

Table 1. Path 1, 10 MHz (see graphs 1 and 2).

GROUND WAVE PROPAGATION OVER AN INHOMOGENEOUS EARTH
ON A BEARING OF, 160.000(DEG.) FROM 38.655(DEG. LAT.), 76.528(DEG. LONG.)

EPSILON = 8.10000+001, SIGMA = 2.00000+000, RE(EPSILONC) = 8.10000+001, IM(EPSILONC) = -3.60000+003
EPSILON1 = 1.50000+001, SIGMA1 = 2.00000+000, RE(EPSILONC1) = 1.50000+001, IM(EPSILONC1) = -3.60000+000
RE(Z) = 4.49211+000, IM(Z) = 4.39218+000, RE(Z1) = 9.53227+001, IM(Z1) = 1.12786+001

Y0 = 0.00000+000KM, Y1 = -9.99999+003KM, Y2 = 5.00000+001KM, R1 = 3.51500+001KM, R2 = 2.83000+001KM

FREQUENCY = 1.00000+001MHZ, WAVELENGTH = 2.99793+002KM

D (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
1.13200+000	38.645	76.524	9.82384-001	-1.83839+001	9.82384-001	-1.83839+001
2.26400+000	38.636	76.519	9.67181-001	-2.59475+001	9.67181-001	-2.59475+001
3.39600+000	38.626	76.515	9.52574-001	-3.17192+001	9.52574-001	-3.17192+001
4.52800+000	38.617	76.510	9.38382-001	-3.65588+001	9.38382-001	-3.65588+001
5.66000+000	38.607	76.506	9.24531-001	-4.00000+001	9.24531-001	-4.00000+001
6.79200+000	38.598	76.501	9.10981-001	-4.46140+001	9.10981-001	-4.46140+001
7.92400+000	38.588	76.497	8.97707-001	-4.81028+001	8.97707-001	-4.81028+001
9.05600+000	38.578	76.492	8.84690-001	-5.13329+001	8.84690-001	-5.13329+001
1.01880+001	38.569	76.488	8.71917-001	-5.43506+001	8.71917-001	-5.43506+001
1.13200+001	38.559	76.483	8.59376-001	-5.71897+001	8.59376-001	-5.71897+001
1.24520+001	38.550	76.479	8.47060-001	-5.98756+001	8.47060-001	-5.98756+001
1.35840+001	38.540	76.475	8.34959-001	-6.24282+001	8.34959-001	-6.24282+001
1.47160+001	38.531	76.470	8.23069-001	-6.48634+001	8.23069-001	-6.48634+001
1.58480+001	38.521	76.466	8.11381-001	-6.71938+001	8.11381-001	-6.71938+001
1.69800+001	38.511	76.461	7.99891-001	-6.94302+001	7.99891-001	-6.94302+001
1.81120+001	38.502	76.457	7.88595-001	-7.15814+001	7.88595-001	-7.15814+001
1.92440+001	38.492	76.452	7.77486-001	-7.36549+001	7.77486-001	-7.36549+001
2.03760+001	38.483	76.448	7.66562-001	-7.56572+001	7.66562-001	-7.56572+001
2.15080+001	38.473	76.443	7.55817-001	-7.75937+001	7.55817-001	-7.75937+001
2.26400+001	38.464	76.439	7.45249-001	-7.94694+001	7.45249-001	-7.94694+001
2.37720+001	38.454	76.435	7.34852-001	-8.12884+001	7.34852-001	-8.12884+001
2.49040+001	38.444	76.430	7.24624-001	-8.30546+001	7.24624-001	-8.30546+001
2.60360+001	38.435	76.426	7.14562-001	-8.47712+001	7.14562-001	-8.47712+001
2.71680+001	38.425	76.421	7.04662-001	-8.64412+001	7.04662-001	-8.64412+001
2.83000+001	38.416	76.417	6.94921-001	-8.80674+001	6.94921-001	-8.80674+001
2.94320+001	38.416	76.417	6.94921-001	-8.80674+001	6.94921-001	-8.80674+001
3.05640+001	38.413	76.415	6.92586-001	-8.84547+001	6.94668-001	-1.23222+002
3.16960+001	38.411	76.415	6.90261-001	-8.88396+001	6.96008-001	-1.27363+002
3.28280+001	38.409	76.414	6.87945-001	-8.92222+001	6.92222+001	-1.28840+002
3.39600+001	38.406	76.413	6.85638-001	-8.96024+001	6.96024+001	-1.29461+002
3.50920+001	38.404	76.411	6.83340-001	-8.99833+001	6.99833+001	-1.29729+002
3.62240+001	38.402	76.410	6.81051-001	-9.03559+001	6.81051-001	-1.29830+002
3.73560+001	38.399	76.409	6.78770-001	-9.07293+001	6.78770-001	-1.29847+002
3.84880+001	38.397	76.408	6.76499-001	-9.11004+001	6.76499-001	-1.29819+002
3.96200+001	38.395	76.407	6.74236-001	-9.14694+001	6.74236-001	-1.29768+002
4.07520+001	38.392	76.406	6.71982-001	-9.18362+001	6.71982-001	-1.29704+002
4.18840+001	38.390	76.405	6.69737-001	-9.22008+001	6.69737-001	-1.29635+002
4.30160+001	38.388	76.404	6.67501-001	-9.25634+001	6.67501-001	-1.29565+002
4.41480+001	38.385	76.403	6.65273-001	-9.29239+001	6.65273-001	-1.29494+002
4.52800+001	38.383	76.402	6.63054-001	-9.32823+001	6.63054-001	-1.29425+002
4.64120+001	38.381	76.401	6.60843-001	-9.36386+001	6.60843-001	-1.29357+002
4.75440+001	38.379	76.400	6.58641-001	-9.39930+001	6.58641-001	-1.29292+002
4.86760+001	38.376	76.399	6.56447-001	-9.43453+001	6.56447-001	-1.29229+002
4.98080+001	38.374	76.398	6.54262-001	-9.46957+001	6.54262-001	-1.29168+002
5.09400+001	38.372	76.396	6.52086-001	-9.50441+001	6.52086-001	-1.29109+002
5.20720+001	38.369	76.395	6.49917-001	-9.53907+001	6.49917-001	-1.29052+002
5.32040+001	38.367	76.394	6.47757-001	-9.57353+001	6.47757-001	-1.28995+002
5.43360+001	38.365	76.393	6.45606-001	-9.60780+001	6.45606-001	-1.28940+002
5.54680+001	38.362	76.392	6.43462-001	-9.64189+001	6.43462-001	-1.28885+002
5.66000+001	38.360	76.391	6.41327-001	-9.67579+001	6.41327-001	-1.28831+002
5.77320+001	38.358	76.390	6.39200-001	-9.70951+001	6.39200-001	-1.28776+002
5.88640+001	38.358	76.390	6.39200-001	-9.70951+001	6.39200-001	-1.28776+002
6.00000+001	38.358	76.390	6.39200-001	-9.70951+001	6.39200-001	-1.28776+002

Table 1 (cont.)

θ (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
3.52000+001	38.357	76.390	6.38813-001	-9.71564+001	2.37738-001	-6.34214+001
3.52500+001	38.357	76.390	6.38426-001	-9.72177+001	2.46543-001	-6.40643+001
3.53750+001	38.356	76.389	6.37460-001	-9.73706+001	2.62266-001	-6.47536+001
3.55000+001	38.355	76.389	6.36496-001	-9.75232+001	2.72707-001	-6.52935+001
3.56250+001	38.354	76.388	6.35533-001	-9.76753+001	2.81807-001	-6.55819+001
3.57500+001	38.353	76.388	6.34572-001	-9.78272+001	2.88944-001	-6.59517+001
3.58750+001	38.352	76.387	6.33612-001	-9.79786+001	2.95173-001	-6.61427+001
3.60000+001	38.350	76.387	6.32654-001	-9.81297+001	3.00342-001	-6.63356+001
3.65000+001	38.346	76.385	6.28844-001	-9.87304+001	3.16029-001	-6.71920+001
3.70000+001	38.342	76.383	6.25052-001	-9.93254+001	3.26096-001	-6.81131+001
3.75000+001	38.338	76.381	6.21291-001	-9.99148+001	3.33200-001	-6.90257+001
3.80000+001	38.334	76.379	6.17556-001	-1.00499+002	3.37921-001	-6.99651+001
3.85000+001	38.329	76.377	6.13847-001	-1.01077+002	3.41946-001	-7.10075+001
3.90000+001	38.325	76.375	6.10164-001	-1.01650+002	3.44776-001	-7.21194+001
3.95000+001	38.321	76.373	6.06507-001	-1.02218+002	3.46840-001	-7.31466+001
4.00000+001	38.317	76.371	6.02875-001	-1.02781+002	3.48771-001	-7.42156+001
4.10000+001	38.308	76.367	5.95687-001	-1.03892+002	3.51839-001	-7.63524+001
4.20000+001	38.300	76.363	5.88598-001	-1.04983+002	3.53693-001	-7.84391+001
4.30000+001	38.291	76.359	5.81607-001	-1.06055+002	3.55611-001	-8.04373+001
4.40000+001	38.283	76.355	5.74712-001	-1.07109+002	3.56514-001	-8.23222+001
4.50000+001	38.274	76.352	5.67913-001	-1.08145+002	3.57535-001	-8.41406+001
4.60000+001	38.266	76.348	5.61207-001	-1.09163+002	3.58163-001	-8.58453+001
4.70000+001	38.257	76.344	5.54593-001	-1.10165+002	3.58499-001	-8.74646+001
4.80000+001	38.249	76.340	5.48071-001	-1.11151+002	3.58380-001	-8.90139+001
4.90000+001	38.240	76.336	5.41637-001	-1.12121+002	3.58365-001	-9.04845+001
5.00000+001	38.232	76.332	5.35292-001	-1.13075+002	3.57853-001	-9.18717+001
5.10000+001	38.224	76.328	5.29034-001	-1.14014+002	3.57329-001	-9.32443+001
5.20000+001	38.215	76.324	5.22862-001	-1.14939+002	3.56503-001	-9.45641+001
5.30000+001	38.207	76.320	5.16773-001	-1.15849+002	3.55525-001	-9.58067+001
5.40000+001	38.198	76.317	5.10768-001	-1.16746+002	3.54281-001	-9.70452+001
5.50000+001	38.190	76.313	5.04845-001	-1.17629+002	3.52910-001	-9.81952+001
5.60000+001	38.181	76.309	4.99003-001	-1.18498+002	3.51656-001	-9.93324+001
6.10000+001	38.139	76.289	4.70962-001	-1.22857+002	3.42813-001	-1.04574+002
6.60000+001	38.097	76.270	4.44771-001	-1.26524+002	3.32323-001	-1.09202+002
7.10000+001	38.054	76.250	4.20302-001	-1.30128+002	3.20965-001	-1.13368+002
7.60000+001	38.012	76.231	3.97437-001	-1.33492+002	3.08877-001	-1.17174+002
8.10000+001	37.970	76.212	3.76064-001	-1.36635+002	2.96831-001	-1.20680+002
8.60000+001	37.927	76.192	3.56083-001	-1.39575+002	2.84672-001	-1.23913+002
9.10000+001	37.885	76.173	3.37397-001	-1.42326+002	2.72898-001	-1.26913+002
9.60000+001	37.843	76.154	3.19920-001	-1.44902+002	2.61398-001	-1.29725+002
1.01000+002	37.800	76.135	3.03570-001	-1.47314+002	2.50277-001	-1.32333+002
1.06000+002	37.758	76.115	2.88269-001	-1.49571+002	2.39675-001	-1.34761+002
1.11000+002	37.716	76.096	2.73949-001	-1.51685+002	2.29424-001	-1.37029+002
1.16000+002	37.673	76.077	2.60542-001	-1.53663+002	2.19694-001	-1.39158+002
1.21000+002	37.631	76.058	2.47987-001	-1.55513+002	2.10406-001	-1.41151+002
1.26000+002	37.588	76.039	2.36228-001	-1.57243+002	2.01616-001	-1.43016+002
1.31000+002	37.546	76.019	2.25210-001	-1.58859+002	1.93234-001	-1.44759+002
1.36000+002	37.504	76.000	2.14884-001	-1.60367+002	1.85299-001	-1.46396+002
1.41000+002	37.461	75.981	2.05204-001	-1.61775+002	1.77745-001	-1.47917+002
1.46000+002	37.419	75.962	1.96127-001	-1.63086+002	1.70597-001	-1.49349+002
1.51000+002	37.377	75.943	1.87612-001	-1.64307+002	1.63868-001	-1.50678+002

Table 2. Path 1, 15 MHz (see graphs 3 and 4).

GROUND WAVE PROPAGATION OVER AN INHOMOGENEOUS EARTH
ON A BEARING OF: 160.000(DEG.) FROM 38.655(DEG. LAT.), 76.528(DEG. LONG.)

EPSILON = 8.10000+001, SIGMA = 2.00000+000, RE(EPSILONC) = 8.10000+001, IM(EPSILONC) = -2.40000+003
EPSILON1 = 1.50000+001, SIGMA1 = 2.00000+003, RE(EPSILONC1) = 1.50000+001, IM(EPSILONC1) = -2.40000+000
RE(Z) = 5.53096+000, IM(Z) = 5.34744+000, RE(Z1) = 9.64236+001, IM(Z1) = 7.66514+000

Y0 = 0.00000+000KM, Y1 = -9.99999+003KM, Y2 = 5.00000+001KM, R1 = 3.51500+001KM, R2 = 2.83000+001KM

FREQUENCY = 1.50000+001MHZ, WAVELENGTH = 1.99862-002KM

D (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
1.13200+000	38.645	76.524	9.60891-001	-2.74810+001	9.60891-001	-2.74810+001
2.26400+000	38.636	76.519	9.27923-001	-3.86909+001	9.27923-001	-3.86909+001
3.39600+000	38.626	76.515	8.96918-001	-4.71843+001	8.96918-001	-4.71843+001
4.52800+000	38.617	76.510	8.67416-001	-5.42562+001	8.67416-001	-5.42562+001
5.66000+000	38.607	76.506	8.39210-001	-6.04098+001	8.39210-001	-6.04098+001
6.79200+000	38.598	76.501	8.12172-001	-6.59041+001	8.12172-001	-6.59041+001
7.92400+000	38.588	76.497	7.86212-001	-7.08935+001	7.86212-001	-7.08935+001
9.05600+000	38.578	76.492	7.61262-001	-7.54790+001	7.61262-001	-7.54790+001
1.01980+001	38.569	76.488	7.37261-001	-7.97308+001	7.37261-001	-7.97308+001
1.13200+001	38.559	76.483	7.14162-001	-8.37004+001	7.14162-001	-8.37004+001
1.24520+001	38.550	76.479	6.91918-001	-8.74266+001	6.91918-001	-8.74266+001
1.35840+001	38.540	76.475	6.70490-001	-9.09397+001	6.70490-001	-9.09397+001
1.47160+001	38.531	76.470	6.49842-001	-9.42640+001	6.49842-001	-9.42640+001
1.58480+001	38.521	76.466	6.29940-001	-9.74191+001	6.29940-001	-9.74191+001
1.69800+001	38.511	76.461	6.10752-001	-1.00421+002	6.10752-001	-1.00421+002
1.81120+001	38.502	76.457	5.92249-001	-1.03284+002	5.92249-001	-1.03284+002
1.92440+001	38.492	76.452	5.74403-001	-1.06020+002	5.74403-001	-1.06020+002
2.03760+001	38.483	76.448	5.57189-001	-1.08637+002	5.57189-001	-1.08637+002
2.15080+001	38.473	76.443	5.40580-001	-1.11146+002	5.40580-001	-1.11146+002
2.26400+001	38.464	76.439	5.24555-001	-1.13552+002	5.24555-001	-1.13552+002
2.37720+001	38.454	76.435	5.09089-001	-1.15864+002	5.09089-001	-1.15864+002
2.49040+001	38.444	76.430	4.94163-001	-1.18087+002	4.94163-001	-1.18087+002
2.60360+001	38.435	76.426	4.79756-001	-1.20225+002	4.79756-001	-1.20225+002
2.71680+001	38.425	76.421	4.65847-001	-1.22285+002	4.65847-001	-1.22285+002
2.83000+001	38.416	76.417	4.52420-001	-1.24269+002	4.52420-001	-1.24269+002
2.83000+001	38.416	76.417	4.52420-001	-1.24269+002	4.52420-001	-1.24269+002
2.85740+001	38.413	76.416	4.49240-001	-1.24739+002	4.49240-001	-1.24739+002
2.88480+001	38.411	76.415	4.46086-001	-1.25204+002	4.46086-001	-1.25204+002
2.91220+001	38.409	76.414	4.42960-001	-1.25665+002	4.42960-001	-1.25665+002
2.93960+001	38.406	76.413	4.39860-001	-1.26123+002	4.39860-001	-1.26123+002
2.96700+001	38.404	76.411	4.36786-001	-1.26576+002	4.36786-001	-1.26576+002
2.99440+001	38.402	76.410	4.33738-001	-1.27025+002	4.33738-001	-1.27025+002
3.02180+001	38.399	76.409	4.30716-001	-1.27471+002	4.30716-001	-1.27471+002
3.04920+001	38.397	76.408	4.27719-001	-1.27912+002	4.27719-001	-1.27912+002
3.07660+001	38.395	76.407	4.24747-001	-1.28350+002	4.24747-001	-1.28350+002
3.10400+001	38.392	76.406	4.21800-001	-1.28784+002	4.21800-001	-1.28784+002
3.13140+001	38.390	76.405	4.18878-001	-1.29215+002	4.18878-001	-1.29215+002
3.15880+001	38.388	76.404	4.15981-001	-1.29642+002	4.15981-001	-1.29642+002
3.18620+001	38.385	76.403	4.13108-001	-1.30065+002	4.13108-001	-1.30065+002
3.21360+001	38.383	76.402	4.10259-001	-1.30484+002	4.10259-001	-1.30484+002
3.24100+001	38.381	76.401	4.07434-001	-1.30900+002	4.07434-001	-1.30900+002
3.26840+001	38.379	76.400	4.04632-001	-1.31313+002	4.04632-001	-1.31313+002
3.29580+001	38.376	76.399	4.01855-001	-1.31722+002	4.01855-001	-1.31722+002
3.32320+001	38.374	76.398	3.99100-001	-1.32127+002	3.99100-001	-1.32127+002
3.35060+001	38.372	76.396	3.96368-001	-1.32529+002	3.96368-001	-1.32529+002
3.37800+001	38.369	76.395	3.93659-001	-1.32928+002	3.93659-001	-1.32928+002
3.40540+001	38.367	76.394	3.90973-001	-1.33324+002	3.90973-001	-1.33324+002
3.43280+001	38.365	76.393	3.88309-001	-1.33716+002	3.88309-001	-1.33716+002
3.46020+001	38.362	76.392	3.85668-001	-1.34105+002	3.85668-001	-1.34105+002
3.48760+001	38.360	76.391	3.83048-001	-1.34490+002	3.83048-001	-1.34490+002
3.51500+001	38.358	76.390	3.80451-001	-1.34873+002	3.80451-001	-1.34873+002

Table 2 (cont.)

D (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Zi) (MAGNITUDE)	ARG F*(D,Z,Zi) (DEG.)
3.52000+001	38.357	76.390	3.79979-001	-1.34942+002	1.15888-001	-1.18855+002
3.52500+001	38.357	76.390	3.79508-001	-1.35012+002	1.22942-001	-1.17878+002
3.53750+001	38.356	76.389	3.78334-001	-1.35185+002	1.35658-001	-1.16760+002
3.55000+001	38.355	76.389	3.77164-001	-1.35357+002	1.45543-001	-1.16397+002
3.56250+001	38.354	76.388	3.75999-001	-1.35528+002	1.54031-001	-1.16235+002
3.57500+001	38.353	76.388	3.74838-001	-1.35699+002	1.61713-001	-1.16240+002
3.58750+001	38.352	76.387	3.73682-001	-1.35870+002	1.68307-001	-1.16262+002
3.60000+001	38.350	76.387	3.72530-001	-1.36039+002	1.74604-001	-1.16273+002
3.65000+001	38.346	76.385	3.67965-001	-1.36712+002	1.94962-001	-1.16414+002
3.70000+001	38.342	76.383	3.63469-001	-1.37374+002	2.10405-001	-1.16476+002
3.75000+001	38.338	76.381	3.59042-001	-1.38026+002	2.22595-001	-1.16595+002
3.80000+001	38.334	76.379	3.54681-001	-1.38669+002	2.31850-001	-1.16694+002
3.85000+001	38.329	76.377	3.50386-001	-1.39302+002	2.38977-001	-1.16849+002
3.90000+001	38.325	76.375	3.46155-001	-1.39926+002	2.44411-001	-1.17057+002
3.95000+001	38.321	76.373	3.41989-001	-1.40540+002	2.48620-001	-1.17352+002
4.00000+001	38.317	76.371	3.37885-001	-1.41145+002	2.51741-001	-1.17627+002
4.10000+001	38.308	76.367	3.29860-001	-1.42329+002	2.55380-001	-1.18407+002
4.20000+001	38.300	76.363	3.22075-001	-1.43479+002	2.56641-001	-1.19279+002
4.30000+001	38.291	76.359	3.14521-001	-1.44594+002	2.56346-001	-1.20310+002
4.40000+001	38.283	76.355	3.07191-001	-1.45677+002	2.55065-001	-1.21386+002
4.50000+001	38.274	76.352	3.00078-001	-1.46729+002	2.53085-001	-1.22523+002
4.60000+001	38.266	76.348	2.93176-001	-1.47749+002	2.50553-001	-1.23717+002
4.70000+001	38.257	76.344	2.86476-001	-1.48740+002	2.47690-001	-1.24895+002
4.80000+001	38.249	76.340	2.79975-001	-1.49702+002	2.44478-001	-1.26076+002
4.90000+001	38.240	76.336	2.73664-001	-1.50635+002	2.41275-001	-1.27251+002
5.00000+001	38.232	76.332	2.67538-001	-1.51541+002	2.37861-001	-1.28418+002
5.10000+001	38.224	76.328	2.61592-001	-1.52420+002	2.34370-001	-1.29553+002
5.20000+001	38.215	76.324	2.55819-001	-1.53273+002	2.30780-001	-1.30684+002
5.30000+001	38.207	76.320	2.50215-001	-1.54101+002	2.27293-001	-1.31782+002
5.40000+001	38.198	76.317	2.44774-001	-1.54905+002	2.23711-001	-1.32878+002
5.50000+001	38.190	76.313	2.39491-001	-1.55684+002	2.20172-001	-1.33932+002
5.60000+001	38.181	76.309	2.34361-001	-1.56440+002	2.16669-001	-1.34942+002
6.10000+001	38.139	76.289	2.10849-001	-1.59890+002	1.99579-001	-1.39690+002
6.60000+001	38.097	76.270	1.90513-001	-1.62839+002	1.83703-001	-1.43818+002
7.10000+001	38.054	76.250	1.72894-001	-1.65351+002	1.69202-001	-1.47409+002
7.60000+001	38.012	76.231	1.57596-001	-1.67478+002	1.56082-001	-1.50886+002
8.10000+001	37.970	76.212	1.44286-001	-1.69271+002	1.44238-001	-1.53154+002
8.60000+001	37.927	76.192	1.32674-001	-1.70775+002	1.33647-001	-1.55435+002
9.10000+001	37.885	76.173	1.22518-001	-1.72029+002	1.24153-001	-1.57410+002
9.60000+001	37.843	76.154	1.13607-001	-1.73069+002	1.15656-001	-1.59093+002
1.01000+002	37.800	76.135	1.05763-001	-1.73928+002	1.08033-001	-1.60539+002
1.06000+002	37.758	76.115	9.88343-002	-1.74634+002	1.01234-001	-1.61773+002
1.11000+002	37.716	76.096	9.26921-002	-1.75212+002	9.51213-002	-1.62830+002
1.16000+002	37.673	76.077	8.72259-002	-1.75684+002	8.96275-002	-1.63736+002
1.21000+002	37.631	76.058	8.23423-002	-1.76068+002	8.46704-002	-1.64506+002
1.26000+002	37.588	76.039	7.79619-002	-1.76380+002	8.02067-002	-1.65173+002
1.31000+002	37.546	76.019	7.40171-002	-1.76633+002	7.61598-002	-1.65735+002
1.36000+002	37.504	76.000	7.04504-002	-1.76838+002	7.24898-002	-1.66224+002
1.41000+002	37.461	75.981	6.72132-002	-1.77004+002	6.91382-002	-1.66647+002
1.46000+002	37.419	75.962	6.42637-002	-1.77139+002	6.60872-002	-1.67014+002
1.51000+002	37.377	75.943	6.15665-002	-1.77249+002	6.32844-002	-1.67326+002

Table 3. Path 1, 20 MHz. (see graphs 5 and 6).

GROUND WAVE PROPAGATION OVER AN INHOMOGENEOUS EARTH
ON A BEARING OF, 160.000(DEG.) FROM 38.655(DEG. LAT.), 76.528(DEG. LONG.)

EPSILON = 8.10000+001, SIGMA = 2.00000+000, RE(EPSILONC) = 8.10000+001, IM(EPSILONC) = -1.80000+003
EPSILON1 = 1.50000+001, SIGMA1 = 2.00000+003, RE(EPSILONC1) = 1.50000+001, IM(EPSILONC1) = -1.80000+000
RE(Z) = 6.41977+000, IM(Z) = 6.13737+000, RE(Z1) = 9.68208+001, IM(Z1) = 5.78848+000

Y0 = 0.00000+000KM, Y1 = -9.99999+003KM, Y2 = 5.00000+001KM, R1 = 3.51500+001KM, R2 = 2.83000+001KM

FREQUENCY = 2.00000+001MHZ, WAVELENGTH = 1.49897+002KM

D (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
1.13200+000	38.645	76.524	9.31754-001	-3.64647+001	9.31754-001	-3.64647+001
2.26400+000	38.636	76.519	8.76081-001	-5.11587+001	8.76081-001	-5.11587+001
3.39600+000	38.626	76.515	8.25256-001	-6.21770+001	8.25256-001	-6.21770+001
4.52800+000	38.617	76.510	7.78274-001	-7.12555+001	7.78274-001	-7.12555+001
5.66000+000	38.607	76.506	7.34614-001	-7.90705+001	7.34614-001	-7.90705+001
6.79200+000	38.598	76.501	6.93925-001	-8.59711+001	6.93925-001	-8.59711+001
7.92400+000	38.588	76.497	6.55931-001	-9.21658+001	6.55931-001	-9.21658+001
9.05600+000	38.578	76.492	6.20407-001	-9.77915+001	6.20407-001	-9.77915+001
1.01880+001	38.569	76.488	5.87161-001	-1.02943+002	5.87161-001	-1.02943+002
1.13200+001	38.559	76.483	5.56021-001	-1.07692+002	5.56021-001	-1.07692+002
1.24520+001	38.550	76.479	5.26836-001	-1.12090+002	5.26836-001	-1.12090+002
1.35840+001	38.540	76.475	4.99467-001	-1.16179+002	4.99467-001	-1.16179+002
1.47160+001	38.531	76.470	4.73791-001	-1.19992+002	4.73791-001	-1.19992+002
1.58480+001	38.521	76.466	4.49691-001	-1.23557+002	4.49691-001	-1.23557+002
1.69800+001	38.511	76.461	4.27064-001	-1.26896+002	4.27064-001	-1.26896+002
1.81120+001	38.502	76.457	4.05811-001	-1.30029+002	4.05811-001	-1.30029+002
1.92440+001	38.492	76.452	3.85842-001	-1.32972+002	3.85842-001	-1.32972+002
2.03760+001	38.483	76.448	3.67076-001	-1.35738+002	3.67076-001	-1.35738+002
2.15080+001	38.473	76.443	3.49433-001	-1.38341+002	3.49433-001	-1.38341+002
2.26400+001	38.464	76.439	3.32842-001	-1.40791+002	3.32842-001	-1.40791+002
2.37720+001	38.454	76.435	3.17237-001	-1.43098+002	3.17237-001	-1.43098+002
2.49040+001	38.444	76.430	3.02555-001	-1.45271+002	3.02555-001	-1.45271+002
2.60360+001	38.435	76.426	2.88737-001	-1.47318+002	2.88737-001	-1.47318+002
2.71680+001	38.425	76.421	2.75730-001	-1.49246+002	2.75730-001	-1.49246+002
2.83000+001	38.416	76.417	2.63482-001	-1.51061+002	2.63482-001	-1.51061+002
2.83000+001	38.416	76.417	2.63482-001	-1.51061+002	2.63482-001	-1.51061+002
2.85740+001	38.413	76.416	2.60626-001	-1.51484+002	2.60626-001	-1.51484+002
2.88480+001	38.411	76.415	2.57812-001	-1.51901+002	2.57812-001	-1.51901+002
2.91220+001	38.409	76.414	2.55037-001	-1.52312+002	2.55037-001	-1.52312+002
2.93960+001	38.406	76.413	2.52303-001	-1.52717+002	2.52303-001	-1.52717+002
2.96700+001	38.404	76.411	2.49608-001	-1.53116+002	2.49608-001	-1.53116+002
2.99440+001	38.402	76.410	2.46951-001	-1.53510+002	2.46951-001	-1.53510+002
3.02180+001	38.399	76.409	2.44332-001	-1.53897+002	2.44332-001	-1.53897+002
3.04920+001	38.397	76.408	2.41751-001	-1.54279+002	2.41751-001	-1.54279+002
3.07660+001	38.395	76.407	2.39207-001	-1.54655+002	2.39207-001	-1.54655+002
3.10400+001	38.392	76.406	2.36699-001	-1.55026+002	2.36699-001	-1.55026+002
3.13140+001	38.390	76.405	2.34226-001	-1.55391+002	2.34226-001	-1.55391+002
3.15880+001	38.388	76.404	2.31789-001	-1.55751+002	2.31789-001	-1.55751+002
3.18620+001	38.385	76.403	2.29387-001	-1.56106+002	2.29387-001	-1.56106+002
3.21360+001	38.383	76.402	2.27018-001	-1.56455+002	2.27018-001	-1.56455+002
3.24100+001	38.381	76.401	2.24683-001	-1.56799+002	2.24683-001	-1.56799+002
3.26840+001	38.379	76.400	2.22381-001	-1.57138+002	2.22381-001	-1.57138+002
3.29580+001	38.376	76.399	2.20112-001	-1.57472+002	2.20112-001	-1.57472+002
3.32320+001	38.374	76.398	2.17875-001	-1.57801+002	2.17875-001	-1.57801+002
3.35060+001	38.372	76.396	2.15669-001	-1.58125+002	2.15669-001	-1.58125+002
3.37800+001	38.369	76.395	2.13495-001	-1.58444+002	2.13495-001	-1.58444+002
3.40540+001	38.367	76.394	2.11351-001	-1.58759+002	2.11351-001	-1.58759+002
3.43280+001	38.365	76.393	2.09237-001	-1.59068+002	2.09237-001	-1.59068+002
3.46020+001	38.362	76.392	2.07153-001	-1.59373+002	2.07153-001	-1.59373+002
3.48760+001	38.360	76.391	2.05098-001	-1.59674+002	2.05098-001	-1.59674+002
3.51500+001	38.358	76.390	2.03072-001	-1.59970+002	2.03072-001	-1.59970+002

Table 3 (cont.)

ρ (KM)	LAT. (DEG.)	LONG. (DEG.)	F (D,Z) (MAGNITUDE)	ARG F (D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
3.52000+001	38.357	76.390	2.02705-001	-1.60023+002	7.57992-002	-1.28501+002
3.52500+001	38.357	76.390	2.02339-001	-1.60076+002	7.95541-002	-1.27689+002
3.53750+001	38.356	76.389	2.01429-001	-1.60209+002	8.54338-002	-1.26779+002
3.55000+001	38.355	76.389	2.00525-001	-1.60341+002	8.93668-002	-1.26512+002
3.56250+001	38.354	76.388	1.99626-001	-1.60472+002	9.25054-002	-1.26638+002
3.57500+001	38.353	76.388	1.98733-001	-1.60602+002	9.50875-002	-1.26849+002
3.58750+001	38.352	76.387	1.97846-001	-1.60731+002	9.71865-002	-1.27263+002
3.60000+001	38.350	76.387	1.96964-001	-1.60859+002	9.91637-002	-1.27765+002
3.65000+001	38.346	76.385	1.93494-001	-1.61362+002	1.05418-001	-1.30058+002
3.70000+001	38.342	76.383	1.90112-001	-1.61852+002	1.10698-001	-1.32512+002
3.75000+001	38.338	76.381	1.86814-001	-1.62328+002	1.15356-001	-1.34837+002
3.80000+001	38.334	76.379	1.83599-001	-1.62790+002	1.19693-001	-1.36905+002
3.85000+001	38.329	76.377	1.80465-001	-1.63240+002	1.23550-001	-1.38713+002
3.90000+001	38.325	76.375	1.77408-001	-1.63676+002	1.27082-001	-1.40219+002
3.95000+001	38.321	76.373	1.74428-001	-1.64100+002	1.30055-001	-1.41513+002
4.00000+001	38.317	76.371	1.71522-001	-1.64512+002	1.32636-001	-1.42649+002
4.10000+001	38.308	76.367	1.65924-001	-1.65300+002	1.36421-001	-1.44545+002
4.20000+001	38.300	76.363	1.60597-001	-1.66043+002	1.38696-001	-1.46051+002
4.30000+001	38.291	76.359	1.55528-001	-1.66743+002	1.39753-001	-1.47368+002
4.40000+001	38.283	76.355	1.50703-001	-1.67402+002	1.39836-001	-1.48555+002
4.50000+001	38.274	76.352	1.46108-001	-1.68022+002	1.39228-001	-1.49654+002
4.60000+001	38.266	76.348	1.41730-001	-1.68605+002	1.38023-001	-1.50673+002
4.70000+001	38.257	76.344	1.37559-001	-1.69152+002	1.36394-001	-1.51644+002
4.80000+001	38.249	76.340	1.33583-001	-1.69667+002	1.34461-001	-1.52590+002
4.90000+001	38.240	76.336	1.29791-001	-1.70149+002	1.32322-001	-1.53469+002
5.00000+001	38.232	76.332	1.26174-001	-1.70602+002	1.30047-001	-1.54338+002
5.10000+001	38.224	76.328	1.22722-001	-1.71026+002	1.27633-001	-1.55157+002
5.20000+001	38.215	76.324	1.19426-001	-1.71424+002	1.25199-001	-1.55941+002
5.30000+001	38.207	76.320	1.16278-001	-1.71796+002	1.22709-001	-1.56707+002
5.40000+001	38.198	76.317	1.13270-001	-1.72144+002	1.20247-001	-1.57434+002
5.50000+001	38.190	76.313	1.10395-001	-1.72470+002	1.17762-001	-1.58120+002
5.60000+001	38.181	76.309	1.07646-001	-1.72775+002	1.15308-001	-1.58794+002
6.10000+001	38.139	76.289	9.55612-002	-1.74021+002	1.03721-001	-1.61680+002
6.50000+001	38.097	76.270	8.57608-002	-1.74901+002	9.35406-002	-1.63941+002
7.10000+001	38.054	76.250	7.77150-002	-1.75517+002	8.48027-002	-1.65696+002
7.60000+001	38.012	76.231	7.10268-002	-1.75948+002	7.73532-002	-1.67034+002
8.10000+001	37.970	76.212	6.53985-002	-1.76250+002	7.09981-002	-1.68070+002
8.60000+001	37.927	76.192	6.06063-002	-1.76463+002	6.55613-002	-1.68862+002
9.10000+001	37.885	76.173	5.64811-002	-1.76616+002	6.08816-002	-1.69481+002
9.60000+001	37.843	76.154	5.28939-002	-1.76726+002	5.68170-002	-1.69968+002
1.01000+002	37.800	76.135	4.97459-002	-1.76808+002	5.32656-002	-1.70354+002
1.06000+002	37.758	76.115	4.69605-002	-1.76870+002	5.01358-002	-1.70666+002
1.11000+002	37.716	76.096	4.44775-002	-1.76919+002	4.73638-002	-1.70919+002
1.16000+002	37.673	76.077	4.22496-002	-1.76958+002	4.48890-002	-1.71133+002
1.21000+002	37.631	76.058	4.02385-002	-1.76989+002	4.26642-002	-1.71315+002
1.26000+002	37.588	76.039	3.84136-002	-1.77016+002	4.06576-002	-1.71471+002
1.31000+002	37.546	76.019	3.67497-002	-1.77038+002	3.88338-002	-1.71605+002
1.36000+002	37.504	76.000	3.52260-002	-1.77058+002	3.71696-002	-1.71726+002
1.41000+002	37.461	75.981	3.38252-002	-1.77075+002	3.56451-002	-1.71828+002
1.46000+002	37.419	75.962	3.25329-002	-1.77090+002	3.42436-002	-1.71925+002
1.51000+002	37.377	75.943	3.13367-002	-1.77104+002	3.29502-002	-1.72006+002

Table 4. Path 1, 25 MHz (see graphs 7 and 8).

GROUND WAVE PROPAGATION OVER AN INHOMOGENEOUS EARTH
ON A BEARING OF, 160.000(DEG.) FROM 38.655(DEG. LAT.), 76.528(DEG. LONG.)

EPSILON = 8.10000+001, SIGMA = 2.00000+000, RE(EPSILONC) = 8.10000+001, IM(EPSILONC) = -1.44000+003
EPSILON1 = 1.50000+001, SIGMA1 = 2.00000+003, RE(EPSILONC1) = 1.50000+001, IM(EPSILONC1) = -1.44000+000
RE(Z) = 7.21385+000, IM(Z) = 6.81948+000, RE(Z1) = 9.70068+001, IM(Z1) = 4.64565+000

Y0 = 0.00000+000KM, Y1 = -9.99999+003KM, Y2 = 5.00000+001KM, R1 = 3.51500+001KM, R2 = 2.83000+001KM

FREQUENCY = 2.50000+001MHZ, WAVELENGTH = 1.19917+002KM

D (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
1.13200+000	38.645	76.524	8.95861-001	-4.52981+001	8.95861-001	-4.52981+001
2.26400+000	38.636	76.519	8.14393-001	-6.32608+001	8.14393-001	-6.32608+001
3.39600+000	38.626	76.515	7.42783-001	-7.65421+001	7.42783-001	-7.65421+001
4.52800+000	38.617	76.510	6.78974-001	-8.73263+001	6.78974-001	-8.73263+001
5.66000+000	38.607	76.506	6.21777-001	-9.64678+001	6.21777-001	-9.64678+001
6.79200+000	38.598	76.501	5.70329-001	-1.04409+002	5.70329-001	-1.04409+002
7.92400+000	38.588	76.497	5.23944-001	-1.11415+002	5.23944-001	-1.11415+002
9.05600+000	38.578	76.492	4.82053-001	-1.17661+002	4.82053-001	-1.17661+002
1.01880+001	38.569	76.488	4.44168-001	-1.23269+002	4.44168-001	-1.23269+002
1.13200+001	38.559	76.483	4.09868-001	-1.28331+002	4.09868-001	-1.28331+002
1.24520+001	38.550	76.479	3.78784-001	-1.32916+002	3.78784-001	-1.32916+002
1.35840+001	38.540	76.475	3.50589-001	-1.37079+002	3.50589-001	-1.37079+002
1.47160+001	38.531	76.470	3.24995-001	-1.40864+002	3.24995-001	-1.40864+002
1.58480+001	38.521	76.466	3.01743-001	-1.44310+002	3.01743-001	-1.44310+002
1.69800+001	38.511	76.461	2.80605-001	-1.47447+002	2.80605-001	-1.47447+002
1.81120+001	38.502	76.457	2.61373-001	-1.50303+002	2.61373-001	-1.50303+002
1.92440+001	38.492	76.452	2.43864-001	-1.52903+002	2.43864-001	-1.52903+002
2.03760+001	38.483	76.448	2.27912-001	-1.55266+002	2.27912-001	-1.55266+002
2.15080+001	38.473	76.443	2.13366-001	-1.57413+002	2.13366-001	-1.57413+002
2.26400+001	38.464	76.439	2.00094-001	-1.59360+002	2.00094-001	-1.59360+002
2.37720+001	38.454	76.435	1.87973-001	-1.61125+002	1.87973-001	-1.61125+002
2.49040+001	38.444	76.430	1.76894-001	-1.62721+002	1.76894-001	-1.62721+002
2.60360+001	38.435	76.426	1.66760-001	-1.64163+002	1.66760-001	-1.64163+002
2.71680+001	38.425	76.421	1.57480-001	-1.65463+002	1.57480-001	-1.65463+002
2.83000+001	38.416	76.417	1.48974-001	-1.66632+002	1.48974-001	-1.66632+002
2.83000+001	38.416	76.417	1.48974-001	-1.66632+002	1.48974-001	-1.66632+002
2.85740+001	38.413	76.416	1.47023-001	-1.66897+002	1.47023-001	-1.66897+002
2.88480+001	38.411	76.415	1.45112-001	-1.67155+002	1.45112-001	-1.67155+002
2.91220+001	38.409	76.414	1.43240-001	-1.67407+002	1.43240-001	-1.67407+002
2.93960+001	38.406	76.413	1.41407-001	-1.67652+002	1.41407-001	-1.67652+002
2.96700+001	38.404	76.411	1.39611-001	-1.67890+002	1.39611-001	-1.67890+002
2.99440+001	38.402	76.410	1.37852-001	-1.68123+002	1.37852-001	-1.68123+002
3.02180+001	38.399	76.409	1.36128-001	-1.68349+002	1.36128-001	-1.68349+002
3.04920+001	38.397	76.408	1.34438-001	-1.68569+002	1.34438-001	-1.68569+002
3.07660+001	38.395	76.407	1.32783-001	-1.68784+002	1.32783-001	-1.68784+002
3.10400+001	38.392	76.406	1.31161-001	-1.68992+002	1.31161-001	-1.68992+002
3.13140+001	38.390	76.405	1.29571-001	-1.69196+002	1.29571-001	-1.69196+002
3.15880+001	38.388	76.404	1.28013-001	-1.69394+002	1.28013-001	-1.69394+002
3.18620+001	38.385	76.403	1.26486-001	-1.69586+002	1.26486-001	-1.69586+002
3.21360+001	38.383	76.402	1.24989-001	-1.69774+002	1.24989-001	-1.69774+002
3.24100+001	38.381	76.401	1.23521-001	-1.69956+002	1.23521-001	-1.69956+002
3.26840+001	38.379	76.400	1.22083-001	-1.70133+002	1.22083-001	-1.70133+002
3.29580+001	38.376	76.399	1.20672-001	-1.70306+002	1.20672-001	-1.70306+002
3.32320+001	38.374	76.398	1.19289-001	-1.70474+002	1.19289-001	-1.70474+002
3.35060+001	38.372	76.396	1.17932-001	-1.70637+002	1.17932-001	-1.70637+002
3.37800+001	38.369	76.395	1.16602-001	-1.70796+002	1.16602-001	-1.70796+002
3.40540+001	38.367	76.394	1.15297-001	-1.70950+002	1.15297-001	-1.70950+002
3.43280+001	38.365	76.393	1.14018-001	-1.71101+002	1.14018-001	-1.71101+002
3.46020+001	38.362	76.392	1.12762-001	-1.71247+002	1.12762-001	-1.71247+002
3.48760+001	38.360	76.391	1.11531-001	-1.71389+002	1.11531-001	-1.71389+002
3.51500+001	38.358	76.390	1.10323-001	-1.71527+002	1.10323-001	-1.71527+002

Table 4 (cont.)

O (KM)	LAT. (DEG.)	LONG. (DEG.)	F (O,Z) (MAGNITUDE)	ARG F (O,Z) (DEG.)	F*(O,Z,Z1) (MAGNITUDE)	ARG F*(O,Z,Z1) (DEG.)
3.52000+001	38.357	76.390	1.10105-001	-1.71552+002	4.86098-002	-1.56685+002
3.52500+001	38.357	76.390	1.09887-001	-1.71576+002	5.07770-002	-1.53856+002
3.53750+001	38.356	76.389	1.09348-001	-1.71637+002	5.49855-002	-1.50182+002
3.55000+001	38.355	76.389	1.08812-001	-1.71698+002	5.83528-002	-1.47942+002
3.56250+001	38.354	76.388	1.08282-001	-1.71757+002	6.11050-002	-1.46457+002
3.57500+001	38.353	76.388	1.07756-001	-1.71816+002	6.35465-002	-1.45348+002
3.58750+001	38.352	76.387	1.07234-001	-1.71874+002	6.56221-002	-1.44511+002
3.60000+001	38.350	76.387	1.06717-001	-1.71931+002	6.74527-002	-1.43828+002
3.65000+001	38.346	76.385	1.04693-001	-1.72153+002	7.27367-002	-1.42463+002
3.70000+001	38.342	76.383	1.02736-001	-1.72363+002	7.58170-002	-1.42226+002
3.75000+001	38.338	76.381	1.00843-001	-1.72563+002	7.76331-002	-1.42733+002
3.80000+001	38.334	76.379	9.90132-002	-1.72752+002	7.86196-002	-1.43680+002
3.85000+001	38.329	76.377	9.72427-002	-1.72932+002	7.91996-002	-1.44891+002
3.90000+001	38.325	76.375	9.55293-002	-1.73102+002	7.95534-002	-1.46268+002
3.95000+001	38.321	76.373	9.38708-002	-1.73264+002	7.97456-002	-1.47715+002
4.00000+001	38.317	76.371	9.22649-002	-1.73417+002	7.98426-002	-1.49178+002
4.10000+001	38.308	76.367	8.92024-002	-1.73700+002	7.99320-002	-1.51933+002
4.20000+001	38.300	76.363	8.63260-002	-1.73954+002	7.97904-002	-1.54401+002
4.30000+001	38.291	76.359	8.36210-002	-1.74182+002	7.94298-002	-1.56521+002
4.40000+001	38.283	76.355	8.10743-002	-1.74387+002	7.88801-002	-1.58341+002
4.50000+001	38.274	76.352	7.86735-002	-1.74570+002	7.81062-002	-1.59898+002
4.60000+001	38.266	76.348	7.64078-002	-1.74735+002	7.71404-002	-1.61247+002
4.70000+001	38.257	76.344	7.42668-002	-1.74883+002	7.60456-002	-1.62414+002
4.80000+001	38.249	76.340	7.22413-002	-1.75016+002	7.48273-002	-1.63424+002
4.90000+001	38.240	76.336	7.03228-002	-1.75136+002	7.35352-002	-1.64327+002
5.00000+001	38.232	76.332	6.85035-002	-1.75243+002	7.21759-002	-1.65116+002
5.10000+001	38.224	76.328	6.67764-002	-1.75340+002	7.07850-002	-1.65824+002
5.20000+001	38.215	76.324	6.51350-002	-1.75427+002	6.93735-002	-1.66458+002
5.30000+001	38.207	76.320	6.35731-002	-1.75506+002	6.79679-002	-1.67024+002
5.40000+001	38.198	76.317	6.20855-002	-1.75577+002	6.65650-002	-1.67538+002
5.50000+001	38.190	76.313	6.06671-002	-1.75641+002	6.51899-002	-1.67997+002
5.60000+001	38.181	76.309	5.93132-002	-1.75699+002	6.38296-002	-1.68415+002
6.10000+001	38.139	76.289	5.33756-002	-1.75918+002	5.75461-002	-1.69998+002
6.60000+001	38.097	76.270	4.85415-002	-1.76059+002	5.21789-002	-1.71003+002
7.10000+001	38.054	76.250	4.45278-002	-1.76155+002	4.76598-002	-1.71667+002
7.60000+001	38.012	76.231	4.11395-002	-1.76224+002	4.38429-002	-1.72122+002
8.10000+001	37.970	76.212	3.82389-002	-1.76276+002	4.05962-002	-1.72449+002
8.60000+001	37.927	76.192	3.57261-002	-1.76317+002	3.78036-002	-1.72693+002
9.10000+001	37.885	76.173	3.35273-002	-1.76350+002	3.53786-002	-1.72880+002
9.60000+001	37.843	76.154	3.15862-002	-1.76378+002	3.32500-002	-1.73034+002
1.01000+002	37.800	76.135	2.98596-002	-1.76402+002	3.13609-002	-1.73157+002
1.06000+002	37.758	76.115	2.83135-002	-1.76423+002	2.96926-002	-1.73263+002
1.11000+002	37.716	76.096	2.69206-002	-1.76441+002	2.81881-002	-1.73354+002
1.16000+002	37.673	76.077	2.56591-002	-1.76457+002	2.68317-002	-1.73432+002
1.21000+002	37.631	76.058	2.45113-002	-1.76472+002	2.56007-002	-1.73502+002
1.26000+002	37.588	76.039	2.34621-002	-1.76485+002	2.44798-002	-1.73564+002
1.31000+002	37.546	76.019	2.24995-002	-1.76497+002	2.34529-002	-1.73619+002
1.36000+002	37.504	76.000	2.16131-002	-1.76508+002	2.25104-002	-1.73668+002
1.41000+002	37.461	75.981	2.07941-002	-1.76517+002	2.16406-002	-1.73714+002
1.46000+002	37.419	75.962	2.00351-002	-1.76526+002	2.08364-002	-1.73754+002
1.51000+002	37.377	75.943	1.93297-002	-1.76535+002	2.00898-002	-1.73792+002

Table 5. Path 2, 10 MHz (see graphs 9 and 10).

GROUND WAVE PROPAGATION OVER AN INHOMOGENEOUS EARTH
ON A BEARING OF, 150.000(DEG.) FROM 38.655(DEG. LAT.), 70.528(DEG. LONG.)

EPSILON = 8.10000+001, SIGMA = 2.00000+000, RE(EPSILONC) = 8.10000+001, IM(EPSILONC) = -3.60000+003
EPSILON1 = 4.80000+001, SIGMA1 = 1.00000+000, RE(EPSILONC1) = 4.80000+001, IM(EPSILONC1) = -1.80000+003
RE(Z) = 4.49211+000, IM(Z) = 4.39218+000, RE(Z1) = 6.36540+000, IM(Z1) = 6.19792+000

Y0 = 0.00000+000KM, Y1 = -1.42000+000KM, Y2 = 2.12500+000KM, R1 = 8.85000+001KM, R2 = 8.41800+001KM

FREQUENCY = 1.00000+001MHZ, WAVELENGTH = 2.99793+002KM

D (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
3.36720+000	38.629	76.509	9.52940-001	-3.15859+001	9.52940-001	-3.15859+001
6.73440+000	38.603	76.489	9.11664-001	-4.44284+001	9.11664-001	-4.44284+001
1.01016+001	38.576	76.470	8.72883-001	-5.41270+001	8.72883-001	-5.41270+001
1.34888+001	38.550	76.451	8.36181-001	-6.21741+001	8.36181-001	-6.21741+001
1.68360+001	38.524	76.431	8.01342-001	-6.91506+001	8.01342-001	-6.91506+001
2.02032+001	38.497	76.412	7.68218-001	-7.53559+001	7.68218-001	-7.53559+001
2.35704+001	38.471	76.393	7.36691-001	-8.09684+001	7.36691-001	-8.09684+001
2.69376+001	38.445	76.373	7.06664-001	-8.61050+001	7.06664-001	-8.61050+001
3.03048+001	38.419	76.354	6.78050-001	-9.08471+001	6.78050-001	-9.08471+001
3.36720+001	38.392	76.335	6.50771-001	-9.52543+001	6.50771-001	-9.52543+001
3.70392+001	38.366	76.315	6.24757-001	-9.93718+001	6.24757-001	-9.93718+001
4.04064+001	38.340	76.296	5.99942-001	-1.03235+002	5.99942-001	-1.03235+002
4.37736+001	38.314	76.277	5.76265-001	-1.06872+002	5.76265-001	-1.06872+002
4.71408+001	38.287	76.258	5.53669-001	-1.10305+002	5.53669-001	-1.10305+002
5.05080+001	38.261	76.239	5.32102-001	-1.13554+002	5.32102-001	-1.13554+002
5.38752+001	38.235	76.219	5.11513-001	-1.16635+002	5.11513-001	-1.16635+002
5.72424+001	38.208	76.200	4.91855-001	-1.19560+002	4.91855-001	-1.19560+002
6.06096+001	38.182	76.181	4.73083-001	-1.22343+002	4.73083-001	-1.22343+002
6.39768+001	38.156	76.162	4.55154-001	-1.24992+002	4.55154-001	-1.24992+002
6.73440+001	38.130	76.143	4.38030-001	-1.27518+002	4.38030-001	-1.27518+002
7.07112+001	38.103	76.124	4.21671-001	-1.29927+002	4.21671-001	-1.29927+002
7.40784+001	38.077	76.105	4.06042-001	-1.32226+002	4.06042-001	-1.32226+002
7.74456+001	38.051	76.085	3.91109-001	-1.34422+002	3.91109-001	-1.34422+002
8.08128+001	38.024	76.066	3.76839-001	-1.36521+002	3.76839-001	-1.36521+002
8.41800+001	37.998	76.047	3.63201-001	-1.38528+002	3.63201-001	-1.38528+002
8.41800+001	37.998	76.047	3.63201-001	-1.38528+002	3.63201-001	-1.38528+002
8.43528+001	37.997	76.046	3.62518-001	-1.38628+002	3.61441-001	-1.40516+002
8.45256+001	37.995	76.045	3.61836-001	-1.38728+002	3.59826-001	-1.41388+002
8.46984+001	37.994	76.044	3.61156-001	-1.38828+002	3.58247-001	-1.42074+002
8.48712+001	37.993	76.043	3.60477-001	-1.38928+002	3.56691-001	-1.42662+002
8.50440+001	37.991	76.042	3.59800-001	-1.39028+002	3.55155-001	-1.43188+002
8.52168+001	37.990	76.041	3.59125-001	-1.39127+002	3.53634-001	-1.43669+002
8.53896+001	37.988	76.040	3.58451-001	-1.39227+002	3.52129-001	-1.44115+002
8.55624+001	37.987	76.040	3.57779-001	-1.39326+002	3.50637-001	-1.44534+002
8.57352+001	37.986	76.039	3.57108-001	-1.39424+002	3.49158-001	-1.44930+002
8.59080+001	37.984	76.038	3.56438-001	-1.39523+002	3.47691-001	-1.45307+002
8.60808+001	37.983	76.037	3.55771-001	-1.39621+002	3.46236-001	-1.45668+002
8.62536+001	37.982	76.036	3.55105-001	-1.39719+002	3.44792-001	-1.46014+002
8.64264+001	37.980	76.035	3.54440-001	-1.39817+002	3.43360-001	-1.46347+002
8.65992+001	37.979	76.034	3.53777-001	-1.39914+002	3.41937-001	-1.46669+002
8.67720+001	37.978	76.033	3.53115-001	-1.40012+002	3.40525-001	-1.46981+002
8.69448+001	37.976	76.032	3.52455-001	-1.40109+002	3.39123-001	-1.47284+002
8.71176+001	37.975	76.031	3.51797-001	-1.40206+002	3.37731-001	-1.47578+002
8.72904+001	37.974	76.030	3.51140-001	-1.40303+002	3.36349-001	-1.47864+002
8.74632+001	37.972	76.029	3.50485-001	-1.40399+002	3.34976-001	-1.48143+002
8.76360+001	37.971	76.028	3.49831-001	-1.40495+002	3.33613-001	-1.48415+002
8.78088+001	37.970	76.027	3.49178-001	-1.40591+002	3.32259-001	-1.48680+002
8.79816+001	37.968	76.026	3.48527-001	-1.40687+002	3.30913-001	-1.48940+002
8.81544+001	37.967	76.025	3.47878-001	-1.40783+002	3.29577-001	-1.49195+002
8.83272+001	37.966	76.024	3.47230-001	-1.40878+002	3.28249-001	-1.49444+002
8.85000+001	37.964	76.023	3.46584-001	-1.40973+002	3.26930-001	-1.49688+002

Table 5 (cont.)

θ (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
8.86250+001	37.963	76.022	3.46117-001	-1.41042+002	3.27751-001	-1.47831+002
8.87500+001	37.962	76.021	3.45651-001	-1.41111+002	3.25789-001	-1.47696+002
8.88750+001	37.961	76.021	3.45186-001	-1.41179+002	3.24932-001	-1.47274+002
8.90000+001	37.960	76.020	3.44722-001	-1.41248+002	3.24384-001	-1.47569+002
8.95000+001	37.956	76.017	3.42872-001	-1.41520+002	3.24759-001	-1.46296+002
9.00000+001	37.952	76.014	3.41035-001	-1.41791+002	3.24164-001	-1.46270+002
9.05000+001	37.949	76.012	3.39210-001	-1.42059+002	3.21179-001	-1.45693+002
9.10000+001	37.945	76.009	3.37397-001	-1.42326+002	3.20556-001	-1.46110+002
9.15000+001	37.941	76.006	3.35597-001	-1.42592+002	3.20609-001	-1.46039+002
9.20000+001	37.937	76.003	3.33808-001	-1.42855+002	3.18035-001	-1.45782+002
9.25000+001	37.933	76.000	3.32031-001	-1.43117+002	3.15530-001	-1.46049+002
9.30000+001	37.929	75.997	3.30266-001	-1.43377+002	3.14105-001	-1.46386+002
9.35000+001	37.925	75.995	3.28513-001	-1.43635+002	3.14925-001	-1.46158+002
9.40000+001	37.921	75.992	3.26772-001	-1.43892+002	3.11291-001	-1.46054+002
9.45000+001	37.917	75.989	3.25042-001	-1.44147+002	3.09715-001	-1.46362+002
9.50000+001	37.913	75.986	3.23323-001	-1.44400+002	3.07884-001	-1.46408+002
9.55000+001	37.909	75.983	3.21616-001	-1.44652+002	3.05536-001	-1.46774+002
9.60000+001	37.906	75.981	3.19920-001	-1.44902+002	3.05423-001	-1.47168+002
9.65000+001	37.902	75.978	3.18236-001	-1.45150+002	3.05524-001	-1.47157+002
9.70000+001	37.898	75.975	3.16563-001	-1.45397+002	3.03884-001	-1.47055+002
9.75000+001	37.894	75.972	3.14900-001	-1.45642+002	3.01594-001	-1.47171+002
9.80000+001	37.890	75.969	3.13249-001	-1.45886+002	2.99977-001	-1.47401+002
9.85000+001	37.886	75.966	3.11609-001	-1.46128+002	2.98814-001	-1.47549+002
9.90000+001	37.882	75.964	3.09980-001	-1.46368+002	2.97281-001	-1.47609+002
9.95000+001	37.878	75.961	3.08361-001	-1.46607+002	2.95143-001	-1.47711+002
1.00000+002	37.874	75.958	3.06753-001	-1.46844+002	2.92848-001	-1.47940+002
1.00500+002	37.870	75.955	3.05156-001	-1.47079+002	2.90952-001	-1.48278+002
1.01000+002	37.866	75.952	3.03570-001	-1.47314+002	2.89681-001	-1.48636+002
1.01500+002	37.863	75.950	3.01994-001	-1.47546+002	2.88878-001	-1.48934+002
1.02000+002	37.859	75.947	3.00428-001	-1.47777+002	2.88209-001	-1.49141+002
1.02500+002	37.855	75.944	2.98873-001	-1.48007+002	2.87387-001	-1.49273+002
1.03000+002	37.851	75.941	2.97328-001	-1.48235+002	2.86280-001	-1.49373+002
1.03500+002	37.847	75.938	2.95793-001	-1.48461+002	2.84911-001	-1.49479+002
1.04000+002	37.843	75.935	2.94268-001	-1.48686+002	2.83390-001	-1.49615+002
1.04500+002	37.839	75.933	2.92754-001	-1.48910+002	2.81848-001	-1.49786+002
1.05000+002	37.835	75.930	2.91249-001	-1.49132+002	2.80382-001	-1.49983+002
1.05500+002	37.831	75.927	2.89754-001	-1.49352+002	2.79037-001	-1.50191+002
1.06000+002	37.827	75.924	2.88269-001	-1.49571+002	2.77808-001	-1.50393+002
1.06500+002	37.823	75.921	2.86794-001	-1.49789+002	2.76657-001	-1.50579+002
1.07000+002	37.819	75.919	2.85329-001	-1.50005+002	2.75533-001	-1.50744+002
1.07500+002	37.816	75.916	2.83873-001	-1.50220+002	2.74384-001	-1.50888+002
1.08000+002	37.812	75.913	2.82427-001	-1.50434+002	2.73173-001	-1.51017+002
1.08500+002	37.808	75.910	2.80991-001	-1.50646+002	2.71879-001	-1.51137+002
1.09000+002	37.804	75.907	2.79564-001	-1.50856+002	2.70497-001	-1.51255+002
1.09500+002	37.800	75.904	2.78146-001	-1.51066+002	2.69038-001	-1.51380+002
1.10000+002	37.796	75.902	2.76738-001	-1.51274+002	2.67518-001	-1.51516+002
1.10500+002	37.792	75.899	2.75339-001	-1.51480+002	2.65962-001	-1.51665+002
1.11000+002	37.788	75.896	2.73949-001	-1.51685+002	2.64394-001	-1.51831+002
1.11500+002	37.784	75.893	2.72568-001	-1.51889+002	2.62835-001	-1.52011+002
1.12000+002	37.780	75.890	2.71196-001	-1.52091+002	2.61306-001	-1.52206+002
1.12500+002	37.776	75.888	2.69834-001	-1.52292+002	2.59820-001	-1.52412+002
1.13000+002	37.773	75.885	2.68480-001	-1.52492+002	2.58385-001	-1.52626+002
1.13500+002	37.769	75.882	2.67135-001	-1.52691+002	2.57007-001	-1.52846+002
1.14000+002	37.765	75.879	2.65799-001	-1.52888+002	2.55685-001	-1.53068+002
1.14500+002	37.761	75.876	2.64472-001	-1.53083+002	2.54417-001	-1.53289+002
1.15000+002	37.757	75.874	2.63153-001	-1.53278+002	2.53199-001	-1.53509+002
1.15500+002	37.753	75.871	2.61843-001	-1.53471+002	2.52023-001	-1.53724+002
1.16000+002	37.749	75.868	2.60542-001	-1.53663+002	2.50882-001	-1.53934+002
1.16500+002	37.745	75.865	2.59249-001	-1.53854+002	2.49770-001	-1.54137+002
1.17000+002	37.741	75.862	2.57964-001	-1.54043+002	2.48680-001	-1.54334+002
1.17500+002	37.737	75.859	2.56689-001	-1.54231+002	2.47604-001	-1.54525+002
1.18000+002	37.733	75.857	2.55421-001	-1.54418+002	2.46538-001	-1.54708+002
1.18500+002	37.730	75.854	2.54162-001	-1.54604+002	2.45477-001	-1.54886+002
1.19000+002	37.726	75.851	2.52910-001	-1.54788+002	2.44417-001	-1.55059+002
1.19500+002	37.722	75.848	2.51667-001	-1.54971+002	2.43355-001	-1.55226+002
1.20000+002	37.718	75.845	2.50433-001	-1.55153+002	2.42290-001	-1.55390+002
1.20500+002	37.714	75.843	2.49206-001	-1.55334+002	2.41220-001	-1.55550+002
1.21000+002	37.710	75.840	2.47987-001	-1.55513+002	2.40145-001	-1.55708+002
1.21500+002	37.706	75.837	2.46776-001	-1.55692+002	2.39064-001	-1.55863+002
1.22000+002	37.702	75.834	2.45573-001	-1.55869+002	2.37979-001	-1.56017+002
1.22500+002	37.698	75.831	2.44378-001	-1.56044+002	2.36889-001	-1.56170+002
1.23000+002	37.694	75.829	2.43191-001	-1.56219+002	2.35797-001	-1.56322+002
1.23500+002	37.690	75.826	2.42011-001	-1.56393+002	2.34702-001	-1.56473+002
1.24000+002	37.686	75.823	2.40839-001	-1.56565+002	2.33606-001	-1.56625+002
1.24500+002	37.683	75.820	2.39675-001	-1.56736+002	2.32510-001	-1.56777+002
1.25000+002	37.679	75.817	2.38518-001	-1.56906+002	2.31416-001	-1.56929+002
1.25500+002	37.675	75.815	2.37369-001	-1.57075+002	2.30324-001	-1.57082+002
1.26000+002	37.671	75.812	2.36228-001	-1.57243+002	2.29237-001	-1.57235+002
1.26500+002	37.667	75.809	2.35093-001	-1.57410+002	2.28154-001	-1.57388+002
1.27000+002	37.663	75.806	2.33966-001	-1.57576+002	2.27076-001	-1.57542+002
1.27500+002	37.659	75.803	2.32847-001	-1.57739+002	2.26006-001	-1.57696+002

Table 6. Path 2, 15 MHz (see graphs 11 and 12).

GROUND WAVE PROPAGATION OVER AN INHOMOGENEOUS EARTH
ON A BEARING OF, 150.000(DEG.) FROM 38.655(DEG. LAT.), 76.528(DEG. LONG.)

EPSILON = 8.10000+001, SIGMA = 2.00000+000, RE(EPSILONC) = 8.10000+001, IM(EPSILONC) = -2.40000+003
EPSILON1 = 4.80000+001, SIGMA1 = 1.00000+000, RE(EPSILONC1) = 4.80000+001, IM(EPSILONC1) = -1.20000+003
RE(Z) = 5.53094+000, IM(Z) = 5.34744+000, RE(Z1) = 7.84462+000, IM(Z1) = 7.53711+000

Y0 = 0.00000+000KM, Y1 = -1.42000+000KM, Y2 = 2.12500+000KM, R1 = 8.85000+001KM, R2 = 8.41800+001KM

FREQUENCY = 1.50000+001MHZ, WAVELENGTH = 1.99862+002KM

D (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
3.36720+000	38.629	76.509	8.97687-001	-4.69889+001	8.97687-001	-4.69889+001
6.73440+000	38.603	76.489	8.13521-001	-6.56377+001	8.13521-001	-6.56377+001
1.01016+001	38.576	76.470	7.39061-001	-7.94168+001	7.39061-001	-7.94168+001
1.34688+001	38.550	76.451	6.72635-001	-9.05912+001	6.72635-001	-9.05912+001
1.68360+001	38.524	76.431	6.13154-001	-1.00047+002	6.13154-001	-1.00047+002
2.02032+001	38.497	76.412	5.59777-001	-1.08245+002	5.59777-001	-1.08245+002
2.35704+001	38.471	76.393	5.11804-001	-1.15459+002	5.11804-001	-1.15459+002
2.69376+001	38.445	76.373	4.68638-001	-1.21872+002	4.68638-001	-1.21872+002
3.03048+001	38.419	76.354	4.29764-001	-1.27611+002	4.29764-001	-1.27611+002
3.36720+001	38.392	76.335	3.94724-001	-1.32771+002	3.94724-001	-1.32771+002
3.70392+001	38.366	76.315	3.63120-001	-1.37425+002	3.63120-001	-1.37425+002
4.04064+001	38.340	76.296	3.34594-001	-1.41631+002	3.34594-001	-1.41631+002
4.37736+001	38.314	76.277	3.08832-001	-1.45435+002	3.08832-001	-1.45435+002
4.71408+001	38.287	76.258	2.85549-001	-1.48877+002	2.85549-001	-1.48877+002
5.05080+001	38.261	76.239	2.64495-001	-1.51991+002	2.64495-001	-1.51991+002
5.38752+001	38.235	76.219	2.45444-001	-1.54806+002	2.45444-001	-1.54806+002
5.72424+001	38.208	76.200	2.28194-001	-1.57347+002	2.28194-001	-1.57347+002
6.06096+001	38.182	76.181	2.12564-001	-1.59639+002	2.12564-001	-1.59639+002
6.39768+001	38.156	76.162	1.98390-001	-1.61702+002	1.98390-001	-1.61702+002
6.73440+001	38.130	76.143	1.85528-001	-1.63555+002	1.85528-001	-1.63555+002
7.07112+001	38.103	76.124	1.73845-001	-1.65216+002	1.73845-001	-1.65216+002
7.40784+001	38.077	76.105	1.63223-001	-1.66703+002	1.63223-001	-1.66703+002
7.74456+001	38.051	76.085	1.53557-001	-1.68029+002	1.53557-001	-1.68029+002
8.08128+001	38.024	76.066	1.44752-001	-1.69210+002	1.44752-001	-1.69210+002
8.41800+001	37.998	76.047	1.36720-001	-1.70258+002	1.36720-001	-1.70258+002
8.41800+001	37.998	76.047	1.36720-001	-1.70258+002	1.36720-001	-1.70258+002
8.43528+001	37.997	76.046	1.36328-001	-1.70309+002	1.35419-001	-1.73118+002
8.45256+001	37.995	76.045	1.35937-001	-1.70359+002	1.34249-001	-1.74293+002
8.46984+001	37.994	76.044	1.35548-001	-1.70409+002	1.33115-001	-1.75181+002
8.48712+001	37.993	76.043	1.35160-001	-1.70459+002	1.32008-001	-1.75917+002
8.50440+001	37.991	76.042	1.34775-001	-1.70508+002	1.30924-001	-1.76555+002
8.52168+001	37.990	76.041	1.34391-001	-1.70557+002	1.29861-001	-1.77121+002
8.53896+001	37.988	76.040	1.34009-001	-1.70605+002	1.28816-001	-1.77632+002
8.55624+001	37.987	76.040	1.33629-001	-1.70654+002	1.27790-001	-1.78098+002
8.57352+001	37.986	76.039	1.33251-001	-1.70702+002	1.26781-001	-1.78527+002
8.59080+001	37.984	76.038	1.32874-001	-1.70749+002	1.25798-001	-1.78924+002
8.60808+001	37.983	76.037	1.32499-001	-1.70797+002	1.24812-001	-1.79294+002
8.62536+001	37.982	76.036	1.32126-001	-1.70844+002	1.23850-001	-1.79640+002
8.64264+001	37.980	76.035	1.31755-001	-1.70891+002	1.22904-001	-1.79965+002
8.65992+001	37.979	76.034	1.31385-001	-1.70937+002	1.21973-001	-1.80270+002
8.67720+001	37.978	76.033	1.31017-001	-1.70984+002	1.21055-001	-1.80558+002
8.69448+001	37.976	76.032	1.30650-001	-1.71030+002	1.20192-001	-1.80830+002
8.71176+001	37.975	76.031	1.30286-001	-1.71075+002	1.19262-001	-1.81087+002
8.72904+001	37.974	76.030	1.29923-001	-1.71121+002	1.18385-001	-1.81331+002
8.74632+001	37.972	76.029	1.29562-001	-1.71166+002	1.17521-001	-1.81562+002
8.76360+001	37.971	76.028	1.29202-001	-1.71211+002	1.16670-001	-1.81781+002
8.78088+001	37.970	76.027	1.28844-001	-1.71255+002	1.15832-001	-1.81989+002
8.79816+001	37.968	76.026	1.28487-001	-1.71299+002	1.15006-001	-1.82187+002
8.81544+001	37.967	76.025	1.28133-001	-1.71343+002	1.14191-001	-1.82376+002
8.83272+001	37.966	76.024	1.27780-001	-1.71387+002	1.13389-001	-1.82555+002
8.85000+001	37.964	76.023	1.27428-001	-1.71431+002	1.12598-001	-1.82725+002

Table 6 (cont.)

0 (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
8.86250+001	37.963	76.022	1.27175-001	-1.71462+002	1.12855-001	-1.80034+002
8.87500+001	37.962	76.021	1.26922-001	-1.71493+002	1.12424-001	-1.79307+002
8.88750+001	37.961	76.021	1.26671-001	-1.71524+002	1.12180-001	-1.79573+002
8.90000+001	37.960	76.020	1.26420-001	-1.71555+002	1.12912-001	-1.78382+002
8.95000+001	37.956	76.017	1.25425-001	-1.71767+002	1.12249-001	-1.77312+002
9.00000+001	37.952	76.014	1.24443-001	-1.71796+002	1.11513-001	-1.76428+002
9.05000+001	37.949	76.012	1.23474-001	-1.71913+002	1.10931-001	-1.75714+002
9.10000+001	37.945	76.009	1.22518-001	-1.72029+002	1.11598-001	-1.75159+002
9.15000+001	37.941	76.006	1.21574-001	-1.72142+002	1.09800-001	-1.74624+002
9.20000+001	37.937	76.003	1.20642-001	-1.72253+002	1.10321-001	-1.74538+002
9.25000+001	37.933	76.000	1.19722-001	-1.72362+002	1.09499-001	-1.74003+002
9.30000+001	37.929	75.997	1.18814-001	-1.72468+002	1.08513-001	-1.74423+002
9.35000+001	37.925	75.995	1.17918-001	-1.72573+002	1.08155-001	-1.74040+002
9.40000+001	37.921	75.992	1.17034-001	-1.72676+002	1.08124-001	-1.73488+002
9.45000+001	37.917	75.989	1.16160-001	-1.72777+002	1.06563-001	-1.73696+002
9.50000+001	37.913	75.986	1.15298-001	-1.72876+002	1.06523-001	-1.73650+002
9.55000+001	37.909	75.983	1.14447-001	-1.72974+002	1.06055-001	-1.73779+002
9.60000+001	37.906	75.981	1.13607-001	-1.73069+002	1.06187-001	-1.73397+002
9.65000+001	37.902	75.978	1.12777-001	-1.73162+002	1.04877-001	-1.73088+002
9.70000+001	37.898	75.975	1.11958-001	-1.73254+002	1.04145-001	-1.73323+002
9.75000+001	37.894	75.972	1.11149-001	-1.73344+002	1.03692-001	-1.73256+002
9.80000+001	37.890	75.969	1.10350-001	-1.73433+002	1.02846-001	-1.73347+002
9.85000+001	37.886	75.966	1.09561-001	-1.73519+002	1.02582-001	-1.73612+002
9.90000+001	37.882	75.964	1.08782-001	-1.73604+002	1.02637-001	-1.73514+002
9.95000+001	37.878	75.961	1.08013-001	-1.73687+002	1.02137-001	-1.73206+002
1.00000+002	37.874	75.958	1.07254-001	-1.73769+002	1.01239-001	-1.73102+002
1.00500+002	37.870	75.955	1.06504-001	-1.73849+002	1.00528-001	-1.73192+002
1.01000+002	37.866	75.952	1.05763-001	-1.73928+002	1.00059-001	-1.73229+002
1.01500+002	37.863	75.950	1.05031-001	-1.74005+002	9.95098-002	-1.73157+002
1.02000+002	37.859	75.947	1.04308-001	-1.74080+002	9.87410-002	-1.73118+002
1.02500+002	37.855	75.944	1.03594-001	-1.74155+002	9.79302-002	-1.73224+002
1.03000+002	37.851	75.941	1.02889-001	-1.74227+002	9.73075-002	-1.73437+002
1.03500+002	37.847	75.938	1.02193-001	-1.74298+002	9.69333-002	-1.73636+002
1.04000+002	37.843	75.935	1.01505-001	-1.74368+002	9.66900-002	-1.73727+002
1.04500+002	37.839	75.933	1.00825-001	-1.74437+002	9.64119-002	-1.73706+002
1.05000+002	37.835	75.930	1.00153-001	-1.74504+002	9.60023-002	-1.73630+002
1.05500+002	37.831	75.927	9.94898-002	-1.74570+002	9.54639-002	-1.73565+002
1.06000+002	37.827	75.924	9.88343-002	-1.74634+002	9.48635-002	-1.73551+002
1.06500+002	37.823	75.921	9.81867-002	-1.74697+002	9.42758-002	-1.73588+002
1.07000+002	37.819	75.919	9.75468-002	-1.74759+002	9.37455-002	-1.73650+002
1.07500+002	37.816	75.916	9.69145-002	-1.74820+002	9.32757-002	-1.73707+002
1.08000+002	37.812	75.913	9.62897-002	-1.74879+002	9.28395-002	-1.73736+002
1.08500+002	37.808	75.910	9.56722-002	-1.74938+002	9.23992-002	-1.73734+002
1.09000+002	37.804	75.907	9.50621-002	-1.74995+002	9.19241-002	-1.73707+002
1.09500+002	37.800	75.904	9.44591-002	-1.75051+002	9.13992-002	-1.73674+002
1.10000+002	37.796	75.902	9.38632-002	-1.75106+002	9.08269-002	-1.73651+002
1.10500+002	37.792	75.899	9.32742-002	-1.75160+002	9.02221-002	-1.73652+002
1.11000+002	37.788	75.896	9.26921-002	-1.75212+002	8.96096-002	-1.73684+002
1.11500+002	37.784	75.893	9.21167-002	-1.75264+002	8.90018-002	-1.73747+002
1.12000+002	37.780	75.890	9.15479-002	-1.75314+002	8.84251-002	-1.73835+002
1.12500+002	37.776	75.888	9.09858-002	-1.75364+002	8.78806-002	-1.73940+002
1.13000+002	37.773	75.885	9.04300-002	-1.75413+002	8.73896-002	-1.74051+002
1.13500+002	37.769	75.882	8.98807-002	-1.75460+002	8.69312-002	-1.74159+002
1.14000+002	37.765	75.879	8.93375-002	-1.75507+002	8.65043-002	-1.74257+002
1.14500+002	37.761	75.876	8.88006-002	-1.75552+002	8.60997-002	-1.74342+002
1.15000+002	37.757	75.874	8.82697-002	-1.75597+002	8.57077-002	-1.74410+002
1.15500+002	37.753	75.871	8.77449-002	-1.75641+002	8.53199-002	-1.74464+002
1.16000+002	37.749	75.868	8.72259-002	-1.75684+002	8.49297-002	-1.74504+002
1.16500+002	37.745	75.865	8.67127-002	-1.75726+002	8.45324-002	-1.74535+002
1.17000+002	37.741	75.862	8.62053-002	-1.75767+002	8.41260-002	-1.74559+002
1.17500+002	37.737	75.859	8.57035-002	-1.75808+002	8.37099-002	-1.74580+002
1.18000+002	37.733	75.857	8.52073-002	-1.75847+002	8.32854-002	-1.74601+002
1.18500+002	37.730	75.854	8.47165-002	-1.75886+002	8.28545-002	-1.74625+002
1.19000+002	37.726	75.851	8.42312-002	-1.75924+002	8.24200-002	-1.74652+002
1.19500+002	37.722	75.848	8.37512-002	-1.75961+002	8.19845-002	-1.74683+002
1.20000+002	37.718	75.845	8.32764-002	-1.75997+002	8.15510-002	-1.74720+002
1.20500+002	37.714	75.843	8.28068-002	-1.76033+002	8.11217-002	-1.74761+002
1.21000+002	37.710	75.840	8.23423-002	-1.76068+002	8.06986-002	-1.74806+002
1.21500+002	37.706	75.837	8.18828-002	-1.76102+002	8.02829-002	-1.74853+002
1.22000+002	37.702	75.834	8.14283-002	-1.76136+002	7.98756-002	-1.74902+002
1.22500+002	37.698	75.831	8.09786-002	-1.76168+002	7.94770-002	-1.74952+002
1.23000+002	37.694	75.829	8.05338-002	-1.76201+002	7.90868-002	-1.75002+002
1.23500+002	37.690	75.826	8.00937-002	-1.76232+002	7.87049-002	-1.75050+002
1.24000+002	37.686	75.823	7.96583-002	-1.76263+002	7.83303-002	-1.75095+002
1.24500+002	37.683	75.820	7.92274-002	-1.76293+002	7.79622-002	-1.75138+002
1.25000+002	37.679	75.817	7.88011-002	-1.76323+002	7.75998-002	-1.75178+002
1.25500+002	37.675	75.815	7.83793-002	-1.76352+002	7.72419-002	-1.75214+002
1.26000+002	37.671	75.812	7.79619-002	-1.76380+002	7.68876-002	-1.75246+002
1.26500+002	37.667	75.809	7.75488-002	-1.76408+002	7.65360-002	-1.75275+002
1.27000+002	37.663	75.806	7.71401-002	-1.76435+002	7.61863-002	-1.75300+002
1.27500+002	37.659	75.803	7.67355-002	-1.76461+002	7.58379-002	-1.75322+002

Table 7. Path 2, 20 MHz (see graphs 13 and 14).

GROUND WAVE PROPAGATION OVER AN INHOMOGENEOUS EARTH
ON A BEARING OF: 150.000(DEG.) FROM 38.655(DEG. LAT.), 76.528(DEG. LONG.)

EPSILON = 8.10000+001, SIGMA = 2.00000+000, RE(EPSILONC) = 8.10000+001, IM(EPSILONC) = -1.80000+003
EPSILON1 = 4.80000+001, SIGMA1 = 1.00000+000, RE(EPSILONC1) = 4.80000+001, IM(EPSILONC1) = -9.00000+002
RE(Z) = 6.41977+000, IM(Z) = 6.13737+000, RE(Z1) = 9.11306+000, IM(Z1) = 8.63998+000

Y0 = 0.00000+000KM, Y1 = -1.42000+000KM, Y2 = 2.12500+000KM, R1 = 8.85000+001KM, R2 = 8.41800+001KM

FREQUENCY = 2.00000+001MHZ, WAVELENGTH = 1.49897-002KM

U (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
3.36720+000	38.629	76.509	8.26498-001	-6.19248+001	8.26498-001	-6.19248+001
6.73440+000	38.603	76.489	6.95928-001	-8.56384+001	6.95928-001	-8.56384+001
1.01016+001	38.576	76.470	5.89622-001	-1.02565+002	5.89622-001	-1.02565+002
1.34688+001	38.550	76.451	5.02173-001	-1.15776+002	5.02173-001	-1.15776+002
1.68360+001	38.524	76.431	4.29864-001	-1.26483+002	4.29864-001	-1.26483+002
2.02032+001	38.497	76.412	3.69866-001	-1.35327+002	3.69866-001	-1.35327+002
2.35704+001	38.471	76.393	3.19947-001	-1.42697+002	3.19947-001	-1.42697+002
2.69376+001	38.445	76.373	2.78314-001	-1.48863+002	2.78314-001	-1.48863+002
3.03048+001	38.419	76.354	2.43511-001	-1.54019+002	2.43511-001	-1.54019+002
3.36720+001	38.392	76.335	2.14348-001	-1.58319+002	2.14348-001	-1.58319+002
3.70392+001	38.366	76.315	1.89850-001	-1.61890+002	1.89850-001	-1.61890+002
4.04064+001	38.340	76.296	1.69213-001	-1.64838+002	1.69213-001	-1.64838+002
4.37736+001	38.314	76.277	1.51775-001	-1.67256+002	1.51775-001	-1.67256+002
4.71408+001	38.287	76.258	1.36988-001	-1.69227+002	1.36988-001	-1.69227+002
5.05080+001	38.261	76.239	1.24400-001	-1.70821+002	1.24400-001	-1.70821+002
5.38752+001	38.235	76.219	1.13638-001	-1.72102+002	1.13638-001	-1.72102+002
5.72424+001	38.208	76.200	1.04395-001	-1.73126+002	1.04395-001	-1.73126+002
6.06096+001	38.182	76.181	9.64146-002	-1.73939+002	9.64146-002	-1.73939+002
6.39768+001	38.156	76.162	8.94886-002	-1.74582+002	8.94886-002	-1.74582+002
6.73440+001	38.130	76.143	8.34443-002	-1.75088+002	8.34443-002	-1.75088+002
7.07112+001	38.103	76.124	7.81395-002	-1.75487+002	7.81395-002	-1.75487+002
7.40784+001	38.077	76.105	7.34574-002	-1.75800+002	7.34574-002	-1.75800+002
7.74456+001	38.051	76.085	6.93017-002	-1.76046+002	6.93017-002	-1.76046+002
8.08128+001	38.024	76.066	6.55929-002	-1.76241+002	6.55929-002	-1.76241+002
8.41800+001	37.998	76.047	6.22656-002	-1.76394+002	6.22656-002	-1.76394+002
8.41800+001	37.998	76.047	6.22656-002	-1.76394+002	6.22656-002	-1.76394+002
8.43528+001	37.997	76.046	6.21041-002	-1.76401+002	6.13750-002	-1.80102+002
8.45256+001	37.995	76.045	6.19434-002	-1.76408+002	6.05979-002	-1.81543+002
8.46984+001	37.994	76.044	6.17836-002	-1.76415+002	5.98575-002	-1.82589+002
8.48712+001	37.993	76.043	6.16246-002	-1.76421+002	5.91454-002	-1.83424+002
8.50440+001	37.991	76.042	6.14665-002	-1.76428+002	5.84578-002	-1.84119+002
8.52168+001	37.990	76.041	6.13092-002	-1.76434+002	5.77925-002	-1.84712+002
8.53896+001	37.988	76.040	6.11527-002	-1.76441+002	5.71440-002	-1.85225+002
8.55624+001	37.987	76.040	6.09970-002	-1.76447+002	5.65231-002	-1.85674+002
8.57352+001	37.986	76.039	6.08421-002	-1.76454+002	5.59167-002	-1.86070+002
8.59080+001	37.984	76.038	6.06880-002	-1.76460+002	5.53291-002	-1.86419+002
8.60808+001	37.983	76.037	6.05348-002	-1.76466+002	5.47565-002	-1.86729+002
8.62536+001	37.982	76.036	6.03823-002	-1.76472+002	5.42013-002	-1.87005+002
8.64264+001	37.980	76.035	6.02306-002	-1.76478+002	5.36619-002	-1.87249+002
8.65992+001	37.979	76.034	6.00797-002	-1.76484+002	5.31376-002	-1.87466+002
8.67720+001	37.978	76.033	5.99295-002	-1.76490+002	5.26280-002	-1.87658+002
8.69448+001	37.976	76.032	5.97801-002	-1.76496+002	5.21325-002	-1.87827+002
8.71176+001	37.975	76.031	5.96315-002	-1.76502+002	5.16507-002	-1.87976+002
8.72904+001	37.974	76.030	5.94836-002	-1.76507+002	5.11822-002	-1.88106+002
8.74632+001	37.972	76.029	5.93365-002	-1.76513+002	5.07265-002	-1.88219+002
8.76360+001	37.971	76.028	5.91901-002	-1.76519+002	5.02832-002	-1.88317+002
8.78088+001	37.970	76.027	5.90445-002	-1.76524+002	4.98518-002	-1.88399+002
8.79816+001	37.968	76.026	5.88996-002	-1.76530+002	4.94321-002	-1.88469+002
8.81544+001	37.967	76.025	5.87554-002	-1.76535+002	4.90237-002	-1.88526+002
8.83272+001	37.966	76.024	5.86119-002	-1.76540+002	4.86262-002	-1.88571+002
8.85000+001	37.964	76.023	5.84692-002	-1.76546+002	4.82392-002	-1.88606+002

Table 7 (cont.)

n (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
8.86250+001	37.963	76.022	5.83664-002	-1.76549+002	4.84801-002	-1.85168+002
8.87500+001	37.962	76.021	5.82639-002	-1.76553+002	4.80298-002	-1.84063+002
8.88750+001	37.961	76.021	5.81619-002	-1.76557+002	4.89006-002	-1.83385+002
8.90000+001	37.960	76.020	5.80602-002	-1.76561+002	4.89502-002	-1.82208+002
8.95000+001	37.956	76.017	5.76570-002	-1.76575+002	4.89328-002	-1.80807+002
9.00000+001	37.952	76.014	5.72594-002	-1.76589+002	4.89370-002	-1.79372+002
9.05000+001	37.949	76.012	5.68675-002	-1.76602+002	4.90715-002	-1.78261+002
9.10000+001	37.945	76.009	5.64811-002	-1.76616+002	4.96909-002	-1.77340+002
9.15000+001	37.941	76.006	5.61000-002	-1.76628+002	4.97101-002	-1.77372+002
9.20000+001	37.937	76.003	5.57241-002	-1.76640+002	4.95898-002	-1.76801+002
9.25000+001	37.933	76.000	5.53534-002	-1.76652+002	5.00869-002	-1.76328+002
9.30000+001	37.929	75.997	5.49877-002	-1.76664+002	4.96792-002	-1.75922+002
9.35000+001	37.925	75.995	5.46270-002	-1.76675+002	4.99432-002	-1.76045+002
9.40000+001	37.921	75.992	5.42711-002	-1.76686+002	4.97308-002	-1.75527+002
9.45000+001	37.917	75.989	5.39199-002	-1.76696+002	4.93128-002	-1.75432+002
9.50000+001	37.913	75.986	5.35734-002	-1.76707+002	4.96942-002	-1.75370+002
9.55000+001	37.909	75.983	5.32314-002	-1.76717+002	4.96009-002	-1.75210+002
9.60000+001	37.906	75.981	5.28939-002	-1.76726+002	4.92453-002	-1.74787+002
9.65000+001	37.902	75.978	5.25607-002	-1.76735+002	4.91322-002	-1.75193+002
9.70000+001	37.898	75.975	5.22319-002	-1.76745+002	4.91146-002	-1.75019+002
9.75000+001	37.894	75.972	5.19072-002	-1.76753+002	4.91180-002	-1.75086+002
9.80000+001	37.890	75.969	5.15867-002	-1.76762+002	4.90378-002	-1.74675+002
9.85000+001	37.886	75.966	5.12702-002	-1.76770+002	4.85743-002	-1.74678+002
9.90000+001	37.882	75.964	5.09577-002	-1.76778+002	4.84707-002	-1.74875+002
9.95000+001	37.878	75.961	5.06491-002	-1.76786+002	4.83232-002	-1.74820+002
1.00000+002	37.874	75.958	5.03443-002	-1.76794+002	4.81143-002	-1.74965+002
1.05000+002	37.870	75.955	5.00433-002	-1.76801+002	4.81355-002	-1.75066+002
1.10000+002	37.866	75.952	4.97459-002	-1.76808+002	4.80938-002	-1.74859+002
1.15000+002	37.863	75.950	4.94522-002	-1.76815+002	4.78027-002	-1.74683+002
1.20000+002	37.859	75.947	4.91619-002	-1.76822+002	4.74940-002	-1.74742+002
1.25000+002	37.855	75.944	4.88752-002	-1.76829+002	4.73124-002	-1.74837+002
1.30000+002	37.851	75.941	4.85919-002	-1.76835+002	4.71429-002	-1.74826+002
1.35000+002	37.847	75.938	4.83120-002	-1.76841+002	4.68883-002	-1.74812+002
1.40000+002	37.843	75.935	4.80353-002	-1.76847+002	4.66128-002	-1.74913+002
1.45000+002	37.839	75.933	4.77619-002	-1.76853+002	4.64208-002	-1.75088+002
1.50000+002	37.835	75.930	4.74916-002	-1.76859+002	4.63212-002	-1.75211+002
1.55000+002	37.831	75.927	4.72245-002	-1.76865+002	4.62374-002	-1.75219+002
1.60000+002	37.827	75.924	4.69605-002	-1.76870+002	4.60961-002	-1.75149+002
1.65000+002	37.823	75.921	4.66994-002	-1.76876+002	4.58847-002	-1.75083+002
1.70000+002	37.819	75.919	4.64414-002	-1.76881+002	4.56390-002	-1.75073+002
1.75000+002	37.816	75.916	4.61862-002	-1.76886+002	4.54059-002	-1.75113+002
1.80000+002	37.812	75.913	4.59339-002	-1.76891+002	4.52023-002	-1.75167+002
1.85000+002	37.808	75.910	4.56844-002	-1.76896+002	4.50196-002	-1.75200+002
1.90000+002	37.804	75.907	4.54377-002	-1.76901+002	4.48343-002	-1.75200+002
1.95000+002	37.800	75.904	4.51937-002	-1.76906+002	4.46276-002	-1.75181+002
1.10000+002	37.796	75.902	4.49523-002	-1.76910+002	4.43944-002	-1.75168+002
1.10500+002	37.792	75.899	4.47136-002	-1.76915+002	4.41437-002	-1.75181+002
1.11000+002	37.788	75.896	4.44775-002	-1.76919+002	4.38915-002	-1.75230+002
1.11500+002	37.784	75.893	4.42439-002	-1.76923+002	4.36530-002	-1.75308+002
1.12000+002	37.780	75.890	4.40129-002	-1.76927+002	4.34372-002	-1.75403+002
1.12500+002	37.776	75.888	4.37843-002	-1.76931+002	4.32452-002	-1.75496+002
1.13000+002	37.773	75.885	4.35581-002	-1.76935+002	4.30718-002	-1.75574+002
1.13500+002	37.769	75.882	4.33342-002	-1.76939+002	4.29083-002	-1.75631+002
1.14000+002	37.765	75.879	4.31128-002	-1.76943+002	4.27461-002	-1.75665+002
1.14500+002	37.761	75.876	4.28936-002	-1.76947+002	4.25783-002	-1.75681+002
1.15000+002	37.757	75.874	4.26767-002	-1.76950+002	4.24015-002	-1.75687+002
1.15500+002	37.753	75.871	4.24620-002	-1.76954+002	4.22152-002	-1.75690+002
1.16000+002	37.749	75.868	4.22496-002	-1.76958+002	4.20213-002	-1.75696+002
1.16500+002	37.745	75.865	4.20392-002	-1.76961+002	4.18243-002	-1.75709+002
1.17000+002	37.741	75.862	4.18311-002	-1.76964+002	4.16246-002	-1.75729+002
1.17500+002	37.737	75.859	4.16250-002	-1.76968+002	4.14283-002	-1.75757+002
1.18000+002	37.733	75.857	4.14210-002	-1.76971+002	4.12365-002	-1.75789+002
1.18500+002	37.730	75.854	4.12190-002	-1.76974+002	4.10502-002	-1.75823+002
1.19000+002	37.726	75.851	4.10190-002	-1.76977+002	4.08694-002	-1.75856+002
1.19500+002	37.722	75.848	4.08210-002	-1.76980+002	4.06932-002	-1.75884+002
1.20000+002	37.718	75.845	4.06249-002	-1.76983+002	4.05202-002	-1.75907+002
1.20500+002	37.714	75.843	4.04308-002	-1.76986+002	4.03487-002	-1.75923+002
1.21000+002	37.710	75.840	4.02385-002	-1.76989+002	4.01774-002	-1.75934+002
1.21500+002	37.706	75.837	4.00481-002	-1.76992+002	4.00050-002	-1.75939+002
1.22000+002	37.702	75.834	3.98595-002	-1.76995+002	3.98305-002	-1.75940+002
1.22500+002	37.698	75.831	3.96727-002	-1.76998+002	3.96536-002	-1.75939+002
1.23000+002	37.694	75.829	3.94877-002	-1.77000+002	3.94742-002	-1.75938+002
1.23500+002	37.690	75.826	3.93045-002	-1.77003+002	3.92925-002	-1.75937+002
1.24000+002	37.686	75.823	3.91229-002	-1.77006+002	3.91092-002	-1.75939+002
1.24500+002	37.683	75.820	3.89431-002	-1.77008+002	3.89248-002	-1.75943+002
1.25000+002	37.679	75.817	3.87650-002	-1.77011+002	3.87402-002	-1.75951+002
1.25500+002	37.675	75.815	3.85885-002	-1.77013+002	3.85562-002	-1.75964+002
1.26000+002	37.671	75.812	3.84136-002	-1.77016+002	3.83735-002	-1.75980+002
1.26500+002	37.667	75.809	3.82403-002	-1.77018+002	3.81927-002	-1.75999+002
1.27000+002	37.663	75.806	3.80687-002	-1.77020+002	3.80143-002	-1.76022+002
1.27500+002	37.659	75.803	3.78985-002	-1.77023+002	3.78388-002	-1.76047+002

Table 8. Path 2, 25 MHz (see graphs 15 and 16).

GROUND WAVE PROPAGATION OVER AN INHOMOGENEOUS EARTH
ON A BEARING OF: 150.000(DEG.) FROM 38.655(DEG. LAT.), 76.528(DEG. LONG.)

EPSILON = 8.10000+001, SIGMA = 2.00000+000, RE(EPSILONC) = 8.10000+001, IM(EPSILONC) = -1.44000+003
EPSILON1 = 4.80000+001, SIGMA1 = 1.00000+000, RE(EPSILONC1) = 4.80000+001, IM(EPSILONC1) = -7.20000+002
RE(Z) = 7.21385+000, IM(Z) = 6.81948+000, RE(Z1) = 1.02486+001, IM(Z1) = 9.58807+000

Y0 = 0.00000+000KM, Y1 = -1.42000+000KM, Y2 = 2.12500+000KM, R1 = 8.85000+001KM, R2 = 8.41800+001KM

FREQUENCY = 2.50000+001MHZ, WAVELENGTH = 1.19917-002KM

D (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
3.36720+000	38.629	76.509	7.44502-001	-7.62403+001	7.44502-001	-7.62403+001
6.73440+000	38.603	76.489	5.72819-001	-1.04029+002	5.72819-001	-1.04029+002
1.01016+001	38.576	76.470	4.46928-001	-1.22861+002	4.46928-001	-1.22861+002
1.34688+001	38.550	76.451	3.53335-001	-1.36673+002	3.53335-001	-1.36673+002
1.68360+001	38.524	76.431	2.83184-001	-1.47064+002	2.83184-001	-1.47064+002
2.02032+001	38.497	76.412	2.30252-001	-1.54920+002	2.30252-001	-1.54920+002
2.35704+001	38.471	76.393	1.90052-001	-1.60823+002	1.90052-001	-1.60823+002
2.69376+001	38.445	76.373	1.59303-001	-1.65209+002	1.59303-001	-1.65209+002
3.03048+001	38.419	76.354	1.35589-001	-1.68419+002	1.35589-001	-1.68419+002
3.36720+001	38.392	76.335	1.17123-001	-1.70734+002	1.17123-001	-1.70734+002
3.70392+001	38.366	76.315	1.02585-001	-1.72379+002	1.02585-001	-1.72379+002
4.04064+001	38.340	76.296	9.09969-002	-1.73536+002	9.09969-002	-1.73536+002
4.37736+001	38.314	76.277	8.16376-002	-1.74342+002	8.16376-002	-1.74342+002
4.71408+001	38.287	76.258	7.39748-002	-1.74903+002	7.39748-002	-1.74903+002
5.05080+001	38.261	76.239	6.76151-002	-1.75294+002	6.76151-002	-1.75294+002
5.38752+001	38.235	76.219	6.22673-002	-1.75568+002	6.22673-002	-1.75568+002
5.72424+001	38.208	76.200	5.77148-002	-1.75763+002	5.77148-002	-1.75763+002
6.06096+001	38.182	76.181	5.37950-002	-1.75905+002	5.37950-002	-1.75905+002
6.39768+001	38.156	76.162	5.03852-002	-1.76009+002	5.03852-002	-1.76009+002
6.73440+001	38.130	76.143	4.73914-002	-1.76089+002	4.73914-002	-1.76089+002
7.07112+001	38.103	76.124	4.47410-002	-1.76150+002	4.47410-002	-1.76150+002
7.40784+001	38.077	76.105	4.23774-002	-1.76200+002	4.23774-002	-1.76200+002
7.74456+001	38.051	76.085	4.02557-002	-1.76240+002	4.02557-002	-1.76240+002
8.08128+001	38.024	76.066	3.83399-002	-1.76274+002	3.83399-002	-1.76274+002
8.41800+001	37.998	76.047	3.66010-002	-1.76303+002	3.66010-002	-1.76303+002
8.41800+001	37.998	76.047	3.66010-002	-1.76303+002	3.66010-002	-1.76303+002
8.43528+001	37.997	76.046	3.65161-002	-1.76304+002	3.58556-002	-1.80859+002
8.45256+001	37.995	76.045	3.64315-002	-1.76305+002	3.52246-002	-1.82553+002
8.46984+001	37.994	76.044	3.63474-002	-1.76307+002	3.46358-002	-1.83736+002
8.48712+001	37.993	76.043	3.62637-002	-1.76308+002	3.40804-002	-1.84640+002
8.50440+001	37.991	76.042	3.61803-002	-1.76309+002	3.35542-002	-1.85361+002
8.52168+001	37.990	76.041	3.60974-002	-1.76311+002	3.30546-002	-1.85946+002
8.53896+001	37.988	76.040	3.60148-002	-1.76312+002	3.25793-002	-1.86426+002
8.55624+001	37.987	76.040	3.59326-002	-1.76313+002	3.21269-002	-1.86821+002
8.57352+001	37.986	76.039	3.58508-002	-1.76315+002	3.16958-002	-1.87146+002
8.59080+001	37.984	76.038	3.57693-002	-1.76316+002	3.12849-002	-1.87412+002
8.60808+001	37.983	76.037	3.56883-002	-1.76317+002	3.08929-002	-1.87628+002
8.62536+001	37.982	76.036	3.56076-002	-1.76318+002	3.05189-002	-1.87800+002
8.64264+001	37.980	76.035	3.55273-002	-1.76320+002	3.01618-002	-1.87934+002
8.65992+001	37.979	76.034	3.54473-002	-1.76321+002	2.98209-002	-1.88035+002
8.67720+001	37.978	76.033	3.53677-002	-1.76322+002	2.94952-002	-1.88107+002
8.69448+001	37.976	76.032	3.52885-002	-1.76323+002	2.91841-002	-1.88153+002
8.71176+001	37.975	76.031	3.52096-002	-1.76325+002	2.88866-002	-1.88176+002
8.72904+001	37.974	76.030	3.51311-002	-1.76326+002	2.86023-002	-1.88179+002
8.74632+001	37.972	76.029	3.50530-002	-1.76327+002	2.83303-002	-1.88164+002
8.76360+001	37.971	76.028	3.49752-002	-1.76328+002	2.80700-002	-1.88133+002
8.78088+001	37.970	76.027	3.48977-002	-1.76329+002	2.78209-002	-1.88089+002
8.79816+001	37.968	76.026	3.48206-002	-1.76331+002	2.75824-002	-1.88032+002
8.81544+001	37.967	76.025	3.47438-002	-1.76332+002	2.73539-002	-1.87964+002
8.83272+001	37.966	76.024	3.46674-002	-1.76333+002	2.71350-002	-1.87887+002
8.85000+001	37.964	76.023	3.45913-002	-1.76334+002	2.69251-002	-1.87801+002

Table 8 (cont.)

λ (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
R.86250+001	37.963	76.022	3.45365-002	-1.76335+002	2.72145-002	-1.83712+002
R.87500+001	37.962	76.021	3.44819-002	-1.76336+002	2.71355-002	-1.82819+002
R.88750+001	37.961	76.021	3.44274-002	-1.76337+002	2.71114-002	-1.81341+002
R.90000+001	37.960	76.020	3.43731-002	-1.76337+002	2.75293-002	-1.80669+002
R.95000+001	37.956	76.017	3.41576-002	-1.76341+002	2.82559-002	-1.77671+002
9.00000+001	37.952	76.014	3.39449-002	-1.76344+002	2.84362-002	-1.76429+002
9.05000+001	37.949	76.012	3.37348-002	-1.76347+002	2.89764-002	-1.75910+002
9.10000+001	37.945	76.009	3.35273-002	-1.76350+002	2.92505-002	-1.75014+002
9.15000+001	37.941	76.006	3.33224-002	-1.76353+002	2.95291-002	-1.74451+002
9.20000+001	37.937	76.003	3.31200-002	-1.76356+002	2.97456-002	-1.74199+002
9.25000+001	37.933	76.000	3.29201-002	-1.76359+002	2.99100-002	-1.74233+002
9.30000+001	37.929	75.997	3.27226-002	-1.76362+002	2.99428-002	-1.73522+002
9.35000+001	37.925	75.995	3.25275-002	-1.76365+002	3.00097-002	-1.73865+002
9.40000+001	37.921	75.992	3.23347-002	-1.76367+002	3.00559-002	-1.73440+002
9.45000+001	37.917	75.989	3.21443-002	-1.76370+002	3.00357-002	-1.73686+002
9.50000+001	37.913	75.986	3.19561-002	-1.76373+002	3.02571-002	-1.73556+002
9.55000+001	37.909	75.983	3.17701-002	-1.76375+002	3.01323-002	-1.73580+002
9.60000+001	37.906	75.981	3.15862-002	-1.76378+002	3.00109-002	-1.73880+002
9.65000+001	37.902	75.978	3.14046-002	-1.76381+002	3.01368-002	-1.73697+002
9.70000+001	37.898	75.975	3.12250-002	-1.76383+002	3.00731-002	-1.73727+002
9.75000+001	37.894	75.972	3.10474-002	-1.76386+002	2.98572-002	-1.73702+002
9.80000+001	37.890	75.969	3.08719-002	-1.76388+002	2.98806-002	-1.74054+002
9.85000+001	37.886	75.966	3.06984-002	-1.76391+002	2.98241-002	-1.73984+002
9.90000+001	37.882	75.964	3.05269-002	-1.76393+002	2.97987-002	-1.74059+002
9.95000+001	37.878	75.961	3.03573-002	-1.76395+002	2.96578-002	-1.73884+002
1.00000+002	37.874	75.958	3.01895-002	-1.76398+002	2.94501-002	-1.74112+002
1.00500+002	37.870	75.955	3.00237-002	-1.76400+002	2.94145-002	-1.74276+002
1.01000+002	37.866	75.952	2.98596-002	-1.76402+002	2.93082-002	-1.74310+002
1.01500+002	37.863	75.950	2.96974-002	-1.76404+002	2.92221-002	-1.74473+002
1.02000+002	37.859	75.947	2.95369-002	-1.76406+002	2.91892-002	-1.74466+002
1.02500+002	37.855	75.944	2.93782-002	-1.76409+002	2.90503-002	-1.74353+002
1.03000+002	37.851	75.941	2.92212-002	-1.76411+002	2.88567-002	-1.74418+002
1.03500+002	37.847	75.938	2.90658-002	-1.76413+002	2.87266-002	-1.74570+002
1.04000+002	37.843	75.935	2.89121-002	-1.76415+002	2.86235-002	-1.74635+002
1.04500+002	37.839	75.933	2.87601-002	-1.76417+002	2.84842-002	-1.74675+002
1.05000+002	37.835	75.930	2.86096-002	-1.76419+002	2.83387-002	-1.74792+002
1.05500+002	37.831	75.927	2.84608-002	-1.76421+002	2.82367-002	-1.74934+002
1.06000+002	37.827	75.924	2.83135-002	-1.76423+002	2.81639-002	-1.74996+002
1.06500+002	37.823	75.921	2.81677-002	-1.76425+002	2.80708-002	-1.74970+002
1.07000+002	37.819	75.919	2.80234-002	-1.76427+002	2.79366-002	-1.74934+002
1.07500+002	37.816	75.916	2.78806-002	-1.76429+002	2.77820-002	-1.74949+002
1.08000+002	37.812	75.913	2.77392-002	-1.76430+002	2.76366-002	-1.75012+002
1.08500+002	37.808	75.910	2.75993-002	-1.76432+002	2.75099-002	-1.75077+002
1.09000+002	37.804	75.907	2.74608-002	-1.76434+002	2.73903-002	-1.75114+002
1.09500+002	37.800	75.904	2.73237-002	-1.76436+002	2.72625-002	-1.75129+002
1.10000+002	37.796	75.902	2.71880-002	-1.76438+002	2.71215-002	-1.75148+002
1.10500+002	37.792	75.899	2.70536-002	-1.76439+002	2.69790-002	-1.75194+002
1.11000+002	37.788	75.896	2.69206-002	-1.76441+002	2.68349-002	-1.75268+002
1.11500+002	37.784	75.893	2.67889-002	-1.76443+002	2.67091-002	-1.75355+002
1.12000+002	37.780	75.890	2.66584-002	-1.76445+002	2.65978-002	-1.75432+002
1.12500+002	37.776	75.888	2.65292-002	-1.76446+002	2.64949-002	-1.75484+002
1.13000+002	37.773	75.885	2.64013-002	-1.76448+002	2.63923-002	-1.75509+002
1.13500+002	37.769	75.882	2.62746-002	-1.76449+002	2.62838-002	-1.75514+002
1.14000+002	37.765	75.879	2.61492-002	-1.76451+002	2.61674-002	-1.75513+002
1.14500+002	37.761	75.876	2.60249-002	-1.76453+002	2.60447-002	-1.75516+002
1.15000+002	37.757	75.874	2.59018-002	-1.76454+002	2.59192-002	-1.75529+002
1.15500+002	37.753	75.871	2.57799-002	-1.76456+002	2.57948-002	-1.75552+002
1.16000+002	37.749	75.868	2.56591-002	-1.76457+002	2.56740-002	-1.75581+002
1.16500+002	37.745	75.865	2.55395-002	-1.76459+002	2.55575-002	-1.75610+002
1.17000+002	37.741	75.862	2.54210-002	-1.76460+002	2.54446-002	-1.75635+002
1.17500+002	37.737	75.859	2.53036-002	-1.76462+002	2.53336-002	-1.75652+002
1.18000+002	37.733	75.857	2.51873-002	-1.76463+002	2.52225-002	-1.75661+002
1.18500+002	37.730	75.854	2.50720-002	-1.76465+002	2.51099-002	-1.75665+002
1.19000+002	37.726	75.851	2.49578-002	-1.76466+002	2.49951-002	-1.75667+002
1.19500+002	37.722	75.848	2.48446-002	-1.76468+002	2.48781-002	-1.75670+002
1.20000+002	37.718	75.845	2.47325-002	-1.76469+002	2.47597-002	-1.75677+002
1.20500+002	37.714	75.843	2.46214-002	-1.76471+002	2.46449-002	-1.75691+002
1.21000+002	37.710	75.840	2.45113-002	-1.76472+002	2.45231-002	-1.75710+002
1.21500+002	37.706	75.837	2.44021-002	-1.76473+002	2.44072-002	-1.75735+002
1.22000+002	37.702	75.834	2.42940-002	-1.76475+002	2.42941-002	-1.75765+002
1.22500+002	37.698	75.831	2.41868-002	-1.76476+002	2.41843-002	-1.75797+002
1.23000+002	37.694	75.829	2.40805-002	-1.76477+002	2.40777-002	-1.75828+002
1.23500+002	37.690	75.826	2.39752-002	-1.76479+002	2.39741-002	-1.75858+002
1.24000+002	37.686	75.823	2.38708-002	-1.76480+002	2.38731-002	-1.75885+002
1.24500+002	37.683	75.820	2.37673-002	-1.76481+002	2.37740-002	-1.75908+002
1.25000+002	37.679	75.817	2.36647-002	-1.76482+002	2.36763-002	-1.75927+002
1.25500+002	37.675	75.815	2.35630-002	-1.76484+002	2.35794-002	-1.75941+002
1.26000+002	37.671	75.812	2.34621-002	-1.76485+002	2.34829-002	-1.75952+002
1.26500+002	37.667	75.809	2.33622-002	-1.76486+002	2.33865-002	-1.75960+002
1.27000+002	37.663	75.806	2.32631-002	-1.76487+002	2.32899-002	-1.75966+002
1.27500+002	37.659	75.803	2.31648-002	-1.76489+002	2.31933-002	-1.75972+002

Table 9. Path 3, 10 MHz (see graphs 17 and 18).

GROUND WAVE PROPAGATION OVER AN INHOMOGENEOUS EARTH
ON A BEARING OF, 150.000(DEG.) FROM 38.655(DEG. LAT.), 76.528(DEG. LONG.)

EPSILON = 8.10000+001, SIGMA = 2.00000+000, RE(EPSILONC) = 8.10000+001, IM(EPSILONC) = -3.60000+003
EPSILON1 = 1.50000+001, SIGMA1 = 2.00000+003, RE(EPSILONC1) = 1.50000+001, IM(EPSILONC1) = -3.60000+000
RE(Z) = 4.49211+000, IM(Z) = 4.39218+000, RE(Z1) = 9.53227+001, IM(Z1) = 1.12786+001

Y0 = 0.00000+000KM, Y1 = -1.42000+000KM, Y2 = 2.12500+000KM, R1 = 8.85000+001KM, R2 = 8.41800+001KM

FREQUENCY = 1.00000+001MHZ, WAVELENGTH = 2.99793-002KM

D (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
3.36720+000	38.629	76.509	9.52940-001	-3.15859+001	9.52940-001	-3.15859+001
6.73440+000	38.603	76.489	9.11664-001	-4.44284+001	9.11664-001	-4.44284+001
1.01016+001	38.576	76.470	8.72883-001	-5.41270+001	8.72883-001	-5.41270+001
1.34688+001	38.550	76.451	8.36181-001	-6.21741+001	8.36181-001	-6.21741+001
1.68360+001	38.524	76.431	8.01342-001	-6.91506+001	8.01342-001	-6.91506+001
2.02032+001	38.497	76.412	7.68218-001	-7.53559+001	7.68218-001	-7.53559+001
2.35704+001	38.471	76.393	7.36691-001	-8.09684+001	7.36691-001	-8.09684+001
2.69376+001	38.445	76.373	7.06664-001	-8.61050+001	7.06664-001	-8.61050+001
3.03048+001	38.419	76.354	6.78050-001	-9.08471+001	6.78050-001	-9.08471+001
3.36720+001	38.392	76.335	6.50771-001	-9.52543+001	6.50771-001	-9.52543+001
3.70392+001	38.366	76.315	6.24757-001	-9.93718+001	6.24757-001	-9.93718+001
4.04064+001	38.340	76.296	5.99942-001	-1.03235+002	5.99942-001	-1.03235+002
4.37736+001	38.314	76.277	5.76265-001	-1.06872+002	5.76265-001	-1.06872+002
4.71408+001	38.287	76.258	5.53669-001	-1.10305+002	5.53669-001	-1.10305+002
5.05080+001	38.261	76.239	5.32107-001	-1.13554+002	5.32107-001	-1.13554+002
5.38752+001	38.235	76.219	5.11513-001	-1.16635+002	5.11513-001	-1.16635+002
5.72424+001	38.208	76.200	4.91855-001	-1.19560+002	4.91855-001	-1.19560+002
6.06096+001	38.182	76.181	4.73083-001	-1.22343+002	4.73083-001	-1.22343+002
6.39768+001	38.156	76.162	4.55154-001	-1.24992+002	4.55154-001	-1.24992+002
6.73440+001	38.130	76.143	4.38030-001	-1.27518+002	4.38030-001	-1.27518+002
7.07112+001	38.103	76.124	4.21671-001	-1.29927+002	4.21671-001	-1.29927+002
7.40784+001	38.077	76.105	4.06042-001	-1.32226+002	4.06042-001	-1.32226+002
7.74456+001	38.051	76.085	3.91109-001	-1.34422+002	3.91109-001	-1.34422+002
8.08128+001	38.024	76.066	3.76839-001	-1.36521+002	3.76839-001	-1.36521+002
8.41800+001	37.998	76.047	3.63201-001	-1.38528+002	3.63201-001	-1.38528+002
8.41800+001	37.998	76.047	3.63201-001	-1.38528+002	3.63201-001	-1.38528+002
8.43528+001	37.997	76.046	3.62518-001	-1.38628+002	1.68505-001	-1.69874+002
8.45256+001	37.995	76.045	3.61836-001	-1.38728+002	1.27529-001	-1.74814+002
8.46984+001	37.994	76.044	3.61156-001	-1.38828+002	1.05534-001	-1.76841+002
8.48712+001	37.993	76.043	3.60477-001	-1.38928+002	9.13818-002	-1.77765+002
8.50440+001	37.991	76.042	3.59800-001	-1.39028+002	8.13525-002	-1.78166+002
8.52168+001	37.990	76.041	3.59125-001	-1.39127+002	7.37920-002	-1.78288+002
8.53896+001	37.988	76.040	3.58451-001	-1.39227+002	6.78406-002	-1.78248+002
8.55624+001	37.987	76.040	3.57779-001	-1.39326+002	6.30036-002	-1.78111+002
8.57352+001	37.986	76.039	3.57108-001	-1.39424+002	5.89734-002	-1.77913+002
8.59080+001	37.984	76.038	3.56438-001	-1.39523+002	5.55506-002	-1.77676+002
8.60808+001	37.983	76.037	3.55771-001	-1.39621+002	5.25958-002	-1.77414+002
8.62536+001	37.982	76.036	3.55105-001	-1.39719+002	5.00117-002	-1.77135+002
8.64264+001	37.980	76.035	3.54440-001	-1.39817+002	4.77298-002	-1.76845+002
8.65992+001	37.979	76.034	3.53777-001	-1.39914+002	4.56873-002	-1.76550+002
8.67720+001	37.978	76.033	3.53115-001	-1.40012+002	4.38521-002	-1.76250+002
8.69448+001	37.976	76.032	3.52455-001	-1.40109+002	4.21840-002	-1.75949+002
8.71176+001	37.975	76.031	3.51797-001	-1.40206+002	4.06727-002	-1.75647+002
8.72904+001	37.974	76.030	3.51140-001	-1.40303+002	3.92826-002	-1.75346+002
8.74632+001	37.972	76.029	3.50485-001	-1.40399+002	3.80019-002	-1.75047+002
8.76360+001	37.971	76.028	3.49831-001	-1.40495+002	3.68170-002	-1.74749+002
8.78088+001	37.970	76.027	3.49178-001	-1.40591+002	3.57164-002	-1.74452+002
8.79816+001	37.968	76.026	3.48527-001	-1.40687+002	3.46905-002	-1.74158+002
8.81544+001	37.967	76.025	3.47878-001	-1.40783+002	3.37310-002	-1.73867+002
8.83272+001	37.966	76.024	3.47230-001	-1.40878+002	3.28312-002	-1.73578+002
8.85000+001	37.964	76.023	3.46584-001	-1.40973+002	3.19850-002	-1.73291+002

Table 9 (cont.)

θ (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
8.86250+001	37.963	76.022	3.46117-001	-1.41042+002	1.11848-001	-1.22463+002
8.87500+001	37.962	76.021	3.45651-001	-1.41111+002	1.15296-001	-1.17749+002
8.88750+001	37.961	76.021	3.45186-001	-1.41179+002	1.28401-001	-1.17327+002
8.90000+001	37.960	76.020	3.44722-001	-1.41248+002	1.19054-001	-1.15913+002
8.95000+001	37.956	76.017	3.42872-001	-1.41520+002	1.62165-001	-1.22888+002
9.00000+001	37.952	76.014	3.41035-001	-1.41791+002	1.68073-001	-1.25282+002
9.05000+001	37.949	76.012	3.39210-001	-1.42059+002	1.94154-001	-1.23138+002
9.10000+001	37.949	76.009	3.37397-001	-1.42326+002	1.86406-001	-1.25223+002
9.15000+001	37.941	76.006	3.35597-001	-1.42592+002	1.96257-001	-1.28066+002
9.20000+001	37.937	76.003	3.33808-001	-1.42855+002	2.11897-001	-1.23661+002
9.25000+001	37.933	76.000	3.32031-001	-1.43117+002	2.09915-001	-1.25838+002
9.30000+001	37.929	75.997	3.30266-001	-1.43377+002	2.05669-001	-1.26491+002
9.35000+001	37.925	75.995	3.28513-001	-1.43635+002	2.21704-001	-1.30629+002
9.40000+001	37.921	75.992	3.26772-001	-1.43892+002	2.31588-001	-1.27509+002
9.45000+001	37.917	75.989	3.25042-001	-1.44147+002	2.28284-001	-1.27866+002
9.50000+001	37.913	75.986	3.23323-001	-1.44400+002	2.33775-001	-1.27705+002
9.55000+001	37.909	75.983	3.21616-001	-1.44652+002	2.28262-001	-1.26828+002
9.60000+001	37.906	75.981	3.19920-001	-1.44902+002	2.22441-001	-1.29530+002
9.65000+001	37.902	75.978	3.18236-001	-1.45150+002	2.30786-001	-1.32300+002
9.70000+001	37.898	75.975	3.16563-001	-1.45397+002	2.41084-001	-1.32155+002
9.75000+001	37.894	75.972	3.14900-001	-1.45642+002	2.43507-001	-1.31235+002
9.80000+001	37.890	75.969	3.13249-001	-1.45886+002	2.42522-001	-1.31403+002
9.85000+001	37.886	75.966	3.11609-001	-1.46128+002	2.44531-001	-1.32169+002
9.90000+001	37.882	75.964	3.09980-001	-1.46368+002	2.49089-001	-1.32290+002
9.95000+001	37.878	75.961	3.08361-001	-1.46607+002	2.51824-001	-1.31557+002
1.00000+002	37.874	75.958	3.06753-001	-1.46844+002	2.50248-001	-1.30676+002
1.00500+002	37.870	75.955	3.05156-001	-1.47079+002	2.45377-001	-1.30468+002
1.01000+002	37.866	75.952	3.03570-001	-1.47314+002	2.40127-001	-1.31066+002
1.01500+002	37.863	75.950	3.01994-001	-1.47546+002	2.37082-001	-1.32411+002
1.02000+002	37.859	75.947	3.00428-001	-1.47777+002	2.37122-001	-1.33897+002
1.02500+002	37.855	75.944	2.98873-001	-1.48007+002	2.39456-001	-1.35057+002
1.03000+002	37.851	75.941	2.97328-001	-1.48235+002	2.42574-001	-1.35720+002
1.03500+002	37.847	75.938	2.95793-001	-1.48461+002	2.45180-001	-1.35974+002
1.04000+002	37.843	75.935	2.94268-001	-1.48686+002	2.46623-001	-1.36021+002
1.04500+002	37.839	75.933	2.92754+001	-1.48910+002	2.46879-001	-1.36062+002
1.05000+002	37.835	75.930	2.91249-001	-1.49132+002	2.46335-001	-1.36227+002
1.05500+002	37.831	75.927	2.89754+001	-1.49352+002	2.45529-001	-1.36570+002
1.06000+002	37.827	75.924	2.88269-001	-1.49571+002	2.44950-001	-1.37067+002
1.06500+002	37.823	75.921	2.86794-001	-1.49789+002	2.44908-001	-1.37651+002
1.07000+002	37.819	75.919	2.85329-001	-1.50005+002	2.44504-001	-1.38234+002
1.07500+002	37.816	75.916	2.83873-001	-1.50220+002	2.46653-001	-1.38741+002
1.08000+002	37.812	75.913	2.82427-001	-1.50434+002	2.48152-001	-1.39122+002
1.08500+002	37.808	75.910	2.80991-001	-1.50646+002	2.49751-001	-1.39355+002
1.09000+002	37.804	75.907	2.79564-001	-1.50856+002	2.51211-001	-1.39448+002
1.09500+002	37.800	75.904	2.78146-001	-1.51066+002	2.52342-001	-1.39423+002
1.10000+002	37.796	75.902	2.76738-001	-1.51274+002	2.53016-001	-1.39314+002
1.10500+002	37.792	75.899	2.75339-001	-1.51480+002	2.53173-001	-1.39158+002
1.11000+002	37.788	75.896	2.73949-001	-1.51685+002	2.52808-001	-1.38999+002
1.11500+002	37.784	75.893	2.72568-001	-1.51889+002	2.51961-001	-1.38838+002
1.12000+002	37.780	75.890	2.71196-001	-1.52091+002	2.50702-001	-1.38728+002
1.12500+002	37.776	75.888	2.69834-001	-1.52292+002	2.49121-001	-1.38676+002
1.13000+002	37.773	75.885	2.68480-001	-1.52492+002	2.47312-001	-1.38693+002
1.13500+002	37.769	75.882	2.67135-001	-1.52691+002	2.45371-001	-1.38784+002
1.14000+002	37.765	75.879	2.65799-001	-1.52888+002	2.43382-001	-1.38948+002
1.14500+002	37.761	75.876	2.64472-001	-1.53083+002	2.41420-001	-1.39180+002
1.15000+002	37.757	75.874	2.63153-001	-1.53278+002	2.39544-001	-1.39473+002
1.15500+002	37.753	75.871	2.61843-001	-1.53471+002	2.37797-001	-1.39816+002
1.16000+002	37.749	75.868	2.60542-001	-1.53663+002	2.36208-001	-1.40198+002
1.16500+002	37.745	75.865	2.59249-001	-1.53854+002	2.34792-001	-1.40608+002
1.17000+002	37.741	75.862	2.57964-001	-1.54043+002	2.33553-001	-1.41034+002
1.17500+002	37.737	75.859	2.56689-001	-1.54231+002	2.32484-001	-1.41466+002
1.18000+002	37.733	75.857	2.55421-001	-1.54418+002	2.31571-001	-1.41896+002
1.18500+002	37.730	75.854	2.54162-001	-1.54604+002	2.30796-001	-1.42317+002
1.19000+002	37.726	75.851	2.52910-001	-1.54788+002	2.30139-001	-1.42722+002
1.19500+002	37.722	75.848	2.51667-001	-1.54971+002	2.29575-001	-1.43108+002
1.20000+002	37.718	75.845	2.50433-001	-1.55153+002	2.29082-001	-1.43472+002
1.20500+002	37.714	75.843	2.49206-001	-1.55334+002	2.28639-001	-1.43813+002
1.21000+002	37.710	75.840	2.47987-001	-1.55513+002	2.28226-001	-1.44131+002
1.21500+002	37.706	75.837	2.46776-001	-1.55692+002	2.27826-001	-1.44426+002
1.22000+002	37.702	75.834	2.45573-001	-1.55869+002	2.27423-001	-1.44701+002
1.22500+002	37.698	75.831	2.44378-001	-1.56044+002	2.27004-001	-1.44955+002
1.23000+002	37.694	75.829	2.43191-001	-1.56219+002	2.26561-001	-1.45193+002
1.23500+002	37.690	75.826	2.42011-001	-1.56393+002	2.26086-001	-1.45415+002
1.24000+002	37.686	75.823	2.40839-001	-1.56565+002	2.25572-001	-1.45625+002
1.24500+002	37.683	75.820	2.39675-001	-1.56736+002	2.25018-001	-1.45824+002
1.25000+002	37.679	75.817	2.38518-001	-1.56906+002	2.24421-001	-1.46015+002
1.25500+002	37.675	75.815	2.37369-001	-1.57075+002	2.23781-001	-1.46198+002
1.26000+002	37.671	75.812	2.36228-001	-1.57243+002	2.23100-001	-1.46379+002
1.26500+002	37.667	75.809	2.35093-001	-1.57410+002	2.22378-001	-1.46557+002
1.27000+002	37.663	75.806	2.33966-001	-1.57575+002	2.21618-001	-1.46733+002
1.27500+002	37.659	75.803	2.32847-001	-1.57739+002	2.20824-001	-1.46909+002

Table 10. Path 3, 15 MHz (see graphs 19 and 20).

GROUND WAVE PROPAGATION OVER AN INHOMOGENEOUS EARTH
ON A BEARING OF, 150.000(DEG.) FROM 38.655(DEG. LAT.), 76.528(DEG. LONG.)

EPSILON = 8.10000+001, SIGMA = 2.00000+000, RE(EPSILONC) = 8.10000+001, IM(EPSILONC) = -2.40000+003
EPSILON1 = 1.50000+001, SIGMA1 = 2.00000+003, RE(EPSILONC1) = 1.50000+001, IM(EPSILONC1) = -2.40000+000
RE(Z) = 5.53794+000, IM(Z) = 5.34744+000, RE(Z1) = 9.64236+001, IM(Z1) = 7.66514+000

Y0 = 0.00000+000KM, Y1 = -1.42000+000KM, Y2 = 2.12500+000KM, R1 = 8.85000+001KM, R2 = 8.41800+001KM

FREQUENCY = 1.50000+001MHZ, WAVELENGTH = 1.99862-002KM

U (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(U,Z,71) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
3.36720+000	38.629	76.509	8.97687-001	-4.69889+001	8.97687-001	-4.69889+001
4.73440+000	38.603	76.489	8.13521-001	-6.56377+001	8.13521-001	-6.56377+001
1.01016+001	38.576	76.470	7.39061-001	-7.94168+001	7.39061-001	-7.94168+001
1.34688+001	38.550	76.451	6.72635-001	-9.05912+001	6.72635-001	-9.05912+001
1.48360+001	38.524	76.431	6.13154-001	-1.00047+002	6.13154-001	-1.00047+002
2.02432+001	38.497	76.412	5.59777-001	-1.08245+002	5.59777-001	-1.08245+002
2.35704+001	38.471	76.393	5.11804-001	-1.15459+002	5.11804-001	-1.15459+002
2.69376+001	38.445	76.373	4.68638-001	-1.21872+002	4.68638-001	-1.21872+002
3.03048+001	38.419	76.354	4.29764-001	-1.27611+002	4.29764-001	-1.27611+002
3.36720+001	38.392	76.335	3.94724-001	-1.32771+002	3.94724-001	-1.32771+002
3.70392+001	38.366	76.315	3.63120-001	-1.37425+002	3.63120-001	-1.37425+002
4.04064+001	38.340	76.296	3.34594-001	-1.41631+002	3.34594-001	-1.41631+002
4.37736+001	38.314	76.277	3.08832-001	-1.45435+002	3.08832-001	-1.45435+002
4.71408+001	38.287	76.258	2.85549-001	-1.48877+002	2.85549-001	-1.48877+002
5.05080+001	38.261	76.239	2.64495-001	-1.51991+002	2.64495-001	-1.51991+002
5.38752+001	38.235	76.219	2.45444-001	-1.54806+002	2.45444-001	-1.54806+002
5.72424+001	38.208	76.200	2.28194-001	-1.57347+002	2.28194-001	-1.57347+002
6.06096+001	38.182	76.181	2.12564-001	-1.59639+002	2.12564-001	-1.59639+002
6.39768+001	38.156	76.162	1.98390-001	-1.61702+002	1.98390-001	-1.61702+002
6.73440+001	38.130	76.143	1.85528-001	-1.63555+002	1.85528-001	-1.63555+002
7.07112+001	38.103	76.124	1.73845-001	-1.65216+002	1.73845-001	-1.65216+002
7.40784+001	38.077	76.105	1.63223-001	-1.66703+002	1.63223-001	-1.66703+002
7.74456+001	38.051	76.085	1.53557-001	-1.68029+002	1.53557-001	-1.68029+002
8.08128+001	38.024	76.066	1.44752-001	-1.69210+002	1.44752-001	-1.69210+002
8.41800+001	37.998	76.047	1.36720-001	-1.70258+002	1.36720-001	-1.70258+002
8.41800+001	37.998	76.047	1.36720-001	-1.70258+002	1.36720-001	-1.70258+002
8.43528+001	37.997	76.046	1.36328-001	-1.70309+002	5.30528-002	-2.01342+002
8.45256+001	37.995	76.045	1.35937-001	-1.70359+002	3.88139-002	-2.03868+002
8.46984+001	37.994	76.044	1.35548-001	-1.70409+002	3.16654-002	-2.03986+002
8.48712+001	37.993	76.043	1.35160-001	-1.70459+002	2.72297-002	-2.03357+002
8.50440+001	37.991	76.042	1.34775-001	-1.70508+002	2.41500-002	-2.02441+002
8.52168+001	37.990	76.041	1.34391-001	-1.70557+002	2.18744-002	-2.01406+002
8.53896+001	37.988	76.040	1.34009-001	-1.70605+002	2.00991-002	-2.00326+002
8.55624+001	37.987	76.040	1.33629-001	-1.70654+002	1.86696-002	-1.99236+002
8.57352+001	37.986	76.039	1.33251-001	-1.70702+002	1.74883-002	-1.98151+002
8.59080+001	37.984	76.038	1.32874-001	-1.70749+002	1.64921-002	-1.97081+002
8.60808+001	37.983	76.037	1.32499-001	-1.70797+002	1.56381-002	-1.96030+002
8.62536+001	37.982	76.036	1.32126-001	-1.70844+002	1.48961-002	-1.95000+002
8.64264+001	37.980	76.035	1.31755-001	-1.70891+002	1.42442-002	-1.93991+002
8.65992+001	37.979	76.034	1.31385-001	-1.70937+002	1.36600-002	-1.93004+002
8.67720+001	37.978	76.033	1.31017-001	-1.70984+002	1.31490-002	-1.92037+002
8.69448+001	37.976	76.032	1.30650-001	-1.71030+002	1.26834-002	-1.91092+002
8.71176+001	37.975	76.031	1.30286-001	-1.71075+002	1.22615-002	-1.90166+002
8.72904+001	37.974	76.030	1.29923-001	-1.71121+002	1.18772-002	-1.89259+002
8.74632+001	37.972	76.029	1.29562-001	-1.71166+002	1.15253-002	-1.88370+002
8.76360+001	37.971	76.028	1.29202-001	-1.71211+002	1.12018-002	-1.87499+002
8.78088+001	37.970	76.027	1.28844-001	-1.71255+002	1.09032-002	-1.86645+002
8.79816+001	37.968	76.026	1.28487-001	-1.71299+002	1.06207-002	-1.85808+002
8.81544+001	37.967	76.025	1.28133-001	-1.71343+002	1.03697-002	-1.84985+002
8.83272+001	37.966	76.024	1.27780-001	-1.71387+002	1.01303-002	-1.84178+002
8.85000+001	37.964	76.023	1.27428-001	-1.71431+002	9.90656-003	-1.83386+002

Table 10 (cont.)

ρ (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
8.86250+001	37.963	76.022	1.27175-001	-1.71462+002	4.81705-002	-1.47457+002
8.87500+001	37.962	76.021	1.26922-001	-1.71493+002	5.25439-002	-1.45685+002
8.88750+001	37.961	76.021	1.26671-001	-1.71524+002	4.98775-002	-1.44540+002
8.90000+001	37.960	76.020	1.26420-001	-1.71555+002	5.82174-002	-1.48400+002
8.95000+001	37.956	76.017	1.25425-001	-1.71676+002	6.53862-002	-1.48100+002
9.00000+001	37.952	76.014	1.24443-001	-1.71796+002	7.18588-002	-1.47941+002
9.05000+001	37.949	76.012	1.23474-001	-1.71913+002	7.73400-002	-1.48386+002
9.10000+001	37.945	76.009	1.22518-001	-1.72029+002	8.22082-002	-1.52469+002
9.15000+001	37.941	76.006	1.21574-001	-1.72142+002	8.60913-002	-1.49517+002
9.20000+001	37.937	76.003	1.20642-001	-1.72253+002	8.74084-002	-1.52977+002
9.25000+001	37.933	76.000	1.19722-001	-1.72362+002	9.17290-002	-1.52531+002
9.30000+001	37.929	75.997	1.18814-001	-1.72468+002	8.82790-002	-1.52357+002
9.35000+001	37.925	75.995	1.17918-001	-1.72573+002	9.17866-002	-1.53667+002
9.40000+001	37.921	75.992	1.17034-001	-1.72676+002	9.66877-002	-1.54710+002
9.45000+001	37.917	75.989	1.16160-001	-1.72777+002	9.44439-002	-1.52927+002
9.50000+001	37.913	75.986	1.15298-001	-1.72876+002	9.54006-002	-1.54779+002
9.55000+001	37.909	75.983	1.14447-001	-1.72974+002	9.46613-002	-1.55686+002
9.60000+001	37.906	75.981	1.13607-001	-1.73069+002	9.85580-002	-1.57503+002
9.65000+001	37.902	75.978	1.12777-001	-1.73162+002	1.00348-001	-1.55813+002
9.70000+001	37.898	75.975	1.11958-001	-1.73254+002	9.85026-002	-1.56100+002
9.75000+001	37.894	75.972	1.11149-001	-1.73344+002	9.92652-002	-1.56732+002
9.80000+001	37.890	75.969	1.10350-001	-1.73433+002	9.83900-002	-1.56551+002
9.85000+001	37.886	75.966	1.09561-001	-1.73519+002	9.68246-002	-1.57999+002
9.90000+001	37.882	75.964	1.08782-001	-1.73604+002	9.84352-002	-1.59779+002
9.95000+001	37.878	75.961	1.08013-001	-1.73687+002	1.00935-001	-1.59868+002
1.00000+002	37.874	75.958	1.07254-001	-1.73769+002	1.01346-001	-1.59262+002
1.05000+002	37.870	75.955	1.06504-001	-1.73849+002	1.00544-001	-1.59333+002
1.10000+002	37.866	75.952	1.05763-001	-1.73928+002	1.00433-001	-1.59898+002
1.15000+002	37.863	75.950	1.05031-001	-1.74005+002	1.00999-001	-1.60104+002
1.20000+002	37.859	75.947	1.04308-001	-1.74080+002	1.01098-001	-1.59817+002
1.25000+002	37.855	75.944	1.03594-001	-1.74155+002	9.98968-002	-1.59595+002
1.30000+002	37.851	75.941	1.02889-001	-1.74227+002	9.82517-002	-1.59949+002
1.35000+002	37.847	75.938	1.02193-001	-1.74298+002	9.70588-002	-1.60888+002
1.40000+002	37.843	75.935	1.01505-001	-1.74368+002	9.68250-002	-1.61997+002
1.45000+002	37.839	75.933	1.00825-001	-1.74437+002	9.73475-002	-1.62835+002
1.50000+002	37.835	75.930	1.00153-001	-1.74504+002	9.80407-002	-1.63244+002
1.55000+002	37.831	75.927	9.94898-002	-1.74570+002	9.84420-002	-1.63339+002
1.60000+002	37.827	75.924	9.88343-002	-1.74634+002	9.83711-002	-1.63345+002
1.65000+002	37.823	75.921	9.81867-002	-1.74697+002	9.79554-002	-1.63443+002
1.70000+002	37.819	75.919	9.75468-002	-1.74759+002	9.74440-002	-1.63705+002
1.75000+002	37.816	75.916	9.69145-002	-1.74820+002	9.70579-002	-1.64090+002
1.80000+002	37.812	75.913	9.62897-002	-1.74879+002	9.68992-002	-1.64501+002
1.85000+002	37.808	75.910	9.56722-002	-1.74938+002	9.69392-002	-1.64834+002
1.90000+002	37.804	75.907	9.50621-002	-1.74995+002	9.70623-002	-1.65029+002
1.95000+002	37.800	75.904	9.44591-002	-1.75051+002	9.71291-002	-1.65077+002
1.10000+002	37.796	75.902	9.38632-002	-1.75106+002	9.70208-002	-1.65011+002
1.10500+002	37.792	75.899	9.32742-002	-1.75160+002	9.66955-002	-1.64891+002
1.11000+002	37.788	75.896	9.26921-002	-1.75212+002	9.61315-002	-1.64777+002
1.11500+002	37.784	75.893	9.21167-002	-1.75264+002	9.53762-002	-1.64722+002
1.12000+002	37.780	75.890	9.15479-002	-1.75314+002	9.44982-002	-1.64760+002
1.12500+002	37.776	75.888	9.09858-002	-1.75364+002	9.35745-002	-1.64905+002
1.13000+002	37.773	75.885	9.04300-002	-1.75413+002	9.26760-002	-1.65151+002
1.13500+002	37.769	75.882	8.98807-002	-1.75460+002	9.18586-002	-1.65479+002
1.14000+002	37.765	75.879	8.93375-002	-1.75507+002	9.11487-002	-1.65862+002
1.14500+002	37.761	75.876	8.88006-002	-1.75552+002	9.05632-002	-1.66268+002
1.15000+002	37.757	75.874	8.82697-002	-1.75597+002	9.00927-002	-1.66670+002
1.15500+002	37.753	75.871	8.77449-002	-1.75641+002	8.97171-002	-1.67046+002
1.16000+002	37.749	75.868	8.72259-002	-1.75684+002	8.94092-002	-1.67381+002
1.16500+002	37.745	75.865	8.67127-002	-1.75726+002	8.91402-002	-1.67668+002
1.17000+002	37.741	75.862	8.62053-002	-1.75767+002	8.88834-002	-1.67908+002
1.17500+002	37.737	75.859	8.57035-002	-1.75808+002	8.86171-002	-1.68105+002
1.18000+002	37.733	75.857	8.52073-002	-1.75847+002	8.83255-002	-1.68267+002
1.18500+002	37.730	75.854	8.47165-002	-1.75886+002	8.79990-002	-1.68404+002
1.19000+002	37.726	75.851	8.42312-002	-1.75924+002	8.76340-002	-1.68526+002
1.19500+002	37.722	75.848	8.37512-002	-1.75961+002	8.72314-002	-1.68642+002
1.20000+002	37.718	75.845	8.32764-002	-1.75997+002	8.67960-002	-1.68760+002
1.20500+002	37.714	75.843	8.28068-002	-1.76033+002	8.63347-002	-1.68885+002
1.21000+002	37.710	75.840	8.23423-002	-1.76068+002	8.58560-002	-1.69021+002
1.21500+002	37.706	75.837	8.18828-002	-1.76102+002	8.53684-002	-1.69172+002
1.22000+002	37.702	75.834	8.14283-002	-1.76136+002	8.48805-002	-1.69337+002
1.22500+002	37.698	75.831	8.09786-002	-1.76168+002	8.43995-002	-1.69516+002
1.23000+002	37.694	75.829	8.05338-002	-1.76201+002	8.39317-002	-1.69706+002
1.23500+002	37.690	75.826	8.00937-002	-1.76232+002	8.34818-002	-1.69905+002
1.24000+002	37.686	75.823	7.96583-002	-1.76263+002	8.30529-002	-1.70110+002
1.24500+002	37.683	75.820	7.92274-002	-1.76293+002	8.26467-002	-1.70318+002
1.25000+002	37.679	75.817	7.88011-002	-1.76323+002	8.22636-002	-1.70524+002
1.25500+002	37.675	75.815	7.83793-002	-1.76352+002	8.19029-002	-1.70725+002
1.26000+002	37.671	75.812	7.79619-002	-1.76380+002	8.15629-002	-1.70920+002
1.26500+002	37.667	75.809	7.75488-002	-1.76408+002	8.12414-002	-1.71105+002
1.27000+002	37.663	75.806	7.71401-002	-1.76435+002	8.09355-002	-1.71278+002
1.27500+002	37.659	75.803	7.67355-002	-1.76461+002	8.06423-002	-1.71439+002

Table 11. Path 3, 20 MHz (see graphs 21 and 22).

GROUND WAVE PROPAGATION OVER AN INHOMOGENEOUS EARTH
ON A BEARING OF, 150.000(DEG.) FROM 38.655(DEG. LAT.), 76.528(DEG. LONG.)

EPSILON = 8.10000+001, SIGMA = 2.00000+000, RE(EPSILONC) = 8.10000+001, IM(EPSILONC) = -1.80000+003
EPSILON1 = 1.50000+001, SIGMA1 = 2.00000+003, RE(EPSILONC1) = 1.50000+001, IM(EPSILONC1) = -1.80000+000
RE(Z) = 6.41977+000, IM(Z) = 6.13737+000, RE(Z1) = 9.68208+001, IM(Z1) = 5.78848+000

Y0 = 0.00000+000KM, Y1 = -1.42000+000KM, Y2 = 2.12500+000KM, R1 = 8.85000+001KM, R2 = 8.41800+001KM

FREQUENCY = 2.00000+001MHZ, WAVELENGTH = 1.49897-002KM

D (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
3.36720+000	38.629	76.509	8.26498-001	-6.19248+001	8.26498-001	-6.19248+001
6.73440+000	38.603	76.489	6.95928-001	-8.56384+001	6.95928-001	-8.56384+001
1.01016+001	38.576	76.470	5.89622-001	-1.02565+002	5.89622-001	-1.02565+002
1.34688+001	38.550	76.451	5.02173-001	-1.15776+002	5.02173-001	-1.15776+002
1.68360+001	38.524	76.431	4.29864-001	-1.26483+002	4.29864-001	-1.26483+002
2.02032+001	38.497	76.412	3.69866-001	-1.35327+002	3.69866-001	-1.35327+002
2.35704+001	38.471	76.393	3.19947-001	-1.42697+002	3.19947-001	-1.42697+002
2.69376+001	38.445	76.373	2.78314-001	-1.48863+002	2.78314-001	-1.48863+002
3.03048+001	38.419	76.354	2.43511-001	-1.54019+002	2.43511-001	-1.54019+002
3.36720+001	38.392	76.335	2.14348-001	-1.58319+002	2.14348-001	-1.58319+002
3.70392+001	38.366	76.315	1.89850-001	-1.61890+002	1.89850-001	-1.61890+002
4.04064+001	38.340	76.296	1.69213-001	-1.64838+002	1.69213-001	-1.64838+002
4.37736+001	38.314	76.277	1.51775-001	-1.67256+002	1.51775-001	-1.67256+002
4.71408+001	38.287	76.258	1.36988-001	-1.69227+002	1.36988-001	-1.69227+002
5.05080+001	38.261	76.239	1.24400-001	-1.70821+002	1.24400-001	-1.70821+002
5.38752+001	38.235	76.219	1.13638-001	-1.72102+002	1.13638-001	-1.72102+002
5.72424+001	38.208	76.200	1.04395-001	-1.73126+002	1.04395-001	-1.73126+002
6.06096+001	38.182	76.181	9.64146-002	-1.73939+002	9.64146-002	-1.73939+002
6.39768+001	38.156	76.162	8.94886-002	-1.74582+002	8.94886-002	-1.74582+002
6.73440+001	38.130	76.143	8.34443-002	-1.75088+002	8.34443-002	-1.75088+002
7.07112+001	38.103	76.124	7.81395-002	-1.75487+002	7.81395-002	-1.75487+002
7.40784+001	38.077	76.105	7.34574-002	-1.75800+002	7.34574-002	-1.75800+002
7.74456+001	38.051	76.085	6.93017-002	-1.76046+002	6.93017-002	-1.76046+002
8.08128+001	38.024	76.066	6.55929-002	-1.76241+002	6.55929-002	-1.76241+002
8.41800+001	37.998	76.047	6.22656-002	-1.76394+002	6.22656-002	-1.76394+002
8.41800+001	37.998	76.047	6.22656-002	-1.76394+002	6.22656-002	-1.76394+002
8.43528+001	37.997	76.046	6.21041-002	-1.76401+002	6.21041-002	-1.76401+002
8.45256+001	37.995	76.045	6.19434-002	-1.76408+002	6.19434-002	-1.76408+002
8.46984+001	37.994	76.044	6.17836-002	-1.76415+002	6.17836-002	-1.76415+002
8.48712+001	37.993	76.043	6.16246-002	-1.76421+002	6.16246-002	-1.76421+002
8.50440+001	37.991	76.042	6.14665-002	-1.76428+002	6.14665-002	-1.76428+002
8.52168+001	37.990	76.041	6.13092-002	-1.76434+002	6.13092-002	-1.76434+002
8.53896+001	37.988	76.040	6.11527-002	-1.76441+002	6.11527-002	-1.76441+002
8.55624+001	37.987	76.040	6.09970-002	-1.76447+002	6.09970-002	-1.76447+002
8.57352+001	37.986	76.039	6.08421-002	-1.76454+002	6.08421-002	-1.76454+002
8.59080+001	37.984	76.038	6.06880-002	-1.76460+002	6.06880-002	-1.76460+002
8.60808+001	37.983	76.037	6.05348-002	-1.76466+002	6.05348-002	-1.76466+002
8.62536+001	37.982	76.036	6.03823-002	-1.76472+002	6.03823-002	-1.76472+002
8.64264+001	37.980	76.035	6.02306-002	-1.76478+002	6.02306-002	-1.76478+002
8.65992+001	37.979	76.034	6.00797-002	-1.76484+002	6.00797-002	-1.76484+002
8.67720+001	37.978	76.033	5.99295-002	-1.76490+002	5.99295-002	-1.76490+002
8.69448+001	37.976	76.032	5.97801-002	-1.76496+002	5.97801-002	-1.76496+002
8.71176+001	37.975	76.031	5.96315-002	-1.76502+002	5.96315-002	-1.76502+002
8.72904+001	37.974	76.030	5.94836-002	-1.76507+002	5.94836-002	-1.76507+002
8.74632+001	37.972	76.029	5.93365-002	-1.76513+002	5.93365-002	-1.76513+002
8.76360+001	37.971	76.028	5.91901-002	-1.76519+002	5.91901-002	-1.76519+002
8.78088+001	37.970	76.027	5.90445-002	-1.76524+002	5.90445-002	-1.76524+002
8.79816+001	37.968	76.026	5.88996-002	-1.76530+002	5.88996-002	-1.76530+002
8.81544+001	37.967	76.025	5.87554-002	-1.76535+002	5.87554-002	-1.76535+002
8.83272+001	37.966	76.024	5.86119-002	-1.76540+002	5.86119-002	-1.76540+002
8.85000+001	37.964	76.023	5.84692-002	-1.76546+002	5.84692-002	-1.76546+002
8.41800+001	37.998	76.047	6.22656-002	-1.76394+002	6.22656-002	-1.76394+002
8.43528+001	37.997	76.046	6.21041-002	-1.76401+002	6.21041-002	-1.76401+002
8.45256+001	37.995	76.045	6.19434-002	-1.76408+002	6.19434-002	-1.76408+002
8.46984+001	37.994	76.044	6.17836-002	-1.76415+002	6.17836-002	-1.76415+002
8.48712+001	37.993	76.043	6.16246-002	-1.76421+002	6.16246-002	-1.76421+002
8.50440+001	37.991	76.042	6.14665-002	-1.76428+002	6.14665-002	-1.76428+002
8.52168+001	37.990	76.041	6.13092-002	-1.76434+002	6.13092-002	-1.76434+002
8.53896+001	37.988	76.040	6.11527-002	-1.76441+002	6.11527-002	-1.76441+002
8.55624+001	37.987	76.040	6.09970-002	-1.76447+002	6.09970-002	-1.76447+002
8.57352+001	37.986	76.039	6.08421-002	-1.76454+002	6.08421-002	-1.76454+002
8.59080+001	37.984	76.038	6.06880-002	-1.76460+002	6.06880-002	-1.76460+002
8.60808+001	37.983	76.037	6.05348-002	-1.76466+002	6.05348-002	-1.76466+002
8.62536+001	37.982	76.036	6.03823-002	-1.76472+002	6.03823-002	-1.76472+002
8.64264+001	37.980	76.035	6.02306-002	-1.76478+002	6.02306-002	-1.76478+002
8.65992+001	37.979	76.034	6.00797-002	-1.76484+002	6.00797-002	-1.76484+002
8.67720+001	37.978	76.033	5.99295-002	-1.76490+002	5.99295-002	-1.76490+002
8.69448+001	37.976	76.032	5.97801-002	-1.76496+002	5.97801-002	-1.76496+002
8.71176+001	37.975	76.031	5.96315-002	-1.76502+002	5.96315-002	-1.76502+002
8.72904+001	37.974	76.030	5.94836-002	-1.76507+002	5.94836-002	-1.76507+002
8.74632+001	37.972	76.029	5.93365-002	-1.76513+002	5.93365-002	-1.76513+002
8.76360+001	37.971	76.028	5.91901-002	-1.76519+002	5.91901-002	-1.76519+002
8.78088+001	37.970	76.027	5.90445-002	-1.76524+002	5.90445-002	-1.76524+002
8.79816+001	37.968	76.026	5.88996-002	-1.76530+002	5.88996-002	-1.76530+002
8.81544+001	37.967	76.025	5.87554-002	-1.76535+002	5.87554-002	-1.76535+002
8.83272+001	37.966	76.024	5.86119-002	-1.76540+002	5.86119-002	-1.76540+002
8.85000+001	37.964	76.023	5.84692-002	-1.76546+002	5.84692-002	-1.76546+002

Table 11 (cont.)

((KM)	LAT. (DEG.)	LONG. (DEG.)	F (D,Z) (MAGNITUDE)	ARG F (D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
A.86250+001	37.963	76.022	5.83664-002	-1.76549+002	2.41341-002	-1.52204+002
A.87500+001	37.962	76.021	5.82639-002	-1.76553+002	2.63941-002	-1.47745+002
A.88750+001	37.961	76.021	5.81619-002	-1.76557+002	2.81255-002	-1.52562+002
A.90000+001	37.960	76.020	5.80602-002	-1.76561+002	3.09985-002	-1.51865+002
A.95000+001	37.956	76.017	5.76570-002	-1.76575+002	3.41742-002	-1.51199+002
Q.00000+001	37.952	76.014	5.72594-002	-1.76589+002	3.77503-002	-1.51069+002
Q.05000+001	37.949	76.012	5.68675-002	-1.76602+002	4.06935-002	-1.51875+002
Q.10000+001	37.945	76.009	5.64811-002	-1.76616+002	4.36726-002	-1.54847+002
Q.15000+001	37.941	76.006	5.61000-002	-1.76628+002	4.35754-002	-1.56137+002
Q.20000+001	37.937	76.003	5.57241-002	-1.76640+002	4.50420-002	-1.56173+002
Q.25000+001	37.933	76.000	5.53534-002	-1.76652+002	4.69941-002	-1.58732+002
Q.30000+001	37.929	75.997	5.49877-002	-1.76664+002	4.76912-002	-1.57796+002
Q.35000+001	37.925	75.995	5.46270-002	-1.76675+002	4.78000-002	-1.60127+002
Q.40000+001	37.921	75.992	5.42711-002	-1.76686+002	4.90648-002	-1.59741+002
Q.45000+001	37.917	75.989	5.39199-002	-1.76696+002	4.88757-002	-1.59186+002
Q.50000+001	37.913	75.986	5.35734-002	-1.76707+002	4.97486-002	-1.61602+002
Q.55000+001	37.909	75.983	5.32314-002	-1.76717+002	5.02242-002	-1.62134+002
Q.60000+001	37.906	75.981	5.28939-002	-1.76726+002	5.09798-002	-1.61280+002
Q.65000+001	37.902	75.978	5.25607-002	-1.76735+002	4.98970-002	-1.62564+002
Q.70000+001	37.898	75.975	5.22319-002	-1.76745+002	5.05298-002	-1.63280+002
Q.75000+001	37.894	75.972	5.19072-002	-1.76753+002	5.05743-002	-1.64438+002
Q.80000+001	37.890	75.969	5.15867-002	-1.76762+002	5.17375-002	-1.64491+002
Q.85000+001	37.886	75.966	5.12702-002	-1.76770+002	5.11444-002	-1.63912+002
Q.90000+001	37.882	75.964	5.09577-002	-1.76778+002	5.06736-002	-1.64881+002
Q.95000+001	37.878	75.961	5.06491-002	-1.76786+002	5.07834-002	-1.65268+002
1.00000+002	37.874	75.958	5.03443-002	-1.76794+002	5.02717-002	-1.65779+002
1.05000+002	37.870	75.955	5.00433-002	-1.76801+002	5.03027-002	-1.67004+002
1.01000+002	37.866	75.952	4.97459-002	-1.76808+002	5.10032-002	-1.67439+002
1.01500+002	37.863	75.950	4.94522-002	-1.76815+002	5.11397-002	-1.67081+002
1.02000+002	37.859	75.947	4.91619-002	-1.76822+002	5.06550-002	-1.67074+002
1.02500+002	37.855	75.944	4.88752-002	-1.76829+002	5.03244-002	-1.67553+002
1.03000+002	37.851	75.941	4.85919-002	-1.76835+002	5.02782-002	-1.67874+002
1.03500+002	37.847	75.938	4.83120-002	-1.76841+002	5.00690-002	-1.67892+002
1.04000+002	37.843	75.935	4.80353-002	-1.76847+002	4.95373-002	-1.68040+002
1.04500+002	37.839	75.933	4.77619-002	-1.76853+002	4.89923-002	-1.68609+002
1.05000+002	37.835	75.930	4.74916-002	-1.76859+002	4.87626-002	-1.69399+002
1.05500+002	37.831	75.927	4.72245-002	-1.76865+002	4.88463-002	-1.70010+002
1.06000+002	37.827	75.924	4.69605-002	-1.76870+002	4.89927-002	-1.70264+002
1.06500+002	37.823	75.921	4.66994-002	-1.76876+002	4.89791-002	-1.70276+002
1.07000+002	37.819	75.919	4.64414-002	-1.76881+002	4.87636-002	-1.70274+002
1.07500+002	37.816	75.916	4.61862-002	-1.76886+002	4.84498-002	-1.70401+002
1.08000+002	37.812	75.913	4.59339-002	-1.76891+002	4.81605-002	-1.70651+002
1.08500+002	37.808	75.910	4.56844-002	-1.76896+002	4.79750-002	-1.70923+002
1.09000+002	37.804	75.907	4.54377-002	-1.76901+002	4.78502-002	-1.71115+002
1.09500+002	37.800	75.904	4.51937-002	-1.76906+002	4.77194-002	-1.71186+002
1.10000+002	37.796	75.902	4.49523-002	-1.76910+002	4.75158-002	-1.71167+002
1.10500+002	37.792	75.899	4.47136-002	-1.76915+002	4.72116-002	-1.71133+002
1.11000+002	37.788	75.896	4.44775-002	-1.76919+002	4.68232-002	-1.71155+002
1.11500+002	37.784	75.893	4.42439-002	-1.76923+002	4.63961-002	-1.71277+002
1.12000+002	37.780	75.890	4.40129-002	-1.76927+002	4.59824-002	-1.71506+002
1.12500+002	37.776	75.888	4.37843-002	-1.76931+002	4.56226-002	-1.71812+002
1.13000+002	37.773	75.885	4.35581-002	-1.76935+002	4.53353-002	-1.72149+002
1.13500+002	37.769	75.882	4.33342-002	-1.76939+002	4.51169-002	-1.72471+002
1.14000+002	37.765	75.879	4.31128-002	-1.76943+002	4.49484-002	-1.72744+002
1.14500+002	37.761	75.876	4.28936-002	-1.76947+002	4.48040-002	-1.72952+002
1.15000+002	37.757	75.874	4.26767-002	-1.76950+002	4.46595-002	-1.73098+002
1.15500+002	37.753	75.871	4.24620-002	-1.76954+002	4.44976-002	-1.73196+002
1.16000+002	37.749	75.868	4.22496-002	-1.76958+002	4.43096-002	-1.73267+002
1.16500+002	37.745	75.865	4.20392-002	-1.76961+002	4.40954-002	-1.73328+002
1.17000+002	37.741	75.862	4.18311-002	-1.76964+002	4.38607-002	-1.73398+002
1.17500+002	37.737	75.859	4.16250-002	-1.76968+002	4.36148-002	-1.73484+002
1.18000+002	37.733	75.857	4.14210-002	-1.76971+002	4.33678-002	-1.73590+002
1.18500+002	37.730	75.854	4.12190-002	-1.76974+002	4.31283-002	-1.73714+002
1.19000+002	37.726	75.851	4.10190-002	-1.76977+002	4.29024-002	-1.73848+002
1.19500+002	37.722	75.848	4.08210-002	-1.76980+002	4.26931-002	-1.73985+002
1.20000+002	37.718	75.845	4.06249-002	-1.76983+002	4.25005-002	-1.74115+002
1.20500+002	37.714	75.843	4.04308-002	-1.76986+002	4.23220-002	-1.74231+002
1.21000+002	37.710	75.840	4.02385-002	-1.76989+002	4.21539-002	-1.74327+002
1.21500+002	37.706	75.837	4.00481-002	-1.76992+002	4.19912-002	-1.74402+002
1.22000+002	37.702	75.834	3.98595-002	-1.76995+002	4.18291-002	-1.74454+002
1.22500+002	37.698	75.831	3.96727-002	-1.76998+002	4.16633-002	-1.74484+002
1.23000+002	37.694	75.829	3.94877-002	-1.77000+002	4.14905-002	-1.74498+002
1.23500+002	37.690	75.826	3.93045-002	-1.77003+002	4.13085-002	-1.74498+002
1.24000+002	37.686	75.823	3.91229-002	-1.77006+002	4.11159-002	-1.74489+002
1.24500+002	37.683	75.820	3.89431-002	-1.77008+002	4.09129-002	-1.74477+002
1.25000+002	37.679	75.817	3.87650-002	-1.77011+002	4.07002-002	-1.74465+002
1.25500+002	37.675	75.815	3.85885-002	-1.77013+002	4.04792-002	-1.74457+002
1.26000+002	37.671	75.812	3.84136-002	-1.77016+002	4.02519-002	-1.74456+002
1.26500+002	37.667	75.809	3.82403-002	-1.77018+002	4.00204-002	-1.74465+002
1.27000+002	37.663	75.806	3.80687-002	-1.77020+002	3.97870-002	-1.74484+002
1.27500+002	37.659	75.803	3.78985-002	-1.77023+002	3.95539-002	-1.74513+002

Table 12. Path 3, 25 MHz (see graphs 23 and 24).

GROUND WAVE PROPAGATION OVER AN INHOMOGENEOUS EARTH
ON A BEARING OF, 150.000(DEG.) FROM 38.655(DEG. LAT.), 76.528(DEG. LONG.)

EPSILON = 8.10000+001, SIGMA = 2.00000+000, RE(EPSILONC) = 8.10000+001, IM(EPSILONC) = -1.44000+003
EPSILON1 = 1.50000+001, SIGMA1 = 2.00000+003, RE(EPSILONC1) = 1.50000+001, IM(EPSILONC1) = -1.44000+000
RE(Z) = 7.21385+000, IM(Z) = 6.81948+000, RE(Z1) = 9.70068+001, IM(Z1) = 4.64565+000

Y0 = 0.00000+000KM, Y1 = -1.42000+000KM, Y2 = 2.12500+000KM, R1 = 8.85000+001KM, R2 = 8.41800+001KM

FREQUENCY = 2.50000+001MHZ, WAVELENGTH = 1.19917+002KM

D (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z1) (MAGNITUDE)	ARG F*(D,Z1) (DEG.)
3.36720+000	38.629	76.509	7.44502-001	-7.62403+001	7.44502-001	-7.62403+001
6.73440+000	38.603	76.489	5.72819-001	-1.04029+002	5.72819-001	-1.04029+002
1.01016+001	38.576	76.470	4.46928-001	-1.22861+002	4.46928-001	-1.22861+002
1.34688+001	38.550	76.451	3.53335-001	-1.36673+002	3.53335-001	-1.36673+002
1.68360+001	38.524	76.431	2.83184-001	-1.47064+002	2.83184-001	-1.47064+002
2.02032+001	38.497	76.412	2.30252-001	-1.54920+002	2.30252-001	-1.54920+002
2.35704+001	38.471	76.393	1.90052-001	-1.60823+002	1.90052-001	-1.60823+002
2.69376+001	38.445	76.373	1.59303-001	-1.65209+002	1.59303-001	-1.65209+002
3.03048+001	38.419	76.354	1.35589-001	-1.68419+002	1.35589-001	-1.68419+002
3.36720+001	38.392	76.335	1.17123-001	-1.70734+002	1.17123-001	-1.70734+002
3.70392+001	38.366	76.315	1.02585-001	-1.72379+002	1.02585-001	-1.72379+002
4.04064+001	38.340	76.296	9.09969-002	-1.73536+002	9.09969-002	-1.73536+002
4.37736+001	38.314	76.277	8.16376-002	-1.74342+002	8.16376-002	-1.74342+002
4.71408+001	38.287	76.258	7.39748-002	-1.74903+002	7.39748-002	-1.74903+002
5.05080+001	38.261	76.239	6.76151-002	-1.75294+002	6.76151-002	-1.75294+002
5.38752+001	38.235	76.219	6.22673-002	-1.75568+002	6.22673-002	-1.75568+002
5.72424+001	38.208	76.200	5.77148-002	-1.75763+002	5.77148-002	-1.75763+002
6.06096+001	38.182	76.181	5.37950-002	-1.75905+002	5.37950-002	-1.75905+002
6.39768+001	38.156	76.162	5.03852-002	-1.76009+002	5.03852-002	-1.76009+002
6.73440+001	38.130	76.143	4.73914-002	-1.76089+002	4.73914-002	-1.76089+002
7.07112+001	38.103	76.124	4.47410-002	-1.76150+002	4.47410-002	-1.76150+002
7.40784+001	38.077	76.105	4.23774-002	-1.76200+002	4.23774-002	-1.76200+002
7.74456+001	38.051	76.085	4.02557-002	-1.76240+002	4.02557-002	-1.76240+002
8.08128+001	38.024	76.066	3.83399-002	-1.76274+002	3.83399-002	-1.76274+002
8.41800+001	37.998	76.047	3.66010-002	-1.76303+002	3.66010-002	-1.76303+002
8.41800+001	37.998	76.047	3.66010-002	-1.76303+002	3.66010-002	-1.76303+002
8.43528+001	37.997	76.046	3.65161-002	-1.76304+002	3.65161-002	-1.76304+002
8.45256+001	37.995	76.045	3.64315-002	-1.76305+002	3.64315-002	-1.76305+002
8.46984+001	37.994	76.044	3.63474-002	-1.76307+002	3.63474-002	-1.76307+002
8.48712+001	37.993	76.043	3.62637-002	-1.76308+002	3.62637-002	-1.76308+002
8.50440+001	37.991	76.042	3.61803-002	-1.76309+002	3.61803-002	-1.76309+002
8.52168+001	37.990	76.041	3.60974-002	-1.76311+002	3.60974-002	-1.76311+002
8.53896+001	37.988	76.040	3.60148-002	-1.76312+002	3.60148-002	-1.76312+002
8.55624+001	37.987	76.040	3.59326-002	-1.76313+002	3.59326-002	-1.76313+002
8.57352+001	37.986	76.039	3.58508-002	-1.76315+002	3.58508-002	-1.76315+002
8.59080+001	37.984	76.038	3.57693-002	-1.76316+002	3.57693-002	-1.76316+002
8.60808+001	37.983	76.037	3.56883-002	-1.76317+002	3.56883-002	-1.76317+002
8.62536+001	37.982	76.036	3.56076-002	-1.76318+002	3.56076-002	-1.76318+002
8.64264+001	37.980	76.035	3.55273-002	-1.76320+002	3.55273-002	-1.76320+002
8.65992+001	37.979	76.034	3.54473-002	-1.76321+002	3.54473-002	-1.76321+002
8.67720+001	37.978	76.033	3.53677-002	-1.76322+002	3.53677-002	-1.76322+002
8.69448+001	37.976	76.032	3.52885-002	-1.76323+002	3.52885-002	-1.76323+002
8.71176+001	37.975	76.031	3.52096-002	-1.76325+002	3.52096-002	-1.76325+002
8.72904+001	37.974	76.030	3.51311-002	-1.76326+002	3.51311-002	-1.76326+002
8.74632+001	37.972	76.029	3.50530-002	-1.76327+002	3.50530-002	-1.76327+002
8.76360+001	37.971	76.028	3.49752-002	-1.76327+002	3.49752-002	-1.76327+002
8.78088+001	37.970	76.027	3.48977-002	-1.76328+002	3.48977-002	-1.76328+002
8.79816+001	37.968	76.026	3.48206-002	-1.76329+002	3.48206-002	-1.76329+002
8.81544+001	37.967	76.025	3.47438-002	-1.76331+002	3.47438-002	-1.76331+002
8.83272+001	37.966	76.024	3.46674-002	-1.76332+002	3.46674-002	-1.76332+002
8.85000+001	37.964	76.023	3.45913-002	-1.76333+002	3.45913-002	-1.76333+002
8.85000+001	37.964	76.023	3.45913-002	-1.76334+002	3.45913-002	-1.76334+002
8.86730+001	37.964	76.023	3.45152-002	-1.76334+002	3.45152-002	-1.76334+002
8.88460+001	37.964	76.023	3.44391-002	-1.76334+002	3.44391-002	-1.76334+002
8.90190+001	37.964	76.023	3.43630-002	-1.76334+002	3.43630-002	-1.76334+002
8.91920+001	37.964	76.023	3.42869-002	-1.76334+002	3.42869-002	-1.76334+002
8.93650+001	37.964	76.023	3.42108-002	-1.76334+002	3.42108-002	-1.76334+002
8.95380+001	37.964	76.023	3.41347-002	-1.76334+002	3.41347-002	-1.76334+002
8.97110+001	37.964	76.023	3.40586-002	-1.76334+002	3.40586-002	-1.76334+002
8.98840+001	37.964	76.023	3.39825-002	-1.76334+002	3.39825-002	-1.76334+002
8.99980+001	37.964	76.023	3.39064-002	-1.76334+002	3.39064-002	-1.76334+002

Table 12 (cont.)

n (KM)	LAT. (DEG.)	LONG. (DEG.)	F(D,Z) (MAGNITUDE)	ARG F(D,Z) (DEG.)	F*(D,Z,Z1) (MAGNITUDE)	ARG F*(D,Z,Z1) (DEG.)
8.86250+001	37.963	76.022	3.45365-002	-1.76335+002	1.49881-002	-1.52985+002
8.87500+001	37.962	76.021	3.44819-002	-1.76336+002	1.58206-002	-1.50028+002
8.88750+001	37.961	76.021	3.44274-002	-1.76337+002	1.79735-002	-1.52527+002
8.90000+001	37.960	76.020	3.43731-002	-1.76337+002	1.85645-002	-1.49941+002
8.95000+001	37.956	76.017	3.41576-002	-1.76341+002	2.28470-002	-1.51297+002
9.00000+001	37.952	76.014	3.39449-002	-1.76344+002	2.45812-002	-1.51265+002
9.05000+001	37.949	76.012	3.37348-002	-1.76347+002	2.58861-002	-1.54371+002
9.10000+001	37.945	76.009	3.35273-002	-1.76350+002	2.74480-002	-1.55296+002
9.15000+001	37.941	76.006	3.33224-002	-1.76353+002	2.86309-002	-1.56645+002
9.20000+001	37.937	76.003	3.31200-002	-1.76356+002	2.93712-002	-1.58081+002
9.25000+001	37.933	76.000	3.29201-002	-1.76359+002	2.96834-002	-1.59691+002
9.30000+001	37.929	75.997	3.27226-002	-1.76362+002	3.07674-002	-1.59432+002
9.35000+001	37.925	75.995	3.25275-002	-1.76365+002	3.05517-002	-1.61058+002
9.40000+001	37.921	75.992	3.23347-002	-1.76367+002	3.13042-002	-1.61288+002
9.45000+001	37.917	75.989	3.21443-002	-1.76370+002	3.10841-002	-1.62358+002
9.50000+001	37.913	75.986	3.19561-002	-1.76373+002	3.18022-002	-1.63828+002
9.55000+001	37.909	75.983	3.17701-002	-1.76375+002	3.16844-002	-1.64050+002
9.60000+001	37.906	75.981	3.15862-002	-1.76378+002	3.12271-002	-1.64795+002
9.65000+001	37.902	75.978	3.14046-002	-1.76381+002	3.18605-002	-1.65704+002
9.70000+001	37.898	75.975	3.12250-002	-1.76383+002	3.18608-002	-1.66189+002
9.75000+001	37.894	75.972	3.10474-002	-1.76386+002	3.16213-002	-1.65924+002
9.80000+001	37.890	75.969	3.08719-002	-1.76388+002	3.14087-002	-1.67395+002
9.85000+001	37.886	75.966	3.06984-002	-1.76391+002	3.15498-002	-1.67704+002
9.90000+001	37.882	75.964	3.05269-002	-1.76393+002	3.15830-002	-1.68423+002
9.95000+001	37.878	75.961	3.03575-002	-1.76395+002	3.16697-002	-1.68159+002
1.00000+002	37.874	75.958	3.01895-002	-1.76398+002	3.11440-002	-1.68438+002
1.05000+002	37.870	75.955	3.00237-002	-1.76400+002	3.10542-002	-1.69277+002
1.10000+002	37.866	75.952	2.98596-002	-1.76402+002	3.09570-002	-1.69544+002
1.15000+002	37.863	75.950	2.96974-002	-1.76404+002	3.07646-002	-1.70173+002
1.20000+002	37.859	75.947	2.95369-002	-1.76406+002	3.08840-002	-1.70669+002
1.25000+002	37.855	75.944	2.93782-002	-1.76409+002	3.08889-002	-1.70496+002
1.30000+002	37.851	75.941	2.92212-002	-1.76411+002	3.05693-002	-1.70459+002
1.35000+002	37.847	75.938	2.90658-002	-1.76413+002	3.02909-002	-1.70868+002
1.40000+002	37.843	75.935	2.89121-002	-1.76415+002	3.01706-002	-1.71202+002
1.45000+002	37.839	75.933	2.87601-002	-1.76417+002	2.99900-002	-1.71325+002
1.50000+002	37.835	75.930	2.86096-002	-1.76419+002	2.97218-002	-1.71582+002
1.55000+002	37.831	75.927	2.84608-002	-1.76421+002	2.95183-002	-1.72077+002
1.60000+002	37.827	75.924	2.83135-002	-1.76423+002	2.94690-002	-1.72519+002
1.65000+002	37.823	75.921	2.81677-002	-1.76425+002	2.94677-002	-1.72677+002
1.70000+002	37.819	75.919	2.80234-002	-1.76427+002	2.93808-002	-1.72630+002
1.75000+002	37.816	75.916	2.78806-002	-1.76429+002	2.91892-002	-1.72605+002
1.80000+002	37.812	75.913	2.77392-002	-1.76430+002	2.89674-002	-1.72717+002
1.85000+002	37.808	75.910	2.75993-002	-1.76432+002	2.87848-002	-1.72910+002
1.90000+002	37.804	75.907	2.74608-002	-1.76434+002	2.86470-002	-1.73068+002
1.95000+002	37.800	75.904	2.73237-002	-1.76436+002	2.85121-002	-1.73134+002
1.10000+002	37.796	75.902	2.71880-002	-1.76438+002	2.83404-002	-1.73147+002
1.10500+002	37.792	75.899	2.70536-002	-1.76439+002	2.81265-002	-1.73189+002
1.11000+002	37.788	75.896	2.69206-002	-1.76441+002	2.78969-002	-1.73318+002
1.11500+002	37.784	75.893	2.67889-002	-1.76443+002	2.76877-002	-1.73534+002
1.12000+002	37.780	75.890	2.66584-002	-1.76445+002	2.75217-002	-1.73789+002
1.12500+002	37.776	75.888	2.65292-002	-1.76446+002	2.73997-002	-1.74022+002
1.13000+002	37.773	75.885	2.64013-002	-1.76448+002	2.73045-002	-1.74189+002
1.13500+002	37.769	75.882	2.62746-002	-1.76449+002	2.72134-002	-1.74281+002
1.14000+002	37.765	75.879	2.61492-002	-1.76451+002	2.71086-002	-1.74316+002
1.14500+002	37.761	75.876	2.60249-002	-1.76453+002	2.69830-002	-1.74326+002
1.15000+002	37.757	75.874	2.59018-002	-1.76454+002	2.68395-002	-1.74341+002
1.15500+002	37.753	75.871	2.57799-002	-1.76456+002	2.66871-002	-1.74379+002
1.16000+002	37.749	75.868	2.56591-002	-1.76457+002	2.65300-002	-1.74443+002
1.16500+002	37.745	75.865	2.55395-002	-1.76459+002	2.63938-002	-1.74523+002
1.17000+002	37.741	75.862	2.54210-002	-1.76460+002	2.62634-002	-1.74603+002
1.17500+002	37.737	75.859	2.53036-002	-1.76462+002	2.61433-002	-1.74671+002
1.18000+002	37.733	75.857	2.51873-002	-1.76463+002	2.60289-002	-1.74716+002
1.18500+002	37.730	75.854	2.50720-002	-1.76465+002	2.59147-002	-1.74736+002
1.19000+002	37.726	75.851	2.49578-002	-1.76466+002	2.57958-002	-1.74735+002
1.19500+002	37.722	75.848	2.48446-002	-1.76468+002	2.56689-002	-1.74722+002
1.20000+002	37.718	75.845	2.47325-002	-1.76469+002	2.55332-002	-1.74706+002
1.20500+002	37.714	75.843	2.46214-002	-1.76471+002	2.53898-002	-1.74698+002
1.21000+002	37.710	75.840	2.45113-002	-1.76472+002	2.52412-002	-1.74703+002
1.21500+002	37.706	75.837	2.44021-002	-1.76473+002	2.50910-002	-1.74727+002
1.22000+002	37.702	75.834	2.42940-002	-1.76475+002	2.49424-002	-1.74769+002
1.22500+002	37.698	75.831	2.41868-002	-1.76476+002	2.47984-002	-1.74827+002
1.23000+002	37.694	75.829	2.40805-002	-1.76477+002	2.46612-002	-1.74898+002
1.23500+002	37.690	75.826	2.39752-002	-1.76479+002	2.45318-002	-1.74975+002
1.24000+002	37.686	75.823	2.38708-002	-1.76480+002	2.44103-002	-1.75054+002
1.24500+002	37.683	75.820	2.37673-002	-1.76481+002	2.42961-002	-1.75129+002
1.25000+002	37.679	75.817	2.36647-002	-1.76482+002	2.41879-002	-1.75196+002
1.25500+002	37.675	75.815	2.35630-002	-1.76484+002	2.40842-002	-1.75253+002
1.26000+002	37.671	75.812	2.34621-002	-1.76485+002	2.39835-002	-1.75300+002
1.26500+002	37.667	75.809	2.33622-002	-1.76486+002	2.38843-002	-1.75336+002
1.27000+002	37.663	75.806	2.32631-002	-1.76487+002	2.37853-002	-1.75363+002
1.27500+002	37.659	75.803	2.31648-002	-1.76489+002	2.36858-002	-1.75383+002