-35.77	0.190	-16.513	-35.77	0.190	-16.168	-58.56	0.190	-16.168	-58.56
0.060	-16.105	-41.93	0.200	-16.101	-34.70	0.200	-16.101	-34.70	0.200	-15.767	-58.72	0.200	-15.767	-58.72
0.063	-15.657	-41.79	0.210	-15.713	-33.63	0.210	-15.713	-33.63	0.210	-15.368	-58.88	0.210	-15.368	-58.88
0.066	-15.209	-41.64	0.220	-15.344	-32.56	0.220	-15.344	-32.56	0.220	-15.029	-59.04	0.220	-15.029	-59.04
0.069	-14.761	-41.50	0.230	-14.995	-31.49	0.230	-14.995	-31.49	0.230	-14.688	-59.19	0.230	-14.688	-59.19
0.072	-14.313	-41.36	0.240	-14.663	-30.42	0.240	-14.663	-30.42	0.240	-14.364	-59.34	0.240	-14.364	-59.34
0.075	-13.865	-41.22	0.250	-14.347	-29.35	0.250	-14.347	-29.35	0.250	-14.056	-59.49	0.250	-14.056	-59.49
0.078	-13.417	-41.08	0.260	-14.046	-28.28	0.260	-14.046	-28.28	0.260	-13.761	-59.65	0.260	-13.761	-59.65
0.081	-12.969	-40.94	0.270	-13.758	-27.21	0.270	-13.758	-27.21	0.270	-13.480	-59.80	0.270	-13.480	-59.80
0.084	-12.521	-40.80	0.280	-13.483	-26.14	0.280	-13.483	-26.14	0.280	-13.211	-59.95	0.280	-13.211	-59.95
0.087	-12.073	-40.66	0.290	-13.219	-25.07	0.290	-13.219	-25.07	0.290	-12.953	-60.10	0.290	-12.953	-60.10
0.090	-11.625	-40.52	0.300	-12.967	-24.00	0.300	-12.967	-24.00	0.300	-12.706	-60.25	0.300	-12.706	-60.25
0.105	-16.273	-49.61	0.350	-11.845	-38.10	0.350	-11.845	-38.10	0.350	-11.672	-60.28	0.350	-11.672	-60.28
0.120	-11.341	-52.36	0.400	-10.912	-39.34	0.400	-10.912	-39.34	0.400	-10.752	-61.18	0.400	-10.752	-61.18
0.135	-10.551	-54.34	0.450	-10.126	-40.51	0.450	-10.126	-40.51	0.450	-9.976	-62.09	0.450	-9.976	-62.09
0.150	-9.873	-56.47	0.500	-9.456	-41.64	0.500	-9.456	-41.64	0.500	-9.314	-63.00	0.500	-9.314	-63.00
0.165	-9.209	-58.24	0.550	-8.879	-42.74	0.550	-8.879	-42.74	0.550	-8.744	-63.94	0.550	-8.744	-63.94
0.180	-8.763	-59.89	0.600	-8.382	-43.85	0.600	-8.382	-43.85	0.600	-8.252	-64.90	0.600	-8.252	-64.90
0.195	-8.343	-61.48	0.650	-7.950	-44.98	0.650	-7.950	-44.98	0.650	-7.826	-65.90	0.650	-7.826	-65.90
0.210	-7.961	-63.02	0.700	-7.576	-46.12	0.700	-7.576	-46.12	0.700	-7.456	-66.94	0.700	-7.456	-66.94
0.225	-7.629	-64.54	0.750	-7.251	-47.30	0.750	-7.251	-47.30	0.750	-7.135	-68.02	0.750	-7.135	-68.02
0.240	-7.340	-66.05	0.800	-6.969	-48.51	0.800	-6.969	-48.51	0.800	-6.857	-69.15	0.800	-6.857	-69.15
0.255	-7.089	-67.57	0.850	-6.726	-49.75	0.850	-6.726	-49.75	0.850	-6.617	-70.33	0.850	-6.617	-70.33
0.270	-6.873	-69.11	0.900	-6.517	-51.03	0.900	-6.517	-51.03	0.900	-6.411	-71.56	0.900	-6.411	-71.56
0.285	-6.686	-70.67	0.950	-6.338	-52.39	0.950	-6.338	-52.39	0.950	-6.235	-72.84	0.950	-6.235	-72.84
0.300	-6.528	-72.26	1.000	-6.187	-53.74	1.000	-6.187	-53.74	0.900	-6.086	-74.19	1.000	-6.086	-74.19

Table 143. Azimuthal Magnetic Field (Well-Conducting Soil), Frequency = 100.0 MHz, VED Height = 0.00 m

1.0 KM UOMRANGE				3.0 KM UOMRANGE				10.0 KM UOMRANGE				30.0 KM UOMRANGE			
MEIGHT (KM)	AMP (UB)	PHASE (DEG)		MEIGHT (KM)	AMP (UB)	PHASE (DEG)		MEIGHT (KM)	AMP (UB)	PHASE (DEG)		MEIGHT (KM)	AMP (UB)	PHASE (DEG)	
0.00	-37.962	-94.14		0.00	-44.974	-94.24		0.00	-59.936	-94.59		0.00	-84.880	-94.81	
.01	-37.626	-88.31		.01	-45.096	-98.97		.01	-46.884	-14.77		.01	-46.797	-6.57	
.02	-37.510	-49.42		.02	-40.375	-22.30		.02	-40.733	-6.38		.02	-40.820	-4.47	
.03	-37.377	-38.08		.03	-37.135	-15.30		.03	-34.876	-5.62		.03	-37.336	-3.76	
.04	-37.042	-30.92		.04	-34.785	-12.43		.04	-34.876	-4.78		.04	-34.876	-3.40	
.05	-36.304	-23.64		.05	-32.925	-10.30		.05	-32.978	-4.35		.05	-32.976	-3.10	
.06	-30.900	-16.81		.06	-31.400	-8.97		.06	-31.433	-4.04		.06	-31.431	-3.03	
.07	-28.734	-10.70		.07	-30.111	-7.97		.07	-30.133	-4.04		.07	-30.130	-2.92	
.08	-26.750	-10.70		.08	-28.997	-7.22		.08	-28.997	-3.81		.08	-28.999	-2.83	
.09	-27.022	-13.04		.09	-28.017	-6.63		.09	-28.027	-3.62		.09	-28.024	-2.77	
.10	-26.992	-13.04		.10	-27.143	-6.16		.10	-27.150	-3.47		.10	-27.147	-2.71	
.11	-26.633	-11.65		.11	-26.555	-5.77		.11	-26.560	-3.35		.11	-26.557	-2.66	
.12	-26.537	-11.65		.12	-25.639	-5.44		.12	-25.642	-3.25		.12	-25.640	-2.62	
.13	-26.897	-10.00		.13	-24.982	-5.17		.13	-24.984	-3.16		.13	-24.982	-2.58	
.14	-26.305	-9.50		.14	-24.377	-4.93		.14	-24.378	-3.08		.14	-24.376	-2.55	
.15	-25.754	-9.50		.15	-23.816	-4.72		.15	-23.817	-3.01		.15	-23.815	-2.52	
.16	-25.640	-8.60		.16	-23.293	-4.54		.16	-23.293	-2.95		.16	-23.292	-2.49	
.17	-26.750	-8.60		.17	-22.804	-4.38		.17	-22.804	-2.84		.17	-22.802	-2.47	
.18	-26.305	-8.19		.18	-22.345	-4.23		.18	-22.345	-2.80		.18	-22.343	-2.45	
.19	-21.877	-7.86		.19	-21.913	-4.10		.19	-21.912	-2.80		.19	-21.911	-2.42	
.20	-21.473	-7.44		.20	-21.505	-3.99		.20	-21.504	-2.76		.20	-21.502	-2.40	
.21	-21.009	-7.19		.21	-21.116	-3.88		.21	-21.117	-2.72		.21	-21.115	-2.39	
.22	-20.725	-6.92		.22	-20.750	-3.78		.22	-20.765	-2.68		.22	-20.748	-2.37	
.23	-20.376	-6.66		.23	-20.401	-3.69		.23	-20.400	-2.65		.23	-20.399	-2.35	
.24	-20.047	-6.43		.24	-20.068	-3.61		.24	-20.067	-2.62		.24	-20.066	-2.33	
.25	-19.731	-6.22		.25	-19.750	-3.53		.25	-19.764	-2.59		.25	-19.747	-2.32	
.26	-19.420	-6.03		.26	-19.445	-3.46		.26	-19.444	-2.56		.26	-19.443	-2.30	
.27	-19.130	-5.85		.27	-19.154	-3.39		.27	-19.152	-2.53		.27	-19.152	-2.29	
.28	-18.860	-5.68		.28	-18.874	-3.33		.28	-18.873	-2.51		.28	-18.872	-2.27	
.29	-18.592	-5.52		.29	-18.605	-3.27		.29	-18.604	-2.48		.29	-18.603	-2.26	
.30	-18.334	-5.37		.30	-18.346	-3.22		.30	-18.345	-2.46		.30	-18.344	-2.25	
.035	-17.170	-4.76		.105	-17.184	-2.98		.350	-17.183	-2.36		1.050	-17.183	-2.19	
.040	-16.193	-4.30		.120	-16.199	-2.80		.400	-16.198	-2.28		1.200	-16.198	-2.13	
.045	-15.344	-3.93		.135	-15.348	-2.60		.450	-15.347	-2.21		1.350	-15.347	-2.08	
.050	-14.599	-3.64		.150	-14.602	-2.53		.500	-14.601	-2.15		1.500	-14.601	-2.03	
.055	-13.940	-3.40		.165	-13.941	-2.43		.550	-13.940	-2.04		1.650	-13.940	-1.99	
.060	-13.340	-3.19		.180	-13.350	-2.34		.600	-13.349	-1.99		1.800	-13.349	-1.95	
.065	-12.815	-3.02		.195	-12.817	-2.26		.650	-12.816	-1.99		1.950	-12.816	-1.91	
.070	-12.332	-2.87		.210	-12.333	-2.18		.700	-12.333	-1.95		2.100	-12.332	-1.88	
.075	-11.880	-2.73		.225	-11.882	-2.12		.750	-11.881	-1.90		2.250	-11.891	-1.84	
.080	-11.460	-2.62		.240	-11.487	-2.06		.800	-11.487	-1.87		2.400	-11.487	-1.81	
.085	-11.114	-2.51		.255	-11.115	-2.01		.850	-11.114	-1.83		2.550	-11.114	-1.74	
.090	-10.770	-2.42		.270	-10.770	-1.96		.900	-10.770	-1.74		2.700	-10.770	-1.75	
.095	-10.450	-2.33		.285	-10.451	-1.91		.950	-10.451	-1.76		2.850	-10.451	-1.72	
.100	-10.154	-2.26		.300	-10.154	-1.87		1.000	-10.154	-1.73		3.000	-10.154	-1.69	

Table 144. Azimuthal Magnetic Field (Well-Conducting Soil), Frequency = 100.0 MHz, VED Height = 2.25 m

1.0 KM DOWNRANGE					3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					30.0 KM DOWNRANGE				
REL HT (KM)	AMP (DB)	PHASE (DEG)	REL HT (KM)	AMP (DB)	PHASE (DEG)	REL HT (KM)	AMP (DB)	PHASE (DEG)	REL HT (KM)	AMP (DB)	PHASE (DEG)	REL HT (KM)	AMP (DB)	PHASE (DEG)	REL HT (KM)	AMP (DB)	PHASE (DEG)		
0.00	-37.053	-40.47	0.00	-46.557	-47.42	0.00	-57.008	-47.75	0.00	-66.569	-47.85	0.00	-77.008	-47.75	0.00	-86.569	-47.85		
0.01	-36.563	-41.03	0.01	-46.178	-47.90	0.01	-56.537	-48.21	0.01	-66.047	-48.31	0.01	-76.537	-48.21	0.01	-86.047	-48.31		
0.02	-36.069	-41.59	0.02	-45.793	-48.37	0.02	-56.152	-48.67	0.02	-65.652	-48.81	0.02	-76.152	-48.67	0.02	-85.652	-48.81		
0.03	-35.576	-42.15	0.03	-45.408	-48.83	0.03	-55.767	-48.97	0.03	-65.259	-49.11	0.03	-75.767	-48.97	0.03	-85.259	-49.11		
0.04	-35.083	-42.71	0.04	-45.023	-49.29	0.04	-55.382	-49.31	0.04	-64.874	-49.45	0.04	-75.382	-49.31	0.04	-84.874	-49.45		
0.05	-34.590	-43.27	0.05	-44.638	-49.81	0.05	-54.997	-49.85	0.05	-64.489	-49.95	0.05	-74.997	-49.85	0.05	-84.489	-49.95		
0.06	-34.097	-43.83	0.06	-44.253	-50.37	0.06	-54.612	-50.39	0.06	-64.104	-50.49	0.06	-74.612	-50.39	0.06	-84.104	-50.49		
0.07	-33.604	-44.39	0.07	-43.868	-50.93	0.07	-54.227	-50.95	0.07	-63.719	-51.03	0.07	-74.227	-50.95	0.07	-83.719	-51.03		
0.08	-33.111	-44.95	0.08	-43.483	-51.49	0.08	-53.842	-51.51	0.08	-63.336	-51.59	0.08	-73.842	-51.51	0.08	-83.336	-51.59		
0.09	-32.618	-45.51	0.09	-43.098	-52.05	0.09	-53.457	-52.07	0.09	-62.951	-52.15	0.09	-73.457	-52.07	0.09	-82.951	-52.15		
0.10	-32.125	-46.07	0.10	-42.713	-52.61	0.10	-53.072	-52.63	0.10	-62.566	-52.71	0.10	-73.072	-52.63	0.10	-82.566	-52.71		
0.11	-31.632	-46.63	0.11	-42.328	-53.17	0.11	-52.687	-53.19	0.11	-62.180	-53.27	0.11	-72.687	-53.19	0.11	-82.180	-53.27		
0.12	-31.139	-47.19	0.12	-41.943	-53.73	0.12	-52.302	-53.75	0.12	-61.793	-53.83	0.12	-72.302	-53.75	0.12	-81.793	-53.83		
0.13	-30.646	-47.75	0.13	-41.558	-54.29	0.13	-51.917	-54.31	0.13	-61.408	-54.39	0.13	-71.917	-54.31	0.13	-81.408	-54.39		
0.14	-30.153	-48.31	0.14	-41.173	-54.85	0.14	-51.532	-54.87	0.14	-61.023	-54.95	0.14	-71.532	-54.87	0.14	-81.023	-54.95		
0.15	-29.660	-48.87	0.15	-40.788	-55.41	0.15	-51.147	-55.43	0.15	-60.634	-55.51	0.15	-71.147	-55.43	0.15	-80.634	-55.51		
0.16	-29.167	-49.43	0.16	-40.403	-55.97	0.16	-50.762	-55.99	0.16	-60.249	-56.07	0.16	-70.762	-55.99	0.16	-80.249	-56.07		
0.17	-28.674	-49.99	0.17	-40.018	-56.53	0.17	-50.377	-56.55	0.17	-59.864	-56.63	0.17	-70.377	-56.55	0.17	-79.864	-56.63		
0.18	-28.181	-50.55	0.18	-39.633	-57.09	0.18	-49.992	-57.11	0.18	-59.479	-57.19	0.18	-69.992	-57.11	0.18	-79.479	-57.19		
0.19	-27.688	-51.11	0.19	-39.248	-57.65	0.19	-49.607	-57.67	0.19	-59.094	-57.75	0.19	-69.607	-57.67	0.19	-78.994	-57.75		
0.20	-27.195	-51.67	0.20	-38.863	-58.21	0.20	-49.222	-58.23	0.20	-58.720	-58.31	0.20	-69.222	-58.23	0.20	-78.520	-58.31		
0.21	-26.702	-52.23	0.21	-38.478	-58.77	0.21	-48.837	-58.79	0.21	-58.337	-58.87	0.21	-68.837	-58.79	0.21	-78.037	-58.87		
0.22	-26.209	-52.79	0.22	-38.093	-59.33	0.22	-48.452	-59.35	0.22	-57.952	-59.41	0.22	-68.452	-59.35	0.22	-77.542	-59.41		
0.23	-25.716	-53.35	0.23	-37.708	-59.89	0.23	-48.067	-59.91	0.23	-57.567	-59.99	0.23	-68.067	-59.91	0.23	-77.157	-59.99		
0.24	-25.223	-53.91	0.24	-37.323	-60.45	0.24	-47.682	-60.47	0.24	-57.182	-60.55	0.24	-67.682	-60.47	0.24	-76.762	-60.55		
0.25	-24.730	-54.47	0.25	-36.938	-61.01	0.25	-47.297	-61.03	0.25	-56.797	-61.11	0.25	-67.297	-61.03	0.25	-76.377	-61.11		
0.26	-24.237	-55.03	0.26	-36.553	-61.57	0.26	-46.912	-61.59	0.26	-56.407	-61.67	0.26	-66.807	-61.59	0.26	-75.982	-61.67		
0.27	-23.744	-55.59	0.27	-36.168	-62.13	0.27	-46.527	-62.15	0.27	-56.022	-62.23	0.27	-66.412	-62.15	0.27	-75.597	-62.23		
0.28	-23.251	-56.15	0.28	-35.783	-62.69	0.28	-46.142	-62.71	0.28	-55.637	-62.79	0.28	-66.027	-62.71	0.28	-75.212	-62.79		
0.29	-22.758	-56.71	0.29	-35.398	-63.25	0.29	-45.757	-63.27	0.29	-55.252	-63.35	0.29	-65.637	-63.27	0.29	-74.827	-63.35		
0.30	-22.265	-57.27	0.30	-35.013	-63.81	0.30	-45.372	-63.83	0.30	-54.867	-63.91	0.30	-65.252	-63.83	0.30	-74.442	-63.91		
0.35	-19.359	-46.21	0.35	-19.362	-44.17	0.35	-19.362	-44.17	0.35	-19.362	-44.17	0.35	-19.362	-44.17	0.35	-19.362	-44.17		
0.40	-13.450	-46.71	0.40	-13.381	-44.64	0.40	-13.381	-44.64	0.40	-13.381	-44.64	0.40	-13.381	-44.64	0.40	-13.381	-44.64		
0.45	-12.576	-43.23	0.45	-12.556	-44.58	0.45	-12.556	-44.58	0.45	-12.556	-44.58	0.45	-12.556	-44.58	0.45	-12.556	-44.58		
0.50	-11.661	-43.64	0.50	-11.640	-44.91	0.50	-11.640	-44.91	0.50	-11.640	-44.91	0.50	-11.640	-44.91	0.50	-11.640	-44.91		
0.55	-11.424	-44.01	0.55	-11.403	-45.14	0.55	-11.403	-45.14	0.55	-11.403	-45.14	0.55	-11.403	-45.14	0.55	-11.403	-45.14		
0.60	-10.679	-44.35	0.60	-10.657	-45.46	0.60	-10.657	-45.46	0.60	-10.657	-45.46	0.60	-10.657	-45.46	0.60	-10.657	-45.46		
0.65	-10.180	-44.67	0.65	-10.158	-45.59	0.65	-10.158	-45.59	0.65	-10.158	-45.59	0.65	-10.158	-45.59	0.65	-10.158	-45.59		
0.70	-9.745	-44.98	0.70	-9.723	-45.82	0.70	-9.723	-45.82	0.70	-9.723	-45.82	0.70	-9.723	-45.82	0.70	-9.723	-45.82		
0.75	-9.349	-45.29	0.75	-9.327	-46.05	0.75	-9.327	-46.05	0.75	-9.327	-46.05	0.75	-9.327	-46.05	0.75	-9.327	-46.05		
0.80	-8.994	-45.59	0.80	-8.971	-46.28	0.80	-8.971	-46.28	0.80	-8.971	-46.28	0.80	-8.971	-46.28	0.80	-8.971	-46.28		
0.85	-8.673	-45.89	0.85	-8.651	-46.54	0.85	-8.651	-46.54	0.85	-8.651	-46.54	0.85	-8.651	-46.54	0.85	-8.651	-46.54		
0.90	-8.384	-46.20	0.90	-8.362	-46.80	0.90	-8.362	-46.80	0.90	-8.362	-46.80	0.90	-8.362	-46.80	0.90	-8.362	-46.80		
0.95	-8.123	-46.51	0.95	-8.101	-47.07	0.95	-8.101	-47.07	0.95	-8.101	-47.07	0.95	-8.101	-47.07	0.95	-8.101	-47.07		
1.00	-7.888	-46.82	1.00	-7.866	-47.35	1.00	-7.866	-47.35	1.00	-7.866	-47.35	1.00	-7.866	-47.35	1.00	-7.866	-47.35		

Table 145. Azimuthal Magnetic Field (Well-Conducting Soil), Frequency = 100.0 MHz, VED Height = 4.50 m

1.0 KM DISTANCE				3.0 KM DISTANCE				10.0 KM DISTANCE				30.0 KM DISTANCE			
ME (km)	AMP (UB)	PHASE (DEG)	ME (km)	AMP (UB)	PHASE (DEG)	ME (km)	AMP (UB)	PHASE (DEG)	ME (km)	AMP (UB)	PHASE (DEG)	ME (km)	AMP (UB)	PHASE (DEG)	ME (km)
0.000	-33.053	-27.062	0.000	-42.506	-26.445	0.000	-52.933	-26.75	0.000	-62.467	-28.84	0.000	-62.467	-28.84	0.000
0.01	-32.377	-27.0	0.01	-38.126	-26.86	0.01	-43.661	-27.17	0.01	-53.784	-29.40	0.01	-53.784	-29.40	0.01
0.02	-30.544	-27.0	0.02	-33.406	-27.14	0.02	-33.796	-27.37	0.02	-43.408	-30.15	0.02	-43.408	-30.15	0.02
0.03	-28.724	-27.44	0.03	-30.186	-27.01	0.03	-30.330	-27.47	0.03	-40.325	-30.22	0.03	-40.325	-30.22	0.03
0.04	-26.907	-27.11	0.04	-27.817	-27.41	0.04	-27.876	-27.53	0.04	-37.866	-30.58	0.04	-37.866	-30.58	0.04
0.05	-25.091	-27.30	0.05	-25.954	-27.44	0.05	-25.979	-27.61	0.05	-35.967	-30.81	0.05	-35.967	-30.81	0.05
0.06	-23.275	-27.49	0.06	-24.436	-27.84	0.06	-24.436	-27.84	0.06	-34.024	-30.97	0.06	-34.024	-30.97	0.06
0.07	-21.459	-27.68	0.07	-22.150	-27.90	0.07	-22.138	-27.93	0.07	-32.126	-31.09	0.07	-32.126	-31.09	0.07
0.08	-19.643	-27.87	0.08	-20.038	-28.06	0.08	-20.019	-28.18	0.08	-30.207	-31.18	0.08	-30.207	-31.18	0.08
0.09	-17.827	-28.06	0.09	-18.180	-28.17	0.09	-18.163	-28.37	0.09	-28.270	-31.26	0.09	-28.270	-31.26	0.09
0.10	-16.011	-28.25	0.10	-16.405	-28.27	0.10	-16.377	-28.54	0.10	-26.330	-31.33	0.10	-26.330	-31.33	0.10
0.11	-14.195	-28.44	0.11	-14.603	-28.30	0.11	-14.570	-28.68	0.11	-24.385	-31.39	0.11	-24.385	-31.39	0.11
0.12	-12.379	-28.63	0.12	-12.803	-28.33	0.12	-12.763	-28.80	0.12	-22.440	-31.45	0.12	-22.440	-31.45	0.12
0.13	-10.563	-28.82	0.13	-11.007	-28.36	0.13	-10.963	-29.00	0.13	-20.495	-31.51	0.13	-20.495	-31.51	0.13
0.14	-8.747	-29.01	0.14	-9.201	-28.39	0.14	-9.157	-29.17	0.14	-18.550	-31.57	0.14	-18.550	-31.57	0.14
0.15	-6.931	-29.20	0.15	-7.385	-28.42	0.15	-7.341	-29.34	0.15	-16.605	-31.63	0.15	-16.605	-31.63	0.15
0.16	-5.115	-29.39	0.16	-5.569	-28.45	0.16	-5.525	-29.51	0.16	-14.660	-31.69	0.16	-14.660	-31.69	0.16
0.17	-3.299	-29.58	0.17	-3.753	-28.48	0.17	-3.709	-29.68	0.17	-12.715	-31.75	0.17	-12.715	-31.75	0.17
0.18	-1.483	-29.77	0.18	-1.937	-28.51	0.18	-1.893	-29.85	0.18	-10.770	-31.81	0.18	-10.770	-31.81	0.18
0.19	-0.667	-29.96	0.19	-1.121	-28.54	0.19	-1.077	-29.92	0.19	-8.825	-31.87	0.19	-8.825	-31.87	0.19
0.20	-0.851	-30.15	0.20	-1.305	-28.57	0.20	-1.261	-30.10	0.20	-6.880	-31.93	0.20	-6.880	-31.93	0.20
0.21	-1.035	-30.34	0.21	-1.489	-28.60	0.21	-1.445	-30.27	0.21	-4.935	-32.00	0.21	-4.935	-32.00	0.21
0.22	-1.219	-30.53	0.22	-1.673	-28.63	0.22	-1.629	-30.44	0.22	-3.000	-32.06	0.22	-3.000	-32.06	0.22
0.23	-1.403	-30.72	0.23	-1.857	-28.66	0.23	-1.813	-30.61	0.23	-1.065	-32.13	0.23	-1.065	-32.13	0.23
0.24	-1.587	-30.91	0.24	-2.041	-28.69	0.24	-2.000	-30.78	0.24	0.870	-32.19	0.24	0.870	-32.19	0.24
0.25	-1.771	-31.10	0.25	-2.225	-28.72	0.25	-2.181	-30.95	0.25	2.935	-32.26	0.25	2.935	-32.26	0.25
0.26	-1.955	-31.29	0.26	-2.409	-28.75	0.26	-2.365	-31.12	0.26	5.000	-32.32	0.26	5.000	-32.32	0.26
0.27	-2.139	-31.48	0.27	-2.593	-28.78	0.27	-2.549	-31.29	0.27	7.065	-32.39	0.27	7.065	-32.39	0.27
0.28	-2.323	-31.67	0.28	-2.777	-28.81	0.28	-2.733	-31.46	0.28	9.130	-32.45	0.28	9.130	-32.45	0.28
0.29	-2.507	-31.86	0.29	-2.961	-28.84	0.29	-2.917	-31.63	0.29	11.195	-32.52	0.29	11.195	-32.52	0.29
0.30	-2.691	-32.05	0.30	-3.145	-28.87	0.30	-3.101	-31.80	0.30	13.260	-32.58	0.30	13.260	-32.58	0.30
0.31	-2.875	-32.24	0.31	-3.329	-28.90	0.31	-3.285	-31.97	0.31	15.325	-32.65	0.31	15.325	-32.65	0.31
0.32	-3.059	-32.43	0.32	-3.513	-28.93	0.32	-3.469	-32.14	0.32	17.390	-32.71	0.32	17.390	-32.71	0.32
0.33	-3.243	-32.62	0.33	-3.697	-28.96	0.33	-3.653	-32.31	0.33	19.455	-32.78	0.33	19.455	-32.78	0.33
0.34	-3.427	-32.81	0.34	-3.881	-28.99	0.34	-3.837	-32.48	0.34	21.520	-32.84	0.34	21.520	-32.84	0.34
0.35	-3.611	-33.00	0.35	-4.065	-29.02	0.35	-4.021	-32.65	0.35	23.585	-32.91	0.35	23.585	-32.91	0.35
0.36	-3.795	-33.19	0.36	-4.249	-29.05	0.36	-4.205	-32.82	0.36	25.650	-32.97	0.36	25.650	-32.97	0.36
0.37	-3.979	-33.38	0.37	-4.433	-29.08	0.37	-4.389	-33.00	0.37	27.715	-33.04	0.37	27.715	-33.04	0.37
0.38	-4.163	-33.57	0.38	-4.617	-29.11	0.38	-4.573	-33.17	0.38	29.780	-33.10	0.38	29.780	-33.10	0.38
0.39	-4.347	-33.76	0.39	-4.801	-29.14	0.39	-4.757	-33.34	0.39	31.845	-33.17	0.39	31.845	-33.17	0.39
0.40	-4.531	-33.95	0.40	-4.985	-29.17	0.40	-4.941	-33.51	0.40	33.910	-33.23	0.40	33.910	-33.23	0.40
0.41	-4.715	-34.14	0.41	-5.169	-29.20	0.41	-5.125	-33.68	0.41	35.975	-33.30	0.41	35.975	-33.30	0.41
0.42	-4.899	-34.33	0.42	-5.353	-29.23	0.42	-5.309	-33.85	0.42	38.040	-33.36	0.42	38.040	-33.36	0.42
0.43	-5.083	-34.52	0.43	-5.537	-29.26	0.43	-5.493	-34.02	0.43	40.105	-33.43	0.43	40.105	-33.43	0.43
0.44	-5.267	-34.71	0.44	-5.721	-29.29	0.44	-5.677	-34.19	0.44	42.170	-33.49	0.44	42.170	-33.49	0.44
0.45	-5.451	-34.90	0.45	-5.905	-29.32	0.45	-5.861	-34.36	0.45	44.235	-33.56	0.45	44.235	-33.56	0.45
0.46	-5.635	-35.09	0.46	-6.089	-29.35	0.46	-6.045	-34.53	0.46	46.300	-33.62	0.46	46.300	-33.62	0.46
0.47	-5.819	-35.28	0.47	-6.273	-29.38	0.47	-6.229	-34.70	0.47	48.365	-33.69	0.47	48.365	-33.69	0.47
0.48	-6.003	-35.47	0.48	-6.457	-29.41	0.48	-6.413	-34.87	0.48	50.430	-33.75	0.48	50.430	-33.75	0.48
0.49	-6.187	-35.66	0.49	-6.641	-29.44	0.49	-6.597	-35.04	0.49	52.495	-33.82	0.49	52.495	-33.82	0.49
0.50	-6.371	-35.85	0.50	-6.825	-29.47	0.50	-6.781	-35.21	0.50	54.560	-33.88	0.50	54.560	-33.88	0.50
0.51	-6.555	-36.04	0.51	-7.009	-29.50	0.51	-6.965	-35.38	0.51	56.625	-33.95	0.51	56.625	-33.95	0.51
0.52	-6.739	-36.23	0.52	-7.193	-29.53	0.52	-7.149	-35.55	0.52	58.690	-34.01	0.52	58.690	-34.01	0.52
0.53	-6.923	-36.42	0.53	-7.377	-29.56	0.53	-7.333	-35.72	0.53	60.755	-34.08	0.53	60.755	-34.08	0.53
0.54	-7.107	-36.61	0.54	-7.561	-29.59	0.54	-7.517	-35.89	0.54	62.820	-34.14	0.54	62.820	-34.14	0.54
0.55	-7.291	-36.80	0.55	-7.745	-29.62	0.55	-7.701	-36.06	0.55	64.885	-34.21	0.55	64.885	-34.21	0.55
0.56	-7.475	-36.99	0.56	-7.929	-29.65	0.56	-7.885	-36.23	0.56	66.950	-34.27	0.56	66.950	-34.27	0.56
0.57	-7.659	-37.18	0.57	-8.113	-29.68	0.57	-8.069	-36.40	0.57	69.015	-34.34	0.57	69.015	-34.34	0.57
0.58	-7.843	-37.37	0.58	-8.297	-29.71	0.58	-8.253	-36.57	0.58	71.080	-34.40	0.58	71.080	-34.40	0.58
0.59	-8.027	-37.56	0.59	-8.481	-29.74	0.59	-8.437	-36.74	0.59	73.145	-34.47	0.59	73.145	-34.47	0.59
0.60	-8.211	-37.75	0.60	-8.665	-29.77	0.60	-8.621	-36.91	0.60	75.210	-34.53	0.60	75.210	-34.53	0.60
0.61	-8.395	-37.94	0.61	-8.849	-29.80	0.61	-8.805	-37.08	0.61	77.275	-34.60	0.61	77.275	-34.60	0.61
0.62	-8.579	-38.13	0.62	-9.033	-29.83	0.62	-8.989	-37.25	0.62	79.340	-34.66	0.62	79.340	-34.66	0.62
0.63	-8.763	-38.32	0.63	-9.217	-29.86	0.63	-9.173	-37.42	0.63	81.405	-34.73	0.63	81.405	-34.73	0.63
0.64	-8.947	-38.51	0.64	-9.401	-29.89	0.64	-9.357	-37.59	0.64	83.470	-34.79	0.64	83.470	-34.79	0.64
0.65	-9.131	-38.70	0.65	-9.585	-29.92	0.65	-9.541	-37.76	0.65	85.535	-34.86	0.65	85.535	-34.86	0.65
0.66	-9.315	-38.89	0.66	-9.769	-29.95	0.66	-9.725	-37.93	0.66	87.600	-34.92	0.66	87.600	-34.92	0.66
0.67	-9.499	-39.08	0.67	-9.953	-29.98	0.67	-9.909	-38.10	0.67	89.665	-35.00	0.67	89.665	-35.00	0.67
0.68	-9.683	-39.27	0.68	-10.137	-30.01	0.68	-10.093	-38.27	0.68	91.730	-35.06	0.68	91.730	-35.06	0.68
0.69	-9.867	-39.46	0.69	-10.321	-30.04	0.69	-10.277	-38.44	0.69	93.795	-35.13	0.69	93.795	-35.13	0.69
0.70	-10.051	-39.65	0.70	-10.505	-30.07	0.70	-10.461	-38.61	0.70	95.860	-35.19	0.70	95.860	-35.19	0.70
0.71	-10.235	-39.84	0.71	-10.689	-30.10	0.71	-10.645	-38.78	0.71	97.925	-35.26	0.71	97.925	-35.26	0.71
0.72	-10.419	-40.03	0.72	-10.873	-30.13	0.72	-10.829	-38.95	0.72	100.000	-35.32	0.72	100.000	-35.32	0.72
0.73	-10.603	-40.22	0.73	-11.057	-30.16	0.73	-11.013	-39.12	0.73	102.065	-35.39	0.73	102.065	-35.39	

Table 146. Vertical Electric Field (Poorly Conducting Soil), Frequency = 0.1 MHz, VED Height = 0.00 m

30.0 NM UOMRANGE				100.0 NM UOMRANGE				300.0 NM UOMRANGE			
RELGMT	AMP	PHASE		RELGMT	AMP	PHASE		RELGMT	AMP	PHASE	
(KM)	(DB)	(DEG)		(KM)	(DB)	(DEG)		(KM)	(DB)	(DEG)	
0.000	-8.000	-41.002		0.000	-6.473	-76.47		0.000	-6.725	-120.36	
0.30	-8.000	-41.003		0.300	-6.505	-73.01		0.300	-6.999	-116.37	
0.60	-8.000	-41.003		0.600	-6.541	-70.46		0.600	-7.511	-114.16	
0.90	-8.000	-41.003		0.900	-6.576	-67.80		0.900	-7.748	-111.96	
1.20	-8.000	-41.003		1.200	-6.611	-65.12		1.200	-7.970	-109.70	
1.50	-8.000	-41.003		1.500	-6.646	-62.44		1.500	-8.177	-107.39	
1.80	-8.000	-41.003		1.800	-6.681	-59.76		1.800	-8.368	-105.03	
2.10	-8.000	-41.003		2.100	-6.716	-57.08		2.100	-8.542	-102.63	
2.40	-8.000	-41.003		2.400	-6.751	-54.40		2.400	-8.699	-100.21	
2.70	-8.000	-41.003		2.700	-6.786	-51.72		2.700	-8.838	-97.76	
3.00	-8.000	-41.003		3.000	-6.821	-49.04		3.000	-8.959	-95.31	
3.30	-8.000	-41.003		3.300	-6.856	-46.36		3.300	-9.061	-92.85	
3.60	-8.000	-41.003		3.600	-6.891	-43.68		3.600	-9.146	-90.41	
3.90	-8.000	-41.003		3.900	-6.926	-41.00		3.900	-9.214	-87.99	
4.20	-8.000	-41.003		4.200	-6.961	-38.32		4.200	-9.264	-85.60	
4.50	-8.000	-41.003		4.500	-6.996	-35.64		4.500	-9.299	-83.24	
4.80	-8.000	-41.003		4.800	-7.031	-32.96		4.800	-9.318	-80.93	
5.10	-8.000	-41.003		5.100	-7.066	-30.28		5.100	-9.323	-78.67	
5.40	-8.000	-41.003		5.400	-7.101	-27.60		5.400	-9.315	-76.46	
5.70	-8.000	-41.003		5.700	-7.136	-24.92		5.700	-9.294	-74.32	
6.00	-8.000	-41.003		6.000	-7.171	-22.24		6.000	-9.262	-72.25	
6.30	-8.000	-41.003		6.300	-7.206	-19.56		6.300	-9.220	-70.24	
6.60	-8.000	-41.003		6.600	-7.241	-16.88		6.600	-9.169	-68.29	
6.90	-8.000	-41.003		6.900	-7.276	-14.20		6.900	-9.110	-66.42	
7.20	-8.000	-41.003		7.200	-7.311	-11.52		7.200	-9.044	-64.62	
7.50	-8.000	-41.003		7.500	-7.346	-8.84		7.500	-8.972	-62.89	
7.80	-8.000	-41.003		7.800	-7.381	-6.16		7.800	-8.895	-61.23	
8.10	-8.000	-41.003		8.100	-7.416	-3.48		8.100	-8.813	-59.64	
8.40	-8.000	-41.003		8.400	-7.451	-0.80		8.400	-8.728	-58.11	
8.70	-8.000	-41.003		8.700	-7.486	1.88		8.700	-8.640	-56.64	
9.00	-8.000	-41.003		9.000	-7.521	4.60		9.000			
1.050	-8.000	-41.003		1.050	-7.556	7.32		10.500	-8.174	-50.20	
1.200	-8.000	-41.003		1.200	-7.591	10.04		12.000	-7.700	-45.00	
1.350	-8.000	-41.003		1.350	-7.626	12.76		13.500	-7.246	-40.74	
1.500	-8.000	-41.003		1.500	-7.661	15.48		15.000	-6.823	-37.32	
1.650	-8.000	-41.003		1.650	-7.696	18.20		16.500	-6.436	-34.44	
1.800	-8.000	-41.003		1.800	-7.731	20.92		18.000	-6.085	-32.00	
1.950	-8.000	-41.003		1.950	-7.766	23.64		19.500	-5.767	-29.93	
2.100	-8.000	-41.003		2.100	-7.801	26.36		21.000	-5.480	-28.14	
2.250	-8.000	-41.003		2.250	-7.836	29.08		22.500	-5.220	-26.57	
2.400	-8.000	-41.003		2.400	-7.871	31.80		24.000	-4.984	-25.19	
2.550	-8.000	-41.003		2.550	-7.906	34.52		25.500	-4.771	-23.97	
2.700	-8.000	-41.003		2.700	-7.941	37.24		27.000	-4.576	-22.87	
2.850	-8.000	-41.003		2.850	-7.976	40.00		28.500	-4.399	-21.89	
3.000	-8.000	-41.003		3.000	-8.011	42.72		30.000	-4.238	-20.94	

Table 147. Vertical Electric Field (Poorly Conducting Soil), Frequency = 0.1 MHz, VED Height = 2247.60 m

300.0 KM. DISTANCE				100.0 KM. DISTANCE				50.0 KM. DISTANCE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)
0.000	-1.2953	-27.50	0.000	-5.444	-26.74	0.000	-8.455	-103.85	0.000	-8.455	-103.85
0.30	-1.781	-27.35	0.100	-4.037	-26.14	0.200	-3.730	-101.86	0.300	-3.730	-101.86
0.60	-2.009	-27.16	0.200	-3.127	-25.47	0.300	-2.893	-99.74	0.400	-2.893	-99.74
0.90	-2.064	-26.92	0.300	-2.215	-24.80	0.400	-2.245	-97.65	0.500	-2.245	-97.65
1.20	-2.091	-26.76	0.400	-1.301	-24.12	0.500	-1.483	-95.46	0.600	-1.483	-95.46
1.50	-2.091	-26.57	0.500	-0.386	-23.44	0.600	-0.706	-93.20	0.700	-0.706	-93.20
1.80	-2.076	-26.37	0.600	-0.466	-22.75	0.700	-0.918	-90.94	0.800	-0.918	-90.94
2.10	-2.045	-26.17	0.700	-0.546	-22.05	0.800	-1.116	-88.53	0.900	-1.116	-88.53
2.40	-2.012	-25.96	0.800	-0.623	-21.36	0.900	-1.429	-86.14	1.000	-1.429	-86.14
2.70	-1.979	-25.76	0.900	-0.698	-20.66	1.000	-1.851	-83.72	1.100	-1.851	-83.72
3.00	-1.946	-25.56	1.000	-0.771	-19.96	1.100	-2.372	-81.27	1.200	-2.372	-81.27
3.30	-1.913	-25.35	1.100	-0.842	-19.25	1.200	-3.000	-78.82	1.300	-3.000	-78.82
3.60	-1.880	-25.15	1.200	-0.910	-18.54	1.300	-3.730	-76.37	1.400	-3.730	-76.37
3.90	-1.847	-24.94	1.300	-0.976	-17.83	1.400	-4.565	-73.93	1.500	-4.565	-73.93
4.20	-1.814	-24.74	1.400	-1.040	-17.12	1.500	-5.500	-71.51	1.600	-5.500	-71.51
4.50	-1.781	-24.54	1.500	-1.102	-16.41	1.600	-6.635	-69.11	1.700	-6.635	-69.11
4.80	-1.748	-24.33	1.600	-1.162	-15.70	1.700	-7.969	-66.75	1.800	-7.969	-66.75
5.10	-1.715	-24.13	1.700	-1.220	-15.00	1.800	-9.500	-64.43	1.900	-9.500	-64.43
5.40	-1.682	-23.92	1.800	-1.277	-14.29	1.900	-11.234	-62.16	2.000	-11.234	-62.16
5.70	-1.649	-23.72	1.900	-1.333	-13.58	2.000	-13.161	-59.95	2.100	-13.161	-59.95
6.00	-1.616	-23.52	2.000	-1.388	-12.87	2.100	-15.282	-57.74	2.200	-15.282	-57.74
6.30	-1.583	-23.31	2.100	-1.441	-12.16	2.200	-17.600	-55.57	2.300	-17.600	-55.57
6.60	-1.550	-23.11	2.200	-1.493	-11.45	2.300	-20.117	-53.40	2.400	-20.117	-53.40
6.90	-1.517	-22.90	2.300	-1.544	-10.74	2.400	-22.834	-51.27	2.500	-22.834	-51.27
7.20	-1.484	-22.70	2.400	-1.594	-10.03	2.500	-25.750	-49.17	2.600	-25.750	-49.17
7.50	-1.451	-22.50	2.500	-1.643	-9.32	2.600	-28.865	-47.10	2.700	-28.865	-47.10
7.80	-1.418	-22.30	2.600	-1.691	-8.61	2.700	-32.179	-45.07	2.800	-32.179	-45.07
8.10	-1.385	-22.10	2.700	-1.738	-7.90	2.800	-35.692	-43.07	2.900	-35.692	-43.07
8.40	-1.352	-21.90	2.800	-1.784	-7.19	2.900	-39.404	-41.10	3.000	-39.404	-41.10
8.70	-1.319	-21.70	2.900	-1.829	-6.48	3.000	-43.315	-39.17	3.100	-43.315	-39.17
9.00	-1.286	-21.50	3.000	-1.873	-5.77	3.100	-47.426	-37.27	3.200	-47.426	-37.27
9.30	-1.253	-21.30	3.100	-1.916	-5.06	3.200	-51.737	-35.40	3.300	-51.737	-35.40
9.60	-1.220	-21.10	3.200	-1.958	-4.35	3.300	-56.250	-33.57	3.400	-56.250	-33.57
9.90	-1.187	-20.90	3.300	-1.999	-3.64	3.400	-60.965	-31.77	3.500	-60.965	-31.77
10.20	-1.154	-20.70	3.400	-2.039	-2.93	3.500	-65.882	-30.00	3.600	-65.882	-30.00
10.50	-1.121	-20.50	3.500	-2.078	-2.22	3.600	-70.999	-28.27	3.700	-70.999	-28.27
10.80	-1.088	-20.30	3.600	-2.116	-1.51	3.700	-76.316	-26.57	3.800	-76.316	-26.57
11.10	-1.055	-20.10	3.700	-2.153	-0.80	3.800	-81.833	-24.90	3.900	-81.833	-24.90
11.40	-1.022	-19.90	3.800	-2.189	-0.09	3.900	-87.550	-23.27	4.000	-87.550	-23.27
11.70	-0.989	-19.70	3.900	-2.224	0.62	4.000	-93.467	-21.67	4.100	-93.467	-21.67
12.00	-0.956	-19.50	4.000	-2.258	1.33	4.100	-99.584	-20.10	4.200	-99.584	-20.10
12.30	-0.923	-19.30	4.100	-2.291	2.04	4.200	-105.901	-18.57	4.300	-105.901	-18.57
12.60	-0.890	-19.10	4.200	-2.323	2.75	4.300	-112.418	-17.07	4.400	-112.418	-17.07
12.90	-0.857	-18.90	4.300	-2.354	3.46	4.400	-119.135	-15.60	4.500	-119.135	-15.60
13.20	-0.824	-18.70	4.400	-2.384	4.17	4.500	-126.052	-14.17	4.600	-126.052	-14.17
13.50	-0.791	-18.50	4.500	-2.413	4.88	4.600	-133.169	-12.77	4.700	-133.169	-12.77
13.80	-0.758	-18.30	4.600	-2.441	5.59	4.700	-140.486	-11.40	4.800	-140.486	-11.40
14.10	-0.725	-18.10	4.700	-2.468	6.30	4.800	-148.003	-10.07	4.900	-148.003	-10.07
14.40	-0.692	-17.90	4.800	-2.494	7.01	4.900	-155.720	-8.77	5.000	-155.720	-8.77
14.70	-0.659	-17.70	4.900	-2.519	7.72	5.000	-163.637	-7.50	5.100	-163.637	-7.50
15.00	-0.626	-17.50	5.000	-2.543	8.43	5.100	-171.754	-6.27	5.200	-171.754	-6.27
15.30	-0.593	-17.30	5.100	-2.566	9.14	5.200	-180.071	-5.07	5.300	-180.071	-5.07
15.60	-0.560	-17.10	5.200	-2.588	9.85	5.300	-188.588	-3.90	5.400	-188.588	-3.90
15.90	-0.527	-16.90	5.300	-2.609	10.56	5.400	-197.305	-2.77	5.500	-197.305	-2.77
16.20	-0.494	-16.70	5.400	-2.629	11.27	5.500	-206.222	-1.67	5.600	-206.222	-1.67
16.50	-0.461	-16.50	5.500	-2.648	11.98	5.600	-215.339	-0.60	5.700	-215.339	-0.60
16.80	-0.428	-16.30	5.600	-2.666	12.69	5.700	-224.656	0.47	5.800	-224.656	0.47
17.10	-0.395	-16.10	5.700	-2.683	13.40	5.800	-234.173	1.57	5.900	-234.173	1.57
17.40	-0.362	-15.90	5.800	-2.699	14.11	5.900	-243.890	2.70	6.000	-243.890	2.70
17.70	-0.329	-15.70	5.900	-2.715	14.82	6.000	-253.807	3.87	6.100	-253.807	3.87
18.00	-0.296	-15.50	6.000	-2.730	15.53	6.100	-263.924	5.07	6.200	-263.924	5.07
18.30	-0.263	-15.30	6.100	-2.744	16.24	6.200	-274.241	6.30	6.300	-274.241	6.30
18.60	-0.230	-15.10	6.200	-2.757	16.95	6.300	-284.758	7.57	6.400	-284.758	7.57
18.90	-0.197	-14.90	6.300	-2.769	17.66	6.400	-295.475	8.87	6.500	-295.475	8.87
19.20	-0.164	-14.70	6.400	-2.780	18.37	6.500	-306.392	10.20	6.600	-306.392	10.20
19.50	-0.131	-14.50	6.500	-2.791	19.08	6.600	-317.509	11.57	6.700	-317.509	11.57
19.80	-0.098	-14.30	6.600	-2.801	19.79	6.700	-328.826	12.97	6.800	-328.826	12.97
20.10	-0.065	-14.10	6.700	-2.811	20.50	6.800	-340.343	14.40	6.900	-340.343	14.40
20.40	-0.032	-13.90	6.800	-2.820	21.21	6.900	-352.060	15.87	7.000	-352.060	15.87
20.70	0.001	-13.70	6.900	-2.829	21.92	7.000	-363.977	17.37	7.100	-363.977	17.37
21.00	0.034	-13.50	7.000	-2.837	22.63	7.100	-376.094	18.90	7.200	-376.094	18.90
21.30	0.067	-13.30	7.100	-2.845	23.34	7.200	-388.411	20.47	7.300	-388.411	20.47
21.60	0.100	-13.10	7.200	-2.853	24.05	7.300	-400.928	22.07	7.400	-400.928	22.07
21.90	0.133	-12.90	7.300	-2.860	24.76	7.400	-413.645	23.70	7.500	-413.645	23.70
22.20	0.166	-12.70	7.400	-2.867	25.47	7.500	-426.562	25.37	7.600	-426.562	25.37
22.50	0.199	-12.50	7.500	-2.874	26.18	7.600	-439.679	27.07	7.700	-439.679	27.07
22.80	0.232	-12.30	7.600	-2.881	26.89	7.700	-452.996	28.80	7.800	-452.996	28.80
23.10	0.265	-12.10	7.700	-2.887	27.60	7.800	-466.513	30.57	7.900	-466.513	30.57
23.40	0.298	-11.90	7.800	-2.893	28.31	7.900	-480.230	32.37	8.000	-480.230	32.37
23.70	0.331	-11.70	7.900	-2.898	29.02	8.000	-494.147	34.20	8.100	-494.147	34.20
24.00	0.364	-11.50	8.000	-2.903	29.73	8.100	-508.264	36.07	8.200	-508.264	36.07
24.30	0.397	-11.30	8.100	-2.907	30.44	8.200	-522.581	37.97	8.300	-522.581	37.97
24.60	0.430	-11.10	8.200	-2.911	31.15	8.300	-537.098	39.90	8.400	-537.098	39.90
24.90	0.463	-10.90	8.300	-2.914	31.86	8.400	-551.815	41.87	8.500	-551.815	41.87
25.20	0.496	-10.70	8.400	-2.917	32.57	8.500	-566.732	43.87	8.600	-566.732	43.87
25.50	0.529	-10.50	8.500	-2.919	33.28	8.600	-581.849	45.90	8.700	-581.849	45.90
25.80	0.562	-10.30	8.600	-2.921	33.99	8.700	-597.166	47.97	8.800	-597.166	47.97
26.10	0.595	-10.10	8.700	-2.922	34.70	8.800	-612.683	50.07	8.900	-612.683	50.07
26.40	0.628	-9.90	8.800	-2.923	35.41	8.900	-628.400	52.20	9.000	-628.400	52.20
26.70	0.661	-9.70	8.900	-2.923	36.12	9.000	-644.317	54.37	9.100	-644.317	54.37
27.00	0.694	-9.50	9.000	-2.922	36.83	9.100	-660.434	56.57	9.200	-660.434	56.57
27.30	0.727	-9.30	9.100	-2.921	37.54	9.200	-676.751	58.80	9.300	-676.751	58.80
27.60	0.760	-9.10	9.200	-2.919	38.25	9.300	-693.268	61.07	9.400	-693.268	61.07
27.90	0.793	-8.90	9.300	-2.917	38.96	9.400	-709.985	63.37	9.500	-709.985	63.37
28.20	0.826	-8.70	9.400	-2.914	39.67	9.500	-726.902				

Table 148. Vertical Electric Field (Poorly Conducting Soil), Frequency = 0.1 MHz, VED Height = 4495.20 m

[illegible]

Table 149. Vertical Electric Field (Poorly Conducting Soil), Frequency = 1.0 MHz, VED Height = 0.00 m

30.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
RE (M)	AMP (DB)	PHASE (DEG)	RE (M)	AMP (DB)	PHASE (DEG)	RE (M)	AMP (DB)	PHASE (DEG)	RE (M)
0.00	-8.791	-73.62	0.00	-18.000	-13.50	0.00	-20.735	-14.402	0.00
0.03	-8.800	-73.65	0.03	-18.240	-13.50	0.03	-20.735	-14.402	0.03
0.06	-8.790	-73.60	0.06	-18.424	-13.50	0.06	-20.735	-14.402	0.06
0.09	-8.780	-73.55	0.09	-18.587	-13.50	0.09	-20.735	-14.402	0.09
0.12	-8.761	-73.48	0.12	-18.735	-13.50	0.12	-20.735	-14.402	0.12
0.15	-8.733	-73.40	0.15	-18.868	-13.50	0.15	-20.735	-14.402	0.15
0.18	-8.705	-73.31	0.18	-18.984	-13.50	0.18	-20.735	-14.402	0.18
0.21	-8.677	-73.22	0.21	-19.082	-13.50	0.21	-20.735	-14.402	0.21
0.24	-8.650	-73.13	0.24	-19.162	-13.50	0.24	-20.735	-14.402	0.24
0.27	-8.623	-73.04	0.27	-19.224	-13.50	0.27	-20.735	-14.402	0.27
0.30	-8.596	-72.95	0.30	-19.279	-13.50	0.30	-20.735	-14.402	0.30
0.33	-8.570	-72.86	0.33	-19.326	-13.50	0.33	-20.735	-14.402	0.33
0.36	-8.544	-72.77	0.36	-19.366	-13.50	0.36	-20.735	-14.402	0.36
0.39	-8.518	-72.68	0.39	-19.400	-13.50	0.39	-20.735	-14.402	0.39
0.42	-8.492	-72.59	0.42	-19.428	-13.50	0.42	-20.735	-14.402	0.42
0.45	-8.466	-72.50	0.45	-19.450	-13.50	0.45	-20.735	-14.402	0.45
0.48	-8.440	-72.41	0.48	-19.467	-13.50	0.48	-20.735	-14.402	0.48
0.51	-8.414	-72.32	0.51	-19.479	-13.50	0.51	-20.735	-14.402	0.51
0.54	-8.388	-72.23	0.54	-19.486	-13.50	0.54	-20.735	-14.402	0.54
0.57	-8.362	-72.14	0.57	-19.489	-13.50	0.57	-20.735	-14.402	0.57
0.60	-8.336	-72.05	0.60	-19.488	-13.50	0.60	-20.735	-14.402	0.60
0.63	-8.310	-71.96	0.63	-19.478	-13.50	0.63	-20.735	-14.402	0.63
0.66	-8.284	-71.87	0.66	-19.463	-13.50	0.66	-20.735	-14.402	0.66
0.69	-8.258	-71.78	0.69	-19.443	-13.50	0.69	-20.735	-14.402	0.69
0.72	-8.232	-71.69	0.72	-19.419	-13.50	0.72	-20.735	-14.402	0.72
0.75	-8.206	-71.60	0.75	-19.391	-13.50	0.75	-20.735	-14.402	0.75
0.78	-8.180	-71.51	0.78	-19.359	-13.50	0.78	-20.735	-14.402	0.78
0.81	-8.154	-71.42	0.81	-19.323	-13.50	0.81	-20.735	-14.402	0.81
0.84	-8.128	-71.33	0.84	-19.283	-13.50	0.84	-20.735	-14.402	0.84
0.87	-8.102	-71.24	0.87	-19.239	-13.50	0.87	-20.735	-14.402	0.87
0.90	-8.076	-71.15	0.90	-19.191	-13.50	0.90	-20.735	-14.402	0.90
1.05	-7.981	-70.41	1.05	-18.504	-13.50	1.05	-17.415	-13.50	1.05
1.10	-7.955	-70.32	1.10	-18.424	-13.50	1.10	-17.415	-13.50	1.10
1.15	-7.929	-70.23	1.15	-18.330	-13.50	1.15	-17.415	-13.50	1.15
1.20	-7.903	-70.14	1.20	-18.233	-13.50	1.20	-17.415	-13.50	1.20
1.25	-7.877	-70.05	1.25	-18.133	-13.50	1.25	-17.415	-13.50	1.25
1.30	-7.851	-69.96	1.30	-18.030	-13.50	1.30	-17.415	-13.50	1.30
1.35	-7.825	-69.87	1.35	-17.924	-13.50	1.35	-17.415	-13.50	1.35
1.40	-7.799	-69.78	1.40	-17.815	-13.50	1.40	-17.415	-13.50	1.40
1.45	-7.773	-69.69	1.45	-17.703	-13.50	1.45	-17.415	-13.50	1.45
1.50	-7.747	-69.60	1.50	-17.588	-13.50	1.50	-17.415	-13.50	1.50
1.55	-7.721	-69.51	1.55	-17.470	-13.50	1.55	-17.415	-13.50	1.55
1.60	-7.695	-69.42	1.60	-17.349	-13.50	1.60	-17.415	-13.50	1.60
1.65	-7.669	-69.33	1.65	-17.225	-13.50	1.65	-17.415	-13.50	1.65
1.70	-7.643	-69.24	1.70	-17.098	-13.50	1.70	-17.415	-13.50	1.70
1.75	-7.617	-69.15	1.75	-16.968	-13.50	1.75	-17.415	-13.50	1.75
1.80	-7.591	-69.06	1.80	-16.835	-13.50	1.80	-17.415	-13.50	1.80
1.85	-7.565	-68.97	1.85	-16.699	-13.50	1.85	-17.415	-13.50	1.85
1.90	-7.539	-68.88	1.90	-16.560	-13.50	1.90	-17.415	-13.50	1.90
1.95	-7.513	-68.79	1.95	-16.418	-13.50	1.95	-17.415	-13.50	1.95
2.00	-7.487	-68.70	2.00	-16.273	-13.50	2.00	-17.415	-13.50	2.00
2.05	-7.461	-68.61	2.05	-16.125	-13.50	2.05	-17.415	-13.50	2.05
2.10	-7.435	-68.52	2.10	-15.974	-13.50	2.10	-17.415	-13.50	2.10
2.15	-7.409	-68.43	2.15	-15.820	-13.50	2.15	-17.415	-13.50	2.15
2.20	-7.383	-68.34	2.20	-15.663	-13.50	2.20	-17.415	-13.50	2.20
2.25	-7.357	-68.25	2.25	-15.503	-13.50	2.25	-17.415	-13.50	2.25
2.30	-7.331	-68.16	2.30	-15.340	-13.50	2.30	-17.415	-13.50	2.30
2.35	-7.305	-68.07	2.35	-15.174	-13.50	2.35	-17.415	-13.50	2.35
2.40	-7.279	-67.98	2.40	-15.005	-13.50	2.40	-17.415	-13.50	2.40
2.45	-7.253	-67.89	2.45	-14.833	-13.50	2.45	-17.415	-13.50	2.45
2.50	-7.227	-67.80	2.50	-14.658	-13.50	2.50	-17.415	-13.50	2.50
2.55	-7.201	-67.71	2.55	-14.480	-13.50	2.55	-17.415	-13.50	2.55
2.60	-7.175	-67.62	2.60	-14.300	-13.50	2.60	-17.415	-13.50	2.60
2.65	-7.149	-67.53	2.65	-14.117	-13.50	2.65	-17.415	-13.50	2.65
2.70	-7.123	-67.44	2.70	-13.932	-13.50	2.70	-17.415	-13.50	2.70
2.75	-7.097	-67.35	2.75	-13.745	-13.50	2.75	-17.415	-13.50	2.75
2.80	-7.071	-67.26	2.80	-13.556	-13.50	2.80	-17.415	-13.50	2.80
2.85	-7.045	-67.17	2.85	-13.365	-13.50	2.85	-17.415	-13.50	2.85
2.90	-7.019	-67.08	2.90	-13.172	-13.50	2.90	-17.415	-13.50	2.90
2.95	-6.993	-66.99	2.95	-12.977	-13.50	2.95	-17.415	-13.50	2.95
3.00	-6.967	-66.90	3.00	-12.780	-13.50	3.00	-17.415	-13.50	3.00

Table 150. Vertical Electric Field (Poorly Conducting Soil), Frequency = 1.0 MHz, VED Height = 224.76 m

3.0 KM UMBRANCE				10.0 KM UMBRANCE				100.0 KM UMBRANCE			
ME [UMT]	AMP (DB)	PHASE (DEG)	ME [UMT]	ME [UMT]	AMP (DB)	PHASE (DEG)	ME [UMT]	ME [UMT]	AMP (DB)	PHASE (DEG)	ME [UMT]
.000	-9.107	-47.76	.000	.000	-18.444	-75.79	.000	.000	-28.775	-84.91	.000
.003	-9.244	-47.42	.010	.010	-18.632	-73.23	.030	.030	-29.305	-77.60	.100
.006	-9.297	-46.52	.020	.020	-18.808	-70.80	.060	.060	-29.705	-69.54	.200
.009	-9.333	-45.79	.030	.030	-18.971	-68.30	.090	.090	-29.931	-60.96	.300
.012	-9.400	-45.06	.040	.040	-19.119	-65.73	.120	.120	-29.975	-52.19	.400
.015	-9.457	-44.33	.050	.050	-19.252	-63.11	.150	.150	-29.820	-43.61	.500
.018	-9.507	-43.60	.060	.060	-19.368	-60.44	.180	.180	-29.498	-35.56	.600
.021	-9.556	-42.86	.070	.070	-19.467	-57.74	.210	.210	-29.042	-28.25	.700
.024	-9.604	-42.12	.080	.080	-19.547	-55.00	.240	.240	-28.501	-21.79	.800
.027	-9.650	-41.37	.090	.090	-19.609	-52.25	.270	.270	-27.909	-16.15	.900
.030	-9.695	-40.63	.100	.100	-19.651	-49.49	.300	.300	-27.294	-11.27	1.000
.033	-9.738	-39.88	.110	.110	-19.675	-46.74	.330	.330	-26.670	-7.05	1.100
.036	-9.780	-39.13	.120	.120	-19.688	-44.00	.360	.360	-26.042	-3.41	1.200
.039	-9.821	-38.38	.130	.130	-19.687	-41.29	.390	.390	-25.404	.25	1.300
.042	-9.860	-37.62	.140	.140	-19.671	-38.62	.420	.420	-24.761	4.94	1.400
.045	-9.894	-36.87	.150	.150	-19.640	-35.90	.450	.450	-24.116	9.94	1.500
.048	-9.934	-36.11	.160	.160	-19.595	-33.24	.480	.480	-23.468	15.08	1.600
.051	-9.969	-35.36	.170	.170	-19.531	-30.53	.510	.510	-22.818	20.67	1.700
.054	-10.003	-34.60	.180	.180	-19.450	-27.80	.540	.540	-22.165	26.71	1.800
.057	-10.035	-33.84	.190	.190	-19.358	-25.04	.570	.570	-21.509	32.27	1.900
.060	-10.066	-33.09	.200	.200	-19.256	-22.26	.600	.600	-20.853	37.71	2.000
.063	-10.096	-32.33	.210	.210	-19.146	-19.46	.630	.630	-20.188	43.13	2.100
.066	-10.124	-31.58	.220	.220	-19.024	-16.66	.660	.660	-19.523	48.51	2.200
.069	-10.151	-30.82	.230	.230	-18.894	-13.85	.690	.690	-18.857	53.88	2.300
.072	-10.177	-30.07	.240	.240	-18.757	-11.04	.720	.720	-18.182	59.22	2.400
.075	-10.201	-29.32	.250	.250	-18.614	-8.23	.750	.750	-17.507	64.54	2.500
.078	-10.224	-28.56	.260	.260	-18.466	-5.42	.780	.780	-16.832	69.85	2.600
.081	-10.245	-27.81	.270	.270	-18.314	-2.61	.810	.810	-16.157	75.14	2.700
.084	-10.265	-27.07	.280	.280	-18.160	.08	.840	.840	-15.482	80.42	2.800
.087	-10.284	-26.32	.290	.290	-18.003	2.87	.870	.870	-14.807	85.69	2.900
.090	-10.302	-25.58	.300	.300	-17.844	5.65	.900	.900	-14.131	90.95	3.000
.105	-10.433	-21.91	.350	.350	-16.889	1.33	1.050	1.050	-17.458	25.40	3.500
.120	-10.445	-18.32	.400	.400	-16.125	6.75	1.200	1.200	-16.420	27.59	4.000
.135	-10.452	-14.84	.450	.450	-15.414	11.19	1.350	1.350	-15.534	29.41	4.500
.150	-10.467	-11.48	.500	.500	-14.760	14.91	1.500	1.500	-14.767	30.97	5.000
.165	-10.474	-8.24	.550	.550	-14.166	18.07	1.650	1.650	-14.096	32.36	5.500
.180	-10.488	-5.14	.600	.600	-13.626	20.81	1.800	1.800	-13.505	33.62	6.000
.195	-10.510	-2.18	.650	.650	-13.137	23.21	1.950	1.950	-12.980	34.77	6.500
.210	-10.538	.68	.700	.700	-12.694	25.34	2.100	2.100	-12.512	35.86	7.000
.225	-10.570	3.37	.750	.750	-12.292	27.28	2.250	2.250	-12.093	36.89	7.500
.240	-10.601	5.95	.800	.800	-11.929	29.04	2.400	2.400	-11.718	37.87	8.000
.255	-10.637	8.41	.850	.850	-11.599	30.68	2.550	2.550	-11.379	38.83	8.500
.270	-10.676	10.77	.900	.900	-11.300	32.20	2.700	2.700	-11.075	39.76	9.000
.285	-10.714	13.03	.950	.950	-11.030	33.64	2.850	2.850	-10.800	40.67	9.500
.300	-10.752	15.19	1.000	1.000	-10.785	35.00	3.000	3.000	-10.552	41.57	10.000

Table 151. Vertical Electric Field (Poorly Conducting Soil), Frequency = 1.0 MHz, VED Height = 449.52 m

30.0 KM DISTANCE				100.0 KM DISTANCE				100.0 KM DISTANCE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)
.000	-7.014	-27.51	0.000	-14.983	-86.94	0.000	-24.879	-57.04	0.000	-34.879	-57.04
.003	-7.007	-28.74	.010	-15.108	-84.58	.030	-24.913	-47.74	.100	-35.058	-30.32
.006	-7.003	-28.07	.020	-15.343	-82.14	.060	-25.311	-37.66	.200	-35.180	-2.44
.009	-7.017	-29.34	.030	-15.504	-79.63	.100	-25.534	-31.10	.300	-33.111	16.89
.012	-7.030	-24.84	.040	-15.622	-77.06	.150	-25.570	-22.33	.400	-30.484	28.81
.015	-7.052	-23.87	.050	-15.785	-74.42	.200	-25.420	-13.75	.500	-24.084	45.94
.018	-7.034	-23.13	.060	-15.902	-71.74	.300	-25.095	-3.70	.700	-27.473	40.84
.021	-7.065	-22.59	.070	-16.002	-69.00	.400	-24.841	1.61	.900	-26.089	44.32
.024	-7.036	-21.84	.080	-16.085	-66.24	.500	-24.099	8.09	.000	-24.886	46.92
.027	-7.066	-20.89	.090	-16.149	-63.45	.600	-23.507	13.74	.100	-23.827	48.94
.030	-7.035	-20.13	.100	-16.194	-60.66	.700	-22.893	18.63	.200	-22.885	50.56
.033	-7.064	-19.37	.110	-16.221	-57.88	.800	-22.276	22.66	.300	-22.038	51.89
.036	-7.032	-18.60	.120	-16.229	-55.07	.900	-21.670	26.52	.400	-21.270	53.02
.039	-7.060	-17.83	.130	-16.219	-52.31	.000	-21.083	29.70	.500	-20.569	53.98
.042	-7.027	-17.06	.140	-16.192	-49.58	.100	-20.517	32.44	.600	-19.925	54.82
.045	-7.013	-16.28	.150	-16.188	-46.84	.200	-19.976	34.93	.700	-19.329	55.57
.048	-7.010	-15.50	.160	-16.088	-44.08	.300	-19.460	37.10	.800	-18.776	56.23
.051	-7.063	-14.72	.170	-16.013	-41.33	.400	-18.969	39.03	.900	-18.250	56.84
.054	-7.070	-13.93	.180	-15.925	-38.53	.500	-18.501	40.76	.000	-17.777	57.39
.057	-7.035	-13.14	.190	-15.825	-35.77	.600	-18.058	42.32	.100	-17.323	57.89
.060	-7.093	-12.35	.200	-15.714	-33.03	.700	-17.632	43.73	.200	-16.896	58.36
.063	-7.033	-11.55	.210	-15.594	-30.29	.800	-17.228	45.02	.300	-16.492	58.80
.066	-7.076	-10.75	.220	-15.464	-27.54	.900	-16.842	46.21	.400	-16.110	59.22
.069	-7.016	-9.95	.230	-15.328	-24.78	.000	-16.475	47.30	.500	-15.748	59.61
.072	-7.030	-9.14	.240	-15.188	-22.01	.100	-16.123	48.31	.600	-15.403	59.96
.075	-7.015	-8.34	.250	-15.046	-19.24	.200	-15.787	49.24	.700	-15.075	60.33
.078	-7.063	-7.53	.260	-14.907	-16.47	.300	-15.466	50.12	.800	-14.761	60.67
.081	-7.070	-6.71	.270	-14.732	-13.70	.400	-15.158	50.94	.900	-14.462	61.00
.084	-7.037	-5.90	.280	-14.575	-10.94	.500	-14.862	51.71	.000	-14.175	61.31
.087	-7.033	-5.08	.290	-14.418	-8.18	.600	-14.579	52.44	.100	-13.901	61.62
.090	-7.036	-4.26	.300	-14.256	-5.43	.700	-14.306	53.13	.200	-13.637	61.91
.105	-6.954	-1.13	.350	-13.457	32.41	.850	-13.088	58.11	.3500	-12.484	63.24
.120	-6.886	4.04	.400	-12.691	36.11	.900	-12.408	58.55	.4000	-11.485	64.55
.135	-6.811	8.23	.450	-11.976	43.05	.950	-11.620	60.66	.4500	-10.582	65.76
.150	-6.716	12.44	.500	-11.326	47.27	.000	-10.856	62.55	.5000	-9.737	66.93
.165	-6.611	16.63	.550	-10.735	50.76	.050	-10.109	64.29	.5500	-8.937	68.08
.180	-6.500	20.85	.600	-10.201	54.21	.100	-9.384	65.93	.6000	-8.175	69.24
.195	-6.417	25.03	.650	-9.720	57.41	.150	-8.674	67.50	.6500	-7.450	70.41
.210	-6.314	29.18	.700	-9.287	59.45	.200	-8.010	69.04	.7000	-6.762	71.60
.225	-6.180	33.30	.750	-8.897	62.50	.250	-7.392	70.55	.7500	-6.112	72.81
.240	-6.134	37.36	.800	-8.545	64.91	.300	-6.824	72.05	.8000	-5.512	74.05
.255	-6.134	41.36	.850	-8.224	67.41	.350	-6.300	73.55	.8500	-4.958	75.31
.270	-6.090	45.28	.900	-7.943	69.42	.400	-5.810	75.05	.9000	-4.448	76.62
.285	-6.043	49.12	.950	-7.685	71.56	.450	-5.355	76.57	.9500	-3.971	77.93
.300	-6.974	52.86	1.000	-7.451	73.84	.500	-4.930	78.10	10.000	-3.529	79.33

Table 152. Vertical Electric Field (Poorly Conducting Soil), Frequency = 10.0 MHz, VED Height = 0.00 m

3.0 KM UMRANGE				10.0 KM UMRANGE				30.0 KM UMRANGE				100.0 KM UMRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)
0.000	-34.511	-95.01	0.000	-45.394	-98.17	0.000	-54.715	-98.74	0.000	-65.411	-98.94	0.000	-65.411	-98.94	0.000
0.003	-34.500	-85.30	0.010	-44.290	-85.00	0.030	-43.337	-85.33	0.100	-42.014	-85.04	0.300	-40.059	-85.04	1.000
0.006	-34.578	-75.00	0.020	-43.211	-75.00	0.060	-42.014	-75.00	0.200	-40.059	-75.00	0.600	-37.585	-75.00	2.000
0.009	-34.544	-65.00	0.030	-42.136	-65.00	0.100	-40.059	-65.00	0.300	-37.585	-65.00	0.800	-35.115	-65.00	3.000
0.012	-34.537	-55.00	0.040	-41.061	-55.00	0.150	-38.013	-55.00	0.400	-35.674	-55.00	1.000	-32.803	-55.00	4.000
0.015	-34.537	-45.00	0.050	-40.000	-45.00	0.200	-36.940	-45.00	0.500	-34.123	-45.00	1.500	-30.871	-45.00	5.000
0.018	-34.537	-35.00	0.060	-38.954	-35.00	0.250	-35.865	-35.00	0.600	-32.813	-35.00	2.000	-28.787	-35.00	6.000
0.021	-34.536	-25.00	0.070	-37.924	-25.00	0.300	-34.796	-25.00	0.700	-31.681	-25.00	2.500	-26.707	-25.00	7.000
0.024	-34.536	-15.00	0.080	-36.903	-15.00	0.350	-33.726	-15.00	0.800	-30.610	-15.00	3.000	-24.632	-15.00	8.000
0.027	-34.536	-5.00	0.090	-35.880	-5.00	0.400	-32.657	-5.00	0.900	-29.539	-5.00	3.500	-22.562	-5.00	9.000
0.030	-26.000	-5.00	0.100	-34.857	-5.00	0.450	-31.588	-5.00	1.000	-28.470	-5.00	4.000	-20.487	-5.00	10.000
0.033	-26.000	-15.00	0.110	-33.834	-15.00	0.500	-30.627	-15.00	1.100	-27.401	-15.00	4.500	-18.412	-15.00	11.000
0.036	-27.072	-25.00	0.120	-32.811	-25.00	0.550	-29.676	-25.00	1.200	-26.330	-25.00	5.000	-16.337	-25.00	12.000
0.039	-27.072	-35.00	0.130	-31.788	-35.00	0.600	-28.725	-35.00	1.300	-25.259	-35.00	5.500	-14.262	-35.00	13.000
0.042	-26.000	-45.00	0.140	-30.765	-45.00	0.650	-27.774	-45.00	1.400	-24.188	-45.00	6.000	-12.187	-45.00	14.000
0.045	-26.000	-55.00	0.150	-29.742	-55.00	0.700	-26.823	-55.00	1.500	-23.117	-55.00	6.500	-10.112	-55.00	15.000
0.048	-25.000	-65.00	0.160	-28.719	-65.00	0.750	-25.872	-65.00	1.600	-22.046	-65.00	7.000	-8.037	-65.00	16.000
0.051	-25.000	-75.00	0.170	-27.696	-75.00	0.800	-24.921	-75.00	1.700	-20.975	-75.00	7.500	-5.962	-75.00	17.000
0.054	-24.000	-85.00	0.180	-26.673	-85.00	0.850	-23.970	-85.00	1.800	-19.904	-85.00	8.000	-3.887	-85.00	18.000
0.057	-24.000	-95.00	0.190	-25.650	-95.00	0.900	-23.019	-95.00	1.900	-18.833	-95.00	8.500	-1.812	-95.00	19.000
0.060	-23.000	-105.00	0.200	-24.627	-105.00	0.950	-22.068	-105.00	2.000	-17.762	-105.00	9.000	0.263	-105.00	20.000
0.063	-23.000	-115.00	0.210	-23.604	-115.00	1.000	-21.117	-115.00	2.100	-16.691	-115.00	9.500	2.188	-115.00	21.000
0.066	-23.000	-125.00	0.220	-22.581	-125.00	1.050	-20.166	-125.00	2.200	-15.620	-125.00	10.000	4.113	-125.00	22.000
0.069	-22.000	-135.00	0.230	-21.558	-135.00	1.100	-19.215	-135.00	2.300	-14.549	-135.00	10.500	6.038	-135.00	23.000
0.072	-22.000	-145.00	0.240	-20.535	-145.00	1.150	-18.264	-145.00	2.400	-13.478	-145.00	11.000	7.963	-145.00	24.000
0.075	-22.000	-155.00	0.250	-19.512	-155.00	1.200	-17.313	-155.00	2.500	-12.407	-155.00	11.500	9.888	-155.00	25.000
0.078	-21.000	-165.00	0.260	-18.489	-165.00	1.250	-16.362	-165.00	2.600	-11.336	-165.00	12.000	11.813	-165.00	26.000
0.081	-21.000	-175.00	0.270	-17.466	-175.00	1.300	-15.411	-175.00	2.700	-10.265	-175.00	12.500	13.738	-175.00	27.000
0.084	-21.000	-185.00	0.280	-16.443	-185.00	1.350	-14.460	-185.00	2.800	-9.194	-185.00	13.000	15.663	-185.00	28.000
0.087	-20.000	-195.00	0.290	-15.420	-195.00	1.400	-13.509	-195.00	2.900	-8.123	-195.00	13.500	17.588	-195.00	29.000
0.090	-20.000	-205.00	0.300	-14.397	-205.00	1.450	-12.558	-205.00	3.000	-7.052	-205.00	14.000	19.513	-205.00	30.000
0.105	-19.547	-11.00	0.350	-15.803	-6.17	1.050	-19.598	-6.77	1.050	-19.598	-6.77	3.500	-19.595	-4.28	
0.120	-18.537	-9.95	0.400	-16.577	-5.74	1.200	-18.573	-6.60	4.000	-18.573	-6.60	4.000	-18.570	-4.18	
0.135	-17.527	-9.00	0.450	-17.351	-5.44	1.350	-17.548	-6.46	4.500	-17.548	-6.46	4.500	-17.545	-4.10	
0.150	-16.517	-8.00	0.500	-18.125	-5.24	1.500	-16.523	-6.34	5.000	-16.523	-6.34	5.000	-16.520	-4.03	
0.165	-15.507	-7.00	0.550	-18.900	-5.03	1.650	-15.498	-6.23	5.500	-15.498	-6.23	5.500	-15.495	-3.96	
0.180	-14.497	-6.00	0.600	-19.675	-4.84	1.800	-14.473	-6.12	6.000	-14.473	-6.12	6.000	-14.470	-3.89	
0.195	-13.487	-5.00	0.650	-20.450	-4.68	1.950	-13.448	-6.05	6.500	-13.448	-6.05	6.500	-13.445	-3.83	
0.210	-12.477	-4.00	0.700	-21.225	-4.54	2.100	-12.423	-5.97	7.000	-12.423	-5.97	7.000	-12.420	-3.77	
0.225	-11.467	-3.00	0.750	-22.000	-4.41	2.250	-11.398	-5.89	7.500	-11.398	-5.89	7.500	-11.395	-3.71	
0.240	-10.457	-2.00	0.800	-22.775	-4.30	2.400	-10.373	-5.82	8.000	-10.373	-5.82	8.000	-10.370	-3.66	
0.255	-9.447	-1.00	0.850	-23.550	-4.19	2.550	-9.348	-5.76	8.500	-9.348	-5.76	8.500	-9.345	-3.61	
0.270	-8.437	-0.00	0.900	-24.325	-4.10	2.700	-8.323	-5.70	9.000	-8.323	-5.70	9.000	-8.320	-3.56	
0.285	-7.427	-0.00	0.950	-25.100	-4.01	2.850	-7.298	-5.64	9.500	-7.298	-5.64	9.500	-7.295	-3.51	
0.300	-6.417	-0.00	1.000	-25.875	-3.92	3.000	-6.273	-5.58	10.000	-6.273	-5.58	10.000	-6.270	-3.46	

Table 153. Vertical Electric Field (Poorly Conducting Soil), Frequency = 10.0 MHz, VED Height = 22.48 m

3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE				100.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (V/m)	PHASE (DEG)		HEIGHT (KM)	AMP (V/m)	PHASE (DEG)		HEIGHT (KM)	AMP (V/m)	PHASE (DEG)		HEIGHT (KM)	AMP (V/m)	PHASE (DEG)	
0.000	-30.000	-37.10		0.000	-41.043	-40.76		0.000	-30.567	-41.23		0.000	-61.018	-41.40	
0.003	-30.034	-28.37		0.010	-34.933	-7.58		0.000	-44.333	24.21		0.100	-45.124	43.95	
0.006	-30.068	-18.12		0.020	-37.332	13.19		0.000	-45.012	38.04		0.200	-39.161	48.55	
0.009	-30.102	-8.91		0.030	-34.851	24.52		0.000	-35.630	43.05		0.300	-35.666	50.10	
0.012	-29.000	-0.98		0.040	-32.776	31.15		0.000	-31.291	47.15		0.400	-33.192	50.88	
0.015	-28.000	9.98		0.050	-31.052	38.41		0.100	-24.740	48.19		0.500	-31.280	51.35	
0.018	-27.000	19.98		0.060	-29.595	45.34		0.200	-18.431	48.93		0.600	-29.724	51.68	
0.021	-26.000	29.98		0.070	-28.342	50.48		0.300	-12.300	49.50		0.700	-28.412	51.91	
0.024	-25.000	39.98		0.080	-27.246	54.11		0.400	-6.305	49.54		0.800	-27.280	52.04	
0.027	-24.000	49.98		0.090	-26.275	57.45		0.500	-2.614	50.30		0.900	-26.286	52.24	
0.030	-23.000	59.98		0.100	-25.404	60.41		0.600	1.987	51.02		1.000	-25.399	52.36	
0.033	-22.000	69.98		0.110	-24.615	63.29		0.700	6.600	51.61		1.100	-24.600	52.46	
0.036	-21.000	79.98		0.120	-23.896	66.07		0.800	11.225	52.02		1.200	-23.873	52.55	
0.039	-20.000	89.98		0.130	-23.236	68.79		0.900	15.897	52.44		1.300	-23.207	52.63	
0.042	-19.000	99.98		0.140	-22.625	71.45		1.000	20.600	52.82		1.400	-22.592	52.70	
0.045	-18.000	109.98		0.150	-22.058	74.05		1.100	25.330	53.15		1.500	-22.022	52.76	
0.048	-17.000	119.98		0.160	-21.529	76.59		1.200	30.087	53.47		1.600	-21.491	52.82	
0.051	-16.000	129.98		0.170	-21.033	79.08		1.300	34.864	53.75		1.700	-20.994	52.87	
0.054	-15.000	139.98		0.180	-20.568	81.53		1.400	39.661	54.02		1.800	-20.527	52.92	
0.057	-14.000	149.98		0.190	-20.125	83.93		1.500	44.477	54.29		1.900	-20.087	52.97	
0.060	-13.000	159.98		0.200	-19.703	86.28		1.600	49.312	54.51		2.000	-19.671	53.02	
0.063	-12.000	169.98		0.210	-19.300	88.58		1.700	54.166	54.75		2.100	-19.277	53.06	
0.066	-11.000	179.98		0.220	-18.916	90.84		1.800	59.039	54.98		2.200	-18.903	53.10	
0.069	-10.000	189.98		0.230	-18.549	93.06		1.900	63.939	55.19		2.300	-18.547	53.14	
0.072	-9.000	199.98		0.240	-18.200	95.23		2.000	68.864	55.39		2.400	-18.207	53.18	
0.075	-8.000	209.98		0.250	-17.866	97.36		2.100	73.814	55.58		2.500	-17.883	53.22	
0.078	-7.000	219.98		0.260	-17.546	99.45		2.200	78.789	55.75		2.600	-17.572	53.26	
0.081	-6.000	229.98		0.270	-17.237	101.50		2.300	83.789	55.91		2.700	-17.275	53.30	
0.084	-5.000	239.98		0.280	-16.938	103.52		2.400	88.814	56.06		2.800	-16.989	53.34	
0.087	-4.000	249.98		0.290	-16.649	105.50		2.500	93.864	56.21		2.900	-16.715	53.37	
0.090	-3.000	259.98		0.300	-16.370	107.45		2.600	98.939	56.35		3.000	-16.451	53.41	
0.105	-15.332	48.09		0.350	-15.306	51.50		1.050	-15.277	53.04		3.500	-15.265	53.58	
0.120	-14.400	47.29		0.400	-14.300	51.96		1.200	-14.272	53.29		4.000	-14.260	53.76	
0.135	-13.400	46.27		0.450	-13.432	52.36		1.350	-13.404	53.53		4.500	-13.393	53.93	
0.150	-12.400	45.09		0.500	-12.674	52.72		1.500	-12.647	53.75		5.000	-12.636	54.11	
0.165	-11.400	43.79		0.550	-11.904	53.05		1.650	-11.978	53.98		5.500	-11.968	54.30	
0.180	-10.400	42.42		0.600	-11.149	53.36		1.800	-11.384	54.20		6.000	-11.374	54.49	
0.195	-9.400	40.98		0.650	-10.476	53.67		1.950	-10.851	54.43		6.500	-10.842	54.70	
0.210	-8.400	39.50		0.700	-9.807	53.96		2.100	-10.372	54.66		7.000	-10.363	54.91	
0.225	-7.400	37.99		0.750	-9.141	54.25		2.250	-9.934	54.90		7.500	-9.930	55.13	
0.240	-6.400	36.45		0.800	-8.471	54.55		2.400	-9.547	55.15		8.000	-9.938	55.36	
0.255	-5.400	34.89		0.850	-7.804	54.84		2.550	-9.190	55.40		8.500	-9.182	55.59	
0.270	-4.400	33.32		0.900	-7.138	55.14		2.700	-8.866	55.66		9.000	-8.857	55.84	
0.285	-3.400	31.74		0.950	-6.472	55.45		2.850	-8.562	55.93		9.500	-8.562	56.10	
0.300	-2.400	30.15		1.000	-5.806	55.76		3.000	-8.300	56.21		10.000	-8.292	56.37	

Table 154. Vertical Electric Field (Poorly Conducting Soil), Frequency = 10.0 MHz, VED Height = 44.95 m

3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					30.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)		
0.00	-26.030	-22.40	0.00	-36.243	-23.91	0.00	-45.718	-24.36	0.00	-56.152	-24.52	0.00	-66.586	-24.52	0.00	-77.020	-24.52		
0.03	-26.001	-11.68	0.03	-36.133	3.25	0.03	-45.684	41.07	0.03	-56.117	60.83	0.03	-66.551	60.83	0.03	-77.000	60.83		
0.06	-25.993	-1.44	0.06	-36.053	30.02	0.06	-45.655	54.91	0.06	-56.088	66.98	0.06	-66.521	66.98	0.06	-77.000	66.98		
0.09	-25.943	7.77	0.09	-35.979	47.99	0.09	-45.626	62.48	0.09	-56.061	68.24	0.09	-66.494	68.24	0.09	-77.000	68.24		
0.12	-25.857	15.70	0.12	-35.893	55.25	0.12	-45.599	65.07	0.12	-56.035	68.57	0.12	-66.467	68.57	0.12	-77.000	68.57		
0.15	-25.746	22.37	0.15	-35.780	61.40	0.15	-45.572	68.34	0.15	-56.008	68.81	0.15	-66.443	68.81	0.15	-77.000	68.81		
0.18	-25.614	27.92	0.18	-35.648	65.97	0.18	-45.545	68.61	0.18	-56.000	68.94	0.18	-66.416	68.94	0.18	-77.000	68.94		
0.21	-25.466	32.32	0.21	-35.500	69.37	0.21	-45.517	68.34	0.21	-56.000	69.15	0.21	-66.388	69.15	0.21	-77.000	69.15		
0.24	-25.306	36.37	0.24	-35.341	71.66	0.24	-45.489	67.62	0.24	-56.000	69.48	0.24	-66.360	69.48	0.24	-77.000	69.48		
0.27	-25.136	39.99	0.27	-35.171	73.14	0.27	-45.461	66.88	0.27	-56.000	69.81	0.27	-66.332	69.81	0.27	-77.000	69.81		
0.30	-24.956	42.33	0.30	-35.000	73.89	0.30	-45.433	66.04	0.30	-56.000	70.14	0.30	-66.304	70.14	0.30	-77.000	70.14		
0.33	-24.766	44.37	0.33	-34.829	74.03	0.33	-45.405	65.20	0.33	-56.000	70.47	0.33	-66.276	70.47	0.33	-77.000	70.47		
0.36	-24.566	46.08	0.36	-34.658	74.53	0.36	-45.377	64.36	0.36	-56.000	70.80	0.36	-66.248	70.80	0.36	-77.000	70.80		
0.39	-24.356	47.46	0.39	-34.487	75.28	0.39	-45.349	63.52	0.39	-56.000	71.13	0.39	-66.220	71.13	0.39	-77.000	71.13		
0.42	-24.136	48.46	0.42	-34.316	76.28	0.42	-45.321	62.68	0.42	-56.000	71.46	0.42	-66.192	71.46	0.42	-77.000	71.46		
0.45	-23.906	49.14	0.45	-34.145	77.53	0.45	-45.293	61.84	0.45	-56.000	71.79	0.45	-66.164	71.79	0.45	-77.000	71.79		
0.48	-23.666	50.54	0.48	-33.974	79.03	0.48	-45.265	61.00	0.48	-56.000	72.12	0.48	-66.136	72.12	0.48	-77.000	72.12		
0.51	-23.416	51.68	0.51	-33.803	80.78	0.51	-45.237	60.16	0.51	-56.000	72.45	0.51	-66.108	72.45	0.51	-77.000	72.45		
0.54	-23.156	52.59	0.54	-33.632	82.78	0.54	-45.209	59.32	0.54	-56.000	72.78	0.54	-66.080	72.78	0.54	-77.000	72.78		
0.57	-22.886	53.28	0.57	-33.461	85.03	0.57	-45.181	58.48	0.57	-56.000	73.11	0.57	-66.052	73.11	0.57	-77.000	73.11		
0.60	-22.606	53.77	0.60	-33.290	87.53	0.60	-45.153	57.64	0.60	-56.000	73.44	0.60	-66.024	73.44	0.60	-77.000	73.44		
0.63	-22.316	54.06	0.63	-33.119	90.28	0.63	-45.125	56.80	0.63	-56.000	73.77	0.63	-66.000	73.77	0.63	-77.000	73.77		
0.66	-22.016	54.16	0.66	-32.948	93.28	0.66	-45.097	56.00	0.66	-56.000	74.10	0.66	-66.000	74.10	0.66	-77.000	74.10		
0.69	-21.706	54.06	0.69	-32.777	96.53	0.69	-45.069	55.20	0.69	-56.000	74.43	0.69	-66.000	74.43	0.69	-77.000	74.43		
0.72	-21.386	53.67	0.72	-32.606	100.03	0.72	-45.041	54.40	0.72	-56.000	74.76	0.72	-66.000	74.76	0.72	-77.000	74.76		
0.75	-21.056	52.92	0.75	-32.435	107.88	0.75	-45.013	53.60	0.75	-56.000	75.09	0.75	-66.000	75.09	0.75	-77.000	75.09		
0.78	-20.716	51.77	0.78	-32.264	112.33	0.78	-44.985	52.80	0.78	-56.000	75.42	0.78	-66.000	75.42	0.78	-77.000	75.42		
0.81	-20.366	50.14	0.81	-32.093	117.13	0.81	-44.957	52.00	0.81	-56.000	75.75	0.81	-66.000	75.75	0.81	-77.000	75.75		
0.84	-20.006	48.04	0.84	-31.922	122.28	0.84	-44.929	51.20	0.84	-56.000	76.08	0.84	-66.000	76.08	0.84	-77.000	76.08		
0.87	-19.636	45.46	0.87	-31.751	127.78	0.87	-44.901	50.40	0.87	-56.000	76.41	0.87	-66.000	76.41	0.87	-77.000	76.41		
0.90	-19.256	42.46	0.90	-31.580	133.63	0.90	-44.873	49.60	0.90	-56.000	76.74	0.90	-66.000	76.74	0.90	-77.000	76.74		
1.05	-18.816	33.40	1.05	-31.409	140.03	1.05	-44.845	48.80	1.05	-56.000	77.07	1.05	-66.000	77.07	1.05	-77.000	77.07		
1.20	-18.356	22.76	1.20	-31.238	146.98	1.20	-44.817	48.00	1.20	-56.000	77.40	1.20	-66.000	77.40	1.20	-77.000	77.40		
1.35	-17.886	11.68	1.35	-31.067	154.08	1.35	-44.789	47.20	1.35	-56.000	77.73	1.35	-66.000	77.73	1.35	-77.000	77.73		
1.50	-17.406	0.00	1.50	-30.896	161.83	1.50	-44.761	46.40	1.50	-56.000	78.06	1.50	-66.000	78.06	1.50	-77.000	78.06		
1.65	-16.916	-11.68	1.65	-30.725	170.28	1.65	-44.733	45.60	1.65	-56.000	78.39	1.65	-66.000	78.39	1.65	-77.000	78.39		
1.80	-16.416	-22.40	1.80	-30.554	179.53	1.80	-44.705	44.80	1.80	-56.000	78.72	1.80	-66.000	78.72	1.80	-77.000	78.72		
1.95	-15.906	-32.40	1.95	-30.383	189.58	1.95	-44.677	44.00	1.95	-56.000	79.05	1.95	-66.000	79.05	1.95	-77.000	79.05		
2.10	-15.386	-41.68	2.10	-30.212	199.53	2.10	-44.649	43.20	2.10	-56.000	79.38	2.10	-66.000	79.38	2.10	-77.000	79.38		
2.25	-14.856	-50.14	2.25	-29.870	210.38	2.25	-44.621	42.40	2.25	-56.000	79.71	2.25	-66.000	79.71	2.25	-77.000	79.71		
2.40	-14.316	-57.64	2.40	-29.699	222.03	2.40	-44.593	41.60	2.40	-56.000	80.04	2.40	-66.000	80.04	2.40	-77.000	80.04		
2.55	-13.766	-64.36	2.55	-29.528	234.53	2.55	-44.565	40.80	2.55	-56.000	80.37	2.55	-66.000	80.37	2.55	-77.000	80.37		
2.70	-13.206	-70.80	2.70	-29.357	247.88	2.70	-44.537	39.20	2.70	-56.000	80.70	2.70	-66.000	80.70	2.70	-77.000	80.70		
2.85	-12.636	-76.88	2.85	-29.186	262.13	2.85	-44.509	38.40	2.85	-56.000	81.03	2.85	-66.000	81.03	2.85	-77.000	81.03		
3.00	-12.056	-81.71	3.00	-29.015	277.63	3.00	-44.481	37.60	3.00	-56.000	81.36	3.00	-66.000	81.36	3.00	-77.000	81.36		

Table 155. Vertical Electric Field (Poorly Conducting Soil), Frequency = 100.0 MHz, VED Height = 0.00 m

1.0 KM DOWNRANGE					3.0 KM DOWNRANGE				
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
0.00	-45.110	-90.00	0.00	-55.514	-90.82	0.00	-75.061	-90.88	0.00
0.01	-44.110	-57.79	0.01	-49.475	-79.44	0.01	-49.564	-3.47	0.01
0.02	-41.467	-38.39	0.02	-43.559	-4.94	0.02	-43.580	-1.95	0.02
0.03	-39.024	-27.80	0.03	-40.079	-3.63	0.03	-40.088	-1.45	0.03
0.04	-36.990	-21.55	0.04	-37.614	-2.67	0.04	-37.618	-1.19	0.04
0.05	-35.298	-17.51	0.05	-35.706	-2.21	0.05	-35.709	-1.04	0.05
0.06	-33.803	-14.71	0.06	-34.152	-1.91	0.06	-34.154	-0.94	0.06
0.07	-32.430	-12.06	0.07	-32.843	-1.69	0.07	-32.844	-0.86	0.07
0.08	-31.249	-11.11	0.08	-31.712	-1.53	0.08	-31.712	-0.81	0.08
0.09	-30.240	-9.88	0.09	-30.717	-1.40	0.09	-30.718	-0.76	0.09
0.10	-29.375	-8.90	0.10	-29.831	-1.30	0.10	-29.831	-0.73	0.10
0.11	-28.645	-8.09	0.11	-29.031	-1.21	0.11	-29.031	-0.70	0.11
0.12	-28.031	-7.41	0.12	-28.304	-1.14	0.12	-28.304	-0.67	0.12
0.13	-27.525	-6.84	0.13	-27.637	-1.08	0.13	-27.637	-0.65	0.13
0.14	-27.100	-6.35	0.14	-27.021	-1.03	0.14	-27.021	-0.64	0.14
0.15	-26.744	-5.92	0.15	-26.450	-0.99	0.15	-26.450	-0.62	0.15
0.16	-26.447	-5.55	0.16	-25.914	-0.95	0.16	-25.918	-0.61	0.16
0.17	-26.204	-5.22	0.17	-25.419	-0.91	0.17	-25.419	-0.59	0.17
0.18	-26.017	-4.92	0.18	-24.951	-0.86	0.18	-24.951	-0.58	0.18
0.19	-25.881	-4.66	0.19	-24.509	-0.85	0.19	-24.509	-0.57	0.19
0.20	-25.780	-4.42	0.20	-24.091	-0.83	0.20	-24.091	-0.56	0.20
0.21	-25.712	-4.21	0.21	-23.695	-0.81	0.21	-23.695	-0.55	0.21
0.22	-25.676	-4.01	0.22	-23.317	-0.79	0.22	-23.319	-0.55	0.22
0.23	-25.661	-3.83	0.23	-22.961	-0.77	0.23	-22.960	-0.54	0.23
0.24	-25.661	-3.67	0.24	-22.619	-0.75	0.24	-22.618	-0.53	0.24
0.25	-25.676	-3.52	0.25	-22.290	-0.73	0.25	-22.291	-0.53	0.25
0.26	-25.704	-3.38	0.26	-21.977	-0.72	0.26	-21.978	-0.52	0.26
0.27	-25.744	-3.25	0.27	-21.677	-0.70	0.27	-21.678	-0.51	0.27
0.28	-25.777	-3.13	0.28	-21.390	-0.69	0.28	-21.390	-0.51	0.28
0.29	-25.811	-3.02	0.29	-21.111	-0.68	0.29	-21.112	-0.50	0.29
0.30	-25.844	-2.92	0.30	-20.845	-0.67	0.30	-20.845	-0.50	0.30
0.35	-19.635	-2.49	0.35	-19.642	-0.62	0.35	-19.642	-0.48	0.35
0.40	-18.612	-2.17	0.40	-18.617	-0.59	0.40	-18.618	-0.46	0.40
0.45	-17.724	-1.93	0.45	-17.729	-0.55	0.45	-17.729	-0.45	0.45
0.50	-16.943	-1.73	0.50	-16.946	-0.53	0.50	-16.946	-0.44	0.50
0.55	-16.248	-1.57	0.55	-16.251	-0.50	0.55	-16.250	-0.43	0.55
0.60	-15.623	-1.43	0.60	-15.626	-0.49	0.60	-15.626	-0.42	0.60
0.65	-15.059	-1.32	0.65	-15.061	-0.47	0.65	-15.061	-0.41	0.65
0.70	-14.545	-1.22	0.70	-14.546	-0.46	0.70	-14.546	-0.40	0.70
0.75	-14.074	-1.14	0.75	-14.075	-0.44	0.75	-14.076	-0.39	0.75
0.80	-13.641	-1.07	0.80	-13.643	-0.43	0.80	-13.643	-0.39	0.80
0.85	-13.242	-1.00	0.85	-13.243	-0.42	0.85	-13.243	-0.38	0.85
0.90	-12.872	-0.95	0.90	-12.873	-0.41	0.90	-12.873	-0.37	0.90
0.95	-12.528	-0.90	0.95	-12.529	-0.40	0.95	-12.529	-0.37	0.95
1.00	-12.207	-0.85	1.00	-12.208	-0.40	1.00	-12.208	-0.36	1.00

Table 156. Vertical Electric Field (Poorly Conducting Soil), Frequency = 100.0 MHz, VED Height = 2.25 m

1.0 KM DOWNRANGE					3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					30.0 KM DOWNRANGE				
HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)	PHASE (DEG)		
.000	-50.083	-35.17	.000	-50.338	-35.64	.000	-50.785	-35.81	.000	-50.785	-35.81	.000	-50.785	-35.81	.000	-70.325	-35.85		
.001	-39.411	-25.95	.001	-39.795	-26.71	.001	-44.741	-45.57	.001	-44.741	-45.57	.001	-44.741	-45.57	.001	-44.828	-51.56		
.002	-36.703	16.43	.002	-36.574	39.88	.002	-38.574	44.68	.002	-38.574	44.68	.002	-38.574	44.68	.002	-38.844	53.08		
.003	-34.362	27.01	.003	-35.239	44.68	.003	-35.239	44.68	.003	-35.239	44.68	.003	-35.239	44.68	.003	-35.352	53.59		
.004	-31.680	33.60	.004	-32.825	47.15	.004	-32.825	47.15	.004	-32.825	47.15	.004	-32.825	47.15	.004	-32.883	53.84		
.005	-30.596	37.30	.005	-30.942	48.65	.005	-30.942	48.65	.005	-30.942	48.65	.005	-30.942	48.65	.005	-30.974	54.00		
.006	-29.185	40.10	.006	-29.401	49.60	.006	-29.401	49.60	.006	-29.401	49.60	.006	-29.401	49.60	.006	-29.420	54.10		
.007	-27.931	42.15	.007	-28.100	50.38	.007	-28.100	50.38	.007	-28.100	50.38	.007	-28.100	50.38	.007	-28.110	54.16		
.008	-26.850	43.70	.008	-26.974	50.93	.008	-26.974	50.93	.008	-26.974	50.93	.008	-26.974	50.93	.008	-26.979	54.18		
.009	-25.890	44.93	.009	-25.984	51.35	.009	-25.986	53.63	.009	-25.986	53.63	.009	-25.986	53.63	.009	-26.979	54.24		
.010	-25.069	45.92	.010	-25.101	51.69	.010	-25.102	53.74	.010	-25.102	53.74	.010	-25.102	53.74	.010	-25.100	54.32		
.011	-24.349	46.73	.011	-24.304	51.97	.011	-24.304	53.83	.011	-24.304	53.83	.011	-24.304	53.83	.011	-24.302	54.36		
.012	-23.727	47.41	.012	-23.580	52.21	.012	-23.577	53.90	.012	-23.577	53.90	.012	-23.577	53.90	.012	-23.575	54.38		
.013	-23.202	47.99	.013	-22.915	52.41	.013	-22.912	54.96	.013	-22.912	54.96	.013	-22.912	54.96	.013	-22.910	54.41		
.014	-22.777	48.49	.014	-22.302	52.58	.014	-22.298	54.02	.014	-22.298	54.02	.014	-22.298	54.02	.014	-22.295	54.43		
.015	-22.444	48.92	.015	-21.733	52.73	.015	-21.726	54.07	.015	-21.726	54.07	.015	-21.726	54.07	.015	-21.726	54.43		
.016	-22.109	49.31	.016	-21.202	52.87	.016	-21.197	54.12	.016	-21.197	54.12	.016	-21.195	54.48	.016	-21.195	54.48		
.017	-21.869	49.64	.017	-20.700	52.98	.017	-20.701	54.16	.017	-20.701	54.16	.017	-20.698	54.49	.017	-20.698	54.49		
.018	-21.634	49.95	.018	-20.240	53.09	.018	-20.234	54.20	.018	-20.234	54.20	.018	-20.231	54.51	.018	-20.231	54.51		
.019	-21.497	50.22	.019	-19.800	53.19	.019	-19.794	54.23	.019	-19.794	54.23	.019	-19.792	54.53	.019	-19.792	54.53		
.020	-21.364	50.46	.020	-19.385	53.28	.020	-19.379	54.27	.020	-19.379	54.27	.020	-19.376	54.55	.020	-19.376	54.55		
.021	-21.233	50.69	.021	-18.991	53.36	.021	-18.985	54.30	.021	-18.985	54.30	.021	-18.982	54.58	.021	-18.982	54.58		
.022	-21.103	50.89	.022	-18.617	53.43	.022	-18.611	54.33	.022	-18.611	54.33	.022	-18.608	54.58	.022	-18.608	54.58		
.023	-21.000	51.08	.023	-18.261	53.50	.023	-18.255	54.35	.023	-18.255	54.35	.023	-18.252	54.60	.023	-18.252	54.60		
.024	-20.906	51.25	.024	-17.922	53.57	.024	-17.915	54.38	.024	-17.915	54.38	.024	-17.913	54.61	.024	-17.913	54.61		
.025	-20.819	51.41	.025	-17.598	53.63	.025	-17.591	54.41	.025	-17.591	54.41	.025	-17.588	54.63	.025	-17.588	54.63		
.026	-20.737	51.56	.026	-17.287	53.69	.026	-17.280	54.43	.026	-17.280	54.43	.026	-17.278	54.65	.026	-17.278	54.65		
.027	-20.659	51.70	.027	-16.990	53.74	.027	-16.983	54.46	.027	-16.983	54.46	.027	-16.980	54.66	.027	-16.980	54.66		
.028	-20.584	51.83	.028	-16.705	53.80	.028	-16.697	54.48	.028	-16.697	54.48	.028	-16.695	54.68	.028	-16.695	54.68		
.029	-20.512	51.96	.029	-16.430	53.85	.029	-16.423	54.51	.029	-16.423	54.51	.029	-16.421	54.70	.029	-16.421	54.70		
.030	-20.442	52.07	.030	-16.166	53.89	.030	-16.159	54.53	.030	-16.159	54.53	.030	-16.157	54.71	.030	-16.157	54.71		
.035	-14.990	52.57	.035	-14.981	54.11	.035	-14.973	54.65	.035	-14.973	54.65	.035	-14.971	54.80	.035	-14.971	54.80		
.040	-13.993	52.97	.040	-13.976	54.30	.040	-13.964	54.76	.040	-13.964	54.76	.040	-13.966	54.89	.040	-13.966	54.89		
.045	-13.160	53.31	.045	-13.110	54.47	.045	-13.102	54.88	.045	-13.102	54.88	.045	-13.100	54.99	.045	-13.100	54.99		
.050	-12.371	53.61	.050	-12.353	54.64	.050	-12.345	55.00	.050	-12.345	55.00	.050	-12.343	55.10	.050	-12.343	55.10		
.055	-11.704	53.88	.055	-11.685	54.81	.055	-11.677	55.13	.055	-11.677	55.13	.055	-11.675	55.22	.055	-11.675	55.22		
.060	-11.110	54.14	.060	-11.090	54.98	.060	-11.083	55.27	.060	-11.083	55.27	.060	-11.080	55.35	.060	-11.080	55.35		
.065	-10.578	54.39	.065	-10.558	55.15	.065	-10.551	55.41	.065	-10.551	55.41	.065	-10.548	55.49	.065	-10.548	55.49		
.070	-10.099	54.63	.070	-10.079	55.33	.070	-10.072	55.57	.070	-10.072	55.57	.070	-10.070	55.64	.070	-10.070	55.64		
.075	-9.667	54.87	.075	-9.647	55.51	.075	-9.640	55.73	.075	-9.640	55.73	.075	-9.637	55.80	.075	-9.637	55.80		
.080	-9.275	55.10	.080	-9.255	55.70	.080	-9.248	55.91	.080	-9.248	55.91	.080	-9.245	55.97	.080	-9.245	55.97		
.085	-8.910	55.35	.085	-8.899	55.90	.085	-8.891	56.09	.085	-8.891	56.09	.085	-8.889	56.15	.085	-8.889	56.15		
.090	-8.594	55.59	.090	-8.575	56.11	.090	-8.567	56.29	.090	-8.567	56.29	.090	-8.565	56.34	.090	-8.565	56.34		
.095	-8.329	55.84	.095	-8.279	56.33	.095	-8.272	56.50	.095	-8.272	56.50	.095	-8.270	56.54	.095	-8.270	56.54		
.100	-8.069	56.10	.100	-8.010	56.55	.100	-8.003	56.71	.100	-8.003	56.71	.100	-8.001	56.76	.100	-8.001	56.76		

Table 157. Vertical Electric Field (Poorly Conducting Soil), Frequency = 100.0 MHz, VED Height = 4.50 m

10.0 KM DOWNRANGE					20.0 KM DOWNRANGE					30.0 KM DOWNRANGE				
RELUMT	AMP	PHASE	RELUMT	AMP	PHASE	RELUMT	AMP	PHASE	RELUMT	AMP	PHASE	RELUMT	AMP	PHASE
(KM)	(DB)	(DEG)	(KM)	(DB)	(DEG)	(KM)	(DB)	(DEG)	(KM)	(DB)	(DEG)	(KM)	(DB)	(DEG)
0.00	-36.114	-19.35	0.00	-35.580	-19.77	0.00	-35.011	-19.92	0.00	-34.566	-19.96	0.00	-34.065	-19.96
0.01	-34.700	16.86	0.03	-33.037	42.58	0.10	-31.960	61.46	0.30	-30.969	67.45	0.60	-30.065	68.97
0.02	-32.055	36.24	0.06	-30.817	55.71	0.20	-29.051	65.96	0.60	-28.065	68.97	0.90	-27.065	69.48
0.03	-29.613	46.82	0.09	-28.482	63.55	0.30	-26.573	67.48	0.90	-25.574	69.48	1.20	-24.574	69.74
0.04	-27.050	47.06	0.12	-26.059	63.03	0.40	-24.100	68.24	1.20	-23.105	69.48	1.50	-22.105	69.74
0.05	-24.690	53.16	0.15	-24.167	64.55	0.50	-22.202	68.70	1.50	-21.207	69.74	1.80	-20.207	70.01
0.06	-22.459	55.93	0.18	-22.047	65.55	0.60	-20.350	69.01	1.80	-19.356	70.01	2.10	-18.356	70.01
0.07	-20.460	57.98	0.21	-20.347	66.47	0.70	-18.542	69.41	2.10	-17.548	70.01	2.40	-16.548	70.01
0.08	-18.647	59.25	0.24	-18.643	67.02	0.80	-16.834	69.66	2.40	-15.840	70.01	2.70	-14.840	70.01
0.09	-17.059	60.76	0.27	-17.059	67.65	0.90	-15.221	69.86	2.70	-14.227	70.01	3.00	-13.227	70.01
0.10	-15.550	61.76	0.30	-15.554	67.89	1.00	-13.695	69.96	3.00	-12.695	70.01	3.30	-11.695	70.01
0.11	-14.130	62.60	0.33	-14.130	68.13	1.10	-12.243	70.01	3.30	-11.243	70.01	3.60	-10.243	70.01
0.12	-12.789	63.29	0.36	-12.789	68.34	1.20	-10.875	70.01	3.60	-9.875	70.01	3.90	-8.875	70.01
0.13	-11.509	63.80	0.39	-11.509	68.54	1.30	-9.590	70.01	3.90	-8.590	70.01	4.20	-7.590	70.01
0.14	-10.281	64.33	0.42	-10.281	68.74	1.40	-8.343	70.01	4.20	-7.343	70.01	4.50	-6.343	70.01
0.15	-9.104	64.84	0.45	-9.104	68.94	1.50	-7.135	70.01	4.50	-6.135	70.01	4.80	-5.135	70.01
0.16	-8.000	65.23	0.48	-8.000	69.14	1.60	-6.060	70.01	4.80	-5.060	70.01	5.10	-4.060	70.01
0.17	-6.960	65.50	0.51	-6.960	69.34	1.70	-5.115	70.01	5.10	-4.115	70.01	5.40	-3.115	70.01
0.18	-6.000	65.76	0.54	-6.000	69.54	1.80	-4.295	70.01	5.40	-3.295	70.01	5.70	-2.295	70.01
0.19	-5.124	66.14	0.57	-5.124	69.74	1.90	-3.500	70.01	5.70	-2.500	70.01	6.00	-1.500	70.01
0.20	-4.320	66.45	0.60	-4.320	69.94	2.00	-2.825	70.01	6.00	-1.825	70.01	6.30	-0.825	70.01
0.21	-3.580	66.69	0.63	-3.580	70.14	2.10	-2.275	70.01	6.30	-1.275	70.01	6.60	-0.275	70.01
0.22	-2.900	66.91	0.66	-2.900	70.34	2.20	-1.850	70.01	6.60	-0.850	70.01	6.90	0.150	70.01
0.23	-2.280	67.11	0.69	-2.280	70.54	2.30	-1.535	70.01	6.90	-0.535	70.01	7.20	0.550	70.01
0.24	-1.720	67.30	0.72	-1.720	70.74	2.40	-1.325	70.01	7.20	-0.325	70.01	7.50	0.775	70.01
0.25	-1.220	67.48	0.75	-1.220	70.94	2.50	-1.200	70.01	7.50	-0.200	70.01	7.80	0.975	70.01
0.26	-0.780	67.65	0.78	-0.780	71.14	2.60	-1.150	70.01	7.80	-0.150	70.01	8.10	1.175	70.01
0.27	-0.380	67.81	0.81	-0.380	71.34	2.70	-1.100	70.01	8.10	-0.100	70.01	8.40	1.400	70.01
0.28	-0.000	67.96	0.84	-0.000	71.54	2.80	-1.050	70.01	8.40	-0.050	70.01	8.70	1.625	70.01
0.29	0.380	68.11	0.87	0.380	71.74	2.90	-1.000	70.01	8.70	0.000	70.01	9.00	1.850	70.01
0.30	0.780	68.25	0.90	0.780	71.94	3.00	-0.950	70.01	9.00	0.450	70.01	9.30	2.075	70.01
0.35	-10.410	68.87	1.05	-10.349	70.41	3.50	-10.325	70.46	1.050	-10.318	71.11	4.00	-10.300	71.11
0.40	-9.440	69.41	1.20	-9.382	70.74	4.00	-9.359	71.20	1.200	-9.352	71.33	4.50	-9.329	71.33
0.45	-8.560	69.90	1.35	-8.500	71.06	4.50	-8.536	71.47	1.350	-8.529	71.58	5.00	-8.506	71.58
0.50	-7.710	70.36	1.50	-7.651	71.40	5.00	-7.626	71.76	1.500	-7.621	71.86	5.50	-7.597	71.86
0.55	-6.880	70.65	1.65	-6.821	71.76	5.50	-6.879	72.08	1.650	-6.873	72.17	6.00	-6.849	72.17
0.60	-6.060	71.32	1.80	-6.002	72.14	6.00	-6.060	72.42	1.800	-6.054	72.50	6.50	-6.030	72.50
0.65	-5.240	71.80	1.95	-5.182	72.54	6.50	-5.240	72.80	1.950	-5.234	72.87	7.00	-5.209	72.87
0.70	-4.420	72.30	2.10	-4.362	72.94	7.00	-4.420	73.14	2.100	-4.414	73.27	7.50	-4.389	73.27
0.75	-3.600	72.62	2.25	-3.542	73.43	7.50	-3.600	73.64	2.250	-3.594	73.70	8.00	-3.569	73.70
0.80	-2.780	73.36	2.40	-2.722	73.92	8.00	-2.780	74.11	2.400	-2.774	74.17	8.50	-2.749	74.17
0.85	-1.960	73.93	2.55	-1.902	74.44	8.50	-1.960	74.62	2.550	-1.954	74.67	9.00	-1.929	74.67
0.90	-1.140	74.54	2.70	-1.082	75.00	9.00	-1.140	75.16	2.700	-1.134	75.21	9.50	-1.109	75.21
0.95	-0.320	75.15	2.85	-0.262	75.59	9.50	-0.320	75.76	2.850	-0.314	75.78	10.00	-0.289	75.78
1.00	0.500	75.82	3.00	0.442	76.22	1.000	0.500	76.36	3.000	0.496	76.40			

Table 158. Radial Electric Field (Poorly Conducting Soil), Frequency = 0.1 MHz, VED Height = 0.00 m

30.0 V AT VED HEIGHT				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
RE (GMT)	AMP (UB)	PHASE (DEG)	RE (GMT)	AMP (UB)	PHASE (DEG)	RE (GMT)	AMP (UB)	PHASE (DEG)	RE (GMT)	AMP (UB)	PHASE (DEG)
0.00	-23.392	-170.35	0.00	-23.025	-104.03	0.00	-23.277	-113.54	0.00	-23.277	-113.54
0.30	-23.320	-170.35	0.30	-23.252	140.90	0.30	-23.614	103.21	0.30	-23.614	103.21
0.60	-23.104	-170.12	0.60	-23.464	140.90	0.60	-23.301	103.76	0.60	-23.301	103.76
0.90	-23.012	-170.04	0.90	-23.719	140.15	0.90	-23.652	103.99	0.90	-23.652	103.99
1.20	-22.800	-170.04	1.20	-23.950	140.27	1.20	-23.009	104.18	1.20	-23.009	104.18
1.50	-22.604	-170.39	1.50	-26.202	140.39	1.50	-21.009	104.33	1.50	-21.009	104.33
1.80	-22.374	-170.13	1.80	-26.451	140.51	1.80	-21.372	104.43	1.80	-21.372	104.43
2.10	-22.347	-170.30	2.10	-26.705	140.63	2.10	-21.761	104.49	2.10	-21.761	104.49
2.40	-22.763	-170.30	2.40	-26.964	140.75	2.40	-22.110	104.49	2.40	-22.110	104.49
2.70	-22.704	-170.20	2.70	-27.220	140.87	2.70	-22.502	104.49	2.70	-22.502	104.49
3.00	-22.604	-170.30	3.00	-27.479	140.99	3.00	-22.896	104.43	3.00	-22.896	104.43
3.30	-22.607	-170.30	3.30	-27.770	140.11	3.30	-23.299	104.30	3.30	-23.299	104.30
3.60	-22.657	-170.34	3.60	-28.000	140.22	3.60	-23.713	104.10	3.60	-23.713	104.10
3.90	-22.604	-170.34	3.90	-28.250	140.33	3.90	-24.130	103.81	3.90	-24.130	103.81
4.20	-22.604	-170.34	4.20	-28.500	140.44	4.20	-24.575	103.42	4.20	-24.575	103.42
4.50	-22.604	-170.34	4.50	-28.750	140.55	4.50	-25.024	102.93	4.50	-25.024	102.93
4.80	-22.604	-170.34	4.80	-29.000	140.66	4.80	-25.480	102.32	4.80	-25.480	102.32
5.10	-22.604	-170.34	5.10	-29.250	140.76	5.10	-25.947	101.57	5.10	-25.947	101.57
5.40	-22.604	-170.34	5.40	-29.500	140.86	5.40	-26.421	100.65	5.40	-26.421	100.65
5.70	-22.604	-170.34	5.70	-29.750	140.96	5.70	-26.901	99.56	5.70	-26.901	99.56
6.00	-22.604	-170.34	6.00	-30.000	141.05	6.00	-27.386	98.26	6.00	-27.386	98.26
6.30	-22.604	-170.34	6.30	-30.250	141.14	6.30	-27.876	96.71	6.30	-27.876	96.71
6.60	-22.604	-170.34	6.60	-30.500	141.22	6.60	-28.371	94.89	6.60	-28.371	94.89
6.90	-22.604	-170.34	6.90	-30.750	141.30	6.90	-28.871	92.73	6.90	-28.871	92.73
7.20	-22.604	-170.34	7.20	-31.000	141.37	7.20	-29.376	90.20	7.20	-29.376	90.20
7.50	-22.604	-170.34	7.50	-31.250	141.43	7.50	-29.886	87.23	7.50	-29.886	87.23
7.80	-22.604	-170.34	7.80	-31.500	141.49	7.80	-30.401	83.76	7.80	-30.401	83.76
8.10	-22.604	-170.34	8.10	-31.750	141.53	8.10	-30.921	79.72	8.10	-30.921	79.72
8.40	-22.604	-170.34	8.40	-32.000	141.57	8.40	-31.446	75.06	8.40	-31.446	75.06
8.70	-22.604	-170.34	8.70	-32.250	141.59	8.70	-31.976	69.79	8.70	-31.976	69.79
9.00	-22.604	-170.34	9.00	-32.500	141.59	9.00	-32.510	63.89	9.00	-32.510	63.89
1.50	-31.070	-161.09	1.50	-38.580	151.21	1.50	-43.103	30.21	1.50	-43.103	30.21
1.80	-32.733	-154.29	1.80	-44.130	140.91	1.80	-48.701	2.85	1.80	-48.701	2.85
2.10	-34.540	-144.24	2.10	-49.967	112.70	2.10	-54.013	-0.36	2.10	-54.013	-0.36
2.40	-36.313	-129.16	2.40	-56.040	-14.93	2.40	-59.035	-13.55	2.40	-59.035	-13.55
2.70	-37.962	-108.07	2.70	-60.111	-14.77	2.70	-63.879	-17.21	2.70	-63.879	-17.21
3.00	-39.473	-84.55	3.00	-63.463	-19.52	3.00	-68.624	-18.06	3.00	-68.624	-18.06
3.30	-40.833	-51.80	3.30	-66.932	-19.38	3.30	-73.386	-18.43	3.30	-73.386	-18.43
3.60	-42.034	-42.62	3.60	-70.449	-19.08	3.60	-78.169	-18.52	3.60	-78.169	-18.52
3.90	-43.083	-36.47	3.90	-74.115	-18.72	3.90	-82.980	-18.43	3.90	-82.980	-18.43
4.20	-43.983	-32.07	4.20	-77.941	-18.33	4.20	-87.820	-18.23	4.20	-87.820	-18.23
4.50	-44.743	-28.79	4.50	-81.941	-17.94	4.50	-92.684	-17.95	4.50	-92.684	-17.95
4.80	-45.366	-26.26	4.80	-86.100	-17.54	4.80	-97.581	-17.63	4.80	-97.581	-17.63
5.10	-45.850	-24.24	5.10	-90.430	-17.15	5.10	-102.500	-17.24	5.10	-102.500	-17.24

Table 159. Radial Electric Field (Poorly Conducting Soil), Frequency = 0.1 MHz, VED Height = 2247.60 m

30.0 KM UPRANGE				100.0 KM UPRANGE				300.0 KM UPRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)	
0.000	-24.461	-1.72		0.000	-26.494	118.61		0.000	-31.007	-10.05	
0.030	-24.611	-144.15		0.100	-26.716	170.74		0.300	-31.344	121.80	
0.060	-24.743	-143.66		0.200	-26.742	170.98		0.600	-31.686	122.15	
0.090	-24.876	-143.14		0.300	-27.171	171.22		0.900	-32.031	122.48	
0.120	-25.010	-142.62		0.400	-27.405	171.57		1.200	-32.383	122.78	
0.150	-25.145	-142.08		0.500	-27.643	171.72		1.500	-32.740	123.04	
0.180	-25.281	-141.52		0.600	-27.885	171.98		1.800	-33.103	123.27	
0.210	-25.418	-140.95		0.700	-28.132	172.25		2.100	-33.473	123.46	
0.240	-25.556	-140.35		0.800	-28.384	172.52		2.400	-33.852	123.60	
0.270	-25.696	-139.75		0.900	-28.641	172.80		2.700	-34.236	123.70	
0.300	-25.836	-139.12		1.000	-28.904	173.09		3.000	-34.634	123.74	
0.330	-25.978	-138.47		1.100	-29.172	173.38		3.300	-35.040	123.72	
0.360	-26.120	-137.80		1.200	-29.447	173.64		3.600	-35.456	123.63	
0.390	-26.264	-137.12		1.300	-29.728	173.90		3.900	-35.885	123.47	
0.420	-26.408	-136.41		1.400	-30.017	174.32		4.200	-36.326	123.23	
0.450	-26.553	-135.68		1.500	-30.312	174.56		4.500	-36.782	122.89	
0.480	-26.699	-134.92		1.600	-30.616	175.00		4.800	-37.253	122.44	
0.510	-26.845	-134.15		1.700	-30.927	175.36		5.100	-37.740	121.86	
0.540	-26.992	-133.35		1.800	-31.248	175.74		5.400	-38.245	121.15	
0.570	-27.140	-132.52		1.900	-31.578	176.13		5.700	-38.768	120.27	
0.600	-27.288	-131.67		2.000	-31.919	176.53		6.000	-39.311	119.20	
0.630	-27.436	-130.79		2.100	-32.270	176.96		6.300	-39.875	117.92	
0.660	-27.584	-129.88		2.200	-32.633	177.41		6.600	-40.460	116.37	
0.690	-27.732	-128.95		2.300	-33.009	177.88		6.900	-41.065	114.52	
0.720	-27.880	-127.98		2.400	-33.399	178.36		7.200	-41.690	112.31	
0.750	-28.028	-126.99		2.500	-33.803	178.90		7.500	-42.332	109.67	
0.780	-28.176	-125.96		2.600	-34.224	179.47		7.800	-42.985	106.54	
0.810	-28.323	-124.90		2.700	-34.662	179.93		8.100	-43.640	102.82	
0.840	-28.469	-123.81		2.800	-35.120	179.28		8.400	-44.282	98.44	
0.870	-28.613	-122.69		2.900	-35.598	178.58		8.700	-44.890	93.33	
0.900	-28.757	-121.53		3.000	-36.100	177.82		9.000	-45.436	87.43	
1.050	-29.446	-115.23		3.500	-39.061	172.59		10.500	-46.114	50.63	
1.500	-30.057	-106.04		4.000	-43.204	162.02		12.500	-49.571	23.06	
1.950	-30.548	-100.05		4.500	-46.098	152.95		13.500	-49.677	10.09	
1.500	-30.875	-91.45		5.000	-48.613	137.91		15.000	-50.293	4.08	
1.650	-31.010	-86.58		5.500	-49.126	129.80		16.500	-50.369	1.15	
1.800	-30.949	-77.85		6.000	-49.439	120.20		18.000	-50.787	-0.27	
1.950	-30.713	-65.62		6.500	-49.861	115.33		19.500	-50.455	-0.88	
2.100	-30.343	-58.13		7.000	-49.916	112.26		21.000	-50.312	-1.02	
2.250	-29.884	-51.51		7.500	-49.372	110.04		22.500	-50.319	-0.84	
2.400	-29.375	-45.74		8.000	-48.103	107.30		24.000	-50.445	-0.56	
2.550	-28.848	-40.76		8.500	-46.034	104.85		25.500	-49.669	-0.13	
2.700	-28.324	-36.46		9.000	-43.118	102.60		27.000	-48.976	0.37	
2.850	-27.811	-32.76		9.500	-39.364	100.50		28.500	-48.354	0.92	
3.000	-27.335	-29.55		10.000	-36.628	98.47		30.000	-47.793	1.51	

Table 160. Radial Electric Field (Poorly Conducting Soil), Frequency = 0.1 MHz, VED Height = 4495.20 m

30.0 KM DOWNRANGE				100.0 KM DOWNRANGE				300.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)		HEIGHT (KM)	AMP (DB)	PHASE (DEG)	
0.000	-24.394	-18.82		0.000	-26.859	-146.14		0.000	-31.812	-84.86	
0.030	-24.428	-97.37		0.100	-27.052	-157.60		0.300	-32.139	148.22	
0.060	-24.459	-98.22		0.200	-27.248	-157.05		0.600	-32.469	148.76	
0.090	-24.487	-95.06		0.300	-27.446	-156.48		0.900	-32.805	147.29	
0.120	-24.516	-93.89		0.400	-27.646	-155.89		1.200	-33.145	147.80	
0.150	-24.534	-92.72		0.500	-27.849	-155.28		1.500	-33.492	148.30	
0.180	-24.553	-91.54		0.600	-28.055	-154.66		1.800	-33.844	148.77	
0.210	-24.569	-90.35		0.700	-28.263	-154.01		2.100	-34.204	149.22	
0.240	-24.581	-89.16		0.800	-28.474	-153.34		2.400	-34.571	149.64	
0.270	-24.591	-87.97		0.900	-28.687	-152.65		2.700	-34.946	150.03	
0.300	-24.596	-86.76		1.000	-28.904	-151.93		3.000	-35.330	150.40	
0.330	-24.599	-85.59		1.100	-29.123	-151.19		3.300	-35.723	150.72	
0.360	-24.599	-84.40		1.200	-29.345	-150.42		3.600	-36.126	151.01	
0.390	-24.595	-83.22		1.300	-29.569	-149.62		3.900	-36.544	151.26	
0.420	-24.588	-82.03		1.400	-29.797	-148.80		4.200	-36.973	151.46	
0.450	-24.577	-80.85		1.500	-30.027	-147.94		4.500	-37.416	151.60	
0.480	-24.564	-79.67		1.600	-30.260	-147.05		4.800	-37.874	151.69	
0.510	-24.547	-78.51		1.700	-30.496	-146.13		5.100	-38.346	151.70	
0.540	-24.528	-77.34		1.800	-30.734	-145.17		5.400	-38.842	151.64	
0.570	-24.505	-76.19		1.900	-30.975	-144.17		5.700	-39.355	151.49	
0.600	-24.480	-75.04		2.000	-31.218	-143.14		6.000	-39.890	151.24	
0.630	-24.451	-73.91		2.100	-31.464	-142.06		6.300	-40.450	150.87	
0.660	-24.420	-72.76		2.200	-31.713	-140.94		6.600	-41.037	150.35	
0.690	-24.387	-71.67		2.300	-31.963	-139.77		6.900	-41.653	149.67	
0.720	-24.351	-70.57		2.400	-32.216	-138.56		7.200	-42.301	148.79	
0.750	-24.316	-69.48		2.500	-32.470	-137.29		7.500	-42.984	147.66	
0.780	-24.271	-68.40		2.600	-32.726	-135.97		7.800	-43.706	146.24	
0.810	-24.228	-67.34		2.700	-32.983	-134.59		8.100	-44.468	144.66	
0.840	-24.183	-66.29		2.800	-33.242	-133.15		8.400	-45.273	142.22	
0.870	-24.136	-65.26		2.900	-33.500	-131.66		8.700	-46.120	139.41	
0.900	-24.087	-64.24		3.000	-33.759	-130.09		9.000	-47.005	135.88	
1.050	-23.819	-59.35		3.500	-35.032	-121.24		10.500	-51.009	100.93	
1.200	-23.563	-54.93		4.000	-36.199	-110.49		12.000	-49.434	53.68	
1.350	-23.310	-50.69		4.500	-37.128	-97.98		13.500	-45.571	33.87	
1.500	-23.096	-47.25		5.000	-37.896	-84.42		15.000	-42.639	27.24	
1.650	-22.879	-44.97		5.500	-37.860	-71.00		16.500	-40.500	25.20	
1.800	-22.676	-41.03		6.000	-37.699	-58.93		18.000	-38.884	25.14	
1.950	-22.490	-38.46		6.500	-37.451	-46.98		19.500	-37.630	26.16	
2.100	-22.324	-36.04		7.000	-36.948	-39.93		21.000	-36.642	27.85	
2.250	-22.180	-33.93		7.500	-36.582	-32.93		22.500	-35.860	30.06	
2.400	-21.961	-32.05		8.000	-36.305	-27.14		24.000	-35.243	32.71	
2.550	-21.768	-30.36		8.500	-36.150	-22.29		25.500	-34.782	35.74	
2.700	-21.590	-28.85		9.000	-36.139	-17.15		27.000	-34.396	39.31	
2.850	-21.430	-27.51		9.500	-36.291	-14.55		28.500	-34.126	43.34	
3.000	-21.289	-26.36		10.000	-36.632	-11.39		30.000	-33.934	47.94	

Table 161. Radial Electric Field (Poorly Conducting Soil), Frequency = 1.0 MHz, VED Height = 0.00 m

300 KM DOWNRANGE					1000 KM DOWNRANGE					1000 KM DOWNRANGE				
RELJNT (RM)	AMP (US)	PHASE (DEG)	RELJNT (RM)	AMP (US)	PHASE (DEG)	RELJNT (RM)	AMP (US)	PHASE (DEG)	RELJNT (RM)	AMP (US)	PHASE (DEG)	RELJNT (RM)	AMP (US)	PHASE (DEG)
0.00	-26.000	-69.09	0.000	-31.290	14.02	0.000	-1.978	-153.84	0.000	-52.974	-6.35	0.000	-52.974	-6.35
0.03	-26.123	113.90	0.030	-31.415	77.02	0.030	-2.078	64.92	0.100	-53.081	62.02	0.100	-53.081	62.02
0.06	-26.247	114.00	0.060	-31.541	76.02	0.060	-2.193	63.19	0.200	-53.189	62.04	0.200	-53.189	62.04
0.09	-26.371	114.01	0.090	-31.668	76.04	0.090	-2.308	63.38	0.300	-53.297	61.61	0.300	-53.297	61.61
0.12	-26.495	114.02	0.120	-31.795	76.00	0.120	-2.423	63.50	0.400	-53.404	61.32	0.400	-53.404	61.32
0.15	-26.619	114.02	0.150	-31.922	76.04	0.150	-2.537	63.54	0.500	-53.511	60.58	0.500	-53.511	60.58
0.18	-26.743	114.03	0.180	-32.050	76.05	0.180	-2.652	63.50	0.600	-53.613	59.27	0.600	-53.613	59.27
0.21	-26.867	114.04	0.210	-32.178	76.05	0.210	-2.767	63.38	0.700	-53.710	58.28	0.700	-53.710	58.28
0.24	-26.991	114.04	0.240	-32.307	76.02	0.240	-2.882	63.18	0.800	-53.813	56.73	0.800	-53.813	56.73
0.27	-27.115	114.00	0.270	-32.437	76.08	0.270	-2.997	64.90	0.900	-53.913	54.90	0.900	-53.913	54.90
0.30	-27.239	113.98	0.300	-32.567	76.08	0.300	-3.112	64.53	1.000	-54.013	52.79	1.000	-54.013	52.79
0.33	-27.363	113.95	0.330	-32.696	76.87	0.330	-3.227	64.07	1.100	-54.113	50.43	1.100	-54.113	50.43
0.36	-27.487	113.92	0.360	-32.826	76.84	0.360	-3.342	63.52	1.200	-54.213	47.82	1.200	-54.213	47.82
0.39	-27.611	113.88	0.390	-32.956	76.78	0.390	-3.457	62.88	1.300	-54.313	45.00	1.300	-54.313	45.00
0.42	-27.735	113.84	0.420	-33.085	76.79	0.420	-3.572	62.14	1.400	-54.413	41.98	1.400	-54.413	41.98
0.45	-27.859	113.79	0.450	-33.215	76.57	0.450	-3.687	61.30	1.500	-54.513	38.61	1.500	-54.513	38.61
0.48	-27.983	113.73	0.480	-33.345	76.53	0.480	-3.802	60.37	1.600	-54.613	35.53	1.600	-54.613	35.53
0.51	-28.107	113.67	0.510	-33.475	76.25	0.510	-3.917	59.33	1.700	-54.713	32.19	1.700	-54.713	32.19
0.54	-28.231	113.60	0.540	-33.605	76.03	0.540	-4.032	58.20	1.800	-54.813	28.84	1.800	-54.813	28.84
0.57	-28.355	113.52	0.570	-33.735	77.79	0.570	-4.147	56.96	1.900	-54.913	25.53	1.900	-54.913	25.53
0.60	-28.479	113.44	0.600	-33.865	77.51	0.600	-4.262	55.63	2.000	-55.013	22.29	2.000	-55.013	22.29
0.63	-28.603	113.34	0.630	-33.995	77.19	0.630	-4.377	54.20	2.100	-55.113	19.17	2.100	-55.113	19.17
0.66	-28.727	113.24	0.660	-34.125	76.84	0.660	-4.492	52.67	2.200	-55.213	16.19	2.200	-55.213	16.19
0.69	-28.851	113.14	0.690	-34.255	76.45	0.690	-4.607	51.04	2.300	-55.313	13.37	2.300	-55.313	13.37
0.72	-28.975	113.02	0.720	-34.385	76.02	0.720	-4.722	49.33	2.400	-55.413	10.72	2.400	-55.413	10.72
0.75	-29.099	112.89	0.750	-34.515	75.55	0.750	-4.837	47.54	2.500	-55.513	8.26	2.500	-55.513	8.26
0.78	-29.223	112.76	0.780	-34.645	75.04	0.780	-4.952	45.67	2.600	-55.613	5.97	2.600	-55.613	5.97
0.81	-29.347	112.62	0.810	-34.775	74.54	0.810	-5.067	43.74	2.700	-55.713	3.86	2.700	-55.713	3.86
0.84	-29.471	112.47	0.840	-34.905	73.89	0.840	-5.182	41.74	2.800	-55.813	1.91	2.800	-55.813	1.91
0.87	-29.595	112.33	0.870	-35.035	73.23	0.870	-5.297	39.70	2.900	-55.913	0.13	2.900	-55.913	0.13
0.90	-29.719	112.19	0.900	-35.165	72.56	0.900	-5.412	37.63	3.000	-56.013	-1.51	3.000	-56.013	-1.51
0.105	-26.109	111.10	0.350	-35.933	68.39	1.050	-43.868	27.11	3.500	-46.148	-7.83	3.500	-46.148	-7.83
0.120	-26.233	109.74	0.400	-36.514	62.51	1.200	-42.958	17.34	4.000	-44.182	-11.84	4.000	-44.182	-11.84
0.135	-27.325	108.00	0.450	-36.981	56.18	1.350	-41.787	7.17	4.500	-42.295	-14.52	4.500	-42.295	-14.52
0.150	-28.693	105.78	0.500	-37.208	48.36	1.500	-40.499	2.75	5.000	-40.631	-16.25	5.000	-40.631	-16.25
0.165	-29.072	102.97	0.550	-37.199	39.90	1.650	-39.194	-2.13	5.500	-39.124	-17.39	5.500	-39.124	-17.39
0.180	-29.887	99.43	0.600	-36.920	31.44	1.800	-37.928	-5.79	6.000	-37.764	-18.15	6.000	-37.764	-18.15
0.195	-30.712	95.01	0.650	-36.401	23.26	1.950	-36.726	-9.53	6.500	-36.518	-18.63	6.500	-36.518	-18.63
0.210	-31.521	89.53	0.700	-35.705	16.53	2.100	-35.596	-13.58	7.000	-35.374	-18.92	7.000	-35.374	-18.92
0.225	-32.323	82.88	0.750	-34.902	10.79	2.250	-34.539	-17.13	7.500	-34.318	-19.09	7.500	-34.318	-19.09
0.240	-33.104	74.88	0.800	-34.008	5.98	2.400	-33.552	-20.29	8.000	-33.339	-19.15	8.000	-33.339	-19.15
0.255	-33.874	65.81	0.850	-33.183	2.09	2.550	-32.628	-23.47	8.500	-32.428	-19.14	8.500	-32.428	-19.14
0.270	-34.634	56.05	0.900	-32.332	-1.04	2.700	-31.763	-26.83	9.000	-31.577	-19.09	9.000	-31.577	-19.09
0.285	-35.384	46.25	0.950	-31.509	-3.56	2.850	-30.952	-30.32	9.500	-30.779	-18.99	9.500	-30.779	-18.99
0.300	-36.115	37.05	1.000	-30.720	-5.59	3.000	-30.188	-33.68	10.000	-30.030	-18.86	10.000	-30.030	-18.86

Table 162. Radial Electric Field (Poorly Conducting Soil), Frequency = 1.0 MHz, VED Height = 224.76 m

3.0 KM DOWNRANGE			10.0 KM DOWNRANGE			30.0 KM DOWNRANGE			100.0 KM DOWNRANGE		
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)
.000	-26.392	147.32	.000	-31.671	177.78	.000	-31.671	177.78	.000	-52.829	-126.03
.003	-26.484	176.88	.010	-31.790	139.97	.010	-31.790	139.97	.100	-52.936	123.25
.006	-26.576	176.88	.020	-31.909	140.24	.020	-31.909	140.24	.200	-53.043	123.27
.009	-26.672	176.50	.030	-32.029	140.49	.030	-32.029	140.49	.300	-53.151	123.05
.012	-26.767	176.32	.040	-32.149	140.73	.040	-32.149	140.73	.400	-53.259	122.58
.015	-26.866	176.14	.050	-32.270	140.94	.050	-32.270	140.94	.500	-53.366	121.85
.018	-26.958	177.97	.060	-32.392	141.14	.060	-32.392	141.14	.600	-53.470	120.85
.021	-27.053	177.74	.070	-32.515	141.31	.070	-32.515	141.31	.700	-53.568	119.59
.024	-27.152	177.62	.080	-32.639	141.47	.080	-32.639	141.47	.800	-53.659	118.05
.027	-27.251	177.45	.090	-32.764	141.60	.090	-32.764	141.60	.900	-53.737	116.23
.030	-27.350	177.28	.100	-32.890	141.71	.100	-32.890	141.71	1.000	-53.799	114.15
.033	-27.450	177.11	.110	-33.017	141.79	.110	-33.017	141.79	1.100	-53.840	111.81
.036	-27.550	176.94	.120	-33.144	141.86	.120	-33.144	141.86	1.200	-53.859	109.42
.039	-27.652	176.77	.130	-33.273	141.90	.130	-33.273	141.90	1.300	-53.859	106.41
.042	-27.754	176.60	.140	-33.403	141.91	.140	-33.403	141.91	1.400	-53.788	103.40
.045	-27.857	176.44	.150	-33.534	141.91	.150	-33.534	141.91	1.500	-53.697	100.24
.048	-27.961	176.27	.160	-33.667	141.86	.160	-33.667	141.86	1.600	-53.584	96.97
.051	-28.066	176.11	.170	-33.800	141.79	.170	-33.800	141.79	1.700	-53.387	93.63
.054	-28.172	175.95	.180	-33.935	141.70	.180	-33.935	141.70	1.800	-53.166	90.28
.057	-28.279	175.79	.190	-34.070	141.57	.190	-34.070	141.57	1.900	-52.902	86.96
.060	-28.386	175.64	.200	-34.207	141.42	.200	-34.207	141.42	2.000	-52.599	83.72
.063	-28.493	175.48	.210	-34.345	141.23	.210	-34.345	141.23	2.100	-52.261	80.59
.066	-28.603	175.33	.220	-34.484	141.02	.220	-34.484	141.02	2.200	-51.891	77.61
.069	-28.715	175.17	.230	-34.623	140.76	.230	-34.623	140.76	2.300	-51.496	74.78
.072	-28.827	175.02	.240	-34.764	140.46	.240	-34.764	140.46	2.400	-51.080	72.13
.075	-28.940	174.86	.250	-34.906	140.16	.250	-34.906	140.16	2.500	-50.644	69.65
.078	-29.054	174.73	.260	-35.048	139.80	.260	-35.048	139.80	2.600	-50.204	67.36
.081	-29.169	174.59	.270	-35.192	139.40	.270	-35.192	139.40	2.700	-49.753	65.25
.084	-29.285	174.44	.280	-35.335	138.97	.280	-35.335	138.97	2.800	-49.298	63.30
.087	-29.402	174.30	.290	-35.480	138.49	.290	-35.480	138.49	2.900	-48.841	61.52
.090	-29.521	174.16	.300	-35.624	137.97	.300	-35.624	137.97	3.000	-48.385	59.89
.105	-26.146	173.51	3.500	-36.344	134.69	1.050	-44.135	89.97	3.500	-46.175	53.62
.120	-26.176	172.92	.400	-37.033	130.17	1.200	-43.287	87.09	4.000	-46.158	49.66
.135	-27.463	172.42	.450	-37.640	124.28	1.350	-42.160	71.79	4.500	-46.324	47.17
.150	-28.192	172.02	.500	-38.094	117.07	1.500	-40.904	65.30	5.000	-40.688	45.60
.165	-28.973	171.74	.550	-38.321	108.83	1.650	-39.626	60.43	5.500	-39.215	44.65
.180	-29.814	171.61	.600	-38.268	100.14	1.800	-38.382	56.85	6.000	-37.884	44.11
.195	-30.719	171.70	.650	-37.933	91.68	1.950	-37.212	54.26	6.500	-36.675	43.86
.210	-31.706	172.05	.700	-37.366	84.05	2.100	-36.114	52.40	7.000	-35.570	43.82
.225	-32.789	172.77	.750	-36.642	77.58	2.250	-35.093	51.09	7.500	-34.558	43.94
.240	-33.985	174.00	.800	-35.834	72.28	2.400	-34.144	50.20	8.000	-33.625	44.17
.255	-35.317	175.98	.850	-34.996	68.09	2.550	-33.264	49.63	8.500	-32.764	44.50
.270	-36.810	179.07	.900	-34.166	64.84	2.700	-32.447	48.31	9.000	-31.965	44.90
.285	-38.483	176.10	.950	-33.362	62.35	2.850	-31.686	47.19	9.500	-31.223	45.37
.300	-40.322	168.47	1.000	-32.596	60.47	3.000	-30.977	46.22	10.000	-30.531	45.88

Table 163. Radial Electric Field (Poorly Conducting Soil), Frequency = 1.0 MHz, VED Height 449.52 m

HEIGHT (KM)	3.0 KM DOWNRANGE			10.0 KM DOWNRANGE			30.0 KM DOWNRANGE			100.0 KM DOWNRANGE		
	AMP (V/M)	PHASE (DEG)	HEIGHT (KM)	AMP (V/M)	PHASE (DEG)	HEIGHT (KM)	AMP (V/M)	PHASE (DEG)	HEIGHT (KM)	AMP (V/M)	PHASE (DEG)	HEIGHT (KM)
0.000	-20.145	-121.59	0.000	-28.204	-17.34	0.000	-37.614	-68.31	0.000	-48.104	145.93	0.000
0.003	-20.201	-121.59	0.010	-28.304	-17.34	0.030	-37.719	-68.57	0.100	-48.214	154.50	0.300
0.006	-20.258	-121.12	0.020	-28.405	-17.34	0.060	-37.825	-68.87	0.200	-48.320	154.54	0.600
0.009	-20.315	-120.66	0.030	-28.507	-17.34	0.090	-37.932	-69.10	0.300	-48.427	154.53	0.900
0.012	-20.372	-120.19	0.040	-28.610	-17.34	0.120	-38.041	-69.35	0.400	-48.535	153.87	1.200
0.015	-20.429	-119.72	0.050	-28.713	-17.34	0.150	-38.151	-69.60	0.500	-48.643	153.16	1.500
0.018	-20.487	-119.26	0.060	-28.818	-17.34	0.180	-38.262	-69.85	0.600	-48.751	152.19	1.800
0.021	-20.544	-118.77	0.070	-28.924	-17.34	0.210	-38.375	-70.10	0.700	-48.858	150.95	2.100
0.024	-20.603	-118.28	0.080	-29.032	-17.34	0.240	-38.489	-70.35	0.800	-48.966	149.44	2.400
0.027	-20.661	-117.80	0.090	-29.140	-17.34	0.270	-38.604	-70.60	0.900	-49.074	147.66	2.700
0.030	-20.719	-117.31	0.100	-29.250	-17.34	0.300	-38.720	-70.85	1.000	-49.182	145.61	3.000
0.033	-20.776	-116.82	0.110	-29.360	-17.34	0.330	-38.835	-71.10	1.100	-49.290	143.31	3.300
0.036	-20.833	-116.32	0.120	-29.472	-17.34	0.360	-38.953	-71.35	1.200	-49.398	140.76	3.600
0.039	-20.890	-115.82	0.130	-29.586	-17.34	0.390	-39.070	-71.60	1.300	-49.506	137.98	3.900
0.042	-20.947	-115.32	0.140	-29.701	-17.34	0.420	-39.187	-71.85	1.400	-49.614	135.01	4.200
0.045	-21.005	-114.81	0.150	-29.817	-17.34	0.450	-39.302	-72.10	1.500	-49.722	131.89	4.500
0.048	-21.062	-114.31	0.160	-29.934	-17.34	0.480	-39.416	-72.35	1.600	-49.830	128.64	4.800
0.051	-21.119	-113.79	0.170	-30.053	-17.34	0.510	-39.532	-72.60	1.700	-49.938	125.33	5.100
0.054	-21.176	-113.28	0.180	-30.174	-17.34	0.540	-39.646	-72.85	1.800	-50.046	122.00	5.400
0.057	-21.233	-112.76	0.190	-30.295	-17.34	0.570	-39.760	-73.10	1.900	-50.154	118.64	5.700
0.060	-21.290	-112.24	0.200	-30.419	-17.34	0.600	-39.874	-73.35	2.000	-50.262	115.27	6.000
0.063	-21.347	-111.71	0.210	-30.543	-17.34	0.630	-39.988	-73.60	2.100	-50.370	111.84	6.300
0.066	-21.404	-111.18	0.220	-30.669	-17.34	0.660	-40.101	-73.85	2.200	-50.478	108.37	6.600
0.069	-21.461	-110.65	0.230	-30.797	-17.34	0.690	-40.215	-74.10	2.300	-50.586	104.84	6.900
0.072	-21.518	-110.12	0.240	-30.926	-17.34	0.720	-40.329	-74.35	2.400	-50.694	101.27	7.200
0.075	-21.575	-109.58	0.250	-31.057	-17.34	0.750	-40.443	-74.60	2.500	-50.802	97.64	7.500
0.078	-21.632	-109.04	0.260	-31.189	-17.34	0.780	-40.557	-74.85	2.600	-50.910	93.97	7.800
0.081	-21.689	-108.50	0.270	-31.322	-17.34	0.810	-40.671	-75.10	2.700	-51.018	90.24	8.100
0.084	-21.746	-107.95	0.280	-31.456	-17.34	0.840	-40.785	-75.35	2.800	-51.126	86.47	8.400
0.087	-21.803	-107.40	0.290	-31.592	-17.34	0.870	-40.899	-75.60	2.900	-51.234	82.64	8.700
0.090	-21.860	-106.85	0.300	-31.729	-17.34	0.900	-41.013	-75.85	3.000	-51.342	78.77	9.000
0.105	-22.221	-104.05	0.350	-32.429	-17.34	1.050	-42.019	-76.85	3.500	-52.348	65.57	10.500
0.120	-22.556	-101.19	0.400	-33.141	-17.34	1.200	-43.026	-77.85	4.000	-53.354	51.81	12.000
0.135	-22.895	-98.27	0.450	-33.855	-17.34	1.350	-44.033	-78.85	4.500	-54.360	37.56	13.500
0.150	-23.190	-95.31	0.500	-34.569	-17.34	1.500	-45.040	-79.85	5.000	-55.366	22.80	15.000
0.165	-23.454	-92.33	0.550	-35.283	-17.34	1.650	-46.047	-80.85	5.500	-56.372	7.54	16.500
0.180	-23.755	-89.33	0.600	-35.997	-17.34	1.800	-47.054	-81.85	6.000	-57.378	-8.21	18.000
0.195	-24.053	-86.34	0.650	-36.711	-17.34	1.950	-48.061	-82.85	6.500	-58.384	-22.96	19.500
0.210	-24.349	-83.37	0.700	-37.425	-17.34	2.100	-49.068	-83.85	7.000	-59.390	-37.71	21.000
0.225	-24.643	-80.45	0.750	-38.139	-17.34	2.250	-50.075	-84.85	7.500	-60.396	-52.46	22.500
0.240	-24.937	-77.50	0.800	-38.853	-17.34	2.400	-51.082	-85.85	8.000	-61.402	-67.21	24.000
0.255	-25.229	-74.54	0.850	-39.567	-17.34	2.550	-52.089	-86.85	8.500	-62.408	-81.96	25.500
0.270	-25.524	-71.59	0.900	-40.281	-17.34	2.700	-53.096	-87.85	9.000	-63.414	-96.71	27.000
0.285	-25.822	-68.68	0.950	-41.000	-17.34	2.850	-54.103	-88.85	9.500	-64.420	-111.46	28.500
0.300	-26.124	-65.74	1.000	-41.714	-17.34	3.000	-55.110	-89.85	10.000	-65.426	-126.21	30.000

Table 164. Radial Electric Field (Poorly Conducting Soil), Frequency = 10.0 MHz, VED Height = 0.00 m

3.0 KM UMBRANGE				10.0 KM UMBRANGE				30.0 KM UMBRANGE				100.0 KM UMBRANGE			
MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)	AMP (DB)	PHASE (DEG)	MEIGHT (KM)
0.000	-45.420	-129.90	0.000	-55.902	18.27	0.000	-65.457	-110.53	0.000	-75.920	-55.43	0.000	-85.920	-55.43	0.000
0.003	-45.207	88.52	0.010	-55.990	88.59	0.030	-65.565	88.54	0.100	-76.005	88.58	0.300	-86.005	88.58	1.000
0.006	-45.595	88.53	0.020	-56.077	88.57	0.060	-65.707	88.59	0.200	-76.064	88.59	0.600	-86.064	88.59	2.000
0.009	-45.883	88.58	0.030	-56.165	88.58	0.100	-65.839	88.59	0.300	-76.139	88.59	1.000	-86.139	88.59	3.000
0.012	-45.772	88.54	0.040	-56.250	88.58	0.150	-65.970	88.58	0.500	-76.214	88.58	1.500	-86.214	88.58	5.000
0.015	-45.880	88.54	0.050	-56.332	88.57	0.200	-66.101	88.57	0.700	-76.289	88.57	2.000	-86.289	88.57	7.000
0.018	-45.949	88.53	0.060	-56.408	88.56	0.250	-66.232	88.56	0.800	-76.364	88.56	2.500	-86.364	88.56	8.000
0.021	-46.037	88.58	0.070	-56.475	88.55	0.300	-66.363	88.55	1.000	-76.439	88.55	3.000	-86.439	88.55	9.000
0.024	-46.124	88.51	0.080	-56.531	88.54	0.350	-66.494	88.54	1.200	-76.514	88.54	3.500	-86.514	88.54	10.000
0.027	-46.210	88.67	0.090	-56.570	88.53	0.400	-66.625	88.53	1.400	-76.589	88.53	4.000	-86.589	88.53	11.000
0.030	-46.295	88.54	0.100	-56.609	88.52	0.450	-66.756	88.52	1.600	-76.664	88.52	4.500	-86.664	88.52	12.000
0.033	-46.377	88.53	0.110	-56.683	88.51	0.500	-66.887	88.51	1.800	-76.739	88.51	5.000	-86.739	88.51	13.000
0.036	-46.457	88.53	0.120	-56.758	88.50	0.550	-67.018	88.50	2.000	-76.814	88.50	5.500	-86.814	88.50	14.000
0.039	-46.534	88.52	0.130	-56.832	88.49	0.600	-67.149	88.49	2.200	-76.889	88.49	6.000	-86.889	88.49	15.000
0.042	-46.607	88.51	0.140	-56.907	88.48	0.650	-67.280	88.48	2.400	-76.964	88.48	6.500	-86.964	88.48	16.000
0.045	-46.675	88.50	0.150	-56.979	88.47	0.700	-67.411	88.47	2.600	-77.039	88.47	7.000	-87.039	88.47	17.000
0.048	-46.738	88.49	0.160	-57.050	88.46	0.750	-67.542	88.46	2.800	-77.114	88.46	7.500	-87.114	88.46	18.000
0.051	-46.794	88.48	0.170	-57.124	88.45	0.800	-67.673	88.45	3.000	-77.189	88.45	8.000	-87.189	88.45	19.000
0.054	-46.843	88.47	0.180	-57.198	88.44	0.850	-67.804	88.44	3.200	-77.264	88.44	8.500	-87.264	88.44	20.000
0.057	-46.883	88.46	0.190	-57.273	88.43	0.900	-67.935	88.43	3.400	-77.339	88.43	9.000	-87.339	88.43	21.000
0.060	-46.914	88.45	0.200	-57.348	88.42	0.950	-68.066	88.42	3.600	-77.414	88.42	9.500	-87.414	88.42	22.000
0.063	-46.935	88.44	0.210	-57.423	88.41	1.000	-68.197	88.41	3.800	-77.489	88.41	10.000	-87.489	88.41	23.000
0.066	-46.944	88.43	0.220	-57.498	88.40	1.050	-68.328	88.40	4.000	-77.564	88.40	10.500	-87.564	88.40	24.000
0.069	-46.941	88.42	0.230	-57.573	88.39	1.100	-68.459	88.39	4.200	-77.639	88.39	11.000	-87.639	88.39	25.000
0.072	-46.933	88.41	0.240	-57.648	88.38	1.150	-68.590	88.38	4.400	-77.714	88.38	11.500	-87.714	88.38	26.000
0.075	-46.894	88.40	0.250	-57.723	88.37	1.200	-68.721	88.37	4.600	-77.789	88.37	12.000	-87.789	88.37	27.000
0.078	-46.850	88.39	0.260	-57.798	88.36	1.250	-68.852	88.36	4.800	-77.864	88.36	12.500	-87.864	88.36	28.000
0.081	-46.801	88.38	0.270	-57.873	88.35	1.300	-68.983	88.35	5.000	-77.939	88.35	13.000	-87.939	88.35	29.000
0.084	-46.746	88.37	0.280	-57.948	88.34	1.350	-69.114	88.34	5.200	-78.014	88.34	13.500	-88.014	88.34	30.000
0.087	-46.686	88.36	0.290	-58.023	88.33	1.400	-69.245	88.33	5.400	-78.089	88.33	14.000	-88.089	88.33	31.000
0.090	-46.620	88.35	0.300	-58.098	88.32	1.450	-69.376	88.32	5.600	-78.164	88.32	14.500	-88.164	88.32	32.000
0.105	-46.111	88.34	0.320	-57.580	88.31	1.500	-69.507	88.31	5.800	-78.239	88.31	15.000	-88.239	88.31	33.000
0.120	-45.743	88.33	0.340	-57.212	88.30	1.550	-69.638	88.30	6.000	-78.314	88.30	15.500	-88.314	88.30	34.000
0.135	-45.375	88.32	0.360	-56.844	88.29	1.600	-69.769	88.29	6.200	-78.389	88.29	16.000	-88.389	88.29	35.000
0.150	-45.007	88.31	0.380	-56.476	88.28	1.650	-69.900	88.28	6.400	-78.464	88.28	16.500	-88.464	88.28	36.000
0.165	-44.639	88.30	0.400	-56.108	88.27	1.700	-70.031	88.27	6.600	-78.539	88.27	17.000	-88.539	88.27	37.000
0.180	-44.271	88.29	0.420	-55.740	88.26	1.750	-70.162	88.26	6.800	-78.614	88.26	17.500	-88.614	88.26	38.000
0.195	-43.903	88.28	0.440	-55.372	88.25	1.800	-70.293	88.25	7.000	-78.689	88.25	18.000	-88.689	88.25	39.000
0.210	-43.535	88.27	0.460	-55.004	88.24	1.850	-70.424	88.24	7.200	-78.764	88.24	18.500	-88.764	88.24	40.000
0.225	-43.167	88.26	0.480	-54.636	88.23	1.900	-70.555	88.23	7.400	-78.839	88.23	19.000	-88.839	88.23	41.000
0.240	-42.799	88.25	0.500	-54.268	88.22	1.950	-70.686	88.22	7.600	-78.914	88.22	19.500	-88.914	88.22	42.000
0.255	-42.431	88.24	0.520	-53.900	88.21	2.000	-70.817	88.21	7.800	-78.989	88.21	20.000	-88.989	88.21	43.000
0.270	-42.063	88.23	0.540	-53.532	88.20	2.050	-70.948	88.20	8.000	-79.064	88.20	20.500	-89.064	88.20	44.000
0.285	-41.695	88.22	0.560	-53.164	88.19	2.100	-71.079	88.19	8.200	-79.139	88.19	21.000	-89.139	88.19	45.000
0.300	-41.327	88.21	0.580	-52.796	88.18	2.150	-71.210	88.18	8.400	-79.214	88.18	21.500	-89.214	88.18	46.000
0.300	-40.959	88.20	0.600	-52.428	88.17	2.200	-71.341	88.17	8.600	-79.289	88.17	22.000	-89.289	88.17	47.000

Table 165. Radial Electric Field (Poorly Conducting Soil), Frequency = 10.0 MHz, VED Height = 22.48 m

3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					30.0 KM DOWNRANGE					100.0 KM DOWNRANGE					
HEIGHT (KM)	AMP (UB)	PHASE (UEG)	HEIGHT (KM)	AMP (DB)	PHASE (UEG)	HEIGHT (KM)	AMP (DB)	PHASE (UEG)	HEIGHT (KM)	AMP (DB)	PHASE (UEG)	HEIGHT (KM)	AMP (DB)	PHASE (UEG)	HEIGHT (KM)	AMP (DB)	PHASE (UEG)	HEIGHT (KM)	AMP (DB)	PHASE (UEG)
0.000	-41.174	-74.400	0.000	-51.551	75.38	0.000	-61.075	-51.09	0.000	-71.527	2.13	0.000	-81.053	143.14	0.000	-91.027	142.04	0.000	-101.000	142.04
0.03	-41.257	147.40	0.03	-51.638	143.31	0.03	-61.163	143.14	0.03	-71.612	138.44	0.03	-81.103	142.14	0.03	-91.075	138.44	0.03	-101.000	138.44
0.06	-41.344	147.39	0.06	-51.726	143.42	0.06	-61.248	140.35	0.06	-71.692	137.60	0.06	-81.185	137.60	0.06	-91.154	137.60	0.06	-101.000	137.60
0.09	-41.433	147.35	0.09	-51.814	143.42	0.09	-61.336	137.60	0.09	-71.780	136.51	0.09	-81.272	136.51	0.09	-91.241	136.51	0.09	-101.000	136.51
0.12	-41.521	147.30	0.12	-51.902	143.42	0.12	-61.424	136.51	0.12	-71.868	135.42	0.12	-81.360	135.42	0.12	-91.329	135.42	0.12	-101.000	135.42
0.15	-41.610	147.25	0.15	-51.990	143.42	0.15	-61.512	135.42	0.15	-71.956	134.33	0.15	-81.448	134.33	0.15	-91.417	134.33	0.15	-101.000	134.33
0.18	-41.698	147.20	0.18	-52.078	143.42	0.18	-61.600	134.33	0.18	-72.050	133.24	0.18	-81.536	133.24	0.18	-91.505	133.24	0.18	-101.000	133.24
0.21	-41.786	147.15	0.21	-52.166	143.42	0.21	-61.692	133.24	0.21	-72.142	132.15	0.21	-81.624	132.15	0.21	-91.593	132.15	0.21	-101.000	132.15
0.24	-41.874	147.10	0.24	-52.254	143.42	0.24	-61.784	132.15	0.24	-72.234	131.06	0.24	-81.712	131.06	0.24	-91.681	131.06	0.24	-101.000	131.06
0.27	-41.962	147.05	0.27	-52.342	143.42	0.27	-61.876	131.06	0.27	-72.326	129.97	0.27	-81.800	129.97	0.27	-91.769	129.97	0.27	-101.000	129.97
0.30	-42.050	147.00	0.30	-52.430	143.42	0.30	-61.968	129.97	0.30	-72.418	128.88	0.30	-81.888	128.88	0.30	-91.857	128.88	0.30	-101.000	128.88
0.33	-42.138	146.95	0.33	-52.518	143.42	0.33	-62.060	128.88	0.33	-72.510	127.79	0.33	-81.976	127.79	0.33	-91.945	127.79	0.33	-101.000	127.79
0.36	-42.226	146.90	0.36	-52.606	143.42	0.36	-62.152	127.79	0.36	-72.602	126.70	0.36	-82.064	126.70	0.36	-92.033	126.70	0.36	-101.000	126.70
0.39	-42.314	146.85	0.39	-52.694	143.42	0.39	-62.244	126.70	0.39	-72.694	125.61	0.39	-82.156	125.61	0.39	-92.121	125.61	0.39	-101.000	125.61
0.42	-42.402	146.80	0.42	-52.782	143.42	0.42	-62.336	125.61	0.42	-72.786	124.52	0.42	-82.248	124.52	0.42	-92.209	124.52	0.42	-101.000	124.52
0.45	-42.490	146.75	0.45	-52.870	143.42	0.45	-62.428	124.52	0.45	-72.878	123.43	0.45	-82.340	123.43	0.45	-92.297	123.43	0.45	-101.000	123.43
0.48	-42.578	146.70	0.48	-52.958	143.42	0.48	-62.520	123.43	0.48	-72.970	122.34	0.48	-82.432	122.34	0.48	-92.385	122.34	0.48	-101.000	122.34
0.51	-42.666	146.65	0.51	-53.046	143.42	0.51	-62.612	122.34	0.51	-73.062	121.25	0.51	-82.524	121.25	0.51	-92.473	121.25	0.51	-101.000	121.25
0.54	-42.754	146.60	0.54	-53.134	143.42	0.54	-62.704	121.25	0.54	-73.154	120.16	0.54	-82.616	120.16	0.54	-92.561	120.16	0.54	-101.000	120.16
0.57	-42.842	146.55	0.57	-53.222	143.42	0.57	-62.796	120.16	0.57	-73.246	119.07	0.57	-82.708	119.07	0.57	-92.649	119.07	0.57	-101.000	119.07
0.60	-42.930	146.50	0.60	-53.310	143.42	0.60	-62.888	119.07	0.60	-73.338	117.98	0.60	-82.800	117.98	0.60	-92.737	117.98	0.60	-101.000	117.98
0.63	-43.018	146.45	0.63	-53.398	143.42	0.63	-62.980	117.98	0.63	-73.430	116.89	0.63	-82.892	116.89	0.63	-92.825	116.89	0.63	-101.000	116.89
0.66	-43.106	146.40	0.66	-53.486	143.42	0.66	-63.072	116.89	0.66	-73.522	115.80	0.66	-82.984	115.80	0.66	-92.913	115.80	0.66	-101.000	115.80
0.69	-43.194	146.35	0.69	-53.574	143.42	0.69	-63.164	115.80	0.69	-73.614	114.71	0.69	-83.076	114.71	0.69	-93.001	114.71	0.69	-101.000	114.71
0.72	-43.282	146.30	0.72	-53.662	143.42	0.72	-63.256	114.71	0.72	-73.706	113.62	0.72	-83.168	113.62	0.72	-93.089	113.62	0.72	-101.000	113.62
0.75	-43.370	146.25	0.75	-53.750	143.42	0.75	-63.348	113.62	0.75	-73.798	112.53	0.75	-83.260	112.53	0.75	-93.177	112.53	0.75	-101.000	112.53
0.78	-43.458	146.20	0.78	-53.838	143.42	0.78	-63.440	112.53	0.78	-73.890	111.44	0.78	-83.352	111.44	0.78	-93.265	111.44	0.78	-101.000	111.44
0.81	-43.546	146.15	0.81	-53.926	143.42	0.81	-63.532	111.44	0.81	-73.982	110.35	0.81	-83.444	110.35	0.81	-93.353	110.35	0.81	-101.000	110.35
0.84	-43.634	146.10	0.84	-54.014	143.42	0.84	-63.624	110.35	0.84	-74.074	109.26	0.84	-83.536	109.26	0.84	-93.441	109.26	0.84	-101.000	109.26
0.87	-43.722	146.05	0.87	-54.102	143.42	0.87	-63.716	109.26	0.87	-74.166	108.17	0.87	-83.628	108.17	0.87	-93.529	108.17	0.87	-101.000	108.17
0.90	-43.810	146.00	0.90	-54.190	143.42	0.90	-63.808	108.17	0.90	-74.258	107.08	0.90	-83.720	107.08	0.90	-93.617	107.08	0.90	-101.000	107.08
0.93	-43.898	145.95	0.93	-54.278	143.42	0.93	-63.900	107.08	0.93	-74.350	105.99	0.93	-83.812	105.99	0.93	-93.705	105.99	0.93	-101.000	105.99
0.96	-43.986	145.90	0.96	-54.366	143.42	0.96	-63.992	105.99	0.96	-74.442	104.90	0.96	-83.904	104.90	0.96	-93.793	104.90	0.96	-101.000	104.90
0.99	-44.074	145.85	0.99	-54.454	143.42	0.99	-64.084	104.90	0.99	-74.534	103.81	0.99	-84.096	103.81	0.99	-93.881	103.81	0.99	-101.000	103.81
1.02	-44.162	145.80	1.02	-54.542	143.42	1.02	-64.176	103.81	1.02	-74.626	102.72	1.02	-84.188	102.72	1.02	-93.969	102.72	1.02	-101.000	102.72
1.05	-44.250	145.75	1.05	-54.630	143.42	1.05	-64.268	102.72	1.05	-74.718	101.63	1.05	-84.280	101.63	1.05	-94.057	101.63	1.05	-101.000	101.63
1.08	-44.338	145.70	1.08	-54.718	143.42	1.08	-64.360	101.63	1.08	-74.810	100.54	1.08	-84.372	100.54	1.08	-94.145	100.54	1.08	-101.000	100.54
1.11	-44.426	145.65	1.11	-54.806	143.42	1.11	-64.452	100.54	1.11	-74.902	99.45	1.11	-84.464	99.45	1.11	-94.233	99.45	1.11	-101.000	99.45
1.14	-44.514	145.60	1.14	-54.894	143.42	1.14	-64.544	99.45	1.14	-75.094	98.36	1.14	-84.556	98.36	1.14	-94.321	98.36	1.14	-101.000	98.36
1.17	-44.602	145.55	1.17	-54.982	143.42	1.17	-64.636	98.36	1.17	-75.186	97.27	1.17	-84.648	97.27	1.17	-94.409	97.27	1.17	-101.000	97.27
1.20	-44.690	145.50	1.20	-55.070	143.42	1.20	-64.728	97.27	1.20	-75.278	96.18	1.20	-84.740	96.18	1.20	-94.497	96.18	1.20	-101.000	96.18
1.23	-44.778	145.45	1.23	-55.158	143.42	1.23	-64.820	96.18	1.23	-75.370	95.09	1.23	-84.832	95.09	1.23	-94.585	95.09	1.23	-101.000	95.09
1.26	-44.866	145.40	1.26	-55.246	143.42	1.26	-64.912	95.09	1.26	-75.462	94.00	1.26	-84.924	94.00	1.26	-94.673	94.00	1.26	-101.000	94.00
1.29	-44.954	145.35	1.29	-55.334	143.42	1.29	-65.004	94.00	1.29	-75.554	92.91	1.29	-85.016	92.91	1.29	-94.761	92.91	1.29	-101.000	92.91
1.32	-45.042	145.30	1.32	-55.422	143.42	1.32	-65.096	92.91	1.32	-75.646	91.82	1.32	-85.108	91.82	1.32	-94.849	91.82	1.32	-101.000	91.82
1.35	-45.130	145.25	1.35	-55.510	143.42	1.35	-65.188	91.82	1.35	-75.738	90.73	1.35	-85.200	90.73	1.35	-94.937	90.73	1.35	-101.000	90.73
1.38	-45.218	145.20	1.38	-55.598	143.42	1.38	-65.280	90.73	1.38	-75.830	89.64	1.38	-85.292	89.64	1.38	-95.025	89.64	1.38	-101.000	89.64
1.41	-45.306	145.15	1.41	-55.686	143.42	1.41	-65.372	89.64	1.41	-75.922	88.55	1.41	-85.384	88.55	1.41	-95.113	88.55	1.41	-101.000	88.55
1.44	-45.394	145.10	1.44	-55.774	143.42	1.44	-65.464	88.55	1.44	-76.014	87.46	1.44	-85.476	87.46	1.44	-95.201	87.46	1.44	-101.000	87.46
1.47	-45.482	145.05	1.47	-55.862	143.42	1.47	-65.556	87.46	1.47	-76.106	86.37	1.47	-85.568	86.37	1.47	-95.289	86.37	1.47	-101.000	86.37
1.50	-45.570	145.00	1.50	-55.950	143.42	1.50	-65.648	86.37	1.50	-76.198	85.28	1.50	-85.660	85.28	1.50	-95.377	85.28	1.50	-101.000	85.28
1.53	-45.658	144.95	1.53	-56.038	143.42	1.53	-65.740	85.28	1.53	-76.290	84.19	1.53	-85.752	84.19	1.53	-95.465	84.19	1.53	-101.000	84.19
1.56	-45.746	144.90	1.56	-56.126	143.42	1.56	-65.832	84.19	1.56	-76.382	83.10	1.56	-85.844	83.10	1.56	-95.553	83.10	1.56	-101.000	83.10
1.59	-45.834	144																		

Table 166. Radial Electric Field (Poorly Conducting Soil), Frequency = 10.0 MHz, VED Height = 44.95 m

3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
RELUMT	AMP (UEU)	PHASE (UEU)	RELUMT	AMP (UEU)	PHASE (UEU)	RELUMT	AMP (UEU)	PHASE (UEU)	RELUMT	AMP (UEU)	PHASE (UEU)	RELUMT	AMP (UEU)	PHASE (UEU)
.000	-36.536	60.33	0.000	-46.751	-176.99	0.000	-56.226	-44.52	0.000	-66.660	16.92	0.000	-66.660	16.92
.003	-36.663	170.21	.010	-46.836	162.66	.030	-56.314	160.68	.100	-66.746	159.10	.300	-66.807	155.50
.006	-36.787	170.16	.020	-46.926	162.66	.060	-56.400	159.63	.200	-66.877	157.84	.400	-66.938	149.51
.009	-36.911	170.03	.030	-47.015	162.12	.120	-56.540	155.30	.300	-67.072	149.51	.500	-67.128	142.30
.012	-36.980	169.88	.040	-47.103	161.31	.180	-56.680	148.04	.400	-67.253	142.30	.600	-67.307	135.33
.015	-36.970	169.80	.050	-47.189	160.42	.240	-56.820	143.44	.500	-67.427	135.33	.700	-67.472	128.42
.018	-36.967	169.67	.060	-47.269	159.92	.300	-56.960	138.35	.600	-67.597	128.42	.800	-67.642	121.51
.021	-36.961	169.60	.070	-47.343	159.34	.360	-57.100	132.94	.700	-67.778	121.51	1.000	-67.823	114.60
.024	-36.951	169.37	.080	-47.400	158.49	.420	-57.240	127.43	.800	-67.903	114.60	1.100	-67.948	107.53
.027	-36.944	169.14	.090	-47.454	157.36	.480	-57.380	121.92	1.000	-68.028	107.53	1.200	-68.073	100.46
.030	-36.930	167.14	.100	-47.488	156.03	.540	-57.520	116.41	1.100	-68.153	100.46	1.300	-68.198	93.39
.033	-36.921	166.41	.110	-47.508	154.44	.600	-57.660	110.90	1.200	-68.278	93.39	1.400	-68.323	86.32
.036	-36.910	165.59	.120	-47.508	152.63	.660	-57.800	105.39	1.300	-68.403	86.32	1.500	-68.448	79.25
.039	-36.901	164.68	.130	-47.499	150.64	.720	-57.940	99.88	1.400	-68.478	79.25	1.600	-68.523	72.18
.042	-36.893	163.69	.140	-47.481	148.49	.780	-58.080	94.37	1.500	-68.553	72.18	1.700	-68.598	65.11
.045	-36.886	162.60	.150	-47.454	146.09	.840	-58.220	88.86	1.600	-68.628	65.11	1.800	-68.673	58.04
.048	-36.880	161.43	.160	-47.419	143.49	.900	-58.360	83.35	1.700	-68.703	58.04	1.900	-68.748	46.97
.051	-36.867	160.17	.170	-47.374	140.69	.960	-58.500	77.84	1.800	-68.778	46.97	2.000	-68.793	40.90
.054	-36.858	158.83	.180	-47.329	137.53	1.020	-58.640	72.33	1.900	-68.853	40.90	2.100	-68.878	33.83
.057	-36.850	157.39	.190	-47.284	134.02	1.080	-58.780	66.82	2.000	-68.928	33.83	2.200	-68.953	26.76
.060	-36.843	155.87	.200	-47.239	130.32	1.140	-58.920	61.31	2.100	-69.003	26.76	2.300	-69.028	19.69
.063	-36.838	154.27	.210	-47.194	126.42	1.200	-59.060	55.80	2.200	-69.078	19.69	2.400	-69.103	12.62
.066	-36.834	152.59	.220	-47.149	122.32	1.260	-59.200	50.29	2.300	-69.153	12.62	2.500	-69.178	5.55
.069	-36.830	150.84	.230	-47.104	118.02	1.320	-59.340	44.78	2.400	-69.228	5.55	2.600	-69.253	-1.52
.072	-36.827	149.03	.240	-47.059	113.52	1.380	-59.480	39.27	2.500	-69.303	-1.52	2.700	-69.328	-8.59
.075	-36.823	147.15	.250	-47.014	108.82	1.440	-59.620	33.76	2.600	-69.378	-8.59	2.800	-69.403	-15.62
.078	-36.820	145.22	.260	-46.969	103.92	1.500	-59.760	28.25	2.700	-69.453	-15.62	2.900	-69.478	-22.65
.081	-36.817	143.24	.270	-46.924	98.82	1.560	-59.900	22.74	2.800	-69.528	-22.65	3.000	-69.553	-29.68
.084	-36.814	141.23	.280	-46.879	93.62	1.620	-60.040	17.23	2.900	-69.603	-29.68			
.087	-36.810	139.20	.290	-46.834	88.32	1.680	-60.180	11.72	3.000	-69.678	-29.68			
.090	-36.810	137.15	.300	-46.789	82.82	1.740	-60.320	6.21						
.105	-36.800	127.04	.350	-46.535	90.28	1.800	-60.460	7.56						
.120	-36.803	117.90	.400	-46.281	85.18	1.860	-60.600	7.56						
.135	-36.809	110.32	.450	-46.027	80.47	1.920	-60.740	7.56						
.150	-36.816	104.36	.500	-45.773	76.51	1.980	-60.880	7.56						
.165	-36.824	99.87	.550	-45.519	73.23	2.040	-61.020	7.56						
.180	-36.832	96.53	.600	-45.265	70.06	2.100	-61.160	7.56						
.195	-36.840	93.09	.650	-45.011	67.10	2.160	-61.300	7.56						
.210	-36.848	90.46	.700	-44.757	64.35	2.220	-61.440	7.56						
.225	-36.856	87.61	.750	-44.503	61.81	2.280	-61.580	7.56						
.240	-36.864	84.45	.800	-44.249	59.37	2.340	-61.720	7.56						
.255	-36.872	81.08	.850	-44.000	57.04	2.400	-61.860	7.56						
.270	-36.880	77.48	.900	-43.750	54.81	2.460	-62.000	7.56						
.285	-36.888	73.64	.950	-43.500	52.68	2.520	-62.140	7.56						
.300	-36.896	69.59	1.000	-43.250	50.65	2.580	-62.280	7.56						

Table 167. Radial Electric Field (Poorly Conducting Soil), Frequency = 100.0 MHz, VED Height = 0.00 m

1.0 KM DOWNRANGE				3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)
.000	-52.173	42.55	.000	-65.517	-114.45	.000	-75.974	-51.35	.000	-85.517	26.83	.000	-85.517	26.83	.000
.001	-50.102	50.33	.001	-65.603	84.49	.010	-76.080	84.43	.030	-85.518	85.95	.060	-85.518	85.95	.090
.002	-50.147	59.96	.002	-65.686	86.39	.020	-76.074	78.75	.070	-85.529	59.57	.120	-85.529	59.57	.150
.003	-50.235	69.35	.003	-65.764	86.55	.030	-76.074	78.75	.080	-85.538	43.63	.130	-85.538	43.63	.160
.004	-50.320	69.47	.004	-65.821	86.55	.040	-76.074	78.75	.090	-85.548	31.16	.140	-85.548	31.16	.170
.005	-50.401	67.34	.005	-65.862	86.62	.050	-76.074	78.75	.100	-85.558	22.56	.150	-85.558	22.56	.180
.006	-50.473	65.95	.006	-65.894	86.59	.060	-76.074	78.75	.110	-85.568	16.77	.160	-85.568	16.77	.190
.007	-50.541	64.29	.007	-65.912	86.55	.070	-76.074	78.75	.120	-85.578	12.82	.170	-85.578	12.82	.200
.008	-50.595	62.37	.008	-65.924	86.51	.080	-76.074	78.75	.130	-85.588	10.04	.180	-85.588	10.04	.210
.009	-50.641	60.29	.009	-65.932	86.46	.090	-76.074	78.75	.140	-85.598	8.03	.190	-85.598	8.03	.220
.010	-50.674	58.04	.010	-65.937	86.41	.100	-76.074	78.75	.150	-85.608	6.53	.200	-85.608	6.53	.230
.011	-50.706	55.63	.011	-65.940	86.36	.110	-76.074	78.75	.160	-85.618	5.39	.210	-85.618	5.39	.240
.012	-50.737	53.07	.012	-65.942	86.31	.120	-76.074	78.75	.170	-85.628	4.50	.220	-85.628	4.50	.250
.013	-50.766	50.36	.013	-65.944	86.26	.130	-76.074	78.75	.180	-85.638	3.80	.230	-85.638	3.80	.260
.014	-50.793	47.51	.014	-65.945	86.21	.140	-76.074	78.75	.190	-85.648	3.23	.240	-85.648	3.23	.270
.015	-50.819	44.53	.015	-65.946	86.16	.150	-76.074	78.75	.200	-85.658	2.77	.250	-85.658	2.77	.280
.016	-50.844	41.43	.016	-65.947	86.11	.160	-76.074	78.75	.210	-85.668	2.39	.260	-85.668	2.39	.290
.017	-50.867	38.21	.017	-65.948	86.06	.170	-76.074	78.75	.220	-85.678	2.07	.270	-85.678	2.07	.300
.018	-50.889	34.87	.018	-65.949	86.01	.180	-76.074	78.75	.230	-85.688	1.80	.280	-85.688	1.80	.310
.019	-50.910	31.41	.019	-65.950	85.96	.190	-76.074	78.75	.240	-85.698	1.57	.290	-85.698	1.57	.320
.020	-50.930	27.84	.020	-65.951	85.91	.200	-76.074	78.75	.250	-85.708	1.36	.300	-85.708	1.36	.330
.021	-50.949	24.16	.021	-65.952	85.86	.210	-76.074	78.75	.260	-85.718	1.21	.310	-85.718	1.21	.340
.022	-50.967	20.47	.022	-65.953	85.81	.220	-76.074	78.75	.270	-85.728	1.06	.320	-85.728	1.06	.350
.023	-50.984	16.77	.023	-65.954	85.76	.230	-76.074	78.75	.280	-85.738	.93	.330	-85.738	.93	.360
.024	-50.999	13.06	.024	-65.955	85.71	.240	-76.074	78.75	.290	-85.748	.82	.340	-85.748	.82	.370
.025	-51.014	9.35	.025	-65.956	85.66	.250	-76.074	78.75	.300	-85.758	.72	.350	-85.758	.72	.380
.026	-51.028	5.64	.026	-65.957	85.61	.260	-76.074	78.75	.310	-85.768	.63	.360	-85.768	.63	.390
.027	-51.042	1.93	.027	-65.958	85.56	.270	-76.074	78.75	.320	-85.778	.55	.370	-85.778	.55	.400
.028	-51.055	-1.78	.028	-65.959	85.51	.280	-76.074	78.75	.330	-85.788	.48	.380	-85.788	.48	.410
.029	-51.068	-5.47	.029	-65.960	85.46	.290	-76.074	78.75	.340	-85.798	.42	.390	-85.798	.42	.420
.030	-51.080	-9.16	.030	-65.961	85.41	.300	-76.074	78.75	.350	-85.808	.37	.400	-85.808	.37	.430
.035	-48.133	17.00	.105	-46.720	3.53	.350	-78.758	1.38	.1050	-48.761	.19	.1050	-48.761	.19	.1050
.040	-40.170	16.70	.120	-46.554	4.02	.400	-76.575	.92	.1200	-46.576	.04	.1200	-46.576	.04	.1200
.045	-44.120	7.72	.135	-46.652	3.00	.450	-74.963	.41	.1350	-44.664	-.06	.1350	-44.664	-.06	.1350
.050	-44.083	1.53	.150	-46.760	2.28	.500	-72.966	.26	.1500	-42.967	-.13	.1500	-42.967	-.13	.1500
.055	-44.042	6.04	.165	-46.839	1.76	.550	-71.443	.14	.1650	-41.443	-.21	.1650	-41.443	-.21	.1650
.060	-44.000	6.04	.180	-46.860	1.37	.600	-70.063	.06	.1800	-40.063	-.23	.1800	-40.063	-.23	.1800
.065	-38.786	3.96	.195	-46.861	1.08	.650	-68.802	-.01	.1950	-38.802	-.25	.1950	-38.802	-.25	.1950
.070	-37.634	3.24	.210	-46.844	.85	.700	-67.644	-.06	.2100	-37.644	-.27	.2100	-37.644	-.27	.2100
.075	-36.588	2.74	.225	-46.814	.67	.750	-66.574	-.10	.2250	-36.574	-.28	.2250	-36.574	-.28	.2250
.080	-35.577	2.24	.240	-46.774	.52	.800	-65.581	-.13	.2400	-35.581	-.29	.2400	-35.581	-.29	.2400
.085	-34.605	1.94	.255	-46.724	.41	.850	-64.655	-.15	.2550	-34.655	-.30	.2550	-34.655	-.30	.2550
.090	-33.678	1.64	.270	-46.664	.31	.900	-63.788	-.17	.2700	-33.788	-.31	.2700	-33.788	-.31	.2700
.095	-32.774	1.34	.285	-46.594	.23	.950	-62.974	-.17	.2850	-32.974	-.32	.2850	-32.974	-.32	.2850
.100	-32.208	1.14	.300	-46.520	.17	1.000	-62.208	-.19	.3000	-32.208	-.33	.3000	-32.208	-.33	.3000

Table 168. Radial Electric Field (Poorly Conducting Soil), Frequency = 100.0 MHz, VED Height = 2.25 m

10.0 KM UPHRANGE				30.0 KM UPHRANGE				100.0 KM UPHRANGE				300.0 KM UPHRANGE			
REL HT (KM)	AMP (UB)	PHASE (DEG)	REL HT (KM)	AMP (UB)	PHASE (DEG)	REL HT (KM)	AMP (UB)	PHASE (DEG)	REL HT (KM)	AMP (UB)	PHASE (DEG)	REL HT (KM)	AMP (UB)	PHASE (DEG)	REL HT (KM)
.001	-51.000	70.00	.001	-60.794	30.42	.001	-61.744	31.84	.001	-61.327	143.51	.001	-60.781	81.85	
.002	-51.000	143.77	.002	-60.880	144.00	.002	-61.385	143.51	.002	-61.385	143.51	.002	-60.883	141.01	
.003	-51.000	143.44	.003	-61.043	141.73	.003	-61.547	139.83	.003	-61.547	139.83	.003	-61.043	130.33	
.004	-51.000	143.00	.004	-61.100	139.14	.004	-61.600	138.14	.004	-61.600	138.14	.004	-61.100	114.02	
.005	-51.000	142.56	.005	-61.157	138.41	.005	-61.657	137.41	.005	-61.657	137.41	.005	-61.157	98.09	
.006	-51.000	142.12	.006	-61.214	137.68	.006	-61.714	136.68	.006	-61.714	136.68	.006	-61.214	82.01	
.007	-51.000	141.68	.007	-61.271	136.95	.007	-61.771	135.95	.007	-61.771	135.95	.007	-61.271	65.93	
.008	-51.000	141.24	.008	-61.328	136.22	.008	-61.828	135.22	.008	-61.828	135.22	.008	-61.328	49.85	
.009	-51.000	140.80	.009	-61.385	135.49	.009	-61.885	134.49	.009	-61.885	134.49	.009	-61.385	33.77	
.010	-51.000	140.36	.010	-61.442	134.76	.010	-61.942	133.76	.010	-61.942	133.76	.010	-61.442	17.69	
.011	-51.000	139.92	.011	-61.499	134.03	.011	-62.000	133.03	.011	-62.000	133.03	.011	-61.499	1.61	
.012	-51.000	139.48	.012	-61.556	133.30	.012	-62.056	132.30	.012	-62.056	132.30	.012	-61.556	1.61	
.013	-51.000	139.04	.013	-61.613	132.57	.013	-62.113	131.57	.013	-62.113	131.57	.013	-61.613	1.61	
.014	-51.000	138.60	.014	-61.670	131.84	.014	-62.170	130.84	.014	-62.170	130.84	.014	-61.670	1.61	
.015	-51.000	138.16	.015	-61.727	131.11	.015	-62.227	130.11	.015	-62.227	130.11	.015	-61.727	1.61	
.016	-51.000	137.72	.016	-61.784	130.38	.016	-62.284	129.38	.016	-62.284	129.38	.016	-61.784	1.61	
.017	-51.000	137.28	.017	-61.841	129.65	.017	-62.341	128.65	.017	-62.341	128.65	.017	-61.841	1.61	
.018	-51.000	136.84	.018	-61.898	128.92	.018	-62.398	127.92	.018	-62.398	127.92	.018	-61.898	1.61	
.019	-51.000	136.40	.019	-61.955	128.19	.019	-62.455	127.19	.019	-62.455	127.19	.019	-61.955	1.61	
.020	-51.000	135.96	.020	-62.012	127.46	.020	-62.512	126.46	.020	-62.512	126.46	.020	-62.012	1.61	
.021	-51.000	135.52	.021	-62.069	126.73	.021	-62.569	125.73	.021	-62.569	125.73	.021	-62.069	1.61	
.022	-51.000	135.08	.022	-62.126	126.00	.022	-62.626	125.00	.022	-62.626	125.00	.022	-62.126	1.61	
.023	-51.000	134.64	.023	-62.183	125.27	.023	-62.683	124.27	.023	-62.683	124.27	.023	-62.183	1.61	
.024	-51.000	134.20	.024	-62.240	124.54	.024	-62.740	123.54	.024	-62.740	123.54	.024	-62.240	1.61	
.025	-51.000	133.76	.025	-62.297	123.81	.025	-62.797	122.81	.025	-62.797	122.81	.025	-62.297	1.61	
.026	-51.000	133.32	.026	-62.354	123.08	.026	-62.854	122.08	.026	-62.854	122.08	.026	-62.354	1.61	
.027	-51.000	132.88	.027	-62.411	122.35	.027	-62.911	121.35	.027	-62.911	121.35	.027	-62.411	1.61	
.028	-51.000	132.44	.028	-62.468	121.62	.028	-62.968	120.62	.028	-62.968	120.62	.028	-62.468	1.61	
.029	-51.000	132.00	.029	-62.525	120.89	.029	-63.025	119.89	.029	-63.025	119.89	.029	-62.525	1.61	
.030	-51.000	131.56	.030	-62.582	120.16	.030	-63.082	119.16	.030	-63.082	119.16	.030	-62.582	1.61	
.031	-51.000	131.12	.031	-62.639	119.43	.031	-63.139	118.43	.031	-63.139	118.43	.031	-62.639	1.61	
.032	-51.000	130.68	.032	-62.696	118.70	.032	-63.196	117.70	.032	-63.196	117.70	.032	-62.696	1.61	
.033	-51.000	130.24	.033	-62.753	117.97	.033	-63.253	116.97	.033	-63.253	116.97	.033	-62.753	1.61	
.034	-51.000	129.80	.034	-62.810	117.24	.034	-63.310	116.24	.034	-63.310	116.24	.034	-62.810	1.61	
.035	-51.000	129.36	.035	-62.867	116.51	.035	-63.367	115.51	.035	-63.367	115.51	.035	-62.867	1.61	
.036	-51.000	128.92	.036	-62.924	115.78	.036	-63.424	114.78	.036	-63.424	114.78	.036	-62.924	1.61	
.037	-51.000	128.48	.037	-62.981	115.05	.037	-63.481	114.05	.037	-63.481	114.05	.037	-62.981	1.61	
.038	-51.000	128.04	.038	-63.038	114.32	.038	-63.538	113.32	.038	-63.538	113.32	.038	-63.038	1.61	
.039	-51.000	127.60	.039	-63.095	113.59	.039	-63.595	112.59	.039	-63.595	112.59	.039	-63.095	1.61	
.040	-51.000	127.16	.040	-63.152	112.86	.040	-63.652	111.86	.040	-63.652	111.86	.040	-63.152	1.61	
.041	-51.000	126.72	.041	-63.209	112.13	.041	-63.709	111.13	.041	-63.709	111.13	.041	-63.209	1.61	
.042	-51.000	126.28	.042	-63.266	111.40	.042	-63.766	110.40	.042	-63.766	110.40	.042	-63.266	1.61	
.043	-51.000	125.84	.043	-63.323	110.67	.043	-63.823	109.67	.043	-63.823	109.67	.043	-63.323	1.61	
.044	-51.000	125.40	.044	-63.380	109.94	.044	-63.880	108.94	.044	-63.880	108.94	.044	-63.380	1.61	
.045	-51.000	124.96	.045	-63.437	109.21	.045	-63.937	108.21	.045	-63.937	108.21	.045	-63.437	1.61	
.046	-51.000	124.52	.046	-63.494	108.48	.046	-63.994	107.48	.046	-63.994	107.48	.046	-63.494	1.61	
.047	-51.000	124.08	.047	-63.551	107.75	.047	-64.051	106.75	.047	-64.051	106.75	.047	-63.551	1.61	
.048	-51.000	123.64	.048	-63.608	107.02	.048	-64.108	106.02	.048	-64.108	106.02	.048	-63.608	1.61	
.049	-51.000	123.20	.049	-63.665	106.29	.049	-64.165	105.29	.049	-64.165	105.29	.049	-63.665	1.61	
.050	-51.000	122.76	.050	-63.722	105.56	.050	-64.222	104.56	.050	-64.222	104.56	.050	-63.722	1.61	
.051	-51.000	122.32	.051	-63.779	104.83	.051	-64.279	103.83	.051	-64.279	103.83	.051	-63.779	1.61	
.052	-51.000	121.88	.052	-63.836	104.10	.052	-64.336	103.10	.052	-64.336	103.10	.052	-63.836	1.61	
.053	-51.000	121.44	.053	-63.893	103.37	.053	-64.393	102.37	.053	-64.393	102.37	.053	-63.893	1.61	
.054	-51.000	121.00	.054	-63.950	102.64	.054	-64.450	101.64	.054	-64.450	101.64	.054	-63.950	1.61	
.055	-51.000	120.56	.055	-64.007	101.91	.055	-64.507	100.91	.055	-64.507	100.91	.055	-64.007	1.61	
.056	-51.000	120.12	.056	-64.064	101.18	.056	-64.564	100.18	.056	-64.564	100.18	.056	-64.064	1.61	
.057	-51.000	119.68	.057	-64.121	100.45	.057	-64.621	99.45	.057	-64.621	99.45	.057	-64.121	1.61	
.058	-51.000	119.24	.058	-64.178	99.72	.058	-64.678	98.72	.058	-64.678	98.72	.058	-64.178	1.61	
.059	-51.000	118.80	.059	-64.235	98.99	.059	-64.735	98.00	.059	-64.735	98.00	.059	-64.235	1.61	
.060	-51.000	118.36	.060	-64.292	98.26	.060	-64.792	97.26	.060	-64.792	97.26	.060	-64.292	1.61	
.061	-51.000	117.92	.061	-64.349	97.53	.061	-64.849	96.53	.061	-64.849	96.53	.061	-64.349	1.61	
.062	-51.000	117.48	.062	-64.406	96.80	.062	-64.906	95.80	.062	-64.906	95.80	.062	-64.406	1.61	
.063	-51.000	117.04	.063	-64.463	96.07	.063	-64.963	95.07	.063	-64.963	95.07	.063	-64.463	1.61	
.064	-51.000	116.60	.064	-64.520	95.34	.064	-65.020	94.34	.064	-65.020	94.34	.064	-64.520	1.61	
.065	-51.000	116.16	.065	-64.577	94.61	.065	-65.077	93.61	.065	-65.077	93.61	.065	-64.577	1.61	
.066	-51.000	115.72	.066	-64.634	93.88	.066	-65.134	92.88	.066	-65.134	92.88	.066	-64.634	1.61	
.067	-51.000	115.28	.067	-64.691	93.15	.067	-65.191	92.15	.067	-65.191	92.15	.067	-64.691	1.61	
.068	-51.000	114.84	.068	-64.748	92.42	.068	-65.248	91.42	.068	-65.248	91.42	.068	-64.748	1.61	
.069	-51.000	114.40	.069	-64.805	91.69	.069	-65.305	90.69	.069	-65.305	90.69	.069	-64.805	1.61	
.070	-51.000	113.96	.070	-64.862	90.96	.070	-65.362	89.96	.070	-65.362	89.96	.070	-64.862	1.61	
.071	-51.000	113.52	.071	-64.919	90.23	.071	-65.419	89.23	.071	-65.419	89.23	.071	-64.919	1.61	
.072	-51.000	113.08	.072	-64.976	89.50	.072	-65.476	88.50	.072	-65.476	88.50	.072	-64.976	1.61	
.073	-51.000	112.64	.073	-65.033	88.77	.073	-65.533	87.77	.073	-65.533	87.77	.073	-65.033	1.61	
.074	-51.000	112.20	.074	-65.090	88.04	.074	-65.590	87.04	.074	-65.590	87.04	.074	-65.090	1.61	
.075	-51.000	111.76	.075	-65.147	87.31	.075	-65.647	86.31	.075	-65.647	86.31	.075	-65.147	1.61	
.076	-51.000	111.32	.076	-65.204	86.58	.076	-65.704	85.58	.076	-65.704	85.58	.076	-65.204	1.61	
.077	-51.000	110.88	.077	-65.261	85.85	.077	-65.761	84.85	.077	-65.761	84.85	.077	-65.261	1.61	
.078	-51.000	110.44	.078	-65.318	85.12	.078	-65.818	84.12	.078	-65.818	84.12	.078	-65.318	1.61	
.079	-51.000</														

Table 169. Radial Electric Field (Poorly Conducting Soil), Frequency = 100.0 MHz, VED Height = 4.50 m

1.0 KM DISTANCE				3.0 KM DISTANCE				10.0 KM DISTANCE				30.0 KM DISTANCE			
HEIGHT (M)	AMP (UB)	PHASE (DEG)	HEIGHT (M)	AMP (UB)	PHASE (DEG)	HEIGHT (M)	AMP (UB)	PHASE (DEG)	HEIGHT (M)	AMP (UB)	PHASE (DEG)	HEIGHT (M)	AMP (UB)	PHASE (DEG)	HEIGHT (M)
0.00	-40.570	157.76	0.00	-56.036	-17.44	0.00	-66.552	157.44	0.00	-76.001	157.51	0.00	-86.001	157.51	0.00
0.01	-40.657	163.43	0.01	-56.123	161.44	0.01	-66.552	157.58	0.01	-76.072	156.96	0.01	-86.001	156.96	0.01
0.02	-40.743	169.07	0.02	-56.209	167.08	0.02	-66.552	157.65	0.02	-76.143	146.29	0.02	-86.001	146.29	0.02
0.03	-40.830	174.70	0.03	-56.296	172.71	0.03	-66.552	157.72	0.03	-76.214	130.58	0.03	-86.001	130.58	0.03
0.04	-40.917	180.34	0.04	-56.383	178.34	0.04	-66.552	157.79	0.04	-76.285	114.83	0.04	-86.001	114.83	0.04
0.05	-41.004	185.97	0.05	-56.470	183.97	0.05	-66.552	157.86	0.05	-76.356	99.08	0.05	-86.001	99.08	0.05
0.06	-41.091	191.60	0.06	-56.557	189.60	0.06	-66.552	157.93	0.06	-76.427	83.33	0.06	-86.001	83.33	0.06
0.07	-41.178	197.24	0.07	-56.644	195.24	0.07	-66.552	158.00	0.07	-76.498	67.58	0.07	-86.001	67.58	0.07
0.08	-41.265	202.87	0.08	-56.731	200.87	0.08	-66.552	158.07	0.08	-76.569	51.83	0.08	-86.001	51.83	0.08
0.09	-41.352	208.51	0.09	-56.818	206.51	0.09	-66.552	158.14	0.09	-76.640	36.08	0.09	-86.001	36.08	0.09
0.10	-41.439	214.14	0.10	-56.905	212.14	0.10	-66.552	158.21	0.10	-76.711	20.33	0.10	-86.001	20.33	0.10
0.11	-41.526	219.78	0.11	-56.992	217.78	0.11	-66.552	158.28	0.11	-76.782	4.58	0.11	-86.001	4.58	0.11
0.12	-41.613	225.41	0.12	-57.079	223.41	0.12	-66.552	158.35	0.12	-76.853	-11.17	0.12	-86.001	-11.17	0.12
0.13	-41.700	231.05	0.13	-57.166	229.05	0.13	-66.552	158.42	0.13	-76.924	-26.92	0.13	-86.001	-26.92	0.13
0.14	-41.787	236.68	0.14	-57.253	234.68	0.14	-66.552	158.49	0.14	-77.000	-42.67	0.14	-86.001	-42.67	0.14
0.15	-41.874	242.32	0.15	-57.340	240.32	0.15	-66.552	158.56	0.15	-77.071	-58.42	0.15	-86.001	-58.42	0.15
0.16	-41.961	247.95	0.16	-57.427	245.95	0.16	-66.552	158.63	0.16	-77.142	-74.17	0.16	-86.001	-74.17	0.16
0.17	-42.048	253.59	0.17	-57.514	251.59	0.17	-66.552	158.70	0.17	-77.213	-89.92	0.17	-86.001	-89.92	0.17
0.18	-42.135	259.22	0.18	-57.601	257.22	0.18	-66.552	158.77	0.18	-77.284	-105.67	0.18	-86.001	-105.67	0.18
0.19	-42.222	264.86	0.19	-57.688	262.86	0.19	-66.552	158.84	0.19	-77.355	-121.42	0.19	-86.001	-121.42	0.19
0.20	-42.309	270.49	0.20	-57.775	268.49	0.20	-66.552	158.91	0.20	-77.426	-137.17	0.20	-86.001	-137.17	0.20
0.21	-42.396	276.13	0.21	-57.862	274.13	0.21	-66.552	158.98	0.21	-77.497	-152.92	0.21	-86.001	-152.92	0.21
0.22	-42.483	281.76	0.22	-57.949	279.76	0.22	-66.552	159.05	0.22	-77.568	-168.67	0.22	-86.001	-168.67	0.22
0.23	-42.570	287.40	0.23	-58.036	285.40	0.23	-66.552	159.12	0.23	-77.639	-184.42	0.23	-86.001	-184.42	0.23
0.24	-42.657	293.03	0.24	-58.123	291.03	0.24	-66.552	159.19	0.24	-77.710	-200.17	0.24	-86.001	-200.17	0.24
0.25	-42.744	298.67	0.25	-58.210	296.67	0.25	-66.552	159.26	0.25	-77.781	-215.92	0.25	-86.001	-215.92	0.25
0.26	-42.831	304.30	0.26	-58.297	302.30	0.26	-66.552	159.33	0.26	-77.852	-231.67	0.26	-86.001	-231.67	0.26
0.27	-42.918	309.94	0.27	-58.384	307.94	0.27	-66.552	159.40	0.27	-77.923	-247.42	0.27	-86.001	-247.42	0.27
0.28	-43.005	315.57	0.28	-58.471	313.57	0.28	-66.552	159.47	0.28	-78.000	-263.17	0.28	-86.001	-263.17	0.28
0.29	-43.092	321.21	0.29	-58.558	319.21	0.29	-66.552	159.54	0.29	-78.071	-278.92	0.29	-86.001	-278.92	0.29
0.30	-43.179	326.84	0.30	-58.645	324.84	0.30	-66.552	159.61	0.30	-78.142	-294.67	0.30	-86.001	-294.67	0.30
0.35	-37.290	30.14	0.35	-35.460	77.60	0.35	-33.630	154.64	0.35	-31.800	231.64	0.35	-30.000	294.64	0.35
0.40	-37.331	86.05	0.40	-35.501	163.24	0.40	-33.671	160.24	0.40	-31.841	237.24	0.40	-30.041	300.24	0.40
0.45	-37.372	151.96	0.45	-35.542	228.84	0.45	-33.712	215.84	0.45	-31.882	242.84	0.45	-30.082	305.84	0.45
0.50	-37.413	217.87	0.50	-35.583	294.44	0.50	-33.753	281.44	0.50	-31.923	248.44	0.50	-30.123	311.44	0.50
0.55	-37.454	283.78	0.55	-35.624	360.04	0.55	-33.794	347.04	0.55	-31.964	254.04	0.55	-30.164	317.04	0.55
0.60	-37.495	349.69	0.60	-35.665	425.64	0.60	-33.835	412.64	0.60	-32.005	259.64	0.60	-30.205	322.64	0.60
0.65	-37.536	415.60	0.65	-35.706	491.24	0.65	-33.876	478.24	0.65	-32.046	265.24	0.65	-30.246	328.24	0.65
0.70	-37.577	481.51	0.70	-35.747	556.84	0.70	-33.917	543.84	0.70	-32.087	270.84	0.70	-30.287	333.84	0.70
0.75	-37.618	547.42	0.75	-35.788	622.44	0.75	-33.958	609.44	0.75	-32.128	276.44	0.75	-30.328	339.44	0.75
0.80	-37.659	613.33	0.80	-35.829	688.04	0.80	-33.999	675.04	0.80	-32.169	282.04	0.80	-30.369	345.04	0.80
0.85	-37.700	679.24	0.85	-35.870	753.64	0.85	-34.040	740.64	0.85	-32.210	287.64	0.85	-30.410	350.64	0.85
0.90	-37.741	745.15	0.90	-35.911	819.24	0.90	-34.081	806.24	0.90	-32.251	293.24	0.90	-30.451	356.24	0.90
0.95	-37.782	811.06	0.95	-35.952	884.84	0.95	-34.122	871.84	0.95	-32.292	298.84	0.95	-30.492	361.84	0.95
1.00	-37.823	876.97	1.00	-35.993	950.44	1.00	-34.163	937.44	1.00	-32.333	304.44	1.00	-30.533	367.44	1.00

Table 170. Azimuthal Magnetic Field (Poorly Conducting Soil), Frequency = 0.1 MHz, VED Height = 0.00 m

300.0 NM DOWNRANGE				100.0 NM DOWNRANGE				300.0 NM DOWNRANGE			
HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)	HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)
0.000	-6.940	-41.02	0.000	-6.473	-74.47	0.000	-6.725	0.000	-6.725	-120.36	0.000
0.030	-6.800	-41.03	0.100	-6.365	-73.01	0.100	-6.996	0.100	-6.996	-118.37	0.100
0.060	-6.675	-41.03	0.200	-6.264	-71.15	0.200	-7.261	0.200	-7.261	-116.30	0.200
0.100	-6.562	-41.03	0.300	-6.174	-68.48	0.300	-7.511	0.300	-7.511	-114.16	0.300
0.150	-6.469	-41.03	0.400	-6.096	-65.00	0.400	-7.746	0.400	-7.746	-111.96	0.400
0.200	-6.393	-40.84	0.500	-6.026	-61.12	0.500	-7.970	0.500	-7.970	-109.70	0.500
0.250	-6.331	-40.64	0.600	-5.968	-57.04	0.600	-8.177	0.600	-8.177	-107.39	0.600
0.300	-6.280	-40.44	0.700	-5.924	-52.84	0.700	-8.368	0.700	-8.368	-105.03	0.700
0.350	-6.239	-40.24	0.800	-5.891	-48.54	0.800	-8.542	0.800	-8.542	-102.63	0.800
0.400	-6.207	-39.94	0.900	-5.866	-44.14	0.900	-8.699	0.900	-8.699	-100.21	0.900
0.450	-6.184	-39.64	1.000	-5.846	-39.64	1.000	-8.837	1.000	-8.837	-97.76	1.000
0.500	-6.169	-39.34	1.100	-5.821	-35.14	1.100	-8.956	1.100	-8.956	-95.31	1.100
0.550	-6.153	-39.04	1.200	-5.801	-30.64	1.200	-9.068	1.200	-9.068	-92.85	1.200
0.600	-6.136	-38.74	1.300	-5.776	-26.14	1.300	-9.163	1.300	-9.163	-90.41	1.300
0.650	-6.118	-38.44	1.400	-5.756	-21.64	1.400	-9.243	1.400	-9.243	-87.99	1.400
0.700	-6.100	-38.14	1.500	-5.731	-17.14	1.500	-9.309	1.500	-9.309	-85.60	1.500
0.750	-6.081	-37.84	1.600	-5.701	-12.64	1.600	-9.362	1.600	-9.362	-83.24	1.600
0.800	-6.062	-37.54	1.700	-5.676	-8.14	1.700	-9.403	1.700	-9.403	-80.93	1.700
0.850	-6.043	-37.24	1.800	-5.646	-3.64	1.800	-9.432	1.800	-9.432	-78.67	1.800
0.900	-6.024	-36.94	1.900	-5.616	0.84	1.900	-9.452	1.900	-9.452	-76.46	1.900
0.950	-6.005	-36.64	2.000	-5.586	6.34	2.000	-9.462	2.000	-9.462	-74.32	2.000
1.000	-5.986	-36.34	2.100	-5.556	11.84	2.100	-9.468	2.100	-9.468	-72.25	2.100
1.050	-5.967	-36.04	2.200	-5.526	17.34	2.200	-9.468	2.200	-9.468	-70.24	2.200
1.100	-5.947	-35.74	2.300	-5.496	22.84	2.300	-9.463	2.300	-9.463	-68.29	2.300
1.150	-5.927	-35.44	2.400	-5.466	28.34	2.400	-9.453	2.400	-9.453	-66.42	2.400
1.200	-5.907	-35.14	2.500	-5.436	33.84	2.500	-9.438	2.500	-9.438	-64.62	2.500
1.250	-5.887	-34.84	2.600	-5.406	39.34	2.600	-9.418	2.600	-9.418	-62.89	2.600
1.300	-5.867	-34.54	2.700	-5.376	44.84	2.700	-9.393	2.700	-9.393	-61.23	2.700
1.350	-5.847	-34.24	2.800	-5.346	50.34	2.800	-9.363	2.800	-9.363	-59.64	2.800
1.400	-5.827	-33.94	2.900	-5.316	55.84	2.900	-9.328	2.900	-9.328	-58.11	2.900
1.450	-5.807	-33.64	3.000	-5.286	61.34	3.000	-9.288	3.000	-9.288	-56.64	3.000
1.500	-5.787	-33.34									
1.550	-5.767	-33.04									
1.600	-5.747	-32.74									
1.650	-5.727	-32.44									
1.700	-5.707	-32.14									
1.750	-5.687	-31.84									
1.800	-5.667	-31.54									
1.850	-5.647	-31.24									
1.900	-5.627	-30.94									
1.950	-5.607	-30.64									
2.000	-5.587	-30.34									
2.050	-5.567	-30.04									
2.100	-5.547	-29.74									
2.150	-5.527	-29.44									
2.200	-5.507	-29.14									
2.250	-5.487	-28.84									
2.300	-5.467	-28.54									
2.350	-5.447	-28.24									
2.400	-5.427	-27.94									
2.450	-5.407	-27.64									
2.500	-5.387	-27.34									
2.550	-5.367	-27.04									
2.600	-5.347	-26.74									
2.650	-5.327	-26.44									
2.700	-5.307	-26.14									
2.750	-5.287	-25.84									
2.800	-5.267	-25.54									
2.850	-5.247	-25.24									
2.900	-5.227	-24.94									
2.950	-5.207	-24.64									
3.000	-5.187	-24.34									

Table 171. Azimuthal Magnetic Field (Poorly Conducting Soil), Frequency = 0.1 MHz, VED Height = 2247.60 m

30.0 KM COUNTRANGE				100.0 KM COUNTRANGE				300.0 KM COUNTRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)
0.00	-1.953	-27.50	0.00	-3.944	-58.74	0.00	-8.455	-103.85	0.00	-8.455	-103.85
0.30	-1.981	-27.35	0.100	-4.037	-58.14	0.300	-8.730	-101.86	0.300	-8.730	-101.86
0.60	-2.009	-27.19	0.200	-4.127	-57.47	0.600	-9.093	-97.74	0.600	-9.093	-97.74
0.90	-2.037	-26.94	0.300	-4.215	-56.80	0.900	-9.265	-97.06	0.900	-9.265	-97.06
1.20	-2.064	-26.74	0.400	-4.301	-56.13	1.200	-9.483	-95.46	1.200	-9.483	-95.46
1.50	-2.092	-26.58	0.500	-4.384	-55.46	1.500	-9.706	-93.20	1.500	-9.706	-93.20
1.80	-2.119	-26.38	0.600	-4.468	-54.76	1.800	-9.917	-90.89	1.800	-9.917	-90.89
2.10	-2.146	-26.18	0.700	-4.545	-54.07	2.100	-10.111	-88.54	2.100	-10.111	-88.54
2.40	-2.173	-25.98	0.800	-4.623	-53.37	2.400	-10.289	-86.15	2.400	-10.289	-86.15
2.70	-2.200	-25.78	0.900	-4.698	-52.67	2.700	-10.450	-83.73	2.700	-10.450	-83.73
3.00	-2.226	-25.58	1.000	-4.770	-51.97	3.000	-10.593	-81.24	3.000	-10.593	-81.24
3.30	-2.253	-25.38	1.100	-4.841	-51.27	3.300	-10.719	-78.84	3.300	-10.719	-78.84
3.60	-2.279	-25.18	1.200	-4.910	-50.56	3.600	-10.825	-76.39	3.600	-10.825	-76.39
3.90	-2.305	-24.96	1.300	-4.976	-49.86	3.900	-10.919	-73.95	3.900	-10.919	-73.95
4.20	-2.331	-24.77	1.400	-5.040	-49.15	4.200	-10.993	-71.53	4.200	-10.993	-71.53
4.50	-2.357	-24.57	1.500	-5.102	-48.44	4.500	-11.051	-69.13	4.500	-11.051	-69.13
4.80	-2.383	-24.37	1.600	-5.161	-47.73	4.800	-11.093	-66.77	4.800	-11.093	-66.77
5.10	-2.409	-24.17	1.700	-5.219	-47.02	5.100	-11.120	-64.45	5.100	-11.120	-64.45
5.40	-2.434	-23.97	1.800	-5.275	-46.32	5.400	-11.133	-62.19	5.400	-11.133	-62.19
5.70	-2.460	-23.77	1.900	-5.328	-45.61	5.700	-11.133	-59.97	5.700	-11.133	-59.97
6.00	-2.485	-23.56	2.000	-5.379	-44.90	6.000	-11.120	-57.82	6.000	-11.120	-57.82
6.30	-2.510	-23.36	2.100	-5.429	-44.20	6.300	-11.097	-55.73	6.300	-11.097	-55.73
6.60	-2.535	-23.16	2.200	-5.476	-43.50	6.600	-11.064	-53.70	6.600	-11.064	-53.70
6.90	-2.560	-22.96	2.300	-5.521	-42.80	6.900	-11.022	-51.75	6.900	-11.022	-51.75
7.20	-2.585	-22.76	2.400	-5.565	-42.11	7.200	-10.972	-49.86	7.200	-10.972	-49.86
7.50	-2.610	-22.56	2.500	-5.608	-41.42	7.500	-10.916	-48.03	7.500	-10.916	-48.03
7.80	-2.635	-22.36	2.600	-5.646	-40.73	7.800	-10.853	-46.28	7.800	-10.853	-46.28
8.10	-2.659	-22.16	2.700	-5.684	-40.05	8.100	-10.786	-44.60	8.100	-10.786	-44.60
8.40	-2.684	-21.96	2.800	-5.720	-39.37	8.400	-10.714	-42.98	8.400	-10.714	-42.98
8.70	-2.708	-21.76	2.900	-5.755	-38.70	8.700	-10.638	-41.42	8.700	-10.638	-41.42
9.00	-2.733	-21.56	3.000	-5.788	-38.03	9.000	-10.559	-39.93	9.000	-10.559	-39.93
1.050	-2.853	-20.57	3.200	-5.929	-34.77	10.200	-10.142	-33.34	10.200	-10.142	-33.34
1.200	-2.972	-19.54	4.000	-6.035	-31.66	12.000	-9.719	-27.99	12.000	-9.719	-27.99
1.350	-3.091	-18.52	4.500	-6.114	-28.73	13.500	-9.318	-23.62	13.500	-9.318	-23.62
1.500	-3.208	-17.50	5.000	-6.171	-25.98	15.000	-8.953	-19.99	15.000	-8.953	-19.99
1.650	-3.325	-16.71	5.500	-6.212	-23.42	16.500	-8.626	-16.94	16.500	-8.626	-16.94
1.800	-3.443	-15.76	6.000	-6.240	-21.03	18.000	-8.343	-13.34	18.000	-8.343	-13.34
1.950	-3.561	-14.86	6.500	-6.262	-18.81	19.500	-8.095	-10.09	19.500	-8.095	-10.09
2.100	-3.681	-13.96	7.000	-6.279	-16.74	21.000	-7.883	-8.37	21.000	-7.883	-8.37
2.250	-3.802	-13.07	7.500	-6.296	-14.83	22.500	-7.704	-6.80	22.500	-7.704	-6.80
2.400	-3.926	-12.19	8.000	-6.314	-13.05	24.000	-7.555	-5.38	24.000	-7.555	-5.38
2.550	-4.052	-11.33	8.500	-6.335	-11.39	25.500	-7.433	-4.08	25.500	-7.433	-4.08
2.700	-4.180	-10.48	9.000	-6.361	-9.84	27.000	-7.336	-2.87	27.000	-7.336	-2.87
2.850	-4.312	-9.65	9.500	-6.394	-8.38	28.500	-7.263	-1.75	28.500	-7.263	-1.75
3.000	-4.448	-8.82	10.000	-6.434	-7.01	30.000	-7.211	-0.75	30.000	-7.211	-0.75

Table 172. Azimuthal Magnetic Field (Poorly Conducting Soil), Frequency = 0.1 MHz, VED Height = 4495.20 m

30.0 KM UPHRANGE				100.0 KM UPHRANGE				300.0 KM UPHRANGE			
HEIGHT (KM)	AMP (UE)	PHASE (UEU)	MEIUNT (KM)	AMP (UE)	PHASE (UEU)	MEIUNT (KM)	AMP (UE)	MEIUNT (KM)	AMP (UE)	PHASE (UEU)	MEIUNT (KM)
0.00	-1.720	-17.79	0.000	-4.310	-44.45	0.000	-9.261	0.000	-9.261	-85.63	0.000
0.30	-1.700	-17.74	0.100	-4.400	-43.74	0.100	-9.530	0.300	-9.530	-83.84	0.300
0.60	-1.770	-17.59	0.200	-4.500	-43.12	0.200	-9.801	0.600	-9.801	-79.44	0.600
0.90	-1.603	-17.39	0.300	-4.590	-42.49	0.300	-10.050	0.900	-10.050	-77.25	0.900
1.20	-1.603	-17.19	0.400	-4.670	-41.77	0.400	-10.300	1.200	-10.300	-73.00	1.200
1.50	-1.603	-16.98	0.500	-4.760	-41.04	0.500	-10.531	1.500	-10.531	-70.00	1.500
1.80	-1.611	-16.78	0.600	-4.852	-40.31	0.600	-10.749	1.800	-10.749	-67.64	1.800
2.10	-1.615	-16.58	0.700	-4.937	-39.57	0.700	-10.953	2.100	-10.953	-70.34	2.100
2.40	-1.617	-16.37	0.800	-5.021	-38.82	0.800	-11.143	2.400	-11.143	-67.95	2.400
2.70	-1.620	-16.17	0.900	-5.103	-38.03	0.900	-11.317	2.700	-11.317	-65.53	2.700
3.00	-1.621	-15.97	1.000	-5.185	-37.23	1.000	-11.476	3.000	-11.476	-63.08	3.000
3.30	-1.624	-15.76	1.100	-5.264	-36.43	1.100	-11.619	3.300	-11.619	-60.62	3.300
3.60	-1.630	-15.56	1.200	-5.343	-35.62	1.200	-11.746	3.600	-11.746	-58.15	3.600
3.90	-1.634	-15.35	1.300	-5.421	-34.81	1.300	-11.858	3.900	-11.858	-55.68	3.900
4.20	-1.637	-15.15	1.400	-5.497	-34.00	1.400	-11.953	4.200	-11.953	-53.23	4.200
4.50	-1.641	-14.94	1.500	-5.572	-33.19	1.500	-12.034	4.500	-12.034	-50.79	4.500
4.80	-1.644	-14.74	1.600	-5.646	-32.38	1.600	-12.110	4.800	-12.110	-48.37	4.800
5.10	-1.646	-14.53	1.700	-5.719	-31.57	1.700	-12.181	5.100	-12.181	-45.99	5.100
5.40	-1.648	-14.33	1.800	-5.791	-30.76	1.800	-12.246	5.400	-12.246	-43.65	5.400
5.70	-1.650	-14.12	1.900	-5.862	-29.95	1.900	-12.310	5.700	-12.310	-41.36	5.700
6.00	-1.653	-13.92	2.000	-5.932	-29.14	2.000	-12.371	6.000	-12.371	-39.02	6.000
6.30	-1.657	-13.71	2.100	-6.001	-28.33	2.100	-12.428	6.300	-12.428	-36.79	6.300
6.60	-1.661	-13.50	2.200	-6.069	-27.52	2.200	-12.481	6.600	-12.481	-34.71	6.600
6.90	-1.665	-13.29	2.300	-6.135	-26.71	2.300	-12.531	6.900	-12.531	-32.70	6.900
7.20	-1.669	-13.09	2.400	-6.201	-25.90	2.400	-12.577	7.200	-12.577	-30.74	7.200
7.50	-1.673	-12.88	2.500	-6.267	-25.09	2.500	-12.620	7.500	-12.620	-28.85	7.500
7.80	-1.677	-12.67	2.600	-6.331	-24.28	2.600	-12.660	7.800	-12.660	-27.02	7.800
8.10	-1.681	-12.46	2.700	-6.395	-23.47	2.700	-12.699	8.100	-12.699	-25.25	8.100
8.40	-1.685	-12.25	2.800	-6.457	-22.66	2.800	-12.737	8.400	-12.737	-23.54	8.400
8.70	-1.689	-12.04	2.900	-6.519	-21.85	2.900	-12.774	8.700	-12.774	-21.84	8.700
9.00	-1.693	-11.83	3.000	-6.581	-21.04	3.000	-12.810	9.000	-12.810	-19.89	9.000
1.050	-3.621	-10.76	3.100	-6.640	-20.23	3.100	-12.846	10.500	-12.846	-17.84	10.500
1.200	-3.503	-9.58	3.200	-6.699	-19.42	3.200	-12.881	11.000	-12.881	-15.74	11.000
1.350	-3.376	-8.39	3.300	-6.754	-18.61	3.300	-12.914	11.500	-12.914	-13.59	11.500
1.500	-3.250	-7.21	3.400	-6.809	-17.80	3.400	-12.946	12.000	-12.946	-11.40	12.000
1.650	-3.125	-6.03	3.500	-6.864	-16.99	3.500	-12.978	12.500	-12.978	-9.16	12.500
1.800	-3.000	-4.85	3.600	-6.919	-16.18	3.600	-13.009	13.000	-13.009	-6.87	13.000
1.950	-2.875	-3.67	3.700	-6.974	-15.37	3.700	-13.039	13.500	-13.039	-4.53	13.500
2.100	-2.750	-2.49	3.800	-7.029	-14.56	3.800	-13.069	14.000	-13.069	-2.19	14.000
2.250	-2.625	-1.31	3.900	-7.084	-13.75	3.900	-13.099	14.500	-13.099	0.14	14.500
2.400	-2.500	-0.13	4.000	-7.139	-12.94	4.000	-13.129	15.000	-13.129	2.40	15.000
2.550	-2.375	0.05	4.100	-7.194	-12.13	4.100	-13.159	15.500	-13.159	4.65	15.500
2.700	-2.250	1.23	4.200	-7.249	-11.32	4.200	-13.189	16.000	-13.189	6.90	16.000
2.850	-2.125	2.41	4.300	-7.304	-10.51	4.300	-13.219	16.500	-13.219	9.15	16.500
3.000	-2.000	3.59	4.400	-7.359	-9.70	4.400	-13.249	17.000	-13.249	11.40	17.000
3.150	-1.875	4.77	4.500	-7.414	-8.89	4.500	-13.279	17.500	-13.279	13.65	17.500
3.300	-1.750	5.95	4.600	-7.469	-8.08	4.600	-13.309	18.000	-13.309	15.90	18.000
3.450	-1.625	7.13	4.700	-7.524	-7.27	4.700	-13.339	18.500	-13.339	18.15	18.500
3.600	-1.500	8.31	4.800	-7.579	-6.46	4.800	-13.369	19.000	-13.369	20.40	19.000
3.750	-1.375	9.49	4.900	-7.634	-5.65	4.900	-13.399	19.500	-13.399	22.65	19.500
3.900	-1.250	10.67	5.000	-7.689	-4.84	5.000	-13.429	20.000	-13.429	24.90	20.000
4.050	-1.125	11.85	5.100	-7.744	-4.03	5.100	-13.459	20.500	-13.459	27.15	20.500
4.200	-1.000	13.03	5.200	-7.799	-3.22	5.200	-13.489	21.000	-13.489	29.40	21.000
4.350	-0.875	14.21	5.300	-7.854	-2.41	5.300	-13.519	21.500	-13.519	31.65	21.500
4.500	-0.750	15.39	5.400	-7.909	-1.60	5.400	-13.549	22.000	-13.549	33.90	22.000
4.650	-0.625	16.57	5.500	-7.964	-0.79	5.500	-13.579	22.500	-13.579	36.15	22.500
4.800	-0.500	17.75	5.600	-8.019	0.02	5.600	-13.609	23.000	-13.609	38.40	23.000
4.950	-0.375	18.93	5.700	-8.074	0.81	5.700	-13.639	23.500	-13.639	40.65	23.500
5.100	-0.250	20.11	5.800	-8.129	1.60	5.800	-13.669	24.000	-13.669	42.90	24.000
5.250	-0.125	21.29	5.900	-8.184	2.39	5.900	-13.699	24.500	-13.699	45.15	24.500
5.400	0.000	22.47	6.000	-8.239	3.18	6.000	-13.729	25.000	-13.729	47.40	25.000
5.550	0.125	23.65	6.100	-8.294	3.97	6.100	-13.759	25.500	-13.759	49.65	25.500
5.700	0.250	24.83	6.200	-8.349	4.76	6.200	-13.789	26.000	-13.789	51.90	26.000
5.850	0.375	26.01	6.300	-8.404	5.55	6.300	-13.819	26.500	-13.819	54.15	26.500
6.000	0.500	27.19	6.400	-8.459	6.34	6.400	-13.849	27.000	-13.849	56.40	27.000
6.150	0.625	28.37	6.500	-8.514	7.13	6.500	-13.879	27.500	-13.879	58.65	27.500
6.300	0.750	29.55	6.600	-8.569	7.92	6.600	-13.909	28.000	-13.909	60.90	28.000
6.450	0.875	30.73	6.700	-8.624	8.71	6.700	-13.939	28.500	-13.939	63.15	28.500
6.600	0.999	31.91	6.800	-8.679	9.50	6.800	-13.969	29.000	-13.969	65.40	29.000
6.750	1.125	33.09	6.900	-8.734	10.29	6.900	-13.999	29.500	-13.999	67.65	29.500
6.900	1.250	34.27	7.000	-8.789	11.08	7.000	-14.029	30.000	-14.029	69.90	30.000
7.050	1.375	35.45	7.100	-8.844	11.87	7.100	-14.059	30.500	-14.059	72.15	30.500
7.200	1.500	36.63	7.200	-8.899	12.66	7.200	-14.089	31.000	-14.089	74.40	31.000
7.350	1.625	37.81	7.300	-8.954	13.45	7.300	-14.119	31.500	-14.119	76.65	31.500
7.500	1.750	38.99	7.400	-9.009	14.24	7.400	-14.149	32.000	-14.149	78.90	32.000
7.650	1.875	40.17	7.500	-9.064	15.03	7.500	-14.179	32.500	-14.179	81.15	32.500
7.800	2.000	41.35	7.600	-9.119	15.82	7.600	-14.209	33.000	-14.209	83.40	33.000
7.950	2.125	42.53	7.700	-9.174	16.61	7.700	-14.239	33.500	-14.239	85.65	33.500
8.100	2.250	43.71	7.800	-9.229	17.40	7.800	-14.269	34.000	-14.269	87.90	34.000
8.250	2.375	44.89	7.900	-9.284	18.19	7.900	-14.299	34.500	-14.299	90.15	34.500
8.400	2.500	46.07	8.000	-9.339	18.98	8.000	-14.329	35.000	-14.329	92.40	35.000
8.550	2.625	47.25	8.100	-9.394	19.77	8.100	-14.359	35.500	-14.359	94.65	35.500
8.700	2.750	48.43	8.200	-9.449	20.56	8.200	-14.389	36.000	-14.389	96.90	36.000
8.850	2.875	49.61	8.300	-9.504	21.35	8.300	-14.419	36.500	-14.419	99.15	36.500
9.000	3.000	50.79	8.400	-9.559	22.14	8.400	-14.449	37.000	-14.449	101.40	37.000
9.150	3.125	51.97	8.500	-9.614	22.93	8.500	-14.479	37.500	-14.479	103.65	37.500
9.300	3.250	53.15	8.600	-9.669	23.72	8.600	-14.509	38.000	-14.509	105.90	38.000
9.450	3.375	54.33	8.700	-9.724	24.51	8.700	-14.539	38.500	-14.539	108.15	38.500
9.600	3.500	55.51	8.800	-9.779	25.30	8.800	-14.569	39.000	-14.569	110.40	39.000
9.750	3.625	56.69	8.900	-9.834	26.09	8.900	-14.599	39.500	-14.599	112.65	39.500
9.900	3.750	57.87	9.000	-9.889	26.88	9.000	-14.629	40.000	-14.629	114.90	40.000
10.050	3.875	59.05	9.100	-9.944	27.67	9.100	-14.659	40.500	-14.659	117.15	40.500
10.200	4.000	60.23	9.200	-10.000	28.46	9.200	-14.689	41.000	-14.689	119.40	41.000
10.350	4.125	61.41	9.300	-10.055	29.25	9.300	-14.719	41.500	-14.719	121.65	41.500

Table 173. Azimuthal Magnetic Field (Poorly Conducting Soil), Frequency = 1.0 MHz, VED Height = 0.00 m

3.0 KM UPHRANGE				10.0 KM UPHRANGE				30.0 KM UPHRANGE				100.0 KM UPHRANGE			
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
0.03	-6.791	-93.26	0.03	-18.000	-131.39	0.03	-28.735	-149.62	0.03	-39.745	-147.46	0.03	-40.930	-120.40	0.03
0.06	-6.940	-94.57	0.06	-18.248	-129.26	0.06	-29.266	-147.34	0.06	-40.059	-92.52	0.06	-37.742	-74.16	0.06
0.09	-6.994	-95.88	0.09	-18.424	-126.80	0.09	-29.903	-129.81	0.09	-35.649	-61.43	0.09	-35.649	-61.43	0.09
0.12	-7.011	-96.48	0.12	-18.735	-124.65	0.12	-29.946	-116.07	0.12	-33.953	-34.10	0.12	-33.953	-34.10	0.12
0.15	-7.003	-97.17	0.15	-18.686	-119.30	0.15	-29.797	-103.52	0.15	-32.351	-49.21	0.15	-32.351	-49.21	0.15
0.18	-7.112	-97.80	0.18	-18.686	-116.67	0.18	-29.674	-95.49	0.18	-30.965	-45.74	0.18	-30.965	-45.74	0.18
0.21	-7.161	-98.36	0.21	-18.686	-114.01	0.21	-29.601	-88.19	0.21	-29.761	-43.15	0.21	-29.761	-43.15	0.21
0.24	-7.207	-98.85	0.24	-18.686	-111.32	0.24	-29.594	-81.73	0.24	-28.700	-41.15	0.24	-28.700	-41.15	0.24
0.27	-7.252	-99.29	0.27	-18.686	-108.61	0.27	-29.594	-75.05	0.27	-27.756	-39.55	0.27	-27.756	-39.55	0.27
0.30	-7.296	-99.68	0.30	-18.686	-105.90	0.30	-29.594	-68.35	0.30	-26.907	-38.23	0.30	-26.907	-38.23	0.30
0.33	-7.337	-99.97	0.33	-18.686	-103.20	0.33	-29.594	-61.65	0.33	-26.137	-36.19	0.33	-26.137	-36.19	0.33
0.36	-7.376	-99.97	0.36	-18.686	-100.51	0.36	-29.594	-55.01	0.36	-25.433	-34.06	0.36	-25.433	-34.06	0.36
0.39	-7.410	-99.97	0.39	-18.686	-97.80	0.39	-29.594	-48.35	0.39	-24.785	-32.94	0.39	-24.785	-32.94	0.39
0.42	-7.439	-99.97	0.42	-18.686	-95.09	0.42	-29.594	-41.65	0.42	-24.186	-31.82	0.42	-24.186	-31.82	0.42
0.45	-7.463	-99.97	0.45	-18.686	-92.38	0.45	-29.594	-35.01	0.45	-23.630	-30.70	0.45	-23.630	-30.70	0.45
0.48	-7.482	-99.97	0.48	-18.686	-89.67	0.48	-29.594	-28.35	0.48	-23.110	-29.58	0.48	-23.110	-29.58	0.48
0.51	-7.500	-99.97	0.51	-18.686	-86.96	0.51	-29.594	-21.65	0.51	-22.623	-28.47	0.51	-22.623	-28.47	0.51
0.54	-7.514	-99.97	0.54	-18.686	-84.25	0.54	-29.594	-15.00	0.54	-22.174	-27.34	0.54	-22.174	-27.34	0.54
0.57	-7.524	-99.97	0.57	-18.686	-81.54	0.57	-29.594	-8.35	0.57	-21.765	-26.20	0.57	-21.765	-26.20	0.57
0.60	-7.531	-99.97	0.60	-18.686	-78.83	0.60	-29.594	-1.65	0.60	-21.398	-25.07	0.60	-21.398	-25.07	0.60
0.63	-7.534	-99.97	0.63	-18.686	-76.12	0.63	-29.594	5.00	0.63	-21.070	-23.94	0.63	-21.070	-23.94	0.63
0.66	-7.534	-99.97	0.66	-18.686	-73.41	0.66	-29.594	11.35	0.66	-20.780	-22.80	0.66	-20.780	-22.80	0.66
0.69	-7.531	-99.97	0.69	-18.686	-70.70	0.69	-29.594	17.65	0.69	-20.520	-21.65	0.69	-20.520	-21.65	0.69
0.72	-7.524	-99.97	0.72	-18.686	-68.00	0.72	-29.594	23.90	0.72	-20.290	-20.50	0.72	-20.290	-20.50	0.72
0.75	-7.514	-99.97	0.75	-18.686	-65.29	0.75	-29.594	30.15	0.75	-20.090	-19.35	0.75	-20.090	-19.35	0.75
0.78	-7.500	-99.97	0.78	-18.686	-62.58	0.78	-29.594	36.40	0.78	-19.820	-18.20	0.78	-19.820	-18.20	0.78
0.81	-7.482	-99.97	0.81	-18.686	-59.87	0.81	-29.594	42.65	0.81	-19.580	-17.05	0.81	-19.580	-17.05	0.81
0.84	-7.463	-99.97	0.84	-18.686	-57.16	0.84	-29.594	48.90	0.84	-19.280	-15.90	0.84	-19.280	-15.90	0.84
0.87	-7.440	-99.97	0.87	-18.686	-54.45	0.87	-29.594	55.15	0.87	-18.930	-14.75	0.87	-18.930	-14.75	0.87
0.90	-7.410	-99.97	0.90	-18.686	-51.74	0.90	-29.594	61.40	0.90	-18.530	-13.60	0.90	-18.530	-13.60	0.90
0.93	-7.376	-99.97	0.93	-18.686	-49.03	0.93	-29.594	67.65	0.93	-18.080	-12.45	0.93	-18.080	-12.45	0.93
0.96	-7.337	-99.97	0.96	-18.686	-46.32	0.96	-29.594	73.90	0.96	-17.580	-11.30	0.96	-17.580	-11.30	0.96
0.99	-7.296	-99.97	0.99	-18.686	-43.61	0.99	-29.594	80.15	0.99	-17.030	-10.15	0.99	-17.030	-10.15	0.99
1.02	-7.252	-99.97	1.02	-18.686	-40.90	1.02	-29.594	86.40	1.02	-16.430	-9.00	1.02	-16.430	-9.00	1.02
1.05	-7.207	-99.97	1.05	-18.686	-38.19	1.05	-29.594	92.65	1.05	-15.780	-7.85	1.05	-15.780	-7.85	1.05
1.08	-7.161	-99.97	1.08	-18.686	-35.48	1.08	-29.594	98.90	1.08	-15.080	-6.70	1.08	-15.080	-6.70	1.08
1.11	-7.112	-99.97	1.11	-18.686	-32.77	1.11	-29.594	105.15	1.11	-14.330	-5.55	1.11	-14.330	-5.55	1.11
1.14	-7.061	-99.97	1.14	-18.686	-30.06	1.14	-29.594	111.40	1.14	-13.530	-4.40	1.14	-13.530	-4.40	1.14
1.17	-7.003	-99.97	1.17	-18.686	-27.35	1.17	-29.594	117.65	1.17	-12.680	-3.25	1.17	-12.680	-3.25	1.17
1.20	-6.940	-99.97	1.20	-18.686	-24.64	1.20	-29.594	123.90	1.20	-11.780	-2.10	1.20	-11.780	-2.10	1.20
1.23	-6.875	-99.97	1.23	-18.686	-21.93	1.23	-29.594	130.15	1.23	-10.830	-0.95	1.23	-10.830	-0.95	1.23
1.26	-6.800	-99.97	1.26	-18.686	-19.22	1.26	-29.594	136.40	1.26	-9.830	0.20	1.26	-9.830	0.20	1.26
1.29	-6.715	-99.97	1.29	-18.686	-16.51	1.29	-29.594	142.65	1.29	-8.780	1.35	1.29	-8.780	1.35	1.29
1.32	-6.620	-99.97	1.32	-18.686	-13.80	1.32	-29.594	148.90	1.32	-7.680	2.50	1.32	-7.680	2.50	1.32
1.35	-6.515	-99.97	1.35	-18.686	-11.09	1.35	-29.594	155.15	1.35	-6.530	3.65	1.35	-6.530	3.65	1.35
1.38	-6.400	-99.97	1.38	-18.686	-8.38	1.38	-29.594	161.40	1.38	-5.330	4.80	1.38	-5.330	4.80	1.38
1.41	-6.275	-99.97	1.41	-18.686	-5.67	1.41	-29.594	167.65	1.41	-4.080	5.95	1.41	-4.080	5.95	1.41
1.44	-6.150	-99.97	1.44	-18.686	-2.96	1.44	-29.594	173.90	1.44	-2.780	7.10	1.44	-2.780	7.10	1.44
1.47	-6.015	-99.97	1.47	-18.686	-0.25	1.47	-29.594	180.15	1.47	-1.430	8.25	1.47	-1.430	8.25	1.47
1.50	-5.880	-99.97	1.50	-18.686	2.46	1.50	-29.594	186.40	1.50	-0.130	9.40	1.50	-0.130	9.40	1.50
1.53	-5.735	-99.97	1.53	-18.686	5.17	1.53	-29.594	192.65	1.53	1.180	10.55	1.53	1.180	10.55	1.53
1.56	-5.590	-99.97	1.56	-18.686	7.88	1.56	-29.594	198.90	1.56	2.430	11.70	1.56	2.430	11.70	1.56
1.59	-5.435	-99.97	1.59	-18.686	10.59	1.59	-29.594	205.15	1.59	3.680	12.85	1.59	3.680	12.85	1.59
1.62	-5.270	-99.97	1.62	-18.686	13.30	1.62	-29.594	211.40	1.62	4.930	13.99	1.62	4.930	13.99	1.62
1.65	-5.105	-99.97	1.65	-18.686	16.01	1.65	-29.594	217.65	1.65	6.180	15.14	1.65	6.180	15.14	1.65
1.68	-4.940	-99.97	1.68	-18.686	18.72	1.68	-29.594	223.90	1.68	7.430	16.29	1.68	7.430	16.29	1.68
1.71	-4.765	-99.97	1.71	-18.686	21.43	1.71	-29.594	230.15	1.71	8.680	17.44	1.71	8.680	17.44	1.71
1.74	-4.590	-99.97	1.74	-18.686	24.14	1.74	-29.594	236.40	1.74	9.930	18.59	1.74	9.930	18.59	1.74
1.77	-4.415	-99.97	1.77	-18.686	26.85	1.77	-29.594	242.65	1.77	11.180	19.74	1.77	11.180	19.74	1.77
1.80	-4.240	-99.97	1.80	-18.686	29.56	1.80	-29.594	248.90	1.80	12.430	20.89	1.80	12.430	20.89	1.80
1.83	-4.065	-99.97	1.83	-18.686	32.27	1.83	-29.594	255.15	1.83	13.680	22.04	1.83	13.680	22.04	1.83
1.86	-3.890	-99.97	1.86	-18.686	34.98	1.86	-29.594	261.40	1.86	14.930	23.19	1.86	14.930	23.19	1.86
1.89	-3.715	-99.97	1.89	-18.686	37.69	1.89	-29.594	267.65	1.89	16.180	24.34	1.89	16.180	24.34	1.89
1.92	-3.540	-99.97	1.92	-18.686	40.40	1.92	-29.594	273.90	1.92	17.430	25.49	1.92	17.430	25.49	1.92
1.95	-3.365	-99.97	1.95	-18.686	43.11	1.95	-29.594	280.15	1.95	18.680	26.64	1.95	18.680	26.64	1.95
1.98	-3.190	-99.97	1.98	-18.686	45.82	1.98	-29.594	286.40	1.98	19.930	27.79	1.98	19.930	27.79	1.98
2.01	-3.015	-99.97	2.01	-18.686	48.53	2.01	-29.594	292.65	2.01	21.180	28.94	2.01	21.180	28.94	2.01
2.04	-2.840	-99.97	2.04	-18.686	51.24	2.04	-29.594	298.90	2.04	22.430	30.09	2.04	22.430	30.09	2.04
2.07	-2.665	-99.97	2.07	-18.686	53.95	2.07	-29.594	305.15	2.07	23.680	31.24	2.07	23.680	31.24	2.07
2.10	-2.490	-99.97	2.10	-18.686	56.66	2.10	-29.594	311.40	2.10	24.930	32.39	2.10	24.930	32.39	2.10
2.13	-2.315	-99.97	2.13	-18.686	59.37	2.13	-29.594	317.65	2.13	26.180	33.54	2.13	26.180	33.54	2.13
2.16	-2.140	-99.97	2.16	-18.686	62.08	2.16	-29.594	323.90	2.16	27.430	34.69	2.16	27.430	34.69	2.16
2.19	-1.965	-99.97	2.19	-18.686	64.79	2.19	-29.594	330.15	2.19	28.680	35.84	2.19	28.680	35.84	2.19
2.22	-1.790	-99.97													

Table 175. Azimuthal Magnetic Field (Poorly Conducting Soil), Frequency = 1.0 MHz, VED Height = 449.52 m

3.0 KM UMRANGE				10.0 KM UMRANGE				30.0 KM UMRANGE				100.0 KM UMRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)
0.000	-7.014	-27.51	0.000	-14.993	-40.54	0.000	-24.365	-53.04	0.000	-34.079	-67.40	0.000	-44.079	-80.32	0.000
0.003	-7.070	-26.00	0.010	-15.170	-44.54	0.030	-24.914	-47.75	0.100	-35.061	-61.32	0.300	-45.061	-74.44	0.600
0.006	-7.126	-25.08	0.020	-15.345	-48.16	0.060	-25.314	-51.13	0.200	-35.115	-65.00	0.500	-45.115	-78.00	1.000
0.009	-7.180	-24.37	0.030	-15.508	-51.00	0.100	-25.565	-54.36	0.300	-35.170	-68.63	0.600	-45.170	-81.63	1.300
0.012	-7.233	-23.84	0.040	-15.658	-53.47	0.150	-25.844	-57.10	0.400	-35.224	-72.24	0.800	-45.224	-85.24	1.600
0.015	-7.285	-23.42	0.050	-15.793	-55.47	0.200	-26.108	-59.71	0.500	-35.278	-75.84	1.000	-45.278	-88.84	1.900
0.018	-7.340	-23.00	0.060	-15.912	-57.17	0.250	-26.355	-62.14	0.600	-35.331	-79.44	1.200	-45.331	-92.44	2.200
0.021	-7.395	-22.58	0.070	-16.014	-58.61	0.300	-26.582	-64.11	0.700	-35.384	-82.00	1.400	-45.384	-95.00	2.500
0.024	-7.447	-22.17	0.080	-16.098	-60.31	0.350	-26.793	-65.54	0.800	-35.437	-84.54	1.600	-45.437	-97.54	2.800
0.027	-7.499	-21.76	0.090	-16.165	-62.32	0.400	-26.987	-67.00	0.900	-35.489	-87.00	1.800	-45.489	-100.00	3.100
0.030	-7.550	-21.35	0.100	-16.212	-64.53	0.450	-27.164	-68.44	1.000	-35.541	-89.44	2.000	-45.541	-102.44	3.400
0.033	-7.600	-20.94	0.110	-16.241	-67.14	0.500	-27.323	-70.00	1.100	-35.593	-91.84	2.200	-45.593	-104.84	3.700
0.036	-7.650	-20.53	0.120	-16.252	-69.34	0.550	-27.473	-71.54	1.200	-35.645	-94.24	2.400	-45.645	-107.24	4.000
0.039	-7.699	-20.12	0.130	-16.244	-71.34	0.600	-27.614	-73.00	1.300	-35.697	-96.64	2.600	-45.697	-109.64	4.300
0.042	-7.748	-19.71	0.140	-16.219	-73.65	0.650	-27.747	-74.54	1.400	-35.749	-99.04	2.800	-45.749	-112.04	4.600
0.045	-7.796	-19.30	0.150	-16.177	-76.35	0.700	-27.872	-76.00	1.500	-35.801	-101.44	3.000	-45.801	-114.44	4.900
0.048	-7.843	-18.89	0.160	-16.114	-79.31	0.750	-27.989	-77.54	1.600	-35.853	-103.84	3.200	-45.853	-116.84	5.200
0.051	-7.889	-18.48	0.170	-16.047	-82.31	0.800	-28.100	-79.00	1.700	-35.905	-106.24	3.400	-45.905	-119.24	5.500
0.054	-7.935	-18.07	0.180	-15.962	-85.31	0.850	-28.205	-80.54	1.800	-35.957	-108.64	3.600	-45.957	-121.64	5.800
0.057	-7.981	-17.66	0.190	-15.862	-88.31	0.900	-28.305	-82.00	1.900	-36.009	-111.04	3.800	-46.009	-124.04	6.100
0.060	-8.025	-17.25	0.200	-15.752	-91.31	0.950	-28.400	-83.54	2.000	-36.061	-113.44	4.000	-46.061	-126.44	6.400
0.063	-8.069	-16.84	0.210	-15.633	-94.31	1.000	-28.491	-85.00	2.100	-36.113	-115.84	4.200	-46.113	-128.84	6.700
0.066	-8.112	-16.43	0.220	-15.505	-97.31	1.050	-28.577	-86.54	2.200	-36.165	-118.24	4.400	-46.165	-131.24	7.000
0.069	-8.155	-16.02	0.230	-15.369	-100.31	1.100	-28.659	-88.00	2.300	-36.217	-120.64	4.600	-46.217	-133.64	7.300
0.072	-8.198	-15.61	0.240	-15.224	-103.31	1.150	-28.737	-89.54	2.400	-36.269	-123.04	4.800	-46.269	-136.04	7.600
0.075	-8.241	-15.20	0.250	-15.071	-106.31	1.200	-28.811	-91.00	2.500	-36.321	-125.44	5.000	-46.321	-138.44	7.900
0.078	-8.284	-14.79	0.260	-14.910	-109.31	1.250	-28.881	-92.54	2.600	-36.373	-127.84	5.200	-46.373	-140.84	8.200
0.081	-8.327	-14.38	0.270	-14.740	-112.31	1.300	-28.947	-94.00	2.700	-36.425	-130.24	5.400	-46.425	-143.24	8.500
0.084	-8.370	-13.97	0.280	-14.561	-115.31	1.350	-29.010	-95.54	2.800	-36.477	-132.64	5.600	-46.477	-145.64	8.800
0.087	-8.413	-13.56	0.290	-14.380	-118.31	1.400	-29.069	-97.00	2.900	-36.529	-135.04	5.800	-46.529	-148.04	9.100
0.090	-8.456	-13.15	0.300	-14.200	-121.31	1.450	-29.125	-98.54	3.000	-36.581	-137.44	6.000	-46.581	-150.44	9.400
0.093	-8.500	-12.74	0.310	-14.019	-124.31	1.500	-29.177	-100.00	3.100	-36.633	-139.84	6.200	-46.633	-152.84	9.700
0.096	-8.543	-12.33	0.320	-13.838	-127.31	1.550	-29.226	-101.54	3.200	-36.685	-142.24	6.400	-46.685	-155.24	10.000
0.099	-8.587	-11.92	0.330	-13.657	-130.31	1.600	-29.272	-103.00	3.300	-36.737	-144.64	6.600	-46.737	-157.64	10.300
0.102	-8.630	-11.51	0.340	-13.476	-133.31	1.650	-29.316	-104.54	3.400	-36.789	-147.04	6.800	-46.789	-160.04	10.600
0.105	-8.674	-11.10	0.350	-13.295	-136.31	1.700	-29.358	-106.00	3.500	-36.841	-149.44	7.000	-46.841	-162.44	10.900
0.108	-8.717	-10.69	0.360	-13.114	-139.31	1.750	-29.398	-107.54	3.600	-36.893	-151.84	7.200	-46.893	-164.84	11.200
0.111	-8.761	-10.28	0.370	-12.933	-142.31	1.800	-29.437	-109.00	3.700	-36.945	-154.24	7.400	-46.945	-167.24	11.500
0.114	-8.804	-9.87	0.380	-12.752	-145.31	1.850	-29.474	-110.54	3.800	-36.997	-156.64	7.600	-46.997	-169.64	11.800
0.117	-8.848	-9.46	0.390	-12.571	-148.31	1.900	-29.510	-112.00	3.900	-37.049	-159.04	7.800	-47.049	-172.04	12.100
0.120	-8.891	-9.05	0.400	-12.390	-151.31	1.950	-29.544	-113.54	4.000	-37.101	-161.44	8.000	-47.101	-174.44	12.400
0.123	-8.935	-8.64	0.410	-12.209	-154.31	2.000	-29.577	-115.00	4.100	-37.153	-163.84	8.200	-47.153	-176.84	12.700
0.126	-8.978	-8.23	0.420	-12.028	-157.31	2.050	-29.609	-116.54	4.200	-37.205	-166.24	8.400	-47.205	-179.24	13.000
0.129	-9.022	-7.82	0.430	-11.847	-160.31	2.100	-29.640	-118.00	4.300	-37.257	-168.64	8.600	-47.257	-181.64	13.300
0.132	-9.065	-7.41	0.440	-11.666	-163.31	2.150	-29.670	-119.54	4.400	-37.309	-171.04	8.800	-47.309	-184.04	13.600
0.135	-9.109	-7.00	0.450	-11.485	-166.31	2.200	-29.700	-121.00	4.500	-37.361	-173.44	9.000	-47.361	-186.44	13.900
0.138	-9.152	-6.59	0.460	-11.304	-169.31	2.250	-29.729	-122.54	4.600	-37.413	-175.84	9.200	-47.413	-188.84	14.200
0.141	-9.196	-6.18	0.470	-11.123	-172.31	2.300	-29.758	-124.00	4.700	-37.465	-178.24	9.400	-47.465	-191.24	14.500
0.144	-9.239	-5.77	0.480	-10.942	-175.31	2.350	-29.786	-125.54	4.800	-37.517	-180.64	9.600	-47.517	-193.64	14.800
0.147	-9.283	-5.36	0.490	-10.761	-178.31	2.400	-29.814	-127.00	4.900	-37.569	-183.04	9.800	-47.569	-196.04	15.100
0.150	-9.326	-4.95	0.500	-10.580	-181.31	2.450	-29.842	-128.54	5.000	-37.621	-185.44	10.000	-47.621	-198.44	15.400
0.153	-9.370	-4.54	0.510	-10.399	-184.31	2.500	-29.869	-130.00	5.100	-37.673	-187.84	10.200	-47.673	-200.84	15.700
0.156	-9.413	-4.13	0.520	-10.218	-187.31	2.550	-29.896	-131.54	5.200	-37.725	-190.24	10.400	-47.725	-203.24	16.000
0.159	-9.457	-3.72	0.530	-10.037	-190.31	2.600	-29.923	-133.00	5.300	-37.777	-192.64	10.600	-47.777	-205.64	16.300
0.162	-9.500	-3.31	0.540	-9.856	-193.31	2.650	-29.949	-134.54	5.400	-37.829	-195.04	10.800	-47.829	-208.04	16.600
0.165	-9.544	-2.90	0.550	-9.675	-196.31	2.700	-29.975	-136.00	5.500	-37.881	-197.44	11.000	-47.881	-210.44	16.900
0.168	-9.587	-2.49	0.560	-9.494	-199.31	2.750	-30.001	-137.54	5.600	-37.933	-199.84	11.200	-47.933	-212.84	17.200
0.171	-9.631	-2.08	0.570	-9.313	-202.31	2.800	-30.026	-139.00	5.700	-37.985	-202.24	11.400	-47.985	-215.24	17.500
0.174	-9.674	-1.67	0.580	-9.132	-205.31	2.850	-30.051	-140.54	5.800	-38.037	-204.64	11.600	-48.037	-217.64	17.800
0.177	-9.718	-1.26	0.590	-8.951	-208.31	2.900	-30.076	-142.00	5.900	-38.089	-207.04	11.800	-48.089	-220.04	18.100
0.180	-9.761	-0.85	0.600	-8.770	-211.31	2.950	-30.101	-143.54	6.000	-38.141	-209.44	12.000	-48.141	-222.44	18.400
0.183	-9.805	-0.44	0.610	-8.589	-214.31	3.000	-30.125	-145.00	6.100	-38.193	-211.84	12.200	-48.193	-224.84	18.700
0.186	-9.848	0.00	0.620	-8.408	-217.31	3.050	-30.149	-146.54	6.200	-38.245	-214.24	12.400	-48.245	-227.24	19.000
0.189	-9.892	0.41	0.630	-8.227	-220.31	3.100	-30.173	-148.00	6.300	-38.297	-216.64	12.600	-48.297	-229.64	19.300
0.192	-9.935	0.82	0.640	-8.046	-223.31	3.150	-30.197	-149.54	6.400	-38.349	-219.04	12.800	-48.349	-232.04	19.600
0.195	-9.979	1.23	0.650	-7.865	-226.31	3.200	-30.221	-151.00	6.500	-38.401	-221.44	13.000	-48.401	-234.44	19.900
0.198	-10.022	1.64	0.660	-7.684	-229.31	3.250	-30.245	-152.54	6.600	-38.453	-223.84	13.200	-48.453	-236.84	20.200
0.201	-10.066	2.05	0.670	-7.503	-232.31	3.300	-30.269	-154.00	6.700	-38.505	-226.24	13.400	-48.505	-239.24	20.500
0.204	-10.109	2.46	0.680	-7.322	-235.31	3.350	-30.293	-155.54	6.800	-38.557	-228.64	13.600	-48.557	-241.64	20.800
0.207	-10.153	2.87	0.6												

Table 176. Azimuthal Magnetic Field (Poorly Conducting Soil), Frequency = 10.0 MHz, VED Height = 0.00 m

3.0 KM DOWNRANGE					10.0 KM DOWNRANGE					100.0 KM DOWNRANGE				
MEIUMT (NM)	AMP (DB)	PHASE (DEG)	MEIUMT (NM)	AMP (DB)	PHASE (DEG)	MEIUMT (NM)	AMP (DB)	PHASE (DEG)	MEIUMT (NM)	AMP (DB)	PHASE (DEG)	MEIUMT (NM)	AMP (DB)	PHASE (DEG)
.000	-34.911	-98.01	.000	-45.594	-98.17	.000	-54.949	-98.78	.000	-65.411	-98.99	.000	-65.411	-98.99
.003	-34.866	-98.30	.010	-44.290	-98.30	.030	-48.718	-98.33	.100	-49.517	-98.04	.200	-49.517	-98.04
.006	-34.576	-98.06	.020	-44.042	-98.21	.060	-49.014	-98.08	.300	-49.554	-7.49	.400	-49.554	-7.49
.009	-34.044	-98.35	.030	-39.211	-98.08	.120	-37.574	-98.23	.500	-37.585	-6.71	.600	-37.585	-6.71
.012	-33.357	-98.71	.040	-37.136	-98.23	.150	-35.411	-98.08	.700	-35.411	-5.92	.800	-35.411	-5.92
.015	-36.397	-98.23	.050	-35.411	-98.08	.180	-33.923	-98.04	.900	-33.923	-5.92	1.000	-33.923	-5.92
.018	-31.013	-98.68	.060	-33.923	-98.04	.210	-32.813	-98.01	1.100	-32.813	-5.51	1.200	-32.813	-5.51
.021	-31.036	-98.08	.070	-32.813	-98.01	.240	-31.686	-98.05	1.300	-31.686	-5.37	1.400	-31.686	-5.37
.024	-29.568	-98.24	.080	-31.686	-98.05	.270	-30.886	-98.01	1.500	-30.886	-5.25	1.600	-30.886	-5.25
.027	-29.568	-98.08	.090	-30.886	-98.01	.300	-29.798	-98.07	1.700	-29.798	-5.15	1.800	-29.798	-5.15
.030	-28.886	-98.30	.100	-29.798	-98.07	.330	-28.997	-98.07	1.900	-28.997	-5.07	2.000	-28.997	-5.07
.033	-28.886	-98.08	.110	-28.997	-98.07	.360	-28.269	-98.07	2.100	-28.269	-4.94	2.200	-28.269	-4.94
.036	-27.042	-98.24	.120	-28.269	-98.07	.390	-27.586	-98.05	2.300	-27.586	-4.83	2.400	-27.586	-4.83
.039	-27.042	-98.08	.130	-27.586	-98.05	.420	-26.944	-98.03	2.500	-26.944	-4.78	2.600	-26.944	-4.78
.042	-26.233	-98.72	.140	-26.944	-98.03	.450	-26.412	-98.03	2.700	-26.412	-4.74	2.800	-26.412	-4.74
.045	-26.233	-98.08	.150	-26.412	-98.03	.480	-25.879	-98.01	2.900	-25.879	-4.66	3.000	-25.879	-4.66
.048	-25.543	-98.14	.160	-25.879	-98.01	.510	-25.371	-98.01	3.100	-25.371	-4.59	3.200	-25.371	-4.59
.051	-25.543	-98.08	.170	-25.371	-98.01	.540	-24.910	-98.01	3.300	-24.910	-4.50	3.400	-24.910	-4.50
.054	-24.853	-98.30	.180	-24.910	-98.01	.570	-24.460	-98.01	3.500	-24.460	-4.45	3.600	-24.460	-4.45
.057	-24.853	-98.08	.190	-24.460	-98.01	.600	-24.009	-98.01	3.700	-24.009	-4.40	3.800	-24.009	-4.40
.060	-24.042	-98.72	.200	-24.009	-98.01	.630	-23.559	-98.01	3.900	-23.559	-4.38	4.000	-23.559	-4.38
.063	-23.473	-98.24	.210	-23.559	-98.01	.660	-23.276	-98.01	4.100	-23.276	-4.36	4.200	-23.276	-4.36
.066	-23.473	-98.08	.220	-23.276	-98.01	.690	-22.917	-98.01	4.300	-22.917	-4.33	4.400	-22.917	-4.33
.069	-22.813	-98.68	.230	-22.917	-98.01	.720	-22.574	-98.01	4.500	-22.574	-4.30	4.600	-22.574	-4.30
.072	-22.813	-98.08	.240	-22.574	-98.01	.750	-22.247	-98.01	4.700	-22.247	-4.28	4.800	-22.247	-4.28
.075	-22.042	-98.24	.250	-22.247	-98.01	.780	-21.933	-98.01	4.900	-21.933	-4.25	5.000	-21.933	-4.25
.078	-22.042	-98.08	.260	-21.933	-98.01	.810	-21.633	-98.01	5.100	-21.633	-4.23	5.200	-21.633	-4.23
.081	-21.273	-98.72	.270	-21.633	-98.01	.840	-21.343	-98.01	5.300	-21.343	-4.20	5.400	-21.343	-4.20
.084	-21.273	-98.08	.280	-21.343	-98.01	.870	-21.065	-98.01	5.500	-21.065	-4.17	5.600	-21.065	-4.17
.087	-20.463	-98.24	.290	-21.065	-98.01	.900	-20.798	-98.01	5.700	-20.798	-4.15	5.800	-20.798	-4.15
.090	-20.463	-98.08	.300	-20.798	-98.01	1.000	-20.463	-98.01	5.900	-20.463	-4.12	6.000	-20.463	-4.12
.105	-17.544	-98.68	.350	-19.547	-98.17	1.050	-19.547	-98.17	6.500	-19.547	-4.28	7.000	-19.547	-4.28
.120	-16.556	-98.24	.400	-18.570	-98.74	1.200	-18.570	-98.74	1.200	-18.570	-4.18	7.500	-18.570	-4.18
.135	-16.556	-98.08	.450	-17.679	-98.49	1.350	-17.679	-98.49	1.350	-17.679	-4.10	8.000	-17.679	-4.10
.150	-16.072	-98.30	.500	-16.894	-98.24	1.500	-16.894	-98.24	1.500	-16.894	-4.03	8.500	-16.894	-4.03
.165	-16.072	-98.08	.550	-16.195	-98.03	1.650	-16.195	-98.03	1.650	-16.195	-3.96	9.000	-16.195	-3.96
.180	-15.325	-98.24	.600	-15.500	-98.04	1.800	-15.500	-98.04	1.800	-15.500	-3.89	9.500	-15.500	-3.89
.195	-15.325	-98.08	.650	-15.000	-98.04	1.950	-15.000	-98.04	1.950	-15.000	-3.83	10.000	-15.000	-3.83
.210	-14.474	-98.68	.700	-14.468	-98.04	2.100	-14.468	-98.04	2.100	-14.468	-3.77	10.500	-14.468	-3.77
.225	-14.474	-98.08	.750	-14.000	-98.04	2.250	-14.000	-98.04	2.250	-14.000	-3.71	11.000	-14.000	-3.71
.240	-13.500	-98.24	.800	-13.572	-98.30	2.400	-13.572	-98.30	2.400	-13.572	-3.66	11.500	-13.572	-3.66
.255	-13.500	-98.08	.850	-13.104	-98.19	2.550	-13.104	-98.19	2.550	-13.104	-3.61	12.000	-13.104	-3.61
.270	-12.791	-98.72	.900	-12.745	-98.10	2.700	-12.745	-98.10	2.700	-12.745	-3.56	12.500	-12.745	-3.56
.285	-12.791	-98.08	.950	-12.447	-98.01	2.850	-12.447	-98.01	2.850	-12.447	-3.51	13.000	-12.447	-3.51
.300	-12.014	-98.24	1.000	-12.122	-98.72	3.000	-12.122	-98.72	3.000	-12.122	-3.46	13.500	-12.122	-3.46

Table 177. Azimuthal Magnetic Field (Poorly Conducting Soil), Frequency = 10.0 MHz, VED Height = 22.48 m

HEIGHT (KM)	3.0 KM DOWNRANGE			10.0 KM DOWNRANGE			30.0 KM DOWNRANGE			100.0 KM DOWNRANGE		
	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)
0.000	0.000	-30.662	-39.10	0.000	-41.043	-40.76	0.000	-50.567	-41.23	0.000	-61.018	-41.40
0.003	0.003	-30.635	-28.37	0.010	-39.935	-17.58	0.030	-39.013	24.21	0.100	-45.124	43.95
0.006	0.006	-30.462	-18.13	0.020	-37.335	13.20	0.060	-35.630	43.06	0.200	-59.161	48.55
0.009	0.009	-29.761	-8.92	0.030	-34.854	24.53	0.090	-33.191	43.61	0.300	-55.666	50.10
0.012	0.012	-29.095	-1.98	0.040	-32.779	31.16	0.120	-31.292	47.15	0.400	-53.192	50.88
0.015	0.015	-28.333	5.69	0.050	-31.055	35.42	0.150	-29.741	48.15	0.500	-49.724	51.68
0.018	0.018	-27.548	11.24	0.060	-29.598	38.36	0.180	-28.432	48.94	0.700	-28.412	51.91
0.021	0.021	-26.771	15.84	0.070	-28.345	40.50	0.210	-27.301	49.50	0.800	-27.280	52.10
0.024	0.024	-26.000	19.68	0.080	-27.249	42.12	0.240	-26.306	49.94	0.900	-26.285	52.24
0.027	0.027	-25.204	22.69	0.090	-26.277	43.40	0.270	-25.419	50.30	1.000	-25.399	52.36
0.030	0.030	-24.425	25.62	0.100	-25.406	44.43	0.300	-24.620	50.60	1.100	-24.600	52.46
0.033	0.033	-23.684	27.94	0.110	-24.617	45.27	0.330	-23.892	50.85	1.200	-23.873	52.55
0.036	0.036	-23.000	29.95	0.120	-23.898	45.99	0.360	-23.225	51.07	1.300	-23.206	52.63
0.039	0.039	-22.361	31.69	0.130	-23.237	46.59	0.390	-22.610	51.25	1.400	-22.592	52.70
0.042	0.042	-21.764	33.22	0.140	-22.627	47.11	0.420	-22.040	51.42	1.500	-22.022	52.76
0.045	0.045	-21.208	34.56	0.150	-22.059	47.57	0.450	-21.508	51.57	1.600	-21.493	52.82
0.048	0.048	-20.686	35.75	0.160	-21.530	47.97	0.480	-21.010	51.70	1.700	-20.993	52.87
0.051	0.051	-20.204	36.82	0.170	-21.034	48.32	0.510	-20.543	51.82	1.800	-20.926	52.93
0.054	0.054	-19.760	37.78	0.180	-20.569	48.64	0.540	-20.102	51.93	1.900	-20.866	52.97
0.057	0.057	-19.359	38.65	0.190	-20.124	48.93	0.570	-19.688	52.03	2.000	-19.870	53.02
0.060	0.060	-18.999	39.44	0.200	-19.714	49.20	0.600	-19.292	52.13	2.100	-19.816	53.06
0.063	0.063	-18.676	40.15	0.210	-19.320	49.43	0.630	-18.917	52.21	2.200	-18.761	53.11
0.066	0.066	-18.380	40.81	0.220	-18.945	49.65	0.660	-18.560	52.30	2.300	-18.705	53.15
0.069	0.069	-18.100	41.41	0.230	-18.590	49.86	0.690	-18.220	52.37	2.400	-18.649	53.19
0.072	0.072	-17.820	41.97	0.240	-18.250	50.05	0.720	-17.895	52.45	2.500	-17.590	53.23
0.075	0.075	-17.551	42.49	0.250	-17.925	50.22	0.750	-17.584	52.52	2.600	-17.570	53.26
0.078	0.078	-17.291	42.97	0.260	-17.614	50.39	0.780	-17.286	52.59	2.700	-17.272	53.30
0.081	0.081	-17.042	43.42	0.270	-17.316	50.54	0.810	-16.990	52.65	2.800	-16.966	53.34
0.084	0.084	-16.794	43.81	0.280	-17.030	50.68	0.840	-16.725	52.71	2.900	-16.711	53.37
0.087	0.087	-16.557	44.22	0.290	-16.756	50.82	0.870	-16.481	52.77	3.000	-16.447	53.41
0.090	0.090	-16.339	44.59	0.300	-16.491	50.95	0.900	-16.257	52.83			
0.105	0.105	-15.335	46.14	0.350	-15.303	51.51	1.050	-15.273	53.05	3.500	-15.260	53.58
0.120	0.120	-14.342	47.35	0.400	-14.295	51.98	1.200	-14.255	53.30	4.000	-14.253	53.76
0.135	0.135	-13.461	48.33	0.450	-13.425	52.48	1.350	-13.306	53.53	4.500	-13.365	53.94
0.150	0.150	-12.677	49.15	0.500	-12.665	52.77	1.500	-12.637	53.76	5.000	-12.626	54.12
0.165	0.165	-11.960	49.85	0.550	-11.944	53.07	1.650	-11.966	54.21	5.500	-11.955	54.30
0.180	0.180	-11.305	50.48	0.600	-11.396	53.36	1.800	-11.369	54.44	6.000	-11.358	54.50
0.195	0.195	-10.732	51.05	0.650	-10.860	53.64	1.950	-10.834	54.67	6.500	-10.824	54.70
0.210	0.210	-10.251	51.57	0.700	-10.378	53.90	2.100	-10.352	54.91	7.000	-10.342	54.91
0.225	0.225	-9.819	52.05	0.750	-9.941	54.28	2.250	-9.916	55.15	7.500	-9.906	55.13
0.240	0.240	-9.439	52.51	0.800	-9.545	54.57	2.400	-9.520	55.41	8.000	-9.511	55.36
0.255	0.255	-9.059	52.96	0.850	-9.185	54.87	2.550	-9.160	55.61	8.500	-9.151	55.60
0.270	0.270	-8.731	53.39	0.900	-8.850	55.16	2.700	-8.831	55.87	9.000	-8.822	55.85
0.285	0.285	-8.431	53.81	0.950	-8.550	55.47	2.850	-8.531	56.11	9.500	-8.523	56.11
0.300	0.300	-8.156	54.22	1.000	-8.281	55.76	3.000	-8.257	56.22	10.000	-8.244	56.18

Table 178. Azimuthal Magnetic Field (Poorly Conducting Soil), Frequency = 10.0 MHz, VED Height = 44.95 m

3.0 KM DOWNRANGE					10.0 KM DOWNRANGE				
HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)	AMP (DB)	PHASE (DEG)	HEIGHT (KM)
0.000	-26.000	-22.40	0.000	-36.243	-23.191	0.000	-43.716	-24.36	0.000
0.003	-26.000	-11.08	0.010	-35.135	9.25	0.030	-39.485	41.08	0.100
0.006	-25.000	-1.44	0.020	-32.336	30.63	0.060	-34.165	54.91	0.200
0.009	-25.150	7.77	0.030	-30.025	41.37	0.090	-30.782	59.93	0.300
0.012	-24.404	15.76	0.040	-27.982	49.01	0.120	-28.344	62.48	0.400
0.015	-23.704	22.40	0.050	-26.256	52.27	0.150	-26.445	64.03	0.500
0.018	-22.941	27.95	0.060	-24.802	55.22	0.180	-24.895	65.08	0.600
0.021	-22.140	32.56	0.070	-23.550	57.36	0.210	-23.587	65.83	0.700
0.024	-21.390	36.41	0.080	-22.455	58.99	0.240	-22.458	66.40	0.800
0.027	-20.681	39.64	0.090	-21.485	60.28	0.270	-21.465	66.85	0.900
0.030	-20.005	42.36	0.100	-20.616	61.31	0.300	-20.580	67.21	1.000
0.033	-19.360	44.72	0.110	-19.830	62.17	0.330	-19.782	67.52	1.100
0.036	-18.744	46.74	0.120	-19.112	62.89	0.360	-19.707	67.78	1.200
0.039	-18.157	48.50	0.130	-18.454	63.51	0.390	-19.633	68.00	1.300
0.042	-17.602	50.04	0.140	-17.846	64.04	0.420	-19.560	68.20	1.400
0.045	-17.157	51.41	0.150	-17.281	64.51	0.450	-19.488	68.37	1.500
0.048	-16.800	52.62	0.160	-16.755	64.92	0.480	-19.417	68.53	1.600
0.051	-16.420	53.71	0.170	-16.262	65.29	0.510	-19.346	68.68	1.700
0.054	-16.059	54.66	0.180	-15.800	65.63	0.540	-19.275	68.81	1.800
0.057	-15.712	55.57	0.190	-15.364	65.93	0.570	-19.204	68.93	1.900
0.060	-15.379	56.38	0.200	-14.952	66.21	0.600	-19.133	69.05	2.000
0.063	-15.050	57.12	0.210	-14.562	66.46	0.630	-19.062	69.16	2.100
0.066	-14.724	57.80	0.220	-14.192	66.70	0.660	-19.000	69.26	2.200
0.069	-14.400	58.43	0.230	-13.841	66.92	0.690	-18.938	69.36	2.300
0.072	-14.077	59.01	0.240	-13.505	67.13	0.720	-18.876	69.46	2.400
0.075	-13.757	59.55	0.250	-13.185	67.32	0.750	-18.814	69.55	2.500
0.078	-13.439	60.05	0.260	-12.879	67.51	0.780	-18.752	69.64	2.600
0.081	-13.123	60.53	0.270	-12.587	67.69	0.810	-18.690	69.73	2.700
0.084	-12.809	60.97	0.280	-12.306	67.85	0.840	-18.628	69.81	2.800
0.087	-12.495	61.39	0.290	-12.036	68.01	0.870	-18.566	69.89	2.900
0.090	-12.181	61.79	0.300	-11.778	68.16	0.900	-18.504	69.97	3.000
0.105	-10.017	63.49	0.350	-10.621	68.85	1.050	-18.542	70.37	3.500
0.120	-9.659	64.86	0.400	-9.849	69.45	1.200	-18.573	70.75	4.000
0.135	-9.306	66.03	0.450	-9.021	70.02	1.350	-18.604	71.14	4.500
0.150	-8.956	67.05	0.500	-8.108	70.56	1.500	-18.634	71.54	5.000
0.165	-8.612	67.96	0.550	-7.208	71.09	1.650	-18.664	71.97	5.500
0.180	-8.274	68.86	0.600	-6.446	71.63	1.800	-18.694	72.41	6.000
0.195	-7.942	69.69	0.650	-5.722	72.18	1.950	-18.724	72.81	6.500
0.210	-7.616	70.50	0.700	-5.056	72.74	2.100	-18.754	73.37	7.000
0.225	-7.295	71.30	0.750	-4.440	73.32	2.250	-18.784	73.89	7.500
0.240	-6.979	72.09	0.800	-3.870	73.93	2.400	-18.814	74.44	8.000
0.255	-6.667	72.89	0.850	-3.344	74.56	2.550	-18.844	75.03	8.500
0.270	-6.359	73.70	0.900	-2.864	75.22	2.700	-18.874	75.65	9.000
0.285	-6.054	74.51	0.950	-2.428	75.92	2.850	-18.904	76.30	9.500
0.300	-5.751	75.36	1.000	-2.034	76.64	3.000	-18.934	77.00	10.000

Table 179. Azimuthal Magnetic Field (Poorly Conducting Soil), Frequency = 100.0 MHz, VED Height = 0.00 m

10.0 KM DOWNRANGE				30.0 KM DOWNRANGE			
HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)	PHASE (DEG)	HEIGHT (M)	AMP (DB)
.001	-43.319	-90.00	.001	-65.519	-90.82	.001	-75.001
.002	-44.119	-97.75	.002	-66.261	-98.44	.002	-75.001
.003	-44.507	-98.39	.003	-66.300	-98.44	.003	-75.001
.004	-44.507	-98.39	.004	-66.300	-98.44	.004	-75.001
.005	-44.507	-98.39	.005	-66.300	-98.44	.005	-75.001
.006	-44.507	-98.39	.006	-66.300	-98.44	.006	-75.001
.007	-44.507	-98.39	.007	-66.300	-98.44	.007	-75.001
.008	-44.507	-98.39	.008	-66.300	-98.44	.008	-75.001
.009	-44.507	-98.39	.009	-66.300	-98.44	.009	-75.001
.010	-44.507	-98.39	.010	-66.300	-98.44	.010	-75.001
.011	-44.507	-98.39	.011	-66.300	-98.44	.011	-75.001
.012	-44.507	-98.39	.012	-66.300	-98.44	.012	-75.001
.013	-44.507	-98.39	.013	-66.300	-98.44	.013	-75.001
.014	-44.507	-98.39	.014	-66.300	-98.44	.014	-75.001
.015	-44.507	-98.39	.015	-66.300	-98.44	.015	-75.001
.016	-44.507	-98.39	.016	-66.300	-98.44	.016	-75.001
.017	-44.507	-98.39	.017	-66.300	-98.44	.017	-75.001
.018	-44.507	-98.39	.018	-66.300	-98.44	.018	-75.001
.019	-44.507	-98.39	.019	-66.300	-98.44	.019	-75.001
.020	-44.507	-98.39	.020	-66.300	-98.44	.020	-75.001
.021	-44.507	-98.39	.021	-66.300	-98.44	.021	-75.001
.022	-44.507	-98.39	.022	-66.300	-98.44	.022	-75.001
.023	-44.507	-98.39	.023	-66.300	-98.44	.023	-75.001
.024	-44.507	-98.39	.024	-66.300	-98.44	.024	-75.001
.025	-44.507	-98.39	.025	-66.300	-98.44	.025	-75.001
.026	-44.507	-98.39	.026	-66.300	-98.44	.026	-75.001
.027	-44.507	-98.39	.027	-66.300	-98.44	.027	-75.001
.028	-44.507	-98.39	.028	-66.300	-98.44	.028	-75.001
.029	-44.507	-98.39	.029	-66.300	-98.44	.029	-75.001
.030	-44.507	-98.39	.030	-66.300	-98.44	.030	-75.001
.035	-44.507	-98.39	.035	-66.300	-98.44	.035	-75.001
.040	-44.507	-98.39	.040	-66.300	-98.44	.040	-75.001
.045	-44.507	-98.39	.045	-66.300	-98.44	.045	-75.001
.050	-44.507	-98.39	.050	-66.300	-98.44	.050	-75.001
.055	-44.507	-98.39	.055	-66.300	-98.44	.055	-75.001
.060	-44.507	-98.39	.060	-66.300	-98.44	.060	-75.001
.065	-44.507	-98.39	.065	-66.300	-98.44	.065	-75.001
.070	-44.507	-98.39	.070	-66.300	-98.44	.070	-75.001
.075	-44.507	-98.39	.075	-66.300	-98.44	.075	-75.001
.080	-44.507	-98.39	.080	-66.300	-98.44	.080	-75.001
.085	-44.507	-98.39	.085	-66.300	-98.44	.085	-75.001
.090	-44.507	-98.39	.090	-66.300	-98.44	.090	-75.001
.095	-44.507	-98.39	.095	-66.300	-98.44	.095	-75.001
.100	-44.507	-98.39	.100	-66.300	-98.44	.100	-75.001

Table 180. Azimuthal Magnetic Field (Poorly Conducting Soil), Frequency = 100.0 MHz, VED Height = 2.25 m

100 KM DOWNRANGE				300 KM DOWNRANGE				1000 KM DOWNRANGE				30.0 KM DOWNRANGE			
RLTHT	AMP	PHASE		RLTHT	AMP	PHASE		RLTHT	AMP	PHASE		RLTHT	AMP	PHASE	
(KM)	(DB)	(DEG)		(KM)	(DB)	(DEG)		(KM)	(DB)	(DEG)		(KM)	(DB)	(DEG)	
0.00	-40.000	-35.017		0.000	-50.330	55.064		0.000	-50.785	-35.081		0.000	-70.325	-35.05	
0.01	-38.761	-25.775		0.001	-38.740	55.771		0.010	-44.741	45.568		0.010	-44.828	51.50	
0.02	-36.767	15.444		0.002	-38.575	55.911		0.020	-38.820	50.07		0.020	-38.844	53.08	
0.03	-34.264	27.011		0.003	-36.240	44.68		0.030	-35.460	51.554		0.030	-35.552	53.59	
0.04	-32.271	33.627		0.004	-34.020	47.18		0.040	-32.801	52.55		0.040	-32.863	53.84	
0.05	-30.277	37.031		0.005	-31.942	48.60		0.050	-30.974	52.681		0.050	-30.974	54.00	
0.06	-28.280	37.031		0.006	-29.942	48.60		0.060	-28.911	53.533		0.060	-28.911	54.10	
0.07	-26.282	43.16		0.007	-28.100	50.34		0.070	-26.111	53.533		0.070	-26.420	54.10	
0.08	-24.282	43.16		0.008	-26.100	50.34		0.080	-24.111	53.533		0.080	-24.410	54.10	
0.09	-22.282	43.16		0.009	-24.100	50.34		0.090	-22.111	53.533		0.090	-22.509	54.10	
0.10	-20.282	43.16		0.010	-22.100	50.34		0.100	-20.111	53.533		0.100	-22.695	54.43	
0.11	-18.282	43.16		0.011	-20.100	50.34		0.110	-18.111	53.533		0.110	-21.125	54.46	
0.12	-16.282	43.16		0.012	-18.100	50.34		0.120	-16.111	53.533		0.120	-20.697	54.50	
0.13	-14.282	43.16		0.013	-16.100	50.34		0.130	-14.111	53.533		0.130	-20.230	54.51	
0.14	-12.282	43.16		0.014	-14.100	50.34		0.140	-12.111	53.533		0.140	-19.790	54.53	
0.15	-10.282	43.16		0.015	-12.100	50.34		0.150	-10.111	53.533		0.150	-19.374	54.55	
0.16	-8.282	43.16		0.016	-10.100	50.34		0.160	-8.111	53.533		0.160	-18.980	54.57	
0.17	-6.282	43.16		0.017	-8.100	50.34		0.170	-6.111	53.533		0.170	-18.606	54.58	
0.18	-4.282	43.16		0.018	-6.100	50.34		0.180	-4.111	53.533		0.180	-18.250	54.60	
0.19	-2.282	43.16		0.019	-4.100	50.34		0.190	-2.111	53.533		0.190	-17.910	54.61	
0.20	0.000	43.16		0.020	-2.100	50.34		0.200	0.000	53.533		0.200	-17.586	54.63	
0.21	2.282	43.16		0.021	0.000	50.34		0.210	2.111	53.533		0.210	-17.275	54.65	
0.22	4.282	43.16		0.022	2.100	50.34		0.220	4.111	53.533		0.220	-16.977	54.66	
0.23	6.282	43.16		0.023	4.100	50.34		0.230	6.111	53.533		0.230	-16.692	54.68	
0.24	8.282	43.16		0.024	6.100	50.34		0.240	8.111	53.533		0.240	-16.417	54.70	
0.25	10.282	43.16		0.025	8.100	50.34		0.250	10.111	53.533		0.250	-16.153	54.71	
0.26	12.282	43.16		0.026	10.100	50.34		0.260	12.111	53.533		0.260			
0.27	14.282	43.16		0.027	12.100	50.34		0.270	14.111	53.533		0.270			
0.28	16.282	43.16		0.028	14.100	50.34		0.280	16.111	53.533		0.280			
0.29	18.282	43.16		0.029	16.100	50.34		0.290	18.111	53.533		0.290			
0.30	20.282	43.16		0.030	18.100	50.34		0.300	20.111	53.533		0.300			
0.35	24.282	54.65		0.035	22.100	54.65		0.350	22.111	54.65		0.350	22.111	54.65	
0.40	28.282	54.65		0.040	26.100	54.65		0.400	26.111	54.65		0.400	26.111	54.65	
0.45	32.282	54.65		0.045	30.100	54.65		0.450	30.111	54.65		0.450	30.111	54.65	
0.50	36.282	54.65		0.050	34.100	54.65		0.500	34.111	54.65		0.500	34.111	54.65	
0.55	40.282	54.65		0.055	38.100	54.65		0.550	38.111	54.65		0.550	38.111	54.65	
0.60	44.282	54.65		0.060	42.100	54.65		0.600	42.111	54.65		0.600	42.111	54.65	
0.65	48.282	54.65		0.065	46.100	54.65		0.650	46.111	54.65		0.650	46.111	54.65	
0.70	52.282	54.65		0.070	50.100	54.65		0.700	50.111	54.65		0.700	50.111	54.65	
0.75	56.282	54.65		0.075	54.100	54.65		0.750	54.111	54.65		0.750	54.111	54.65	
0.80	60.282	54.65		0.080	58.100	54.65		0.800	58.111	54.65		0.800	58.111	54.65	
0.85	64.282	54.65		0.085	62.100	54.65		0.850	62.111	54.65		0.850	62.111	54.65	
0.90	68.282	54.65		0.090	66.100	54.65		0.900	66.111	54.65		0.900	66.111	54.65	
0.95	72.282	54.65		0.095	70.100	54.65		0.950	70.111	54.65		0.950	70.111	54.65	
1.00	76.282	54.65		0.100	74.100	54.65		1.000	74.111	54.65		1.000	74.111	54.65	

Table 181. Azimuthal Magnetic Field (Poorly Conducting Soil), Frequency = 100.0 MHz, VED Height = 4.50 m

1.0 KM DOWNRANGE				3.0 KM DOWNRANGE				10.0 KM DOWNRANGE				30.0 KM DOWNRANGE			
HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)	AMP (UB)	PHASE (DEG)	HEIGHT (KM)
0.000	-30.114	-19.35	0.000	-45.580	-19.77	0.000	-56.011	-19.92	0.000	-65.546	-19.96	0.000	-65.546	-19.96	0.000
0.001	-34.702	12.87	0.003	-39.038	42.59	0.010	-39.967	61.47	0.030	-40.049	67.45	0.100	-40.049	67.45	0.300
0.002	-32.050	32.25	0.006	-33.818	55.72	0.020	-34.051	63.96	0.060	-34.065	68.97	0.100	-34.065	68.97	0.300
0.003	-29.615	42.84	0.009	-30.483	60.50	0.030	-30.573	67.44	0.090	-30.574	69.48	0.120	-28.105	69.74	0.120
0.004	-27.582	49.09	0.012	-28.070	63.04	0.040	-28.108	68.74	0.120	-28.108	68.74	0.120	-28.108	68.74	0.120
0.005	-25.894	53.14	0.015	-26.187	64.34	0.050	-26.202	68.20	0.150	-26.197	69.90	0.150	-26.197	69.90	0.150
0.006	-24.401	55.95	0.018	-24.848	65.55	0.060	-24.850	69.02	0.180	-24.844	70.01	0.180	-24.844	70.01	0.180
0.007	-23.220	58.00	0.021	-23.347	66.26	0.070	-23.342	69.24	0.210	-23.335	70.09	0.210	-23.335	70.09	0.210
0.008	-22.148	59.57	0.024	-22.224	66.83	0.080	-22.213	69.41	0.240	-22.206	70.15	0.240	-22.206	70.15	0.240
0.009	-21.191	60.80	0.027	-21.235	67.26	0.090	-21.221	69.55	0.270	-21.214	70.21	0.270	-21.214	70.21	0.270
0.010	-20.331	61.80	0.030	-20.354	67.61	0.100	-20.337	69.66	0.300	-20.330	70.25	0.300	-20.330	70.25	0.300
0.011	-19.553	62.62	0.033	-19.559	67.90	0.110	-19.541	69.76	0.330	-19.534	70.29	0.330	-19.534	70.29	0.330
0.012	-18.843	63.32	0.036	-18.837	68.14	0.120	-18.817	69.84	0.360	-18.810	70.33	0.360	-18.810	70.33	0.360
0.013	-18.190	63.91	0.039	-18.174	68.35	0.130	-18.154	69.91	0.390	-18.147	70.36	0.390	-18.147	70.36	0.390
0.014	-17.597	64.42	0.042	-17.564	68.53	0.140	-17.543	69.98	0.420	-17.535	70.39	0.420	-17.535	70.39	0.420
0.015	-17.067	64.86	0.045	-17.027	68.69	0.150	-17.006	70.04	0.450	-17.000	70.43	0.450	-17.000	70.43	0.450
0.016	-16.500	65.26	0.048	-16.470	68.84	0.160	-16.448	70.10	0.480	-16.441	70.46	0.480	-16.441	70.46	0.480
0.017	-16.016	65.61	0.051	-16.000	68.97	0.170	-16.000	70.15	0.510	-16.000	70.49	0.510	-16.000	70.49	0.510
0.018	-15.557	65.92	0.054	-15.514	69.09	0.180	-15.500	70.20	0.540	-15.484	70.52	0.540	-15.484	70.52	0.540
0.019	-15.124	66.21	0.057	-15.078	69.20	0.190	-15.055	70.25	0.570	-15.048	70.55	0.570	-15.048	70.55	0.570
0.020	-14.715	66.47	0.060	-14.667	69.30	0.200	-14.643	70.29	0.600	-14.636	70.58	0.600	-14.636	70.58	0.600
0.021	-14.327	66.71	0.063	-14.277	69.40	0.210	-14.254	70.34	0.630	-14.246	70.61	0.630	-14.246	70.61	0.630
0.022	-13.959	66.93	0.066	-13.907	69.49	0.220	-13.884	70.38	0.660	-13.877	70.64	0.660	-13.877	70.64	0.660
0.023	-13.610	67.14	0.069	-13.556	69.57	0.230	-13.532	70.43	0.690	-13.525	70.67	0.690	-13.525	70.67	0.690
0.024	-13.276	67.33	0.072	-13.221	69.66	0.240	-13.197	70.47	0.720	-13.190	70.70	0.720	-13.190	70.70	0.720
0.025	-12.958	67.51	0.075	-12.902	69.73	0.250	-12.876	70.51	0.750	-12.871	70.74	0.750	-12.871	70.74	0.750
0.026	-12.654	67.68	0.078	-12.596	69.81	0.260	-12.572	70.56	0.780	-12.565	70.77	0.780	-12.565	70.77	0.780
0.027	-12.362	67.84	0.081	-12.304	69.88	0.270	-12.280	70.60	0.810	-12.273	70.80	0.810	-12.273	70.80	0.810
0.028	-12.083	67.99	0.084	-12.024	69.96	0.280	-12.000	70.64	0.840	-11.993	70.84	0.840	-11.993	70.84	0.840
0.029	-11.815	68.13	0.087	-11.755	70.03	0.290	-11.731	70.69	0.870	-11.724	70.88	0.870	-11.724	70.88	0.870
0.030	-11.558	68.27	0.090	-11.497	70.09	0.300	-11.473	70.73	0.900	-11.466	70.91	0.900	-11.466	70.91	0.900
0.035	-10.400	68.89	0.105	-10.344	70.42	0.350	-10.320	70.96	1.050	-10.313	71.11	1.050	-10.313	71.11	1.050
0.040	-9.440	69.43	0.120	-9.376	70.75	0.400	-9.352	71.20	1.200	-9.345	71.33	1.200	-9.345	71.33	1.200
0.045	-8.616	69.93	0.135	-8.551	71.07	0.450	-8.527	71.27	1.350	-8.520	71.58	1.350	-8.520	71.58	1.350
0.050	-7.900	70.41	0.150	-7.841	71.41	0.500	-7.817	71.76	1.500	-7.810	71.86	1.500	-7.810	71.86	1.500
0.055	-7.290	70.88	0.165	-7.225	71.77	0.550	-7.201	72.08	1.650	-7.194	72.17	1.650	-7.194	72.17	1.650
0.060	-6.752	71.35	0.180	-6.687	72.15	0.600	-6.664	72.42	1.800	-6.657	72.50	1.800	-6.657	72.50	1.800
0.065	-6.282	71.83	0.195	-6.217	72.55	0.650	-6.194	72.80	1.950	-6.187	72.87	1.950	-6.187	72.87	1.950
0.070	-5.870	72.33	0.210	-5.805	72.96	0.700	-5.782	73.20	2.100	-5.775	73.27	2.100	-5.775	73.27	2.100
0.075	-5.509	72.85	0.225	-5.445	73.44	0.750	-5.422	73.64	2.250	-5.415	73.70	2.250	-5.415	73.70	2.250
0.080	-5.193	73.40	0.240	-5.129	73.93	0.800	-5.107	74.11	2.400	-5.100	74.17	2.400	-5.100	74.17	2.400
0.085	-4.918	73.97	0.255	-4.855	74.45	0.850	-4.832	74.62	2.550	-4.826	74.67	2.550	-4.826	74.67	2.550
0.090	-4.681	74.57	0.270	-4.618	75.01	0.900	-4.595	75.16	2.700	-4.589	75.21	2.700	-4.589	75.21	2.700
0.095	-4.476	75.20	0.285	-4.413	75.60	0.950	-4.392	75.75	2.850	-4.385	75.79	2.850	-4.385	75.79	2.850
0.100	-4.303	75.87	0.300	-4.241	76.24	1.000	-4.219	76.37	3.000	-4.213	76.40	3.000	-4.213	76.40	3.000

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Appendix A

ELECTROMAGNETIC FIELD EQUATIONS

An elemental VED of moment $I\ell$ in air above a plane, homogeneous earth radiates transverse magnetic (TM) fields which can be represented in cylindrical coordinates by the three components

$$E_z = \frac{-ik_2 I\ell \eta_0}{4\pi} \left[\cos^2 \psi_D \frac{e^{-ik_2 D}}{D} + \Gamma_M \cos^2 \psi_R \frac{e^{-ik_2 R}}{R} + (1 - \Gamma_M)F(w) \cos^2 \psi_R \frac{e^{-ik_2 R}}{R} \right] \quad (A1)$$

$$E_\rho = \frac{-ik_2 I\ell \eta_0}{4\pi} \left[\sin \psi_D \cos \psi_D \frac{e^{-ik_2 D}}{D} - \Gamma_M \sin \psi_R \cos \psi_R \frac{e^{-ik_2 R}}{R} + (1 - \Gamma_M)F(w)\Delta_R \cos \psi_R \frac{e^{-ik_2 R}}{R} \right] \quad (A2)$$

and

$$H_{\phi} = \frac{ik_2 I f}{4\pi} \left[\cos \psi_D \frac{e^{-ik_2 D}}{D} + \Gamma_M \cos \psi_R \frac{e^{-ik_2 R}}{R} + (1 - \Gamma_M) F(w) \cos \psi_R \frac{e^{-ik_2 R}}{R} \right] \quad (A3)$$

where E_z is the vertical electric field, E_{ρ} is the radial electric field, and H_{ϕ} is the azimuthal magnetic field.⁷ Each component is expressed as the sum of three terms, corresponding to Norton's³ direct, reflected, and surface wave representation. Near field contributions and the $\exp(+i\omega t)$ time dependence have been omitted.

The geometry is given in Figure A1, where

d = downrange distance along $z = 0$ plane

h = VED height above $z = 0$

z = field point above $z = 0$

$D = [d^2 + (h - z)^2]^{1/2}$

$R = [d^2 + (h + z)^2]^{1/2}$

$\cos \psi_D = d/D$

$\cos \psi_R = d/R$

$\sin \psi_D = (h - z)/D$

and

$\sin \psi_R = (h + z)/R.$

The TM Fresnel reflection coefficient for parallel polarization,

$$\Gamma_M = (\sin \psi_R - \Delta_R) / (\sin \psi_R + \Delta_R)$$

where

$$\Delta_R = \frac{\mu_1 k_2}{\mu_2 k_1} \left[1 - \left(\frac{k_2}{k_1} \right)^2 \cos^2 \psi_R \right]^{1/2}$$

is the normalized surface impedance. The propagation constant in the air

$$k_2 = \frac{i\omega}{c} \sqrt{\kappa_2} \quad , \quad (z > 0)$$

while in the earth

$$k_1 = \frac{i\omega}{c} \left[\kappa_1 - i \frac{\sigma_1}{\omega \epsilon_0} \right]^{1/2} \quad , \quad (z < 0) \quad .$$

Also,

$$\mu_0 = 4\pi \times 10^{-7} \text{ H/m} = \text{permeability of free space}$$

$$\epsilon_0 = 8.854 \times 10^{-12} \text{ F/m} = \text{permittivity of free space}$$

$$\eta_0 = (\mu_0/\epsilon_0)^{1/2} = \text{impedance of free space}$$

$$\mu_1 = \text{earth permeability}$$

$$\kappa_1 = \text{earth relative permittivity} = \epsilon_1/\epsilon_0$$

$$\sigma_1 = \text{earth conductivity}$$

$$\mu_2 = \text{air permeability}$$

$$\kappa_2 = \text{air relative permittivity} = \epsilon_2/\epsilon_0$$

$$\omega = 2\pi f, \text{ where } f \text{ is the frequency (Hz), and}$$

$$c = 2.997 \times 10^8 \text{ m/sec.}$$

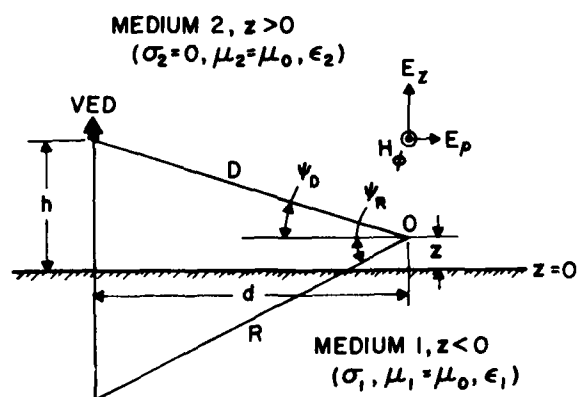


Figure A1. Geometry for the Field Equations, Showing the VED Source at Height h Above the $z = 0$ Plane and the Three Field Components E_z , E_ρ , and H_ϕ (Out of Paper) at Point O at Height z and Downrange Distance d

The attenuation function $F(w)$, which accounts for the effect of the lossy plane earth on the surface wave terms, can be written as

$$F(w) = 1 - i \sqrt{\pi w} e^{-w} \operatorname{erfc}(i \sqrt{w}) \quad (\text{A4})$$

where w , the so called 'numerical distance', is given by

$$w = \frac{-ik_2 R}{2 \cos^2 \psi_R} (\Delta_R + \sin \psi_R)^2 \quad (\text{A5})$$

and $\operatorname{erfc}(i \sqrt{w})$ is the complement of the error function of argument $i \sqrt{w}$.

Appendix B

RANGE OF APPLICABILITY

Equations (A1), (A2), and (A3) may be derived from the approximate Hertz potential

$$\Pi_z = \frac{e^{-ik_2 D}}{D} + \Gamma_M \frac{e^{-ik_2 R}}{R} + (1 - \Gamma_M) \frac{e^{-ik_2 R}}{R}$$

by multiplying Π_z by $-i\mu/4\pi\omega\epsilon_0$, applying

$$\vec{E} = \vec{\nabla} \vec{\nabla} \cdot \vec{\Pi} + k^2 \vec{\Pi}$$

$$\vec{H} = -\frac{k^2}{i\omega\mu_0} \vec{\nabla} \times \vec{\Pi}$$

and then discarding terms in ρ^{-2} or smaller. Since the fields must satisfy the wave equation

$$\vec{\nabla}^2 \vec{A} = k^2 \vec{A}, \quad (B1)$$

the restrictions imposed by the Hertz potential approximation may be found by inserting Eqs. (A1), (A2), and (A3) into Eq. (B1) and studying the remainder terms. It may be shown that these terms are negligible if

$$\sin \psi_R \ll |\Delta_R| \cdot \left| \frac{k_1}{k_2} \right|^4 \cdot \left| \frac{\mu_2}{\mu_1} \right|^2 \quad (B2)$$

and

$$|\sin \psi_R + \Delta_R|^2 \ll 1 \quad (B3)$$

More detailed discussion of these approximations may be found in King.⁷

Numerical values of the factors in Eqs. (B2) and (B3) for the five earth surfaces are given in Tables B1 to B5. These show that Eq. (B2) is satisfied for any value of ψ_R . On the other hand, since the phase of Δ_R for a smooth, homogeneous surface is confined within the range 0 degrees (for a nonconducting surface) to +45 degrees (for a good conductor), Eq. (B3) can be satisfied only if both

$$|\Delta_R|^2 \ll 1 \quad (B4)$$

and

$$\sin^2 \psi_R \ll 1 \quad (B5)$$

For all frequencies and surfaces considered, the tables show that Eq. (B4) is satisfied. Equation (B5) restricts ψ_R to about 20 degrees or so, but in deriving Eq. (A4) for $F(w)$, the more stringent condition⁷

$$(h + z)/d \ll 1 \quad (B6)$$

is used, which further limits ψ_R to 6 degrees or less. Consequently, the criterion adopted for this report is

$$(h + z)/d \leq 0.1 \quad (B7)$$

It should be noted that Eq. (B7) is probably much more restrictive than necessary since the surface wave terms rapidly become negligible compared to the combination of direct and reflected terms as ψ_R is increased.¹³

The minimum distance for which Eqs. (A1), (A2), and (A3) are valid is of the order of 10λ , because the static and induction fields were neglected. Earth curvature limits the maximum practical range. Norton⁸ suggests the plane surface TM equations are valid for distances $d < 80 f^{-1/3}$, where d is in kilometers and f is the frequency in Megahertz. These restrictions on d combined with the criterion of Eq. (B7) determine the trapezoidal areas shown in Figure B1.

Table B1. Propagation Parameters for $\sigma_1 = 4 \text{ S/m}$, $\kappa_1 = 80$ (Sea Water)

$f \text{ (Hz)}$	$ k_2 \text{ (m}^{-1}\text{)}$	$ k_1 \text{ (m}^{-1}\text{)}$	$ \Delta_R \approx \left \frac{k_2}{k_1} \right $	$ \Delta_R \cdot \left \frac{k_1}{k_2} \right ^4 \cdot \left \frac{\mu_2}{\mu_1} \right ^2$
10^5	2.10×10^{-3}	1.78	1.18×10^{-3}	6.10×10^8
10^6	2.10×10^{-2}	5.63	3.73×10^{-3}	1.93×10^7
10^7	2.10×10^{-1}	17.8	1.18×10^{-2}	6.10×10^5
10^8	2.10	56.3	3.73×10^{-2}	1.93×10^4

Table B2. Propagation Parameters for $\sigma_1 = 0.001 \text{ S/m}$, $\kappa_1 = 80$ (Fresh Water)

$f \text{ (Hz)}$	$ k_2 \text{ (m}^{-1}\text{)}$	$ k_1 \text{ (m}^{-1}\text{)}$	$ \Delta_R \approx \left \frac{k_2}{k_1} \right $	$ \Delta_R \cdot \left \frac{k_1}{k_2} \right ^4 \cdot \left \frac{\mu_2}{\mu_1} \right ^2$
10^5	2.10×10^{-3}	2.95×10^{-2}	7.12×10^{-2}	2.77×10^3
10^6	2.10×10^{-2}	1.90×10^{-1}	1.10×10^{-1}	7.43×10^2
10^7	2.10×10^{-1}	1.88	1.12×10^{-1}	7.16×10^2
10^8	2.10	18.8	1.12×10^{-1}	7.16×10^2

Table B3. Propagation Parameters for $\sigma_1 = 2 \times 10^{-5} \text{ S/m}$, $\kappa_1 = 5$ (Ice)

$f \text{ (Hz)}$	$ k_2 \text{ (m}^{-1}\text{)}$	$ k_1 \text{ (m}^{-1}\text{)}$	$ \Delta_R \approx \left \frac{k_2}{k_1} \right $	$ \Delta_R \cdot \left \frac{k_1}{k_2} \right ^4 \cdot \left \frac{\mu_2}{\mu_1} \right ^2$
10^5	2.10×10^{-3}	5.21×10^{-3}	4.03×10^{-1}	15.3
10^6	2.10×10^{-2}	4.70×10^{-2}	4.47×10^{-1}	11.2
10^7	2.10×10^{-1}	4.70×10^{-1}	4.47×10^{-1}	11.2
10^8	2.10	4.70	4.47×10^{-1}	11.2

Table B4. Propagation Parameters for $\sigma_1 = 0.01$ S/m, $\kappa_1 = 20$
(Well-Conducting Soil)

f (Hz)	$ k_2 $ (m ⁻¹)	$ k_1 $ (m ⁻¹)	$ \Delta_R \approx \left \frac{k_2}{k_1} \right $	$ \Delta_R \cdot \left \frac{k_1}{k_2} \right ^4 \cdot \left \frac{\mu_2}{\mu_1} \right ^2$
10^5	2.10×10^{-3}	8.90×10^{-2}	2.36×10^{-2}	7.61×10^4
10^6	2.10×10^{-2}	2.84×10^{-1}	7.41×10^{-2}	2.46×10^3
10^7	2.10×10^{-1}	1.09	1.93×10^{-1}	1.39×10^2
10^8	2.10	9.41	2.23×10^{-1}	9.02×10^1

Table B5. Propagation Parameters for $\sigma_1 = 0.001$ S/m, $\kappa_1 = 10$
(Poorly Conducting Soil)

f (Hz)	$ k_2 $ (m ⁻¹)	$ k_1 $ (m ⁻¹)	$ \Delta_R \approx \left \frac{k_2}{k_1} \right $	$ \Delta_R \cdot \left \frac{k_1}{k_2} \right ^4 \cdot \left \frac{\mu_2}{\mu_1} \right ^2$
10^5	2.10×10^{-3}	2.81×10^{-2}	7.46×10^{-2}	2.41×10^3
10^6	2.10×10^{-2}	9.53×10^{-2}	2.20×10^{-1}	9.36×10^1
10^7	2.10×10^{-1}	6.70×10^{-1}	3.13×10^{-1}	3.25×10^1
10^8	2.10	6.64	3.16×10^{-1}	3.16×10^1

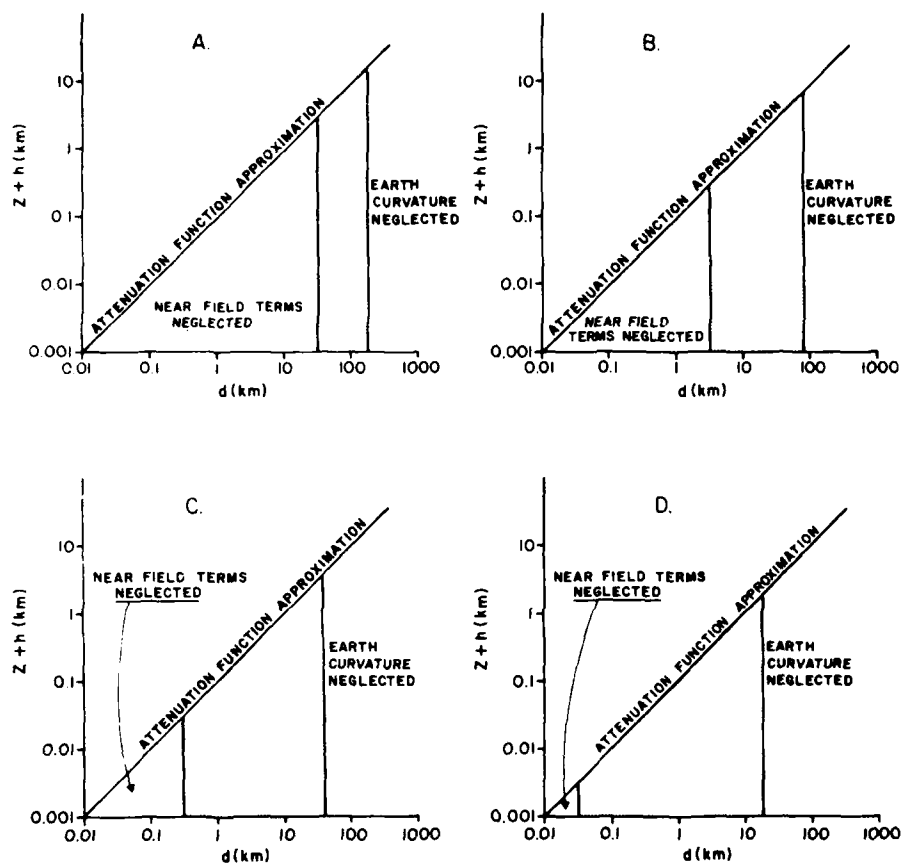


Figure B1. Regions of Validity for the Flat Earth Equations: A) 0.1 MHz, B) 1.0 MHz, C) 10 MHz, and D) 100 MHz

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