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ASD TECHNICAL NOTE 61-37

APPENDIX B
A REISSUE OF DRL AF TM NO 53

CROSS SECTIONS AND POLARIZATION RATIOS OF DIPOLE CLOUDS

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CROSS SECTIONS AND POLARIZATION RATIOS OF DIPOLE CLOUDS

by

B. M. Brown

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CROSS SECTIONS AND POLARIZATION RATIOS OF DIPOLE CLOUDS

Computation of the radar response from thin metallic dipoles has been carried out by Standard Rolling Mills[1] for the random-orientation distribution of dipoles described by Van Vleck, Hammermesh and Block[2]. This distribution does not properly represent the behaviour of dipoles falling in air, as measurements made during the last few years at Defense Research Laboratory have shown that clouds of falling dipoles are either predominantly vertical or predominantly horizontal. A program for computing responses from horizontal and vertical dipoles by means of an IBM 650 digital computer has been written and some results have become available. The program has provided $\sigma_{vv}(0)/\lambda^2$, the cross section of a vertical dipole to vertically polarized radars; $\sigma_{vv}(90)/\lambda^2$, the average cross section of a horizontal dipole to vertically polarized radars; and $\sigma_{hh}(90)\lambda^2$, the average cross section of a horizontal dipole to horizontally polarized radars. The indicated argument in these symbols is the angle between the dipole and vertical. The cross-section average is made under the assumption that the azimuth distribution for horizontal dipoles is uniform. The results of this calculation appear in the last three columns of the tabulated data included in this report. In addition, a program has been written for computing the ratio of the vertical radar response to the horizontal radar response from a dipole cloud in which a fraction f_v of the dipoles are vertical, the remainder being horizontal. The polarization ratios are given in decibels for several values of f_v, dipole dimension, and elevation angle.

The computation of the Case B[2] factors 2F', 2F", 2G', 2G", 2H' and 2H", which depend upon the ratio of dipole length to effective radius, $A = 2\ell/a = 8\ell/w$,

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[1] Final Engineering Report on Research and Development of Advanced Radar Techniques. Report No. 3-8, Sept. 30, 1954. RDO. No. R-107-48 SA9B, issued pursuant to Contract AF 33(600)-22991.

[2] J. H. Van Vleck, M. Hammermesh, and F. Block, "Theory of Radar Reflections from Thin Wires or Metallic Strips," J. Appl. Phys. 18, 274 (1947).

and the ratio of dipole half-length to wavelength, ℓ/λ, has been carried out for a large range of A (ℓ is the dipole half-length, w is the dipole width, and a is the radius of the equivalent cylinder). These factors are given in DRL AF Technical Memorandum No. 47[3] as functions of ℓ/λ and log 2A. The expressions used in the computation of the factors are the Van Vleck expressions;

$$2F' = \frac{2\Omega''}{\Omega''^2 + X^2} , \tag{1}$$

$$2F'' = \frac{2X}{\Omega''^2 + X^2} , \tag{2}$$

where

$$X = 2\left[\mathrm{Si}(2\beta\ell) + \frac{\mathrm{Cos}(2\beta\ell) - 1}{2\beta\ell}\right]$$

$$\Omega'' = 2\left[\mathrm{Log}\frac{4\ell}{a} - \mathrm{Cin}(2\beta\ell) - \frac{\mathrm{Sin}(2\beta\ell)}{2\beta\ell}\right] ,$$

$$2G'' = \frac{\Xi(\beta\ell)}{\psi^2(\beta\ell) + \Xi^2(\beta\ell)} , \tag{3}$$

$$2G' = \frac{\psi(\beta\ell)}{\psi^2(\beta\ell) + \Xi^2(\beta\ell)} - \frac{2G''\,\mathrm{Si}(2\beta\ell)}{\Omega''} \tag{4}$$

$$2H'' = \frac{\Xi(\beta\ell - \frac{\pi}{2})}{\psi^2(\beta\ell - \frac{\pi}{2}) + \Xi^2(\beta\ell - \frac{\pi}{2})} , \tag{5}$$

$$2H' = \frac{\psi(\beta\ell - \frac{\pi}{2})}{\psi^2(\beta\ell - \frac{\pi}{2}) + \Xi^2(\beta\ell - \frac{\pi}{2})} - \frac{2H''\,\mathrm{Si}(2\beta\ell)}{\Omega''} , \tag{6}$$

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[3] B. M. Brown, "Calculation of Dipole Radar Response for Vertical and Horizontal Dipoles," DRL AF Technical Memorandum No. 47, Contract No. AF 33(616)-5164 (15 March 1960).

where

$$\psi(x) = -(\Omega'' - \Delta'')\cos x + \frac{1}{2}\,\mathrm{Si}(4\beta\ell)\sin x ,$$

$$\chi(x) = \frac{1}{2}\,\mathrm{Cin}(4\beta\ell)\sin x - \left[\frac{1}{2}\mathrm{Si}(4\beta\ell) + \frac{\cos 4\beta\ell - 1}{4\beta\ell}\right]\cos x ,$$

$$\Omega''-\Delta'' = 2\left[\log\frac{4\ell}{a} - 1\right] - \frac{1}{2}\,\mathrm{Cin}\,4\beta\ell - \mathrm{Cin}(2\beta\ell) - \frac{\sin 4\beta\ell}{4\beta\ell} + 1 ,$$

$$\beta = \frac{2\pi}{\lambda} , \quad \mathrm{Si}(y) = \int_0^y \frac{\sin x}{x}\,dx, \quad \mathrm{Cin}(y) = \int_0^y \frac{1-\cos x}{x}\,dx .$$

The computations were carried out as described above using power-series expansions of $\mathrm{Si}(x)$ and $\mathrm{Cin}(x)$ up to $\ell/\lambda = 0.5$. Thereafter, these functions were computed by means of the asymptotic representations,

$$\mathrm{Cin}(x) = 0.577 + \log x - \frac{\sin x}{x} ,$$

$$\mathrm{Si}(x) = \frac{\pi}{2} - \frac{\cos x}{x} .$$

The computation of the cross sections for horizontal and vertical dipoles was made using the expressions set up previously. These expressions were obtained from Van Vleck's expressions by substituting another set of angular coordinates, as described in DRL AF Technical Memorandum No. 43.[4] The new set of coordinates makes it possible to determine the response from both vertical and horizontal dipoles, where these are assumed to be randomly distributed in azimuth.

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[4] B. M. Brown, "Comparison of Forward and Backward Scattering from Dipoles," DRL AF Technical Memorandum No. 43, Contract No. AF 33(616)-5164 (15 January 1959), pp. 22-24.

The cross section $\sigma_{vv}(0)$ per vertical dipole, as measured by a vertically polarized radar (transmitting and receiving antennas vertically polarized), was computed from the expression,

$$\frac{\sigma_{vv}(0)}{\lambda^2} = \frac{4\pi \ell^2}{\lambda^2} \left[A^2(\theta) + B^2(\theta) \right] . \tag{7}$$

The argument (0) of the cross section denotes that the angle between the dipole and vertical is zero. The other symbols are

λ = wavelength of the radar signal

ℓ = half-length of the dipole

θ = elevation angle of the cloud in which the dipole is located

$q = \frac{2\pi}{\lambda} \text{ Sin } \theta$

$\beta = \frac{2\pi}{\lambda}$

$A(\theta) = 2F'L + 2G'(M + N)\text{Cos } q\ell - 2H'(M - N)\text{Sin } q\ell$

$B(\theta) = 2F''L + 2G''(M + N)\text{Cos } 2\ell - 2H''(M - N)\text{Sin } q\ell$,

where

$$L = \frac{\text{Sin } 2q\ell}{2q\ell} , \quad M = \frac{\text{Sin}(\beta - q)}{(\beta - q)} , \quad N = \frac{\text{Sin}(\beta + q}{(\beta + q)} .$$

The cross sections per horizontal dipole, $\sigma_{vv}(90)$ as measured by a vertically polarized radar, and $\sigma_{hh}(90)$ as measured by a horizontally polarized radar, are computed with expressions,

$$\frac{\sigma_{vv}(90)}{\lambda^2} = 4\pi \ell^2 \left[\frac{2}{\pi} \text{Sin}^4\theta \int_0^{\pi/2} \left\{ A^2(\alpha) + B^2(\alpha) \right\} \frac{\text{Cos}^4 \alpha \, d\alpha}{(\text{Sin}^2\alpha + \text{Sin}^2\theta \, \text{Cos}^2\alpha)^2} \right] , \tag{8}$$

$$\frac{\sigma_{hh}(90)}{\lambda^2} = 4\pi \ell^2 \left[\frac{2}{\pi} \int_0^{\pi/2} \left\{ A^2(\alpha) + B^2(\alpha) \right\} \frac{\text{Sin}^4 \alpha \, d\alpha}{(\text{Sin}^2\alpha + \text{Sin}^2\theta \, \text{Cos}^2\alpha)^2} \right] , \tag{9}$$

where

$$A(\alpha) = 2F'L + 2G'(M + N)\,\text{Cos}\,q\ell - 2H'(M - N)\,\text{Sin}\,q\ell \quad ,$$

$$B(\alpha) = 2F''L + 2G''(M + N)\,\text{Cos}\,q\ell - 2H''(M - N)\,\text{Sin}\,q\ell \quad ,$$

and

$$L = \frac{\text{Sin}\,2q\ell}{2q\ell} \quad , \quad M = \frac{\text{Sin}(\beta-q)\ell}{(\beta-q)\ell} \quad , \quad N = \frac{\text{Sin}(\beta+q)\ell}{(\beta+q)\ell}$$

$$q = \frac{2\pi}{\lambda}\,\text{Cos}\,\alpha\,\text{Cos}\,\theta \quad .$$

Here α is the angle between the dipole and the plane determined by a vertical line through the dipole center and the line from the dipole center to the radar. The other symbols have the meanings given in connection with Equation (7).

The cross section for three of the A values plotted as a function of the ratio of dipole half-length to wavelength for several elevation angles are shown in Figures 46 through 54. The cross sections for ℓ/λ values between .150 and 1.100, for the five A values (20, 100, 200, 500, 2000), and for cloud elevation between 0° and 90°, are given in the last three columns of the tabulation under the heading, Dipole Cross Sections.

A program was written which used the answer cards of the cross-section program as data cards to generate the ratio of dipole cloud responses to a vertically polarized radar and to a horizontally polarized radar for several values of f_v, the fraction of dipoles vertical. The ratios, expressed in decibels for the ranges of the parameters mentioned previously, are shown in the table following the text and also in Figures 1 through 45.

The calculation performed can be summarized by the following expression,

$$\frac{\sigma_{vv}}{\sigma_{hh}}\,(\text{db}) = 10\,\text{Log}_{10}\,\frac{R\sigma_{vv}(0) + \sigma_{vv}(90)}{\sigma_{vv}(90)} \qquad (10)$$

where σ_{vv} and σ_{hh} are the cloud cross sections seen by vertical and horizontal radars, and R is the ratio of the number of dipoles which are vertical to the number which are horizontal. The program was written to include the R values, 0/1.0, 0.1/0.9, 0.2/0.8, 0.3/0.7, etc., through 0.9/0.1, corresponding to the values 0, 0.1, 0.2, 0.3, etc., through 0.9 for f_v.

The error in $\sigma_{vv}(0)$ at cloud elevations near 90° is apparent in these results, as in DRL AF Technical Memorandum No. 47. At 90° elevation the vertical dipoles will be seen end-on by both the vertical and horizontal radars and they should not contribute to the back-scattered radiation; i.e., $\sigma_{vv}(0)$ should be identically zero at $\theta = 90°$. Under these conditions equation (10) reduces to

$$\left.\frac{\sigma_{vv}}{\sigma_{hh}}\ \text{db}\right]_{\theta=90°} = 10\ \text{Log}_{10}\ \frac{\sigma_{vv}(90)}{\sigma_{hh}(90)} = 0\ , \qquad (11)$$

because $\sigma_{vv}(90)\Big]_{\theta=90°} = \sigma_{hh}(90)\Big]_{\theta=90°}$. It will be noticed that the cross section listed in the tables for $\theta = 90°$ deviates more and more from 0 db as the fraction of vertical dipoles increases. This error arises from approximations made in the Van Vleck current expressions which are invalid at incident angles near end-on. While these errors are not serious when averages are made over all orientation angles, they are quite serious in estimating the $\sigma_{vv}(0)\Big]_{\theta=90°}$ cross section. The deviation of $\sigma_{vv}/\sigma_{hh}\Big]_{\theta=90°}$ from zero is an indication of the size of the error introduced at large angles into the ratio computation. The error decreases as θ decreases, becoming negligible between $\theta = 85°$ and $\theta = 60°$. (See equation 33 of the Van Vleck paper.[2])

With the cross sections and the ratio table it is possible (1) to predict the behavior of any chaff cloud under the assumption of no interaction between dipoles, or (2) to find the fraction of vertical dipoles for clouds consisting of dipoles all of one size, whose vertical to horizontal response ratio is known. As an example, suppose that a cloud of N dipoles is to be observed at elevation θ, that f_v is the fraction vertical, and that ℓ/λ and $A = 8\ell/w$ are known. Then $\sigma_{vv}/\sigma_{hh}(db)$ can be obtained from the table using A, ℓ/λ, and f_v. Similarly, $\sigma_{hh}(90)/\lambda^2$ can be obtained from the next-to-last column on the same page.

Then

$$\sigma_{hh} = N(1 - f_v) \left[\frac{\sigma_{hh}(90)}{\lambda^2}\right] \lambda^2 \qquad (12)$$

$$\sigma_{vv} = \sigma_{hh} \; \mathrm{Log}_{10}^{-1} \left[0.1 \frac{\sigma_{vv}}{\sigma_{hh}}\right] \qquad (13)$$

The results in (12) and (13) will be the vertical and horizontal cross sections due to N dipoles of a single length in the cloud. If there are N_1 dipoles, N_2 dipoles, etc., of lengths ℓ_1, ℓ_2, etc., having vertical cross sections $\sigma_{vv}(1)$, $\sigma_{vv}(2)$, etc., and horizontal cross sections $\sigma_{hh}(1)$, $\sigma_{hh}(2)$, etc., each computed by equation (3) or (4), then, for independent behavior,

$$\sigma_{vv} = \sum_i \sigma_{vv}(i) \qquad \sigma_{hh} = \sum_i \sigma_{hh}(i) \qquad (14)$$

The units of the cross sections will be the same as the units used for λ^2 in equation (12).

For testing purposes, the reverse problem is of interest. The values of A, ℓ/λ, and θ are usually known or can be determined. The measured value of σ_{vv}/σ_{hh} db is obtained, as well as the individual cloud cross sections

σ_{vv} and σ_{hh}. The tables are entered with A, ℓ/λ, θ, and the measured polarization ratio to obtain the fraction of vertical dipoles. This procedure works, of course, only if all the dipoles in the cloud are of one size. The predicted σ_{hh} and σ_{vv} can then be obtained, using equations (12) and (13), for comparison of predicted values with the measured values.

A few examples in which the computed values, obtained as described in the preceeding paragraph, are compared with the experimental results are given in Figure 55. The experimental values were obtained with an S-band system and dipoles all of one length. This plot shows σ_{vv} (meas)/σ_{vv}(DRL) = σ_{hh} (meas)/σ_{hh}(DRL),[5] plotted against ℓ/λ. In Figure 56 are found σ_{vv} (meas)/σ(Van V.) and σ_{hh}(meas)/σ(Van V.), in which the qualification "Van V." denotes that the dipole calculated response is averaged over an orientation distribution uniform in angular space; the qualification "DRL" denotes that the cloud is assumed to consist entirely of a mixture of vertical and horizontal dipoles. The Van Vleck cross sections were taken from the Standard Rolling Mills computation[2,3] of 1953-54.

It is clear that the random-orientation distribution is inadequate to describe the behavior of chaff clouds in the atmosphere. It is also clear that the prediction for the horizontal-vertical distribution of dipoles seems to be almost uniformly 2 to 3 db too high for all dipoles near the tuned length. The point at $\ell/\lambda = 0.5$ is somewhat lower. It is known that a large fraction of the dipoles fall with orientation at 45° from the vertical. Perhaps the deviation of 6 db from the predicted values is in part due to this additional complication.

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[5] These ratios are made equal by the assumption that the measured polarization ratio is the correct one.

SUMMARY: This comparison of measured and computed cross sections indicates that the integral-equation technique[2] and random-orientation distribution gives cross sections which are in error. This means that chaff packages which have been designed using the previously computed data have an incorrect size for two reasons: (1) polarization effects amounting to 6 db are ignored; and (2) the factor-of-2 scale discrepancy of the integral-equation technique causes the designer to specify too few dipoles. The polarization effects must be taken into consideration.

The predicted polarization ratios given in this memorandum are in agreement with those measured. The absolute cross sections predicted by tables in this memorandum are almost uniformly 3 to 4 db too high.

Confirmation of these statements is given also by the total-cross-section measurements made with the bistatic radar; these results will be reported in a separate memorandum.

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.180	00	99.99-	06.10-	02.58-	00.24-	01.68-	03.44	05.20	07.06	09.46	12.98	0020	00.550	0.249	0.000
0.180	10	11.88-	04.68-	01.65-	00.52	02.35	04.05	05.78	07.61	09.99	13.49	0020	00.520	0.210	0.014
0.180	20	09.01-	04.28-	01.66-	00.33	02.07	03.71	05.40	07.20	09.56	13.04	0020	00.443	0.199	0.025
0.180	30	06.76-	03.91-	01.87-	00.16-	01.40	02.93	04.54	06.28	08.59	12.04	0020	00.341	0.195	0.041
0.180	40	04.80-	03.28-	01.92-	00.63-	00.66	01.98	03.43	05.05	07.26	10.63	0020	00.242	0.194	0.064
0.180	50	03.13-	02.38-	01.59-	00.75-	00.17	01.19	02.38	03.79	05.80	09.00	0020	00.163	0.196	0.095
0.180	60	01.79-	01.41-	00.98-	00.49-	00.10	00.80	01.68	02.80	04.51	07.42	0020	00.107	0.199	0.132
0.180	70	00.79-	00.59-	00.34-	00.04-	00.32	00.79	01.41	02.24	03.61	06.16	0020	00.074	0.202	0.168
0.180	80	00.18-	00.04-	00.12	00.33	00.59	00.93	01.39	02.05	03.17	05.41	0020	00.057	0.204	0.195
0.180	90	00.00	00.12	00.27	00.44	00.67	00.97	01.39	01.98	03.02	05.14	0020	00.052	0.206	0.206
0.200	00	99.99-	05.71-	02.19-	00.15	02.07	03.83	05.59	07.45	09.85	13.37	0020	01.288	0.533	0.000
0.200	10	13.36-	04.75-	01.58-	00.64	02.50	04.22	05.96	07.80	10.18	13.70	0020	01.209	0.466	0.021
0.200	20	10.20-	04.62-	01.82-	00.25	02.03	03.70	05.40	07.22	09.59	13.08	0020	01.002	0.446	0.043
0.200	30	07.65-	04.46-	02.28-	00.50-	01.11	02.68	04.30	05.06	08.38	11.85	0020	00.740	0.440	0.076
0.200	40	05.44-	03.87-	02.48-	01.17-	00.12	01.46	02.92	04.55	06.76	10.13	0020	00.494	0.443	0.127
0.200	50	03.54-	02.86-	02.14-	01.35-	00.49-	00.49	01.64	03.01	04.99	08.16	0020	00.306	0.451	0.200
0.200	60	02.02-	01.72-	01.38-	00.98-	00.49-	00.11	00.88	01.89	03.47	06.25	0020	00.184	0.462	0.290
0.200	70	00.90-	00.76-	00.59-	00.38-	00.11-	00.24	00.72	01.38	02.53	04.79	0020	00.115	0.472	0.383
0.200	80	00.23-	00.14-	00.03-	00.10	00.27	00.50	00.83	01.30	02.16	04.00	0020	00.083	0.479	0.454
0.200	90	00.00	00.07	00.16	00.28	00.42	00.62	00.90	01.31	02.07	03.76	0020	00.074	0.482	0.482
0.216	00	99.99-	05.48-	01.96-	00.38	02.30	04.06	05.82	07.68	10.08	13.60	0020	01.495	0.587	0.000
0.216	10	14.16-	04.74-	01.50-	00.74	02.61	04.34	06.08	07.92	10.31	13.82	0020	01.395	0.521	0.020
0.216	20	10.91-	04.79-	01.90-	00.21	02.01	03.69	05.40	07.22	09.60	13.10	0020	01.135	0.502	0.041
0.216	30	08.24-	04.81-	02.54-	00.72-	00.91	02.50	04.13	05.90	08.23	11.70	0020	00.811	0.499	0.075
0.216	40	05.87-	04.29-	02.88-	01.56-	00.26-	01.09	02.55	04.18	06.40	09.78	0020	00.518	0.505	0.131
0.216	50	03.84-	03.20-	02.51-	01.77-	00.94-	00.01	01.13	02.48	04.42	07.57	0020	00.305	0.517	0.214
0.216	60	02.19-	01.94-	01.64-	01.28-	00.85-	00.31-	00.39	01.32	02.82	05.50	0020	00.174	0.532	0.321
0.216	70	00.99-	00.87-	00.73-	00.56-	00.33-	00.04-	00.36	00.94	01.96	04.05	0020	00.106	0.546	0.435
0.216	80	00.26-	00.19-	00.11-	00.00	00.14	00.33	00.59	00.98	01.72	03.35	0020	00.076	0.557	0.525
0.216	90	00.00	00.06	00.13	00.22	00.34	00.50	00.72	01.07	01.71	03.20	0020	00.068	0.559	0.559
0.220	00	99.99-	05.46-	01.93-	00.41	02.33	04.09	05.85	07.70	10.11	13.63	0020	01.446	0.564	0.000
0.220	10	14.18-	04.73-	01.49-	00.76	02.63	04.36	06.10	07.94	10.33	13.84	0020	01.347	0.501	0.019
0.220	20	10.97-	04.80-	01.91-	00.20	02.00	03.69	05.40	07.22	09.60	13.10	0020	01.092	0.483	0.039
0.220	30	08.32-	04.86-	02.59-	00.76-	00.88	02.46	04.10	05.87	08.20	11.67	0020	00.776	0.480	0.071
0.220	40	05.94-	04.35-	02.95-	01.62-	00.32-	01.03	02.49	04.12	06.34	09.71	0020	00.493	0.487	0.124
0.220	50	03.89-	03.25-	02.57-	01.83-	01.01-	00.06-	01.05	02.39	04.34	07.48	0020	00.298	0.499	0.204
0.220	60	02.22-	01.97-	01.68-	01.33-	00.90-	00.36-	00.33	01.26	02.74	05.41	0020	00.164	0.514	0.308
0.220	70	01.00-	00.89-	00.75-	00.58-	00.36-	00.07-	00.33	00.91	01.92	04.00	0020	00.101	0.528	0.416
0.220	80	00.27-	00.20-	00.11-	00.01-	00.13	00.32	00.58	00.98	01.71	03.35	0020	00.073	0.539	0.507
0.220	90	00.00	00.06	00.13	00.22	00.34	00.50	00.73	01.07	01.72	03.22	0020	00.066	0.540	0.540

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.224	00	99.99-	05.44-	01.92-	00.42	02.34	04.10	05.86	07.72	10.12	13.65	0020	01.375	0.535	0.000
0.224	10	14.12-	04.71-	01.47-	00.77	02.64	04.37	06.11	07.95	10.34	13.86	0020	01.280	0.475	0.018
0.224	20	10.98-	04.80-	01.91-	00.20	02.00	03.69	05.40	07.22	09.60	13.10	0020	01.034	0.458	0.037
0.224	30	08.36-	04.88-	02.61-	00.78-	00.86	02.44	04.08	05.85	08.18	11.65	0020	00.732	0.455	0.067
0.224	40	05.99-	04.40-	02.99-	01.67-	00.36-	00.98	02.44	04.08	06.29	09.67	0020	00.463	0.462	0.116
0.224	50	03.92-	03.29-	02.62-	01.88-	01.05-	00.11-	01.00	02.34	04.29	07.43	0020	00.270	0.474	0.192
0.224	60	02.25-	02.00-	01.70-	01.35-	00.93-	00.39-	00.30	01.22	02.71	05.38	0020	00.155	0.488	0.291
0.224	70	01.02-	00.90-	00.76-	00.59-	00.36-	00.07-	00.35	00.91	01.93	04.01	0020	00.096	0.502	0.397
0.224	80	00.28-	00.21-	00.12-	00.01-	00.13	00.33	00.60	01.00	01.75	03.41	0020	00.072	0.513	0.482
0.224	90	00.00	00.06	00.14	00.23	00.35	00.52	00.75	01.11	01.78	03.30	0020	00.065	0.514	0.514
0.228	00	99.99-	05.44-	01.92-	00.43	02.34	04.11	05.87	07.72	10.13	13.65	0020	01.295	0.503	0.000
0.228	10	13.98-	04.69-	01.46-	00.78	02.65	04.38	06.12	07.96	10.35	13.86	0020	01.204	0.446	0.016
0.228	20	10.93-	04.79-	01.90-	00.20	02.00	03.69	05.40	07.22	09.60	13.10	0020	00.972	0.430	0.035
0.228	30	08.35-	04.89-	02.62-	00.79-	00.84	02.43	04.07	05.83	08.17	11.63	0020	00.686	0.428	0.063
0.228	40	06.01-	04.42-	03.01-	01.69-	00.39-	00.96	02.42	04.05	06.27	09.65	0020	00.433	0.434	0.109
0.228	50	03.95-	03.32-	02.64-	01.90-	01.07-	00.13-	00.98	02.32	04.27	07.41	0020	00.253	0.446	0.180
0.228	60	02.26-	02.01-	01.72-	01.36-	00.93-	00.40-	00.30	01.23	02.72	05.40	0020	00.147	0.460	0.275
0.228	70	01.03-	00.91-	00.76-	00.59-	00.36-	00.06-	00.35	00.94	01.98	04.09	0020	00.093	0.473	0.374
0.228	80	00.28-	00.21-	00.12-	00.00-	00.15	00.35	00.63	01.05	01.82	03.53	0020	00.071	0.484	0.453
0.228	90	00.00	00.06	00.14	00.24	00.37	00.55	00.80	01.17	01.86	03.44	0020	00.065	0.484	0.484
0.232	00	99.99-	05.45-	01.92-	00.42	02.33	04.10	05.86	07.71	10.12	13.64	0020	01.215	0.473	0.000
0.232	10	13.80-	04.66-	01.45-	00.79	02.65	04.38	06.12	07.96	10.35	13.86	0020	01.130	0.418	0.017
0.232	20	10.83-	04.77-	01.89-	00.21	02.00	03.69	05.40	07.22	09.59	13.09	0020	00.910	0.404	0.033
0.232	30	08.32-	04.88-	02.62-	00.79-	00.84	02.42	04.06	05.83	08.16	11.63	0020	00.642	0.401	0.059
0.232	40	06.00-	04.42-	03.01-	01.69-	00.39-	00.95	02.41	04.05	06.26	09.64	0020	00.405	0.407	0.102
0.232	50	03.96-	03.32-	02.64-	01.90-	01.07-	00.13-	00.99	02.33	04.28	07.43	0020	00.238	0.418	0.168
0.232	60	02.27-	02.02-	01.72-	01.36-	00.92-	00.38-	00.33	01.27	02.77	05.46	0020	00.140	0.431	0.256
0.232	70	01.03-	00.91-	00.76-	00.57-	00.34-	00.03-	00.40	01.01	02.07	04.21	0020	00.091	0.444	0.350
0.232	80	00.29-	00.21-	00.11-	00.01	00.17	00.38	00.68	01.12	01.93	03.69	0020	00.071	0.455	0.425
0.232	90	00.00	00.07	00.15	00.26	00.40	00.59	00.85	01.24	01.98	03.61	0020	00.065	0.454	0.454
0.236	00	99.99-	05.47-	01.94-	00.40	02.32	04.08	05.84	07.69	10.10	13.62	0020	01.141	0.446	0.000
0.236	10	13.57-	04.64-	01.44-	00.79	02.65	04.38	06.12	07.96	10.35	13.86	0020	01.061	0.393	0.017
0.236	20	10.69-	04.74-	01.88-	00.21	02.00	03.69	05.40	07.21	09.59	13.09	0020	00.854	0.379	0.032
0.236	30	08.25-	04.85-	02.60-	00.79-	00.85	02.42	04.06	05.83	08.16	11.62	0020	00.602	0.377	0.056
0.236	40	05.98-	04.40-	03.00-	01.68-	00.38-	00.97	02.42	04.06	06.27	09.65	0020	00.381	0.382	0.096
0.236	50	03.95-	03.31-	02.63-	01.88-	01.05-	00.10-	01.02	02.37	04.32	07.47	0020	00.226	0.393	0.158
0.236	60	02.28-	02.01-	01.71-	01.34-	00.89-	00.34-	00.38	01.33	02.85	05.56	0020	00.135	0.405	0.240
0.236	70	01.04-	00.91-	00.75-	00.56-	00.31-	00.01	00.46	01.09	02.18	04.37	0020	00.090	0.417	0.328
0.236	80	00.30-	00.21-	00.11-	00.02	00.19	00.42	00.74	01.20	02.05	03.87	0020	00.071	0.423	0.399
0.236	90	00.00	00.07	00.17	00.28	00.43	00.63	00.91	01.33	02.11	03.81	0020	00.067	0.427	0.427

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.240	00	99.99-	05.49-	01.97-	00.37	02.29	04.05	05.81	07.67	10.07	13.59	0020	01.075	0.423	0.000
0.240	10	13.34-	04.62-	01.43-	00.79	02.65	04.37	06.11	07.95	10.34	13.85	0020	00.999	0.371	0.017
0.240	20	10.54-	04.71-	01.87-	00.22	02.01	03.69	05.39	07.21	09.58	13.08	0020	00.804	0.358	0.032
0.240	30	08.16-	04.81-	02.58-	00.77-	00.86	02.43	04.07	05.83	08.16	11.53	0020	00.568	0.355	0.054
0.240	40	05.94-	04.37-	02.97-	01.65-	00.35-	00.99	02.45	04.08	06.30	09.67	0020	00.361	0.360	0.092
0.240	50	03.94-	03.29-	02.60-	01.84-	01.01-	00.05-	01.07	02.43	04.38	07.53	0020	00.216	0.370	0.149
0.240	60	02.28-	02.00-	01.69-	01.31-	00.85-	00.28-	00.45	01.42	02.95	05.69	0020	00.132	0.382	0.226
0.240	70	01.04-	00.90-	00.74-	00.53-	00.27-	00.07	00.53	01.18	02.31	04.55	0020	00.090	0.393	0.309
0.240	80	00.30-	00.21-	00.10-	00.04	00.22	00.47	00.80	01.29	02.18	04.07	0020	00.073	0.403	0.376
0.240	90	00.00	00.08	00.18	00.30	00.46	00.68	00.98	01.43	02.24	04.02	0020	00.068	0.402	0.402
0.244	00	99.99-	05.53-	02.01-	00.33	02.25	04.01	05.78	07.63	10.04	13.56	0020	01.018	0.404	0.000
0.244	10	13.09-	04.60-	01.43-	00.79	02.64	04.36	06.10	07.93	10.32	13.83	0020	00.946	0.353	0.017
0.244	20	10.37-	04.67-	01.85-	00.23	02.01	03.69	05.39	07.21	09.58	13.07	0020	00.762	0.339	0.031
0.244	30	08.06-	04.76-	02.55-	00.74-	00.88	02.45	04.08	05.84	08.17	11.63	0020	00.539	0.337	0.053
0.244	40	05.89-	04.32-	02.92-	01.61-	00.31-	01.03	02.48	04.12	06.33	09.70	0020	00.345	0.342	0.088
0.244	50	03.92-	03.26-	02.56-	01.80-	00.95-	00.01	01.14	02.50	04.46	07.61	0020	00.209	0.350	0.142
0.244	60	02.27-	01.99-	01.66-	01.27-	00.80-	00.21-	00.54	01.52	03.08	05.83	0020	00.130	0.362	0.214
0.244	70	01.04-	00.90-	00.72-	00.50-	00.23-	00.13	00.61	01.29	02.45	04.74	0020	00.091	0.372	0.293
0.244	80	00.31-	00.21-	00.09-	00.07	00.26	00.51	00.87	01.39	02.32	04.28	0020	00.074	0.382	0.356
0.244	90	00.00	00.09	00.19	00.33	00.50	00.73	01.05	01.53	02.39	04.23	0020	00.070	0.380	0.380
0.252	00	99.99-	05.61-	02.09-	00.25	02.17	03.93	05.69	07.55	09.95	13.48	0020	00.926	0.374	0.000
0.252	10	12.62-	04.56-	01.43-	00.77	02.62	04.33	06.07	07.90	10.29	13.80	0020	00.861	0.324	0.018
0.252	20	10.01-	04.58-	01.81-	00.25	02.02	03.69	05.39	07.20	09.57	13.06	0020	00.696	0.311	0.031
0.252	30	07.82-	04.64-	02.46-	00.68-	00.93	02.49	04.11	05.87	08.19	11.66	0020	00.496	0.308	0.051
0.252	40	05.75-	04.20-	02.81-	01.50-	00.21-	01.13	02.58	04.21	06.42	09.80	0020	00.321	0.312	0.083
0.252	50	03.85-	03.18-	02.46-	01.68-	00.82-	00.16	01.30	02.67	04.64	07.81	0020	00.200	0.320	0.132
0.252	60	02.24-	01.94-	01.59-	01.17-	00.67-	00.06-	00.73	01.75	03.24	06.14	0020	00.129	0.330	0.197
0.252	70	01.04-	00.87-	00.67-	00.43-	00.13-	00.26	00.79	01.52	02.75	05.13	0020	00.093	0.339	0.267
0.252	80	00.31-	00.20-	00.06-	00.11	00.33	00.62	01.02	01.59	02.61	04.68	0020	00.078	0.348	0.324
0.252	90	00.00	00.10	00.22	00.38	00.58	00.84	01.20	01.73	02.67	04.64	0020	00.074	0.346	0.346
0.260	00	99.99-	05.70-	02.18-	00.16	02.08	03.84	05.60	07.46	09.86	13.38	0020	00.860	0.355	0.000
0.260	10	12.17-	04.52-	01.44-	00.75	02.59	04.30	06.03	07.86	10.25	13.75	0020	00.801	0.304	0.018
0.260	20	09.65-	04.48-	01.77-	00.27	02.03	03.69	05.38	07.19	09.55	13.05	0020	00.650	0.291	0.032
0.260	30	07.56-	04.49-	02.36-	00.61-	00.99	02.54	04.16	05.91	08.23	11.69	0020	00.467	0.286	0.050
0.260	40	05.59-	04.05-	02.67-	01.37-	00.08-	01.25	02.70	04.33	06.54	09.91	0020	00.308	0.291	0.080
0.260	50	03.77-	03.07-	02.33-	01.53-	00.65-	00.34	01.49	02.87	04.86	08.04	0020	00.197	0.298	0.125
0.260	60	02.21-	01.88-	01.50-	01.05-	00.52-	00.12	00.94	02.00	03.64	06.48	0020	00.131	0.307	0.185
0.260	70	01.03-	00.84-	00.62-	00.35-	00.02-	00.41	00.98	01.76	03.06	05.52	0020	00.097	0.316	0.249
0.260	80	00.31-	00.18-	00.03-	00.17	00.41	00.74	01.18	01.80	02.89	05.08	0020	00.082	0.324	0.301
0.260	90	00.00	00.12	00.26	00.43	00.65	00.95	01.35	01.93	02.95	05.04	0020	00.078	0.322	0.322

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.267	00	99.99-	05.80-	02.28-	00.06	01.98	03.74	05.51	07.36	09.76	13.29	0020	00.818	0.345	0.000
0.267	10	11.79-	04.49-	01.45-	00.72	02.55	04.26	05.99	07.82	10.20	13.71	0020	00.762	0.293	0.019
0.267	20	09.33-	04.39-	01.73-	00.29	02.03	03.69	05.38	07.18	09.54	13.03	0020	00.621	0.280	0.033
0.267	30	07.32-	04.36-	02.26-	00.53-	01.05	02.60	04.21	05.96	08.27	11.73	0020	00.451	0.276	0.051
0.267	40	05.43-	03.91-	02.53-	01.24-	00.05	01.38	02.82	04.45	06.66	10.03	0020	00.302	0.278	0.080
0.267	50	03.68-	02.96-	02.20-	01.38-	00.49-	00.51	01.68	03.07	05.07	08.26	0020	00.198	0.284	0.122
0.267	60	02.16-	01.81-	01.41-	00.94-	00.38-	00.30	01.15	02.23	03.91	06.79	0020	00.135	0.292	0.178
0.267	70	01.01-	00.81-	00.57-	00.27-	00.09	00.54	01.15	01.98	03.34	05.87	0020	00.103	0.301	0.238
0.267	80	00.31-	00.17-	00.00	00.22	00.49	00.84	01.32	02.00	03.15	05.42	0020	00.088	0.308	0.287
0.267	90	00.00	00.13	00.29	00.48	00.73	01.05	01.49	02.12	03.20	05.39	0020	00.083	0.306	0.306
0.281	00	99.99-	06.02-	02.50-	00.16-	01.76	03.52	05.28	07.14	09.54	13.06	0020	00.761	0.338	0.000
0.281	10	11.04-	04.44-	01.48-	00.66	02.47	04.17	05.89	07.71	10.09	13.59	0020	00.712	0.281	0.022
0.281	20	08.67-	04.19-	01.63-	00.34	02.06	03.69	05.37	07.16	09.52	13.00	0020	00.587	0.266	0.036
0.281	30	06.79-	04.04-	02.03-	00.34-	01.21	02.74	04.34	06.07	08.38	11.83	0020	00.437	0.262	0.055
0.281	40	05.06-	03.56-	02.21-	00.92-	00.35	01.68	03.12	04.74	06.95	10.31	0020	00.304	0.262	0.082
0.281	50	03.45-	02.69-	01.89-	01.04-	00.11-	00.92	02.12	03.53	05.55	08.76	0020	00.209	0.267	0.121
0.281	60	02.05-	01.64-	01.19-	00.66-	00.04-	00.69	01.61	02.76	04.51	07.46	0020	00.150	0.273	0.171
0.281	70	00.97-	00.72-	00.43-	00.09-	00.33	00.86	01.55	02.47	03.94	06.60	0020	00.118	0.280	0.224
0.281	80	00.31-	00.13-	00.08	00.34	00.67	01.09	01.65	02.42	03.70	06.14	0020	00.102	0.288	0.268
0.281	90	00.00	00.16	00.36	00.59	00.89	01.27	01.79	02.52	03.74	06.10	0020	00.097	0.284	0.284
0.305	00	99.99-	06.55-	03.03-	00.69-	01.23	02.99	04.75	06.61	09.01	12.54	0020	00.714	0.358	0.000
0.305	10	09.76-	04.33-	01.56-	00.50	02.27	03.94	05.64	07.45	09.82	13.31	0020	00.674	0.284	0.030
0.305	20	07.45-	03.77-	01.42-	00.44	02.10	03.69	05.34	07.12	09.46	12.93	0020	00.574	0.265	0.048
0.305	30	05.73-	03.35-	01.50-	00.09	01.59	03.07	04.64	06.35	08.64	12.07	0020	00.453	0.257	0.069
0.305	40	04.24-	02.79-	01.47-	00.21-	01.05	02.36	03.80	05.41	07.61	10.97	0020	00.343	0.255	0.096
0.305	50	02.91-	02.05-	01.17-	00.25-	00.73	01.82	03.06	04.52	06.58	09.82	0020	00.259	0.256	0.131
0.305	60	01.76-	01.24-	00.67-	00.02-	00.71	01.56	02.59	03.85	05.72	08.79	0020	00.199	0.260	0.173
0.305	70	00.85-	00.51-	00.11-	00.35	00.89	01.56	02.40	03.47	05.13	08.00	0020	00.162	0.265	0.218
0.305	80	00.29-	00.03-	00.28	00.64	01.08	01.63	02.35	03.29	04.80	07.50	0020	00.141	0.271	0.253
0.305	90	00.00	00.24	00.52	00.85	01.26	01.77	02.44	03.34	04.79	07.43	0020	00.134	0.267	0.267
0.337	00	99.99-	07.50-	03.98-	01.64-	00.28	02.04	03.80	05.66	08.06	11.58	0020	00.702	0.439	0.000
0.337	10	08.18-	04.17-	01.73-	00.18	01.87	03.48	05.14	06.93	09.27	12.75	0020	00.671	0.323	0.049
0.337	20	05.80-	03.08-	01.09-	00.59	02.14	03.66	05.25	06.99	09.29	12.74	0020	00.603	0.293	0.077
0.337	30	04.14-	02.22-	00.62-	00.83	02.23	03.64	05.16	06.83	09.08	12.49	0020	00.533	0.276	0.106
0.337	40	02.88-	01.49-	00.21-	01.02	02.25	03.55	04.96	06.57	08.75	12.11	0020	00.467	0.267	0.138
0.337	50	01.94-	00.93-	00.07	01.09	02.17	03.32	04.63	06.14	08.25	11.53	0020	00.396	0.262	0.168
0.337	60	01.24-	00.50-	00.27	01.09	02.00	03.01	04.19	05.59	07.59	10.78	0020	00.326	0.261	0.197
0.337	70	00.66-	00.12-	00.47	01.12	01.87	02.74	03.78	05.05	06.93	10.01	0020	00.268	0.263	0.226
0.337	80	00.26-	00.16	00.64	01.19	01.82	02.58	03.51	04.68	06.45	09.42	0020	00.232	0.267	0.251
0.337	90	00.00	00.39	00.82	01.33	01.92	02.64	03.53	04.66	06.38	09.31	0020	00.220	0.262	0.263

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.369	00	99.99-	08.51-	04.98-	02.64-	00.72-	01.04	02.80	04.65	07.06	10.58	0020	00.720	0.567	0.000
0.369	10	06.66-	03.86-	01.84-	00.14-	01.42	02.95	04.55	06.29	08.60	12.05	0020	00.668	0.380	0.082
0.369	20	04.11-	02.29-	00.75-	00.67	02.04	03.43	04.93	06.60	08.84	12.24	0020	00.601	0.331	0.128
0.369	30	02.41-	00.96-	00.36	01.63	02.88	04.19	05.63	07.24	09.44	12.80	0020	00.617	0.301	0.173
0.369	40	01.31-	00.00	01.23	02.42	03.63	04.90	06.30	07.89	10.06	13.41	0020	00.660	0.281	0.207
0.369	50	00.84-	00.37	01.52	02.66	03.82	05.06	06.43	07.99	10.15	13.47	0020	00.638	0.268	0.221
0.369	60	00.84-	00.24	01.30	02.36	03.47	04.65	05.98	07.51	09.64	12.94	0020	00.551	0.263	0.217
0.369	70	00.75-	00.14	01.04	01.97	02.97	04.07	05.32	06.79	08.85	12.10	0020	00.453	0.265	0.223
0.369	80	00.35-	00.33	01.06	01.85	02.71	03.69	04.84	06.21	08.19	11.36	0020	00.385	0.272	0.251
0.369	90	00.00	00.61	01.26	01.98	02.78	03.70	04.80	06.12	08.05	11.18	0020	00.362	0.269	0.269
0.393	00	99.99-	09.41-	05.89-	03.55-	01.63-	00.13	01.90	03.75	06.16	09.68	0020	00.746	0.723	0.000
0.393	10	05.11-	03.33-	01.80-	00.40-	00.95	02.34	03.83	05.49	07.73	11.13	0020	00.604	0.429	0.133
0.393	20	02.30-	01.34-	00.37-	00.62	01.66	02.80	04.08	05.58	07.67	10.94	0020	00.462	0.351	0.207
0.393	30	00.44-	00.55	01.53	02.53	03.59	04.73	06.03	07.53	09.63	12.90	0020	00.624	0.302	0.273
0.393	40	00.59	01.83	02.99	04.14	05.32	06.56	07.94	09.51	11.67	15.00	0020	00.902	0.267	0.306
0.393	50	00.50	01.97	03.31	04.58	05.85	07.16	08.60	10.22	12.42	15.78	0020	01.002	0.245	0.275
0.393	60	00.77-	00.98	02.48	03.87	05.22	06.60	08.09	09.75	11.98	15.38	0020	00.902	0.241	0.202
0.393	70	01.65-	00.04	01.50	02.86	04.19	05.56	07.03	08.68	10.91	14.30	0020	00.741	0.254	0.174
0.393	80	00.75-	00.38	01.48	02.57	03.70	04.91	06.26	07.80	09.94	13.25	0020	00.621	0.276	0.232
0.393	90	00.00	00.90	01.82	02.77	03.78	04.88	06.15	07.62	09.69	12.94	0020	00.579	0.279	0.279
0.409	00	99.99-	10.40-	06.88-	04.54-	02.62-	00.86-	00.91	02.76	05.16	08.69	0020	00.766	0.933	0.000
0.409	10	04.29-	03.15-	02.05-	00.95-	00.18	01.39	02.74	04.29	06.43	09.74	0020	00.514	0.511	0.190
0.409	20	01.13-	00.66-	00.14-	00.44	01.12	01.92	02.89	04.11	05.92	08.94	0020	00.309	0.394	0.304
0.409	30	01.10	01.86	02.66	03.51	04.44	05.47	06.67	08.08	10.10	13.31	0020	00.707	0.316	0.407
0.409	40	02.42	03.63	04.78	05.91	07.07	08.31	09.68	11.24	13.39	16.72	0020	01.296	0.258	0.451
0.409	50	02.27	03.89	05.31	06.65	07.96	09.31	10.78	12.42	14.64	18.02	0020	01.513	0.221	0.372
0.409	60	00.18-	02.20	04.04	05.64	07.13	08.62	10.18	11.90	14.19	17.62	0020	01.348	0.214	0.205
0.409	70	03.05-	00.01-	02.11	03.86	05.45	07.00	08.62	10.37	12.69	16.15	0020	01.072	0.237	0.117
0.409	80	01.29-	00.39	01.86	03.22	04.55	05.92	07.40	09.05	11.28	14.66	0020	00.872	0.275	0.204
0.409	90	00.00	01.18	02.31	03.43	04.58	05.80	07.17	08.72	10.87	14.19	0020	00.803	0.286	0.286
0.421	00	99.99-	11.18-	07.65-	05.31-	03.39-	01.63-	00.13	01.98	04.39	07.91	0020	00.782	1.140	0.000
0.421	10	04.19-	03.37-	02.52-	01.63-	00.67-	00.40	01.62	03.07	05.11	08.34	0020	00.437	0.611	0.233
0.421	20	00.74-	00.48-	00.17-	00.20	00.64	01.20	01.92	02.87	04.38	07.09	0020	00.217	0.458	0.386
0.421	30	01.82	02.56	03.33	04.15	05.06	06.07	07.25	08.65	10.65	13.84	0020	00.886	0.351	0.534
0.421	40	03.55	04.76	05.92	07.06	08.23	09.47	10.84	12.41	14.56	17.89	0020	01.757	0.267	0.604
0.421	50	03.74	05.37	06.79	08.13	09.44	10.80	12.26	13.90	16.12	19.50	0020	02.023	0.210	0.497
0.421	60	00.91	03.48	05.41	07.06	08.58	10.09	11.67	13.40	15.70	19.14	0020	01.738	0.194	0.239
0.421	70	04.47-	00.07	02.65	04.63	06.35	07.99	09.67	11.46	13.82	17.31	0020	01.324	0.223	0.080
0.421	80	01.82-	00.32	02.05	03.57	05.02	06.47	08.01	09.71	11.98	15.40	0020	01.037	0.274	0.180
0.421	90	00.00	01.33	02.56	03.77	04.98	06.25	07.66	09.24	11.42	14.77	0020	00.942	0.293	0.293

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.441	00	99.99-	11.84-	08.32-	05.98-	04.06-	02.30-	00.54-	01.32	03.72	07.24	0020	00.810	1.376	0.000
0.441	10	04.75-	04.15-	03.51-	02.79-	02.00-	01.08-	00.01	01.33	03.25	06.37	0020	00.339	0.763	0.255
0.441	20	00.93-	00.77-	00.58-	00.35-	00.05-	00.33	00.85	01.56	02.78	05.12	0020	00.154	0.565	0.456
0.441	30	02.06	02.88	03.72	04.61	05.57	06.63	07.85	09.29	11.33	14.56	0020	01.262	0.421	0.676
0.441	40	04.34	05.60	06.79	07.96	09.14	10.39	11.78	13.35	15.52	18.85	0020	02.471	0.300	0.816
0.441	50	05.25	06.77	08.14	09.44	10.72	12.05	13.50	15.13	17.34	20.71	0020	02.666	0.210	0.702
0.441	60	02.72	05.07	06.90	08.48	09.97	11.45	13.01	14.72	17.01	20.44	0020	02.108	0.174	0.327
0.441	70	06.58-	00.04	03.00	05.14	06.95	08.65	10.37	12.19	14.57	18.08	0020	01.468	0.207	0.045
0.441	80	02.64-	00.11-	01.80	03.44	04.96	06.46	08.04	09.76	12.06	15.50	0020	01.067	0.275	0.150
0.441	90	00.00	01.29	02.49	03.67	04.87	06.13	07.52	09.10	11.27	14.61	0020	00.940	0.303	0.303
0.449	00	99.99-	11.83-	08.31-	05.97-	04.05-	02.29-	00.53-	01.33	03.73	07.25	0020	00.821	1.392	0.000
0.449	10	05.08-	04.50-	03.87-	03.17-	02.38-	01.48-	00.40-	00.91	02.82	05.93	0020	00.316	0.789	0.245
0.449	20	01.15-	01.00-	00.81-	00.58-	00.30-	00.07	00.58	01.27	02.47	04.79	0020	00.146	0.587	0.451
0.449	30	01.96	02.83	03.71	04.64	05.62	06.71	07.96	09.42	11.48	14.72	0020	01.366	0.438	0.688
0.449	40	04.39	05.67	06.87	08.05	09.24	10.50	11.89	13.47	15.64	18.97	0020	02.624	0.310	0.852
0.449	50	05.49	06.97	08.31	09.59	10.86	12.18	13.62	15.24	17.44	20.81	0020	02.752	0.212	0.750
0.449	60	03.14	05.34	07.10	08.65	10.11	11.57	13.11	14.82	17.09	20.52	0020	02.104	0.171	0.353
0.449	70	07.15-	00.16-	02.85	05.00	06.83	08.53	10.25	12.08	14.46	17.97	0020	01.412	0.204	0.039
0.449	80	02.87-	00.38-	01.51	03.13	04.64	06.14	07.71	09.43	11.73	15.16	0020	00.994	0.277	0.143
0.449	90	00.00	01.18	02.31	03.43	04.58	05.81	07.17	08.73	10.88	14.20	0020	00.863	0.307	0.307
0.461	00	99.99-	11.60-	08.08-	05.74-	03.82-	02.06-	00.30-	01.56	03.96	07.48	0020	00.837	1.346	0.000
0.461	10	05.61-	04.99-	04.33-	03.60-	02.79-	01.86-	00.76-	00.57	02.51	05.64	0020	00.297	0.790	0.217
0.461	20	01.52-	01.36-	01.17-	00.94-	00.65-	00.27-	00.24	00.95	02.15	04.49	0020	00.139	0.593	0.418
0.461	30	01.74	02.68	03.62	04.59	05.62	06.75	08.03	09.51	11.60	14.86	0020	01.442	0.445	0.664
0.461	40	04.32	05.63	06.85	08.04	09.24	10.51	11.91	13.49	15.66	19.00	0020	02.693	0.316	0.854
0.461	50	05.60	07.03	08.33	09.58	10.83	12.14	13.56	15.17	17.37	20.72	0020	02.715	0.213	0.775
0.461	60	03.42	05.43	07.09	08.57	09.99	11.42	12.95	14.63	16.89	20.31	0020	01.977	0.169	0.372
0.461	70	07.79-	00.67-	02.35	04.51	06.34	08.05	09.77	11.60	13.98	17.49	0020	01.256	0.202	0.034
0.461	80	03.09-	00.84-	00.94	02.50	03.97	05.44	06.99	08.70	10.98	14.40	0020	00.842	0.280	0.137
0.461	90	00.00	00.98	01.96	02.97	04.02	05.17	06.47	07.97	10.07	13.34	0020	00.716	0.313	0.313

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN / HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.466	00	99.99-	11.41-	07.89-	05.54-	03.63-	01.86-	00.10-	01.75	04.16	07.68	0020	00.843	1.295	0.000
0.466	05	08.84-	06.74-	05.04-	03.53-	02.09-	00.65-	00.89	02.58	04.85	08.27	0020	00.672	0.919	0.120
0.466	10	05.83-	05.17-	04.46-	03.70-	02.85-	01.89-	00.76-	00.60	02.57	05.72	0020	00.298	0.771	0.201
0.466	15	03.60-	03.55-	03.49-	03.41-	03.31-	03.17-	02.97-	02.66-	02.08-	00.71-	0020	00.031	0.667	0.291
0.466	20	01.69-	01.53-	01.33-	01.09-	00.79-	00.40-	00.12	00.85	02.07	04.44	0020	00.136	0.582	0.395
0.466	25	00.04	00.62	01.25	01.95	02.73	03.64	04.72	06.02	07.94	11.05	0020	00.661	0.508	0.512
0.466	30	01.61	02.58	03.55	04.54	05.59	06.72	08.01	09.51	11.60	14.88	0020	01.429	0.439	0.637
0.466	35	03.03	04.23	05.38	06.52	07.68	08.92	10.29	11.85	14.00	17.33	0020	02.162	0.374	0.751
0.466	40	04.24	05.55	06.78	07.97	09.18	10.45	11.85	13.44	15.61	18.96	0020	02.641	0.313	0.830
0.466	45	05.13	06.49	07.75	08.97	10.19	11.47	12.89	14.48	16.66	20.01	0020	02.781	0.258	0.841
0.466	50	05.54	06.95	08.24	09.48	10.72	12.02	13.44	15.04	17.23	20.59	0020	02.624	0.213	0.762
0.466	55	05.13	06.67	08.06	09.36	10.65	11.99	13.44	15.06	17.28	20.65	0020	02.283	0.182	0.593
0.466	60	03.37	05.32	06.93	08.40	09.80	11.22	12.73	14.41	16.66	20.07	0020	01.875	0.170	0.368
0.466	65	00.53-	02.60	04.75	06.51	08.12	09.67	11.29	13.05	15.37	18.83	0020	01.487	0.177	0.157
0.466	70	07.95-	00.98-	02.03	04.18	06.01	07.71	09.43	11.26	13.64	17.15	0020	01.166	0.203	0.033
0.466	75	08.46-	02.44-	00.43	02.53	04.33	06.01	07.72	09.54	11.91	15.41	0020	00.927	0.241	0.034
0.466	80	03.11-	01.02-	00.68	02.19	03.63	05.07	06.60	08.30	10.56	13.98	0020	00.767	0.282	0.138
0.466	85	00.85-	00.24	01.32	02.39	03.50	04.70	06.04	07.57	09.70	13.01	0020	00.677	0.318	0.261
0.466	90	00.00	00.89	01.80	02.74	03.75	04.85	06.11	07.58	09.65	12.90	0020	00.648	0.315	0.315
0.470	00	99.99-	11.28-	07.76-	05.42-	03.50-	01.74-	00.02	01.88	04.28	07.80	0020	00.847	1.264	0.000
0.470	05	09.04-	06.83-	05.07-	03.53-	02.07-	00.61-	00.94	02.64	04.92	08.34	0020	00.674	0.905	0.113
0.470	10	06.00-	05.31-	04.58-	03.79-	02.93-	01.94-	00.79-	00.58	02.56	05.73	0020	00.295	0.760	0.191
0.470	15	03.75-	03.70-	03.65-	03.58-	03.49-	03.36-	03.18-	02.91-	02.37-	01.11-	0020	00.026	0.659	0.278
0.470	20	01.81-	01.65-	01.45-	01.21-	00.90-	00.51-	00.02	00.75	01.99	04.36	0020	00.133	0.576	0.379
0.470	25	00.07-	00.53	01.18	01.89	02.69	03.61	04.70	06.02	07.95	11.07	0020	00.661	0.504	0.496
0.470	30	01.53	02.52	03.50	04.51	05.57	06.72	08.01	09.52	11.62	14.90	0020	01.427	0.436	0.620
0.470	35	02.96	04.19	05.35	06.49	07.66	08.90	10.28	11.84	14.00	17.33	0020	02.153	0.372	0.736
0.470	40	04.19	05.51	06.74	07.94	09.15	10.42	11.83	13.41	15.59	18.94	0020	02.618	0.312	0.817
0.470	45	05.10	06.46	07.71	08.92	10.15	11.43	12.84	14.43	16.62	19.97	0020	02.741	0.257	0.832
0.470	50	05.52	06.91	08.19	09.42	10.66	11.95	13.37	14.97	17.16	20.51	0020	02.571	0.212	0.757
0.470	55	05.12	06.64	08.00	09.29	10.57	11.90	13.34	14.97	17.17	20.54	0020	02.221	0.182	0.591
0.470	60	03.37	05.27	06.86	08.30	09.69	11.10	12.60	14.28	16.53	19.93	0020	01.810	0.169	0.368
0.470	65	00.54-	02.50	04.61	06.36	07.95	09.51	11.12	12.87	15.19	18.65	0020	01.423	0.177	0.156
0.470	70	08.14-	01.20-	01.80	03.96	05.78	07.48	09.20	11.03	13.41	16.92	0020	01.106	0.203	0.031
0.470	75	08.67-	02.70-	00.17	02.26	04.05	05.74	07.45	09.26	11.64	15.14	0020	00.872	0.242	0.033
0.470	80	03.14-	01.15-	00.49	01.96	03.38	04.80	06.32	08.01	10.26	13.68	0020	00.717	0.283	0.137
0.470	85	00.66-	00.17	01.18	02.21	03.29	04.46	05.77	07.29	09.40	12.69	0020	00.629	0.319	0.262
0.470	90	00.00	00.83	01.69	02.59	03.55	04.62	05.85	07.30	09.34	12.58	0020	00.601	0.317	0.317

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										DIPOLE CROSS-SECTION			
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.474	00	99.99-	11.15-	07.63-	05.28-	03.37-	01.61-	00.16	02.01	04.42	07.94	0020	00.850	1.230	0.000
0.474	05	09.23-	06.90-	05.09-	03.51-	02.03-	00.55-	01.01	02.72	05.00	08.43	0020	00.676	0.887	0.106
0.474	10	06.17-	05.45-	04.69-	03.87-	02.98-	01.98-	00.81-	00.59	02.58	05.77	0020	00.294	0.748	0.181
0.474	15	03.89-	03.85-	03.80-	03.74-	03.65-	03.54-	03.37-	03.12-	02.63-	01.44-	0020	00.022	0.649	0.265
0.474	20	01.94-	01.77-	01.57-	01.32-	01.02-	00.62-	00.08-	00.66	01.90	04.29	0020	00.129	0.569	0.364
0.474	25	00.17-	00.45	01.11	01.84	02.65	03.58	04.69	06.02	07.95	11.09	0020	00.657	0.498	0.479
0.474	30	01.44	02.45	03.46	04.48	05.55	06.70	08.01	09.52	11.63	14.91	0020	01.419	0.432	0.602
0.474	35	02.89	04.13	05.31	06.46	07.64	08.88	10.26	11.83	14.00	17.33	0020	02.135	0.369	0.718
0.474	40	04.13	05.46	06.70	07.90	09.12	10.39	11.79	13.38	15.56	18.91	0020	02.585	0.309	0.801
0.474	45	05.06	06.41	07.66	08.87	10.10	11.38	12.79	14.38	16.56	19.91	0020	02.693	0.256	0.820
0.474	50	05.49	06.87	08.14	09.36	10.59	11.88	13.29	14.89	17.08	20.43	0020	02.510	0.211	0.749
0.474	55	05.10	06.59	07.93	09.21	10.48	11.80	13.24	14.85	17.06	20.42	0020	02.154	0.181	0.587
0.474	60	03.36	05.20	06.76	08.18	09.56	10.96	12.46	14.13	16.37	19.77	0020	01.742	0.169	0.366
0.474	65	00.57-	02.38	04.46	06.20	07.78	09.32	10.93	12.68	14.99	18.45	0020	01.359	0.177	0.155
0.474	70	08.33-	01.43-	01.57	03.72	05.54	07.24	08.96	10.79	13.17	16.67	0020	01.047	0.203	0.030
0.474	75	08.83-	02.95-	00.10-	01.99	03.78	05.46	07.16	08.98	11.35	14.85	0020	00.819	0.242	0.032
0.474	80	03.17-	01.28-	00.30	01.74	03.12	04.53	06.04	07.71	09.96	13.36	0020	00.668	0.284	0.137
0.474	85	00.86-	00.09	01.05	02.04	03.08	04.22	05.50	07.00	09.09	12.36	0020	00.584	0.320	0.263
0.474	90	00.00	00.77	01.58	02.43	03.36	04.40	05.60	07.01	09.03	12.24	0020	00.557	0.318	0.318
0.478	00	99.99-	11.01-	07.48-	05.14-	03.22-	01.46-	00.30	02.15	04.56	08.08	0020	00.854	1.196	0.000
0.478	05	09.42-	06.97-	05.09-	03.48-	01.97-	00.48-	01.09	02.81	05.10	08.54	0020	00.678	0.869	0.099
0.478	10	06.33-	05.57-	04.78-	03.93-	03.02-	01.99-	00.80-	00.61	02.63	05.83	0020	00.293	0.734	0.171
0.478	15	04.03-	03.99-	03.95-	03.89-	03.81-	03.70-	03.55-	03.31-	02.84-	01.70-	0020	00.020	0.638	0.252
0.478	20	02.06-	01.89-	01.68-	01.43-	01.12-	00.72-	00.18-	00.57	01.82	04.22	0020	00.126	0.560	0.349
0.478	25	00.27-	00.36	01.04	01.78	02.61	03.55	04.66	06.01	07.95	11.10	0020	00.651	0.491	0.461
0.478	30	01.36	02.39	03.41	04.44	05.52	06.69	08.00	09.52	11.63	14.92	0020	01.406	0.427	0.583
0.478	35	02.82	04.08	05.26	06.43	07.61	08.86	10.24	11.82	13.98	17.32	0020	02.109	0.365	0.699
0.478	40	04.07	05.41	06.65	07.86	09.07	10.35	11.76	13.35	15.53	18.87	0020	02.544	0.307	0.784
0.478	45	05.01	06.36	07.61	08.82	10.04	11.32	12.73	14.32	16.50	19.85	0020	02.638	0.254	0.806
0.478	50	05.45	06.81	08.07	09.29	10.51	11.80	13.21	14.80	16.99	20.33	0020	02.445	0.211	0.739
0.478	55	05.06	06.52	07.85	09.11	10.37	11.69	13.12	14.73	16.93	20.29	0020	02.084	0.181	0.580
0.478	60	03.32	05.11	06.65	08.06	09.42	10.81	12.31	13.97	16.21	19.60	0020	01.674	0.169	0.363
0.478	65	00.63-	02.25	04.30	06.02	07.59	09.12	10.73	12.47	14.79	18.24	0020	01.295	0.177	0.153
0.478	70	08.50-	01.67-	01.32	03.47	05.29	06.99	08.71	10.53	12.91	16.42	0020	00.990	0.204	0.029
0.478	75	08.94-	03.20-	00.37-	01.71	03.50	05.17	06.88	08.69	11.07	14.56	0020	00.768	0.243	0.031
0.478	80	03.18-	01.41-	00.12	01.52	02.87	04.26	05.75	07.41	09.65	13.05	0020	00.622	0.285	0.137
0.478	85	00.87-	00.03	00.93	01.88	02.88	03.98	05.24	06.71	08.78	12.03	0020	00.541	0.322	0.264
0.478	90	00.00	00.72	01.47	02.28	03.17	04.18	05.34	06.73	08.73	11.91	0020	00.515	0.319	0.319

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.486	00	99.99-	10.71-	07.19-	04.85-	02.93-	01.17-	00.59	02.45	04.85	08.37	0020	00.860	1.126	0.000
0.486	05	09.76-	07.05-	05.07-	03.39-	01.84-	00.32-	01.27	03.01	05.31	08.76	0020	00.683	0.829	0.088
0.486	10	06.63-	05.79-	04.92-	04.01-	03.04-	01.96-	00.73-	00.72	02.77	06.01	0020	00.295	0.703	0.153
0.486	15	04.30-	04.26-	04.21-	04.15-	04.08-	03.97-	03.82-	03.58-	03.12-	02.00-	0020	00.018	0.614	0.228
0.486	20	02.29-	02.11-	01.90-	01.65-	01.33-	00.92-	00.37-	00.39	01.66	04.09	0020	00.118	0.540	0.319
0.486	25	00.47-	00.19	00.90	01.67	02.51	03.48	04.61	05.98	07.94	11.10	0020	00.633	0.475	0.426
0.486	30	01.19	02.26	03.30	04.36	05.46	06.64	07.97	09.50	11.62	14.92	0020	01.368	0.414	0.545
0.486	35	02.67	03.96	05.17	06.34	07.54	08.80	10.19	11.77	13.94	17.28	0020	02.043	0.356	0.659
0.486	40	03.94	05.29	06.55	07.76	08.98	10.26	11.67	13.26	15.45	18.79	0020	02.448	0.301	0.746
0.486	45	04.90	06.24	07.48	08.69	09.91	11.19	12.59	14.19	16.37	19.71	0020	02.516	0.250	0.772
0.486	50	05.34	06.68	07.92	09.12	10.34	11.61	13.02	14.61	16.79	20.13	0020	02.308	0.208	0.713
0.486	55	04.95	06.36	07.66	08.90	10.14	11.44	12.86	14.47	16.66	20.02	0020	01.944	0.180	0.563
0.486	60	03.19	04.91	06.40	07.77	09.12	10.49	11.97	13.63	15.86	19.25	0020	01.541	0.169	0.353
0.486	65	00.78-	01.96	03.95	05.64	07.19	08.71	10.31	12.05	14.35	17.80	0020	01.175	0.178	0.149
0.486	70	08.84-	02.15-	00.82	02.96	04.78	06.48	08.20	10.02	12.40	15.90	0020	00.885	0.205	0.027
0.486	75	09.04-	03.64-	00.88-	01.17	02.94	04.61	06.31	08.12	10.49	13.98	0020	00.676	0.245	0.031
0.486	80	03.19-	01.61-	00.21-	01.10	02.40	03.74	05.20	06.83	09.05	12.43	0020	00.541	0.287	0.138
0.486	85	00.87-	00.09-	00.72	01.57	02.50	03.54	04.74	06.16	08.18	11.39	0020	00.467	0.324	0.265
0.486	90	00.00	00.62	01.29	02.02	02.83	03.76	04.87	06.20	08.14	11.27	0020	00.443	0.321	0.321
0.494	00	99.99-	10.42-	06.90-	04.56-	02.64-	00.88-	00.88	02.74	05.14	08.66	0020	00.865	1.060	0.000
0.494	05	10.06-	07.09-	05.00-	03.26-	01.68-	00.13-	01.48	03.23	05.55	09.00	0020	00.688	0.789	0.078
0.494	10	06.89-	05.95-	05.01-	04.04-	03.01-	01.88-	00.60-	00.88	02.97	06.23	0020	00.298	0.672	0.137
0.494	15	04.53-	04.49-	04.43-	04.37-	04.28-	04.17-	04.00-	03.74-	03.23-	02.01-	0020	00.018	0.588	0.207
0.494	20	02.49-	02.31-	02.10-	01.84-	01.52-	01.10-	00.54-	00.23	01.51	03.95	0020	00.111	0.520	0.293
0.494	25	00.65-	00.04	00.77	01.55	02.42	03.40	04.55	05.93	07.91	11.08	0020	00.609	0.459	0.395
0.494	30	01.03	02.13	03.20	04.28	05.39	06.59	07.93	09.46	11.59	14.90	0020	01.320	0.401	0.508
0.494	35	02.53	03.84	05.07	06.26	07.46	08.73	10.13	11.72	13.89	17.23	0020	01.965	0.346	0.620
0.494	40	03.81	05.18	06.44	07.65	08.88	10.16	11.57	13.17	15.35	18.70	0020	02.341	0.294	0.707
0.494	45	04.77	06.11	07.35	08.55	09.77	11.05	12.45	14.04	16.22	19.57	0020	02.389	0.246	0.737
0.494	50	05.21	06.52	07.75	08.94	10.15	11.42	12.82	14.41	16.58	19.92	0020	02.173	0.206	0.684
0.494	55	04.81	06.18	07.45	08.67	09.90	11.18	12.60	14.20	16.38	19.73	0020	01.812	0.179	0.542
0.494	60	03.03	04.68	06.13	07.48	08.80	10.16	11.63	13.28	15.50	18.89	0020	01.419	0.169	0.340
0.494	65	00.98-	01.65	03.60	05.26	06.79	08.30	09.89	11.62	13.92	17.36	0020	01.069	0.179	0.143
0.494	70	09.14-	02.60-	00.35	02.48	04.29	05.98	07.70	09.52	11.90	15.41	0020	00.795	0.207	0.025
0.494	75	08.99-	04.01-	01.34-	00.68	02.43	04.09	05.78	07.58	09.94	12.43	0020	00.600	0.246	0.031
0.494	80	03.17-	01.77-	00.49-	00.75	01.99	03.28	04.70	06.31	08.50	11.85	0020	00.476	0.289	0.139
0.494	85	00.87-	00.19-	00.54	01.32	02.18	03.16	04.30	05.67	07.65	10.81	0020	00.407	0.326	0.267
0.494	90	00.00	00.54	01.13	01.79	02.54	03.41	04.46	05.73	07.61	10.70	0020	00.386	0.324	0.324

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.518	00	99.99-	09.72-	06.20-	03.85-	01.94-	00.18-	01.59	03.44	05.85	09.37	0020	00.877	0.913	0.000
0.518	05	10.50-	06.95-	04.65-	02.80-	01.16-	00.43	02.08	03.85	06.18	09.65	0020	00.702	0.691	0.062
0.518	10	07.31-	06.11-	04.96-	03.83-	02.67-	01.43-	00.07-	01.50	03.65	06.97	0020	00.316	0.593	0.110
0.518	15	04.92-	04.84-	04.74-	04.62-	04.46-	04.25-	03.94-	03.50-	02.68-	00.91-	0020	00.028	0.522	0.168
0.518	20	02.87-	02.69-	02.48-	02.22-	01.89-	01.48-	00.92-	00.15-	01.13	03.57	0020	00.091	0.465	0.240
0.518	25	01.01-	00.29-	00.47	01.29	02.18	03.18	04.35	05.74	07.74	10.92	0020	00.531	0.413	0.328
0.518	30	00.69	01.84	02.95	04.05	05.19	06.40	07.76	09.30	11.45	14.76	0020	01.165	0.365	0.427
0.518	35	02.20	03.55	04.80	06.02	07.24	08.52	09.93	11.52	13.70	17.05	0020	01.731	0.318	0.528
0.518	40	03.48	04.86	06.13	07.36	08.59	09.88	11.29	12.89	15.08	18.43	0020	02.047	0.273	0.608
0.518	45	04.40	05.73	06.97	08.17	09.38	10.66	12.06	13.65	15.83	19.17	0020	02.064	0.232	0.641
0.518	50	04.79	06.07	07.27	08.45	09.64	10.90	12.29	13.87	16.04	19.38	0020	01.851	0.199	0.600
0.518	55	04.30	05.61	06.84	08.03	09.24	10.51	11.91	13.50	15.67	19.01	0020	01.519	0.178	0.478
0.518	60	02.42	03.98	05.38	06.69	07.98	09.32	10.78	12.41	14.62	18.00	0020	01.169	0.172	0.299
0.518	65	01.70-	00.79	02.68	04.31	05.82	07.32	08.89	10.61	12.91	16.34	0020	00.865	0.184	0.124
0.518	70	09.80-	03.60-	00.70-	01.41	03.21	04.90	06.61	08.43	10.81	14.31	0020	00.633	0.212	0.022
0.518	75	08.45-	04.54-	02.13-	00.24-	01.44	03.05	04.71	06.49	08.84	12.31	0020	00.473	0.252	0.036
0.518	80	03.05-	01.97-	00.91-	00.16	01.27	02.46	03.79	05.33	07.45	10.75	0020	00.372	0.294	0.145
0.518	85	00.85-	00.32-	00.27	00.92	01.65	02.51	03.55	04.82	06.69	09.77	0020	00.318	0.331	0.272
0.518	90	00.00	00.42	00.90	01.44	02.08	02.83	03.76	04.93	06.70	09.67	0020	00.301	0.328	0.328
0.550	00	99.99-	09.58-	06.05-	03.71-	01.80-	00.03-	01.73	03.58	05.99	09.51	0020	00.888	0.895	0.000
0.550	05	09.44-	06.27-	04.10-	02.33-	00.72-	00.84	02.46	04.22	06.54	10.00	0020	00.720	0.655	0.075
0.550	10	06.48-	05.32-	04.21-	03.10-	01.95-	00.74-	00.62	02.17	04.32	07.63	0020	00.345	0.558	0.126
0.550	15	04.28-	04.15-	03.99-	03.79-	03.54-	03.22-	02.77-	02.13-	01.03-	01.17	0020	00.051	0.489	0.183
0.550	20	02.39-	02.25-	02.09-	01.88-	01.63-	01.29-	00.83-	00.18-	00.94	03.17	0020	00.072	0.434	0.250
0.550	25	00.67-	00.07-	00.59	01.31	02.11	03.03	04.12	05.45	07.38	10.50	0020	00.444	0.385	0.330
0.550	30	00.90	01.93	02.94	03.98	05.05	06.22	07.54	09.05	11.16	14.45	0020	01.007	0.340	0.418
0.550	35	02.28	03.55	04.74	05.91	07.10	08.35	09.74	11.32	13.48	16.82	0020	01.533	0.298	0.503
0.550	40	03.42	04.77	06.02	07.23	08.44	09.72	11.13	12.72	14.91	18.25	0020	01.852	0.258	0.567
0.550	45	04.20	05.55	06.79	08.00	09.22	10.50	11.91	13.50	15.69	19.03	0020	01.912	0.222	0.585
0.550	50	04.41	05.76	07.01	08.22	09.44	10.73	12.13	13.73	15.91	19.26	0020	01.761	0.194	0.537
0.550	55	03.72	05.17	06.49	07.75	09.01	10.31	11.75	13.36	15.55	18.92	0020	01.493	0.178	0.419
0.550	60	01.65	03.45	04.99	06.41	07.77	09.17	10.66	12.32	14.57	17.96	0020	01.194	0.176	0.257
0.550	65	02.65-	00.35	02.46	04.20	05.78	07.33	08.95	10.70	13.01	16.47	0020	00.926	0.190	0.104
0.550	70	10.15-	03.39-	00.41-	01.74	03.56	05.25	06.97	08.80	11.18	14.68	0020	00.716	0.220	0.021
0.550	75	07.55-	03.78-	01.41-	00.47	02.14	03.74	05.39	07.17	09.51	12.98	0020	00.567	0.259	0.046
0.550	80	02.84-	01.58-	00.39-	00.77	01.96	03.21	04.60	06.17	08.34	11.67	0020	00.472	0.300	0.156
0.550	85	00.81-	00.14-	00.58	01.36	02.21	03.18	04.32	05.69	07.66	10.82	0020	00.420	0.336	0.279
0.550	90	00.00	00.55	01.15	01.82	02.58	03.46	04.51	05.80	07.69	10.78	0020	00.404	0.332	0.332

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$t_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.566	00	99.99-	09.99-	06.47-	04.13-	02.21-	00.45-	01.32	03.17	05.57	09.10	0020	00.908	1.006	0.000
0.566	05	08.30-	05.76-	03.85-	02.22-	00.70-	00.81	02.39	04.11	06.41	09.85	0020	00.741	0.702	0.104
0.566	10	05.46-	04.52-	03.57-	02.59-	01.56-	00.43-	00.85	02.34	04.43	07.69	0020	00.366	0.589	0.168
0.566	15	03.38-	03.25-	03.09-	02.90-	02.66-	02.33-	01.89-	01.27-	00.18-	02.00	0020	00.064	0.511	0.235
0.566	20	01.60-	01.50-	01.38-	01.23-	01.03-	00.77-	00.41-	00.12	01.06	03.03	0020	00.066	0.449	0.310
0.566	25	00.01-	00.47	01.00	01.60	02.29	03.10	04.09	05.31	07.14	10.17	0020	00.413	0.395	0.394
0.566	30	01.43	02.30	03.20	04.12	05.12	06.21	07.46	08.92	10.98	14.23	0020	00.965	0.346	0.481
0.566	35	02.68	03.83	04.93	06.03	07.16	08.38	09.73	11.28	13.42	16.73	0020	01.511	0.301	0.558
0.566	40	03.69	04.98	06.19	07.37	08.57	09.83	11.22	12.80	14.97	18.31	0020	01.888	0.259	0.606
0.566	45	04.31	05.69	06.96	08.18	09.41	10.70	12.11	13.71	15.90	19.25	0020	02.025	0.224	0.604
0.566	50	04.37	05.84	07.17	08.44	09.70	11.02	12.45	14.07	16.27	19.63	0020	01.948	0.197	0.538
0.566	55	03.52	05.20	06.66	08.02	09.34	10.71	12.18	13.83	16.06	19.44	0020	01.729	0.182	0.409
0.566	60	01.29	03.50	05.25	06.80	08.25	09.71	11.26	12.96	15.24	18.66	0020	01.453	0.181	0.244
0.566	65	03.12-	00.63	02.99	04.86	06.52	08.13	09.78	11.55	13.89	17.37	0020	01.184	0.197	0.096
0.566	70	10.23-	02.49-	00.60	02.79	04.63	06.35	08.07	09.91	12.29	15.80	0020	00.959	0.227	0.022
0.566	75	07.16-	02.83-	00.30-	01.65	03.36	04.99	06.66	08.46	10.81	14.29	0020	00.791	0.267	0.051
0.566	80	02.74-	01.09-	00.35	01.70	03.02	04.38	05.85	07.49	09.72	13.10	0020	00.679	0.308	0.164
0.566	85	00.79-	00.14	01.08	02.05	03.07	04.20	05.47	06.95	09.04	12.30	0020	00.617	0.344	0.287
0.566	90	00.00	00.77	01.58	02.44	03.37	04.40	05.60	07.02	09.05	12.26	0020	00.596	0.340	0.340
0.586	00	99.99-	10.86-	07.34-	05.00-	03.08-	01.32-	00.44	02.30	04.70	08.22	0020	01.003	1.359	0.000
0.586	05	06.85-	05.07-	03.55-	02.15-	00.79-	00.59	02.08	03.74	05.98	09.37	0020	00.822	0.875	0.181
0.586	10	04.03-	03.37-	02.67-	01.90-	01.06-	00.10-	01.04	02.40	04.36	07.52	0020	00.416	0.713	0.282
0.586	15	02.01-	01.90-	01.78-	01.62-	01.41-	01.14-	00.77-	00.22-	00.74	02.75	0020	00.084	0.605	0.381
0.586	20	00.31-	00.25-	00.18-	00.09-	00.03	00.19	00.42	00.77	01.42	02.91	0020	00.059	0.520	0.484
0.586	25	01.18	01.48	01.84	02.25	02.75	03.37	04.15	05.17	06.77	09.57	0020	00.385	0.448	0.588
0.586	30	02.48	03.10	03.78	04.51	05.34	06.27	07.38	08.72	10.66	13.80	0020	00.951	0.385	0.681
0.586	35	03.55	04.47	05.41	06.37	07.39	08.51	09.78	11.26	13.34	16.60	0020	01.587	0.329	0.745
0.586	40	04.33	05.51	06.64	07.76	08.91	10.14	11.50	13.06	15.21	18.53	0020	02.133	0.280	0.758
0.586	45	04.68	06.11	07.42	08.67	09.92	11.23	12.66	14.27	16.46	19.82	0020	02.481	0.240	0.706
0.586	50	04.42	06.15	07.65	09.03	10.38	11.75	13.24	14.89	17.13	20.52	0020	02.587	0.212	0.587
0.586	55	03.25	05.45	07.20	08.74	10.20	11.65	13.20	14.90	17.18	20.60	0020	02.478	0.198	0.419
0.586	60	00.74	03.84	05.98	07.75	09.34	10.90	12.52	14.27	16.60	20.05	0020	02.227	0.200	0.237
0.586	65	03.88-	01.40	04.15	06.19	07.96	09.62	11.32	13.13	15.49	18.99	0020	01.921	0.219	0.090
0.586	70	10.43-	00.94-	02.30	04.54	06.41	08.14	09.88	11.72	14.12	17.63	0020	01.627	0.253	0.023
0.586	75	06.80-	01.37-	01.40	03.46	05.23	06.90	08.59	10.41	12.77	16.27	0020	01.386	0.296	0.062
0.586	80	02.65-	00.27-	01.57	03.17	04.66	06.15	07.71	09.43	11.72	15.15	0020	01.215	0.340	0.184
0.586	85	00.76-	00.67	01.97	03.23	04.48	05.78	07.21	08.82	11.01	14.37	0020	01.114	0.378	0.317
0.586	90	00.00	01.21	02.36	03.50	04.66	05.89	07.27	08.83	10.98	14.31	0020	01.082	0.375	0.375

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.594	00	99.99-	11.22-	07.70-	05.36-	03.44-	01.68-	00.08	01.94	04.34	07.86	0020	01.087	1.600	0.000
0.594	05	06.39-	04.83-	03.44-	02.14-	00.84-	00.49	01.95	03.58	05.79	09.16	0020	00.890	0.999	0.229
0.594	10	03.55-	02.97-	02.35-	01.66-	00.88-	00.01	01.09	02.39	04.29	07.40	0020	00.451	0.804	0.355
0.594	15	01.51-	01.41-	01.30-	01.15-	00.97-	00.72-	00.38-	00.12	01.03	02.94	0020	00.094	0.674	0.477
0.594	20	00.19	00.24	00.30	00.37	00.46	00.59	00.77	01.05	01.59	02.88	0020	00.057	0.574	0.600
0.594	25	01.67	01.92	02.21	02.56	02.98	03.51	04.20	05.11	06.59	09.25	0020	00.378	0.490	0.720
0.594	30	02.94	03.47	04.06	04.71	05.45	06.31	07.34	08.61	10.49	13.56	0020	00.960	0.416	0.820
0.594	35	03.96	04.79	05.64	06.54	07.50	08.57	09.80	11.24	13.29	16.52	0020	01.658	0.352	0.877
0.594	40	04.64	05.78	06.87	07.96	09.09	10.30	11.65	13.19	15.33	18.64	0020	02.322	0.298	0.867
0.594	45	04.87	06.33	07.66	08.92	10.18	11.50	12.93	14.54	16.74	20.11	0020	02.813	0.255	0.781
0.594	50	04.44	06.32	07.89	09.33	10.71	12.12	13.62	15.29	17.54	20.94	0020	03.040	0.225	0.627
0.594	55	03.09	05.57	07.46	09.08	10.59	12.09	13.66	15.39	17.68	21.12	0020	02.998	0.212	0.432
0.594	60	00.42	04.01	06.32	08.17	09.82	11.41	13.06	14.83	17.17	20.64	0020	02.754	0.216	0.238
0.594	65	04.31-	01.78	04.64	06.74	08.54	10.22	11.93	13.75	16.13	19.63	0020	02.411	0.238	0.088
0.594	70	10.60-	00.35-	02.94	05.20	07.08	08.81	10.56	12.40	14.80	18.31	0020	02.062	0.274	0.024
0.594	75	06.73-	00.84-	02.01	04.11	05.90	07.58	09.28	11.10	13.48	16.97	0020	01.766	0.320	0.068
0.594	80	02.65-	00.05	02.04	03.71	05.26	06.78	08.37	10.11	12.41	15.86	0020	01.550	0.368	0.200
0.594	85	00.75-	00.89	02.33	03.68	05.00	06.35	07.82	09.47	11.69	15.07	0020	01.423	0.409	0.344
0.594	90	00.00	01.39	02.67	03.90	05.14	06.43	07.85	09.45	11.64	14.99	0020	01.381	0.406	0.406
0.606	00	99.99-	11.62-	08.09-	05.75-	03.83-	02.07-	00.31-	01.54	03.95	07.47	0020	01.301	2.096	0.000
0.606	05	05.91-	04.56-	03.32-	02.11-	00.89-	00.39	01.80	03.40	05.58	08.92	0020	01.059	1.263	0.324
0.606	10	03.00-	02.52-	01.98-	01.37-	00.68-	00.14	01.14	02.37	04.20	07.24	0020	00.532	1.000	0.500
0.606	15	00.92-	00.84-	00.74-	00.61-	00.45-	00.23-	00.07	00.52	01.34	03.12	0020	00.114	0.826	0.669
0.606	20	00.82	00.85	00.89	00.94	01.00	01.09	01.22	01.42	01.82	02.81	0020	00.054	0.693	0.837
0.606	25	02.32	02.49	02.70	02.96	03.28	03.69	04.25	05.01	06.28	08.71	0020	00.371	0.583	0.993
0.606	30	03.57	03.98	04.45	04.98	05.59	06.34	07.25	08.41	10.16	13.12	0020	00.988	0.488	1.111
0.606	35	04.54	05.24	05.98	06.78	07.65	08.64	09.80	11.18	13.17	16.35	0020	01.821	0.407	1.157
0.606	40	05.11	06.17	07.20	08.25	09.35	10.52	11.85	13.37	15.49	18.79	0020	02.737	0.340	1.104
0.606	45	05.14	06.64	08.00	09.28	10.56	11.88	13.33	14.95	17.15	20.52	0020	03.531	0.290	0.947
0.606	50	04.42	06.53	08.23	09.74	11.18	12.62	14.16	15.85	18.12	21.53	0020	04.010	0.258	0.716
0.606	55	02.74	05.71	07.80	09.54	11.12	12.67	14.28	16.03	18.34	21.80	0020	04.094	0.247	0.464
0.606	60	00.23-	04.20	06.74	08.71	10.42	12.06	13.73	15.53	17.88	21.36	0020	03.847	0.255	0.242
0.606	65	05.13-	02.18	05.23	07.40	09.23	10.93	12.66	14.49	16.87	20.38	0020	03.410	0.282	0.087
0.606	70	10.98-	00.33	03.67	05.95	07.83	09.58	11.32	13.17	15.57	19.08	0020	02.929	0.326	0.026
0.606	75	06.73-	00.25-	02.69	04.82	06.63	08.32	10.04	11.86	14.24	17.74	0020	02.507	0.381	0.081
0.606	80	02.69-	00.40	02.54	04.30	05.89	07.45	09.07	10.82	13.14	16.60	0020	02.195	0.437	0.236
0.606	85	00.75-	01.14	02.73	04.17	05.56	06.96	08.47	10.14	12.39	15.80	0020	02.008	0.486	0.410
0.606	90	00.00	01.60	03.01	04.34	05.64	06.99	08.45	10.09	12.31	15.68	0020	01.946	0.486	0.486

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.614	00	99.99-	11.72-	08.20-	05.86-	03.94-	02.18-	00.42-	01.43	03.84	07.36	0020	01.520	2.513	0.000
0.614	05	05.75-	04.46-	03.26-	02.08-	00.88-	00.38	01.77	03.35	05.52	08.86	0020	01.231	1.493	0.397
0.614	10	02.80-	02.34-	01.83-	01.26-	00.59-	00.20	01.16	02.37	04.17	07.17	0020	00.611	1.172	0.616
0.614	15	00.67-	00.59-	00.50-	00.38-	00.23-	00.03-	00.26	00.68	01.46	03.17	0020	00.130	0.962	0.825
0.614	20	01.11	01.13	01.16	01.20	01.25	01.32	01.42	01.58	01.90	02.73	0020	00.052	0.801	1.033
0.614	25	02.63	02.77	02.94	03.16	03.42	03.77	04.25	04.91	06.06	08.32	0020	00.368	0.668	1.223
0.614	30	03.90	04.25	04.64	05.11	05.65	06.32	07.16	08.24	09.90	12.77	0020	01.016	0.554	1.361
0.614	35	04.85	05.48	06.16	06.90	07.72	08.66	09.77	11.11	13.06	16.20	0020	01.968	0.459	1.402
0.614	40	05.36	06.38	07.38	08.41	09.48	10.64	11.95	13.46	15.56	18.85	0020	03.107	0.382	1.312
0.614	45	05.26	06.80	08.17	09.47	10.76	12.09	13.54	15.16	17.37	20.74	0020	04.168	0.325	1.094
0.614	50	04.36	06.61	08.38	09.94	11.41	12.87	14.43	16.13	18.41	21.84	0020	04.859	0.292	0.796
0.614	55	02.43	05.73	07.94	09.74	11.36	12.94	14.57	16.33	18.66	22.12	0020	05.039	0.281	0.492
0.614	60	00.77-	04.22	06.90	08.92	10.67	12.33	14.02	15.82	18.18	21.68	0020	04.769	0.293	0.246
0.614	65	05.79-	02.31	05.45	07.65	09.50	11.21	12.95	14.78	17.17	20.68	0020	04.233	0.327	0.086
0.614	70	11.31-	00.57	03.93	06.22	08.11	09.85	11.60	13.45	15.85	19.37	0020	03.627	0.378	0.028
0.614	75	06.80-	00.07-	02.91	05.05	06.87	08.57	10.29	12.11	14.49	18.00	0020	03.089	0.442	0.093
0.614	80	02.72-	00.50	02.68	04.47	06.08	07.65	09.27	11.03	13.36	16.82	0020	02.689	0.509	0.272
0.614	85	00.75-	01.22	02.84	04.31	05.71	07.13	08.65	10.33	12.59	16.00	0020	02.449	0.566	0.477
0.614	90	00.00	01.65	03.10	04.45	05.77	07.13	08.61	10.25	12.47	15.86	0020	02.370	0.568	0.568
0.622	00	99.99-	11.69-	08.17-	05.83-	03.91-	02.15-	00.39-	01.47	03.87	07.40	0020	01.810	2.966	0.000
0.622	05	05.71-	04.43-	03.22-	02.05-	00.85-	00.41	01.80	03.38	05.55	08.89	0020	01.456	1.753	0.470
0.622	10	02.71-	02.27-	01.77-	01.20-	00.55-	00.23	01.18	02.38	04.17	07.16	0020	00.710	1.370	0.734
0.622	15	00.54-	00.47-	00.38-	00.27-	00.12-	00.07	00.35	00.75	01.51	03.18	0020	00.149	1.119	0.988
0.622	20	01.27	01.29	01.32	01.35	01.39	01.45	01.53	01.66	01.93	02.63	0020	00.050	0.927	1.243
0.622	25	02.83	02.95	03.09	03.27	03.50	03.79	04.20	04.79	05.82	07.93	0020	00.366	0.769	1.475
0.622	30	04.12	04.42	04.77	05.17	05.66	06.27	07.04	08.05	09.63	12.42	0020	01.048	0.634	1.639
0.622	35	05.07	05.65	06.27	06.96	07.74	08.64	09.71	11.01	12.92	16.03	0020	02.137	0.522	1.678
0.622	40	05.54	06.52	07.50	08.50	09.55	10.70	11.99	13.49	15.59	18.87	0020	03.537	0.433	1.551
0.622	45	05.33	06.89	08.28	09.59	10.88	12.22	13.67	15.30	17.51	20.89	0020	04.903	0.370	1.264
0.622	50	04.24	06.61	08.45	10.05	11.54	13.02	14.59	16.30	18.59	22.02	0020	05.827	0.335	0.888
0.622	55	02.07	05.66	07.98	09.83	11.48	13.07	14.71	16.49	18.82	22.29	0020	06.098	0.327	0.526
0.622	60	01.36-	04.15	06.93	08.99	10.77	12.44	14.14	15.95	18.32	21.82	0020	05.779	0.344	0.251
0.622	65	06.50-	02.30	05.50	07.72	09.58	11.31	13.04	14.88	17.27	20.79	0020	05.111	0.385	0.086
0.622	70	11.67-	00.61	03.99	06.28	08.17	09.92	11.67	13.52	15.92	19.44	0020	04.349	0.446	0.030
0.622	75	06.90-	00.07-	02.92	05.07	06.89	08.59	10.31	12.14	14.52	18.02	0020	03.673	0.523	0.107
0.622	80	02.78-	00.46	02.66	04.45	06.06	07.63	09.26	11.02	13.34	16.81	0020	03.173	0.603	0.317
0.622	85	00.75-	01.20	02.82	04.26	05.68	07.10	08.62	10.29	12.55	15.96	0020	02.874	0.671	0.564
0.622	90	00.00	01.63	03.07	04.41	05.72	07.08	08.55	10.19	12.41	15.79	0020	02.776	0.677	0.677

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.630	00	99.99-	11.51-	07.99-	05.65-	03.73-	01.97-	00.21-	01.65	04.05	07.57	0020	02.160	3.399	0.000
0.630	05	05.79-	04.45-	03.21-	02.00-	00.78-	00.50	01.90	03.50	05.68	09.02	0020	01.728	2.014	0.531
0.630	10	02.74-	02.29-	01.78-	01.21-	00.54-	00.25	01.21	02.41	04.21	07.22	0020	00.827	1.572	0.836
0.630	15	00.53-	00.46-	00.37-	00.26-	00.12-	00.07	00.35	00.75	01.50	03.16	0020	00.169	1.282	1.135
0.630	20	01.32	01.34	01.36	01.39	01.42	01.47	01.54	01.65	01.88	02.48	0020	00.049	1.060	1.437
0.630	25	02.92	03.02	03.14	03.29	03.49	03.75	04.12	04.64	05.59	07.55	0020	00.364	0.877	1.716
0.630	30	04.23	04.50	04.81	05.17	05.62	06.18	06.90	07.85	09.36	12.07	0020	01.080	0.722	1.913
0.630	35	05.18	05.72	06.31	06.96	07.71	08.57	09.61	10.89	12.76	15.84	0020	02.312	0.593	1.956
0.630	40	05.62	06.58	07.54	08.52	09.56	10.70	11.98	13.48	15.57	18.84	0020	03.985	0.492	1.795
0.630	45	05.32	06.90	08.30	09.61	10.91	12.25	13.71	15.34	17.56	20.93	0020	05.663	0.423	1.440
0.630	50	04.07	06.54	08.43	10.05	11.56	13.05	14.63	16.35	18.64	22.08	0020	06.811	0.386	0.984
0.630	55	01.67	05.51	07.89	09.78	11.45	13.06	14.71	16.49	18.84	22.31	0020	07.145	0.381	0.560
0.630	60	01.98-	03.96	06.82	08.91	10.70	12.38	14.09	15.91	18.28	21.78	0020	06.747	0.405	0.257
0.630	65	07.22-	02.14	05.37	07.61	09.48	11.21	12.95	14.79	17.19	20.70	0020	05.920	0.454	0.086
0.630	70	12.03-	00.46	03.85	06.14	08.03	09.78	11.53	13.38	15.78	19.30	0020	04.985	0.528	0.033
0.630	75	07.03-	00.25-	02.74	04.88	06.70	08.40	10.12	11.95	14.33	17.83	0020	04.165	0.620	0.123
0.630	80	02.85-	00.30	02.46	04.24	05.84	07.40	09.02	10.78	13.10	16.56	0020	03.564	0.716	0.372
0.630	85	00.75-	01.10	02.66	04.09	05.47	06.87	08.37	10.04	12.29	15.69	0020	03.207	0.797	0.670
0.630	90	00.00	01.54	02.91	04.22	05.50	06.84	08.29	09.91	12.12	15.49	0020	03.090	0.808	0.808
0.638	00	99.99-	11.21-	07.68-	05.34-	03.43-	01.66-	00.10	01.95	04.36	07.88	0020	02.545	3.734	0.000
0.638	05	05.97-	04.51-	03.19-	01.93-	00.67-	00.64	02.07	03.69	05.88	09.25	0020	02.024	2.235	0.566
0.638	10	02.88-	02.39-	01.86-	01.25-	00.56-	00.26	01.25	02.48	04.31	07.35	0020	00.953	1.747	0.901
0.638	15	00.62-	00.55-	00.46-	00.35-	00.20-	00.01-	00.27	00.69	01.45	03.13	0020	00.189	1.426	1.235
0.638	20	01.27	01.28	01.30	01.32	01.35	01.39	01.46	01.55	01.75	02.30	0020	00.047	1.180	1.579
0.638	25	02.89	02.98	03.09	03.23	03.41	03.65	03.98	04.47	05.35	07.22	0020	00.362	0.977	1.901
0.638	30	04.23	04.47	04.76	05.10	05.52	06.04	06.72	07.63	09.10	11.75	0020	01.103	0.805	2.133
0.638	35	05.19	05.70	06.27	06.90	07.62	08.46	09.48	10.74	12.59	15.65	0020	02.463	0.663	2.189
0.638	40	05.60	06.54	07.49	08.47	09.50	10.63	11.91	13.40	15.48	18.75	0020	04.380	0.552	2.006
0.638	45	05.23	06.82	08.23	09.55	10.85	12.20	13.66	15.29	17.51	20.88	0020	06.328	0.478	1.595
0.638	50	03.84	06.39	08.30	09.94	11.46	12.96	14.54	16.27	18.56	22.00	0020	07.648	0.441	1.069
0.638	55	01.26	05.26	07.70	09.61	11.29	12.91	14.57	16.35	18.70	22.18	0020	08.000	0.440	0.588
0.638	60	02.57-	03.66	06.56	08.68	10.48	12.17	13.88	15.70	18.08	21.58	0020	07.494	0.471	0.260
0.638	65	07.89-	01.83	05.09	07.34	09.21	10.94	12.68	14.53	16.92	20.43	0020	06.501	0.530	0.086
0.638	70	12.36-	00.13	03.52	05.81	07.71	09.45	11.20	13.05	15.45	18.97	0020	05.404	0.617	0.036
0.638	75	07.16-	00.58-	02.38	04.51	06.32	08.02	09.73	11.56	13.94	17.44	0020	04.457	0.725	0.140
0.638	80	02.91-	00.05	02.13	03.87	05.45	06.99	08.60	10.35	12.67	16.12	0020	03.772	0.840	0.430
0.638	85	00.76-	00.93	02.40	03.77	05.10	06.47	07.95	09.60	11.83	15.21	0020	03.370	0.937	0.786
0.638	90	00.00	01.39	02.67	03.91	05.14	06.44	07.86	09.46	11.65	15.00	0020	03.238	0.951	0.951

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.646	00	99.99-	10.80-	07.27-	04.93-	03.01-	01.25-	00.51	02.36	04.77	08.29	0020	02.923	3.900	0.000
0.646	05	06.22-	04.59-	03.16-	01.82-	00.51-	00.85	02.31	03.95	06.17	09.56	0020	02.314	2.370	0.566
0.646	10	03.09-	02.56-	01.97-	01.32-	00.58-	00.29	01.32	02.60	04.47	07.55	0020	01.075	1.861	0.913
0.646	15	00.81-	00.73-	00.63-	00.51-	00.36-	00.15-	00.14	00.58	01.37	03.12	0020	00.207	1.525	1.266
0.646	20	01.11	01.12	01.14	01.16	01.19	01.23	01.29	01.38	01.57	02.08	0020	00.045	1.267	1.636
0.646	25	02.76	02.85	02.96	03.09	03.26	03.48	03.80	04.27	05.12	06.94	0020	00.357	1.053	1.990
0.646	30	04.13	04.36	04.63	04.96	05.36	05.87	06.53	07.42	08.85	11.48	0020	01.110	0.872	2.253
0.646	35	05.09	05.59	06.14	06.76	07.47	08.31	09.32	10.56	12.40	15.45	0020	02.555	0.721	2.329
0.646	40	05.48	06.42	07.36	08.34	09.37	10.49	11.77	13.26	15.34	18.60	0020	04.642	0.606	2.140
0.646	45	05.06	06.65	08.06	09.39	10.69	12.04	13.50	15.13	17.35	20.73	0020	06.764	0.529	1.696
0.646	50	03.57	06.14	08.07	09.72	11.24	12.75	14.33	16.06	18.36	21.80	0020	08.167	0.493	1.124
0.646	55	00.86	04.93	07.39	09.31	11.00	12.62	14.28	16.07	18.42	21.90	0020	08.482	0.497	0.605
0.646	60	03.12-	03.26	06.19	08.31	10.12	11.81	13.52	15.35	17.72	21.23	0020	07.855	0.535	0.261
0.646	65	08.47-	01.39	04.66	06.91	08.78	10.51	12.26	14.10	16.49	20.01	0020	06.719	0.505	0.086
0.646	70	12.64-	00.35-	03.03	05.32	07.21	08.96	10.71	12.56	14.96	18.47	0020	05.503	0.704	0.038
0.646	75	07.27-	01.04-	01.87	03.98	05.78	07.47	09.18	11.00	13.38	16.88	0020	04.475	0.829	0.155
0.646	80	02.96-	00.27-	01.70	03.38	04.92	06.44	08.03	09.76	12.06	15.51	0020	03.745	0.962	0.487
0.646	85	00.77-	00.73	02.07	03.35	04.62	05.95	07.39	09.01	11.21	14.58	0020	03.321	1.074	0.900
0.646	90	00.00	01.22	02.38	03.52	04.69	05.93	07.30	08.87	11.02	14.35	0020	03.184	1.093	1.093
0.654	00	99.99-	10.30-	06.78-	04.43-	02.52-	00.75-	01.01	02.86	05.27	08.79	0020	03.251	3.868	0.000
0.654	05	06.52-	04.66-	03.09-	01.66-	00.28-	01.12	02.62	04.29	06.54	09.94	0020	02.566	2.395	0.534
0.654	10	03.37-	02.76-	02.11-	01.39-	00.58-	00.34	01.44	02.77	04.70	07.62	0020	01.178	1.894	0.871
0.654	15	01.06-	00.98-	00.87-	00.74-	00.57-	00.34-	00.02-	00.44	01.30	03.13	0020	00.221	1.561	1.221
0.654	20	00.88	00.89	00.91	00.93	00.96	01.00	01.05	01.14	01.33	01.83	0020	00.043	1.304	1.596
0.654	25	02.55	02.64	02.74	02.87	03.04	03.27	03.58	04.05	04.89	06.71	0020	00.351	1.091	1.963
0.654	30	03.93	04.16	04.43	04.75	05.15	05.65	06.31	07.19	08.62	11.24	0020	01.095	0.910	2.248
0.654	35	04.89	05.39	05.94	06.56	07.27	08.10	09.11	10.35	12.20	15.25	0020	02.565	0.760	2.344
0.654	40	05.27	06.21	07.15	08.13	09.16	10.28	11.56	13.05	15.13	18.40	0020	04.712	0.645	2.168
0.654	45	04.81	06.40	07.81	09.14	10.44	11.79	13.25	14.88	17.10	20.48	0020	06.877	0.570	1.723
0.654	50	03.25	05.82	07.75	09.40	10.92	12.43	14.01	15.74	18.03	21.47	0020	08.258	0.537	1.136
0.654	55	00.44	04.53	06.99	08.91	10.60	12.22	13.88	15.67	18.01	21.49	0020	08.487	0.546	0.604
0.654	60	03.61-	02.77	05.70	07.83	09.63	11.32	13.04	14.86	17.24	20.74	0020	07.753	0.591	0.257
0.654	65	08.95-	00.84	04.10	06.35	08.22	09.95	11.70	13.54	15.93	19.45	0020	06.530	0.669	0.085
0.654	70	12.88-	00.96-	02.41	04.69	06.58	08.33	10.08	11.93	14.32	17.84	0020	05.265	0.780	0.040
0.654	75	07.37-	01.59-	01.25	03.33	05.12	06.79	08.50	10.32	12.69	16.19	0020	04.223	0.919	0.168
0.654	80	03.00-	00.63-	01.21	02.80	04.29	05.77	07.34	09.05	11.34	14.77	0020	03.498	1.067	0.535
0.654	85	00.77-	00.51	01.71	02.89	04.08	05.34	06.74	08.32	10.49	13.82	0020	03.085	1.193	0.998
0.654	90	00.00	01.04	02.06	03.10	04.18	05.35	06.67	08.19	10.30	13.59	0020	02.952	1.215	1.215

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN										DIPOLE CROSS-SECTION			
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.658	00	99.99-	10.02-	06.50-	04.16-	02.24-	00.48-	01.28	03.14	05.54	09.06	0020	03.387	3.783	0.000
0.658	05	06.68-	04.68-	03.04-	01.56-	00.15-	01.28	02.80	04.49	06.75	10.16	0020	02.669	2.366	0.508
0.658	10	03.53-	02.87-	02.17-	01.41-	00.57-	00.39	01.52	02.87	04.83	07.99	0020	01.220	1.878	0.834
0.658	15	01.21-	01.12-	01.01-	00.87-	00.69-	00.45-	00.11-	00.38	01.26	03.15	0020	00.226	1.553	1.175
0.658	20	00.74	00.75	00.77	00.79	00.82	00.86	00.91	01.00	01.19	01.69	0020	00.042	1.302	1.544
0.658	25	02.42	02.51	02.61	02.74	02.91	03.14	03.46	03.93	04.79	06.62	0020	00.346	1.094	1.910
0.658	30	03.80	04.03	04.30	04.63	05.03	05.53	06.19	07.08	08.51	11.13	0020	01.079	0.917	2.199
0.658	35	04.76	05.26	05.82	06.44	07.15	07.99	09.00	10.24	12.09	15.14	0020	02.535	0.770	2.306
0.658	40	05.13	06.07	07.02	07.99	09.03	10.15	11.43	12.92	15.01	18.27	0020	04.669	0.657	2.141
0.658	45	04.65	06.24	07.65	08.98	10.28	11.63	13.09	14.73	16.94	20.32	0020	06.805	0.585	1.705
0.658	50	03.07	05.63	07.56	09.20	10.72	12.23	13.81	15.54	17.83	21.27	0020	08.139	0.555	1.124
0.658	55	00.23	04.29	06.75	08.67	10.36	11.97	13.64	15.42	17.77	21.25	0020	08.314	0.566	0.597
0.658	60	03.84-	02.50	05.42	07.54	09.35	11.04	12.75	14.58	16.95	20.45	0020	07.539	0.613	0.253
0.658	65	09.15-	00.53	03.78	06.03	07.90	09.63	11.37	13.22	15.61	19.12	0020	06.300	0.695	0.085
0.658	70	12.98-	01.30-	02.05	04.34	06.23	07.97	09.72	11.57	13.97	17.48	0020	05.041	0.811	0.041
0.658	75	07.41-	01.88-	00.91	02.97	04.75	06.42	08.12	09.94	12.30	15.80	0020	04.019	0.956	0.174
0.658	80	03.01-	00.80-	00.96	02.50	03.96	05.42	06.97	08.67	10.95	14.37	0020	03.316	1.111	0.555
0.658	85	00.78-	00.40	01.53	02.66	03.81	05.03	06.40	07.95	10.10	13.42	0020	02.919	1.242	1.039
0.658	90	00.00	00.95	01.91	02.89	03.93	05.06	06.34	07.83	09.92	13.19	0020	02.792	1.266	1.266
0.662	00	99.99-	09.73-	06.21-	03.87-	01.95-	00.19-	01.57	03.42	05.83	09.35	0020	03.502	3.660	0.000
0.662	05	06.84-	04.69-	02.97-	01.44-	00.01	01.46	03.00	04.70	06.97	10.39	0020	02.757	2.313	0.479
0.662	10	03.69-	02.98-	02.23-	01.43-	00.55-	00.45	01.61	03.00	04.99	08.17	0020	01.256	1.844	0.789
0.662	15	01.37-	01.27-	01.15-	01.00-	00.81-	00.56-	00.20-	00.31	01.24	03.18	0020	00.230	1.531	1.117
0.662	20	00.58	00.60	00.61	00.64	00.66	00.70	00.76	00.85	01.04	01.56	0020	00.041	1.289	1.475
0.662	25	02.27	02.36	02.47	02.60	02.78	03.01	03.34	03.82	04.68	06.54	0020	00.341	1.088	1.834
0.662	30	03.65	03.89	04.16	04.49	04.89	05.40	06.07	06.96	08.41	11.04	0020	01.056	0.916	2.124
0.662	35	04.61	05.12	05.68	06.30	07.02	07.85	08.87	10.12	11.97	15.02	0020	02.484	0.774	2.240
0.662	40	04.97	05.92	06.87	07.84	08.88	10.01	11.29	12.78	14.86	18.13	0020	04.576	0.665	2.090
0.662	45	04.47	06.07	07.48	08.80	10.11	11.45	12.91	14.55	16.76	20.14	0020	06.655	0.596	1.670
0.662	50	02.87	05.42	07.34	08.98	10.50	12.01	13.59	15.31	17.61	21.05	0020	07.922	0.569	1.102
0.662	55	00.02	04.05	06.49	08.40	10.09	11.71	13.37	15.15	17.50	20.98	0020	08.041	0.582	0.585
0.662	60	04.06-	02.21	05.12	07.24	09.04	10.73	12.44	14.27	16.64	20.14	0020	07.237	0.633	0.248
0.662	65	09.33-	00.20	03.44	05.68	07.55	09.29	11.03	12.87	15.26	18.77	0020	06.001	0.717	0.084
0.662	70	13.08-	01.66-	01.68	03.96	05.85	07.59	09.34	11.19	13.59	17.10	0020	04.769	0.837	0.041
0.662	75	07.45-	02.18-	00.56	02.61	04.37	06.03	07.73	09.54	11.90	15.40	0020	03.782	0.987	0.178
0.662	80	03.03-	00.97-	00.70	02.20	03.63	05.06	06.59	08.28	10.55	13.96	0020	03.112	1.148	0.572
0.662	85	00.78-	00.30	01.36	02.43	03.54	04.72	06.06	07.59	09.71	13.02	0020	02.737	1.284	1.073
0.662	90	00.00	00.87	01.76	02.69	03.68	04.77	06.02	07.48	09.54	12.79	0020	02.618	1.309	1.309

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.666	00	99.99-	09.44-	05.92-	03.58-	01.66-	00.10	01.87	03.72	06.13	09.65	0020	03.595	3.510	0.000
0.666	05	06.99-	04.68-	02.88-	01.30-	00.18	01.65	03.21	04.92	07.20	10.63	0020	02.828	2.239	0.448
0.666	10	03.85-	03.08-	02.28-	01.43-	00.51-	00.52	01.72	03.14	05.15	08.36	0020	01.284	1.794	0.740
0.666	15	01.53-	01.43-	01.30-	01.14-	00.94-	00.66-	00.29-	00.25	01.22	03.23	0020	00.233	1.496	1.051
0.666	20	00.42	00.43	00.45	00.47	00.50	00.54	00.60	00.70	00.89	01.41	0020	00.040	1.265	1.393
0.666	25	02.11	02.20	02.31	02.45	02.63	02.87	03.21	03.70	04.58	06.47	0020	00.335	1.073	1.742
0.666	30	03.49	03.73	04.01	04.34	04.75	05.27	05.94	06.84	08.30	10.94	0020	01.029	0.909	2.029
0.666	35	04.44	04.95	05.52	06.15	06.87	07.71	08.73	09.99	11.84	14.90	0020	02.414	0.773	2.151
0.666	40	04.79	05.74	06.69	07.68	08.71	09.84	11.13	12.62	14.71	17.97	0020	04.441	0.669	2.017
0.666	45	04.28	05.87	07.28	08.60	09.91	11.25	12.71	14.35	16.56	19.94	0020	06.438	0.604	1.618
0.666	50	02.67	05.20	07.11	08.74	10.26	11.76	13.34	15.07	17.36	20.80	0020	07.624	0.580	1.071
0.666	55	00.20-	03.78	06.21	08.12	09.81	11.42	13.08	14.86	17.21	20.69	0020	07.688	0.596	0.569
0.666	60	04.27-	01.91	04.81	06.92	08.72	10.40	12.11	13.94	16.31	19.81	0020	06.868	0.648	0.243
0.666	65	09.50-	06.15-	03.08	05.32	07.19	08.92	10.66	12.50	14.89	18.41	0020	05.653	0.735	0.083
0.666	70	13.16-	02.03-	01.30	03.57	05.46	07.20	08.95	10.8[illegible]	13.19	16.71	0020	04.464	0.858	0.041
0.666	75	07.48-	02.47-	00.21	02.23	03.98	05.64	07.33	09.15	11.50	14.99	0020	03.528	1.013	0.181
0.666	80	03.04-	01.13-	00.46	01.91	03.30	04.71	06.22	07.89	10.15	13.55	0020	02.900	1.178	0.585
0.666	85	00.78-	00.21	01.20	02.21	03.28	04.43	05.73	07.23	09.34	12.62	0020	02.553	1.318	1.101
0.666	90	00.00	00.80	01.63	02.50	03.45	04.50	05.71	07.14	09.17	12.39	0020	02.443	1.344	1.344
0.678	00	99.99-	08.53-	05.00-	02.66-	00.75-	01.02	02.78	04.63	07.04	10.56	0020	03.765	2.980	0.000
0.678	05	07.33-	04.52-	02.49-	00.78-	00.78	02.31	03.91	05.65	07.96	11.41	0020	02.957	1.949	0.360
0.678	10	04.27-	03.30-	02.33-	01.34-	00.29-	00.85	02.14	03.64	05.73	09.01	0020	01.334	1.584	0.592
0.678	15	02.02-	01.89-	01.72-	01.53-	01.27-	00.95-	00.49-	00.14	01.25	03.45	0020	00.236	1.339	0.841
0.678	20	00.10-	00.09-	00.07-	00.05-	00.01-	00.03	00.10	00.20	00.41	00.98	0020	00.035	1.149	1.122
0.678	25	01.56	01.66	01.79	01.95	02.15	02.42	02.80	03.34	04.31	06.32	0020	00.314	0.991	1.418
0.678	30	02.91	03.17	03.47	03.84	04.28	04.82	05.53	06.47	07.98	10.67	0020	00.925	0.856	1.675
0.678	35	03.84	04.38	04.96	05.62	06.36	07.22	08.26	09.53	11.41	14.49	0020	02.125	0.745	1.804
0.678	40	04.15	05.12	06.09	07.08	08.13	09.27	10.56	12.05	14.15	17.42	0020	03.861	0.661	1.718
0.678	45	03.60	05.18	06.59	07.91	09.21	10.55	12.01	13.64	15.86	19.23	0020	05.522	0.610	1.397
0.678	50	01.96	04.43	06.31	07.92	09.43	10.92	12.50	14.22	16.51	19.95	0020	06.429	0.595	0.936
0.678	55	00.89-	02.92	05.30	07.18	08.85	10.45	12.11	13.89	16.23	19.70	0020	06.356	0.618	0.504
0.678	60	04.86-	00.94	03.78	05.86	07.65	09.33	11.03	12.85	15.22	18.72	0020	05.566	0.676	0.221
0.678	65	09.91-	01.23-	01.96	04.18	06.04	07.76	09.50	11.33	13.72	17.24	0020	04.505	0.768	0.078
0.678	70	13.39-	03.16-	00.12	02.38	04.26	06.00	07.74	09.59	11.98	15.49	0020	03.526	0.897	0.041
0.678	75	07.55-	03.29-	00.78-	01.16	02.87	04.49	06.16	07.95	10.30	13.79	0020	02.793	1.059	0.186
0.678	80	03.06-	01.52-	00.15-	01.15	02.43	03.77	05.22	06.84	09.05	12.42	0020	02.325	1.233	0.609
0.678	85	00.79-	00.00	00.83	01.70	02.64	03.69	04.90	06.33	08.36	11.58	0020	02.076	1.380	1.151
0.678	90	00.00	00.64	01.32	02.07	02.89	03.84	04.96	06.30	08.25	11.39	0020	02.000	1.408	1.408

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.686	00	99.99-	07.94-	04.42-	02.08-	00.16-	01.60	03.36	05.22	07.62	11.14	0020	03.810	2.636	0.000
0.686	05	07.39-	04.28-	02.13-	00.37-	01.23	02.79	04.41	06.16	08.49	11.94	0020	02.991	1.741	0.317
0.686	10	04.45-	03.34-	02.26-	01.18-	00.05-	01.15	02.49	04.03	06.16	09.47	0020	01.347	1.428	0.512
0.686	15	02.29-	02.14-	01.95-	01.72-	01.43-	01.06-	00.56-	00.14	01.34	03.67	0020	00.235	1.218	0.719
0.686	20	00.45-	00.43-	00.41-	00.38-	00.35-	00.30-	00.23-	00.12-	00.10	00.70	0020	00.032	1.057	0.954
0.686	25	01.16	01.28	01.42	01.60	01.83	02.12	02.53	03.12	04.15	06.25	0020	00.298	0.922	1.206
0.686	30	02.48	02.76	03.08	03.46	03.93	04.50	05.24	06.22	07.76	10.50	0020	00.848	0.808	1.431
0.686	35	03.38	03.93	04.54	05.21	05.97	06.85	07.90	09.19	11.08	14.17	0020	01.900	0.714	1.554
0.686	40	03.66	04.64	05.62	06.62	07.67	08.82	10.11	11.61	13.71	16.99	0020	03.409	0.644	1.494
0.686	45	03.08	04.66	06.06	07.37	08.67	10.01	11.47	13.10	15.32	18.69	0020	04.824	0.603	1.227
0.686	50	01.44	03.85	05.71	07.31	08.81	10.30	11.87	13.58	15.87	19.31	0020	05.553	0.596	0.831
0.686	55	01.37-	02.30	04.64	06.50	08.16	09.75	11.40	13.18	15.52	18.99	0020	05.429	0.623	0.454
0.686	60	05.24-	00.28	03.07	05.13	06.90	08.58	10.28	12.09	14.46	17.95	0020	04.712	0.682	0.204
0.686	65	10.15-	01.93-	01.21	03.42	05.27	06.99	08.72	10.56	12.94	16.45	0020	03.803	0.776	0.075
0.686	70	13.52-	03.85-	00.60-	01.65	03.52	05.25	06.99	08.83	11.23	14.74	0020	02.997	0.907	0.040
0.686	75	07.58-	03.71-	01.31-	00.58	02.25	03.86	05.51	07.30	09.64	13.11	0020	02.417	1.071	0.187
0.686	80	03.07-	01.69-	00.43-	00.80	02.03	03.32	04.73	06.33	08.52	11.87	0020	02.062	1.248	0.616
0.686	85	00.79-	00.07-	00.68	01.49	02.38	03.38	04.55	05.94	07.93	11.12	0020	01.880	1.397	1.165
0.686	90	00.00	00.58	01.21	01.90	02.68	03.58	04.66	05.96	07.87	10.98	0020	01.826	1.424	1.424
0.694	00	99.99-	07.41-	03.89-	01.55-	00.37	02.13	03.89	05.75	08.15	11.67	0020	03.823	2.342	0.000
0.694	05	07.27-	03.95-	01.73-	00.08	01.70	03.28	04.91	06.67	09.00	12.46	0020	03.001	1.548	0.291
0.694	10	04.49-	03.26-	02.08-	00.93-	00.24	01.49	02.87	04.44	06.60	09.93	0020	01.350	1.281	0.455
0.694	15	02.47-	02.30-	02.08-	01.83-	01.51-	01.09-	00.54-	00.22	01.50	03.93	0020	00.233	1.103	0.624
0.694	20	00.74-	00.72-	00.70-	00.68-	00.64-	00.59-	00.52-	00.41-	00.18-	00.44	0020	00.028	0.966	0.815
0.694	25	00.78	00.91	01.07	01.27	01.51	01.84	02.28	02.91	04.00	06.19	0020	00.281	0.853	1.022
0.694	30	02.04	02.33	02.68	03.08	03.57	04.17	04.94	05.95	07.53	10.31	0020	00.770	0.758	1.212
0.694	35	02.88	03.46	04.08	04.77	05.54	06.44	07.51	08.81	10.72	13.82	0020	01.677	0.681	1.322
0.694	40	03.12	04.12	05.10	06.11	07.17	08.33	09.63	11.13	13.23	16.51	0020	02.963	0.624	1.281
0.694	45	02.53	04.09	05.49	06.80	08.09	09.43	10.89	12.52	14.73	18.11	0020	04.148	0.593	1.061
0.694	50	00.89	03.25	05.08	06.67	08.16	09.64	11.21	12.92	15.21	18.64	0020	04.729	0.592	0.727
0.694	55	01.87-	01.67	03.96	05.81	07.45	09.04	10.68	12.45	14.79	18.26	0020	04.588	0.623	0.404
0.694	60	05.62-	00.36-	02.37	04.41	06.18	07.84	09.54	11.35	13.71	17.20	0020	03.972	0.684	0.188
0.694	65	10.39-	02.58-	00.53	02.72	04.56	06.27	08.00	09.84	12.22	15.73	0020	03.230	0.779	0.071
0.694	70	13.65-	04.43-	01.21-	01.03	02.90	04.63	06.36	08.21	10.60	14.11	0020	02.600	0.910	0.039
0.694	75	07.60-	04.00-	01.69-	00.16	01.81	03.41	05.05	06.82	09.16	12.63	0020	02.168	1.075	0.187
0.694	80	03.07-	01.78-	00.58-	00.60	01.80	03.06	04.46	06.04	08.21	11.55	0020	01.917	1.252	0.617
0.694	85	00.79-	00.11-	00.62	01.40	02.27	03.25	04.40	05.77	07.75	10.92	0020	01.796	1.403	1.168
0.694	90	00.00	00.56	01.17	01.84	02.60	03.49	04.55	05.84	07.73	10.82	0020	01.761	1.429	1.429

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.702	00	99.99-	06.97-	03.45-	01.10-	00.81	02.57	04.34	06.19	08.60	12.12	0020	03.820	2.111	0.000
0.702	05	06.94-	03.54-	01.28-	00.53	02.17	03.75	05.38	07.15	09.48	12.95	0020	02.999	1.384	0.280
0.702	10	04.37-	03.05-	01.82-	00.62-	00.59	01.87	03.27	04.86	07.03	10.38	0020	01.349	1.152	0.421
0.702	15	02.53-	02.33-	02.10-	01.82-	01.47-	01.02-	00.43-	00.38	01.72	04.22	0020	00.232	1.000	0.559
0.702	20	00.95-	00.94-	00.92-	00.89-	00.86-	00.81-	00.74-	00.62-	00.40-	00.21	0020	00.024	0.884	0.710
0.702	25	00.44	00.58	00.76	00.97	01.24	01.59	02.06	02.73	03.88	06.14	0020	00.263	0.790	0.875
0.702	30	01.60	01.92	02.28	02.71	03.22	03.84	04.64	05.68	07.29	10.11	0020	00.696	0.711	1.028
0.702	35	02.38	02.97	03.61	04.31	05.10	06.01	07.10	08.41	10.33	13.45	0020	01.469	0.648	1.121
0.702	40	02.57	03.57	04.57	05.58	06.65	07.81	09.11	10.62	12.72	16.00	0020	02.553	0.604	1.090
0.702	45	01.94	03.50	04.89	06.20	07.49	08.83	10.29	11.91	14.13	17.50	0020	03.538	0.582	0.911
0.702	50	00.31	02.63	04.44	06.02	07.50	08.97	10.53	12.24	14.53	17.96	0020	04.005	0.587	0.631
0.702	55	02.39-	01.04	03.30	05.13	06.76	08.34	09.98	11.75	14.08	17.54	0020	03.876	0.620	0.358
0.702	60	06.00-	00.96-	01.73	03.75	05.50	07.16	08.85	10.66	13.02	16.51	0020	03.379	0.683	0.171
0.702	65	10.63-	03.12-	00.05-	02.13	03.96	05.67	07.40	09.23	11.62	15.13	0020	02.805	0.778	0.067
0.702	70	13.77-	04.84-	01.64-	00.59	02.45	04.18	05.92	07.76	10.15	13.66	0020	02.343	0.909	0.038
0.702	75	07.60-	04.14-	01.87-	00.05-	01.59	03.17	04.81	06.58	08.91	12.38	0020	02.045	1.074	0.187
0.702	80	03.07-	01.80-	00.61-	00.56	01.75	03.01	04.40	05.97	08.14	11.48	0020	01.885	1.251	0.617
0.702	85	00.80-	00.10-	00.63	01.42	02.29	03.28	04.43	05.81	07.79	10.96	0020	01.814	1.402	1.167
0.702	90	00.00	00.57	01.19	01.87	02.64	03.54	04.60	05.90	07.80	10.90	0020	01.795	1.428	1.428
0.710	00	99.99-	06.62-	03.10-	00.76-	01.16	02.92	04.68	06.54	08.94	12.46	0020	03.810	1.946	0.000
0.710	05	06.45-	03.08-	00.84-	00.97	02.60	04.18	05.81	07.58	09.91	13.38	0020	02.992	1.251	0.283
0.710	10	04.07-	02.72-	01.47-	00.25-	00.97	02.25	03.66	05.26	07.44	10.79	0020	01.347	1.045	0.409
0.710	15	02.43-	02.22-	01.98-	01.68-	01.31-	00.84-	00.22-	00.62	01.99	04.54	0020	00.231	0.913	0.521
0.710	20	01.05-	01.04-	01.02-	00.99-	00.96-	00.92-	00.85-	00.75-	00.54-	00.03	0020	00.020	0.814	0.639
0.710	25	00.17	00.33	00.51	00.73	01.02	01.38	01.88	02.58	03.76	06.08	0020	00.246	0.735	0.765
0.710	30	01.20	01.53	01.91	02.35	02.88	03.53	04.35	05.40	07.04	09.89	0020	00.628	0.670	0.883
0.710	35	01.88	02.48	03.13	03.85	04.65	05.57	06.67	07.99	09.92	13.05	0020	01.282	0.619	0.954
0.710	40	02.00	03.01	04.02	05.04	06.11	07.27	08.57	10.08	12.19	15.48	0020	02.191	0.585	0.928
0.710	45	01.35	02.90	04.28	05.59	06.88	08.22	09.67	11.30	13.51	16.88	0020	03.011	0.571	0.779
0.710	50	00.28-	02.01	03.80	05.37	06.84	08.31	09.87	11.58	13.86	17.29	0020	03.398	0.581	0.545
0.710	55	02.91-	00.44	02.67	04.48	06.11	07.68	09.32	11.08	13.41	16.88	0020	03.305	0.617	0.316
0.710	60	06.39-	01.50-	01.16	03.17	04.92	06.57	08.26	10.06	12.42	15.91	0020	02.935	0.681	0.156
0.710	65	10.89-	03.54-	00.48-	01.69	03.52	05.23	06.96	08.79	11.17	14.68	0020	02.525	0.776	0.063
0.710	70	13.88-	05.06-	01.86-	00.36	02.22	03.95	05.69	07.53	09.92	13.43	0020	02.215	0.907	0.037
0.710	75	07.60-	04.15-	01.88-	00.06-	01.58	03.16	04.80	06.57	08.90	12.37	0020	02.034	1.072	0.186
0.710	80	03.07-	01.76-	00.54-	00.65	01.86	03.13	04.53	06.11	08.29	11.63	0020	01.951	1.249	0.616
0.710	85	00.80-	00.07-	00.70	01.52	02.42	03.43	04.61	06.01	08.01	11.20	0020	01.921	1.399	1.165
0.710	90	00.00	00.60	01.26	01.98	02.78	03.70	04.79	06.12	08.05	11.17	0020	01.914	1.424	1.424

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN / HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.714	00	99.99-	06.49-	02.97-	00.63-	01.29	03.05	04.81	06.67	09.07	12.59	0020	03.805	1.886	0.000
0.714	05	06.16-	02.84-	00.62-	01.18	02.81	04.38	06.01	07.78	10.10	13.57	0020	02.989	1.196	0.289
0.714	10	03.87-	02.52-	01.27-	00.06-	01.16	02.45	03.86	05.45	07.63	10.98	0020	01.347	1.000	0.410
0.714	15	02.33-	02.12-	01.87-	01.56-	01.19-	00.71-	00.09-	00.76	02.15	04.71	0020	00.231	0.876	0.512
0.714	20	01.05-	01.04-	01.02-	01.00-	00.97-	00.93-	00.87-	00.77-	00.57-	00.03-	0020	00.018	0.784	0.615
0.714	25	00.07	00.23	00.42	00.65	00.93	01.31	01.81	02.51	03.71	06.04	0020	00.237	0.711	0.723
0.714	30	01.02	01.35	01.74	02.19	02.73	03.38	04.21	05.27	06.92	09.77	0020	00.596	0.652	0.824
0.714	35	01.64	02.24	02.90	03.62	04.43	05.35	06.45	07.78	09.71	12.84	0020	01.197	0.606	0.884
0.714	40	01.72	02.73	03.74	04.76	05.83	06.99	08.30	09.81	11.92	15.21	0020	02.030	0.577	0.857
0.714	45	01.05	02.59	03.98	05.28	06.57	07.91	09.36	10.99	13.20	16.57	0020	02.779	0.566	0.721
0.714	50	00.57-	01.70	03.49	05.05	06.52	07.99	09.55	11.25	13.53	16.96	0020	03.138	0.579	0.507
0.714	55	03.18-	00.15	02.38	04.18	05.80	07.38	09.01	10.77	13.10	16.57	0020	03.071	0.616	0.296
0.714	60	06.58-	01.73-	00.92	02.93	04.67	06.32	08.01	09.81	12.17	15.66	0020	02.766	0.680	0.149
0.714	65	11.02-	03.69-	00.63-	01.54	03.37	05.08	06.80	08.63	11.02	14.52	0020	02.435	0.775	0.061
0.714	70	13.93-	05.09-	01.90-	00.33	02.19	03.91	05.65	07.49	09.88	13.39	0020	02.195	0.907	0.037
0.714	75	07.60-	04.11-	01.83-	00.00	01.64	03.23	04.87	06.64	08.97	12.44	0020	02.066	1.071	0.186
0.714	80	03.07-	01.72-	00.47-	00.74	01.96	03.24	04.65	06.24	08.42	11.77	0020	02.015	1.247	0.616
0.714	85	00.80-	00.04-	00.76	01.60	02.52	03.55	04.74	06.16	08.17	11.37	0020	02.002	1.398	1.164
0.714	90	00.00	00.63	01.31	02.05	02.87	03.81	04.93	06.27	08.21	11.35	0020	02.001	1.423	1.423
0.722	00	99.99-	06.32-	02.80-	00.46-	01.46	03.22	04.98	06.84	09.24	12.76	0020	03.797	1.809	0.000
0.722	05	05.53-	02.37-	00.21-	01.57	03.17	04.73	06.36	08.11	10.44	13.90	0020	02.985	1.108	0.310
0.722	10	03.38-	02.07-	00.85-	00.34	01.55	02.82	04.22	05.80	07.98	11.32	0020	01.348	0.926	0.425
0.722	15	02.02-	01.80-	01.55-	01.24-	00.87-	00.39-	00.24	01.09	02.48	05.05	0020	00.232	0.813	0.511
0.722	20	00.95-	00.94-	00.92-	00.91-	00.88-	00.85-	00.80-	00.72-	00.56-	00.11-	0020	00.014	0.732	0.588
0.722	25	00.03-	00.12	00.31	00.54	00.83	01.21	01.71	02.42	03.62	05.96	0020	00.219	0.669	0.664
0.722	30	00.72	01.06	01.45	01.91	02.45	03.11	03.94	05.01	06.67	09.53	0020	00.537	0.620	0.731
0.722	35	01.19	01.80	02.46	03.18	03.99	04.92	06.02	07.35	09.28	12.41	0020	01.045	0.584	0.767
0.722	40	01.17	02.19	03.19	04.22	05.29	06.45	07.76	09.27	11.37	14.66	0020	01.744	0.562	0.736
0.722	45	00.45	01.99	03.37	04.68	05.97	07.30	08.75	10.38	12.59	15.96	0020	02.378	0.558	0.619
0.722	50	01.17-	01.09	02.88	04.44	05.91	07.38	08.93	10.64	12.92	16.34	0020	02.700	0.574	0.439
0.722	55	03.70-	00.39-	01.83	03.64	05.26	06.83	08.46	10.23	12.55	16.02	0020	02.697	0.614	0.262
0.722	60	06.98-	02.12-	00.53	02.54	04.28	05.93	07.62	09.42	11.78	15.27	0020	02.524	0.679	0.136
0.722	65	11.32-	03.87-	00.81-	01.37	03.20	04.91	06.64	08.47	10.86	14.36	0020	02.343	0.774	0.057
0.722	70	14.01-	05.03-	01.83-	00.40	02.26	03.99	05.73	07.57	09.96	13.47	0020	02.233	0.906	0.036
0.722	75	07.58-	03.95-	01.63-	00.23	01.88	03.48	05.12	06.90	09.23	12.71	0020	02.195	1.070	0.187
0.722	80	03.06-	01.61-	00.29-	00.97	02.23	03.54	04.97	06.59	08.78	12.14	0020	02.199	1.245	0.616
0.722	85	00.80-	00.04	00.90	01.80	02.76	03.84	05.07	06.51	08.56	11.79	0020	02.214	1.396	1.162
0.722	90	00.00	00.70	01.43	02.23	03.10	04.09	05.25	06.63	08.61	11.78	0020	02.221	1.420	1.420

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.730	00	99.99-	06.26-	02.74-	00.40-	01.52	03.28	05.04	06.90	09.30	12.82	0020	03.794	1.782	0.000
0.730	05	04.88-	01.92-	00.16	01.90	03.48	05.02	06.63	08.38	10.70	14.15	0020	02.984	1.046	0.340
0.730	10	02.82-	01.58-	00.41-	00.75	01.92	03.17	04.55	06.12	08.28	11.61	0020	01.352	0.871	0.455
0.730	15	01.60-	01.39-	01.14-	00.84-	00.47-	00.00	00.62	01.46	02.84	05.40	0020	00.236	0.766	0.530
0.730	20	00.71-	00.70-	00.69-	00.68-	00.66-	00.64-	00.60-	00.55-	00.43-	00.10-	0020	00.010	0.691	0.587
0.730	25	00.02-	00.13	00.32	00.54	00.82	01.18	01.68	02.37	03.55	05.85	0020	00.202	0.636	0.633
0.730	30	00.51	00.85	01.24	01.69	02.22	02.88	03.71	04.77	06.42	09.27	0020	00.484	0.594	0.669
0.730	35	00.80	01.40	02.06	02.78	03.58	04.50	05.60	06.92	08.85	11.98	0020	00.914	0.565	0.679
0.730	40	00.66	01.66	02.66	03.68	04.75	05.91	07.21	08.72	10.83	14.11	0020	01.504	0.550	0.639
0.730	45	00.14-	01.41	02.79	04.09	05.38	06.71	08.16	09.79	12.00	15.37	0020	02.049	0.551	0.534
0.730	50	01.76-	00.52	02.31	03.87	05.34	06.81	08.37	10.08	12.36	15.78	0020	02.361	0.571	0.381
0.730	55	04.23-	00.87-	01.37	03.18	04.81	06.39	08.02	09.79	12.12	15.58	0020	02.436	0.613	0.231
0.730	60	07.39-	02.41-	00.27	02.29	04.04	05.70	07.39	09.19	11.56	15.05	0020	02.397	0.679	0.124
0.730	65	11.64-	03.91-	00.81-	01.38	03.22	04.93	06.66	08.49	10.88	14.39	0020	02.358	0.775	0.053
0.730	70	14.07-	04.83-	01.60-	00.63	02.50	04.23	05.97	07.81	10.20	13.71	0020	02.363	0.906	0.036
0.730	75	07.54-	03.71-	01.32-	00.56	02.24	03.84	05.50	07.28	09.62	13.09	0020	02.402	1.070	0.188
0.730	80	03.05-	01.46-	00.06-	01.27	02.57	03.91	05.37	07.01	09.22	12.60	0020	02.449	1.245	0.617
0.730	85	00.80-	00.13	01.06	02.03	03.05	04.17	05.44	06.93	09.01	12.27	0020	02.483	1.395	1.161
0.730	90	00.00	00.78	01.58	02.44	03.37	04.41	05.61	07.03	09.05	12.26	0020	02.496	1.418	1.418
0.738	00	99.99-	06.30-	02.78-	00.44-	01.48	03.24	05.00	06.86	09.26	12.78	0020	03.795	1.800	0.000
0.738	05	04.24-	01.51-	00.48	02.17	03.72	05.24	06.83	08.57	10.88	14.32	0020	02.988	1.008	0.379
0.738	10	02.23-	01.08-	00.03	01.13	02.27	03.48	04.84	06.39	08.53	11.84	0020	01.360	0.833	0.499
0.738	15	01.10-	00.90-	00.66-	00.37-	00.01-	00.44	01.05	01.87	03.22	05.74	0020	00.242	0.731	0.567
0.738	20	00.37-	00.36-	00.35-	00.35-	00.34-	00.32-	00.30-	00.26-	00.19-	00.02	0020	00.006	0.661	0.607
0.738	25	00.13	00.27	00.43	00.64	00.90	01.24	01.71	02.36	03.49	05.73	0020	00.184	0.610	0.628
0.738	30	00.43	00.75	01.12	01.55	02.07	02.70	03.51	04.55	06.18	09.00	0020	00.436	0.574	0.633
0.738	35	00.49	01.08	01.71	02.42	03.20	04.11	05.19	06.51	08.42	11.53	0020	00.802	0.550	0.616
0.738	40	00.18	01.17	02.16	03.17	04.23	05.38	06.68	08.19	10.29	13.57	0020	01.303	0.541	0.564
0.738	45	00.70-	00.84	02.22	03.52	04.81	06.15	07.60	09.23	11.44	14.81	0020	01.785	0.546	0.464
0.738	50	02.34-	00.03-	01.78	03.36	04.84	06.32	07.88	09.59	11.87	15.30	0020	02.106	0.569	0.332
0.738	55	04.76-	01.27-	01.01	02.84	04.48	06.07	07.71	09.48	11.81	15.28	0020	02.273	0.613	0.205
0.738	60	07.82-	02.58-	00.16	02.20	03.96	05.63	07.32	09.13	11.50	14.99	0020	02.371	0.680	0.112
0.738	65	11.99-	03.81-	00.67-	01.54	03.39	05.11	06.84	08.68	11.06	14.57	0020	02.468	0.777	0.049
0.738	70	14.08-	04.51-	01.26-	00.99	02.86	04.59	06.33	08.17	10.56	14.08	0020	02.576	0.908	0.035
0.738	75	07.49-	03.41-	00.95-	00.97	02.66	04.28	05.94	07.73	10.08	13.56	0020	02.678	1.072	0.191
0.738	80	03.03-	01.29-	00.21	01.60	02.95	04.33	05.82	07.47	09.71	13.10	0020	02.757	1.246	0.620
0.738	85	00.79-	00.24	01.26	02.29	03.37	04.54	05.85	07.37	09.48	12.77	0020	02.805	1.396	1.163
0.738	90	00.00	00.87	01.75	02.68	03.66	04.75	06.00	07.46	09.52	12.76	0020	02.820	1.419	1.419

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.746	00	99.99-	06.43-	02.91-	00.57-	01.35	03.11	04.87	06.73	09.13	12.65	0020	03.803	1.857	0.000
0.746	05	03.66-	01.15-	00.75	02.37	03.89	05.39	06.96	08.69	10.98	14.42	0020	02.998	0.990	0.426
0.746	10	01.65-	00.59-	00.44	01.49	02.58	03.76	05.08	06.61	08.73	12.02	0020	01.372	0.811	0.554
0.746	15	00.57-	00.38-	00.15-	00.13	00.47	00.90	01.49	02.28	03.60	06.09	0020	00.250	0.708	0.621
0.746	20	00.06	00.06	00.07	00.07	00.08	00.08	00.10	00.11	00.15	00.26	0020	00.003	0.639	0.648
0.746	25	00.38	00.51	00.65	00.84	01.07	01.38	01.80	02.40	03.46	05.59	0020	00.166	0.591	0.646
0.746	30	00.46	00.75	01.10	01.50	01.99	02.59	03.36	04.36	05.94	08.72	0020	00.393	0.558	0.620
0.746	35	00.28	00.84	01.44	02.12	02.88	03.76	04.82	06.11	08.00	11.09	0020	00.707	0.539	0.575
0.746	40	00.23-	00.73	01.70	02.70	03.74	04.88	06.17	07.67	09.76	13.03	0020	01.136	0.534	0.506
0.746	45	01.24-	00.31	01.69	03.00	04.29	05.62	07.08	08.70	10.92	14.29	0020	01.574	0.543	0.408
0.746	50	02.92-	00.52-	01.33	02.93	04.42	05.91	07.47	09.19	11.48	14.91	0020	01.925	0.569	0.291
0.746	55	05.28-	01.59-	00.76	02.62	04.28	05.88	07.53	09.30	11.64	15.12	0020	02.196	0.614	0.182
0.746	60	08.26-	02.63-	00.18	02.25	04.03	05.70	07.40	09.22	11.59	15.09	0020	02.436	0.683	0.102
0.746	65	12.37-	03.59-	00.40-	01.82	03.68	05.41	07.14	08.98	11.37	14.88	0020	02.663	0.780	0.045
0.746	70	14.04-	04.10-	00.84-	01.42	03.29	05.03	06.77	08.61	11.01	14.52	0020	02.864	0.912	0.036
0.746	75	07.42-	03.07-	00.54-	01.41	03.12	04.75	06.43	08.22	10.57	14.06	0020	03.019	1.075	0.195
0.746	80	03.02-	01.10-	00.51	01.96	03.35	04.77	06.28	07.95	10.21	13.61	0020	03.120	1.250	0.624
0.746	85	00.79-	00.36	01.46	02.57	03.70	04.92	06.27	07.82	09.96	13.27	0020	03.174	1.399	1.166
0.746	90	00.00	00.97	01.93	02.93	03.97	05.11	06.40	07.90	09.99	13.26	0020	03.190	1.422	1.422
0.762	00	99.99-	06.89-	03.37-	01.03-	00.89	02.65	04.41	06.27	08.67	12.20	0020	03.833	2.080	0.000
0.762	05	02.70-	00.60-	01.10	02.61	04.05	05.49	07.02	08.72	10.99	14.40	0020	03.030	1.009	0.542
0.762	10	00.60-	00.28	01.17	02.10	03.09	04.19	05.44	06.90	08.97	12.21	0020	01.409	0.804	0.700
0.762	15	00.49	00.66	00.86	01.11	01.42	01.82	02.36	03.11	04.36	06.75	0020	00.278	0.691	0.773
0.762	20	01.03	01.04	01.04	01.04	01.04	01.05	01.05	01.06	01.08	01.13	0020	00.002	0.618	0.784
0.762	25	01.14	01.23	01.33	01.46	01.63	01.85	02.17	02.63	03.47	05.28	0020	00.131	0.570	0.741
0.762	30	00.85	01.07	01.34	01.67	02.06	02.56	03.22	04.10	05.53	08.14	0020	00.319	0.540	0.657
0.762	35	00.18	00.64	01.16	01.74	02.42	03.21	04.19	05.40	07.21	10.22	0020	00.555	0.526	0.548
0.762	40	00.84-	00.05	00.95	01.88	02.88	03.98	05.23	06.70	08.76	12.01	0020	00.883	0.527	0.435
0.762	45	02.21-	00.63-	00.77	02.08	03.38	04.73	06.18	07.82	10.03	13.41	0020	01.284	0.542	0.326
0.762	50	04.03-	01.34-	00.64	02.31	03.85	05.37	06.96	08.70	11.00	14.45	0020	01.747	0.573	0.227
0.762	55	06.33-	01.95-	00.59	02.55	04.26	05.89	07.56	09.36	11.71	15.20	0020	02.269	0.622	0.145
0.762	60	09.19-	02.43-	00.55	02.69	04.51	06.21	07.93	09.75	12.13	15.64	0020	02.809	0.693	0.083
0.762	65	13.19-	02.93-	00.36	02.62	04.50	06.24	07.98	09.83	12.22	15.74	0020	03.290	0.792	0.038
0.762	70	13.71-	03.17-	00.13	02.40	04.28	06.01	07.76	09.61	12.00	15.52	0020	03.651	0.924	0.039
0.762	75	07.23-	02.33-	00.34	02.35	04.09	05.75	07.43	09.24	11.60	15.09	0020	03.878	1.088	0.206
0.762	80	02.97-	00.67-	01.13	02.70	04.18	05.65	07.21	08.91	11.20	14.62	0020	03.996	1.262	0.637
0.762	85	00.78-	00.62	01.91	03.15	04.39	05.68	07.10	08.71	10.90	14.25	0020	04.045	1.411	1.178
0.762	90	00.00	01.19	02.32	03.45	04.61	05.83	07.20	08.76	10.91	14.23	0020	04.057	1.433	1.433

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.786	00	99.99-	07.79-	04.27-	01.93-	00.01-	01.75	03.51	05.37	07.77	11.29	0020	03.912	2.615	0.000
0.786	05	01.81-	00.18-	01.26	02.61	03.93	05.28	06.75	08.39	10.62	14.00	0020	03.104	1.143	0.753
0.786	10	00.52	01.20	01.91	02.69	03.55	04.52	05.67	07.03	09.00	12.17	0020	01.484	0.870	0.981
0.786	15	01.78	01.93	02.11	02.33	02.61	02.98	03.48	04.17	05.35	07.66	0020	00.347	0.723	1.088
0.786	20	02.40	02.41	02.42	02.44	02.46	02.49	02.53	02.59	02.72	03.10	0020	00.021	0.630	1.096
0.786	25	02.46	02.50	02.55	02.61	02.69	02.81	02.97	03.22	03.72	04.91	0020	00.085	0.571	1.006
0.786	30	01.90	02.02	02.18	02.37	02.62	02.94	03.38	04.00	05.08	07.26	0020	00.225	0.538	0.832
0.786	35	00.69	00.98	01.33	01.74	02.23	02.84	03.62	04.63	06.22	09.00	0020	00.396	0.525	0.615
0.786	40	01.12-	00.42-	00.32	01.11	01.99	02.98	04.14	05.52	07.50	10.68	0020	00.644	0.531	0.410
0.786	45	03.30-	01.64-	00.18-	01.17	02.50	03.86	05.33	06.98	09.21	12.59	0020	01.085	0.552	0.258
0.786	50	05.56-	02.05-	00.23	02.07	03.71	05.29	06.93	08.70	11.04	14.51	0020	01.827	0.588	0.164
0.786	55	07.91-	01.87-	01.01	03.11	04.91	06.59	08.30	10.12	12.49	15.99	0020	02.824	0.642	0.104
0.786	60	10.76-	01.66-	01.55	03.79	05.65	07.38	09.12	10.96	13.35	16.86	0020	03.859	0.717	0.060
0.786	65	14.15-	01.70-	01.68	03.98	05.87	07.62	09.37	11.22	13.62	17.14	0020	04.701	0.819	0.031
0.786	70	12.51-	01.76-	01.55	03.82	05.71	07.44	09.19	11.04	13.43	16.95	0020	05.236	0.953	0.053
0.786	75	06.81-	01.22-	01.58	03.65	05.42	07.10	08.80	10.61	12.98	16.48	0020	05.489	1.117	0.233
0.786	80	02.88-	00.03-	02.02	03.73	05.30	06.83	08.44	10.18	12.49	15.94	0020	05.560	1.291	0.665
0.786	85	00.77-	01.02	02.55	03.96	05.32	06.71	08.21	09.87	12.11	15.51	0020	05.555	1.441	1.206
0.786	90	00.00	01.53	02.90	04.19	05.48	06.80	08.25	09.88	12.09	15.46	0020	05.545	1.462	1.462
0.802	00	99.99-	08.26-	04.74-	02.40-	00.48-	01.28	03.04	04.90	07.30	10.82	0020	03.980	2.964	0.000
0.802	05	01.55-	00.09-	01.24	02.50	03.77	05.08	06.51	08.13	10.33	13.69	0020	03.151	1.250	0.874
0.802	10	00.92	01.52	02.16	02.87	03.66	04.58	05.66	06.98	08.90	12.02	0020	01.518	0.930	1.150
0.802	15	02.30	02.45	02.62	02.84	03.12	03.48	03.96	04.65	05.81	08.10	0020	00.401	0.758	1.287
0.802	20	03.02	03.04	03.07	03.10	03.15	03.21	03.30	03.44	03.73	04.47	0020	00.058	0.650	1.304
0.802	25	03.12	03.15	03.18	03.22	03.27	03.35	03.46	03.63	03.97	04.85	0020	00.065	0.582	1.195
0.802	30	02.52	02.60	02.70	02.83	03.00	03.22	03.53	03.99	04.83	06.64	0020	00.171	0.544	0.972
0.802	35	01.12	01.34	01.60	01.91	02.29	02.78	03.42	04.29	05.69	08.28	0020	00.321	0.531	0.686
0.802	40	01.09-	00.50-	00.14	00.84	01.63	02.53	03.61	04.93	06.84	09.96	0020	00.545	0.537	0.419
0.802	45	03.81-	02.07-	00.57-	00.81	02.16	03.53	05.02	06.67	08.91	12.30	0020	01.033	0.561	0.234
0.802	50	06.46-	02.28-	00.20	02.14	03.84	05.46	07.13	08.91	11.26	14.75	0020	01.976	0.601	0.136
0.802	55	08.95-	01.66-	01.39	03.56	05.39	07.10	08.82	10.66	13.04	16.54	0020	03.286	0.657	0.084
0.802	60	11.85-	01.16-	02.15	04.41	06.30	08.03	09.78	11.63	14.02	17.54	0020	04.621	0.734	0.048
0.802	65	14.09-	01.03-	02.37	04.67	06.57	08.32	10.07	11.92	14.32	17.84	0020	05.648	0.837	0.033
0.802	70	11.43-	01.05-	02.24	04.51	06.39	08.12	09.87	11.71	14.11	17.62	0020	06.235	0.971	0.070
0.802	75	06.56-	00.70-	02.15	04.24	06.03	07.71	09.41	11.23	13.60	17.10	0020	06.449	1.136	0.251
0.802	80	02.87-	00.26	02.42	04.19	05.79	07.35	08.97	10.73	13.05	16.51	0020	06.448	1.312	0.678
0.802	85	00.78-	01.20	02.84	04.32	05.73	07.15	08.67	10.35	12.61	16.02	0020	06.383	1.466	1.225
0.802	90	00.00	01.69	03.15	04.52	05.85	07.22	08.69	10.34	12.57	15.96	0020	06.350	1.488	1.488

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.826	00	99.99-	07.98-	04.46-	02.12-	00.20-	01.56	03.32	05.18	07.58	11.10	0020	04.101	2.863	0.000
0.826	05	01.44-	00.05	01.39	02.66	03.93	05.25	06.69	08.31	10.51	13.88	0020	03.134	1.190	0.855
0.826	10	01.08	01.63	02.23	02.90	03.65	04.53	05.58	06.87	08.76	11.84	0020	01.373	0.882	1.130
0.826	15	02.47	02.61	02.78	02.99	03.26	03.61	04.08	04.75	05.90	08.15	0020	00.381	0.718	1.268
0.826	20	03.17	03.22	03.29	03.38	03.49	03.64	03.86	04.19	04.81	06.25	0020	00.147	0.617	1.281
0.826	25	03.19	03.22	03.26	03.31	03.38	03.47	03.60	03.81	04.21	05.22	0020	00.077	0.556	1.159
0.826	30	02.42	02.47	02.54	02.62	02.72	02.87	03.07	03.38	03.98	05.37	0020	00.099	0.523	0.914
0.826	35	00.72	00.91	01.13	01.40	01.74	02.17	02.74	03.53	04.83	07.30	0020	00.240	0.515	0.608
0.826	40	01.90-	01.36-	00.75-	00.09-	00.67	01.54	02.60	03.88	05.77	08.86	0020	00.412	0.527	0.340
0.826	45	04.98-	03.23-	01.72-	00.34-	01.01	02.39	03.88	05.54	07.77	11.17	0020	785	0.554	0.176
0.826	50	07.61-	03.14-	00.58-	01.38	03.10	04.74	06.41	08.21	10.57	14.05	0020	01.668	0.595	0.103
0.826	55	10.26-	02.13-	01.00	03.20	05.05	06.77	08.50	10.34	12.72	16.23	0020	03.037	0.652	0.061
0.826	60	13.12-	01.35-	02.01	04.29	06.18	07.93	09.68	11.53	13.92	17.44	0020	04.486	0.728	0.036
0.826	65	12.50-	00.94-	02.41	04.69	06.58	08.32	10.07	11.92	14.32	17.83	0020	05.592	0.830	0.047
0.826	70	10.26-	00.92-	02.31	04.55	06.42	08.15	09.89	11.73	14.12	17.63	0020	06.191	0.963	0.091
0.826	75	06.95-	00.83-	02.06	04.17	05.96	07.65	09.36	11.18	13.56	17.06	0020	06.367	1.133	0.229
0.826	80	03.24-	00.01	02.21	04.00	05.62	07.19	08.82	10.58	12.90	16.37	0020	06.313	1.327	0.628
0.826	85	00.88-	01.06	02.67	04.13	05.53	06.95	08.46	10.14	12.39	15.80	0020	06.207	1.502	1.225
0.826	90	00.00	01.60	03.02	04.35	05.66	07.01	08.47	10.10	12.32	15.70	0020	06.160	1.533	1.533
0.842	00	99.99-	07.10-	03.57-	01.23-	00.69	02.45	04.21	06.06	08.47	11.99	0020	04.188	2.385	0.000
0.842	05	01.03-	00.56	01.96	03.28	04.59	05.93	07.39	09.02	11.24	14.62	0020	02.983	0.953	0.752
0.842	10	01.39	01.85	02.37	02.95	03.63	04.42	05.40	06.61	08.42	11.43	0020	00.989	0.710	0.978
0.842	15	02.62	02.72	02.83	02.98	03.17	03.42	03.77	04.28	05.20	07.13	0020	00.218	0.587	1.072
0.842	20	03.07	03.18	03.32	03.49	03.71	03.99	04.39	04.96	05.97	08.03	0020	00.248	0.515	1.044
0.842	25	02.72	02.79	02.88	02.99	03.14	03.33	03.61	04.02	04.79	06.47	0020	00.136	0.476	0.889
0.842	30	01.38	01.42	01.48	01.55	01.64	01.77	01.95	02.23	02.77	04.05	0020	00.060	0.461	0.633
0.842	35	01.17-	00.91-	00.59-	00.22-	00.23	00.79	01.52	02.48	04.00	06.72	0020	00.203	0.465	0.355
0.842	40	04.86-	04.10-	03.32-	02.48-	01.56-	00.54-	00.65	02.06	04.07	07.27	0020	00.269	0.483	0.158
0.842	45	07.75-	06.29-	04.96-	03.69-	02.43-	01.12-	00.32	01.93	04.13	07.49	0020	00.310	0.512	0.086
0.842	50	08.54-	05.19-	02.95-	01.14-	00.49	02.06	03.69	05.46	07.79	11.25	0020	00.809	0.551	0.077
0.842	55	10.64-	03.52-	00.49-	01.67	03.50	05.20	06.93	08.76	11.14	14.64	0020	01.951	0.604	0.052
0.842	60	12.95-	02.18-	01.14	03.41	05.29	07.03	08.78	10.62	13.02	16.53	0020	03.375	0.676	0.034
0.842	65	10.39-	01.24-	01.98	04.22	06.08	07.81	09.55	11.39	13.78	17.29	0020	04.579	0.770	0.070
0.842	70	09.69-	01.18-	01.99	04.21	06.06	07.78	09.52	11.36	13.74	17.26	0020	05.304	0.900	0.097
0.842	75	08.86-	01.52-	01.53	03.70	05.53	07.24	08.97	10.80	13.18	16.69	0020	05.587	1.081	0.141
0.842	80	04.22-	00.68-	01.62	03.46	05.11	06.69	08.34	10.11	12.44	15.91	0020	05.605	1.305	0.494
0.842	85	01.09-	00.73	02.28	03.70	05.07	06.46	07.96	09.62	11.87	15.27	0020	05.538	1.518	1.182
0.842	90	00.00	01.43	02.74	03.99	05.24	06.55	07.97	09.58	11.78	15.14	0020	05.503	1.566	1.566

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.860	00	99.99-	08.23-	04.71-	02.37-	00.45-	01.31	03.07	04.93	07.33	10.86	0020	04.291	3.171	0.000
0.860	05	00.50-	00.60	01.67	02.75	03.86	05.05	06.39	07.93	10.06	13.36	0020	02.689	1.164	1.036
0.860	10	02.33	02.48	02.65	02.86	03.12	03.47	03.95	04.61	05.76	08.01	0020	00.415	0.809	1.384
0.860	15	03.96	04.01	04.08	04.15	04.26	04.40	04.60	04.91	05.49	06.86	0020	00.164	0.626	1.558
0.860	20	04.79	04.97	05.18	05.44	05.77	06.19	06.74	07.51	08.80	11.23	0020	00.589	0.517	1.557
0.860	25	04.73	04.83	04.95	05.11	05.30	05.56	05.93	06.45	07.39	09.36	0020	00.285	0.454	1.349
0.860	30	03.49	03.50	03.52	03.55	03.58	03.63	03.70	03.80	04.03	04.62	0020	00.032	0.427	0.952
0.860	35	00.56	00.72	00.92	01.16	01.47	01.86	02.38	03.11	04.35	06.72	0020	00.169	0.426	0.485
0.860	40	05.10-	04.77-	04.39-	03.95-	03.42-	02.78-	01.96-	00.91-	00.73	03.57	0020	00.097	0.444	0.137
0.860	45	13.30-	12.35-	11.39-	10.41-	09.37-	08.24-	06.96-	05.47-	03.38-	00.11-	0020	00.049	0.471	0.022
0.860	50	10.20-	05.20-	02.51-	00.49-	01.26	02.91	04.60	06.41	08.77	12.26	0020	00.943	0.507	0.048
0.860	55	10.34-	01.65-	01.53	03.76	05.61	07.34	09.07	10.91	13.30	16.81	0020	02.941	0.552	0.051
0.860	60	10.82-	00.15	03.47	05.75	07.63	09.37	11.12	12.96	15.36	18.88	0020	05.238	0.611	0.051
0.860	65	06.77-	01.25	04.37	06.57	08.42	10.13	11.86	13.70	16.09	19.60	0020	06.957	0.689	0.145
0.860	70	06.56-	01.13	04.22	06.41	08.25	09.96	11.69	13.52	15.91	19.42	0020	07.784	0.803	0.177
0.860	75	12.06-	00.22-	03.14	05.42	07.31	09.06	10.81	12.66	15.05	18.57	0020	07.906	0.990	0.062
0.860	80	06.45-	00.42-	02.45	04.55	06.34	08.03	09.74	11.56	13.93	17.43	0020	07.688	1.255	0.284
0.860	85	01.46-	00.99	02.86	04.47	05.98	07.47	09.04	10.76	13.05	16.49	0020	07.440	1.528	1.093
0.860	90	00.00	01.78	03.31	04.71	06.07	07.46	08.96	10.61	12.86	16.25	0020	07.338	1.604	1.604
0.880	00	99.99-	10.61-	07.09-	04.75-	02.83-	01.07-	00.69	02.55	04.95	08.47	0020	04.407	5.639	0.000
0.880	05	01.33-	00.66-	00.04	00.81	01.66	02.63	03.76	05.12	07.09	10.25	0020	02.433	2.225	1.638
0.880	10	01.93	01.96	01.99	02.03	02.08	02.15	02.25	02.40	02.72	03.54	0020	00.116	1.496	2.336
0.880	15	04.14	04.25	04.38	04.54	04.75	05.03	05.41	05.96	06.93	08.95	0020	00.638	1.090	2.830
0.880	20	05.73	05.92	06.15	06.44	06.79	07.23	07.83	08.64	09.98	12.48	0020	01.283	0.826	3.086
0.880	25	06.61	06.69	06.79	06.91	07.07	07.28	07.58	08.02	08.83	10.59	0020	00.498	0.651	2.981
0.880	30	06.49	06.49	06.50	06.50	06.51	06.52	06.54	06.56	06.61	06.76	0020	00.017	0.545	2.430
0.880	35	04.91	04.95	05.00	05.07	05.15	05.27	05.43	05.69	06.18	07.38	0020	00.131	0.498	1.542
0.880	40	01.27	01.35	01.44	01.56	01.72	01.92	02.22	02.65	03.45	05.19	0020	00.108	0.493	0.660
0.880	45	05.28-	02.98-	01.18-	00.39	01.86	03.33	04.89	06.60	08.88	12.31	0020	00.955	0.514	0.153
0.880	50	10.65-	00.51-	02.77	05.03	06.90	08.64	10.38	12.23	14.62	18.13	0020	03.947	0.547	0.047
0.880	55	09.98-	02.25	05.62	07.92	09.81	11.55	13.31	15.15	17.55	21.07	0020	08.330	0.586	0.059
0.880	60	08.52-	03.55	06.92	09.21	11.10	12.84	14.59	16.44	18.84	22.36	0020	12.095	0.633	0.089
0.880	65	03.84-	04.27	07.40	09.60	11.45	13.17	14.90	16.74	19.13	22.64	0020	13.956	0.686	0.283
0.880	70	02.70-	04.09	07.07	09.22	11.04	12.74	14.46	16.28	18.66	22.17	0020	13.787	0.767	0.412
0.880	75	07.74-	02.35	05.63	07.88	09.76	11.50	13.24	15.08	17.48	20.99	0020	12.998	0.932	0.157
0.880	80	08.93-	00.81	04.07	06.32	08.19	09.92	11.66	13.51	15.90	19.41	0020	11.809	1.219	0.156
0.880	85	01.82-	01.60	03.86	05.68	07.31	08.89	10.53	12.29	14.63	18.09	0020	10.940	1.543	1.015
0.880	90	00.00	02.35	04.17	05.76	07.24	08.72	10.28	12.00	14.28	17.71	0020	10.629	1.648	1.648

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.900	00	99.99-	11.13-	07.61-	05.27-	03.35-	01.59-	00.17	02.03	04.43	07.95	0020	04.522	6.521	0.000
0.900	05	02.35-	01.71-	01.02-	00.27-	00.56	01.50	02.62	03.97	05.92	09.07	0020	02.363	2.842	1.655
0.900	10	01.06	01.08	01.12	01.16	01.21	01.28	01.39	01.55	01.89	02.74	0020	00.131	1.950	2.488
0.900	15	03.47	03.64	03.84	04.08	04.39	04.79	05.33	06.07	07.32	09.71	0020	01.136	1.432	3.182
0.900	20	05.32	05.55	05.81	06.13	06.52	07.02	07.67	08.54	09.97	12.57	0020	01.762	1.081	3.680
0.900	25	06.58	06.65	06.75	06.86	07.02	07.22	07.51	07.94	08.72	10.45	0020	00.607	0.835	3.797
0.900	30	06.95	06.95	06.95	06.96	06.96	06.96	06.97	06.98	07.00	07.07	0020	00.010	0.675	3.344
0.900	35	05.98	06.01	06.03	06.07	06.11	06.17	06.26	06.40	06.69	07.44	0020	00.104	0.590	2.340
0.900	40	03.10	03.21	03.33	03.49	03.70	03.97	04.35	04.89	05.86	07.86	0020	00.256	0.566	1.155
0.900	45	02.44-	00.18-	01.61	03.17	04.64	06.11	07.67	09.37	11.65	15.08	0020	02.039	0.580	0.330
0.900	50	09.64-	01.12	04.43	06.70	08.58	10.32	12.07	13.92	16.31	19.83	0020	06.531	0.612	0.066
0.900	55	10.11-	03.31	06.72	09.02	10.92	12.67	14.42	16.28	18.67	22.19	0020	11.987	0.652	0.063
0.900	60	07.84-	04.30	07.67	09.96	11.85	13.59	15.35	17.19	19.59	23.11	0020	15.749	0.693	0.114
0.900	65	02.95-	04.83	07.93	10.12	11.96	13.67	15.40	17.23	19.62	23.13	0020	16.712	0.734	0.372
0.900	70	01.24-	04.68	07.53	09.62	11.41	13.09	14.80	16.62	18.99	22.49	0020	15.540	0.791	0.595
0.900	75	05.02-	02.83	05.94	08.13	09.98	11.69	13.42	15.26	17.64	21.15	0020	13.512	0.935	0.295
0.900	80	09.33-	00.69	03.97	06.22	08.10	09.83	11.58	13.42	15.81	19.33	0020	11.625	1.223	0.143
0.900	85	01.98-	01.36	03.59	05.40	07.02	08.60	10.23	11.99	14.32	17.79	0020	10.382	1.572	0.997
0.900	90	00.00	02.19	03.93	05.47	06.93	08.38	09.93	11.63	13.90	17.32	0020	09.956	1.690	1.690
0.916	00	99.99-	10.73-	07.21-	04.87-	02.95-	01.19-	00.57	02.43	04.83	08.35	0020	04.610	6.061	0.000
0.916	05	03.15-	02.38-	01.59-	00.74-	00.18	01.21	02.41	03.82	05.84	09.05	0020	02.383	2.843	1.377
0.916	10	00.33	00.37	00.42	00.49	00.57	00.69	00.85	01.11	01.61	02.81	0020	00.184	1.995	2.153
0.916	15	02.82	03.04	03.30	03.61	03.99	04.48	05.12	05.98	07.38	09.96	0020	01.325	1.491	2.857
0.916	20	04.78	05.04	05.34	05.70	06.14	06.68	07.39	08.33	09.83	12.52	0020	01.885	1.142	3.435
0.916	25	06.17	06.25	06.35	06.47	06.63	06.84	07.14	07.58	08.38	10.14	0020	00.612	0.891	3.693
0.916	30	06.73	06.73	06.73	06.74	06.74	06.74	06.74	06.75	06.77	06.81	0020	00.007	0.722	3.402
0.916	35	06.01	06.03	06.05	06.08	06.11	06.16	06.24	06.35	06.59	07.23	0020	00.090	0.628	2.505
0.916	40	03.44	03.57	03.73	03.92	04.16	04.48	04.92	05.54	06.62	08.79	0020	00.356	0.597	1.319
0.916	45	01.69-	00.55	02.32	03.87	05.34	06.80	08.35	10.06	12.34	15.76	0020	02.505	0.609	0.413
0.916	50	09.08-	01.41	04.71	06.97	08.85	10.59	12.33	14.18	16.57	20.09	0020	07.272	0.642	0.079
0.916	55	10.38-	03.27	06.69	08.99	10.90	12.65	14.40	16.25	18.65	22.17	0020	12.486	0.682	0.062
0.916	60	07.87-	04.05	07.41	09.70	11.59	13.34	15.09	16.94	19.33	22.85	0020	15.509	0.725	0.118
0.916	65	02.92-	04.45	07.50	09.67	11.51	13.22	14.94	16.77	19.16	22.66	0020	15.619	0.764	0.390
0.916	70	00.99-	04.28	07.01	09.06	10.82	12.48	14.18	15.99	18.36	21.85	0020	13.810	0.816	0.650
0.916	75	04.32-	02.31	05.28	07.41	09.23	10.92	12.64	14.47	16.85	20.35	0020	11.453	0.954	0.353
0.916	80	09.01-	00.12-	03.07	05.30	07.16	08.89	10.63	12.47	14.86	18.37	0020	09.464	1.242	0.156
0.916	85	02.01-	00.79	02.82	04.52	06.08	07.61	09.21	10.95	13.26	16.71	0020	08.220	1.600	1.008
0.916	90	00.00	01.77	03.29	04.68	06.04	07.43	08.92	10.58	12.81	16.21	0020	07.804	1.723	1.723

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.932	00	99.99-	10.06-	06.54-	04.20-	02.28-	00.52-	01.24	03.10	05.50	09.02	0020	04.692	5.290	0.000
0.932	05	03.95-	02.97-	02.00-	01.00-	00.05	01.20	02.49	03.99	06.08	09.36	0020	02.428	2.656	1.070
0.932	10	00.40-	00.34-	00.26-	00.16-	00.04-	00.13	00.37	00.74	01.42	02.97	0020	00.226	1.906	1.739
0.932	15	02.17	02.44	02.75	03.13	03.58	04.15	04.88	05.84	07.37	10.10	0020	01.385	1.452	2.391
0.932	20	04.20	04.50	04.84	05.24	05.73	06.33	07.09	08.09	09.67	12.45	0020	01.877	1.132	2.978
0.932	25	05.69	05.77	05.87	06.00	06.17	06.39	06.70	07.15	07.99	09.79	0020	00.580	0.897	3.323
0.932	30	06.37	06.37	06.37	06.37	06.37	06.37	06.37	06.38	06.39	06.41	0020	00.004	0.735	3.183
0.932	35	05.81	05.83	05.85	05.87	05.90	05.95	06.02	06.13	06.35	06.94	0020	00.080	0.642	2.446
0.932	40	03.46	03.61	03.79	04.01	04.28	04.64	05.13	05.81	06.98	09.26	0020	00.421	0.610	1.354
0.932	45	01.38-	00.83	02.59	04.14	05.60	07.06	08.61	10.31	12.58	16.01	0020	02.703	0.621	0.452
0.932	50	08.76-	01.38	04.66	06.92	08.80	10.53	12.28	14.12	16.52	20.03	0020	07.317	0.655	0.087
0.932	55	10.70-	02.98	06.39	08.70	10.60	12.35	14.10	15.95	18.35	21.87	0020	11.912	0.697	0.059
0.932	60	08.11-	03.56	06.91	09.19	11.08	12.83	14.58	16.42	18.82	22.34	0020	14.099	0.741	0.115
0.932	65	03.11-	03.82	06.82	08.98	10.80	12.50	14.22	16.05	18.43	21.94	0020	13.540	0.783	0.382
0.932	70	01.06-	03.62	06.23	08.22	09.95	11.59	13.27	15.07	17.43	20.92	0020	11.416	0.837	0.656
0.932	75	04.15-	01.51	04.32	06.39	08.17	09.85	11.55	13.37	15.74	19.23	0020	09.042	0.975	0.375
0.932	80	08.71-	01.16-	01.91	04.09	05.93	07.64	09.37	11.20	13.58	17.09	0020	07.178	1.265	0.170
0.932	85	02.01-	00.19	01.93	03.48	04.93	06.39	07.94	09.64	11.91	15.33	0020	06.062	1.628	1.026
0.932	90	00.00	01.34	02.58	03.79	05.00	06.28	07.69	09.28	11.46	14.81	0020	05.698	1.754	1.754
0.948	00	99.99-	09.34-	05.82-	03.48-	01.56-	00.20	01.96	03.82	06.22	09.74	0020	04.766	4.551	0.000
0.948	05	04.73-	03.47-	02.28-	01.12-	00.07	01.32	02.71	04.28	06.45	09.78	0020	02.476	2.429	0.816
0.948	10	01.11-	01.02-	00.92-	00.78-	00.61-	00.38-	00.05-	00.43	01.29	03.15	0020	00.255	1.781	1.378
0.948	15	01.52	01.85	02.23	02.67	03.19	03.84	04.66	05.71	07.34	10.18	0020	01.383	1.381	1.960
0.948	20	03.63	03.96	04.35	04.79	05.33	05.98	06.81	07.87	09.51	12.36	0020	01.816	1.095	2.524
0.948	25	05.19	05.28	05.39	05.52	05.69	05.92	06.25	06.73	07.59	09.44	0020	00.537	0.882	2.914
0.948	30	05.97	05.97	05.97	05.97	05.97	05.97	05.97	05.97	05.98	05.99	0020	00.002	0.732	2.892
0.948	35	05.54	05.56	05.58	05.60	05.63	05.68	05.74	05.85	06.06	06.63	0020	00.073	0.644	2.307
0.948	40	03.37	03.53	03.73	03.97	04.27	04.67	05.19	05.92	07.15	09.53	0020	00.463	0.613	1.332
0.948	45	01.25-	00.94	02.69	04.23	05.68	07.14	08.69	10.39	12.66	16.08	0020	02.765	0.625	0.468
0.948	50	08.58-	01.25	04.51	06.76	08.63	10.37	12.11	13.95	16.34	19.86	0020	07.080	0.659	0.091
0.948	55	11.02-	02.60	06.01	08.32	10.22	11.97	13.72	15.58	17.97	21.49	0020	11.008	0.703	0.056
0.948	60	08.41-	02.99	06.34	08.62	10.51	12.25	14.00	15.84	18.24	21.76	0020	12.472	0.750	0.108
0.948	65	03.39-	03.14	06.09	08.22	10.03	11.72	13.44	15.27	17.64	21.15	0020	11.455	0.795	0.364
0.948	70	01.24-	02.91	05.39	07.31	09.01	10.63	12.30	14.09	16.44	19.92	0020	09.225	0.853	0.641
0.948	75	04.20-	00.65	03.30	05.30	07.04	08.69	10.38	12.18	14.54	18.03	0020	06.983	0.994	0.378
0.948	80	08.50-	02.21-	00.70	02.82	04.62	06.31	08.02	09.85	12.22	15.72	0020	05.325	1.288	0.182
0.948	85	01.99-	00.34-	01.12	02.47	03.79	05.15	06.63	08.27	10.50	13.88	0020	04.373	1.654	1.045
0.948	90	00.00	00.98	01.96	02.96	04.02	05.16	06.46	07.96	10.06	13.34	0020	04.069	1.782	1.782

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.964	00	99.99-	08.67-	05.15-	02.81-	00.89-	00.87	02.63	04.49	06.89	10.42	0020	04.829	3.949	0.000
0.964	05	05.49-	03.89-	02.47-	01.15-	00.16	01.51	02.97	04.61	06.83	10.20	0020	02.520	2.223	0.628
0.964	10	01.79-	01.67-	01.53-	01.35-	01.12-	00.82-	00.41-	00.18	01.22	03.33	0020	00.275	1.661	1.100
0.964	15	00.91	01.30	01.74	02.25	02.85	03.56	04.46	05.59	07.31	10.24	0020	01.358	1.309	1.615
0.964	20	03.09	03.46	03.89	04.38	04.97	05.67	06.55	07.66	09.37	12.28	0020	01.742	1.054	2.146
0.964	25	04.72	04.82	04.93	05.07	05.25	05.49	05.83	06.32	07.22	09.11	0020	00.496	0.861	2.556
0.964	30	05.59	05.59	05.59	05.59	05.59	05.59	05.59	05.59	05.59	05.59	0020	00.000	0.724	2.618
0.964	35	05.27	05.29	05.30	05.33	05.36	05.40	05.47	05.57	05.77	06.33	0020	00.066	0.641	2.159
0.964	40	03.24	03.42	03.64	03.90	04.22	04.64	05.20	05.96	07.25	09.68	0020	00.489	0.612	1.292
0.964	45	01.20-	00.97	02.71	04.25	05.70	07.15	08.70	10.40	12.67	16.09	0020	02.768	0.624	0.473
0.964	50	08.48-	01.08	04.33	06.57	08.44	10.17	11.92	13.76	16.15	19.66	0020	06.770	0.659	0.094
0.964	55	11.33-	02.22	05.64	07.94	09.84	11.59	13.35	15.20	17.60	21.12	0020	10.114	0.704	0.052
0.964	60	08.70-	02.45	05.79	08.06	09.95	11.69	13.44	15.28	17.68	21.20	0020	11.016	0.754	0.102
0.964	65	03.67-	02.49	05.38	07.49	09.29	10.98	12.69	14.51	16.89	20.39	0020	09.708	0.802	0.345
0.964	70	01.45-	02.25	04.59	06.46	08.12	09.72	11.36	13.14	15.48	18.95	0020	07.483	0.865	0.620
0.964	75	04.31-	00.15-	02.33	04.26	05.96	07.58	09.25	11.04	13.39	16.87	0020	05.420	1.011	0.375
0.964	80	08.36-	03.15-	00.43-	01.61	03.37	05.03	06.73	08.54	10.90	14.39	0020	03.973	1.307	0.191
0.964	85	01.98-	00.74-	00.44	01.60	02.78	04.03	05.41	06.98	09.14	12.47	0020	03.174	1.676	1.062
0.964	90	00.00	00.72	01.48	02.29	03.18	04.18	05.35	06.74	08.74	11.93	0020	02.924	1.805	1.805
0.980	00	99.99-	08.10-	04.58-	02.24-	00.32-	01.44	03.20	05.06	07.46	10.98	0020	04.876	3.500	0.000
0.980	05	06.18-	04.22-	02.59-	01.12-	00.28	01.70	03.22	04.90	07.16	10.57	0020	02.554	2.060	0.496
0.980	10	02.39-	02.24-	02.06-	01.84-	01.56-	01.19-	00.70-	00.00-	01.18	03.48	0020	00.288	1.564	0.901
0.980	15	00.38	00.82	01.32	01.89	02.55	03.33	04.29	05.48	07.28	10.28	0020	01.327	1.249	1.362
0.980	20	02.62	03.03	03.50	04.04	04.66	05.41	06.33	07.49	09.24	12.21	0020	01.673	1.018	1.860
0.980	25	04.32	04.42	04.54	04.68	04.87	05.12	05.48	05.98	06.90	08.83	0020	00.462	0.842	2.277
0.980	30	05.26	05.26	05.26	05.26	05.26	05.26	05.26	05.26	05.26	05.26	0020	00.000	0.714	2.397
0.980	35	05.04	05.05	05.07	05.09	05.12	05.16	05.22	05.32	05.52	06.05	0020	00.059	0.637	2.031
0.980	40	03.12	03.31	03.54	03.81	04.16	04.59	05.17	05.97	07.29	09.77	0020	00.504	0.610	1.251
0.980	45	01.19-	00.97	02.71	04.24	05.69	07.14	08.68	10.38	12.65	16.08	0020	02.748	0.622	0.473
0.980	50	08.44-	00.93	04.16	06.40	08.27	10.00	11.74	13.58	15.97	19.49	0020	06.484	0.658	0.094
0.980	55	11.62-	01.90	05.31	07.62	09.52	11.27	13.02	14.87	17.27	20.79	0020	09.374	0.704	0.048
0.980	60	08.95-	01.99	05.31	07.58	09.47	11.21	12.95	14.80	17.19	20.71	0020	09.872	0.755	0.096
0.980	65	03.91-	01.93	04.78	06.87	08.65	10.33	12.04	13.86	16.23	19.73	0020	08.387	0.807	0.328
0.980	70	01.64-	01.69	03.91	05.72	07.34	08.92	10.55	12.31	14.64	18.10	0020	06.208	0.874	0.599
0.980	75	04.44-	00.82-	01.50	03.35	05.01	06.60	08.25	10.02	12.36	15.83	0020	04.307	1.023	0.368
0.980	80	08.26-	03.93-	01.41-	00.54	02.25	03.88	05.55	07.35	09.70	13.18	0020	03.034	1.322	0.197
0.980	85	01.97-	01.02-	00.07-	00.90	01.94	03.07	04.35	05.84	07.92	11.19	0020	02.356	1.693	1.076
0.980	90	00.00	00.53	01.12	01.78	02.52	03.38	04.42	05.70	07.57	10.65	0020	02.149	1.823	1.823

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.988	00	99.99-	07.87-	04.35-	02.01-	00.09-	01.67	03.43	05.29	07.69	11.21	0020	04.892	3.331	0.000
0.988	05	06.50-	04.36-	02.64-	01.11-	00.34	01.79	03.33	05.02	07.29	10.71	0020	02.567	1.998	0.447
0.988	10	02.66-	02.49-	02.29-	02.05-	01.74-	01.35-	00.81-	00.08-	01.16	03.55	0020	00.292	1.526	0.827
0.988	15	00.15	00.62	01.15	01.74	02.43	03.24	04.22	05.44	07.26	10.28	0020	01.312	1.225	1.268
0.988	20	02.43	02.86	03.34	03.89	04.53	05.30	06.24	07.42	09.19	12.17	0020	01.644	1.003	1.754
0.988	25	04.16	04.26	04.38	04.53	04.72	04.98	05.33	05.85	06.78	08.72	0020	00.449	0.833	2.172
0.988	30	05.13	05.13	05.13	05.13	05.13	05.13	05.13	05.13	05.13	05.13	0020	00.000	0.710	2.313
0.988	35	04.94	04.96	04.97	05.00	05.02	05.06	05.12	05.22	05.41	05.92	0020	00.056	0.635	1.981
0.988	40	03.07	03.27	03.50	03.78	04.12	04.57	05.16	05.96	07.30	09.79	0020	00.507	0.608	1.234
0.988	45	01.19-	00.97	02.70	04.23	05.68	07.13	08.67	10.37	12.64	16.06	0020	02.734	0.621	0.472
0.988	50	08.45-	00.86	04.09	06.33	08.20	09.93	11.67	13.51	15.90	19.42	0020	06.367	0.657	0.094
0.988	55	11.75-	01.77	05.18	07.49	09.39	11.14	12.89	14.74	17.14	20.66	0020	09.088	0.703	0.047
0.988	60	09.04-	01.80	05.12	07.39	09.27	11.01	12.76	14.60	17.00	20.52	0020	09.438	0.755	0.094
0.988	65	04.01-	01.71	04.53	06.61	08.39	10.07	11.77	13.59	15.96	19.46	0020	07.892	0.808	0.321
0.988	70	01.72-	01.46	03.63	05.41	07.02	08.58	10.21	11.96	14.29	17.75	0020	05.735	0.877	0.589
0.988	75	04.50-	01.10-	01.15	02.97	04.60	06.18	07.81	09.58	11.91	15.38	0020	03.896	1.027	0.365
0.988	80	08.23-	04.25-	01.83-	00.08	01.76	03.38	05.04	06.82	09.16	12.64	0020	02.688	1.327	0.200
0.988	85	01.97-	01.13-	00.28-	00.62	01.59	02.66	03.89	05.33	07.38	10.61	0020	02.054	1.700	1.081
0.988	90	00.00	00.47	00.98	01.57	02.25	03.05	04.03	05.24	07.05	10.07	0020	01.862	1.829	1.829
0.996	00	99.99-	07.69-	04.17-	01.82-	00.09	01.85	03.62	05.47	07.88	11.40	0020	04.904	3.199	0.000
0.996	05	06.79-	04.48-	02.68-	01.10-	00.38	01.85	03.41	05.12	07.40	10.83	0020	02.577	1.949	0.408
0.996	10	02.89-	02.71-	02.49-	02.23-	01.90-	01.48-	00.91-	00.14-	01.15	03.60	0020	00.295	1.496	0.769
0.996	15	00.04-	00.45	01.00	01.62	02.32	03.15	04.16	05.40	07.24	10.28	0020	01.297	1.206	1.195
0.996	20	02.27	02.71	03.21	03.78	04.43	05.21	06.17	07.36	09.15	12.15	0020	01.620	0.992	1.672
0.996	25	04.03	04.13	04.26	04.41	04.60	04.86	05.22	05.74	06.68	08.64	0020	00.439	0.827	2.092
0.996	30	05.03	05.03	05.03	05.03	05.03	05.03	05.03	05.03	05.03	05.03	0020	00.000	0.706	2.249
0.996	35	04.87	04.89	04.90	04.92	04.95	04.99	05.04	05.13	05.31	05.81	0020	00.052	0.632	1.943
0.996	40	03.03	03.23	03.46	03.75	04.10	04.55	05.14	05.95	07.29	09.80	0020	00.507	0.607	1.220
0.996	45	01.20-	00.96	02.69	04.22	05.67	07.12	08.66	10.36	12.63	16.05	0020	02.721	0.619	0.470
0.996	50	08.47-	00.81	04.04	06.28	08.15	09.87	11.61	13.46	15.85	19.36	0020	06.276	0.656	0.093
0.996	55	11.87-	01.67	05.08	07.38	09.29	11.04	12.79	14.64	17.04	20.56	0020	08.870	0.703	0.046
0.996	60	09.11-	01.65	04.97	07.24	09.12	10.86	12.61	14.45	16.85	20.36	0020	09.111	0.755	0.093
0.996	65	04.09-	01.53	04.33	06.41	08.19	09.86	11.56	13.38	15.75	19.24	0020	07.516	0.809	0.315
0.996	70	01.79-	01.27	03.40	05.16	06.75	08.31	09.92	11.68	14.00	17.45	0020	05.370	0.879	0.582
0.996	75	04.56-	01.33-	00.85	02.64	04.25	05.82	07.44	09.20	11.53	14.99	0020	03.573	1.031	0.361
0.996	80	08.20-	04.53-	02.19-	00.33-	01.33	02.93	04.57	06.35	08.69	12.16	0020	02.410	1.331	0.202
0.996	85	01.96-	01.22-	00.45-	00.38	01.28	02.30	03.48	04.88	06.88	10.08	0020	01.807	1.704	1.085
0.996	90	00.00	00.41	00.87	01.40	02.02	02.76	03.68	04.83	06.58	09.54	0020	01.627	1.833	1.833

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										DIPOLE CROSS-SECTION			
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.004	00	99.99-	07.56-	04.03-	01.69-	00.23	01.99	03.75	05.60	08.01	11.53	0020	04.909	3.107	0.000
1.004	05	07.04-	04.59-	02.72-	01.10-	00.40	01.89	03.46	05.18	07.48	10.91	0020	02.585	1.917	0.379
1.004	10	03.08-	02.88-	02.65-	02.37-	02.03-	01.58-	00.99-	00.19-	01.14	03.63	0020	00.298	1.477	0.727
1.004	15	00.18-	00.33	00.89	01.52	02.24	03.08	04.10	05.36	07.21	10.27	0020	01.283	1.193	1.145
1.004	20	02.16	02.61	03.12	03.70	04.36	05.15	06.12	07.32	09.12	12.12	0020	01.602	0.984	1.618
1.004	25	03.95	04.05	04.18	04.33	04.53	04.79	05.15	05.68	06.62	08.60	0020	00.434	0.822	2.041
1.004	30	04.97	04.97	04.97	04.97	04.97	04.97	04.97	04.97	04.97	04.97	0020	00.000	0.703	2.208
1.004	35	04.83	04.84	04.86	04.88	04.90	04.94	04.99	05.08	05.25	05.72	0020	00.048	0.631	1.919
1.004	40	03.01	03.21	03.44	03.72	04.08	04.52	05.12	05.93	07.27	09.78	0020	00.504	0.605	1.210
1.004	45	01.21-	00.95	02.68	04.21	05.66	07.11	08.65	10.35	12.62	16.04	0020	02.708	0.618	0.468
1.004	50	08.52-	00.78	04.01	06.25	08.11	09.84	11.58	13.42	15.81	19.33	0020	06.218	0.654	0.092
1.004	55	11.97-	01.60	05.02	07.32	09.22	10.97	12.73	14.58	16.98	20.50	0020	08.736	0.702	0.045
1.004	60	09.16-	01.56	04.88	07.14	09.03	10.77	12.51	14.36	16.75	20.27	0020	08.905	0.754	0.092
1.004	65	04.14-	01.41	04.20	06.27	08.05	09.72	11.42	13.23	15.60	19.10	0020	07.271	0.809	0.312
1.004	70	01.84-	01.14	03.24	04.98	06.56	08.11	09.72	11.47	13.79	17.24	0020	05.120	0.880	0.575
1.004	75	04.61-	01.51-	00.63	02.39	03.98	05.54	07.16	08.91	11.23	14.69	0020	03.340	1.033	0.358
1.004	80	08.17-	04.74-	02.48-	00.66-	00.97	02.55	04.19	05.96	08.29	11.76	0020	02.199	1.334	0.203
1.004	85	01.95-	01.29-	00.59-	00.18	01.03	01.99	03.13	04.49	06.45	09.61	0020	01.613	1.706	1.088
1.004	90	00.00	00.36	00.78	01.26	01.83	02.51	03.38	04.48	06.16	09.06	0020	01.438	1.835	1.835
1.016	00	99.99-	07.50-	03.98-	01.63-	00.28	02.05	03.81	05.66	08.07	11.59	0020	04.907	3.064	0.000
1.016	05	07.26-	04.70-	02.78-	01.14-	00.39	01.89	03.47	05.20	07.50	10.94	0020	02.593	1.909	0.358
1.016	10	03.20-	03.00-	02.76-	02.47-	02.12-	01.66-	01.05-	00.23-	01.12	03.65	0020	00.301	1.472	0.704
1.016	15	00.25-	00.26	00.83	01.46	02.18	03.03	04.05	05.30	07.16	10.22	0020	01.266	1.190	1.124
1.016	20	02.13	02.58	03.09	03.67	04.34	05.13	06.09	07.29	09.09	12.10	0020	01.591	0.981	1.603
1.016	25	03.95	04.05	04.17	04.33	04.53	04.79	05.16	05.69	06.64	08.61	0020	00.436	0.820	2.034
1.016	30	04.98	04.98	04.98	04.98	04.98	04.98	04.98	04.98	04.98	04.98	0020	00.000	0.701	2.207
1.016	35	04.84	04.85	04.87	04.88	04.91	04.94	04.99	05.06	05.21	05.64	0020	00.043	0.629	1.918
1.016	40	03.01	03.20	03.43	03.71	04.06	04.50	05.08	05.89	07.21	09.71	0020	00.493	0.604	1.208
1.016	45	01.24-	00.93	02.66	04.19	05.64	07.09	08.64	10.33	12.61	16.03	0020	02.696	0.617	0.464
1.016	50	08.64-	00.77	04.00	06.25	08.11	09.84	11.58	13.43	15.82	19.33	0020	06.215	0.653	0.089
1.016	55	12.07-	01.61	05.02	07.33	09.23	10.98	12.74	14.59	16.99	20.50	0020	08.740	0.701	0.044
1.016	60	09.15-	01.56	04.87	07.14	09.02	10.76	12.51	14.35	16.75	20.27	0020	08.891	0.754	0.092
1.016	65	04.15-	01.39	04.17	06.24	08.02	09.69	11.39	13.20	15.57	19.07	0020	07.215	0.809	0.311
1.016	70	01.89-	01.08	03.16	04.90	06.48	08.03	09.64	11.38	13.70	17.15	0020	05.017	0.880	0.570
1.016	75	04.67-	01.64-	00.47	02.22	03.81	05.36	06.98	08.73	11.05	14.50	0020	03.202	1.034	0.353
1.016	80	08.13-	04.90-	02.71-	00.92-	00.69	02.26	03.88	05.64	07.97	11.43	0020	02.040	1.335	0.205
1.016	85	01.95-	01.35-	00.70-	00.01	00.80	01.72	02.81	04.13	06.05	09.17	0020	01.445	1.706	1.090
1.016	90	00.00	00.32	00.69	01.13	01.65	02.28	03.09	04.13	05.76	08.58	0020	01.268	1.834	1.835

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										DIPOLE CROSS-SECTION			
		$f_v = 0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.024	00	99.99-	07.60-	04.08-	01.74-	00.18	01.94	03.70	05.56	07.96	11.48	0020	04.901	3.134	0.000
1.024	05	07.20-	04.69-	02.80-	01.17-	00.34	01.84	03.42	05.14	07.43	10.87	0020	02.597	1.942	0.371
1.024	10	03.11-	02.92-	02.68-	02.40-	02.05-	01.61-	01.01-	00.21-	01.13	03.63	0020	00.302	1.493	0.730
1.024	15	00.15-	00.35	00.89	01.51	02.21	03.03	04.04	05.27	07.11	10.15	0020	01.256	1.204	1.164
1.024	20	02.24	02.68	03.18	03.74	04.40	05.17	06.12	07.31	09.10	12.10	0020	01.598	0.989	1.658
1.024	25	04.05	04.15	04.28	04.43	04.63	04.89	05.26	05.79	06.73	08.71	0020	00.447	0.824	2.095
1.024	30	05.07	05.07	05.07	05.07	05.07	05.08	05.08	05.08	05.08	05.10	0020	00.002	0.703	2.261
1.024	35	04.91	04.92	04.94	04.95	04.97	05.00	05.04	05.11	05.25	05.64	0020	00.039	0.630	1.952
1.024	40	03.05	03.23	03.45	03.72	04.06	04.49	05.06	05.85	07.15	09.62	0020	00.479	0.604	1.218
1.024	45	01.26-	00.91	02.65	04.18	05.63	07.09	08.63	10.33	12.60	16.02	0020	02.695	0.617	0.462
1.024	50	08.76-	00.80	04.05	06.29	08.16	09.89	11.64	13.48	15.87	19.38	0020	06.294	0.654	0.087
1.024	55	12.07-	01.70	05.12	07.42	09.32	11.07	12.83	14.68	17.08	20.60	0020	08.935	0.701	0.043
1.024	60	09.08-	01.69	05.00	07.27	09.15	10.89	12.64	14.48	16.88	20.39	0020	09.160	0.754	0.093
1.024	65	04.10-	01.51	04.32	06.39	08.17	09.84	11.54	13.36	15.73	19.23	0020	07.481	0.809	0.314
1.024	70	01.88-	01.16	03.29	05.04	06.63	08.18	09.80	11.55	13.87	17.33	0020	05.223	0.880	0.571
1.024	75	04.71-	01.57-	00.58	02.35	03.96	05.52	07.14	08.89	11.21	14.67	0020	03.333	1.034	0.350
1.024	80	08.11-	04.81-	02.60-	00.80-	00.82	02.39	04.02	05.79	08.11	11.58	0020	02.111	1.335	0.206
1.024	85	01.94-	01.33-	00.67-	00.05	00.86	01.78	02.88	04.21	06.14	09.27	0020	01.480	1.705	1.091
1.024	90	00.00	00.33	00.70	01.15	01.67	02.32	03.13	04.18	05.82	08.66	0020	01.291	1.832	1.832
1.040	00	99.99-	08.41-	04.89-	02.55-	00.63-	01.13	02.89	04.75	07.15	10.67	0020	04.903	3.782	0.000
1.040	05	06.03-	04.18-	02.61-	01.19-	00.19	01.59	03.10	04.77	07.01	10.41	0020	02.620	2.194	0.547
1.040	10	02.14-	02.00-	01.82-	01.61-	01.34-	00.99-	00.51-	00.15	01.31	03.57	0020	00.305	1.647	1.006
1.040	15	00.70	01.07	01.50	02.00	02.58	03.29	04.17	05.28	06.99	09.91	0020	01.246	1.302	1.528
1.040	20	02.97	03.34	03.76	04.25	04.83	05.52	06.39	07.50	09.20	12.10	0020	01.661	1.050	2.082
1.040	25	04.68	04.78	04.90	05.05	05.24	05.49	05.85	06.36	07.29	09.23	0020	00.518	0.859	2.523
1.040	30	05.58	05.59	05.59	05.60	05.60	05.61	05.63	05.65	05.70	05.84	0020	00.018	0.722	2.611
1.040	35	05.28	05.29	05.29	05.31	05.32	05.35	05.38	05.44	05.55	05.87	0020	00.035	0.640	2.159
1.040	40	03.22	03.38	03.58	03.82	04.11	04.50	05.02	05.74	06.96	09.32	0020	00.440	0.612	1.286
1.040	45	01.33-	00.87	02.62	04.16	05.62	07.08	08.62	10.32	12.60	16.02	0020	02.731	0.626	0.461
1.040	50	09.10-	01.00	04.28	06.54	08.41	10.15	11.89	13.74	16.13	19.65	0020	06.772	0.662	0.082
1.040	55	11.75-	02.19	05.61	07.92	09.82	11.57	13.33	15.18	17.58	21.10	0020	10.129	0.709	0.047
1.040	60	08.54-	02.41	05.73	08.00	09.89	11.63	13.37	15.22	17.62	21.13	0020	10.945	0.760	0.106
1.040	65	03.80-	02.33	05.22	07.33	09.13	10.81	12.52	14.34	16.72	20.22	0020	09.463	0.813	0.339
1.040	70	01.79-	01.90	04.24	06.11	07.77	09.37	11.01	12.79	15.13	18.60	0020	07.052	0.884	0.585
1.040	75	04.78-	00.70-	01.76	03.68	05.38	06.99	08.66	10.44	12.79	16.27	0020	04.854	1.039	0.346
1.040	80	08.05-	03.63-	01.08-	00.88	02.60	04.23	05.90	07.70	10.05	13.54	0020	03.338	1.340	0.210
1.040	85	01.91-	00.93-	00.05	01.06	02.11	03.26	04.55	06.06	08.15	11.43	0020	02.515	1.707	1.099
1.040	90	00.00	00.56	01.17	01.84	02.61	03.49	04.55	05.84	07.73	10.83	0020	02.261	1.833	1.833

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.050	00	99.99-	09.53-	06.01-	03.67-	01.75-	00.01	01.77	03.63	06.03	09.55	0020	04.958	4.944	0.000
1.050	05	04.62-	03.38-	02.21-	01.06-	00.12	01.36	02.74	04.31	06.47	09.80	0020	02.667	2.607	0.901
1.050	10	00.94-	00.84-	00.72-	00.58-	00.39-	00.14-	00.21	00.72	01.63	03.56	0020	00.309	1.896	1.528
1.050	15	01.74	02.01	02.32	02.69	03.14	03.71	04.43	05.39	06.91	09.63	0020	01.249	1.459	2.177
1.050	20	03.87	04.17	04.51	04.91	05.39	05.99	06.76	07.76	09.33	12.11	0020	01.759	1.148	2.800
1.050	25	05.44	05.54	05.65	05.80	05.98	06.23	06.58	07.08	07.99	09.90	0020	00.640	0.917	3.210
1.050	30	06.19	06.20	06.21	06.23	06.24	06.27	06.31	06.37	06.51	06.87	0020	00.059	0.756	3.144
1.050	35	05.70	05.70	05.71	05.72	05.74	05.76	05.79	05.84	05.94	06.22	0020	00.035	0.663	2.460
1.050	40	03.41	03.55	03.72	03.93	04.19	04.53	05.00	05.66	06.80	09.04	0020	00.409	0.631	1.384
1.050	45	01.40-	00.82	02.58	04.13	05.59	07.06	08.60	10.31	12.58	16.01	0020	02.804	0.644	0.466
1.050	50	09.30-	01.25	04.55	06.82	08.70	10.44	12.18	14.03	16.42	19.94	0020	07.446	0.681	0.080
1.050	55	11.07-	02.78	06.20	08.51	10.41	12.16	13.92	15.77	18.17	21.69	0020	11.885	0.726	0.057
1.050	60	07.69-	03.30	06.63	08.90	10.79	12.53	14.27	16.12	18.52	22.03	0020	13.738	0.775	0.132
1.050	65	03.37-	03.38	06.36	08.51	10.32	12.02	13.74	15.57	17.95	21.45	0020	12.776	0.826	0.380
1.050	70	01.68-	02.92	05.52	07.50	09.22	10.87	12.55	14.34	16.70	20.19	0020	10.326	0.896	0.608
1.050	75	04.85-	00.60	03.37	05.43	07.20	08.87	10.57	12.38	14.75	18.25	0020	07.780	1.053	0.345
1.050	80	08.01-	01.95-	00.93	03.03	04.83	06.51	08.22	10.04	12.42	15.92	0020	05.872	1.358	0.215
1.050	85	01.89-	00.21-	01.26	02.63	03.96	05.33	06.80	08.45	10.68	14.07	0020	04.773	1.728	1.117
1.050	90	00.00	01.02	02.03	03.06	04.13	05.30	06.61	08.12	10.23	13.52	0020	04.422	1.853	1.853
1.060	00	99.99-	11.09-	07.57-	05.23-	03.31-	01.55-	00.21	02.07	04.47	07.99	0020	05.139	7.346	0.000
1.060	05	03.14-	02.40-	01.63-	00.80-	00.11	01.12	02.30	03.71	05.71	08.91	0020	02.779	3.431	1.663
1.060	10	00.42	00.48	00.55	00.64	00.75	00.91	01.14	01.48	02.12	03.60	0020	00.316	2.389	2.630
1.060	15	02.99	03.16	03.36	03.61	03.92	04.32	04.85	05.60	06.85	09.24	0020	01.260	1.770	3.522
1.060	20	05.01	05.23	05.48	05.79	06.17	06.64	07.28	08.13	09.52	12.09	0020	01.938	1.341	4.253
1.060	25	06.45	06.54	06.66	06.80	06.99	07.23	07.58	08.08	08.98	10.89	0020	00.903	1.034	4.563
1.060	30	07.02	07.04	07.06	07.09	07.13	07.19	07.28	07.41	07.68	08.39	0020	00.172	0.827	4.162
1.060	35	06.26	06.27	06.28	06.29	06.30	06.32	06.35	06.40	06.49	06.76	0020	00.041	0.713	3.014
1.060	40	03.64	03.76	03.90	04.07	04.30	04.59	04.99	05.57	06.60	08.68	0020	00.380	0.675	1.560
1.060	45	01.53-	00.72	02.49	04.05	05.51	06.98	08.53	10.24	12.52	15.94	0020	02.944	0.687	0.483
1.060	50	09.34-	01.60	04.92	07.19	09.08	10.82	12.56	14.41	16.80	20.32	0020	08.639	0.723	0.084
1.060	55	09.82-	03.62	07.03	09.33	11.23	12.98	14.74	16.59	18.99	22.50	0020	15.153	0.767	0.080
1.060	60	06.26-	04.56	07.88	10.15	12.03	13.77	15.52	17.37	19.76	23.28	0020	19.165	0.812	0.192
1.060	65	02.68-	04.85	07.93	10.11	11.94	13.65	15.38	17.21	19.60	23.11	0020	19.447	0.858	0.463
1.060	70	01.54-	04.39	07.25	09.35	11.14	12.82	14.53	16.34	18.72	22.22	0020	17.120	0.929	0.651
1.060	75	05.00-	02.40	05.46	07.64	09.47	11.18	12.91	14.74	17.12	20.63	0020	14.009	1.094	0.346
1.060	80	07.99-	00.24	03.38	05.58	07.43	09.15	10.89	12.72	15.11	18.62	0020	11.383	1.410	0.224
1.060	85	01.88-	00.98	03.03	04.75	06.31	07.85	09.45	11.20	13.51	16.96	0020	09.754	1.791	1.163
1.060	90	00.00	01.86	03.42	04.85	06.23	07.63	09.14	10.80	13.05	16.45	0020	09.215	1.921	1.921

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.161	00	99.99-	06.11-	02.59-	00.24-	01.67	03.44	05.20	07.05	09.46	12.98	0100	00.027	0.012	0.000
0.161	10	11.82-	04.67-	01.64-	00.53	02.35	04.06	05.78	07.61	09.99	13.50	0100	00.026	0.010	0.001
0.161	20	08.96-	04.25-	01.63-	00.36	02.09	03.74	05.42	07.22	09.58	13.07	0100	00.022	0.010	0.001
0.161	30	06.70-	03.87-	01.83-	00.12-	01.44	02.98	04.58	06.32	08.63	12.08	0100	00.017	0.010	0.002
0.161	40	04.75-	03.23-	01.86-	00.57-	00.71	02.04	03.49	05.11	07.32	10.69	0100	00.012	0.010	0.003
0.161	50	03.08-	02.32-	01.53-	00.69-	00.23	01.26	02.45	03.86	05.87	09.07	0100	00.008	0.010	0.005
0.161	60	01.73-	01.35-	00.92-	00.42-	00.16	00.87	01.75	02.87	04.58	07.50	0100	00.005	0.010	0.007
0.161	70	00.73-	00.52-	00.27-	00.03	00.40	00.87	01.49	02.33	03.71	06.26	0100	00.004	0.010	0.008
0.161	80	00.10-	00.05	00.22	00.42	00.69	01.03	01.50	02.16	03.30	05.55	0100	00.003	0.010	0.010
0.161	90	00.00	00.12	00.27	00.45	00.69	00.99	01.42	02.02	03.07	05.21	0100	00.003	0.010	0.010
0.169	00	99.99-	05.97-	02.45-	00.10-	01.81	03.58	05.34	07.19	09.60	13.12	0100	00.043	0.019	0.000
0.169	10	12.35-	04.71-	01.62-	00.56	02.40	04.11	05.84	07.68	10.06	13.57	0100	00.041	0.016	0.001
0.169	20	09.38-	04.38-	01.70-	00.32	02.07	03.73	05.42	07.22	09.59	13.08	0100	00.035	0.015	0.002
0.169	30	07.02-	04.06-	01.97-	00.24-	01.34	02.88	04.50	06.24	08.56	12.01	0100	00.026	0.015	0.003
0.169	40	04.97-	03.43-	02.06-	00.76-	00.53	01.86	03.31	04.93	07.14	10.52	0100	00.018	0.015	0.005
0.169	50	03.22-	02.49-	01.72-	00.90-	00.00	01.01	02.19	03.58	05.58	08.78	0100	00.012	0.015	0.007
0.169	60	01.81-	01.46-	01.07-	00.60-	00.05-	00.62	01.46	02.54	04.21	07.08	0100	00.008	0.016	0.010
0.169	70	00.78-	00.59-	00.37-	00.11-	00.22	00.65	01.22	02.00	03.29	05.75	0100	00.005	0.016	0.013
0.169	80	00.12-	00.00-	00.14	00.32	00.55	00.85	01.27	01.86	02.89	05.00	0100	00.004	0.016	0.015
0.169	90	00.00	00.10	00.23	00.38	00.58	00.84	01.21	01.74	02.69	04.67	0100	00.003	0.016	0.016
0.177	00	99.99-	05.83-	02.31-	00.03	01.95	03.71	05.47	07.33	09.73	13.25	0100	00.069	0.030	0.000
0.177	10	12.90-	04.74-	01.60-	00.60	02.45	04.17	05.90	07.74	10.13	13.63	0100	00.065	0.026	0.001
0.177	20	09.81-	04.50-	01.76-	00.29	02.05	03.72	05.42	07.23	09.59	13.09	0100	00.055	0.024	0.003
0.177	30	07.34-	04.25-	02.12-	00.36-	01.24	02.79	04.41	06.17	08.49	11.94	0100	00.041	0.024	0.004
0.177	40	05.19-	03.64-	02.26-	00.95-	00.34	01.68	03.13	04.76	06.97	10.34	0100	00.028	0.024	0.007
0.177	50	03.36-	02.66-	01.91-	01.11-	00.23-	00.76	01.92	03.31	05.30	08.48	0100	00.018	0.024	0.011
0.177	60	01.90-	01.58-	01.21-	00.78-	00.26-	00.37	01.17	02.21	03.83	06.65	0100	00.011	0.025	0.016
0.177	70	00.82-	00.66-	00.47-	00.23-	00.06	00.44	00.96	01.68	02.89	05.24	0100	00.007	0.025	0.021
0.177	80	00.14-	00.04-	00.08	00.23	00.43	00.68	01.05	01.57	02.51	04.47	0100	00.005	0.025	0.025
0.177	90	00.00	00.08	00.19	00.32	00.49	00.71	01.03	01.49	02.33	04.15	0100	00.005	0.026	0.026
0.185	00	99.99-	05.70-	02.18-	00.16	02.08	03.84	05.60	07.45	09.86	13.38	0100	00.113	0.047	0.000
0.185	10	13.47-	04.77-	01.58-	00.64	02.50	04.22	05.96	07.80	10.19	13.70	0100	00.106	0.041	0.002
0.185	20	10.25-	04.62-	01.81-	00.26	02.04	03.71	05.42	07.23	09.60	13.10	0100	00.088	0.039	0.004
0.185	30	07.66-	04.44-	02.26-	00.47-	01.14	02.70	04.33	06.09	08.41	11.88	0100	00.065	0.039	0.007
0.185	40	05.41-	03.85-	02.45-	01.14-	00.15	01.49	02.95	04.58	06.79	10.17	0100	00.044	0.039	0.011
0.185	50	03.51-	02.83-	02.10-	01.32-	00.46-	00.52	01.66	03.03	05.01	08.18	0100	00.027	0.040	0.018
0.185	60	01.98-	01.69-	01.35-	00.95-	00.47-	00.13	00.89	01.89	03.46	06.23	0100	00.016	0.040	0.026
0.185	70	00.86-	00.72-	00.56-	00.35-	00.19-	00.25	00.72	01.37	02.50	04.74	0100	00.010	0.041	0.034
0.185	80	00.17-	00.08-	00.02	00.15	00.31	00.53	00.84	01.30	02.14	03.94	0100	00.007	0.041	0.040
0.185	90	00.00	00.07	00.16	00.26	00.40	00.59	00.86	01.26	02.00	03.64	0100	00.006	0.042	0.042

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.189	00	99.99-	05.64-	02.12-	00.22	02.14	03.90	05.66	07.52	09.92	13.44	0100	00.145	0.059	0.000
0.189	10	13.77-	04.78-	01.57-	00.66	02.52	04.25	05.99	07.83	10.22	13.73	0100	00.136	0.052	0.002
0.189	20	10.47-	04.67-	01.84-	00.25	02.03	03.71	05.42	07.23	09.60	13.10	0100	00.113	0.050	0.004
0.189	30	07.82-	04.54-	02.33-	00.53-	01.09	02.66	04.29	06.05	08.38	11.84	0100	00.083	0.049	0.008
0.189	40	05.52-	03.95-	02.55-	01.24-	00.06	01.40	02.86	04.49	06.70	10.08	0100	00.055	0.050	0.014
0.189	50	03.58-	02.91-	02.20-	01.43-	00.57-	00.39	01.53	02.90	04.86	08.02	0100	00.033	0.051	0.022
0.189	60	02.02-	01.74-	01.42-	01.03-	00.57-	00.01	00.75	01.73	03.27	06.02	0100	00.019	0.052	0.032
0.189	70	00.88-	00.76-	00.60-	00.41-	00.16-	00.16	00.60	01.22	02.31	04.49	0100	00.012	0.053	0.043
0.189	80	00.18-	00.10-	00.01-	00.11	00.26	00.46	00.75	01.18	01.96	03.68	0100	00.008	0.053	0.051
0.189	90	00.00	00.06	00.14	00.24	00.37	00.54	00.78	01.15	01.84	03.40	0100	00.007	0.054	0.054
0.193	00	99.99-	05.58-	02.06-	00.28	02.20	03.96	05.72	07.58	09.98	13.50	0100	00.187	0.075	0.000
0.193	10	14.06-	04.78-	01.56-	00.68	02.55	04.28	06.02	07.86	10.25	13.76	0100	00.175	0.066	0.003
0.193	20	10.69-	04.73-	01.86-	00.23	02.02	03.71	05.41	07.23	09.61	13.11	0100	00.144	0.064	0.005
0.193	30	07.98-	04.63-	02.40-	00.59-	01.04	02.61	04.25	06.01	08.34	11.81	0100	00.105	0.063	0.010
0.193	40	05.63-	04.05-	02.65-	01.33-	00.03-	01.31	02.77	04.40	06.62	09.99	0100	00.069	0.064	0.017
0.193	50	03.65-	02.99-	02.29-	01.53-	00.69-	00.27	01.40	02.76	04.72	07.87	0100	00.041	0.065	0.028
0.193	60	02.06-	01.80-	01.48-	01.11-	00.67-	00.11-	00.62	01.57	03.09	05.80	0100	00.024	0.067	0.041
0.193	70	00.91-	00.79-	00.64-	00.46-	00.23-	00.07	00.49	01.08	02.12	04.24	0100	00.014	0.068	0.055
0.193	80	00.19-	00.12-	00.04-	00.07	00.21	00.40	00.66	01.06	01.79	03.43	0100	00.010	0.069	0.066
0.193	90	00.00	00.06	00.13	00.22	00.33	00.49	00.71	01.05	01.69	03.16	0100	00.008	0.070	0.070
0.197	00	99.99-	05.52-	02.00-	00.34	02.26	04.02	05.78	07.64	10.04	13.56	0100	00.241	0.096	0.000
0.197	10	14.37-	04.79-	01.54-	00.70	02.57	04.30	06.05	07.89	10.28	13.79	0100	00.226	0.085	0.003
0.197	20	10.92-	04.78-	01.89-	00.22	02.02	03.70	05.41	07.24	09.61	13.11	0100	00.185	0.082	0.007
0.197	30	08.15-	04.72-	02.47-	00.65-	00.99	02.57	04.20	05.97	08.30	11.77	0100	00.134	0.081	0.012
0.197	40	05.75-	04.16-	02.75-	01.43-	00.13-	01.22	02.68	04.31	06.53	09.90	0100	00.087	0.082	0.022
0.197	50	03.72-	03.08-	02.39-	01.64-	00.80-	00.15	01.27	02.62	04.57	07.72	0100	00.051	0.084	0.036
0.197	60	02.10-	01.85-	01.55-	01.20-	00.76-	00.22-	00.48	01.41	02.90	05.59	0100	00.029	0.086	0.053
0.197	70	00.93-	00.81-	00.68-	00.51-	00.30-	00.01-	00.38	00.94	01.94	03.99	0100	00.017	0.088	0.071
0.197	80	00.20-	00.14-	00.06-	00.04	00.16	00.33	00.58	00.94	01.63	03.18	0100	00.011	0.089	0.085
0.197	90	00.00	00.05	00.11	00.19	00.30	00.44	00.64	00.95	01.54	02.92	0100	00.010	0.090	0.090
0.201	00	99.99-	05.46-	01.94-	00.40	02.32	04.08	05.84	07.70	10.10	13.62	0100	00.312	0.122	0.000
0.201	10	14.67-	04.79-	01.53-	00.72	02.60	04.33	06.07	07.92	10.31	13.82	0100	00.291	0.109	0.004
0.201	20	11.15-	04.83-	01.91-	00.21	02.01	03.70	05.41	07.24	09.61	13.12	0100	00.238	0.105	0.008
0.201	30	08.31-	04.82-	02.54-	00.70-	00.94	02.52	04.16	05.93	08.27	11.74	0100	00.171	0.104	0.015
0.201	40	05.86-	04.26-	02.85-	01.53-	00.22-	01.12	02.58	04.22	06.44	09.81	0100	00.109	0.105	0.027
0.201	50	03.79-	03.16-	02.48-	01.74-	00.92-	00.02	01.14	02.48	04.42	07.56	0100	00.063	0.108	0.045
0.201	60	02.14-	01.90-	01.62-	01.28-	00.86-	00.34-	00.34	01.25	02.72	05.37	0100	00.035	0.111	0.068
0.201	70	00.95-	00.84-	00.72-	00.56-	00.36-	00.10-	00.27	00.80	01.76	03.74	0100	00.020	0.113	0.091
0.201	80	00.21-	00.15-	00.08-	00.00	00.12	00.27	00.50	00.83	01.47	02.94	0100	00.013	0.115	0.110
0.201	90	00.00	00.05	00.10	00.17	00.27	00.40	00.58	00.86	01.40	02.69	0100	00.011	0.117	0.117

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.209	00	99.99-	05.35-	01.83-	00.51	02.43	04.19	05.96	07.81	10.21	13.74	0100	00.515	0.196	0.000
0.209	10	15.31	04.80-	01.50-	00.77	02.65	04.39	06.13	07.98	10.37	13.89	0100	00.480	0.177	0.005
0.209	20	11.62-	04.03-	01.96-	00.18	02.00	03.70	05.41	07.24	09.62	13.12	0100	00.389	0.171	0.012
0.209	30	08.65-	05.00-	02.67-	00.82-	00.84	02.43	04.08	05.85	08.19	11.66	0100	00.275	0.170	0.023
0.209	40	06.09-	04.48-	03.06-	01.73-	00.42-	00.93	02.40	04.03	06.25	09.63	0100	00.172	0.173	0.043
0.209	50	03.93-	03.83-	02.67-	01.95-	01.15-	00.23-	00.87	02.19	04.12	07.25	0100	00.097	0.177	0.072
0.209	60	02.22-	02.81-	01.75-	01.44-	01.05-	00.57-	00.07	00.93	02.34	04.92	0100	00.051	0.182	0.109
0.209	70	00.99-	00.90-	00.79-	00.66-	00.47-	00.26-	00.07	00.54	01.40	03.25	0100	00.027	0.187	0.149
0.209	80	00.23-	00.18-	00.13-	00.06-	00.04	00.17	00.35	00.63	01.18	02.47	0100	00.017	0.190	0.181
0.209	90	00.00	00.04	00.08	00.14	00.21	00.32	00.47	00.70	01.15	02.26	0100	00.015	0.193	0.193
0.217	00	99.99-	05.24-	01.72-	00.62	02.54	04.30	06.06	07.92	10.32	13.85	0100	00.798	0.296	0.000
0.217	10	15.98-	04.80-	01.46-	00.81	02.70	04.44	06.19	08.03	10.43	13.95	0100	00.741	0.269	0.007
0.217	20	12.09-	05.02-	02.00-	00.16	01.93	03.69	05.41	07.24	09.62	13.13	0100	00.595	0.261	0.016
0.217	30	08.99-	05.19-	02.81-	00.93-	00.74	02.34	04.00	05.78	08.12	11.59	0100	00.414	0.261	0.033
0.217	40	06.32-	04.69-	03.26-	01.93-	00.61-	00.74	02.21	03.85	06.07	09.45	0100	00.253	0.265	0.062
0.217	50	04.04-	03.50-	02.87-	02.17-	01.39-	00.48-	00.60	01.90	03.82	06.93	0100	00.138	0.273	0.107
0.217	60	02.31-	02.11-	01.87-	01.59-	01.24-	00.79-	00.19-	00.62	01.97	04.48	0100	00.069	0.282	0.166
0.217	70	01.01-	00.95-	00.86-	00.75-	00.60-	00.40-	00.12-	00.30	01.07	02.77	0100	00.036	0.290	0.229
0.217	80	00.25-	00.21-	00.17-	00.11-	00.03-	00.08	00.23	00.46	00.92	02.05	0100	00.022	0.295	0.279
0.217	90	00.00	00.03	00.07	00.11	00.17	00.26	00.38	00.57	00.94	01.89	0100	00.018	0.298	0.298
0.221	00	99.99-	05.19-	01.67-	00.67	02.59	04.35	06.11	07.97	10.37	13.90	0100	00.942	0.346	0.000
0.221	10	16.21-	04.79-	01.45-	00.83	02.72	04.47	06.21	08.06	10.46	13.97	0100	00.874	0.315	0.008
0.221	20	12.31-	05.06-	02.02-	00.15	01.98	03.69	05.41	07.24	09.63	13.13	0100	00.698	0.306	0.018
0.221	30	09.15-	05.28-	02.88-	00.99-	00.67	02.30	03.93	05.74	08.08	11.56	0100	00.483	0.306	0.037
0.221	40	06.43-	04.80-	03.36-	02.02-	00.71-	00.65	02.12	03.76	05.98	09.36	0100	00.291	0.312	0.071
0.221	50	04.15-	03.58-	02.96-	02.27-	01.50-	00.61-	00.46	01.76	03.67	06.77	0100	00.156	0.321	0.124
0.221	60	02.35-	02.16-	01.93-	01.66-	01.32-	00.89-	00.31-	00.48	01.79	04.27	0100	00.077	0.332	0.193
0.221	70	01.04-	00.98-	00.89-	00.79-	00.65-	00.46-	00.20-	00.20	00.93	02.56	0100	00.039	0.342	0.269
0.221	80	00.26-	00.22-	00.18-	00.13-	00.06-	00.04	00.18	00.40	00.82	01.88	0100	00.023	0.349	0.329
0.221	90	00.00	00.05	00.06	00.10	00.16	00.23	00.34	00.52	00.86	01.75	0100	00.019	0.352	0.352
0.225	00	99.99-	05.14-	01.62-	00.72	02.64	04.40	06.16	08.02	10.42	13.94	0100	01.055	0.383	0.000
0.225	10	16.45-	04.78-	01.43-	00.86	02.75	04.49	06.24	08.09	10.48	14.00	0100	00.978	0.351	0.008
0.225	20	12.50-	05.09-	02.03-	00.14	01.98	03.69	05.41	07.24	09.63	13.14	0100	00.778	0.341	0.019
0.225	30	09.30-	05.36-	02.94-	01.04-	00.65	02.26	03.92	05.70	08.04	11.52	0100	00.534	0.341	0.040
0.225	40	06.54-	04.90-	03.46-	02.12-	00.80-	00.56	02.03	03.67	05.89	09.28	0100	00.319	0.348	0.077
0.225	50	04.22-	03.66-	03.05-	02.37-	01.60-	00.72-	00.34	01.63	03.53	06.63	0100	00.168	0.359	0.136
0.225	60	02.39-	02.20-	01.99-	01.73-	01.40-	00.98-	00.42-	00.35	01.64	04.08	0100	00.082	0.372	0.215
0.225	70	01.06-	01.00-	00.92-	00.82-	00.69-	00.51-	00.26-	00.11	00.81	02.38	0100	00.040	0.383	0.300
0.225	80	00.27-	00.23-	00.20-	00.15-	00.08-	00.01	00.14	00.34	00.75	01.75	0100	00.024	0.392	0.368
0.225	90	00.00	00.02	00.06	00.09	00.15	00.22	00.32	00.48	00.81	01.65	0100	00.020	0.395	0.395

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.227	00	99.99-	05.12-	01.60-	00.74	02.66	04.42	06.18	08.04	10.44	13.96	0100	01.092	0.395	0.000
0.227	10	16.54	04.78-	01.42-	00.87	02.76	04.50	06.25	08.10	10.50	14.01	0100	01.011	0.362	0.008
0.227	20	12.58-	05.11-	02.04-	00.14	01.98	03.69	05.41	07.24	09.63	13.14	0100	00.803	0.352	0.019
0.227	30	09.37-	05.39-	02.96-	01.06-	00.62	02.24	03.90	05.68	08.03	11.51	0100	00.550	0.353	0.041
0.227	40	06.58-	04.94-	03.50-	02.16-	00.84-	00.52	01.99	03.63	05.86	09.24	0100	00.327	0.360	0.079
0.227	50	04.25-	03.69-	03.09-	02.41-	01.65-	00.77-	00.29	01.58	03.47	06.56	0100	00.171	0.371	0.140
0.227	60	02.40-	02.23-	02.01-	01.76-	01.44-	01.02-	00.47-	00.29	01.57	04.00	0100	00.083	0.384	0.221
0.227	70	01.07-	01.01-	00.93-	00.83-	00.71-	00.54-	00.29-	00.07	00.76	02.31	0100	00.041	0.397	0.310
0.227	80	00.27-	00.24-	00.20-	00.15-	00.09-	00.00-	00.13	00.33	00.72	01.70	0100	00.024	0.405	0.381
0.227	90	00.00	00.02	00.05	00.09	00.14	00.21	00.31	00.47	00.79	01.62	0100	00.020	0.408	0.408
0.229	00	99.99-	05.11-	01.59-	00.75	02.67	04.43	06.20	08.05	10.46	13.98	0100	01.113	0.401	0.000
0.229	10	16.60-	04.77-	01.41-	00.88	02.77	04.51	06.26	08.11	10.51	14.02	0100	01.030	0.367	0.008
0.229	20	12.65-	05.12-	02.04-	00.14	01.97	03.68	05.41	07.24	09.63	13.14	0100	00.817	0.358	0.019
0.229	30	09.42-	05.42-	02.99-	01.08-	00.61	02.22	03.88	05.67	08.01	11.49	0100	00.557	0.359	0.041
0.229	40	06.63-	04.98-	03.54-	02.19-	00.87-	00.48	01.95	03.60	05.82	09.20	0100	00.330	0.366	0.080
0.229	50	04.28-	03.73-	03.12-	02.45-	01.69-	00.82-	00.24	01.53	03.41	06.50	0100	00.172	0.378	0.141
0.229	60	02.42-	02.24-	02.04-	01.78-	01.47-	01.06-	00.51-	00.24	01.51	03.93	0100	00.083	0.392	0.224
0.229	70	01.08-	01.02-	00.94-	00.85-	00.72-	00.55-	00.31-	00.04	00.72	02.26	0100	00.040	0.404	0.315
0.229	80	00.27-	00.24-	00.21-	00.16-	00.10-	00.01-	00.12	00.31	00.70	01.67	0100	00.024	0.413	0.389
0.229	90	00.00	00.02	00.05	00.09	00.14	00.21	00.31	00.47	00.78	01.60	0100	00.021	0.416	0.416
0.230	00	99.99-	05.10-	01.58-	00.76	02.68	04.44	06.20	08.06	10.46	13.98	0100	01.118	0.402	0.000
0.230	10	16.63-	04.77-	01.41-	00.88	02.77	04.51	06.26	08.11	10.51	14.03	0100	01.034	0.368	0.008
0.230	20	12.68-	05.12-	02.05-	00.14	01.97	03.68	05.41	07.24	09.63	13.14	0100	00.819	0.359	0.019
0.230	30	09.45-	05.44-	03.00-	01.09-	00.60	02.21	03.87	05.66	08.01	11.48	0100	00.558	0.360	0.041
0.230	40	06.64-	05.00-	03.56-	02.21-	00.89-	00.47	01.94	03.58	05.80	09.19	0100	00.330	0.367	0.080
0.230	50	04.29-	03.74-	03.14-	02.47-	01.71-	00.84-	00.22	01.50	03.39	06.48	0100	00.172	0.379	0.141
0.230	60	02.43-	02.25-	02.05-	01.79-	01.48-	01.07-	00.53-	00.22	01.49	03.90	0100	00.082	0.393	0.225
0.230	70	01.08-	01.02-	00.95-	00.85-	00.73-	00.56-	00.32-	00.03	00.71	02.24	0100	00.040	0.406	0.316
0.230	80	00.28-	00.25-	00.21-	00.16-	00.10-	00.01-	00.11	00.31	00.70	01.67	0100	00.024	0.415	0.390
0.230	90	00.00	00.02	00.05	00.09	00.14	00.21	00.31	00.47	00.78	01.60	0100	00.021	0.418	0.418
0.231	00	99.99-	05.09-	01.57-	00.77	02.69	04.45	06.21	08.07	10.47	13.99	0100	01.118	0.402	0.000
0.231	10	16.64-	04.77-	01.40-	00.88	02.77	04.52	06.27	08.12	10.51	14.03	0100	01.034	0.368	0.008
0.231	20	12.70-	05.13-	02.05-	00.13	01.97	03.68	05.41	07.24	09.63	13.14	0100	00.818	0.359	0.019
0.231	30	09.47-	05.45-	03.01-	01.10-	00.59	02.21	03.87	05.65	08.00	11.48	0100	00.557	0.360	0.041
0.231	40	06.66-	05.02-	03.57-	02.23-	00.91-	00.45	01.92	03.57	05.79	09.17	0100	00.328	0.367	0.079
0.231	50	04.30-	03.75-	03.15-	02.49-	01.73-	00.85-	00.20	01.48	03.37	06.46	0100	00.171	0.379	0.141
0.231	60	02.43-	02.26-	02.06-	01.80-	01.49-	01.09-	00.54-	00.21	01.47	03.87	0100	00.082	0.393	0.224
0.231	70	01.09-	01.03-	00.95-	00.86-	00.73-	00.57-	00.33-	00.02	00.69	02.22	0100	00.040	0.406	0.316
0.231	80	00.28-	00.25-	00.21-	00.16-	00.10-	00.01-	00.11	00.31	00.69	01.66	0100	00.024	0.415	0.390
0.231	90	00.00	00.02	00.05	00.09	00.14	00.21	00.31	00.47	00.78	01.60	0100	00.021	0.418	0.418

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v = 0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.232	00	99.99-	05.09-	01.57-	00.77	02.65	04.45	06.22	08.07	10.48	14.00	0100	01.115	0.400	0.000
0.232	10	16.65	04.76-	01.40-	00.89	02.78	04.52	06.27	08.12	10.52	14.04	0100	01.031	0.367	0.008
0.232	20	12.72-	05.13-	02.05-	00.13	01.97	03.68	05.41	07.24	09.63	13.14	0100	00.815	0.357	0.019
0.232	30	09.49-	05.46-	03.02-	01.10-	00.58	02.20	03.86	05.65	07.99	11.47	0100	00.554	0.358	0.040
0.232	40	06.68-	05.03-	03.59-	02.24-	00.92-	00.44	01.91	03.55	05.78	09.16	0100	00.326	0.366	0.079
0.232	50	04.31-	03.77-	03.17-	02.50-	01.71-	00.87+	00.18	01.46	03.35	06.44	0100	00.169	0.378	0.140
0.232	60	02.44-	02.27-	02.06-	01.81-	01.50-	01.10+	00.56-	00.19	01.45	03.85	0100	00.081	0.392	0.223
0.232	70	01.09-	01.03-	00.96-	00.86-	00.74-	00.57+	00.34-	00.02	00.68	02.21	0100	00.040	0.405	0.315
0.232	80	00.28-	00.25-	00.21-	00.17-	00.10-	00.02+	00.11	00.30	00.69	01.66	0100	00.024	0.414	0.388
0.232	90	00.00	00.02	00.05	00.09	00.14	00.21	00.31	00.47	00.79	01.60	0100	00.021	0.417	0.417
0.233	00	99.99-	05.08-	01.56-	00.78	02.70	04.46	06.22	08.08	10.48	14.00	0100	01.108	0.397	0.000
0.233	10	16.66-	04.76-	01.40-	00.89	02.78	04.53	06.28	08.12	10.52	14.04	0100	01.024	0.364	0.008
0.233	20	12.73-	05.13-	02.05-	00.13	01.97	03.68	05.41	07.24	09.63	13.14	0100	00.809	0.355	0.019
0.233	30	09.50-	05.47-	03.03-	01.11-	00.58	02.19	03.85	05.64	07.99	11.47	0100	00.550	0.356	0.040
0.233	40	06.69-	05.04-	03.60-	02.25-	00.93-	00.43	01.90	03.54	05.76	09.15	0100	00.323	0.364	0.078
0.233	50	04.32-	03.78-	03.18-	02.51-	01.76-	00.89+	00.16	01.45	03.33	06.42	0100	00.167	0.376	0.139
0.233	60	02.45-	02.28-	02.07-	01.82-	01.51-	01.11+	00.57-	00.18	01.43	03.83	0100	00.080	0.389	0.222
0.233	70	01.09-	01.03-	00.96-	00.87-	00.74-	00.58+	00.34-	00.01	00.68	02.20	0100	00.039	0.402	0.313
0.233	80	00.28-	00.25-	00.21-	00.17-	00.10-	00.02+	00.11	00.30	00.69	01.66	0100	00.024	0.412	0.386
0.233	90	00.00	00.02	00.05	00.09	00.14	00.21	00.31	00.47	00.79	01.61	0100	00.021	0.414	0.414
0.234	00	99.99-	05.08-	01.56-	00.78	02.70	04.46	06.22	08.08	10.48	14.01	0100	01.098	0.393	0.000
0.234	10	16.66-	04.76-	01.39-	00.89	02.78	04.53	06.28	08.13	10.52	14.04	0100	01.015	0.360	0.008
0.234	20	12.74-	05.13-	02.05-	00.13	01.97	03.68	05.41	07.24	09.63	13.14	0100	00.801	0.351	0.019
0.234	30	09.52-	05.48-	03.03-	01.12-	00.57	02.19	03.85	05.64	07.98	11.46	0100	00.544	0.352	0.039
0.234	40	06.70-	05.06-	03.61-	02.26-	00.94-	00.42	01.89	03.53	05.75	09.14	0100	00.319	0.360	0.077
0.234	50	04.33-	03.79-	03.19-	02.52-	01.77-	00.90+	00.15	01.43	03.32	06.40	0100	00.165	0.372	0.137
0.234	60	02.45-	02.28-	02.08-	01.83-	01.52-	01.12+	00.58-	00.17	01.42	03.82	0100	00.079	0.386	0.219
0.234	70	01.10-	01.04-	00.96-	00.87-	00.75-	00.58+	00.35-	00.01	00.67	02.19	0100	00.039	0.399	0.310
0.234	80	00.28-	00.25-	00.22-	00.17-	00.11-	00.02+	00.11	00.30	00.69	01.67	0100	00.024	0.408	0.382
0.234	90	00.00	00.02	00.05	00.09	00.14	00.21	00.32	00.48	00.80	01.62	0100	00.021	0.411	0.411
0.235	00	99.99-	05.08-	01.55-	00.79	02.71	04.47	06.23	08.08	10.49	14.01	0100	01.085	0.388	0.000
0.235	10	16.65-	04.75-	01.39-	00.90	02.79	04.53	06.28	08.13	10.53	14.04	0100	01.003	0.356	0.008
0.235	20	12.75-	05.13-	02.05-	00.13	01.97	03.68	05.41	07.24	09.63	13.14	0100	00.791	0.347	0.018
0.235	30	09.53-	05.49-	03.04-	01.12-	00.57	02.18	03.84	05.63	07.98	11.46	0100	00.536	0.348	0.039
0.235	40	06.71-	05.07-	03.62-	02.27-	00.95-	00.41	01.88	03.52	05.74	09.13	0100	00.315	0.356	0.076
0.235	50	04.34-	03.79-	03.20-	02.53-	01.78-	00.91+	00.14	01.42	03.30	06.39	0100	00.163	0.368	0.135
0.235	60	02.46-	02.29-	02.08-	01.84-	01.53-	01.13+	00.59-	00.16	01.41	03.81	0100	00.078	0.381	0.217
0.235	70	01.10-	01.04-	00.96-	00.87-	00.75-	00.58+	00.35-	00.01	00.67	02.19	0100	00.039	0.394	0.306
0.235	80	00.29-	00.26-	00.22-	00.17-	00.11-	00.02+	00.11	00.31	00.70	01.68	0100	00.024	0.404	0.378
0.235	90	00.00	00.02	00.05	00.09	00.14	00.22	00.32	00.48	00.80	01.63	0100	00.021	0.406	0.406

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.236	00	99.99-	05.07-	01.55-	00.79	02.71	04.47	06.23	08.09	10.49	14.01	0100	01.070	0.382	0.000
0.236	10	16.63	04.75-	01.39-	00.90	02.79	04.53	06.28	08.13	10.53	14.05	0100	00.988	0.381	0.008
0.236	20	12.75-	05.14-	02.05-	00.13	01.97	03.68	05.41	07.24	09.63	13.14	0100	00.780	0.342	0.018
0.236	30	09.54-	05.49-	03.04-	01.13-	00.56	02.18	03.84	05.63	07.97	11.45	0100	00.528	0.343	0.038
0.236	40	06.72-	05.08-	03.63-	02.28-	00.96-	00.40	01.87	03.51	05.73	09.12	0100	00.310	0.351	0.075
0.236	50	04.35-	03.80-	03.21-	02.54-	01.79-	00.92-	00.13	01.41	03.29	06.38	0100	00.160	0.362	0.133
0.236	60	02.46-	02.29-	02.09-	01.84-	01.53-	01.13-	00.59-	00.15	01.40	03.80	0100	00.076	0.376	0.213
0.236	70	01.10-	01.04-	00.97-	00.87-	00.75-	00.59-	00.35-	00.01	00.67	02.19	0100	00.038	0.389	0.301
0.236	80	00.29-	00.26-	00.22-	00.17-	00.11-	00.02-	00.11	00.31	00.70	01.69	0100	00.024	0.398	0.373
0.236	90	00.00	00.02	00.06	00.09	00.15	00.22	00.32	00.49	00.81	01.65	0100	00.021	0.400	0.400
0.237	00	99.99-	05.07-	01.55-	00.79	02.71	04.47	06.23	08.09	10.49	14.01	0100	01.053	0.376	0.000
0.237	10	16.62-	04.75-	01.39-	00.90	02.79	04.54	06.29	08.13	10.53	14.05	0100	00.972	0.345	0.008
0.237	20	12.75-	05.14-	02.05-	00.13	01.97	03.68	05.41	07.24	09.63	13.13	0100	00.767	0.336	0.018
0.237	30	09.54-	05.50-	03.05-	01.13-	00.56	02.17	03.84	05.62	07.97	11.45	0100	00.519	0.337	0.037
0.237	40	06.73-	05.08-	03.64-	02.29-	00.97-	00.39	01.86	03.50	05.73	09.11	0100	00.304	0.345	0.073
0.237	50	04.35-	03.81-	03.21-	02.55-	01.80-	00.93-	00.12	01.40	03.28	06.37	0100	00.157	0.356	0.131
0.237	60	02.47-	02.30-	02.09-	01.85-	01.53-	01.14-	00.60-	00.15	01.40	03.79	0100	00.075	0.370	0.210
0.237	70	01.10-	01.04-	00.97-	00.88-	00.75-	00.59-	00.35-	00.01	00.68	02.20	0100	00.038	0.382	0.296
0.237	80	00.29-	00.26-	00.22-	00.17-	00.11-	00.02-	00.11	00.31	00.71	01.70	0100	00.024	0.392	0.366
0.237	90	00.00	00.03	00.06	00.10	00.15	00.22	00.33	00.49	00.82	01.67	0100	00.020	0.394	0.394
0.238	00	99.99-	05.07-	01.55-	00.79	02.71	04.47	06.23	08.09	10.49	14.02	0100	01.034	0.369	0.000
0.238	10	16.59-	04.75-	01.38-	00.90	02.79	04.54	06.29	08.14	10.53	14.05	0100	00.955	0.338	0.007
0.238	20	12.74-	05.13-	02.05-	00.13	01.97	03.68	05.41	07.24	09.63	13.13	0100	00.753	0.330	0.018
0.238	30	09.55-	05.50-	03.05-	01.14-	00.55	02.17	03.83	05.62	07.97	11.45	0100	00.509	0.331	0.037
0.238	40	06.74-	05.09-	03.64-	02.30-	00.97-	00.38	01.86	03.50	05.72	09.10	0100	00.298	0.338	0.072
0.238	50	04.36-	03.81-	03.22-	02.56-	01.80-	00.93-	00.11	01.40	03.28	06.36	0100	00.154	0.350	0.128
0.238	60	02.47-	02.30-	02.10-	01.85-	01.54-	01.14-	00.60-	00.14	01.40	03.79	0100	00.074	0.363	0.206
0.238	70	01.11-	01.05-	00.97-	00.88-	00.75-	00.59-	00.35-	00.01	00.68	02.21	0100	00.037	0.375	0.291
0.238	80	00.29-	00.26-	00.22-	00.17-	00.11-	00.02-	00.11	00.32	00.72	01.72	0100	00.024	0.385	0.360
0.238	90	00.00	00.03	00.06	00.10	00.15	00.22	00.33	00.50	00.83	01.69	0100	00.020	0.386	0.387
0.239	00	99.99-	05.07-	01.55-	00.79	02.71	04.47	06.24	08.09	10.49	14.02	0100	01.014	0.362	0.000
0.239	10	16.57-	04.74-	01.38-	00.90	02.79	04.54	06.29	08.14	10.53	14.05	0100	00.936	0.332	0.007
0.239	20	12.74-	05.13-	02.05-	00.13	01.97	03.68	05.41	07.24	09.63	13.13	0100	00.738	0.323	0.017
0.239	30	09.55-	05.50-	03.05-	01.14-	00.55	02.17	03.83	05.62	07.96	11.44	0100	00.499	0.325	0.036
0.239	40	06.74-	05.09-	03.65-	02.30-	00.98-	00.38	01.85	03.49	05.72	09.10	0100	00.292	0.332	0.070
0.239	50	04.36-	03.82-	03.22-	02.56-	01.81-	00.94-	00.11	01.39	03.27	06.36	0100	00.151	0.343	0.126
0.239	60	02.47-	02.30-	02.10-	01.85-	01.54-	01.14-	00.60-	00.14	01.40	03.80	0100	00.072	0.356	0.201
0.239	70	01.11-	01.05-	00.97-	00.88-	00.75-	00.59-	00.35-	00.01	00.69	02.22	0100	00.037	0.368	0.285
0.239	80	00.29-	00.26-	00.22-	00.17-	00.11-	00.02-	00.12	00.32	00.73	01.73	0100	00.023	0.377	0.353
0.239	90	00.00	00.03	00.06	00.10	00.15	00.23	00.34	00.50	00.84	01.71	0100	00.020	0.379	0.379

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.240	00	99.99-	05.07-	01.55-	00.79	02.71	04.47	06.24	08.09	10.50	14.02	0100	00.993	0.354	0.000
0.240	10	16.54-	04.74-	01.38-	00.90	02.79	04.54	06.29	08.14	10.53	14.05	0100	00.916	0.325	0.007
0.240	20	12.73-	05.13-	02.05-	00.13	01.97	03.68	05.41	07.24	09.63	13.13	0100	00.722	0.317	0.017
0.240	30	09.55-	05.50-	03.05-	01.14-	00.55	02.17	03.83	05.61	07.96	11.44	0100	00.488	0.318	0.035
0.240	40	06.74-	05.10-	03.65-	02.30-	00.98-	00.38	01.85	03.49	05.71	09.10	0100	00.286	0.325	0.069
0.240	50	04.37-	03.82-	03.23-	02.56-	01.81-	00.94-	00.11	01.39	03.27	06.36	0100	00.148	0.336	0.123
0.240	60	02.48-	02.31-	02.10-	01.85-	01.54-	01.14-	00.60-	00.15	01.40	03.80	0100	00.071	0.349	0.197
0.240	70	01.11-	01.05-	00.97-	00.88-	00.75-	00.58-	00.34-	00.02	00.70	02.24	0100	00.036	0.361	0.279
0.240	80	00.30-	00.26-	00.22-	00.17-	00.11-	00.01-	00.12	00.33	00.74	01.75	0100	00.023	0.370	0.345
0.240	90	00.00	00.03	00.06	00.10	00.15	00.23	00.34	00.51	00.85	01.73	0100	00.020	0.371	0.371
0.241	00	99.99-	05.07-	01.55-	00.79	02.71	04.47	06.24	08.09	10.49	14.02	0100	00.971	0.347	0.000
0.241	10	16.51-	04.74-	01.38-	00.90	02.80	04.54	06.29	08.14	10.53	14.05	0100	00.896	0.318	0.007
0.241	20	12.71-	05.13-	02.05-	00.13	01.97	03.68	05.41	07.24	09.62	13.13	0100	00.706	0.310	0.017
0.241	30	09.54-	05.50-	03.06-	01.14-	00.55	02.16	03.83	05.61	07.96	11.44	0100	00.477	0.311	0.035
0.241	40	06.74-	05.10-	03.65-	02.31-	00.98-	00.37	01.84	03.49	05.71	09.09	0100	00.279	0.318	0.067
0.241	50	04.37-	03.82-	03.23-	02.56-	01.81-	00.94-	00.11	01.39	03.27	06.36	0100	00.144	0.329	0.120
0.241	60	02.48-	02.31-	02.10-	01.85-	01.54-	01.14-	00.60-	00.15	01.40	03.81	0100	00.070	0.341	0.193
0.241	70	01.11-	01.05-	00.97-	00.88-	00.75-	00.58-	00.34-	00.02	00.70	02.25	0100	00.035	0.353	0.273
0.241	80	00.30-	00.26-	00.22-	00.17-	00.10-	00.01-	00.12	00.33	00.75	01.77	0100	00.023	0.362	0.338
0.241	90	00.00	00.03	00.06	00.10	00.16	00.23	00.35	00.52	00.87	01.75	0100	00.020	0.363	0.363
0.243	00	99.99-	05.07-	01.55-	00.79	02.71	04.47	06.23	08.09	10.49	14.02	0100	00.927	0.331	0.000
0.243	10	16.45-	04.73-	01.38-	00.91	02.80	04.54	06.29	08.14	10.53	14.05	0100	00.856	0.303	0.007
0.243	20	12.68-	05.13-	02.05-	00.13	01.97	03.68	05.41	07.24	09.62	13.13	0100	00.674	0.296	0.016
0.243	30	09.53-	05.50-	03.06-	01.14-	00.55	02.16	03.82	05.61	07.96	11.44	0100	00.455	0.297	0.033
0.243	40	06.74-	05.10-	03.65-	02.31-	00.99-	00.37	01.84	03.48	05.71	09.09	0100	00.266	0.303	0.064
0.243	50	04.37-	03.83-	03.23-	02.56-	01.81-	00.94-	00.11	01.39	03.27	06.36	0100	00.138	0.314	0.115
0.243	60	02.48-	02.31-	02.10-	01.85-	01.54-	01.13-	00.59-	00.16	01.42	03.82	0100	00.067	0.326	0.184
0.243	70	01.12-	01.05-	00.97-	00.88-	00.75-	00.58-	00.33-	00.04	00.73	02.28	0100	00.034	0.337	0.261
0.243	80	00.30-	00.27-	00.23-	00.17-	00.10-	00.01-	00.13	00.34	00.77	01.81	0100	00.022	0.346	0.323
0.243	90	00.00	00.03	00.06	00.10	00.16	00.24	00.35	00.53	00.89	01.79	0100	00.020	0.347	0.347
0.245	00	99.99-	05.07-	01.55-	00.79	02.71	04.47	06.23	08.09	10.49	14.01	0100	00.884	0.316	0.000
0.245	10	16.38-	04.73-	01.38-	00.91	02.80	04.54	06.29	08.14	10.53	14.05	0100	00.815	0.289	0.007
0.245	20	12.65-	05.12-	02.05-	00.13	01.97	03.68	05.40	07.24	09.62	13.13	0100	00.642	0.282	0.015
0.245	30	09.52-	05.50-	03.05-	01.14-	00.55	02.16	03.82	05.61	07.95	11.43	0100	00.433	0.283	0.032
0.245	40	06.74-	05.10-	03.65-	02.31-	00.99-	00.37	01.84	03.48	05.71	09.09	0100	00.254	0.289	0.061
0.245	50	04.37-	03.83-	03.23-	02.56-	01.81-	00.94-	00.11	01.40	03.28	06.37	0100	00.132	0.299	0.109
0.245	60	02.48-	02.31-	02.10-	01.85-	01.54-	01.13-	00.58-	00.17	01.43	03.85	0100	00.064	0.310	0.175
0.245	70	01.12-	01.05-	00.97-	00.88-	00.75-	00.57-	00.32-	00.05	00.75	02.32	0100	00.033	0.321	0.248
0.245	80	00.30-	00.27-	00.23-	00.17-	00.10-	00.00-	00.14	00.36	00.79	01.85	0100	00.022	0.330	0.307
0.245	90	00.00	00.03	00.06	00.11	00.17	00.25	00.36	00.55	00.91	01.83	0100	00.019	0.330	0.330

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.247	00	99.99-	05.08-	01.55-	00.79	02.7[illegible]	04.47	06.23	08.08	10.49	14.01	0100	00.842	0.301	0.000
0.247	10	16.32-	04.73-	01.38-	00.91	02.[illegible]0	04.54	06.29	08.14	10.53	14.05	0100	00.777	0.275	0.006
0.247	20	12.62-	05.12-	02.05-	00.13	01.97	03.68	05.40	07.24	09.62	13.13	0100	00.611	0.268	0.015
0.247	30	09.50-	05.49-	03.05-	01.14-	00.5[illegible]	02.16	03.82	05.61	07.95	11.43	0100	00.413	0.269	0.030
0.247	40	06.73-	05.09-	03.65-	02.30-	00.9[illegible]-	00.38	01.85	03.49	05.71	09.09	0100	00.242	0.275	0.058
0.247	50	04.37-	03.82-	03.23-	02.56-	01.8[illegible]-	00.93-	00.12	01.40	03.29	06.38	0100	00.126	0.285	0.104
0.247	60	02.49-	02.31-	02.10-	01.85-	01.5[illegible]-	01.12-	00.57-	00.18	01.45	03.87	0100	00.062	0.296	0.167
0.247	70	01.12-	01.05-	00.97-	00.87-	00.7[illegible]-	00.57-	00.31-	00.06	00.77	02.36	0100	00.032	0.306	0.236
0.247	80	00.31-	00.27-	00.23-	00.17-	00.1[illegible]-	00.00-	00.14	00.37	00.81	01.89	0100	00.021	0.314	0.293
0.247	90	00.00	00.03	00.06	00.11	00.17	00.25	00.37	00.56	00.93	01.87	0100	00.019	0.315	0.315
0.249	00	99.99-	05.08-	01.56-	00.78	02.7[illegible]	04.46	06.22	08.08	10.48	14.00	0100	00.802	0.287	0.000
0.249	10	16.27-	04.73-	01.38-	00.91	02.7[illegible]	04.54	06.29	08.13	10.53	14.05	0100	00.740	0.262	0.006
0.249	20	12.58-	05.11-	02.05-	00.13	01.97	03.68	05.40	07.24	09.62	13.13	0100	00.582	0.256	0.014
0.249	30	09.49-	05.48-	03.05-	01.14-	00.5[illegible]	02.16	03.82	05.61	07.95	11.43	0100	00.393	0.257	0.029
0.249	40	06.73-	05.09-	03.64-	02.30-	00.9[illegible]-	00.38	01.85	03.49	05.71	09.10	0100	00.231	0.262	0.056
0.249	50	04.37-	03.82-	03.22-	02.55-	01.8[illegible]-	00.92-	00.13	01.41	03.30	06.39	0100	00.120	0.271	0.099
0.249	60	02.49-	02.31-	02.10-	01.84-	01.5[illegible]-	01.11-	00.56-	00.20	01.47	03.90	0100	00.059	0.282	0.159
0.249	70	01.12-	01.06-	00.97-	00.87-	00.74-	00.56-	00.30-	00.08	00.79	02.39	0100	00.031	0.292	0.225
0.249	80	00.31-	00.27-	00.23-	00.17-	00.1[illegible]-	00.00	00.15	00.38	00.82	01.92	0100	00.021	0.300	0.279
0.249	90	00.00	00.03	00.07	00.11	00.17	00.26	00.38	00.57	00.95	01.90	0100	00.018	0.300	0.300
0.251	00	99.99-	05.08-	01.56-	00.78	02.7[illegible]	04.46	06.22	08.08	10.48	14.00	0100	00.765	0.274	0.000
0.251	10	16.22-	04.72-	01.38-	00.90	02.7[illegible]	04.54	06.28	08.13	10.53	14.05	0100	00.705	0.250	0.006
0.251	20	12.55-	05.11-	02.05-	00.13	01.97	03.68	05.40	07.23	09.62	13.12	0100	00.555	0.244	0.014
0.251	30	09.47-	05.48-	03.04-	01.14-	00.5[illegible]	02.16	03.82	05.61	07.95	11.43	0100	00.375	0.245	0.028
0.251	40	06.72-	05.08-	03.64-	02.29-	00.97-	00.38	01.85	03.49	05.72	09.10	0100	00.220	0.250	0.053
0.251	50	04.37-	03.82-	03.22-	02.55-	01.7[illegible]-	00.91-	00.14	01.42	03.31	06.40	0100	00.115	0.259	0.095
0.251	60	02.49-	02.31-	02.10-	01.84-	01.5[illegible]-	01.10-	00.55-	00.21	01.49	03.92	0100	00.057	0.269	0.152
0.251	70	01.12-	01.06-	00.97-	00.87-	00.7[illegible]-	00.55-	00.29-	00.09	00.81	02.42	0100	00.030	0.278	0.215
0.251	80	00.31-	00.28-	00.23-	00.17-	00.1[illegible]-	00.01	00.16	00.39	00.84	01.95	0100	00.020	0.286	0.266
0.251	90	00.00	00.03	00.07	00.11	00.18	00.26	00.39	00.58	00.97	01.93	0100	00.018	0.286	0.286
0.255	00	99.99-	05.09-	01.57-	00.77	02.6[illegible]	04.45	06.21	08.07	10.47	13.99	0100	00.698	0.250	0.000
0.255	10	16.13-	04.72-	01.38-	00.90	02.7[illegible]	04.53	06.28	08.13	10.53	14.04	0100	00.644	0.229	0.006
0.255	20	12.50-	05.10-	02.04-	00.13	01.97	03.67	05.40	07.23	09.62	13.12	0100	00.507	0.223	0.013
0.255	30	09.44-	05.47-	03.04-	01.13-	00.5[illegible]	02.17	03.82	05.61	07.95	11.43	0100	00.342	0.223	0.025
0.255	40	06.71-	05.07-	03.63-	02.28-	00.9[illegible]-	00.39	01.86	03.50	05.73	09.11	0100	00.201	0.228	0.049
0.255	50	04.36-	03.81-	03.21-	02.54-	01.7[illegible]-	00.90-	00.16	01.44	03.33	06.42	0100	00.106	0.236	0.086
0.255	60	02.49-	02.31-	02.09-	01.83-	01.5[illegible]-	01.09-	00.53-	00.24	01.53	03.97	0100	00.053	0.245	0.138
0.255	70	01.13-	01.06-	00.97-	00.87-	00.7[illegible]-	00.54-	00.28-	00.11	00.84	02.48	0100	00.028	0.254	0.196
0.255	80	00.32-	00.28-	00.23-	00.17-	00.1[illegible]-	00.01	00.16	00.40	00.86	01.99	0100	00.019	0.261	0.243
0.255	90	00.00	00.03	00.07	00.12	00.18	00.27	00.40	00.60	00.99	01.98	0100	00.017	0.261	0.261

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.259	00	99.99-	05.10-	01.58-	00.77	02.68	04.44	06.21	08.06	10.47	13.99	0100	00.641	0.230	0.000
0.259	10	16.07	04.72-	01.38-	00.90	02.79	04.53	06.28	08.13	10.52	14.04	0100	00.591	0.210	0.005
0.259	20	12.45-	05.09-	02.04-	00.13	01.96	03.67	05.40	07.23	09.61	13.12	0100	00.465	0.205	0.012
0.259	30	09.41-	05.45-	03.03-	01.13-	00.55	02.17	03.83	05.61	07.96	11.43	0100	00.315	0.205	0.024
0.259	40	06.69-	05.06-	03.62-	02.27-	00.96-	00.40	01.87	03.51	05.73	09.12	0100	00.185	0.210	0.045
0.259	50	04.36-	03.81-	03.20-	02.53-	01.76-	00.88-	00.17	01.46	03.35	06.45	0100	00.098	0.217	0.080
0.259	60	02.49-	02.31-	02.09-	01.83-	01.50-	01.08-	00.51-	00.26	01.56	04.00	0100	00.049	0.225	0.127
0.259	70	01.13-	01.06-	00.97-	00.86-	00.72-	00.54-	00.27-	00.13	00.87	02.52	0100	00.026	0.233	0.180
0.259	80	00.32-	00.28-	00.23-	00.17-	00.10-	00.01	00.17	00.41	00.88	02.03	0100	00.018	0.240	0.223
0.259	90	00.00	00.03	00.07	00.12	00.19	00.28	00.41	00.61	01.01	02.01	0100	00.016	0.240	0.240
0.263	00	99.99-	05.10-	01.58-	00.76	02.68	04.44	06.20	08.06	10.46	13.98	0100	00.592	0.213	0.000
0.263	10	16.02-	04.72-	01.38-	00.90	02.79	04.53	06.28	08.12	10.52	14.04	0100	00.547	0.194	0.005
0.263	20	12.41-	05.09-	02.04-	00.13	01.96	03.67	05.40	07.23	09.61	13.12	0100	00.430	0.189	0.011
0.263	30	09.39-	05.44-	03.02-	01.12-	00.56	02.17	03.84	05.61	07.96	11.43	0100	00.291	0.190	0.022
0.263	40	06.68-	05.05-	03.61-	02.26-	00.95-	00.41	01.88	03.52	05.74	09.12	0100	00.172	0.194	0.042
0.263	50	04.36-	03.80-	03.19-	02.52-	01.75-	00.87-	00.19	01.48	03.37	06.47	0100	00.091	0.201	0.074
0.263	60	02.49-	02.30-	02.08-	01.82-	01.49-	01.06-	00.50-	00.28	01.58	04.04	0100	00.046	0.208	0.118
0.263	70	01.13-	01.06-	00.97-	00.86-	00.72-	00.53-	00.26-	00.15	00.89	02.55	0100	00.025	0.216	0.166
0.263	80	00.32-	00.28-	00.24-	00.18-	00.10-	00.01	00.17	00.42	00.89	02.05	0100	00.017	0.222	0.206
0.263	90	00.00	00.03	00.07	00.12	00.19	00.28	00.41	00.62	01.03	02.04	0100	00.015	0.221	0.221
0.267	00	99.99-	05.11-	01.59-	00.75	02.67	04.43	06.19	08.05	10.45	13.98	0100	00.551	0.199	0.000
0.267	10	15.97-	04.72-	01.38-	00.90	02.78	04.52	06.27	08.12	10.52	14.03	0100	00.509	0.181	0.005
0.267	20	12.38-	05.08-	02.04-	00.13	01.96	03.67	05.40	07.23	09.61	13.12	0100	00.400	0.176	0.010
0.267	30	09.36-	05.43-	03.02-	01.12-	00.56	02.17	03.83	05.61	07.96	11.44	0100	00.271	0.177	0.020
0.267	40	06.67-	05.03-	03.60-	02.25-	00.94-	00.42	01.89	03.53	05.75	09.13	0100	00.160	0.181	0.039
0.267	50	04.35-	03.79-	03.18-	02.50-	01.74-	00.86-	00.20	01.50	03.39	06.48	0100	00.085	0.187	0.069
0.267	60	02.48-	02.30-	02.08-	01.81-	01.48-	01.05-	00.48-	00.30	01.61	04.07	0100	00.043	0.194	0.109
0.267	70	01.13-	01.06-	00.97-	00.86-	00.71-	00.52-	00.25-	00.16	00.91	02.58	0100	00.023	0.201	0.155
0.267	80	00.33-	00.29-	00.24-	00.18-	00.10-	00.02	00.18	00.42	00.91	02.08	0100	00.016	0.207	0.192
0.267	90	00.00	00.03	00.07	00.12	00.19	00.28	00.42	00.63	01.04	02.06	0100	00.014	0.206	0.206
0.275	00	99.99-	05.12-	01.60-	00.74	02.66	04.42	06.18	08.04	10.44	13.96	0100	00.485	0.176	0.000
0.275	10	15.87-	04.72-	01.39-	00.89	02.78	04.52	06.26	08.11	10.51	14.02	0100	00.448	0.160	0.004
0.275	20	12.31-	05.07-	02.03-	00.13	01.96	03.67	05.39	07.23	09.61	13.11	0100	00.353	0.156	0.009
0.275	30	09.31-	05.41-	03.00-	01.10-	00.57	02.18	03.84	05.62	07.97	11.44	0100	00.240	0.156	0.018
0.275	40	06.64-	05.01-	03.57-	02.23-	00.91-	00.44	01.91	03.55	05.77	09.15	0100	00.142	0.159	0.035
0.275	50	04.33-	03.77-	03.16-	02.48-	01.71-	00.82-	00.24	01.54	03.43	06.53	0100	00.076	0.165	0.061
0.275	60	02.48-	02.29-	02.07-	01.79-	01.46-	01.02-	00.44-	00.35	01.66	04.13	0100	00.038	0.171	0.097
0.275	70	01.13-	01.05-	00.96-	00.85-	00.70-	00.51-	00.22-	00.19	00.96	02.65	0100	00.021	0.177	0.137
0.275	80	00.33-	00.29-	00.24-	00.18-	00.09-	00.02	00.19	00.44	00.94	02.13	0100	00.014	0.182	0.169
0.275	90	00.00	00.03	00.08	00.13	00.20	00.29	00.43	00.65	01.07	02.11	0100	00.013	0.181	0.181

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.283	00	99.99-	05.15-	01.62-	00.72	02.64	04.40	06.16	08.01	10.42	13.94	0100	00.437	0.159	0.000
0.283	10	15.75	04.72-	01.39-	00.88	02.76	04.50	06.25	08.10	10.49	14.01	0100	00.403	0.144	0.004
0.283	20	12.21-	05.06-	02.03-	00.14	01.96	03.67	05.39	07.22	09.61	13.11	0100	00.318	0.140	0.008
0.283	30	09.24-	05.37-	02.97-	01.08-	00.59	02.20	03.86	05.64	07.98	11.46	0100	00.217	0.141	0.017
0.283	40	06.52-	04.96-	03.53-	02.19-	00.87-	00.48	01.95	03.59	05.81	09.19	0100	00.129	0.144	0.031
0.283	50	04.31-	03.74-	03.12-	02.44-	01.66-	00.77-	00.29	01.59	03.49	06.60	0100	00.069	0.148	0.055
0.283	60	02.48-	02.27-	02.04-	01.77-	01.42-	00.98-	00.39-	00.41	01.73	04.22	0100	00.036	0.154	0.087
0.283	70	01.12-	01.05-	00.95-	00.84-	00.69-	00.48-	00.19-	00.23	01.02	02.74	0100	00.020	0.159	0.123
0.283	80	00.33-	00.29-	00.24-	00.17-	00.09-	00.03	00.21	00.47	00.98	02.20	0100	00.013	0.164	0.152
0.283	90	00.00	00.04	00.08	00.13	00.21	00.30	00.45	00.67	01.11	02.18	0100	00.012	0.163	0.163
0.291	00	99.99-	05.18-	01.66-	00.68	02.60	04.36	06.13	07.98	10.39	13.91	0100	00.400	0.146	0.000
0.291	10	15.58-	04.72-	01.41-	00.87	02.75	04.49	06.23	08.08	10.48	13.99	0100	00.369	0.133	0.004
0.291	20	12.04-	05.03-	02.02-	00.14	01.97	03.67	05.39	07.22	09.60	13.11	0100	00.292	0.129	0.008
0.291	30	09.15-	05.32-	02.94-	01.05-	00.62	02.23	03.88	05.66	08.00	11.48	0100	00.200	0.129	0.016
0.291	40	06.53-	04.90-	03.47-	02.13-	00.82-	00.54	02.00	03.64	05.86	09.24	0100	00.120	0.132	0.029
0.291	50	04.26-	03.69-	03.07-	02.37-	01.60-	00.70-	00.37	01.68	03.58	06.69	0100	00.065	0.136	0.051
0.291	60	02.44-	02.24-	02.01-	01.72-	01.37-	00.92-	00.32-	00.49	01.84	04.35	0100	00.034	0.141	0.080
0.291	70	01.12-	01.04-	00.94-	00.82-	00.66-	00.45-	00.15-	00.30	01.11	02.87	0100	00.019	0.146	0.113
0.291	80	00.34-	00.29-	00.24-	00.17-	00.07-	00.05	00.23	00.51	01.04	02.31	0100	00.013	0.150	0.139
0.291	90	00.00	00.04	00.08	00.14	00.22	00.32	00.47	00.71	01.16	02.28	0100	00.011	0.149	0.149
0.307	00	99.99-	05.28-	01.76-	00.58	02.50	04.26	06.02	07.88	10.28	13.81	0100	00.349	0.131	0.000
0.307	10	15.12-	04.74-	01.44-	00.82	02.70	04.43	06.18	08.02	10.42	13.93	0100	00.324	0.118	0.004
0.307	20	11.71-	04.96-	01.98-	00.16	01.98	03.67	05.39	07.22	09.60	13.10	0100	00.259	0.114	0.008
0.307	30	08.86-	05.16-	02.81-	00.95-	00.71	02.31	03.96	05.74	08.08	11.55	0100	00.180	0.114	0.015
0.307	40	06.32-	04.70-	03.28-	01.95-	00.64-	00.71	02.18	03.82	06.04	09.42	0100	00.110	0.116	0.027
0.307	50	04.13-	03.53-	02.89-	02.18-	01.39-	00.47-	00.61	01.93	03.85	06.97	0100	00.061	0.120	0.046
0.307	60	02.36-	02.15-	01.90-	01.59-	01.21-	00.73-	00.10-	00.75	02.14	04.71	0100	00.033	0.124	0.072
0.307	70	01.08-	00.99-	00.88-	00.74-	00.57-	00.33-	00.00	00.48	01.36	03.23	0100	00.019	0.128	0.100
0.307	80	00.33-	00.28-	00.22-	00.14-	00.03-	00.11	00.32	00.63	01.22	02.61	0100	00.013	0.132	0.122
0.307	90	00.00	00.04	00.10	00.16	00.25	00.37	00.55	00.81	01.33	02.56	0100	00.012	0.131	0.131
0.323	00	99.99-	05.44-	01.92-	00.42	02.34	04.10	05.86	07.72	10.12	13.64	0100	00.319	0.124	0.000
0.323	10	14.52-	04.77-	01.51-	00.74	02.61	04.35	06.09	07.93	10.33	13.84	0100	00.297	0.111	0.004
0.323	20	11.19-	04.86-	01.94-	00.19	01.99	03.68	05.39	07.22	09.59	13.10	0100	00.241	0.107	0.008
0.323	30	08.44-	04.91-	02.62-	00.78-	00.86	02.45	04.09	05.86	08.20	11.67	0100	00.172	0.106	0.015
0.323	40	06.00-	04.40-	02.98-	01.66-	00.35-	01.00	02.46	04.09	06.31	09.69	0100	00.108	0.108	0.027
0.323	50	03.91-	03.28-	02.61-	01.88-	01.06-	00.12-	00.98	02.32	04.26	07.40	0100	00.062	0.111	0.045
0.323	60	02.23-	01.99-	01.71-	01.38-	00.96-	00.45-	00.23	01.13	02.59	05.23	0100	00.035	0.114	0.068
0.323	70	01.02-	00.92-	00.79-	00.63-	00.43-	00.16-	00.22	00.76	01.73	03.73	0100	00.020	0.117	0.093
0.323	80	00.32-	00.26-	00.18-	00.09-	00.04	00.21	00.45	00.81	01.49	03.03	0100	00.014	0.120	0.112
0.323	90	00.00	00.05	00.12	00.20	00.30	00.45	00.65	00.97	01.56	02.95	0100	00.013	0.119	0.119

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	ϵ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.339	00	99.99-	05.68-	02.15-	00.19	02.11	03.87	05.63	07.48	09.89	13.41	0100	00.300	0.123	0.000
0.339	10	13.82	04.81-	01.60-	00.63	02.49	04.22	05.96	07.80	10.19	13.70	0100	00.282	0.109	0.004
0.339	20	10.57-	04.71-	01.87-	00.22	02.01	03.69	05.40	07.21	09.59	13.08	0100	00.234	0.104	0.009
0.339	30	07.90-	04.57-	02.35-	00.55-	01.08	02.65	04.28	06.04	08.37	11.84	0100	00.173	0.103	0.017
0.339	40	05.56-	03.98-	02.58-	01.26-	00.04	01.38	02.84	04.47	06.69	10.07	0100	00.114	0.104	0.029
0.339	50	03.59-	02.93-	02.22-	01.46-	00.61-	00.35	01.49	02.84	04.81	07.96	0100	00.068	0.106	0.046
0.339	60	02.04-	01.77-	01.45-	01.07-	00.62-	00.05-	00.68	01.64	03.18	05.90	0100	00.039	0.108	0.068
0.339	70	00.91-	00.81-	00.66-	00.47-	00.23-	00.09	00.52	01.14	02.21	04.37	0100	00.024	0.111	0.090
0.339	80	00.30-	00.23-	00.13-	00.01-	00.14	00.34	00.63	01.06	01.85	03.57	0100	00.017	0.114	0.106
0.339	90	00.00	00.06	00.14	00.24	00.37	00.55	00.80	01.17	01.87	03.45	0100	00.015	0.112	0.112
0.371	00	99.99-	06.42-	02.89-	00.55-	01.37	03.13	04.89	06.74	09.15	12.67	0100	00.283	0.138	0.000
0.371	10	12.37-	04.99-	01.93-	00.24	02.08	03.79	05.51	07.34	09.73	13.23	0100	00.273	0.117	0.007
0.371	20	09.10-	04.33-	01.69-	00.31	02.04	03.69	05.37	07.18	09.54	13.03	0100	00.244	0.110	0.014
0.371	30	06.49-	03.63-	01.58-	00.13	01.70	03.23	04.84	06.58	08.89	12.34	0100	00.202	0.107	0.024
0.371	40	04.32-	02.78-	01.41-	00.11-	01.18	02.51	03.96	05.59	07.80	11.17	0100	00.150	0.106	0.039
0.371	50	02.63-	01.87-	01.08-	00.24-	00.68	01.70	02.89	04.31	06.32	09.52	0100	00.099	0.106	0.058
0.371	60	01.43-	01.06-	00.65-	00.17-	00.40	01.09	01.95	03.05	04.74	07.64	0100	00.060	0.106	0.076
0.371	70	00.65-	00.46-	00.24-	00.04	00.38	00.81	01.39	02.18	03.50	05.98	0100	00.037	0.107	0.092
0.371	80	00.24-	00.11-	00.03	00.21	00.44	00.75	01.16	01.76	02.81	04.93	0100	00.026	0.108	0.102
0.371	90	00.00	00.10	00.23	00.39	00.59	00.85	01.22	01.76	02.71	04.70	0100	00.023	0.106	0.106
0.403	00	99.99-	07.66-	04.14-	01.80-	00.12	01.88	03.64	05.50	07.90	11.42	0100	00.282	0.183	0.000
0.403	10	10.89-	05.33-	02.53-	00.46-	01.31	02.99	04.69	06.50	08.87	12.37	0100	00.280	0.147	0.012
0.403	20	07.44-	03.82-	01.50-	00.35	02.01	03.60	05.25	07.02	09.36	12.83	0100	00.283	0.134	0.024
0.403	30	04.73-	02.33-	00.49-	01.11	02.61	04.09	05.66	07.37	09.66	13.09	0100	00.281	0.126	0.043
0.403	40	02.59-	01.09-	00.25	01.53	02.81	04.13	05.57	07.19	09.39	12.76	0100	00.245	0.120	0.066
0.403	50	01.14-	00.27-	00.62	01.54	02.53	03.62	04.87	06.33	08.39	11.64	0100	00.177	0.115	0.089
0.403	60	00.42-	00.08	00.63	01.24	01.95	02.78	03.79	05.03	06.87	09.92	0100	00.110	0.111	0.101
0.403	70	00.20-	00.10	00.44	00.85	01.33	01.94	02.71	03.71	05.29	08.08	0100	00.066	0.108	0.103
0.403	80	00.15-	00.06	00.30	00.59	00.95	01.41	02.02	02.84	04.20	06.74	0100	00.045	0.108	0.104
0.403	90	00.00	00.18	00.39	00.64	00.96	01.37	01.93	02.69	03.96	06.39	0100	00.039	0.105	0.105
0.435	00	99.99-	09.69-	06.17-	03.83-	01.91-	00.15-	01.61	03.47	05.87	09.40	0100	00.288	0.298	0.000
0.435	10	09.27-	05.85-	03.60-	01.78-	00.14-	01.44	03.07	04.84	07.17	10.64	0100	00.281	0.221	0.026
0.435	20	05.50-	03.19-	01.38-	00.20	01.68	03.15	04.71	06.42	08.70	12.13	0100	00.341	0.191	0.054
0.435	30	02.52-	00.61-	00.99	02.44	03.83	05.24	06.75	08.43	10.68	14.09	0100	00.473	0.170	0.095
0.435	40	00.23-	01.22	02.54	03.81	05.07	06.38	07.81	09.42	11.62	14.98	0100	00.511	0.151	0.143
0.435	50	01.11	02.12	03.12	04.14	05.21	06.36	07.67	09.18	11.28	14.57	0100	00.402	0.132	0.171
0.435	60	01.20	01.92	02.68	03.49	04.38	05.38	06.55	07.94	09.94	13.12	0100	00.252	0.118	0.156
0.435	70	00.32	00.88	01.48	02.16	02.92	03.80	04.85	06.14	08.03	11.13	0100	00.145	0.110	0.119
0.435	80	00.20-	00.22	00.69	01.23	01.86	02.61	03.54	04.71	06.47	09.44	0100	00.095	0.109	0.105
0.435	90	00.00	00.35	00.76	01.23	01.78	02.46	03.31	04.39	06.07	08.95	0100	00.082	0.108	0.108

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.451	00	99.99-	11.08-	07.55-	05.21-	03.30-	01.53-	00.23	02.08	04.49	08.01	0100	00.293	0.416	0.000
0.451	10	08.50	06.24-	04.46-	02.91-	01.44-	00.03	01.58	03.29	05.57	08.99	0100	00.254	0.294	0.042
0.451	20	04.47-	02.85-	01.42-	00.09-	01.23	02.58	04.04	05.68	07.90	11.28	0100	00.356	0.245	0.088
0.451	30	01.25-	00.43	01.89	03.25	04.58	05.95	07.42	09.07	11.30	14.68	0100	00.662	0.208	0.156
0.451	40	01.26	02.69	04.00	05.25	06.50	07.81	09.24	10.84	13.04	16.40	0100	00.814	0.173	0.231
0.451	50	02.70	03.78	04.84	05.91	07.02	08.20	09.54	11.07	13.19	16.49	0100	00.667	0.140	0.262
0.451	60	02.49	03.37	04.27	05.20	06.20	07.30	08.55	10.01	12.08	15.36	0100	00.415	0.116	0.205
0.451	70	00.49	01.35	02.23	03.15	04.14	05.22	06.47	07.92	09.98	13.22	0100	00.233	0.106	0.118
0.451	80	00.54-	00.14	00.87	01.65	02.52	03.50	04.65	06.02	07.99	11.16	0100	00.147	0.109	0.096
0.451	90	00.00	00.52	01.08	01.72	02.45	03.29	04.32	05.58	07.43	10.50	0100	00.124	0.109	0.109
0.467	00	99.99-	12.42-	08.90-	06.56-	04.64-	02.88-	01.12-	00.74	03.14	06.67	0100	00.298	0.577	0.000
0.467	10	08.22-	06.89-	05.65-	04.45-	03.24-	01.96-	00.56-	01.03	03.21	06.56	0100	00.192	0.395	0.059
0.467	20	03.83-	02.72-	01.64-	00.56-	00.56	01.76	03.10	04.64	06.78	10.08	0100	00.346	0.319	0.132
0.467	30	00.28-	01.28	02.66	03.97	05.27	06.60	08.06	09.69	11.90	15.27	0100	00.940	0.258	0.242
0.467	40	02.59	04.02	05.32	06.58	07.83	09.13	10.56	12.17	14.36	17.72	0100	01.275	0.200	0.363
0.467	50	04.40	05.52	06.60	07.69	08.81	10.02	11.36	12.90	15.04	18.35	0100	01.055	0.145	0.398
0.467	60	04.17	05.17	06.16	07.17	08.23	09.39	10.69	12.19	14.29	17.57	0100	00.637	0.105	0.275
0.467	70	00.53	01.84	03.07	04.27	05.48	06.75	08.15	09.73	11.91	15.25	0100	00.336	0.093	0.105
0.467	80	01.42-	00.32-	00.75	01.83	02.94	04.14	05.48	07.01	09.14	12.45	0100	00.197	0.105	0.076
0.467	90	00.00	00.65	01.34	02.09	02.92	03.88	05.00	06.35	08.30	11.45	0100	00.160	0.111	0.111
0.475	00	99.99-	12.79-	09.27-	06.93-	05.01-	03.25-	01.49-	00.37	02.77	06.30	0100	00.300	0.634	0.000
0.475	10	08.35-	07.30-	06.27-	05.23-	04.14-	02.97-	01.65-	00.13-	01.99	05.28	0100	00.156	0.434	0.063
0.475	20	03.76-	02.79-	01.82-	00.83-	00.22	01.36	02.65	04.15	06.24	09.52	0100	00.329	0.347	0.146
0.475	30	00.05-	01.51	02.89	04.20	05.49	06.82	08.28	09.90	12.12	15.49	0100	01.059	0.277	0.274
0.475	40	03.00	04.44	05.75	07.01	08.26	09.57	11.00	12.61	14.80	18.16	0100	01.472	0.209	0.416
0.475	50	05.03	06.15	07.23	08.32	09.44	10.64	11.99	13.53	15.66	18.97	0100	01.208	0.144	0.457
0.475	60	04.93	05.93	06.93	07.94	09.01	10.17	11.47	12.98	15.08	18.37	0100	00.710	0.098	0.303
0.475	70	00.43	01.95	03.31	04.60	05.89	07.21	08.66	10.28	12.49	15.86	0100	00.358	0.086	0.095
0.475	80	02.07-	00.78-	00.44	01.62	02.82	04.08	05.48	07.06	09.23	12.57	0100	00.199	0.103	0.064
0.475	90	00.00	00.63	01.32	02.06	02.89	03.83	04.95	06.29	08.24	11.38	0100	00.159	0.112	0.112
0.483	00	99.99-	12.82-	09.30-	06.96-	05.04-	03.28-	01.52-	00.34	02.74	06.27	0100	00.303	0.644	0.000
0.483	10	08.58-	07.70-	06.80-	05.86-	04.86-	03.77-	02.51-	01.05-	01.02	04.27	0100	00.125	0.443	0.061
0.483	20	03.82-	02.94-	02.04-	01.10-	00.11-	00.99	02.25	03.71	05.78	09.02	0100	00.297	0.353	0.146
0.483	30	00.04	01.61	03.00	04.32	05.61	06.95	08.41	10.04	12.25	15.65	0100	01.104	0.280	0.282
0.483	40	03.24	04.69	06.01	07.27	08.52	09.83	11.26	12.88	15.07	18.43	0100	01.556	0.207	0.437
0.483	50	05.43	06.54	07.62	08.70	09.82	11.02	12.36	13.89	16.03	19.33	0100	01.260	0.138	0.482
0.483	60	05.42	06.41	07.40	08.41	09.47	10.61	11.91	13.42	15.52	18.80	0100	00.718	0.089	0.311
0.483	70	00.10	01.77	03.24	04.59	05.92	07.29	08.77	10.41	12.64	16.02	0100	00.345	0.080	0.082
0.483	80	02.73-	01.35-	00.07-	01.16	02.40	03.69	05.10	06.71	08.89	12.25	0100	00.183	0.101	0.054
0.483	90	00.00	00.57	01.19	01.87	02.64	03.54	04.60	05.90	07.80	10.90	0100	00.142	0.113	0.113

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN										DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.487	00	99.99-	12.71-	09.19-	06.84-	04.93-	03.17-	01.40-	00.45	02.86	06.38	0100	00.304	0.630	0.000
0.487	10	08.71	07.87-	07.00-	06.10-	05.12-	04.05-	02.81	01.36-	00.69	03.92	0100	00.113	0.435	0.058
0.487	20	03.88-	03.03-	02.16-	01.25-	00.27-	00.81	02.05	03.50	05.55	08.79	0100	00.276	0.347	0.142
0.487	30	00.05	01.63	03.03	04.34	05.64	06.99	08.44	10.08	12.29	15.67	0100	01.092	0.274	0.277
0.487	40	03.30	04.76	06.08	07.34	08.60	09.91	11.35	12.96	15.16	18.52	0100	01.548	0.202	0.432
0.487	50	05.56	06.66	07.73	08.81	09.92	11.12	12.46	13.99	16.13	19.43	0100	01.244	0.133	0.479
0.487	60	05.55	06.53	07.51	08.51	09.56	10.71	12.00	13.51	15.60	18.88	0100	00.698	0.085	0.306
0.487	70	00.19-	01.55	03.05	04.44	05.79	07.17	08.65	10.31	12.54	15.94	0100	00.328	0.077	0.074
0.487	80	03.02-	01.64-	00.37-	00.86	02.09	03.38	04.80	06.40	08.59	11.94	0100	00.169	0.101	0.050
0.487	90	00.00	00.52	01.10	01.74	02.47	03.32	04.35	05.61	07.48	10.55	0100	00.131	0.114	0.114
0.491	00	99.99-	12.52-	09.00-	06.66-	04.74-	02.98-	01.22-	00.64	03.04	06.56	0100	00.305	0.607	0.000
0.491	10	08.85-	08.02-	07.17-	06.27-	05.31-	04.24-	03.01-	01.56-	00.48	03.71	0100	00.104	0.421	0.055
0.491	20	03.94-	03.13-	02.28-	01.39-	00.44-	00.63	01.85	03.29	05.33	08.55	0100	00.252	0.335	0.135
0.491	30	00.04	01.63	03.03	04.36	05.66	07.00	08.46	10.10	12.31	15.69	0100	01.061	0.265	0.267
0.491	40	03.34	04.80	06.13	07.39	08.65	09.97	11.40	13.01	15.21	18.56	0100	01.511	0.195	0.420
0.491	50	05.64	06.73	07.80	08.87	09.99	11.18	12.52	14.05	16.18	19.48	0100	01.206	0.127	0.467
0.491	60	05.60	06.57	07.54	08.54	09.59	10.73	12.02	13.51	15.61	18.88	0100	00.667	0.081	0.296
0.491	70	00.56-	01.24	02.78	04.19	05.56	06.95	08.45	10.11	12.35	15.75	0100	00.307	0.075	0.066
0.491	80	03.26-	01.92-	00.67-	00.53	01.75	03.03	04.44	06.03	08.21	11.56	0100	00.155	0.100	0.047
0.491	90	00.00	00.47	01.00	01.59	02.28	03.09	04.07	05.29	07.11	10.14	0100	00.118	0.114	0.114
0.495	00	99.99-	12.28-	08.76-	06.42-	04.50-	02.74-	00.98-	00.88	03.28	06.80	0100	00.307	0.576	0.000
0.495	10	08.98-	08.14-	07.28-	06.38-	05.41-	04.34-	03.10-	01.66-	00.39	03.62	0100	00.097	0.401	0.051
0.495	20	04.01-	03.23-	02.41-	01.54-	00.61-	00.44	01.64	03.07	05.10	08.31	0100	00.227	0.320	0.127
0.495	30	00.02	01.62	03.03	04.35	05.66	07.01	08.47	10.10	12.32	15.70	0100	01.015	0.253	0.254
0.495	40	03.36	04.83	06.15	07.42	08.68	10.00	11.43	13.05	15.25	18.61	0100	01.452	0.186	0.402
0.495	50	05.68	06.77	07.83	08.90	10.01	11.20	12.54	14.07	16.20	19.50	0100	01.151	0.121	0.448
0.495	60	05.58	06.54	07.51	08.49	09.54	10.67	11.96	13.46	15.55	18.82	0100	00.628	0.078	0.282
0.495	70	01.03-	00.85	02.43	03.86	05.25	06.65	08.16	09.83	12.08	15.48	0100	00.283	0.074	0.058
0.495	80	03.45-	02.17-	00.97-	00.20	01.40	02.65	04.05	05.62	07.79	11.13	0100	00.140	0.100	0.045
0.495	90	00.00	00.42	00.90	01.45	02.09	02.84	03.78	04.95	06.72	09.70	0100	00.106	0.115	0.115
0.499	00	99.99-	12.00-	08.48-	06.14-	04.22-	02.46-	00.70-	01.16	03.56	07.09	0100	00.308	0.542	0.000
0.499	10	09.10-	08.23-	07.35-	06.42-	05.43-	04.34-	03.10-	01.64-	00.42	03.67	0100	00.093	0.379	0.047
0.499	20	04.08-	03.33-	02.54-	01.70-	00.78-	00.24	01.43	02.84	04.85	08.05	0100	00.202	0.302	0.118
0.499	30	00.01-	01.59	03.01	04.34	05.65	07.00	08.46	10.10	12.31	15.69	0100	00.959	0.239	0.238
0.499	40	03.36	04.83	06.16	07.43	08.69	10.01	11.45	13.06	15.26	18.62	0100	01.379	0.176	0.381
0.499	50	05.68	06.77	07.83	08.89	10.00	11.19	12.52	14.06	16.18	19.48	0100	01.087	0.115	0.425
0.499	60	05.49	06.45	07.41	08.39	09.43	10.56	11.85	13.34	15.43	18.70	0100	00.586	0.075	0.265
0.499	70	01.56-	00.38	02.00	03.47	04.87	06.29	07.80	09.48	11.74	15.15	0100	00.259	0.073	0.051
0.499	80	03.58-	02.39-	01.25-	00.12-	01.04	02.27	03.64	05.20	07.35	10.67	0100	00.126	0.101	0.044
0.499	90	00.00	00.38	00.81	01.31	01.90	02.61	03.49	04.61	06.33	09.25	0100	00.095	0.115	0.115

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{inh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.500	00	99.99-	11.96-	08.44-	06.10-	04.18-	02.42-	00.66-	01.20	03.60	07.12	0100	00.305	0.532	0.000
0.500	05	12.74-	09.44-	07.22-	05.42-	03.80-	02.23-	00.60-	01.16	03.49	06.96	0100	00.233	0.427	0.023
0.500	10	09.14-	08.27-	07.38-	06.45-	05.45-	04.36-	03.11-	01.65-	00.41	03.66	0100	00.091	0.372	0.045
0.500	15	06.45-	06.19-	05.90-	05.54-	05.11-	04.57-	03.86-	02.93-	01.44-	01.24	0100	00.041	0.332	0.075
0.500	20	04.11-	03.36-	02.57-	01.73-	00.81-	00.22	01.41	02.82	04.83	08.03	0100	00.197	0.297	0.115
0.500	25	01.99-	00.66-	00.58	01.78	03.00	04.27	05.67	07.26	09.44	12.79	0100	00.543	0.266	0.168
0.500	30	00.03-	01.58	03.00	04.34	05.65	07.00	08.46	10.10	12.32	15.70	0100	00.944	0.235	0.234
0.500	35	01.76	03.38	04.81	06.14	07.46	08.81	10.28	11.91	14.13	17.51	0100	01.246	0.204	0.306
0.500	40	03.36	04.83	06.16	07.43	08.69	10.01	11.44	13.06	15.26	18.62	0100	01.357	0.173	0.374
0.500	45	04.70	05.96	07.16	08.33	09.52	10.77	12.16	13.74	15.90	19.24	0100	01.276	0.142	0.418
0.500	50	05.68	06.76	07.82	08.89	09.99	11.18	12.51	14.05	16.17	19.47	0100	01.067	0.113	0.419
0.500	55	06.09	07.05	08.01	09.00	10.05	11.18	12.47	13.97	16.06	19.33	0100	00.811	0.089	0.363
0.500	60	05.49	06.44	07.39	08.37	09.41	10.54	11.82	13.31	15.40	18.67	0100	00.572	0.074	0.261
0.500	65	03.20	04.34	05.45	06.55	07.69	08.90	10.25	11.80	13.94	17.25	0100	00.383	0.068	0.141
0.500	70	01.62-	00.33	01.94	03.40	04.80	06.22	07.73	09.41	11.67	15.07	0100	00.251	0.072	0.050
0.500	75	06.84-	01.67-	01.50-	00.28	01.88	03.45	05.07	06.83	09.15	12.61	0100	00.168	0.084	0.017
0.500	80	03.60-	02.43-	01.30-	00.18-	00.96	02.19	03.55	05.10	07.25	10.57	0100	00.121	0.100	0.043
0.500	85	00.98-	00.49-	00.05	00.67	01.37	02.19	03.19	04.43	06.27	09.31	0100	00.098	0.114	0.091
0.500	90	00.00	00.37	00.79	01.28	01.86	02.56	03.43	04.54	06.24	09.15	0100	00.091	0.114	0.114
0.504	00	99.99-	11.64-	08.12-	05.78-	03.86-	02.10-	00.34-	01.52	03.92	07.44	0100	00.306	0.496	0.000
0.504	05	12.88-	09.34-	07.04-	05.20-	03.55-	01.96-	00.32-	01.45	03.78	07.25	0100	00.223	0.399	0.021
0.504	10	09.25-	08.32-	07.39-	06.42-	05.39-	04.27-	03.00-	01.52-	00.56	03.83	0100	00.089	0.348	0.041
0.504	15	06.53-	06.32-	06.07-	05.77-	05.40-	04.94-	04.31-	03.47-	02.10-	00.46	0100	00.031	0.311	0.069
0.504	20	04.18-	03.46-	02.70-	01.89-	00.99-	00.01	01.18	02.57	04.57	07.76	0100	00.173	0.279	0.106
0.504	25	02.04-	00.72-	00.52	01.71	02.92	04.20	05.60	07.19	09.36	12.71	0100	00.499	0.249	0.156
0.504	30	00.06-	01.55	02.98	04.31	05.62	06.97	08.44	10.07	12.30	15.67	0100	00.862	0.221	0.218
0.504	35	01.74	03.37	04.80	06.13	07.45	08.80	10.27	11.91	14.13	17.51	0100	01.169	0.192	0.286
0.504	40	03.34	04.81	06.15	07.42	08.69	10.00	11.44	13.05	15.26	18.62	0100	01.274	0.162	0.350
0.504	45	04.68	05.95	07.14	08.31	09.50	10.76	12.14	13.72	15.89	19.22	0100	01.196	0.133	0.392
0.504	50	05.65	06.73	07.79	08.85	09.95	11.14	12.47	14.00	16.13	19.43	0100	00.997	0.107	0.393
0.504	55	06.02	06.98	07.94	08.92	09.96	11.10	12.38	13.87	15.96	19.23	0100	00.754	0.085	0.340
0.504	60	05.34	06.28	07.23	08.21	09.24	10.37	11.65	13.14	15.23	18.49	0100	00.529	0.071	0.242
0.504	65	02.89	04.04	05.15	06.26	07.40	08.61	09.97	11.51	13.66	16.97	0100	00.352	0.066	0.129
0.504	70	02.24-	00.21-	01.46	02.95	04.37	05.80	07.33	09.02	11.28	14.69	0100	00.229	0.071	0.043
0.504	75	07.60-	04.26-	02.04-	00.23-	01.40	02.97	04.60	06.37	08.70	12.16	0100	00.152	0.084	0.015
0.504	80	03.67-	02.59-	01.54-	00.47-	00.63	01.82	03.15	04.68	06.80	10.10	0100	00.109	0.100	0.043
0.504	85	00.99-	00.55-	00.05-	00.51	01.16	01.94	02.89	04.08	05.87	08.86	0100	00.088	0.115	0.091
0.504	90	00.00	00.33	00.71	01.16	01.69	02.34	03.16	04.22	05.86	08.71	0100	00.082	0.114	0.114

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.507	00	99.99-	11.36-	07.83-	05.49-	03.57-	01.81-	00.05-	01.60	04.21	07.73	0100	00.310	0.471	0.000
0.507	05	12.95-	09.21-	06.85-	04.97-	03.31-	01.71-	00.06-	01.72	04.06	07.54	0100	00.257	0.379	0.019
0.507	10	09.31-	08.32-	07.34-	06.33-	05.27-	04.13-	02.83-	01.33-	00.77	04.05	0100	00.069	0.332	0.039
0.507	15	06.58-	06.40-	06.20-	05.94-	05.62-	05.21-	04.66-	03.90-	02.63-	00.21-	0100	00.024	0.296	0.065
0.507	20	04.22-	03.53-	02.81-	02.02-	01.15-	00.17-	00.98	02.35	04.33	07.50	0100	00.155	0.265	0.100
0.507	25	02.07-	00.76-	00.46	01.65	02.85	04.12	05.52	07.10	09.28	12.52	0100	00.466	0.238	0.148
0.507	30	00.09-	01.53	02.95	04.28	05.59	06.94	08.41	10.04	12.26	15.64	0100	00.834	0.210	0.206
0.507	35	01.72	03.35	04.78	06.12	07.43	08.79	10.26	11.89	14.12	17.50	0100	01.112	0.183	0.272
0.507	40	03.32	04.80	06.13	07.40	08.67	09.99	11.42	13.04	15.24	18.61	0100	01.214	0.155	0.333
0.507	45	04.66	05.92	07.12	08.29	09.47	10.73	12.12	13.69	15.86	19.20	0100	01.139	0.128	0.373
0.507	50	05.60	06.68	07.74	08.80	09.90	11.09	12.42	13.95	16.08	19.38	0100	00.948	0.103	0.373
0.507	55	05.92	06.88	07.84	08.83	09.87	11.00	12.29	13.78	15.87	19.14	0100	00.715	0.082	0.323
0.507	60	05.16	06.10	07.06	08.04	09.07	10.20	11.48	12.97	15.06	18.32	0100	00.500	0.070	0.228
0.507	65	02.57	03.74	04.86	05.97	07.12	08.34	09.70	11.25	13.40	16.72	0100	00.331	0.066	0.119
0.507	70	02.82-	00.69-	01.02	02.55	03.99	05.44	06.98	08.67	10.94	14.36	0100	00.214	0.072	0.038
0.507	75	08.17-	04.72-	02.45-	00.63-	01.01	02.59	04.23	06.00	08.33	11.80	0100	00.142	0.085	0.013
0.507	80	03.68-	02.68-	01.69-	00.68-	00.39	01.54	02.85	04.35	06.46	09.74	0100	00.101	0.101	0.043
0.507	85	00.98-	00.58-	00.12-	00.41	01.02	01.76	02.67	03.82	05.57	08.52	0100	00.082	0.116	0.093
0.507	90	00.00	00.30	00.66	01.07	01.57	02.19	02.97	03.99	05.59	08.38	0100	00.076	0.116	0.116

0.512	00	99.99-	10.97-	07.45-	05.11-	03.19-	01.43-	00.33	02.19	04.59	08.12	0100	00.308	0.428	0.000
0.512	05	13.09-	09.04-	06.58-	04.67-	02.98-	01.36-	00.30	02.09	04.44	07.92	0100	00.236	0.346	0.017
0.512	10	09.43-	08.34-	07.27-	06.21-	05.10-	03.91-	02.57-	01.04-	01.09	04.39	0100	00.089	0.302	0.035
0.512	15	06.68-	06.54-	06.38-	06.17-	05.91-	05.58-	05.11-	04.46-	03.34-	01.11-	0100	00.017	0.270	0.058
0.512	20	04.30-	03.66-	02.97-	02.21-	01.38-	00.42-	00.70	02.05	04.00	07.15	0100	00.130	0.243	0.090
0.512	25	02.14-	00.84-	00.37	01.56	02.76	04.02	05.41	07.00	09.17	12.51	0100	00.416	0.217	0.133
0.512	30	00.14-	01.47	02.90	04.23	05.54	06.89	08.36	10.00	12.22	15.60	0100	00.756	0.193	0.187
0.512	35	01.67	03.31	04.74	06.08	07.40	08.76	10.22	11.86	14.09	17.47	0100	01.014	0.168	0.247
0.512	40	03.27	04.75	06.09	07.37	08.63	09.95	11.39	13.01	15.21	18.57	0100	01.108	0.143	0.303
0.512	45	04.60	05.87	07.06	08.23	09.42	10.67	12.06	13.64	15.80	19.14	0100	01.038	0.118	0.340
0.512	50	05.52	06.59	07.65	08.71	09.81	10.99	12.32	13.85	15.98	19.28	0100	00.861	0.096	0.340
0.512	55	05.78	06.73	07.68	08.67	09.70	10.83	12.12	13.61	15.70	18.97	0100	00.646	0.078	0.293
0.512	60	04.90	05.84	06.79	07.77	08.80	09.93	11.21	12.70	14.78	18.05	0100	00.449	0.067	0.206
0.512	65	02.13	03.31	04.44	05.56	06.71	07.93	09.30	10.85	13.00	16.32	0100	00.295	0.064	0.105
0.512	70	03.61-	01.36-	00.41	01.97	03.44	04.91	06.46	08.16	10.44	13.87	0100	00.189	0.071	0.031
0.512	75	08.81-	05.31-	03.03-	01.19-	00.45	02.04	03.68	05.45	07.78	11.25	0100	00.124	0.085	0.011
0.512	80	03.68-	02.79-	01.89-	00.95-	00.06	01.16	02.41	03.88	05.95	09.20	0100	00.088	0.101	0.043
0.512	85	00.98-	00.62-	00.21-	00.27	00.83	01.51	02.36	03.46	05.14	08.03	0100	00.071	0.115	0.092
0.512	90	00.00	00.27	00.58	00.96	01.41	01.97	02.70	03.66	05.19	07.91	0100	00.066	0.115	0.115

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.516	00	99.99-	10.63-	07.11-	04.77-	02.85-	01.09-	00.67	02.53	04.93	08.45	0100	00.309	0.397	0.000
0.516	05	13.17-	08.85-	06.33-	04.38-	02.67-	01.04-	00.63	02.42	04.77	08.26	0100	00.237	0.321	0.015
0.516	10	09.50-	08.30-	07.17-	06.04-	04.88-	03.65-	02.29-	00.73-	01.43	04.75	0100	00.090	0.281	0.032
0.516	15	06.74-	06.63-	06.50-	06.33-	06.12-	05.83-	05.44-	04.88-	03.88-	01.84-	0100	00.012	0.252	0.053
0.516	20	04.36-	03.75-	03.10-	02.38-	01.57-	00.65-	00.45	01.77	03.70	06.83	0100	00.112	0.226	0.083
0.516	25	02.19-	00.91-	00.29	01.47	02.66	03.92	05.31	06.89	09.06	12.39	0100	00.378	0.203	0.123
0.516	30	00.19-	01.43	02.85	04.18	05.49	06.84	08.31	09.94	12.16	15.54	0100	00.698	0.180	0.173
0.516	35	01.63	03.26	04.70	06.04	07.36	08.72	10.19	11.83	14.05	17.43	0100	00.942	0.157	0.229
0.516	40	03.23	04.71	06.05	07.32	08.59	09.91	11.35	12.96	15.17	18.53	0100	01.031	0.134	0.282
0.516	45	04.54	05.80	07.00	08.17	09.36	10.61	12.00	13.58	15.74	19.08	0100	00.965	0.111	0.316
0.516	50	05.42	06.50	07.55	08.61	09.71	10.89	12.22	13.75	15.88	19.18	0100	00.799	0.091	0.316
0.516	55	05.61	06.57	07.52	08.50	09.54	10.67	11.96	13.45	15.53	18.80	0100	00.598	0.075	0.271
0.516	60	04.63	05.58	06.53	07.51	08.54	09.67	10.95	12.44	14.53	17.79	0100	00.413	0.065	0.189
0.516	65	01.71	02.91	04.05	05.18	06.34	07.57	08.94	10.50	12.65	15.97	0100	00.270	0.064	0.095
0.516	70	04.34-	01.96-	00.12-	01.48	02.97	04.45	06.02	07.73	10.02	13.45	0100	00.172	0.071	0.026
0.516	75	09.21-	05.73-	03.45-	01.62-	00.02	01.61	03.24	05.01	07.35	10.81	0100	00.113	0.085	0.010
0.516	80	03.65-	02.84-	02.01-	01.13-	00.17-	00.88	02.10	03.53	05.57	08.79	0100	00.080	0.101	0.044
0.516	85	00.97-	00.64-	00.27-	00.17	00.70	01.34	02.15	03.20	04.83	07.66	0100	00.065	0.116	0.093
0.516	90	00.00	00.25	00.53	00.88	01.30	01.83	02.52	03.43	04.90	07.57	0100	00.060	0.115	0.115
0.520	00	99.99-	10.31-	06.78-	04.44-	02.52-	00.76-	01.00	02.85	05.26	08.78	0100	00.310	0.369	0.000
0.520	05	13.23-	08.66-	06.07-	04.09-	02.37-	00.73-	00.95	02.75	05.10	08.59	0100	00.239	0.299	0.014
0.520	10	09.55-	08.25-	07.03-	05.84-	04.64-	03.37-	01.97-	00.39-	01.78	05.13	0100	00.092	0.263	0.029
0.520	15	06.80-	06.71-	06.59-	06.46-	06.28-	06.04-	05.70-	05.22-	04.34-	02.46-	0100	00.009	0.235	0.049
0.520	20	04.41-	03.84-	03.22-	02.54-	01.77-	00.88-	00.19	01.48	03.38	06.49	0100	00.096	0.211	0.077
0.520	25	02.23-	00.97-	00.21	01.38	02.56	03.81	05.20	06.77	08.94	12.27	0100	00.343	0.190	0.114
0.520	30	00.23-	01.37	02.79	04.12	05.43	06.78	08.24	09.88	12.10	15.48	0100	00.644	0.169	0.160
0.520	35	01.58	03.22	04.66	06.00	07.32	08.67	10.14	11.78	14.00	17.39	0100	00.874	0.148	0.212
0.520	40	03.17	04.65	05.99	07.27	08.54	09.86	11.30	12.91	15.12	18.48	0100	00.959	0.126	0.262
0.520	45	04.46	05.73	06.92	08.09	09.28	10.54	11.93	13.50	15.67	19.01	0100	00.898	0.105	0.294
0.520	50	05.31	06.38	07.43	08.50	09.60	10.78	12.11	13.64	15.77	19.06	0100	00.742	0.087	0.294
0.520	55	05.43	06.39	07.34	08.32	09.36	10.49	11.78	13.27	15.36	18.63	0100	00.555	0.072	0.251
0.520	60	04.34	05.30	06.25	07.23	08.27	09.40	10.68	12.18	14.26	17.53	0100	00.382	0.064	0.173
0.520	65	01.27	02.49	03.65	04.79	05.96	07.20	08.57	10.14	12.30	15.62	0100	00.249	0.064	0.085
0.520	70	05.08-	02.55-	00.64-	00.99	02.51	04.01	05.59	07.32	09.61	13.05	0100	00.158	0.072	0.022
0.520	75	09.45-	06.06-	03.82-	02.00-	00.37-	01.21	02.84	04.61	06.94	10.41	0100	00.103	0.086	0.010
0.520	80	03.60-	02.86-	02.09-	01.27-	00.37-	00.65	01.82	03.22	05.23	08.42	0100	00.074	0.102	0.044
0.520	85	00.95-	00.66-	00.31-	00.10	00.59	01.19	01.96	02.97	04.55	07.34	0100	00.060	0.116	0.093
0.520	90	00.00	00.23	00.49	00.81	01.21	01.70	02.36	03.23	04.66	07.26	0100	00.056	0.116	0.116

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.528	00	99.99-	09.70-	06.17-	03.83-	01.91-	00.15-	01.61	03.46	05.87	09.39	0100	00.311	0.323	0.000
0.528	05	13.28-	08.25-	05.56-	03.53-	01.78-	00.12-	01.57	03.37	05.74	09.23	0100	00.242	0.262	0.012
0.528	10	09.62-	08.08-	06.70-	05.39-	04.10-	02.77-	01.32-	00.31	02.52	05.89	0100	00.097	0.230	0.025
0.528	15	06.88-	06.80-	06.72-	06.61-	06.46-	06.27-	06.00-	05.59-	04.84-	03.18-	0100	00.006	0.206	0.042
0.528	20	04.49-	04.01-	03.46-	02.86-	02.16-	01.34-	00.34-	00.89	02.72	05.76	0100	00.071	0.186	0.066
0.528	25	02.32-	01.11-	00.04	01.18	02.35	03.58	04.96	06.52	08.67	12.00	0100	00.284	0.168	0.098
0.528	30	00.32-	01.27	02.67	04.00	05.30	06.64	08.10	09.74	11.95	15.33	0100	00.551	0.149	0.139
0.528	35	01.48	03.11	04.55	05.89	07.20	08.56	10.03	11.67	13.89	17.27	0100	00.757	0.131	0.185
0.528	40	03.05	04.53	05.87	07.15	08.41	09.73	11.17	12.79	14.99	18.36	0100	00.835	0.113	0.228
0.528	45	04.29	05.56	06.75	07.93	09.12	10.37	11.76	13.34	15.51	18.84	0100	00.783	0.095	0.256
0.528	50	05.05	06.12	07.18	08.24	09.35	10.53	11.86	13.39	15.52	18.82	0100	00.646	0.080	0.255
0.528	55	05.03	05.99	06.95	07.94	08.98	10.11	11.40	12.89	14.99	18.26	0100	00.481	0.068	0.216
0.528	60	03.73	04.70	05.67	06.66	07.71	08.85	10.14	11.64	13.73	17.01	0100	00.330	0.062	0.147
0.528	65	00.37	01.65	02.85	04.03	05.22	06.48	07.87	09.45	11.62	14.96	0100	00.214	0.064	0.069
0.528	70	06.55-	03.67-	01.62-	00.10	01.67	03.20	04.81	06.55	08.86	12.32	0100	00.136	0.073	0.016
0.528	75	09.54-	06.48-	04.36-	02.60-	01.01-	00.54	02.16	03.91	06.23	09.69	0100	00.089	0.087	0.010
0.528	80	03.47-	02.85-	02.18-	01.45-	00.64-	00.29	01.39	02.73	04.66	07.80	0100	00.064	0.103	0.046
0.528	85	00.93-	00.67-	00.37-	00.01-	00.43	00.98	01.68	02.62	04.12	06.82	0100	00.052	0.117	0.095
0.528	90	00.00	00.20	00.43	00.72	01.07	01.52	02.11	02.93	04.27	06.78	0100	00.049	0.116	0.116
0.532	00	99.99-	09.42-	05.90-	03.55-	01.64-	00.13	01.89	03.74	06.15	09.67	0100	00.312	0.303	0.000
0.532	05	13.28-	08.04-	05.31-	03.27-	01.51-	00.16	01.85	03.66	06.03	09.52	0100	00.244	0.247	0.012
0.532	10	09.64-	07.97-	06.51-	05.16-	03.83-	02.47-	00.99-	00.65	02.88	06.27	0100	00.099	0.217	0.024
0.532	15	06.90-	06.83-	06.74-	06.63-	06.49-	06.30-	06.02-	05.62-	04.86-	03.20-	0100	00.006	0.194	0.040
0.532	20	04.52-	04.08-	03.58-	03.01-	02.35-	01.56-	00.61-	00.59	02.38	05.38	0100	00.060	0.176	0.062
0.532	25	02.35-	01.17-	00.04-	01.08	02.24	03.46	04.83	06.39	08.53	11.86	0100	00.259	0.158	0.092
0.532	30	00.36-	01.21	02.61	03.93	05.23	06.57	08.02	09.66	11.87	15.25	0100	00.511	0.141	0.130
0.532	35	01.43	03.06	04.49	05.83	07.14	08.50	09.96	11.60	13.82	17.20	0100	00.707	0.125	0.173
0.532	40	02.98	04.46	05.80	07.08	08.35	09.66	11.10	12.72	14.92	18.29	0100	00.782	0.108	0.214
0.532	45	04.19	05.46	06.66	07.83	09.02	10.28	11.67	13.25	15.42	18.75	0100	00.734	0.091	0.240
0.532	50	04.90	05.99	07.04	08.11	09.21	10.40	11.73	13.26	15.39	18.69	0100	00.606	0.077	0.238
0.532	55	04.82	05.78	06.75	07.74	08.78	09.92	11.21	12.71	14.80	18.07	0100	00.451	0.066	0.201
0.532	60	03.42	04.40	05.38	06.38	07.44	08.58	09.88	11.38	13.48	16.75	0100	00.309	0.062	0.136
0.532	65	00.08-	01.24	02.47	03.66	04.87	06.14	07.55	09.13	11.31	14.65	0100	00.200	0.064	0.063
0.532	70	07.26-	04.19-	02.06-	00.31-	01.29	02.84	04.46	06.21	08.53	11.99	0100	00.127	0.073	0.014
0.532	75	09.45-	06.59-	04.54-	02.82-	01.26-	00.28	01.88	03.63	05.94	09.39	0100	00.083	0.087	0.010
0.532	80	03.40-	02.82-	02.20-	01.51-	00.73-	00.16	01.24	02.54	04.44	07.55	0100	00.060	0.103	0.047
0.532	85	00.91-	00.67-	00.38-	00.04-	00.38	00.90	01.58	02.49	03.96	06.62	0100	00.049	0.117	0.095
0.532	90	00.00	00.19	00.41	00.68	01.02	01.45	02.03	02.82	04.13	06.60	0100	00.046	0.117	0.117

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.544	00	99.99-	08.71-	05.19-	02.84-	00.93-	00.84	02.60	04.45	06.86	10.38	0100	00.314	0.259	0.000
0.544	05	13.16-	07.46-	04.64-	02.56-	00.78-	00.90	02.60	04.42	06.79	10.29	0100	00.249	0.211	0.010
0.544	10	09.60-	07.59-	05.94-	04.46-	03.04-	01.61-	00.09-	01.60	03.86	07.27	0100	00.108	0.186	0.020
0.544	15	06.91-	06.81-	06.68-	06.52-	06.32-	06.05-	05.68-	05.14-	04.17-	02.17-	0100	00.007	0.167	0.034
0.544	20	04.57-	04.23-	03.85-	03.39-	02.85-	02.19-	01.36-	00.30-	01.36	04.21	0100	00.038	0.151	0.053
0.544	25	02.43-	01.34-	00.28-	00.80	01.91	03.10	04.43	05.97	08.10	11.40	0100	00.201	0.137	0.078
0.544	30	00.47-	01.05	02.42	03.71	04.99	06.32	07.77	09.40	11.60	14.97	0100	00.416	0.123	0.110
0.544	35	01.28	02.89	04.30	05.63	06.94	08.29	09.75	11.39	13.61	16.99	0100	00.588	0.109	0.146
0.544	40	02.77	04.25	05.59	06.86	08.13	09.44	10.88	12.50	14.70	18.06	0100	00.657	0.095	0.180
0.544	45	03.89	05.17	06.37	07.55	08.74	10.00	11.39	12.97	15.14	18.48	0100	00.620	0.082	0.201
0.544	50	04.47	05.56	06.63	07.71	08.82	10.01	11.35	12.89	15.01	18.32	0100	00.513	0.071	0.198
0.544	55	04.18	05.17	06.15	07.16	08.22	09.37	10.67	12.18	14.28	17.56	0100	00.382	0.063	0.166
0.544	60	02.51	03.55	04.57	05.60	06.68	07.85	09.16	10.68	12.79	16.08	0100	00.263	0.061	0.109
0.544	65	01.35-	00.11	01.43	02.70	03.96	05.27	06.70	08.32	10.52	13.88	0100	00.171	0.065	0.048
0.544	70	09.22-	05.50-	03.15-	01.28-	00.38	01.98	03.63	05.41	07.75	11.22	0100	00.109	0.075	0.009
0.544	75	08.92-	06.60-	04.79-	03.21-	01.73-	00.25-	01.31	03.02	05.30	08.73	0100	00.073	0.089	0.011
0.544	80	03.19-	02.71-	02.17-	01.56-	00.86-	00.04-	00.96	02.19	04.02	07.06	0100	00.054	0.105	0.050
0.544	85	00.87-	00.66-	00.40-	00.09-	00.29	00.78	01.41	02.27	03.67	06.25	0100	00.045	0.118	0.097
0.544	90	00.00	00.17	00.37	00.62	00.93	01.34	01.88	02.62	03.88	06.28	0100	00.042	0.117	0.117
0.560	00	99.99-	08.06-	04.54-	02.20-	00.28-	01.48	03.24	05.10	07.50	11.02	0100	00.315	0.224	0.000
0.560	05	12.79-	06.82-	03.95-	01.86-	00.06-	01.62	03.33	05.15	07.52	11.02	0100	00.254	0.182	0.010
0.560	10	09.36-	07.04-	05.23-	03.66-	02.17-	00.70-	00.86	02.57	04.85	08.28	0100	00.118	0.160	0.019
0.560	15	06.77-	06.58-	06.35-	06.07-	05.72-	05.28-	04.69-	03.88-	02.55-	00.05-	0100	00.012	0.144	0.030
0.560	20	04.50-	04.28-	04.02-	03.71-	03.33-	02.84-	02.20-	01.34-	00.07	02.65	0100	00.022	0.131	0.046
0.560	25	02.43-	01.47-	00.52-	00.47	01.51	02.64	03.92	05.42	07.51	10.77	0100	00.150	0.119	0.068
0.560	30	00.53-	00.90	02.20	03.45	04.70	06.00	07.43	09.04	11.23	14.59	0100	00.332	0.107	0.095
0.560	35	01.15	02.70	04.09	05.39	06.69	08.02	09.48	11.10	13.32	16.69	0100	00.483	0.096	0.125
0.560	40	02.55	04.01	05.34	06.60	07.86	09.18	10.61	12.23	14.43	17.79	0100	00.549	0.085	0.152
0.560	45	03.54	04.83	06.04	07.22	08.42	09.68	11.08	12.66	14.83	18.17	0100	00.525	0.075	0.169
0.560	50	03.94	05.07	06.18	07.26	08.38	09.59	10.94	12.48	14.62	17.93	0100	00.440	0.066	0.164
0.560	55	03.41	04.46	05.49	06.54	07.63	08.80	10.13	11.65	13.77	17.06	0100	00.331	0.061	0.134
0.560	60	01.45	02.59	03.69	04.79	05.92	07.14	08.49	10.03	12.17	15.49	0100	00.231	0.061	0.085
0.560	65	02.82-	01.09-	00.40	01.78	03.12	04.50	05.98	07.64	09.87	13.26	0100	00.153	0.066	0.035
0.560	70	11.16-	06.56-	03.97-	01.99-	00.26-	01.38	03.06	04.86	07.22	10.70	0100	00.100	0.077	0.006
0.560	75	08.12-	06.24-	04.65-	03.22-	01.83-	00.43-	01.08	02.75	05.00	08.41	0100	00.069	0.091	0.014
0.560	80	02.96-	02.51-	02.02-	01.45-	00.79-	00.01-	00.94	02.13	03.92	06.92	0100	00.052	0.106	0.054
0.560	85	00.83-	00.62-	00.31-	00.06-	00.31	00.79	01.42	02.26	03.65	06.22	0100	00.044	0.119	0.098
0.560	90	00.00	00.17	00.37	00.62	00.93	01.33	01.87	02.62	03.87	06.27	0100	00.042	0.118	0.118

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.612	00	99.99-	08.18-	04.66-	02.32-	00.40-	01.36	03.12	04.98	07.38	10.90	0100	00.313	0.229	0.000
0.612	05	10.61-	05.98-	03.38-	01.39-	00.33	01.98	03.66	05.46	07.82	11.30	0100	00.260	0.174	0.015
0.612	10	07.46-	05.51-	03.90-	02.44-	01.04-	00.38	01.90	03.57	05.83	09.23	0100	00.137	0.150	0.027
0.612	15	05.09-	04.77-	04.40-	03.97-	03.45-	02.82-	02.02-	00.98-	00.64	03.46	0100	00.028	0.133	0.041
0.612	20	03.03-	02.99-	02.94-	02.88-	02.80-	02.68-	02.52-	02.27-	01.78-	00.59-	0100	00.005	0.119	0.059
0.612	25	01.18-	00.70-	00.17-	00.43	01.12	01.93	02.92	04.14	05.96	08.99	0100	00.085	0.107	0.082
0.612	30	00.48	01.42	02.36	03.34	04.37	05.49	06.77	08.26	10.34	13.61	0100	00.233	0.096	0.107
0.612	35	01.89	03.10	04.26	05.40	06.57	07.81	09.18	10.75	12.90	16.23	0100	00.384	0.085	0.132
0.612	40	02.95	04.29	05.53	06.73	07.95	09.22	10.63	12.22	14.40	17.74	0100	00.484	0.076	0.150
0.612	45	03.54	04.91	06.17	07.39	08.62	09.90	11.32	12.91	15.10	18.45	0100	00.510	0.068	0.153
0.612	50	03.43	04.82	06.11	07.35	08.59	09.88	11.30	12.90	15.09	18.45	0100	00.468	0.062	0.137
0.612	55	02.28	03.81	05.18	06.48	07.77	09.10	10.55	12.17	14.38	17.75	0100	00.387	0.060	0.102
0.612	60	00.40-	01.57	03.21	04.68	06.09	07.51	09.03	10.71	12.97	16.38	0100	00.295	0.062	0.057
0.612	65	05.64-	02.10-	00.19	02.03	03.68	05.26	06.91	08.68	11.01	14.48	0100	00.214	0.069	0.019
0.612	70	12.68-	05.74-	02.74-	00.59-	01.24	02.94	04.66	06.49	08.87	12.37	0100	00.154	0.080	0.004
0.612	75	06.55-	04.48-	02.79-	01.29-	00.14	01.58	03.11	04.80	07.06	10.48	0100	00.114	0.094	0.021
0.612	80	02.51-	01.83-	01.12-	00.34-	00.52	01.49	02.63	04.00	05.97	09.13	0100	00.091	0.107	0.060
0.612	85	00.74-	00.38-	00.04	00.52	01.10	01.79	02.65	03.76	05.45	08.35	0100	00.079	0.119	0.100
0.612	90	00.00	00.30	00.65	01.06	01.56	02.17	02.95	03.96	05.55	08.34	0100	00.076	0.117	0.117
0.628	00	99.99-	08.81-	05.28-	02.94-	01.02-	00.74	02.50	04.35	06.76	10.28	0100	00.316	0.266	0.000
0.628	05	09.96-	06.04-	03.62-	01.72-	00.05-	01.56	03.22	05.01	07.35	10.83	0100	00.263	0.197	0.020
0.628	10	06.77-	05.17-	03.76-	02.43-	01.12-	00.22	01.68	03.32	05.54	08.91	0100	00.141	0.168	0.035
0.628	15	04.38-	04.10-	03.78-	03.40-	02.94-	02.36-	01.62-	00.65-	00.89	03.62	0100	00.032	0.147	0.054
0.628	20	02.32-	02.29-	02.26-	02.23-	02.18-	02.11-	02.01-	01.86-	01.56-	00.76-	0100	00.004	0.130	0.076
0.628	25	00.47-	00.11-	00.30	00.77	01.33	02.01	02.86	03.95	05.63	08.51	0100	00.080	0.115	0.104
0.628	30	01.17	01.93	02.74	03.59	04.51	05.55	06.75	08.16	10.18	13.39	0100	00.232	0.102	0.133
0.628	35	02.53	03.60	04.66	05.72	06.82	08.01	09.34	10.87	12.99	16.29	0100	00.405	0.089	0.160
0.628	40	03.52	04.79	05.99	07.16	08.35	09.61	10.99	12.57	14.74	18.08	0100	00.539	0.078	0.176
0.628	45	03.99	05.39	06.68	07.92	09.16	10.46	11.88	13.48	15.67	19.03	0100	00.595	0.069	0.174
0.628	50	03.72	05.26	06.64	07.94	09.23	10.57	12.02	13.64	15.85	19.23	0100	00.570	0.063	0.149
0.628	55	02.37	04.17	05.71	07.12	08.49	09.88	11.38	13.04	15.28	18.68	0100	00.487	0.061	0.105
0.628	60	00.55-	01.91	03.78	05.39	06.90	08.39	09.96	11.68	13.98	17.41	0100	00.382	0.063	0.056
0.628	65	06.06-	01.59-	00.97	02.93	04.65	06.29	07.96	09.76	12.11	15.60	0100	00.283	0.071	0.018
0.628	70	12.58-	04.76-	01.66-	00.54	02.38	04.09	05.82	07.66	10.04	13.55	0100	00.205	0.082	0.005
0.628	75	06.32-	03.86-	01.98-	00.36-	01.15	02.64	04.21	05.93	08.22	11.66	0100	00.152	0.095	0.022
0.628	80	02.45-	01.59-	00.72-	00.20	01.18	02.26	03.50	04.96	07.01	10.25	0100	00.121	0.108	0.062
0.628	85	00.73-	00.26-	00.27	00.86	01.54	02.35	03.33	04.55	06.36	09.39	0100	00.104	0.120	0.101
0.628	90	00.00	00.39	00.83	01.34	01.94	02.66	03.55	04.68	06.41	09.34	0100	00.100	0.118	0.118

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.644	00	99.99-	09.56-	06.04-	03.70-	01.78-	00.02-	01.74	03.60	06.00	09.53	0100	00.332	0.334	0.000
0.644	05	09.46-	06.18-	03.98-	02.18-	00.56-	01.01	02.64	04.40	06.73	10.19	0100	00.277	0.241	0.027
0.644	10	06.19-	04.91-	03.71-	02.54-	01.35-	00.09-	01.30	02.87	05.04	08.38	0100	00.149	0.202	0.049
0.644	15	03.73-	03.51-	03.25-	02.93-	02.54-	02.05-	01.40-	00.54-	00.88	03.47	0100	00.035	0.174	0.074
0.644	20	01.62-	01.61-	01.59-	01.57-	01.54-	01.50-	01.45-	01.36-	01.17-	00.68-	0100	00.003	0.152	0.105
0.644	25	00.27	00.52	00.82	01.18	01.62	02.16	02.87	03.81	05.31	08.00	0100	00.077	0.133	0.141
0.644	30	01.92	02.53	03.19	03.92	04.73	05.65	06.75	08.08	10.02	13.15	0100	00.244	0.115	0.179
0.644	35	03.27	04.21	05.16	06.13	07.16	08.28	09.56	11.05	13.13	16.40	0100	00.457	0.099	0.210
0.644	40	04.22	05.43	06.58	07.71	08.88	10.11	11.48	13.04	15.20	18.52	0100	00.647	0.085	0.225
0.644	45	04.60	06.04	07.35	08.61	09.87	11.17	12.60	14.21	16.41	19.77	0100	00.754	0.074	0.213
0.644	50	04.16	05.87	07.35	08.73	10.07	11.44	12.92	14.57	16.80	20.19	0100	00.752	0.066	0.173
0.644	55	02.57	04.71	06.44	07.96	09.41	10.86	12.40	14.09	16.36	19.78	0100	00.663	0.064	0.116
0.644	60	00.63-	02.43	04.55	06.31	07.90	09.45	11.07	12.82	15.14	18.60	0100	00.530	0.067	0.058
0.644	65	06.44-	00.87-	01.92	03.99	05.77	07.44	09.14	10.96	13.33	16.82	0100	00.396	0.074	0.017
0.644	70	12.55-	03.71-	00.51-	01.72	03.58	05.30	07.04	08.88	11.27	14.78	0100	00.287	0.086	0.005
0.644	75	06.23-	03.25-	01.16-	00.58	02.16	03.71	05.32	07.07	09.39	12.84	0100	00.211	0.100	0.024
0.644	80	02.44-	01.36-	00.31-	00.76	01.86	03.05	04.38	05.91	08.04	11.34	0100	00.165	0.114	0.065
0.644	85	00.72-	00.13-	00.52	01.23	02.02	02.93	04.02	05.34	07.26	10.38	0100	00.141	0.126	0.107
0.644	90	00.00	00.49	01.03	01.65	02.35	03.17	04.17	05.41	07.24	10.28	0100	00.134	0.124	0.124
0.660	00	99.99-	10.19-	06.66-	04.32-	02.40-	00.64-	01.12	02.97	05.38	08.90	0100	00.385	0.447	0.000
0.660	05	09.21-	06.36-	04.32-	02.60-	01.04-	00.50	02.10	03.84	06.15	09.60	0100	00.317	0.317	0.038
0.660	10	05.81-	04.78-	03.76-	02.72-	01.64-	00.47-	00.85	02.36	04.48	07.77	0100	00.166	0.262	0.069
0.660	15	03.26-	03.09-	02.88-	02.63-	02.31-	01.90-	01.35-	00.60-	00.67	03.09	0100	00.039	0.223	0.105
0.660	20	01.06-	01.06-	01.05-	01.04-	01.02-	01.00-	00.97-	00.92-	00.81-	00.51-	0100	00.002	0.192	0.150
0.660	25	00.89	01.07	01.29	01.55	01.88	02.31	02.87	03.65	04.94	07.39	0100	00.078	0.165	0.203
0.660	30	02.60	03.08	03.61	04.22	04.91	05.72	06.72	07.94	09.77	12.80	0100	00.269	0.141	0.256
0.660	35	03.98	04.80	05.64	06.52	07.48	08.54	09.76	11.19	13.23	16.46	0100	00.549	0.118	0.296
0.660	40	04.92	06.06	07.17	08.27	09.40	10.61	11.97	13.51	15.65	18.97	0100	00.836	0.099	0.308
0.660	45	05.21	06.69	08.03	09.31	10.58	11.90	13.33	14.95	17.15	20.52	0100	01.028	0.085	0.281
0.660	50	04.59	06.48	08.07	09.51	10.90	12.30	13.81	15.49	17.74	21.14	0100	01.064	0.075	0.217
0.660	55	02.71	05.23	07.14	08.77	10.29	11.79	13.37	15.09	17.39	20.83	0100	00.958	0.072	0.135
0.660	60	00.85-	02.91	05.27	07.15	08.82	10.42	12.07	13.85	16.19	19.66	0100	00.772	0.076	0.062
0.660	65	07.00-	00.21-	02.78	04.92	06.74	08.44	10.16	11.99	14.37	17.87	0100	00.575	0.085	0.017
0.660	70	12.72-	02.85-	00.42	02.67	04.55	06.28	08.02	09.87	12.26	15.77	0100	00.412	0.098	0.005
0.660	75	06.36-	02.84-	00.55-	01.29	02.93	04.52	06.16	07.93	10.26	13.75	0100	00.297	0.114	0.026
0.660	80	02.54-	01.24-	00.03-	01.15	02.35	03.61	05.00	06.59	08.76	12.10	0100	00.227	0.131	0.073
0.660	85	00.73-	00.04-	00.70	01.49	02.37	03.35	04.51	05.89	07.87	11.04	0100	00.191	0.145	0.122
0.660	90	00.00	00.57	01.18	01.86	02.63	03.52	04.59	05.88	07.78	10.88	0100	00.180	0.144	0.144

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.676	00	99.99-	10.34-	06.82-	04.48-	02.56-	00.80-	00.96	02.82	05.22	08.74	0100	00.519	0.624	0.000
0.676	05	09.25-	06.49-	04.48-	02.79-	01.23-	00.29	01.89	03.63	05.94	09.38	0100	00.418	0.439	0.052
0.676	10	05.72-	04.79-	03.86-	02.89-	01.87-	00.75-	00.52	02.00	04.08	07.34	0100	00.207	0.361	0.097
0.676	15	03.06-	02.92-	02.75-	02.54-	02.27-	01.92-	01.45-	00.78-	00.36	02.62	0100	00.045	0.305	0.151
0.676	20	00.77-	00.76-	00.76-	00.75-	00.74-	00.73-	00.71-	00.68-	00.62-	00.45-	0100	00.002	0.260	0.218
0.676	25	01.27	01.40	01.56	01.75	02.00	02.32	02.76	03.39	04.47	06.65	0100	00.081	0.221	0.296
0.676	30	03.04	03.43	03.86	04.36	04.95	05.66	06.54	07.66	09.38	12.30	0100	00.309	0.186	0.375
0.676	35	04.47	05.18	05.94	06.75	07.63	08.63	09.80	11.19	13.18	16.37	0100	00.695	0.154	0.432
0.676	40	05.40	06.49	07.56	08.63	09.74	10.93	12.27	13.80	15.93	19.23	0100	01.140	0.128	0.442
0.676	45	05.60	07.11	08.48	09.77	11.05	12.38	13.82	15.44	17.65	21.02	0100	01.469	0.108	0.391
0.676	50	04.75	06.81	08.49	09.99	11.41	12.85	14.38	16.07	18.33	21.75	0100	01.561	0.096	0.286
0.676	55	02.52	05.42	07.49	09.21	10.78	12.32	13.93	15.67	17.98	21.44	0100	01.418	0.093	0.166
0.676	60	01.48-	03.01	05.58	07.55	09.27	10.91	12.58	14.38	16.73	20.22	0100	01.139	0.098	0.070
0.676	65	08.00-	00.00	03.12	05.32	07.17	08.89	10.62	12.45	14.84	18.35	0100	00.837	0.110	0.018
0.676	70	13.16-	02.55-	00.75	03.02	04.90	06.64	08.38	10.23	12.63	16.14	0100	00.586	0.128	0.006
0.676	75	06.75-	02.88-	00.48-	01.41	03.09	04.69	06.35	08.13	10.47	13.95	0100	00.411	0.150	0.032
0.676	80	02.75-	01.38-	00.12-	01.10	02.33	03.61	05.03	06.62	08.81	12.16	0100	00.306	0.173	0.092
0.676	85	00.76-	00.06-	00.67	01.46	02.34	03.32	04.48	05.86	07.84	11.01	0100	00.253	0.193	0.162
0.676	90	00.00	00.55	01.16	01.83	02.58	03.46	04.52	05.80	07.69	10.78	0100	00.237	0.194	0.194
0.692	00	99.99-	09.83-	06.31-	03.96-	02.05-	00.28-	01.48	03.33	05.74	09.26	0100	00.792	0.845	0.000
0.692	05	09.56-	06.46-	04.32-	02.55-	00.96-	00.60	02.22	03.97	06.30	09.75	0100	00.623	0.601	0.067
0.692	10	05.91-	04.93-	03.96-	02.96-	01.91-	00.76-	00.53	02.03	04.13	07.40	0100	00.287	0.493	0.126
0.692	15	03.17-	03.03-	02.87-	02.68-	02.43-	02.10-	01.65-	01.02-	00.08	02.28	0100	00.056	0.417	0.201
0.692	20	00.80-	00.79-	00.79-	00.79-	00.78-	00.77-	00.76-	00.74-	00.71-	00.60-	0100	00.002	0.355	0.296
0.692	25	01.31	01.41	01.53	01.68	01.86	02.12	02.47	02.98	03.90	05.84	0100	00.083	0.302	0.408
0.692	30	03.13	03.45	03.81	04.24	04.75	05.38	06.17	07.21	08.82	11.64	0100	00.352	0.253	0.521
0.692	35	04.57	05.22	05.92	06.67	07.51	08.46	09.59	10.94	12.90	16.05	0100	00.875	0.210	0.603
0.692	40	05.46	06.52	07.56	08.61	09.71	10.89	12.21	13.74	15.86	19.15	0100	01.529	0.175	0.614
0.692	45	05.53	07.07	08.45	09.75	11.04	12.37	13.82	15.45	17.66	21.03	0100	02.040	0.149	0.532
0.692	50	04.43	06.61	08.35	09.88	11.34	12.79	14.34	16.04	18.31	21.73	0100	02.195	0.135	0.375
0.692	55	01.81	05.01	07.19	08.97	10.58	12.15	13.77	15.53	17.86	21.32	0100	01.990	0.134	0.203
0.692	60	02.66-	02.46	05.17	07.20	08.96	10.62	12.31	14.12	16.48	19.98	0100	01.577	0.144	0.078
0.692	65	09.48-	00.52-	02.68	04.91	06.77	08.50	10.23	12.07	14.47	17.98	0100	01.132	0.163	0.018
0.692	70	13.77-	03.08-	00.23	02.50	04.38	06.12	07.86	09.71	12.11	15.62	0100	00.769	0.190	0.008
0.692	75	07.28-	03.51-	01.13-	00.74	02.41	04.01	05.67	07.44	09.78	13.26	0100	00.522	0.224	0.042
0.692	80	03.00-	01.79-	00.63-	00.51	01.67	02.91	04.28	05.85	08.00	11.33	0100	00.377	0.260	0.130
0.692	85	00.79-	00.22-	00.40	01.09	01.86	02.76	03.83	05.13	07.03	10.14	0100	00.307	0.291	0.242
0.692	90	00.00	00.44	00.94	01.50	02.16	02.94	03.89	05.08	06.87	09.87	0100	00.286	0.296	0.296

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										DIPOLE CROSS-SECTION			
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.700	00	99.99-	09.34-	05.82-	03.48-	01.56-	00.20	01.96	03.82	06.22	09.74	0100	00.982	0.938	0.000
0.700	05	09.77-	06.34-	04.08-	02.25-	00.62-	00.96	02.60	04.37	06.70	10.16	0100	00.767	0.672	0.071
0.700	10	06.09-	05.02-	03.97-	02.90-	01.80-	00.62-	00.71	02.24	04.37	07.66	0100	00.344	0.553	0.136
0.700	15	03.32-	03.18-	03.02-	02.81-	02.55-	02.22-	01.76-	01.11-	00.02	02.25	0100	00.063	0.469	0.218
0.700	20	00.93-	00.92-	00.92-	00.92-	00.91-	00.91-	00.90-	00.88-	00.85-	00.76-	0100	00.001	0.401	0.324
0.700	25	01.20	01.29	01.39	01.53	01.70	01.93	02.25	02.72	03.58	05.42	0100	00.082	0.342	0.451
0.700	30	03.03	03.32	03.66	04.06	04.55	05.14	05.91	06.91	08.48	11.25	0100	00.363	0.289	0.579
0.700	35	04.46	05.08	05.76	06.49	07.32	08.25	09.37	10.70	12.65	15.79	0100	00.941	0.241	0.673
0.700	40	05.30	06.35	07.38	08.43	09.52	10.69	12.01	13.54	15.65	18.95	0100	01.689	0.202	0.686
0.700	45	05.28	06.83	08.21	09.52	10.81	12.15	13.60	15.23	17.44	20.81	0100	02.280	0.175	0.590
0.700	50	04.05	06.27	08.03	09.58	11.04	12.50	14.05	15.75	18.03	21.45	0100	02.459	0.161	0.410
0.700	55	01.25	04.56	06.77	08.58	10.20	11.77	13.40	15.17	17.49	20.96	0100	02.220	0.162	0.216
0.700	60	03.43-	01.93	04.68	06.73	08.50	10.17	11.87	13.68	16.04	19.54	0100	01.742	0.175	0.080
0.700	65	10.32-	01.07-	02.15	04.39	06.26	07.99	09.73	11.57	13.96	17.47	0100	01.234	0.199	0.019
0.700	70	14.03-	03.63-	00.34-	01.93	03.80	05.54	07.29	09.13	11.53	15.04	0100	00.825	0.233	0.009
0.700	75	07.51-	03.98-	01.68-	00.16	01.80	03.39	05.03	06.81	09.14	12.61	0100	00.552	0.275	0.049
0.700	80	03.10-	02.03-	00.98-	00.08	01.18	02.37	03.70	05.22	07.35	10.65	0100	00.396	0.321	0.157
0.700	85	00.81-	00.32-	00.23	00.84	01.54	02.36	03.36	04.60	06.43	09.48	0100	00.321	0.360	0.299
0.700	90	00.00	00.38	00.81	01.30	01.89	02.59	03.47	04.59	06.30	09.21	0100	00.300	0.367	0.367
0.708	00	99.99-	08.73-	05.21-	02.87-	00.95-	00.81	02.57	04.43	06.83	10.35	0100	01.188	0.986	0.000
0.708	05	09.96-	06.11-	03.72-	01.83-	00.15-	01.45	03.11	04.89	07.23	10.71	0100	00.923	0.712	0.072
0.708	10	06.29-	05.06-	03.90-	02.76-	01.59-	00.35-	01.03	02.60	04.75	08.08	0100	00.405	0.589	0.139
0.708	15	03.52-	03.37-	03.18-	02.96-	02.68-	02.32-	01.82-	01.13-	00.05	02.35	0100	00.071	0.502	0.223
0.708	20	01.12-	01.12-	01.12-	01.11-	01.11-	01.10-	01.09-	01.08-	01.05-	00.97-	0100	00.001	0.432	0.334
0.708	25	01.01	01.09	01.19	01.31	01.47	01.68	01.99	02.43	03.25	05.02	0100	00.079	0.371	0.467
0.708	30	02.82	03.10	03.42	03.80	04.26	04.84	05.58	06.55	08.09	10.82	0100	00.356	0.316	0.605
0.708	35	04.22	04.83	05.49	06.21	07.02	07.94	09.04	10.37	12.30	15.43	0100	00.958	0.267	0.706
0.708	40	05.00	06.04	07.07	08.11	09.20	10.37	11.69	13.21	15.32	18.61	0100	01.758	0.228	0.720
0.708	45	04.88	06.43	07.82	09.13	10.43	11.76	13.22	14.85	17.06	20.43	0100	02.395	0.201	0.617
0.708	50	03.50	05.76	07.53	09.09	10.56	12.03	13.58	15.28	17.56	20.99	0100	02.586	0.189	0.423
0.708	55	00.54	03.93	06.18	08.00	09.63	11.21	12.85	14.61	16.94	20.41	0100	02.323	0.192	0.217
0.708	60	04.31-	01.23	04.02	06.09	07.87	09.54	11.24	13.05	15.42	18.92	0100	01.807	0.210	0.078
0.708	65	11.17-	01.77-	01.46	03.70	05.57	07.30	09.04	10.88	13.27	16.79	0100	01.265	0.239	0.018
0.708	70	14.24-	04.32-	01.05-	01.20	03.07	04.81	06.55	08.39	10.79	14.30	0100	00.835	0.280	0.011
0.708	75	07.69-	04.48-	02.30-	00.51-	01.10	02.66	04.29	06.05	08.37	11.84	0100	00.555	0.331	0.056
0.708	80	03.17-	02.24-	01.31-	00.34-	00.68	01.80	03.07	04.55	06.63	09.89	0100	00.398	0.387	0.186
0.708	85	00.82-	00.40-	00.07	00.61	01.23	01.98	02.91	04.07	05.83	08.79	0100	00.325	0.434	0.360
0.708	90	00.00	00.32	00.69	01.12	01.64	02.27	03.07	04.11	05.73	08.56	0100	00.305	0.444	0.444

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.712	00	99.99-	08.39-	04.87-	02.53-	00.61-	01.15	02.91	04.77	07.17	10.69	0100	01.288	0.988	0.000
0.712	05	10.02-	05.95-	03.49-	01.57-	00.12	01.74	03.41	05.19	07.54	11.02	0100	00.999	0.716	0.071
0.712	10	06.38-	05.06-	03.83-	02.64-	01.43-	00.16-	01.24	02.82	05.00	08.34	0100	00.436	0.595	0.137
0.712	15	03.62-	03.46-	03.27-	03.03-	02.73-	02.35-	01.83-	01.12-	00.10	02.46	0100	00.075	0.508	0.221
0.712	20	01.23-	01.23-	01.23-	01.23-	01.22-	01.22-	01.21-	01.20-	01.17-	01.09-	0100	00.001	0.439	0.330
0.712	25	00.88	00.96	01.06	01.18	01.33	01.54	01.84	02.27	03.07	04.82	0100	00.076	0.378	0.463
0.712	30	02.69	02.96	03.27	03.64	04.09	04.66	05.38	06.34	07.86	10.58	0100	00.344	0.324	0.601
0.712	35	04.06	04.66	05.31	06.03	06.83	07.75	08.84	10.16	12.09	15.21	0100	00.941	0.276	0.703
0.712	40	04.80	05.84	06.86	07.90	08.98	10.15	11.47	12.99	15.10	18.39	0100	01.745	0.238	0.717
0.712	45	04.62	06.18	07.57	08.88	10.17	11.51	12.97	14.60	16.81	20.18	0100	02.388	0.212	0.613
0.712	50	03.17	05.44	07.22	08.79	10.26	11.73	13.28	14.99	17.27	20.69	0100	02.580	0.201	0.418
0.712	55	00.12	03.56	05.83	07.65	09.29	10.87	12.51	14.27	16.61	20.07	0100	02.313	0.207	0.213
0.712	60	04.80-	00.83	03.64	05.71	07.49	09.17	10.87	12.68	15.05	18.55	0100	01.792	0.226	0.075
0.712	65	11.58-	02.17-	01.07	03.31	05.18	06.91	08.65	10.49	12.88	16.40	0100	01.249	0.258	0.018
0.712	70	14.31-	04.69-	01.44-	00.80	02.67	04.40	06.15	07.99	10.38	13.89	0100	00.822	0.302	0.011
0.712	75	07.75-	04.72-	02.60-	00.85-	00.74	02.29	03.90	05.66	07.97	11.43	0100	00.546	0.358	0.060
0.712	80	03.19-	02.33-	01.45-	00.54-	00.45	01.53	02.77	04.23	06.28	09.52	0100	00.394	0.418	0.201
0.712	85	00.82-	00.43-	00.00	00.51	01.10	01.81	02.70	03.83	05.55	08.48	0100	00.325	0.471	0.390
0.712	90	00.00	00.30	00.64	01.04	01.53	02.13	02.90	03.91	05.49	08.27	0100	00.305	0.481	0.481
0.716	00	99.99-	08.03-	04.51-	02.17-	00.25-	01.51	03.27	05.13	07.53	11.05	0100	01.380	0.975	0.000
0.716	05	10.06-	05.75-	03.23-	01.28-	00.43	02.06	03.73	05.52	07.87	11.36	0100	01.069	0.710	0.070
0.716	10	06.45-	05.03-	03.74-	02.49-	01.25-	00.05	01.48	03.08	05.28	08.63	0100	00.464	0.591	0.134
0.716	15	03.72-	03.55-	03.34-	03.09-	02.77-	02.37-	01.82-	01.07-	00.19	02.60	0100	00.079	0.507	0.215
0.716	20	01.35-	01.35-	01.35-	01.34-	01.34-	01.33-	01.33-	01.31-	01.29-	01.21-	0100	00.001	0.439	0.322
0.716	25	00.75	00.83	00.92	01.04	01.19	01.39	01.68	02.11	02.90	04.62	0100	00.072	0.380	0.452
0.716	30	02.53	02.79	03.10	03.46	03.90	04.45	05.17	06.11	07.62	10.32	0100	00.327	0.328	0.587
0.716	35	03.87	04.46	05.11	05.81	06.61	07.52	08.61	09.92	11.84	14.96	0100	00.906	0.282	0.688
0.716	40	04.56	05.59	06.62	07.65	08.73	09.90	11.22	12.73	14.85	18.14	0100	01.698	0.245	0.701
0.716	45	04.32	05.88	07.27	08.59	09.88	11.22	12.68	14.31	16.52	19.89	0100	02.336	0.222	0.599
0.716	50	02.80	05.08	06.87	08.44	09.92	11.39	12.94	14.65	16.93	20.36	0100	02.527	0.213	0.406
0.716	55	00.33-	03.15	05.43	07.27	08.91	10.49	12.13	13.90	16.23	19.70	0100	02.262	0.220	0.204
0.716	60	05.31-	00.40	03.23	05.30	07.09	08.76	10.47	12.28	14.65	18.15	0100	01.748	0.242	0.071
0.716	65	11.99-	02.58-	00.66	02.90	04.77	06.50	08.24	10.08	12.47	15.98	0100	01.214	0.276	0.017
0.716	70	14.37-	05.07-	01.84-	00.40	02.26	03.99	05.73	07.57	09.96	13.48	0100	00.799	0.323	0.012
0.716	75	07.80-	04.94-	02.89-	01.18-	00.39	01.92	03.53	05.27	07.58	11.03	0100	00.533	0.383	0.064
0.716	80	03.20-	02.41-	01.58-	00.71-	00.24	01.29	02.50	03.93	05.96	09.18	0100	00.389	0.448	0.214
0.716	85	00.82-	00.46-	00.05-	00.42	00.99	01.67	02.53	03.62	05.31	08.20	0100	00.323	0.504	0.417
0.716	90	00.00	00.28	00.60	00.98	01.44	02.02	02.76	03.73	05.27	08.01	0100	00.305	0.516	0.516

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.720	00	99.99-	07.66-	04.14-	01.80-	00.12	01.88	03.64	05.50	07.90	11.42	0100	01.463	0.949	0.000
0.720	05	10.06-	05.52-	02.95-	00.97-	00.75	02.39	04.07	05.87	08.22	11.71	0100	01.133	0.693	0.068
0.720	10	06.50-	04.98-	03.61-	02.31-	01.03-	00.30	01.75	03.37	05.58	08.95	0100	00.490	0.579	0.129
0.720	15	03.81-	03.62-	03.40-	03.13-	02.79-	02.36-	01.79-	01.00-	00.31	02.78	0100	00.082	0.498	0.207
0.720	20	01.47-	01.47-	01.47-	01.46-	01.46-	01.45-	01.45-	01.43-	01.41-	01.33-	0100	00.001	0.434	0.309
0.720	25	00.60	00.68	00.77	00.89	01.04	01.24	01.52	01.94	02.72	04.42	0100	00.068	0.378	0.434
0.720	30	02.36	02.61	02.91	03.26	03.69	04.23	04.93	05.86	07.35	10.03	0100	00.304	0.328	0.564
0.720	35	03.66	04.24	04.87	05.57	06.36	07.26	08.34	09.65	11.56	14.68	0100	00.856	0.285	0.661
0.720	40	04.29	05.32	06.34	07.37	08.45	09.62	10.93	12.44	14.56	17.84	0100	01.622	0.251	0.674
0.720	45	03.98	05.55	06.94	08.26	09.55	10.89	12.35	13.98	16.19	19.57	0100	02.244	0.229	0.573
0.720	50	02.38	04.69	06.49	08.06	09.54	11.02	12.57	14.28	16.57	19.99	0100	02.431	0.223	0.386
0.720	55	00.83-	02.71	05.01	06.85	08.50	10.08	11.73	13.50	15.83	19.30	0100	02.176	0.232	0.192
0.720	60	05.86-	00.05-	02.79	04.88	06.66	08.34	10.05	11.86	14.24	17.73	0100	01.679	0.256	0.066
0.720	65	12.39-	03.00-	00.23	02.47	04.34	06.07	07.81	09.65	12.04	15.56	0100	01.166	0.292	0.017
0.720	70	14.42-	05.44-	02.24-	00.01-	01.85	03.58	05.32	07.16	09.55	13.06	0100	00.769	0.342	0.012
0.720	75	07.83-	05.14-	03.16-	01.48-	00.06	01.58	03.17	04.90	07.21	10.69	0100	00.517	0.406	0.067
0.720	80	03.22-	02.47-	01.69-	00.85-	00.06	01.08	02.26	03.67	05.67	08.87	0100	00.382	0.475	0.227
0.720	85	00.82-	00.49-	00.10-	00.36	00.89	01.55	02.38	03.45	05.10	07.96	0100	00.322	0.534	0.442
0.720	90	00.00	00.26	00.57	00.93	01.38	01.93	02.64	03.59	05.10	07.80	0100	00.306	0.547	0.547
0.724	00	99.99-	07.29-	03.77-	01.43-	00.49	02.25	04.01	05.87	08.27	11.79	0100	01.534	0.913	0.000
0.724	05	10.02-	05.27-	02.64-	00.65-	01.09	02.74	04.42	06.22	08.58	12.07	0100	01.187	0.668	0.066
0.724	10	06.53-	04.89-	03.45-	02.11-	00.79-	00.56	02.03	03.67	05.90	09.28	0100	00.513	0.560	0.124
0.724	15	03.89-	03.68-	03.44-	03.15-	02.79-	02.33-	01.73-	00.90-	00.46	02.99	0100	00.085	0.484	0.198
0.724	20	01.59-	01.58-	01.58-	01.58-	01.58-	01.57-	01.56-	01.55-	01.52-	01.45-	0100	00.001	0.423	0.294
0.724	25	00.45	00.53	00.62	00.73	00.88	01.07	01.35	01.77	02.53	04.22	0100	00.063	0.371	0.412
0.724	30	02.17	02.41	02.70	03.04	03.46	03.99	04.67	05.58	07.05	09.71	0100	00.278	0.324	0.535
0.724	35	03.42	03.99	04.62	05.30	06.08	06.97	08.04	09.35	11.25	14.36	0100	00.793	0.285	0.626
0.724	40	03.99	05.02	06.03	07.06	08.13	09.30	10.61	12.12	14.23	17.52	0100	01.521	0.254	0.637
0.724	45	03.61	05.18	06.58	07.89	09.19	10.53	11.99	13.62	15.84	19.21	0100	02.119	0.235	0.539
0.724	50	01.93	04.26	06.07	07.66	09.14	10.62	12.18	13.89	16.17	19.60	0100	02.303	0.231	0.360
0.724	55	01.36-	02.24	04.56	06.41	08.06	09.66	11.30	13.08	15.41	18.88	0100	02.063	0.242	0.177
0.724	60	06.43-	00.52-	02.34	04.43	06.22	07.91	09.61	11.43	13.81	17.30	0100	01.592	0.268	0.061
0.724	65	12.77-	03.42-	00.19-	02.05	03.92	05.65	07.39	09.23	11.62	15.13	0100	01.108	0.306	0.016
0.724	70	14.46-	05.80-	02.62-	00.40-	01.46	03.19	04.92	06.76	09.15	12.66	0100	00.734	0.359	0.013
0.724	75	07.86-	05.31-	03.40-	01.76-	00.24-	01.27	02.85	04.57	06.87	10.31	0100	00.500	0.425	0.070
0.724	80	03.22-	02.52-	01.77-	00.97-	00.09-	00.90	02.06	03.44	05.43	08.61	0100	00.375	0.498	0.237
0.724	85	00.82-	00.50-	00.13-	00.30	00.82	01.46	02.27	03.31	04.94	07.77	0100	00.321	0.560	0.463
0.724	90	00.00	00.25	00.54	00.89	01.32	01.86	02.55	03.48	04.96	07.64	0100	00.306	0.573	0.573

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.728	00	99.99-	06.92-	03.40-	01.06-	00.86	02.62	04.38	06.24	08.64	12.16	0100	01.593	0.871	0.000
0.728	05	09.94-	05.00-	02.33-	00.31-	01.43	03.09	04.77	06.58	08.94	12.43	0100	01.233	0.637	0.065
0.728	10	06.53-	04.78-	03.28-	01.89-	00.54-	00.84	02.33	03.99	06.22	09.62	0100	00.532	0.536	0.119
0.728	15	03.95-	03.73-	03.47-	03.16-	02.77-	02.28-	01.64-	00.78-	00.63	03.21	0100	00.088	0.466	0.188
0.728	20	01.69-	01.69-	01.69-	01.69-	01.68-	01.68-	01.67-	01.66-	01.63-	01.56-	0100	00.001	0.409	0.277
0.728	25	00.30	00.37	00.46	00.57	00.72	00.91	01.16	01.59	02.35	04.02	0100	00.058	0.361	0.387
0.728	30	01.97	02.21	02.48	02.81	03.21	03.72	04.39	05.28	06.72	09.35	0100	00.249	0.318	0.501
0.728	35	03.17	03.73	04.34	05.01	05.77	06.66	07.72	09.01	10.90	14.00	0100	00.721	0.282	0.585
0.728	40	03.68	04.69	05.69	06.72	07.79	08.95	10.24	11.77	13.87	17.16	0100	01.405	0.255	0.594
0.728	45	03.21	04.79	06.19	07.51	08.81	10.15	11.61	13.24	15.46	18.83	0100	01.974	0.239	0.500
0.728	50	01.44	03.80	05.64	07.23	08.72	10.20	11.76	13.47	15.76	19.19	0100	02.155	0.238	0.331
0.728	55	01.93-	01.75	04.10	05.96	07.62	09.22	10.87	12.64	14.98	18.45	0100	01.935	0.251	0.161
0.728	60	07.04-	00.99-	01.89	03.99	05.79	07.47	09.18	11.00	13.38	16.88	0100	01.497	0.278	0.055
0.728	65	13.14-	03.83-	00.60-	01.64	03.51	05.24	06.98	08.82	11.21	14.72	0100	01.046	0.318	0.015
0.728	70	14.48-	06.12-	02.97-	00.76-	01.10	02.82	04.55	06.39	08.78	12.29	0100	00.700	0.373	0.013
0.728	75	07.87-	05.46-	03.60-	01.99-	00.50-	00.99	02.56	04.28	06.57	10.00	0100	00.483	0.442	0.072
0.728	80	03.22-	02.55-	01.84-	01.07-	00.21-	00.76	01.90	03.26	05.23	08.39	0100	00.369	0.517	0.246
0.728	85	00.83-	00.52-	00.16-	00.26	00.77	01.39	02.18	03.20	04.81	07.62	0100	00.320	0.582	0.481
0.728	90	00.00	00.24	00.53	00.87	01.28	01.80	02.49	03.39	04.86	07.51	0100	00.307	0.595	0.595
0.732	00	99.99-	06.56-	03.04-	00.70-	01.22	02.98	04.74	06.59	09.00	12.52	0100	01.640	0.826	0.000
0.732	05	09.84-	04.72-	02.01-	00.02	01.77	03.43	05.12	06.93	09.30	12.79	0100	01.270	0.605	0.063
0.732	10	06.51-	04.65-	03.08-	01.65-	00.27-	01.13	02.63	04.30	06.55	09.95	0100	00.548	0.510	0.114
0.732	15	03.99-	03.75-	03.47-	03.14-	02.73-	02.21-	01.54-	00.64-	00.81	03.45	0100	00.090	0.445	0.177
0.732	20	01.79-	01.79-	01.79-	01.79-	01.78-	01.78-	01.77-	01.76-	01.73-	01.65-	0100	00.001	0.393	0.260
0.732	25	00.15	00.22	00.31	00.42	00.56	00.75	01.02	01.42	02.16	03.81	0100	00.053	0.349	0.361
0.732	30	01.77	01.99	02.25	02.57	02.96	03.45	04.09	04.96	06.37	08.96	0100	00.220	0.310	0.466
0.732	35	02.91	03.45	04.04	04.75	05.45	06.32	07.36	08.64	10.52	13.60	0100	00.647	0.278	0.542
0.732	40	03.34	04.34	05.34	06.35	07.42	08.57	09.88	11.39	13.49	16.77	0100	01.281	0.254	0.548
0.732	45	02.79	04.37	05.78	07.10	08.40	09.75	11.21	12.84	15.06	18.43	0100	01.819	0.241	0.459
0.732	50	00.93	03.33	05.18	06.79	08.28	09.77	11.33	13.05	15.34	18.77	0100	01.998	0.242	0.300
0.732	55	02.54-	01.25	03.63	05.51	07.18	08.78	10.43	12.21	14.55	18.03	0100	01.801	0.258	0.144
0.732	60	07.68-	01.46-	01.45	03.56	05.36	07.05	08.76	10.58	12.96	16.46	0100	01.400	0.286	0.049
0.732	65	13.50-	04.22-	00.99-	01.25	03.12	04.85	06.59	08.43	10.82	14.33	0100	00.985	0.327	0.015
0.732	70	14.50-	06.41-	03.28-	01.08-	00.77	02.48	04.22	06.05	08.44	11.95	0100	00.666	0.384	0.014
0.732	75	07.88-	05.57-	03.77-	02.19-	00.71-	00.76	02.32	04.03	06.31	09.74	0100	00.468	0.455	0.074
0.732	80	03.22-	02.58-	01.89-	01.14-	00.31-	00.64	01.76	03.11	05.07	08.21	0100	00.364	0.533	0.253
0.732	85	00.83-	00.53-	00.18-	00.23	00.73	01.33	02.11	03.12	04.71	07.50	0100	00.319	0.599	0.495
0.732	90	00.00	00.24	00.51	00.85	01.25	01.77	02.44	03.33	04.78	07.42	0100	00.308	0.613	0.613

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.736	00	99.99-	06.23-	02.70-	00.36-	01.55	03.32	05.08	06.93	09.34	12.86	0100	01.676	0.781	0.000
0.736	05	09.71-	04.44-	01.71-	00.34	02.10	03.76	05.46	07.27	09.64	13.13	0100	01.298	0.571	0.061
0.736	10	06.47-	04.51-	02.86-	01.42-	00.01-	01.41	02.93	04.61	06.86	10.27	0100	00.560	0.484	0.109
0.736	15	04.02-	03.76-	03.46-	03.11-	02.67-	02.13-	01.42-	00.49-	01.00	03.69	0100	00.091	0.423	0.168
0.736	20	01.88-	01.88-	01.88-	01.87-	01.87-	01.86-	01.86-	01.84-	01.82-	01.74-	0100	00.001	0.376	0.244
0.736	25	00.01	00.08	00.16	00.27	00.40	00.59	00.85	01.24	01.97	03.60	0100	00.048	0.336	0.336
0.736	30	01.57	01.78	02.02	02.32	02.69	03.16	03.78	04.61	05.99	08.54	0100	00.191	0.301	0.432
0.736	35	02.64	03.16	03.73	04.37	05.10	05.96	06.98	08.24	10.11	13.18	0100	00.573	0.272	0.500
0.736	40	03.00	03.99	04.97	05.98	07.04	08.19	09.49	10.99	13.09	16.37	0100	01.158	0.252	0.502
0.736	45	02.36	03.95	05.36	06.68	07.99	09.34	10.80	12.43	14.65	18.03	0100	01.664	0.242	0.417
0.736	50	00.40	02.85	04.73	06.34	07.85	09.34	10.91	12.63	14.92	18.36	0100	01.842	0.246	0.270
0.736	55	03.17-	00.75	03.17	05.06	06.74	08.35	10.01	11.79	14.14	17.61	0100	01.670	0.263	0.127
0.736	60	08.34-	01.92-	01.02	03.14	04.95	06.64	08.36	10.18	12.56	16.06	0100	01.306	0.292	0.043
0.736	65	13.84-	04.57-	01.34-	00.89	02.76	04.49	06.23	08.07	10.46	13.97	0100	00.927	0.335	0.014
0.736	70	14.51-	06.67-	03.56-	01.37-	00.47	02.19	03.92	05.75	08.14	11.65	0100	00.635	0.392	0.014
0.736	75	07.88-	05.67-	03.91-	02.36-	00.90-	00.57	02.11	03.82	06.09	09.52	0100	00.454	0.465	0.076
0.736	80	03.22-	02.60-	01.93-	01.20-	00.38-	00.55	01.66	03.00	04.94	08.07	0100	00.359	0.544	0.259
0.736	85	00.83-	00.53-	00.19-	00.21	00.69	01.29	02.06	03.06	04.63	07.41	0100	00.319	0.613	0.507
0.736	90	00.00	00.23	00.50	00.83	01.23	01.74	02.40	03.28	04.72	07.34	0100	00.308	0.627	0.627
0.740	00	99.99-	05.91-	02.39-	00.05-	01.87	03.63	05.39	07.25	09.65	13.17	0100	01.703	0.738	0.000
0.740	05	09.57-	04.18-	01.41-	00.64	02.41	04.08	05.78	07.59	09.96	13.45	0100	01.319	0.539	0.059
0.740	10	06.41-	04.36-	02.68-	01.18-	00.24	01.68	03.21	04.90	07.16	10.58	0100	00.570	0.458	0.105
0.740	15	04.03-	03.76-	03.44-	03.06-	02.60-	02.03-	01.30-	00.34-	01.20	03.93	0100	00.093	0.403	0.159
0.740	20	01.95-	01.95-	01.95-	01.95-	01.94-	01.94-	01.93-	01.92-	01.89-	01.82-	0100	00.001	0.359	0.229
0.740	25	00.13-	00.06-	00.02	00.12	00.26	00.44	00.69	01.08	01.79	03.39	0100	00.043	0.323	0.313
0.740	30	01.37	01.56	01.79	02.07	02.42	02.86	03.45	04.25	05.58	08.08	0100	00.164	0.292	0.400
0.740	35	02.37	02.87	03.42	04.04	04.75	05.58	06.59	07.83	09.68	12.72	0100	00.503	0.267	0.460
0.740	40	02.65	03.63	04.60	05.60	06.65	07.79	09.08	10.58	12.68	15.95	0100	01.040	0.249	0.459
0.740	45	01.92	03.52	04.94	06.27	07.58	08.92	10.39	12.02	14.24	17.62	0100	01.516	0.243	0.378
0.740	50	00.13-	02.38	04.28	05.91	07.42	08.92	10.50	12.22	14.51	17.95	0100	01.694	0.248	0.241
0.740	55	03.81-	00.26	02.71	04.63	06.32	07.94	09.61	11.39	13.74	17.22	0100	01.548	0.266	0.111
0.740	60	09.02-	02.35-	00.62	02.76	04.57	06.27	07.99	09.81	12.19	15.69	0100	01.220	0.297	0.037
0.740	65	14.16-	04.89-	01.67-	00.57	02.44	04.17	05.90	07.75	10.14	13.65	0100	00.874	0.340	0.013
0.740	70	14.51-	06.88-	03.80-	01.62-	00.22	01.93	03.66	05.50	07.88	11.39	0100	00.608	0.399	0.014
0.740	75	07.88-	05.74-	04.02-	02.49-	01.04-	00.41	01.95	03.64	05.91	09.33	0100	00.442	0.473	0.077
0.740	80	03.22-	02.62-	01.96-	01.24-	00.44-	00.48	01.58	02.91	04.83	07.96	0100	00.355	0.553	0.264
0.740	85	00.83-	00.54-	00.20-	00.19	00.67	01.26	02.02	03.01	04.57	07.34	0100	00.318	0.623	0.515
0.740	90	00.00	00.23	00.50	00.82	01.21	01.71	02.37	03.25	04.67	07.28	0100	00.308	0.637	0.637

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.744	00	99.99-	05.63-	02.10-	00.24	02.16	03.92	05.68	07.53	09.94	13.46	0100	01.722	0.699	0.000
0.744	05	09.44-	03.93-	01.14-	00.92	02.70	04.37	06.07	07.88	10.25	13.75	0100	01.334	0.509	0.058
0.744	10	06.35-	04.21-	02.49-	00.96-	00.48	01.93	03.47	05.17	07.44	10.86	0100	00.577	0.434	0.101
0.744	15	04.03-	03.74-	03.41-	03.01-	02.53-	01.94-	01.17-	00.18-	01.39	04.15	0100	00.094	0.383	0.151
0.744	20	02.02-	02.02-	02.01-	02.01-	02.01-	02.00-	02.00-	01.98-	01.96-	01.88-	0100	00.001	0.343	0.216
0.744	25	00.25-	00.19-	00.11-	00.01-	00.12	00.30	00.54	00.92	01.61	03.18	0100	00.039	0.310	0.293
0.744	30	01.18	01.36	01.57	01.83	02.15	02.57	03.12	03.89	05.16	07.60	0100	00.139	0.282	0.371
0.744	35	02.11	02.59	03.12	03.71	04.40	05.20	06.19	07.41	09.23	12.25	0100	00.439	0.261	0.424
0.744	40	02.31	03.27	04.23	05.22	06.26	07.39	08.68	10.17	12.26	15.54	0100	00.932	0.246	0.419
0.744	45	01.49	03.11	04.53	05.86	07.17	08.52	09.99	11.62	13.84	17.22	0100	01.381	0.242	0.341
0.744	50	00.67-	01.91	03.84	05.49	07.01	08.52	10.10	11.83	14.13	17.57	0100	01.559	0.249	0.214
0.744	55	04.47-	00.22-	02.29	04.23	05.93	07.56	09.23	11.02	13.37	16.85	0100	01.436	0.269	0.096
0.744	60	09.71-	02.76-	00.25	02.40	04.22	05.92	07.65	09.47	11.86	15.36	0100	01.142	0.300	0.032
0.744	65	14.45-	05.18-	01.95-	00.28	02.15	03.88	05.62	07.46	09.85	13.36	0100	00.828	0.344	0.012
0.744	70	14.51-	07.07-	04.01-	01.83-	00.01	01.72	03.44	05.27	07.66	11.16	0100	00.584	0.403	0.014
0.744	75	07.88-	05.80-	04.11-	02.60-	01.17-	00.27	01.81	03.50	05.76	09.18	0100	00.431	0.478	0.078
0.744	80	03.22-	02.63-	01.98-	01.28-	00.48-	00.43	01.51	02.83	04.75	07.87	0100	00.351	0.560	0.267
0.744	85	00.83-	00.54-	00.21-	00.18	00.65	01.23	01.98	02.97	04.52	07.27	0100	00.316	0.630	0.521
0.744	90	00.00	00.22	00.49	00.81	01.20	01.69	02.34	03.21	04.63	07.23	0100	00.306	0.644	0.644
0.748	00	99.99-	05.37-	01.84-	00.50	02.42	04.18	05.94	07.79	10.20	13.72	0100	01.734	0.663	0.000
0.748	05	09.31-	03.70-	00.90-	01.18	02.95	04.63	06.33	08.15	10.52	14.01	0100	01.344	0.483	0.057
0.748	10	06.29-	04.07-	02.31-	00.76-	00.70	02.16	03.71	05.42	07.69	11.12	0100	00.582	0.412	0.097
0.748	15	04.03-	03.72-	03.37-	02.95-	02.45-	01.84-	01.05-	00.03-	01.56	04.36	0100	00.095	0.365	0.144
0.748	20	02.07-	02.07-	02.07-	02.07-	02.06-	02.06-	02.05-	02.04-	02.01-	01.94-	0100	00.001	0.328	0.204
0.748	25	00.36-	00.30-	00.23-	00.13-	00.01-	00.16	00.40	00.76	01.44	02.98	0100	00.035	0.299	0.274
0.748	30	01.01	01.17	01.36	01.60	01.89	02.28	02.80	03.51	04.73	07.09	0100	00.117	0.274	0.345
0.748	35	01.87	02.32	02.82	03.39	04.05	04.83	05.79	06.98	08.77	11.77	0100	00.382	0.255	0.392
0.748	40	01.99	02.93	03.87	04.85	05.88	07.01	08.29	09.77	11.86	15.12	0100	00.836	0.243	0.384
0.748	45	01.08	02.70	04.13	05.47	06.78	08.14	09.60	11.24	13.46	16.84	0100	01.260	0.241	0.309
0.748	50	01.19-	01.46	03.42	05.09	06.63	08.14	09.73	11.46	13.76	17.21	0100	01.439	0.250	0.190
0.748	55	05.13-	00.67-	01.89	03.85	05.57	07.20	08.88	10.68	13.03	16.52	0100	01.338	0.270	0.083
0.748	60	10.41-	03.14-	00.09-	02.08	03.91	05.62	07.34	09.17	11.55	15.06	0100	01.074	0.302	0.028
0.748	65	14.72-	05.43-	02.21-	00.03	01.90	03.63	05.37	07.21	09.60	13.11	0100	00.788	0.347	0.012
0.748	70	14.51-	07.22-	04.18-	02.01-	00.18-	01.53	03.25	05.08	07.47	10.97	0100	00.563	0.406	0.014
0.748	75	07.88-	05.85-	04.18-	02.69-	01.27-	00.16	01.69	03.38	05.64	09.05	0100	00.422	0.482	0.079
0.748	80	03.21-	02.63-	02.00-	01.31-	00.52-	00.38	01.46	02.76	04.67	07.78	0100	00.346	0.564	0.269
0.748	85	00.83-	00.55-	00.22-	00.16	00.63	01.21	01.95	02.93	04.47	07.22	0100	00.313	0.634	0.525
0.748	90	00.00	00.22	00.48	00.80	01.18	01.67	02.31	03.18	04.59	07.18	0100	00.304	0.648	0.648

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.752	00	99.99-	05.14-	01.61-	00.73	02.65	04.41	06.17	08.02	10.43	13.95	0100	01.741	0.631	0.000
0.752	05	09.19-	03.49-	00.67-	01.40	03.19	04.86	06.57	08.38	10.75	14.25	0100	01.350	0.459	0.055
0.752	10	06.22-	03.94-	02.14-	00.57-	00.90	02.37	03.93	05.64	07.92	11.35	0100	00.585	0.393	0.094
0.752	15	04.02-	03.70-	03.33-	02.90-	02.38-	01.74-	00.94-	00.10	01.73	04.55	0100	00.095	0.349	0.138
0.752	20	02.12-	02.12-	02.11-	02.11-	02.11-	02.10-	02.10-	02.08-	02.06-	01.98-	0100	00.001	0.315	0.194
0.752	25	00.47-	00.41-	00.33-	00.24-	00.12-	00.04	00.27	00.62	01.28	02.79	0100	00.032	0.288	0.259
0.752	30	00.84	00.99	01.16	01.38	01.65	02.00	02.48	03.15	04.30	06.57	0100	00.098	0.266	0.323
0.752	35	01.64	02.06	02.53	03.07	03.71	04.46	05.39	06.56	08.32	11.29	0100	00.332	0.249	0.363
0.752	40	01.68	02.60	03.53	04.50	05.52	06.63	07.90	09.38	11.46	14.72	0100	00.751	0.240	0.353
0.752	45	00.68	02.32	03.76	05.10	06.42	07.77	09.24	10.88	13.10	16.49	0100	01.153	0.239	0.280
0.752	50	01.70-	01.03	03.03	04.72	06.27	07.79	09.38	11.12	13.43	16.87	0100	01.333	0.250	0.169
0.752	55	05.79-	01.10-	01.52	03.51	05.24	06.88	08.56	10.37	12.72	16.21	0100	01.252	0.271	0.072
0.752	60	11.10-	03.48-	00.39-	01.79	03.63	05.34	07.07	08.90	11.29	14.79	0100	01.015	0.304	0.024
0.752	65	14.96-	05.65-	02.42-	00.19-	01.68	03.41	05.15	06.99	09.38	12.90	0100	00.753	0.348	0.011
0.752	70	14.51-	07.36-	04.33-	02.16-	00.33-	01.37	03.09	04.92	07.31	10.81	0100	00.545	0.408	0.014
0.752	75	07.87-	05.88-	04.24-	02.77-	01.36-	00.07	01.59	03.27	05.53	08.94	0100	00.413	0.484	0.079
0.752	80	03.21-	02.64-	02.02-	01.33-	00.56-	00.33	01.40	02.70	04.61	07.71	0100	00.341	0.566	0.270
0.752	85	00.83-	00.55-	00.23-	00.15	00.61	01.18	01.92	02.89	04.42	07.16	0100	00.309	0.637	0.527
0.752	90	00.00	00.22	00.47	00.78	01.17	01.65	02.29	03.14	04.55	07.12	0100	00.301	0.651	0.651
0.756	00	99.99-	04.93-	01.41-	00.93	02.85	04.61	06.37	08.23	10.63	14.15	0100	01.744	0.603	0.000
0.756	05	09.09-	03.31-	00.48-	01.61	03.39	05.07	06.77	08.59	10.96	14.46	0100	01.353	0.438	0.054
0.756	10	06.17-	03.82-	02.00-	00.41-	01.03	02.56	04.12	05.83	08.12	11.55	0100	00.587	0.376	0.091
0.756	15	04.01-	03.67-	03.29-	02.84-	02.31-	01.66-	00.83-	00.23	01.87	04.72	0100	00.096	0.335	0.133
0.756	20	02.16-	02.16-	02.15-	02.15-	02.15-	02.14-	02.14-	02.12-	02.10-	02.02-	0100	00.001	0.304	0.185
0.756	25	00.56-	00.50-	00.43-	00.34-	00.23-	00.07-	00.15	00.49	01.13	02.60	0100	00.029	0.279	0.245
0.756	30	00.69	00.82	00.98	01.17	01.41	01.73	02.17	02.79	03.87	06.05	0100	00.082	0.259	0.303
0.756	35	01.43	01.82	02.27	02.78	03.38	04.11	05.01	06.14	07.87	10.81	0100	00.289	0.244	0.339
0.756	40	01.40	02.30	03.21	04.16	05.17	06.28	07.54	09.01	11.08	14.34	0100	00.677	0.237	0.326
0.756	45	00.31	01.96	03.40	04.75	06.07	07.43	08.90	10.54	12.77	16.15	0100	01.061	0.238	0.256
0.756	50	02.18-	00.64	02.67	04.38	05.94	07.47	09.07	10.81	13.12	16.57	0100	01.242	0.249	0.151
0.756	55	06.43-	01.49-	01.18	03.19	04.94	06.59	08.28	10.09	12.45	15.94	0100	01.178	0.272	0.062
0.756	60	11.79-	03.79-	00.66-	01.53	03.38	05.10	06.83	08.66	11.05	14.56	0100	00.964	0.304	0.020
0.756	65	15.17-	05.84-	02.61-	00.37-	01.49	03.22	04.96	06.80	09.20	12.71	0100	00.722	0.349	0.011
0.756	70	14.50-	07.47-	04.45-	02.29-	00.47-	01.23	02.96	04.79	07.17	10.67	0100	00.529	0.409	0.015
0.756	75	07.87-	05.92-	04.30-	02.83-	01.44-	00.01-	01.50	03.18	05.44	08.85	0100	00.404	0.485	0.079
0.756	80	03.21-	02.65-	02.04-	01.36-	00.59-	00.29	01.36	02.65	04.54	07.64	0100	00.336	0.567	0.271
0.756	85	00.83-	00.55-	00.24-	00.14	00.59	01.16	01.89	02.85	04.38	07.10	0100	00.305	0.638	0.528
0.756	90	00.00	00.21	00.47	00.77	01.15	01.63	02.26	03.11	04.50	07.07	0100	00.297	0.652	0.652

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.764	00	99.99-	04.60-	01.08-	01.27	03.18	04.95	06.71	08.56	10.97	14.49	0100	01.741	0.558	0.000
0.764	05	08.94-	03.02-	00.16-	01.94	03.73	05.41	07.12	08.93	11.31	14.81	0100	01.352	0.404	0.052
0.764	10	06.08-	03.63-	01.75-	00.14-	01.37	02.86	04.43	06.15	08.45	11.88	0100	00.587	0.348	0.086
0.764	15	03.99-	03.64-	03.23-	02.75-	02.19-	01.50-	00.65-	00.45	02.13	05.02	0100	00.096	0.312	0.124
0.764	20	02.22-	02.22-	02.22-	02.22-	02.21-	02.21-	02.20-	02.19-	02.16-	02.09-	0100	00.001	0.284	0.170
0.764	25	00.72-	00.66-	00.60-	00.52-	00.41-	00.26-	00.05-	00.26	00.86	02.27	0100	00.024	0.263	0.223
0.764	30	00.44	00.53	00.65	00.80	01.00	01.25	01.61	02.13	03.05	05.00	0100	00.056	0.246	0.272
0.764	35	01.05	01.40	01.79	02.25	02.79	03.46	04.29	05.37	07.03	09.89	0100	00.222	0.235	0.300
0.764	40	00.90	01.76	02.64	03.56	04.55	05.64	06.88	08.34	10.40	13.64	0100	00.561	0.231	0.284
0.764	45	00.35-	01.32	02.78	04.14	05.47	06.83	08.31	09.95	12.18	15.57	0100	00.914	0.234	0.216
0.764	50	03.07-	00.07-	02.04	03.78	05.37	06.92	08.53	10.28	12.60	16.05	0100	01.096	0.248	0.122
0.764	55	07.67-	02.18-	00.60	02.66	04.44	06.11	07.81	09.62	11.99	15.48	0100	01.059	0.271	0.046
0.764	60	13.13-	04.30-	01.11-	01.11	02.97	04.70	06.44	08.28	10.67	14.18	0100	00.882	0.304	0.015
0.764	65	15.53-	06.15-	02.92-	00.68-	01.19	02.92	04.66	06.50	08.89	12.41	0100	00.673	0.349	0.010
0.764	70	14.47-	07.64-	04.65-	02.50-	00.68-	01.02	02.74	04.56	06.94	10.45	0100	00.502	0.409	0.015
0.764	75	07.85-	05.97-	04.38-	02.94-	01.56-	00.15-	01.36	03.03	05.28	08.68	0100	00.389	0.485	0.079
0.764	80	03.20-	02.66-	02.06-	01.40-	00.65-	00.22	01.27	02.55	04.43	07.51	0100	00.325	0.567	0.271
0.764	85	00.82-	00.56-	00.26-	00.11	00.55	01.11	01.82	02.77	04.28	06.99	0100	00.295	0.638	0.527
0.764	90	00.00	00.21	00.45	00.75	01.12	01.59	02.20	03.04	04.41	06.96	0100	00.287	0.651	0.651
0.772	00	99.99-	04.34-	00.82-	01.52	03.44	05.20	06.96	08.82	11.22	14.74	0100	01.731	0.523	0.000
0.772	05	08.84-	02.80-	00.08	02.18	03.98	05.66	07.37	09.19	11.57	15.07	0100	01.345	0.379	0.049
0.772	10	06.03-	03.48-	01.57-	00.07	01.59	03.09	04.67	06.40	08.70	12.14	0100	00.586	0.327	0.082
0.772	15	03.99-	03.61-	03.18-	02.68-	02.09-	01.38-	00.50-	00.62	02.34	05.25	0100	00.097	0.294	0.117
0.772	20	02.28-	02.28-	02.28-	02.27-	02.27-	02.26-	02.25-	02.24-	02.21-	02.12-	0100	00.001	0.270	0.160
0.772	25	00.84-	00.79-	00.73-	00.66-	00.56-	00.42-	00.22-	00.07	00.65	01.99	0100	00.021	0.251	0.207
0.772	30	00.23	00.30	00.39	00.51	00.65	00.85	01.13	01.54	02.31	04.00	0100	00.038	0.237	0.250
0.772	35	00.75	01.05	01.40	01.81	02.29	02.90	03.67	04.68	06.26	09.05	0100	00.173	0.228	0.271
0.772	40	00.49	01.31	02.17	03.06	04.03	05.10	06.33	07.77	09.81	13.04	0100	00.477	0.226	0.252
0.772	45	00.90-	00.80	02.27	03.64	04.97	06.34	07.82	09.47	11.70	15.09	0100	00.808	0.231	0.188
0.772	50	03.83-	00.65-	01.53	03.31	04.91	06.48	08.10	09.86	12.18	15.64	0100	00.990	0.246	0.102
0.772	55	08.82-	02.74-	00.14	02.25	04.04	05.73	07.44	09.26	11.63	15.13	0100	00.972	0.269	0.035
0.772	60	14.38-	04.71-	01.45-	00.79	02.67	04.40	06.14	07.98	10.37	13.89	0100	00.822	0.303	0.011
0.772	65	15.80-	06.38-	03.15-	00.91-	00.96	02.69	04.43	06.27	08.67	12.18	0100	00.636	0.347	0.009
0.772	70	14.44-	07.77-	04.80-	02.66-	00.85-	00.85	02.57	04.39	06.77	10.28	0100	00.480	0.407	0.015
0.772	75	07.83-	06.00-	04.45-	03.03-	01.66-	00.26-	01.24	02.91	05.15	08.55	0100	00.375	0.482	0.079
0.772	80	03.19-	02.67-	02.09-	01.44-	00.70-	00.15	01.19	02.46	04.32	07.40	0100	00.314	0.564	0.270
0.772	85	00.82-	00.57-	00.27-	00.08	00.52	01.06	01.76	02.69	04.19	06.87	0100	00.285	0.634	0.525
0.772	90	00.00	00.20	00.44	00.73	01.09	01.54	02.15	02.97	04.32	06.85	0100	00.276	0.647	0.647

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.780	00	99.99-	04.15-	00.63-	01.71	03.63	05.39	07.15	09.01	11.41	14.93	0100	01.718	0.497	0.000
0.780	05	08.79-	02.64-	00.26	02.37	04.16	05.85	07.56	09.38	11.76	15.26	0100	01.336	0.360	0.048
0.780	10	06.00-	03.38-	01.43-	00.22	01.76	03.27	04.85	06.58	08.88	12.33	0100	00.583	0.312	0.078
0.780	15	03.99-	03.59-	03.14-	02.62-	02.01-	01.28-	00.38-	00.77	02.50	05.45	0100	00.097	0.281	0.112
0.780	20	02.32-	02.32-	02.32-	02.32-	02.31-	02.30-	02.29-	02.27-	02.24-	02.13-	0100	00.001	0.259	0.152
0.780	25	00.94-	00.90-	00.84-	00.77-	00.67-	00.54-	00.36-	00.07-	00.47	01.77	0100	00.019	0.242	0.195
0.780	30	00.06	00.12	00.18	00.27	00.38	00.52	00.74	01.06	01.67	03.09	0100	00.026	0.230	0.233
0.780	35	00.52	00.78	01.08	01.44	01.89	02.44	03.15	04.09	05.60	08.30	0100	00.139	0.222	0.250
0.780	40	00.16	00.96	01.78	02.66	03.60	04.65	05.87	07.30	09.33	12.55	0100	00.417	0.221	0.230
0.780	45	01.34-	00.37	01.86	03.23	04.57	05.95	07.43	09.08	11.31	14.70	0100	00.730	0.228	0.167
0.780	50	04.47-	01.12-	01.12	02.93	04.55	06.13	07.76	09.53	11.86	15.32	0100	00.912	0.243	0.087
0.780	55	09.85-	03.18-	00.21-	01.93	03.74	05.44	07.16	08.98	11.36	14.87	0100	00.908	0.267	0.028
0.780	60	15.52-	05.01-	01.71-	00.55	02.43	04.17	05.92	07.76	10.16	13.67	0100	00.777	0.301	0.008
0.780	65	15.99-	06.55-	03.32-	01.08-	00.79	02.52	04.26	06.11	08.50	12.01	0100	00.608	0.345	0.009
0.780	70	14.39-	07.86-	04.91-	02.78-	00.97-	00.73	02.44	04.27	06.64	10.15	0100	00.463	0.404	0.015
0.780	75	07.80-	06.02-	04.50-	03.09-	01.73-	00.35-	01.15	02.81	05.05	08.44	0100	00.363	0.479	0.079
0.780	80	03.18-	02.67-	02.10-	01.47-	00.75-	00.10	01.12	02.37	04.23	07.29	0100	00.304	0.560	0.269
0.780	85	00.82-	00.58-	00.29-	00.06	00.48	01.02	01.71	02.63	04.10	06.77	0100	00.275	0.630	0.521
0.780	90	00.00	00.20	00.43	00.71	01.06	01.50	02.10	02.91	04.24	06.75	0100	00.266	0.642	0.642

0.788	00	99.99-	04.01-	00.49-	01.85	03.77	05.53	07.29	09.15	11.55	15.07	0100	01.705	0.477	0.000
0.788	05	08.75-	02.52-	00.39	02.50	04.30	05.99	07.70	09.52	11.90	15.40	0100	01.327	0.346	0.046
0.788	10	05.98-	03.30-	01.33-	00.34	01.88	03.40	04.99	06.72	09.03	12.47	0100	00.581	0.300	0.076
0.788	15	03.99-	03.58-	03.11-	02.57-	01.95-	01.20-	00.27-	00.89	02.65	05.61	0100	00.098	0.271	0.108
0.788	20	02.36-	02.36-	02.35-	02.35-	02.34-	02.33-	02.31-	02.29-	02.24-	02.10-	0100	00.001	0.251	0.146
0.788	25	01.02-	00.97-	00.92-	00.85-	00.76-	00.64-	00.46-	00.19-	00.34	01.60	0100	00.017	0.235	0.186
0.788	30	00.06-	00.02-	00.03	00.08	00.16	00.27	00.43	00.67	01.14	02.28	0100	00.018	0.224	0.221
0.788	35	00.33	00.56	00.83	01.16	01.56	02.08	02.73	03.61	05.05	07.67	0100	00.115	0.218	0.235
0.788	40	00.10-	00.67	01.48	02.33	03.26	04.30	05.50	06.91	08.93	12.14	0100	00.373	0.218	0.213
0.788	45	01.70-	00.03	01.53	02.91	04.26	05.64	07.12	08.77	11.01	14.40	0100	00.673	0.226	0.153
0.788	50	04.99-	01.49-	00.80	02.63	04.28	05.86	07.50	09.27	11.61	15.08	0100	00.855	0.241	0.076
0.788	55	10.76-	03.52-	00.48-	01.68	03.51	05.22	06.94	08.78	11.16	14.66	0100	00.861	0.266	0.022
0.788	60	16.51-	05.24-	01.90-	00.38	02.26	04.00	05.75	07.60	10.00	13.51	0100	00.744	0.299	0.007
0.788	65	16.11-	06.68-	03.44-	01.20-	00.67	02.40	04.14	05.98	08.38	11.89	0100	00.588	0.343	0.008
0.788	70	14.32-	07.92-	04.99-	02.86-	01.06-	00.63	02.35	04.17	06.55	10.05	0100	00.450	0.402	0.015
0.788	75	07.77-	06.03-	04.53-	03.14-	01.79-	00.41-	01.07	02.73	04.97	08.36	0100	00.353	0.476	0.079
0.788	80	03.17-	02.67-	02.12-	01.49-	00.78-	00.05	01.06	02.31	04.16	07.21	0100	00.295	0.556	0.268
0.788	85	00.82-	00.58-	00.30-	00.04	00.46	00.98	01.66	02.57	04.03	06.68	0100	00.266	0.625	0.517
0.788	90	00.00	00.19	00.42	00.69	01.04	01.47	02.06	02.85	04.17	06.66	0100	00.257	0.637	0.637

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.804	00	99.99-	03.85-	00.33-	02.02	03.93	05.69	07.46	09.31	11.72	15.24	0100	01.680	0.453	0.000
0.804	05	08.70-	02.38-	00.54	02.66	04.47	06.16	07.87	09.69	12.07	15.57	0100	01.310	0.328	0.044
0.804	10	05.94-	03.20-	01.19-	00.49	02.05	03.57	05.17	06.90	09.21	12.66	0100	00.577	0.286	0.073
0.804	15	03.98-	03.54-	03.04-	02.48-	01.82-	01.05-	00.09-	01.10	02.89	05.88	0100	00.100	0.259	0.104
0.804	20	02.38-	02.37-	02.37-	02.36-	02.34-	02.32-	02.29-	02.24-	02.15-	01.87-	0100	00.002	0.240	0.139
0.804	25	01.09-	01.05-	01.00-	00.94-	00.85-	00.74-	00.57-	00.31-	00.19	01.40	0100	00.015	0.226	0.176
0.804	30	00.21-	00.19-	00.17-	00.14-	00.10-	00.05-	00.03	00.15	00.39	01.05	0100	00.008	0.217	0.206
0.804	35	00.09	00.28	00.50	00.78	01.11	01.55	02.13	02.92	04.23	06.70	0100	00.086	0.212	0.217
0.804	40	00.45-	00.29	01.06	01.88	02.79	03.80	04.98	06.38	08.38	11.57	0100	00.319	0.213	0.193
0.804	45	02.19-	00.43-	01.08	02.47	03.83	05.21	06.70	08.35	10.59	13.98	0100	00.602	0.222	0.134
0.804	50	05.74-	01.99-	00.37	02.25	03.91	05.51	07.16	08.94	11.28	14.76	0100	00.784	0.238	0.063
0.804	55	12.19-	03.97-	00.82-	01.38	03.23	04.95	06.68	08.52	10.91	14.42	0100	00.805	0.263	0.016
0.804	60	18.03-	05.50-	02.12-	00.18	02.07	03.82	05.57	07.42	09.82	13.33	0100	00.707	0.295	0.005
0.804	65	16.19-	06.80-	03.56-	01.32-	00.55	02.28	04.02	05.86	08.25	11.77	0100	00.565	0.339	0.008
0.804	70	14.14-	07.94-	05.05-	02.93-	01.13-	00.55	02.26	04.09	06.46	09.96	0100	00.436	0.397	0.015
0.804	75	07.70-	06.01-	04.54-	03.17-	01.84-	00.47-	01.01	02.66	04.89	08.27	0100	00.342	0.470	0.080
0.804	80	03.15-	02.66-	02.12-	01.51-	00.81-	00.01	01.01	02.24	04.08	07.12	0100	00.284	0.549	0.265
0.804	85	00.82-	00.58-	00.31-	00.02	00.43	00.94	01.61	02.50	03.94	06.57	0100	00.254	0.616	0.511
0.804	90	00.00	00.18	00.40	00.67	01.01	01.43	02.00	02.78	04.09	06.55	0100	00.245	0.628	0.628
0.820	00	99.99-	03.81-	00.29-	02.06	03.97	05.74	07.50	09.35	11.76	15.28	0100	01.663	0.444	0.000
0.820	05	08.63-	02.32-	00.60	02.72	04.53	06.22	07.93	09.75	12.13	15.63	0100	01.299	0.321	0.044
0.820	10	05.87-	03.11-	01.11-	00.58	02.14	03.66	05.26	07.00	09.30	12.75	0100	00.577	0.279	0.072
0.820	15	03.91-	03.45-	02.93-	02.35-	01.67-	00.88-	00.09	01.30	03.11	06.13	0100	00.104	0.253	0.103
0.820	20	02.33-	02.32-	02.30-	02.28-	02.25-	02.21-	02.15-	02.06-	01.87-	01.35-	0100	00.004	0.235	0.138
0.820	25	01.08-	01.04-	00.99-	00.92-	00.84-	00.73-	00.56-	00.31-	00.18	01.37	0100	00.015	0.222	0.173
0.820	30	00.24-	00.23-	00.22-	00.21-	00.20-	00.17-	00.14-	00.09-	00.02	00.33	0100	00.003	0.213	0.202
0.820	35	00.00	00.16	00.36	00.59	00.89	01.28	01.80	02.52	03.74	06.11	0100	00.072	0.209	0.209
0.820	40	00.62-	00.09	00.84	01.64	02.52	03.51	04.68	06.06	08.05	11.23	0100	00.291	0.211	0.183
0.820	45	02.47-	00.69-	00.83	02.23	03.59	04.98	06.47	08.13	10.37	13.76	0100	00.567	0.220	0.125
0.820	50	06.19-	02.26-	00.16	02.06	03.74	05.35	07.01	08.79	11.13	14.61	0100	00.754	0.237	0.057
0.820	55	13.12-	04.16-	00.96-	01.27	03.13	04.86	06.60	08.44	10.83	14.34	0100	00.786	0.261	0.013
0.820	60	18.86-	05.57-	02.16-	00.14	02.04	03.79	05.55	07.40	09.80	13.31	0100	00.699	0.294	0.004
0.820	65	16.07-	06.76-	03.53-	01.29-	00.57	02.30	04.04	05.88	08.28	11.79	0100	00.564	0.337	0.008
0.820	70	13.84-	07.84-	04.97-	02.87-	01.08-	00.61	02.31	04.13	06.51	10.01	0100	00.437	0.394	0.016
0.820	75	07.60-	05.93-	04.47-	03.11-	01.78-	00.42-	01.06	02.70	04.93	08.32	0100	00.342	0.466	0.081
0.820	80	03.13-	02.64-	02.10-	01.49-	00.79-	00.03	01.03	02.26	04.10	07.14	0100	00.283	0.544	0.265
0.820	85	00.81-	00.58-	00.31-	00.02	00.43	00.94	01.61	02.50	03.94	06.57	0100	00.252	0.610	0.506
0.820	90	00.00	00.18	00.40	00.67	01.00	01.43	02.00	02.78	04.08	06.54	0100	00.242	0.622	0.622

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.836	00	99.99-	03.87-	00.35-	01.99	03.91	05.67	07.43	09.29	11.69	15.21	0100	01.654	0.448	0.000
0.836	05	08.51-	02.31-	00.58	02.70	04.50	06.19	07.90	09.73	12.10	15.60	0100	01.293	0.322	0.045
0.836	10	05.73-	03.03-	01.05-	00.63	02.17	03.69	05.29	07.02	09.33	12.77	0100	00.580	0.280	0.075
0.836	15	03.77-	03.29-	02.77-	02.17-	01.49-	00.68-	00.30	01.52	03.34	06.37	0100	00.110	0.253	0.106
0.836	20	02.19-	02.17-	02.13-	02.09-	02.04-	01.97-	01.86-	01.69-	01.36-	00.50-	0100	00.008	0.235	0.142
0.836	25	00.96-	00.92-	00.87-	00.80-	00.72-	00.61-	00.44-	00.19-	00.31	01.50	0100	00.015	0.221	0.177
0.836	30	00.16-	00.16-	00.15-	00.15-	00.14-	00.14-	00.12-	00.11-	00.07-	00.04	0100	00.001	0.212	0.205
0.836	35	00.03	00.18	00.35	00.57	00.84	01.19	01.67	02.35	03.51	05.78	0100	00.064	0.208	0.210
0.836	40	00.65-	00.03	00.76	01.55	02.41	03.39	04.54	05.92	07.89	11.06	0100	00.279	0.211	0.181
0.836	45	02.58-	00.79-	00.74	02.14	03.50	04.89	06.39	08.05	10.29	13.68	0100	00.557	0.220	0.121
0.836	50	06.42-	02.35-	00.10	02.02	03.71	05.33	07.00	08.78	11.13	14.61	0100	00.754	0.237	0.054
0.836	55	13.54-	04.16-	00.92-	01.32	03.19	04.92	06.66	08.50	10.89	14.41	0100	00.798	0.261	0.011
0.836	60	19.07-	05.46-	02.04-	00.26	02.16	03.91	05.67	07.52	09.92	13.44	0100	00.719	0.293	0.004
0.836	65	15.74-	06.58-	03.36-	01.13-	00.74	02.47	04.21	06.05	08.44	11.95	0100	00.585	0.336	0.009
0.836	70	13.41-	07.60-	04.76-	02.67-	00.89-	00.79	02.50	04.32	06.69	10.19	0100	00.454	0.393	0.018
0.836	75	07.48-	05.79-	04.32-	02.95-	01.62-	00.25-	01.23	02.87	05.10	08.49	0100	00.355	0.464	0.083
0.836	80	03.10-	02.60-	02.04-	01.42-	00.71-	00.13	01.14	02.38	04.23	07.28	0100	00.292	0.541	0.265
0.836	85	00.81-	00.57-	00.29-	00.05	00.47	00.99	01.67	02.57	04.03	06.68	0100	00.258	0.607	0.504
0.836	90	00.00	00.19	00.42	00.69	01.03	01.47	02.05	02.84	04.16	06.64	0100	00.248	0.618	0.618
0.868	00	99.99-	04.28-	00.76-	01.58	03.50	05.26	07.02	08.88	11.28	14.80	0100	01.656	0.493	0.000
0.868	05	08.05-	02.41-	00.40	02.47	04.25	05.93	07.63	09.45	11.82	15.31	0100	01.294	0.344	0.054
0.868	10	05.20-	02.82-	00.97-	00.62	02.12	03.60	05.17	06.88	09.17	12.60	0100	00.588	0.296	0.089
0.868	15	03.21-	02.74-	02.21-	01.62-	00.93-	00.13-	00.86	02.07	03.89	06.92	0100	00.131	0.265	0.127
0.868	20	01.62-	01.55-	01.46-	01.35-	01.21-	01.01-	00.74-	00.33-	00.42	02.10	0100	00.025	0.243	0.168
0.868	25	00.41-	00.36-	00.30-	00.23-	00.13-	00.00-	00.19	00.47	01.02	02.33	0100	00.020	0.228	0.207
0.868	30	00.33	00.33	00.33	00.33	00.33	00.33	00.33	00.33	00.33	00.34	0100	00.000	0.217	0.234
0.868	35	00.42	00.54	00.70	00.88	01.12	01.44	01.87	02.48	03.55	05.70	0100	00.062	0.212	0.234
0.868	40	00.40-	00.25	00.94	01.69	02.53	03.48	04.60	05.95	07.91	11.06	0100	00.282	0.214	0.195
0.868	45	02.48-	00.67-	00.87	02.28	03.65	05.04	06.54	08.20	10.45	13.84	0100	00.587	0.223	0.126
0.868	50	06.47-	02.16-	00.37	02.32	04.02	05.65	07.33	09.12	11.47	14.95	0100	00.828	0.240	0.054
0.868	55	13.79-	03.71-	00.44-	01.82	03.70	05.43	07.17	09.02	11.41	14.93	0100	00.912	0.264	0.011
0.868	60	18.11-	04.78-	01.38-	00.93	02.83	04.58	06.33	08.18	10.58	14.10	0100	00.847	0.297	0.005
0.868	65	14.30-	05.73-	02.56-	00.34-	01.51	03.23	04.97	06.81	09.20	12.71	0100	00.702	0.339	0.013
0.868	70	12.01-	06.63-	03.87-	01.82-	00.05-	01.62	03.32	05.13	07.50	10.99	0100	00.549	0.395	0.025
0.868	75	07.16-	05.31-	03.74-	02.32-	00.94-	00.46	01.96	03.63	05.88	09.28	0100	00.428	0.465	0.089
0.868	80	03.07-	02.48-	01.84-	01.14-	00.35-	00.56	01.64	02.96	04.87	07.99	0100	00.349	0.542	0.267
0.868	85	00.81-	00.53-	00.20-	00.19	00.67	01.25	02.00	02.99	04.54	07.30	0100	00.307	0.608	0.504
0.868	90	00.00	00.22	00.49	00.80	01.19	01.69	02.33	03.20	04.62	07.22	0100	00.294	0.619	0.619

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\sigma_{vv}(0)/\lambda^2$	$\sigma_{hh}(90)/\lambda^2$	$\sigma_{vv}(90)/\lambda^2$
0.900	00	99.99-	05.13-	01.61-	00.73	02.65	04.41	06.17	08.03	10.43	13.96	0100	01.677	0.607	0.000
0.900	05	07.12-	02.59-	00.01-	01.96	03.69	05.32	07.00	08.80	11.16	14.64	0100	01.284	0.400	0.078
0.900	10	04.19-	02.44-	00.93-	00.46	01.81	03.19	04.68	06.34	08.58	11.97	0100	00.569	0.334	0.127
0.900	15	02.14-	01.71-	01.22-	00.67-	00.02-	00.74	01.69	02.87	04.64	07.63	0100	00.168	0.293	0.179
0.900	20	00.53-	00.37-	00.18-	00.06	00.36	00.74	01.26	01.98	03.20	05.55	0100	00.079	0.264	0.233
0.900	25	00.66	00.72	00.80	00.90	01.03	01.20	01.45	01.82	02.52	04.09	0100	00.038	0.242	0.282
0.900	30	01.32	01.32	01.32	01.32	01.32	01.32	01.32	01.32	01.33	01.34	0100	00.000	0.227	0.308
0.900	35	01.24	01.35	01.48	01.64	01.84	02.12	02.50	03.05	04.02	06.04	0100	00.066	0.220	0.292
0.900	40	00.19	00.77	01.41	02.11	02.90	03.80	04.88	06.19	08.11	11.22	0100	00.298	0.220	0.230
0.900	45	02.15-	00.32-	01.24	02.67	04.04	05.44	06.94	08.61	10.85	14.25	0100	00.660	0.228	0.139
0.900	50	06.29-	01.60-	01.01	03.01	04.74	06.38	08.06	09.87	12.22	15.71	0100	01.007	0.245	0.058
0.900	55	13.17-	02.68-	00.62	02.89	04.77	06.50	08.25	10.10	12.49	16.01	0100	01.190	0.269	0.013
0.900	60	15.79-	03.41-	00.03-	02.27	04.16	05.91	07.66	09.51	11.91	15.42	0100	01.164	0.301	0.008
0.900	65	11.60-	04.05-	00.97-	01.21	03.05	04.76	06.48	08.32	10.70	14.21	0100	00.998	0.342	0.024
0.900	70	09.60-	04.78-	02.13-	00.13-	01.61	03.26	04.95	06.75	09.11	12.60	0100	00.794	0.395	0.043
0.900	75	06.78-	04.45-	02.63-	01.05-	00.43	01.91	03.47	05.18	07.46	10.89	0100	00.622	0.464	0.098
0.900	80	03.21-	02.35-	01.48-	00.57-	00.41	01.50	02.74	04.19	06.24	09.48	0100	00.507	0.543	0.259
0.900	85	00.87-	00.47-	00.01-	00.52	01.14	01.88	02.79	03.95	05.69	08.65	0100	00.444	0.614	0.502
0.900	90	00.00	00.32	00.68	01.11	01.62	02.25	03.04	04.08	05.69	08.51	0100	00.424	0.627	0.627
0.916	00	99.99-	05.80-	02.27-	00.07	01.99	03.75	05.51	07.36	09.77	13.29	0100	01.692	0.714	0.000
0.916	05	06.45-	02.70-	00.34-	01.54	03.20	04.80	06.45	08.23	10.57	14.04	0100	01.253	0.448	0.101
0.916	10	03.44-	02.14-	00.92-	00.27	01.48	02.75	04.14	05.73	07.90	11.24	0100	00.523	0.366	0.166
0.916	15	01.33-	00.93-	00.48-	00.04	00.65	01.38	02.29	03.43	05.17	08.12	0100	00.201	0.315	0.232
0.916	20	00.31	00.53	00.79	01.11	01.49	01.98	02.62	03.49	04.90	07.49	0100	00.140	0.278	0.299
0.916	25	01.50	01.58	01.67	01.79	01.94	02.14	02.43	02.85	03.64	05.35	0100	00.056	0.252	0.356
0.916	30	02.10	02.11	02.11	02.11	02.11	02.11	02.11	02.11	02.12	02.14	0100	00.000	0.233	0.378
0.916	35	01.90	01.99	02.10	02.24	02.42	02.66	03.00	03.49	04.37	06.26	0100	00.066	0.223	0.345
0.916	40	00.62	01.15	01.73	02.38	03.11	03.97	05.01	06.27	08.14	11.21	0100	00.297	0.222	0.256
0.916	45	01.99-	00.12-	01.46	02.89	04.28	05.68	07.19	08.85	11.10	14.51	0100	00.704	0.230	0.145
0.916	50	06.28-	01.19-	01.51	03.54	05.29	06.95	08.64	10.45	12.81	16.31	0100	01.160	0.246	0.058
0.916	55	12.67-	01.84-	01.48	03.75	05.63	07.37	09.12	10.96	13.36	16.87	0100	01.455	0.269	0.015
0.916	60	14.17-	02.31-	01.05	03.34	05.23	06.97	08.72	10.57	12.97	16.49	0100	01.480	0.299	0.011
0.916	65	09.77-	02.74-	00.28	02.44	04.26	05.97	07.69	09.52	11.90	15.40	0100	01.300	0.338	0.036
0.916	70	07.91-	03.37-	00.79-	01.19	02.91	04.55	06.23	08.03	10.38	13.87	0100	01.046	0.389	0.063
0.916	75	06.54-	03.75-	01.73-	00.03-	01.53	03.06	04.65	06.39	08.70	12.15	0100	00.821	0.457	0.101
0.916	80	03.49-	02.33-	01.21-	00.10-	01.05	02.27	03.62	05.18	07.32	10.64	0100	00.666	0.538	0.241
0.916	85	00.97-	00.44-	00.15	00.80	01.55	02.41	03.45	04.72	06.60	09.68	0100	00.581	0.616	0.493
0.916	90	00.00	00.40	00.86	01.38	02.00	02.73	03.64	04.79	06.53	09.48	0100	00.554	0.633	0.633

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.932	00	99.99-	06.68-	03.16-	00.82-	01.10	02.86	04.63	06.48	08.88	12.41	0100	01.709	0.884	0.000
0.932	05	05.85-	02.92-	00.84-	00.88	02.46	04.00	05.61	07.36	09.67	13.13	0100	01.188	0.527	0.137
0.932	10	02.67-	01.83-	00.97-	00.06-	00.92	01.99	03.23	04.68	06.73	09.96	0100	00.435	0.417	0.226
0.932	15	00.43-	00.05-	00.37	00.87	01.45	02.15	03.03	04.15	05.86	08.77	0100	00.257	0.349	0.316
0.932	20	01.32	01.60	01.93	02.31	02.78	03.36	04.11	05.09	06.64	09.39	0100	00.245	0.301	0.408
0.932	25	02.58	02.66	02.77	02.90	03.07	03.29	03.61	04.08	04.93	06.75	0100	00.086	0.265	0.480
0.932	30	03.17	03.17	03.17	03.17	03.17	03.17	03.18	03.18	03.18	03.20	0100	00.000	0.240	0.498
0.932	35	02.84	02.91	02.99	03.10	03.24	03.42	03.69	04.08	04.82	06.45	0100	00.063	0.226	0.434
0.932	40	01.28	01.71	02.20	02.75	03.40	04.16	05.11	06.29	08.06	11.05	0100	00.282	0.223	0.299
0.932	45	01.79-	00.14	01.75	03.20	04.60	06.02	07.53	09.21	11.46	14.87	0100	00.766	0.230	0.152
0.932	50	06.47-	00.61-	02.23	04.32	06.11	07.79	09.50	11.31	13.69	17.19	0100	01.418	0.245	0.055
0.932	55	12.10-	00.67-	02.67	04.95	06.84	08.58	10.33	12.18	14.57	18.09	0100	01.909	0.267	0.016
0.932	60	12.34-	00.86-	02.48	04.76	06.65	08.39	10.14	11.99	14.39	17.90	0100	02.018	0.295	0.017
0.932	65	07.73-	01.10-	01.87	04.01	05.82	07.52	09.23	11.06	13.44	16.94	0100	01.801	0.329	0.055
0.932	70	05.88-	01.62-	00.89	02.83	04.54	06.17	07.84	09.63	11.98	15.46	0100	01.451	0.374	0.097
0.932	75	06.13-	02.76-	00.53-	01.28	02.91	04.49	06.12	07.89	10.22	13.68	0100	01.127	0.439	0.107
0.932	80	04.09-	02.37-	00.88-	00.50	01.84	03.22	04.70	06.35	08.58	11.97	0100	00.899	0.527	0.206
0.932	85	01.16-	00.43-	00.33	01.15	02.05	03.05	04.23	05.62	07.62	10.81	0100	00.773	0.616	0.472
0.932	90	00.00	00.52	01.10	01.74	02.47	03.32	04.35	05.61	07.47	10.54	0100	00.733	0.639	0.639
0.940	00	99.99-	07.17-	03.65-	01.31-	00.61	02.37	04.13	05.99	08.39	11.91	0100	01.718	0.996	0.000
0.940	05	05.67-	03.11-	01.19-	00.46	01.98	03.48	05.06	06.79	09.09	12.53	0100	01.140	0.582	0.158
0.940	10	02.38-	01.74-	01.05-	00.30-	00.53	01.47	02.59	03.94	05.89	09.04	0100	00.375	0.454	0.263
0.940	15	00.04-	00.34	00.76	01.26	01.84	02.54	03.42	04.53	06.24	09.15	0100	00.301	0.374	0.371
0.940	20	01.80	02.11	02.47	02.89	03.39	04.01	04.79	05.82	07.42	10.22	0100	00.318	0.317	0.481
0.940	25	03.13	03.22	03.33	03.47	03.64	03.87	04.20	04.68	05.55	07.40	0100	00.105	0.275	0.566
0.940	30	03.77	03.77	03.77	03.77	03.77	03.77	03.77	03.77	03.78	03.79	0100	00.000	0.245	0.584
0.940	35	03.41	03.47	03.54	03.62	03.74	03.89	04.11	04.44	05.07	06.52	0100	00.058	0.228	0.500
0.940	40	01.72	02.10	02.52	03.02	03.60	04.30	05.18	06.30	08.00	10.92	0100	00.270	0.223	0.332
0.940	45	01.63-	00.34	01.97	03.44	04.85	06.27	07.79	09.47	11.73	15.14	0100	00.817	0.230	0.158
0.940	50	06.65-	00.23-	02.71	04.83	06.64	08.33	10.05	11.87	14.25	17.75	0100	01.614	0.245	0.053
0.940	55	11.84-	00.01	03.37	05.66	07.55	09.30	11.04	12.89	15.29	18.81	0100	02.240	0.265	0.017
0.940	60	11.42-	00.06-	03.28	05.56	07.44	09.19	10.93	12.78	15.18	18.70	0100	02.395	0.291	0.021
0.940	65	06.71-	00.22-	02.72	04.85	06.66	08.35	10.07	11.89	14.27	17.77	0100	02.138	0.323	0.069
0.940	70	04.80-	00.69-	01.78	03.70	05.39	07.01	08.68	10.47	12.82	16.30	0100	01.709	0.364	0.121
0.940	75	05.79-	02.18-	00.13	01.99	03.64	05.23	06.88	08.65	10.99	14.46	0100	01.311	0.427	0.113
0.940	80	04.56-	02.43-	00.72-	00.80	02.24	03.69	05.23	06.92	09.19	12.61	0100	01.030	0.518	0.181
0.940	85	01.29-	00.45-	00.41	01.31	02.28	03.35	04.58	06.03	08.08	11.31	0100	00.874	0.615	0.457
0.940	90	00.00	00.58	01.21	01.90	02.69	03.59	04.66	05.97	07.88	10.99	0100	00.825	0.642	0.642

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.948	00	99.99-	07.65-	04.13-	01.79-	00.13	01.89	03.65	05.51	07.91	11.43	0100	01.728	1.118	0.000
0.948	05	05.62-	03.36-	01.58-	00.03-	01.44	02.91	04.46	06.17	08.45	11.87	0100	01.085	0.646	0.177
0.948	10	02.20-	01.73-	01.20-	00.61-	00.08	00.88	01.87	03.09	04.91	07.93	0100	00.310	0.497	0.300
0.948	15	00.25	00.64	01.07	01.57	02.16	02.87	03.76	04.88	06.60	09.52	0100	00.355	0.405	0.429
0.948	20	02.20	02.53	02.92	03.36	03.90	04.55	05.37	06.43	08.07	10.92	0100	00.401	0.338	0.561
0.948	25	03.63	03.72	03.83	03.97	04.15	04.38	04.71	05.20	06.08	07.95	0100	00.125	0.288	0.663
0.948	30	04.34	04.34	04.34	04.34	04.34	04.34	04.34	04.34	04.35	04.36	0100	00.000	0.252	0.684
0.948	35	04.00	04.04	04.10	04.16	04.25	04.37	04.55	04.82	05.33	06.57	0100	00.052	0.231	0.581
0.948	40	02.22	02.54	02.91	03.34	03.86	04.49	05.30	06.34	07.96	10.79	0100	00.258	0.225	0.374
0.948	45	01.41-	00.61	02.27	03.76	05.18	06.61	08.13	09.82	12.08	15.49	0100	00.888	0.230	0.166
0.948	50	06.87-	00.21	03.24	05.40	07.22	08.93	10.65	12.48	14.86	18.37	0100	01.860	0.245	0.050
0.948	55	11.61-	00.71	04.08	06.37	08.27	10.01	11.77	13.62	16.01	19.53	0100	02.634	0.264	0.018
0.948	60	10.56-	00.71	04.05	06.32	08.21	09.95	11.70	13.55	15.94	19.46	0100	02.826	0.288	0.025
0.948	65	05.75-	00.60	03.52	05.64	07.44	09.14	10.85	12.67	15.05	18.55	0100	02.505	0.316	0.084
0.948	70	03.75-	00.19	02.61	04.51	06.19	07.80	09.46	11.24	13.59	17.07	0100	01.975	0.352	0.149
0.948	75	05.35-	01.60-	00.77	02.64	04.31	05.91	07.56	09.34	11.68	15.15	0100	01.487	0.412	0.120
0.948	80	05.16-	02.56-	00.61-	01.04	02.57	04.08	05.67	07.40	09.70	13.14	0100	01.145	0.508	0.155
0.948	85	01.45-	00.51-	00.44	01.41	02.44	03.57	04.85	06.33	08.42	11.68	0100	00.957	0.614	0.440
0.948	90	00.00	00.62	01.29	02.03	02.85	03.78	04.89	06.23	08.17	11.31	0100	00.898	0.646	0.646
0.952	00	99.99-	07.87-	04.35-	02.01-	00.09-	01.67	03.43	05.29	07.69	11.22	0100	01.733	1.179	0.000
0.952	05	05.64-	03.51-	01.80-	00.27-	01.17	02.62	04.16	05.85	08.12	11.54	0100	01.056	0.680	0.185
0.952	10	02.16-	01.76-	01.30-	00.78-	00.17-	00.57	01.48	02.63	04.37	07.32	0100	00.277	0.520	0.316
0.952	15	00.35	00.74	01.18	01.69	02.29	03.01	03.90	05.04	06.76	09.69	0100	00.385	0.421	0.456
0.952	20	02.35	02.70	03.09	03.55	04.10	04.77	05.60	06.68	08.34	11.21	0100	00.445	0.349	0.600
0.952	25	03.84	03.93	04.04	04.18	04.36	04.59	04.93	05.41	06.30	08.17	0100	00.136	0.295	0.713
0.952	30	04.59	04.59	04.59	04.59	04.59	04.60	04.60	04.60	04.60	04.61	0100	00.000	0.256	0.737
0.952	35	04.28	04.32	04.36	04.42	04.50	04.60	04.76	04.99	05.45	06.58	0100	00.049	0.233	0.624
0.952	40	02.47	02.77	03.11	03.51	04.00	04.60	05.37	06.38	07.96	10.74	0100	00.253	0.225	0.398
0.952	45	01.28-	00.77	02.44	03.93	05.36	06.79	08.32	10.01	12.27	15.69	0100	00.931	0.231	0.172
0.952	50	06.98-	00.44	03.50	05.68	07.51	09.22	10.95	12.78	15.16	18.67	0100	01.996	0.245	0.049
0.952	55	11.51-	01.03	04.42	06.71	08.61	10.35	12.10	13.95	16.35	19.87	0100	02.843	0.264	0.019
0.952	60	10.17-	01.06	04.40	06.67	08.56	10.30	12.05	13.90	16.29	19.81	0100	03.046	0.287	0.028
0.952	65	05.32-	00.96	03.87	05.99	07.79	09.48	11.20	13.02	15.40	18.90	0100	02.685	0.313	0.092
0.952	70	03.26-	00.59	02.98	04.87	06.54	08.15	09.80	11.58	13.93	17.40	0100	02.098	0.346	0.164
0.952	75	05.10-	01.32-	01.05	02.93	04.59	06.20	07.85	09.63	11.97	15.44	0100	01.562	0.405	0.125
0.952	80	05.52-	02.65-	00.59-	01.12	02.69	04.23	05.84	07.58	09.89	13.34	0100	01.189	0.502	0.141
0.952	85	01.54-	00.55-	00.43	01.43	02.49	03.63	04.93	06.43	08.53	11.80	0100	00.984	0.613	0.431
0.952	90	00.00	00.64	01.32	02.07	02.89	03.84	04.96	06.30	08.25	11.40	0100	00.921	0.648	0.648

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.956	00	99.99-	08.06-	04.54-	02.20-	00.28-	01.48	03.25	05.10	07.51	11.03	0100	01.738	1.235	0.000
0.956	05	05.70-	03.67-	02.01-	00.52-	00.90	02.34	03.86	05.55	07.81	11.22	0100	01.028	0.712	0.192
0.956	10	02.16-	01.81-	01.42-	00.96-	00.41-	00.25	01.09	02.16	03.83	06.69	0100	00.245	0.543	0.330
0.956	15	00.41	00.81	01.26	01.78	02.39	03.12	04.03	05.17	06.91	09.86	0100	00.416	0.437	0.480
0.956	20	02.47	02.83	03.24	03.71	04.27	04.95	05.80	06.89	08.57	11.46	0100	00.489	0.360	0.636
0.956	25	04.01	04.10	04.22	04.35	04.53	04.77	05.11	05.59	06.48	08.36	0100	00.145	0.302	0.760
0.956	30	04.82	04.82	04.82	04.82	04.82	04.82	04.82	04.82	04.82	04.83	0100	00.000	0.260	0.789
0.956	35	04.53	04.57	04.61	04.66	04.72	04.82	04.95	05.16	05.57	06.58	0100	00.045	0.235	0.668
0.956	40	02.71	02.99	03.31	03.69	04.15	04.72	05.46	06.42	07.96	10.69	0100	00.248	0.226	0.423
0.956	45	01.14-	00.93	02.61	04.12	05.54	06.98	08.52	10.20	12.47	15.89	0100	00.977	0.231	0.178
0.956	50	07.09-	00.66	03.75	05.94	07.79	09.50	11.23	13.06	15.45	18.96	0100	02.135	0.245	0.048
0.956	55	11.44-	01.33	04.72	07.02	08.91	10.66	12.41	14.26	16.66	20.18	0100	03.051	0.264	0.019
0.956	60	09.82-	01.37	04.71	06.99	08.87	10.61	12.36	14.21	16.60	20.12	0100	03.257	0.285	0.030
0.956	65	04.93-	01.29	04.19	06.30	08.10	09.79	11.50	13.33	15.70	19.20	0100	02.851	0.310	0.100
0.956	70	02.81-	00.95	03.31	05.18	06.85	08.45	10.10	11.88	14.22	17.69	0100	02.206	0.341	0.179
0.956	75	04.84-	01.07-	01.30	03.17	04.84	06.44	08.09	09.87	12.21	15.69	0100	01.623	0.398	0.130
0.956	80	05.91-	02.76-	00.60-	01.17	02.77	04.33	05.96	07.71	10.04	13.49	0100	01.220	0.497	0.127
0.956	85	01.62-	00.61-	00.40	01.42	02.50	03.66	04.97	06.48	08.59	11.87	0100	01.000	0.613	0.422
0.956	90	00.00	00.64	01.33	02.08	02.92	03.87	04.99	06.34	08.29	11.43	0100	00.932	0.650	0.650
0.960	00	99.99-	08.21-	04.69-	02.35-	00.43-	01.33	03.09	04.95	07.35	10.87	0100	01.742	1.283	0.000
0.960	05	05.79-	03.84-	02.21-	00.75-	00.65	02.07	03.59	05.27	07.52	10.93	0100	01.000	0.742	0.196
0.960	10	02.18-	01.89-	01.55-	01.15-	00.67-	00.07-	00.70	01.70	03.27	06.05	0100	00.214	0.564	0.341
0.960	15	00.44	00.85	01.32	01.85	02.47	03.21	04.13	05.29	07.04	10.00	0100	00.447	0.452	0.500
0.960	20	02.56	02.92	03.34	03.83	04.40	05.10	05.96	07.07	08.77	11.67	0100	00.530	0.371	0.668
0.960	25	04.15	04.24	04.35	04.49	04.67	04.91	05.25	05.74	06.62	08.51	0100	00.154	0.309	0.803
0.960	30	05.01	05.01	05.01	05.01	05.01	05.01	05.01	05.01	05.01	05.02	0100	00.000	0.264	0.837
0.960	35	04.76	04.79	04.82	04.87	04.92	05.00	05.12	05.30	05.66	06.57	0100	00.041	0.237	0.710
0.960	40	02.94	03.20	03.50	03.85	04.29	04.83	05.54	06.48	07.98	10.67	0100	00.245	0.227	0.448
0.960	45	01.00-	01.09	02.79	04.29	05.73	07.17	08.70	10.40	12.66	16.08	0100	01.024	0.232	0.184
0.960	50	07.19-	00.86	03.99	06.19	08.04	09.75	11.49	13.32	15.71	19.22	0100	02.270	0.245	0.047
0.960	55	11.38-	01.59	04.99	07.29	09.19	10.94	12.69	14.54	16.94	20.45	0100	03.247	0.263	0.019
0.960	60	09.51-	01.65	04.98	07.26	09.14	10.88	12.63	14.48	16.87	20.39	0100	03.450	0.284	0.032
0.960	65	04.58-	01.57	04.46	06.57	08.36	10.05	11.76	13.58	15.96	19.46	0100	02.996	0.307	0.107
0.960	70	02.40-	01.26	03.59	05.45	07.10	08.70	10.35	12.12	14.46	17.93	0100	02.293	0.335	0.193
0.960	75	04.60-	00.86-	01.50	03.37	05.03	06.63	08.28	10.06	12.40	15.88	0100	01.665	0.391	0.136
0.960	80	06.33-	02.91-	00.65-	01.17	02.81	04.39	06.02	07.79	10.12	13.59	0100	01.235	0.491	0.114
0.960	85	01.71-	00.67-	00.35	01.39	02.47	03.64	04.96	06.48	08.59	11.88	0100	01.003	0.612	0.413
0.960	90	00.00	00.64	01.33	02.08	02.91	03.85	04.97	06.32	08.27	11.42	0100	00.931	0.651	0.651

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.964	00	99.99-	08.33-	04.81-	02.47-	00.55-	01.21	02.97	04.83	07.23	10.75	0100	01.747	1.322	0.000
0.964	05	05.90-	04.00-	02.41-	00.97-	00.42	01.83	03.34	05.01	07.27	10.67	0100	00.974	0.768	0.197
0.964	10	02.24-	01.99-	01.69-	01.34-	00.92-	00.38-	00.31	01.24	02.72	05.40	0100	00.186	0.583	0.348
0.964	15	00.44	00.86	01.34	01.89	02.52	03.28	04.21	05.38	07.15	10.13	0100	00.476	0.466	0.515
0.964	20	02.61	02.98	03.42	03.91	04.50	05.21	06.09	07.21	08.92	11.84	0100	00.569	0.380	0.693
0.964	25	04.25	04.35	04.46	04.60	04.78	05.02	05.36	05.85	06.74	08.62	0100	00.162	0.315	0.839
0.964	30	05.16	05.16	05.16	05.16	05.16	05.16	05.16	05.16	05.17	05.17	0100	00.000	0.268	0.879
0.964	35	04.95	04.98	05.01	05.04	05.09	05.16	05.26	05.42	05.73	06.55	0100	00.037	0.239	0.748
0.964	40	03.14	03.38	03.67	04.01	04.42	04.94	05.62	06.53	07.99	10.64	0100	00.242	0.228	0.470
0.964	45	00.86-	01.24	02.95	04.46	05.90	07.34	08.88	10.57	12.84	16.26	0100	01.069	0.232	0.191
0.964	50	07.29-	01.04	04.19	06.40	08.26	09.98	11.71	13.55	15.94	19.45	0100	02.395	0.245	0.046
0.964	55	11.34-	01.81	05.22	07.52	09.42	11.17	12.92	14.77	17.17	20.69	0100	03.421	0.263	0.019
0.964	60	09.25-	01.87	05.20	07.48	09.36	11.10	12.85	14.70	17.09	20.61	0100	03.615	0.283	0.034
0.964	65	04.28-	01.79	04.67	06.78	08.57	10.26	11.97	13.79	16.16	19.66	0100	03.110	0.304	0.113
0.964	70	02.04-	01.51	03.81	05.66	07.30	08.89	10.54	12.31	14.64	18.11	0100	02.354	0.330	0.206
0.964	75	04.37-	00.69-	01.65	03.51	05.17	06.77	08.42	10.19	12.53	16.00	0100	01.686	0.384	0.140
0.964	80	06.77-	03.08-	00.73-	01.13	02.79	04.39	06.04	07.81	10.15	13.62	0100	01.234	0.487	0.102
0.964	85	01.79-	00.75-	00.28	01.33	02.41	03.59	04.91	06.43	08.54	11.84	0100	00.992	0.611	0.404
0.964	90	00.00	00.63	01.31	02.05	02.87	03.81	04.92	06.26	08.21	11.35	0100	00.917	0.653	0.653
0.968	00	99.99-	08.41-	04.89-	02.54-	00.63-	01.14	02.90	04.75	07.16	10.68	0100	01.752	1.349	0.000
0.968	05	06.03-	04.17-	02.59-	01.16-	00.22	01.63	03.13	04.80	07.05	10.45	0100	00.950	0.788	0.197
0.968	10	02.32-	02.10-	01.85-	01.54-	01.17-	00.69-	00.06-	00.79	02.18	04.75	0100	00.159	0.598	0.351
0.968	15	00.41	00.85	01.34	01.90	02.55	03.32	04.27	05.46	07.25	10.24	0100	00.501	0.477	0.524
0.968	20	02.63	03.02	03.46	03.97	04.57	05.29	06.19	07.32	09.05	11.98	0100	00.602	0.388	0.711
0.968	25	04.32	04.41	04.53	04.67	04.85	05.09	05.43	05.92	06.82	08.71	0100	00.168	0.320	0.867
0.968	30	05.28	05.28	05.28	05.28	05.28	05.28	05.28	05.28	05.28	05.29	0100	00.000	0.271	0.913
0.968	35	05.11	05.13	05.15	05.19	05.23	05.29	05.38	05.51	05.79	06.51	0100	00.033	0.240	0.780
0.968	40	03.31	03.54	03.81	04.13	04.53	05.04	05.70	06.58	08.01	10.63	0100	00.239	0.229	0.490
0.968	45	00.74-	01.38	03.09	04.61	06.05	07.49	09.03	10.73	13.00	16.41	0100	01.110	0.233	0.196
0.968	50	07.38-	01.19	04.37	06.58	08.44	10.16	11.90	13.74	16.13	19.64	0100	02.504	0.245	0.045
0.968	55	11.33-	01.99	05.40	07.70	09.60	11.35	13.11	14.96	17.36	20.87	0100	03.566	0.263	0.019
0.968	60	09.03-	02.04	05.37	07.65	09.53	11.27	13.02	14.87	17.26	20.78	0100	03.742	0.282	0.035
0.968	65	04.03-	01.96	04.83	06.93	08.72	10.41	12.12	13.94	16.31	19.81	0100	03.190	0.301	0.119
0.968	70	01.74-	01.71	03.98	05.81	07.44	09.03	10.66	12.43	14.77	18.23	0100	02.385	0.326	0.218
0.968	75	04.17-	00.57-	01.75	03.60	05.25	06.85	08.49	10.26	12.60	16.07	0100	01.685	0.378	0.145
0.968	80	07.23-	03.28-	00.86-	01.04	02.72	04.33	05.99	07.78	10.12	13.60	0100	01.216	0.482	0.091
0.968	85	01.87-	00.83-	00.19	01.23	02.32	03.49	04.81	06.33	08.44	11.73	0100	00.967	0.611	0.397
0.968	90	00.00	00.61	01.27	02.00	02.80	03.73	04.83	06.16	08.09	11.22	0100	00.891	0.655	0.655

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.972	00	99.99-	08.44-	04.92-	02.58-	00.66-	01.10	02.86	04.72	07.12	10.64	0100	01.757	1.363	0.000
0.972	05	06.18-	04.32-	02.75-	01.32-	00.06	01.46	02.96	04.63	06.88	10.28	0100	00.929	0.802	0.193
0.972	10	02.41-	02.23-	02.01-	01.74-	01.41-	00.99-	00.42-	00.36	01.65	04.11	0100	00.135	0.608	0.349
0.972	15	00.36	00.81	01.32	01.90	02.56	03.35	04.32	05.52	07.32	10.33	0100	00.522	0.485	0.527
0.972	20	02.62	03.02	03.48	04.00	04.61	05.35	06.26	07.41	09.15	12.10	0100	00.630	0.394	0.720
0.972	25	04.36	04.45	04.57	04.71	04.89	05.13	05.48	05.97	06.87	08.77	0100	00.173	0.324	0.885
0.972	30	05.36	05.36	05.36	05.36	05.36	05.36	05.36	05.36	05.36	05.36	0100	00.000	0.273	0.938
0.972	35	05.23	05.24	05.27	05.29	05.33	05.38	05.46	05.58	05.82	06.46	0100	00.029	0.241	0.805
0.972	40	03.44	03.66	03.92	04.24	04.62	05.11	05.75	06.61	08.02	10.61	0100	00.237	0.229	0.506
0.972	45	00.64-	01.49	03.21	04.73	06.17	07.62	09.16	10.85	13.12	16.54	0100	01.143	0.233	0.201
0.972	50	07.48-	01.31	04.50	06.73	08.59	10.31	12.05	13.89	16.28	19.79	0100	02.590	0.245	0.044
0.972	55	11.33-	02.13	05.54	07.84	09.74	11.49	13.24	15.10	17.49	21.01	0100	03.675	0.262	0.019
0.972	60	08.86-	02.16	05.49	07.77	09.65	11.39	13.14	14.99	17.38	20.90	0100	03.828	0.281	0.036
0.972	65	03.83-	02.08	04.94	07.03	08.82	10.50	12.21	14.03	16.40	19.90	0100	03.231	0.299	0.124
0.972	70	01.49-	01.86	04.09	05.90	07.53	09.10	10.74	12.50	14.83	18.29	0100	02.387	0.322	0.228
0.972	75	04.01-	00.50-	01.79	03.63	05.27	06.86	08.50	10.27	12.61	16.08	0100	01.663	0.373	0.148
0.972	80	07.71-	03.52-	01.03-	00.90	02.60	04.22	05.89	07.68	10.03	13.51	0100	01.184	0.478	0.081
0.972	85	01.94-	00.92-	00.09	01.12	02.19	03.35	04.67	06.18	08.29	11.57	0100	00.932	0.611	0.390
0.972	90	00.00	00.59	01.22	01.93	02.71	03.62	04.70	06.02	07.93	11.04	0100	00.855	0.657	0.657
0.976	00	99.99-	08.43-	04.91-	02.57-	00.65-	01.11	02.87	04.73	07.13	10.65	0100	01.762	1.364	0.000
0.976	05	06.34-	04.47-	02.89-	01.46-	00.07-	01.33	02.84	04.51	06.76	10.16	0100	00.911	0.809	0.188
0.976	10	02.52-	02.36-	02.18-	01.94-	01.65-	01.28-	00.77-	00.06-	01.14	03.47	0100	00.114	0.614	0.344
0.976	15	00.29	00.76	01.28	01.88	02.56	03.36	04.34	05.56	07.38	10.40	0100	00.538	0.489	0.523
0.976	20	02.59	03.00	03.47	04.01	04.63	05.38	06.31	07.47	09.23	12.19	0100	00.652	0.397	0.721
0.976	25	04.37	04.46	04.57	04.72	04.90	05.15	05.49	05.99	06.90	08.81	0100	00.176	0.327	0.892
0.976	30	05.40	05.40	05.40	05.40	05.40	05.40	05.40	05.41	05.41	05.41	0100	00.000	0.274	0.952
0.976	35	05.31	05.32	05.34	05.37	05.40	05.44	05.51	05.61	05.82	06.39	0100	00.026	0.242	0.821
0.976	40	03.54	03.76	04.01	04.31	04.69	05.16	05.79	06.63	08.02	10.59	0100	00.234	0.229	0.518
0.976	45	00.56-	01.57	03.29	04.82	06.26	07.71	09.25	10.95	13.22	16.64	0100	01.167	0.232	0.204
0.976	50	07.57-	01.40	04.60	06.83	08.69	10.42	12.16	14.00	16.39	19.90	0100	02.650	0.245	0.043
0.976	55	11.35-	02.22	05.63	07.93	09.84	11.58	13.34	15.19	17.59	21.11	0100	03.743	0.261	0.019
0.976	60	08.73-	02.24	05.56	07.84	09.72	11.46	13.21	15.05	17.45	20.97	0100	03.870	0.279	0.037
0.976	65	03.68-	02.15	04.99	07.08	08.87	10.55	12.25	14.07	16.44	19.94	0100	03.235	0.296	0.127
0.976	70	01.30-	01.95	04.15	05.94	07.55	09.12	10.75	12.51	14.84	18.30	0100	02.361	0.318	0.235
0.976	75	03.90-	00.47-	01.78	03.60	05.24	06.82	08.46	10.22	12.55	16.02	0100	01.622	0.369	0.150
0.976	80	08.18-	03.79-	01.24-	00.71	02.43	04.06	05.74	07.53	09.88	13.37	0100	01.139	0.475	0.072
0.976	85	02.01-	01.02-	00.03-	00.98	02.04	03.19	04.49	05.99	08.09	11.37	0100	00.887	0.611	0.385
0.976	90	00.00	00.56	01.17	01.84	02.60	03.49	04.55	05.84	07.73	10.82	0100	00.812	0.659	0.659

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.980	00	99.99-	08.38-	04.86-	02.52-	00.60-	01.16	02.92	04.78	07.18	10.76	0100	01.767	1.353	0.000
0.980	05	06.50-	04.60-	03.00-	01.56-	00.16-	01.25	02.76	04.43	06.68	10.09	0100	00.897	0.809	0.181
0.980	10	02.64-	02.51-	02.34-	02.14-	01.89-	01.56-	01.11-	00.47-	00.64	02.85	0100	00.095	0.615	0.335
0.980	15	00.20	00.69	01.23	01.84	02.54	03.36	04.35	05.59	07.42	10.46	0100	00.549	0.490	0.514
0.980	20	02.53	02.96	03.45	04.00	04.64	05.40	06.34	07.51	09.29	12.27	0100	00.667	0.398	0.714
0.980	25	04.35	04.44	04.56	04.71	04.89	05.14	05.49	05.99	06.90	08.82	0100	00.178	0.327	0.890
0.980	30	05.42	05.42	05.42	05.42	05.42	05.42	05.42	05.42	05.42	05.42	0100	00.000	0.275	0.956
0.980	35	05.35	05.37	05.38	05.40	05.43	05.47	05.53	05.62	05.80	06.30	0100	00.023	0.242	0.829
0.980	40	03.61	03.81	04.06	04.36	04.72	05.19	05.80	06.64	08.01	10.55	0100	00.230	0.228	0.524
0.980	45	00.52-	01.63	03.35	04.88	06.33	07.78	09.32	11.01	13.29	16.71	0100	01.181	0.231	0.205
0.980	50	07.67-	01.44	04.66	06.89	08.76	10.48	12.22	14.06	16.46	19.97	0100	02.664	0.244	0.042
0.980	55	11.40-	02.26	05.68	07.98	09.89	11.64	13.39	15.24	17.64	21.16	0100	03.770	0.260	0.019
0.980	60	08.64-	02.27	05.59	07.86	09.74	11.48	13.23	15.08	17.47	20.99	0100	03.869	0.278	0.038
0.980	65	03.57-	02.17	05.00	07.08	08.86	10.54	12.25	14.06	16.43	19.93	0100	03.202	0.294	0.129
0.980	70	01.16-	01.99	04.15	05.92	07.53	09.09	10.71	12.47	14.79	18.25	0100	02.310	0.315	0.241
0.980	75	03.83-	00.50-	01.72	03.53	05.15	06.72	08.36	10.12	12.45	15.91	0100	01.565	0.365	0.151
0.980	80	08.65-	04.08-	01.49-	00.49	02.21	03.86	05.53	07.33	09.69	13.18	0100	01.085	0.473	0.065
0.980	85	02.06-	01.11-	00.16-	00.82	01.86	02.99	04.27	05.77	07.85	11.12	0100	00.837	0.611	0.380
0.980	90	00.00	00.52	01.10	01.75	02.48	03.33	04.37	05.63	07.50	10.57	0100	00.763	0.660	0.660
0.984	00	99.99-	08.30-	04.78-	02.44-	00.52-	01.24	03.00	04.86	07.26	10.79	0100	01.771	1.330	0.000
0.984	05	06.66-	04.71-	03.09-	01.62-	00.22-	01.20	02.72	04.43	06.65	10.06	0100	00.885	0.802	0.173
0.984	10	02.77-	02.65-	02.51-	02.34-	02.12-	01.83-	01.43-	00.85-	00.16	02.24	0100	00.078	0.611	0.323
0.984	15	00.11	00.61	01.17	01.79	02.51	03.34	04.35	05.60	07.45	10.50	0100	00.553	0.488	0.500
0.984	20	02.47	02.91	03.41	03.97	04.62	05.40	06.35	07.54	09.33	12.33	0100	00.676	0.397	0.701
0.984	25	04.31	04.41	04.53	04.67	04.86	05.11	05.47	05.98	06.90	08.83	0100	00.179	0.326	0.880
0.984	30	05.41	05.41	05.41	05.41	05.41	05.41	05.41	05.41	05.41	05.41	0100	00.000	0.274	0.951
0.984	35	05.37	05.38	05.39	05.41	05.44	05.47	05.52	05.60	05.76	06.21	0100	00.020	0.241	0.828
0.984	40	03.64	03.84	04.08	04.37	04.73	05.19	05.79	06.61	07.97	10.50	0100	00.225	0.227	0.525
0.984	45	00.50-	01.65	03.38	04.91	06.36	07.81	09.35	11.05	13.32	16.74	0100	01.184	0.230	0.205
0.984	50	07.78-	01.46	04.68	06.92	08.79	10.51	12.25	14.10	16.49	20.00	0100	02.690	0.243	0.040
0.984	55	11.46-	02.27	05.69	07.99	09.90	11.65	13.40	15.25	17.65	21.17	0100	03.759	0.259	0.018
0.984	60	08.58-	02.26	05.57	07.84	09.73	11.47	13.21	15.06	17.46	20.97	0100	03.828	0.276	0.038
0.984	65	03.50-	02.15	04.96	07.04	08.82	10.49	12.20	14.01	16.38	19.88	0100	03.139	0.292	0.130
0.984	70	01.07-	01.98	04.11	05.86	07.46	09.01	10.62	12.38	14.70	18.15	0100	02.238	0.312	0.244
0.984	75	03.80-	00.58-	01.61	03.40	05.01	06.58	08.21	09.97	12.29	15.76	0100	01.497	0.362	0.151
0.984	80	09.10-	04.38-	01.76-	00.23	01.96	03.61	05.29	07.09	09.45	12.94	0100	01.024	0.471	0.058
0.984	85	02.10-	01.20-	00.29-	00.66	01.67	02.78	04.04	05.51	07.59	10.84	0100	00.783	0.612	0.377
0.984	90	00.00	00.49	01.03	01.64	02.35	03.17	04.17	05.40	07.24	10.28	0100	00.711	0.662	0.662

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.992	00	99.99-	08.04-	04.52-	02.18-	00.26-	01.50	03.26	05.12	07.52	11.04	0100	01.781	1.261	0.000
0.992	05	06.99-	04.88-	03.17-	01.66-	00.22-	01.23	02.77	04.46	06.73	10.15	0100	00.872	0.774	0.155
0.992	10	03.03-	02.95-	02.84-	02.72-	02.55-	02.34-	02.03-	01.57-	00.75-	01.05	0100	00.051	0.592	0.295
0.992	15	00.11-	00.43	01.02	01.67	02.42	03.28	04.32	05.60	07.47	10.55	0100	00.548	0.475	0.464
0.992	20	02.30	02.77	03.29	03.88	04.57	05.37	06.35	07.57	09.39	12.41	0100	00.677	0.388	0.658
0.992	25	04.18	04.28	04.41	04.56	04.75	05.01	05.38	05.90	06.84	08.80	0100	00.177	0.320	0.837
0.992	30	05.32	05.32	05.32	05.32	05.32	05.32	05.32	05.32	05.32	05.32	0100	00.000	0.269	0.916
0.992	35	05.32	05.32	05.34	05.35	05.37	05.39	05.43	05.49	05.62	05.97	0100	00.015	0.237	0.805
0.992	40	03.61	03.80	04.04	04.32	04.66	05.11	05.70	06.51	07.84	10.34	0100	00.212	0.224	0.514
0.992	45	00.55-	01.61	03.34	04.88	06.33	07.78	09.32	11.02	13.29	16.71	0100	01.161	0.227	0.200
0.992	50	08.04-	01.40	04.63	06.88	08.75	10.48	12.22	14.06	16.45	19.96	0100	02.631	0.239	0.038
0.992	55	11.62-	02.19	05.61	07.91	09.82	11.57	13.32	15.17	17.57	21.09	0100	03.641	0.255	0.018
0.992	60	08.55-	02.13	05.44	07.71	09.59	11.33	13.07	14.92	17.31	20.83	0100	03.655	0.272	0.038
0.992	65	03.46-	02.01	04.78	06.84	08.61	10.28	11.98	13.80	16.17	19.66	0100	02.944	0.288	0.130
0.992	70	01.02-	01.86	03.91	05.63	07.20	08.73	10.34	12.08	14.39	17.85	0100	02.053	0.308	0.243
0.992	75	03.88-	00.84-	01.28	03.04	04.63	06.18	07.80	09.55	11.87	15.32	0100	01.340	0.358	0.146
0.992	80	09.90-	05.03-	02.37-	00.36-	01.38	03.03	04.72	06.52	08.88	12.37	0100	00.896	0.470	0.048
0.992	85	02.16-	01.37-	00.54-	00.33	01.27	02.32	03.53	04.96	06.99	10.21	0100	00.674	0.614	0.373
0.992	90	00.00	00.42	00.89	01.44	02.07	02.82	03.75	04.92	06.68	09.65	0100	00.609	0.666	0.666
1.000	00	99.99-	07.70-	04.18-	01.84-	00.08	01.84	03.60	05.46	07.86	11.38	0100	01.790	1.172	0.000
1.000	05	07.29-	04.97-	03.15-	01.58-	00.09-	01.38	02.94	04.65	06.94	10.37	0100	00.869	0.731	0.136
1.000	10	03.29-	03.23-	03.16-	03.07-	02.95-	02.79-	02.57-	02.22-	01.58-	00.09-	0100	00.032	0.563	0.264
1.000	15	00.33-	00.23	00.85	01.53	02.30	03.19	04.26	05.55	07.45	10.55	0100	00.527	0.454	0.421
1.000	20	02.10	02.60	03.15	03.77	04.48	05.31	06.32	07.56	09.41	12.45	0100	00.662	0.373	0.604
1.000	25	04.01	04.11	04.24	04.40	04.60	04.87	05.25	05.79	06.75	08.75	0100	00.171	0.309	0.777
1.000	30	05.17	05.17	05.17	05.17	05.17	05.17	05.17	05.17	05.17	05.17	0100	00.000	0.261	0.859
1.000	35	05.18	05.18	05.19	05.20	05.22	05.24	05.27	05.31	05.41	05.69	0100	00.011	0.231	0.762
1.000	40	03.48	03.67	03.90	04.17	04.51	04.94	05.52	06.31	07.63	10.11	0100	00.196	0.220	0.489
1.000	45	00.70-	01.47	03.21	04.74	06.19	07.65	09.19	10.89	13.16	16.58	0100	01.107	0.223	0.190
1.000	50	08.35-	01.23	04.48	06.73	08.60	10.33	12.07	13.91	16.31	19.82	0100	02.504	0.235	0.034
1.000	55	11.82-	02.00	05.42	07.73	09.63	11.38	13.13	14.98	17.38	20.90	0100	03.433	0.251	0.017
1.000	60	08.62-	01.90	05.20	07.46	09.35	11.08	12.83	14.67	17.07	20.58	0100	03.403	0.268	0.037
1.000	65	03.53-	01.76	04.50	06.54	08.31	09.97	11.67	13.48	15.84	19.34	0100	02.697	0.284	0.126
1.000	70	01.09-	01.61	03.60	05.28	06.83	08.35	09.94	11.67	13.98	17.43	0100	01.846	0.305	0.237
1.000	75	04.10-	01.21-	00.85	02.57	04.14	05.67	07.28	09.03	11.34	14.79	0100	01.179	0.357	0.139
1.000	80	10.51-	05.66-	03.01-	01.00-	00.74	02.39	04.08	05.88	08.24	11.73	0100	00.774	0.470	0.042
1.000	85	02.19-	01.50-	00.77-	00.02	00.89	01.87	03.02	04.40	06.38	09.55	0100	00.576	0.616	0.372
1.000	90	00.00	00.36	00.77	01.25	01.81	02.49	03.35	04.44	06.13	09.02	0100	00.518	0.669	0.669

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.008	00	99.99-	07.32-	03.80-	01.46-	00.46	02.22	03.98	05.84	08.24	11.76	0100	01.799	1.078	0.000
1.008	05	07.56-	04.98-	03.05-	01.41-	00.12	01.62	03.21	04.93	07.23	10.67	0100	00.872	0.683	0.120
1.008	10	03.53-	03.49-	03.44-	03.38-	03.30-	03.19-	03.03-	02.78-	02.30-	01.13-	0100	00.019	0.530	0.235
1.008	15	00.56-	00.03	00.67	01.38	02.17	03.08	04.17	05.49	07.41	10.52	0100	00.497	0.430	0.378
1.008	20	01.88	02.41	02.99	03.64	04.37	05.23	06.26	07.53	09.40	12.47	0100	00.636	0.355	0.548
1.008	25	03.80	03.91	04.04	04.21	04.42	04.70	05.09	05.65	06.65	08.69	0100	00.165	0.297	0.711
1.008	30	04.97	04.97	04.97	04.97	04.97	04.97	04.97	04.97	04.97	04.97	0100	00.000	0.253	0.793
1.008	35	04.98	04.98	04.99	05.00	05.01	05.02	05.05	05.08	05.16	05.37	0100	00.007	0.225	0.709
1.008	40	03.28	03.46	03.68	03.95	04.28	04.71	05.28	06.06	07.36	09.82	0100	00.178	0.215	0.457
1.008	45	00.92-	01.26	02.99	04.53	05.98	07.44	08.98	10.68	12.95	16.38	0100	01.035	0.219	0.177
1.008	50	08.72-	01.00	04.25	06.50	08.37	10.11	11.85	13.69	16.08	19.60	0100	02.339	0.231	0.031
1.008	55	12.05-	01.74	05.16	07.47	09.37	11.12	12.87	14.72	17.12	20.64	0100	03.183	0.247	0.015
1.008	60	08.74-	01.60	04.89	07.15	09.03	10.77	12.51	14.36	16.75	20.27	0100	03.121	0.264	0.035
1.008	65	03.66-	01.44	04.15	06.18	07.93	09.59	11.28	13.09	15.46	18.95	0100	02.440	0.281	0.121
1.008	70	01.26-	01.30	03.23	04.87	06.39	07.90	09.48	11.21	13.51	16.95	0100	01.643	0.303	0.227
1.008	75	04.41-	01.66-	00.35	02.04	03.59	05.12	06.72	08.46	10.76	14.21	0100	01.032	0.357	0.129
1.008	80	10.89-	06.22-	03.61-	01.63-	00.10	01.75	03.43	05.23	07.59	11.08	0100	00.668	0.472	0.038
1.008	85	02.19-	01.59-	00.95-	00.24-	00.55	01.47	02.56	03.87	05.79	08.91	0100	00.494	0.619	0.374
1.008	90	00.00	00.31	00.66	01.08	01.59	02.20	02.99	04.02	05.62	08.42	0100	00.445	0.672	0.672
1.016	00	99.99-	06.93-	03.41-	01.07-	00.85	02.61	04.37	06.23	08.63	12.16	0100	01.807	0.990	0.000
1.016	05	07.77-	04.93-	02.89-	01.18-	00.38	01.92	03.52	05.26	07.58	11.03	0100	00.881	0.635	0.106
1.016	10	03.75-	03.72-	03.69-	03.64-	03.59-	03.51-	03.39-	03.22-	02.86-	01.97-	0100	00.012	0.496	0.209
1.016	15	00.78-	00.16-	00.50	01.22	02.04	02.96	04.07	05.40	07.33	10.46	0100	00.463	0.405	0.339
1.016	20	01.67	02.22	02.83	03.50	04.26	05.14	06.20	07.49	09.38	12.47	0100	00.607	0.337	0.494
1.016	25	03.58	03.70	03.84	04.01	04.23	04.53	04.93	05.51	06.53	08.62	0100	00.158	0.284	0.647
1.016	30	04.74	04.74	04.74	04.74	04.74	04.74	04.74	04.74	04.74	04.74	0100	00.000	0.244	0.726
1.016	35	04.74	04.74	04.75	04.76	04.76	04.77	04.79	04.82	04.88	05.04	0100	00.005	0.219	0.653
1.016	40	03.03	03.21	03.42	03.68	04.01	04.43	04.98	05.75	07.04	09.47	0100	00.160	0.210	0.423
1.016	45	01.20-	00.98	02.72	04.26	05.72	07.17	08.72	10.42	12.69	16.11	0100	00.957	0.215	0.163
1.016	50	09.12-	00.71	03.98	06.23	08.10	09.83	11.58	13.42	15.81	19.33	0100	02.161	0.227	0.028
1.016	55	12.29-	01.44	04.86	07.17	09.07	10.82	12.57	14.42	16.82	20.34	0100	02.925	0.244	0.014
1.016	60	08.89-	01.27	04.55	06.81	08.68	10.42	12.16	14.01	16.40	19.92	0100	02.843	0.261	0.034
1.016	65	03.83-	01.10	03.77	05.79	07.53	09.19	10.88	12.68	15.04	18.53	0100	02.199	0.279	0.115
1.016	70	01.48-	00.96	02.83	04.44	05.94	07.43	09.01	10.72	13.02	16.45	0100	01.462	0.303	0.215
1.016	75	04.79-	02.12-	00.16-	01.51	03.05	04.57	06.16	07.89	10.19	13.64	0100	00.908	0.359	0.119
1.016	80	11.06-	06.68-	04.14-	02.19-	00.47-	01.16	02.83	04.63	06.98	10.46	0100	00.584	0.476	0.037
1.016	85	02.17-	01.65-	01.08-	00.44-	00.29	01.14	02.16	03.42	05.29	08.35	0100	00.432	0.623	0.378
1.016	90	00.00	00.27	00.58	00.96	01.41	01.97	02.70	03.66	05.19	07.91	0100	00.389	0.676	0.676

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.032	00	99.99-	06.21-	02.68-	00.34-	01.57	03.34	05.10	06.95	09.36	12.88	0100	01.822	0.845	0.000
1.032	05	08.04-	04.69-	02.46-	00.65-	00.97	02.55	04.18	05.95	08.28	11.74	0100	00.906	0.552	0.087
1.032	10	04.07-	04.05-	04.02-	03.99-	03.94-	03.88-	03.79-	03.65-	03.36-	02.61-	0100	00.008	0.437	0.171
1.032	15	01.14-	00.50-	00.19	00.93	01.77	02.71	03.83	05.18	07.13	10.28	0100	00.397	0.361	0.278
1.032	20	01.27	01.87	02.52	03.24	04.04	04.96	06.06	07.38	09.30	12.43	0100	00.548	0.305	0.408
1.032	25	03.15	03.27	03.43	03.62	03.87	04.19	04.62	05.25	06.33	08.50	0100	00.146	0.261	0.539
1.032	30	04.26	04.26	04.26	04.26	04.26	04.27	04.27	04.27	04.28	04.30	0100	00.001	0.228	0.609
1.032	35	04.22	04.22	04.22	04.23	04.23	04.24	04.25	04.26	04.29	04.38	0100	00.002	0.209	0.551
1.032	40	02.46	02.63	02.84	03.08	03.39	03.79	04.33	05.07	06.32	08.71	0100	00.128	0.203	0.358
1.032	45	01.83-	00.36	02.10	03.64	05.10	06.56	08.10	09.80	12.08	15.50	0100	00.806	0.208	0.137
1.032	50	09.96-	00.08	03.36	05.62	07.49	09.23	10.97	12.81	15.21	18.72	0100	01.831	0.221	0.022
1.032	55	12.72-	00.81	04.22	06.52	08.42	10.17	11.93	13.78	16.18	19.70	0100	02.464	0.238	0.013
1.032	60	09.21-	00.60	03.86	06.11	07.98	09.71	11.46	13.30	15.69	19.21	0100	02.372	0.257	0.031
1.032	65	04.22-	00.44	03.04	05.03	06.76	08.41	10.09	11.89	14.24	17.73	0100	01.812	0.277	0.105
1.032	70	02.00-	00.28	02.07	03.63	05.10	06.57	08.13	09.83	12.12	15.54	0100	01.190	0.304	0.192
1.032	75	05.59-	03.02-	01.09-	00.56	02.09	03.59	05.18	06.90	09.20	12.64	0100	00.733	0.364	0.101
1.032	80	10.92-	07.22-	04.87-	03.00-	01.34-	00.26	01.91	03.68	06.02	09.50	0100	00.474	0.483	0.039
1.032	85	02.12-	01.69-	01.22-	00.67-	00.04-	00.72	01.65	02.82	04.59	07.56	0100	00.356	0.629	0.387
1.032	90	00.00	00.22	00.49	00.81	01.20	01.69	02.34	03.21	04.63	07.22	0100	00.324	0.681	0.681
1.048	00	99.99-	05.66-	02.14-	00.20	02.12	03.88	05.64	07.50	09.90	13.42	0100	01.835	0.751	0.000
1.048	05	08.05-	04.66-	02.02-	00.15-	01.51	03.11	04.76	06.53	08.87	12.34	0100	00.933	0.494	0.077
1.048	10	04.20-	04.16-	04.12-	04.06-	03.98-	03.88-	03.72-	03.49-	03.03-	01.91-	0100	00.012	0.394	0.150
1.048	15	01.36-	00.72-	00.04-	00.71	01.53	02.48	03.60	04.94	06.89	10.03	0100	00.342	0.330	0.241
1.048	20	00.98	01.61	02.30	03.04	03.86	04.81	05.92	07.27	09.21	12.36	0100	00.499	0.282	0.353
1.048	25	02.79	02.93	03.10	03.31	03.58	03.92	04.40	05.06	06.20	08.45	0100	00.138	0.244	0.465
1.048	30	03.84	03.84	03.84	03.84	03.85	03.85	03.86	03.87	03.90	03.97	0100	00.002	0.217	0.525
1.048	35	03.72	03.73	03.73	03.73	03.73	03.74	03.74	03.75	03.77	03.82	0100	00.001	0.201	0.475
1.048	40	01.90	02.06	02.25	02.49	02.78	03.16	03.67	04.38	05.59	07.94	0100	00.103	0.198	0.306
1.048	45	02.48-	00.28-	01.47	03.02	04.47	05.93	07.48	09.18	11.46	14.88	0100	00.686	0.204	0.115
1.048	50	10.76-	00.52-	02.77	05.03	06.91	08.64	10.39	12.23	14.63	18.14	0100	01.575	0.218	0.018
1.048	55	13.01-	00.24	03.65	05.95	07.85	09.59	11.35	13.20	15.60	19.12	0100	02.126	0.235	0.012
1.048	60	09.45-	00.04	03.28	05.52	07.39	09.12	10.86	12.70	15.10	18.61	0100	02.047	0.254	0.029
1.048	65	04.56-	00.09-	02.47	04.44	06.16	07.79	09.47	11.27	13.62	17.11	0100	01.565	0.276	0.097
1.048	70	02.49-	00.28-	01.47	03.02	04.48	05.94	07.49	09.19	11.47	14.89	0100	01.032	0.307	0.173
1.048	75	06.36-	03.72-	01.76-	00.10-	01.43	02.95	04.53	06.27	08.57	12.01	0100	00.645	0.371	0.086
1.048	80	10.52-	07.32-	05.13-	03.35-	01.74-	00.17-	01.45	03.21	05.54	09.00	0100	00.428	0.491	0.043
1.048	85	02.05-	01.67-	01.23-	00.72-	00.13-	00.58	01.48	02.60	04.33	07.25	0100	00.331	0.636	0.396
1.048	90	00.00	00.21	00.46	00.76	01.13	01.60	02.22	03.06	04.44	06.99	0100	00.305	0.686	0.686

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.064	00	99.99-	05.34-	01.82-	00.52	02.44	04.20	05.96	07.82	10.22	13.74	0100	01.846	0.702	0.000
1.064	05	07.83-	04.02-	01.64-	00.24	01.91	03.52	05.17	06.95	09.29	12.77	0100	00.958	0.460	0.076
1.064	10	04.12-	04.05-	03.98-	03.88-	03.75-	03.58-	03.33-	02.96-	02.27-	00.71-	0100	00.019	0.369	0.143
1.064	15	01.38-	00.78-	00.13-	00.58	01.38	02.29	03.39	04.71	06.63	09.75	0100	00.300	0.310	0.226
1.064	20	00.86	01.50	02.19	02.93	03.77	04.71	05.83	07.18	09.13	12.27	0100	00.465	0.267	0.326
1.064	25	02.58	02.74	02.92	03.15	03.43	03.80	04.31	05.00	06.20	08.52	0100	00.138	0.234	0.424
1.064	30	03.54	03.54	03.55	03.56	03.57	03.58	03.60	03.63	03.69	03.88	0100	00.004	0.210	0.475
1.064	35	03.34	03.34	03.34	03.34	03.34	03.35	03.35	03.36	03.38	03.43	0100	00.001	0.197	0.425
1.064	40	01.43	01.58	01.76	01.97	02.25	02.61	03.09	03.78	04.94	07.23	0100	00.084	0.195	0.271
1.064	45	03.06-	00.85-	00.91	02.46	03.92	05.38	06.92	08.63	10.90	14.35	0100	00.598	0.202	0.100
1.064	50	11.43-	01.01-	02.28	04.55	06.43	08.16	09.91	11.75	14.15	17.66	0100	01.400	0.216	0.016
1.064	55	13.10-	00.17-	03.22	05.52	07.42	09.17	10.92	12.77	15.17	18.69	0100	01.915	0.233	0.011
1.064	60	09.52-	00.32-	02.90	05.14	07.01	08.73	10.47	12.31	14.71	18.22	0100	01.866	0.254	0.028
1.064	65	04.79-	00.40-	02.14	04.10	05.81	07.45	09.12	10.92	13.27	16.75	0100	01.447	0.277	0.092
1.064	70	02.90-	00.65-	01.13	02.69	04.16	05.63	07.18	08.88	11.16	14.59	0100	00.974	0.310	0.159
1.064	75	07.02-	04.16-	02.11-	00.40-	01.17	02.70	04.31	06.05	08.36	11.81	0100	00.627	0.377	0.075
1.064	80	10.10-	07.12-	05.02-	03.26-	01.70-	00.15-	01.46	03.21	05.53	08.98	0100	00.432	0.497	0.049
1.064	85	02.00-	01.60-	01.16-	00.65-	00.05-	00.68	01.57	02.71	04.44	07.38	0100	00.344	0.641	0.405
1.064	90	00.00	00.22	00.48	00.79	01.17	01.66	02.30	03.16	04.56	07.14	0100	00.321	0.690	0.690

ℓ/λ	θ	f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.096	00	99.99-	05.47-	01.94-	00.40	02.32	04.08	05.84	07.69	10.10	13.62	0100	01.866	0.730	0.000
1.096	05	07.88-	03.49-	01.24-	00.57	02.21	03.78	05.42	07.19	09.52	12.98	0100	00.999	0.457	0.094
1.096	10	03.37-	03.27-	03.15-	03.00-	02.81-	02.55-	02.20-	01.68-	00.75-	01.20	0100	00.035	0.363	0.167
1.096	15	00.81-	00.36-	00.15	00.72	01.38	02.17	03.13	04.33	06.13	09.13	0100	00.249	0.304	0.252
1.096	20	01.25	01.82	02.44	03.12	03.89	04.78	05.85	07.14	09.04	12.14	0100	00.437	0.261	0.349
1.096	25	02.78	02.95	03.16	03.42	03.73	04.14	04.69	05.45	06.72	09.14	0100	00.161	0.230	0.435
1.096	30	03.51	03.53	03.55	03.58	03.62	03.67	03.75	03.88	04.13	04.79	0100	00.018	0.208	0.466
1.096	35	03.07	03.07	03.08	03.08	03.09	03.10	03.11	03.14	03.18	03.33	0100	00.003	0.196	0.398
1.096	40	00.91	01.03	01.18	01.37	01.61	01.92	02.35	02.96	04.03	06.18	0100	00.063	0.196	0.241
1.096	45	03.84-	01.62-	00.15	01.70	03.16	04.62	06.17	07.88	10.16	13.58	0100	00.507	0.204	0.084
1.096	50	12.12-	01.49-	01.82	04.08	05.97	07.70	09.45	11.30	13.69	17.21	0100	01.270	0.218	0.013
1.096	55	12.45-	00.33-	03.04	05.33	07.23	08.97	10.72	12.57	14.97	18.49	0100	01.843	0.235	0.013
1.096	60	08.88-	00.19-	02.99	05.21	07.07	08.79	10.53	12.37	14.76	18.27	0100	01.904	0.256	0.033
1.096	65	04.76-	00.20-	02.39	04.36	06.09	07.73	09.41	11.20	13.56	17.05	0100	01.569	0.281	0.094
1.096	70	03.39-	00.69-	01.30	02.98	04.52	06.04	07.64	09.37	11.68	15.12	0100	01.130	0.317	0.145
1.096	75	07.98-	04.17-	01.79-	00.09	01.76	03.37	05.02	06.80	09.14	12.62	0100	00.780	0.388	0.062
1.096	80	09.44-	06.23-	04.06-	02.27-	00.66-	00.90	02.53	04.29	06.61	10.07	0100	00.569	0.509	0.058
1.096	85	01.91-	01.40-	00.84-	00.21-	00.51	01.35	02.37	03.62	05.47	08.53	0100	00.468	0.650	0.419
1.096	90	00.00	00.29	00.64	01.04	01.52	02.12	02.89	03.89	05.47	08.24	0100	00.440	0.698	0.698

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.112	00	99.99-	05.89-	02.37-	00.03-	01.89	03.65	05.41	07.27	09.67	13.19	0100	01.886	0.813	0.000
1.112	05	06.32-	03.34-	01.24-	00.50	02.08	03.63	05.24	06.99	09.31	12.76	0100	01.019	0.492	0.115
1.112	10	02.82-	02.73-	02.61-	02.46-	02.27-	02.01-	01.66-	01.15-	00.22-	01.72	0100	00.041	0.385	0.201
1.112	15	00.29-	00.08	00.49	00.97	01.54	02.23	03.09	04.19	05.88	08.77	0100	00.234	0.319	0.299
1.112	20	01.74	02.23	02.79	03.41	04.12	04.95	05.96	07.20	09.05	12.09	0100	00.444	0.272	0.405
1.112	25	03.19	03.38	03.60	03.86	04.20	04.62	05.19	05.97	07.27	09.73	0100	00.192	0.236	0.493
1.112	30	03.82	03.85	03.89	03.94	04.00	04.09	04.22	04.42	04.82	05.80	0100	00.033	0.213	0.513
1.112	35	03.24	03.24	03.25	03.25	03.26	03.28	03.30	03.34	03.41	03.61	0100	00.004	0.200	0.422
1.112	40	00.90	01.01	01.15	01.32	01.53	01.82	02.22	02.78	03.79	05.85	0100	00.058	0.200	0.246
1.112	45	04.03-	01.80-	00.03-	01.53	02.99	04.45	06.00	07.71	09.99	13.41	0100	00.498	0.208	0.082
1.112	50	12.08-	01.43-	01.88	04.15	06.03	07.77	09.51	11.36	13.75	17.27	0100	01.314	0.222	0.014
1.112	55	11.68-	00.02-	03.33	05.62	07.51	09.25	11.00	12.85	15.24	18.76	0100	01.997	0.239	0.016
1.112	60	08.09-	00.32	03.48	05.69	07.54	09.26	11.00	12.84	15.22	18.73	0100	02.151	0.260	0.040
1.112	65	04.47-	00.32	02.95	04.95	06.69	08.34	10.03	11.83	14.19	17.68	0100	01.840	0.284	0.102
1.112	70	03.48-	00.36-	01.79	03.55	05.16	06.71	08.33	10.09	12.41	15.87	0100	01.366	0.322	0.145
1.112	75	08.32-	03.78-	01.20-	00.78	02.50	04.14	05.82	07.62	09.97	13.46	0100	00.964	0.394	0.058
1.112	80	09.21-	05.65-	03.34-	01.49-	00.15	01.74	03.39	05.16	07.50	10.97	0100	00.710	0.517	0.062
1.112	85	01.88-	01.26-	00.60-	00.13	00.94	01.87	02.97	04.30	06.24	09.37	0100	00.585	0.658	0.427
1.112	90	00.00	00.36	00.77	01.25	01.81	02.50	03.36	04.46	06.14	09.03	0100	00.549	0.705	0.705

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.148	00	99.99-	06.20-	02.68-	00.34-	01.58	03.34	05.11	06.96	09.36	12.89	0200	00.008	0.004	0.000
0.148	10	11.46-	04.63-	01.63-	00.51	02.33	04.03	05.75	07.58	09.96	13.46	0200	00.007	0.003	0.000
0.148	20	08.67-	04.15-	01.57-	00.40	02.12	03.76	05.44	07.23	09.59	13.08	0200	00.006	0.003	0.000
0.148	30	06.48-	03.72-	01.71-	00.02-	01.53	03.06	04.66	06.39	08.70	12.15	0200	00.005	0.003	0.001
0.148	40	04.58-	03.07-	01.71-	00.42-	00.86	02.19	03.63	05.25	07.46	10.83	0200	00.004	0.003	0.001
0.148	50	02.95-	02.18-	01.38-	00.52-	00.41	01.44	02.64	04.06	06.08	09.29	0200	00.002	0.003	0.001
0.148	60	01.64-	01.24-	00.79-	00.27-	00.34	01.07	01.97	03.12	04.85	07.80	0200	00.002	0.003	0.002
0.148	70	00.67-	00.44-	00.17-	00.15	00.55	01.05	01.71	02.59	04.02	06.63	0200	00.001	0.003	0.002
0.148	80	00.06-	00.10	00.29	00.52	00.81	01.19	01.70	02.41	03.61	05.95	0200	00.001	0.003	0.003
0.148	90	00.00	00.14	00.30	00.51	00.77	01.11	01.57	02.22	03.35	05.58	0200	00.001	0.003	0.003
0.164	00	99.99-	05.92-	02.40-	00.06-	01.86	03.62	05.38	07.24	09.64	13.16	0200	00.019	0.008	0.000
0.164	10	12.52-	04.71-	01.61-	00.58	02.42	04.14	05.87	07.70	10.09	13.59	0200	00.018	0.007	0.000
0.164	20	09.51-	04.41-	01.71-	00.32	02.08	03.74	05.43	07.24	09.60	13.09	0200	00.015	0.007	0.001
0.164	30	07.10-	04.11-	02.00-	00.26-	01.33	02.87	04.49	06.24	08.55	12.01	0200	00.012	0.007	0.001
0.164	40	05.02-	03.48-	02.10-	00.80-	00.49	01.82	03.27	04.90	07.11	10.48	0200	00.008	0.007	0.002
0.164	50	03.24-	02.52-	01.76-	00.94-	00.05-	00.96	02.13	03.52	05.52	08.70	0200	00.005	0.007	0.003
0.164	60	01.81-	01.48-	01.09-	00.63-	00.10-	00.56	01.39	02.46	04.11	06.97	0200	00.003	0.007	0.004
0.164	70	00.76-	00.59-	00.38-	00.12-	00.20	00.61	01.16	01.92	03.19	05.62	0200	00.002	0.007	0.006
0.164	80	00.09-	00.02	00.16	00.33	00.55	00.83	01.23	01.80	02.81	04.87	0200	00.002	0.007	0.007
0.164	90	00.00	00.10	00.22	00.36	00.55	00.80	01.16	01.67	02.58	04.52	0200	00.001	0.007	0.007
0.172	00	99.99-	05.80-	02.27-	00.07	01.99	03.75	05.51	07.36	09.77	13.29	0200	00.030	0.013	0.000
0.172	10	13.06-	04.75-	01.59-	00.62	02.47	04.19	05.92	07.76	10.15	13.66	0200	00.028	0.011	0.001
0.172	20	09.93-	04.53-	01.77-	00.29	02.06	03.73	05.43	07.24	09.61	13.10	0200	00.024	0.011	0.001
0.172	30	07.42-	04.29-	02.14-	00.38-	01.23	02.78	04.40	06.16	08.48	11.94	0200	00.018	0.010	0.002
0.172	40	05.23-	03.68-	02.29-	00.98-	00.31	01.64	03.10	04.73	06.94	10.31	0200	00.012	0.010	0.003
0.172	50	03.38-	02.68-	01.95-	01.15-	00.27-	00.71	01.87	03.25	05.23	08.41	0200	00.008	0.011	0.005
0.172	60	01.90-	01.59-	01.23-	00.81-	00.30-	00.32	01.11	02.14	03.74	06.55	0200	00.005	0.011	0.007
0.172	70	00.81-	00.65-	00.47-	00.24-	00.04	00.41	00.91	01.61	02.80	05.12	0200	00.003	0.011	0.009
0.172	80	00.12-	00.02-	00.09	00.24	00.42	00.67	01.02	01.52	02.43	04.35	0200	00.002	0.011	0.011
0.172	90	00.00	00.08	00.18	00.30	00.46	00.68	00.98	01.42	02.24	04.01	0200	00.002	0.011	0.011
0.180	00	99.99-	05.67-	02.15-	00.19	02.11	03.87	05.63	07.49	09.89	13.41	0200	00.048	0.020	0.000
0.180	10	13.63-	04.77-	01.57-	00.65	02.51	04.24	05.98	07.82	10.21	13.72	0200	00.045	0.017	0.001
0.180	20	10.36-	04.64-	01.82-	00.26	02.04	03.72	05.42	07.24	09.61	13.11	0200	00.038	0.017	0.002
0.180	30	07.73-	04.48-	02.28-	00.49-	01.13	02.70	04.32	06.08	08.41	11.87	0200	00.028	0.016	0.003
0.180	40	05.45-	03.88-	02.49-	01.17-	00.13	01.47	02.92	04.55	06.77	10.14	0200	00.019	0.017	0.005
0.180	50	03.52-	02.85-	02.13-	01.35-	00.50-	00.47	01.62	02.98	04.95	08.12	0200	00.011	0.017	0.007
0.180	60	01.98-	01.69-	01.36-	00.97-	00.50-	00.09	00.84	01.82	03.38	06.13	0200	00.007	0.017	0.011
0.180	70	00.85-	00.72-	00.56-	00.36-	00.11-	00.22	00.68	01.31	02.42	04.62	0200	00.004	0.018	0.014
0.180	80	00.14-	00.06-	00.03	00.16	00.31	00.52	00.82	01.26	02.07	03.83	0200	00.003	0.018	0.017
0.180	90	00.00	00.07	00.15	00.25	00.38	00.56	00.82	01.20	01.91	03.51	0200	00.003	0.018	0.018

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.188	00	99.99-	05.56-	02.04-	00.30	02.22	03.98	05.75	07.60	10.01	13.53	0200	00.079	0.032	0.000
0.188	10	14.21-	04.79-	01.55-	00.69	02.56	04.29	06.03	07.87	10.26	13.78	0200	00.074	0.028	0.001
0.188	20	10.79-	04.75-	01.87-	00.23	02.03	03.71	05.42	07.24	09.62	13.12	0200	00.061	0.027	0.002
0.188	30	08.04-	04.66-	02.41-	00.60-	01.03	02.61	04.24	06.01	08.34	11.81	0200	00.045	0.027	0.004
0.188	40	05.66-	04.08-	02.68-	01.36-	00.05-	01.29	02.75	04.38	06.60	09.97	0200	00.029	0.027	0.007
0.188	50	03.66-	03.01-	02.31-	01.56-	00.72-	00.24	01.36	02.72	04.67	07.83	0200	00.017	0.028	0.012
0.188	60	02.06-	01.80-	01.49-	01.13-	00.69-	00.14-	00.57	01.52	03.02	05.72	0200	00.010	0.028	0.018
0.188	70	00.89-	00.78-	00.64-	00.46-	00.24-	00.05	00.46	01.03	02.05	04.14	0200	00.006	0.029	0.023
0.188	80	00.17-	00.10-	00.02-	00.08	00.21	00.39	00.65	01.03	01.74	03.34	0200	00.004	0.029	0.028
0.188	90	00.00	00.05	00.12	00.21	00.32	00.46	00.68	01.00	01.62	03.05	0200	00.003	0.030	0.030
0.196	00	99.99-	05.45-	01.93-	00.41	02.33	04.09	05.86	07.71	10.12	13.64	0200	00.133	0.052	0.000
0.196	10	14.79-	04.80-	01.53-	00.73	02.60	04.34	06.08	07.93	10.32	13.83	0200	00.124	0.046	0.002
0.196	20	11.23-	04.84-	01.92-	00.21	02.01	03.71	05.42	07.24	09.62	13.12	0200	00.101	0.045	0.003
0.196	30	08.35-	04.83-	02.54-	00.71-	00.94	02.52	04.16	05.94	08.27	11.74	0200	00.073	0.044	0.006
0.196	40	05.88-	04.28-	02.86-	01.54-	00.23-	01.11	02.58	04.21	06.43	09.81	0200	00.046	0.045	0.012
0.196	50	03.79-	03.17-	02.49-	01.75-	00.93-	00.00	01.12	02.45	04.40	07.53	0200	00.027	0.046	0.019
0.196	60	02.14-	01.90-	01.62-	01.28-	00.87-	00.36-	00.32	01.22	02.67	05.31	0200	00.015	0.047	0.029
0.196	70	00.94-	00.84-	00.71-	00.56-	00.37-	00.11-	00.25	00.77	01.71	03.66	0200	00.008	0.048	0.039
0.196	80	00.19-	00.14-	00.07-	00.01	00.12	00.28	00.49	00.82	01.43	02.87	0200	00.005	0.049	0.047
0.196	90	00.00	00.04	00.10	00.17	00.26	00.38	00.56	00.83	01.35	02.61	0200	00.005	0.050	0.050
0.200	00	99.99-	05.40-	01.87-	00.47	02.39	04.15	05.91	07.76	10.17	13.69	0200	00.174	0.067	0.000
0.200	10	15.09-	04.80-	01.51-	00.75	02.63	04.36	06.11	07.95	10.35	13.86	0200	00.162	0.060	0.002
0.200	20	11.44-	04.89-	01.94-	00.20	02.01	03.70	05.42	07.24	09.62	13.13	0200	00.132	0.058	0.004
0.200	30	08.51-	04.92-	02.61-	00.76-	00.89	02.48	04.13	05.90	08.24	11.71	0200	00.094	0.058	0.008
0.200	40	05.98-	04.38-	02.96-	01.63-	00.32-	01.03	02.49	04.13	06.35	09.72	0200	00.059	0.058	0.015
0.200	50	03.86-	03.24-	02.58-	01.85-	01.04-	00.11-	00.99	02.32	04.26	07.39	0200	00.034	0.060	0.025
0.200	60	02.18-	01.95-	01.68-	01.36-	00.96-	00.46-	00.19	01.07	02.49	05.10	0200	00.018	0.062	0.037
0.200	70	00.95-	00.86-	00.75-	00.61-	00.43-	00.19-	00.15	00.65	01.54	03.43	0200	00.010	0.063	0.051
0.200	80	00.20-	00.15-	00.09-	00.02-	00.08	00.22	00.42	00.72	01.29	02.64	0200	00.006	0.064	0.061
0.200	90	00.00	00.04	00.09	00.15	00.23	00.34	00.50	00.75	01.23	02.40	0200	00.005	0.065	0.065
0.204	00	99.99-	05.34-	01.82-	00.52	02.44	04.20	05.96	07.82	10.22	13.74	0200	00.228	0.087	0.000
0.204	10	15.39-	04.80-	01.50-	00.77	02.65	04.39	06.13	07.98	10.37	13.89	0200	00.213	0.078	0.002
0.204	20	11.66-	04.93-	01.96-	00.19	02.00	03.70	05.42	07.25	09.62	13.13	0200	00.172	0.076	0.005
0.204	30	08.67-	05.01-	02.67-	00.81-	00.84	02.44	04.09	05.86	08.20	11.67	0200	00.122	0.075	0.010
0.204	40	06.09-	04.48-	03.05-	01.72-	00.41-	00.94	02.40	04.04	06.26	09.64	0200	00.076	0.077	0.019
0.204	50	03.93-	03.32-	02.67-	01.95-	01.15-	00.23-	00.87	02.19	04.12	07.24	0200	00.043	0.079	0.032
0.204	60	02.21-	02.00-	01.74-	01.43-	01.05-	00.57-	00.07	00.92	02.32	04.90	0200	00.022	0.081	0.049
0.204	70	00.97-	00.89-	00.78-	00.65-	00.48-	00.26-	00.06	00.53	01.37	03.20	0200	00.012	0.083	0.066
0.204	80	00.21-	00.17-	00.11-	00.04-	00.05	00.17	00.35	00.63	01.16	02.42	0200	00.007	0.084	0.080
0.204	90	00.00	00.04	00.08	00.13	00.21	00.31	00.45	00.68	01.12	02.20	0200	00.006	0.085	0.085

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.208	00	99.99-	05.29-	01.77-	00.57	02.49	04.25	06.01	07.87	10.27	13.79	0200	00.301	0.113	0.000
0.208	10	15.70-	04.80-	01.48-	00.79	02.67	04.41	06.16	08.00	10.40	13.92	0200	00.280	0.103	0.003
0.208	20	11.89-	04.98-	01.98-	00.17	02.00	03.70	05.42	07.25	09.63	13.13	0200	00.226	0.099	0.006
0.208	30	08.82-	05.09-	02.74-	00.87-	00.80	02.40	04.05	05.83	08.17	11.64	0200	00.159	0.099	0.013
0.208	40	06.19-	04.57-	03.15-	01.81-	00.50-	00.85	02.32	03.96	06.18	09.56	0200	00.098	0.101	0.024
0.208	50	03.99-	03.40-	02.76-	02.05-	01.26-	00.34-	00.74	02.06	03.98	07.10	0200	00.054	0.103	0.041
0.208	60	02.25-	02.05-	01.80-	01.50-	01.14-	00.67-	00.06-	00.78	02.15	04.69	0200	00.028	0.106	0.063
0.208	70	00.99-	00.91-	00.82-	00.70-	00.54-	00.33-	00.03-	00.41	01.21	02.97	0200	00.014	0.109	0.087
0.208	80	00.22-	00.18-	00.13-	00.07-	00.01	00.12	00.29	00.54	01.03	02.21	0200	00.009	0.111	0.106
0.208	90	00.00	00.03	00.07	00.12	00.19	00.27	00.41	00.61	01.01	02.01	0200	00.007	0.113	0.113
0.212	00	99.99-	05.24-	01.72-	00.62	02.54	04.30	06.06	07.92	10.32	13.84	0200	00.397	0.148	0.000
0.212	10	16.00-	04.80-	01.47-	00.81	02.69	04.44	06.18	08.03	10.43	13.94	0200	00.369	0.134	0.003
0.212	20	12.11-	05.02-	02.00-	00.16	01.99	03.69	05.42	07.25	09.63	13.13	0200	00.297	0.130	0.008
0.212	30	08.98-	05.18-	02.80-	00.92-	00.75	02.36	04.01	05.79	08.13	11.61	0200	00.207	0.130	0.016
0.212	40	06.30-	04.67-	03.24-	01.91-	00.59-	00.76	02.23	03.87	06.09	09.47	0200	00.127	0.132	0.031
0.212	50	04.06-	03.48-	02.85-	02.15-	01.36-	00.46-	00.62	01.92	03.84	06.95	0200	00.069	0.136	0.053
0.212	60	02.29-	02.09-	01.86-	01.58-	01.22-	00.78-	00.18-	00.63	01.97	04.48	0200	00.035	0.140	0.083
0.212	70	01.01-	00.94-	00.85-	00.74-	00.59-	00.40-	00.12-	00.29	01.06	02.74	0200	00.017	0.144	0.114
0.212	80	00.23-	00.20-	00.15-	00.10-	00.02-	00.08	00.23	00.46	00.90	02.00	0200	00.010	0.147	0.139
0.212	90	00.00	00.03	00.06	00.11	00.16	00.25	00.36	00.54	00.91	01.82	0200	00.009	0.148	0.148
0.220	00	99.99-	05.15-	01.62-	00.72	02.64	04.40	06.16	08.01	10.42	13.94	0200	00.667	0.242	0.000
0.220	10	16.63-	04.80-	01.44-	00.85	02.74	04.48	06.23	08.08	10.48	14.00	0200	00.618	0.222	0.005
0.220	20	12.56-	05.10-	02.03-	00.14	01.98	03.69	05.42	07.25	09.63	13.14	0200	00.492	0.216	0.012
0.220	30	09.30-	05.35-	02.93-	01.02-	00.66	02.27	03.93	05.71	08.06	11.54	0200	00.339	0.216	0.025
0.220	40	06.52-	04.88-	03.44-	02.09-	00.77-	00.58	02.05	03.69	05.92	09.30	0200	00.203	0.220	0.049
0.220	50	04.20-	03.64-	03.02-	02.35-	01.58-	00.70-	00.36	01.65	03.55	06.64	0200	00.107	0.227	0.086
0.220	60	02.37-	02.19-	01.98-	01.72-	01.39-	00.98-	00.42-	00.34	01.63	04.06	0200	00.051	0.235	0.136
0.220	70	01.05-	00.99-	00.91-	00.82-	00.69-	00.52-	00.28-	00.08	00.76	02.30	0200	00.025	0.242	0.190
0.220	80	00.25-	00.22-	00.19-	00.14-	00.08-	00.00	00.12	00.31	00.68	01.63	0200	00.014	0.247	0.233
0.220	90	00.00	00.02	00.05	00.08	00.13	00.19	00.29	00.44	00.73	01.50	0200	00.011	0.249	0.249
0.224	00	99.99-	05.10-	01.58-	00.76	02.68	04.44	06.20	08.06	10.46	13.98	0200	00.824	0.296	0.000
0.224	10	16.92-	04.79-	01.42-	00.87	02.76	04.51	06.26	08.11	10.51	14.02	0200	00.763	0.272	0.006
0.224	20	12.78-	05.13-	02.05-	00.14	01.97	03.69	05.42	07.25	09.63	13.14	0200	00.606	0.265	0.014
0.224	30	09.46-	05.43-	02.99-	01.07-	00.61	02.23	03.89	05.68	08.02	11.50	0200	00.414	0.266	0.030
0.224	40	06.62-	04.98-	03.53-	02.18-	00.86-	00.50	01.97	03.61	05.83	09.21	0200	00.245	0.271	0.059
0.224	50	04.26-	03.71-	03.11-	02.45-	01.69-	00.81-	00.24	01.52	03.41	06.50	0200	00.127	0.280	0.105
0.224	60	02.40-	02.23-	02.03-	01.78-	01.47-	01.07-	00.54-	00.21	01.46	03.86	0200	00.060	0.290	0.167
0.224	70	01.07-	01.01-	00.94-	00.85-	00.74-	00.58-	00.35-	00.02-	00.63	02.10	0200	00.028	0.299	0.234
0.224	80	00.26-	00.23-	00.20-	00.16-	00.11-	00.03-	00.08	00.25	00.60	01.47	0200	00.016	0.305	0.287
0.224	90	00.00	00.02	00.04	00.08	00.12	00.18	00.26	00.39	00.66	01.37	0200	00.013	0.308	0.308

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.228	00	99.99-	05.06-	01.54-	00.80	02.72	04.48	06.24	08.10	10.50	14.03	0200	00.963	0.343	0.000
0.228	10	17.16-	04.78-	01.40-	00.89	02.78	04.53	06.28	08.13	10.53	14.05	0200	00.890	0.316	0.006
0.228	20	12.97-	05.17-	02.06-	00.13	01.97	03.68	05.41	07.25	09.63	13.14	0200	00.704	0.308	0.016
0.228	30	09.60-	05.51-	03.04-	01.12-	00.57	02.19	03.85	05.64	07.99	11.47	0200	00.478	0.309	0.034
0.228	40	06.72-	05.07-	03.62-	02.27-	00.95-	00.41	01.88	03.53	05.75	09.13	0200	00.280	0.316	0.067
0.228	50	04.33-	03.79-	03.20-	02.54-	01.79-	00.92-	00.12	01.40	03.27	06.36	0200	00.143	0.326	0.120
0.228	60	02.44-	02.28-	02.08-	01.85-	01.55-	01.16-	00.64-	00.08	01.31	03.67	0200	00.066	0.338	0.193
0.228	70	01.09-	01.03-	00.97-	00.88-	00.77-	00.63-	00.42-	00.10-	00.51	01.93	0200	00.030	0.349	0.272
0.228	80	00.27-	00.25-	00.22-	00.16-	00.13-	00.06-	00.05	00.21	00.53	01.35	0200	00.017	0.357	0.335
0.228	90	00.00	00.02	00.04	00.07	00.11	00.16	00.24	00.37	00.62	01.28	0200	00.014	0.360	0.360
0.230	00	99.99-	05.04-	01.52-	00.82	02.74	04.50	06.26	08.12	10.52	14.04	0200	01.013	0.359	0.000
0.230	10	17.25-	04.78-	01.39-	00.90	02.79	04.54	06.29	08.14	10.54	14.06	0200	00.936	0.331	0.006
0.230	20	13.05-	05.18-	02.07-	00.13	01.97	03.68	05.41	07.25	09.63	13.14	0200	00.739	0.323	0.016
0.230	30	09.67-	05.54-	03.07-	01.14-	00.55	02.17	03.84	05.63	07.97	11.45	0200	00.500	0.324	0.035
0.230	40	06.77-	05.11-	03.66-	02.31-	00.99-	00.37	01.84	03.49	05.71	09.10	0200	00.291	0.332	0.070
0.230	50	04.36-	03.82-	03.23-	02.58-	01.84-	00.97-	00.07	01.34	03.21	06.29	0200	00.148	0.343	0.126
0.230	60	02.46-	02.30-	02.11-	01.87-	01.58-	01.20-	00.68-	00.03	01.24	03.59	0200	00.068	0.355	0.202
0.230	70	01.09-	01.04-	00.98-	00.90-	00.79-	00.65-	00.44-	00.13-	00.47	01.86	0200	00.031	0.367	0.285
0.230	80	00.27-	00.25-	00.22-	00.18-	00.13-	00.07-	00.03	00.19	00.50	01.31	0200	00.017	0.376	0.353
0.230	90	00.00	00.02	00.04	00.07	00.11	00.16	00.24	00.36	00.60	01.25	0200	00.014	0.379	0.379
0.232	00	99.99-	05.03-	01.50-	00.84	02.76	04.52	06.28	08.13	10.54	14.06	0200	01.044	0.369	0.000
0.232	10	17.33-	04.77-	01.39-	00.91	02.80	04.55	06.30	08.15	10.55	14.07	0200	00.964	0.340	0.006
0.232	20	13.12-	05.19-	02.07-	00.12	01.97	03.68	05.41	07.25	09.64	13.14	0200	00.760	0.332	0.016
0.232	30	09.72-	05.57-	03.09-	01.16-	00.53	02.16	03.82	05.61	07.96	11.44	0200	00.513	0.334	0.036
0.232	40	06.81-	05.15-	03.70-	02.35-	01.02-	00.34	01.81	03.45	05.68	09.06	0200	00.298	0.341	0.071
0.232	50	04.38-	03.85-	03.27-	02.62-	01.88-	01.02-	00.02	01.29	03.16	06.24	0200	00.151	0.353	0.129
0.232	60	02.47-	02.32-	02.13-	01.90-	01.61-	01.23-	00.72-	00.02-	01.19	03.52	0200	00.069	0.366	0.207
0.232	70	01.10-	01.05-	00.99-	00.91-	00.81-	00.66-	00.46-	00.16-	00.43	01.80	0200	00.031	0.379	0.294
0.232	80	00.28-	00.25-	00.23-	00.19-	00.14-	00.07-	00.02	00.18	00.48	01.28	0200	00.017	0.388	0.364
0.232	90	00.00	00.02	00.04	00.07	00.11	00.16	00.23	00.35	00.59	01.24	0200	00.014	0.390	0.390
0.233	00	99.99-	05.02-	01.50-	00.84	02.76	04.52	06.29	08.14	10.54	14.07	0200	01.053	0.372	0.000
0.233	10	17.35-	04.77-	01.38-	00.91	02.81	04.55	06.31	08.16	10.55	14.07	0200	00.972	0.343	0.006
0.233	20	13.15-	05.19-	02.08-	00.12	01.97	03.68	05.41	07.25	09.63	13.14	0200	00.765	0.335	0.016
0.233	30	09.75-	05.58-	03.10-	01.17-	00.53	02.15	03.82	05.60	07.95	11.43	0200	00.516	0.336	0.036
0.233	40	06.83-	05.17-	03.72-	02.36-	01.04-	00.32	01.79	03.44	05.66	09.05	0200	00.299	0.344	0.071
0.233	50	04.39-	03.86-	03.28-	02.63-	01.90-	01.04-	00.00	01.27	03.14	06.21	0200	00.151	0.356	0.129
0.233	60	02.48-	02.32-	02.14-	01.91-	01.62-	01.25-	00.74-	00.04-	01.16	03.49	0200	00.068	0.369	0.209
0.233	70	01.10-	01.05-	00.99-	00.91-	00.81-	00.67-	00.47-	00.17-	00.42	01.78	0200	00.031	0.382	0.296
0.233	80	00.28-	00.26-	00.23-	00.19-	00.14-	00.08-	00.02	00.17	00.48	01.27	0200	00.017	0.391	0.366
0.233	90	00.00	00.02	00.04	00.07	00.10	00.16	00.23	00.35	00.59	01.24	0200	00.014	0.394	0.394

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.234	00	99.99-	05.01-	01.49-	00.85	02.77	04.53	06.29	08.15	10.55	14.07	0200	01.056	0.372	0.000
0.234	10	17.37-	04.77-	01.38-	00.91	02.81	04.56	06.31	08.16	10.56	14.08	0200	00.975	0.344	0.006
0.234	20	13.17-	05.20-	02.08-	00.12	01.97	03.68	05.41	07.25	09.63	13.14	0200	00.767	0.336	0.016
0.234	30	09.77-	05.60-	03.11-	01.18-	00.52	02.14	03.81	05.60	07.95	11.43	0200	00.516	0.337	0.036
0.234	40	06.84-	05.18-	03.73-	02.38-	01.05-	00.31	01.78	03.42	05.65	09.03	0200	00.299	0.345	0.071
0.234	50	04.41-	03.88-	03.30-	02.65-	01.91-	01.05-	00.02-	01.25	03.12	06.19	0200	00.150	0.357	0.129
0.234	60	02.49-	02.33-	02.15-	01.92-	01.63-	01.26-	00.76-	00.05-	01.14	03.47	0200	00.068	0.370	0.209
0.234	70	01.11-	01.06-	01.09-	00.92-	00.82-	00.68-	00.48-	00.18-	00.40	01.76	0200	00.031	0.383	0.297
0.234	80	00.28-	00.26-	00.23-	00.19-	00.15-	00.08-	00.02	00.17	00.48	01.27	0200	00.017	0.392	0.368
0.234	90	00.00	00.02	00.04	00.07	00.11	00.16	00.23	00.35	00.59	01.24	0200	00.014	0.395	0.395
0.235	00	99.99-	05.01-	01.49-	00.86	02.77	04.54	06.30	08.15	10.56	14.08	0200	01.055	0.371	0.000
0.235	10	17.38-	04.76-	01.38-	00.92	02.81	04.56	06.31	08.16	10.56	14.08	0200	00.973	0.343	0.006
0.235	20	13.19-	05.20-	02.08-	00.12	01.96	03.68	05.41	07.25	09.63	13.14	0200	00.765	0.335	0.016
0.235	30	09.79-	05.61-	03.12-	01.19-	00.51	02.14	03.80	05.59	07.94	11.42	0200	00.515	0.336	0.035
0.235	40	06.86-	05.20-	03.75-	02.39-	01.07-	00.29	01.77	03.41	05.64	09.02	0200	00.297	0.344	0.071
0.235	50	04.42-	03.89-	03.31-	02.66-	01.93-	01.07-	00.04-	01.23	03.10	06.17	0200	00.149	0.356	0.129
0.235	60	02.49-	02.34-	02.15-	01.93-	01.64-	01.27-	00.77-	00.07-	01.12	03.44	0200	00.068	0.370	0.208
0.235	70	01.11-	01.06-	01.00-	00.92-	00.82-	00.68-	00.48-	00.18-	00.40	01.75	0200	00.031	0.382	0.296
0.235	80	00.28-	00.26-	00.23-	00.20-	00.15-	00.08-	00.02	00.17	00.47	01.26	0200	00.017	0.392	0.367
0.235	90	00.00	00.02	00.04	00.07	00.11	00.16	00.23	00.35	00.60	01.24	0200	00.015	0.394	0.394
0.236	00	99.99-	05.00-	01.48-	00.86	02.78	04.54	06.30	08.16	10.56	14.08	0200	01.049	0.369	0.000
0.236	10	17.38-	04.76-	01.37-	00.92	02.82	04.56	06.32	08.17	10.56	14.08	0200	00.968	0.340	0.006
0.236	20	13.21-	05.20-	02.08-	00.12	01.96	03.68	05.41	07.25	09.63	13.14	0200	00.760	0.333	0.016
0.236	30	09.80-	05.62-	03.13-	01.19-	00.51	02.13	03.80	05.59	07.94	11.42	0200	00.511	0.334	0.035
0.236	40	06.87-	05.21-	03.76-	02.40-	01.08-	00.28	01.76	03.40	05.63	09.01	0200	00.295	0.342	0.070
0.236	50	04.42-	03.90-	03.32-	02.67-	01.94-	01.08-	00.05-	01.21	03.08	06.15	0200	00.148	0.354	0.128
0.236	60	02.50-	02.34-	02.16-	01.93-	01.65-	01.28-	00.78-	00.08-	01.11	03.43	0200	00.067	0.368	0.207
0.236	70	01.11-	01.06-	01.00-	00.93-	00.82-	00.69-	00.49-	00.19-	00.39	01.74	0200	00.030	0.380	0.294
0.236	80	00.29-	00.26-	00.23-	00.20-	00.15-	00.08-	00.01	00.17	00.47	01.27	0200	00.017	0.390	0.365
0.236	90	00.00	00.02	00.04	00.07	00.11	00.16	00.23	00.36	00.60	01.25	0200	00.015	0.392	0.392
0.238	00	99.99-	05.00-	01.47-	00.87	02.79	04.55	06.31	08.16	10.57	14.09	0200	01.025	0.360	0.000
0.238	10	17.37-	04.76-	01.37-	00.93	02.82	04.57	06.32	08.17	10.57	14.09	0200	00.945	0.332	0.006
0.238	20	13.22-	05.21-	02.08-	00.12	01.96	03.68	05.41	07.25	09.63	13.14	0200	00.742	0.325	0.015
0.238	30	09.83-	05.63-	03.14-	01.20-	00.50	02.12	03.79	05.58	07.93	11.41	0200	00.498	0.326	0.034
0.238	40	06.89-	05.23-	03.78-	02.42-	01.10-	00.26	01.74	03.38	05.61	08.99	0200	00.287	0.334	0.068
0.238	50	04.44-	03.92-	03.34-	02.69-	01.96-	01.11-	00.08-	01.19	03.06	06.13	0200	00.144	0.346	0.124
0.238	60	02.51-	02.36-	02.17-	01.95-	01.66-	01.30-	00.80-	00.10-	01.09	03.40	0200	00.065	0.359	0.202
0.238	70	01.12-	01.07-	01.01-	00.93-	00.83-	00.69-	00.49-	00.19-	00.38	01.74	0200	00.030	0.372	0.287
0.238	80	00.29-	00.27-	00.24-	00.20-	00.15-	00.08-	00.01	00.17	00.48	01.28	0200	00.017	0.381	0.356
0.238	90	00.00	00.02	00.04	00.07	00.11	00.16	00.24	00.36	00.61	01.27	0200	00.014	0.383	0.383

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.239	00	99.99-	04.99-	01.47-	00.87	02.79	04.55	06.31	08.17	10.57	14.09	0200	01.008	0.354	0.000
0.239	10	17.36-	04.75-	01.37-	00.93	02.82	04.57	06.32	08.17	10.57	14.09	0200	00.929	0.327	0.006
0.239	20	13.22-	05.21-	02.08-	00.12	01.96	03.68	05.41	07.25	09.63	13.14	0200	00.729	0.319	0.015
0.239	30	09.83-	05.63-	03.14-	01.21-	00.49	02.12	03.78	05.57	07.92	11.41	0200	00.489	0.321	0.033
0.239	40	06.90-	05.24-	03.78-	02.43-	01.11-	00.26	01.73	03.37	05.60	08.98	0200	00.281	0.328	0.067
0.239	50	04.45-	03.92-	03.35-	02.70-	01.97-	01.11-	00.08-	01.18	03.05	06.12	0200	00.141	0.340	0.122
0.239	60	02.51-	02.36-	02.18-	01.95-	01.67-	01.30-	00.80-	00.11-	01.08	03.40	0200	00.064	0.353	0.198
0.239	70	01.12-	01.07-	01.01-	00.93-	00.83-	00.69-	00.49-	00.19-	00.39	01.74	0200	00.029	0.366	0.282
0.239	80	00.29-	00.27-	00.24-	00.20-	00.15-	00.08-	00.02	00.17	00.48	01.29	0200	00.017	0.375	0.350
0.239	90	00.00	00.02	00.04	00.07	00.11	00.16	00.24	00.37	00.62	01.28	0200	00.014	0.377	0.377
0.240	00	99.99-	04.99-	01.47-	00.87	02.79	04.55	06.31	08.17	10.57	14.09	0200	00.989	0.347	0.000
0.240	10	17.34-	04.75-	01.37-	00.93	02.83	04.57	06.32	08.17	10.57	14.09	0200	00.911	0.320	0.006
0.240	20	13.22-	05.21-	02.08-	00.12	01.96	03.68	05.41	07.25	09.63	13.14	0200	00.715	0.313	0.015
0.240	30	09.84-	05.64-	03.15-	01.21-	00.49	02.11	03.78	05.57	07.92	11.40	0200	00.479	0.314	0.033
0.240	40	06.91-	05.24-	03.79-	02.44-	01.11-	00.25	01.72	03.37	05.59	08.98	0200	00.275	0.322	0.066
0.240	50	04.45-	03.93-	03.35-	02.71-	01.97-	01.12-	00.09-	01.17	03.04	06.11	0200	00.138	0.333	0.120
0.240	60	02.52-	02.36-	02.18-	01.96-	01.67-	01.30-	00.80-	00.11-	01.08	03.39	0200	00.062	0.346	0.194
0.240	70	01.12-	01.07-	01.01-	00.94-	00.83-	00.69-	00.49-	00.19-	00.39	01.75	0200	00.029	0.359	0.277
0.240	80	00.29-	00.27-	00.24-	00.20-	00.15-	00.08-	00.02	00.17	00.49	01.30	0200	00.017	0.368	0.344
0.240	90	00.00	00.02	00.04	00.07	00.11	00.17	00.25	00.37	00.63	01.30	0200	00.014	0.370	0.370
0.241	00	99.99-	04.99-	01.47-	00.87	02.79	04.55	06.31	08.17	10.57	14.09	0200	00.967	0.339	0.000
0.241	10	17.32-	04.75-	01.36-	00.93	02.83	04.57	06.32	08.17	10.57	14.09	0200	00.891	0.313	0.006
0.241	20	13.22-	05.21-	02.08-	00.12	01.96	03.68	05.41	07.25	09.63	13.14	0200	00.699	0.306	0.015
0.241	30	09.84-	05.64-	03.15-	01.21-	00.49	02.11	03.78	05.57	07.92	11.40	0200	00.468	0.307	0.032
0.241	40	06.91-	05.25-	03.80-	02.44-	01.12-	00.25	01.72	03.36	05.59	08.97	0200	00.269	0.315	0.064
0.241	50	04.46-	03.93-	03.36-	02.71-	01.98-	01.13-	00.10-	01.17	03.04	06.10	0200	00.135	0.326	0.117
0.241	60	02.52-	02.37-	02.18-	01.96-	01.67-	01.31-	00.81-	00.11-	01.08	03.39	0200	00.061	0.339	0.190
0.241	70	01.13-	01.08-	01.01-	00.94-	00.83-	00.69-	00.49-	00.19-	00.39	01.76	0200	00.028	0.351	0.271
0.241	80	00.29-	00.27-	00.24-	00.20-	00.15-	00.08-	00.02	00.16	00.49	01.31	0200	00.017	0.360	0.336
0.241	90	00.00	00.02	00.04-	00.07	00.11	00.17	00.25	00.38	00.63	01.31	0200	00.014	0.362	0.362
0.242	00	99.99-	04.99-	01.47-	00.87	02.79	04.55	06.31	08.17	10.57	14.09	0200	00.944	0.331	0.000
0.242	10	17.30-	04.75-	01.36-	00.93	02.83	04.57	06.33	08.18	10.57	14.09	0200	00.870	0.306	0.006
0.242	20	13.21-	05.21-	02.08-	00.12	01.96	03.68	05.41	07.24	09.63	13.14	0200	00.682	0.299	0.014
0.242	30	09.84-	05.64-	03.15-	01.22-	00.48	02.11	03.78	05.57	07.92	11.40	0200	00.457	0.300	0.031
0.242	40	06.91-	05.25-	03.80-	02.45-	01.12-	00.24	01.72	03.36	05.59	08.97	0200	00.262	0.307	0.063
0.242	50	04.46-	03.94-	03.36-	02.72-	01.98-	01.13-	00.10-	01.17	03.03	06.10	0200	00.131	0.318	0.114
0.242	60	02.52-	02.37-	02.18-	01.96-	01.68-	01.31-	00.81-	00.11-	01.08	03.40	0200	00.060	0.331	0.185
0.242	70	01.13-	01.08-	01.02-	00.94-	00.83-	00.69-	00.49-	00.19-	00.40	01.77	0200	00.028	0.343	0.264
0.242	80	00.30-	00.27-	00.24-	00.20-	00.15-	00.08-	00.02	00.18	00.50	01.33	0200	00.017	0.351	0.328
0.242	90	00.00	00.02	00.04	00.07	00.11	00.17	00.25	00.38	00.64	01.33	0200	00.014	0.353	0.353

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.243	00	99.99-	04.99-	01.47-	00.87	02.79	04.55	06.31	08.17	10.57	14.09	0200	00.920	0.323	0.000
0.243	10	17.28-	04.75-	01.36-	00.93	02.83	04.57	06.33	08.18	10.57	14.09	0200	00.848	0.298	0.006
0.243	20	13.20-	05.20-	02.08-	00.12	01.96	03.68	05.41	07.24	09.63	13.14	0200	00.665	0.291	0.014
0.243	30	09.84-	05.64-	03.15-	01.22-	00.48	02.11	03.77	05.56	07.91	11.39	0200	00.445	0.292	0.030
0.243	40	06.92-	05.25-	03.80-	02.45-	01.12-	00.24	01.71	03.36	05.58	08.97	0200	00.256	0.300	0.061
0.243	50	04.46-	03.94-	03.36-	02.72-	01.98-	01.13-	00.10-	01.16	03.03	06.10	0200	00.128	0.310	0.111
0.243	60	02.52-	02.37-	02.19-	01.96-	01.68-	01.31-	00.81-	00.11-	01.08	03.40	0200	00.058	0.322	0.180
0.243	70	01.13-	01.08-	01.02-	00.94-	00.83-	00.69-	00.49-	00.18-	00.40	01.78	0200	00.027	0.334	0.257
0.243	80	00.30-	00.27-	00.24-	00.20-	00.15-	00.08-	00.02	00.18	00.51	01.34	0200	00.016	0.343	0.320
0.243	90	00.00	00.02	00.04	00.07	00.12	00.17	00.26	00.39	00.65	01.35	0200	00.014	0.344	0.344
0.244	00	99.99-	04.99-	01.47-	00.87	02.79	04.55	06.31	08.17	10.57	14.09	0200	00.896	0.314	0.000
0.244	10	17.25-	04.75-	01.36-	00.93	02.83	04.57	06.33	08.18	10.57	14.09	0200	00.825	0.290	0.005
0.244	20	13.19-	05.20-	02.08-	00.12	01.96	03.68	05.41	07.24	09.63	13.14	0200	00.647	0.283	0.014
0.244	30	09.84-	05.64-	03.15-	01.22-	00.48	02.11	03.77	05.56	07.91	11.39	0200	00.433	0.285	0.030
0.244	40	06.92-	05.26-	03.80-	02.45-	01.12-	00.24	01.71	03.35	05.58	08.97	0200	00.249	0.292	0.059
0.244	50	04.46-	03.94-	03.36-	02.72-	01.99-	01.13-	00.10-	01.16	03.03	06.10	0200	00.125	0.302	0.108
0.244	60	02.53-	02.37-	02.19-	01.96-	01.68-	01.31-	00.80-	00.11-	01.09	03.41	0200	00.057	0.314	0.175
0.244	70	01.13-	01.08-	01.02-	00.94-	00.83-	00.69-	00.49-	00.18-	00.41	01.79	0200	00.027	0.325	0.250
0.244	80	00.30-	00.28-	00.24-	00.21-	00.15-	00.08-	00.02	00.19	00.51	01.36	0200	00.016	0.334	0.311
0.244	90	00.00	00.02	00.04	00.08	00.12	00.17	00.26	00.39	00.66	01.36	0200	00.014	0.335	0.335
0.246	00	99.99-	04.99-	01.47-	00.87	02.79	04.55	06.31	08.17	10.57	14.09	0200	00.846	0.297	0.000
0.246	10	17.20-	04.74-	01.36-	00.93	02.83	04.57	06.33	08.18	10.57	14.09	0200	00.780	0.274	0.005
0.246	20	13.16-	05.20-	02.08-	00.11	01.96	03.68	05.41	07.24	09.63	13.14	0200	00.611	0.268	0.013
0.246	30	09.83-	05.64-	03.15-	01.22-	00.48	02.10	03.77	05.56	07.91	11.39	0200	00.408	0.269	0.028
0.246	40	06.92-	05.26-	03.80-	02.45-	01.13-	00.24	01.71	03.35	05.58	08.96	0200	00.235	0.275	0.056
0.246	50	04.47-	03.94-	03.36-	02.72-	01.99-	01.13-	00.10-	01.17	03.03	06.10	0200	00.118	0.285	0.102
0.246	60	02.53-	02.37-	02.19-	01.96-	01.67-	01.30-	00.80-	00.10-	01.10	03.42	0200	00.054	0.297	0.166
0.246	70	01.13-	01.08-	01.02-	00.94-	00.83-	00.69-	00.48-	00.17-	00.43	01.82	0200	00.026	0.307	0.237
0.246	80	00.30-	00.28-	00.25-	00.21-	00.15-	00.08-	00.03	00.19	00.53	01.38	0200	00.016	0.315	0.294
0.246	90	00.00	00.02	00.05	00.08	00.12	00.18	00.27	00.40	00.67	01.39	0200	00.013	0.316	0.316
0.248	00	99.99-	04.99-	01.47-	00.87	02.79	04.55	06.31	08.17	10.57	14.09	0200	00.798	0.280	0.000
0.248	10	17.15-	04.74-	01.36-	00.93	02.83	04.57	06.33	08.18	10.57	14.09	0200	00.735	0.258	0.005
0.248	20	13.14-	05.20-	02.08-	00.11	01.96	03.68	05.41	07.24	09.63	13.14	0200	00.576	0.252	0.012
0.248	30	09.82-	05.64-	03.15-	01.22-	00.48	02.10	03.77	05.56	07.91	11.39	0200	00.385	0.254	0.026
0.248	40	06.91-	05.25-	03.80-	02.45-	01.12-	00.24	01.71	03.35	05.58	08.96	0200	00.221	0.260	0.053
0.248	50	04.47-	03.94-	03.36-	02.72-	01.98-	01.13-	00.10-	01.17	03.04	06.11	0200	00.111	0.269	0.096
0.248	60	02.53-	02.38-	02.19-	01.96-	01.67-	01.30-	00.79-	00.09-	01.11	03.44	0200	00.051	0.280	0.156
0.248	70	01.14-	01.08-	01.02-	00.94-	00.83-	00.69-	00.48-	00.16-	00.44	01.84	0200	00.024	0.290	0.223
0.248	80	00.31-	00.28-	00.25-	00.21-	00.15-	00.08-	00.03	00.20	00.54	01.41	0200	00.015	0.297	0.277
0.248	90	00.00	00.02	00.05	00.08	00.12	00.18	00.27	00.41	00.69	01.42	0200	00.013	0.298	0.298

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.250	00	99.99-	05.00-	01.47-	00.87	02.79	04.55	06.31	08.16	10.57	14.09	0200	00.752	0.264	0.000
0.250	10	17.11-	04.74-	01.36-	00.93	02.83	04.57	06.32	08.17	10.57	14.09	0200	00.693	0.243	0.005
0.250	20	13.11-	05.19-	02.08-	00.11	01.96	03.67	05.41	07.24	09.63	13.14	0200	00.542	0.238	0.012
0.250	30	09.81-	05.63-	03.15-	01.22-	00.48	02.10	03.77	05.56	07.91	11.39	0200	00.363	0.239	0.025
0.250	40	06.91-	05.25-	03.80-	02.45-	01.12-	00.24	01.71	03.35	05.58	08.96	0200	00.209	0.245	0.050
0.250	50	04.47-	03.94-	03.36-	02.72-	01.98-	01.12-	00.09-	01.18	03.05	06.12	0200	00.105	0.253	0.091
0.250	60	02.53-	02.38-	02.19-	01.96-	01.67-	01.29-	00.79-	00.08-	01.12	03.46	0200	00.049	0.264	0.147
0.250	70	01.14-	01.09-	01.02-	00.94-	00.83-	00.68-	00.47-	00.15-	00.46	01.87	0200	00.023	0.273	0.210
0.250	80	00.31-	00.28-	00.25-	00.21-	00.15-	00.08-	00.03	00.21	00.55	01.43	0200	00.014	0.280	0.261
0.250	90	00.00	00.02	00.05	00.08	00.12	00.19	00.28	00.42	00.70	01.44	0200	00.012	0.281	0.281
0.252	00	99.99-	05.00-	01.48-	00.87	02.78	04.55	06.31	08.16	10.57	14.09	0200	00.709	0.249	0.000
0.252	10	17.07-	04.74-	01.36-	00.93	02.83	04.57	06.32	08.17	10.57	14.09	0200	00.653	0.229	0.005
0.252	20	13.09-	05.19-	02.08-	00.11	01.96	03.67	05.40	07.24	09.63	13.13	0200	00.511	0.224	0.011
0.252	30	09.79-	05.63-	03.15-	01.22-	00.48	02.10	03.77	05.56	07.91	11.39	0200	00.342	0.225	0.024
0.252	40	06.91-	05.25-	03.80-	02.45-	01.12-	00.24	01.71	03.36	05.58	08.97	0200	00.197	0.231	0.047
0.252	50	04.47-	03.94-	03.36-	02.71-	01.98-	01.12-	00.09-	01.18	03.05	06.12	0200	00.099	0.239	0.085
0.252	60	02.53-	02.38-	02.19-	01.96-	01.67-	01.29-	00.78-	00.07-	01.13	03.47	0200	00.046	0.248	0.139
0.252	70	01.14-	01.09-	01.02-	00.94-	00.83-	00.68-	00.47-	00.15-	00.47	01.89	0200	00.022	0.257	0.198
0.252	80	00.31-	00.29-	00.25-	00.21-	00.15-	00.08-	00.03	00.21	00.56	01.45	0200	00.014	0.265	0.246
0.252	90	00.00	00.02	00.05	00.08	00.13	00.19	00.28	00.42	00.71	01.46	0200	00.012	0.265	0.265
0.254	00	99.99-	05.00-	01.48-	00.86	02.78	04.54	06.30	08.16	10.56	14.09	0200	00.669	0.235	0.000
0.254	10	17.04-	04.74-	01.36-	00.93	02.83	04.57	06.32	08.17	10.57	14.09	0200	00.616	0.216	0.004
0.254	20	13.07-	05.19-	02.08-	00.11	01.96	03.67	05.40	07.24	09.62	13.13	0200	00.482	0.211	0.010
0.254	30	09.79-	05.63-	03.15-	01.22-	00.48	02.10	03.77	05.56	07.91	11.39	0200	00.322	0.213	0.022
0.254	40	06.90-	05.25-	03.80-	02.44-	01.12-	00.24	01.71	03.36	05.58	08.97	0200	00.186	0.218	0.044
0.254	50	04.47-	03.94-	03.36-	02.71-	01.97-	01.12-	00.08-	01.19	03.06	06.13	0200	00.094	0.225	0.081
0.254	60	02.54-	02.38-	02.19-	01.96-	01.66-	01.29-	00.77-	00.06-	01.14	03.49	0200	00.044	0.234	0.131
0.254	70	01.14-	01.09-	01.02-	00.94-	00.83-	00.68-	00.46-	00.14-	00.48	01.90	0200	00.021	0.243	0.187
0.254	80	00.31-	00.29-	00.25-	00.21-	00.16-	00.08-	00.04	00.21	00.56	01.46	0200	00.013	0.250	0.232
0.254	90	00.00	00.02	00.05	00.08	00.13	00.19	00.28	00.43	00.71	01.47	0200	00.011	0.250	0.250
0.258	00	99.99-	05.00-	01.48-	00.86	02.78	04.54	06.30	08.16	10.56	14.08	0200	00.598	0.210	0.000
0.258	10	17.01-	04.74-	01.36-	00.93	02.83	04.57	06.32	08.17	10.57	14.09	0200	00.551	0.194	0.004
0.258	20	13.05-	05.19-	02.08-	00.11	01.96	03.67	05.40	07.24	09.62	13.13	0200	00.431	0.189	0.009
0.258	30	09.77-	05.62-	03.15-	01.22-	00.48	02.10	03.77	05.56	07.90	11.38	0200	00.288	0.190	0.020
0.258	40	06.90-	05.24-	03.79-	02.44-	01.12-	00.24	01.71	03.36	05.58	08.97	0200	00.166	0.195	0.040
0.258	50	04.47-	03.94-	03.36-	02.71-	01.97-	01.11-	00.08-	01.19	03.06	06.14	0200	00.084	0.202	0.072
0.258	60	02.54-	02.38-	02.19-	01.95-	01.66-	01.28-	00.77-	00.05-	01.16	03.50	0200	00.039	0.210	0.117
0.258	70	01.15-	01.09-	01.02-	00.94-	00.83-	00.68-	00.46-	00.13-	00.49	01.93	0200	00.019	0.218	0.167
0.258	80	00.32-	00.29-	00.26-	00.21-	00.16-	00.08-	00.04	00.21	00.57	01.47	0200	00.012	0.224	0.208
0.258	90	00.00	00.02	00.05	00.08	00.13	00.19	00.29	00.43	00.72	01.48	0200	00.010	0.224	0.224

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.262	00	99.99-	05.00-	01.48-	00.86	02.78	04.54	06.30	08.16	10.56	14.08	0200	00.540	0.190	0.000
0.262	10	16.98-	04.74-	01.36-	00.93	02.82	04.57	06.32	08.17	10.57	14.09	0200	00.497	0.175	0.003
0.262	20	13.03-	05.19-	02.08-	00.11	01.96	03.67	05.40	07.24	09.62	13.13	0200	00.389	0.171	0.008
0.262	30	09.76-	05.62-	03.15-	01.22-	00.48	02.10	03.76	05.55	07.90	11.38	0200	00.260	0.172	0.018
0.262	40	06.90-	05.24-	03.79-	02.44-	01.12-	00.24	01.71	03.36	05.58	08.97	0200	00.150	0.176	0.036
0.262	50	04.47-	03.94-	03.36-	02.71-	01.97-	01.11-	00.07-	01.20	03.07	06.14	0200	00.076	0.182	0.065
0.262	60	02.54-	02.38-	02.19-	01.95-	01.66-	01.28-	00.76-	00.05-	01.17	03.52	0200	00.036	0.189	0.105
0.262	70	01.15-	01.09-	01.02-	00.94-	00.83-	00.68-	00.46-	00.13-	00.50	01.94	0200	00.017	0.196	0.151
0.262	80	00.32-	00.30-	00.26-	00.22-	00.16-	00.08-	00.03	00.21	00.57	01.48	0200	00.011	0.202	0.187
0.262	90	00.00	00.02	00.05	00.08	00.13	00.19	00.29	00.43	00.73	01.49	0200	00.009	0.202	0.202
0.266	00	99.99-	05.00-	01.48-	00.86	02.78	04.54	06.30	08.16	10.56	14.08	0200	00.491	0.173	0.000
0.266	10	16.97-	04.74-	01.36-	00.93	02.82	04.57	06.32	08.17	10.57	14.08	0200	00.452	0.159	0.003
0.266	20	13.02-	05.19-	02.08-	00.11	01.96	03.67	05.40	07.23	09.62	13.13	0200	00.354	0.155	0.008
0.266	30	09.76-	05.62-	03.15-	01.22-	00.48	02.10	03.76	05.55	07.90	11.38	0200	00.236	0.156	0.016
0.266	40	06.90-	05.24-	03.79-	02.44-	01.12-	00.24	01.72	03.36	05.58	08.97	0200	00.136	0.160	0.033
0.266	50	04.47-	03.94-	03.36-	02.71-	01.97-	01.11-	00.07-	01.20	03.07	06.15	0200	00.069	0.166	0.059
0.266	60	02.54-	02.38-	02.19-	01.95-	01.66-	01.28-	00.76-	00.04-	01.17	03.53	0200	00.032	0.172	0.096
0.266	70	01.15-	01.09-	01.03-	00.94-	00.83-	00.68-	00.46-	00.13-	00.50	01.95	0200	00.016	0.179	0.137
0.266	80	00.33-	00.30-	00.27-	00.22-	00.16-	00.09-	00.03	00.21	00.57	01.48	0200	00.010	0.184	0.170
0.266	90	00.00	00.02	00.05	00.08	00.13	00.19	00.29	00.43	00.73	01.49	0200	00.008	0.183	0.183
0.274	00	99.99-	05.01-	01.49-	00.85	02.77	04.53	06.30	08.15	10.55	14.08	0200	00.415	0.146	0.000
0.274	10	16.94-	04.74-	01.36-	00.93	02.82	04.57	06.32	08.17	10.56	14.08	0200	00.382	0.135	0.003
0.274	20	13.00-	05.18-	02.08-	00.11	01.95	03.67	05.40	07.23	09.62	13.13	0200	00.299	0.131	0.007
0.274	30	09.74-	05.61-	03.14-	01.22-	00.48	02.10	03.76	05.55	07.90	11.38	0200	00.200	0.132	0.014
0.274	40	06.89-	05.23-	03.79-	02.44-	01.11-	00.25	01.72	03.36	05.59	08.97	0200	00.116	0.135	0.028
0.274	50	04.47-	03.94-	03.35-	02.70-	01.96-	01.10-	00.06-	01.21	03.08	06.16	0200	00.059	0.140	0.050
0.274	60	02.54-	02.38-	02.19-	01.95-	01.65-	01.27-	00.75-	00.03-	01.19	03.55	0200	00.028	0.146	0.081
0.274	70	01.15-	01.10-	01.03-	00.94-	00.83-	00.67-	00.45-	00.12-	00.51	01.97	0200	00.014	0.151	0.116
0.274	80	00.33-	00.31-	00.27-	00.23-	00.17-	00.09-	00.03	00.21	00.57	01.49	0200	00.008	0.156	0.144
0.274	90	00.00	00.02	00.05	00.08	00.13	00.20	00.29	00.44	00.73	01.50	0200	00.007	0.155	0.155
0.282	00	99.99-	05.02-	01.50-	00.84	02.76	04.52	06.28	08.14	10.54	14.07	0200	00.361	0.128	0.000
0.282	10	16.88-	04.74-	01.37-	00.92	02.82	04.56	06.31	08.16	10.56	14.08	0200	00.333	0.117	0.002
0.282	20	12.95-	05.18-	02.08-	00.11	01.95	03.67	05.40	07.23	09.62	13.13	0200	00.261	0.115	0.006
0.282	30	09.71-	05.60-	03.13-	01.21-	00.49	02.11	03.77	05.56	07.91	11.39	0200	00.175	0.115	0.012
0.282	40	06.87-	05.21-	03.77-	02.42-	01.09-	00.27	01.74	03.38	05.61	08.99	0200	00.101	0.118	0.024
0.282	50	04.46-	03.92-	03.33-	02.68-	01.94-	01.07-	00.03-	01.24	03.11	06.19	0200	00.052	0.122	0.044
0.282	60	02.54-	02.37-	02.18-	01.94-	01.64-	01.25-	00.73-	00.00-	01.22	03.59	0200	00.024	0.127	0.071
0.282	70	01.15-	01.10-	01.03-	00.94-	00.82-	00.66-	00.44-	00.10-	00.54	02.01	0200	00.012	0.132	0.101
0.282	80	00.34-	00.31-	00.27-	00.23-	00.17-	00.09-	00.03	00.22	00.58	01.51	0200	00.007	0.136	0.126
0.282	90	00.00	00.02	00.05	00.09	00.13	00.20	00.30	00.45	00.75	01.53	0200	00.006	0.135	0.135

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.290	00	99.99-	05.04-	01.52-	00.82	02.74	04.50	06.27	08.12	10.53	14.05	0200	00.322	0.114	0.000
0.290	10	16.77-	04.74-	01.38-	00.91	02.81	04.55	06.30	08.15	10.55	14.06	0200	00.297	0.105	0.002
0.290	20	12.87-	05.16-	02.07-	00.11	01.95	03.67	05.40	07.23	09.62	13.12	0200	00.233	0.102	0.005
0.290	30	09.65-	05.57-	03.11-	01.19-	00.50	02.12	03.79	05.57	07.92	11.40	0200	00.157	0.103	0.011
0.290	40	06.83-	05.18-	03.73-	02.38-	01.06-	00.30	01.77	03.41	05.64	09.02	0200	00.091	0.105	0.022
0.290	50	04.43-	03.89-	03.30-	02.64-	01.90-	01.03-	00.01	01.29	03.17	06.25	0200	00.047	0.109	0.039
0.290	60	02.52-	02.36-	02.16-	01.91-	01.61-	01.22-	00.69-	00.05	01.29	03.67	0200	00.022	0.113	0.063
0.290	70	01.15-	01.09-	01.02-	00.93-	00.81-	00.65-	00.41-	00.07-	00.58	02.08	0200	00.011	0.117	0.090
0.290	80	00.34-	00.31-	00.27-	00.23-	00.17-	00.08-	00.04	00.23	00.61	01.57	0200	00.007	0.121	0.112
0.290	90	00.00	00.02	00.05	00.09	00.14	00.21	00.31	00.46	00.77	01.58	0200	00.006	0.120	0.120
0.306	00	99.99-	05.11-	01.59-	00.75	02.67	04.43	06.19	08.05	10.45	13.97	0200	00.271	0.098	0.000
0.306	10	16.41-	04.76-	01.41-	00.88	02.77	04.51	06.26	08.11	10.50	14.02	0200	00.250	0.089	0.002
0.306	20	12.59-	05.12-	02.05-	00.13	01.96	03.67	05.40	07.23	09.61	13.12	0200	00.198	0.087	0.005
0.306	30	09.44-	05.45-	03.02-	01.11-	00.57	02.19	03.85	05.63	07.98	11.46	0200	00.134	0.087	0.010
0.306	40	06.67-	05.03-	03.59-	02.24-	00.92-	00.44	01.90	03.55	05.77	09.15	0200	00.079	0.089	0.019
0.306	50	04.33-	03.77-	03.17-	02.50-	01.74-	00.86-	00.19	01.48	03.37	06.46	0200	00.042	0.092	0.034
0.306	60	02.46-	02.29-	02.08-	01.82-	01.50-	01.08-	00.53-	00.23	01.51	03.93	0200	00.020	0.096	0.054
0.306	70	01.12-	01.06-	00.98-	00.88-	00.75-	00.57-	00.32-	00.05	00.75	02.33	0200	00.010	0.099	0.076
0.306	80	00.34-	00.31-	00.26	00.21-	00.14-	00.05-	00.09	00.30	00.72	01.77	0200	00.007	0.102	0.094
0.306	90	00.00	00.03	00.06	00.10	00.16	00.24	00.35	00.52	00.87	01.76	0200	00.006	0.101	0.101
0.322	00	99.99-	05.24-	01.72-	00.62	02.54	04.30	06.07	07.92	10.33	13.85	0200	00.240	0.089	0.000
0.322	10	15.88-	04.79-	01.46-	00.81	02.70	04.44	06.19	08.03	10.43	13.95	0200	00.223	0.081	0.002
0.322	20	12.16-	05.04-	02.02-	00.15	01.97	03.68	05.40	07.23	09.61	13.12	0200	00.179	0.079	0.005
0.322	30	09.09-	05.25-	02.86-	00.97-	00.70	02.31	03.96	05.74	08.08	11.56	0200	00.124	0.079	0.010
0.322	40	06.41-	04.78-	03.34-	02.00-	00.69-	00.67	02.14	03.78	06.00	09.38	0200	00.075	0.080	0.018
0.322	50	04.14-	03.57-	02.94-	02.25-	01.47-	00.58-	00.50	01.80	03.70	06.81	0200	00.041	0.083	0.032
0.322	60	02.35-	02.16-	01.93-	01.65-	01.30-	00.86-	00.27-	00.53	01.86	04.36	0200	00.020	0.085	0.050
0.322	70	01.07-	01.00-	00.91-	00.79-	00.64-	00.44-	00.16-	00.26	01.03	02.73	0200	00.011	0.088	0.069
0.322	80	00.33-	00.29-	00.24-	00.18-	00.10-	00.01	00.17	00.42	00.91	02.08	0200	00.007	0.091	0.084
0.322	90	00.00	00.03	00.07	00.12	00.19	00.28	00.41	00.62	01.03	02.04	0200	00.006	0.090	0.090
0.338	00	99.99-	05.43-	01.91-	00.43	02.35	04.11	05.87	07.73	10.13	13.65	0200	00.222	0.086	0.000
0.338	10	15.24-	04.85-	01.55-	00.71	02.59	04.33	06.07	07.92	10.31	13.83	0200	00.208	0.078	0.002
0.338	20	11.61-	04.93-	01.96-	00.18	01.99	03.69	05.41	07.23	09.61	13.12	0200	00.170	0.075	0.005
0.338	30	08.62-	04.96-	02.63-	00.77-	00.89	02.48	04.13	05.90	08.24	11.71	0200	00.122	0.075	0.010
0.338	40	06.02-	04.41-	02.99-	01.65-	00.34-	01.01	02.48	04.11	06.33	09.71	0200	00.077	0.076	0.019
0.338	50	03.86-	03.26-	02.60-	01.89-	01.08-	00.16-	00.93	02.26	04.18	07.31	0200	00.043	0.078	0.032
0.338	60	02.18-	01.96-	01.70-	01.39-	01.01-	00.53-	00.11	00.96	02.36	04.94	0200	00.022	0.080	0.048
0.338	70	00.99-	00.90-	00.79-	00.66-	00.49-	00.25-	00.07	00.55	01.41	03.26	0200	00.012	0.082	0.065
0.338	80	00.31-	00.26-	00.21-	00.13-	00.03-	00.10	00.30	00.59	01.16	02.49	0200	00.008	0.084	0.078
0.338	90	00.00	00.04	00.09	00.15	00.23	00.34	00.51	00.75	01.24	02.41	0200	00.007	0.083	0.083

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.354	00	99.99-	05.70-	02.18-	00.16	02.08	03.84	05.60	07.46	09.86	13.38	0200	00.211	0.087	0.000
0.354	10	14.54-	04.93-	01.68-	00.57	02.44	04.17	05.91	07.75	10.15	13.66	0200	00.200	0.077	0.003
0.354	20	10.95-	04.79-	01.89-	00.22	02.01	03.70	05.41	07.23	09.61	13.11	0200	00.168	0.074	0.006
0.354	30	08.02-	04.58-	02.32-	00.50-	01.14	02.72	04.36	06.13	08.46	11.93	0200	00.126	0.074	0.012
0.354	40	05.52-	03.92-	02.51-	01.18-	00.12	01.47	02.93	04.57	06.78	10.16	0200	00.083	0.074	0.021
0.354	50	03.48-	02.84-	02.15-	01.40-	00.57-	00.38	01.51	02.85	04.80	07.95	0200	00.048	0.075	0.034
0.354	60	01.93-	01.68-	01.39-	01.05-	00.62-	00.09-	00.60	01.52	03.00	05.67	0200	00.026	0.077	0.049
0.354	70	00.87-	00.77-	00.64-	00.48-	00.27-	00.00	00.38	00.93	01.90	03.91	0200	00.014	0.078	0.064
0.354	80	00.29-	00.22-	00.15-	00.06-	00.06	00.23	00.46	00.82	01.48	02.00	0200	00.009	0.080	0.075
0.354	90	00.00	00.05	00.11	00.19	00.29	00.43	00.63	00.93	01.51	02.86	0200	00.008	0.079	0.079
0.386	00	99.99-	06.58-	03.06-	00.72-	01.20	02.96	04.72	06.58	08.98	12.50	0200	00.201	0.102	0.000
0.386	10	13.08-	05.23-	02.12-	00.08	01.92	03.63	05.36	07.20	09.58	13.09	0200	00.197	0.087	0.004
0.386	20	09.44-	04.41-	01.72-	00.30	02.05	03.71	05.40	07.21	09.57	13.06	0200	00.184	0.082	0.009
0.386	30	06.52-	03.54-	01.45-	00.29	01.88	03.42	05.03	06.78	09.10	12.55	0200	00.157	0.080	0.018
0.386	40	04.13-	02.57-	01.18-	00.13	01.42	02.76	04.22	05.85	08.06	11.43	0200	00.117	0.078	0.030
0.386	50	02.34-	01.60-	00.83-	00.01-	00.89	01.91	03.09	04.48	06.49	09.68	0200	00.075	0.077	0.045
0.386	60	01.16-	00.83-	00.44-	00.00	00.53	01.18	02.00	03.06	04.70	07.54	0200	00.042	0.077	0.059
0.386	70	00.49-	00.33-	00.14-	00.10	00.39	00.77	01.29	02.00	03.22	05.56	0200	00.023	0.076	0.068
0.386	80	00.19-	00.09-	00.02	00.17	00.36	00.61	00.96	01.47	02.38	04.31	0200	00.015	0.077	0.074
0.386	90	00.00	00.08	00.18	00.30	00.47	00.68	00.98	01.43	02.25	04.02	0200	00.013	0.075	0.075
0.402	00	99.99-	07.25-	03.73-	01.39-	00.53	02.29	04.05	05.91	08.31	11.83	0200	00.200	0.118	0.000
0.402	10	12.36-	05.47-	02.47-	00.32-	01.50	03.20	04.92	06.75	09.13	12.63	0200	00.201	0.099	0.006
0.402	20	08.60-	04.18-	01.63-	00.34	02.05	03.69	05.36	07.16	09.51	12.99	0200	00.202	0.092	0.013
0.402	30	05.62-	02.88-	00.87-	00.81	02.37	03.89	05.49	07.22	09.53	12.98	0200	00.190	0.087	0.024
0.402	40	03.24-	01.69-	00.32-	00.99	02.28	03.61	05.06	06.69	08.90	12.27	0200	00.154	0.084	0.040
0.402	50	01.55-	00.76-	00.06	00.92	01.86	02.90	04.11	05.53	07.56	10.77	0200	00.102	0.082	0.057
0.402	60	00.58-	00.20-	00.24	00.74	01.33	02.04	02.93	04.06	05.78	08.70	0200	00.058	0.079	0.069
0.402	70	00.20-	00.00-	00.24	00.52	00.88	01.33	01.93	02.74	04.09	06.60	0200	00.031	0.077	0.074
0.402	80	00.12-	00.01	00.16	00.35	00.58	00.90	01.33	01.94	03.00	05.15	0200	00.020	0.077	0.075
0.402	90	00.00	00.11	00.24	00.40	00.60	00.88	01.26	01.80	02.77	04.79	0200	00.017	0.075	0.075
0.418	00	99.99-	08.15-	04.63-	02.29-	00.37-	01.39	03.15	05.01	07.41	10.94	0200	00.201	0.146	0.000
0.418	10	11.61-	05.79-	02.96-	00.87-	00.92	02.60	04.30	06.12	08.49	11.99	0200	00.207	0.118	0.008
0.418	20	07.72-	03.92-	01.54-	00.34	02.01	03.61	05.27	07.05	09.39	12.86	0200	00.229	0.108	0.018
0.418	30	04.64-	02.12-	00.21-	01.42	02.94	04.44	06.01	07.74	10.03	13.47	0200	00.245	0.101	0.035
0.418	40	02.20-	00.68-	00.69	01.98	03.27	04.60	06.04	07.67	09.88	13.25	0200	00.216	0.095	0.057
0.418	50	00.58-	00.26	01.12	02.03	03.00	04.07	05.30	06.75	08.80	12.03	0200	00.149	0.089	0.078
0.418	60	00.15	00.60	01.10	01.67	02.33	03.11	04.07	05.26	07.06	10.06	0200	00.084	0.083	0.086
0.418	70	00.17	00.42	00.72	01.08	01.51	02.05	02.75	03.68	05.17	07.85	0200	00.044	0.079	0.082
0.418	80	00.04-	00.13	00.33	00.58	00.89	01.29	01.83	02.57	03.82	06.21	0200	00.027	0.077	0.077
0.418	90	00.00	00.15	00.32	00.54	00.81	01.17	01.65	02.33	03.49	05.77	0200	00.023	0.075	0.075

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.434	00	99.99-	09.34-	05.81-	03.47-	01.55-	00.21	01.97	03.82	06.23	09.75	0200	00.203	0.193	0.000
0.434	10	10.83-	06.21-	03.62-	01.63-	00.10	01.74	03.42	05.22	07.57	11.06	0200	00.214	0.152	0.013
0.434	20	06.78-	03.64-	01.49-	00.28	01.88	03.44	05.06	06.82	09.14	12.60	0200	00.269	0.134	0.028
0.434	30	03.55-	01.26-	00.54	02.11	03.59	05.06	06.61	08.32	10.60	14.03	0200	00.337	0.122	0.054
0.434	40	01.02-	00.49	01.85	03.13	04.41	05.74	07.18	08.80	11.01	14.38	0200	00.327	0.111	0.087
0.434	50	00.59	01.49	02.40	03.35	04.35	05.46	06.72	08.19	10.26	13.51	0200	00.234	0.099	0.114
0.434	60	01.10	01.62	02.20	02.85	03.59	04.44	05.48	06.75	08.61	11.69	0200	00.132	0.089	0.114
0.434	70	00.63	00.97	01.35	01.81	02.35	03.01	03.84	04.91	06.56	09.42	0200	00.068	0.081	0.094
0.434	80	00.03	00.27	00.56	00.90	01.32	01.85	02.54	03.45	04.93	07.59	0200	00.041	0.078	0.079
0.434	90	00.00	00.21	00.47	00.77	01.15	01.63	02.26	03.11	04.50	07.07	0200	00.034	0.076	0.076
0.450	00	99.99-	10.87-	07.35-	05.01-	03.09-	01.33-	00.43	02.29	04.69	08.21	0200	00.205	0.278	0.000
0.450	10	10.00-	06.73-	04.52-	02.73-	01.11-	00.46	02.09	03.85	06.18	09.64	0200	00.212	0.209	0.021
0.450	20	05.75-	03.35-	01.50-	00.10	01.60	03.08	04.65	06.37	08.66	12.09	0200	00.318	0.180	0.048
0.450	30	02.34-	00.29-	01.39	02.88	04.31	05.74	07.27	08.96	11.23	14.64	0200	00.498	0.157	0.092
0.450	40	00.35	01.84	03.19	04.47	05.74	07.06	08.50	10.12	12.32	15.69	0200	00.540	0.135	0.147
0.450	50	02.04	03.00	03.96	04.95	05.99	07.13	08.42	09.91	12.00	15.27	0200	00.403	0.113	0.181
0.450	60	02.33	02.97	03.65	04.40	05.23	06.17	07.29	08.64	10.58	13.73	0200	00.228	0.094	0.160
0.450	70	01.15	01.64	02.19	02.80	03.50	04.33	05.33	06.57	08.41	11.45	0200	00.115	0.082	0.107
0.450	80	00.03-	00.36	00.81	01.33	01.94	02.67	03.57	04.71	06.45	09.39	0200	00.067	0.079	0.078
0.450	90	00.00	00.34	00.72	01.17	01.71	02.37	03.19	04.26	05.91	08.76	0200	00.056	0.077	0.077
0.460	00	99.99-	11.99-	08.46-	06.12-	04.20-	02.44-	00.68-	01.17	03.58	07.10	0200	00.207	0.363	0.000
0.460	10	09.53-	07.12-	05.27-	03.66-	02.16-	00.68-	00.89	02.61	04.90	08.33	0200	00.198	0.265	0.030
0.460	20	05.12-	03.18-	01.57-	00.11-	01.29	02.71	04.22	05.90	08.15	11.56	0200	00.347	0.223	0.069
0.460	30	01.56-	00.36	01.94	03.39	04.78	06.19	07.71	09.38	11.63	15.04	0200	00.655	0.189	0.132
0.460	40	01.28	02.[illegible]	04.10	05.37	06.64	07.96	09.40	11.02	13.22	16.58	0200	00.765	0.156	0.209
0.460	50	03.10	04.[illegible]	05.10	06.11	07.18	08.33	09.63	11.14	13.24	16.53	0200	00.584	0.123	0.250
0.460	60	03.33	04.[illegible]	04.80	05.62	06.51	07.51	08.68	10.07	12.07	15.25	0200	00.330	0.095	0.203
0.460	70	01.49	02.14	02.84	03.60	04.44	05.40	06.52	07.88	09.84	12.99	0200	00.163	0.079	0.112
0.460	80	00.26-	00.31	00.93	01.62	02.39	03.29	04.36	05.66	07.56	10.66	0200	00.092	0.078	0.073
0.460	90	00.00	00.45	00.95	01.52	02.17	02.95	03.91	05.11	06.90	09.90	0200	00.075	0.077	0.077
0.466	00	99.99-	12.66-	09.13-	06.79-	04.87-	03.11-	01.35-	00.50	02.91	06.43	0200	00.208	0.426	0.000
0.466	10	09.34-	07.40-	05.79-	04.33-	02.93-	01.51-	00.00	01.68	03.94	07.34	0200	00.181	0.307	0.036
0.466	20	04.80-	03.11-	01.64-	00.28-	01.05	02.42	03.90	05.55	07.78	11.16	0200	00.360	0.254	0.084
0.466	30	01.13-	00.70	02.26	03.68	05.06	06.45	07.95	09.62	11.87	15.26	0200	00.773	0.212	0.163
0.466	40	01.82	03.30	04.64	05.91	07.17	08.49	09.93	11.54	13.75	17.11	0200	00.941	0.170	0.258
0.466	50	03.76	04.79	05.80	06.82	07.90	09.06	10.37	11.89	14.00	17.28	0200	00.725	0.128	0.304
0.466	60	04.01	04.78	05.57	06.42	07.35	08.38	09.57	10.99	13.01	16.21	0200	00.407	0.093	0.235
0.466	70	01.69	02.47	03.27	04.13	05.06	06.10	07.30	08.72	10.74	13.95	0200	00.198	0.076	0.113
0.466	80	00.54-	00.18	00.93	01.74	02.63	03.63	04.80	06.19	08.19	11.37	0200	00.109	0.077	0.068
0.466	90	00.00	00.51	01.08	01.71	02.44	03.28	04.30	05.56	07.41	10.47	0200	00.088	0.078	0.078

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.476	00	99.99-	13.54-	10.02-	07.68-	05.76-	04.00-	02.24-	00.38-	02.02	05.54	0200	00.210	0.527	0.000
0.476	10	09.25-	07.94-	06.72-	05.53-	04.33-	03.06-	01.66-	00.08-	02.10	05.44	0200	00.141	0.375	0.045
0.476	20	04.47-	03.10-	01.83-	00.61-	00.62	01.91	03.32	04.92	07.11	10.46	0200	00.364	0.305	0.109
0.476	30	00.61-	01.16	02.68	04.07	05.43	06.81	08.30	09.96	12.20	15.59	0200	00.974	0.248	0.215
0.476	40	02.56	04.04	05.37	06.65	07.91	09.23	10.67	12.28	14.49	17.85	0200	01.250	0.190	0.343
0.476	50	04.76	05.80	06.83	07.87	08.95	10.12	11.44	12.96	15.07	18.36	0200	00.967	0.133	0.397
0.476	60	05.16	05.97	06.82	07.70	08.56	09.72	10.94	12.38	14.42	17.64	0200	00.532	0.087	0.287
0.476	70	01.97	02.95	03.94	04.94	06.00	07.15	08.45	09.95	12.05	15.33	0200	00.247	0.068	0.108
0.476	80	01.32-	00.31-	00.69	01.71	02.78	03.93	05.24	06.75	08.85	12.14	0200	00.128	0.074	0.054
0.476	90	00.00	00.57	01.20	01.89	02.67	03.56	04.63	05.94	07.84	10.95	0200	00.100	0.078	0.078
0.482	00	99.99-	13.78-	10.26-	07.92-	06.00-	04.24-	02.48-	00.63-	01.78	05.30	0200	00.211	0.561	0.000
0.482	10	09.33-	08.28-	07.25-	06.21-	05.12-	03.94-	02.62-	01.10-	01.02	04.31	0200	00.114	0.398	0.046
0.482	20	04.42-	03.16-	01.98-	00.82-	00.36	01.61	02.99	04.57	06.73	10.06	0200	00.350	0.322	0.116
0.482	30	00.43-	01.32	02.83	04.22	05.58	06.96	08.45	10.10	12.34	15.73	0200	01.050	0.259	0.234
0.482	40	02.86	04.34	05.68	06.95	08.22	09.54	10.98	12.59	14.79	18.16	0200	01.375	0.195	0.376
0.482	50	05.21	06.25	07.28	08.32	09.40	10.57	11.89	13.41	15.52	18.82	0200	01.060	0.131	0.435
0.482	60	05.72	06.55	07.40	08.29	09.25	10.32	11.54	12.98	15.03	18.26	0200	00.573	0.082	0.305
0.482	70	01.99	03.08	04.15	05.22	06.34	07.53	08.87	10.40	12.53	15.83	0200	00.257	0.063	0.099
0.482	80	01.96-	00.80-	00.33	01.44	02.59	03.81	05.17	06.72	08.87	12.18	0200	00.127	0.072	0.046
0.482	90	00.00	00.56	01.16	01.84	02.60	03.48	04.54	05.83	07.72	10.81	0200	00.097	0.079	0.079
0.484	00	99.99-	13.80-	10.28-	07.94-	06.02-	04.26-	02.50-	00.64-	01.76	05.28	0200	00.212	0.564	0.000
0.484	10	09.38-	08.39-	07.41-	06.41-	05.35-	04.20-	02.91-	01.41-	00.69	03.97	0200	00.106	0.400	0.046
0.484	20	04.41-	03.20-	02.04-	00.89-	00.27	01.51	02.89	04.45	06.61	09.94	0200	00.341	0.323	0.117
0.484	30	00.40-	01.36	02.87	04.26	05.61	06.99	08.48	10.14	12.38	15.77	0200	01.061	0.259	0.237
0.484	40	02.93	04.42	05.76	07.03	08.30	09.62	11.06	12.67	14.88	18.24	0200	01.397	0.194	0.382
0.484	50	05.33	06.37	07.39	08.43	09.52	10.69	12.01	13.52	15.64	18.93	0200	01.075	0.129	0.441
0.484	60	05.87	06.69	07.54	08.44	09.40	10.47	11.69	13.13	15.18	18.41	0200	00.577	0.079	0.307
0.484	70	01.95	03.08	04.17	05.26	06.39	07.59	08.94	10.48	12.62	15.93	0200	00.256	0.061	0.096
0.484	80	02.19-	00.98-	00.17	01.31	02.47	03.71	05.08	06.64	08.79	12.12	0200	00.125	0.071	0.043
0.484	90	00.00	00.54	01.13	01.79	02.54	03.41	04.46	05.73	07.61	10.70	0200	00.094	0.079	0.079
0.490	00	99.99-	13.67-	10.14-	07.80-	05.88-	04.12-	02.36-	00.51-	01.90	05.42	0200	00.213	0.550	0.000
0.490	10	09.54-	08.69-	07.82-	06.90-	05.93-	04.85-	03.61-	02.16-	00.10-	03.13	0200	00.085	0.391	0.044
0.490	20	04.45-	03.31-	02.21-	01.12-	00.02	01.23	02.57	04.12	06.26	09.57	0200	00.305	0.315	0.113
0.490	30	00.33-	01.43	02.94	04.33	05.69	07.07	08.56	10.22	12.45	15.85	0200	01.047	0.251	0.233
0.490	40	03.10	04.58	05.93	07.21	08.48	09.80	11.24	12.85	15.06	18.42	0200	01.397	0.186	0.380
0.490	50	05.59	06.63	07.65	08.69	09.77	10.94	12.26	13.77	15.89	19.18	0200	01.067	0.121	0.440
0.490	60	06.18	07.00	07.85	08.74	09.70	10.76	11.99	13.43	15.47	18.70	0200	00.560	0.072	0.299
0.490	70	01.65	02.86	04.02	05.16	06.32	07.56	08.93	10.49	12.65	15.98	0200	00.239	0.057	0.083
0.490	80	02.86-	01.58-	00.38-	00.79	01.98	03.24	04.63	06.21	08.37	11.71	0200	00.112	0.070	0.036
0.490	90	00.00	00.48	01.01	01.61	02.29	03.10	04.09	05.32	07.14	10.17	0200	00.083	0.080	0.080

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.498	00	99.99-	13.12-	09.59-	07.25-	05.34-	03.57-	01.81-	00.04	02.45	05.97	0200	00.214	0.488	0.000
0.498	10	09.75-	08.96-	08.14-	07.27-	06.33-	05.28-	04.07-	02.65-	00.62-	02.60	0200	00.066	0.349	0.037
0.498	20	04.53-	03.49-	02.47-	01.43-	00.35-	00.83	02.14	03.66	05.77	09.07	0200	00.241	0.281	0.099
0.498	30	00.31-	01.46	02.97	04.37	05.72	07.10	08.59	10.25	12.49	15.88	0200	00.938	0.223	0.208
0.498	40	03.21	04.70	06.05	07.33	08.60	09.93	11.37	12.99	15.19	18.56	0200	01.272	0.164	0.344
0.498	50	05.77	06.80	07.82	08.85	09.93	11.10	12.41	13.93	16.04	19.33	0200	00.962	0.106	0.399
0.498	60	06.26	07.07	07.92	08.80	09.76	10.82	12.05	13.48	15.52	18.75	0200	00.492	0.063	0.265
0.498	70	00.79	02.11	03.35	04.55	05.76	07.03	08.44	10.03	12.20	15.55	0200	00.201	0.052	0.063
0.498	80	03.54-	02.33-	01.17-	00.03-	01.13	02.37	03.75	05.31	07.47	10.79	0200	00.089	0.070	0.031
0.498	90	00.00	00.38	00.80	01.30	01.88	02.59	03.46	04.58	06.29	09.20	0200	00.065	0.080	0.080
0.506	00	99.99-	12.32-	08.80-	06.46-	04.54-	02.78-	01.02-	00.84	03.24	06.76	0200	00.216	0.409	0.000
0.506	10	09.94-	09.08-	08.20-	07.28-	06.30-	05.21-	03.97-	02.51-	00.46-	02.78	0200	00.059	0.294	0.030
0.506	20	04.62-	03.69-	02.74-	01.77-	00.74-	00.38	01.66	03.15	05.23	08.50	0200	00.177	0.237	0.082
0.506	30	00.33-	01.43	02.95	04.34	05.69	07.08	08.57	10.22	12.46	15.85	0200	00.787	0.188	0.175
0.506	40	03.23	04.73	06.09	07.37	08.64	09.97	11.41	13.03	15.24	18.60	0200	01.085	0.139	0.292
0.506	50	05.78	06.81	07.82	08.85	09.93	11.10	12.41	13.93	16.04	19.33	0200	00.814	0.090	0.339
0.506	60	06.01	06.82	07.67	08.56	09.51	10.58	11.80	13.24	15.28	18.50	0200	00.408	0.055	0.219
0.506	70	00.53-	00.94	02.27	03.54	04.81	06.12	07.56	09.17	11.38	14.74	0200	00.161	0.050	0.044
0.506	80	03.86-	02.83-	01.82-	00.78-	00.29	01.46	02.78	04.29	06.40	09.69	0200	00.069	0.070	0.029
0.506	90	00.00	00.29	00.62	01.02	01.50	02.09	02.85	03.84	05.41	08.18	0200	00.050	0.081	0.081

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.508	00	99.99-	12.14-	08.62-	06.28-	04.36-	02.60-	00.84-	01.01	03.42	06.94	0200	00.214	0.389	0.000
0.508	05	13.84-	10.13-	07.78-	05.91-	04.25-	02.65-	01.00-	00.78	03.12	06.59	0200	00.160	0.319	0.013
0.508	10	09.99-	09.10-	08.20-	07.26-	06.26-	05.16-	03.91-	02.44-	00.37-	02.88	0200	00.057	0.280	0.028
0.508	15	07.13-	06.84-	06.51-	06.11-	05.64-	05.05-	04.30-	03.31-	01.75-	01.01	0200	00.030	0.251	0.049
0.508	20	04.65-	03.74-	02.81-	01.85-	00.83-	00.28	01.55	03.03	05.11	08.37	0200	00.164	0.226	0.077
0.508	25	02.41-	00.89-	00.48	01.77	03.05	04.38	05.83	07.45	09.66	13.03	0200	00.439	0.203	0.116
0.508	30	00.34-	01.42	02.93	04.33	05.68	07.07	08.55	10.21	12.45	15.84	0200	00.748	0.180	0.166
0.508	35	01.54	03.25	04.74	06.11	07.45	08.82	10.30	11.95	14.19	17.58	0200	00.969	0.156	0.223
0.508	40	03.23	04.73	06.08	07.37	08.64	09.97	11.41	13.03	15.24	18.60	0200	01.035	0.132	0.278
0.508	45	04.67	05.92	07.10	08.26	09.44	10.69	12.07	13.65	15.81	19.14	0200	00.952	0.108	0.317
0.508	50	05.76	06.79	07.81	08.84	09.92	11.08	12.40	13.91	16.02	19.31	0200	00.776	0.086	0.323
0.508	55	06.32	07.20	08.09	09.02	10.01	11.10	12.35	13.81	15.87	19.12	0200	00.571	0.066	0.285
0.508	60	05.93	06.75	07.59	08.47	09.43	10.49	11.71	13.15	15.19	18.42	0200	00.387	0.053	0.208
0.508	65	03.86	04.79	05.72	06.68	07.71	08.83	10.10	11.58	13.66	16.92	0200	00.246	0.047	0.115
0.508	70	00.84-	00.66	02.01	03.29	04.57	05.89	07.34	08.96	11.16	14.53	0200	00.151	0.049	0.041
0.508	75	06.99-	04.18-	02.16-	00.45-	01.11	02.64	04.24	05.98	08.29	11.74	0200	00.094	0.058	0.012
0.508	80	03.90-	02.92-	01.94-	00.94-	00.12	01.26	02.56	04.06	06.15	09.43	0200	00.064	0.069	0.028
0.508	85	01.04-	00.67-	00.25-	00.24	00.82	01.51	02.38	03.49	05.19	08.10	0200	00.050	0.080	0.063
0.508	90	00.00	00.27	00.59	00.96	01.42	01.99	02.72	03.68	05.21	07.94	0200	00.046	0.080	0.080
0.516	00	99.99-	11.27-	07.75-	05.41-	03.49-	01.73-	00.03	01.89	04.29	07.81	0200	00.215	0.320	0.000
0.516	05	14.00-	09.65-	07.12-	05.17-	03.46-	01.83-	00.15-	01.64	03.99	07.48	0200	00.162	0.263	0.010
0.516	10	10.12-	09.03-	07.97-	06.91-	05.80-	04.61-	03.28-	01.75-	00.38	03.68	0200	00.057	0.231	0.023
0.516	15	07.23-	07.05-	06.84-	06.58-	06.26-	05.84-	05.28-	04.52-	03.24-	00.80-	0200	00.015	0.207	0.039
0.516	20	04.74-	03.93-	03.10-	02.22-	01.27-	00.21-	01.00	02.44	04.47	07.69	0200	00.115	0.187	0.063
0.516	25	02.47-	01.00-	00.33	01.60	02.86	04.17	05.61	07.23	09.43	12.79	0200	00.344	0.168	0.095
0.516	30	00.39-	01.36	02.86	04.25	05.60	06.98	08.46	10.12	12.35	15.75	0200	00.607	0.149	0.136
0.516	35	01.50	03.21	04.69	06.07	07.41	08.78	10.26	11.91	14.14	17.53	0200	00.798	0.130	0.184
0.516	40	03.18	04.69	06.04	07.33	08.60	09.93	11.37	12.99	15.20	18.57	0200	00.857	0.111	0.230
0.516	45	04.59	05.85	07.03	08.19	09.37	10.62	12.01	13.58	15.75	19.08	0200	00.789	0.091	0.262
0.516	50	05.62	06.65	07.67	08.70	09.78	10.95	12.26	13.78	15.89	19.18	0200	00.641	0.073	0.266
0.516	55	06.04	06.92	07.81	08.74	09.74	10.83	12.08	13.55	15.61	18.85	0200	00.469	0.058	0.233
0.516	60	05.39	06.21	07.07	07.96	08.93	09.99	11.22	12.66	14.71	17.94	0200	00.315	0.048	0.167
0.516	65	02.90	03.87	04.84	05.83	06.88	08.02	09.31	10.80	12.89	16.17	0200	00.198	0.045	0.088
0.516	70	02.50-	00.79-	00.70	02.08	03.42	04.79	06.27	07.92	10.16	13.55	0200	00.120	0.049	0.028
0.516	75	08.68-	05.57-	03.42-	01.66-	00.06-	01.50	03.12	04.87	07.19	10.65	0200	00.074	0.058	0.008
0.516	80	03.88-	03.11-	02.30-	01.44-	00.51-	00.53	01.73	03.15	05.17	08.39	0200	00.050	0.070	0.029
0.516	85	01.02-	00.73-	00.39-	00.01	00.49	01.08	01.84	02.83	04.40	07.17	0200	00.039	0.080	0.064
0.516	90	00.00	00.21	00.47	00.77	01.15	01.63	02.25	03.10	04.50	07.06	0200	00.036	0.080	0.080

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.532	00	99.99-	09.71-	06.19-	03.85-	01.93-	00.17-	01.59	03.45	05.85	09.37	0200	00.217	0.226	0.000
0.532	05	14.11-	08.57-	05.78-	03.71-	01.94-	00.26-	01.44	03.25	05.62	09.12	0200	00.168	0.186	0.007
0.532	10	10.24-	08.58-	07.13-	05.78-	04.45-	03.09-	01.62-	00.03	02.25	05.64	0200	00.065	0.164	0.016
0.532	15	07.36-	07.29-	07.20-	07.08-	06.93-	06.73-	06.44-	06.02-	05.24-	03.52-	0200	00.004	0.148	0.027
0.532	20	04.87-	04.29-	03.66-	02.97-	02.18-	01.28-	00.21-	01.10	03.01	06.12	0200	00.056	0.134	0.043
0.532	25	02.61-	01.27-	00.03-	01.17	02.39	03.66	05.07	06.66	08.84	12.18	0200	00.214	0.121	0.066
0.532	30	00.53-	01.16	02.62	03.99	05.32	06.69	08.17	09.81	12.04	15.43	0200	00.407	0.108	0.095
0.532	35	01.34	03.03	04.50	05.86	07.20	08.57	10.05	11.69	13.92	17.31	0200	00.552	0.095	0.129
0.532	40	02.96	04.47	05.82	07.11	08.38	09.71	11.15	12.77	14.98	18.34	0200	00.601	0.082	0.161
0.532	45	04.27	05.53	06.71	07.88	09.07	10.32	11.70	13.28	15.44	18.78	0200	00.556	0.069	0.183
0.532	50	05.10	06.14	07.17	08.21	09.29	10.46	11.78	13.30	15.42	18.71	0200	00.451	0.057	0.185
0.532	55	05.17	06.07	06.98	07.93	08.93	10.04	11.30	12.77	14.84	18.10	0200	00.328	0.048	0.159
0.532	60	03.98	04.85	05.74	06.67	07.67	08.76	10.01	11.47	13.53	16.78	0200	00.219	0.044	0.109
0.532	65	00.75	01.85	02.92	03.99	05.10	06.30	07.63	09.17	11.30	14.60	0200	00.136	0.044	0.053
0.532	70	05.97-	03.63-	01.80-	00.22-	01.27	02.75	04.31	06.02	08.31	11.74	0200	00.082	0.050	0.013
0.532	75	09.74-	07.00-	05.00-	03.31-	01.76-	00.24-	01.36	03.10	05.40	08.85	0200	00.051	0.060	0.006
0.532	80	03.56-	03.06-	02.50-	01.88-	01.17-	00.34-	00.67	01.92	03.76	06.81	0200	00.035	0.071	0.031
0.532	85	00.94-	00.75-	00.51-	00.22-	00.13	00.58	01.18	02.00	03.34	05.86	0200	00.028	0.082	0.066
0.532	90	00.00	00.15	00.33	00.55	00.83	01.20	01.69	02.38	03.56	05.86	0200	00.026	0.081	0.081
0.548	00	99.99-	08.57-	05.05-	02.71-	00.79-	00.97	02.73	04.59	06.99	10.52	0200	00.218	0.175	0.000
0.548	05	13.98-	07.61-	04.68-	02.56-	00.75-	00.94	02.65	04.47	06.85	10.35	0200	00.173	0.144	0.006
0.548	10	10.21-	07.96-	06.18-	04.62-	03.15-	01.68-	00.13-	01.57	03.85	07.28	0200	00.074	0.127	0.012
0.548	15	07.39-	07.27-	07.14-	06.96-	06.74-	06.45-	06.05-	05.48-	04.46-	02.38-	0200	00.005	0.115	0.021
0.548	20	04.94-	04.55-	04.12-	03.61-	03.02-	02.31-	01.42-	00.29-	01.43	04.36	0200	00.028	0.104	0.033
0.548	25	02.71-	01.53-	00.40-	00.72	01.87	03.09	04.46	06.01	08.16	11.48	0200	00.142	0.095	0.051
0.548	30	00.68-	00.92	02.34	03.67	04.97	06.32	07.78	09.42	11.64	15.01	0200	00.292	0.085	0.073
0.548	35	01.13	02.79	04.23	05.58	06.91	08.27	09.74	11.38	13.60	16.99	0200	00.410	0.076	0.098
0.548	40	02.67	04.17	05.52	06.80	08.07	09.39	10.83	12.45	14.66	18.02	0200	00.454	0.066	0.123
0.548	45	03.83	05.10	06.30	07.47	08.66	09.92	11.31	12.88	15.05	18.39	0200	00.423	0.057	0.138
0.548	50	04.44	05.51	06.56	07.61	08.71	09.89	11.22	12.75	14.87	18.17	0200	00.345	0.050	0.138
0.548	55	04.19	05.13	06.07	07.05	08.08	09.21	10.49	11.97	14.06	17.32	0200	00.252	0.044	0.116
0.548	60	02.57	03.51	04.47	05.45	06.48	07.61	08.90	10.39	12.47	15.74	0200	00.168	0.042	0.077
0.548	65	01.25-	00.04	01.25	02.43	03.62	04.89	06.28	07.86	10.03	13.37	0200	00.105	0.045	0.034
0.548	70	09.04-	05.83-	03.65-	01.87-	00.26-	01.31	02.93	04.69	07.02	10.48	0200	00.064	0.052	0.006
0.548	75	08.97-	07.02-	05.40-	03.94-	02.53-	01.11-	00.40	02.08	04.34	07.75	0200	00.040	0.062	0.008
0.548	80	03.21-	02.84-	02.41-	01.92-	01.33-	00.63-	00.25	01.36	03.07	05.98	0200	00.028	0.073	0.035
0.548	85	00.88-	00.72-	00.52-	00.28-	00.01	00.40	00.92	01.65	02.87	05.23	0200	00.023	0.082	0.067
0.548	90	00.00	00.13	00.28	00.47	00.71	01.02	01.46	02.07	03.14	05.30	0200	00.022	0.082	0.082

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.564	00	99.99-	07.84-	04.32-	01.97-	00.06-	01.71	03.47	05.32	07.73	11.25	0200	00.219	0.148	0.000
0.564	05	13.66-	06.90-	03.92-	01.77-	00.04	01.74	03.46	05.29	07.67	11.17	0200	00.176	0.122	0.005
0.564	10	10.02-	07.35-	05.38-	03.71-	02.17-	00.65-	00.94	02.67	04.97	08.42	0200	00.082	0.108	0.011
0.564	15	07.28-	07.05-	06.78-	06.45-	06.06-	05.55-	04.89-	04.01-	02.58-	00.04	0200	00.009	0.097	0.018
0.564	20	04.89-	04.66-	04.37-	04.04-	03.63-	03.11-	02.43-	01.53-	00.07-	02.57	0200	00.015	0.089	0.029
0.564	25	02.73-	01.71-	00.70-	00.32	01.40	02.56	03.87	05.38	07.49	10.77	0200	00.102	0.081	0.043
0.564	30	00.76-	00.74	02.08	03.36	04.63	05.95	07.39	09.01	11.22	14.58	0200	00.226	0.073	0.061
0.564	35	00.98	02.58	03.99	05.31	06.62	07.97	09.43	11.06	13.28	16.66	0200	00.328	0.066	0.082
0.564	40	02.42	03.90	05.24	06.51	07.78	09.10	10.53	12.15	14.35	17.72	0200	00.371	0.058	0.102
0.564	45	03.44	04.73	05.93	07.11	08.30	09.57	10.96	12.54	14.71	18.05	0200	00.351	0.051	0.113
0.564	50	03.85	04.96	06.03	07.11	08.23	09.42	10.76	12.30	14.43	17.74	0200	00.290	0.046	0.111
0.564	55	03.33	04.34	05.33	06.35	07.41	08.57	09.87	11.38	13.48	16.77	0200	00.214	0.042	0.091
0.564	60	01.38	02.43	03.47	04.52	05.62	06.80	08.12	09.64	11.76	15.06	0200	00.144	0.042	0.058
0.564	65	02.90-	01.35-	00.04	01.35	02.64	03.98	05.43	07.06	09.27	12.65	0200	00.092	0.046	0.024
0.564	70	11.22-	07.13-	04.67-	02.75-	01.06-	00.56	02.23	04.01	06.36	09.84	0200	00.057	0.053	0.004
0.564	75	08.07-	06.57-	05.21-	03.93-	02.65-	01.33-	00.11	01.73	03.94	07.31	0200	00.037	0.063	0.010
0.564	80	02.95-	02.62-	02.24-	01.79-	01.26-	00.61-	00.21	01.27	02.91	05.75	0200	00.027	0.074	0.037
0.564	85	00.83-	00.67-	00.49-	00.26-	00.02	00.39	00.90	01.59	02.79	05.11	0200	00.022	0.083	0.068
0.564	90	00.00	00.12	00.27	00.45	00.69	00.99	01.42	02.02	03.07	05.20	0200	00.021	0.082	0.082

0.580	00	99.99-	07.47-	03.95-	01.61-	00.31	02.07	03.83	05.69	08.09	11.61	0200	00.218	0.135	0.000
0.580	05	13.17-	06.44-	03.46-	01.32-	00.50	02.20	03.92	05.74	08.12	11.63	0200	00.178	0.110	0.005
0.580	10	09.66-	06.82-	04.79-	03.08-	01.52-	00.02	01.62	03.36	05.67	09.12	0200	00.087	0.098	0.011
0.580	15	07.01-	06.66-	06.27-	05.81-	05.27-	04.60-	03.77-	02.70-	01.04-	01.83	0200	00.013	0.088	0.018
0.580	20	04.70-	04.55-	04.38-	04.18-	03.91-	03.57-	03.10-	02.44-	01.30-	00.95	0200	00.008	0.080	0.027
0.580	25	02.59-	01.74-	00.86-	00.06	01.04	02.12	03.36	04.82	06.88	10.12	0200	00.079	0.073	0.040
0.580	30	00.69-	00.67	01.93	03.14	04.37	05.65	07.06	08.66	10.84	14.19	0200	00.188	0.067	0.057
0.580	35	00.96	02.48	03.84	05.14	06.42	07.74	09.19	10.81	13.02	16.39	0200	00.283	0.060	0.075
0.580	40	02.30	03.75	05.08	06.34	07.60	08.91	10.34	11.95	14.15	17.51	0200	00.327	0.054	0.091
0.580	45	03.19	04.49	05.71	06.90	08.10	09.37	10.76	12.35	14.52	17.86	0200	00.316	0.048	0.100
0.580	50	03.43	04.59	05.70	06.81	07.95	09.17	10.52	12.08	14.22	17.53	0200	00.265	0.044	0.097
0.580	55	02.70	03.79	04.85	05.92	07.03	08.23	09.56	11.09	13.22	16.52	0200	00.199	0.042	0.078
0.580	60	00.48	01.69	02.84	03.98	05.14	06.38	07.75	09.32	11.47	14.80	0200	00.137	0.043	0.048
0.580	65	04.17-	02.26-	00.66-	00.78	02.18	03.59	05.10	06.77	09.03	12.43	0200	00.089	0.047	0.018
0.580	70	12.38-	07.60-	04.96-	02.96-	01.22-	00.43	02.11	03.91	06.27	09.76	0200	00.057	0.054	0.003
0.580	75	07.39-	06.05-	04.81-	03.60-	02.39-	01.11-	00.30	01.89	04.07	07.41	0200	00.038	0.064	0.012
0.580	80	02.75-	02.42-	02.04-	01.59-	01.06-	00.40-	00.42	01.48	03.12	05.97	0200	00.026	0.074	0.039
0.580	85	00.79-	00.63-	00.43-	00.19-	00.11	00.50	01.02	01.75	02.98	05.35	0200	00.024	0.083	0.069
0.580	90	00.00	00.13	00.29	00.49	00.74	01.06	01.51	02.15	03.25	05.44	0200	00.023	0.081	0.081

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN										DIPOLE CROSS-SECTION			
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.596	00	99.99-	07.44-	03.92-	01.58-	00.34	02.10	03.86	05.72	08.12	11.64	0200	00.215	0.133	0.000
0.596	05	12.57-	06.20-	03.27-	01.15-	00.66	02.35	04.06	05.88	08.26	11.76	0200	00.178	0.107	0.006
0.596	10	09.15-	06.40-	04.39-	02.70-	01.15-	00.37	01.97	03.71	06.01	09.46	0200	00.091	0.094	0.011
0.596	15	06.57-	06.16-	05.70-	05.18-	04.56-	03.82-	02.90-	01.75-	00.00	02.95	0200	00.017	0.085	0.019
0.596	20	04.32-	04.24-	04.15-	04.02-	03.86-	03.65-	03.35-	02.91-	02.09-	00.33-	0200	00.005	0.077	0.028
0.596	25	02.29-	01.58-	00.84-	00.04-	00.84	01.83	02.99	04.37	06.35	09.53	0200	00.065	0.070	0.041
0.596	30	00.45-	00.76	01.91	03.05	04.22	05.46	06.83	08.39	10.55	13.88	0200	00.166	0.064	0.057
0.596	35	01.13	02.55	03.85	05.10	06.34	07.65	09.07	10.68	12.87	16.23	0200	00.259	0.057	0.074
0.596	40	02.37	03.79	05.09	06.33	07.58	08.88	10.31	11.91	14.11	17.46	0200	00.309	0.052	0.089
0.596	45	03.15	04.47	05.70	06.90	08.11	09.38	10.78	12.37	14.55	17.89	0200	00.307	0.046	0.096
0.596	50	03.24	04.46	05.63	06.77	07.95	09.19	10.56	12.13	14.29	17.62	0200	00.264	0.043	0.090
0.596	55	02.32	03.53	04.68	05.82	06.99	08.23	09.60	11.16	13.32	16.65	0200	00.203	0.041	0.070
0.596	60	00.12-	01.29	02.59	03.84	05.08	06.38	07.81	09.41	11.61	14.96	0200	00.144	0.043	0.041
0.596	65	05.09-	02.71-	00.88-	00.72	02.21	03.69	05.25	06.97	09.26	12.69	0200	00.096	0.047	0.015
0.596	70	12.78-	07.44-	04.69-	02.64-	00.88-	00.79	02.49	04.30	06.67	10.16	0200	00.063	0.055	0.003
0.596	75	06.89-	05.54-	04.29-	03.08-	01.86-	00.58-	00.82	02.42	04.60	07.95	0200	00.043	0.064	0.013
0.596	80	02.61-	02.24-	01.81-	01.32-	00.75-	00.05-	00.82	01.93	03.64	06.54	0200	00.032	0.073	0.040
0.596	85	00.76-	00.58-	00.35-	00.07-	00.27	00.70	01.28	02.08	03.40	05.88	0200	00.028	0.082	0.069
0.596	90	00.00	00.15	00.34	00.57	00.85	01.22	01.73	02.43	03.62	05.94	0200	00.026	0.080	0.080
0.612	00	99.99-	07.72-	04.20-	01.86-	00.06	01.82	03.58	05.44	07.84	11.37	0200	00.211	0.139	0.000
0.612	05	11.91-	06.16-	03.33-	01.25-	00.53	02.21	03.92	05.73	08.11	11.60	0200	00.176	0.110	0.007
0.612	10	08.54-	06.06-	04.17-	02.55-	01.04-	00.46	02.03	03.75	06.05	09.48	0200	00.093	0.096	0.013
0.612	15	06.00-	05.59-	05.12-	04.59-	03.97-	03.22-	02.30-	01.15-	00.61	03.57	0200	00.019	0.086	0.022
0.612	20	03.79-	03.75-	03.69-	03.62-	03.53-	03.40-	03.22-	02.95-	02.41-	01.14-	0200	00.003	0.077	0.032
0.612	25	01.80-	01.24-	00.63-	00.05	00.81	01.69	02.75	04.04	05.93	09.03	0200	00.057	0.070	0.046
0.612	30	00.02-	01.04	02.07	03.12	04.21	05.39	06.71	08.23	10.35	13.64	0200	00.156	0.063	0.063
0.612	35	01.50	02.81	04.03	05.22	06.43	07.70	09.09	10.68	12.85	16.19	0200	00.253	0.057	0.080
0.612	40	02.66	04.04	05.31	06.53	07.76	09.05	10.46	12.06	14.25	17.60	0200	00.314	0.051	0.094
0.612	45	03.33	04.68	05.93	07.14	08.36	09.64	11.05	12.65	14.83	18.17	0200	00.321	0.046	0.098
0.612	50	03.29	04.61	05.84	07.03	08.24	09.51	10.91	12.50	14.68	18.02	0200	00.285	0.042	0.089
0.612	55	02.20	03.57	04.84	06.07	07.30	08.59	10.00	11.60	13.79	17.14	0200	00.226	0.041	0.067
0.612	60	00.45-	01.25	02.72	04.09	05.43	06.80	08.28	09.93	12.16	15.54	0200	00.164	0.042	0.038
0.612	65	05.70-	02.72-	00.63-	01.11	02.69	04.24	05.85	07.60	09.92	13.37	0200	00.112	0.047	0.013
0.612	70	12.77-	06.86-	04.00-	01.91-	00.12-	01.56	03.27	05.09	07.46	10.96	0200	00.075	0.054	0.003
0.612	75	06.52-	05.03-	03.68-	02.40-	01.13-	00.19	01.63	03.25	05.45	08.82	0200	00.052	0.063	0.014
0.612	80	02.49-	02.05-	01.55-	00.98-	00.33-	00.45	01.41	02.60	04.39	07.39	0200	00.040	0.072	0.041
0.612	85	00.74-	00.51-	00.23-	00.10	00.50	01.01	01.68	02.57	04.01	06.64	0200	00.034	0.080	0.068
0.612	90	00.00	00.19	00.42	00.70	01.04	01.48	02.06	02.86	04.18	06.67	0200	00.032	0.079	0.079

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.628	00	99.99-	08.30-	04.78-	02.44-	00.52-	01.24	03.00	04.86	07.26	10.78	0200	00.207	0.155	0.000
0.628	05	11.27-	06.30-	03.62-	01.60-	00.15	01.80	03.49	05.30	07.66	11.15	0200	00.173	0.120	0.009
0.628	10	07.89-	05.79-	04.09-	02.58-	01.15-	00.29	01.83	03.52	05.79	09.20	0200	00.094	0.104	0.017
0.628	15	05.34-	04.97-	04.55-	04.07-	03.49-	02.80-	01.93-	00.82-	00.87	03.78	0200	00.021	0.092	0.027
0.628	20	03.13-	03.11-	03.08-	03.04-	02.99-	02.91-	02.81-	02.64-	02.32-	01.47-	0200	00.002	0.082	0.040
0.628	25	01.15-	00.72-	00.24-	00.31	00.95	01.71	02.65	03.83	05.60	08.58	0200	00.053	0.073	0.056
0.628	30	00.61	01.49	02.40	03.34	04.34	05.44	06.69	08.16	10.23	13.48	0200	00.153	0.065	0.075
0.628	35	02.09	03.27	04.40	05.52	06.67	07.90	09.26	10.82	12.97	16.29	0200	00.263	0.058	0.094
0.628	40	03.19	04.51	05.74	06.94	08.15	09.42	10.82	12.41	14.59	17.93	0200	00.341	0.051	0.107
0.628	45	03.77	05.15	06.42	07.65	08.88	10.17	11.58	13.18	15.37	18.72	0200	00.364	0.045	0.108
0.628	50	03.60	05.03	06.34	07.59	08.85	10.15	11.58	13.19	15.38	18.74	0200	00.335	0.042	0.095
0.628	55	02.34	03.93	05.34	06.66	07.96	09.31	10.77	12.40	14.62	18.00	0200	00.274	0.040	0.069
0.628	60	00.53-	01.54	03.23	04.73	06.16	07.60	09.13	10.82	13.09	16.50	0200	00.203	0.042	0.037
0.628	65	06.06-	02.32-	00.04	01.92	03.58	05.18	06.83	08.61	10.95	14.42	0200	00.142	0.047	0.012
0.628	70	12.63-	05.96-	02.99-	00.85-	00.97	02.66	04.38	06.21	08.59	12.09	0200	00.096	0.054	0.003
0.628	75	06.24-	04.47-	02.95-	01.56-	00.20-	01.18	02.68	04.33	06.57	09.97	0200	00.067	0.062	0.015
0.628	80	02.41-	01.84-	01.23-	00.55-	00.22	01.11	02.17	03.47	05.36	08.46	0200	00.051	0.071	0.041
0.628	85	00.73-	00.42-	00.08-	00.34	00.83	01.44	02.22	03.23	04.82	07.61	0200	00.043	0.079	0.067
0.628	90	00.00	00.25	00.54	00.88	01.31	01.84	02.53	03.45	04.93	07.59	0200	00.041	0.077	0.077
0.644	00	99.99-	09.15-	05.63-	03.29-	01.37-	00.39	02.15	04.01	06.41	09.93	0200	00.204	0.187	0.000
0.644	05	10.71-	06.57-	04.10-	02.17-	00.47-	01.15	02.81	04.60	06.95	10.43	0200	00.172	0.141	0.012
0.644	10	07.26-	05.60-	04.14-	02.79-	01.46-	00.10-	01.38	03.02	05.25	08.63	0200	00.095	0.120	0.023
0.644	15	04.66-	04.37-	04.02-	03.61-	03.12-	02.52-	01.74-	00.73-	00.85	03.63	0200	00.023	0.105	0.036
0.644	20	02.42-	02.41-	02.39-	02.37-	02.34-	02.30-	02.24-	02.14-	01.95-	01.43-	0200	00.002	0.092	0.053
0.644	25	00.41-	00.09-	00.28	00.71	01.22	01.86	02.66	03.70	05.32	08.14	0200	00.051	0.081	0.074
0.644	30	01.36	02.09	02.85	03.67	04.57	05.58	06.75	08.15	10.15	13.34	0200	00.160	0.071	0.098
0.644	35	02.84	03.89	04.92	05.96	07.05	08.23	09.55	11.07	13.18	16.48	0200	00.292	0.062	0.119
0.644	40	03.92	05.18	06.37	07.54	08.72	09.98	11.36	12.94	15.11	18.44	0200	00.400	0.053	0.132
0.644	45	04.43	05.85	07.14	08.39	09.63	10.93	12.36	13.96	16.15	19.51	0200	00.447	0.047	0.129
0.644	50	04.15	05.72	07.12	08.44	09.74	11.08	12.53	14.17	16.38	19.76	0200	00.428	0.042	0.109
0.644	55	02.70	04.56	06.13	07.56	08.94	10.35	11.85	13.52	15.77	19.17	0200	00.359	0.040	0.075
0.644	60	00.41-	02.14	04.06	05.70	07.22	08.73	10.31	12.04	14.33	17.77	0200	00.273	0.042	0.038
0.644	65	06.25-	01.56-	01.06	03.05	04.78	06.43	08.11	09.91	12.27	15.75	0200	00.193	0.046	0.011
0.644	70	12.49-	04.83-	01.74-	00.44	02.28	03.99	05.72	07.56	09.94	13.45	0200	00.131	0.054	0.003
0.644	75	06.06-	03.86-	02.11-	00.57-	00.89	02.35	03.89	05.60	07.87	11.29	0200	00.091	0.062	0.015
0.644	80	02.35-	01.62-	00.84-	00.02-	00.89	01.90	03.08	04.48	06.49	09.68	0200	00.068	0.070	0.041
0.644	85	00.71-	00.32-	00.13	00.65	01.26	01.99	02.89	04.03	05.77	08.71	0200	00.057	0.078	0.066
0.644	90	00.00	00.33	00.70	01.14	01.67	02.31	03.13	04.18	05.81	08.65	0200	00.054	0.076	0.076

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.660	00	99.99-	10.12-	06.60-	04.26-	02.34-	00.58-	01.18	03.04	05.44	08.97	0200	00.213	0.244	0.000
0.660	05	10.31-	06.92-	04.67-	02.85-	01.22-	00.35	01.99	03.76	06.09	09.55	0200	00.178	0.180	0.017
0.660	10	06.75-	05.47-	04.27-	03.10-	01.91-	00.65-	00.74	02.32	04.49	07.82	0200	00.098	0.151	0.032
0.660	15	04.07-	03.85-	03.58-	03.26-	02.87-	02.37-	01.72-	00.84-	00.58	03.18	0200	00.024	0.130	0.051
0.660	20	01.75-	01.75-	01.74-	01.72-	01.71-	01.69-	01.65-	01.60-	01.49-	01.19-	0200	00.001	0.113	0.075
0.660	25	00.32	00.55	00.82	01.15	01.54	02.05	02.71	03.59	05.02	07.64	0200	00.051	0.098	0.105
0.660	30	02.15	02.73	03.36	04.06	04.84	05.74	06.82	08.13	10.04	13.15	0200	00.177	0.084	0.137
0.660	35	03.66	04.58	05.51	06.47	07.49	08.61	09.88	11.35	13.43	16.69	0200	00.349	0.071	0.164
0.660	40	04.75	05.96	07.10	08.24	09.40	10.63	12.00	13.56	15.72	19.04	0200	00.509	0.059	0.177
0.660	45	05.24	06.69	08.01	09.27	10.53	11.84	13.27	14.88	17.08	20.44	0200	00.599	0.050	0.168
0.660	50	04.83	06.57	08.07	09.45	10.80	12.17	13.66	15.31	17.55	20.94	0200	00.594	0.044	0.134
0.660	55	03.18	05.36	07.11	08.65	10.10	11.56	13.11	14.81	17.08	20.50	0200	00.511	0.042	0.087
0.660	60	00.24-	02.92	05.08	06.85	08.46	10.02	11.64	13.40	15.72	19.18	0200	00.393	0.043	0.041
0.660	65	06.42-	00.60-	02.24	04.32	06.11	07.79	09.49	11.31	13.68	17.18	0200	00.278	0.048	0.011
0.660	70	12.47-	03.63-	00.44-	01.79	03.65	05.38	07.11	08.95	11.34	14.85	0200	00.189	0.056	0.003
0.660	75	06.03-	03.26-	01.25-	00.44	02.00	03.52	05.12	06.86	09.17	12.62	0200	00.129	0.064	0.016
0.660	80	02.38-	01.41-	00.45-	00.54	01.58	02.72	04.01	05.50	07.60	10.87	0200	00.095	0.073	0.042
0.660	85	00.71-	00.20-	00.37	01.00	01.73	02.58	03.60	04.86	06.71	09.78	0200	00.078	0.081	0.069
0.660	90	00.00	00.42	00.89	01.43	02.07	02.82	03.75	04.91	06.68	09.65	0200	00.073	0.080	0.080

0.676	00	99.99-	10.82-	07.30-	04.96-	03.04-	01.28-	00.48	02.34	04.74	08.26	0200	00.257	0.345	0.000
0.676	05	10.14-	07.21-	05.13-	03.41-	01.83-	00.29-	01.32	03.07	05.38	08.84	0200	00.210	0.250	0.024
0.676	10	06.45-	05.44-	04.45-	03.43-	02.36-	01.21-	00.10	01.60	03.71	06.99	0200	00.110	0.207	0.047
0.676	15	03.66-	03.50-	03.30-	03.06-	02.75-	02.36-	01.83-	01.10-	00.13	02.51	0200	00.027	0.176	0.076
0.676	20	01.25-	01.25-	01.25-	01.24-	01.23-	01.22-	01.20-	01.17-	01.11-	00.94-	0200	00.001	0.151	0.113
0.676	25	00.90	01.07	01.26	01.50	01.79	02.18	02.70	03.42	04.64	07.00	0200	00.054	0.129	0.159
0.676	30	02.81	03.26	03.78	04.36	05.03	05.82	06.79	08.00	09.81	12.82	0200	00.207	0.108	0.206
0.676	35	04.38	05.19	06.02	06.90	07.85	08.90	10.12	11.55	13.59	16.81	0200	00.449	0.089	0.245
0.676	40	05.50	06.65	07.76	08.86	09.99	11.21	12.56	14.11	16.25	19.56	0200	00.704	0.073	0.259
0.676	45	05.96	07.45	08.79	10.07	11.34	12.66	14.10	15.72	17.92	21.29	0200	00.871	0.060	0.237
0.676	50	05.42	07.32	08.91	10.36	11.75	13.16	14.67	16.34	18.59	22.00	0200	00.890	0.052	0.180
0.676	55	03.49	06.04	07.95	09.59	11.11	12.62	14.20	15.92	18.22	21.66	0200	00.779	0.049	0.108
0.676	60	00.32-	03.53	05.93	07.82	09.49	11.10	12.75	14.53	16.88	20.35	0200	00.601	0.050	0.047
0.676	65	06.92-	00.16	03.19	05.35	07.17	08.88	10.60	12.43	14.81	18.32	0200	00.423	0.056	0.011
0.676	70	12.75-	02.72-	00.55	02.81	04.68	06.42	08.16	10.00	12.40	15.91	0200	00.282	0.065	0.003
0.676	75	06.31-	02.93-	00.68-	01.13	02.76	04.34	05.97	07.74	10.07	13.54	0200	00.188	0.076	0.018
0.676	80	02.55-	01.38-	00.26-	00.86	02.01	03.23	04.59	06.15	08.30	11.61	0200	00.134	0.087	0.048
0.676	85	00.74-	00.14-	00.51	01.22	02.02	02.94	04.03	05.35	07.28	10.40	0200	00.108	0.096	0.081
0.676	90	00.00	00.48	01.01	01.61	02.30	03.12	04.11	05.33	07.16	10.19	0200	00.101	0.096	0.096

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.692	00	99.99-	10.76-	07.24-	04.90-	02.98-	01.22-	00.54	02.40	04.80	08.32	0200	00.388	0.513	0.000
0.692	05	10.26-	07.31-	05.22-	03.48-	01.90-	00.36-	01.25	03.00	05.31	08.77	0200	00.308	0.372	0.035
0.692	10	06.43-	05.52-	04.59-	03.64-	02.62-	01.51-	00.24-	01.23	03.31	06.56	0200	00.147	0.306	0.070
0.692	15	03.54-	03.41-	03.25-	03.06-	02.81-	02.49-	02.05-	01.43-	00.34-	01.84	0200	00.031	0.259	0.115
0.692	20	01.04-	01.04-	01.03-	01.03-	01.02-	01.02-	01.01-	00.99-	00.96-	00.86-	0200	00.001	0.220	0.174
0.692	25	01.20	01.31	01.45	01.62	01.84	02.13	02.53	03.10	04.11	06.17	0200	00.058	0.186	0.245
0.692	30	03.17	03.53	03.95	04.43	05.00	05.70	06.56	07.67	09.36	12.26	0200	00.254	0.155	0.321
0.692	35	04.78	05.50	06.25	07.06	07.95	08.95	10.12	11.51	13.50	16.68	0200	00.611	0.126	0.380
0.692	40	05.90	07.01	08.08	09.15	10.27	11.47	12.80	14.34	16.47	19.78	0200	01.030	0.102	0.396
0.692	45	06.27	07.79	09.16	10.45	11.73	13.06	14.51	16.13	18.34	21.71	0200	01.329	0.083	0.352
0.692	50	05.52	07.57	09.24	10.74	12.16	13.60	15.13	16.82	19.08	22.50	0200	01.388	0.072	0.256
0.692	55	03.21	06.11	08.18	09.90	11.47	13.01	14.62	16.36	18.68	22.13	0200	01.223	0.068	0.143
0.692	60	01.10-	03.48	06.07	08.05	09.77	11.42	13.09	14.89	17.25	20.74	0200	00.939	0.072	0.056
0.692	65	08.16-	00.19	03.35	05.56	07.41	09.13	10.87	12.70	15.09	18.60	0200	00.650	0.081	0.012
0.692	70	13.44-	02.65-	00.67	02.94	04.82	06.56	08.31	10.15	12.55	16.06	0200	00.422	0.094	0.004
0.692	75	06.97-	03.23-	00.88-	00.99	02.66	04.26	05.91	07.69	10.03	13.50	0200	00.273	0.111	0.022
0.692	80	02.89-	01.69-	00.55-	00.59	01.75	02.98	04.35	05.91	08.06	11.39	0200	00.188	0.128	0.066
0.692	85	00.78-	00.22-	00.39	01.07	01.84	02.72	03.79	05.08	06.98	10.07	0200	00.148	0.143	0.119
0.692	90	00.00	00.43	00.92	01.48	02.12	02.89	03.83	05.02	06.80	09.78	0200	00.137	0.145	0.145
0.708	00	99.99-	09.83-	06.30-	03.96-	02.04-	00.28-	01.48	03.33	05.74	09.26	0200	00.680	0.725	0.000
0.708	05	10.61-	07.06-	04.76-	02.92-	01.27-	00.32	01.96	03.74	06.07	09.54	0200	00.526	0.531	0.046
0.708	10	06.68-	05.64-	04.61-	03.57-	02.49-	01.31-	00.00	01.52	03.64	06.93	0200	00.230	0.439	0.094
0.708	15	03.72-	03.60-	03.45-	03.26-	03.02-	02.71-	02.28-	01.68-	00.61-	01.53	0200	00.041	0.372	0.158
0.708	20	01.16-	01.16-	01.16-	01.15-	01.15-	01.15-	01.14-	01.13-	01.11-	01.05-	0200	00.001	0.317	0.243
0.708	25	01.12	01.21	01.31	01.44	01.60	01.83	02.14	02.59	03.43	05.23	0200	00.061	0.269	0.348
0.708	30	03.11	03.42	03.77	04.18	04.68	05.29	06.07	07.09	08.68	11.47	0200	00.299	0.225	0.460
0.708	35	04.72	05.37	06.07	06.83	07.67	08.63	09.76	11.11	13.07	16.22	0200	00.800	0.185	0.547
0.708	40	05.75	06.82	07.87	08.93	10.03	11.22	12.55	14.07	16.20	19.50	0200	01.433	0.151	0.568
0.708	45	05.93	07.48	08.86	10.16	11.45	12.78	14.23	15.86	18.07	21.44	0200	01.907	0.127	0.497
0.708	50	04.87	07.03	08.76	10.29	11.74	13.19	14.73	16.43	18.70	22.12	0200	02.013	0.113	0.348
0.708	55	02.12	05.30	07.48	09.25	10.86	12.43	14.05	15.81	18.13	21.59	0200	01.767	0.111	0.182
0.708	60	02.71-	02.49	05.22	07.26	09.02	10.68	12.38	14.18	16.55	20.04	0200	01.337	0.120	0.064
0.708	65	10.13-	00.79-	02.45	04.69	06.55	08.28	10.02	11.86	14.26	17.77	0200	00.904	0.136	0.013
0.708	70	14.20-	03.62-	00.32-	01.95	03.83	05.57	07.32	09.16	11.56	15.07	0200	00.569	0.159	0.006
0.708	75	07.67-	04.20-	01.93-	00.10-	01.54	03.12	04.76	06.53	08.86	12.33	0200	00.354	0.189	0.032
0.708	80	03.19-	02.22-	01.25-	00.26-	00.79	01.93	03.22	04.72	06.81	10.09	0200	00.238	0.221	0.106
0.708	85	00.82-	00.41-	00.06	00.60	01.23	01.98	02.90	04.06	05.82	08.79	0200	00.186	0.248	0.205
0.708	90	00.00	00.31	00.68	01.10	01.61	02.24	03.03	04.07	05.68	08.49	0200	00.171	0.254	0.254

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.716	00	99.99-	09.11-	05.59-	03.25-	01.33-	00.43	02.19	04.05	06.45	09.97	0200	00.878	0.795	0.000
0.716	05	10.79-	06.75-	04.30-	02.39-	00.70-	00.92	02.58	04.36	06.71	10.19	0200	00.576	0.587	0.049
0.716	10	06.86-	05.65-	04.51-	03.37-	02.21-	00.98-	00.39	01.95	04.11	07.43	0200	00.288	0.487	0.100
0.716	15	03.89-	03.76-	03.60-	03.39-	03.14-	02.80-	02.34-	01.70-	00.58-	01.64	0200	00.048	0.414	0.169
0.716	20	01.33-	01.33-	01.33-	01.33-	01.32-	01.32-	01.31-	01.31-	01.29-	01.23-	0200	00.001	0.355	0.262
0.716	25	00.95	01.03	01.12	01.23	01.38	01.58	01.86	02.28	03.05	04.75	0200	00.059	0.303	0.377
0.716	30	02.93	03.21	03.53	03.92	04.39	04.97	05.71	06.69	08.24	10.99	0200	00.301	0.256	0.501
0.716	35	04.48	05.12	05.79	06.53	07.36	08.30	09.41	10.76	12.70	15.84	0200	00.842	0.213	0.598
0.716	40	05.44	06.50	07.54	08.59	09.69	10.87	12.20	13.72	15.84	19.14	0200	01.549	0.178	0.621
0.716	45	05.49	07.04	08.43	09.73	11.02	12.36	13.81	15.44	17.65	21.03	0200	02.085	0.152	0.539
0.716	50	04.25	06.44	08.20	09.74	11.20	12.66	14.20	15.90	18.18	21.60	0200	02.208	0.140	0.372
0.716	55	01.29	04.58	06.79	08.59	10.21	11.78	13.41	15.18	17.50	20.97	0200	01.932	0.141	0.189
0.716	60	03.78-	01.69	04.46	06.52	08.29	09.96	11.66	13.48	15.84	19.34	0200	01.450	0.153	0.064
0.716	65	11.22-	01.59-	01.66	03.91	05.78	07.51	09.25	11.10	13.49	17.00	0200	00.969	0.174	0.013
0.716	70	14.46-	04.40-	01.12-	01.14	03.01	04.75	06.49	08.34	10.73	14.24	0200	00.602	0.204	0.007
0.716	75	07.90-	04.78-	02.63-	00.86-	00.74	02.30	03.92	05.67	07.99	11.45	0200	00.372	0.242	0.039
0.716	80	03.27-	02.45-	01.61-	00.72-	00.24	01.31	02.53	03.97	06.01	09.24	0200	00.250	0.264	0.134
0.716	85	00.83-	00.49-	00.09-	00.37	00.91	01.58	02.42	03.50	05.16	08.03	0200	00.196	0.320	0.264
0.716	90	00.00	00.26	00.56	00.93	01.37	01.92	02.63	03.57	05.08	07.78	0200	00.182	0.328	0.328
0.724	00	99.99-	08.29-	04.77-	02.43-	00.51-	01.25	03.01	04.87	07.27	10.79	0200	01.071	0.803	0.000
0.724	05	10.87-	06.29-	03.70-	01.72-	00.00	01.64	03.32	05.12	07.48	10.96	0200	00.822	0.596	0.049
0.724	10	07.00-	05.58-	04.28-	03.03-	01.78-	00.48-	00.95	02.56	04.75	08.11	0200	00.346	0.497	0.099
0.724	15	04.08-	03.92-	03.73-	03.50-	03.21-	02.83-	02.32-	01.60-	00.40-	01.95	0200	00.056	0.426	0.167
0.724	20	01.54-	01.54-	01.54-	01.54-	01.54-	01.53-	01.53-	01.52-	01.50-	01.45-	0200	00.001	0.368	0.258
0.724	25	00.71	00.78	00.86	00.96	01.10	01.28	01.54	01.93	02.65	04.26	0200	00.053	0.317	0.374
0.724	30	02.64	02.90	03.20	03.56	04.00	04.55	05.26	06.20	07.71	10.40	0200	00.275	0.271	0.498
0.724	35	04.12	04.73	05.39	06.11	06.91	07.84	08.94	10.26	12.19	15.32	0200	00.804	0.230	0.595
0.724	40	04.96	06.01	07.05	08.09	09.18	10.36	11.68	13.20	15.32	18.61	0200	01.518	0.197	0.617
0.724	45	04.85	06.41	07.81	09.12	10.41	11.75	13.20	14.83	17.05	20.42	0200	02.070	0.174	0.532
0.724	50	03.42	05.66	07.44	08.99	10.46	11.92	13.48	15.18	17.46	20.88	0200	02.201	0.165	0.361
0.724	55	00.25	03.67	05.92	07.74	09.37	10.95	12.59	14.36	16.69	20.15	0200	01.922	0.169	0.179
0.724	60	05.01-	00.71	03.54	05.62	07.40	09.08	10.78	12.60	14.97	18.47	0200	01.436	0.185	0.058
0.724	65	12.30-	02.52-	00.74	02.99	04.87	06.60	08.34	10.18	12.58	16.09	0200	00.953	0.211	0.012
0.724	70	14.62-	05.25-	02.01-	00.23	02.09	03.82	05.56	07.41	09.80	13.31	0200	00.589	0.248	0.009
0.724	75	08.02-	05.29-	03.30-	01.61-	00.06-	01.46	03.05	04.79	07.10	10.54	0200	00.366	0.294	0.046
0.724	80	03.31-	02.62-	01.89-	01.10-	00.23-	00.76	01.91	03.29	05.27	08.44	0200	00.250	0.346	0.161
0.724	85	00.84-	00.55-	00.21-	00.19	00.68	01.27	02.04	03.03	04.61	07.38	0200	00.201	0.390	0.321
0.724	90	00.00	00.22	00.48	00.80	01.19	01.68	02.32	03.19	04.60	07.19	0200	00.188	0.400	0.400

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.728	00	99.99-	07.86-	04.34-	02.00-	00.08-	01.68	03.44	05.30	07.70	11.22	0200	01.152	0.782	0.000
0.728	05	10.85-	06.00-	03.35-	01.35-	00.39	02.04	03.73	05.53	07.89	11.38	0200	00.884	0.582	0.048
0.728	10	07.04-	05.49-	04.11-	02.80-	01.51-	00.17-	01.28	02.91	05.12	08.49	0200	00.372	0.487	0.096
0.728	15	04.16-	03.99-	03.78-	03.53-	03.21-	02.80-	02.26-	01.51-	00.24-	02.17	0200	00.059	0.419	0.161
0.728	20	01.66-	01.65-	01.65-	01.65-	01.65-	01.64-	01.64-	01.63-	01.61-	01.56-	0200	00.001	0.364	0.249
0.728	25	00.57	00.63	00.71	00.81	00.94	01.12	01.36	01.74	02.43	04.01	0200	00.048	0.315	0.359
0.728	30	02.46	02.71	03.00	03.35	03.77	04.30	04.99	05.91	07.39	10.06	0200	00.253	0.272	0.479
0.728	35	03.90	04.49	05.14	05.84	06.64	07.55	08.64	09.96	11.88	15.00	0200	00.754	0.233	0.572
0.728	40	04.67	05.71	06.74	07.78	08.86	10.04	11.35	12.87	14.99	18.28	0200	01.445	0.202	0.592
0.728	45	04.47	06.03	07.43	08.74	10.04	11.38	12.83	14.46	16.68	20.05	0200	01.986	0.182	0.508
0.728	50	02.93	05.20	06.99	08.56	10.03	11.50	13.05	14.76	17.04	20.47	0200	02.118	0.174	0.342
0.728	55	00.34-	03.15	05.43	07.26	08.90	10.49	12.13	13.90	16.23	19.70	0200	01.852	0.181	0.167
0.728	60	05.69-	00.18	03.03	05.12	06.91	08.59	10.30	12.12	14.49	17.99	0200	01.383	0.199	0.054
0.728	65	12.82-	03.00-	00.26	02.51	04.38	06.12	07.86	09.70	12.10	15.61	0200	00.918	0.227	0.012
0.728	70	14.66-	05.66-	02.46-	00.23-	01.64	03.36	05.10	06.94	09.33	12.84	0200	00.569	0.267	0.009
0.728	75	08.06-	05.51-	03.59-	01.95-	00.43-	01.08	02.66	04.38	06.68	10.12	0200	00.356	0.317	0.050
0.728	80	03.32-	02.68-	01.99-	01.24-	00.41-	00.54	01.66	03.00	04.95	08.10	0200	00.248	0.372	0.173
0.728	85	00.84-	00.57-	00.25-	00.13	00.59	01.16	01.89	02.86	04.39	07.13	0200	00.202	0.420	0.346
0.728	90	00.00	00.21	00.46	00.75	01.12	01.59	02.21	03.05	04.42	06.97	0200	00.190	0.431	0.431

ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.732	00	99.99-	07.43-	03.90-	01.56-	00.36	02.12	03.88	05.73	08.14	11.66	0200	01.220	0.749	0.000
0.732	05	10.80-	05.69-	02.99-	00.96-	00.80	02.45	04.15	05.95	08.32	11.81	0200	00.936	0.559	0.046
0.732	10	07.06-	05.38-	03.91-	02.55-	01.21-	00.15	01.63	03.28	05.51	08.89	0200	00.394	0.469	0.092
0.732	15	04.23-	04.04-	03.81-	03.53-	03.19-	02.75-	02.17-	01.38-	00.05-	02.43	0200	00.062	0.405	0.153
0.732	20	01.76-	01.76-	01.76-	01.76-	01.76-	01.75-	01.75-	01.74-	01.72-	01.67-	0200	00.001	0.353	0.235
0.732	25	00.42	00.48	00.56	00.65	00.78	00.94	01.18	01.54	02.22	03.75	0200	00.043	0.308	0.340
0.732	30	02.27	02.51	02.78	03.11	03.52	04.03	04.70	05.59	07.04	09.67	0200	00.225	0.268	0.452
0.732	35	03.65	04.23	04.86	05.55	06.33	07.23	08.30	09.61	11.52	14.63	0200	00.689	0.232	0.539
0.732	40	04.34	05.37	06.39	07.43	08.51	09.68	10.99	12.51	14.62	17.91	0200	01.343	0.204	0.555
0.732	45	04.05	05.62	07.02	08.33	09.63	10.97	12.43	14.06	16.27	19.65	0200	01.862	0.187	0.474
0.732	50	02.40	04.71	06.51	08.09	09.57	11.04	12.60	14.31	16.59	20.02	0200	01.996	0.182	0.316
0.732	55	00.98-	02.60	04.91	06.76	08.41	10.00	11.64	13.42	15.75	19.22	0200	01.750	0.190	0.152
0.732	60	06.43-	00.36-	02.52	04.62	06.42	08.10	09.81	11.63	14.01	17.51	0200	01.309	0.210	0.048
0.732	65	13.33-	03.48-	00.22-	02.04	03.91	05.64	07.39	09.23	11.62	15.14	0200	00.871	0.241	0.011
0.732	70	14.69-	06.06-	02.88-	00.66-	01.20	02.92	04.66	06.50	08.89	12.40	0200	00.543	0.282	0.010
0.732	75	08.07-	05.69-	03.84-	02.25-	00.75-	00.73	02.30	04.01	06.30	09.73	0200	00.344	0.335	0.052
0.732	80	03.32-	02.72-	02.07-	01.36-	00.56-	00.35	01.44	02.76	04.69	07.81	0200	00.244	0.394	0.183
0.732	85	00.84-	00.58-	00.28-	00.08	00.52	01.07	01.78	02.72	04.22	06.92	0200	00.202	0.444	0.366
0.732	90	00.00	00.20	00.43	00.72	01.07	01.52	02.12	02.93	04.28	06.79	0200	00.191	0.456	0.456

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.734	00	99.99-	07.21-	03.69-	01.35-	00.57	02.33	04.09	05.95	08.35	11.87	0200	01.248	0.730	0.000
0.734	05	10.76-	05.53-	02.80-	00.76-	01.00	02.66	04.35	06.16	08.53	12.02	0200	00.958	0.544	0.046
0.734	10	07.06-	05.31-	03.80-	02.41-	01.06-	00.32	01.81	03.47	05.70	09.09	0200	00.403	0.458	0.090
0.734	15	04.25-	04.05-	03.82-	03.53-	03.17-	02.72-	02.12-	01.30-	00.05	02.57	0200	00.063	0.396	0.149
0.734	20	01.81-	01.81-	01.81-	01.81-	01.81-	01.80-	01.80-	01.79-	01.77-	01.72-	0200	00.001	0.346	0.228
0.734	25	00.35	00.41	00.48	00.57	00.70	00.86	01.09	01.44	02.10	03.61	0200	00.041	0.303	0.329
0.734	30	02.17	02.40	02.67	02.99	03.39	03.89	04.54	05.42	06.85	09.45	0200	00.211	0.265	0.436
0.734	35	03.52	04.09	04.71	05.39	06.16	07.06	08.12	09.42	11.32	14.43	0200	00.653	0.231	0.519
0.734	40	04.17	05.20	06.21	07.24	08.32	09.49	10.80	12.32	14.43	17.72	0200	01.285	0.205	0.535
0.734	45	03.82	05.40	06.80	08.12	09.42	10.76	12.22	13.85	16.06	19.44	0200	01.791	0.189	0.455
0.734	50	02.12	04.45	06.26	07.85	09.33	10.81	12.37	14.08	16.36	19.79	0200	01.926	0.185	0.301
0.734	55	01.32-	02.32	04.65	06.50	08.16	09.75	11.40	13.17	15.51	18.98	0200	01.691	0.194	0.143
0.734	60	06.81-	00.64-	02.26	04.37	06.17	07.86	09.57	11.39	13.76	17.27	0200	01.267	0.215	0.045
0.734	65	13.58-	03.71-	00.45-	01.80	03.68	05.41	07.15	09.00	11.39	14.91	0200	00.845	0.246	0.011
0.734	70	14.69-	06.24-	03.08-	00.86-	00.99	02.71	04.45	06.29	08.67	12.18	0200	00.530	0.289	0.010
0.734	75	08.08-	05.76-	03.96-	02.38-	00.90-	00.57	02.13	03.84	06.13	09.56	0200	00.338	0.343	0.053
0.734	80	03.32-	02.74-	02.11-	01.41-	00.63-	00.27	01.35	02.66	04.57	07.68	0200	00.242	0.403	0.188
0.734	85	00.84-	00.59-	00.29-	00.06	00.49	01.03	01.73	02.66	04.15	06.83	0200	00.202	0.455	0.374
0.734	90	00.00	00.19	00.42	00.70	01.05	01.49	02.08	02.89	04.22	06.72	0200	00.192	0.466	0.466
0.736	00	99.99-	07.00-	03.48-	01.14-	00.78	02.54	04.30	06.16	08.56	12.08	0200	01.272	0.709	0.000
0.736	05	10.71-	05.37-	02.62-	00.57-	01.20	02.86	04.56	06.37	08.74	12.23	0200	00.977	0.529	0.045
0.736	10	07.05-	05.23-	03.69-	02.27-	00.90-	00.49	01.99	03.65	05.90	09.29	0200	00.411	0.445	0.088
0.736	15	04.28-	04.07-	03.82-	03.52-	03.15-	02.68-	02.06-	01.22-	00.16	02.71	0200	00.064	0.386	0.144
0.736	20	01.86-	01.86-	01.86-	01.86-	01.86-	01.85-	01.85-	01.84-	01.82-	01.77-	0200	00.001	0.339	0.221
0.736	25	00.28	00.33	00.41	00.50	00.61	00.77	01.00	01.34	01.99	03.48	0200	00.038	0.297	0.317
0.736	30	02.07	02.29	02.55	02.86	03.25	03.74	04.38	05.24	06.64	09.23	0200	00.196	0.261	0.420
0.736	35	03.38	03.94	04.55	05.23	05.99	06.88	07.93	09.23	11.12	14.21	0200	00.616	0.229	0.499
0.736	40	03.99	05.01	06.02	07.05	08.13	09.29	10.60	12.11	14.22	17.51	0200	01.223	0.204	0.513
0.736	45	03.60	05.17	06.58	07.90	09.20	10.54	12.00	13.63	15.85	19.22	0200	01.716	0.190	0.435
0.736	50	01.84	04.19	06.01	07.60	09.09	10.57	12.13	13.84	16.13	19.56	0200	01.851	0.188	0.286
0.736	55	01.67-	02.03	04.38	06.25	07.91	09.51	11.15	12.93	15.27	18.74	0200	01.629	0.198	0.135
0.736	60	07.20-	00.91-	02.01	04.12	05.93	07.62	09.33	11.15	13.53	17.03	0200	01.223	0.219	0.042
0.736	65	13.82-	03.94-	00.67-	01.58	03.45	05.19	06.93	08.77	11.17	14.68	0200	00.818	0.251	0.010
0.736	70	14.70-	06.41-	03.27-	01.06-	00.79	02.51	04.25	06.08	08.47	11.98	0200	00.515	0.294	0.010
0.736	75	08.08-	05.83-	04.06-	02.50-	01.04-	00.43	01.98	03.69	05.96	09.39	0200	00.332	0.350	0.054
0.736	80	03.32-	02.75-	02.14-	01.45-	00.69-	00.20	01.27	02.56	04.46	07.56	0200	00.239	0.411	0.191
0.736	85	00.84-	00.59-	00.30-	00.04	00.47	01.00	01.69	02.61	04.08	06.75	0200	00.201	0.463	0.362
0.736	90	00.00	00.19	00.42	00.69	01.03	01.47	02.05	02.65	04.17	06.65	0200	00.191	0.476	0.476

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.738	00	99.99-	06.80-	03.27-	00.93-	00.99	02.75	04.51	06.36	08.77	12.29	0200	01.292	0.687	0.000
0.738	05	10.66-	05.21-	02.44-	00.38-	01.39	03.06	04.76	06.57	08.94	12.44	0200	00.993	0.512	0.044
0.738	10	07.04-	05.16-	03.57-	02.13-	00.75-	00.66	02.17	03.84	06.09	09.49	0200	00.418	0.432	0.085
0.738	15	04.30-	04.08-	03.82-	03.51-	03.12-	02.64-	02.00-	01.14-	00.27	02.85	0200	00.065	0.376	0.140
0.738	20	01.91-	01.91-	01.91-	01.90-	01.90-	01.90-	01.89-	01.88-	01.87-	01.81-	0200	00.001	0.330	0.213
0.738	25	00.20	00.26	00.33	00.42	00.53	00.69	00.91	01.24	01.88	03.34	0200	00.036	0.291	0.305
0.738	30	01.97	02.18	02.43	02.74	03.11	03.58	04.21	05.05	06.43	08.99	0200	00.181	0.256	0.404
0.738	35	03.25	03.80	04.39	05.06	05.81	06.69	07.74	09.02	10.91	13.99	0200	00.578	0.227	0.479
0.738	40	03.81	04.83	05.83	06.86	07.93	09.09	10.40	11.91	14.01	17.30	0200	01.161	0.204	0.490
0.738	45	03.36	04.95	06.35	07.67	08.97	10.32	11.78	13.41	15.63	19.00	0200	01.639	0.191	0.414
0.738	50	01.55	03.92	05.76	07.36	08.85	10.33	11.90	13.61	15.90	19.33	0200	01.775	0.190	0.271
0.738	55	02.02-	01.75	04.12	05.99	07.66	09.26	10.91	12.69	15.03	18.51	0200	01.566	0.201	0.126
0.738	60	07.60-	01.18-	01.75	03.88	05.69	07.38	09.09	10.92	13.30	16.80	0200	01.179	0.223	0.039
0.738	65	14.06-	04.16-	00.89-	01.36	03.24	04.97	06.71	08.56	10.95	14.46	0200	00.791	0.255	0.010
0.738	70	14.70-	06.58-	03.44-	01.24-	00.61	02.33	04.06	05.89	08.28	11.79	0200	00.501	0.299	0.010
0.738	75	08.08-	05.90-	04.15-	02.62-	01.16-	00.29	01.84	03.54	05.81	09.24	0200	00.325	0.356	0.055
0.738	80	03.31-	02.76-	02.16-	01.49-	00.74-	00.14	01.19	02.48	04.37	07.46	0200	00.237	0.418	0.195
0.738	85	00.84-	00.60-	00.31-	00.03	00.44	00.97	01.65	02.56	04.02	06.67	0200	00.200	0.471	0.388
0.738	90	00.00	00.19	00.41	00.68	01.02	01.45	02.02	02.81	04.12	06.59	0200	00.191	0.483	0.483
0.740	00	99.99-	06.60-	03.07-	00.73-	01.19	02.95	04.71	06.56	08.97	12.49	0200	01.310	0.664	0.000
0.740	05	10.60-	05.05-	02.26-	00.19-	01.58	03.26	04.96	06.77	09.14	12.64	0200	01.007	0.496	0.043
0.740	10	07.03-	05.08-	03.46-	02.00-	00.59-	00.83	02.34	04.02	06.28	09.68	0200	00.424	0.419	0.083
0.740	15	04.32-	04.09-	03.82-	03.49-	03.09-	02.59-	01.93-	01.05-	00.38	03.00	0200	00.066	0.365	0.135
0.740	20	01.95-	01.95-	01.95-	01.95-	01.95-	01.94-	01.94-	01.93-	01.91-	01.86-	0200	00.001	0.322	0.205
0.740	25	00.13	00.19	00.25	00.34	00.45	00.60	00.82	01.14	01.77	03.20	0200	00.034	0.285	0.293
0.740	30	01.87	02.07	02.31	02.60	02.96	03.42	04.03	04.86	06.22	08.75	0200	00.166	0.252	0.387
0.740	35	03.11	03.65	04.23	04.89	05.63	06.50	07.54	08.81	10.69	13.76	0200	00.540	0.224	0.458
0.740	40	03.63	04.64	05.64	06.66	07.72	08.88	10.19	11.70	13.80	17.08	0200	01.098	0.203	0.467
0.740	45	03.13	04.72	06.13	07.45	08.75	10.10	11.56	13.19	15.41	18.78	0200	01.561	0.191	0.393
0.740	50	01.25	03.66	05.51	07.11	08.61	10.09	11.66	13.38	15.67	19.10	0200	01.698	0.191	0.255
0.740	55	02.38-	01.46	03.86	05.74	07.42	09.02	10.68	12.46	14.80	18.28	0200	01.503	0.203	0.117
0.740	60	08.01-	01.44-	01.51	03.64	05.46	07.15	08.87	10.69	13.07	16.57	0200	01.135	0.226	0.036
0.740	65	14.29-	04.37-	01.10-	01.15	03.03	04.76	06.51	08.35	10.74	14.26	0200	00.765	0.259	0.010
0.740	70	14.71-	06.73-	03.61-	01.42-	00.43	02.15	03.88	05.71	08.10	11.61	0200	00.487	0.303	0.010
0.740	75	08.08-	05.95-	04.24-	02.72-	01.28-	00.17	01.71	03.40	05.67	09.09	0200	00.319	0.360	0.056
0.740	80	03.31-	02.77-	02.18-	01.53-	00.78-	00.08	01.12	02.40	04.28	07.36	0200	00.234	0.423	0.197
0.740	85	00.84-	00.60-	00.32-	00.01	00.42	00.94	01.61	02.51	03.96	06.60	0200	00.199	0.477	0.393
0.740	90	00.00	00.18	00.40	00.67	01.00	01.42	01.99	02.77	04.07	06.53	0200	00.190	0.490	0.490

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.744	00	99.99-	06.22-	02.70-	00.35-	01.56	03.32	05.09	06.94	09.35	12.87	0200	01.334	0.620	0.000
0.744	05	10.49-	04.74-	01.92-	00.17	01.95	03.63	05.33	07.15	09.52	13.02	0200	01.026	0.463	0.041
0.744	10	06.99-	04.92-	03.23-	01.73-	00.29-	01.15	02.68	04.37	06.64	10.05	0200	00.433	0.393	0.078
0.744	15	04.34-	04.09-	03.80-	03.45-	03.03-	02.49-	01.80-	00.87-	00.61	03.28	0200	00.067	0.344	0.126
0.744	20	02.04-	02.04-	02.04-	02.03-	02.03-	02.03-	02.02-	02.01-	01.99-	01.94-	0200	00.000	0.304	0.190
0.744	25	00.01-	00.04	00.11	00.19	00.29	00.43	00.64	00.95	01.54	02.93	0200	00.029	0.271	0.270
0.744	30	01.67	01.85	02.07	02.34	02.67	03.10	03.67	04.46	05.76	08.22	0200	00.139	0.242	0.355
0.744	35	02.84	03.35	03.91	04.54	05.26	06.10	07.12	08.37	10.23	13.29	0200	00.468	0.217	0.418
0.744	40	03.27	04.26	05.24	06.25	07.31	08.46	09.76	11.27	13.37	16.64	0200	00.977	0.200	0.423
0.744	45	02.66	04.26	05.67	07.00	08.31	09.65	11.11	12.75	14.97	18.35	0200	01.410	0.191	0.352
0.744	50	00.66	03.13	05.01	06.63	08.14	09.63	11.20	12.92	15.22	18.65	0200	01.548	0.193	0.225
0.744	55	03.11-	00.91	03.35	05.26	06.94	08.56	10.22	12.01	14.35	17.83	0200	01.580	0.206	0.101
0.744	60	08.85-	01.96-	01.04	03.19	05.01	06.72	08.44	10.26	12.65	16.15	0200	01.049	0.230	0.030
0.744	65	14.71-	04.76-	01.49-	00.77	02.64	04.38	06.12	07.96	10.36	13.87	0200	00.713	0.264	0.009
0.744	70	14.70-	07.01-	03.92-	01.73-	00.11	01.82	03.55	05.38	07.77	11.28	0200	00.460	0.309	0.010
0.744	75	08.07-	06.05-	04.39-	02.90-	01.48-	00.05-	01.48	03.16	05.42	08.84	0200	00.306	0.368	0.057
0.744	80	03.30-	02.79-	02.22-	01.59-	00.86-	00.02-	01.00	02.26	04.12	07.18	0200	00.228	0.432	0.202
0.744	85	00.84-	00.61-	00.34-	00.02-	00.38	00.89	01.54	02.43	03.86	06.48	0200	00.196	0.487	0.401
0.744	90	00.00	00.18	00.39	00.65	00.97	01.38	01.94	02.70	03.98	06.41	0200	00.187	0.499	0.499
0.748	00	99.99-	05.87-	02.35-	00.01-	01.91	03.67	05.43	07.29	09.69	13.21	0200	01.348	0.579	0.000
0.748	05	10.39-	04.46-	01.60-	00.49	02.28	03.97	05.67	07.49	09.87	13.37	0200	01.038	0.432	0.040
0.748	10	06.96-	04.76-	03.01-	01.47-	00.02-	01.44	02.99	04.69	06.97	10.39	0200	00.439	0.368	0.074
0.748	15	04.36-	04.09-	03.78-	03.41-	02.95-	02.39-	01.66-	00.70-	00.82	03.55	0200	00.068	0.323	0.116
0.748	20	02.11-	02.11-	02.11-	02.11-	02.11-	02.10-	02.10-	02.09-	02.07-	02.01-	0200	00.000	0.288	0.177
0.748	25	00.14-	00.09-	00.03-	00.04	00.14	00.27	00.47	00.76	01.32	02.65	0200	00.025	0.258	0.249
0.748	30	01.47	01.64	01.84	02.08	02.39	02.78	03.31	04.04	05.28	07.66	0200	00.114	0.232	0.325
0.748	35	02.57	03.05	03.59	04.19	04.89	05.70	06.70	07.93	09.76	12.79	0200	00.403	0.211	0.380
0.748	40	02.91	03.88	04.86	05.85	06.90	08.04	09.34	10.84	12.93	16.21	0200	00.866	0.196	0.383
0.748	45	02.20	03.81	05.23	06.56	07.87	09.22	10.68	12.32	14.54	17.92	0200	01.270	0.190	0.315
0.748	50	00.08	02.62	04.53	06.17	07.69	09.19	10.77	12.49	14.79	18.23	0200	01.410	0.194	0.197
0.748	55	03.85-	00.37	02.86	04.80	06.50	08.13	09.80	11.59	13.94	17.42	0200	01.267	0.208	0.086
0.748	60	09.70-	02.43-	00.61	02.78	04.61	06.32	08.04	09.87	12.26	15.76	0200	00.971	0.232	0.025
0.748	65	15.09-	05.11-	01.84-	00.42	02.29	04.03	05.77	07.62	10.01	13.52	0200	00.666	0.267	0.008
0.748	70	14.70-	07.25-	04.18-	02.01-	00.17-	01.54	03.26	05.09	07.48	10.99	0200	00.435	0.313	0.011
0.748	75	08.06-	06.13-	04.51-	03.06-	01.66-	00.24-	01.27	02.95	05.21	08.61	0200	00.294	0.372	0.056
0.748	80	03.30-	02.80-	02.26-	01.64-	00.94-	00.11-	00.89	02.13	03.97	07.02	0200	00.221	0.436	0.204
0.748	85	00.84-	00.62-	00.36-	00.04-	00.35	00.84	01.48	02.35	03.76	06.35	0200	00.191	0.492	0.405
0.748	90	00.00	00.17	00.38	00.63	00.94	01.35	01.89	02.64	03.90	06.30	0200	00.183	0.504	0.504

ASD TN 61-37

61WWRN 2515

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.752	00	99.99-	05.56-	02.04-	00.30	02.22	03.98	05.74	07.60	10.00	12.52	0200	01.353	0.541	0.000
0.752	05	10.29-	04.20-	01.32-	00.79	02.59	04.27	05.98	07.80	10.18	13.68	0200	01.042	0.404	0.038
0.752	10	06.92-	04.62-	02.81-	01.24-	00.24	01.71	03.27	04.98	07.26	10.69	0200	00.441	0.345	0.070
0.752	15	04.38-	04.10-	03.76-	03.36-	02.88-	02.29-	01.53-	00.54-	01.03	03.79	0200	00.069	0.304	0.111
0.752	20	02.19-	02.19-	02.18-	02.18-	02.18-	02.17-	02.17-	02.16-	02.14-	02.08-	0200	00.000	0.272	0.164
0.752	25	00.27-	00.22-	00.17-	00.10-	00.00	00.12	00.30	00.58	01.12	02.39	0200	00.022	0.245	0.230
0.752	30	01.29	01.43	01.61	01.83	02.10	02.46	02.95	03.63	04.80	07.08	0200	00.093	0.222	0.299
0.752	35	02.31	02.76	03.27	03.85	04.52	05.31	06.27	07.48	09.28	12.29	0200	00.345	0.204	0.347
0.752	40	02.57	03.52	04.48	05.47	06.51	07.64	08.92	10.42	12.51	15.78	0200	00.767	0.192	0.346
0.752	45	01.76	03.38	04.81	06.14	07.46	08.81	10.28	11.91	14.14	17.52	0200	01.146	0.188	0.281
0.752	50	00.48-	02.13	04.08	05.74	07.27	08.78	10.36	12.09	14.39	17.84	0200	01.286	0.193	0.173
0.752	55	04.57-	00.14-	02.42	04.38	06.10	07.73	09.41	11.20	13.56	17.04	0200	01.165	0.209	0.073
0.752	60	10.56-	02.87-	00.22	02.41	04.25	05.96	07.69	09.52	11.91	15.41	0200	00.900	0.233	0.021
0.752	65	15.43-	05.42-	02.14-	00.11	01.99	03.72	05.46	07.31	09.70	13.22	0200	00.623	0.268	0.008
0.752	70	14.69-	07.46-	04.42-	02.25-	00.42-	01.29	03.01	04.84	07.22	10.73	0200	00.412	0.314	0.011
0.752	75	08.05-	06.19-	04.62-	03.19-	01.81-	00.41-	01.09	02.76	05.01	08.41	0200	00.281	0.373	0.058
0.752	80	03.29-	02.81-	02.29-	01.69-	01.00-	00.19-	00.80	02.02	03.84	06.87	0200	00.214	0.438	0.205
0.752	85	00.84-	00.62-	00.37-	00.06-	00.31	00.79	01.42	02.27	03.66	06.23	0200	00.185	0.494	0.407
0.752	90	00.00	00.17	00.37	00.61	00.91	01.31	01.84	02.57	03.81	06.19	0200	00.178	0.506	0.506
0.756	00	99.99-	05.29-	01.76-	00.58	02.50	04.26	06.02	07.87	10.28	13.80	0200	01.352	0.507	0.000
0.756	05	10.22-	03.97-	01.06-	01.05	02.85	04.54	06.25	08.08	10.45	13.95	0200	01.042	0.379	0.036
0.756	10	06.90-	04.49-	02.64-	01.03-	00.46	01.95	03.52	05.24	07.52	10.96	0200	00.442	0.324	0.066
0.756	15	04.41-	04.10-	03.74-	03.32-	02.82-	02.20-	01.41-	00.39-	01.21	04.01	0200	00.069	0.287	0.104
0.756	20	02.26-	02.25-	02.25-	02.25-	02.25-	02.24-	02.24-	02.23-	02.21-	02.15-	0200	00.000	0.258	0.153
0.756	25	00.39-	00.35-	00.29-	00.23-	00.14-	00.02-	00.15	00.41	00.92	02.14	0200	00.019	0.234	0.214
0.756	30	01.11	01.24	01.40	01.59	01.83	02.16	02.60	03.22	04.31	06.49	0200	00.075	0.213	0.276
0.756	35	02.07	02.49	02.98	03.53	04.16	04.93	05.86	07.04	08.81	11.79	0200	00.296	0.198	0.318
0.756	40	02.25	03.18	04.13	05.10	06.13	07.25	08.53	10.02	12.10	15.36	0200	00.682	0.188	0.315
0.756	45	01.34	02.98	04.41	05.75	07.07	08.43	09.99	11.53	13.76	17.14	0200	01.033	0.185	0.253
0.756	50	01.01-	01.68	03.66	05.34	06.88	08.40	09.99	11.73	14.03	17.48	0200	01.177	0.192	0.152
0.756	55	05.28-	00.60-	02.01	04.00	05.73	07.37	09.05	10.85	13.21	16.70	0200	01.076	0.208	0.062
0.756	60	11.41-	03.27-	00.13-	02.07	03.92	05.64	07.37	09.21	11.59	15.10	0200	00.838	0.233	0.017
0.756	65	15.72-	05.69-	02.42-	00.16-	01.71	03.45	05.19	07.03	09.43	12.94	0200	00.565	0.268	0.007
0.756	70	14.68-	07.64-	04.62-	02.47-	00.64-	01.06	02.78	04.61	07.00	10.50	0200	00.391	0.314	0.011
0.756	75	08.04-	06.25-	04.72-	03.31-	01.95-	00.56-	00.93	02.59	04.83	08.23	0200	00.269	0.375	0.059
0.756	80	03.28-	02.82-	02.31-	01.73-	01.06-	00.27-	00.70	01.91	03.71	06.73	0200	00.205	0.436	0.206
0.756	85	00.84-	00.63-	00.38-	00.09-	00.28	00.74	01.36	02.20	03.57	06.11	0200	00.179	0.494	0.407
0.756	90	00.00	00.16	00.35	00.59	00.89	01.27	01.79	02.51	03.73	06.08	0200	00.172	0.505	0.505

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.760	00	99.99-	05.04-	01.52-	00.82	02.74	04.50	06.26	08.12	10.52	14.04	0200	01.345	0.477	0.000
0.760	05	10.17-	03.77-	00.84-	01.28	03.09	04.78	06.49	08.32	10.69	14.20	0200	01.030	0.357	0.034
0.760	10	06.89-	04.38-	02.48-	00.85-	00.66	02.16	03.74	05.46	07.76	11.19	0200	00.441	0.306	0.063
0.760	15	04.43-	04.11-	03.73-	03.29-	02.76-	02.12-	01.31-	00.26-	01.38	04.21	0200	00.069	0.272	0.098
0.760	20	02.32-	02.32-	02.32-	02.32-	02.31-	02.31-	02.30-	02.29-	02.27-	02.21-	0200	00.000	0.245	0.144
0.760	25	00.50-	00.46-	00.41-	00.35-	00.27-	00.16-	00.01	00.25	00.74	01.91	0200	00.016	0.224	0.199
0.760	30	00.94	01.06	01.19	01.36	01.58	01.87	02.26	02.83	03.84	05.90	0200	00.060	0.205	0.255
0.760	35	01.84	02.24	02.70	03.22	03.83	04.56	05.47	06.62	08.26	11.30	0200	00.255	0.192	0.293
0.760	40	01.95	02.87	03.79	04.75	05.77	06.89	08.16	09.64	11.71	14.97	0200	00.609	0.184	0.287
0.760	45	00.96	02.60	04.05	05.39	06.71	08.07	09.54	11.18	13.41	16.79	0200	00.944	0.183	0.228
0.760	50	01.51-	01.26	03.28	04.97	06.53	08.05	09.65	11.39	13.70	17.15	0200	01.084	0.191	0.135
0.760	55	05.96-	01.03-	01.64	03.65	05.40	07.05	08.74	10.54	12.90	16.39	0200	00.998	0.207	0.053
0.760	60	12.25-	03.63-	00.45-	01.77	03.63	05.35	07.09	08.93	11.31	14.33	0200	00.783	0.232	0.014
0.760	65	15.96-	05.94-	02.66-	00.41-	01.47	03.20	04.95	06.79	09.19	12.70	0200	00.552	0.267	0.007
0.760	70	14.67-	07.80-	04.81-	02.66-	00.84-	00.86	02.58	04.41	06.79	10.20	0200	00.371	0.315	0.011
0.760	75	08.03-	06.30-	04.80-	03.42-	02.08-	00.70-	00.78	02.44	04.67	08.06	0200	00.258	0.372	0.059
0.760	80	03.28-	02.83-	02.34-	01.77-	01.12-	00.34-	00.61	01.80	03.59	06.59	0200	00.198	0.436	0.205
0.760	85	00.84-	00.64-	00.40-	00.11-	00.24	00.70	01.30	02.12	03.47	05.99	0200	00.172	0.491	0.405
0.760	90	00.00	00.16	00.34	00.57	00.86	01.23	01.74	02.44	03.64	05.97	0200	00.165	0.503	0.503
0.768	00	99.99-	04.63-	01.11-	01.23	03.15	04.91	06.67	08.53	10.93	14.45	0200	01.324	0.428	0.000
0.768	05	10.12-	03.45-	00.48-	01.66	03.47	05.17	06.89	08.71	11.09	14.59	0200	01.023	0.321	0.031
0.768	10	06.89-	04.21-	02.23-	00.56-	00.99	02.51	04.10	05.83	08.14	11.58	0200	00.436	0.277	0.057
0.768	15	04.50-	04.14-	03.72-	03.24-	02.68-	01.99-	01.13-	00.03-	01.66	04.55	0200	00.069	0.247	0.088
0.768	20	02.45-	02.45-	02.45-	02.45-	02.45-	02.44-	02.43-	02.42-	02.40-	02.33-	0200	00.000	0.225	0.128
0.768	25	00.71-	00.67-	00.63-	00.57-	00.50-	00.40-	00.25-	00.02-	00.43	01.52	0200	00.013	0.207	0.175
0.768	30	00.65	00.73	00.83	00.96	01.12	01.34	01.66	02.11	02.94	04.74	0200	00.039	0.192	0.223
0.768	35	01.44	01.79	02.20	02.67	03.22	03.90	04.75	05.84	07.51	10.39	0200	00.192	0.181	0.252
0.768	40	01.42	02.31	03.21	04.14	05.14	06.24	07.49	08.96	11.02	14.27	0200	00.496	0.176	0.244
0.768	45	00.28	01.95	03.40	04.76	06.09	07.45	08.92	10.57	12.79	16.18	0200	00.797	0.177	0.189
0.768	50	02.41-	00.53	02.61	04.34	05.92	07.46	09.07	10.82	13.13	16.59	0200	00.933	0.187	0.107
0.768	55	07.24-	01.78-	01.00	03.06	04.83	06.50	08.20	10.01	12.38	15.88	0200	00.873	0.204	0.039
0.768	60	13.86-	04.23-	00.98-	01.26	03.14	04.87	06.61	08.45	10.84	14.36	0200	00.693	0.229	0.009
0.768	65	16.32-	06.34-	03.07-	00.82-	01.06	02.79	04.54	06.38	08.77	12.29	0200	00.495	0.263	0.006
0.768	70	14.64-	08.08-	05.12-	02.99-	01.18-	00.52	02.23	04.06	06.44	09.94	0200	00.337	0.309	0.011
0.768	75	08.00-	06.38-	04.95-	03.62-	02.30-	00.95-	00.52	02.16	04.38	07.76	0200	00.236	0.366	0.058
0.768	80	03.26-	02.85-	02.38-	01.85-	01.22-	00.48-	00.44	01.60	03.36	06.32	0200	00.182	0.430	0.203
0.768	85	00.84-	00.65-	00.43-	00.16-	00.18	00.61	01.19	01.97	03.28	05.75	0200	00.158	0.484	0.399
0.768	90	00.00	00.14	00.32	00.53	00.80	01.16	01.64	02.31	03.46	05.74	0200	00.151	0.495	0.495

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.776	00	99.99-	04.32-	00.80-	01.54	03.46	05.22	06.99	08.84	11.25	14.77	0200	01.297	0.389	0.000
0.776	05	10.12-	03.21-	00.21-	01.94	03.76	05.46	07.18	09.01	11.39	14.90	0200	01.003	0.293	0.029
0.776	10	06.93-	04.08-	02.04-	00.33-	01.24	02.77	04.37	06.12	08.43	11.88	0200	00.430	0.254	0.052
0.776	15	04.58-	04.18-	03.73-	03.22-	02.62-	01.89-	00.99-	00.15	01.88	04.82	0200	00.068	0.228	0.080
0.776	20	02.58-	02.58-	02.58-	02.58-	02.57-	02.57-	02.56-	02.55-	02.52-	02.44-	0200	00.000	0.209	0.115
0.776	25	00.90-	00.86-	00.82-	00.77-	00.70-	00.60-	00.46-	00.25-	00.18	01.23	0200	00.011	0.193	0.157
0.776	30	00.39	00.45	00.52	00.62	00.74	00.90	01.14	01.49	02.15	03.67	0200	00.025	0.181	0.198
0.776	35	01.10	01.41	01.77	02.20	02.71	03.33	04.13	05.16	06.76	09.58	0200	00.149	0.173	0.222
0.776	40	00.98	01.84	02.71	03.63	04.61	05.69	06.93	08.39	10.44	13.68	0200	00.415	0.169	0.212
0.776	45	00.28-	01.40	02.87	04.23	05.57	06.93	08.41	10.06	12.29	15.67	0200	00.689	0.172	0.161
0.776	50	03.17-	00.08-	02.06	03.82	05.42	06.98	08.60	10.35	12.67	16.13	0200	00.822	0.182	0.088
0.776	55	08.37-	02.38-	00.48	02.58	04.37	06.06	07.77	09.59	11.96	15.46	0200	00.778	0.200	0.029
0.776	60	15.34-	04.71-	01.41-	00.86	02.74	04.48	06.23	08.07	10.47	13.98	0200	00.624	0.225	0.007
0.776	65	16.54-	06.66-	03.40-	01.15-	00.73	02.46	04.20	06.05	08.44	11.96	0200	00.449	0.258	0.006
0.776	70	14.59-	08.30-	05.38-	03.26-	01.46-	00.23	01.94	03.77	06.14	09.64	0200	00.309	0.303	0.011
0.776	75	07.97-	06.44-	05.07-	03.78-	02.49-	01.16-	00.28	01.91	04.12	07.49	0200	00.218	0.359	0.057
0.776	80	03.25-	02.86-	02.42-	01.91-	01.32-	00.60-	00.29	01.42	03.15	06.08	0200	00.167	0.421	0.199
0.776	85	00.83-	00.66-	00.45-	00.20-	00.12	00.53	01.08	01.84	03.11	05.53	0200	00.145	0.474	0.392
0.776	90	00.00	00.14	00.30	00.50	00.76	01.09	01.55	02.19	03.30	05.52	0200	00.138	0.485	0.485

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.784	00	99.99-	04.07-	00.55-	01.79	03.71	05.47	07.23	09.09	11.49	15.01	0200	01.269	0.360	0.000
0.784	05	10.15-	03.03-	00.00	02.16	03.99	05.69	07.41	09.24	11.63	15.13	0200	00.983	0.272	0.026
0.784	10	06.99-	04.00-	01.90-	00.16-	01.43	02.97	04.59	06.34	08.65	12.11	0200	00.423	0.237	0.047
0.784	15	04.66-	04.23-	03.75-	03.21-	02.57-	01.81-	00.88-	00.30	02.07	05.04	0200	00.068	0.214	0.073
0.784	20	02.70-	02.70-	02.70-	02.69-	02.69-	02.68-	02.67-	02.66-	02.62-	02.53-	0200	00.000	0.196	0.105
0.784	25	01.06-	01.03-	00.99-	00.94-	00.87-	00.77-	00.64-	00.43-	00.01-	01.02	0200	00.010	0.183	0.143
0.784	30	00.17	00.21	00.27	00.33	00.42	00.54	00.71	00.97	01.48	02.71	0200	00.016	0.172	0.179
0.784	35	00.82	01.10	01.42	01.81	02.27	02.85	03.60	04.58	06.12	08.67	0200	00.120	0.166	0.200
0.784	40	00.62	01.45	02.30	03.20	04.16	05.23	06.46	07.90	09.95	13.18	0200	00.357	0.164	0.189
0.784	45	00.75-	00.95	02.43	03.80	05.14	06.51	07.99	09.64	11.87	15.26	0200	00.610	0.168	0.141
0.784	50	03.80-	00.57-	01.62	03.41	05.02	06.59	08.21	09.97	12.30	15.76	0200	00.738	0.178	0.074
0.784	55	09.36-	02.87-	00.07	02.20	04.01	05.70	07.42	09.24	11.62	15.12	0200	00.706	0.196	0.023
0.784	60	16.63-	05.09-	01.74-	00.54	02.43	04.17	05.92	07.77	10.16	13.68	0200	00.571	0.220	0.005
0.784	65	16.66-	06.92-	03.66-	01.41-	00.46	02.19	03.93	05.78	08.17	11.68	0200	00.414	0.253	0.005
0.784	70	14.54-	08.47-	05.59-	03.49-	01.69-	00.01-	01.70	03.52	05.90	09.40	0200	00.286	0.297	0.010
0.784	75	07.93-	06.49-	05.17-	03.91-	02.65-	01.34-	00.09	01.70	03.90	07.26	0200	00.202	0.352	0.057
0.784	80	03.24-	02.87-	02.45-	01.97-	01.40-	00.70-	00.16	01.27	02.96	05.66	0200	00.155	0.412	0.196
0.784	85	00.83-	00.67-	00.47-	00.23-	00.07	00.46	00.99	01.72	02.95	05.33	0200	00.133	0.464	0.383
0.784	90	00.00	00.13	00.28	00.47	00.71	01.03	01.47	02.09	03.16	05.33	0200	00.127	0.474	0.474

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.800	00	99.99-	03.73-	00.21-	02.13	04.05	05.81	07.57	09.43	11.83	15.35	0200	01.220	0.320	0.000
0.800	05	10.22-	02.78-	00.28	02.46	04.29	06.00	07.73	09.56	11.94	15.45	0200	00.947	0.244	0.023
0.800	10	07.09-	03.88-	01.70-	00.08	01.70	03.26	04.89	06.64	08.97	12.43	0200	00.411	0.214	0.042
0.800	15	04.80-	04.32-	03.78-	03.18-	02.49-	01.67-	00.58-	00.54	02.37	05.41	0200	00.068	0.194	0.064
0.800	20	02.89-	02.89-	02.88-	02.88-	02.87-	02.86-	02.84-	02.81-	02.75-	02.58-	0200	00.001	0.179	0.092
0.800	25	01.31-	01.28-	01.24-	01.19-	01.12-	01.02-	00.88-	00.67-	00.25-	00.80	0200	00.009	0.168	0.124
0.800	30	00.16-	00.14-	00.12-	00.09-	00.04-	00.01	00.10	00.23	00.50	01.20	0200	00.006	0.160	0.155
0.800	35	00.39	00.62	00.89	01.22	01.62	02.13	02.80	03.68	05.12	07.75	0200	00.084	0.156	0.170
0.800	40	00.08	00.87	01.69	02.55	03.49	04.54	05.75	07.17	09.20	12.42	0200	00.284	0.155	0.158
0.800	45	01.45-	00.28	01.78	03.16	04.50	05.88	07.36	09.02	11.25	14.64	0200	00.506	0.160	0.115
0.800	50	04.75-	01.30-	00.96	02.79	04.43	06.01	07.65	09.42	11.75	15.22	0200	00.628	0.172	0.057
0.800	55	10.94-	03.58-	00.52-	01.65	03.48	05.19	06.92	08.75	11.13	14.64	0200	00.609	0.189	0.015
0.800	60	18.57-	05.61-	02.22-	00.08	01.98	03.73	05.48	07.33	09.73	13.25	0200	00.499	0.213	0.003
0.800	65	16.68-	07.27-	04.03-	01.79-	00.08	01.81	03.55	05.39	07.78	11.29	0200	00.365	0.244	0.005
0.800	70	14.40-	08.70-	05.89-	03.81-	02.03-	00.35-	01.35	03.17	05.54	09.04	0200	00.254	0.286	0.010
0.800	75	07.85-	06.52-	05.29-	04.09-	02.87-	01.60-	00.19-	01.40	03.57	06.92	0200	00.179	0.339	0.056
0.800	80	03.21-	02.87-	02.49-	02.04-	01.50-	00.85-	00.02-	01.04	02.69	05.54	0200	00.137	0.397	0.190
0.800	85	00.83-	00.68-	00.50-	00.27-	00.01	00.37	00.86	01.55	02.73	05.03	0200	00.117	0.447	0.369
0.800	90	00.00	00.12	00.26	00.43	00.66	00.95	01.36	01.94	02.96	05.05	0200	00.111	0.456	0.456
0.816	00	99.99-	03.56-	00.03-	02.31	04.23	05.99	07.75	09.60	12.01	15.53	0200	01.183	0.298	0.000
0.816	05	10.25-	02.65-	00.44	02.62	04.46	06.17	07.90	09.73	12.11	15.62	0200	00.920	0.228	0.022
0.816	10	07.13-	03.79-	01.57-	00.24	01.87	03.44	05.07	06.84	09.17	12.63	0200	00.403	0.200	0.039
0.816	15	04.87-	04.34-	03.76-	03.12-	02.38-	01.52-	00.49-	00.77	02.64	05.71	0200	00.069	0.182	0.060
0.816	20	02.99-	02.98-	02.97-	02.96-	02.94-	02.92-	02.89-	02.83-	02.72-	02.41-	0200	00.001	0.170	0.085
0.816	25	01.45-	01.42-	01.38-	01.32-	01.25-	01.14-	01.00-	00.77-	00.33-	00.76	0200	00.008	0.160	0.114
0.816	30	00.35-	00.35-	00.34-	00.32-	00.31-	00.28-	00.25-	00.19-	00.07-	00.26	0200	00.002	0.153	0.141
0.816	35	00.13	00.33	00.57	00.85	01.21	01.66	02.27	03.09	04.44	06.96	0200	00.065	0.150	0.154
0.816	40	00.27-	00.49	01.28	02.13	03.05	04.08	05.27	06.68	08.70	11.90	0200	00.243	0.150	0.141
0.816	45	01.91-	00.16-	01.39	02.74	04.09	05.47	06.96	08.61	10.85	14.24	0200	00.448	0.156	0.100
0.816	50	05.40-	01.77-	00.55	02.41	04.06	05.66	07.30	09.08	11.41	14.88	0200	00.566	0.167	0.048
0.816	55	12.06-	04.00-	00.87-	01.33	03.18	04.90	06.63	08.47	10.85	14.36	0200	00.557	0.184	0.011
0.816	60	19.57-	05.88-	02.47-	00.16-	01.74	03.49	05.24	07.10	09.50	13.01	0200	00.461	0.207	0.002
0.816	65	16.56-	07.43-	04.21-	01.98-	00.11-	01.61	03.35	05.19	07.58	11.10	0200	00.340	0.238	0.005
0.816	70	14.18-	08.77-	06.01-	03.95-	02.18-	00.51-	01.19	03.00	05.37	08.86	0200	00.237	0.279	0.011
0.816	75	07.75-	06.49-	05.30-	04.14-	02.95-	01.70-	00.32-	01.26	03.42	06.76	0200	00.166	0.330	0.055
0.816	80	03.17-	02.85-	02.48-	02.05-	01.54-	00.90-	00.10-	00.94	02.57	05.39	0200	00.128	0.386	0.186
0.816	85	00.82-	00.68-	00.51-	00.29-	00.02-	00.33	00.80	01.47	02.62	04.88	0200	00.108	0.434	0.359
0.816	90	00.00	00.11	00.25	00.41	00.63	00.91	01.30	01.86	02.86	04.91	0200	00.103	0.442	0.442

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.832	00	99.99-	03.51-	00.01	02.35	04.27	06.03	07.79	09.65	12.05	15.58	0200	01.157	0.288	0.000
0.832	05	10.19-	02.58-	00.50	02.68	04.52	06.23	07.96	09.79	12.18	15.69	0200	00.903	0.220	0.021
0.832	10	07.08-	03.71-	01.47-	00.34	01.97	03.55	05.18	06.95	09.28	12.74	0200	00.401	0.194	0.038
0.832	15	04.83-	04.27-	03.66-	02.98-	02.22-	01.33-	00.28-	01.02	02.91	06.01	0200	00.072	0.177	0.058
0.832	20	02.97-	02.96-	02.94-	02.92-	02.89-	02.84-	02.78-	02.68-	02.47-	01.92-	0200	00.003	0.165	0.083
0.832	25	01.47-	01.43-	01.38-	01.32-	01.25-	01.14-	00.98-	00.75-	00.28-	00.86	0200	00.009	0.155	0.111
0.832	30	00.41-	00.41-	00.40-	00.40-	00.39-	00.39-	00.37-	00.35-	00.31-	00.20-	0200	00.001	0.149	0.136
0.832	35	00.02	00.19	00.41	00.67	00.99	01.40	01.96	02.72	04.00	06.44	0200	00.055	0.146	0.147
0.832	40	00.45-	00.29	01.06	01.88	02.78	03.80	04.98	06.37	08.38	11.57	0200	00.220	0.147	0.133
0.832	45	02.18-	00.41-	01.10	02.50	03.85	05.23	06.72	08.38	10.62	14.01	0200	00.418	0.153	0.093
0.832	50	05.82-	02.04-	00.33	02.21	03.88	05.48	07.14	08.91	11.26	14.73	0200	00.538	0.164	0.043
0.832	55	12.80-	04.19-	01.01-	01.21	03.07	04.79	06.53	08.36	10.75	14.26	0200	00.537	0.181	0.010
0.832	60	19.83-	05.94-	02.52-	00.21-	01.69	03.44	05.20	07.05	09.45	12.97	0200	00.449	0.204	0.002
0.832	65	16.32-	07.41-	04.21-	01.98-	00.12-	01.60	03.34	05.18	07.57	11.08	0200	00.333	0.234	0.005
0.832	70	13.87-	08.67-	05.95-	03.91-	02.15-	00.49-	01.21	03.01	05.38	08.87	0200	00.234	0.274	0.011
0.832	75	07.62-	06.39-	05.22-	04.07-	02.90-	01.66-	00.28-	01.29	03.45	06.77	0200	00.165	0.324	0.056
0.832	80	03.13-	02.81-	02.45-	02.02-	01.50-	00.87-	00.07-	00.97	02.58	05.40	0200	00.125	0.378	0.184
0.832	85	00.81-	00.67-	00.50-	00.29-	00.02-	00.33	00.81	01.47	02.62	04.88	0200	00.106	0.425	0.352
0.832	90	00.00	00.11	00.25	00.41	00.63	00.91	01.30	01.86	02.86	04.90	0200	00.101	0.433	0.433
0.864	00	99.99-	03.78-	00.26-	02.09	04.00	05.77	07.53	09.38	11.79	15.31	0200	01.133	0.300	0.000
0.864	05	09.80-	02.64-	00.39	02.55	04.38	06.08	07.81	09.64	12.02	15.52	0200	00.891	0.225	0.024
0.864	10	06.67-	03.51-	01.35-	00.43	02.03	03.59	05.22	06.97	09.30	12.76	0200	00.408	0.197	0.042
0.864	15	04.41-	03.82-	03.18-	02.48-	01.69-	00.78-	00.31	01.62	03.54	06.66	0200	00.085	0.179	0.065
0.864	20	02.57-	02.52-	02.47-	02.40-	02.30-	02.18-	02.00-	01.72-	01.19-	00.08	0200	00.009	0.165	0.092
0.864	25	01.09-	01.05-	01.00-	00.93-	00.85-	00.73-	00.57-	00.31-	00.19	01.39	0200	00.010	0.156	0.121
0.864	30	00.09-	00.09-	00.09-	00.09-	00.09-	00.09-	00.09-	00.09-	00.09-	00.09-	0200	00.000	0.149	0.146
0.864	35	00.24	00.38	00.56	00.77	01.05	01.40	01.88	02.56	03.71	05.99	0200	00.047	0.146	0.154
0.864	40	00.36-	00.32	01.05	01.84	02.70	03.68	04.83	06.21	08.18	11.35	0200	00.208	0.147	0.135
0.864	45	02.27-	00.47-	01.06	02.46	03.83	05.21	06.71	08.37	10.61	14.01	0200	00.417	0.153	0.091
0.864	50	06.13-	02.06-	00.40	02.31	04.01	05.62	07.29	09.07	11.42	14.90	0200	00.559	0.164	0.040
0.864	55	13.46-	03.98-	00.74-	01.50	03.37	05.10	06.84	08.68	11.07	14.59	0200	00.577	0.181	0.008
0.864	60	19.13-	05.49-	02.07-	00.23	02.13	03.88	05.64	07.49	09.89	13.41	0200	00.495	0.203	0.002
0.864	65	15.39-	06.83-	03.66-	01.44-	00.41	02.14	03.87	05.71	08.10	11.61	0200	00.374	0.233	0.007
0.864	70	12.80-	07.94-	05.29-	03.28-	01.54-	00.11	01.80	03.60	05.96	09.45	0200	00.264	0.272	0.014
0.864	75	07.23-	05.95-	04.75-	03.57-	02.38-	01.12-	00.27	01.85	04.02	07.36	0200	00.187	0.320	0.061
0.864	80	03.02-	02.67-	02.27-	01.80-	01.24-	00.57-	00.28	01.37	03.04	05.92	0200	00.141	0.372	0.185
0.864	85	00.80-	00.63-	00.44-	00.20-	00.10	00.48	01.01	01.73	02.95	05.32	0200	00.119	0.416	0.347
0.864	90	00.00	00.13	00.28	00.47	00.71	01.02	01.45	02.07	03.14	05.30	0200	00.112	0.424	0.424

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.896	00	99.99-	04.57-	01.05-	01.29	03.21	04.97	06.73	08.59	10.99	14.51	0200	01.132	0.360	0.000
0.896	05	09.03-	02.94-	00.06-	02.04	03.84	05.53	07.24	09.06	11.43	14.93	0200	00.894	0.260	0.032
0.896	10	05.83-	03.24-	01.30-	00.35	01.88	03.38	04.97	06.70	09.00	12.44	0200	00.426	0.222	0.058
0.896	15	03.52-	02.94-	02.30-	01.60-	00.82-	00.09	01.17	02.48	04.39	07.50	0200	00.114	0.196	0.088
0.896	20	01.63-	01.53-	01.39-	01.23-	01.02-	00.74-	00.36-	00.19	01.18	03.21	0200	00.028	0.180	0.124
0.896	25	00.15-	00.10-	00.04-	00.03	00.12	00.25	00.43	00.71	01.26	02.55	0200	00.015	0.167	0.161
0.896	30	00.82	00.82	00.82	00.82	00.82	00.82	00.82	00.82	00.83	00.84	0200	00.000	0.158	0.190
0.896	35	01.05	01.17	01.31	01.49	01.71	02.01	02.42	03.00	04.03	06.13	0200	00.048	0.152	0.194
0.896	40	00.29	00.91	01.59	02.32	03.14	04.07	05.18	06.52	08.46	11.60	0200	00.226	0.152	0.163
0.896	45	01.84-	00.01-	01.54	02.96	04.33	05.73	07.22	08.89	11.13	14.53	0200	00.486	0.158	0.103
0.896	50	05.95-	01.49-	01.07	03.04	04.75	06.39	08.06	09.86	12.22	15.70	0200	00.694	0.169	0.043
0.896	55	13.33-	03.05-	00.24	02.50	04.38	06.11	07.86	09.70	12.10	15.61	0200	00.752	0.186	0.009
0.896	60	17.42-	04.27-	00.87-	01.43	03.33	05.08	06.83	08.68	11.08	14.60	0200	00.668	0.208	0.004
0.896	65	13.47-	05.43-	02.31-	00.11-	01.74	03.45	05.18	07.02	09.41	12.92	0200	00.515	0.238	0.011
0.896	70	10.82-	06.36-	03.81-	01.84-	00.12-	01.51	03.19	04.98	07.34	10.82	0200	00.367	0.275	0.023
0.896	75	06.59-	05.11-	03.76-	02.49-	01.21-	00.11	01.55	03.16	05.37	08.73	0200	00.259	0.322	0.071
0.896	80	02.90-	02.44-	01.92-	01.33-	00.65-	00.16	01.13	02.35	04.16	07.18	0200	00.195	0.373	0.191
0.896	85	00.78-	00.56-	00.30-	00.02	00.40	00.89	01.54	02.41	03.82	06.41	0200	00.164	0.416	0.348
0.896	90	00.00	00.17	00.38	00.63	00.95	01.35	01.90	02.65	03.92	06.33	0200	00.155	0.423	0.423
0.928	00	99.99-	06.08-	02.56-	00.22-	01.70	03.46	05.22	07.08	09.48	13.00	0200	01.145	0.516	0.000
0.928	05	07.82-	03.48-	00.96-	01.00	02.71	04.34	06.01	07.80	10.16	13.64	0200	00.880	0.345	0.057
0.928	10	04.49-	02.82-	01.37-	00.02-	01.31	02.67	04.15	05.79	08.02	11.40	0200	00.424	0.284	0.101
0.928	15	02.06-	01.52-	00.92-	00.26-	00.49	01.36	02.40	03.68	05.56	08.65	0200	00.182	0.244	0.152
0.928	20	00.08-	00.13	00.39	00.70	01.08	01.56	02.19	03.05	04.45	07.02	0200	00.097	0.215	0.211
0.928	25	01.46	01.52	01.59	01.68	01.80	01.96	02.19	02.54	03.19	04.69	0200	00.033	0.192	0.269
0.928	30	02.41	02.41	02.41	02.41	02.41	02.41	02.41	02.42	02.42	02.43	0200	00.000	0.176	0.306
0.928	35	02.53	02.61	02.72	02.84	03.01	03.23	03.54	04.00	04.83	06.64	0200	00.052	0.165	0.296
0.928	40	01.51	02.03	02.61	03.25	03.99	04.84	05.87	07.14	09.00	12.07	0200	00.265	0.162	0.230
0.928	45	01.01-	00.88	02.46	03.90	05.28	06.69	08.20	09.87	12.12	15.52	0200	00.645	0.167	0.132
0.928	50	05.52-	00.35-	02.37	04.41	06.17	07.83	09.52	11.33	13.69	17.19	0200	01.028	0.178	0.050
0.928	55	12.55-	01.27-	02.06	04.34	06.23	07.97	09.72	11.57	13.96	17.48	0200	01.207	0.194	0.011
0.928	60	14.46-	02.09-	01.29	03.58	05.48	07.22	08.97	10.82	13.22	16.74	0200	01.131	0.216	0.008
0.928	65	10.08-	02.92-	00.11	02.28	04.10	05.81	07.53	09.36	11.74	15.25	0200	00.902	0.243	0.024
0.928	70	07.57-	03.60-	01.17-	00.73	02.42	04.03	05.69	07.48	09.82	13.30	0200	00.653	0.277	0.049
0.928	75	05.58-	03.60-	01.96-	00.48-	00.93	02.35	03.88	05.56	07.82	11.23	0200	00.463	0.321	0.089
0.928	80	02.97-	02.16-	01.32-	00.43-	00.52	01.58	02.80	04.24	06.28	09.50	0200	00.348	0.372	0.188
0.928	85	00.86-	00.47-	00.03-	00.48	01.08	01.80	02.69	03.83	05.55	08.49	0200	00.290	0.419	0.344
0.928	90	00.00	00.30	00.64	01.05	01.54	02.15	02.92	03.93	05.51	08.30	0200	00.274	0.428	0.428

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.944	00	99.99-	07.19-	03.67-	01.33-	00.59	02.35	04.11	05.97	08.37	11.89	0200	01.154	0.672	0.000
0.944	05	07.18-	03.08-	01.67-	00.13	01.75	03.32	04.95	06.71	09.04	12.50	0200	00.838	0.428	0.082
0.944	10	03.70-	02.59-	01.51-	00.42-	00.70	01.90	03.24	04.78	06.91	10.22	0200	00.384	0.342	0.146
0.944	15	01.15-	00.64-	00.07-	00.57	01.30	02.14	03.17	04.43	06.29	09.35	0200	00.250	0.286	0.220
0.944	20	00.93	01.21	01.54	01.92	02.39	02.97	03.72	04.70	06.25	09.00	0200	00.183	0.245	0.303
0.944	25	02.55	02.61	02.70	02.80	02.94	03.12	03.38	03.77	04.50	06.12	0200	00.054	0.213	0.383
0.944	30	03.53	03.53	03.53	03.53	03.53	03.53	03.53	03.53	03.54	03.54	0200	00.000	0.189	0.426
0.944	35	03.59	03.66	03.73	03.83	03.95	04.12	04.36	04.71	05.39	06.92	0200	00.051	0.174	0.398
0.944	40	02.39	02.83	03.33	03.89	04.54	05.32	06.27	07.47	09.25	12.25	0200	00.281	0.168	0.291
0.944	45	00.48-	01.46	03.07	04.53	05.93	07.35	08.86	10.54	12.79	16.20	0200	00.776	0.171	0.153
0.944	50	05.39-	00.48	03.32	05.41	07.20	08.88	10.59	12.41	14.78	18.28	0200	01.353	0.182	0.053
0.944	55	11.98-	00.04	03.40	05.69	07.58	09.33	11.08	12.93	15.33	18.84	0200	01.680	0.198	0.013
0.944	60	12.46-	00.52-	02.85	05.14	07.03	08.77	10.52	12.37	14.77	18.29	0200	01.627	0.217	0.012
0.944	65	07.83-	01.12-	01.85	03.99	05.81	07.51	09.22	11.05	13.43	16.93	0200	01.319	0.241	0.040
0.944	70	05.36-	01.65-	00.71	02.56	04.24	05.84	07.49	09.26	11.60	15.08	0200	00.960	0.271	0.079
0.944	75	04.80-	02.42-	00.58-	01.02	02.51	03.99	05.56	07.27	09.56	12.99	0200	00.677	0.311	0.103
0.944	80	03.33-	02.09-	00.92-	00.23	01.40	02.65	04.03	05.60	07.76	11.09	0200	00.501	0.364	0.169
0.944	85	01.03-	00.46-	00.15	00.83	01.60	02.49	03.55	04.85	06.75	09.85	0200	00.413	0.419	0.330
0.944	90	00.00	00.41	00.88	01.41	02.03	02.78	03.70	04.86	06.61	09.57	0200	00.387	0.432	0.432
0.960	00	99.99-	08.40-	04.87-	02.53-	00.61-	01.15	02.91	04.76	07.17	10.69	0200	01.165	0.895	0.000
0.960	05	06.87-	04.48-	02.63-	01.03-	00.47	01.95	03.52	05.24	07.52	10.96	0200	00.752	0.552	0.113
0.960	10	03.16-	02.52-	01.83-	01.08-	00.24-	00.71	01.83	03.18	05.13	08.28	0200	00.297	0.429	0.207
0.960	15	00.42-	00.09	00.66	01.30	02.02	02.87	03.90	05.15	07.01	10.08	0200	00.359	0.349	0.316
0.960	20	01.83	02.17	02.57	03.03	03.57	04.23	05.07	06.14	07.80	10.67	0200	00.326	0.289	0.441
0.960	25	03.61	03.68	03.78	03.89	04.04	04.24	04.53	04.95	05.72	07.43	0200	00.087	0.242	0.556
0.960	30	04.71	04.71	04.71	04.71	04.71	04.71	04.71	04.71	04.71	04.72	0200	00.000	0.207	0.613
0.960	35	04.80	04.84	04.89	04.95	05.02	05.13	05.28	05.52	05.98	07.12	0200	00.044	0.184	0.557
0.960	40	03.45	03.80	04.20	04.66	05.21	05.88	06.72	07.80	09.47	12.34	0200	00.289	0.174	0.385
0.960	45	00.17	02.18	03.83	05.31	06.73	08.16	09.69	11.37	13.63	17.04	0200	00.968	0.176	0.182
0.960	50	05.44-	01.47	04.47	06.62	08.44	10.14	11.86	13.69	16.07	19.58	0200	01.861	0.185	0.053
0.960	55	11.41-	01.53	04.93	07.23	09.13	10.87	12.63	14.48	16.88	20.39	0200	02.422	0.199	0.014
0.960	60	10.40-	01.21	04.56	06.84	08.73	10.48	12.23	14.07	16.47	19.99	0200	02.390	0.216	0.020
0.960	65	05.53-	00.79	03.71	05.83	07.64	09.33	11.04	12.87	15.24	18.74	0200	01.940	0.234	0.065
0.960	70	02.98-	00.45	02.71	04.53	06.17	07.75	09.39	11.15	13.48	16.95	0200	01.393	0.256	0.129
0.960	75	03.69-	01.00-	00.97	02.65	04.19	05.71	07.30	09.03	11.33	14.78	0200	00.955	0.290	0.124
0.960	80	04.20-	02.24-	00.61-	00.86	02.27	03.69	05.21	06.89	09.15	12.55	0200	00.681	0.348	0.132
0.960	85	01.37-	00.58-	00.24	01.10	02.04	03.09	04.30	05.72	07.75	10.97	0200	00.543	0.415	0.303
0.960	90	00.00	00.52	01.10	01.74	02.48	03.33	04.36	05.62	07.49	10.56	0200	00.502	0.436	0.436

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.968	00	99.99-	08.87-	05.35-	03.01-	01.09-	00.67	02.43	04.29	06.69	10.21	0200	01.170	1.003	0.000
0.968	05	06.94-	04.84-	03.14-	01.63-	00.19-	01.25	02.79	04.48	06.75	10.17	0200	00.698	0.617	0.125
0.968	10	03.10-	02.62-	02.09-	01.49-	00.80-	00.01	01.00	02.22	04.04	07.07	0200	00.243	0.474	0.232
0.968	15	00.25-	00.28	00.87	01.52	02.26	03.12	04.16	05.43	07.30	10.38	0200	00.423	0.382	0.360
0.968	20	02.11	02.48	02.90	03.39	03.97	04.67	05.54	06.65	08.35	11.26	0200	00.408	0.313	0.508
0.968	25	03.99	04.06	04.16	04.28	04.43	04.64	04.93	05.36	06.16	07.90	0200	00.105	0.258	0.646
0.968	30	05.18	05.18	05.18	05.18	05.18	05.18	05.18	05.18	05.18	05.18	0200	00.000	0.217	0.713
0.968	35	05.32	05.35	05.39	05.43	05.49	05.57	05.69	05.87	06.23	07.14	0200	00.037	0.189	0.645
0.968	40	03.95	04.26	04.61	05.03	05.54	06.15	06.94	07.97	09.57	12.37	0200	00.291	0.177	0.439
0.968	45	00.49	02.54	04.21	05.71	07.14	08.57	10.10	11.79	14.05	17.47	0200	01.077	0.177	0.199
0.968	50	05.51-	01.94	05.01	07.18	09.02	10.73	12.45	14.28	16.67	20.18	0200	02.150	0.186	0.052
0.968	55	11.21-	02.18	05.59	07.90	09.79	11.54	13.30	15.15	17.55	21.07	0200	02.830	0.199	0.015
0.968	60	09.54-	01.93	05.27	07.55	09.44	11.19	12.93	14.78	17.18	20.70	0200	02.790	0.214	0.024
0.968	65	04.57-	01.58	04.47	06.58	08.38	10.07	11.78	13.60	15.97	19.47	0200	02.245	0.229	0.080
0.968	70	01.92-	01.34	03.54	05.33	06.94	08.51	10.14	11.90	14.23	17.69	0200	01.585	0.245	0.158
0.968	75	03.08-	00.37-	01.62	03.30	04.84	06.36	07.96	09.69	12.00	15.44	0200	01.061	0.276	0.136
0.968	80	04.92-	02.48-	00.62-	01.00	02.50	03.99	05.56	07.28	09.57	13.00	0200	00.735	0.337	0.108
0.968	85	01.60-	00.73-	00.17	01.10	02.09	03.18	04.43	05.89	07.96	11.20	0200	00.573	0.413	0.285
0.968	90	00.00	00.54	01.14	01.80	02.55	03.43	04.47	05.75	07.64	10.72	0200	00.525	0.438	0.438
0.976	00	99.99-	09.14-	05.62-	03.28-	01.36-	00.40	02.16	04.02	06.42	09.94	0200	01.176	1.073	0.000
0.976	05	07.13-	05.20-	03.59-	02.14-	00.74-	00.68	02.19	03.87	06.12	09.53	0200	00.646	0.663	0.128
0.976	10	03.17-	02.81-	02.41-	01.93-	01.37-	00.69-	00.16	01.25	02.93	05.81	0200	00.188	0.508	0.245
0.976	15	00.22-	00.34	00.95	01.62	02.39	03.27	04.33	05.62	07.51	10.61	0200	00.476	0.406	0.386
0.976	20	02.23	02.63	03.09	03.61	04.22	04.95	05.85	07.00	08.74	11.68	0200	00.479	0.330	0.552
0.976	25	04.20	04.28	04.38	04.51	04.67	04.88	05.18	05.62	06.44	08.21	0200	00.119	0.269	0.709
0.976	30	05.48	05.48	05.48	05.48	05.48	05.48	05.48	05.48	05.48	05.49	0200	00.000	0.223	0.789
0.976	35	05.69	05.72	05.74	05.77	05.82	05.88	05.96	06.10	06.38	07.10	0200	00.030	0.192	0.714
0.976	40	04.32	04.60	04.93	05.32	05.78	06.36	07.11	08.08	09.63	12.38	0200	00.288	0.178	0.482
0.976	45	00.75	02.83	04.52	06.02	07.45	08.89	10.43	12.12	14.38	17.80	0200	01.165	0.178	0.211
0.976	50	05.62-	02.29	05.41	07.60	09.45	11.16	12.89	14.73	17.11	20.62	0200	02.381	0.186	0.051
0.976	55	11.10-	02.65	06.07	08.37	10.27	12.02	13.78	15.63	18.03	21.55	0200	03.143	0.198	0.015
0.976	60	08.90-	02.42	05.76	08.04	09.93	11.67	13.42	15.27	17.66	21.18	0200	03.078	0.211	0.027
0.976	65	03.84-	02.12	04.98	07.08	08.87	10.56	12.26	14.08	16.46	19.96	0200	02.442	0.223	0.092
0.976	70	01.10-	01.97	04.10	05.86	07.45	09.01	10.62	12.38	14.70	18.16	0200	01.688	0.235	0.182
0.976	75	02.59-	00.06	02.02	03.69	05.23	06.74	08.33	10.06	12.37	15.81	0200	01.098	0.263	0.145
0.976	80	05.84-	02.91-	00.83-	00.90	02.47	04.01	05.62	07.37	09.68	13.14	0200	00.738	0.326	0.085
0.976	85	01.84-	00.93-	00.01-	00.94	01.95	03.06	04.32	05.80	07.87	11.12	0200	00.561	0.410	0.269
0.976	90	00.00	00.53	01.10	01.75	02.49	03.34	04.37	05.64	07.51	10.58	0200	00.509	0.440	0.440

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.980	00	99.99-	09.19-	05.66-	03.32-	01.41-	00.36	02.12	03.97	06.38	09.90	0200	01.179	1.086	0.000
0.980	05	07.26-	05.37-	03.78-	02.33-	00.94-	00.47	01.97	03.65	05.90	09.30	0200	00.624	0.674	0.127
0.980	10	03.24-	02.93-	02.58-	02.16-	01.65-	01.04-	00.25-	00.78	02.38	05.18	0200	00.162	0.516	0.245
0.980	15	00.25-	00.32	00.95	01.64	02.41	03.31	04.38	05.68	07.59	10.69	0200	00.494	0.412	0.389
0.980	20	02.25	02.66	03.13	03.66	04.29	05.04	05.96	07.12	08.88	11.84	0200	00.505	0.334	0.560
0.980	25	04.26	04.34	04.44	04.56	04.72	04.94	05.25	05.70	06.52	08.31	0200	00.124	0.272	0.725
0.980	30	05.57	05.57	05.57	05.57	05.57	05.57	05.57	05.57	05.57	05.57	0200	00.000	0.224	0.809
0.980	35	05.81	05.83	05.85	05.88	05.92	05.97	06.04	06.16	06.41	07.05	0200	00.027	0.193	0.735
0.980	40	04.45	04.72	05.03	05.41	05.86	06.42	07.15	08.11	09.63	12.35	0200	00.284	0.178	0.495
0.980	45	00.84	02.92	04.62	06.12	07.56	09.00	10.53	12.23	14.49	17.91	0200	01.191	0.177	0.215
0.980	50	05.69-	02.41	05.54	07.74	09.59	11.31	13.04	14.87	17.26	20.77	0200	02.451	0.185	0.050
0.980	55	11.08-	02.80	06.22	08.52	10.43	12.18	13.93	15.78	18.18	21.70	0200	03.234	0.197	0.015
0.980	60	08.67-	02.58	05.91	08.19	10.08	11.82	13.57	15.41	17.81	21.33	0200	03.151	0.209	0.028
0.980	65	03.58-	02.29	05.13	07.22	09.01	10.69	12.40	14.22	16.59	20.09	0200	02.479	0.220	0.096
0.980	70	00.80-	02.17	04.27	06.01	07.59	09.14	10.75	12.50	14.81	18.27	0200	01.694	0.230	0.191
0.980	75	02.43-	00.17	02.11	03.77	05.30	06.81	08.39	10.12	12.42	15.86	0200	01.086	0.257	0.147
0.980	80	06.37-	03.20-	01.03-	00.74	02.35	03.91	05.53	07.29	09.61	13.07	0200	00.718	0.322	0.074
0.980	85	01.94-	01.05-	00.14-	00.80	01.81	02.91	04.17	05.64	07.71	10.96	0200	00.539	0.409	0.262
0.980	90	00.00	00.50	01.06	01.68	02.40	03.23	04.25	05.49	07.34	10.39	0200	00.487	0.441	0.441

0.984	00	99.99-	09.16-	05.64-	03.30-	01.38-	00.38	02.14	04.00	06.40	09.92	0200	01.182	1.083	0.000
0.984	05	07.41-	05.51-	03.92-	02.48-	01.09-	00.32	01.83	03.50	05.75	09.15	0200	00.605	0.676	0.123
0.984	10	03.33-	03.07-	02.75-	02.38-	01.93-	01.37-	00.64-	00.31	01.83	04.55	0200	00.137	0.518	0.240
0.984	15	00.30-	00.29	00.93	01.63	02.42	03.33	04.41	05.73	07.64	10.76	0200	00.504	0.414	0.386
0.984	20	02.23	02.66	03.14	03.69	04.33	05.10	06.04	07.21	08.99	11.97	0200	00.523	0.335	0.559
0.984	25	04.27	04.36	04.46	04.59	04.75	04.97	05.28	05.74	06.58	08.38	0200	00.127	0.272	0.728
0.984	30	05.62	05.62	05.62	05.62	05.62	05.62	05.62	05.62	05.62	05.62	0200	00.000	0.224	0.817
0.984	35	05.89	05.90	05.92	05.94	05.98	06.02	06.09	06.19	06.40	06.97	0200	00.023	0.192	0.743
0.984	40	04.53	04.79	05.09	05.46	05.90	06.45	07.16	08.10	09.61	12.31	0200	00.278	0.176	0.500
0.984	45	00.88	02.98	04.67	06.19	07.62	09.06	10.60	12.29	14.56	17.98	0200	01.201	0.176	0.215
0.984	50	05.79-	02.47	05.62	07.83	09.68	11.40	13.13	14.97	17.36	20.87	0200	02.484	0.184	0.048
0.984	55	11.10-	02.88	06.31	08.62	10.52	12.27	14.02	15.87	18.27	21.79	0200	03.272	0.195	0.015
0.984	60	08.50-	02.66	06.00	08.27	10.16	11.90	13.65	15.49	17.89	21.41	0200	03.171	0.207	0.029
0.984	65	03.38-	02.38	05.21	07.29	09.08	10.76	12.46	14.28	16.65	20.15	0200	02.474	0.216	0.099
0.984	70	00.58-	02.30	04.36	06.08	07.65	09.18	10.79	12.53	14.85	18.30	0200	01.671	0.225	0.197
0.984	75	02.33-	00.21	02.13	03.76	05.28	06.79	08.37	10.09	12.39	15.83	0200	01.055	0.252	0.147
0.984	80	06.93-	03.54-	01.29-	00.52	02.15	03.73	05.36	07.13	09.46	12.93	0200	00.687	0.318	0.065
0.984	85	02.04-	01.17-	00.28-	00.64	01.63	02.72	03.97	05.43	07.49	10.73	0200	00.509	0.409	0.256
0.984	90	00.00	00.47	01.00	01.60	02.28	03.09	04.08	05.30	07.12	10.15	0200	00.459	0.442	0.442

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.988	00	99.99-	09.08-	05.56-	03.22-	01.30-	00.46	02.22	04.08	06.48	10.00	0200	01.184	1.065	0.000
0.988	05	07.56-	05.63-	04.03-	02.57-	01.18-	00.24	01.75	03.43	05.68	09.09	0200	00.589	0.669	0.117
0.988	10	03.44-	03.21-	02.93-	02.60-	02.20-	01.69-	01.03-	00.14-	01.30	03.92	0200	00.115	0.513	0.232
0.988	15	00.37-	00.23	00.89	01.61	02.41	03.33	04.43	05.75	07.68	10.81	0200	00.507	0.410	0.376
0.988	20	02.19	02.63	03.13	03.70	04.36	05.13	06.09	07.28	09.08	12.07	0200	00.534	0.332	0.549
0.988	25	04.26	04.34	04.45	04.58	04.75	04.97	05.29	05.76	06.61	08.43	0200	00.129	0.270	0.719
0.988	30	05.63	05.63	05.63	05.63	05.63	05.63	05.63	05.63	05.63	05.63	0200	00.000	0.222	0.811
0.988	35	05.92	05.93	05.94	05.97	05.99	06.03	06.09	06.18	06.37	06.87	0200	00.020	0.190	0.741
0.988	40	04.56	04.81	05.11	05.46	05.90	06.44	07.14	08.07	09.56	12.24	0200	00.269	0.174	0.499
0.988	45	00.88	02.99	04.69	06.20	07.64	09.09	10.62	12.31	14.58	18.00	0200	01.193	0.174	0.213
0.988	50	05.91-	02.49	05.65	07.86	09.72	11.44	13.17	15.01	17.40	20.91	0200	02.479	0.181	0.047
0.988	55	11.14-	02.92	06.34	08.65	10.55	12.30	14.06	15.91	18.31	21.83	0200	03.258	0.193	0.015
0.988	60	08.38-	02.69	06.02	08.29	10.18	11.92	13.66	15.51	17.91	21.42	0200	03.139	0.204	0.030
0.988	65	03.24-	02.41	05.22	07.30	09.08	10.75	12.46	14.27	16.64	20.14	0200	02.429	0.213	0.101
0.988	70	00.43-	02.36	04.38	06.07	07.63	09.16	10.76	12.50	14.80	18.25	0200	01.622	0.221	0.200
0.988	75	02.31-	00.17	02.06	03.68	05.19	06.69	08.26	09.98	12.28	15.71	0200	01.010	0.248	0.146
0.988	80	07.51-	03.92-	01.61-	00.24	01.89	03.48	05.12	06.90	09.23	12.70	0200	00.647	0.315	0.056
0.988	85	02.12-	01.29-	00.44-	00.46	01.43	02.49	03.72	05.17	07.21	10.44	0200	00.475	0.408	0.251
0.988	90	00.00	00.44	00.94	01.50	02.15	02.93	03.88	05.07	06.85	09.85	0200	00.426	0.443	0.443
0.992	00	99.99-	08.95-	05.42-	03.08-	01.16-	00.60	02.36	04.21	06.62	10.14	0200	01.187	1.035	0.000
0.992	05	07.71-	05.73-	04.09-	02.61-	01.20-	00.22	01.74	03.42	05.68	09.09	0200	00.578	0.654	0.111
0.992	10	03.55-	03.35-	03.11-	02.82-	02.47-	02.01-	01.41-	00.58-	00.77	03.29	0200	00.095	0.503	0.222
0.992	15	00.46-	00.16	00.83	01.57	02.38	03.32	04.43	05.76	07.70	10.84	0200	00.502	0.402	0.362
0.992	20	02.13	02.59	03.10	03.69	04.36	05.15	06.13	07.34	09.14	12.16	0200	00.536	0.326	0.532
0.992	25	04.22	04.31	04.42	04.55	04.72	04.95	05.28	05.75	06.62	08.46	0200	00.129	0.265	0.701
0.992	30	05.61	05.61	05.61	05.61	05.61	05.61	05.61	05.61	05.61	05.61	0200	00.000	0.218	0.794
0.992	35	05.91	05.92	05.93	05.95	05.97	06.01	06.06	06.14	06.30	06.75	0200	00.017	0.187	0.727
0.992	40	04.55	04.80	05.09	05.43	05.86	06.39	07.08	07.99	09.47	12.13	0200	00.258	0.172	0.490
0.992	45	00.85	02.96	04.66	06.18	07.62	09.06	10.60	12.29	14.56	17.98	0200	01.170	0.171	0.208
0.992	50	06.06-	02.46	05.63	07.85	09.71	11.43	13.16	15.00	17.39	20.90	0200	02.439	0.179	0.044
0.992	55	11.21-	02.90	06.32	08.63	10.54	12.29	14.04	15.89	18.29	21.81	0200	03.197	0.190	0.014
0.992	60	08.31-	02.66	05.98	08.26	10.14	11.88	13.63	15.47	17.87	21.39	0200	03.063	0.201	0.030
0.992	65	03.16-	02.38	05.18	07.24	09.02	10.69	12.39	14.20	16.57	20.07	0200	02.351	0.209	0.101
0.992	70	00.35-	02.35	04.33	06.00	07.55	09.06	10.66	12.39	14.70	18.14	0200	01.552	0.217	0.201
0.992	75	02.35-	00.07	01.93	03.53	05.03	06.52	08.09	09.81	12.10	15.53	0200	00.953	0.244	0.142
0.992	80	08.11-	04.34-	01.97-	00.09-	01.57	03.17	04.83	06.60	08.95	12.42	0200	00.602	0.313	0.048
0.992	85	02.18-	01.40-	00.59-	00.27	01.20	02.24	03.45	04.87	06.89	10.10	0200	00.437	0.408	0.247
0.992	90	00.00	00.41	00.86	01.39	02.01	02.74	03.66	04.81	06.56	09.51	0200	00.391	0.444	0.444

ASD TN 61-37

61WWRN 2515

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.000	00	99.99-	08.55-	05.03-	02.68-	00.77-	00.99	02.76	04.61	07.02	10.54	0200	01.193	0.948	0.000
1.000	05	08.01-	05.83-	04.08-	02.55-	01.09-	00.36	01.91	03.61	05.88	09.30	0200	00.565	0.608	0.096
1.000	10	03.79-	03.64-	03.46-	03.24-	02.97-	02.61-	02.13-	01.44-	00.28-	02.01	0200	00.061	0.469	0.196
1.000	15	00.65-	00.00	00.70	01.46	02.30	03.26	04.39	05.74	07.70	10.86	0200	00.475	0.377	0.325
1.000	20	01.96	02.46	03.01	03.62	04.33	05.15	06.16	07.40	09.24	12.28	0200	00.524	0.307	0.483
1.000	25	04.08	04.17	04.29	04.43	04.61	04.86	05.20	05.70	06.59	08.49	0200	00.126	0.251	0.643
1.000	30	05.49	05.49	05.49	05.49	05.49	05.49	05.49	05.49	05.49	05.49	0200	00.000	0.208	0.735
1.000	35	05.79	05.80	05.81	05.82	05.84	05.87	05.91	05.97	06.09	06.45	0200	00.012	0.179	0.677
1.000	40	04.42	04.66	04.93	05.27	05.67	06.19	06.86	07.75	09.20	11.84	0200	00.229	0.165	0.457
1.000	45	00.66	02.78	04.49	06.01	07.45	08.90	10.44	12.13	14.40	17.82	0200	01.087	0.165	0.192
1.000	50	06.45-	02.29	05.48	07.70	09.56	11.28	13.02	14.86	17.25	20.76	0200	02.279	0.173	0.039
1.000	55	11.40-	02.73	06.16	08.47	10.37	12.12	13.88	15.73	18.13	21.65	0200	02.972	0.183	0.013
1.000	60	08.29-	02.46	05.78	08.05	09.93	11.67	13.42	15.26	17.66	21.17	0200	02.818	0.194	0.029
1.000	65	03.14-	02.19	04.94	06.99	08.75	10.42	12.11	13.93	16.29	19.79	0200	02.130	0.202	0.098
1.000	70	00.36-	02.16	04.07	05.70	07.22	08.72	10.30	12.02	14.32	17.76	0200	01.378	0.211	0.194
1.000	75	02.61-	00.31-	01.49	03.07	04.54	06.02	07.57	09.28	11.57	14.99	0200	00.825	0.239	0.131
1.000	80	09.26-	05.22-	02.78-	00.86-	00.82	02.44	04.10	05.89	08.24	11.71	0200	00.509	0.311	0.037
1.000	85	02.26-	01.59-	00.88-	00.11-	00.75	01.72	02.85	04.22	06.18	09.35	0200	00.364	0.409	0.243
1.000	90	00.00	00.34	00.73	01.18	01.72	02.37	03.20	04.27	05.92	08.78	0200	00.324	0.446	0.446
1.008	00	99.99-	08.04-	04.52-	02.18-	00.26-	01.50	03.26	05.11	07.52	11.04	0200	01.198	0.849	0.000
1.008	05	08.27-	05.81-	03.93-	02.32-	00.81-	00.68	02.26	03.98	06.27	09.70	0200	00.563	0.551	0.082
1.008	10	04.02-	03.92-	03.79-	03.63-	03.43-	03.17-	02.80-	02.26-	01.30-	00.69	0200	00.037	0.428	0.170
1.008	15	00.87-	00.19-	00.54	01.32	02.19	03.16	04.31	05.68	07.66	10.83	0200	00.434	0.346	0.284
1.008	20	01.76	02.29	02.87	03.52	04.26	05.12	06.15	07.42	09.29	12.36	0200	00.496	0.284	0.426
1.008	25	03.89	03.99	04.11	04.26	04.45	04.71	05.07	05.59	06.53	08.48	0200	00.120	0.234	0.572
1.008	30	05.29	05.29	05.29	05.29	05.29	05.29	05.29	05.29	05.29	05.29	0200	00.000	0.195	0.659
1.008	35	05.57	05.57	05.58	05.59	05.61	05.63	05.66	05.70	05.80	06.08	0200	00.009	0.169	0.610
1.008	40	04.17	04.40	04.66	04.98	05.38	05.87	06.53	07.40	08.83	11.43	0200	00.198	0.158	0.412
1.008	45	00.34	02.48	04.19	05.72	07.16	08.61	10.15	11.84	14.11	17.53	0200	00.977	0.158	0.171
1.008	50	06.94-	01.99	05.19	07.42	09.28	11.00	12.74	14.58	16.97	20.48	0200	02.059	0.166	0.034
1.008	55	11.66-	02.43	05.86	08.17	10.07	11.82	13.58	15.43	17.83	21.35	0200	02.675	0.177	0.012
1.008	60	08.39-	02.14	05.44	07.71	09.59	11.32	13.07	14.91	17.31	20.82	0200	02.514	0.187	0.027
1.008	65	03.26-	01.85	04.56	06.59	08.35	10.01	11.70	13.51	15.87	19.36	0200	01.876	0.197	0.093
1.008	70	00.55-	01.82	03.66	05.25	06.74	08.23	09.79	11.51	13.79	17.23	0200	01.193	0.207	0.182
1.008	75	03.06-	00.85-	00.91	02.45	03.91	05.37	06.92	08.62	10.90	14.32	0200	00.700	0.237	0.117
1.008	80	10.21-	06.08-	03.60-	01.68-	00.02	01.64	03.30	05.09	07.44	10.92	0200	00.424	0.311	0.030
1.008	85	02.28-	01.72-	01.11-	00.43-	00.34	01.22	02.28	03.57	05.47	08.57	0200	00.301	0.411	0.243
1.008	90	00.00	00.28	00.61	00.99	01.46	02.04	02.78	03.76	05.30	08.05	0200	00.268	0.448	0.448

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.016	00	99.99-	07.50-	03.98-	01.64-	00.28	02.04	03.80	05.66	08.06	11.58	0200	01.203	0.752	0.000
1.016	05	08.50-	05.70-	03.68-	01.98-	00.42-	01.11	02.71	04.45	06.76	10.21	0200	00.568	0.495	0.070
1.016	10	04.24-	04.17-	04.08-	03.98-	03.84-	03.65-	03.39-	03.00-	02.26-	00.63-	0200	00.021	0.387	0.146
1.016	15	01.09-	00.38-	00.37	01.17	02.05	03.04	04.20	05.59	07.57	10.75	0200	00.389	0.315	0.245
1.016	20	01.54	02.10	02.72	03.40	04.17	05.05	06.12	07.41	09.31	12.41	0200	00.462	0.260	0.371
1.016	25	03.65	03.76	03.89	04.05	04.26	04.53	04.91	05.46	06.44	08.46	0200	00.113	0.216	0.502
1.016	30	05.03	05.03	05.03	05.03	05.03	05.03	05.03	05.03	05.03	05.03	0200	00.000	0.183	0.582
1.016	35	05.28	05.28	05.29	05.30	05.31	05.32	05.34	05.38	05.45	05.67	0200	00.006	0.160	0.541
1.016	40	03.83	04.05	04.31	04.62	05.00	05.48	06.11	06.97	08.37	10.94	0200	00.168	0.151	0.365
1.016	45	00.06-	02.08	03.81	05.33	06.78	08.23	09.77	11.46	13.73	17.15	0200	00.861	0.152	0.150
1.016	50	07.51-	01.60	04.81	07.05	08.91	10.64	12.38	14.22	16.61	20.12	0200	01.827	0.160	0.028
1.016	55	11.95-	02.06	05.48	07.79	09.69	11.44	13.20	15.05	17.45	20.97	0200	02.368	0.171	0.011
1.016	60	08.57-	01.73	05.02	07.28	09.16	10.90	12.64	14.49	16.88	20.40	0200	02.211	0.182	0.025
1.016	65	03.46-	01.45	04.11	06.12	07.87	09.52	11.21	13.01	15.37	18.86	0200	01.633	0.192	0.087
1.016	70	00.84-	01.40	03.18	04.73	06.20	07.66	09.22	10.92	13.20	16.63	0200	01.024	0.204	0.168
1.016	75	03.61-	01.47-	00.25	01.78	03.22	04.67	06.22	07.91	10.18	13.60	0200	00.593	0.237	0.103
1.016	80	10.84-	06.81-	04.36-	02.45-	00.76-	00.86	02.52	04.30	06.65	10.13	0200	00.355	0.313	0.026
1.016	85	02.26-	01.79-	01.27-	00.68-	00.00	00.81	01.79	03.00	04.82	07.84	0200	00.252	0.413	0.245
1.016	90	00.00	00.23	00.51	00.84	01.25	01.76	02.43	03.32	04.77	07.40	0200	00.225	0.450	0.450
1.024	00	99.99-	06.97-	03.45-	01.10-	00.81	02.58	04.34	06.19	08.60	12.12	0200	01.208	0.667	0.000
1.024	05	08.68-	05.52-	03.36-	01.59-	00.02	01.58	03.20	04.96	07.28	10.74	0200	00.578	0.444	0.060
1.024	10	04.43-	04.39-	04.33-	04.26-	04.17-	04.05-	03.87-	03.60-	03.07-	01.81-	0200	00.012	0.349	0.126
1.024	15	01.29-	00.57-	00.19	01.00	01.90	02.90	04.07	05.47	07.46	10.65	0200	00.346	0.287	0.213
1.024	20	01.32	01.91	02.56	03.27	04.06	04.98	06.07	07.38	09.31	12.43	0200	00.428	0.239	0.324
1.024	25	03.40	03.52	03.66	03.83	04.05	04.34	04.75	05.32	06.34	08.42	0200	00.106	0.201	0.440
1.024	30	04.74	04.74	04.74	04.74	04.74	04.74	04.74	04.75	04.75	04.75	0200	00.000	0.172	0.512
1.024	35	04.94	04.95	04.95	04.96	04.97	04.98	04.99	05.02	05.07	05.23	0200	00.004	0.153	0.476
1.024	40	03.45	03.66	03.90	04.20	04.57	05.03	05.65	06.48	07.85	10.40	0200	00.141	0.145	0.321
1.024	45	00.51-	01.64	03.36	04.89	06.34	07.79	09.33	11.03	13.30	16.72	0200	00.753	0.147	0.131
1.024	50	08.13-	01.16	04.39	06.63	08.50	10.23	11.97	13.81	16.20	19.71	0200	01.611	0.155	0.024
1.024	55	12.25-	01.64	05.06	07.37	09.27	11.02	12.77	14.62	17.02	20.54	0200	02.087	0.166	0.010
1.024	60	08.78-	01.29	04.57	06.83	08.71	10.44	12.18	14.03	16.42	19.94	0200	01.940	0.177	0.023
1.024	65	03.70-	01.02	03.64	05.63	07.36	09.01	10.69	12.50	14.85	18.34	0200	01.422	0.189	0.080
1.024	70	01.19-	00.95	02.67	04.19	05.64	07.09	08.63	10.32	12.60	16.02	0200	00.884	0.203	0.154
1.024	75	04.20-	02.10-	00.40-	01.11	02.54	03.99	05.52	07.22	09.48	12.90	0200	00.507	0.238	0.091
1.024	80	11.13-	07.36-	04.99-	03.11-	01.44-	00.16	01.81	03.59	05.93	09.40	0200	00.303	0.316	0.024
1.024	85	02.23-	01.83-	01.37-	00.85-	00.24-	00.49	01.39	02.54	04.28	07.23	0200	00.216	0.415	0.248
1.024	90	00.00	00.20	00.44	00.73	01.09	01.55	02.15	02.98	04.33	06.86	0200	00.193	0.451	0.451

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.040	00	99.99-	06.03-	02.51-	00.17-	01.75	03.51	05.28	07.13	09.54	13.06	0200	01.216	0.541	0.000
1.040	05	08.88-	05.06-	02.68-	00.80-	00.87	02.48	04.13	05.91	08.25	11.73	0200	00.600	0.366	0.047
1.040	10	04.73-	04.70-	04.67-	04.62-	04.57-	04.49-	04.37-	04.19-	03.84-	02.94-	0200	00.006	0.292	0.098
1.040	15	01.66-	00.92-	00.15-	00.68	01.58	02.60	03.78	05.18	07.18	10.38	0200	00.276	0.243	0.166
1.040	20	00.89	01.54	02.24	03.00	03.84	04.80	05.93	07.29	09.25	12.40	0200	00.370	0.206	0.253
1.040	25	02.90	03.04	03.20	03.39	03.64	03.97	04.42	05.05	06.15	08.34	0200	00.096	0.177	0.345
1.040	30	04.15	04.16	04.16	04.16	04.16	04.16	04.16	04.17	04.17	04.20	0200	00.000	0.155	0.403
1.040	35	04.25	04.25	04.25	04.26	04.26	04.27	04.27	04.29	04.31	04.39	0200	00.001	0.141	0.375
1.040	40	02.64	02.83	03.06	03.33	03.66	04.10	04.67	05.46	06.78	09.25	0200	00.100	0.136	0.251
1.040	45	01.48-	00.69	02.43	03.97	05.42	06.87	08.41	10.11	12.39	15.81	0200	00.581	0.140	0.100
1.040	50	09.39-	00.27	03.52	05.77	07.64	09.37	11.11	12.96	15.35	18.86	0200	01.267	0.148	0.017
1.040	55	12.77-	00.80	04.21	06.52	08.42	10.17	11.92	13.77	16.17	19.69	0200	01.648	0.159	0.008
1.040	60	09.21-	00.45	03.70	05.95	07.82	09.55	11.29	13.13	15.53	19.04	0200	01.527	0.172	0.021
1.040	65	04.21-	00.20	02.75	04.71	06.42	08.06	09.73	11.53	13.88	17.36	0200	01.112	0.185	0.070
1.040	70	01.91-	00.09	01.73	03.21	04.62	06.05	07.57	09.25	11.51	14.93	0200	00.686	0.203	0.131
1.040	75	05.37-	03.28-	01.58-	00.07-	01.37	02.81	04.35	06.04	08.30	11.72	0200	00.393	0.242	0.070
1.040	80	11.00-	07.91-	05.78-	04.02-	02.42-	00.87-	00.75	02.51	04.83	08.29	0200	00.238	0.321	0.026
1.040	85	02.14-	01.82-	01.46-	01.03-	00.52-	00.11	00.91	01.94	03.55	06.37	0200	00.174	0.419	0.256
1.040	90	00.00	00.16	00.36	00.60	00.90	01.29	01.82	02.55	03.78	06.15	0200	00.158	0.454	0.454
1.056	00	99.99-	05.34-	01.82-	00.52	02.44	04.20	05.96	07.82	10.22	13.74	0200	01.222	0.464	0.000
1.056	05	08.89-	04.60-	02.08-	00.13-	01.57	03.20	04.87	06.67	09.02	12.50	0200	00.621	0.317	0.041
1.056	10	04.87-	04.82-	04.76-	04.69-	04.59-	04.46-	04.27-	03.99-	03.44-	02.13-	0200	00.008	0.255	0.083
1.056	15	01.89-	01.17-	00.41-	00.41	01.30	02.30	03.47	04.87	06.86	10.05	0200	00.227	0.215	0.139
1.056	20	00.57	01.26	01.99	02.79	03.66	04.64	05.80	07.17	09.15	12.33	0200	00.328	0.185	0.211
1.056	25	02.49	02.64	02.82	03.04	03.32	03.68	04.17	04.85	06.02	08.32	0200	00.090	0.162	0.287
1.056	30	03.64	03.64	03.64	03.65	03.65	03.65	03.66	03.67	03.70	03.77	0200	00.001	0.144	0.333
1.056	35	03.62	03.63	03.63	03.63	03.63	03.63	03.64	03.65	03.66	03.71	0200	00.001	0.134	0.308
1.056	40	01.90	02.07	02.27	02.52	02.83	03.23	03.77	04.51	05.76	08.15	0200	00.073	0.131	0.203
1.056	45	02.37-	00.19-	01.56	03.10	04.55	06.01	07.56	09.26	11.53	14.95	0200	00.463	0.136	0.079
1.056	50	10.54-	00.53-	02.74	05.00	06.87	08.61	10.35	12.19	14.59	18.10	0200	01.036	0.145	0.013
1.056	55	13.12-	00.09	03.49	05.79	07.69	09.44	11.19	13.04	15.44	18.96	0200	01.363	0.156	0.008
1.056	60	09.53-	00.24-	02.99	05.23	07.10	08.82	10.56	12.41	14.80	18.31	0200	01.270	0.169	0.019
1.056	65	04.63-	00.43-	02.07	04.00	05.70	07.33	08.99	10.78	13.13	16.61	0200	00.929	0.184	0.063
1.056	70	02.53-	00.59-	01.02	02.48	03.88	05.29	06.81	08.49	10.74	14.15	0200	00.577	0.204	0.114
1.056	75	06.37-	04.18-	02.44-	00.90-	00.56	02.02	03.56	05.26	07.54	10.96	0200	00.336	0.247	0.057
1.056	80	10.51-	07.95-	06.03-	04.39-	02.87-	01.37-	00.21	01.94	04.24	07.68	0200	00.209	0.327	0.029
1.056	85	02.05-	01.78-	01.45-	01.06-	00.60-	00.02-	00.73	01.70	03.25	06.00	0200	00.158	0.423	0.264
1.056	90	00.00	00.15	00.33	00.55	00.83	01.20	01.69	02.38	03.56	05.86	0200	00.145	0.457	0.457

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.072	00	99.99-	04.93-	01.41-	00.93	02.85	04.61	06.37	08.23	10.63	14.15	0200	01.225	0.424	0.000
1.072	05	08.72-	04.20-	01.63-	00.34	02.06	03.70	05.38	07.17	09.53	13.02	0200	00.638	0.289	0.039
1.072	10	04.83-	04.75-	04.64-	04.51-	04.35-	04.13-	03.81-	03.35-	02.51-	00.70-	0200	00.014	0.235	0.077
1.072	15	01.96-	01.28-	00.56-	00.22	01.08	02.06	03.20	04.57	06.55	09.71	0200	00.193	0.199	0.127
1.072	20	00.41	01.11	01.86	02.66	03.54	04.54	05.70	07.08	09.07	12.25	0200	00.301	0.173	0.190
1.072	25	02.23	02.40	02.60	02.84	03.14	03.53	04.06	04.79	06.02	08.39	0200	00.089	0.153	0.255
1.072	30	03.28	03.28	03.29	03.29	03.30	03.31	03.33	03.36	03.42	03.58	0200	00.002	0.138	0.294
1.072	35	03.15	03.15	03.15	03.16	03.16	03.16	03.17	03.18	03.19	03.24	0200	00.001	0.130	0.268
1.072	40	01.31	01.46	01.64	01.87	02.15	02.51	03.01	03.70	04.89	07.20	0200	00.056	0.129	0.174
1.072	45	03.12-	00.92-	00.83	02.38	03.84	05.30	06.84	08.55	10.82	14.25	0200	00.388	0.134	0.065
1.072	50	11.46-	01.15-	02.14	04.40	06.28	08.01	09.76	11.60	14.00	17.51	0200	00.894	0.143	0.010
1.072	55	13.23-	00.41-	02.98	05.28	07.17	08.92	10.67	12.52	14.92	18.44	0200	01.196	0.154	0.007
1.072	60	09.65-	00.67-	02.54	04.77	06.63	08.36	10.09	11.93	14.33	17.84	0200	01.131	0.168	0.018
1.072	65	04.89-	00.80-	01.67	03.59	05.28	06.90	08.56	10.35	12.70	16.18	0200	00.840	0.184	0.060
1.072	70	03.01-	01.04-	00.59	02.06	03.46	04.89	06.41	08.09	10.34	13.75	0200	00.532	0.206	0.103
1.072	75	07.17-	04.78-	02.93-	01.33-	00.16	01.65	03.21	04.93	07.22	10.65	0200	00.318	0.251	0.048
1.072	80	10.02-	07.73-	05.94-	04.37-	02.90-	01.43-	00.13	01.84	04.12	07.55	0200	00.205	0.331	0.033
1.072	85	01.99-	01.71-	01.39-	01.01-	00.55-	00.03	00.77	01.74	03.28	06.01	0200	00.159	0.426	0.269
1.072	90	00.00	00.15	00.34	00.56	00.84	01.21	01.71	02.40	03.59	05.90	0200	00.147	0.458	0.458

1.104	00	99.99-	04.93-	01.41-	00.93	02.85	04.61	06.37	08.23	10.63	14.15	0200	01.223	0.423	0.000
1.104	05	07.95-	03.74-	01.25-	00.69	02.39	04.01	05.68	07.47	09.82	13.30	0200	00.660	0.280	0.045
1.104	10	04.24-	04.10-	03.94-	03.73-	03.47-	03.14-	02.67-	02.02-	00.90-	01.33	0200	00.025	0.226	0.085
1.104	15	01.52-	00.99-	00.42-	00.23	00.96	01.82	02.85	04.11	05.98	09.05	0200	00.156	0.192	0.135
1.104	20	00.69	01.34	02.03	02.79	03.63	04.58	05.70	07.06	09.01	12.16	0200	00.282	0.166	0.195
1.104	25	02.35	02.54	02.77	03.04	03.39	03.82	04.41	05.21	06.53	09.01	0200	00.102	0.148	0.253
1.104	30	03.19	03.21	03.23	03.25	03.28	03.33	03.39	03.49	03.70	04.26	0200	00.009	0.134	0.280
1.104	35	02.83	02.83	02.84	02.84	02.85	02.86	02.87	02.90	02.94	03.08	0200	00.002	0.128	0.245
1.104	40	00.71	00.83	00.98	01.16	01.39	01.70	02.11	02.71	03.76	05.88	0200	00.038	0.128	0.150
1.104	45	04.06-	01.82-	00.05-	01.50	02.97	04.43	05.98	07.68	09.96	13.39	0200	00.317	0.133	0.052
1.104	50	12.45-	01.71-	01.60	03.87	05.75	07.49	09.24	11.08	13.48	17.00	0200	00.792	0.142	0.008
1.104	55	12.70-	00.63-	02.74	05.03	06.92	08.67	10.42	12.27	14.66	18.18	0200	01.125	0.154	0.008
1.104	60	09.12-	00.63-	02.54	04.75	06.61	08.33	10.07	11.90	14.29	17.80	0200	01.122	0.168	0.021
1.104	65	04.86-	00.68-	01.81	03.74	05.44	07.07	08.73	10.52	12.87	16.35	0200	00.877	0.184	0.060
1.104	70	03.49-	01.19-	00.62	02.19	03.67	05.14	06.70	08.41	10.69	14.12	0200	00.588	0.209	0.093
1.104	75	08.20-	05.03-	02.87-	01.09-	00.52	02.08	03.70	05.46	07.78	11.24	0200	00.373	0.255	0.039
1.104	80	09.31-	06.96-	05.14-	03.56-	02.07-	00.59-	00.97	02.68	04.97	08.40	0200	00.253	0.335	0.039
1.104	85	01.89-	01.55-	01.16-	00.71-	00.17-	00.48	01.31	02.38	04.03	06.88	0200	00.200	0.427	0.277
1.104	90	00.00	00.19	00.42	00.70	01.05	01.49	02.07	02.88	04.20	06.70	0200	00.187	0.457	0.457

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.161	00	99.99-	05.82-	02.30-	00.04	01.96	03.72	05.48	07.34	09.74	13.26	0500	00.009	0.004	0.000
0.161	10	12.93-	04.73-	01.59-	00.61	02.46	04.18	05.91	07.75	10.14	13.65	0500	00.009	0.003	0.000
0.161	20	09.83-	04.49-	01.74-	00.31	02.08	03.74	05.44	07.25	09.62	13.11	0500	00.007	0.003	0.000
0.161	30	07.33-	04.23-	02.09-	00.33-	01.27	02.83	04.45	06.20	08.52	11.98	0500	00.005	0.003	0.001
0.161	40	05.16-	03.60-	02.22-	00.91-	00.38	01.72	03.17	04.80	07.01	10.38	0500	00.004	0.003	0.001
0.161	50	03.32-	02.61-	01.87-	01.07-	00.19-	00.80	01.96	03.35	05.33	08.51	0500	00.002	0.003	0.001
0.161	60	01.84-	01.53-	01.16-	00.73-	00.22-	00.41	01.21	02.24	03.86	06.68	0500	00.001	0.003	0.002
0.161	70	00.76-	00.60-	00.41-	00.18-	00.11	00.49	01.00	01.71	02.92	05.27	0500	00.001	0.003	0.003
0.161	80	00.07-	00.03	00.15	00.30	00.49	00.75	01.11	01.63	02.56	04.51	0500	00.001	0.003	0.003
0.161	90	00.00	00.08	00.19	00.32	00.48	00.71	01.02	01.48	02.32	04.13	0500	00.001	0.003	0.003
0.177	00	99.99-	05.59-	02.07-	00.27	02.19	03.95	05.71	07.57	09.97	13.49	0500	00.023	0.009	0.000
0.177	10	14.05-	04.78-	01.56-	00.68	02.55	04.28	06.02	07.86	10.25	13.76	0500	00.021	0.008	0.000
0.177	20	10.67-	04.71-	01.85-	00.25	02.04	03.73	05.43	07.25	09.63	13.12	0500	00.018	0.008	0.001
0.177	30	07.94-	04.59-	02.36-	00.55-	01.08	02.65	04.29	06.05	08.38	11.85	0500	00.013	0.008	0.001
0.177	40	05.58-	04.00-	02.59-	01.28-	00.03	01.37	02.83	04.46	06.68	10.05	0500	00.009	0.008	0.002
0.177	50	03.59-	02.93-	02.23-	01.47-	00.62-	00.34	01.47	02.82	04.78	07.94	0500	00.005	0.008	0.003
0.177	60	02.01-	01.74-	01.43-	01.06-	00.61-	00.05-	00.67	01.63	03.14	05.86	0500	00.003	0.008	0.005
0.177	70	00.85-	00.73-	00.59-	00.41-	00.18-	00.12	00.54	01.13	02.18	04.29	0500	00.002	0.008	0.007
0.177	80	00.12-	00.05-	00.03	00.14	00.28	00.46	00.73	01.13	01.86	03.51	0500	00.001	0.008	0.008
0.177	90	00.00	00.06	00.13	00.22	00.33	00.49	00.72	01.06	01.70	03.17	0500	00.001	0.009	0.009
0.193	00	99.99-	05.39-	01.86-	00.48	02.40	04.16	05.92	07.77	10.18	13.70	0500	00.062	0.024	0.000
0.193	10	15.19-	04.81-	01.51-	00.75	02.63	04.37	06.11	07.96	10.35	13.87	0500	00.057	0.021	0.001
0.193	20	11.50-	04.90-	01.94-	00.20	02.01	03.71	05.43	07.25	09.63	13.13	0500	00.047	0.021	0.001
0.193	30	08.53-	04.93-	02.61-	00.75-	00.90	02.49	04.14	05.91	08.25	11.72	0500	00.033	0.020	0.003
0.193	40	05.98-	04.38-	02.96-	01.63-	00.32-	01.03	02.50	04.13	06.35	09.73	0500	00.021	0.021	0.005
0.193	50	03.85-	03.24-	02.57-	01.85-	01.04-	00.11-	00.99	02.32	04.25	07.38	0500	00.012	0.021	0.009
0.193	60	02.16-	01.94-	01.67-	01.35-	00.96-	00.47-	00.18	01.05	02.47	05.07	0500	00.006	0.022	0.013
0.193	70	00.94-	00.85-	00.74-	00.60-	00.42-	00.19-	00.15	00.63	01.51	03.37	0500	00.003	0.022	0.018
0.193	80	00.18-	00.13-	00.07-	00.00	00.10	00.23	00.43	00.72	01.27	02.59	0500	00.002	0.022	0.022
0.193	90	00.00	00.04	00.08	00.14	00.22	00.33	00.49	00.72	01.19	02.33	0500	00.002	0.023	0.023
0.205	00	99.99-	05.25-	01.73-	00.62	02.53	04.30	06.06	07.91	10.32	13.84	0500	00.140	0.052	0.000
0.205	10	16.05-	04.81-	01.47-	00.80	02.69	04.43	06.18	08.03	10.42	13.94	0500	00.131	0.047	0.001
0.205	20	12.12-	05.02-	01.99-	00.17	02.00	03.70	05.42	07.25	09.63	13.14	0500	00.105	0.046	0.003
0.205	30	08.97-	05.16-	02.78-	00.90-	00.77	02.37	04.03	05.81	08.15	11.62	0500	00.074	0.046	0.006
0.205	40	06.28-	04.65-	03.22-	01.88-	00.56-	00.79	02.26	03.89	06.12	09.50	0500	00.045	0.047	0.011
0.205	50	04.03-	03.45-	02.82-	02.12-	01.34-	00.44-	00.64	01.95	03.86	06.97	0500	00.024	0.048	0.019
0.205	60	02.27-	02.07-	01.84-	01.56-	01.21-	00.76-	00.16-	00.64	01.98	04.49	0500	00.012	0.050	0.029
0.205	70	00.99-	00.92-	00.83-	00.72-	00.58-	00.38-	00.11-	00.30	01.06	02.73	0500	00.006	0.051	0.040
0.205	80	00.21-	00.18-	00.13-	00.08-	00.00	00.10	00.24	00.47	00.91	01.99	0500	00.004	0.052	0.049
0.205	90	00.00	00.03	00.06	00.10	00.16	00.24	00.35	00.53	00.89	01.79	0500	00.003	0.052	0.052

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.213	00	99.99-	05.16-	01.64-	00.70	02.62	04.38	06.14	08.00	10.40	13.92	0500	00.255	0.093	0.000
0.213	10	16.63-	04.81-	01.45-	00.84	02.73	04.48	06.22	08.07	10.47	13.99	0500	00.237	0.085	0.002
0.213	20	12.53-	05.09-	02.03-	00.15	01.99	03.69	05.42	07.25	09.64	13.14	0500	00.189	0.083	0.005
0.213	30	09.26-	05.32-	02.90-	01.00-	00.69	02.30	03.96	05.74	08.08	11.56	0500	00.131	0.083	0.010
0.213	40	06.47-	04.83-	03.39-	02.05-	00.73-	00.63	02.10	03.74	05.96	09.34	0500	00.079	0.084	0.019
0.213	50	04.16-	03.59-	02.98-	02.30-	01.54-	00.65-	00.41	01.71	03.60	06.70	0500	00.042	0.087	0.033
0.213	60	02.34-	02.16-	01.94-	01.68-	01.36-	00.94-	00.38-	00.39	01.67	04.11	0500	00.020	0.090	0.052
0.213	70	01.03-	00.97-	00.89-	00.80-	00.67-	00.50-	00.26-	00.10	00.78	02.32	0500	00.009	0.092	0.073
0.213	80	00.23-	00.20-	00.17-	00.12-	00.06-	00.02	00.14	00.32	00.69	01.63	0500	00.005	0.094	0.089
0.213	90	00.00	00.02	00.05	00.08	00.13	00.19	00.28	00.43	00.72	01.47	0500	00.004	0.095	0.095
0.225	00	99.99-	05.04-	01.51-	00.83	02.75	04.51	06.27	08.12	10.53	14.05	0500	00.629	0.223	0.000
0.225	10	17.52-	04.79-	01.40-	00.90	02.79	04.54	06.29	08.14	10.54	14.06	0500	00.581	0.206	0.004
0.225	20	13.16-	05.19-	02.07-	00.13	01.97	03.69	05.42	07.25	09.64	13.15	0500	00.459	0.201	0.010
0.225	30	09.70-	05.54-	03.07-	01.14-	00.56	02.18	03.85	05.64	07.99	11.47	0500	00.311	0.201	0.022
0.225	40	06.76-	05.11-	03.65-	02.30-	00.98-	00.38	01.86	03.50	05.73	09.11	0500	00.182	0.206	0.043
0.225	50	04.34-	03.81-	03.22-	02.57-	01.83-	00.97-	00.07	01.34	03.21	06.29	0500	00.092	0.213	0.078
0.225	60	02.44-	02.29-	02.10-	01.87-	01.58-	01.21-	00.70-	00.00	01.20	03.53	0500	00.041	0.220	0.126
0.225	70	01.08-	01.03-	00.97-	00.90-	00.80-	00.66-	00.47-	00.17-	00.39	01.73	0500	00.018	0.228	0.177
0.225	80	00.26-	00.24-	00.21-	00.18-	00.14-	00.08-	00.01	00.15	00.42	01.15	0500	00.009	0.232	0.219
0.225	90	00.00	00.02	00.03	00.06	00.09	00.13	00.20	00.30	00.51	01.08	0500	00.007	0.235	0.235
0.229	00	99.99-	05.00-	01.48-	00.87	02.78	04.55	06.31	08.16	10.57	14.09	0500	00.801	0.281	0.000
0.229	10	17.79-	04.78-	01.39-	00.91	02.81	04.56	06.31	08.16	10.56	14.08	0500	00.739	0.260	0.004
0.229	20	13.36-	05.22-	02.09-	00.12	01.97	03.68	05.42	07.25	09.64	13.15	0500	00.582	0.254	0.012
0.229	30	09.84-	05.62-	03.12-	01.18-	00.52	02.14	03.81	05.60	07.95	11.44	0500	00.392	0.255	0.027
0.229	40	06.86-	05.20-	03.74-	02.39-	01.06-	00.30	01.78	03.42	05.65	09.03	0500	00.226	0.261	0.054
0.229	50	04.40-	03.88-	03.30-	02.66-	01.93-	01.08-	00.05-	01.22	03.08	06.15	0500	00.113	0.270	0.098
0.229	60	02.48-	02.33-	02.15-	01.93-	01.65-	01.29-	00.80-	00.12-	01.05	03.35	0500	00.050	0.281	0.159
0.229	70	01.10-	01.05-	01.00-	00.93-	00.84-	00.71-	00.53-	00.25-	00.28	01.56	0500	00.021	0.290	0.225
0.229	80	00.27-	00.25-	00.23-	00.20-	00.16-	00.10-	00.02-	00.10	00.36	01.03	0500	00.011	0.296	0.279
0.229	90	00.00	00.01	00.03	00.05	00.08	00.12	00.18	00.27	00.47	00.99	0500	00.008	0.299	0.299
0.233	00	99.99-	04.96-	01.44-	00.90	02.82	04.58	06.34	08.20	10.60	14.12	0500	00.944	0.329	0.000
0.233	10	18.00-	04.78-	01.37-	00.93	02.83	04.58	06.33	08.18	10.58	14.10	0500	00.871	0.305	0.005
0.233	20	13.53-	05.25-	02.10-	00.11	01.96	03.68	05.42	07.25	09.64	13.15	0500	00.683	0.298	0.013
0.233	30	09.97-	05.68-	03.17-	01.23-	00.48	02.11	03.78	05.57	07.92	11.41	0500	00.457	0.300	0.030
0.233	40	06.95-	05.28-	03.82-	02.46-	01.14-	00.23	01.70	03.35	05.58	08.96	0500	00.262	0.307	0.062
0.233	50	04.46-	03.94-	03.38-	02.74-	02.02-	01.17-	00.15-	01.11	02.97	06.03	0500	00.129	0.318	0.114
0.233	60	02.51-	02.37-	02.19-	01.98-	01.72-	01.37-	00.89-	00.22-	00.92	03.18	0500	00.056	0.331	0.185
0.233	70	01.11-	01.07-	01.02-	00.95-	00.87-	00.75-	00.58-	00.32-	00.19	01.41	0500	00.023	0.342	0.265
0.233	80	00.28-	00.26-	00.24-	00.21-	00.17-	00.12-	00.05-	00.07	00.31	00.94	0500	00.012	0.350	0.328
0.233	90	00.00	00.01	00.03	00.05	00.08	00.11	00.17	00.26	00.44	00.93	0500	00.009	0.353	0.353

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.235	00	99.99-	04.95-	01.43-	00.91	02.83	04.59	06.35	08.21	10.61	14.14	0500	00.988	0.343	0.000
0.235	10	18.08-	04.77-	01.36-	00.94	02.84	04.59	06.34	08.19	10.59	14.11	0500	00.910	0.318	0.005
0.235	20	13.59-	04.25-	02.10-	00.11	01.96	03.68	05.42	07.25	09.64	13.15	0500	00.713	0.311	0.014
0.235	30	10.02-	04.71-	03.19-	01.24-	00.46	02.09	03.77	05.56	07.91	11.39	0500	00.476	0.313	0.031
0.235	40	06.99-	05.32-	03.86-	02.50-	01.17-	00.20	01.67	03.32	05.54	08.93	0500	00.272	0.321	0.064
0.235	50	04.48-	03.97-	03.41-	02.78-	02.06-	01.21-	00.19-	01.06	02.91	05.97	0500	00.133	0.332	0.118
0.235	60	02.52-	02.38-	02.21-	02.00-	01.74-	01.40-	00.93-	00.27-	00.87	03.12	0500	00.057	0.346	0.193
0.235	70	01.12-	01.08-	01.03-	00.97-	00.88-	00.76-	00.60-	00.34-	00.16	01.36	0500	00.024	0.358	0.276
0.235	80	00.28-	00.26-	00.24-	00.22-	00.18-	00.13-	00.06-	00.06	00.29	00.92	0500	00.012	0.366	0.343
0.235	90	00.00	00.01	00.03	00.05	00.07	00.11	00.17	00.25	00.43	00.92	0500	00.010	0.369	0.369
0.237	00	99.99-	04.94-	01.42-	00.93	02.84	04.61	06.37	08.22	10.63	14.15	0500	01.005	0.348	0.000
0.237	10	18.12-	04.77-	01.36-	00.95	02.84	04.59	06.35	08.20	10.60	14.12	0500	00.926	0.323	0.005
0.237	20	13.64-	05.26-	02.11-	00.11	01.96	03.68	05.41	07.25	09.64	13.15	0500	00.725	0.316	0.014
0.237	30	10.06-	04.73-	03.21-	01.26-	00.45	02.08	03.75	05.55	07.90	11.38	0500	00.483	0.318	0.031
0.237	40	07.02-	05.35-	03.89-	02.53-	01.20-	00.17	01.64	03.29	05.52	08.90	0500	00.274	0.326	0.065
0.237	50	04.50-	04.00-	03.44-	02.81-	02.09-	01.25-	00.23-	01.02	02.87	05.93	0500	00.134	0.338	0.120
0.237	60	02.54-	02.40-	02.23-	02.02-	01.76-	01.42-	00.96-	00.30-	00.83	03.07	0500	00.057	0.352	0.196
0.237	70	01.13-	01.09-	01.04-	00.97-	00.89-	00.78-	00.61-	00.36-	00.14	01.33	0500	00.024	0.364	0.281
0.237	80	00.29-	00.27-	00.25-	00.22-	00.18-	00.14-	00.06-	00.05	00.28	00.90	0500	00.012	0.373	0.349
0.237	90	00.00	00.01	00.03	00.05	00.07	00.11	00.17	00.25	00.43	00.92	0500	00.010	0.376	0.376
0.238	00	99.99-	04.93-	01.41-	00.93	02.85	04.61	06.37	08.23	10.63	14.15	0500	01.004	0.347	0.000
0.238	10	18.13-	04.76-	01.35-	00.95	02.85	04.60	06.35	08.20	10.60	14.12	0500	00.925	0.323	0.005
0.238	20	13.66-	05.26-	02.11-	00.11	01.96	03.68	05.41	07.25	09.64	13.15	0500	00.723	0.316	0.014
0.238	30	10.08-	04.74-	03.22-	01.27-	00.44	02.08	03.75	05.54	07.89	11.38	0500	00.481	0.318	0.031
0.238	40	07.03-	05.36-	03.90-	02.54-	01.21-	00.16	01.63	03.28	05.51	08.89	0500	00.273	0.326	0.065
0.238	50	04.51-	04.01-	03.45-	02.82-	02.10-	01.26-	00.25-	01.00	02.86	05.91	0500	00.133	0.338	0.119
0.238	60	02.54-	02.40-	02.24-	02.03-	01.77-	01.43-	00.97-	00.32-	00.81	03.05	0500	00.057	0.351	0.196
0.238	70	01.13-	01.09-	01.04-	00.98-	00.89-	00.78-	00.62-	00.36-	00.13	01.32	0500	00.024	0.364	0.280
0.238	80	00.29-	00.27-	00.25-	00.22-	00.19-	00.14-	00.06-	00.05	00.28	00.90	0500	00.012	0.373	0.349
0.238	90	00.00	00.01	00.03	00.05	00.08	00.11	00.17	00.25	00.43	00.92	0500	00.010	0.375	0.375
0.239	00	99.99-	04.93-	01.41-	00.93	02.85	04.61	06.37	08.23	10.63	14.16	0500	00.997	0.345	0.000
0.239	10	18.13-	04.76-	01.35-	00.95	02.85	04.60	06.35	08.20	10.60	14.12	0500	00.918	0.320	0.005
0.239	20	13.67-	05.27-	02.11-	00.10	01.96	03.68	05.41	07.25	09.64	13.15	0500	00.718	0.313	0.013
0.239	30	10.09-	04.75-	03.22-	01.27-	00.44	02.07	03.74	05.54	07.89	11.37	0500	00.477	0.315	0.031
0.239	40	07.05-	05.37-	03.91-	02.55-	01.22-	00.15	01.62	03.27	05.50	08.88	0500	00.271	0.323	0.064
0.239	50	04.52-	04.02-	03.46-	02.83-	02.11-	01.27-	00.26-	00.99	02.84	05.90	0500	00.132	0.335	0.118
0.239	60	02.55-	02.41-	02.24-	02.04-	01.78-	01.44-	00.98-	00.33-	00.80	03.03	0500	00.056	0.349	0.194
0.239	70	01.13-	01.09-	01.04-	00.98-	00.90-	00.78-	00.62-	00.37-	00.12	01.31	0500	00.023	0.361	0.278
0.239	80	00.29-	00.27-	00.25-	00.22-	00.19-	00.14-	00.07-	00.05	00.28	00.90	0500	00.012	0.370	0.346
0.239	90	00.00	00.01	00.03	00.05	00.08	00.11	00.17	00.26	00.44	00.93	0500	00.010	0.373	0.373

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.240	00	99.99-	04.93-	01.40-	00.94	02.86	04.62	06.38	08.23	10.64	14.16	0500	00.985	0.340	0.000
0.240	10	18.13	04.76-	01.35-	00.95	02.85	04.60	06.35	08.21	10.60	14.12	0500	00.907	0.316	0.005
0.240	20	13.68-	05.27-	02.11-	00.10	01.96	03.68	05.41	07.25	09.64	13.15	0500	00.708	0.309	0.013
0.240	30	10.11-	05.76-	03.23-	01.28-	00.43	02.07	03.74	05.53	07.88	11.37	0500	00.471	0.311	0.030
0.240	40	07.06-	05.38-	03.92-	02.56-	01.23-	00.14	01.61	03.26	05.49	08.87	0500	00.267	0.319	0.063
0.240	50	04.53-	04.02-	03.46-	02.84-	02.12-	01.28-	00.27-	00.98	02.83	05.88	0500	00.130	0.331	0.117
0.240	60	02.55-	02.41-	02.25-	02.04-	01.79-	01.45-	00.99-	00.34-	00.79	03.02	0500	00.055	0.344	0.191
0.240	70	01.14-	01.10-	01.05-	00.98-	00.90-	00.79-	00.62-	00.37-	00.12	01.31	0500	00.023	0.357	0.274
0.240	80	00.29-	00.27-	00.25-	00.23-	00.19-	00.14-	00.07-	00.05	00.28	00.91	0500	00.012	0.366	0.342
0.240	90	00.00	00.01	00.03	00.05	00.08	00.11	00.17	00.26	00.44	00.93	0500	00.010	0.368	0.368
0.242	00	99.99-	04.92-	01.40-	00.94	02.86	04.62	06.38	08.24	10.64	14.16	0500	00.946	0.326	0.000
0.242	10	18.11-	04.76-	01.35-	00.96	02.86	04.60	06.36	08.21	10.61	14.13	0500	00.871	0.303	0.005
0.242	20	13.69-	05.27-	02.11-	00.10	01.96	03.68	05.41	07.25	09.64	13.15	0500	00.680	0.297	0.013
0.242	30	10.12-	05.77-	03.24-	01.28-	00.43	02.06	03.73	05.52	07.88	11.36	0500	00.451	0.299	0.029
0.242	40	07.07-	05.39-	03.93-	02.57-	01.24-	00.12	01.60	03.24	05.47	08.86	0500	00.255	0.307	0.060
0.242	50	04.54-	04.04-	03.48-	02.85-	02.14-	01.30-	00.29-	00.96	02.81	05.87	0500	00.124	0.318	0.112
0.242	60	02.56-	02.42-	02.26-	02.05-	01.79-	01.46-	01.00-	00.35-	00.78	03.00	0500	00.053	0.331	0.183
0.242	70	01.14-	01.10-	01.05-	00.99-	00.90-	00.79-	00.62-	00.37-	00.12	01.31	0500	00.022	0.343	0.263
0.242	80	00.29-	00.28-	00.26-	00.23-	00.19-	00.14-	00.07-	00.05	00.29	00.92	0500	00.012	0.352	0.328
0.242	90	00.00	00.01	00.03	00.05	00.08	00.12	00.17	00.26	00.45	00.95	0500	00.010	0.354	0.354
0.244	00	99.99-	04.92-	01.40-	00.94	02.86	04.62	06.38	08.24	10.64	14.17	0500	00.896	0.309	0.000
0.244	10	18.08-	04.75-	01.34-	00.96	02.86	04.61	06.36	08.21	10.61	14.13	0500	00.824	0.287	0.004
0.244	20	13.68-	05.27-	02.11-	00.10	01.96	03.68	05.41	07.25	09.64	13.15	0500	00.643	0.281	0.012
0.244	30	10.12-	05.77-	03.24-	01.29-	00.42	02.05	03.73	05.52	07.87	11.36	0500	00.426	0.283	0.028
0.244	40	07.08-	05.40-	03.94-	02.58-	01.25-	00.12	01.59	03.24	05.47	08.85	0500	00.241	0.290	0.057
0.244	50	04.55-	04.04-	03.48-	02.86-	02.14-	01.31-	00.29-	00.96	02.80	05.86	0500	00.117	0.301	0.106
0.244	60	02.56-	02.43-	02.26-	02.06-	01.80-	01.46-	01.00-	00.35-	00.78	03.01	0500	00.050	0.313	0.174
0.244	70	01.15-	01.10-	01.05-	00.99-	00.91-	00.79-	00.62-	00.37-	00.13	01.32	0500	00.021	0.325	0.249
0.244	80	00.30-	00.28-	00.26-	00.23-	00.19-	00.14-	00.07-	00.05	00.30	00.94	0500	00.011	0.333	0.311
0.244	90	00.00	00.01	00.03	00.05	00.08	00.12	00.18	00.27	00.46	00.98	0500	00.009	0.335	0.335
0.246	00	99.99-	04.92-	01.40-	00.94	02.86	04.62	06.38	08.24	10.64	14.17	0500	00.839	0.289	0.000
0.246	10	18.03-	04.75-	01.34-	00.96	02.86	04.61	06.36	08.21	10.61	14.13	0500	00.772	0.269	0.004
0.246	20	13.66-	05.27-	02.11-	00.10	01.96	03.68	05.41	07.25	09.64	13.15	0500	00.602	0.263	0.011
0.246	30	10.12-	05.77-	03.24-	01.29-	00.42	02.05	03.72	05.52	07.87	11.35	0500	00.399	0.265	0.026
0.246	40	07.08-	05.40-	03.94-	02.58-	01.25-	00.11	01.59	03.23	05.46	08.85	0500	00.226	0.272	0.053
0.246	50	04.55-	04.05-	03.49-	02.86-	02.15-	01.31-	00.30-	00.95	02.80	05.86	0500	00.110	0.282	0.099
0.246	60	02.57-	02.43-	02.26-	02.06-	01.80-	01.46-	01.00-	00.35-	00.78	03.01	0500	00.047	0.293	0.162
0.246	70	01.15-	01.11-	01.06-	00.99-	00.91-	00.79-	00.62-	00.36-	00.14	01.34	0500	00.020	0.304	0.233
0.246	80	00.30-	00.28-	00.26-	00.23-	00.19-	00.14-	00.06-	00.06	00.31	00.96	0500	00.011	0.312	0.291
0.246	90	00.00	00.01	00.03	00.05	00.08	00.12	00.18	00.28	00.47	01.00	0500	00.009	0.314	0.314

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN / HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.248	00	99.99-	04.92-	01.40-	00.94	02.86	04.62	06.38	08.24	10.64	14.16	0500	00.781	0.269	0.000
0.248	10	18.00	04.75-	01.34-	00.96	02.86	04.61	06.36	08.21	10.61	14.13	0500	00.719	0.250	0.004
0.248	20	13.64-	05.27-	02.11-	00.10	01.95	03.68	05.41	07.25	09.63	13.15	0500	00.560	0.245	0.011
0.248	30	10.11-	05.77-	03.24-	01.29-	00.42	02.05	03.72	05.51	07.87	11.35	0500	00.371	0.247	0.024
0.248	40	07.08-	05.41-	03.94-	02.59-	01.26-	00.11	01.58	03.23	05.46	08.84	0500	00.210	0.253	0.050
0.248	50	04.56-	04.05-	03.49-	02.86-	02.15-	01.31-	00.30-	00.95	02.80	05.86	0500	00.102	0.262	0.092
0.248	60	02.57-	02.43-	02.27-	02.06-	01.80-	01.46-	00.99-	00.34-	00.79	03.02	0500	00.044	0.273	0.151
0.248	70	01.15-	01.11-	01.06-	00.99-	00.91-	00.79-	00.62-	00.36-	00.15	01.36	0500	00.019	0.283	0.217
0.248	80	00.31-	00.29-	00.26-	00.23-	00.20-	00.14-	00.06-	00.06	00.31	00.98	0500	00.010	0.291	0.271
0.248	90	00.00	00.01	00.03	00.05	00.08	00.13	00.19	00.28	00.48	01.02	0500	00.009	0.292	0.292
0.250	00	99.99-	04.92-	01.40-	00.94	02.86	04.62	06.38	08.24	10.64	14.16	0500	00.725	0.250	0.000
0.250	10	17.96-	04.75-	01.34-	00.96	02.86	04.61	06.36	08.21	10.61	14.13	0500	00.667	0.232	0.004
0.250	20	13.63-	05.27-	02.11-	00.10	01.95	03.67	05.41	07.25	09.63	13.14	0500	00.520	0.227	0.010
0.250	30	10.11-	05.77-	03.24-	01.29-	00.42	02.05	03.72	05.51	07.86	11.35	0500	00.344	0.229	0.022
0.250	40	07.08-	05.41-	03.94-	02.59-	01.26-	00.11	01.58	03.23	05.46	08.84	0500	00.195	0.235	0.046
0.250	50	04.56-	04.05-	03.49-	02.86-	02.15-	01.31-	00.29-	00.95	02.81	05.86	0500	00.095	0.244	0.085
0.250	60	02.57-	02.44-	02.27-	02.06-	01.80-	01.46-	00.99-	00.34-	00.80	03.04	0500	00.041	0.254	0.140
0.250	70	01.15-	01.11-	01.06-	00.99-	00.91-	00.79-	00.62-	00.35-	00.15	01.38	0500	00.018	0.263	0.202
0.250	80	00.31-	00.29-	00.27-	00.24-	00.20-	00.14-	00.06-	00.06	00.32	00.99	0500	00.010	0.270	0.252
0.250	90	00.00	00.01	00.03	00.06	00.09	00.13	00.19	00.29	00.49	01.03	0500	00.008	0.271	0.271
0.254	00	99.99-	04.92-	01.40-	00.94	02.86	04.62	06.38	08.24	10.64	14.16	0500	00.624	0.215	0.000
0.254	10	17.92-	04.75-	01.34-	00.96	02.86	04.61	06.36	08.21	10.61	14.13	0500	00.574	0.200	0.003
0.254	20	13.60-	05.26-	02.11-	00.10	01.95	03.67	05.41	07.24	09.63	13.14	0500	00.447	0.196	0.009
0.254	30	10.10-	05.77-	03.25-	01.30-	00.41	02.04	03.72	05.51	07.86	11.34	0500	00.296	0.197	0.019
0.254	40	07.08-	05.41-	03.95-	02.59-	01.26-	00.11	01.58	03.23	05.45	08.84	0500	00.167	0.202	0.040
0.254	50	04.56-	04.05-	03.49-	02.87-	02.15-	01.31-	00.29-	00.96	02.81	05.86	0500	00.082	0.210	0.073
0.254	60	02.58-	02.44-	02.27-	02.06-	01.80-	01.46-	00.99-	00.33-	00.81	03.05	0500	00.036	0.218	0.120
0.254	70	01.16-	01.12-	01.06-	01.00-	00.91-	00.79-	00.61-	00.35-	00.16	01.40	0500	00.015	0.226	0.173
0.254	80	00.31-	00.29-	00.27-	00.24-	00.20-	00.15-	00.06-	00.06	00.32	01.01	0500	00.009	0.233	0.216
0.254	90	00.00	00.01	00.03	00.06	00.09	00.13	00.19	00.29	00.50	01.05	0500	00.007	0.233	0.233
0.260	00	99.99-	04.92-	01.40-	00.94	02.86	04.62	06.38	08.24	10.64	14.16	0500	00.504	0.174	0.000
0.260	10	17.91-	04.74-	01.34-	00.96	02.86	04.61	06.36	08.21	10.61	14.13	0500	00.464	0.161	0.003
0.260	20	13.60-	05.26-	02.11-	00.10	01.95	03.67	05.40	07.24	09.63	13.14	0500	00.361	0.158	0.007
0.260	30	10.10-	05.77-	03.25-	01.30-	00.41	02.04	03.71	05.50	07.86	11.34	0500	00.239	0.159	0.016
0.260	40	07.09-	05.41-	03.95-	02.59-	01.27-	00.10	01.57	03.22	05.45	08.83	0500	00.135	0.163	0.032
0.260	50	04.57-	04.06-	03.50-	02.87-	02.15-	01.32-	00.30-	00.95	02.80	05.86	0500	00.066	0.169	0.059
0.260	60	02.59-	02.45-	02.28-	02.07-	01.80-	01.46-	00.99-	00.33-	00.81	03.05	0500	00.029	0.176	0.097
0.260	70	01.16-	01.12-	01.07-	01.00-	00.91-	00.79-	00.62-	00.35-	00.16	01.40	0500	00.013	0.183	0.140
0.260	80	00.32-	00.30-	00.28-	00.25-	00.21-	00.15-	00.07-	00.06	00.32	01.00	0500	00.007	0.188	0.175
0.260	90	00.00	00.01	00.03	00.06	00.09	00.13	00.19	00.29	00.50	01.05	0500	00.006	0.188	0.188

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.268	00	99.99-	04.92-	01.39-	00.95	02.87	04.63	06.39	08.24	10.65	14.17	0500	00.394	0.136	0.000
0.268	10	17.94	04.74-	01.34-	00.96	02.86	04.61	06.36	08.21	10.61	14.13	0500	00.362	0.126	0.002
0.268	20	13.61-	05.27-	02.12-	00.10	01.95	03.67	05.40	07.24	09.63	13.14	0500	00.282	0.123	0.005
0.268	30	10.11-	05.78-	03.26-	01.31-	00.40	02.03	03.70	05.50	07.85	11.33	0500	00.186	0.124	0.012
0.268	40	07.10-	05.43-	03.97-	02.61-	01.28-	00.09	01.56	03.21	05.43	08.82	0500	00.105	0.128	0.025
0.268	50	04.58-	04.07-	03.51-	02.88-	02.17-	01.33-	00.31-	00.94	02.79	05.84	0500	00.051	0.132	0.046
0.268	60	02.59-	02.45-	02.29-	02.08-	01.81-	01.47-	01.00-	00.34-	00.79	03.04	0500	00.022	0.138	0.076
0.268	70	01.17-	01.13-	01.07-	01.01-	00.92-	00.80-	00.63-	00.36-	00.15	01.39	0500	00.010	0.143	0.109
0.268	80	00.33-	00.31-	00.29-	00.26-	00.22-	00.16-	00.08-	00.04	00.30	00.98	0500	00.005	0.147	0.137
0.268	90	00.00	00.01	00.03	00.06	00.09	00.13	00.19	00.29	00.49	01.03	0500	00.004	0.147	0.147
0.284	00	99.99-	04.92-	01.40-	00.94	02.86	04.62	06.38	08.24	10.64	14.16	0500	00.273	0.094	0.000
0.284	10	17.92-	04.75-	01.34-	00.96	02.86	04.61	06.36	08.21	10.61	14.13	0500	00.251	0.087	0.001
0.284	20	13.60-	05.27-	02.12-	00.09	01.95	03.67	05.40	07.24	09.62	13.14	0500	00.195	0.085	0.004
0.284	30	10.10-	05.78-	03.26-	01.31-	00.40	02.03	03.70	05.50	07.85	11.33	0500	00.129	0.086	0.008
0.284	40	07.09-	05.42-	03.96-	02.60-	01.28-	00.09	01.56	03.21	05.44	08.82	0500	00.073	0.088	0.017
0.284	50	04.58-	04.07-	03.51-	02.88-	02.16-	01.32-	00.31-	00.94	02.80	05.85	0500	00.036	0.092	0.032
0.284	60	02.60-	02.46-	02.29-	02.08-	01.81-	01.47-	01.00-	00.34-	00.80	03.05	0500	00.016	0.096	0.053
0.284	70	01.18-	01.13-	01.08-	01.01-	00.92-	00.80-	00.63-	00.36-	00.16	01.39	0500	00.007	0.099	0.076
0.284	80	00.34-	00.32-	00.30-	00.27-	00.23-	00.17-	00.09-	00.03	00.29	00.97	0500	00.004	0.102	0.095
0.284	90	00.00	00.01	00.03	00.06	00.09	00.13	00.19	00.29	00.49	01.03	0500	00.003	0.102	0.102
0.308	00	99.99-	05.00-	01.47-	00.87	02.78	04.55	06.31	08.16	10.57	14.09	0500	00.195	0.068	0.000
0.308	10	17.53-	04.77-	01.38-	00.92	02.81	04.56	06.31	08.16	10.56	14.08	0500	00.179	0.063	0.001
0.308	20	13.31-	05.23-	02.10-	00.10	01.95	03.67	05.40	07.24	09.62	13.13	0500	00.141	0.062	0.003
0.308	30	09.88-	05.66-	03.16-	01.22-	00.48	02.10	03.77	05.56	07.91	11.39	0500	00.094	0.062	0.006
0.308	40	06.93-	05.26-	03.81-	02.46-	01.13-	00.23	01.71	03.35	05.58	08.96	0500	00.054	0.064	0.013
0.308	50	04.47-	03.94-	03.37-	02.73-	02.00-	01.15-	00.12-	01.14	03.01	06.07	0500	00.027	0.066	0.024
0.308	60	02.53-	02.38-	02.20-	01.98-	01.70-	01.34-	00.84-	00.15-	01.02	03.32	0500	00.012	0.068	0.038
0.308	70	01.15-	01.10-	01.04-	00.97-	00.87-	00.73-	00.54-	00.25-	00.31	01.64	0500	00.005	0.071	0.055
0.308	80	00.34-	00.32-	00.30-	00.26-	00.21-	00.15-	00.06-	00.09	00.38	01.14	0500	00.003	0.073	0.068
0.308	90	00.00	00.02	00.04	00.06	00.10	00.15	00.22	00.33	00.57	01.18	0500	00.003	0.073	0.073
0.340	00	99.99-	05.28-	01.76-	00.58	02.50	04.26	06.02	07.88	10.28	13.80	0500	00.155	0.058	0.000
0.340	10	16.46-	04.87-	01.52-	00.76	02.65	04.39	06.14	07.99	10.39	13.91	0500	00.145	0.053	0.001
0.340	20	12.42-	05.07-	02.02-	00.15	01.98	03.69	05.42	07.25	09.63	13.14	0500	00.117	0.051	0.003
0.340	30	09.14-	05.22-	02.81-	00.91-	00.77	02.38	04.04	05.82	08.17	11.64	0500	00.083	0.051	0.006
0.340	40	06.33-	04.69-	03.25-	01.91-	00.59-	00.77	02.24	03.88	06.11	09.49	0500	00.050	0.052	0.012
0.340	50	04.03-	03.46-	02.85-	02.17-	01.40-	00.51-	00.56	01.86	03.76	06.86	0500	00.027	0.054	0.021
0.340	60	02.26-	02.07-	01.86-	01.60-	01.27-	00.85-	00.28-	00.49	01.78	04.23	0500	00.013	0.055	0.033
0.340	70	01.02-	00.95-	00.88-	00.78-	00.65-	00.47-	00.22-	00.15	00.84	02.41	0500	00.006	0.057	0.045
0.340	80	00.32-	00.29-	00.25-	00.20-	00.13-	00.04-	00.09	00.29	00.69	01.69	0500	00.004	0.059	0.054
0.340	90	00.00	00.02	00.06	00.09	00.15	00.22	00.32	00.49	00.81	01.65	0500	00.003	0.058	0.058

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.388	00	99.99-	06.37-	02.85-	00.51-	01.41	03.17	04.93	06.79	09.19	12.71	0500	00.137	0.066	0.000
0.388	10	14.35	05.31-	02.10-	00.14	02.00	03.73	05.46	07.30	09.70	13.21	0500	00.135	0.058	0.002
0.388	20	10.33-	04.62-	01.80-	00.28	02.06	03.74	05.44	07.26	09.63	13.13	0500	00.125	0.055	0.005
0.388	30	07.12-	03.86-	01.66-	00.13	01.75	03.32	04.95	06.71	09.03	12.50	0500	00.105	0.054	0.010
0.388	40	04.50-	02.91-	01.49-	00.17-	01.14	02.48	03.94	05.58	07.80	11.17	0500	00.075	0.053	0.019
0.388	50	02.53-	01.85-	01.13-	00.35-	00.52	01.49	02.64	04.01	05.98	09.15	0500	00.045	0.053	0.029
0.388	60	01.23-	00.96-	00.64-	00.26-	00.19	00.76	01.49	02.45	03.98	06.71	0500	00.023	0.052	0.040
0.388	70	00.49-	00.38-	00.24-	00.07-	00.15	00.44	00.84	01.41	02.43	04.50	0500	00.011	0.052	0.047
0.388	80	00.18-	00.12-	00.04-	00.05	00.18	00.35	00.59	00.95	01.63	03.18	0500	00.007	0.052	0.050
0.388	90	00.00	00.05	00.11	00.19	00.30	00.44	00.64	00.94	01.53	02.90	0500	00.005	0.051	0.051
0.420	00	99.99-	07.97-	04.45-	02.11-	00.19-	01.57	03.33	05.19	07.59	11.11	0500	00.136	0.095	0.000
0.420	10	12.87-	05.98-	02.99-	00.83-	00.99	02.69	04.41	06.24	08.62	12.12	0500	00.143	0.079	0.004
0.420	20	08.62-	04.17-	01.62-	00.35	02.06	03.70	05.37	07.17	09.52	13.01	0500	00.161	0.073	0.010
0.420	30	05.24-	02.44-	00.42-	01.28	02.84	04.37	05.97	07.71	10.02	13.47	0500	00.167	0.069	0.020
0.420	40	02.58-	01.02-	00.38	01.69	02.98	04.32	05.78	07.41	09.62	13.00	0500	00.140	0.065	0.036
0.420	50	00.76-	00.02	00.82	01.68	02.61	03.65	04.85	06.27	08.29	11.50	0500	00.090	0.061	0.051
0.420	60	00.15	00.51	00.92	01.40	01.97	02.66	03.52	04.62	06.31	09.21	0500	00.046	0.057	0.059
0.420	70	00.27	00.44	00.66	00.92	01.24	01.66	02.21	02.98	04.26	06.69	0500	00.022	0.054	0.058
0.420	80	00.02	00.13	00.26	00.42	00.63	00.91	01.29	01.84	02.82	04.85	0500	00.012	0.053	0.053
0.420	90	00.00	00.09	00.20	00.34	00.52	00.76	01.10	01.59	02.47	04.36	0500	00.010	0.051	0.051
0.436	00	99.99-	09.26-	05.73-	03.39-	01.47-	00.29	02.05	03.90	06.31	09.85	0500	00.137	0.128	0.000
0.436	10	12.12-	06.51-	03.71-	01.64-	00.14	01.81	03.51	05.33	07.70	11.19	0500	00.151	0.104	0.006
0.436	20	07.68-	03.92-	01.55-	00.32	01.99	03.59	05.24	07.02	09.36	12.83	0500	00.197	0.093	0.016
0.436	30	04.17-	01.59-	00.34	01.98	03.51	05.01	06.60	08.33	10.62	14.06	0500	00.238	0.085	0.033
0.436	40	01.41-	00.14	01.53	02.83	04.12	05.46	06.91	08.54	10.75	14.13	0500	00.218	0.078	0.056
0.436	50	00.42	01.25	02.10	02.99	03.95	05.02	06.25	07.69	09.73	12.96	0500	00.146	0.070	0.077
0.436	60	01.15	01.57	02.05	02.59	03.23	03.98	04.92	06.09	07.85	10.83	0500	00.075	0.062	0.081
0.436	70	00.85	01.08	01.36	01.69	02.09	02.60	03.27	04.16	05.60	08.22	0500	00.034	0.056	0.069
0.436	80	00.16	00.32	00.51	00.73	01.02	01.40	01.90	02.60	03.80	06.13	0500	00.018	0.053	0.055
0.436	90	00.00	00.14	00.30	00.50	00.76	01.09	01.55	02.19	03.31	05.53	0500	00.015	0.051	0.051
0.452	00	99.99-	11.01-	07.49-	05.14-	03.23-	01.46-	00.30	02.15	04.56	08.08	0500	00.138	0.193	0.000
0.452	10	11.31-	07.20-	04.73-	02.80-	01.11-	00.51	02.18	03.96	06.31	09.79	0500	00.159	0.151	0.011
0.452	20	06.69-	03.67-	01.55-	00.20	01.78	03.33	04.95	06.70	09.02	12.48	0500	00.256	0.132	0.028
0.452	30	03.01-	00.66-	01.16	02.75	04.24	05.72	07.28	08.99	11.28	14.71	0500	00.377	0.117	0.058
0.452	40	00.09-	01.45	02.82	04.12	05.41	06.74	08.19	09.82	12.03	15.40	0500	00.380	0.102	0.100
0.452	50	01.83	02.71	03.61	04.54	05.54	06.63	07.89	09.35	11.41	14.66	0500	00.263	0.085	0.130
0.452	60	02.45	02.95	03.51	04.13	04.84	05.67	06.68	07.92	09.77	12.82	0500	00.135	0.070	0.123
0.452	70	01.62	01.94	02.32	02.76	03.28	03.92	04.73	05.78	07.41	10.25	0500	00.060	0.059	0.085
0.452	80	00.29	00.54	00.83	01.18	01.61	02.15	02.85	03.77	05.26	07.93	0500	00.031	0.054	0.058
0.452	90	00.00	00.22	00.49	00.81	01.20	01.69	02.34	03.21	04.63	07.23	0500	00.025	0.052	0.052

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.468	00	99.99-	13.22-	09.70-	07.36-	05.44-	03.68-	01.92-	00.06-	02.34	05.86	0500	00.139	0.325	0.000
0.468	10	10.52	08.03-	06.13-	04.51-	03.00-	01.50-	00.08	01.80	04.09	07.55	0500	00.151	0.244	0.022
0.468	20	05.67-	03.44-	01.67-	00.12-	01.34	02.81	04.36	06.06	08.34	11.76	0500	00.337	0.206	0.056
0.468	30	01.78-	00.33	02.03	03.55	04.99	06.43	07.97	09.66	11.93	15.35	0500	00.651	0.174	0.116
0.468	40	01.36	02.88	04.25	05.54	06.82	08.15	09.59	11.22	13.42	16.79	0500	00.733	0.142	0.194
0.468	50	03.51	04.45	05.40	06.37	07.40	08.53	09.81	11.29	13.38	16.64	0500	00.527	0.108	0.242
0.468	60	04.17	04.77	05.42	06.14	06.94	07.86	08.96	10.28	12.21	15.33	0500	00.271	0.077	0.202
0.468	70	02.58	03.08	03.64	04.26	04.97	05.81	06.82	08.07	09.91	12.97	0500	00.117	0.059	0.106
0.468	80	00.12	00.60	01.13	01.73	02.42	03.24	04.23	05.46	07.29	10.32	0500	00.058	0.053	0.055
0.468	90	00.00	00.40	00.84	01.36	01.96	02.69	03.59	04.73	06.47	09.41	0500	00.045	0.052	0.052
0.476	00	99.99-	14.30-	10.78-	08.44-	06.52-	04.76-	03.00-	01.14-	01.26	04.78	0500	00.140	0.420	0.000
0.476	10	10.26-	08.51-	07.00-	05.61-	04.26-	02.87-	01.39-	00.27	02.51	05.90	0500	00.131	0.310	0.029
0.476	20	05.26-	03.38-	01.80-	00.37-	01.02	02.42	03.93	05.60	07.85	11.25	0500	00.372	0.257	0.076
0.476	30	01.24-	00.77	02.42	03.91	05.32	06.75	08.28	09.96	12.22	15.63	0500	00.846	0.212	0.160
0.476	40	02.05	03.56	04.92	06.21	07.49	08.82	10.26	11.88	14.09	17.46	0500	01.003	0.167	0.267
0.476	50	04.38	05.35	06.32	07.31	08.35	09.49	10.78	12.27	14.37	17.64	0500	00.731	0.119	0.326
0.476	60	05.17	05.83	06.53	07.29	08.13	09.09	10.22	11.58	13.54	16.69	0500	00.375	0.078	0.256
0.476	70	03.11	03.74	04.42	05.16	05.98	06.92	08.03	09.38	11.32	14.46	0500	00.158	0.055	0.112
0.476	80	00.34-	00.36	01.09	01.88	02.75	03.74	04.89	06.27	08.25	11.42	0500	00.074	0.052	0.048
0.476	90	00.00	00.49	01.03	01.64	02.34	03.16	04.16	05.40	07.23	10.27	0500	00.056	0.052	0.052
0.484	00	99.99-	14.98-	11.46-	09.12-	07.20-	05.44-	03.68-	01.82-	00.58	04.11	0500	00.141	0.493	0.000
0.484	10	10.22-	09.02-	07.88-	06.75-	05.59-	04.36-	02.99-	01.43-	00.72	04.05	0500	00.098	0.361	0.034
0.484	20	05.04-	03.42-	01.99-	00.65-	00.66	02.01	03.48	05.12	07.34	10.72	0500	00.377	0.295	0.093
0.484	30	00.87-	01.09	02.71	04.17	05.58	06.99	08.51	10.19	12.45	15.85	0500	01.006	0.240	0.197
0.484	40	02.57	04.09	05.45	06.74	08.02	09.34	10.79	12.41	14.62	17.98	0500	01.239	0.183	0.331
0.484	50	05.11	06.09	07.07	08.07	09.12	10.26	11.56	13.06	15.15	18.43	0500	00.907	0.123	0.399
0.484	60	06.10	06.79	07.52	08.30	09.17	10.15	11.30	12.68	14.65	17.82	0500	00.458	0.073	0.297
0.484	70	03.51	04.27	05.06	05.90	06.82	07.84	09.03	10.44	12.45	15.66	0500	00.185	0.048	0.108
0.484	80	01.23-	00.27-	00.68	01.67	02.71	03.84	05.13	06.62	08.71	11.98	0500	00.082	0.049	0.037
0.484	90	00.00	00.52	01.09	01.72	02.45	03.30	04.32	05.58	07.44	10.50	0500	00.060	0.053	0.053
0.488	00	99.99-	15.06-	11.53-	09.19-	07.27-	05.51-	03.75-	01.90-	00.51	04.03	0500	00.142	0.504	0.000
0.488	10	10.27-	09.27-	08.27-	07.26-	06.19-	05.04-	03.74-	02.23-	00.13-	03.16	0500	00.081	0.368	0.035
0.488	20	04.99-	03.47-	02.10-	00.80-	00.48	01.81	03.26	04.89	07.10	10.47	0500	00.360	0.300	0.095
0.488	30	00.76-	01.18	02.80	04.26	05.66	07.08	08.59	10.27	12.53	15.93	0500	01.033	0.242	0.204
0.488	40	02.76	04.27	05.63	06.92	08.20	09.53	10.97	12.60	14.80	18.17	0500	01.291	0.182	0.344
0.488	50	05.38	06.37	07.34	08.34	09.40	10.54	11.84	13.34	15.44	18.71	0500	00.944	0.120	0.414
0.488	60	06.46	07.15	07.89	08.68	09.55	10.54	11.69	13.07	15.05	18.23	0500	00.471	0.068	0.302
0.488	70	03.56	04.37	05.21	06.09	07.04	08.09	09.31	10.75	12.78	16.01	0500	00.186	0.045	0.101
0.488	80	01.83-	00.76-	00.30	01.36	02.46	03.65	04.98	06.51	08.63	11.93	0500	00.080	0.048	0.031
0.488	90	00.00	00.49	01.04	01.65	02.35	03.18	04.18	05.42	07.26	10.30	0500	00.057	0.053	0.053

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.492	00	99.99-	14.94-	11.41-	09.07-	07.15-	05.39-	03.63-	01.78-	00.63	04.15	0500	00.142	0.492	0.000
0.492	10	10.34	09.48-	08.60-	07.68-	06.70-	05.62-	04.37	02.92-	00.86-	02.38	0500	00.065	0.359	0.033
0.492	20	04.98-	03.53-	02.21-	00.95-	00.30	01.61	03.05	04.66	06.86	10.22	0500	00.331	0.292	0.093
0.492	30	00.68-	01.25	02.86	04.32	05.72	07.14	08.65	10.33	12.58	15.99	0500	01.014	0.235	0.201
0.492	40	02.89	04.41	05.77	07.06	08.34	09.67	11.12	12.74	14.95	18.32	0500	01.282	0.175	0.341
0.492	50	05.59	06.57	07.55	08.55	09.61	10.75	12.05	13.55	15.64	18.92	0500	00.935	0.113	0.410
0.492	60	06.71	07.41	08.15	08.94	09.82	10.81	11.96	13.34	15.33	18.50	0500	00.461	0.063	0.294
0.492	70	03.45	04.30	05.17	06.09	07.07	08.15	09.39	10.85	12.90	16.14	0500	00.178	0.041	0.091
0.492	80	02.48-	01.31-	00.19-	00.92	02.06	03.28	04.64	06.19	08.34	11.66	0500	00.073	0.047	0.027
0.492	90	00.00	00.45	00.95	01.52	02.18	02.96	03.92	05.12	06.91	09.91	0500	00.052	0.053	0.053
0.494	00	99.99-	14.81-	11.29-	08.95-	07.03-	05.27-	03.51-	01.65-	00.75	04.28	0500	00.142	0.478	0.000
0.494	10	10.38-	09.58-	08.74-	07.86-	06.91-	05.85-	04.63-	03.20-	01.16-	02.06	0500	00.059	0.349	0.032
0.494	20	04.99-	03.57-	02.28-	01.03-	00.21	01.51	02.94	04.54	06.74	10.09	0500	00.312	0.284	0.090
0.494	30	00.65-	01.28	02.89	04.34	05.74	07.16	08.67	10.35	12.60	16.01	0500	00.988	0.228	0.196
0.494	40	02.95	04.47	05.83	07.12	08.40	09.73	11.17	12.80	15.01	18.37	0500	01.257	0.169	0.334
0.494	50	05.67	06.65	07.63	08.63	09.69	10.83	12.13	13.63	15.73	19.00	0500	00.915	0.109	0.401
0.494	60	06.80	07.49	08.23	09.03	09.91	10.90	12.05	13.43	15.42	18.59	0500	00.449	0.060	0.286
0.494	70	03.31	04.19	05.09	06.02	07.01	08.11	09.36	10.82	12.88	16.13	0500	00.171	0.040	0.085
0.494	80	02.79-	01.60-	00.46-	00.66	01.82	03.05	04.41	05.97	08.12	11.45	0500	00.069	0.047	0.024
0.494	90	00.00	00.42	00.90	01.44	02.07	02.83	03.76	04.93	06.69	09.66	0500	00.049	0.053	0.053
0.498	00	99.99-	14.45-	10.92-	08.58-	06.66-	04.90-	03.14-	01.29-	01.12	04.64	0500	00.143	0.441	0.000
0.498	10	10.46-	09.73-	08.95-	08.12-	07.22-	06.21-	05.03-	03.62-	01.62-	01.57	0500	00.048	0.322	0.029
0.498	20	05.00-	03.65-	02.40-	01.20-	00.02	01.30	02.71	04.30	06.49	09.83	0500	00.271	0.262	0.083
0.498	30	00.62-	01.31	02.92	04.37	05.77	07.18	08.70	10.37	12.62	16.03	0500	00.913	0.210	0.182
0.498	40	03.03	04.55	05.92	07.21	08.49	09.82	11.27	12.89	15.10	18.47	0500	01.175	0.155	0.311
0.498	50	05.79	06.77	07.75	08.75	09.81	10.95	12.25	13.75	15.85	19.12	0500	00.853	0.098	0.374
0.498	60	06.88	07.58	08.33	09.12	10.00	10.99	12.15	13.53	15.52	18.70	0500	00.413	0.054	0.262
0.498	70	02.90	03.83	04.76	05.72	06.75	07.87	09.14	10.62	12.70	15.96	0500	00.154	0.037	0.072
0.498	80	03.36-	02.16-	01.02-	00.12	01.28	02.51	03.88	05.44	07.59	10.91	0500	00.061	0.046	0.021
0.498	90	00.00	00.37	00.78	01.27	01.84	02.53	03.40	04.50	06.20	09.10	0500	00.042	0.053	0.053

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.500	00	99.99-	14.26-	10.74-	08.40-	06.48-	04.72-	02.96-	01.10-	01.30	04.83	0500	00.142	0.420	0.000
0.500	05	14.53-	11.64-	09.58-	07.86-	06.29-	04.75-	03.14-	01.40-	00.91	04.37	0500	00.104	0.348	0.012
0.500	10	10.51-	09.80-	09.04-	08.23-	07.34-	06.34-	05.17-	03.78-	01.78-	01.40	0500	00.044	0.307	0.027
0.500	15	07.55-	06.91-	06.22-	05.47-	04.63-	03.68-	02.55-	01.20-	00.75	03.90	0500	00.070	0.276	0.048
0.500	20	05.02-	03.70-	02.47-	01.27-	00.06-	01.21	02.61	04.20	06.37	09.72	0500	00.251	0.249	0.078
0.500	25	02.72-	00.92-	00.62	02.03	03.39	04.78	06.28	07.94	10.18	13.58	0500	00.555	0.224	0.120
0.500	30	00.61-	01.32	02.92	04.38	05.77	07.19	08.70	10.38	12.63	16.04	0500	00.870	0.199	0.173
0.500	35	01.32	03.11	04.64	06.04	07.40	08.79	10.29	11.95	14.19	17.58	0500	01.080	0.174	0.236
0.500	40	03.06	04.58	05.95	07.24	08.52	09.85	11.30	12.92	15.13	18.50	0500	01.124	0.147	0.298
0.500	45	04.58	05.81	06.98	08.13	09.30	10.55	11.93	13.49	15.65	18.98	0500	01.015	0.120	0.344
0.500	50	05.83	06.81	07.79	08.79	09.85	10.99	12.29	13.79	15.89	19.16	0500	00.815	0.093	0.357
0.500	55	06.70	07.50	08.33	09.20	10.15	11.20	12.41	13.84	15.87	19.09	0500	00.590	0.069	0.325
0.500	60	06.90	07.60	08.34	09.14	10.02	11.01	12.17	13.55	15.53	18.71	0500	00.392	0.051	0.249
0.500	65	05.85	06.57	07.32	08.13	09.01	10.01	11.18	12.57	14.56	17.74	0500	00.243	0.039	0.152
0.500	70	02.68	03.62	04.57	05.55	06.58	07.71	08.99	10.48	12.56	15.83	0500	00.145	0.036	0.066
0.500	75	02.69-	01.05-	00.40	01.75	03.07	04.43	05.90	07.54	09.76	13.15	0500	00.086	0.039	0.021
0.500	80	03.58-	02.40-	01.27-	00.15-	01.01	02.23	03.60	05.15	07.30	10.62	0500	00.056	0.045	0.020
0.500	85	01.09-	00.62-	00.09-	00.51	01.19	02.00	02.98	04.20	06.02	09.05	0500	00.043	0.053	0.041
0.500	90	00.00	00.34	00.73	01.19	01.73	02.39	03.22	04.29	05.95	08.81	0500	00.039	0.053	0.053
0.516	00	99.99-	12.05-	08.53-	06.19-	04.27-	02.51-	00.75-	01.10	03.51	07.03	0500	00.143	0.255	0.000
0.516	05	14.85-	10.56-	08.04-	06.09-	04.39-	02.76-	01.09-	00.71	03.06	06.54	0500	00.106	0.212	0.007
0.516	10	10.73-	09.79-	08.85-	07.88-	06.86-	05.73-	04.46-	02.97-	00.89-	02.37	0500	00.034	0.187	0.016
0.516	15	07.69-	07.42-	07.11-	06.73-	06.28-	05.71-	04.98-	04.02-	02.50-	00.23	0500	00.017	0.168	0.029
0.516	20	05.09-	04.07-	03.06-	02.04-	00.96-	00.20	01.51	03.02	05.13	08.42	0500	00.112	0.152	0.047
0.516	25	02.74-	01.08-	00.37	01.72	03.05	04.41	05.88	07.53	09.75	13.14	0500	00.305	0.137	0.073
0.516	30	00.58-	01.29	02.87	04.31	05.69	07.10	08.60	10.28	12.52	15.93	0500	00.517	0.122	0.106
0.516	35	01.38	03.16	04.69	06.09	07.44	08.83	10.32	11.98	14.22	17.62	0500	00.664	0.106	0.146
0.516	40	03.14	04.67	06.03	07.33	08.61	09.94	11.39	13.01	15.22	18.59	0500	00.701	0.090	0.185
0.516	45	04.64	05.88	07.05	08.21	09.39	10.63	12.01	13.58	15.74	19.07	0500	00.635	0.073	0.214
0.516	50	05.81	06.80	07.78	08.79	09.85	11.00	12.30	13.80	15.90	19.18	0500	00.507	0.058	0.220
0.516	55	06.44	07.26	08.10	08.98	09.94	10.99	12.22	13.65	15.69	18.91	0500	00.363	0.044	0.196
0.516	60	06.13	06.86	07.63	08.45	09.35	10.36	11.53	12.93	14.93	18.12	0500	00.237	0.035	0.144
0.516	65	04.11	04.90	05.72	06.59	07.53	08.58	09.79	11.22	13.25	16.46	0500	00.143	0.031	0.080
0.516	70	00.72-	00.54	01.72	02.88	04.07	05.32	06.70	08.28	10.44	13.77	0500	00.082	0.032	0.027
0.516	75	07.79-	05.15-	03.19-	01.53-	00.01	01.52	03.11	04.84	07.14	10.58	0500	00.048	0.038	0.006
0.516	80	04.20-	03.43-	02.64-	01.79-	00.87-	00.16	01.36	02.77	04.79	07.99	0500	00.030	0.046	0.017
0.516	85	01.08-	00.83-	00.53-	00.17-	00.27	00.81	01.52	02.46	03.95	06.65	0500	00.023	0.053	0.042
0.516	90	00.00	00.18	00.40	00.67	01.00	01.43	02.00	02.78	04.08	06.53	0500	00.021	0.054	0.054

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.548	00	99.99-	08.69-	05.16-	02.82-	00.90-	00.86	02.62	04.47	06.88	10.40	0500	00.145	0.119	0.000
0.548	05	14.85-	07.95-	04.95-	02.80-	00.98-	00.72	02.44	04.27	06.65	10.15	0500	00.114	0.099	0.003
0.548	10	10.81-	08.45-	06.61-	05.02-	03.53-	02.05-	00.49-	01.22	03.51	06.94	0500	00.048	0.088	0.007
0.548	15	07.82-	07.72-	07.60-	07.45-	07.26-	07.00-	06.64-	06.12-	05.19-	03.24-	0500	00.003	0.080	0.013
0.548	20	05.25-	04.78-	04.26-	03.66-	02.98-	02.18-	01.20-	00.02	01.84	04.86	0500	00.022	0.072	0.022
0.548	25	02.93-	01.63-	00.42-	00.76	01.96	03.22	04.62	06.20	08.37	11.71	0500	00.105	0.066	0.034
0.548	30	00.82-	00.87	02.34	03.71	05.04	06.41	07.88	09.53	11.76	15.15	0500	00.210	0.059	0.049
0.548	35	01.06	02.77	04.24	05.61	06.95	08.32	09.80	11.45	13.68	17.07	0500	00.290	0.053	0.067
0.548	40	02.66	04.18	05.54	06.82	08.10	09.43	10.87	12.50	14.70	18.07	0500	00.318	0.046	0.085
0.548	45	03.89	05.15	06.34	07.51	08.69	09.95	11.33	12.91	15.08	18.41	0500	00.293	0.039	0.097
0.548	50	04.58	05.62	06.64	07.68	08.76	09.93	11.25	12.77	14.88	18.17	0500	00.236	0.034	0.097
0.548	55	04.42	05.31	06.22	07.16	08.16	09.26	10.52	11.99	14.05	17.31	0500	00.169	0.030	0.083
0.548	60	02.92	03.79	04.67	05.59	06.58	07.66	08.91	10.37	12.43	15.67	0500	00.110	0.028	0.055
0.548	65	00.74-	00.37	01.45	02.53	03.65	04.85	06.19	07.73	09.86	13.17	0500	00.066	0.030	0.025
0.548	70	08.30-	05.69-	03.74-	02.08-	00.55-	00.96	02.54	04.27	06.57	10.02	0500	00.038	0.034	0.005
0.548	75	09.28-	07.51-	05.99-	04.59-	03.23-	01.84-	00.35-	01.31	03.55	06.94	0500	00.022	0.041	0.005
0.548	80	03.31-	03.01-	02.67-	02.26-	01.77-	01.17-	00.39-	00.61	02.20	04.98	0500	00.014	0.048	0.022
0.548	85	00.90-	00.78-	00.63-	00.45-	00.22-	00.08	00.50	01.10	02.14	04.26	0500	00.011	0.055	0.044
0.548	90	00.00	00.09	00.20	00.35	00.53	00.77	01.11	01.60	02.49	04.38	0500	00.010	0.054	0.054

0.580	00	99.99-	07.31-	03.79-	01.45-	00.47	02.23	03.99	05.85	08.25	11.77	0500	00.144	0.086	0.000
0.580	05	14.24-	06.58-	03.49-	01.31-	00.53	02.24	03.97	05.81	08.19	11.70	0500	00.117	0.072	0.003
0.580	10	10.43-	07.20-	05.00-	03.21-	01.60-	00.03-	01.59	03.35	05.68	09.14	0500	00.057	0.064	0.006
0.580	15	07.59-	07.21-	06.78-	06.28-	05.69-	04.98-	04.10-	02.98-	01.26-	01.65	0500	00.008	0.058	0.010
0.580	20	05.13-	04.97-	04.77-	04.52-	04.22-	03.82-	03.29-	02.56-	01.32-	01.07	0500	00.006	0.053	0.016
0.580	25	02.92-	01.98-	01.03-	00.06-	00.97	02.10	03.38	04.86	06.95	10.21	0500	00.054	0.048	0.025
0.580	30	00.93-	00.52	01.83	03.09	04.34	05.65	07.08	08.69	10.89	14.25	0500	00.126	0.044	0.036
0.580	35	00.80	02.37	03.77	05.09	06.38	07.73	09.18	10.81	13.03	16.40	0500	00.187	0.040	0.048
0.580	40	02.20	03.67	05.01	06.28	07.55	08.86	10.30	11.91	14.12	17.48	0500	00.215	0.036	0.059
0.580	45	03.14	04.43	05.64	06.83	08.02	09.29	10.68	12.26	14.43	17.77	0500	00.205	0.032	0.066
0.580	50	03.42	04.55	05.63	06.72	07.85	09.05	10.39	11.94	14.07	17.38	0500	00.169	0.029	0.064
0.580	55	02.73	03.76	04.77	05.81	06.88	08.05	09.36	10.88	12.99	16.28	0500	00.124	0.028	0.052
0.580	60	00.55	01.65	02.72	03.80	04.91	06.10	07.44	08.98	11.11	14.41	0500	00.083	0.028	0.032
0.580	65	04.05-	02.39-	00.94-	00.41	01.74	03.10	04.57	06.22	08.44	11.83	0500	00.051	0.031	0.012
0.580	70	12.30-	08.16-	05.69-	03.76-	02.06-	00.44-	01.22	03.01	05.36	08.84	0500	00.030	0.036	0.002
0.580	75	07.46-	06.41-	05.38-	04.34-	03.25-	02.08-	00.76-	00.76	02.88	06.17	0500	00.019	0.042	0.008
0.580	80	02.77-	02.54-	02.26-	01.93-	01.53-	01.02-	00.35-	00.54	01.99	04.62	0500	00.013	0.049	0.026
0.580	85	00.80-	00.69-	00.55-	00.39-	00.18-	00.10	00.49	01.05	02.04	04.07	0500	00.010	0.054	0.045
0.580	90	00.00	00.09	00.19	00.33	00.50	00.73	01.05	01.52	02.38	04.22	0500	00.010	0.054	0.054

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.612	00	99.99-	07.38-	03.86-	01.52-	00.40	02.16	03.92	05.78	08.18	11.71	0500	00.138	0.084	0.000
0.612	05	13.19-	06.29-	03.29-	01.14-	00.68	02.38	04.11	05.93	08.31	11.82	0500	00.115	0.068	0.003
0.612	10	09.53-	06.49-	04.38-	02.63-	01.04-	00.52	02.13	03.88	06.20	09.66	0500	00.061	0.060	0.007
0.612	15	06.79-	06.28-	05.72-	05.09-	04.38-	03.54-	02.53-	01.28-	00.57	03.63	0500	00.013	0.054	0.011
0.612	20	04.42-	04.37-	04.30-	04.23-	04.12-	03.98-	03.78-	03.47-	02.88-	01.51-	0500	00.002	0.049	0.018
0.612	25	02.29-	01.66-	00.98-	00.24-	00.58	01.53	02.64	03.98	05.93	09.07	0500	00.037	0.045	0.026
0.612	30	00.40-	00.75	01.86	02.96	04.10	05.31	06.67	08.21	10.36	13.67	0500	00.101	0.040	0.037
0.612	35	01.21	02.59	03.86	05.09	06.32	07.61	09.03	10.63	12.82	16.17	0500	00.162	0.037	0.048
0.612	40	02.45	03.85	05.14	06.38	07.63	08.92	10.34	11.95	14.14	17.49	0500	00.198	0.033	0.058
0.612	45	03.18	04.52	05.76	06.96	08.18	09.45	10.86	12.45	14.63	17.97	0500	00.199	0.030	0.062
0.612	50	03.19	04.45	05.64	06.80	07.99	09.24	10.63	12.20	14.37	17.70	0500	00.172	0.027	0.057
0.612	55	02.14	03.41	04.60	05.77	06.95	08.21	09.59	11.17	13.34	16.67	0500	00.132	0.026	0.043
0.612	60	00.48-	01.02	02.37	03.65	04.93	06.25	07.69	09.31	11.52	14.88	0500	00.091	0.028	0.025
0.612	65	05.72-	03.18-	01.26-	00.38	01.90	03.40	04.99	06.71	09.01	12.45	0500	00.059	0.031	0.008
0.612	70	12.84-	07.78-	05.08-	03.06-	01.31-	00.35	02.04	03.85	06.21	09.71	0500	00.037	0.035	0.002
0.612	75	06.52-	05.44-	04.38-	03.32-	02.21-	01.03-	00.31	01.84	03.96	07.26	0500	00.023	0.041	0.009
0.612	80	02.49-	02.20-	01.86-	01.46-	00.98-	00.38-	00.38	01.38	02.95	05.72	0500	00.017	0.047	0.027
0.612	85	00.74-	00.60-	00.42-	00.20-	00.07	00.43	00.91	01.59	02.75	05.04	0500	00.014	0.052	0.044
0.612	90	00.00	00.12	00.26	00.44	00.67	00.97	01.38	01.97	03.01	05.12	0500	00.013	0.051	0.051
0.644	00	99.99-	08.78-	05.26-	02.92-	01.00-	00.76	02.52	04.38	06.78	10.30	0500	00.126	0.105	0.000
0.644	05	12.00-	06.86-	04.15-	02.11-	00.36-	01.30	03.00	04.80	07.17	10.66	0500	00.106	0.082	0.005
0.644	10	08.31-	06.18-	04.47-	02.95-	01.51-	00.06-	01.47	03.17	05.44	08.86	0500	00.059	0.071	0.010
0.644	15	05.53-	05.15-	04.71-	04.20-	03.61-	02.89-	02.00-	00.87-	00.85	03.78	0500	00.015	0.063	0.017
0.644	20	03.14-	03.13-	03.11-	03.08-	03.05-	03.01-	02.94-	02.84-	02.63-	02.07-	0500	00.001	0.056	0.027
0.644	25	01.00-	00.62-	00.19-	00.31	00.90	01.61	02.49	03.61	05.33	08.25	0500	00.032	0.049	0.039
0.644	30	00.89	01.72	02.57	03.47	04.44	05.51	06.74	08.18	10.23	13.46	0500	00.102	0.044	0.054
0.644	35	02.47	03.61	04.71	05.81	06.95	08.16	09.51	11.06	13.20	16.51	0500	00.182	0.038	0.067
0.644	40	03.65	04.96	06.18	07.37	08.58	09.85	11.25	12.83	15.01	18.35	0500	00.243	0.033	0.077
0.644	45	04.27	05.67	06.95	08.18	09.42	10.71	12.13	13.73	15.92	19.26	0500	00.264	0.029	0.077
0.644	50	04.09	05.56	06.90	08.17	09.44	10.75	12.19	13.81	16.01	19.37	0500	00.243	0.026	0.067
0.644	55	02.74	04.40	05.85	07.20	08.53	09.89	11.36	13.01	15.23	18.62	0500	00.196	0.025	0.047
0.644	60	00.31-	01.88	03.62	05.16	06.62	08.08	09.62	11.32	13.60	17.02	0500	00.142	0.026	0.024
0.644	65	06.14-	02.16-	00.27	02.18	03.86	05.47	07.13	08.92	11.26	14.74	0500	00.094	0.029	0.007
0.644	70	12.44-	05.89-	02.93-	00.80-	01.01	02.71	04.42	06.25	08.63	12.13	0500	00.060	0.033	0.002
0.644	75	05.96-	04.37-	02.96-	01.64-	00.34-	01.01	02.47	04.10	06.32	09.69	0500	00.039	0.038	0.010
0.644	80	02.30-	01.82-	01.28-	00.67-	00.02	00.84	01.84	03.07	04.90	07.94	0500	00.027	0.043	0.026
0.644	85	00.71-	00.46-	00.16-	00.19	00.62	01.16	01.86	02.79	04.28	06.96	0500	00.022	0.048	0.041
0.644	90	00.00	00.21	00.45	00.74	01.11	01.57	02.19	03.02	04.39	06.93	0500	00.020	0.047	0.047

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.660	00	99.99-	09.97-	06.45-	04.11-	02.19-	00.43-	01.33	03.19	05.59	09.11	0500	00.121	0.133	0.000
0.660	05	11.51-	07.40-	04.93-	03.01-	01.31-	00.31	01.97	03.76	06.11	09.59	0500	00.102	0.102	0.007
0.660	10	07.72-	06.13-	04.72-	03.40-	02.10-	00.75-	00.71	02.34	04.56	07.94	0500	00.058	0.086	0.015
0.660	15	04.88-	04.59-	04.25-	03.86-	03.38-	02.79-	02.03-	01.04-	00.53	03.29	0500	00.015	0.075	0.024
0.660	20	02.42-	02.41-	02.40-	02.39-	02.37-	02.35-	02.32-	02.26-	02.14-	01.82-	0500	00.001	0.066	0.038
0.660	25	00.22-	00.06	00.38	00.77	01.24	01.82	02.56	03.54	05.09	07.84	0500	00.033	0.057	0.054
0.660	30	01.72	02.40	03.12	03.90	04.76	05.74	06.88	08.25	10.23	13.39	0500	00.112	0.049	0.073
0.660	35	03.35	04.36	05.37	06.39	07.46	08.62	09.93	11.44	13.55	16.84	0500	00.215	0.042	0.091
0.660	40	04.57	05.82	07.00	08.16	09.34	10.59	11.98	13.55	15.72	19.05	0500	00.304	0.035	0.101
0.660	45	05.19	06.62	07.92	09.17	10.42	11.73	13.15	14.76	16.96	20.31	0500	00.345	0.030	0.099
0.660	50	04.95	06.57	07.99	09.32	10.64	11.99	13.45	15.09	17.31	20.69	0500	00.329	0.026	0.081
0.660	55	03.46	05.39	07.00	08.46	09.85	11.27	12.78	14.46	16.72	20.12	0500	00.272	0.024	0.054
0.660	60	00.16	02.84	04.82	06.49	08.04	09.55	11.15	12.88	15.18	18.63	0500	00.200	0.025	0.026
0.660	65	06.03-	01.05-	01.63	03.65	05.40	07.05	08.74	10.55	12.91	16.40	0500	00.134	0.028	0.007
0.660	70	12.27-	04.51-	01.41-	00.78	02.62	04.34	06.07	07.90	10.29	13.79	0500	00.085	0.032	0.002
0.660	75	05.79-	03.70-	02.01-	00.50-	00.94	02.38	03.91	05.61	07.87	11.29	0500	00.054	0.037	0.010
0.660	80	02.25-	01.58-	00.86-	00.09-	00.77	01.74	02.88	04.24	06.21	09.38	0500	00.037	0.042	0.025
0.660	85	00.70-	00.35-	00.05	00.52	01.08	01.75	02.60	03.68	05.36	08.24	0500	00.030	0.046	0.039
0.660	90	00.00	00.29	00.62	01.01	01.49	02.07	02.83	03.82	05.38	08.14	0500	00.028	0.045	0.045
0.684	00	99.99-	11.66-	08.14-	05.80-	03.88-	02.12-	00.36-	01.50	03.90	07.43	0500	00.140	0.228	0.000
0.684	05	11.10-	08.15-	06.06-	04.33-	02.75-	01.21-	00.40	02.15	04.47	07.92	0500	00.115	0.170	0.013
0.684	10	07.12-	06.15-	05.17-	04.18-	03.13-	01.98-	00.69-	00.81	02.90	06.18	0500	00.062	0.141	0.027
0.684	15	04.13-	03.97-	03.77-	03.53-	03.23-	02.85-	02.33-	01.60-	00.38-	01.98	0500	00.016	0.120	0.046
0.684	20	01.54-	01.54-	01.53-	01.53-	01.52-	01.51-	01.50-	01.48-	01.43-	01.30-	0500	00.000	0.103	0.072
0.684	25	00.79	00.95	01.15	01.39	01.70	02.09	02.62	03.35	04.58	06.96	0500	00.036	0.087	0.104
0.684	30	02.86	03.34	03.87	04.48	05.17	05.98	06.97	08.20	10.03	13.06	0500	00.147	0.072	0.140
0.684	35	04.61	05.45	06.31	07.21	8.18	09.25	10.49	11.94	13.98	17.22	0500	00.326	0.059	0.170
0.684	40	05.93	07.10	08.23	09.34	10.49	11.71	13.07	14.62	16.77	20.09	0500	00.511	0.047	0.184
0.684	45	06.62	08.10	09.44	10.71	11.98	13.30	14.74	16.36	18.56	21.92	0500	00.623	0.037	0.170
0.684	50	06.31	08.16	09.72	11.15	12.52	13.92	15.43	17.09	19.34	22.74	0500	00.623	0.031	0.131
0.684	55	04.53	06.96	08.83	10.44	11.94	13.43	15.00	16.72	19.01	22.44	0500	00.529	0.028	0.078
0.684	60	00.70	04.36	06.70	08.56	10.22	11.81	13.46	15.24	17.57	21.04	0500	00.392	0.028	0.033
0.684	65	06.17-	00.70	03.70	05.85	07.67	09.37	11.09	12.92	15.30	18.81	0500	00.262	0.031	0.008
0.684	70	12.52-	02.52-	00.75	03.01	04.88	06.62	08.36	10.21	12.60	16.11	0500	00.163	0.036	0.002
0.684	75	06.08-	02.89-	00.71-	01.07	02.68	04.24	05.87	07.63	09.95	13.41	0500	00.101	0.042	0.010
0.684	80	02.47-	01.42-	00.38-	00.67	01.76	02.94	04.26	05.79	07.90	11.20	0500	00.067	0.048	0.027
0.684	85	00.73-	00.21-	00.36	01.01	01.74	02.59	03.62	04.88	06.75	09.82	0500	00.051	0.053	0.045
0.684	90	00.00	00.41	00.88	01.41	02.03	02.78	03.70	04.86	06.61	09.57	0500	00.047	0.052	0.052

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.700	00	99.99-	11.63-	08.10-	05.76-	03.84-	02.08-	00.32-	01.53	03.94	07.46	0500	00.229	0.369	0.000
0.700	05	11.16-	08.25-	06.18-	04.46-	02.88-	01.34-	00.27	02.01	04.33	07.78	0500	00.180	0.274	0.021
0.700	10	07.03-	06.20-	05.35-	04.45-	03.49-	02.42-	01.19-	00.25	02.30	05.53	0500	00.085	0.226	0.045
0.700	15	03.94-	03.83-	03.69-	03.52-	03.30-	03.01-	02.61-	02.04-	01.03-	01.04	0500	00.018	0.191	0.077
0.700	20	01.27-	01.27-	01.27-	01.26-	01.26-	01.25-	01.25-	01.24-	01.21-	01.14-	0500	00.000	0.162	0.121
0.700	25	01.13	01.25	01.38	01.55	01.77	02.05	02.45	03.01	04.01	06.07	0500	00.041	0.136	0.176
0.700	30	03.27	03.65	04.08	04.58	05.16	05.87	06.75	07.87	09.59	12.50	0500	00.194	0.112	0.237
0.700	35	05.07	05.81	06.59	07.42	08.32	09.34	10.52	11.93	13.93	17.13	0500	00.480	0.089	0.287
0.700	40	06.40	07.53	08.61	09.70	10.83	12.03	13.38	14.92	17.06	20.36	0500	00.809	0.070	0.305
0.700	45	07.03	08.54	09.90	11.19	12.47	13.80	15.24	16.86	19.07	22.44	0500	01.031	0.054	0.275
0.700	50	06.53	08.52	10.17	11.65	13.06	14.49	16.01	17.69	19.95	23.37	0500	01.055	0.045	0.201
0.700	55	04.37	07.16	09.18	10.87	12.43	13.96	15.56	17.30	19.61	23.05	0500	00.904	0.041	0.112
0.700	60	00.00	04.41	06.96	08.92	10.64	12.27	13.95	15.74	18.09	21.58	0500	00.669	0.042	0.042
0.700	65	07.47-	00.84	03.99	06.20	08.05	09.77	11.51	13.35	15.73	19.24	0500	00.441	0.047	0.008
0.700	70	13.46-	02.32-	01.01	03.28	05.17	06.91	08.66	10.51	12.90	16.42	0500	00.268	0.055	0.002
0.700	75	07.00-	03.25-	00.88-	00.99	02.66	04.26	05.91	07.69	10.03	13.50	0500	00.160	0.065	0.013
0.700	80	02.95-	01.82-	00.72-	00.37	01.50	02.71	04.06	05.60	07.74	11.05	0500	00.102	0.075	0.038
0.700	85	00.80-	00.30-	00.25	00.87	01.58	02.41	03.41	04.66	06.50	09.55	0500	00.076	0.084	0.070
0.700	90	00.00	00.38	00.80	01.30	01.88	02.58	03.46	04.58	06.29	09.20	0500	00.069	0.085	0.085
0.716	00	99.99-	10.37-	06.85-	04.51-	02.59-	00.83-	00.93	02.79	05.19	08.71	0500	00.486	0.588	0.000
0.716	05	11.47-	07.82-	05.49-	03.63-	01.98-	00.38-	01.27	03.04	05.38	08.85	0500	00.371	0.439	0.031
0.716	10	07.24-	06.27-	05.29-	04.30-	03.25-	02.11-	00.81-	00.68	02.78	06.05	0500	00.155	0.363	0.069
0.716	15	04.08-	03.98-	03.85-	03.69-	03.49-	03.23-	02.85-	02.32-	01.36-	00.63	0500	00.026	0.307	0.120
0.716	20	01.35-	01.35-	01.35-	01.35-	01.35-	01.35-	01.34-	01.34-	01.32-	01.28-	0500	00.000	0.261	0.191
0.716	25	01.08	01.16	01.26	01.37	01.53	01.74	02.03	02.46	03.25	04.99	0500	00.046	0.220	0.283
0.716	30	03.23	03.53	03.89	04.31	04.81	05.42	06.21	07.23	08.83	11.63	0500	00.252	0.182	0.383
0.716	35	04.99	05.66	06.38	07.15	08.01	08.98	10.12	11.48	13.45	16.62	0500	00.699	0.147	0.464
0.716	40	06.21	07.30	08.36	09.43	10.54	11.73	13.06	14.60	16.72	20.03	0500	01.257	0.117	0.490
0.716	45	06.60	08.13	09.51	10.81	12.10	13.43	14.88	16.51	18.72	22.09	0500	01.657	0.095	0.433
0.716	50	05.70	07.82	09.53	11.04	12.48	13.93	15.47	17.16	19.43	22.85	0500	01.720	0.082	0.304
0.716	55	03.01	06.10	08.24	10.01	11.60	13.16	14.78	16.53	18.85	22.31	0500	01.473	0.079	0.157
0.716	60	02.00-	03.13	05.84	07.88	09.63	11.29	12.99	14.79	17.16	20.65	0500	01.078	0.084	0.053
0.716	65	09.99-	00.41-	02.84	05.08	06.95	08.68	10.42	12.27	14.66	18.17	0500	00.695	0.095	0.010
0.716	70	14.52-	03.54-	00.22-	02.05	03.94	05.68	07.43	09.27	11.67	15.18	0500	00.410	0.112	0.004
0.716	75	07.99-	04.49-	02.21-	00.38-	01.27	02.85	04.49	06.26	08.59	12.06	0500	00.235	0.133	0.021
0.716	80	03.35-	02.48-	01.58-	00.65-	00.34	01.44	02.69	04.15	06.22	09.46	0500	00.145	0.156	0.072
0.716	85	00.85-	00.51-	00.11-	00.35	00.89	01.56	02.39	03.47	05.13	07.99	0500	00.107	0.177	0.145
0.716	90	00.00	00.25	00.55	00.90	01.33	01.87	02.57	03.49	04.98	07.66	0500	00.098	0.182	0.182

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.728	00	99.99-	08.98-	05.46-	03.12-	01.20-	00.56	02.32	04.18	06.58	10.11	0500	00.785	0.689	0.000
0.728	05	11.66-	07.09-	04.50-	02.52-	00.79-	00.85	02.53	04.32	06.68	10.17	0500	00.595	0.519	0.035
0.728	10	07.47-	06.18-	04.96-	03.78-	02.58-	01.32-	00.07	01.66	03.83	07.17	0500	00.241	0.432	0.077
0.728	15	04.33-	04.20-	04.05-	03.86-	03.62-	03.30-	02.87-	02.25-	01.18-	00.98	0500	00.036	0.369	0.136
0.728	20	01.62-	01.62-	01.62-	01.61-	01.61-	01.61-	01.61-	01.60-	01.59-	01.55-	0500	00.000	0.317	0.218
0.728	25	00.80	00.86	00.93	01.03	01.15	01.32	01.56	01.91	02.59	04.12	0500	00.041	0.270	0.325
0.728	30	02.89	03.15	03.46	03.83	04.28	04.84	05.56	06.52	08.04	10.75	0500	00.251	0.227	0.442
0.728	35	04.55	05.18	05.85	06.59	07.42	08.36	09.47	10.81	12.75	15.89	0500	00.755	0.189	0.537
0.728	40	05.59	06.65	07.70	08.76	09.86	11.04	12.37	13.89	16.02	19.31	0500	01.419	0.156	0.565
0.728	45	05.69	07.25	08.63	09.94	11.23	12.57	14.02	15.65	17.86	21.24	0500	01.911	0.133	0.494
0.728	50	04.44	06.63	08.38	09.92	11.38	12.83	14.38	16.08	18.36	21.78	0500	01.998	0.122	0.338
0.728	55	01.34	04.65	06.86	08.66	10.28	11.86	13.49	15.25	17.58	21.04	0500	01.709	0.122	0.167
0.728	60	04.09-	01.54	04.34	06.41	08.19	09.87	11.57	13.38	15.75	19.25	0500	01.241	0.133	0.052
0.728	65	12.14-	01.96-	01.32	03.58	05.46	07.19	08.94	10.78	13.18	16.69	0500	00.789	0.152	0.009
0.728	70	14.90-	04.99-	01.73-	00.53	02.40	04.13	05.88	07.72	10.11	13.63	0500	00.458	0.179	0.006
0.728	75	08.31-	05.48-	03.44-	01.74-	09.17-	01.36	02.96	04.70	07.01	10.47	0500	00.260	0.213	0.031
0.728	80	03.45-	02.81-	02.12-	01.37-	00.54-	00.40	01.52	02.87	04.82	07.97	0500	00.162	0.251	0.114
0.728	85	00.86-	00.62-	00.32-	00.02	00.45	00.98	01.67	02.59	04.06	06.73	0500	00.123	0.284	0.233
0.728	90	00.00	00.18	00.40	00.66	00.99	01.42	01.98	02.76	04.05	06.50	0500	00.113	0.293	0.293
0.732	00	99.99-	08.47-	04.95-	02.61-	00.69-	01.07	02.83	04.69	07.09	10.61	0500	00.874	0.683	0.000
0.732	05	11.67-	06.75-	04.09-	02.08-	00.33-	01.32	03.01	04.81	07.17	10.66	0500	00.664	0.516	0.035
0.732	10	07.52-	06.08-	04.77-	03.52-	02.27-	00.96-	00.47	02.08	04.27	07.63	0500	00.269	0.431	0.076
0.732	15	04.41-	04.27-	04.10-	03.89-	03.62-	03.28-	02.81-	02.15-	01.01-	01.24	0500	00.040	0.369	0.134
0.732	20	01.72-	01.72-	01.72-	01.72-	01.72-	01.71-	01.71-	01.71-	01.69-	01.66-	0500	00.000	0.318	0.214
0.732	25	00.67	00.72	00.79	00.88	01.00	01.15	01.37	01.71	02.35	03.81	0500	00.038	0.273	0.318
0.732	30	02.72	02.97	03.27	03.62	04.05	04.59	05.29	06.21	07.70	10.38	0500	00.233	0.232	0.433
0.732	35	04.33	04.94	05.60	06.33	07.14	08.07	09.17	10.50	12.43	15.57	0500	00.720	0.194	0.527
0.732	40	05.29	06.35	07.39	08.44	09.53	10.71	12.04	13.56	15.68	18.98	0500	01.375	0.164	0.553
0.732	45	05.28	06.84	08.23	09.54	10.84	12.18	13.63	15.26	17.47	20.85	0500	01.868	0.142	0.480
0.732	50	03.90	06.12	07.89	09.44	10.90	12.36	13.91	15.61	17.89	21.32	0500	01.961	0.133	0.326
0.732	55	00.67	04.06	06.30	08.12	09.75	11.33	12.96	14.73	17.06	20.52	0500	01.679	0.135	0.158
0.732	60	04.90-	00.92	03.76	05.85	07.63	09.31	11.02	12.84	15.21	18.71	0500	01.218	0.148	0.048
0.732	65	12.86-	02.53-	00.76	03.02	04.90	06.64	08.38	10.23	12.62	16.14	0500	00.774	0.170	0.009
0.732	70	14.94-	05.49-	02.25-	00.01-	01.86	03.59	05.33	07.17	09.56	13.08	0500	00.449	0.199	0.006
0.732	75	08.34-	05.74-	03.80-	02.15-	00.62-	00.89	02.47	04.20	06.50	09.95	0500	00.257	0.238	0.035
0.732	80	03.45-	02.87-	02.24-	01.55-	00.76-	00.14	01.21	02.52	04.43	07.54	0500	00.162	0.280	0.127
0.732	85	00.86-	00.64-	00.37-	00.05-	00.35	00.84	01.50	02.37	03.80	06.41	0500	00.125	0.317	0.260
0.732	90	00.00	00.17	00.37	00.61	00.92	01.32	01.85	02.59	03.84	06.23	0500	00.116	0.327	0.327

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.734	00	99.99-	08.21-	04.69-	02.35-	00.43-	01.33	03.09	04.95	07.35	10.87	0500	00.913	0.672	0.000
0.734	05	11.65-	06.58-	03.88-	01.85-	00.10-	01.56	03.25	05.06	07.43	10.92	0500	00.693	0.508	0.035
0.734	10	07.53-	06.02-	04.66-	03.37-	02.09-	00.77-	00.68	02.30	04.51	07.87	0500	00.281	0.425	0.075
0.734	15	04.44-	04.30-	04.12-	03.89-	03.62-	03.26-	02.76-	02.08-	00.91-	01.39	0500	00.041	0.365	0.131
0.734	20	01.77-	01.77-	01.77-	01.77-	01.77-	01.77-	01.76-	01.76-	01.75-	01.71-	0500	00.000	0.315	0.210
0.734	25	00.60	00.65	00.72	00.80	00.91	01.06	01.28	01.60	02.22	03.65	0500	00.035	0.271	0.311
0.734	30	02.63	02.87	03.16	03.50	03.92	04.45	05.14	06.05	07.52	10.18	0500	00.221	0.231	0.424
0.734	35	04.21	04.81	05.47	06.18	06.99	07.91	09.00	10.33	12.26	15.38	0500	00.692	0.195	0.515
0.734	40	05.12	06.18	07.21	08.26	09.35	10.53	11.85	13.38	15.50	18.79	0500	01.335	0.166	0.539
0.734	45	05.06	06.62	08.01	09.33	10.62	11.96	13.42	15.05	17.26	20.63	0500	01.822	0.146	0.467
0.734	50	03.61	05.85	07.62	09.18	10.65	12.11	13.66	15.37	17.65	21.07	0500	01.917	0.137	0.315
0.734	55	00.31	03.75	06.01	07.83	09.47	11.05	12.69	14.46	16.79	20.26	0500	01.643	0.141	0.151
0.734	60	05.33-	00.61	03.46	05.56	07.35	09.03	10.74	12.56	14.93	18.45	0500	01.193	0.155	0.045
0.734	65	13.20-	02.81-	00.48	02.74	04.62	06.36	08.11	09.95	12.35	15.86	0500	00.758	0.177	0.008
0.734	70	14.96-	05.73-	02.51-	00.27-	01.59	03.32	05.06	06.90	09.30	12.81	0500	00.441	0.208	0.007
0.734	75	08.35-	05.85-	03.96-	02.34-	00.83-	00.67	02.25	03.97	06.26	09.70	0500	00.253	0.248	0.036
0.734	80	03.45-	02.89-	02.29-	01.62-	00.86-	00.02	01.07	02.36	04.25	07.34	0500	00.162	0.293	0.132
0.734	85	00.86-	00.64-	00.39-	00.08-	00.31	00.79	01.43	02.28	03.69	06.27	0500	00.126	0.331	0.271
0.734	90	00.00	00.16	00.36	00.59	00.89	01.28	01.80	02.52	03.75	06.11	0500	00.117	0.341	0.341
0.736	00	99.99-	07.96-	04.43-	02.09-	00.17-	01.59	03.35	05.20	07.61	11.13	0500	00.947	0.657	0.000
0.736	05	11.63-	06.39-	03.66-	01.62-	00.14	01 91	03.50	05.31	07.68	11.17	0500	00.719	0.497	0.034
0.736	10	07.54-	05.95-	04.54-	03.22-	01.92-	00.57-	00.89	02.52	04.74	08.12	0500	00.292	0.416	0.073
0.736	15	04.48-	04.32-	04.13-	03.90-	03.60-	03.23-	02.71-	02.00-	00.79-	01.55	0500	00.043	0.358	0.128
0.736	20	01.82-	01.82-	01.82-	01.82-	01.82-	01.82-	01.81-	01.81-	01.80-	01.76-	0500	00.000	0.310	0.204
0.736	25	00.53	00.58	00.64	00.72	00.83	00.98	01.18	01.50	02.09	03.49	0500	00.033	0.268	0.303
0.736	30	02.54	02.77	03.05	03.38	03.79	04.30	04.98	05.87	07.32	09.96	0500	00.207	0.229	0.411
0.736	35	04.08	04.67	05.32	06.03	06.82	07.74	08.83	10.14	12.06	15.18	0500	00.660	0.195	0.499
0.736	40	04.95	06.00	07.03	08.08	09.16	10.34	11.66	13.18	15.30	18.59	0500	01.285	0.167	0.522
0.736	45	04.83	06.39	07.79	09.10	10.40	11.74	13.19	14.82	17.04	20.41	0500	01.763	0.148	0.451
0.736	50	03.31	05.57	07.35	08.92	10.39	11.85	13.41	15.11	17.39	20.82	0500	01.860	0.141	0.302
0.736	55	00.06-	03.43	05.71	07.55	09.19	10.77	12.41	14.18	16.52	19.98	0500	01.597	0.146	0.144
0.736	60	05.77-	00.29	03.16	05.27	07.06	08.75	10.46	12.28	14.65	18.15	0500	01.160	0.160	0.043
0.736	65	13.55-	03.09-	00.20	02.47	04.35	06.08	07.83	09.68	12.07	15.59	0500	00.738	0.184	0.008
0.736	70	14.96-	05.96-	02.76-	00.53-	01.34	03.06	04.80	06.64	09.03	12.55	0500	00.431	0.216	0.007
0.736	75	08.35-	05.96-	04.11-	02.51-	01.02-	00.46	02.03	03.75	06.03	09.47	0500	00.249	0.257	0.038
0.736	80	03.44-	02.91-	02.33-	01.68-	00.94-	00.08-	00.95	02.22	04.09	07.16	0500	00.160	0.304	0.137
0.736	85	00.86-	00.65-	00.40-	00.10-	00.27	00.74	01.36	02.20	03.59	06.14	0500	00.126	0.343	0.282
0.736	90	00.00	00.16	00.35	00.58	00.87	01.24	01.75	02.46	03.66	06.00	0500	00.117	0.354	0.354

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.738	00	99.99-	07.70-	04.18-	01.84-	00.08	01.84	03.60	05.46	07.86	11.38	0500	00.975	0.638	0.000
0.738	05	11.60-	06.20-	03.44-	01.39-	00.38	02.05	03.75	05.56	07.93	11.42	0500	00.741	0.483	0.033
0.738	10	07.55-	05.88-	04.42-	03.06-	01.73-	00.37-	01.11	02.75	04.98	08.36	0500	00.301	0.406	0.071
0.738	15	04.51-	04.34-	04.14-	03.89-	03.58-	03.19-	02.65-	01.91-	00.67-	01.72	0500	00.044	0.350	0.124
0.738	20	01.87-	01.87-	01.87-	01.87-	01.87-	01.87-	01.86-	01.86-	01.85-	01.81-	0500	00.000	0.304	0.197
0.738	25	00.46	00.51	00.57	00.64	00.75	00.88	01.08	01.39	01.97	03.32	0500	00.030	0.263	0.292
0.738	30	02.44	02.67	02.93	03.26	03.65	04.15	04.81	05.69	07.11	09.72	0500	00.192	0.226	0.397
0.738	35	03.95	04.53	05.17	05.87	06.65	07.56	08.64	09.95	11.86	14.97	0500	00.624	0.194	0.481
0.738	40	04.77	05.81	06.84	07.88	08.97	10.14	11.46	12.98	15.09	18.38	0500	01.227	0.168	0.502
0.738	45	04.58	06.16	07.55	08.87	10.16	11.51	12.96	14.59	16.81	20.18	0500	01.693	0.150	0.432
0.738	50	03.00	05.28	07.08	08.64	10.12	11.59	13.15	14.85	17.13	20.56	0500	01.793	0.144	0.288
0.738	55	00.44-	03.11	05.41	07.25	08.90	10.49	12.13	13.91	16.24	19.71	0500	01.542	0.150	0.135
0.738	60	06.23-	00.03-	02.87	04.98	06.78	08.46	10.18	12.00	14.37	17.87	0500	01.122	0.165	0.039
0.738	65	13.88-	03.37-	00.07-	02.20	04.08	05.81	07.56	09.40	11.80	15.31	0500	00.715	0.190	0.008
0.738	70	14.97-	06.18-	02.99-	00.77-	01.09	02.81	04.55	06.39	08.78	12.29	0500	00.419	0.223	0.007
0.738	75	08.34-	06.05-	04.25-	02.68-	01.20-	00.27	01.83	03.54	05.82	09.25	0500	00.244	0.265	0.039
0.738	80	03.44-	02.93-	02.37-	01.74-	01.02-	00.18-	00.84	02.09	03.94	07.00	0500	00.158	0.313	0.142
0.738	85	00.86-	00.66-	00.42-	00.12-	00.24	00.70	01.31	02.13	03.49	06.02	0500	00.125	0.354	0.290
0.738	90	00.00	00.15	00.34	00.56	00.84	01.21	01.71	02.40	03.59	05.90	0500	00.117	0.365	0.365
0.740	00	99.99-	07.45-	03.93-	01.59-	00.33	02.09	03.85	05.71	08.11	11.63	0500	00.999	0.617	0.000
0.740	05	11.56-	06.01-	03.22-	01.15-	00.62	02.29	03.99	05.81	08.18	11.67	0500	00.760	0.467	0.033
0.740	10	07.55-	05.80-	04.29-	02.90-	01.55-	00.16-	01.32	02.98	05.22	08.61	0500	00.309	0.393	0.069
0.740	15	04.53-	04.35-	04.14-	03.88-	03.56-	03.14-	02.59-	01.82-	00.54-	01.89	0500	00.045	0.340	0.120
0.740	20	01.92-	01.92-	01.92-	01.92-	01.92-	01.92-	01.91-	01.91-	01.89-	01.86-	0500	00.000	0.296	0.190
0.740	25	00.38	00.43	00.49	00.56	00.66	00.79	00.99	01.28	01.83	03.15	0500	00.028	0.257	0.281
0.740	30	02.34	02.56	02.81	03.13	03.51	03.99	04.63	05.49	06.90	09.48	0500	00.177	0.222	0.381
0.740	35	03.81	04.38	05.01	05.70	06.47	07.37	08.44	09.74	11.65	14.75	0500	00.585	0.192	0.461
0.740	40	04.58	05.62	06.64	07.68	08.76	09.93	11.25	12.76	14.88	18.17	0500	01.164	0.167	0.480
0.740	45	04.34	05.91	07.31	08.63	09.93	11.27	12.73	14.36	16.57	19.95	0500	01.617	0.151	0.411
0.740	50	02.68	04.99	06.80	08.37	09.85	11.32	12.88	14.59	16.88	20.30	0500	01.718	0.147	0.272
0.740	55	00.83-	02.79	05.11	06.96	08.62	10.21	11.86	13.63	15.97	19.44	0500	01.481	0.153	0.126
0.740	60	06.69-	00.35-	02.57	04.69	06.49	08.19	09.90	11.72	14.10	17.60	0500	01.080	0.169	0.036
0.740	65	14.21-	03.64-	00.33-	01.93	03.81	05.55	07.30	09.14	11.54	15.05	0500	00.690	0.194	0.007
0.740	70	14.96-	06.40-	03.22-	01.01-	00.85	02.57	04.31	06.15	08.54	12.05	0500	00.406	0.228	0.007
0.740	75	08.34-	06.13-	04.38-	02.83-	01.37-	00.09	01.64	03.34	05.61	09.04	0500	00.238	0.272	0.040
0.740	80	03.43-	02.94-	02.40-	01.79-	01.09-	00.26-	00.74	01.97	03.81	06.85	0500	00.156	0.321	0.146
0.740	85	00.86-	00.66-	00.43-	00.14-	00.21	00.66	01.25	02.07	03.41	05.92	0500	00.124	0.363	0.297
0.740	90	00.00	00.15	00.33	00.55	00.82	01.18	01.67	02.35	03.52	05.81	0500	00.117	0.373	0.373

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.744	00	99.99-	06.97-	03.45-	01.11-	00.81	02.57	04.33	06.19	08.59	12.11	0500	01.031	0.570	0.000
0.744	05	11.47-	05.64-	02.80-	00.71-	01.08	02.76	04.46	06.28	08.65	12.15	0500	00.786	0.433	0.031
0.744	10	07.54-	05.62-	04.02-	02.57-	01.18-	00.24	01.75	03.42	05.68	09.08	0500	00.321	0.365	0.064
0.744	15	04.58-	04.38-	04.14-	03.85-	03.50-	03.04-	02.44-	01.62-	00.27-	02.25	0500	00.047	0.317	0.110
0.744	20	02.02-	02.02-	02.02-	02.01-	02.01-	02.01-	02.01-	02.00-	01.99-	01.95-	0500	00.000	0.277	0.174
0.744	25	00.24	00.28	00.33	00.40	00.49	00.61	00.79	01.05	01.57	02.80	0500	00.023	0.243	0.257
0.744	30	02.13	02.33	02.57	02.85	03.21	03.66	04.26	05.08	06.43	08.94	0500	00.146	0.212	0.347
0.744	35	03.53	04.07	04.67	05.34	06.10	06.97	08.02	09.31	11.19	14.28	0500	00.505	0.185	0.417
0.744	40	04.20	05.22	06.23	07.26	08.33	09.50	10.81	12.32	14.43	17.72	0500	01.031	0.164	0.432
0.744	45	03.83	05.41	06.82	08.14	09.44	10.79	12.24	13.88	16.09	19.47	0500	01.453	0.152	0.367
0.744	50	02.03	04.40	06.23	07.82	09.31	10.79	12.36	14.07	16.36	19.79	0500	01.557	0.150	0.239
0.744	55	01.64-	02.14	04.51	06.39	08.06	09.66	11.31	13.09	15.43	18.91	0500	01.350	0.158	0.108
0.744	60	07.66-	00.97-	02.00	04.14	05.95	07.65	09.37	11.19	13.57	17.08	0500	00.989	0.175	0.030
0.744	65	14.83-	04.15-	00.84-	01.43	03.31	05.05	06.80	08.64	11.04	14.55	0500	00.637	0.201	0.007
0.744	70	14.96-	06.78-	03.64-	01.44-	00.41	02.13	03.86	05.70	08.09	11.60	0500	00.378	0.236	0.008
0.744	75	08.32-	06.27-	04.59-	03.10-	01.67-	00.24-	01.29	02.98	05.25	08.66	0500	00.225	0.281	0.041
0.744	80	03.41-	02.96-	02.45-	01.87-	01.20-	00.41-	00.56	01.76	03.56	06.57	0500	00.150	0.331	0.151
0.744	85	00.86-	00.67-	00.45-	00.18-	00.16	00.59	01.16	01.95	03.25	05.72	0500	00.121	0.375	0.307
0.744	90	00.00	00.14	00.31	00.52	00.78	01.13	01.60	02.26	03.39	05.64	0500	00.114	0.385	0.385
0.748	00	99.99-	06.53-	03.01-	00.67-	01.25	03.01	04.77	06.63	09.03	12.56	0500	01.046	0.523	0.000
0.748	05	11.39-	05.28-	02.40-	00.29-	01.50	03.19	04.90	06.72	09.09	12.59	0500	00.798	0.397	0.029
0.748	10	07.52-	05.45-	03.76-	02.26-	00.83-	00.61	02.15	03.84	06.10	09.52	0500	00.328	0.336	0.059
0.748	15	04.62-	04.39-	04.13-	03.82-	03.43-	02.94-	02.29-	01.42-	00.01-	02.59	0500	00.048	0.293	0.101
0.748	20	02.11-	02.11-	02.11-	02.10-	02.10-	02.10-	02.10-	02.09-	02.07-	02.03-	0500	00.000	0.258	0.159
0.748	25	00.10	00.13	00.18	00.24	00.32	00.43	00.59	00.83	01.30	02.45	0500	00.019	0.228	0.233
0.748	30	01.93	02.11	02.32	02.58	02.90	03.32	03.88	04.64	05.92	08.36	0500	00.118	0.201	0.313
0.748	35	03.24	03.76	04.34	04.98	05.71	06.56	07.59	08.85	10.71	13.78	0500	00.429	0.177	0.374
0.748	40	03.81	04.82	05.81	06.83	07.90	09.05	10.36	11.87	13.97	17.25	0500	00.902	0.160	0.385
0.748	45	03.32	04.92	06.33	07.66	08.96	10.31	11.77	13.40	15.62	19.00	0500	01.290	0.150	0.323
0.748	50	01.39	03.82	05.68	07.29	08.79	10.28	11.85	13.57	15.86	19.30	0500	01.396	0.150	0.207
0.748	55	02.45-	01.52	03.94	05.84	07.53	09.14	10.80	12.58	14.93	18.41	0500	01.219	0.160	0.091
0.748	60	08.66-	01.56-	01.46	03.62	05.45	07.15	08.87	10.70	13.09	16.59	0500	00.899	0.178	0.024
0.748	65	15.39-	04.61-	01.29-	00.98	02.86	04.60	06.35	08.19	10.59	14.10	0500	00.583	0.204	0.006
0.748	70	14.94-	07.12-	04.02-	01.82-	00.02	01.73	03.46	05.30	07.68	11.19	0500	00.350	0.240	0.008
0.748	75	08.30-	06.38-	04.78-	03.33-	01.93-	00.52-	00.99	02.67	04.92	08.33	0500	00.211	0.286	0.042
0.748	80	03.40-	02.97-	02.49-	01.94-	01.30-	00.54-	00.40	01.57	03.35	06.32	0500	00.143	0.337	0.154
0.748	85	00.85-	00.68-	00.47-	00.21-	00.11	00.52	01.07	01.83	03.11	05.53	0500	00.116	0.380	0.312
0.748	90	00.00	00.13	00.29	00.49	00.75	01.08	01.53	02.16	03.27	05.48	0500	00.110	0.391	0.391

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.756	00	99.99-	05.77-	02.25-	00.09	02.01	03.77	05.53	07.39	09.79	13.31	0500	01.040	0.436	0.000
0.756	05	11.27-	04.68-	01.72-	00.42	02.23	03.92	05.64	07.47	09.84	13.35	0500	00.796	0.332	0.025
0.756	10	07.52-	05.14-	03.30-	01.71-	00.22-	01.26	02.83	04.54	06.83	10.26	0500	00.329	0.284	0.050
0.756	15	04.70-	04.43-	04.12-	03.75-	03.29-	02.73-	02.00-	01.05-	00.48	03.20	0500	00.048	0.249	0.084
0.756	20	02.28-	02.28-	02.28-	02.28-	02.28-	02.28-	02.27-	02.26-	02.25-	02.20-	0500	00.000	0.222	0.131
0.756	25	00.18-	00.15-	00.11-	00.07-	00.00	00.09	00.21	00.41	00.80	01.79	0500	00.012	0.198	0.190
0.756	30	01.53	01.67	01.83	02.04	02.30	02.64	03.10	03.76	04.89	07.12	0500	00.074	0.178	0.253
0.756	35	02.69	03.16	03.68	04.27	04.94	05.74	06.72	07.93	09.74	12.76	0500	00.304	0.161	0.299
0.756	40	03.08	04.05	05.02	06.01	07.06	08.20	09.49	10.99	13.08	16.36	0500	00.682	0.149	0.303
0.756	45	02.37	03.99	05.42	06.75	08.06	09.41	10.88	12.52	14.74	18.12	0500	01.011	0.144	0.249
0.756	50	00.18	02.75	04.68	06.33	07.85	09.36	10.94	12.67	14.97	18.41	0500	01.117	0.147	0.153
0.756	55	04.01-	00.38	02.92	04.88	06.59	08.22	09.90	11.69	14.04	17.53	0500	00.990	0.159	0.063
0.756	60	10.66-	02.60-	00.53	02.73	04.57	06.29	08.02	09.86	12.25	15.76	0500	00.740	0.177	0.015
0.756	65	16.28-	05.39-	02.07-	00.20	02.09	03.83	05.57	07.42	09.82	13.33	0500	00.487	0.204	0.005
0.756	70	14.89-	07.68-	04.64-	02.47-	00.64-	01.06	02.79	04.62	07.00	10.51	0500	00.298	0.239	0.008
0.756	75	08.25-	06.55-	05.07-	03.70-	02.36-	00.99-	00.49	02.13	04.37	07.75	0500	00.184	0.285	0.043
0.756	80	03.37-	02.99-	02.56-	02.06-	01.47-	00.76-	00.12	01.24	02.95	05.87	0500	00.127	0.335	0.154
0.756	85	00.85-	00.69-	00.50-	00.27-	00.02	00.40	00.91	01.62	02.83	05.17	0500	00.104	0.379	0.311
0.756	90	00.00	00.12	00.27	00.45	00.67	00.98	01.39	01.98	03.03	05.14	0500	00.098	0.389	0.389
0.764	00	99.99-	05.18-	01.66-	00.68	02.60	04.36	06.13	07.98	10.38	13.91	0500	01.007	0.369	0.000
0.764	05	11.24-	04.21-	01.20-	00.96	02.79	04.49	06.21	08.04	10.42	13.93	0500	00.772	0.282	0.021
0.764	10	07.56-	04.91-	02.95-	01.28-	00.26	01.77	03.36	05.09	07.39	10.84	0500	00.322	0.242	0.042
0.764	15	04.81-	04.50-	04.13-	03.71-	03.20-	02.57-	01.77-	00.74-	00.87	03.69	0500	00.048	0.214	0.071
0.764	20	02.47-	02.47-	02.47-	02.46-	02.46-	02.46-	02.45-	02.44-	02.43-	02.38-	0500	00.000	0.193	0.109
0.764	25	00.45-	00.43-	00.39-	00.35-	00.30-	00.23-	00.12-	00.04	00.38	01.23	0500	00.008	0.174	0.157
0.764	30	01.16	01.26	01.39	01.55	01.75	02.01	02.39	02.92	03.88	05.87	0500	00.045	0.159	0.207
0.764	35	02.20	02.61	03.08	03.62	04.24	04.99	05.91	07.07	08.82	11.79	0500	00.218	0.146	0.243
0.764	40	02.44	03.37	04.31	05.29	06.31	07.44	08.72	10.20	12.28	15.55	0500	00.525	0.138	0.242
0.764	45	01.55	03.19	04.62	05.97	07.29	08.64	10.11	11.75	13.98	17.36	0500	00.804	0.136	0.195
0.764	50	00.88-	01.84	03.83	05.52	07.06	08.59	10.18	11.92	14.22	17.67	0500	00.906	0.141	0.115
0.764	55	05.44-	00.58-	02.07	04.08	05.82	07.47	09.16	10.96	13.32	16.81	0500	00.814	0.154	0.044
0.764	60	12.59-	03.45-	00.23-	02.01	03.87	05.60	07.34	09.18	11.57	15.08	0500	00.616	0.172	0.009
0.764	65	16.85-	06.01-	02.69-	00.42-	01.47	03.21	04.95	06.80	09.19	12.71	0500	00.410	0.198	0.004
0.764	70	14.85-	08.12-	05.14-	03.00-	01.18-	00.51	02.23	04.06	06.44	09.94	0500	00.254	0.233	0.008
0.764	75	08.20-	06.67-	05.30-	04.01-	02.72-	01.40-	00.05	01.68	03.89	07.26	0500	00.159	0.277	0.042
0.764	80	03.35-	03.01-	02.62-	02.16-	01.62-	00.96-	00.13-	00.94	02.59	05.45	0500	00.110	0.325	0.150
0.764	85	00.85-	00.71-	00.54-	00.33-	00.06-	00.28	00.75	01.42	02.56	04.81	0500	00.090	0.367	0.302
0.764	90	00.00	00.11	00.24	00.40	00.61	00.88	01.26	01.81	02.78	04.80	0500	00.085	0.376	0.376

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.780	00	99.99-	04.34-	00.82-	01.52	03.44	05.20	06.96	08.82	11.22	14.74	0500	00.924	0.279	0.000
0.780	05	11.37-	03.58-	00.48-	01.71	03.55	05.27	07.00	08.83	11.22	14.72	0500	00.712	0.216	0.016
0.780	10	07.76-	04.62-	02.47-	00.70-	00.91	02.46	04.09	05.84	08.16	11.62	0500	00.300	0.188	0.031
0.780	15	05.10-	04.69-	04.23-	03.71-	03.09-	02.36-	01.44-	00.29-	01.45	04.40	0500	00.046	0.169	0.052
0.780	20	02.85-	02.85-	02.84-	02.84-	02.84-	02.83-	02.83-	02.81-	02.79-	02.72-	0500	00.000	0.154	0.080
0.780	25	00.95-	00.93-	00.90-	00.86-	00.82-	00.76-	00.66-	00.52-	00.23-	00.52	0500	00.005	0.142	0.114
0.780	30	00.52	00.58	00.65	00.73	00.84	00.99	01.21	01.54	02.16	03.61	0500	00.017	0.132	0.149
0.780	35	01.39	01.72	02.11	02.56	03.09	03.74	04.57	05.63	07.27	10.12	0500	00.123	0.125	0.172
0.780	40	01.41	02.29	03.19	04.12	05.12	06.21	07.47	08.93	11.00	14.24	0500	00.339	0.121	0.168
0.780	45	00.26	01.93	03.40	04.75	06.08	07.45	08.92	10.57	12.80	16.18	0500	00.551	0.122	0.130
0.780	50	02.54-	00.45	02.55	04.29	05.87	07.42	09.03	10.78	13.09	16.55	0500	00.640	0.129	0.072
0.780	55	07.79-	02.02-	00.81	02.89	04.68	06.35	08.06	09.88	12.25	15.75	0500	00.587	0.141	0.024
0.780	60	15.97-	04.68-	01.34-	00.94	02.82	04.57	06.31	08.16	10.56	14.07	0500	00.451	0.159	0.004
0.780	65	17.27-	06.91-	03.61-	01.35-	00.53	02.26	04.01	05.85	08.25	11.76	0500	00.304	0.183	0.003
0.780	70	14.74-	08.78-	05.92-	03.82-	02.03-	00.35-	01.36	03.18	05.55	09.05	0500	00.191	0.215	0.007
0.780	75	08.10-	06.84-	05.65-	04.48-	03.29-	02.04-	00.65-	00.92	03.09	06.42	0500	00.120	0.255	0.039
0.780	80	03.30-	03.03-	02.70-	02.32-	01.86-	01.28-	00.54-	00.43	01.97	04.71	0500	00.083	0.299	0.140
0.780	85	00.84-	00.73-	00.59-	00.42-	00.20-	00.10	00.50	01.07	02.09	04.17	0500	00.067	0.338	0.278
0.780	90	00.00	00.09	00.19	00.33	00.50	00.73	01.05	01.52	02.37	04.21	0500	00.063	0.346	0.346
0.804	00	99.99-	03.63-	00.11-	02.23	04.15	05.91	07.68	09.53	11.93	15.46	0500	00.829	0.212	0.000
0.804	05	11.62-	03.06-	00.12	02.33	04.19	05.91	07.65	09.49	11.88	15.39	0500	00.642	0.167	0.012
0.804	10	08.08-	04.40-	02.06-	00.19-	01.47	03.06	04.71	06.49	08.83	12.30	0500	00.276	0.147	0.023
0.804	15	05.48-	04.95-	04.37-	03.72-	02.99-	02.13-	01.09-	00.18	02.05	05.12	0500	00.044	0.134	0.038
0.804	20	03.31-	03.31-	03.31-	03.30-	03.29-	03.28-	03.27-	03.25-	03.20-	03.05-	0500	00.000	0.124	0.058
0.804	25	01.51-	01.49-	01.46-	01.41-	01.36-	01.28-	01.17-	01.00-	00.66-	00.22	0500	00.004	0.116	0.082
0.804	30	00.17-	00.15-	00.13-	00.10-	00.06-	00.00-	00.08	00.21	00.46	01.15	0500	00.004	0.110	0.106
0.804	35	00.54	00.80	01.10	01.46	01.90	02.45	03.16	04.10	05.61	08.31	0500	00.067	0.107	0.121
0.804	40	00.37	01.19	02.04	02.93	03.89	04.96	06.18	07.63	09.67	12.90	0500	00.216	0.106	0.115
0.804	45	01.02-	00.69	02.17	03.55	04.89	06.26	07.74	09.40	11.63	15.02	0500	00.374	0.109	0.086
0.804	50	04.20-	00.91-	01.30	03.10	04.72	06.29	07.92	09.68	12.01	15.47	0500	00.450	0.116	0.044
0.804	55	10.29-	03.37-	00.37-	01.78	03.60	05.30	07.02	08.85	11.23	14.74	0500	00.421	0.128	0.012
0.804	60	19.28-	05.77-	02.35-	00.05-	01.85	03.60	05.35	07.21	09.60	13.12	0500	00.328	0.144	0.002
0.804	65	17.12-	07.70-	04.47-	02.23-	00.36-	01.37	03.11	04.95	07.35	10.86	0500	00.223	0.165	0.003
0.804	70	14.52-	09.35-	06.63-	04.60-	02.84-	01.18-	00.51	02.32	04.69	08.18	0500	00.141	0.194	0.007
0.804	75	07.94-	06.91-	05.90-	04.87-	03.79-	02.63-	01.32-	00.20	02.31	05.60	0500	00.089	0.230	0.037
0.804	80	03.24-	03.02-	02.75-	02.44-	02.05-	01.55-	00.90-	00.03-	01.39	03.99	0500	00.061	0.269	0.128
0.804	85	00.83-	00.74-	00.63-	00.49-	00.30-	00.06-	00.28	00.77	01.66	03.56	0500	00.049	0.303	0.250
0.804	90	00.00	00.07	00.16	00.26	00.40	00.59	00.86	01.26	02.00	03.65	0500	00.045	0.310	0.310

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.836	00	99.99-	03.30-	00.22	02.56	04.48	06.24	08.00	09.86	12.26	15.79	0500	00.762	0.181	0.000
0.836	05	11.66-	02.77-	00.43	02.65	04.51	06.24	07.98	09.82	12.21	15.72	0500	00.594	0.144	0.010
0.836	10	08.17-	04.19-	01.75-	00.15	01.84	03.45	05.11	06.90	09.24	12.72	0500	00.263	0.127	0.019
0.836	15	05.63-	04.98-	04.29-	03.53-	02.69-	01.74-	00.62-	00.74	02.69	05.84	0500	00.046	0.117	0.032
0.836	20	03.52-	03.51-	03.50-	03.48-	03.46-	03.42-	03.38-	03.30-	03.14-	02.71-	0500	00.001	0.109	0.048
0.836	25	01.80-	01.76-	01.72-	01.66-	01.59-	01.49-	01.34-	01.12-	00.68-	00.41	0500	00.005	0.103	0.068
0.836	30	00.56-	00.55-	00.55-	00.54-	00.54-	00.53-	00.51-	00.49-	00.45-	00.31-	0500	00.001	0.099	0.087
0.836	35	00.03	00.23	00.46	00.75	01.11	01.56	02.16	02.98	04.33	06.85	0500	00.041	0.097	0.097
0.836	40	00.31-	00.46	01.26	02.10	03.03	04.06	05.25	06.67	08.68	11.89	0500	00.156	0.097	0.090
0.836	45	01.92-	00.17-	01.34	02.73	04.08	05.46	06.95	08.60	10.84	14.23	0500	00.289	0.101	0.065
0.836	50	05.44-	01.82-	00.50	02.35	04.00	05.60	07.24	09.02	11.35	14.82	0500	00.361	0.108	0.031
0.836	55	12.27-	04.17-	01.04-	01.16	03.01	04.73	06.46	08.30	10.68	14.19	0500	00.347	0.119	0.007
0.836	60	20.30-	06.25-	02.82-	00.51-	01.39	03.14	04.89	06.74	09.14	12.66	0500	00.275	0.134	0.001
0.836	65	16.62-	07.99-	04.81-	02.59-	00.74-	00.99	02.72	04.56	06.95	10.46	0500	00.190	0.154	0.003
0.836	70	14.02-	09.43-	06.84-	04.86-	03.13-	01.49-	00.19	01.99	04.34	07.83	0500	00.121	0.180	0.007
0.836	75	07.66-	06.76-	05.84-	04.89-	03.88-	02.77-	01.51-	00.03-	02.04	05.30	0500	00.076	0.213	0.037
0.836	80	03.14-	02.94-	02.70-	02.40-	02.04-	01.58-	00.97-	00.14-	01.22	03.75	0500	00.052	0.249	0.121
0.836	85	00.82-	00.73-	00.62-	00.49-	00.32-	00.10-	00.22	00.69	01.53	03.36	0500	00.042	0.279	0.232
0.836	90	00.00	00.06	00.14	00.25	00.38	00.55	00.81	01.18	01.88	03.47	0500	00.039	0.285	0.285
0.900	00	99.99-	04.38-	00.86-	01.48	03.40	05.16	06.92	08.78	11.18	14.70	0500	00.728	0.222	0.000
0.900	05	10.50-	03.22-	00.18-	01.99	03.82	05.53	07.25	09.09	11.47	14.97	0500	00.583	0.167	0.015
0.900	10	06.93-	03.72-	01.54-	00.24	01.86	03.42	05.05	06.81	09.13	12.59	0500	00.289	0.145	0.029
0.900	15	04.34-	03.62-	02.86-	02.05-	01.16-	00.16-	01.01	02.40	04.39	07.57	0500	00.077	0.130	0.048
0.900	20	02.20-	02.11-	02.01-	01.88-	01.71-	01.48-	01.16-	00.69-	00.16	01.98	0500	00.013	0.119	0.071
0.900	25	00.48-	00.45-	00.40-	00.35-	00.27-	00.17-	00.02-	00.20	00.65	01.75	0500	00.007	0.110	0.098
0.900	30	00.69	00.69	00.69	00.69	00.69	00.69	00.69	00.69	00.69	00.70	0500	00.000	0.104	0.121
0.900	35	01.10	01.22	01.36	01.54	01.78	02.08	02.50	03.09	04.14	06.26	0500	00.033	0.100	0.129
0.900	40	00.47	01.10	01.79	02.53	03.36	04.30	05.42	06.77	08.71	11.86	0500	00.157	0.100	0.111
0.900	45	01.58-	00.24	01.79	03.21	04.58	05.98	07.47	09.14	11.38	14.78	0500	00.336	0.103	0.072
0.900	50	05.69-	01.31-	01.23	03.19	04.90	06.54	08.21	10.00	12.36	15.84	0500	00.468	0.110	0.030
0.900	55	13.27-	03.08-	00.20	02.46	04.34	06.08	07.82	09.66	12.06	15.57	0500	00.487	0.122	0.006
0.900	60	18.15-	04.58-	01.17-	01.14	03.04	04.79	06.54	08.39	10.79	14.31	0500	00.408	0.136	0.002
0.900	65	14.33-	06.10-	02.96-	00.75-	01.10	02.82	04.55	06.39	08.78	12.29	0500	00.292	0.155	0.006
0.900	70	11.17-	07.15-	04.71-	02.80-	01.11-	00.50	02.17	03.95	06.30	09.78	0500	00.188	0.180	0.014
0.900	75	06.40-	05.35-	04.31-	03.26-	02.17-	01.00-	00.33	01.85	03.97	07.26	0500	00.119	0.210	0.048
0.900	80	02.75-	02.46-	02.11-	01.71-	01.22-	00.62-	00.14	01.15	02.72	05.50	0500	00.081	0.241	0.128
0.900	85	00.74-	00.61-	00.44-	00.24-	00.01	00.35	00.80	01.44	02.55	04.77	0500	00.064	0.268	0.226
0.900	90	00.00	00.10	00.23	00.39	00.59	00.86	01.24	01.78	02.74	04.74	0500	00.060	0.272	0.272

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.932	00	99.99-	06.13-	02.61-	00.27-	01.65	03.41	05.17	07.03	09.43	12.95	0500	00.732	0.334	0.000
0.932	05	09.36-	04.05-	01.30-	00.74	02.51	04.17	05.87	07.68	10.05	13.54	0500	00.592	0.237	0.027
0.932	10	05.65-	03.42-	01.65-	00.10-	01.37	02.83	04.38	06.09	08.36	11.79	0500	00.324	0.197	0.054
0.932	15	02.93-	02.23-	01.49-	00.70-	00.18	01.16	02.32	03.70	05.68	08.86	0500	00.136	0.170	0.087
0.932	20	00.66-	00.48-	00.26-	00.00	00.33	00.75	01.32	02.10	03.39	05.84	0500	00.050	0.150	0.129
0.932	25	01.15	01.19	01.24	01.30	01.39	01.50	01.66	01.91	02.39	03.56	0500	00.014	0.134	0.175
0.932	30	02.38	02.38	02.38	02.38	02.38	02.38	02.38	02.38	02.38	02.39	0500	00.000	0.122	0.211
0.932	35	02.75	02.83	02.94	03.06	03.23	03.45	03.76	04.22	05.05	06.86	0500	00.038	0.114	0.215
0.932	40	01.96	02.50	03.09	03.75	04.50	05.37	06.41	07.69	09.57	12.66	0500	00.208	0.111	0.174
0.932	45	00.41-	01.47	03.05	04.48	05.87	07.28	08.78	10.45	12.70	16.11	0500	00.502	0.113	0.103
0.932	50	04.97-	00.10	02.80	04.83	06.58	08.24	09.93	11.74	14.10	17.59	0500	00.766	0.121	0.038
0.932	55	12.63-	01.14-	02.20	04.48	06.37	08.12	09.86	11.71	14.11	17.62	0500	00.848	0.132	0.007
0.932	60	15.43-	02.30-	01.10	03.40	05.30	07.05	08.80	10.65	13.05	16.57	0500	00.739	0.147	0.004
0.932	65	11.16-	03.57-	00.49-	01.69	03.53	05.24	06.97	08.80	11.19	14.70	0500	00.540	0.165	0.013
0.932	70	07.93-	04.33-	02.02-	00.17-	01.48	03.07	04.72	06.49	08.83	12.30	0500	00.351	0.188	0.030
0.932	75	05.00-	03.66-	02.42-	01.21-	00.01	01.29	02.69	04.28	06.46	09.81	0500	00.221	0.215	0.068
0.932	80	02.45-	01.95-	01.41-	00.80-	00.09-	00.73	01.73	02.97	04.81	07.85	0500	00.150	0.244	0.139
0.932	85	00.71-	00.47-	00.19-	00.16	00.57	01.10	01.78	02.69	04.16	06.81	0500	00.118	0.270	0.229
0.932	90	00.00	00.19	00.42	00.69	01.03	01.47	02.05	02.85	04.17	06.65	0500	00.110	0.273	0.273
0.948	00	99.99-	07.47-	03.95-	01.61-	00.31	02.07	03.83	05.69	08.09	11.61	0500	00.736	0.457	0.000
0.948	05	08.68-	04.65-	02.20-	00.29-	01.40	03.02	04.68	06.47	08.81	12.29	0500	00.581	0.311	0.042
0.948	10	04.87-	03.25-	01.82-	00.49-	00.82	02.18	03.64	05.28	07.50	10.88	0500	00.333	0.252	0.082
0.948	15	02.04-	01.37-	00.65-	00.12	00.98	01.95	03.09	04.46	06.43	09.59	0500	00.200	0.212	0.132
0.948	20	00.31	00.56	00.85	01.20	01.63	02.16	02.86	03.78	05.26	07.93	0500	00.104	0.182	0.196
0.948	25	02.22	02.26	02.32	02.39	02.49	02.62	02.81	03.09	03.64	04.95	0500	00.026	0.158	0.263
0.948	30	03.50	03.50	03.50	03.50	03.50	03.50	03.50	03.50	03.50	03.51	0500	00.000	0.139	0.311
0.948	35	03.88	03.94	04.02	04.12	04.25	04.42	04.66	05.03	05.72	07.27	0500	00.041	0.126	0.308
0.948	40	02.99	03.46	03.99	04.59	05.28	06.09	07.07	08.30	10.12	13.15	0500	00.249	0.120	0.239
0.948	45	00.38	02.31	03.91	05.36	06.76	08.17	09.69	11.36	13.61	17.02	0500	00.665	0.122	0.133
0.948	50	04.52-	01.11	03.91	05.98	07.76	09.44	11.14	12.95	15.32	18.82	0500	01.084	0.129	0.045
0.948	55	12.03-	00.25	03.62	05.91	07.81	09.55	11.30	13.15	15.55	19.07	0500	01.252	0.140	0.009
0.948	60	13.35-	00.68-	02.71	05.01	06.90	08.65	10.40	12.25	14.65	18.17	0500	01.121	0.154	0.007
0.948	65	08.80-	01.72-	01.30	03.46	05.28	06.99	08.71	10.54	12.92	16.43	0500	00.831	0.171	0.023
0.948	70	05.65-	02.29-	00.06-	01.75	03.38	04.96	06.59	08.35	10.68	14.15	0500	00.545	0.191	0.052
0.948	75	03.94-	02.36-	00.95-	00.37	01.67	03.02	04.48	06.11	08.33	11.71	0500	00.344	0.215	0.087
0.948	80	02.40-	01.67-	00.90-	00.07-	00.83	01.84	03.02	04.42	06.42	09.62	0500	00.231	0.243	0.140
0.948	85	00.79-	00.42-	00.01	00.50	01.08	01.78	02.65	03.76	05.46	08.37	0500	00.181	0.270	0.225
0.948	90	00.00	00.28	00.62	01.01	01.48	02.07	02.82	03.81	05.37	08.12	0500	00.168	0.275	0.275

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.964	00	99.99-	09.06-	05.53-	03.19-	01.27-	00.49	02.25	04.10	06.51	10.03	0500	00.741	0.663	0.000
0.964	05	08.15-	05.39-	03.38-	01.69-	00.13-	01.39	02.99	04.73	07.04	10.48	0500	00.531	0.433	0.066
0.964	10	04.16-	03.16-	02.16-	01.14-	00.08-	01.08	02.38	03.89	06.00	09.28	0500	00.306	0.341	0.131
0.964	15	01.19-	00.53-	00.17	00.93	01.77	02.73	03.86	05.21	07.17	10.33	0500	00.310	0.279	0.212
0.964	20	01.31	01.63	02.00	02.43	02.95	03.59	04.40	05.44	07.07	09.89	0500	00.216	0.231	0.313
0.964	25	03.34	03.40	03.47	03.56	03.67	03.83	04.05	04.39	05.02	06.49	0500	00.049	0.193	0.417
0.964	30	04.74	04.74	04.74	04.74	04.74	04.74	04.74	04.74	04.74	04.74	0500	00.000	0.163	0.486
0.964	35	05.16	05.20	05.25	05.32	05.40	05.52	05.68	05.94	06.43	07.63	0500	00.040	0.142	0.468
0.964	40	04.18	04.57	05.02	05.54	06.14	06.86	07.77	08.90	10.64	13.58	0500	00.295	0.132	0.345
0.964	45	01.27	03.25	04.89	06.36	07.77	09.19	10.71	12.39	14.65	18.06	0500	00.913	0.131	0.175
0.964	50	04.16-	02.28	05.22	07.34	09.15	10.85	12.56	14.38	16.76	20.26	0500	01.617	0.137	0.053
0.964	55	11.32-	01.89	05.30	07.60	09.50	11.24	13.00	14.85	17.25	20.77	0500	01.957	0.148	0.011
0.964	60	10.92-	01.24	04.61	06.90	08.79	10.54	12.29	14.14	16.53	20.05	0500	01.798	0.160	0.013
0.964	65	06.08-	00.47	03.42	05.55	07.36	09.06	10.78	12.60	14.98	18.48	0500	01.350	0.173	0.043
0.964	70	02.97-	00.14	02.29	04.05	05.65	07.21	08.83	10.59	12.91	16.37	0500	00.887	0.186	0.094
0.964	75	02.53-	00.66-	00.91	02.34	03.73	05.13	06.64	08.31	10.55	13.95	0500	00.552	0.204	0.114
0.964	80	02.73-	01.51-	00.35-	00.79	01.96	03.19	04.57	06.13	08.29	11.62	0500	00.362	0.233	0.124
0.964	85	01.07-	00.48-	00.17	00.88	01.67	02.58	03.67	04.99	06.91	10.02	0500	00.276	0.268	0.209
0.964	90	00.00	00.42	00.89	01.43	02.06	02.81	03.74	04.91	06.67	09.64	0500	00.252	0.277	0.277
0.972	00	99.99-	09.77-	06.25-	03.91-	01.99-	00.23-	01.53	03.39	05.79	09.31	0500	00.744	0.785	0.000
0.972	05	08.08-	05.82-	04.04-	02.47-	01.00-	00.46	02.02	03.72	06.00	09.43	0500	00.486	0.507	0.079
0.972	10	03.97-	03.21-	02.42-	01.58-	00.66-	00.36	01.55	02.96	04.98	08.18	0500	00.270	0.394	0.158
0.972	15	00.90-	00.24-	00.46	01.23	02.07	03.04	04.17	05.53	07.49	10.64	0500	00.382	0.319	0.259
0.972	20	01.69	02.04	02.45	02.93	03.49	04.17	05.02	06.11	07.79	10.68	0500	00.296	0.261	0.384
0.972	25	03.81	03.87	03.95	04.04	04.16	04.33	04.57	04.93	05.60	07.14	0500	00.066	0.214	0.514
0.972	30	05.28	05.28	05.28	05.28	05.28	05.28	05.28	05.28	05.28	05.28	0500	00.000	0.177	0.596
0.972	35	05.76	05.79	05.83	05.88	05.94	06.03	06.16	06.35	06.75	07.73	0500	00.036	0.151	0.568
0.972	40	04.75	05.11	05.52	05.99	06.55	07.23	08.08	09.17	10.85	13.73	0500	00.314	0.137	0.410
0.972	45	01.69	03.70	05.36	06.84	08.26	09.69	11.22	12.90	15.16	18.57	0500	01.060	0.135	0.200
0.972	50	04.07-	02.85	05.86	08.01	09.83	11.53	13.25	15.08	17.46	20.97	0500	01.951	0.141	0.055
0.972	55	11.00-	02.68	06.10	08.40	10.30	12.05	13.81	15.66	18.06	21.58	0500	02.404	0.151	0.012
0.972	60	09.78-	02.14	05.51	07.79	09.69	11.43	13.18	15.03	17.43	20.94	0500	02.223	0.161	0.017
0.972	65	04.80-	01.51	04.43	06.54	08.35	10.04	11.75	13.57	15.95	19.45	0500	01.668	0.171	0.057
0.972	70	01.64-	01.33	03.42	05.16	06.74	08.28	09.89	11.64	13.96	17.41	0500	01.086	0.180	0.123
0.972	75	01.73-	00.22	01.84	03.31	04.71	06.13	07.64	09.32	11.58	14.99	0500	00.665	0.194	0.130
0.972	80	03.19-	01.61-	00.20-	01.11	02.42	03.76	05.22	06.85	09.07	12.44	0500	00.425	0.224	0.107
0.972	85	01.34-	00.62-	00.14	00.95	01.84	02.84	04.01	05.41	07.40	10.59	0500	00.316	0.265	0.195
0.972	90	00.00	00.47	00.99	01.58	02.27	03.07	04.05	05.27	07.08	10.10	0500	00.286	0.278	0.278

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.980	00	99.99-	10.25-	06.72-	04.38-	02.46-	00.70-	01.06	02.91	05.32	08.84	0500	00.747	0.878	0.000
0.980	05	08.17-	06.24-	04.64-	03.18-	01.79-	00.37-	01.14	02.82	05.07	08.48	0500	00.434	0.567	0.086
0.980	10	03.93-	03.36-	02.75-	02.06-	01.29-	00.40-	00.67	01.96	03.86	06.96	0500	00.222	0.437	0.177
0.980	15	00.76-	00.09-	00.63	01.41	02.27	03.24	04.38	05.75	07.72	10.89	0500	00.445	0.350	0.294
0.980	20	01.91	02.30	02.74	03.25	03.85	04.57	05.47	06.60	08.33	11.26	0500	00.372	0.283	0.440
0.980	25	04.12	04.18	04.26	04.36	04.50	04.68	04.93	05.31	06.02	07.61	0500	00.081	0.229	0.591
0.980	30	05.67	05.67	05.67	05.67	05.67	05.67	05.67	05.67	05.67	05.67	0500	00.000	0.186	0.688
0.980	35	06.21	06.23	06.26	06.30	06.34	06.41	06.51	06.66	06.96	07.75	0500	00.031	0.156	0.652
0.980	40	05.20	05.53	05.90	06.34	06.86	07.50	08.31	09.35	10.98	13.81	0500	00.323	0.140	0.465
0.980	45	02.02	04.06	05.73	07.23	08.65	10.09	11.61	13.30	15.56	18.98	0500	01.179	0.137	0.218
0.980	50	04.06-	03.30	06.36	08.53	10.36	12.07	13.80	15.63	18.01	21.52	0500	02.236	0.142	0.056
0.980	55	10.77-	03.29	06.72	09.03	10.93	12.68	14.43	16.28	18.68	22.20	0500	02.781	0.151	0.013
0.980	60	08.86-	02.83	06.19	08.47	10.36	12.11	13.86	15.70	18.10	21.62	0500	02.572	0.160	0.021
0.980	65	03.77-	02.31	05.19	07.29	09.09	10.77	12.48	14.30	16.67	20.17	0500	01.916	0.166	0.070
0.980	70	00.53-	02.27	04.30	06.00	07.55	09.08	10.68	12.42	14.73	18.18	0500	01.228	0.170	0.151
0.980	75	01.04-	00.92	02.55	04.02	05.42	06.84	08.36	10.04	12.30	15.71	0500	00.732	0.181	0.142
0.980	80	03.94-	01.95-	00.30-	01.18	02.59	04.02	05.54	07.22	09.48	12.89	0500	00.452	0.213	0.086
0.980	85	01.68-	00.88-	00.04-	00.84	01.79	02.84	04.06	05.49	07.53	10.75	0500	00.326	0.262	0.178
0.980	90	00.00	00.48	01.01	01.61	02.29	03.10	04.09	05.32	07.14	10.17	0500	00.292	0.279	0.279
0.984	00	99.99-	10.34-	06.82-	04.48-	02.56-	00.80-	00.96	02.82	05.22	08.74	0500	00.748	0.900	0.000
0.984	05	08.27-	06.44-	04.88-	03.46-	02.09-	00.69-	00.81	02.47	04.72	08.12	0500	00.409	0.582	0.087
0.984	10	03.97-	03.47-	02.93-	02.31-	01.61-	00.78-	00.22	01.46	03.30	06.34	0500	00.194	0.448	0.180
0.984	15	00.75-	00.07-	00.66	01.45	02.32	03.30	04.45	05.83	07.81	10.98	0500	00.465	0.358	0.301
0.984	20	01.96	02.37	02.83	03.36	03.97	04.71	05.63	06.78	08.53	11.49	0500	00.402	0.289	0.453
0.984	25	04.20	04.27	04.35	04.46	04.60	04.78	05.04	05.43	06.16	07.78	0500	00.087	0.233	0.612
0.984	30	05.79	05.79	05.79	05.79	05.79	05.79	05.79	05.79	05.79	05.79	0500	00.000	0.188	0.713
0.984	35	06.36	06.38	06.40	06.43	06.47	06.53	06.61	06.75	07.01	07.71	0500	00.028	0.157	0.677
0.984	40	05.35	05.67	06.02	06.45	06.95	07.58	08.37	09.40	11.00	13.81	0500	00.320	0.140	0.480
0.984	45	02.12	04.18	05.85	07.35	08.78	10.21	11.74	13.43	15.70	19.11	0500	01.210	0.136	0.222
0.984	50	04.10-	03.45	06.52	08.71	10.54	12.25	13.98	15.81	18.20	21.71	0500	02.319	0.141	0.055
0.984	55	10.72-	03.49	06.92	09.23	11.13	12.89	14.64	16.49	18.89	22.41	0500	02.891	0.149	0.013
0.984	60	08.52-	03.06	06.41	08.69	10.58	12.33	14.07	15.92	18.32	21.84	0500	02.668	0.157	0.022
0.984	65	03.38-	02.57	05.43	07.53	09.32	11.00	12.71	14.53	16.90	20.40	0500	01.975	0.163	0.075
0.984	70	00.11-	02.60	04.59	06.27	07.81	09.33	10.93	12.66	14.97	18.42	0500	01.254	0.165	0.161
0.984	75	00.80-	01.15	02.76	04.22	05.62	07.04	08.55	10.23	12.49	15.89	0500	00.736	0.174	0.145
0.984	80	04.45-	02.24-	00.48-	01.06	02.52	03.98	05.53	07.23	09.51	12.93	0500	00.446	0.208	0.075
0.984	85	01.85-	01.04-	00.19-	00.70	01.65	02.72	03.94	05.38	07.42	10.64	0500	00.317	0.260	0.170
0.984	90	00.00	00.46	00.98	01.56	02.23	03.03	04.00	05.21	07.01	10.03	0500	00.282	0.280	0.280

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.992	00	99.99-	10.23-	06.71-	04.36-	02.45-	00.68-	01.08	02.93	05.34	08.86	0500	00.751	0.880	0.000
0.992	05	08.51-	06.73-	05.20-	03.79-	02.43-	01.04-	00.45	02.11	04.35	07.75	0500	00.370	0.573	0.081
0.992	10	04.11-	03.73-	03.30-	02.81-	02.22-	01.52-	00.64-	00.47	02.18	05.10	0500	00.139	0.441	0.171
0.992	15	00.82-	00.11-	00.65	01.46	02.35	03.35	04.52	05.91	07.91	11.09	0500	00.471	0.352	0.292
0.992	20	01.95	02.39	02.89	03.46	04.11	04.89	05.84	07.03	08.82	11.82	0500	00.430	0.284	0.445
0.992	25	04.25	04.32	04.41	04.53	04.67	04.87	05.15	05.56	06.33	08.02	0500	00.093	0.228	0.606
0.992	30	05.89	05.89	05.89	05.89	05.89	05.89	05.89	05.89	05.89	05.89	0500	00.000	0.183	0.711
0.992	35	06.49	06.50	06.52	06.54	06.57	06.62	06.68	06.78	06.99	07.55	0500	00.021	0.152	0.676
0.992	40	05.48	05.77	06.11	06.51	06.99	07.59	08.35	09.35	10.92	13.69	0500	00.298	0.135	0.477
0.992	45	02.17	04.24	05.92	07.43	08.86	10.30	11.83	13.52	15.79	19.20	0500	01.191	0.131	0.217
0.992	50	04.31-	03.55	06.66	08.85	10.69	12.41	14.14	15.97	18.36	21.87	0500	02.317	0.136	0.050
0.992	55	10.72-	03.67	07.10	09.41	11.31	13.07	14.82	16.67	19.07	22.59	0500	02.892	0.143	0.012
0.992	60	08.09-	03.25	06.60	08.87	10.76	12.50	14.25	16.10	18.50	22.01	0500	02.651	0.150	0.023
0.992	65	02.88-	02.82	05.64	07.72	09.50	11.17	12.88	14.69	17.07	20.56	0500	01.937	0.154	0.079
0.992	70	00.40	02.93	04.84	06.48	08.00	09.50	11.08	12.81	15.10	18.54	0500	01.203	0.154	0.169
0.992	75	00.62-	01.25	02.83	04.26	05.65	07.05	08.56	10.23	12.48	15.88	0500	00.685	0.163	0.141
0.992	80	05.73-	03.10-	01.15-	00.51	02.05	03.56	05.15	06.88	09.18	12.62	0500	00.401	0.200	0.053
0.992	85	02.15-	01.38-	00.57-	00.29	01.21	02.25	03.45	04.87	06.89	10.10	0500	00.276	0.258	0.157
0.992	90	00.00	00.40	00.85	01.37	01.98	02.71	03.62	04.76	06.50	09.45	0500	00.244	0.281	0.281
1.000	00	99.99-	09.76-	06.24-	03.90-	01.98-	00.22-	01.54	03.39	05.80	09.32	0500	00.754	0.794	0.000
1.000	05	08.78-	06.85-	05.24-	03.78-	02.39-	00.97-	00.54	02.22	04.47	07.88	0500	00.348	0.522	0.069
1.000	10	04.30-	04.01-	03.68-	03.29-	02.82-	02.24-	01.49-	00.50-	01.05	03.80	0500	00.091	0.403	0.150
1.000	15	00.97-	00.22-	00.57	01.40	02.31	03.33	04.52	05.93	07.93	11.13	0500	00.437	0.323	0.259
1.000	20	01.84	02.33	02.86	03.46	04.15	04.97	05.96	07.19	09.02	12.05	0500	00.420	0.261	0.399
1.000	25	04.17	04.25	04.35	04.47	04.63	04.84	05.14	05.58	06.39	08.15	0500	00.092	0.210	0.549
1.000	30	05.83	05.83	05.83	05.83	05.83	05.83	05.83	05.83	05.83	05.83	0500	00.000	0.169	0.648
1.000	35	06.42	06.43	06.44	06.46	06.49	06.52	06.57	06.65	06.81	07.26	0500	00.015	0.141	0.618
1.000	40	05.38	05.66	05.98	06.36	06.82	07.40	08.14	09.11	10.65	13.39	0500	00.257	0.126	0.435
1.000	45	01.99	04.07	05.76	07.27	08.71	10.15	11.68	13.37	15.64	19.06	0500	01.079	0.123	0.194
1.000	50	04.70-	03.40	06.53	08.73	10.58	12.30	14.03	15.87	18.26	21.76	0500	02.122	0.127	0.043
1.000	55	10.88-	03.56	07.00	09.31	11.21	12.96	14.72	16.57	18.97	22.49	0500	02.647	0.134	0.011
1.000	60	07.94-	03.14	06.47	08.75	10.63	12.38	14.12	15.97	18.37	21.88	0500	02.408	0.141	0.023
1.000	65	02.70-	02.74	05.51	07.56	09.34	11.00	12.70	14.52	16.88	20.38	0500	01.736	0.144	0.077
1.000	70	00.51	02.88	04.71	06.30	07.79	09.27	10.83	12.55	14.84	18.27	0500	01.057	0.144	0.162
1.000	75	00.88-	00.93	02.46	03.87	05.24	06.63	08.12	09.78	12.03	15.42	0500	00.586	0.155	0.127
1.000	80	07.28-	04.25-	02.13-	00.39-	01.20	02.75	04.37	06.12	08.44	11.90	0500	00.332	0.196	0.037
1.000	85	02.33-	01.67-	00.96-	00.19-	00.66	01.63	02.77	04.13	06.09	09.25	0500	00.224	0.258	0.151
1.000	90	00.00	00.32	00.70	01.13	01.66	02.30	03.11	04.15	05.78	08.62	0500	00.197	0.282	0.282

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.012	00	99.99-	08.72-	05.20-	02.86-	00.94-	00.82	02.58	04.44	06.84	10.37	0500	00.758	0.627	0.000
1.012	05	09.13-	06.72-	04.87-	03.27-	01.77-	00.28-	01.29	03.00	05.29	08.73	0500	00.342	0.419	0.051
1.012	10	04.60-	04.43-	04.23-	03.98-	03.67-	03.27-	02.73-	01.99-	00.74-	01.66	0500	00.041	0.327	0.113
1.012	15	01.24-	00.46-	00.36	01.22	02.16	03.20	04.41	05.84	07.86	11.08	0500	00.353	0.264	0.198
1.012	20	01.58	02.12	02.71	03.37	04.12	04.98	06.03	07.31	09.18	12.27	0500	00.368	0.215	0.309
1.012	25	03.90	03.99	04.10	04.24	04.42	04.66	05.00	05.49	06.37	08.26	0500	00.083	0.175	0.430
1.012	30	05.52	05.52	05.52	05.52	05.52	05.52	05.52	05.52	05.52	05.52	0500	00.000	0.144	0.512
1.012	35	06.04	06.05	06.06	06.07	06.09	06.11	06.14	06.20	06.31	06.62	0500	00.008	0.122	0.490
1.012	40	04.91	05.16	05.46	05.82	06.26	06.80	07.51	08.44	09.94	12.63	0500	00.188	0.111	0.343
1.012	45	01.37	03.47	05.18	06.69	08.13	09.57	11.11	12.80	15.07	18.49	0500	00.842	0.109	0.150
1.012	50	05.62-	02.82	05.98	08.20	10.05	11.77	13.51	15.35	17.73	21.24	0500	01.684	0.114	0.031
1.012	55	11.34-	03.03	06.46	08.77	10.68	12.43	14.18	16.04	18.44	21.95	0500	02.101	0.121	0.009
1.012	60	08.07-	02.59	05.90	08.17	10.05	11.79	13.53	15.38	17.77	21.29	0500	01.895	0.127	0.020
1.012	65	02.87-	02.19	04.88	06.91	08.66	10.32	12.01	13.82	16.18	19.67	0500	01.345	0.131	0.068
1.012	70	00.14	02.29	04.02	05.55	06.99	08.44	09.98	11.68	13.95	17.37	0500	00.800	0.134	0.139
1.012	75	01.83-	00.10-	01.38	02.76	04.10	05.48	06.96	08.61	10.85	14.24	0500	00.430	0.149	0.098
1.012	80	09.58-	06.10-	03.83-	02.00-	00.36-	01.23	02.87	04.64	06.97	10.44	0500	00.236	0.194	0.021
1.012	85	02.40-	01.92-	01.38-	00.77-	00.08-	00.74	01.73	02.96	04.79	07.82	0500	00.158	0.259	0.149
1.012	90	00.00	00.23	00.50	00.82	01.22	01.72	02.38	03.26	04.69	07.31	0500	00.138	0.284	0.284

1.028	00	99.99-	07.24-	03.72-	01.38-	00.54	02.30	04.06	05.92	08.32	13.84	0500	00.763	0.450	0.000
1.028	05	09.46-	06.16-	03.95-	02.15-	00.52-	01.05	02.68	04.44	06.77	10.23	0500	00.356	0.307	0.035
1.028	10	04.97-	04.90-	04.82-	04.72-	04.58-	04.40-	04.15-	03.77-	03.06-	01.46-	0500	00.011	0.242	0.077
1.028	15	01.65-	00.83-	00.01	00.90	01.85	02.92	04.14	05.58	07.61	10.84	0500	00.253	0.199	0.136
1.028	20	01.13	01.74	02.41	03.14	03.95	04.89	05.99	07.32	09.26	12.39	0500	00.295	0.165	0.214
1.028	25	03.37	03.48	03.62	03.79	04.00	04.28	04.67	05.23	06.23	08.28	0500	00.070	0.138	0.300
1.028	30	04.88	04.88	04.88	04.88	04.88	04.88	04.88	04.88	04.88	04.89	0500	00.000	0.117	0.359
1.028	35	05.26	05.26	05.27	05.27	05.28	05.29	05.31	05.34	05.40	05.57	0500	00.003	0.102	0.343
1.028	40	03.95	04.18	04.45	04.77	05.17	05.67	06.33	07.21	08.65	11.26	0500	00.116	0.096	0.238
1.028	45	00.19	02.32	04.03	05.56	07.00	08.45	09.99	11.68	13.95	17.37	0500	00.574	0.096	0.101
1.028	50	07.20-	01.71	04.91	07.14	09.00	10.72	12.46	14.30	16.69	20.20	0500	01.179	0.101	0.019
1.028	55	12.08-	01.99	05.42	07.73	09.63	11.38	13.14	14.99	17.39	20.91	0500	01.479	0.108	0.007
1.028	60	08.58-	01.53	04.81	07.06	08.94	10.68	12.42	14.26	16.66	20.17	0500	01.328	0.115	0.016
1.028	65	03.47-	01.15	03.74	05.73	07.45	09.10	10.78	12.58	14.93	18.42	0500	00.931	0.121	0.055
1.028	70	00.77-	01.16	02.77	04.23	05.62	07.04	08.55	10.23	12.48	15.89	0500	00.544	0.129	0.108
1.028	75	03.48-	01.79-	00.32-	01.04	02.37	03.74	05.21	06.86	09.09	12.48	0500	00.286	0.149	0.067
1.028	80	11.23-	07.88-	05.64-	03.84-	02.21-	00.63-	01.00	02.76	05.09	08.56	0500	00.156	0.198	0.015
1.028	85	02.30-	01.99-	01.62-	01.19-	00.68-	00.04-	00.76	01.80	03.41	06.24	0500	00.105	0.262	0.154
1.028	90	00.00	00.15	00.34	00.57	00.85	01.23	01.73	02.43	03.62	05.95	0500	00.093	0.285	0.265

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v = 0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.060	00	99.99-	05.19-	01.67-	00.67	02.59	04.35	06.11	07.97	10.37	13.89	0500	00.769	0.283	0.000
1.060	05	09.72-	04.88-	02.23-	00.22-	01.52	03.17	04.85	06.66	09.02	12.51	0500	00.390	0.198	0.021
1.060	10	05.45-	05.40-	05.33-	05.25-	05.15-	05.01-	04.80-	04.50-	03.91-	02.53-	0500	00.005	0.161	0.046
1.060	15	02.30-	01.50-	00.67-	00.21	01.15	02.21	03.42	04.86	06.89	10.11	0500	00.146	0.136	0.080
1.060	20	00.29	01.03	01.80	02.63	03.53	04.55	05.73	07.13	09.13	12.32	0500	00.209	0.117	0.126
1.060	25	02.33	02.48	02.67	02.89	03.17	03.54	04.04	04.73	05.91	08.22	0500	00.056	0.103	0.175
1.060	30	03.58	03.58	03.58	03.58	03.59	03.59	03.60	03.60	03.62	03.67	0500	00.000	0.091	0.209
1.060	35	03.65	03.65	03.65	03.66	03.66	03.66	03.66	03.67	03.68	03.72	0500	00.000	0.085	0.197
1.060	40	02.01	02.19	02.40	02.66	02.98	03.39	03.95	04.71	05.99	08.43	0500	00.050	0.083	0.132
1.060	45	02.18-	00.00-	01.74	03.28	04.73	06.19	07.73	09.43	11.70	15.13	0500	00.304	0.086	0.052
1.060	50	10.27-	00.43-	02.84	05.09	06.96	08.70	10.44	12.28	14.68	18.19	0500	00.667	0.091	0.009
1.060	55	13.16-	00.09	03.49	05.79	07.69	09.44	11.19	13.05	15.44	18.96	0500	00.860	0.098	0.005
1.060	60	09.55-	00.34-	02.89	05.12	06.99	08.72	10.45	12.30	14.69	18.20	0500	00.781	0.107	0.012
1.060	65	04.61-	00.59-	01.85	03.77	05.45	07.07	08.73	10.52	12.86	16.34	0500	00.549	0.116	0.040
1.060	70	02.47-	00.74-	00.76	02.14	03.49	04.87	06.35	08.01	10.24	13.63	0500	00.322	0.129	0.073
1.060	75	06.25-	04.44-	02.90-	01.48-	00.11-	01.28	02.78	04.44	06.68	10.08	0500	00.172	0.155	0.037
1.060	80	10.57-	08.53-	06.86-	05.37-	03.94-	02.51-	00.98-	00.71	02.97	06.38	0500	00.097	0.205	0.018
1.060	85	02.07-	01.87-	01.63-	01.35-	01.00-	00.55-	00.05	00.87	02.21	04.72	0500	00.069	0.266	0.166
1.060	90	00.00	00.10	00.23	00.39	00.59	00.86	01.23	01.77	02.73	04.73	0500	00.063	0.288	0.288

1.076	00	99.99-	04.68-	01.16-	01.18	03.10	04.86	06.62	08.48	10.88	14.41	0500	00.769	0.251	0.000
1.076	05	09.64-	04.43-	01.70-	00.34	02.10	03.76	05.46	07.27	09.63	13.13	0500	00.401	0.177	0.019
1.076	10	05.49-	05.39-	05.26-	05.11-	04.91-	04.65-	04.29-	03.77-	02.83-	00.86-	0500	00.009	0.145	0.041
1.076	15	02.44-	01.68-	00.89-	00.04-	00.88	01.90	03.10	04.51	06.52	09.73	0500	00.121	0.124	0.071
1.076	20	00.07	00.83	01.63	02.47	03.39	04.42	05.61	07.03	09.04	12.25	0500	00.189	0.108	0.110
1.076	25	02.01	02.18	02.39	02.64	02.95	03.35	03.89	04.64	05.89	08.29	0500	00.055	0.095	0.152
1.076	30	03.15	03.15	03.15	03.16	03.16	03.17	03.18	03.20	03.24	03.36	0500	00.001	0.086	0.179
1.076	35	03.09	03.09	03.09	03.10	03.10	03.10	03.11	03.11	03.13	03.18	0500	00.000	0.081	0.166
1.076	40	01.31	01.46	01.65	01.88	02.17	02.54	03.05	03.75	04.95	07.28	0500	00.036	0.081	0.109
1.076	45	03.08-	00.88-	00.87	02.42	03.88	05.34	06.88	08.58	10.86	14.28	0500	00.245	0.084	0.041
1.076	50	11.40-	01.17-	02.12	04.38	06.26	07.99	09.74	11.58	13.98	17.49	0500	00.558	0.090	0.006
1.076	55	13.34-	00.51-	02.88	05.18	07.08	08.83	10.58	12.43	14.83	18.34	0500	00.734	0.097	0.004
1.076	60	09.74-	00.86-	02.33	04.56	06.42	08.15	09.88	11.72	14.11	17.63	0500	00.676	0.105	0.011
1.076	65	04.93-	01.04-	01.36	03.25	04.93	06.54	08.19	09.97	12.32	15.79	0500	00.482	0.115	0.037
1.076	70	03.02-	01.28-	00.22	01.61	02.96	04.34	05.82	07.48	09.71	13.10	0500	00.287	0.129	0.065
1.076	75	07.18-	05.20-	03.57-	02.10-	00.69-	00.74	02.26	03.94	06.20	09.61	0500	00.156	0.157	0.030
1.076	80	10.01-	08.28-	06.78-	05.40-	04.06-	02.68-	01.19-	00.46	02.69	06.08	0500	00.091	0.208	0.021
1.076	85	01.98-	01.80-	01.58-	01.31-	00.97-	00.54-	00.03	00.82	02.13	04.59	0500	00.067	0.267	0.169
1.076	90	00.00	00.10	00.22	00.38	00.58	00.84	01.20	01.73	02.67	04.64	0500	00.061	0.288	0.288

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.149	00	99.99-	05.82-	02.30-	00.04	01.96	03.72	05.48	07.40	09.74	13.26	2000	00.002	0.001	0.000
0.149	10	12.91-	04.72-	01.58-	00.63	02.48	04.19	05.93	07.83	10.15	13.66	2000	00.002	0.001	0.000
0.149	20	09.84-	04.48-	01.72-	00.33	02.10	03.77	05.46	07.34	09.64	13.14	2000	00.002	0.001	0.000
0.149	30	07.31-	04.20-	02.06-	00.29-	01.31	02.87	04.49	06.30	08.56	12.02	2000	00.001	0.001	0.000
0.149	40	05.12-	03.56-	02.17-	00.86-	00.43	01.77	03.22	04.91	07.06	10.44	2000	00.001	0.001	0.000
0.149	50	03.27-	02.57-	01.82-	01.02-	00.14-	00.85	02.02	03.45	05.39	08.57	2000	00.001	0.001	0.000
0.149	60	01.79-	01.48-	01.11-	00.68-	00.17-	00.46	01.26	02.33	03.91	06.73	2000	00.000	0.001	0.001
0.149	70	00.71-	00.55-	00.36-	00.13-	00.16	00.54	01.05	01.79	02.97	05.32	2000	00.000	0.001	0.001
0.149	80	00.04-	00.06	00.18	00.33	00.52	00.78	01.14	01.68	02.60	04.55	2000	00.000	0.001	0.001
0.149	90	00.01-	00.08	00.18	00.31	00.48	00.71	01.02	01.50	02.33	04.15	2000	00.000	0.001	0.001
0.165	00	99.99-	05.60-	02.08-	00.26	02.18	03.94	05.70	07.62	09.96	13.48	2000	00.006	0.002	0.000
0.165	10	14.03-	04.78-	01.55-	00.68	02.55	04.28	06.02	07.92	10.25	13.76	2000	00.005	0.002	0.000
0.165	20	10.63-	04.68-	01.82-	00.27	02.06	03.74	05.45	07.33	09.64	13.14	2000	00.005	0.002	0.000
0.165	30	07.90-	04.55-	02.32-	00.51-	01.12	02.69	04.33	06.15	08.42	11.89	2000	00.003	0.002	0.000
0.165	40	05.52-	03.94-	02.54-	01.22-	00.08	01.43	02.89	04.57	06.73	10.11	2000	00.002	0.002	0.001
0.165	50	03.53-	02.88-	02.17-	01.41-	00.56-	00.40	01.53	02.94	04.85	08.00	2000	00.001	0.002	0.001
0.165	60	01.96-	01.69-	01.38-	01.01-	00.56-	00.00	00.73	01.72	03.21	05.92	2000	00.001	0.002	0.001
0.165	70	00.80-	00.68-	00.54-	00.36-	00.13-	00.18	00.59	01.21	02.23	04.35	2000	00.000	0.002	0.002
0.165	80	00.07-	00.00-	00.08	00.19	00.33	00.52	00.79	01.20	01.93	03.58	2000	00.000	0.002	0.002
0.165	90	00.00	00.06	00.13	00.22	00.33	00.49	00.72	01.08	01.71	03.20	2000	00.000	0.002	0.002
0.181	00	99.99-	05.40-	01.88-	00.46	02.38	04.14	05.90	07.82	10.16	13.68	2000	00.015	0.006	0.000
0.181	10	15.16-	04.81-	01.52-	00.75	02.62	04.36	06.11	08.01	10.35	13.86	2000	00.014	0.005	0.000
0.181	20	11.45-	04.87-	01.92-	00.22	02.03	03.72	05.44	07.33	09.64	13.15	2000	00.011	0.005	0.000
0.181	30	08.47-	04.88-	02.56-	00.71-	00.94	02.53	04.18	06.01	08.29	11.76	2000	00.008	0.005	0.001
0.181	40	05.92-	04.31-	02.89-	01.56-	00.25-	01.10	02.56	04.25	06.42	09.80	2000	00.005	0.005	0.001
0.181	50	03.79-	03.17-	02.51-	01.78-	00.97-	00.04-	01.06	02.44	04.33	07.46	2000	00.003	0.005	0.002
0.181	60	02.11-	01.88-	01.62-	01.30-	00.91-	00.41-	00.24	01.15	02.54	05.15	2000	00.002	0.005	0.003
0.181	70	00.89-	00.80-	00.69-	00.55-	00.37-	00.14-	00.20	00.70	01.57	03.44	2000	00.001	0.005	0.004
0.181	80	00.13-	00.08-	00.02-	00.06	00.16	00.29	00.48	00.79	01.34	02.67	2000	00.001	0.005	0.005
0.181	90	00.00	00.04	00.09	00.15	00.23	00.33	00.49	00.75	01.21	02.36	2000	00.000	0.005	0.005
0.189	00	99.99-	05.31-	01.79-	00.55	02.47	04.23	05.99	07.91	10.25	13.77	2000	00.024	0.009	0.000
0.189	10	15.70-	04.81-	01.49-	00.78	02.66	04.40	06.15	08.06	10.39	13.91	2000	00.022	0.008	0.000
0.189	20	11.85-	04.96-	01.96-	00.19	02.02	03.72	05.44	07.33	09.65	13.15	2000	00.018	0.008	0.001
0.189	30	08.75-	05.03-	02.68-	00.81-	00.86	02.45	04.10	05.94	08.22	11.69	2000	00.013	0.008	0.001
0.189	40	06.11-	04.49-	03.06-	01.72-	00.41-	00.94	02.41	04.10	06.27	09.65	2000	00.008	0.008	0.002
0.189	50	03.91-	03.31-	02.67-	01.96-	01.16-	00.25-	00.84	02.20	04.08	07.20	2000	00.004	0.008	0.003
0.189	60	02.18-	01.97-	01.73-	01.43-	01.07-	00.60-	00.02	00.88	02.23	04.77	2000	00.002	0.008	0.005
0.189	70	00.93-	00.86-	00.76-	00.64-	00.48-	00.27-	00.03	00.48	01.27	03.02	2000	00.001	0.009	0.007
0.189	80	00.15-	00.11-	00.06-	00.00-	00.08	00.19	00.36	00.61	01.09	02.27	2000	00.001	0.009	0.008
0.189	90	00.00	00.03	00.07	00.12	00.18	00.27	00.40	00.61	01.00	02.00	2000	00.001	0.009	0.009

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.197	00	99.99-	05.23-	01.71-	00.63	02.55	04.31	06.07	07.99	10.33	13.85	2000	00.040	0.015	0.000
0.197	10	16.25-	04.81-	01.47-	00.81	02.70	04.44	06.19	08.10	10.43	13.95	2000	00.037	0.013	0.000
0.197	20	12.24-	05.03-	01.99-	00.17	02.00	03.71	05.43	07.32	09.65	13.15	2000	00.030	0.013	0.001
0.197	30	09.02-	05.18-	02.79-	00.90-	00.77	02.38	04.04	05.88	08.16	11.63	2000	00.021	0.013	0.002
0.197	40	06.29-	04.66-	03.22-	01.88-	00.57-	00.79	02.26	03.95	06.12	09.50	2000	00.013	0.013	0.003
0.197	50	04.03-	03.45-	02.82-	02.13-	01.35-	00.45-	00.62	01.97	03.83	06.94	2000	00.007	0.014	0.005
0.197	60	02.25-	02.06-	01.83-	01.56-	01.22-	00.78-	00.19-	00.63	01.92	04.41	2000	00.003	0.014	0.008
0.197	70	00.97-	00.90-	00.82-	00.71-	00.58-	00.39-	00.13-	00.28	00.99	02.62	2000	00.002	0.014	0.012
0.197	80	00.18-	00.15-	00.11-	00.05-	00.01	00.11	00.24	00.46	00.87	01.89	2000	00.001	0.015	0.014
0.197	90	00.00	00.02	00.06	00.10	00.15	00.22	00.33	00.50	00.82	01.67	2000	00.001	0.015	0.015
0.205	00	99.99-	05.15-	01.63-	00.71	02.63	04.39	06.15	08.07	10.41	13.93	2000	00.070	0.025	0.000
0.205	10	16.79-	04.81-	01.45-	00.84	02.73	04.48	06.23	08.14	10.47	13.99	2000	00.065	0.023	0.000
0.205	20	12.61-	05.10-	02.02-	00.16	01.99	03.70	05.43	07.32	09.65	13.15	2000	00.052	0.023	0.001
0.205	30	09.29-	05.32-	02.89-	00.99-	00.70	02.31	03.97	05.81	08.10	11.58	2000	00.036	0.023	0.003
0.205	40	06.47-	04.82-	03.38-	02.04-	00.72-	00.64	02.11	03.81	05.98	09.36	2000	00.022	0.023	0.005
0.205	50	04.14-	03.58-	02.97-	02.29-	01.53-	00.65-	00.41	01.75	03.60	06.70	2000	00.011	0.024	0.009
0.205	60	02.32-	02.14-	01.93-	01.68-	01.36-	00.95-	00.39-	00.39	01.64	04.06	2000	00.005	0.025	0.014
0.205	70	01.01-	00.95-	00.88-	00.79-	00.67-	00.50-	00.27-	00.09	00.74	02.24	2000	00.002	0.025	0.020
0.205	80	00.20-	00.18-	00.14-	00.10-	00.05-	00.03	00.14	00.33	00.67	01.56	2000	00.001	0.026	0.024
0.205	90	00.00	00.02	00.05	00.08	00.12	00.18	00.26	00.40	00.67	01.39	2000	00.001	0.026	0.026
0.209	00	99.99-	05.12-	01.60-	00.75	02.66	04.42	06.19	08.10	10.45	13.97	2000	00.095	0.034	0.000
0.209	10	17.05-	04.81-	01.43-	00.86	02.75	04.50	06.25	08.16	10.49	14.01	2000	00.088	0.031	0.001
0.209	20	12.79-	05.13-	02.04-	00.15	01.99	03.70	05.43	07.32	09.65	13.15	2000	00.070	0.031	0.002
0.209	30	09.41-	05.39-	02.94-	01.03-	00.66	02.27	03.94	05.78	08.07	11.55	2000	00.048	0.031	0.004
0.209	40	06.55-	04.91-	03.46-	02.11-	00.79-	00.57	02.04	03.74	05.91	09.29	2000	00.029	0.031	0.007
0.209	50	04.19-	03.64-	03.04-	02.37-	01.62-	00.74-	00.31	01.64	03.49	06.57	2000	00.015	0.032	0.012
0.209	60	02.35-	02.18-	01.98-	01.73-	01.42-	01.03-	00.49-	00.28	01.50	03.89	2000	00.007	0.033	0.019
0.209	70	01.03-	00.97-	00.90-	00.82-	00.71-	00.55-	00.33-	00.01	00.62	02.06	2000	00.003	0.034	0.027
0.209	80	00.22-	00.19-	00.16-	00.12-	00.07-	00.00-	00.10	00.27	00.58	01.40	2000	00.002	0.035	0.033
0.209	90	00.00	00.02	00.04	00.07	00.11	00.16	00.24	00.36	00.60	01.26	2000	00.001	0.035	0.035
0.213	00	99.99-	05.08-	01.56-	00.78	02.70	04.46	06.22	08.14	10.48	14.00	2000	00.130	0.046	0.000
0.213	10	17.32-	04.81-	01.42-	00.87	02.77	04.51	06.27	08.18	10.51	14.03	2000	00.120	0.043	0.001
0.213	20	12.98-	05.16-	02.05-	00.14	01.98	03.70	05.43	07.32	09.65	13.15	2000	00.096	0.042	0.002
0.213	30	09.54-	05.45-	02.99-	01.07-	00.62	02.24	03.90	05.75	08.04	11.52	2000	00.065	0.042	0.005
0.213	40	06.64-	04.98-	03.54-	02.19-	00.86-	00.50	01.97	03.67	05.84	09.22	2000	00.039	0.043	0.009
0.213	50	04.25-	03.71-	03.11-	02.45-	01.70-	00.83-	00.21	01.54	03.37	06.46	2000	00.020	0.044	0.017
0.213	60	02.38-	02.22-	02.03-	01.79-	01.49-	01.10-	00.58-	00.17	01.36	03.73	2000	00.009	0.046	0.026
0.213	70	01.04-	00.99-	00.93-	00.85-	00.74-	00.60-	00.40-	00.08-	00.50	01.89	2000	00.004	0.047	0.037
0.213	80	00.23-	00.20-	00.18-	00.14-	00.10-	00.03-	00.06	00.21	00.50	01.26	2000	00.002	0.048	0.045
0.213	90	00.00	00.02	00.04	00.06	00.10	00.14	00.21	00.32	00.54	01.14	2000	00.002	0.049	0.049

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.217	00	99.99-	05.05-	01.53-	00.82	02.73	04.50	06.26	08.17	10.52	14.04	2000	00.181	0.064	0.000
0.217	10	17.59-	04.80-	01.41-	00.89	02.78	04.53	06.28	08.20	10.53	14.05	2000	00.168	0.059	0.001
0.217	20	13.16-	05.19-	02.07-	00.13	01.98	03.69	05.42	07.32	09.65	13.16	2000	00.133	0.058	0.003
0.217	30	09.66-	05.52-	03.04-	01.11-	00.59	02.21	03.87	05.72	08.01	11.49	2000	00.090	0.058	0.006
0.217	40	06.72-	05.06-	03.61-	02.26-	00.93-	00.43	01.90	03.60	05.77	09.15	2000	00.053	0.059	0.013
0.217	50	04.30-	03.77-	03.18-	02.53-	01.79-	00.93-	00.11	01.43	03.26	06.34	2000	00.027	0.061	0.023
0.217	60	02.41-	02.26-	02.07-	01.84-	01.55-	01.18-	00.67-	00.06	01.23	03.56	2000	00.012	0.064	0.036
0.217	70	01.06-	01.01-	00.95-	00.88-	00.78-	00.65-	00.46-	00.15-	00.40	01.72	2000	00.005	0.065	0.051
0.217	80	00.24-	00.22-	00.19-	00.16-	00.12-	00.06-	00.02	00.16	00.42	01.12	2000	00.003	0.067	0.063
0.217	90	00.00	00.01	00.03	00.05	00.08	00.13	00.19	00.29	00.48	01.02	2000	00.002	0.068	0.068
0.221	00	99.99-	05.01-	01.49-	00.85	02.77	04.53	06.29	08.21	10.55	14.07	2000	00.257	0.091	0.000
0.221	10	17.85-	04.80-	01.40-	00.90	02.80	04.55	06.30	08.21	10.55	14.07	2000	00.238	0.084	0.001
0.221	20	13.34-	05.21-	02.08-	00.12	01.97	03.69	05.42	07.32	09.65	13.16	2000	00.188	0.082	0.004
0.221	30	09.79-	05.58-	03.09-	01.15-	00.55	02.17	03.84	05.69	07.98	11.46	2000	00.127	0.082	0.009
0.221	40	06.81-	05.14-	03.69-	02.33-	01.01-	00.36	01.83	03.53	05.70	09.09	2000	00.074	0.084	0.018
0.221	50	04.36-	03.83-	03.25-	02.61-	01.87-	01.02-	00.01	01.33	03.15	06.22	2000	00.037	0.087	0.032
0.221	60	02.44-	02.29-	02.11-	01.89-	01.62-	01.25-	00.76-	00.05-	01.10	03.40	2000	00.016	0.090	0.051
0.221	70	01.08-	01.03-	00.98-	00.91-	00.82-	00.69-	00.51-	00.23-	00.29	01.55	2000	00.007	0.093	0.073
0.221	80	00.25-	00.23-	00.21-	00.18-	00.14-	00.09-	00.01-	00.11	00.35	00.99	2000	00.003	0.095	0.090
0.221	90	00.00	00.01	00.03	00.05	00.08	00.11	00.17	00.26	00.43	00.92	2000	00.003	0.096	0.096
0.225	00	99.99-	04.98-	01.46-	00.88	02.80	04.56	06.32	08.24	10.58	14.11	2000	00.368	0.129	0.000
0.225	10	18.12-	04.79-	01.38-	00.92	02.82	04.57	06.32	08.23	10.57	14.09	2000	00.340	0.119	0.002
0.225	20	13.52-	05.24-	02.09-	00.12	01.97	03.69	05.42	07.32	09.65	13.16	2000	00.268	0.117	0.005
0.225	30	09.92-	05.65-	03.14-	01.19-	00.51	02.14	03.81	05.66	07.95	11.44	2000	00.180	0.117	0.012
0.225	40	06.89-	05.22-	03.76-	02.41-	01.08-	00.29	01.76	03.46	05.63	09.02	2000	00.104	0.120	0.025
0.225	50	04.41-	03.89-	03.32-	02.68-	01.96-	01.11-	00.08-	01.22	03.03	06.10	2000	00.051	0.124	0.045
0.225	60	02.47-	02.33-	02.16-	01.95-	01.68-	01.33-	00.85-	00.16-	00.97	03.23	2000	00.022	0.129	0.073
0.225	70	01.09-	01.05-	01.00-	00.94-	00.85-	00.74-	00.57-	00.30-	00.19	01.39	2000	00.009	0.133	0.104
0.225	80	00.26-	00.24-	00.22-	00.20-	00.16-	00.12-	00.05-	00.06	00.28	00.87	2000	00.004	0.136	0.128
0.225	90	00.00	00.01	00.03	00.04	00.07	00.10	00.15	00.23	00.38	00.82	2000	00.003	0.138	0.138
0.229	00	99.99-	04.95-	01.42-	00.92	02.84	04.60	06.36	08.28	10.62	14.14	2000	00.525	0.182	0.000
0.229	10	18.39-	04.79-	01.37-	00.93	02.83	04.58	06.34	08.25	10.59	14.11	2000	00.484	0.169	0.002
0.229	20	13.71-	05.27-	02.10-	00.11	01.96	03.69	05.42	07.32	09.65	13.16	2000	00.380	0.166	0.007
0.229	30	10.04-	05.71-	03.18-	01.23-	00.48	02.11	03.78	05.63	07.92	11.41	2000	00.254	0.167	0.016
0.229	40	06.98-	05.30-	03.84-	02.48-	01.15-	00.21	01.69	03.39	05.56	08.95	2000	00.145	0.171	0.034
0.229	50	04.46-	03.95-	03.39-	02.76-	02.04-	01.20-	00.19-	01.11	02.92	05.98	2000	00.071	0.177	0.063
0.229	60	02.51-	02.37-	02.20-	02.00-	01.74-	01.40-	00.94-	00.27-	00.83	03.06	2000	00.030	0.184	0.103
0.229	70	01.11-	01.07-	01.02-	00.96-	00.88-	00.78-	00.62-	00.37-	00.09	01.23	2000	00.012	0.190	0.147
0.229	80	00.27-	00.25-	00.23-	00.21-	00.18-	00.14-	00.08-	00.02	00.22	00.75	2000	00.005	0.194	0.183
0.229	90	00.00	00.01	00.02	00.04	00.06	00.09	00.13	00.20	00.34	00.73	2000	00.004	0.196	0.196

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.233	00	99.99-	04.91-	01.39-	00.95	02.87	04.63	06.39	08.31	10.65	14.17	2000	00.719	0.248	0.000
0.233	10	18.64-	04.78-	01.36-	00.95	02.85	04.60	06.36	08.27	10.61	14.13	2000	00.663	0.231	0.003
0.233	20	13.89-	05.29-	02.12-	00.10	01.96	03.68	05.42	07.32	09.65	13.16	2000	00.519	0.226	0.009
0.233	30	10.17-	05.78-	03.23-	01.27-	00.44	02.07	03.75	05.60	07.90	11.38	2000	00.345	0.228	0.022
0.233	40	07.06-	05.38-	03.92-	02.56-	01.22-	00.14	01.62	03.32	05.49	08.88	2000	00.195	0.233	0.046
0.233	50	04.52-	04.02-	03.46-	02.84-	02.13-	01.30-	00.29-	01.00	02.80	05.85	2000	00.094	0.242	0.085
0.233	60	02.54-	02.40-	02.25-	02.05-	01.80-	01.47-	01.03-	00.37-	00.70	02.89	2000	00.039	0.251	0.140
0.233	70	01.12-	01.09-	01.04-	00.99-	00.92-	00.82-	00.67-	00.44-	00.01-	01.08	2000	00.015	0.260	0.201
0.233	80	00.27-	00.26-	00.25-	00.22-	00.20-	00.16-	00.10-	00.01-	00.16	00.65	2000	00.007	0.266	0.250
0.233	90	00.00	00.01	00.02	00.03	00.05	00.08	00.12	00.18	00.31	00.66	2000	00.005	0.269	0.269
0.237	00	99.99-	04.88-	01.36-	00.98	02.90	04.66	06.42	08.34	10.68	14.20	2000	00.896	0.306	0.000
0.237	10	18.85-	04.77-	01.34-	00.96	02.87	04.62	06.37	08.29	10.62	14.14	2000	00.824	0.286	0.004
0.237	20	14.04-	05.31-	02.13-	00.10	01.96	03.68	05.42	07.32	09.65	13.16	2000	00.643	0.280	0.011
0.237	30	10.29-	05.83-	03.28-	01.31-	00.41	02.04	03.72	05.57	07.87	11.35	2000	00.425	0.282	0.026
0.237	40	07.14-	05.46-	03.99-	02.63-	01.29-	00.07	01.55	03.26	05.43	08.81	2000	00.239	0.290	0.056
0.237	50	04.57-	04.07-	03.53-	02.91-	02.21-	01.38-	00.38-	00.90	02.70	05.74	2000	00.114	0.301	0.105
0.237	60	02.57-	02.44-	02.29-	02.10-	01.86-	01.54-	01.11-	00.47-	00.58	02.75	2000	00.046	0.313	0.173
0.237	70	01.14-	01.10-	01.06-	01.01-	00.94-	00.85-	00.71-	00.49-	00.08-	00.95	2000	00.017	0.324	0.249
0.237	80	00.28-	00.27-	00.26-	00.24-	00.21-	00.18-	00.13-	00.04-	00.12	00.58	2000	00.008	0.332	0.311
0.237	90	00.00	00.01	00.02	00.03	00.05	00.07	00.11	00.17	00.29	00.62	2000	00.006	0.335	0.335
0.241	00	99.99-	04.86-	01.34-	01.00	02.92	04.68	06.44	08.36	10.70	14.22	2000	00.961	0.327	0.000
0.241	10	18.95-	04.76-	01.33-	00.98	02.88	04.63	06.39	08.30	10.64	14.16	2000	00.884	0.306	0.004
0.241	20	14.14-	05.32-	02.13-	00.09	01.95	03.68	05.42	07.32	09.65	13.16	2000	00.688	0.300	0.012
0.241	30	10.37-	05.88-	03.31-	01.34-	00.38	02.02	03.69	05.55	07.85	11.33	2000	00.453	0.302	0.028
0.241	40	07.20-	05.51-	04.04-	02.68-	01.35-	00.02	01.50	03.20	05.38	08.76	2000	00.253	0.310	0.059
0.241	50	04.61-	04.12-	03.58-	02.97-	02.27-	01.45-	00.45-	00.83	02.62	05.66	2000	00.119	0.322	0.112
0.241	60	02.59-	02.47-	02.32-	02.13-	01.90-	01.59-	01.16-	00.53-	00.51	02.65	2000	00.048	0.335	0.185
0.241	70	01.15-	01.12-	01.08-	01.03-	00.96-	00.87-	00.74-	00.52-	00.13-	00.89	2000	00.018	0.348	0.267
0.241	80	00.29-	00.28-	00.26-	00.25-	00.22-	00.19-	00.14-	00.05-	00.11	00.56	2000	00.008	0.357	0.333
0.241	90	00.00	00.01	00.02	00.03	00.05	00.07	00.11	00.17	00.29	00.62	2000	00.006	0.359	0.359
0.243	00	99.99-	04.86-	01.34-	01.01	02.92	04.68	06.45	08.36	10.71	14.23	2000	00.939	0.319	0.000
0.243	10	18.95-	04.76-	01.33-	00.98	02.88	04.63	06.39	08.30	10.64	14.16	2000	00.864	0.298	0.004
0.243	20	14.16-	05.33-	02.13-	00.09	01.95	03.68	05.41	07.32	09.64	13.16	2000	00.671	0.293	0.011
0.243	30	10.39-	05.89-	03.32-	01.35-	00.37	02.01	03.69	05.54	07.84	11.32	2000	00.442	0.295	0.027
0.243	40	07.22-	05.53-	04.06-	02.70-	01.36-	00.01	01.48	03.19	05.36	08.75	2000	00.246	0.303	0.057
0.243	50	04.62-	04.13-	03.59-	02.99-	02.29-	01.47-	00.47-	00.81	02.60	05.63	2000	00.116	0.315	0.109
0.243	60	02.60-	02.47-	02.33-	02.14-	01.91-	01.60-	01.18-	00.55-	00.48	02.62	2000	00.047	0.328	0.180
0.243	70	01.16-	01.12-	01.08-	01.03-	00.97-	00.88-	00.74-	00.53-	00.13-	00.88	2000	00.017	0.340	0.261
0.243	80	00.29-	00.28-	00.27-	00.25-	00.22-	00.19-	00.14-	00.06-	00.11	00.56	2000	00.008	0.349	0.326
0.243	90	00.00	00.01	00.02	00.03	00.05	00.07	00.11	00.17	00.29	00.63	2000	00.006	0.351	0.351

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.245	00	99.99-	04.85-	01.33-	01.01	02.93	04.69	06.45	08.37	10.71	14.23	2000	00.890	0.302	0.000
0.245	10	18.93-	04.75-	01.33-	00.98	02.89	04.64	06.39	08.31	10.64	14.16	2000	00.818	0.282	0.004
0.245	20	14.17-	05.33-	02.14-	00.09	01.95	03.68	05.41	07.32	09.64	13.16	2000	00.635	0.277	0.011
0.245	30	10.40-	05.90-	03.33-	01.36-	00.37	02.00	03.68	05.54	07.83	11.32	2000	00.418	0.279	0.025
0.245	40	07.23-	05.54-	04.07-	02.71-	01.37-	00.01-	01.47	03.18	05.35	08.74	2000	00.232	0.287	0.054
0.245	50	04.63-	04.14-	03.60-	03.00-	02.30-	01.48-	00.48-	00.79	02.58	05.62	2000	00.109	0.298	0.103
0.245	60	02.60-	02.48-	02.33-	02.15-	01.91-	01.61-	01.18-	00.56-	00.48	02.61	2000	00.044	0.310	0.170
0.245	70	01.16-	01.13-	01.09-	01.04-	00.97-	00.88-	00.75-	00.53-	00.14-	00.88	2000	00.016	0.322	0.247
0.245	80	00.30-	00.29-	00.27-	00.25-	00.23-	00.19-	00.14-	00.05-	00.11	00.57	2000	00.008	0.330	0.309
0.245	90	00.00	00.01	00.02	00.03	00.05	00.08	00.11	00.18	00.30	00.64	2000	00.006	0.333	0.333
0.246	00	99.99-	04.85-	01.33-	01.01	02.93	04.69	06.45	08.37	10.71	14.23	2000	00.858	0.292	0.000
0.246	10	18.92-	04.75-	01.33-	00.98	02.89	04.64	06.39	08.31	10.64	14.16	2000	00.789	0.272	0.003
0.246	20	14.16-	05.33-	02.14-	00.09	01.95	03.68	05.41	07.31	09.64	13.15	2000	00.613	0.267	0.010
0.246	30	10.41-	05.90-	03.33-	01.36-	00.36	02.00	03.68	05.54	07.83	11.32	2000	00.402	0.269	0.025
0.246	40	07.24-	05.55-	04.08-	02.71-	01.38-	00.01-	01.47	03.17	05.35	08.73	2000	00.224	0.277	0.052
0.246	50	04.63-	04.15-	03.61-	03.00-	02.30-	01.48-	00.49-	00.79	02.58	05.61	2000	00.105	0.287	0.099
0.246	60	02.61-	02.48-	02.34-	02.15-	01.92-	01.61-	01.19-	00.56-	00.47	02.61	2000	00.042	0.299	0.164
0.246	70	01.16-	01.13-	01.09-	01.04-	00.97-	00.88-	00.75-	00.53-	00.13-	00.88	2000	00.016	0.311	0.238
0.246	80	00.30-	00.29-	00.27-	00.25-	00.23-	00.19-	00.14-	00.05-	00.11	00.58	2000	00.007	0.319	0.298
0.246	90	00.00	00.01	00.02	00.03	00.05	00.08	00.12	00.18	00.30	00.65	2000	00.006	0.321	0.321
0.247	00	99.99-	04.85-	01.33-	01.01	02.93	04.69	06.45	08.37	10.71	14.23	2000	00.824	0.280	0.000
0.247	10	18.91-	04.75-	01.32-	00.98	02.89	04.64	06.39	08.31	10.64	14.16	2000	00.757	0.261	0.003
0.247	20	14.16-	05.33-	02.14-	00.09	01.95	03.68	05.41	07.31	09.64	13.15	2000	00.588	0.256	0.010
0.247	30	10.41-	05.90-	03.33-	01.36-	00.36	02.00	03.68	05.53	07.83	11.31	2000	00.386	0.259	0.024
0.247	40	07.24-	05.55-	04.08-	02.71-	01.38-	00.01-	01.46	03.17	05.34	08.73	2000	00.215	0.266	0.050
0.247	50	04.64-	04.15-	03.61-	03.00-	02.31-	01.49-	00.49-	00.79	02.57	05.61	2000	00.101	0.276	0.095
0.247	60	02.61-	02.49-	02.34-	02.15-	01.92-	01.61-	01.19-	00.56-	00.47	02.61	2000	00.041	0.287	0.158
0.247	70	01.16-	01.13-	01.09-	01.04-	00.97-	00.88-	00.75-	00.53-	00.13-	00.89	2000	00.015	0.298	0.228
0.247	80	00.30-	00.29-	00.27-	00.25-	00.23-	00.19-	00.14-	00.05-	00.11	00.58	2000	00.007	0.306	0.286
0.247	90	00.00	00.01	00.02	00.03	00.05	00.08	00.12	00.18	00.31	00.66	2000	00.006	0.308	0.308
0.248	00	99.99-	04.85-	01.33-	01.01	02.93	04.69	06.45	08.37	10.71	14.23	2000	00.788	0.268	0.000
0.248	10	18.89-	04.75-	01.32-	00.98	02.89	04.64	06.39	08.31	10.65	14.16	2000	00.724	0.250	0.003
0.248	20	14.16-	05.33-	02.14-	00.09	01.95	03.68	05.41	07.31	09.64	13.15	2000	00.562	0.245	0.009
0.248	30	10.41-	05.90-	03.33-	01.36-	00.36	02.00	03.67	05.53	07.83	11.31	2000	00.369	0.247	0.023
0.248	40	07.24-	05.55-	04.08-	02.72-	01.38-	00.02-	01.46	03.17	05.34	08.73	2000	00.205	0.254	0.048
0.248	50	04.64-	04.15-	03.61-	03.01-	02.31-	01.49-	00.49-	00.78	02.57	05.61	2000	00.097	0.264	0.091
0.248	60	02.61-	02.49-	02.34-	02.15-	01.92-	01.61-	01.19-	00.56-	00.48	02.61	2000	00.039	0.275	0.151
0.248	70	01.16-	01.13-	01.09-	01.04-	00.97-	00.88-	00.75-	00.53-	00.13-	00.89	2000	00.015	0.285	0.218
0.248	80	00.30-	00.29-	00.28-	00.26-	00.23-	00.19-	00.14-	00.05-	00.12	00.59	2000	00.007	0.293	0.273
0.248	90	00.00	00.01	00.02	00.03	00.05	00.08	00.12	00.18	00.31	00.67	2000	00.005	0.295	0.295

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.249	00	99.99-	04.85-	01.33-	01.01	02.93	04.69	06.45	08.37	10.71	14.23	2000	00.736	0.250	0.000
0.249	10	18.87-	04.75-	01.32-	00.99	02.89	04.64	06.39	08.31	10.65	14.16	2000	00.677	0.234	0.003
0.249	20	14.15-	05.33-	02.14-	00.09	01.95	03.67	05.41	07.31	09.64	13.15	2000	00.525	0.229	0.009
0.249	30	10.41-	05.90-	03.33-	01.36-	00.36	02.00	03.67	05.53	07.82	11.31	2000	00.345	0.231	0.021
0.249	40	07.24-	05.55-	04.08-	02.72-	01.39-	00.02-	01.46	03.16	05.34	08.72	2000	00.192	0.237	0.045
0.249	50	04.64-	04.16-	03.62-	03.01-	02.31-	01.49-	00.49-	00.78	02.57	05.61	2000	00.090	0.247	0.085
0.249	60	02.61-	02.49-	02.34-	02.16-	01.92-	01.61-	01.19-	00.56-	00.48	02.62	2000	00.037	0.257	0.141
0.249	70	01.17-	01.13-	01.09-	01.04-	00.97-	00.88-	00.75-	00.53-	00.12-	00.90	2000	00.014	0.267	0.204
0.249	80	00.31-	00.29-	00.28-	00.26-	00.23-	00.20-	00.14-	00.05-	00.12	00.60	2000	00.007	0.274	0.255
0.249	90	00.00	00.01	00.02	00.03	00.05	00.08	00.12	00.19	00.31	00.67	2000	00.005	0.275	0.275
0.250	00	99.99-	04.85-	01.33-	01.01	02.93	04.69	06.45	08.37	10.71	14.23	2000	00.701	0.238	0.000
0.250	10	18.86-	04.75-	01.32-	00.99	02.89	04.64	06.39	08.31	10.65	14.16	2000	00.644	0.222	0.003
0.250	20	14.14-	05.33-	02.14-	00.09	01.95	03.67	05.41	07.31	09.64	13.15	2000	00.500	0.218	0.008
0.250	30	10.40-	05.90-	03.33-	01.36-	00.36	01.99	03.67	05.53	07.82	11.31	2000	00.328	0.220	0.020
0.250	40	07.24-	05.56-	04.09-	02.72-	01.39-	00.02-	01.46	03.16	05.34	08.72	2000	00.182	0.226	0.043
0.250	50	04.64-	04.16-	03.62-	03.01-	02.31-	01.49-	00.49-	00.78	02.57	05.61	2000	00.086	0.235	0.081
0.250	60	02.62-	02.49-	02.34-	02.16-	01.92-	01.61-	01.19-	00.56-	00.48	02.62	2000	00.035	0.245	0.134
0.250	70	01.17-	01.13-	01.09-	01.04-	00.98-	00.88-	00.75-	00.53-	00.12-	00.91	2000	00.013	0.254	0.194
0.250	80	00.31-	00.29-	00.28-	00.26-	00.23-	00.20-	00.14-	00.05-	00.12	00.60	2000	00.006	0.261	0.243
0.250	90	00.00	00.01	00.02	00.03	00.05	00.08	00.12	00.19	00.31	00.68	2000	00.005	0.262	0.262
0.251	00	99.99-	04.85-	01.33-	01.01	02.93	04.69	06.45	08.37	10.71	14.23	2000	00.667	0.226	0.000
0.251	10	18.85-	04.75-	01.32-	00.99	02.89	04.64	06.39	08.31	10.65	14.16	2000	00.612	0.211	0.003
0.251	20	14.14-	05.33-	02.14-	00.09	01.95	03.67	05.41	07.31	09.64	13.15	2000	00.475	0.207	0.008
0.251	30	10.40-	05.90-	03.34-	01.37-	00.36	01.99	03.67	05.53	07.82	11.31	2000	00.312	0.209	0.019
0.251	40	07.25-	05.56-	04.09-	02.72-	01.39-	00.02-	01.46	03.16	05.33	08.72	2000	00.173	0.215	0.041
0.251	50	04.65-	04.16-	03.62-	03.01-	02.31-	01.49-	00.50-	00.78	02.57	05.61	2000	00.082	0.223	0.077
0.251	60	02.62-	02.49-	02.34-	02.16-	01.92-	01.61-	01.19-	00.56-	00.48	02.62	2000	00.033	0.233	0.127
0.251	70	01.17-	01.14-	01.10-	01.04-	00.98-	00.88-	00.75-	00.53-	00.12-	00.91	2000	00.013	0.241	0.184
0.251	80	00.31-	00.30-	00.28-	00.26-	00.23-	00.20-	00.14-	00.05-	00.12	00.60	2000	00.006	0.248	0.231
0.251	90	00.00	00.01	00.02	00.04	00.05	00.08	00.12	00.19	00.32	00.68	2000	00.005	0.249	0.249
0.253	00	99.99-	04.85-	01.33-	01.01	02.93	04.69	06.45	08.37	10.71	14.23	2000	00.602	0.204	0.000
0.253	10	18.84-	04.75-	01.32-	00.99	02.89	04.64	06.39	08.31	10.65	14.16	2000	00.553	0.191	0.002
0.253	20	14.13-	05.33-	02.14-	00.09	01.95	03.67	05.41	07.31	09.64	13.15	2000	00.429	0.187	0.007
0.253	30	10.40-	05.91-	03.34-	01.37-	00.35	01.99	03.67	05.53	07.82	11.30	2000	00.282	0.189	0.017
0.253	40	07.25-	05.56-	04.09-	02.73-	01.39-	00.02-	01.45	03.16	05.33	08.72	2000	00.156	0.194	0.037
0.253	50	04.65-	04.16-	03.62-	03.01-	02.32-	01.50-	00.50-	00.78	02.57	05.61	2000	00.074	0.202	0.069
0.253	60	02.62-	02.50-	02.35-	02.16-	01.92-	01.61-	01.19-	00.56-	00.48	02.62	2000	00.030	0.210	0.115
0.253	70	01.17-	01.14-	01.10-	01.05-	00.98-	00.88-	00.75-	00.53-	00.12-	00.91	2000	00.011	0.218	0.167
0.253	80	00.31-	00.30-	00.28-	00.26-	00.24-	00.20-	00.15-	00.06-	00.12	00.60	2000	00.005	0.224	0.209
0.253	90	00.00	00.01	00.02	00.04	00.05	00.08	00.12	00.19	00.32	00.68	2000	00.004	0.225	0.225

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.255	00	99.99-	04.85-	01.33-	01.01	02.93	04.69	06.45	08.37	10.71	14.23	2000	00.544	0.185	0.000
0.255	10	18.84-	04.75-	01.32-	00.99	02.89	04.64	06.39	08.31	10.65	14.17	2000	00.500	0.173	0.002
0.255	20	14.13-	05.33-	02.14-	00.09	01.95	03.67	05.41	07.31	09.64	13.15	2000	00.388	0.169	0.007
0.255	30	10.41-	05.91-	03.34-	01.37-	00.35	01.99	03.66	05.52	07.82	11.30	2000	00.254	0.171	0.016
0.255	40	07.25-	05.56-	04.09-	02.73-	01.40-	00.03-	01.45	03.15	05.33	08.71	2000	00.141	0.175	0.033
0.255	50	04.65-	04.17-	03.63-	03.02-	02.32-	01.50-	00.50-	00.78	02.56	05.60	2000	00.067	0.182	0.062
0.255	60	02.62-	02.50-	02.35-	02.16-	01.93-	01.62-	01.19-	00.56-	00.48	02.62	2000	00.027	0.190	0.104
0.255	70	01.17-	01.14-	01.10-	01.05-	00.98-	00.89-	00.75-	00.53-	00.12-	00.91	2000	00.010	0.197	0.151
0.255	80	00.31-	00.30-	00.29-	00.27-	00.24-	00.20-	00.15-	00.06-	00.12	00.60	2000	00.005	0.203	0.189
0.255	90	00.00	00.01	00.02	00.04	00.05	00.08	00.12	00.19	00.32	00.68	2000	00.004	0.204	0.204
0.257	00	99.99-	04.85-	01.33-	01.01	02.93	04.69	06.46	08.37	10.71	14.24	2000	00.494	0.167	0.000
0.257	10	18.85-	04.75-	01.32-	00.99	02.89	04.64	06.40	08.31	10.65	14.17	2000	00.453	0.156	0.002
0.257	20	14.14-	05.33-	02.14-	00.09	01.95	03.67	05.41	07.31	09.64	13.15	2000	00.352	0.153	0.006
0.257	30	10.41-	05.91-	03.34-	01.37-	00.35	01.99	03.66	05.52	07.81	11.30	2000	00.230	0.155	0.014
0.257	40	07.26-	05.57-	04.10-	02.73-	01.40-	00.03-	01.44	03.15	05.32	08.71	2000	00.128	0.159	0.030
0.257	50	04.66-	04.17-	03.63-	03.02-	02.32-	01.50-	00.51-	00.77	02.56	05.60	2000	00.060	0.165	0.057
0.257	60	02.63-	02.50-	02.35-	02.17-	01.93-	01.62-	01.19-	00.56-	00.47	02.62	2000	00.025	0.172	0.094
0.257	70	01.18-	01.14-	01.10-	01.05-	00.98-	00.89-	00.75-	00.53-	00.12-	00.91	2000	00.009	0.179	0.136
0.257	80	00.32-	00.30-	00.29-	00.27-	00.24-	00.21-	00.15-	00.06-	00.11	00.59	2000	00.004	0.184	0.171
0.257	90	00.00	00.01	00.02	00.03	00.05	00.08	00.12	00.19	00.31	00.68	2000	00.003	0.185	0.185
0.261	00	99.99-	04.84-	01.32-	01.02	02.94	04.70	06.46	08.38	10.72	14.24	2000	00.410	0.139	0.000
0.261	10	18.88-	04.75-	01.32-	00.99	02.89	04.64	06.40	08.31	10.65	14.17	2000	00.377	0.130	0.002
0.261	20	14.16-	05.33-	02.14-	00.08	01.94	03.67	05.41	07.31	09.64	13.15	2000	00.292	0.128	0.005
0.261	30	10.42-	05.92-	03.35-	01.38-	00.34	01.98	03.66	05.51	07.81	11.29	2000	00.191	0.129	0.012
0.261	40	07.27-	05.58-	04.11-	02.75-	01.41-	00.04-	01.43	03.14	05.31	08.70	2000	00.106	0.132	0.025
0.261	50	04.67-	04.18-	03.64-	03.03-	02.34-	01.52-	00.52-	00.76	02.54	05.58	2000	00.050	0.137	0.047
0.261	60	02.63-	02.51-	02.36-	02.17-	01.94-	01.63-	01.20-	00.58-	00.46	02.60	2000	00.020	0.143	0.078
0.261	70	01.18-	01.15-	01.11-	01.06-	00.99-	00.90-	00.76-	00.54-	00.14-	00.89	2000	00.008	0.149	0.113
0.261	80	00.32-	00.31-	00.29-	00.28-	00.25-	00.21-	00.16-	00.07-	00.10	00.58	2000	00.004	0.153	0.142
0.261	90	00.00	00.01	00.02	00.03	00.05	00.08	00.12	00.18	00.31	00.66	2000	00.003	0.153	0.153
0.265	00	99.99-	04.84-	01.32-	01.02	02.94	04.70	06.46	08.38	10.72	14.25	2000	00.347	0.118	0.000
0.265	10	18.91-	04.75-	01.32-	00.99	02.89	04.65	06.40	08.31	10.65	14.17	2000	00.319	0.110	0.001
0.265	20	14.18-	05.34-	02.14-	00.08	01.94	03.67	05.41	07.31	09.63	13.15	2000	00.247	0.108	0.004
0.265	30	10.44-	05.93-	03.36-	01.39-	00.33	01.97	03.65	05.51	07.80	11.29	2000	00.162	0.109	0.010
0.265	40	07.28-	05.59-	04.12-	02.76-	01.42-	00.06-	01.42	03.13	05.30	08.69	2000	00.090	0.112	0.021
0.265	50	04.68-	04.19-	03.65-	03.05-	02.35-	01.53-	00.54-	00.74	02.53	05.56	2000	00.042	0.116	0.040
0.265	60	02.64-	02.52-	02.37-	02.18-	01.95-	01.64-	01.22-	00.59-	00.44	02.58	2000	00.017	0.121	0.066
0.265	70	01.19-	01.15-	01.11-	01.06-	00.99-	00.90-	00.77-	00.55-	00.15-	00.87	2000	00.006	0.126	0.096
0.265	80	00.33-	00.31-	00.30-	00.28-	00.25-	00.22-	00.17-	00.08-	00.09	00.56	2000	00.003	0.130	0.120
0.265	90	00.00	00.01	00.02	00.03	00.05	00.08	00.12	00.18	00.30	00.65	2000	00.002	0.130	0.130

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.269	00	99.99-	04.84-	01.31-	01.03	02.95	04.71	06.47	08.39	10.73	14.25	2000	00.299	0.101	0.000
0.269	10	18.94-	04.75-	01.32-	00.99	02.90	04.65	06.40	08.32	10.65	14.17	2000	00.275	0.095	0.001
0.269	20	14.20-	05.34-	02.15-	00.08	01.94	03.67	05.40	07.31	09.63	13.15	2000	00.212	0.093	0.004
0.269	30	10.46-	05.94-	03.37-	01.39-	00.33	01.97	03.64	05.50	07.80	11.28	2000	00.139	0.094	0.008
0.269	40	07.29-	05.60-	04.13-	02.77-	01.43-	00.07-	01.41	03.12	05.29	08.68	2000	00.077	0.096	0.018
0.269	50	04.68-	04.20-	03.66-	03.06-	02.36-	01.54-	00.55-	00.73	02.51	05.55	2000	00.036	0.100	0.034
0.269	60	02.65-	02.52-	02.37-	02.19-	01.96-	01.65-	01.23-	00.60-	00.43	02.56	2000	00.015	0.104	0.057
0.269	70	01.19-	01.16-	01.12-	01.07-	01.00-	00.91-	00.77-	00.56-	00.16-	00.86	2000	00.006	0.109	0.083
0.269	80	00.33-	00.32-	00.30-	00.29-	00.26-	00.23-	00.17-	00.09-	00.08	00.54	2000	00.003	0.112	0.104
0.269	90	00.00	00.01	00.02	00.03	00.05	00.08	00.11	00.17	00.30	00.64	2000	00.002	0.112	0.112
0.277	00	99.99-	04.83-	01.31-	01.03	02.95	04.71	06.47	08.39	10.73	14.25	2000	00.233	0.079	0.000
0.277	10	18.99-	04.75-	01.32-	00.99	02.90	04.65	06.40	08.32	10.66	14.17	2000	00.213	0.073	0.001
0.277	20	14.23-	05.35-	02.15-	00.08	01.94	03.67	05.40	07.30	09.63	13.14	2000	00.165	0.072	0.003
0.277	30	10.48-	05.95-	03.37-	01.40-	00.32	01.96	03.64	05.50	07.79	11.28	2000	00.108	0.073	0.007
0.277	40	07.31-	05.62-	04.15-	02.78-	01.45-	00.08-	01.40	03.10	05.28	08.66	2000	00.060	0.075	0.014
0.277	50	04.70-	04.21-	03.68-	03.07-	02.38-	01.56-	00.57-	00.71	02.49	05.53	2000	00.028	0.078	0.026
0.277	60	02.65-	02.53-	02.38-	02.20-	01.97-	01.66-	01.24-	00.62-	00.41	02.53	2000	00.011	0.081	0.044
0.277	70	01.20-	01.16-	01.12-	01.07-	01.01-	00.92-	00.78-	00.57-	00.18-	00.83	2000	00.004	0.084	0.064
0.277	80	00.34-	00.33-	00.31-	00.29-	00.27-	00.23-	00.18-	00.10-	00.06	00.52	2000	00.002	0.087	0.081
0.277	90	00.00	00.01	00.02	00.03	00.05	00.07	00.11	00.17	00.29	00.62	2000	00.001	0.087	0.087
0.285	00	99.99-	04.83-	01.31-	01.03	02.95	04.71	06.47	08.39	10.73	14.25	2000	00.190	0.064	0.000
0.285	10	18.99-	04.75-	01.32-	00.99	02.90	04.65	06.40	08.32	10.65	14.17	2000	00.175	0.060	0.001
0.285	20	14.23-	05.35-	02.15-	00.08	01.94	03.66	05.40	07.30	09.63	13.14	2000	00.135	0.059	0.002
0.285	30	10.48-	05.95-	03.37-	01.40-	00.32	01.96	03.64	05.50	07.79	11.28	2000	00.088	0.060	0.005
0.285	40	07.31-	05.62-	04.15-	02.78-	01.45-	00.08-	01.40	03.10	05.28	08.66	2000	00.049	0.061	0.011
0.285	50	04.69-	04.21-	03.68-	03.07-	02.38-	01.56-	00.57-	00.71	02.49	05.53	2000	00.023	0.064	0.022
0.285	60	02.65-	02.53-	02.38-	02.20-	01.97-	01.66-	01.24-	00.62-	00.41	02.53	2000	00.009	0.067	0.036
0.285	70	01.20-	01.17-	01.13-	01.08-	01.01-	00.92-	00.79-	00.57-	00.18-	00.83	2000	00.003	0.069	0.052
0.285	80	00.34-	00.33-	00.32-	00.30-	00.27-	00.24-	00.19-	00.10-	00.06	00.51	2000	00.002	0.071	0.066
0.285	90	00.00	00.01	00.02	00.03	00.05	00.07	00.11	00.17	00.29	00.63	2000	00.001	0.071	0.071
0.293	00	99.99-	04.85-	01.32-	01.02	02.94	04.70	06.46	08.38	10.72	14.24	2000	00.162	0.055	0.000
0.293	10	18.93-	04.75-	01.32-	00.99	02.89	04.64	06.39	08.31	10.65	14.17	2000	00.149	0.051	0.001
0.293	20	14.19-	05.34-	02.15-	00.08	01.94	03.66	05.40	07.30	09.63	13.14	2000	00.115	0.050	0.002
0.293	30	10.45-	05.93-	03.36-	01.39-	00.33	01.97	03.65	05.51	07.80	11.29	2000	00.075	0.051	0.005
0.293	40	07.29-	05.60-	04.13-	02.76-	01.43-	00.06-	01.42	03.12	05.30	08.68	2000	00.042	0.052	0.010
0.293	50	04.68-	04.20-	03.66-	03.05-	02.35-	01.54-	00.54-	00.73	02.52	05.56	2000	00.020	0.054	0.019
0.293	60	02.64-	02.52-	02.37-	02.19-	01.96-	01.65-	01.22-	00.60-	00.43	02.57	2000	00.008	0.057	0.031
0.293	70	01.19-	01.16-	01.12-	01.07-	01.00-	00.91-	00.78-	00.56-	00.16-	00.86	2000	00.003	0.059	0.045
0.293	80	00.35-	00.34-	00.32-	00.30-	00.28-	00.24-	00.19-	00.10-	00.06	00.53	2000	00.001	0.061	0.056
0.293	90	00.00	00.01	00.02	00.03	00.05	00.08	00.11	00.18	00.30	00.64	2000	00.001	0.061	0.061

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.309	00	99.99-	04.90-	01.37-	00.97	02.89	04.65	06.41	08.33	10.67	14.19	2000	00.128	0.044	0.000
0.309	10	18.68-	04.77-	01.35-	00.96	02.86	04.61	06.36	08.28	10.61	14.13	2000	00.118	0.041	0.001
0.309	20	14.01-	05.32-	02.14-	00.09	01.94	03.67	05.40	07.31	09.63	13.14	2000	00.092	0.040	0.002
0.309	30	10.30-	05.85-	03.30-	01.33-	00.39	02.02	03.70	05.55	07.85	11.33	2000	00.061	0.041	0.004
0.309	40	07.17-	05.49-	04.02-	02.66-	01.32-	00.04	01.52	03.22	05.40	08.78	2000	00.034	0.042	0.008
0.309	50	04.60-	04.11-	03.56-	02.95-	02.24-	01.42-	00.41-	00.87	02.66	05.71	2000	00.016	0.043	0.015
0.309	60	02.60-	02.47-	02.31-	02.12-	01.88-	01.56-	01.12-	00.48-	00.58	02.74	2000	00.007	0.045	0.025
0.309	70	01.17-	01.14-	01.10-	01.04-	00.97-	00.87-	00.73-	00.50-	00.07-	01.00	2000	00.003	0.047	0.036
0.309	80	00.35-	00.34-	00.32-	00.30-	00.27-	00.23-	00.17-	00.08-	00.11	00.61	2000	00.001	0.048	0.044
0.309	90	00.00	00.01	00.02	00.04	00.06	00.09	00.13	00.20	00.33	00.72	2000	00.001	0.048	0.048
0.325	00	99.99-	04.99-	01.47-	00.87	02.79	04.55	06.31	08.23	10.57	14.09	2000	00.110	0.038	0.000
0.325	10	18.28-	04.81-	01.40-	00.90	02.80	04.55	06.30	08.22	10.55	14.07	2000	00.101	0.036	0.001
0.325	20	13.68-	05.27-	02.11-	00.10	01.96	03.68	05.41	07.31	09.64	13.15	2000	00.080	0.035	0.001
0.325	30	10.04-	05.70-	03.17-	01.22-	00.49	02.12	03.79	05.65	07.94	11.42	2000	00.054	0.035	0.003
0.325	40	06.96-	05.28-	03.82-	02.46-	01.13-	00.24	01.71	03.42	05.59	08.97	2000	00.031	0.036	0.007
0.325	50	04.44-	03.93-	03.37-	02.74-	02.03-	01.19-	00.17-	01.13	02.93	05.99	2000	00.015	0.037	0.013
0.325	60	02.50-	02.36-	02.19-	01.99-	01.73-	01.39-	00.93-	00.26-	00.84	03.07	2000	00.006	0.039	0.022
0.325	70	01.13-	01.09-	01.04-	00.98-	00.90-	00.79-	00.63-	00.37-	00.09	01.25	2000	00.003	0.040	0.031
0.325	80	00.34-	00.33-	00.31-	00.28-	00.25-	00.20-	00.14-	00.03-	00.19	00.77	2000	00.001	0.041	0.038
0.325	90	00.00	00.01	00.03	00.04	00.07	00.10	00.15	00.23	00.39	00.84	2000	00.001	0.041	0.041
0.341	00	99.99-	05.15-	01.63-	00.72	02.63	04.39	06.16	08.07	10.42	13.94	2000	00.099	0.036	0.000
0.341	10	17.73-	04.88-	01.48-	00.81	02.71	04.46	06.21	08.12	10.46	13.98	2000	00.092	0.033	0.001
0.341	20	13.23-	05.20-	02.07-	00.13	01.97	03.69	05.42	07.32	09.65	13.15	2000	00.074	0.032	0.002
0.341	30	09.64-	05.46-	02.97-	01.04-	00.66	02.28	03.95	05.80	08.09	11.57	2000	00.051	0.032	0.004
0.341	40	06.63-	04.97-	03.51-	02.15-	00.83-	00.54	02.01	03.71	05.88	09.27	2000	00.030	0.033	0.007
0.341	50	04.20-	03.67-	03.08-	02.43-	01.70-	00.84-	00.20	01.51	03.34	06.41	2000	00.015	0.034	0.013
0.341	60	02.34-	02.19-	02.00-	01.78-	01.50-	01.14-	00.64-	00.08	01.23	03.54	2000	00.007	0.035	0.021
0.341	70	01.05-	01.00-	00.95-	00.88-	00.79-	00.66-	00.48-	00.19-	00.34	01.62	2000	00.003	0.036	0.028
0.341	80	00.33-	00.31-	00.28-	00.25-	00.21-	00.16-	00.08-	00.06	00.31	00.99	2000	00.001	0.037	0.035
0.341	90	00.00	00.01	00.03	00.05	00.08	00.13	00.19	00.29	00.48	01.02	2000	00.001	0.037	0.037
0.357	00	99.99-	05.38-	01.85-	00.49	02.41	04.17	05.93	07.85	10.19	13.71	2000	00.092	0.035	0.000
0.357	10	17.10-	04.98-	01.61-	00.68	02.57	04.32	06.07	07.98	10.32	13.83	2000	00.087	0.032	0.001
0.357	20	12.66-	05.10-	02.02-	00.16	02.00	03.71	05.44	07.33	09.66	13.16	2000	00.072	0.031	0.002
0.357	30	09.13-	05.13-	02.70-	00.79-	00.89	02.51	04.17	06.01	08.30	11.78	2000	00.052	0.031	0.004
0.357	40	06.19-	04.53-	03.08-	01.73-	00.41-	00.95	02.42	04.12	06.29	09.68	2000	00.032	0.032	0.008
0.357	50	03.84-	03.29-	02.68-	02.00-	01.24-	00.35-	00.71	02.04	03.89	06.99	2000	00.016	0.032	0.013
0.357	60	02.10-	01.93-	01.73-	01.48-	01.17-	00.77-	00.23-	00.54	01.76	04.16	2000	00.007	0.033	0.020
0.357	70	00.93-	00.88-	00.81-	00.73-	00.62-	00.47-	00.26-	00.08	00.68	02.10	2000	00.003	0.034	0.027
0.357	80	00.30-	00.27-	00.24-	00.21-	00.16-	00.09-	00.01	00.17	00.47	01.28	2000	00.002	0.035	0.033
0.357	90	00.00	00.02	00.04	00.07	00.11	00.16	00.23	00.36	00.60	01.24	2000	00.001	0.034	0.034

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN / HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.389	00	99.99-	06.17-	02.64-	00.30-	01.62	03.38	05.14	07.06	09.40	12.92	2000	00.085	0.039	0.000
0.389	10	15.70-	05.34-	02.05-	00.21	02.09	03.83	05.57	07.48	09.81	13.33	2000	00.084	0.035	0.001
0.389	20	11.23-	04.80-	01.87-	00.26	02.07	03.76	05.47	07.36	09.68	13.18	2000	00.077	0.033	0.003
0.389	30	07.72-	04.17-	01.88-	00.04-	01.61	03.20	04.84	06.67	08.95	12.42	2000	00.063	0.033	0.006
0.389	40	04.88-	03.25-	01.82-	00.48-	00.83	02.19	03.65	05.35	07.52	10.90	2000	00.043	0.033	0.011
0.389	50	02.75-	02.12-	01.44-	00.70-	00.13	01.07	02.18	03.57	05.47	08.61	2000	00.024	0.033	0.017
0.369	60	01.33-	01.10-	00.84-	00.53-	00.14-	00.35	01.00	01.90	03.28	05.87	2000	00.011	0.032	0.024
0.389	70	00.52-	00.44-	00.35-	00.22-	00.07-	00.14	00.44	00.90	01.69	03.44	2000	00.005	0.032	0.029
0.389	80	00.19-	00.15-	00.10-	00.05-	00.03	00.14	00.29	00.53	00.98	02.10	2000	00.002	0.033	0.031
0.389	90	00.00	00.03	00.06	00.11	00.17	00.25	00.37	00.57	00.93	01.87	2000	00.002	0.032	0.032
0.421	00	99.99-	07.75-	04.22-	01.88-	00.04	01.80	03.56	05.48	07.82	11.34	2000	00.084	0.055	0.000
0.421	10	14.19-	06.08-	02.95-	00.75-	01.10	02.82	04.55	06.45	08.77	12.28	2000	00.089	0.047	0.002
0.421	20	09.50-	04.39-	01.68-	00.35	02.11	03.77	05.46	07.33	09.63	13.12	2000	00.100	0.044	0.005
0.421	30	05.85-	02.77-	00.64-	01.12	02.71	04.27	05.88	07.70	09.96	13.41	2000	00.101	0.042	0.011
0.421	40	02.98-	01.38-	00.04	01.36	02.67	04.02	05.48	07.17	09.33	12.71	2000	00.080	0.040	0.020
0.421	50	00.99-	00.27-	00.49	01.30	02.20	03.20	04.37	05.81	07.76	10.94	2000	00.049	0.038	0.030
0.421	60	00.06	00.36	00.71	01.11	01.60	02.20	02.97	04.02	05.56	08.34	2000	00.023	0.036	0.036
0.421	70	00.29	00.41	00.56	00.74	00.98	01.29	01.71	02.34	03.37	05.51	2000	00.009	0.034	0.036
0.421	80	00.05	00.11	00.19	00.29	00.42	00.59	00.84	01.22	01.90	03.47	2000	00.004	0.032	0.033
0.421	90	00.00	00.05	00.12	00.20	00.30	00.44	00.65	00.97	01.56	02.94	2000	00.003	0.031	0.031
0.437	00	99.99-	09.08-	05.56-	03.21-	01.30-	00.46	02.23	04.14	06.49	10.01	2000	00.084	0.075	0.000
0.437	10	13.41-	06.69-	03.71-	01.57-	00.24	01.94	03.66	05.55	07.87	11.37	2000	00.095	0.063	0.003
0.437	20	08.56-	04.15-	01.60-	00.36	02.07	03.70	05.38	07.23	09.53	13.01	2000	00.126	0.057	0.008
0.437	30	04.77-	01.92-	00.12	01.83	03.40	04.93	06.54	08.34	10.59	14.04	2000	00.147	0.053	0.018
0.437	40	01.80-	00.22-	01.19	02.51	03.81	05.16	06.62	08.31	10.47	13.85	2000	00.127	0.049	0.032
0.437	50	00.20	00.96	01.76	02.61	03.54	04.57	05.76	07.23	09.20	12.40	2000	00.080	0.044	0.046
0.437	60	01.10	01.45	01.84	02.30	02.85	03.51	04.35	05.47	07.09	09.96	2000	00.038	0.039	0.051
0.437	70	00.95	01.11	01.30	01.54	01.83	02.21	02.72	03.46	04.65	06.99	2000	00.015	0.035	0.044
0.437	80	00.25	00.34	00.45	00.59	00.77	01.01	01.34	01.84	02.71	04.58	2000	00.007	0.033	0.035
0.437	90	00.00	00.08	00.17	00.29	00.44	00.65	00.94	01.38	02.15	03.88	2000	00.005	0.031	0.031
0.450	00	99.99-	10.59-	07.07-	04.72-	02.81-	01.05-	00.72	02.63	04.98	08.50	2000	00.084	0.107	0.000
0.450	10	12.77-	07.34-	04.57-	02.51-	00.74-	00.93	02.63	04.50	06.81	10.30	2000	00.103	0.087	0.005
0.450	20	07.76-	03.96-	01.58-	00.30	01.97	03.57	05.23	07.07	09.35	12.82	2000	00.163	0.077	0.013
0.450	30	03.84-	01.17-	00.79	02.46	04.00	05.52	07.11	08.90	11.14	14.59	2000	00.219	0.070	0.029
0.450	40	00.76-	00.82	02.22	03.54	04.84	06.18	07.64	09.33	11.49	14.86	2000	00.205	0.062	0.052
0.450	50	01.32	02.13	02.96	03.84	04.79	05.84	07.06	08.54	10.53	13.75	2000	00.132	0.053	0.072
0.450	60	02.17	02.56	03.00	03.52	04.11	04.83	05.73	06.91	08.59	11.52	2000	00.062	0.044	0.073
0.450	70	01.69	01.89	02.13	02.42	02.78	03.24	03.85	04.70	06.03	08.56	2000	00.024	0.037	0.055
0.450	80	00.47	00.60	00.75	00.95	01.20	01.52	01.97	02.62	03.70	05.89	2000	00.010	0.033	0.037
0.450	90	00.00	00.12	00.26	00.43	00.65	00.95	01.36	01.96	02.96	05.05	2000	00.008	0.031	0.031

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.460	00	99.99-	12.09-	08.57-	06.23-	04.31-	02.55-	00.78-	01.13	03.47	07.00	2000	00.084	0.152	0.000
0.460	10	12.26-	07.94-	05.41-	03.46-	01.75-	00.12-	01.55	03.40	05.70	09.18	2000	00.110	0.121	0.007
0.460	20	07.13-	03.82-	01.60-	00.20	01.82	03.39	05.02	06.85	09.12	12.58	2000	00.210	0.105	0.020
0.460	30	03.10-	00.58-	01.33	02.96	04.48	05.98	07.55	09.34	11.57	15.01	2000	00.322	0.093	0.045
0.460	40	00.10	01.67	03.06	04.38	05.67	07.01	08.47	10.16	12.32	15.69	2000	00.319	0.080	0.081
0.460	50	02.28	03.12	03.98	04.88	05.85	06.93	08.16	09.66	11.65	14.89	2000	00.210	0.065	0.110
0.460	60	03.16	03.59	04.08	04.63	05.28	06.04	06.99	08.21	09.94	12.93	2000	00.099	0.051	0.105
0.460	70	02.41	02.66	02.96	03.31	03.74	04.28	04.98	05.94	07.40	10.08	2000	00.037	0.039	0.069
0.460	80	00.65	00.84	01.06	01.33	01.67	02.10	02.68	03.50	04.78	07.26	2000	00.016	0.034	0.039
0.460	90	00.00	00.17	00.38	00.63	00.95	01.36	01.90	02.69	03.92	06.34	2000	00.012	0.032	0.032
0.470	00	99.99-	13.90-	10.38-	08.03-	06.12-	04.35-	02.59-	00.67-	01.67	05.19	2000	00.085	0.232	0.000
0.470	10	11.74-	08.61-	06.45-	04.68-	03.08-	01.52-	00.10	01.92	04.18	07.64	2000	00.115	0.180	0.012
0.470	20	06.50-	03.71-	01.68-	00.01	01.57	03.10	04.70	06.50	08.75	12.20	2000	00.279	0.154	0.034
0.470	30	02.34-	00.02	01.86	03.45	04.94	06.42	07.99	09.76	11.99	15.42	2000	00.501	0.132	0.077
0.470	40	00.99	02.55	03.94	05.25	06.54	07.88	09.33	11.02	13.17	16.55	2000	00.530	0.109	0.136
0.470	50	03.33	04.20	05.09	06.02	07.01	08.10	09.35	10.86	12.87	16.12	2000	00.357	0.083	0.179
0.470	60	04.31	04.80	05.34	05.94	06.64	07.46	08.45	09.73	11.52	14.55	2000	00.168	0.059	0.158
0.470	70	03.29	03.62	04.00	04.44	04.97	05.61	06.43	07.52	09.12	11.96	2000	00.062	0.041	0.088
0.470	80	00.76	01.05	01.40	01.80	02.29	02.89	03.66	04.70	06.25	09.03	2000	00.026	0.034	0.040
0.470	90	00.00	00.28	00.60	00.98	01.44	02.01	02.75	03.76	05.26	08.00	2000	00.019	0.032	0.032
0.480	00	99.99-	15.78-	12.26-	09.92-	08.00-	06.24-	04.48-	02.56-	00.22-	03.31	2000	00.085	0.359	0.000
0.480	10	11.30-	09.33-	07.70-	06.23-	04.82-	03.40-	01.88-	00.14-	02.06	05.47	2000	00.105	0.273	0.020
0.480	20	05.91-	03.63-	01.84-	00.28-	01.20	02.67	04.22	05.99	08.21	11.64	2000	00.363	0.228	0.058
0.480	30	01.63-	00.59	02.36	03.91	05.37	06.93	08.38	10.14	12.36	15.78	2000	00.785	0.190	0.131
0.480	40	01.86	03.41	04.79	06.10	07.39	08.72	10.18	11.86	14.02	17.39	2000	00.886	0.150	0.230
0.480	50	04.43	05.33	06.25	07.20	08.21	09.32	10.59	12.11	14.13	17.39	2000	00.612	0.106	0.293
0.480	60	05.63	06.18	06.78	07.44	08.19	09.06	10.11	11.44	13.28	16.36	2000	00.288	0.066	0.240
0.480	70	04.33	04.77	05.26	05.83	06.48	07.26	08.21	09.45	11.19	14.19	2000	00.105	0.040	0.109
0.480	80	00.48	01.00	01.56	02.20	02.92	03.77	04.79	06.09	07.90	10.97	2000	00.041	0.033	0.037
0.480	90	00.00	00.42	00.89	01.44	02.07	02.82	03.75	04.96	06.69	09.66	2000	00.029	0.032	0.032
0.484	00	99.99-	16.40-	12.88-	10.53-	08.62-	06.85-	05.09-	03.17-	00.83-	02.69	2000	00.085	0.413	0.000
0.484	10	11.22-	09.64-	08.24-	06.92-	05.61-	04.27-	02.81-	01.12-	01.04	04.41	2000	00.093	0.311	0.024
0.484	20	05.75-	03.64-	01.93-	00.41-	01.03	02.47	04.01	05.76	07.97	11.39	2000	00.388	0.259	0.069
0.484	30	01.40-	00.78	02.52	04.05	05.51	06.96	08.51	10.27	12.48	15.90	2000	00.906	0.213	0.154
0.484	40	02.16	03.71	05.09	06.39	07.68	09.01	10.47	12.15	14.30	17.68	2000	01.045	0.165	0.272
0.484	50	04.82	05.74	06.67	07.62	08.64	09.75	11.02	12.55	14.58	17.84	2000	00.725	0.113	0.343
0.484	60	06.16	06.73	07.34	08.02	08.79	09.68	10.74	12.08	13.93	17.03	2000	00.341	0.066	0.274
0.484	70	04.76	05.25	05.79	06.40	07.10	07.93	08.93	10.21	12.00	15.04	2000	00.122	0.038	0.114
0.484	80	00.14	00.78	01.47	02.22	03.05	04.00	05.12	06.51	08.41	11.56	2000	00.047	0.032	0.033
0.484	90	00.00	00.46	00.98	01.57	02.24	03.04	04.01	05.27	07.03	10.05	2000	00.032	0.032	0.032

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.490	00	99.99-	16.79-	13.26-	10.92-	09.00-	07.24-	05.48-	03.56-	01.22-	02.30	2000	00.086	0.456	0.000
0.490	10	11.16-	10.06-	08.99-	07.92-	06.80-	05.61-	04.27-	02.68-	00.61-	02.70	2000	00.068	0.341	0.026
0.490	20	05.57-	03.68-	02.09-	00.64-	00.75	02.15	03.66	05.39	07.59	10.99	2000	00.384	0.281	0.078
0.490	30	01.14-	00.99	02.71	04.23	05.67	07.12	08.66	10.41	12.62	16.04	2000	01.005	0.229	0.176
0.490	40	02.53	04.07	05.45	06.75	08.04	09.38	10.83	12.51	14.67	18.04	2000	01.194	0.174	0.311
0.490	50	05.33	06.26	07.19	08.16	09.18	10.30	11.58	13.11	15.14	18.40	2000	00.833	0.114	0.389
0.490	60	06.85	07.44	08.07	08.77	09.56	10.47	11.55	12.91	14.78	17.89	2000	00.388	0.062	0.298
0.490	70	05.19	05.75	06.37	07.05	07.82	08.71	09.77	11.11	12.96	16.06	2000	00.136	0.033	0.109
0.490	80	00.86-	00.01	00.90	01.83	02.83	03.92	05.17	06.68	08.69	11.94	2000	00.049	0.030	0.024
0.490	90	00.00	00.46	00.98	01.57	02.25	03.05	04.03	05.28	07.05	10.07	2000	00.033	0.032	0.032
0.495	00	99.99-	16.59-	13.07-	10.72-	08.81-	07.04-	05.28-	03.37-	01.02-	02.50	2000	00.086	0.437	0.000
0.495	10	11.20-	10.37-	09.51-	08.62-	07.65-	06.58-	05.35-	03.86-	01.86-	01.37	2000	00.047	0.326	0.025
0.495	20	05.51-	03.75-	02.23-	00.84-	00.51	01.90	03.39	05.10	07.28	10.68	2000	00.339	0.268	0.075
0.495	30	01.00-	01.10	02.81	04.32	05.76	07.20	08.74	10.49	12.70	16.12	2000	00.966	0.217	0.172
0.495	40	02.74	04.28	05.66	06.96	08.25	09.59	11.04	12.72	14.88	18.25	2000	01.170	0.162	0.304
0.495	50	05.63	06.56	07.50	08.47	09.50	10.62	11.89	13.43	15.46	18.72	2000	00.816	0.104	0.379
0.495	60	07.24	07.84	08.48	09.19	09.99	10.90	11.99	13.36	15.23	18.36	2000	00.376	0.054	0.284
0.495	70	05.22	05.83	06.49	07.22	08.03	08.96	10.06	11.43	13.32	16.45	2000	00.128	0.028	0.094
0.495	80	02.02-	00.97-	00.06	01.11	02.20	03.38	04.70	06.27	08.34	11.63	2000	00.044	0.028	0.018
0.495	90	00.00	00.41	00.87	01.40	02.02	02.76	03.67	04.87	06.58	09.53	2000	00.029	0.032	0.032

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.500	00	99.99-	16.00-	12.48-	10.14-	08.22-	06.46-	04.70-	02.78-	00.44-	03.08	2000	00.086	0.380	0.000
0.500	05	15.56-	13.08-	11.20-	09.58-	08.07-	06.57-	05.00-	03.22-	00.99-	02.45	2000	00.062	0.320	0.009
0.500	10	11.26-	10.60-	09.89-	09.12-	08.27-	07.31-	06.17-	04.77-	02.85-	00.31	2000	00.032	0.284	0.021
0.500	15	08.14-	07.21-	06.27-	05.30-	04.27-	03.15-	01.87-	00.34-	01.69	04.96	2000	00.085	0.256	0.039
0.500	20	05.49-	03.84-	02.39-	01.04-	00.28	01.64	03.11	04.81	06.98	10.36	2000	00.273	0.232	0.066
0.500	25	03.10-	01.04-	00.63	02.13	03.56	04.99	06.53	08.27	10.48	13.89	2000	00.560	0.210	0.103
0.500	30	00.92-	01.17	02.87	04.37	05.81	07.25	08.78	10.53	12.74	16.16	2000	00.842	0.187	0.152
0.500	35	01.08	02.95	04.53	05.96	07.34	08.75	10.26	11.98	14.17	17.58	2000	01.017	0.164	0.210
0.500	40	02.88	04.42	05.81	07.11	08.40	09.74	11.19	12.87	15.03	18.40	2000	01.037	0.139	0.269
0.500	45	04.47	05.69	06.84	07.98	09.15	10.39	11.76	13.38	15.48	18.81	2000	00.919	0.113	0.316
0.500	50	05.83	06.76	07.71	08.68	09.71	10.83	12.11	13.64	15.67	18.94	2000	00.722	0.087	0.334
0.500	55	06.88	07.61	08.38	09.20	10.10	11.11	12.28	13.73	15.68	18.87	2000	00.511	0.064	0.310
0.500	60	07.44	08.05	08.70	09.42	10.22	11.14	12.24	13.61	15.49	18.61	2000	00.329	0.044	0.245
0.500	65	07.06	07.63	08.25	08.93	09.70	10.59	11.65	12.99	14.85	17.95	2000	00.195	0.031	0.156
0.500	70	04.84	05.50	06.20	06.97	07.82	08.78	09.92	11.32	13.24	16.40	2000	00.109	0.024	0.073
0.500	75	00.01-	01.06	02.11	03.17	04.28	05.46	06.79	08.37	10.44	13.74	2000	00.060	0.024	0.024
0.500	80	03.22-	02.07-	00.95-	00.15	01.29	02.51	03.87	05.47	07.56	10.87	2000	00.036	0.027	0.013
0.500	85	01.17-	00.69-	00.16-	00.44	01.13	01.94	02.93	04.20	05.98	09.01	2000	00.025	0.032	0.024
0.500	90	00.00	00.33	00.71	01.15	01.68	02.33	03.15	04.24	05.84	08.69	2000	00.023	0.032	0.032
0.516	00	99.99-	13.03-	09.51-	07.17-	05.25-	03.49-	01.73-	00.19	02.53	06.05	2000	00.087	0.194	0.000
0.516	05	15.76-	11.63-	09.16-	07.23-	05.53-	03.91-	02.25-	00.40-	01.89	05.37	2000	00.062	0.163	0.004
0.516	10	11.35-	10.62-	09.85-	09.02-	08.12-	07.11-	05.93-	04.48-	02.53-	00.67	2000	00.018	0.144	0.011
0.516	15	08.16-	07.77-	07.32-	06.81-	06.21-	05.49-	04.59-	03.41-	01.72-	01.21	2000	00.017	0.130	0.020
0.516	20	05.45-	04.19-	03.01-	01.85-	00.66-	00.59	01.97	03.60	05.71	09.04	2000	00.101	0.118	0.034
0.516	25	03.00-	01.15-	00.42	01.85	03.23	04.63	06.13	07.86	10.05	13.45	2000	00.255	0.106	0.053
0.516	30	00.77-	01.23	02.88	04.36	05.78	07.21	08.73	10.47	12.68	16.09	2000	00.417	0.094	0.079
0.516	35	01.27	03.11	04.67	06.10	07.47	08.87	10.38	12.10	14.29	17.69	2000	00.524	0.082	0.110
0.516	40	03.09	04.64	06.02	07.32	08.61	09.95	11.40	13.08	15.24	18.61	2000	00.544	0.069	0.141
0.516	45	04.68	05.90	07.07	08.22	09.39	10.63	12.00	13.63	15.73	19.06	2000	00.485	0.056	0.165
0.516	50	05.97	06.92	07.88	08.86	09.90	11.03	12.32	13.86	15.90	19.17	2000	00.381	0.044	0.173
0.516	55	06.82	07.58	08.37	09.21	10.13	11.15	12.34	13.80	15.77	18.97	2000	00.267	0.032	0.156
0.516	60	06.87	07.52	08.21	08.96	09.80	10.75	11.88	13.28	15.18	18.33	2000	00.169	0.024	0.117
0.516	65	05.37	06.02	06.72	07.47	08.31	09.27	10.40	11.80	13.71	16.86	2000	00.098	0.020	0.067
0.516	70	01.14	02.05	02.98	03.94	04.96	06.08	07.35	08.88	10.90	14.16	2000	00.053	0.019	0.025
0.516	75	06.46-	04.37-	02.68-	01.17-	00.27	01.71	03.24	04.99	07.20	10.62	2000	00.028	0.022	0.005
0.516	80	04.66-	03.90-	03.10-	02.25-	01.32-	00.29-	00.91	02.37	04.34	07.55	2000	00.016	0.027	0.009
0.516	85	01.18-	00.96-	00.70-	00.38-	00.00	00.49	01.13	02.03	03.41	06.00	2000	00.012	0.032	0.025
0.516	90	00.00	00.15	00.33	00.56	00.84	01.20	01.70	02.42	03.57	05.88	2000	00.010	0.032	0.032

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.524	00	99.99-	11.68-	08.15-	05.81-	03.90-	02.13-	00.37-	01.55	03.89	07.41	2000	00.087	0.142	0.000
0.524	05	15.79-	10.67-	07.97-	05.94-	04.18-	02.52-	00.83-	01.04	03.34	06.84	2000	00.064	0.120	0.003
0.524	10	11.37-	10.31-	09.26-	08.21-	07.11-	05.93-	04.61-	03.03-	00.96-	02.33	2000	00.019	0.106	0.008
0.524	15	08.17-	07.96-	07.72-	07.42-	07.05-	06.58-	05.96-	05.10-	03.75-	01.20-	2000	00.006	0.096	0.015
0.524	20	05.45-	04.39-	03.35-	02.31-	01.21-	00.04-	01.29	02.87	04.93	08.23	2000	00.061	0.086	0.025
0.524	25	03.00-	01.26-	00.25	01.63	02.98	04.36	05.84	07.56	09.73	13.13	2000	00.174	0.078	0.039
0.524	30	00.76-	01.19	02.81	04.27	05.67	07.09	08.61	10.34	12.54	15.95	2000	00.297	0.069	0.058
0.524	35	01.27	03.09	04.64	06.06	07.43	08.83	10.32	12.05	14.23	17.63	2000	00.381	0.061	0.081
0.524	40	03.07	04.61	05.99	07.29	08.58	09.92	11.37	13.05	15.21	18.58	2000	00.400	0.051	0.104
0.524	45	04.61	05.84	07.01	08.16	09.33	10.57	11.95	13.58	15.68	19.01	2000	00.359	0.042	0.122
0.524	50	05.79	06.76	07.72	08.72	09.76	10.90	12.19	13.74	15.78	19.05	2000	00.282	0.033	0.126
0.524	55	06.43	07.20	08.01	08.87	09.80	10.83	12.04	13.51	15.48	18.69	2000	00.198	0.026	0.113
0.524	60	06.08	06.76	07.47	08.25	09.11	10.09	11.23	12.65	14.57	17.74	2000	00.125	0.020	0.082
0.524	65	03.94	04.65	05.40	06.21	07.10	08.10	09.26	10.70	12.64	15.82	2000	00.072	0.018	0.045
0.524	70	01.22-	00.09-	01.00	02.09	03.21	04.42	05.77	07.36	09.45	12.76	2000	00.039	0.019	0.014
0.524	75	09.21-	06.60-	04.66-	03.01-	01.48-	00.03	01.62	03.41	05.65	09.09	2000	00.020	0.023	0.003
0.524	80	04.37-	03.85-	03.27-	02.63-	01.90-	01.04-	00.01-	01.30	03.12	06.19	2000	00.012	0.028	0.010
0.524	85	01.10-	00.94-	00.75-	00.52-	00.23-	00.15	00.66	01.39	02.57	04.91	2000	00.008	0.032	0.025
0.524	90	00.00	00.11	00.24	00.41	00.62	00.91	01.30	01.88	02.85	04.90	2000	00.008	0.033	0.033
0.532	00	99.99-	10.54-	07.01-	04.67-	02.76-	00.99-	00.77	02.69	05.03	08.55	2000	00.087	0.110	0.000
0.532	05	15.79-	09.78-	06.90-	04.80-	03.01-	01.33-	00.38	02.26	04.58	08.08	2000	00.066	0.092	0.002
0.532	10	11.38-	09.88-	08.53-	07.24-	05.97-	04.65-	03.20-	01.53-	00.62	03.99	2000	00.022	0.082	0.006
0.532	15	08.19-	08.09-	07.97-	07.82-	07.63-	07.38-	07.03-	06.50-	05.59-	03.66-	2000	00.002	0.074	0.011
0.532	20	05.47-	04.60-	03.71-	02.78-	01.79-	00.70-	00.55	02.07	04.08	07.32	2000	00.038	0.067	0.019
0.532	25	03.02-	01.39-	00.04	01.38	02.69	04.05	05.51	07.21	09.37	12.76	2000	00.123	0.060	0.030
0.532	30	00.79-	01.10	02.69	04.13	05.52	06.93	08.43	10.16	12.36	15.76	2000	00.221	0.054	0.045
0.532	35	01.21	03.02	04.55	05.96	07.33	08.72	10.21	11.93	14.12	17.51	2000	00.290	0.047	0.063
0.532	40	02.98	04.52	05.89	07.19	08.48	09.81	11.27	12.95	15.10	18.47	2000	00.307	0.040	0.080
0.532	45	04.44	05.68	06.86	08.01	09.19	10.43	11.81	13.44	15.54	18.87	2000	00.277	0.034	0.093
0.532	50	05.50	06.48	07.45	08.45	09.51	10.65	11.94	13.50	15.54	18.82	2000	00.218	0.027	0.096
0.532	55	05.89	06.69	07.51	08.39	09.33	10.38	11.59	13.07	15.05	18.27	2000	00.153	0.022	0.085
0.532	60	05.15	05.86	06.61	07.42	08.30	09.30	10.46	11.90	13.84	17.03	2000	00.097	0.018	0.060
0.532	65	02.46	03.25	04.06	04.93	05.86	06.91	08.11	09.59	11.56	14.78	2000	00.055	0.018	0.031
0.532	70	03.51-	02.12-	00.84-	00.40	01.64	02.93	04.35	06.01	08.14	11.50	2000	00.030	0.020	0.009
0.532	75	10.43-	07.84-	05.91-	04.26-	02.73-	01.22-	00.36	02.15	04.39	07.83	2000	00.016	0.023	0.002
0.532	80	04.01-	03.64-	03.21-	02.72-	02.14-	01.45-	00.57-	00.58	02.24	05.15	2000	00.009	0.028	0.011
0.532	85	01.03-	00.91-	00.76-	00.58-	00.35-	00.05-	00.37	00.98	02.00	04.12	2000	00.007	0.033	0.026
0.532	90	00.00	00.09	00.19	00.32	00.49	00.72	01.04	01.53	02.36	04.20	2000	00.006	0.033	0.033

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.540	00	99.99-	09.60-	06.08-	03.74-	01.82-	00.06-	01.70	03.62	05.96	09.48	2000	00.087	0.089	0.000
0.540	05	15.78-	08.99-	06.00-	03.86-	02.04-	00.34-	01.38	03.27	05.59	09.09	2000	00.067	0.075	0.002
0.540	10	11.39-	09.41-	07.78-	06.31-	04.90-	03.47-	01.95-	00.22-	01.99	05.39	2000	00.025	0.066	0.005
0.540	15	08.21-	08.15-	08.08-	07.99-	07.87-	07.71-	07.48-	07.13-	06.49-	05.01-	2000	00.001	0.060	0.009
0.540	20	05.50-	04.79-	04.04-	03.24-	02.36-	01.37-	00.20-	01.23	03.17	06.35	2000	00.024	0.054	0.015
0.540	25	03.06-	01.55-	00.19-	01.10	02.38	03.71	05.15	06.83	08.98	12.35	2000	00.091	0.049	0.024
0.540	30	00.85-	00.98	02.53	03.95	05.33	06.72	08.22	09.95	12.13	15.53	2000	00.172	0.044	0.036
0.540	35	01.12	02.90	04.42	05.82	07.18	08.57	10.06	11.77	13.96	17.35	2000	00.230	0.039	0.050
0.540	40	02.84	04.37	05.75	07.04	08.33	09.66	11.11	12.79	14.95	18.32	2000	00.246	0.034	0.065
0.540	45	04.22	05.47	06.64	07.80	08.98	10.23	11.61	13.24	15.35	18.68	2000	00.223	0.028	0.075
0.540	50	05.13	06.12	07.11	08.12	09.18	10.33	11.64	13.19	15.24	18.52	2000	00.177	0.023	0.076
0.540	55	05.29	06.11	06.95	07.84	08.80	09.87	11.09	12.58	14.57	17.80	2000	00.124	0.020	0.066
0.540	60	04.20	04.95	05.74	06.57	07.49	08.51	09.69	11.15	13.11	16.31	2000	00.078	0.018	0.046
0.540	65	01.07	01.93	02.82	03.74	04.73	05.82	07.07	08.58	10.59	13.83	2000	00.045	0.018	0.023
0.540	70	05.64-	03.91-	02.42-	01.04-	00.31	01.68	03.17	04.88	07.05	10.44	2000	00.024	0.020	0.005
0.540	75	10.30-	08.19-	06.48-	04.96-	03.52-	02.08-	00.54-	01.21	03.42	06.84	2000	00.013	0.024	0.002
0.540	80	03.69-	03.40-	03.08-	02.69-	02.22-	01.64-	00.89-	00.12	01.64	04.39	2000	00.007	0.029	0.012
0.540	85	00.97-	00.87-	00.75-	00.60-	00.41-	00.16-	00.20	00.73	01.63	03.57	2000	00.005	0.033	0.026
0.540	90	00.00	00.07	00.16	00.27	00.41	00.61	00.88	01.30	02.04	03.71	2000	00.005	0.033	0.033
0.548	00	99.99-	08.85-	05.33-	02.99-	01.07-	00.69	02.45	04.37	06.71	10.23	2000	00.087	0.075	0.000
0.548	05	15.74-	08.32-	05.26-	03.08-	01.25-	00.46	02.18	04.08	06.40	09.91	2000	00.068	0.063	0.002
0.548	10	11.38-	08.95-	07.08-	05.47-	03.97-	02.48-	00.91-	00.87	03.10	06.53	2000	00.028	0.056	0.004
0.548	15	08.22-	08.15-	08.05-	07.93-	07.78-	07.57-	07.28-	06.84-	06.06-	04.33-	2000	00.001	0.051	0.008
0.548	20	05.53-	04.97-	04.35-	03.67-	02.91-	02.02-	00.95-	00.39	02.24	05.34	2000	00.016	0.046	0.013
0.548	25	03.12-	01.71-	00.42-	00.82	02.06	03.36	04.78	06.44	08.58	11.93	2000	00.070	0.042	0.020
0.548	30	00.93-	00.84	02.36	03.76	05.12	06.50	07.99	09.71	11.89	15.28	2000	00.138	0.038	0.030
0.548	35	01.01	02.76	04.27	05.66	07.01	08.39	09.88	11.59	13.77	17.16	2000	00.189	0.033	0.042
0.548	40	02.67	04.20	05.57	06.87	08.15	09.48	10.93	12.61	14.76	18.13	2000	00.205	0.029	0.054
0.548	45	03.97	05.22	06.40	07.57	08.75	10.00	11.38	13.01	15.12	18.45	2000	00.187	0.025	0.062
0.548	50	04.74	05.75	06.75	07.77	08.84	10.00	11.30	12.87	14.92	18.20	2000	00.148	0.021	0.063
0.548	55	04.68	05.53	06.40	07.30	08.28	09.36	10.59	12.10	14.10	17.33	2000	00.104	0.018	0.054
0.548	60	03.31	04.10	04.92	05.79	06.73	07.78	08.99	10.46	12.44	15.66	2000	00.066	0.017	0.037
0.548	65	00.20-	00.76	01.72	02.71	03.75	04.89	06.18	07.72	09.76	13.03	2000	00.038	0.018	0.017
0.548	70	07.55-	05.43-	03.72-	02.21-	00.77-	00.68	02.22	03.97	06.18	09.60	2000	00.020	0.020	0.004
0.548	75	09.67-	08.05-	06.62-	05.28-	03.97-	02.62-	01.15-	00.54	02.71	06.09	2000	00.011	0.024	0.003
0.548	80	03.42-	03.20-	02.93-	02.61-	02.21-	01.71-	01.06-	00.15-	01.24	03.85	2000	00.006	0.029	0.013
0.548	85	00.92-	00.83-	00.73-	00.60-	00.44-	00.22-	00.10	00.57	01.39	03.19	2000	00.005	0.033	0.027
0.548	90	00.00	00.06	00.14	00.24	00.36	00.53	00.78	01.15	01.82	03.37	2000	00.004	0.033	0.033

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.564	00	99.99-	07.80-	04.28-	01.94-	00.02-	01.74	03.50	05.42	07.76	11.29	2000	00.087	0.058	0.000
0.564	05	15.60-	07.33-	04.19-	01.98-	00.13-	01.59	03.33	05.23	07.55	11.06	2000	00.070	0.049	0.001
0.564	10	11.33-	08.15-	05.97-	04.19-	02.58-	01.02-	00.60	02.42	04.69	08.15	2000	00.032	0.044	0.003
0.564	15	08.22-	08.00-	07.73-	07.41-	07.02-	06.53-	05.88-	04.97-	03.59-	00.99-	2000	00.003	0.040	0.006
0.564	20	05.57-	05.23-	04.84-	04.38-	03.83-	03.17-	02.34-	01.22-	00.39	03.26	2000	00.007	0.036	0.010
0.564	25	03.20-	01.99-	00.85-	00.29	01.45	02.69	04.06	05.67	07.77	11.10	2000	00.046	0.033	0.016
0.564	30	01.07-	00.58	02.02	03.37	04.69	06.05	07.52	09.22	11.39	14.77	2000	00.098	0.030	0.024
0.564	35	00.80	02.49	03.96	05.32	06.66	08.02	09.50	11.21	13.38	16.77	2000	00.140	0.027	0.033
0.564	40	02.35	03.86	05.22	06.51	07.79	09.11	10.56	12.24	14.39	17.76	2000	00.155	0.024	0.041
0.564	45	03.48	04.74	05.94	07.11	08.30	09.55	10.94	12.57	14.68	18.02	2000	00.144	0.021	0.047
0.564	50	04.00	05.05	06.08	07.12	08.21	09.38	10.70	12.28	14.34	17.63	2000	00.115	0.019	0.047
0.564	55	03.60	04.51	05.42	06.37	07.38	08.49	09.75	11.28	13.30	16.55	2000	00.082	0.017	0.039
0.564	60	01.79	02.67	03.58	04.52	05.52	06.62	07.87	09.39	11.41	14.66	2000	00.052	0.017	0.025
0.564	65	02.31-	01.13-	00.00	01.12	02.28	03.50	04.86	06.48	08.57	11.89	2000	00.030	0.018	0.011
0.564	70	10.50-	07.57-	05.49-	03.77-	02.19-	00.65-	00.96	02.77	05.02	08.48	2000	00.016	0.021	0.002
0.564	75	08.42-	07.38-	06.35-	05.31-	04.23-	03.06-	01.74-	00.17-	01.90	05.19	2000	00.009	0.025	0.004
0.564	80	03.05-	02.87-	02.67-	02.41-	02.10-	01.69-	01.14-	00.36-	00.87	03.29	2000	00.005	0.029	0.015
0.564	85	00.85-	00.78-	00.69-	00.58-	00.44-	00.25-	00.02	00.44	01.16	02.82	2000	00.004	0.033	0.027
0.564	90	00.00	00.05	00.12	00.20	00.31	00.46	00.68	01.01	01.62	03.04	2000	00.004	0.033	0.033
0.580	00	99.99-	07.21-	03.69-	01.35-	00.57	02.33	04.09	06.01	08.35	11.87	2000	00.086	0.051	0.000
0.580	05	15.34-	06.72-	03.55-	01.33-	00.53	02.25	03.99	05.89	08.22	11.73	2000	00.070	0.043	0.001
0.580	10	11.17-	07.54-	05.22-	03.36-	01.71-	00.11-	01.53	03.37	05.65	09.12	2000	00.034	0.038	0.003
0.580	15	08.12-	07.71-	07.25-	06.72-	06.10-	05.36-	04.44-	03.24-	01.53-	01.42	2000	00.005	0.035	0.005
0.580	20	05.52-	05.32-	05.08-	04.80-	04.45-	04.00-	03.40-	02.56-	01.25-	01.26	2000	00.004	0.032	0.009
0.580	25	03.19-	02.17-	01.16-	00.13-	00.94	02.11	03.42	04.98	07.04	10.33	2000	00.033	0.029	0.014
0.580	30	01.11-	00.40	01.77	03.06	04.34	05.67	07.11	08.79	10.94	14.31	2000	00.077	0.027	0.021
0.580	35	00.68	02.30	03.73	05.06	06.37	07.73	09.19	10.89	13.05	16.43	2000	00.114	0.024	0.028
0.580	40	02.13	03.62	04.97	06.25	07.52	08.84	10.28	11.95	14.10	17.47	2000	00.130	0.022	0.035
0.580	45	03.12	04.40	05.61	06.78	07.98	09.24	10.63	12.27	14.38	17.72	2000	00.122	0.019	0.040
0.580	50	03.44	04.54	05.60	06.67	07.78	08.97	10.31	11.90	13.97	17.27	2000	00.099	0.018	0.039
0.580	55	02.79	03.77	04.74	05.74	06.79	07.93	09.23	10.78	12.82	16.09	2000	00.071	0.017	0.032
0.580	60	00.66	01.67	02.67	03.68	04.75	05.91	07.21	08.77	10.82	14.11	2000	00.046	0.017	0.020
0.580	65	03.88-	02.43-	01.11-	00.15	01.40	02.71	04.14	05.81	07.95	11.31	2000	00.027	0.019	0.008
0.580	70	12.18-	08.62-	06.32-	04.47-	02.82-	01.23-	00.41	02.24	04.52	07.99	2000	00.015	0.021	0.001
0.580	75	07.55-	06.74-	05.90-	05.02-	04.07-	03.01-	01.79-	00.31-	01.68	04.90	2000	00.008	0.025	0.004
0.580	80	02.80-	02.64-	02.45-	02.22-	01.93-	01.56-	01.05-	00.31-	00.86	03.20	2000	00.005	0.029	0.015
0.580	85	00.80-	00.73-	00.65-	00.54-	00.41-	00.22-	00.04	00.45	01.16	02.78	2000	00.004	0.033	0.027
0.580	90	00.00	00.05	00.12	00.20	00.31	00.46	00.67	01.00	01.60	03.01	2000	00.004	0.032	0.032

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.596	00	99.99-	07.00-	03.47-	01.13-	00.79	02.55	04.31	06.23	08.57	12.09	2000	00.085	0.047	0.000
0.596	05	14.97-	06.42-	03.25-	01.03-	00.82	02.54	04.28	06.18	08.51	12.02	2000	00.070	0.040	0.001
0.596	10	10.88-	07.12-	04.76-	02.88-	01.22-	00.39	02.04	03.88	06.16	09.63	2000	00.036	0.035	0.003
0.596	15	07.88-	07.33-	06.74-	06.07-	05.32-	04.45-	03.40-	02.07-	00.23-	02.86	2000	00.006	0.032	0.005
0.596	20	05.32-	05.21-	05.08-	04.91-	04.70-	04.42-	04.04-	03.46-	02.49-	00.46-	2000	00.002	0.029	0.009
0.596	25	03.04-	02.18-	01.31-	00.39-	00.59	01.67	02.92	04.42	06.42	09.66	2000	00.026	0.027	0.013
0.596	30	01.01-	00.37	01.64	02.87	04.10	05.39	06.81	08.46	10.60	13.95	2000	00.066	0.025	0.020
0.596	35	00.73	02.26	03.64	04.94	06.22	07.56	09.01	10.69	12.84	16.21	2000	00.101	0.022	0.026
0.596	40	02.09	03.56	04.89	06.15	07.42	08.73	10.16	11.83	13.98	17.34	2000	00.118	0.020	0.033
0.596	45	02.97	04.27	05.49	06.67	07.88	09.14	10.54	12.18	14.30	17.64	2000	00.114	0.018	0.036
0.596	50	03.14	04.29	05.39	06.49	07.63	08.84	10.19	11.80	13.88	17.20	2000	00.094	0.017	0.035
0.596	55	02.29	03.36	04.40	05.45	06.55	07.73	09.06	10.64	12.70	16.00	2000	00.069	0.016	0.027
0.596	60	00.09-	01.07	02.18	03.28	04.42	05.64	06.99	08.60	10.69	14.00	2000	00.045	0.017	0.016
0.596	65	05.00-	03.22-	01.69-	00.29-	01.07	02.46	03.95	05.67	07.85	11.24	2000	00.027	0.019	0.006
0.596	70	12.81-	08.86-	06.44-	04.54-	02.85-	01.24-	00.42	02.26	04.55	08.02	2000	00.015	0.022	0.001
0.596	75	06.96-	06.22-	05.44-	04.61-	03.70-	02.69-	01.51-	00.05-	01.90	05.10	2000	00.008	0.025	0.005
0.596	80	02.63-	02.46-	02.27-	02.03-	01.74-	01.35-	00.84-	00.09-	01.10	03.46	2000	00.005	0.029	0.016
0.596	85	00.77-	00.70-	00.61-	00.49-	00.35-	00.15-	00.13	00.56	01.31	03.00	2000	00.004	0.032	0.027
0.596	90	00.00	00.06	00.13	00.22	00.34	00.50	00.72	01.08	01.72	03.20	2000	00.004	0.032	0.032
0.612	00	99.99-	07.12-	03.59-	01.25-	00.67	02.43	04.19	06.11	08.45	11.97	2000	00.082	0.047	0.000
0.612	05	14.50-	06.38-	03.25-	01.05-	00.80	02.52	04.25	06.15	08.47	11.98	2000	00.068	0.039	0.001
0.612	10	10.47-	06.86-	04.54-	02.69-	01.04-	00.56	02.20	04.03	06.31	09.78	2000	00.036	0.035	0.003
0.612	15	07.50-	06.90-	06.25-	05.53-	04.73-	03.82-	02.72-	01.35-	00.52	03.65	2000	00.007	0.031	0.006
0.612	20	04.97-	04.91-	04.84-	04.74-	04.62-	04.46-	04.23-	03.87-	03.23-	01.73-	2000	00.001	0.029	0.009
0.612	25	02.71-	02.01-	01.26-	00.46-	00.42	01.41	02.57	04.01	05.94	09.12	2000	00.022	0.026	0.014
0.612	30	00.72-	00.52	01.69	02.84	04.02	05.26	06.64	08.27	10.37	13.70	2000	00.060	0.024	0.020
0.612	35	00.97	02.42	03.73	04.99	06.24	07.55	08.98	10.65	12.79	16.15	2000	00.096	0.022	0.027
0.612	40	02.28	03.71	05.02	06.27	07.52	08.82	10.25	11.92	14.05	17.41	2000	00.115	0.019	0.033
0.612	45	03.06	04.39	05.62	06.82	08.03	09.30	10.70	12.35	14.47	17.81	2000	00.114	0.018	0.036
0.612	50	03.12	04.33	05.48	06.62	07.79	09.02	10.40	12.02	14.12	17.44	2000	00.096	0.016	0.033
0.612	55	02.11	03.28	04.41	05.53	06.68	07.91	09.27	10.88	12.97	16.29	2000	00.072	0.016	0.026
0.612	60	00.49-	00.85	02.10	03.31	04.52	05.80	07.21	08.86	10.98	14.33	2000	00.048	0.016	0.015
0.612	65	05.71-	03.52-	01.77-	00.23-	01.23	02.69	04.23	05.99	08.21	11.63	2000	00.029	0.018	0.005
0.612	70	12.87-	08.57-	06.06-	04.11-	02.41-	00.78-	00.89	02.75	05.04	08.52	2000	00.017	0.021	0.001
0.612	75	06.53-	05.76-	04.96-	04.11-	03.19-	02.15-	00.96-	00.51	02.48	05.69	2000	00.010	0.025	0.005
0.612	80	02.49-	02.31-	02.09-	01.83-	01.50-	01.08-	00.51-	00.29	01.56	04.01	2000	00.006	0.028	0.016
0.612	85	00.74-	00.66-	00.55-	00.42-	00.25-	00.03-	00.29	00.78	01.61	03.43	2000	00.005	0.031	0.026
0.612	90	00.00	00.07	00.15	00.26	00.39	00.58	00.84	01.25	01.96	03.59	2000	00.004	0.031	0.031

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.644	00	99.99-	08.44-	04.91-	02.57-	00.65-	01.11	02.87	04.79	07.13	10.65	2000	00.072	0.056	0.000
0.644	05	13.39-	07.06-	04.14-	02.02-	00.22-	01.47	03.19	05.07	07.38	10.89	2000	00.061	0.045	0.002
0.644	10	09.35-	06.69-	04.73-	03.06-	01.52-	00.01-	01.58	03.37	05.62	09.06	2000	00.035	0.039	0.005
0.644	15	06.36-	05.87-	05.33-	04.73-	04.03-	03.21-	02.21-	00.93-	00.86	03.89	2000	00.009	0.035	0.008
0.644	20	03.81-	03.79-	03.77-	03.74-	03.71-	03.66-	03.58-	03.47-	03.24-	02.62-	2000	00.000	0.031	0.013
0.644	25	01.53-	01.09-	00.59-	00.03-	00.63	01.41	02.36	03.60	05.34	08.34	2000	00.019	0.028	0.020
0.644	30	00.47	01.39	02.33	03.30	04.[illegible]	05.44	06.72	08.25	10.28	13.54	2000	00.059	0.025	0.028
0.644	35	02.15	03.37	04.53	05.68	06.85	08.09	09.46	11.08	13.19	16.51	2000	00.105	0.022	0.036
0.644	40	03.41	04.76	06.01	07.22	08.44	09.72	11.12	12.77	14.90	18.25	2000	00.137	0.019	0.042
0.644	45	04.12	05.49	06.76	07.98	09.21	10.50	11.92	13.57	15.70	19.05	2000	00.145	0.017	0.043
0.644	50	04.01	05.40	06.69	07.92	09.16	10.45	11.87	13.53	15.66	19.02	2000	00.129	0.015	0.038
0.644	55	02.73	04.23	05.59	06.87	08.15	09.47	10.91	12.59	14.74	18.11	2000	00.101	0.014	0.027
0.644	60	00.26-	01.64	03.23	04.67	06.07	07.48	08.99	10.72	12.91	16.31	2000	00.069	0.015	0.014
0.644	65	06.09-	02.70-	00.46-	01.36	02.99	04.57	06.20	08.03	10.30	13.76	2000	00.043	0.017	0.004
0.644	70	12.44-	06.90-	04.11-	02.04-	00.26-	01.41	03.11	04.99	07.29	10.79	2000	00.025	0.019	0.001
0.644	75	05.90-	04.80-	03.73-	02.65-	01.54-	00.34-	01.00	02.59	04.67	07.97	2000	00.015	0.022	0.006
0.644	80	02.27-	01.97-	01.63-	01.22-	00.73-	00.13-	00.64	01.68	03.23	06.01	2000	00.009	0.025	0.015
0.644	85	00.71-	00.56-	00.39-	00.17-	00.10	00.46	00.94	01.64	02.77	05.05	2000	00.007	0.028	0.023
0.644	90	00.00	00.12	00.26	00.43	00.66	00.95	01.36	01.97	02.97	05.07	2000	00.007	0.027	0.027
0.660	00	99.99-	09.75-	06.23-	03.89-	01.97-	00.21-	01.55	03.47	05.81	09.34	2000	00.065	0.068	0.000
0.660	05	12.84-	07.78-	05.08-	03.06-	01.30-	00.36	02.05	03.91	06.22	09.71	2000	00.056	0.054	0.003
0.660	10	08.73-	06.74-	05.09-	03.62-	02.20-	00.78-	00.74	02.48	04.69	08.10	2000	00.032	0.046	0.006
0.660	15	05.69-	05.32-	04.90-	04.41-	03.84-	03.15-	02.28-	01.14-	00.52	03.42	2000	00.009	0.040	0.011
0.660	20	03.08-	03.07-	03.06-	03.04-	03.02-	03.00-	02.96-	02.89-	02.77-	02.41-	2000	00.000	0.036	0.018
0.660	25	00.75-	00.41-	00.03-	00.42	00.96	01.61	02.44	03.54	05.14	08.00	2000	00.019	0.031	0.026
0.660	30	01.31	02.08	02.89	03.74	04.67	05.71	06.91	08.38	10.35	13.56	2000	00.065	0.027	0.037
0.660	35	03.04	04.14	05.22	06.29	07.41	08.60	09.94	11.53	13.61	16.91	2000	00.122	0.023	0.047
0.660	40	04.36	05.65	06.87	08.05	09.25	10.52	11.91	13.55	15.66	19.00	2000	00.168	0.020	0.054
0.660	45	05.10	06.50	07.79	09.03	10.27	11.57	12.99	14.65	16.79	20.15	2000	00.185	0.017	0.054
0.660	50	04.98	06.49	07.85	09.14	10.42	11.75	13.20	14.87	17.03	20.39	2000	00.171	0.014	0.045
0.660	55	03.60	05.33	06.82	08.21	09.55	10.93	12.41	14.12	16.30	19.69	2000	00.136	0.013	0.031
0.660	60	00.38	02.70	04.51	06.08	07.56	09.04	10.60	12.36	14.59	18.02	2000	00.095	0.014	0.015
0.660	65	05.78-	01.54-	00.97	02.91	04.61	06.24	07.91	09.76	12.05	15.53	2000	00.060	0.015	0.004
0.660	70	12.15-	05.47-	02.50-	00.36-	01.46	03.15	04.87	06.76	09.08	12.58	2000	00.035	0.018	0.001
0.660	75	05.63-	04.14-	02.79-	01.51-	00.24-	01.08	02.52	04.19	06.34	09.71	2000	00.020	0.020	0.006
0.660	80	02.16-	01.74-	01.26-	00.71-	00.07-	00.69	01.62	02.84	04.57	07.54	2000	00.013	0.023	0.014
0.660	85	00.69-	00.48-	00.23-	00.08	00.45	00.93	01.55	02.43	03.79	06.35	2000	00.010	0.025	0.021
0.660	90	00.00	00.17	00.37	00.62	00.94	01.34	01.88	02.65	03.88	06.28	2000	00.009	0.024	0.024

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.676	00	99.99-	11.49-	07.96-	05.62-	03.70-	01.94-	00.18-	01.74	04.08	07.60	2000	00.059	0.093	0.000
0.676	05	12.39-	08.65-	06.29-	04.42-	02.76-	01.16-	00.50	02.33	04.61	08.09	2000	00.051	0.072	0.004
0.676	10	08.17-	06.83-	05.58-	04.37-	03.15-	01.87-	00.47-	01.18	03.31	06.65	2000	00.030	0.060	0.009
0.676	15	05.04-	04.80-	04.51-	04.17-	03.75-	03.22-	02.53-	01.58-	00.14-	02.52	2000	00.009	0.052	0.016
0.676	20	02.35-	02.35-	02.34-	02.33-	02.32-	02.31-	02.29-	02.26-	02.19-	01.99-	2000	00.000	0.045	0.026
0.676	25	00.06	00.30	00.58	00.93	01.34	01.86	02.55	03.49	04.92	07.57	2000	00.020	0.039	0.039
0.676	30	02.20	02.83	03.51	04.25	05.07	06.01	07.12	08.51	10.40	13.54	2000	00.076	0.033	0.054
0.676	35	04.04	05.02	05.99	06.99	08.05	09.19	10.49	12.04	14.08	17.36	2000	00.156	0.027	0.068
0.676	40	05.46	06.70	07.88	09.03	10.21	11.46	12.84	14.46	16.57	19.90	2000	00.228	0.022	0.077
0.676	45	06.30	07.74	09.06	10.31	11.57	12.88	14.31	15.97	18.11	21.47	2000	00.263	0.017	0.074
0.676	50	06.24	07.90	09.34	10.69	12.02	13.38	14.85	16.55	18.72	22.10	2000	00.250	0.014	0.060
0.676	55	04.80	06.81	08.47	09.95	11.37	12.80	14.32	16.06	18.27	21.68	2000	00.203	0.013	0.038
0.676	60	01.35	04.19	06.24	07.95	09.51	11.05	12.65	14.45	16.70	20.15	2000	00.144	0.013	0.017
0.676	65	05.25-	00.10	02.86	04.91	06.68	08.34	10.04	11.91	14.22	17.71	2000	00.091	0.014	0.004
0.676	70	11.94-	03.64-	00.49-	01.72	03.57	05.29	07.02	08.92	11.25	14.76	2000	00.053	0.016	0.001
0.676	75	05.44-	03.29-	01.57-	00.04-	01.41	02.86	04.40	06.16	08.37	11.79	2000	00.030	0.018	0.005
0.676	80	02.11-	01.46-	00.76-	00.01	00.85	01.81	02.94	04.34	06.25	09.41	2000	00.019	0.021	0.013
0.676	85	00.69-	00.36-	00.02	00.46	00.99	01.63	02.45	03.54	05.13	07.97	2000	00.014	0.023	0.019
0.676	90	00.00	00.26	00.57	00.93	01.38	01.93	02.65	03.63	05.11	07.81	2000	00.012	0.022	0.022
0.692	00	99.99-	13.02-	09.50-	07.16-	05.24-	03.48-	01.72-	00.20	02.54	06.06	2000	00.065	0.144	0.000
0.692	05	12.12-	09.36-	07.35-	05.66-	04.11-	02.58-	00.98-	00.81	03.06	06.51	2000	00.054	0.109	0.007
0.692	10	07.77-	06.92-	06.04-	05.12-	04.14-	03.05-	01.81-	00.30-	01.70	04.94	2000	00.030	0.091	0.015
0.692	15	04.55-	04.40-	04.22-	04.01-	03.73-	03.38-	02.89-	02.19-	01.05-	01.23	2000	00.008	0.077	0.027
0.692	20	01.77-	01.76-	01.76-	01.76-	01.75-	01.74-	01.73-	01.72-	01.68-	01.58-	2000	00.000	0.066	0.044
0.692	25	00.74	00.90	01.10	01.34	01.65	02.04	02.57	03.33	04.54	06.92	2000	00.023	0.055	0.066
0.692	30	02.98	03.48	04.03	04.65	05.35	06.18	07.19	08.48	10.27	13.32	2000	00.099	0.046	0.091
0.692	35	04.92	05.79	06.67	07.59	08.58	09.66	10.91	12.42	14.42	17.67	2000	00.223	0.036	0.113
0.692	40	06.47	07.66	08.80	09.92	11.08	12.31	13.67	15.28	17.38	20.70	2000	00.350	0.028	0.124
0.692	45	07.44	08.92	10.25	11.53	12.79	14.11	15.55	17.22	19.36	22.73	2000	00.423	0.021	0.116
0.692	50	07.46	09.26	10.80	12.21	13.58	14.97	16.47	18.18	20.37	23.77	2000	00.415	0.016	0.089
0.692	55	05.93	08.27	10.10	11.68	13.17	14.65	16.21	17.98	20.20	23.64	2000	00.343	0.014	0.053
0.692	60	02.14	05.66	07.95	09.79	11.43	13.02	14.66	16.49	18.76	22.23	2000	00.245	0.013	0.022
0.692	65	05.00-	01.73	04.71	06.86	08.67	10.37	12.09	13.98	16.29	19.80	2000	00.155	0.015	0.005
0.692	70	12.18-	01.88-	01.41	03.67	05.55	07.28	09.03	10.94	13.27	16.78	2000	00.089	0.017	0.001
0.692	75	05.74-	02.59-	00.44-	01.34	02.94	04.50	06.12	07.94	10.20	13.66	2000	00.050	0.019	0.005
0.692	80	02.36-	01.37-	00.38-	00.63	01.69	02.84	04.13	05.69	07.74	11.02	2000	00.030	0.022	0.013
0.692	85	00.73-	00.26-	00.26	00.85	01.53	02.33	03.31	04.57	06.34	09.36	2000	00.021	0.024	0.021
0.692	90	00.00	00.36	00.78	01.26	01.83	02.51	03.38	04.52	06.17	09.06	2000	00.019	0.024	0.024

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.700	00	99.99-	13.21-	09.69-	07.35-	05.43-	03.67-	01.91-	00.01	02.35	05.87	2000	00.082	0.190	0.000
0.700	05	12.07-	09.48-	07.55-	05.90-	04.37-	02.86-	01.28-	00.51	02.75	06.19	2000	00.065	0.144	0.009
0.700	10	07.66-	06.94-	06.18-	05.36-	04.47-	03.46-	02.29-	00.85-	01.10	04.29	2000	00.033	0.119	0.020
0.700	15	04.39-	04.28-	04.14-	03.97-	03.76-	03.48-	03.08-	02.49-	01.52-	00.54	2000	00.009	0.101	0.037
0.700	20	01.57-	01.57-	01.57-	01.56-	01.56-	01.55-	01.55-	01.54-	01.51-	01.44-	2000	00.000	0.085	0.059
0.700	25	00.97	01.11	01.27	01.47	01.72	02.05	02.51	03.17	04.26	06.47	2000	00.025	0.071	0.089
0.700	30	03.25	03.69	04.18	04.74	05.39	06.17	07.12	08.35	10.09	13.08	2000	00.118	0.058	0.123
0.700	35	05.23	06.04	06.88	07.76	08.71	09.77	10.99	12.48	14.46	17.69	2000	00.281	0.046	0.152
0.700	40	06.81	07.97	09.09	10.20	11.35	12.57	13.92	15.53	17.62	20.94	2000	00.458	0.035	0.166
0.700	45	07.79	09.29	10.63	11.91	13.19	14.51	15.95	17.62	19.77	23.14	2000	00.566	0.025	0.153
0.700	50	07.77	09.65	11.24	12.68	14.06	15.47	16.98	18.71	20.90	24.30	2000	00.562	0.019	0.115
0.700	55	06.11	08.63	10.54	12.17	13.69	15.19	16.77	18.55	20.79	24.22	2000	00.467	0.016	0.066
0.700	60	02.06	05.96	08.37	10.26	11.94	13.55	15.21	17.05	19.34	22.81	2000	00.334	0.016	0.026
0.700	65	05.44-	02.09	05.16	07.35	09.18	10.89	12.62	14.51	16.84	20.34	2000	00.210	0.018	0.005
0.700	70	12.72-	01.48-	01.86	04.13	06.02	07.76	09.51	11.42	13.75	17.27	2000	00.120	0.020	0.001
0.700	75	06.32-	02.65-	00.32-	01.54	03.20	04.80	06.45	08.28	10.56	14.03	2000	00.066	0.024	0.006
0.700	80	02.70-	01.58-	00.50-	00.58	01.71	02.91	04.25	05.85	07.93	11.23	2000	00.039	0.027	0.015
0.700	85	00.78-	00.29-	00.25	00.86	01.56	02.38	03.37	04.65	06.44	09.48	2000	00.027	0.030	0.025
0.700	90	00.00	00.36	00.78	01.27	01.84	02.53	03.40	04.55	06.20	09.10	2000	00.024	0.031	0.031
0.708	00	99.99-	12.83-	09.30-	06.96-	05.04-	03.28-	01.52-	00.40	02.74	06.26	2000	00.122	0.261	0.000
0.708	05	12.10-	09.39-	07.40-	05.72-	04.17-	02.65-	01.06-	00.74	02.98	06.43	2000	00.095	0.197	0.012
0.708	10	07.63-	06.95-	06.23-	05.44-	04.58-	03.61-	02.46-	01.04-	00.88	04.05	2000	00.043	0.162	0.028
0.708	15	04.31-	04.23-	04.12-	03.98-	03.81-	03.58-	03.25-	02.76-	01.91-	00.06-	2000	00.009	0.137	0.051
0.708	20	01.46-	01.46-	01.46-	01.46-	01.45-	01.45-	01.44-	01.44-	01.42-	01.37-	2000	00.000	0.116	0.083
0.708	25	01.11	01.22	01.35	01.51	01.72	01.99	02.38	02.95	03.91	05.94	2000	00.028	0.096	0.124
0.708	30	03.41	03.79	04.23	04.74	05.34	06.05	06.95	08.12	09.80	12.73	2000	00.144	0.078	0.172
0.708	35	05.40	06.16	06.95	07.80	08.72	09.75	10.94	12.41	14.37	17.58	2000	00.366	0.061	0.212
0.708	40	06.96	08.10	09.20	10.30	11.43	12.65	14.00	15.60	17.68	20.99	2000	00.618	0.046	0.229
0.708	45	07.89	09.40	10.75	12.04	13.32	14.64	16.09	17.77	19.92	23.28	2000	00.781	0.034	0.209
0.708	50	07.72	09.68	11.30	12.77	14.17	15.59	17.11	18.85	21.05	24.45	2000	00.785	0.026	0.153
0.708	55	05.80	08.50	10.49	12.17	13.71	15.23	16.83	18.62	20.87	24.31	2000	00.656	0.022	0.084
0.708	60	01.40	05.71	08.23	10.18	11.89	13.52	15.19	17.04	19.33	22.81	2000	00.469	0.022	0.031
0.708	65	06.50-	01.87	05.03	07.24	09.09	10.81	12.55	14.45	16.77	20.28	2000	00.293	0.025	0.006
0.708	70	13.60-	01.67-	01.70	03.98	05.88	07.62	09.37	11.28	13.62	17.13	2000	00.166	0.029	0.001
0.708	75	07.18-	03.16-	00.72-	01.19	02.88	04.49	06.16	08.00	10.29	13.77	2000	00.089	0.034	0.007
0.708	80	03.11-	02.00-	00.92-	00.17	01.29	02.49	03.83	05.43	07.51	10.81	2000	00.051	0.040	0.019
0.708	85	00.84-	00.40-	00.10	00.66	01.31	02.08	03.04	04.27	06.01	09.00	2000	00.035	0.045	0.037
0.708	90	00.00	00.32	00.69	01.12	01.64	02.27	03.08	04.15	05.74	08.56	2000	00.031	0.046	0.046

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.716	00	99.99-	11.98-	08.46-	06.12-	04.20-	02.44-	00.68-	01.24	03.58	07.10	2000	00.208	0.364	0.000
0.716	05	12.20-	09.08-	06.93-	05.16-	03.56-	02.00-	00.38-	01.43	03.69	07.15	2000	00.157	0.275	0.017
0.716	10	07.67-	06.94-	06.17-	05.35-	04.45-	03.44-	02.26-	00.81-	01.14	04.33	2000	00.064	0.227	0.039
0.716	15	04.33-	04.25-	04.16-	04.04-	03.88-	03.68-	03.39-	02.94-	02.17-	00.44-	2000	00.011	0.192	0.071
0.716	20	01.45-	01.45-	01.45-	01.44-	01.44-	01.44-	01.44-	01.43-	01.42-	01.38-	2000	00.000	0.162	0.116
0.716	25	01.13	01.22	01.33	01.46	01.63	01.86	02.18	02.66	03.50	05.33	2000	00.032	0.135	0.175
0.716	30	03.44	03.78	04.17	04.63	05.17	05.84	06.67	07.79	09.41	12.27	2000	00.179	0.110	0.242
0.716	35	05.40	06.12	06.88	07.69	08.58	09.58	10.75	12.20	14.14	17.33	2000	00.484	0.086	0.299
0.716	40	06.91	08.02	09.11	10.20	11.32	12.52	13.87	15.46	17.54	20.85	2000	00.849	0.065	0.321
0.716	45	07.69	09.21	10.58	11.87	13.15	14.48	15.93	17.61	19.76	23.13	2000	01.093	0.049	0.289
0.716	50	07.27	09.30	10.96	12.45	13.87	15.30	16.83	18.57	20.78	24.19	2000	01.111	0.039	0.207
0.716	55	05.00	07.88	09.94	11.66	13.23	14.76	16.37	18.17	20.43	23.88	2000	00.930	0.035	0.110
0.716	60	00.19	04.92	07.54	09.54	11.27	12.92	14.60	16.46	18.76	22.25	2000	00.663	0.036	0.037
0.716	65	08.12-	01.10	04.32	06.56	08.43	10.15	11.89	13.80	16.13	19.64	2000	00.412	0.040	0.006
0.716	70	14.47-	02.40-	00.97	03.26	05.15	06.89	08.64	10.55	12.89	16.41	2000	00.230	0.047	0.002
0.716	75	08.01-	04.00-	01.57-	00.34	02.03	03.65	05.31	07.15	09.44	12.92	2000	00.121	0.056	0.009
0.716	80	03.44-	02.47-	01.50-	00.50-	00.55	01.69	02.98	04.53	06.57	09.85	2000	00.068	0.066	0.030
0.716	85	00.87-	00.52-	00.12-	00.34	00.90	01.57	02.41	03.54	05.17	08.04	2000	00.046	0.075	0.061
0.716	90	00.00	00.25	00.54	00.89	01.31	01.84	02.54	03.49	04.93	07.60	2000	00.041	0.078	0.078
0.724	00	99.99-	10.90-	07.38-	05.04-	03.12-	01.36-	00.40	02.32	04.66	08.18	2000	00.361	0.494	0.000
0.724	05	12.36-	08.59-	06.23-	04.35-	02.69-	01.09-	00.57	02.40	04.68	08.16	2000	00.270	0.375	0.022
0.724	10	07.79-	06.90-	06.00-	05.07-	04.07-	02.97-	01.72-	00.20-	01.82	05.06	2000	00.105	0.310	0.052
0.724	15	04.42-	04.35-	04.25-	04.13-	03.97-	03.77-	03.47-	03.02-	02.24-	00.49-	2000	00.015	0.262	0.095
0.724	20	01.53-	01.53-	01.53-	01.53-	01.53-	01.53-	01.53-	01.52-	01.51-	01.49-	2000	00.000	0.222	0.156
0.724	25	01.05	01.12	01.20	01.31	01.45	01.64	01.90	02.31	03.03	04.67	2000	00.034	0.186	0.237
0.724	30	03.33	03.64	03.99	04.41	04.91	05.52	06.31	07.36	08.92	11.72	2000	00.215	0.153	0.329
0.724	35	05.25	05.93	06.65	07.44	08.30	09.28	10.43	11.85	13.77	16.94	2000	00.622	0.121	0.406
0.724	40	06.64	07.74	08.81	09.89	11.00	12.20	13.54	15.12	17.20	20.51	2000	01.128	0.094	0.434
0.724	45	07.22	08.75	10.13	11.43	12.71	14.05	15.50	17.18	19.33	22.70	2000	01.478	0.073	0.387
0.724	50	06.49	08.58	10.28	11.79	13.22	14.66	16.20	17.95	20.16	23.57	2000	01.513	0.061	0.272
0.724	55	03.85	06.89	09.02	10.77	12.36	13.91	15.53	17.34	19.60	23.06	2000	01.269	0.057	0.139
0.724	60	01.35-	03.78	06.48	08.52	10.27	11.93	13.63	15.49	17.80	21.29	2000	00.900	0.060	0.044
0.724	65	10.01-	00.03-	03.25	05.50	07.38	09.11	10.85	12.76	15.09	18.61	2000	00.554	0.069	0.007
0.724	70	15.08-	03.48-	00.13-	02.15	04.04	05.79	07.54	09.45	11.78	15.30	2000	00.304	0.081	0.003
0.724	75	08.54-	04.94-	02.62-	00.77-	00.89	02.48	04.12	05.96	08.23	11.71	2000	00.158	0.097	0.014
0.724	80	03.60-	02.84-	02.04-	01.19-	00.27-	00.76	01.96	03.42	05.39	08.60	2000	00.087	0.115	0.050
0.724	85	00.89-	00.63-	00.33-	00.04	00.48	01.03	01.74	02.72	04.19	06.89	2000	00.059	0.130	0.106
0.724	90	00.00	00.18	00.40	00.67	01.00	01.42	01.99	02.79	04.06	06.52	2000	00.052	0.135	0.135

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN / HORIZONTAL RETURN											OIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.728	00	99.99-	10.32-	06.80-	04.46-	02.54-	00.78-	00.98	02.90	05.24	08.76	2000	00.463	0.554	0.000
0.728	05	12.43-	08.29-	05.81-	03.88-	02.19-	00.57-	01.10	02.95	05.24	08.72	2000	00.345	0.421	0.024
0.728	10	07.86-	06.86-	05.87-	04.86-	03.80-	02.64-	01.34-	00.22	02.27	05.55	2000	00.133	0.349	0.057
0.728	15	04.50-	04.41-	04.31-	04.18-	04.01-	03.79-	03.48-	03.00-	02.18-	00.37-	2000	00.018	0.296	0.105
0.728	20	01.61-	01.61-	01.61-	01.61-	01.60-	01.60-	01.60-	01.60-	01.59-	01.57-	2000	00.000	0.252	0.174
0.728	25	00.97	01.03	01.11	01.20	01.33	01.50	01.74	02.12	02.78	04.33	2000	00.034	0.212	0.265
0.728	30	03.23	03.52	03.86	04.25	04.73	05.32	06.08	07.11	08.64	11.41	2000	00.227	0.174	0.367
0.728	35	05.11	05.77	06.48	07.25	08.11	09.07	10.21	11.62	13.54	16.70	2000	00.677	0.140	0.454
0.728	40	06.43	07.52	08.59	09.66	10.77	11.96	13.30	14.88	16.96	20.26	2000	01.248	0.110	0.485
0.728	45	06.89	08.43	09.61	11.11	12.40	13.74	15.19	16.87	19.03	22.40	2000	01.649	0.088	0.430
0.728	50	06.01	08.12	09.83	11.35	12.79	14.24	15.78	17.53	19.74	23.16	2000	01.693	0.075	0.299
0.728	55	03.18	06.31	08.46	10.23	11.83	13.39	15.01	16.82	19.08	22.54	2000	01.420	0.072	0.150
0.728	60	02.20-	03.12	05.87	07.92	09.68	11.35	13.05	14.92	17.23	20.72	2000	01.005	0.077	0.046
0.728	65	10.98-	00.66-	02.63	04.89	06.77	08.50	10.25	12.16	14.49	18.00	2000	00.615	0.088	0.007
0.728	70	15.24-	04.08-	00.75-	01.53	03.41	05.16	06.90	08.81	11.15	14.66	2000	00.336	0.103	0.003
0.728	75	08.68-	05.36-	03.15-	01.34-	00.28	01.85	03.48	05.31	07.58	11.04	2000	00.173	0.124	0.017
0.728	80	03.63-	02.97-	02.26-	01.49-	00.64-	00.33	01.46	02.87	04.79	07.95	2000	00.095	0.147	0.064
0.728	85	00.89-	00.67-	00.40-	00.09-	00.31	00.80	01.45	02.36	03.74	06.34	2000	00.065	0.167	0.136
0.728	90	00.00	00.16	00.35	00.58	00.87	01.25	01.76	02.50	03.68	06.02	2000	00.058	0.173	0.173
0.732	00	99.99-	09.72-	06.20-	03.86-	01.94-	00.18-	01.58	03.50	05.84	09.36	2000	00.570	0.594	0.000
0.732	05	12.49-	07.94-	05.36-	03.38-	01.66-	00.02-	01.66	03.52	05.82	09.30	2000	00.426	0.453	0.026
0.732	10	07.93-	06.79-	05.70-	04.60-	03.47-	02.26-	00.91-	00.69	02.78	06.09	2000	00.163	0.377	0.061
0.732	15	04.58-	04.48-	04.37-	04.23-	04.04-	03.80-	03.46-	02.94-	02.06-	00.16-	2000	00.022	0.320	0.112
0.732	20	01.70-	01.70-	01.70-	01.70-	01.69-	01.69-	01.69-	01.69-	01.68-	01.66-	2000	00.000	0.273	0.185
0.732	25	00.86	00.92	00.99	01.08	01.19	01.34	01.56	01.91	02.53	03.98	2000	00.033	0.231	0.282
0.732	30	03.10	03.38	03.69	04.07	04.53	05.10	05.83	06.83	08.33	11.06	2000	00.229	0.192	0.392
0.732	35	04.93	05.58	06.27	07.03	07.87	08.82	09.95	11.35	13.26	16.41	2000	00.703	0.156	0.484
0.732	40	06.17	07.25	08.31	09.38	10.49	11.67	13.01	14.59	16.67	19.97	2000	01.317	0.125	0.516
0.732	45	06.50	08.05	09.43	10.74	12.03	13.37	14.82	16.50	18.66	22.03	2000	01.755	0.102	0.455
0.732	50	05.46	07.61	09.33	10.86	12.31	13.76	15.30	17.05	19.27	22.69	2000	01.808	0.089	0.314
0.732	55	02.46	05.67	07.85	09.63	11.24	12.81	14.43	16.25	18.52	21.98	2000	01.517	0.088	0.154
0.732	60	03.10-	02.43	05.21	07.28	09.05	10.73	12.43	14.30	16.61	20.11	2000	01.072	0.095	0.046
0.732	65	11.94-	01.33-	01.98	04.24	06.12	07.86	09.61	11.52	13.85	17.36	2000	00.654	0.108	0.007
0.732	70	15.33-	04.69-	01.39-	00.88	02.76	04.50	06.25	08.15	10.49	14.00	2000	00.355	0.127	0.004
0.732	75	08.74-	05.74-	03.64-	01.90-	00.31-	01.24	02.85	04.66	06.92	10.37	2000	00.182	0.152	0.020
0.732	80	03.64-	03.06-	02.43-	01.74-	00.96-	00.06-	01.02	02.37	04.23	07.34	2000	00.100	0.181	0.078
0.732	85	00.89-	00.70-	00.46-	00.18-	00.17	00.61	01.21	02.05	03.35	05.86	2000	00.069	0.205	0.167
0.732	90	00.00	00.14	00.31	00.51	00.77	01.11	01.58	02.26	03.36	05.60	2000	00.062	0.213	0.213

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.736	00	99.99-	09.11-	05.59-	03.25-	01.33-	00.43	02.19	04.11	06.45	09.97	2000	00.668	0.605	0.000
0.736	05	12.51-	07.54-	04.86-	02.84-	01.10-	00.56	02.25	04.11	06.42	09.91	2000	00.500	0.462	0.026
0.736	10	07.99-	06.69-	05.47-	04.28-	03.08-	01.82-	00.42-	01.22	03.34	06.68	2000	00.193	0.386	0.061
0.736	15	04.66-	04.55-	04.42-	04.25-	04.05-	03.77-	03.39-	02.82-	01.86-	00.16	2000	00.025	0.329	0.113
0.736	20	01.80-	01.80-	01.79-	01.79-	01.79-	01.79-	01.79-	01.79-	01.78-	01.76-	2000	00.000	0.282	0.187
0.736	25	00.74	00.79	00.85	00.93	01.03	01.17	01.37	01.69	02.25	03.61	2000	00.030	0.240	0.285
0.736	30	02.94	03.20	03.50	03.86	04.29	04.84	05.55	06.52	07.98	10.67	2000	00.216	0.201	0.395
0.736	35	04.71	05.34	06.02	06.76	07.59	08.53	09.65	11.04	12.93	16.07	2000	00.688	0.165	0.488
0.736	40	05.86	06.93	07.98	09.05	10.15	11.33	12.66	14.25	16.32	19.62	2000	01.312	0.135	0.519
0.736	45	06.06	07.61	09.00	10.31	11.60	12.94	14.39	16.07	18.23	21.60	2000	01.764	0.113	0.455
0.736	50	04.85	07.03	08.77	10.31	11.76	13.22	14.76	16.52	18.74	22.16	2000	01.826	0.102	0.311
0.736	55	01.68	04.98	07.20	09.00	10.62	12.19	13.82	15.64	17.91	21.37	2000	01.534	0.102	0.150
0.736	60	04.06-	01.70	04.52	06.61	08.39	10.07	11.77	13.65	15.96	19.46	2000	01.083	0.111	0.043
0.736	65	12.89-	02.01-	01.31	03.58	05.46	07.20	08.95	10.86	13.19	16.71	2000	00.660	0.127	0.007
0.736	70	15.36-	05.30-	02.02-	00.23	02.11	03.84	05.59	07.49	09.83	13.34	2000	00.358	0.150	0.004
0.736	75	08.75-	06.06-	04.08-	02.41-	00.87-	00.65	02.24	04.04	06.28	09.73	2000	00.184	0.179	0.024
0.736	80	03.62-	03.12-	02.56-	01.93-	01.22-	00.38-	00.64	01.93	03.74	06.79	2000	00.102	0.212	0.092
0.736	85	00.89-	00.72-	00.51-	00.25-	00.06	00.47	01.02	01.80	03.04	05.45	2000	00.072	0.241	0.196
0.736	90	00.00	00.12	00.28	00.46	00.70	01.01	01.44	02.07	03.11	05.26	2000	00.065	0.250	0.250
0.740	00	99.99-	08.50-	04.97-	02.63-	00.71-	01.05	02.81	04.73	07.07	10.59	2000	00.743	0.584	0.000
0.740	05	12.49-	07.10-	04.34-	02.29-	00.52-	01.15	02.85	04.72	07.02	10.52	2000	00.557	0.447	0.025
0.740	10	08.02-	06.54-	05.20-	03.92-	02.65-	01.34-	00.10	01.78	03.92	07.29	2000	00.216	0.374	0.059
0.740	15	04.72-	04.60-	04.45-	04.26-	04.02-	03.71-	03.28-	02.65-	01.60-	00.55	2000	00.028	0.321	0.108
0.740	20	01.90-	01.90-	01.89-	01.89-	01.89-	01.89-	01.89-	01.89-	01.88-	01.86-	2000	00.000	0.276	0.179
0.740	25	00.61	00.65	00.71	00.78	00.87	00.99	01.17	01.45	01.97	02.23	2000	00.025	0.237	0.272
0.740	30	02.76	03.00	03.28	03.62	04.03	04.54	05.22	06.15	07.57	10.22	2000	00.191	0.200	0.377
0.740	35	04.46	05.07	05.73	06.45	07.26	08.19	09.29	10.66	12.55	15.68	2000	00.633	0.167	0.465
0.740	40	05.50	06.56	07.61	08.66	09.76	10.94	12.26	13.84	15.91	19.21	2000	01.231	0.139	0.493
0.740	45	05.56	07.12	08.51	09.82	11.12	12.45	13.91	15.59	17.75	21.13	2000	01.673	0.119	0.429
0.740	50	04.18	06.40	08.16	09.71	11.18	12.64	14.19	15.95	18.17	21.59	2000	01.742	0.111	0.289
0.740	55	00.84	04.25	06.51	08.33	09.96	11.54	13.17	15.00	17.27	20.74	2000	01.467	0.113	0.137
0.740	60	05.09-	00.95	03.82	05.92	07.72	09.40	11.11	12.99	15.30	18.80	2000	01.038	0.124	0.038
0.740	65	13.83-	02.69-	00.64	02.92	04.80	06.54	08.29	10.20	12.53	16.05	2000	00.633	0.142	0.006
0.740	70	15.35-	05.87-	02.63-	00.39-	01.48	03.21	04.95	06.85	09.18	12.70	2000	00.344	0.167	0.005
0.740	75	08.72-	06.31-	04.46-	02.86-	01.36-	00.13	01.69	03.47	05.70	09.13	2000	00.178	0.199	0.027
0.740	80	03.60-	03.15-	02.65-	02.07-	01.41-	00.63-	00.33	01.57	03.32	06.32	2000	00.101	0.236	0.103
0.740	85	00.89-	00.73-	00.54-	00.31-	00.02-	00.36	00.87	01.61	02.79	05.13	2000	00.073	0.268	0.219
0.740	90	00.00	00.11	00.25	00.42	00.64	00.93	01.33	01.92	02.91	04.98	2000	00.066	0.278	0.278

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{v_v}(90)}{\lambda^2}$
0.744	00	99.99-	07.90-	04.38-	02.04-	00.12-	01.64	03.41	05.32	07.66	11.19	2000	00.788	0.539	0.000
0.744	05	12.43-	06.65-	03.82-	01.74-	00.05	01.73	03.43	05.31	07.62	11.12	2000	00.593	0.414	0.024
0.744	10	08.04-	06.36-	04.90-	03.54-	02.21-	00.84-	00.63	02.34	04.51	07.89	2000	00.232	0.348	0.055
0.744	15	04.78-	04.64-	04.46-	04.24-	03.97-	03.62-	03.13-	02.43-	01.29-	00.99	2000	00.031	0.299	0.099
0.744	20	01.99-	01.99-	01.99-	01.99-	01.99-	01.99-	01.99-	01.98-	01.97-	01.95-	2000	00.000	0.259	0.164
0.744	25	00.47	00.50	00.55	00.61	00.69	00.80	00.96	01.21	01.67	02.81	2000	00.020	0.224	0.249
0.744	30	02.56	02.78	03.04	03.35	03.73	04.22	04.85	05.74	07.11	09.69	2000	00.159	0.191	0.344
0.744	35	04.18	04.77	05.40	06.11	06.90	07.80	08.88	10.24	12.11	15.23	2000	00.551	0.162	0.423
0.744	40	05.11	06.16	07.19	08.24	09.33	10.50	11.82	13.40	15.46	18.76	2000	01.098	0.137	0.446
0.744	45	05.02	06.59	07.98	09.30	10.60	11.94	13.39	15.08	17.24	20.62	2000	01.511	0.121	0.385
0.744	50	03.47	05.74	07.53	09.10	10.57	12.04	13.59	15.36	17.58	21.01	2000	01.585	0.115	0.256
0.744	55	00.04-	03.62	05.81	07.65	09.30	10.89	12.53	14.36	16.64	20.11	2000	01.341	0.119	0.118
0.744	60	06.18-	00.20	03.12	05.25	07.05	08.74	10.46	12.34	14.66	18.16	2000	00.952	0.131	0.032
0.744	65	14.72-	03.34-	00.00	02.28	04.17	05.91	07.66	09.57	11.90	15.42	2000	00.583	0.151	0.005
0.744	70	15.31-	06.39-	03.19-	00.97-	00.89	02.62	04.36	06.26	08.59	12.10	2000	00.319	0.177	0.005
0.744	75	08.67-	06.50-	04.77-	03.24-	01.79-	00.33-	01.21	02.97	05.18	08.60	2000	00.168	0.212	0.029
0.744	80	03.57-	03.16-	02.71-	02.18-	01.57-	00.83-	00.08	01.27	02.97	05.92	2000	00.097	0.251	0.110
0.744	85	00.88-	00.74-	00.56-	00.35-	00.08-	00.27	00.75	01.45	02.58	04.85	2000	00.071	0.285	0.233
0.744	90	00.00	00.11	00.23	00.39	00.60	00.87	01.24	01.81	02.75	04.75	2000	00.065	0.295	0.295
0.748	00	99.99-	07.34-	03.82-	01.48-	00.44	02.20	03.96	05.88	08.22	11.75	2000	00.804	0.484	0.000
0.748	05	12.37-	06.22-	03.32-	01.21-	00.59	02.27	03.98	05.87	08.18	11.68	2000	00.607	0.373	0.022
0.748	10	08.04-	06.17-	04.59-	03.15-	01.77-	00.36-	01.14	02.87	05.06	08.47	2000	00.240	0.314	0.049
0.748	15	04.84-	04.67-	04.46-	04.21-	03.90-	03.50-	02.97-	02.19-	00.97-	01.43	2000	00.032	0.271	0.089
0.748	20	02.09-	02.09-	02.09-	02.09-	02.09-	02.08-	02.08-	02.08-	02.07-	02.04-	2000	00.000	0.236	0.146
0.748	25	00.32	00.35	00.39	00.45	00.51	00.61	00.74	00.96	01.36	02.39	2000	00.015	0.205	0.221
0.748	30	02.36	02.55	02.79	03.07	03.42	03.87	04.46	05.30	06.61	09.11	2000	00.127	0.177	0.305
0.748	35	03.89	04.45	05.06	05.74	06.50	07.39	08.45	09.79	11.64	14.73	2000	00.462	0.152	0.373
0.748	40	04.70	05.73	06.76	07.79	08.87	10.04	11.36	12.93	14.99	18.28	2000	00.945	0.132	0.390
0.748	45	04.46	06.04	07.45	08.77	10.07	11.41	12.87	14.56	16.72	20.09	2000	01.320	0.120	0.334
0.748	50	02.76	05.09	06.90	08.49	09.97	11.45	13.01	14.78	17.00	20.43	2000	01.397	0.116	0.218
0.748	55	00.94-	02.78	05.13	07.00	08.66	10.26	11.91	13.75	16.03	19.50	2000	01.190	0.121	0.098
0.748	60	07.31-	00.52-	02.46	04.61	06.43	08.13	09.85	11.73	14.05	17.56	2000	00.849	0.135	0.025
0.748	65	15.55-	03.94-	00.59-	01.70	03.59	05.33	07.08	08.99	11.32	14.84	2000	00.523	0.155	0.004
0.748	70	15.26-	06.86-	03.70-	01.49-	00.37	02.09	03.82	05.72	08.05	11.56	2000	00.289	0.182	0.005
0.748	75	08.61-	06.65-	05.02-	03.56-	02.15-	00.73-	00.79	02.53	04.72	08.13	2000	00.154	0.217	0.030
0.748	80	03.54-	03.17-	02.75-	02.26-	01.69-	01.00-	00.13-	01.02	02.67	05.57	2000	00.090	0.257	0.114
0.748	85	00.88-	00.74-	00.58-	00.38-	00.13-	00.20	00.65	01.31	02.40	04.60	2000	00.067	0.291	0.238
0.748	90	00.00	00.10	00.22	00.37	00.56	00.81	01.16	01.70	02.60	04.54	2000	00.062	0.301	0.301

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.752	00	99.99-	06.83-	03.31-	00.97-	00.95	02.71	04.47	06.39	08.73	12.25	2000	00.799	0.428	0.000
0.752	05	12.33-	05.81-	02.87-	00.74-	01.07	02.77	04.48	06.37	08.68	12.19	2000	00.605	0.330	0.019
0.752	10	08.05-	05.98-	04.29-	02.79-	01.36-	00.08	01.61	03.36	05.57	08.98	2000	00.241	0.279	0.044
0.752	15	04.89-	04.69-	04.46-	04.18-	03.83-	03.39-	02.80-	01.96-	00.65-	01.85	2000	00.032	0.242	0.079
0.752	20	02.19-	02.19-	02.19-	02.19-	02.18-	02.18-	02.18-	02.17-	02.17-	02.14-	2000	00.000	0.212	0.128
0.752	25	00.17	00.20	00.23	00.28	00.33	00.41	00.53	00.71	01.06	01.96	2000	00.011	0.186	0.193
0.752	30	02.14	02.32	02.53	02.78	03.10	03.51	04.05	04.84	06.08	08.49	2000	00.098	0.162	0.266
0.752	35	03.59	04.12	04.71	05.36	06.10	06.96	08.00	09.32	11.14	14.22	2000	00.379	0.141	0.323
0.752	40	04.29	05.31	06.32	07.35	08.42	09.58	10.89	12.45	14.51	17.80	2000	00.799	0.125	0.336
0.752	45	03.92	05.51	06.92	08.25	09.55	10.90	12.36	14.05	16.21	19.59	2000	01.134	0.115	0.285
0.752	50	02.06	04.46	06.30	07.90	09.40	10.88	12.45	14.22	16.45	19.89	2000	01.212	0.114	0.183
0.752	55	01.82-	02.09	04.50	06.39	08.07	09.68	11.34	13.18	15.46	18.94	2000	01.039	0.120	0.079
0.752	60	08.45-	01.19-	01.86	04.02	05.85	07.56	09.29	11.18	13.50	17.01	2000	00.745	0.134	0.019
0.752	65	16.27-	04.48-	01.12-	01.17	03.06	04.80	06.55	08.46	10.80	14.32	2000	00.462	0.154	0.004
0.752	70	15.21-	07.26-	04.14-	01.95-	00.10-	01.61	03.35	05.24	07.57	11.08	2000	00.258	0.181	0.005
0.752	75	08.56-	06.77-	05.24-	03.83-	02.47-	01.08-	00.42	02.13	04.32	07.71	2000	00.139	0.216	0.030
0.752	80	03.51-	03.17-	02.79-	02.33-	01.80-	01.14-	00.32-	00.79	02.40	05.25	2000	00.083	0.256	0.114
0.752	85	00.87-	00.75-	00.60-	00.41-	00.18-	00.13	00.56	01.18	02.22	04.36	2000	00.061	0.290	0.237
0.752	90	00.00	00.09	00.20	00.34	00.52	00.75	01.09	01.59	02.45	04.32	2000	00.057	0.299	0.299

ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.756	00	99.99-	06.38-	02.86-	00.52-	01.40	03.16	04.92	06.84	09.18	12.70	2000	00.780	0.377	0.000
0.756	05	12.30-	05.46-	02.47-	00.32-	01.50	03.20	04.92	06.81	09.13	12.63	2000	00.592	0.291	0.017
0.756	10	08.07-	05.81-	04.03-	02.47-	01.00-	00.47	02.03	03.79	06.01	09.44	2000	00.237	0.247	0.039
0.756	15	04.95-	04.73-	04.47-	04.16-	03.77-	03.28-	02.64-	01.74-	00.36-	02.23	2000	00.032	0.216	0.069
0.756	20	02.29-	02.29-	02.29-	02.29-	02.29-	02.28-	02.28-	02.28-	02.27-	02.24-	2000	00.000	0.190	0.112
0.756	25	00.02	00.05	00.07	00.11	00.16	00.22	00.32	00.47	00.77	01.56	2000	00.008	0.168	0.168
0.756	30	01.93	02.09	02.27	02.50	02.78	03.15	03.65	04.38	05.54	07.86	2000	00.074	0.148	0.230
0.756	35	03.30	03.81	04.37	04.99	05.71	06.54	07.56	08.85	10.65	13.71	2000	00.309	0.130	0.279
0.756	40	03.90	04.91	05.90	06.91	07.98	09.13	10.44	12.00	14.05	17.33	2000	00.672	0.117	0.288
0.756	45	03.41	05.01	06.43	07.76	09.07	10.41	11.88	13.57	15.73	19.11	2000	00.970	0.110	0.241
0.756	50	01.41	03.87	05.75	07.36	08.87	10.36	11.94	13.72	15.95	19.39	2000	01.046	0.110	0.152
0.756	55	02.66-	01.45	03.91	05.84	07.53	09.15	10.82	12.66	14.95	18.43	2000	00.903	0.118	0.064
0.756	60	09.57-	01.79-	01.31	03.50	05.34	07.05	08.78	10.68	13.00	16.51	2000	00.651	0.131	0.015
0.756	65	16.86-	04.95-	01.59-	00.70	02.59	04.33	06.08	07.99	10.33	13.85	2000	00.406	0.151	0.003
0.756	70	15.17-	07.62-	04.54-	02.36-	00.52-	01.19	02.92	04.81	07.13	10.64	2000	00.228	0.178	0.005
0.756	75	08.51-	06.86-	05.42-	04.07-	02.75-	01.39-	00.08	01.78	03.95	07.33	2000	00.124	0.212	0.030
0.756	80	03.48-	03.17-	02.82-	02.40-	01.89-	01.28-	00.49-	00.57	02.14	04.94	2000	00.074	0.250	0.112
0.756	85	00.87-	00.75-	00.62-	00.44-	00.23-	00.06	00.46	01.06	02.05	04.12	2000	00.055	0.283	0.232
0.756	90	00.00	00.08	00.19	00.31	00.48	00.70	01.01	01.49	02.30	04.11	2000	00.051	0.292	0.292

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.760	00	99.99-	05.98-	02.46-	00.12-	01.80	03.56	05.32	07.24	09.58	13.10	2000	00.754	0.332	0.000
0.760	05	12.31-	05.14-	02.11-	00.05	01.88	03.58	05.31	07.20	09.52	13.03	2000	00.573	0.258	0.015
0.760	10	08.11-	05.66-	03.79-	02.18-	00.68-	00.82	02.39	04.17	06.40	09.83	2000	00.231	0.220	0.034
0.760	15	05.02-	04.78-	04.49-	04.14-	03.71-	03.18-	02.49-	01.54-	00.10-	02.57	2000	00.032	0.192	0.061
0.760	20	02.40-	02.40-	02.40-	02.40-	02.39-	02.39-	02.39-	02.38-	02.37-	02.34-	2000	00.000	0.170	0.098
0.760	25	00.13-	00.11-	00.09-	00.06-	00.02-	00.04	00.12	00.25	00.50	01.18	2000	00.006	0.151	0.147
0.760	30	01.73	01.86	02.02	02.22	02.48	02.81	03.26	03.92	05.01	07.22	2000	00.056	0.134	0.200
0.760	35	03.03	03.50	04.04	04.64	05.33	06.14	07.13	08.40	10.18	13.21	2000	00.252	0.120	0.241
0.760	40	03.54	04.52	05.50	06.51	07.56	08.71	10.00	11.56	13.61	16.88	2000	00.567	0.110	0.248
0.760	45	02.93	04.55	05.97	07.30	08.61	09.96	11.43	13.12	15.28	18.66	2000	00.831	0.105	0.205
0.760	50	00.80	03.33	05.24	06.87	08.39	09.89	11.47	13.25	15.49	18.93	2000	00.905	0.106	0.127
0.760	55	03.44-	00.87	03.39	05.34	07.05	08.68	10.35	12.20	14.49	17.97	2000	00.786	0.114	0.051
0.760	60	10.65-	02.34-	00.82	03.03	04.88	06.60	08.33	10.23	12.56	16.07	2000	00.570	0.127	0.011
0.760	65	17.31-	05.38-	02.01-	00.28	02.17	03.91	05.66	07.57	09.91	13.42	2000	00.357	0.146	0.003
0.760	70	15.12-	07.93-	04.90-	02.73-	00.90-	00.80	02.53	04.42	06.74	10.25	2000	00.202	0.172	0.005
0.760	75	08.46-	06.94-	05.58-	04.28-	03.00-	01.67-	00.23-	01.45	03.60	06.97	2000	00.110	0.205	0.029
0.760	80	03.46-	03.17-	02.84-	02.45-	01.98-	01.40-	00.65-	00.37	01.89	04.65	2000	00.066	0.242	0.109
0.760	85	00.87-	00.76-	00.63-	00.47-	00.27-	00.00-	00.37	00.94	01.88	03.88	2000	00.049	0.274	0.224
0.760	90	00.00	00.08	00.17	00.29	00.44	00.65	00.94	01.39	02.16	03.89	2000	00.045	0.282	0.282

0.764	00	99.99-	05.63-	02.11-	00.23	02.15	03.91	05.67	07.59	09.93	13.45	2000	00.724	0.294	0.000
0.764	05	12.34-	04.87-	01.80-	00.37	02.21	03.92	05.64	07.54	09.86	13.37	2000	00.551	0.229	0.013
0.764	10	08.17-	05.54-	03.59-	01.93-	00.39-	01.12	02.71	04.50	06.74	10.18	2000	00.224	0.196	0.030
0.764	15	05.11-	04.83-	04.51-	04.13-	03.67-	03.10-	02.36-	01.36-	00.14	02.88	2000	00.031	0.172	0.053
0.764	20	02.51-	02.51-	02.51-	02.51-	02.51-	02.51-	02.50-	02.50-	02.48-	02.45-	2000	00.000	0.154	0.086
0.764	25	00.28-	00.27-	00.25-	00.22-	00.19-	00.14-	00.07-	00.04	00.26	00.86	2000	00.004	0.137	0.129
0.764	30	01.52	01.64	01.78	01.96	02.18	02.48	02.89	03.49	04.49	06.59	2000	00.043	0.123	0.175
0.764	35	02.76	03.21	03.72	04.30	04.96	05.75	06.72	07.96	09.72	12.72	2000	00.208	0.111	0.210
0.764	40	03.19	04.16	05.13	06.12	07.17	08.31	09.60	11.15	13.19	16.46	2000	00.482	0.103	0.214
0.764	45	02.49	04.11	05.54	06.88	08.19	09.55	11.01	12.71	14.87	18.25	2000	00.717	0.099	0.176
0.764	50	00.24	02.84	04.77	06.42	07.95	09.46	11.04	12.83	15.07	18.51	2000	00.787	0.101	0.107
0.764	55	04.18-	00.34	02.91	04.88	06.61	08.25	09.92	11.78	14.08	17.56	2000	00.687	0.109	0.042
0.764	60	11.69-	02.82-	00.37	02.60	04.46	06.19	07.92	09.83	12.15	15.67	2000	00.501	0.122	0.008
0.764	65	17.63-	05.76-	02.39-	00.11-	01.78	03.53	05.28	07.19	09.52	13.04	2000	00.315	0.141	0.002
0.764	70	15.08-	08.21-	05.22-	03.07-	01.25-	00.45	02.17	04.06	06.38	09.88	2000	00.179	0.166	0.005
0.764	75	08.41-	07.01-	05.72-	04.48-	03.23-	01.94-	00.51-	01.15	03.28	06.64	2000	00.098	0.197	0.028
0.764	80	03.44-	03.18-	02.87-	02.50-	02.06-	01.51-	00.79-	00.19	01.66	04.37	2000	00.059	0.233	0.105
0.764	85	00.86-	00.77-	00.65-	00.50-	00.31-	00.06-	00.29	00.82	01.72	03.65	2000	00.044	0.263	0.216
0.764	90	00.00	00.07	00.16	00.27	00.41	00.60	00.87	01.29	02.02	03.68	2000	00.040	0.271	0.271

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.772	00	99.99-	05.05-	01.53-	00.81	02.73	04.49	06.26	08.17	10.51	14.04-	2000	00.666	0.237	0.000
0.772	05	12.44-	04.42-	01.29-	00.91	02.75	04.47	06.20	08.10	10.42	13.93	2000	00.509	0.186	0.011
0.772	10	08.31-	05.34-	03.25-	01.51-	00.07	01.62	03.23	05.04	07.30	10.75	2000	00.209	0.160	0.024
0.772	15	05.29-	04.96-	04.58-	04.14-	03.61-	02.96-	02.14-	01.05-	00.55	03.40	2000	00.030	0.142	0.042
0.772	20	02.75-	02.75-	02.75-	02.75-	02.75-	02.74-	02.74-	02.73-	02.72-	02.67-	2000	00.000	0.127	0.068
0.772	25	00.59-	00.57-	00.56-	00.54-	00.51-	00.47-	00.42-	00.33-	00.15-	00.34	2000	00.003	0.115	0.101
0.772	30	01.14	01.23	01.33	01.47	01.64	01.87	02.20	02.69	03.54	05.39	2000	00.025	0.105	0.136
0.772	35	02.27	02.68	03.14	03.67	04.29	05.04	05.96	07.16	08.87	11.83	2000	00.145	0.096	0.162
0.772	40	02.56	03.50	04.45	05.43	06.46	07.59	08.86	10.40	12.44	15.70	2000	00.357	0.091	0.164
0.772	45	01.70	03.34	04.79	06.13	07.45	08.81	10.28	11.97	14.14	17.52	2000	00.547	0.089	0.132
0.772	50	00.75-	01.97	03.96	05.64	07.18	08.71	10.30	12.09	14.34	17.79	2000	00.610	0.093	0.078
0.772	55	05.50-	00.58-	02.09	04.10	05.85	07.50	09.19	11.05	13.35	16.84	2000	00.538	0.101	0.028
0.772	60	13.64-	03.66-	00.39-	01.87	03.74	05.48	07.22	09.12	11.46	14.97	2000	00.394	0.113	0.005
0.772	65	17.96-	06.40-	03.05-	00.77-	01.12	02.86	04.61	06.52	08.85	12.37	2000	00.249	0.130	0.002
0.772	70	14.99-	08.70-	05.79-	03.67-	01.87-	00.18-	01.54	03.42	05.74	09.24	2000	00.142	0.153	0.005
0.772	75	08.33-	07.11-	05.95-	04.81-	03.64-	02.40-	01.02-	00.60	02.70	06.03	2000	00.078	0.182	0.027
0.772	80	03.40-	03.18-	02.91-	02.59-	02.20-	01.70-	01.05-	00.15-	01.24	03.85	2000	00.047	0.214	0.098
0.772	85	00.86-	00.77-	00.67-	00.55-	00.38-	00.16-	00.15	00.62	01.43	03.23	2000	00.035	0.242	0.199
0.772	90	00.00	00.06	00.14	00.23	00.35	00.52	00.76	01.13	01.78	03.31	2000	00.032	0.249	0.249
0.780	00	99.99-	04.58-	01.06-	01.28	03.20	04.96	06.72	08.64	10.98	14.51	2000	00.616	0.196	0.000
0.780	05	12.57-	04.06-	00.89-	01.33	03.18	04.90	06.64	08.54	10.87	14.38	2000	00.471	0.155	0.009
0.780	10	08.48-	05.18-	02.97-	01.17-	00.45	02.02	03.65	05.47	07.74	11.20	2000	00.195	0.135	0.019
0.780	15	05.49-	05.10-	04.67-	04.16-	03.56-	02.85-	01.95-	00.78-	00.90	03.83	2000	00.029	0.120	0.034
0.780	20	02.99-	02.99-	02.99-	02.99-	02.99-	02.98-	02.98-	02.97-	02.95-	02.89-	2000	00.000	0.109	0.055
0.780	25	00.88-	00.87-	00.85-	00.83-	00.81-	00.77-	00.72-	00.63-	00.47-	00.00	2000	00.002	0.100	0.081
0.780	30	00.78	00.84	00.92	01.03	01.16	01.34	01.59	01.99	02.68	04.28	2000	00.015	0.092	0.110
0.780	35	01.82	02.19	02.62	03.12	03.70	04.40	05.28	06.44	08.10	11.02	2000	00.106	0.086	0.130
0.780	40	02.01	02.93	03.86	04.82	05.83	06.95	08.22	09.75	11.78	15.03	2000	00.276	0.082	0.130
0.780	45	01.03	02.68	04.13	05.49	06.81	08.17	09.64	11.34	13.51	16.89	2000	00.433	0.082	0.104
0.780	50	01.59-	01.23	03.27	04.97	06.54	08.07	09.67	11.47	13.72	17.17	2000	00.489	0.086	0.059
0.780	55	06.65-	01.35-	01.40	03.44	05.21	06.87	08.57	10.44	12.75	16.24	2000	00.434	0.093	0.020
0.780	60	15.37-	04.35-	01.02-	01.25	03.14	04.88	06.63	08.54	10.87	14.39	2000	00.320	0.105	0.003
0.780	65	18.01-	06.93-	03.60-	01.33-	00.56	02.30	04.05	05.95	08.29	11.80	2000	00.203	0.121	0.002
0.780	70	14.91-	09.10-	06.26-	04.18-	02.39-	00.71-	00.99	02.87	05.18	08.68	2000	00.116	0.142	0.005
0.780	75	08.25-	07.18-	06.13-	05.07-	03.97-	02.78-	01.45-	00.13	02.20	05.50	2000	00.064	0.169	0.025
0.780	80	03.37-	03.17-	02.94-	02.66-	02.30-	01.86-	01.26-	00.42-	00.89	03.40	2000	00.038	0.199	0.091
0.780	85	00.85-	00.78-	00.69-	00.58-	00.44-	00.24-	00.04	00.46	01.20	02.88	2000	00.028	0.224	0.184
0.780	90	00.00	00.05	00.12	00.20	00.31	00.45	00.67	01.00	01.59	03.00	2000	00.025	0.230	0.230

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.788	00	99.99-	04.20-	00.68-	01.66	03.58	05.34	07.10	09.02	11.36	14.88	2000	00.575	0.168	0.000
0.788	05	12.71-	03.77-	00.57-	01.66	03.52	05.25	06.99	08.89	11.22	14.73	2000	00.441	0.134	0.007
0.788	10	08.64-	05.06-	02.75-	00.90-	00.75	02.34	03.98	05.81	08.09	11.56	2000	00.184	0.117	0.016
0.788	15	05.69-	05.24-	04.74-	04.18-	03.52-	02.75-	01.79-	00.56-	01.19	04.19	2000	00.027	0.105	0.028
0.788	20	03.22-	03.22-	03.22-	03.22-	03.21-	03.21-	03.20-	03.19-	03.17-	03.10-	2000	00.000	0.096	0.046
0.788	25	01.15-	01.14-	01.12-	01.10-	01.07-	01.03-	00.98-	00.88-	00.70-	00.19-	2000	00.002	0.088	0.068
0.788	30	00.45	00.50	00.56	00.63	00.73	00.87	01.07	01.38	01.94	03.28	2000	00.009	0.082	0.091
0.788	35	01.42	01.77	02.16	02.62	03.17	03.84	04.68	05.79	07.42	10.29	2000	00.080	0.078	0.108
0.788	40	01.53	02.43	03.34	04.28	05.29	06.39	07.65	09.17	11.19	14.44	2000	00.221	0.075	0.107
0.788	45	00.44	02.11	03.57	04.93	06.26	07.62	09.09	10.80	12.97	16.35	2000	00.354	0.076	0.084
0.788	50	02.32-	00.60	02.68	04.41	05.98	07.52	09.13	10.94	13.19	16.65	2000	00.405	0.080	0.047
0.788	55	07.66-	02.00-	00.82	02.89	04.67	06.35	08.05	09.93	12.24	15.73	2000	00.362	0.087	0.015
0.788	60	16.91-	04.91-	01.55-	00.74	02.63	04.38	06.13	08.04	10.38	13.89	2000	00.268	0.098	0.002
0.788	65	17.93-	07.37-	04.06-	01.80-	00.08	01.82	03.57	05.48	07.81	11.32	2000	00.170	0.113	0.002
0.788	70	14.83-	09.42-	06.66-	04.60-	02.83-	01.16-	00.53	02.41	04.71	08.21	2000	00.097	0.133	0.004
0.788	75	08.18-	07.22-	06.26-	05.27-	04.23-	03.10-	01.81-	00.26-	01.77	05.04	2000	00.053	0.158	0.024
0.788	80	03.34-	03.16-	02.95-	02.70-	02.38-	01.97-	01.42-	00.64-	00.60	03.02	2000	00.032	0.186	0.086
0.788	85	00.85-	00.78-	00.71-	00.61-	00.48-	00.30-	00.05-	00.34	01.02	02.60	2000	00.023	0.210	0.172
0.788	90	00.00	00.05	00.11	00.18	00.27	00.41	00.60	00.89	01.44	02.75	2000	00.021	0.215	0.215
0.804	00	99.99-	03.65-	00.13-	02.21	04.13	05.89	07.65	09.57	11.91	15.43	2000	00.516	0.133	0.000
0.804	05	12.95-	03.35-	00.10-	02.15	04.02	05.75	07.49	09.40	11.73	15.24	2000	00.398	0.107	0.005
0.804	10	08.92-	04.86-	02.41-	00.49-	01.20	02.81	04.48	06.32	08.61	12.09	2000	00.169	0.095	0.012
0.804	15	06.02-	05.46-	04.86-	04.19-	03.43-	02.56-	01.50-	00.17-	01.67	04.76	2000	00.026	0.086	0.022
0.804	20	03.61-	03.61-	03.60-	03.60-	03.59-	03.59-	03.58-	03.56-	03.52-	03.42-	2000	00.000	0.080	0.035
0.804	25	01.61-	01.59-	01.57-	01.54-	01.50-	01.44-	01.36-	01.22-	00.97-	00.28-	2000	00.002	0.074	0.051
0.804	30	00.09-	00.07-	00.03-	00.01	00.06	00.13	00.24	00.42	00.75	01.62	2000	00.004	0.070	0.069
0.804	35	00.77	01.07	01.41	01.82	02.30	02.91	03.68	04.72	06.26	09.04	2000	00.051	0.067	0.080
0.804	40	00.75	01.61	02.49	03.41	04.39	05.47	06.72	08.23	10.23	13.47	2000	00.155	0.066	0.079
0.804	45	00.50-	01.19	02.66	04.03	05.37	06.74	08.21	09.92	12.09	15.48	2000	00.259	0.068	0.060
0.804	50	03.51-	00.40-	01.75	03.51	05.11	06.67	08.29	10.11	12.37	15.83	2000	00.302	0.072	0.032
0.804	55	09.35-	03.01-	00.08-	02.04	03.84	05.53	07.25	09.13	11.45	14.95	2000	00.274	0.079	0.009
0.804	60	19.18-	05.75-	02.34-	00.03-	01.87	03.62	05.37	07.28	09.62	13.14	2000	00.204	0.089	0.001
0.804	65	17.58-	07.99-	04.75-	02.50-	00.63-	01.10	02.84	04.75	07.08	10.59	2000	00.130	0.102	0.002
0.804	70	14.66-	09.87-	07.23-	05.23-	03.49-	01.85-	00.16-	01.70	04.00	07.49	2000	00.074	0.120	0.004
0.804	75	08.04-	07.24-	06.41-	05.53-	04.59-	03.53-	02.32-	00.84-	01.15	04.37	2000	00.041	0.143	0.022
0.804	80	03.28-	03.14-	02.96-	02.74-	02.47-	02.12-	01.63-	00.93-	00.20	02.48	2000	00.024	0.167	0.079
0.804	85	00.84-	00.79-	00.72-	00.64-	00.53-	00.38-	00.16-	00.18	00.78	02.21	2000	00.018	0.189	0.155
0.804	90	00.00	00.04	00.09	00.15	00.23	00.34	00.51	00.76	01.24	02.41	2000	00.016	0.193	0.193

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN $f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.820	00	99.99-	03.32-	00.20	02.54	04.46	06.22	07.98	09.90	12.24	15.76	2000	00.479	0.114	0.000
0.820	05	13.08-	03.08-	00.20	02.45	04.33	06.06	07.81	09.71	12.04	15.56	2000	00.371	0.093	0.005
0.820	10	09.10-	04.71-	02.17-	00.21-	01.50	03.13	04.81	06.66	08.96	12.44	2000	00.160	0.083	0.010
0.820	15	06.23-	05.59-	04.89-	04.14-	03.31-	02.35-	01.23-	00.17	02.07	05.22	2000	00.026	0.076	0.018
0.820	20	03.87-	03.86-	03.86-	03.85-	03.85-	03.83-	03.82-	03.79-	03.73-	03.57-	2000	00.000	0.071	0.029
0.820	25	01.92-	01.89-	01.86-	01.82-	01.76-	01.69-	01.57-	01.39-	01.05-	00.17-	2000	00.002	0.066	0.043
0.820	30	00.47-	00.45-	00.44-	00.42-	00.39-	00.35-	00.30-	00.21-	00.03-	00.45	2000	00.001	0.063	0.057
0.820	35	00.32	00.58	00.88	01.24	01.67	02.22	02.92	03.90	05.36	08.05	2000	00.036	0.061	0.066
0.820	40	00.19	01.02	01.87	02.76	03.73	04.79	06.02	07.51	09.51	12.74	2000	00.120	0.061	0.064
0.820	45	01.19-	00.52	02.01	03.39	04.73	06.10	07.58	09.29	11.47	14.86	2000	00.209	0.063	0.048
0.820	50	04.40-	01.11-	01.09	02.89	04.51	06.08	07.71	09.53	11.80	15.26	2000	00.248	0.067	0.024
0.820	55	10.67-	03.69-	00.68-	01.47	03.29	05.00	06.72	08.61	10.93	14.43	2000	00.227	0.074	0.006
0.820	60	20.29-	06.25-	02.83-	00.52-	01.38	03.13	04.89	06.80	09.14	12.66	2000	00.171	0.083	0.001
0.820	65	17.23-	08.35-	05.16-	02.93-	01.07-	00.66	02.39	04.30	06.62	10.14	2000	00.110	0.096	0.002
0.820	70	14.47-	10.09-	07.55-	05.60-	03.88-	02.25-	00.58-	01.28	03.57	07.05	2000	00.063	0.112	0.004
0.820	75	07.90-	07.19-	06.44-	05.63-	04.75-	03.75-	02.59-	01.15-	00.79	03.98	2000	00.035	0.133	0.022
0.820	80	03.23-	03.10-	02.94-	02.74-	02.49-	02.17-	01.72-	01.07-	00.01	02.20	2000	00.020	0.156	0.074
0.820	85	00.83-	00.78-	00.72-	00.64-	00.54-	00.41-	00.21-	00.10	00.66	02.01	2000	00.015	0.175	0.145
0.820	90	00.00	00.04	00.08	00.14	00.21	00.31	00.46	00.70	01.14	02.24	2000	00.013	0.179	0.179

0.836	00	99.99-	03.16-	00.36	02.70	04.62	06.38	08.14	10.06	12.40	15.92	2000	00.456	0.105	0.000
0.836	05	13.09-	02.93-	00.36	02.61	04.49	06.23	07.97	09.88	12.21	15.72	2000	00.355	0.086	0.004
0.836	10	09.15-	04.58-	02.00-	00.02-	01.71	03.35	05.03	06.88	09.18	12.67	2000	00.156	0.076	0.009
0.836	15	06.31-	05.59-	04.83-	04.01-	03.12-	02.12-	00.95-	00.50	02.44	05.63	2000	00.027	0.070	0.016
0.836	20	03.98-	03.97-	03.96-	03.95-	03.94-	03.92-	03.89-	03.84-	03.75-	03.47-	2000	00.000	0.066	0.026
0.836	25	02.07-	02.03-	01.99-	01.94-	01.87-	01.78-	01.65-	01.43-	01.02-	00.00	2000	00.003	0.062	0.039
0.836	30	00.66-	00.66-	00.65-	00.64-	00.63-	00.61-	00.59-	00.55-	00.47-	00.23-	2000	00.001	0.059	0.051
0.836	35	00.06	00.28	00.55	00.87	01.26	01.75	02.40	03.31	04.70	07.30	2000	00.028	0.058	0.059
0.836	40	00.15-	00.64	01.46	02.33	03.28	04.33	05.54	07.02	09.00	12.21	2000	00.101	0.058	0.056
0.836	45	01.65-	00.08	01.58	02.96	04.31	05.69	07.17	08.88	11.06	14.45	2000	00.182	0.060	0.041
0.836	50	05.04-	01.59-	00.68	02.51	04.14	05.73	07.36	09.19	11.46	14.93	2000	00.221	0.064	0.020
0.836	55	11.66-	04.10-	01.03-	01.16	02.99	04.70	06.43	08.33	10.65	14.16	2000	00.205	0.071	0.005
0.836	60	20.59-	06.49-	03.06-	00.75-	01.15	02.90	04.66	06.57	08.91	12.43	2000	00.155	0.080	0.001
0.836	65	16.94-	08.49-	05.33-	03.11-	01.26-	00.46	02.20	04.10	06.43	09.94	2000	00.100	0.092	0.002
0.836	70	14.21-	10.10-	07.64-	05.71-	04.02-	02.40-	00.74-	01.11	03.40	06.88	2000	00.058	0.107	0.004
0.836	75	07.74-	07.07-	06.36-	05.59-	04.74-	03.78-	02.64-	01.23-	00.68	03.84	2000	00.032	0.127	0.021
0.836	80	03.17-	03.04-	02.89-	02.70-	02.46-	02.15-	01.72-	01.08-	00.03-	02.12	2000	00.019	0.149	0.072
0.836	85	00.82-	00.77-	00.71-	00.64-	00.54-	00.41-	00.21-	00.09	00.64	01.96	2000	00.014	0.167	0.138
0.836	90	00.00	00.03	00.08	00.13	00.21	00.31	00.45	00.69	01.12	02.20	2000	00.013	0.170	0.170

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.868	00	99.99-	03.29-	00.23	02.57	04.49	06.25	08.01	09.93	12.27	15.79	2000	00.431	0.102	0.000
0.868	05	12.76-	02.92-	00.34	02.59	04.46	06.20	07.94	09.84	12.18	15.69	2000	00.340	0.083	0.004
0.868	10	08.84-	04.35-	01.78-	00.19	01.91	03.54	05.22	07.08	09.37	12.86	2000	00.157	0.074	0.010
0.868	15	06.02-	05.21-	04.37-	03.48-	02.53-	01.47-	00.25-	01.24	03.23	06.45	2000	00.031	0.068	0.017
0.868	20	03.71-	03.69-	03.67-	03.63-	03.59-	03.53-	03.44-	03.30-	03.02-	02.29-	2000	00.001	0.063	0.027
0.868	25	01.84-	01.80-	01.76-	01.70-	01.63-	01.53-	01.38-	01.14-	00.71-	00.39	2000	00.003	0.060	0.039
0.868	30	00.50-	00.50-	00.50-	00.50-	00.50-	00.50-	00.49-	00.49-	00.48-	00.44-	2000	00.000	0.057	0.051
0.868	35	00.11	00.28	00.49	00.74	01.06	01.46	02.01	02.79	04.02	06.44	2000	00.021	0.056	0.057
0.868	40	00.25-	00.48	01.24	02.06	02.96	03.97	05.15	06.59	08.54	11.74	2000	00.087	0.056	0.053
0.868	45	01.97-	00.20-	01.32	02.72	04.07	05.46	06.95	08.67	10.85	14.24	2000	00.168	0.058	0.037
0.868	50	05.68-	01.87-	00.51	02.39	04.06	05.67	07.32	09.16	11.44	14.92	2000	00.214	0.063	0.017
0.868	55	12.87-	04.18-	00.99-	01.23	03.09	04.81	06.55	08.45	10.78	14.29	2000	00.205	0.069	0.004
0.868	60	20.06-	06.23-	02.81-	00.51-	01.40	03.15	04.90	06.81	09.15	12.67	2000	00.159	0.077	0.001
0.868	65	16.36-	08.13-	04.99-	02.78-	00.93-	00.79	02.52	04.42	06.75	10.26	2000	00.104	0.089	0.002
0.868	70	13.37-	09.54-	07.15-	05.27-	03.59-	01.99-	00.33-	01.51	03.79	07.27	2000	00.061	0.104	0.005
0.868	75	07.26-	06.60-	05.90-	05.13-	04.29-	03.33-	02.20-	00.79-	01.12	04.28	2000	00.034	0.122	0.023
0.868	80	02.99-	02.86-	02.70-	02.49-	02.24-	01.91-	01.45-	00.79-	00.30	02.51	2000	00.020	0.142	0.071
0.868	85	00.78-	00.73-	00.66-	00.58-	00.47-	00.33-	00.11-	00.22	00.82	02.23	2000	00.015	0.159	0.132
0.868	90	00.00	00.04	00.09	00.15	00.23	00.35	00.51	00.77	01.25	02.42	2000	00.013	0.161	0.161
0.900	00	99.99-	04.10-	00.57-	01.77	03.68	05.45	07.21	09.13	11.47	14.99	2000	00.423	0.121	0.000
0.900	05	12.00-	03.34-	00.16-	02.06	03.92	05.64	07.38	09.28	11.61	15.12	2000	00.341	0.095	0.006
0.900	10	08.03-	04.11-	01.70-	00.19	01.87	03.48	05.14	06.98	09.27	12.74	2000	00.171	0.083	0.013
0.900	15	05.16-	04.31-	03.44-	02.54-	01.56-	00.48-	00.75	02.25	04.25	07.49	2000	00.044	0.075	0.023
0.900	20	02.80-	02.74-	02.67-	02.58-	02.46-	02.30-	02.07-	01.71-	01.07-	00.42	2000	00.004	0.069	0.036
0.900	25	00.90-	00.87-	00.84-	00.79-	00.73-	00.65-	00.53-	00.34-	00.03	00.96	2000	00.003	0.064	0.052
0.900	30	00.42	00.42	00.42	00.42	00.42	00.42	00.42	00.43	00.43	00.44	2000	00.000	0.060	0.067
0.900	35	00.97	01.09	01.25	01.44	01.69	02.01	02.45	03.10	04.16	06.33	2000	00.020	0.058	0.073
0.900	40	00.45	01.11	01.81	02.57	03.41	04.37	05.50	06.91	08.82	11.97	2000	00.094	0.058	0.065
0.900	45	01.50-	00.31	01.85	03.27	04.64	06.03	07.53	09.25	11.43	14.83	2000	00.198	0.060	0.043
0.900	50	05.57-	01.30-	01.21	03.15	04.85	06.48	08.15	10.00	12.30	15.78	2000	00.269	0.064	0.018
0.900	55	13.23-	03.28-	00.01-	02.25	04.12	05.85	07.60	09.50	11.83	15.35	2000	00.270	0.071	0.003
0.900	60	18.99-	05.04-	01.62-	00.69	02.59	04.34	06.10	08.01	10.35	13.87	2000	00.215	0.080	0.001
0.900	65	15.28-	06.87-	03.71-	01.50-	00.36	02.08	03.81	05.71	08.04	11.55	2000	00.144	0.091	0.003
0.900	70	11.71-	08.06-	05.73-	03.87-	02.21-	00.62-	01.03	02.87	05.14	08.61	2000	00.084	0.105	0.007
0.900	75	06.40-	05.67-	04.89-	04.07-	03.17-	02.15-	00.98-	00.47	02.43	05.62	2000	00.047	0.123	0.028
0.900	80	02.69-	02.51-	02.31-	02.06-	01.74-	01.34-	00.79-	00.01-	01.22	03.63	2000	00.028	0.141	0.076
0.900	85	00.72-	00.64-	00.56-	00.44-	00.30-	00.10-	00.18	00.60	01.35	03.03	2000	00.020	0.156	0.132
0.900	90	00.00	00.06	00.12	00.21	00.32	00.48	00.70	01.04	01.65	03.10	2000	00.018	0.158	0.158

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.932	00	99.99-	05.94-	02.42-	00.08-	01.84	03.60	05.36	07.28	09.62	13.15	2000	00.422	0.184	0.000
0.932	05	10.93-	04.34-	01.39-	00.75	02.56	04.26	05.97	07.86	10.18	13.68	2000	00.354	0.137	0.011
0.932	10	06.80-	03.88-	01.81-	00.08-	01.49	03.03	04.64	06.45	08.70	12.16	2000	00.208	0.115	0.024
0.932	15	03.78-	02.94-	02.07-	01.17-	00.19-	00.89	02.12	03.62	05.62	08.86	2000	00.081	0.101	0.042
0.932	20	01.28-	01.15-	00.98-	00.77-	00.51-	00.17-	00.30	00.98	02.08	04.32	2000	00.019	0.089	0.067
0.932	25	00.73	00.76	00.79	00.82	00.87	00.94	01.04	01.20	01.51	02.32	2000	00.005	0.080	0.095
0.932	30	02.14	02.14	02.14	02.14	02.14	02.14	02.14	02.14	02.14	02.15	2000	00.000	0.073	0.120
0.932	35	02.69	02.77	02.88	03.02	03.19	03.42	03.75	04.24	05.08	06.93	2000	00.023	0.068	0.127
0.932	40	02.05	02.62	03.23	03.91	04.68	05.57	06.63	07.97	09.82	12.92	2000	00.132	0.066	0.106
0.932	45	00.19-	01.68	03.26	04.69	06.07	07.48	08.98	10.71	12.90	16.30	2000	00.313	0.068	0.065
0.932	50	04.71-	00.21	02.87	04.89	06.63	08.28	09.97	11.84	14.14	17.63	2000	00.460	0.072	0.024
0.932	55	12.77-	01.31-	02.04	04.32	06.21	07.95	09.70	11.61	13.94	17.46	2000	00.487	0.079	0.004
0.932	60	16.68-	02.76-	00.67	02.97	04.88	06.63	08.38	10.29	12.63	16.15	2000	00.401	0.088	0.002
0.932	65	12.61-	04.43-	01.29-	00.91	02.76	04.48	06.21	08.11	10.43	13.94	2000	00.272	0.099	0.005
0.932	70	08.63-	05.31-	03.09-	01.28-	00.34	01.91	03.54	05.37	07.64	11.10	2000	00.160	0.113	0.015
0.932	75	04.82-	03.92-	03.01-	02.06-	01.05-	00.05	01.31	02.83	04.85	08.11	2000	00.087	0.128	0.042
0.932	80	02.13-	01.86-	01.54-	01.17-	00.71-	00.14-	00.59	01.59	03.09	05.82	2000	00.051	0.144	0.088
0.932	85	00.61-	00.48-	00.32-	00.13-	00.11	00.43	00.87	01.52	02.58	04.76	2000	00.037	0.157	0.136
0.932	90	00.00	00.10	00.22	00.38	00.57	00.84	01.20	01.75	02.67	04.64	2000	00.034	0.158	0.158
0.935	00	99.99-	06.19-	02.67-	00.33-	01.59	03.35	05.11	07.03	09.37	12.90	2000	00.422	0.195	0.000
0.935	05	10.81-	04.48-	01.55-	00.57	02.37	04.06	05.77	07.66	09.97	13.48	2000	00.356	0.144	0.012
0.935	10	06.66-	03.86-	01.83-	00.13-	01.43	02.96	04.56	06.36	08.61	12.06	2000	00.213	0.121	0.026
0.935	15	03.63-	02.79-	01.92-	01.02-	00.05-	01.03	02.27	03.77	05.76	09.00	2000	00.088	0.105	0.046
0.935	20	01.12-	00.97-	00.79-	00.57-	00.29-	00.07	00.56	01.28	02.42	04.72	2000	00.023	0.093	0.072
0.935	25	00.92	00.94	00.97	01.01	01.06	01.13	01.23	01.39	01.70	02.51	2000	00.005	0.083	0.103
0.935	30	02.34	02.34	02.34	02.34	02.34	02.34	02.34	02.34	02.34	02.35	2000	00.000	0.075	0.129
0.935	35	02.89	02.98	03.08	03.21	03.38	03.60	03.91	04.39	05.21	07.02	2000	00.024	0.070	0.136
0.935	40	02.25	02.80	03.41	04.08	04.84	05.72	06.78	08.11	09.95	13.05	2000	00.139	0.068	0.113
0.935	45	00.02-	01.86	03.44	04.87	06.26	07.66	09.17	10.90	13.09	16.49	2000	00.333	0.069	0.068
0.935	50	04.60-	00.40	03.08	05.10	06.85	08.51	10.20	12.07	14.37	17.86	2000	00.493	0.073	0.025
0.935	55	12.68-	01.06-	02.29	04.57	06.46	08.21	09.95	11.86	14.20	17.72	2000	00.525	0.080	0.004
0.935	60	16.35-	02.48-	00.94	03.25	05.15	06.90	08.66	10.57	12.91	16.43	2000	00.434	0.089	0.002
0.935	65	12.23-	04.13-	01.00-	01.21	03.05	04.77	06.50	08.40	10.73	14.24	2000	00.295	0.100	0.006
0.935	70	08.25-	04.97-	02.76-	00.96-	00.65	02.22	03.85	05.68	07.94	11.41	2000	00.173	0.114	0.017
0.935	75	04.61-	03.69-	02.76-	01.80-	00.78-	00.33	01.60	03.13	05.16	08.42	2000	00.095	0.129	0.045
0.935	80	02.06-	01.78-	01.44-	01.04-	00.57-	00.02	00.78	01.81	03.34	06.10	2000	00.055	0.144	0.090
0.935	85	00.59-	00.46-	00.29-	00.08-	00.18	00.52	00.98	01.66	02.76	05.00	2000	00.040	0.157	0.137
0.935	90	00.00	00.11	00.24	00.41	00.62	00.90	01.28	01.86	02.83	04.86	2000	00.036	0.158	0.158

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN										DIPOLE CROSS-SECTION			
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.964	00	99.99-	09.50-	05.98-	03.64-	01.72-	00.04	01.80	03.72	06.06	09.58	2000	00.426	0.422	0.000
0.964	05	09.65-	06.13-	03.84-	02.00-	00.35-	01.23	02.88	04.71	06.98	10.45	2000	00.356	0.292	0.032
0.964	10	05.30-	03.72-	02.31-	00.99-	00.31	01.65	03.11	04.80	06.96	10.34	2000	00.272	0.233	0.069
0.964	15	02.07-	01.26-	00.42-	00.46	01.42	02.47	03.69	05.18	07.17	10.39	2000	00.221	0.192	0.120
0.964	20	00.65	00.93	01.25	01.63	02.10	02.67	03.41	04.42	05.93	08.66	2000	00.111	0.161	0.187
0.964	25	02.91	02.94	02.99	03.04	03.12	03.22	03.36	03.60	04.03	05.12	2000	00.019	0.135	0.264
0.964	30	04.53	04.53	04.53	04.53	04.53	04.53	04.53	04.53	04.53	04.53	2000	00.000	0.114	0.323
0.964	35	05.22	05.27	05.32	05.40	05.50	05.63	05.82	06.12	06.67	08.00	2000	00.033	0.099	0.328
0.964	40	04.53	04.97	05.47	06.04	06.69	07.47	08.42	09.66	11.40	14.40	2000	00.247	0.090	0.256
0.964	45	01.93	03.89	05.51	06.97	08.37	09.79	11.31	13.04	15.24	18.65	2000	00.707	0.089	0.138
0.964	50	03.27-	02.71	05.58	07.67	09.47	11.15	12.86	14.74	17.05	20.55	2000	01.165	0.093	0.044
0.964	55	11.36-	01.88	05.29	07.59	09.49	11.24	12.99	14.90	17.24	20.76	2000	01.321	0.100	0.007
0.964	60	12.08-	00.88	04.27	06.57	08.47	10.22	11.97	13.88	16.22	19.74	2000	01.135	0.109	0.007
0.964	65	07.36-	00.33-	02.68	04.84	06.67	08.37	10.09	11.98	14.30	17.81	2000	00.788	0.118	0.022
0.964	70	03.57-	00.71-	01.34	03.06	04.62	06.16	07.76	09.57	11.82	15.27	2000	00.467	0.127	0.056
0.964	75	01.88-	00.66-	00.50	01.64	02.81	04.05	05.43	07.05	09.15	12.48	2000	00.256	0.135	0.088
0.964	80	01.38-	00.76-	00.08-	00.65	01.47	02.41	03.52	04.91	06.80	09.94	2000	00.148	0.145	0.106
0.964	85	00.62-	00.26-	00.14	00.61	01.17	01.85	02.70	03.83	05.47	08.35	2000	00.105	0.158	0.137
0.964	90	00.00	00.28	00.60	00.98	01.44	02.02	02.76	03.76	05.27	08.01	2000	00.094	0.159	0.159
0.967	00	99.99-	09.92-	06.40-	04.06-	02.14-	00.38-	01.38	03.30	05.64	09.16	2000	00.426	0.465	0.000
0.967	05	09.54-	06.33-	04.14-	02.36-	00.74-	00.82	02.45	04.27	06.53	09.99	2000	00.350	0.319	0.035
0.967	10	05.16-	03.71-	02.39-	01.13-	00.12	01.43	02.86	04.53	06.67	10.04	2000	00.275	0.254	0.077
0.967	15	01.91-	01.10-	00.27-	00.61	01.56	02.62	03.83	05.32	07.30	10.53	2000	00.247	0.209	0.134
0.967	20	00.84	01.13	01.47	01.87	02.35	02.95	03.71	04.75	06.28	09.05	2000	00.132	0.173	0.210
0.967	25	03.12	03.16	03.20	03.26	03.34	03.45	03.60	03.85	04.30	05.44	2000	00.023	0.144	0.296
0.967	30	04.77	04.77	04.77	04.77	04.77	04.77	04.77	04.77	04.77	04.77	2000	00.000	0.120	0.361
0.967	35	05.48	05.52	05.57	05.64	05.73	05.86	06.04	06.32	06.83	08.09	2000	00.033	0.103	0.364
0.967	40	04.79	05.22	05.70	06.25	06.89	07.66	08.60	09.82	11.55	14.53	2000	00.264	0.094	0.282
0.967	45	02.15	04.11	05.74	07.21	08.61	10.03	11.55	13.29	15.49	18.89	2000	00.774	0.092	0.151
0.967	50	03.15-	02.98	05.87	07.98	09.77	11.46	13.17	15.05	17.37	20.87	2000	01.292	0.096	0.046
0.967	55	11.18-	02.23	05.64	07.95	09.85	11.60	13.35	15.26	17.60	21.12	2000	01.476	0.103	0.008
0.967	60	11.55-	01.28	04.68	06.97	08.87	10.62	12.37	14.28	16.62	20.14	2000	01.275	0.111	0.008
0.967	65	06.76-	00.14	03.14	05.29	07.12	08.82	10.54	12.43	14.75	18.25	2000	00.887	0.120	0.025
0.967	70	02.98-	00.16-	01.87	03.57	05.13	06.66	08.26	10.06	12.31	15.76	2000	00.527	0.127	0.064
0.967	75	01.50-	00.24-	00.94	02.11	03.30	04.55	05.93	07.56	09.67	13.01	2000	00.288	0.135	0.095
0.967	80	01.35-	00.65-	00.09	00.88	01.76	02.75	03.90	05.33	07.26	10.44	2000	00.166	0.144	0.106
0.967	85	00.67-	00.27-	00.18	00.70	01.31	02.04	02.95	04.14	05.83	08.78	2000	00.117	0.157	0.135
0.967	90	00.00	00.31	00.66	01.08	01.58	02.19	02.98	04.04	05.60	08.40	2000	00.105	0.159	0.159

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.980	00	99.99-	11.58-	08.06-	05.72-	03.80-	02.04-	00.28-	01.64	03.98	07.50	2000	00.428	0.685	0.000
0.980	05	09.27-	07.21-	05.53-	04.03-	02.61-	01.17-	00.36	02.11	04.32	07.73	2000	00.297	0.460	0.054
0.980	10	04.74-	03.80-	02.86-	01.89-	00.87-	00.26	01.53	03.07	05.10	08.36	2000	00.260	0.358	0.120
0.980	15	01.36-	00.56-	00.26	01.14	02.08	03.13	04.35	05.83	07.81	11.03	2000	00.383	0.288	0.211
0.980	20	01.50	01.86	02.27	02.75	03.31	04.00	04.85	05.99	07.63	10.52	2000	00.256	0.234	0.330
0.980	25	03.91	03.96	04.02	04.09	04.19	04.32	04.52	04.82	05.37	06.71	2000	00.047	0.188	0.463
0.980	30	05.69	05.69	05.69	05.69	05.69	05.69	05.69	05.69	05.69	05.69	2000	00.000	0.151	0.561
0.980	35	06.50	06.53	06.56	06.61	06.67	06.75	06.87	07.06	07.42	08.35	2000	00.033	0.124	0.555
0.980	40	05.82	06.19	06.61	07.10	07.68	08.38	09.25	10.40	12.06	14.97	2000	00.333	0.109	0.415
0.980	45	03.00	05.01	06.66	08.14	09.56	10.99	12.51	14.25	16.45	19.87	2000	01.101	0.104	0.208
0.980	50	02.74-	04.06	07.05	09.19	11.01	12.71	14.43	16.32	18.64	22.14	2000	01.948	0.107	0.057
0.980	55	10.50-	03.68	07.10	09.41	11.32	13.07	14.82	16.74	19.07	22.59	2000	02.294	0.114	0.010
0.980	60	09.31-	02.96	06.34	08.63	10.52	12.27	14.02	15.93	18.27	21.79	2000	02.012	0.120	0.014
0.980	65	04.23-	02.14	05.07	07.19	08.99	10.68	12.40	14.28	16.60	20.10	2000	01.410	0.124	0.047
0.980	70	00.44-	02.17	04.11	05.77	07.30	08.81	10.40	12.19	14.43	17.87	2000	00.836	0.125	0.113
0.980	75	00.23	01.63	02.92	04.15	05.39	06.69	08.11	09.77	11.91	15.26	2000	00.450	0.125	0.131
0.980	80	01.56-	00.43-	00.66	01.76	02.88	04.09	05.44	07.03	09.12	12.43	2000	00.250	0.134	0.093
0.980	85	01.17-	00.52-	00.16	00.91	01.75	02.70	03.82	05.21	07.12	10.27	2000	00.168	0.153	0.117
0.980	90	00.00	00.42	00.90	01.45	02.08	02.84	03.78	04.99	06.72	09.69	2000	00.148	0.160	0.160
0.985	00	99.99-	11.96-	08.44-	06.10-	04.18-	02.42-	00.66-	01.26	03.60	07.12	2000	00.429	0.750	0.000
0.985	05	09.29-	07.53-	06.02-	04.62-	03.27-	01.88-	00.39-	01.32	03.50	06.90	2000	00.266	0.502	0.059
0.985	10	04.68-	03.90-	03.09-	02.23-	01.29-	00.25-	00.95	02.43	04.40	07.61	2000	00.235	0.389	0.132
0.985	15	01.26-	00.45-	00.38	01.26	02.21	03.26	04.48	05.96	07.95	11.17	2000	00.427	0.311	0.233
0.985	20	01.65	02.04	02.47	02.98	03.57	04.28	05.17	06.34	08.01	10.94	2000	00.305	0.251	0.367
0.985	25	04.10	04.16	04.22	04.30	04.41	04.55	04.76	05.09	05.67	07.07	2000	00.056	0.200	0.515
0.985	30	05.93	05.93	05.93	05.93	05.93	05.93	05.93	05.93	05.93	05.93	2000	00.000	0.159	0.623
0.985	35	06.78	06.80	06.83	06.87	06.92	06.99	07.09	07.25	07.56	08.37	2000	00.030	0.129	0.615
0.985	40	06.11	06.46	06.86	07.33	07.89	08.56	09.41	10.54	12.17	15.05	2000	00.346	0.112	0.456
0.985	45	03.23	05.25	06.91	08.40	09.82	11.25	12.78	14.52	16.72	20.13	2000	01.195	0.106	0.224
0.985	50	02.68-	04.36	07.38	09.54	11.36	13.07	14.79	16.68	19.00	22.51	2000	02.152	0.109	0.059
0.985	55	10.32-	04.09	07.52	09.83	11.74	13.49	15.24	17.16	19.50	23.02	2000	02.554	0.115	0.011
0.985	60	08.62-	03.45	06.82	09.11	11.00	12.74	14.49	16.40	18.74	22.26	2000	02.245	0.120	0.017
0.985	65	03.44-	02.73	05.63	07.74	09.54	11.23	12.94	14.82	17.13	20.63	2000	01.570	0.123	0.056
0.985	70	00.38	02.90	04.80	06.43	07.95	09.45	11.03	12.81	15.05	18.48	2000	00.924	0.120	0.131
0.985	75	00.81	02.23	03.52	04.77	06.02	07.32	08.74	10.41	12.54	15.90	2000	00.491	0.117	0.141
0.985	80	01.92-	00.58-	00.66	01.87	03.08	04.36	05.77	07.41	09.54	12.88	2000	00.265	0.127	0.082
0.985	85	01.49-	00.77-	00.01-	00.81	01.70	02.71	03.88	05.32	07.27	10.46	2000	00.175	0.151	0.107
0.985	90	00.00	00.43	00.92	01.48	02.13	02.90	03.84	05.07	06.81	09.79	2000	00.152	0.160	0.160

RESPONSE OF DIPOLE CLOUDS

VERTICAL RETURN/HORIZONTAL RETURN

ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
0.990	00	99.99-	11.94-	08.42-	06.07-	04.16-	02.39-	00.63-	01.29	03.63	07.15	2000	00.440	0.764	0.000
0.990	05	09.43-	07.72-	06.25-	04.88-	03.54-	02.17-	00.69-	01.02	03.19	06.58	2000	00.253	0.513	0.059
0.990	10	04.75-	04.04-	03.28-	02.47-	01.58-	00.58-	00.58	02.02	03.97	07.15	2000	00.214	0.398	0.133
0.990	15	01.29-	00.46-	00.38	01.27	02.23	03.30	04.53	06.02	08.01	11.24	2000	00.443	0.318	0.237
0.990	20	01.66	02.06	02.52	03.04	03.66	04.39	05.30	06.50	08.20	11.15	2000	00.329	0.256	0.374
0.990	25	04.14	04.19	04.26	04.35	04.46	04.61	04.83	05.17	05.78	07.23	2000	00.061	0.204	0.529
0.990	30	05.99	05.99	05.99	05.99	05.99	05.99	05.99	05.99	05.99	05.99	2000	00.000	0.161	0.642
0.990	35	06.86	06.88	06.91	06.94	06.99	07.05	07.14	07.29	07.57	08.32	2000	00.028	0.130	0.693
0.990	40	06.19	06.54	06.93	07.39	07.94	08.60	09.44	10.55	12.17	15.04	2000	00.347	0.112	0.468
0.990	45	03.29	05.32	06.98	08.47	09.89	11.32	12.85	14.59	16.80	20.21	2000	01.223	0.107	0.228
0.990	50	02.71-	04.45	07.48	09.65	11.47	13.18	14.90	16.79	19.11	22.62	2000	02.218	0.110	0.059
0.990	55	10.28-	04.21	07.65	09.96	11.86	13.62	15.37	17.29	19.62	23.14	2000	02.634	0.115	0.011
0.990	60	08.32-	03.59	06.95	09.24	11.13	12.98	14.63	16.54	18.37	22.39	2000	02.308	0.120	0.018
0.990	65	03.10-	02.92	05.79	07.89	09.68	11.36	13.07	14.95	17.27	20.77	2000	01.602	0.121	0.060
0.990	70	00.73	03.15	05.01	06.61	08.11	09.60	11.17	12.95	15.18	18.61	2000	00.932	0.117	0.139
0.990	75	00.99	02.37	03.65	04.88	06.12	07.41	08.83	10.48	12.61	15.97	2000	00.486	0.114	0.143
0.990	80	02.34-	00.92-	00.38	01.63	02.88	04.18	05.61	07.27	09.41	12.76	2000	00.257	0.126	0.074
0.990	85	01.72-	01.01-	00.25-	00.55	01.44	02.43	03.60	05.04	06.98	10.16	2000	00.166	0.154	0.103
0.990	90	00.00	00.40	00.86	01.38	01.99	02.72	03.63	04.82	06.52	09.47	2000	00.143	0.165	0.165

0.996	00	99.99-	11.86-	08.34-	06.00-	04.08-	02.32-	00.56-	01.36	03.70	07.22	2000	00.431	0.735	0.000
0.996	05	09.52-	08.01-	06.65-	05.36-	04.08-	02.75-	01.31-	00.37	02.52	05.89	2000	00.207	0.494	0.055
0.996	10	04.77-	04.23-	03.63-	02.98-	02.23-	01.36-	00.32-	01.01	02.84	05.92	2000	00.152	0.381	0.127
0.996	15	01.25-	00.41-	00.45	01.35	02.32	03.39	04.62	06.12	08.11	11.35	2000	00.436	0.304	0.228
0.996	20	01.74	02.18	02.68	03.24	03.89	04.66	05.61	06.84	08.59	11.58	2000	00.349	0.244	0.364
0.996	25	04.26	04.32	04.40	04.50	04.62	04.79	05.03	05.40	06.06	07.60	2000	00.066	0.193	0.515
0.996	30	06.15	06.15	06.15	06.15	06.15	06.15	06.15	06.15	06.15	06.15	2000	00.000	0.152	0.626
0.996	35	07.04	07.06	07.08	07.10	07.14	07.19	07.26	07.37	07.59	08.20	2000	00.021	0.122	0.616
0.996	40	06.36	06.68	07.05	07.48	08.00	08.64	09.45	10.53	12.11	14.94	2000	00.312	0.104	0.451
0.996	45	03.36	05.41	07.08	08.58	10.00	11.44	12.97	14.71	16.92	20.33	2000	01.163	0.099	0.214
0.996	50	02.87-	04.60	07.67	09.84	11.68	13.39	15.12	17.01	19.33	22.84	2000	02.152	0.101	0.052
0.996	55	10.20-	04.48	07.92	10.23	12.14	13.89	15.65	17.56	19.90	23.42	2000	02.575	0.106	0.010
0.996	60	07.70-	03.92	07.28	09.56	11.45	13.19	14.94	16.85	19.19	22.70	2000	02.257	0.109	0.019
0.996	65	02.39-	03.37	06.19	08.28	10.06	11.74	13.44	15.32	17.63	21.13	2000	01.560	0.109	0.063
0.996	70	01.43	03.73	05.53	07.10	08.58	10.05	11.61	13.37	15.60	19.03	2000	00.897	0.103	0.143
0.996	75	01.32	02.71	03.99	05.22	06.46	07.75	09.17	10.83	12.96	16.31	2000	00.458	0.099	0.135
0.996	80	03.62-	01.79-	00.24-	01.18	02.55	03.95	05.44	07.17	09.35	12.75	2000	00.234	0.115	0.050
0.996	85	02.24-	01.50-	00.73-	00.10	01.00	02.02	03.20	04.65	06.60	09.80	2000	00.146	0.147	0.088
0.996	90	00.00	00.36	00.77	01.25	01.81	02.50	03.35	04.49	06.14	09.03	2000	00.125	0.161	0.161

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.004	00	99.99-	11.08-	07.56-	05.21-	03.30-	01.54-	00.23	02.14	04.49	08.01	2000	00.432	0.616	0.000
1.004	05	09.72-	08.06-	06.61-	05.25-	03.93-	02.56-	01.09-	00.61	02.78	06.16	2000	00.186	0.416	0.044
1.004	10	04.91-	04.50-	04.04-	03.52-	02.90-	02.16-	01.25-	00.06-	01.65	04.60	2000	00.092	0.322	0.104
1.004	15	01.35-	00.49-	00.39	01.31	02.29	03.38	04.62	06.13	08.13	11.38	2000	00.372	0.258	0.189
1.004	20	01.66	02.15	02.68	03.29	03.98	04.80	05.79	07.06	08.85	11.88	2000	00.321	0.207	0.303
1.004	25	04.20	04.27	04.35	04.46	04.60	04.79	05.06	05.47	06.19	07.83	2000	00.063	0.165	0.433
1.004	30	06.08	06.08	06.08	06.08	06.08	06.08	06.08	06.08	06.08	06.08	2000	00.000	0.130	0.528
1.004	35	06.95	06.96	06.97	06.99	07.02	07.06	07.11	07.20	07.38	07.87	2000	00.014	0.105	0.519
1.004	40	06.20	06.50	06.86	07.27	07.77	08.38	09.16	10.22	11.77	14.57	2000	00.246	0.091	0.378
1.004	45	03.09	05.16	06.84	08.34	09.77	11.21	12.74	14.49	16.69	20.11	2000	00.965	0.086	0.176
1.004	50	03.35-	04.38	07.47	09.66	11.50	13.21	14.94	16.84	19.16	22.67	2000	01.814	0.088	0.041
1.004	55	10.39-	04.33	07.76	10.08	11.98	13.74	15.49	17.41	19.74	23.26	2000	02.177	0.092	0.008
1.004	60	07.51-	03.78	07.12	09.40	11.29	13.03	14.78	16.69	19.02	22.54	2000	01.901	0.096	0.017
1.004	65	02.18-	03.27	06.04	08.10	09.87	11.54	13.24	15.12	17.42	20.92	2000	01.301	0.095	0.058
1.004	70	01.51	03.65	05.37	06.90	08.34	09.79	11.33	13.09	15.30	18.72	2000	00.736	0.091	0.128
1.004	75	00.88	02.24	03.50	04.71	05.94	07.22	08.63	10.28	12.41	15.76	2000	00.366	0.090	0.111
1.004	80	05.63-	03.40-	01.64-	00.09-	01.38	02.84	04.39	06.15	08.37	11.80	2000	00.181	0.110	0.030
1.004	85	02.53-	01.92-	01.27-	00.55-	00.26	01.19	02.28	03.66	05.54	08.67	2000	00.111	0.146	0.082
1.004	90	00.00	00.27	00.59	00.97	01.43	01.99	02.73	03.73	05.23	07.96	2000	00.094	0.162	0.162
1.012	00	99.99-	10.03-	06.51-	04.17-	02.25-	00.49-	01.27	03.19	05.53	09.06	2000	00.433	0.485	0.000
1.012	05	09.90-	07.86-	06.20-	04.70-	03.28-	01.85-	00.32-	01.43	03.63	07.04	2000	00.182	0.330	0.034
1.012	10	05.06-	04.77-	04.44-	04.04-	03.57-	02.98-	02.22-	01.20-	00.33	03.09	2000	00.049	0.257	0.080
1.012	15	01.50-	00.62-	00.28	01.21	02.21	03.30	04.56	06.07	08.08	11.33	2000	00.296	0.207	0.146
1.012	20	01.51	02.04	02.62	03.27	04.01	04.86	05.90	07.21	09.03	12.11	2000	00.275	0.167	0.237
1.012	25	04.03	04.11	04.21	04.33	04.49	04.70	05.00	05.45	06.24	07.99	2000	00.056	0.134	0.339
1.012	30	05.88	05.88	05.88	05.88	05.88	05.88	05.88	05.88	05.88	05.88	2000	00.000	0.107	0.415
1.012	35	06.67	06.68	06.69	06.70	06.72	06.75	06.79	06.86	07.00	07.38	2000	00.008	0.088	0.408
1.012	40	05.82	06.11	06.44	06.84	07.31	07.90	08.66	09.69	11.21	13.97	2000	00.181	0.077	0.295
1.012	45	02.58	04.66	06.35	07.85	09.29	10.73	12.26	14.01	16.22	19.63	2000	00.745	0.074	0.135
1.012	50	04.09-	03.90	07.02	09.21	11.06	12.78	14.51	16.41	18.73	22.24	2000	01.423	0.077	0.030
1.012	55	10.76-	03.90	07.34	09.65	11.56	13.31	15.06	16.98	19.32	22.83	2000	01.715	0.080	0.007
1.012	60	07.60-	03.35	06.67	08.95	10.83	12.57	14.32	16.23	18.56	22.08	2000	01.494	0.083	0.015
1.012	65	02.30-	02.86	05.57	07.61	09.36	11.03	12.72	14.59	16.89	20.38	2000	01.015	0.084	0.050
1.012	70	01.16	03.17	04.82	06.30	07.72	09.15	10.67	12.41	14.62	18.03	2000	00.567	0.082	0.107
1.012	75	00.04-	01.30	02.55	03.75	04.97	06.25	07.66	09.30	11.43	14.77	2000	00.277	0.086	0.085
1.012	80	07.92-	05.25-	03.28-	01.61-	00.07-	01.45	03.04	04.83	07.07	10.52	2000	00.134	0.109	0.018
1.012	85	02.60-	02.14-	01.62-	01.04-	00.37-	00.43	01.40	02.65	04.42	07.43	2000	00.081	0.147	0.081
1.012	90	00.00	00.20	00.44	00.73	01.09	01.55	02.15	03.00	04.33	06.85	2000	00.069	0.162	0.162

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.020	00	99.99-	08.95-	05.43-	03.09-	01.17-	00.59	02.35	04.27	06.61	10.14	2000	00.435	0.379	0.000
1.020	05	10.05-	07.49-	05.57-	03.92-	02.40-	00.89-	00.69	02.47	04.71	08.15	2000	00.186	0.261	0.026
1.020	10	05.22-	05.03-	04.81-	04.54-	04.20-	03.77-	03.20-	02.38-	01.10-	01.37	2000	00.024	0.204	0.061
1.020	15	01.67-	00.78-	00.13	01.07	02.08	03.18	04.44	05.96	07.98	11.23	2000	00.231	0.165	0.113
1.020	20	01.32	01.89	02.51	03.20	03.98	04.88	05.95	07.29	09.15	12.26	2000	00.231	0.135	0.183
1.020	25	03.80	03.89	04.00	04.13	04.31	04.54	04.87	05.38	06.23	08.10	2000	00.049	0.109	0.262
1.020	30	05.57	05.57	05.57	05.57	05.57	05.57	05.57	05.57	05.57	05.57	2000	00.000	0.089	0.321
1.020	35	06.26	06.27	06.28	06.29	06.30	06.32	06.35	06.41	06.51	06.79	2000	00.005	0.075	0.315
1.020	40	05.29	05.56	05.87	06.25	06.70	07.27	08.00	08.99	10.49	13.21	2000	00.130	0.067	0.226
1.020	45	01.90	04.00	05.69	07.20	08.64	10.08	11.62	13.37	15.58	18.99	2000	00.565	0.065	0.101
1.020	50	05.00-	03.25	06.40	08.61	10.46	12.18	13.91	15.81	18.13	21.64	2000	01.098	0.068	0.021
1.020	55	11.23-	03.31	06.75	09.06	10.96	12.71	14.47	16.38	18.72	22.24	2000	01.331	0.072	0.005
1.020	60	07.86-	02.75	06.06	08.32	10.21	11.94	13.69	15.60	17.93	21.45	2000	01.159	0.075	0.012
1.020	65	02.61-	02.27	04.92	06.93	08.68	10.33	12.01	13.88	16.18	19.67	2000	00.784	0.077	0.042
1.020	70	00.59	02.48	04.07	05.51	06.90	08.31	09.82	11.55	13.74	17.15	2000	00.434	0.077	0.088
1.020	75	01.16-	00.18	01.42	02.62	03.84	05.12	06.52	08.17	10.29	13.64	2000	00.209	0.084	0.064
1.020	80	09.92-	06.91-	04.80-	03.06-	01.47-	00.08	01.69	03.50	05.76	09.22	2000	00.100	0.109	0.011
1.020	85	02.54-	02.20-	01.80-	01.34-	00.80-	00.13-	00.70	01.82	03.44	06.30	2000	00.061	0.147	0.082
1.020	90	00.00	00.15	00.34	00.56	00.84	01.21	01.71	02.43	03.59	05.90	2000	00.052	0.162	0.162
1.028	00	99.99-	07.96-	04.43-	02.09-	00.17-	01.59	03.35	05.27	07.61	11.13	2000	00.436	0.302	0.000
1.028	05	10.18-	07.02-	04.86-	03.09-	01.48-	00.08	01.70	03.52	05.78	09.24	2000	00.193	0.210	0.020
1.028	10	05.38-	05.27-	05.14-	04.97-	04.76-	04.48-	04.09-	03.52-	02.55-	00.51-	2000	00.011	0.165	0.048
1.028	15	01.86-	00.96-	00.04-	00.91	01.91	03.02	04.28	05.81	07.83	11.08	2000	00.183	0.135	0.088
1.028	20	01.09	01.71	02.37	03.10	03.91	04.85	05.95	07.33	09.22	12.35	2000	00.197	0.111	0.143
1.028	25	03.51	03.61	03.74	03.89	04.09	04.35	04.71	05.26	06.18	08.15	2000	00.044	0.092	0.206
1.028	30	05.20	05.20	05.20	05.20	05.20	05.20	05.20	05.20	05.20	05.21	2000	00.000	0.076	0.252
1.028	35	05.78	05.78	05.79	05.80	05.81	05.82	05.84	05.88	05.95	06.16	2000	00.002	0.065	0.247
1.028	40	04.68	04.93	05.23	05.58	06.01	06.55	07.25	08.22	09.67	12.35	2000	00.095	0.060	0.175
1.028	45	01.14	03.25	04.95	06.47	07.91	09.35	10.89	12.64	14.85	18.27	2000	00.433	0.059	0.077
1.028	50	05.99-	02.53	05.70	07.92	09.77	11.50	13.23	15.13	17.46	20.97	2000	00.858	0.062	0.016
1.028	55	11.70-	02.65	06.08	08.39	10.30	12.05	13.80	15.72	18.06	21.57	2000	01.047	0.066	0.004
1.028	60	08.21-	02.08	05.37	07.63	09.51	11.25	12.99	14.90	17.23	20.75	2000	00.913	0.069	0.010
1.028	65	03.02-	01.61	04.21	06.20	07.93	09.57	11.25	13.11	15.41	18.89	2000	00.616	0.072	0.036
1.028	70	00.06-	01.74	03.27	04.68	06.04	07.43	08.93	10.65	12.83	16.23	2000	00.339	0.074	0.073
1.028	75	02.30-	00.96-	00.29	01.51	02.73	04.01	05.41	07.06	09.19	12.54	2000	00.162	0.084	0.050
1.028	80	11.18-	08.13-	06.00-	04.25-	02.65-	01.10-	00.51	02.33	04.59	08.04	2000	00.078	0.111	0.008
1.028	85	02.44-	02.18-	01.87-	01.51-	01.06-	00.51-	00.21	01.19	02.67	05.37	2000	00.047	0.148	0.085
1.028	90	00.00	00.12	00.26	00.44	00.67	00.98	01.39	02.01	03.03	05.14	2000	00.041	0.163	0.163

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN/HORIZONTAL RETURN f_v=0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	DIPOLE CROSS-SECTION $\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.044	00	99.99-	06.36-	02.84-	00.50-	01.42	03.18	04.94	06.86	09.20	12.72	2000	00.437	0.210	0.000
1.044	05	10.40-	06.07-	03.55-	01.60-	00.11	01.74	03.41	05.27	07.56	11.04	2000	00.208	0.148	0.014
1.044	10	05.69-	05.65-	05.61-	05.56-	05.50-	05.41-	05.28-	05.07-	04.67-	03.67-	2000	00.002	0.119	0.032
1.044	15	02.25-	01.35-	00.43-	00.51	01.52	02.63	03.89	05.42	07.44	10.69	2000	00.122	0.099	0.059
1.044	20	00.60	01.30	02.04	02.83	03.71	04.70	05.86	07.28	09.22	12.40	2000	00.150	0.083	0.096
1.044	25	02.89	03.02	03.17	03.36	03.59	03.91	04.34	04.97	06.01	08.17	2000	00.036	0.071	0.138
1.044	30	04.41	04.41	04.41	04.41	04.41	04.41	04.41	04.41	04.42	04.42	2000	00.000	0.061	0.168
1.044	35	04.77	04.77	04.77	04.78	04.78	04.79	04.79	04.81	04.84	04.92	2000	00.001	0.054	0.163
1.044	40	03.42	03.64	03.90	04.22	04.60	05.09	05.73	06.62	08.00	10.59	2000	00.053	0.052	0.114
1.044	45	00.40-	01.74	03.46	04.98	06.43	07.88	09.42	11.17	13.39	16.81	2000	00.274	0.052	0.048
1.044	50	07.98-	01.11	04.32	06.56	08.42	10.15	11.89	13.79	16.12	19.63	2000	00.564	0.055	0.009
1.044	55	12.54-	01.36	04.78	07.09	08.99	10.74	12.50	14.41	16.75	20.27	2000	00.699	0.059	0.003
1.044	60	08.91-	00.80	04.06	06.31	08.18	09.91	11.65	13.56	15.89	19.40	2000	00.613	0.063	0.008
1.044	65	03.84-	00.39	02.89	04.83	06.53	08.16	09.82	11.68	13.97	17.45	2000	00.414	0.068	0.028
1.044	70	01.28-	00.38	01.83	03.18	04.51	05.87	07.34	09.04	11.21	14.59	2000	00.227	0.073	0.054
1.044	75	04.32-	02.92-	01.64-	00.41-	00.83	02.13	03.55	05.21	07.34	10.69	2000	00.108	0.086	0.032
1.044	80	11.51-	09.15-	07.32-	05.73-	04.24-	02.76-	01.20-	00.57	02.80	06.23	2000	00.052	0.114	0.008
1.044	85	02.25-	02.07-	01.87-	01.61-	01.30-	00.89-	00.35-	00.43	01.67	04.08	2000	00.033	0.150	0.090
1.044	90	00.00	00.08	00.19	00.32	00.48	00.70	01.02	01.49	02.31	04.12	2000	00.029	0.163	0.163
1.060	00	99.99-	05.27-	01.75-	00.59	02.51	04.27	06.03	07.95	10.29	13.81	2000	00.438	0.164	0.000
1.060	05	10.54-	05.29-	02.55-	00.51-	01.25	02.92	04.61	06.48	08.79	12.28	2000	00.219	0.117	0.010
1.060	10	05.93-	05.89-	05.84-	05.77-	05.69-	05.57-	05.40-	05.13-	04.63-	03.41-	2000	00.002	0.095	0.024
1.060	15	02.59-	01.71-	00.81-	00.12	01.12	02.22	03.47	04.99	07.00	10.25	2000	00.090	0.081	0.044
1.060	20	00.16	00.92	01.72	02.56	03.48	04.51	05.71	07.17	09.14	12.34	2000	00.124	0.069	0.072
1.060	25	02.33	02.48	02.66	02.88	03.15	03.51	04.00	04.71	05.86	08.15	2000	00.032	0.060	0.103
1.060	30	03.69	03.69	03.69	03.69	03.69	03.70	03.70	03.70	03.71	03.74	2000	00.000	0.054	0.125
1.060	35	03.87	03.87	03.87	03.87	03.87	03.87	03.88	03.88	03.89	03.92	2000	00.000	0.049	0.120
1.060	40	02.33	02.52	02.74	03.02	03.36	03.79	04.37	05.20	06.49	08.97	2000	00.033	0.048	0.082
1.060	45	01.75-	00.41	02.15	03.68	05.14	06.59	08.13	09.89	12.11	15.53	2000	00.192	0.049	0.033
1.060	50	09.72-	00.09-	03.16	05.40	07.27	09.01	10.75	12.65	14.98	18.50	2000	00.411	0.052	0.006
1.060	55	13.11-	00.30	03.71	06.02	07.92	09.67	11.42	13.33	15.67	19.19	2000	00.520	0.056	0.003
1.060	60	09.46-	00.21-	03.01	05.25	07.12	08.85	10.59	12.49	14.82	18.33	2000	00.461	0.061	0.007
1.060	65	04.48-	00.54-	01.88	03.78	05.46	07.07	08.73	10.57	12.86	16.33	2000	00.313	0.066	0.024
1.060	70	02.24-	00.66-	00.75	02.07	03.37	04.71	06.17	07.86	10.02	13.40	2000	00.172	0.073	0.044
1.060	75	05.86-	04.38-	03.05-	01.77-	00.51-	00.81	02.25	03.92	06.07	09.43	2000	00.083	0.088	0.023
1.060	80	10.81-	09.14-	07.68-	06.32-	04.99-	03.62-	02.15-	00.45-	01.72	05.11	2000	00.041	0.116	0.010
1.060	85	02.10-	01.97-	01.81-	01.61-	01.36-	01.02-	00.57-	00.09	01.17	03.38	2000	00.026	0.151	0.093
1.060	90	00.00	00.07	00.15	00.26	00.39	00.58	00.84	01.25	01.96	03.58	2000	00.023	0.164	0.164

RESPONSE OF DIPOLE CLOUDS

ℓ/λ	θ	VERTICAL RETURN / HORIZONTAL RETURN										A	DIPOLE CROSS-SECTION		
		$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9		$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.076	00	99.99-	04.59-	01.07-	01.27	03.19	04.95	06.71	08.63	10.97	14.49	2000	00.437	0.140	0.000
1.076	05	10.56-	04.72-	01.88-	00.21	01.99	03.67	05.36	07.26	09.57	13.07	2000	00.226	0.101	0.009
1.076	10	06.07-	05.97-	05.85-	05.69-	05.50-	05.24-	04.87-	04.33-	03.40-	01.43-	2000	00.004	0.083	0.021
1.076	15	02.81-	01.97-	01.10-	00.20-	00.78	01.85	03.09	04.59	06.59	09.83	2000	00.072	0.071	0.037
1.076	20	00.15-	00.65	01.48	02.36	03.31	04.36	05.58	07.06	09.04	12.26	2000	00.109	0.062	0.060
1.076	25	01.92	02.09	02.29	02.54	02.85	03.25	03.79	04.57	05.80	08.20	2000	00.031	0.055	0.085
1.076	30	03.15	03.16	03.16	03.16	03.16	03.17	03.17	03.18	03.21	03.27	2000	00.000	0.050	0.103
1.076	35	03.19	03.19	03.19	03.19	03.19	03.19	03.20	03.20	03.21	03.25	2000	00.000	0.047	0.097
1.076	40	01.48	01.64	01.84	02.08	02.38	02.77	03.29	04.05	05.25	07.62	2000	00.022	0.046	0.065
1.076	45	02.82-	00.63-	01.12	02.66	04.12	05.57	07.12	08.88	11.10	14.52	2000	00.148	0.048	0.025
1.076	50	11.10-	00.99-	02.29	04.54	06.42	08.15	09.90	11.80	14.14	17.65	2000	00.330	0.051	0.004
1.076	55	13.37-	00.44-	02.96	05.26	07.15	08.90	10.66	12.57	14.90	18.42	2000	00.426	0.055	0.003
1.076	60	09.77-	00.89-	02.31	04.53	06.39	08.12	09.86	11.76	14.09	17.60	2000	00.383	0.060	0.006
1.076	65	04.88-	01.14-	01.23	03.10	04.76	06.37	08.02	09.86	12.13	15.61	2000	00.262	0.066	0.021
1.076	70	02.91-	01.35-	00.04	01.35	02.65	03.99	05.44	07.13	09.28	12.66	2000	00.146	0.073	0.038
1.076	75	06.97-	05.38-	03.97-	02.64-	01.33-	00.01	01.47	03.16	05.33	08.70	2000	00.071	0.089	0.018
1.076	80	10.14-	08.83-	07.61-	06.42-	05.22-	03.95-	02.55-	00.91-	01.21	04.55	2000	00.036	0.118	0.011
1.076	85	02.00-	01.88-	01.74-	01.56-	01.34-	01.04-	00.63-	00.02-	00.99	03.09	2000	00.024	0.152	0.096
1.076	90	00.00	00.06	00.14	00.23	00.36	00.53	00.77	01.15	01.81	03.36	2000	00.021	0.163	0.163
1.092	00	99.99-	04.26-	00.74-	01.60	03.52	05.28	07.05	08.96	11.30	14.83	2000	00.434	0.129	0.000
1.092	05	10.46-	04.37-	01.49-	00.62	02.41	04.10	05.81	07.69	10.01	13.51	2000	00.231	0.093	0.008
1.092	10	06.06-	05.89-	05.69-	05.44-	05.14-	04.74-	04.20-	03.44-	02.22-	00.17	2000	00.007	0.077	0.019
1.092	15	02.87-	02.09-	01.27-	00.41-	00.53	01.57	02.78	04.25	06.23	09.44	2000	00.061	0.066	0.034
1.092	20	00.28-	00.54	01.38	02.27	03.22	04.28	05.50	06.99	08.98	12.21	2000	00.102	0.058	0.055
1.092	25	01.71	01.90	02.13	02.40	02.74	03.18	03.76	04.59	05.88	08.36	2000	00.031	0.052	0.077
1.092	30	02.85	02.85	02.86	02.86	02.87	02.88	02.89	02.91	02.96	03.09	2000	00.001	0.048	0.092
1.092	35	02.76	02.76	02.77	02.77	02.77	02.78	02.78	02.80	02.82	02.89	2000	00.000	0.045	0.085
1.092	40	00.91	01.05	01.22	01.43	01.70	02.04	02.52	03.20	04.32	06.57	2000	00.017	0.045	0.056
1.092	45	03.60-	01.38-	00.38	01.93	03.39	04.85	06.40	08.16	10.38	13.80	2000	00.123	0.047	0.021
1.092	50	12.08-	01.58-	01.72	03.99	05.87	07.61	09.35	11.26	13.59	17.11	2000	00.287	0.050	0.003
1.092	55	13.42-	00.86-	02.52	04.82	06.71	08.46	10.21	12.12	14.46	17.98	2000	00.380	0.054	0.002
1.092	60	09.83-	01.23-	01.95	04.17	06.02	07.75	09.48	11.38	13.71	17.22	2000	00.347	0.059	0.006
1.092	65	05.06-	01.40-	00.93	02.79	04.44	06.04	07.69	09.52	11.80	15.27	2000	00.241	0.065	0.020
1.092	70	03.32-	01.73-	00.32-	01.01	02.31	03.66	05.12	06.81	08.97	12.35	2000	00.137	0.074	0.034
1.092	75	07.74-	05.98-	04.46-	03.07-	01.72-	00.33-	01.16	02.87	05.05	08.45	2000	00.068	0.090	0.015
1.092	80	09.63-	08.48-	07.37-	06.27-	05.13-	03.91-	02.56-	00.96-	01.13	04.45	2000	00.035	0.118	0.013
1.092	85	01.93-	01.81-	01.67-	01.50-	01.28-	00.99-	00.59-	00.01	01.01	03.09	2000	00.023	0.151	0.097
1.092	90	00.00	00.06	00.14	00.23	00.36	00.53	00.77	01.15	01.81	03.36	2000	00.021	0.162	0.162

RESPONSE OF DIPOLE CLOUDS

		VERTICAL RETURN/HORIZONTAL RETURN											DIPOLE CROSS-SECTION		
ℓ/λ	θ	$f_v=0$	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	A	$\frac{\sigma_{vv}(0)}{\lambda^2}$	$\frac{\sigma_{hh}(90)}{\lambda^2}$	$\frac{\sigma_{vv}(90)}{\lambda^2}$
1.124	00	99.99-	04.47-	00.95-	01.40	03.31	05.08	06.84	08.75	11.10	14.62	2000	00.421	0.131	0.000
1.124	05	09.90-	04.20-	01.38-	00.69	02.47	04.15	05.85	07.73	10.04	13.54	2000	00.231	0.093	0.009
1.124	10	05.57-	05.34-	05.06-	04.74-	04.33-	03.83-	03.16-	02.24-	00.83-	01.79	2000	00.010	0.076	0.021
1.124	15	02.44-	01.82-	01.16-	00.43-	00.38	01.30	02.40	03.78	05.67	08.80	2000	00.051	0.065	0.037
1.124	20	00.10	00.86	01.65	02.49	03.41	04.43	05.62	07.09	09.05	12.25	2000	00.100	0.057	0.058
1.124	25	02.00	02.22	02.48	02.80	03.18	03.67	04.32	05.21	06.59	09.18	2000	00.038	0.051	0.081
1.124	30	03.01	03.02	03.03	03.05	03.07	03.10	03.15	03.23	03.37	03.79	2000	00.002	0.047	0.093
1.124	35	02.74	02.74	02.74	02.75	02.76	02.77	02.78	02.81	02.86	03.00	2000	00.001	0.044	0.083
1.124	40	00.62	00.72	00.85	01.01	01.22	01.49	01.87	02.43	03.38	05.39	2000	00.011	0.044	0.051
1.124	45	04.29-	02.03-	00.25-	01.31	02.78	04.24	05.80	07.56	09.78	13.21	2000	00.106	0.046	0.017
1.124	50	12.90-	01.82-	01.51	03.79	05.67	07.42	09.16	11.07	13.41	16.92	2000	00.271	0.050	0.003
1.124	55	12.76-	00.75-	02.62	04.91	06.80	08.55	10.30	12.21	14.54	18.06	2000	00.381	0.054	0.003
1.124	60	09.10-	00.88-	02.26	04.47	06.32	08.04	09.77	11.67	13.99	17.50	2000	00.364	0.058	0.007
1.124	65	04.69-	00.99-	01.35	03.22	04.88	06.48	08.13	09.96	12.24	15.71	2000	00.263	0.064	0.022
1.124	70	03.49-	01.65-	00.09-	01.33	02.70	04.10	05.60	07.33	09.51	12.91	2000	00.154	0.072	0.032
1.124	75	08.53-	06.20-	04.38-	02.80-	01.32-	00.16	01.72	03.49	05.71	09.14	2000	00.080	0.089	0.012
1.124	80	09.00-	07.79-	06.63-	05.49-	04.33-	03.09-	01.72-	00.10-	02.00	05.33	2000	00.042	0.116	0.015
1.124	85	01.83-	01.69-	01.52-	01.31-	01.05-	00.71-	00.24-	00.45	01.56	03.80	2000	00.029	0.147	0.097
1.124	90	00.00	00.08	00.17	00.29	00.44	00.65	00.94	01.39	02.17	03.90	2000	00.025	0.157	0.157

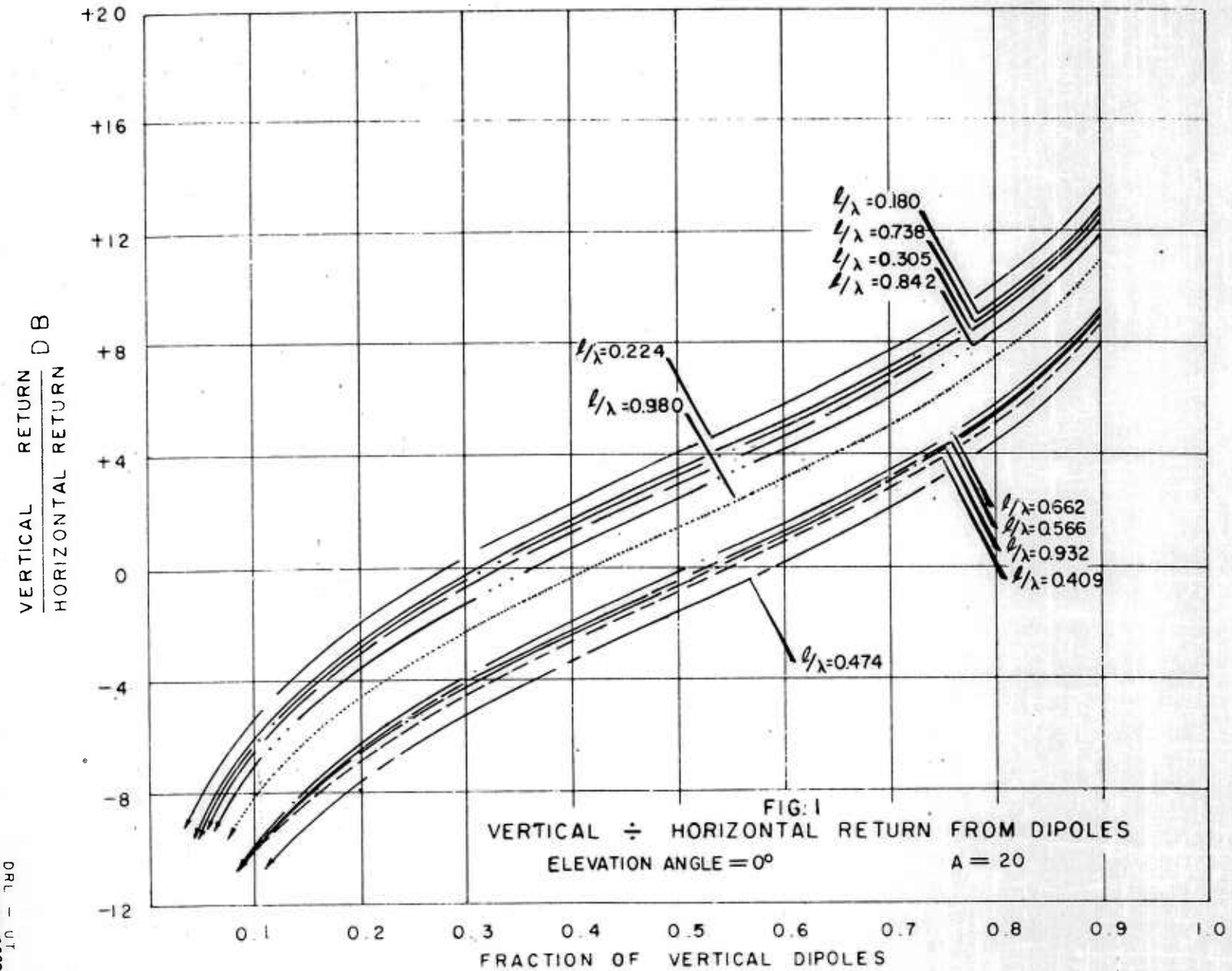


FIG. 1
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
ELEVATION ANGLE = 0° A = 20

ORL - UT
DWG AE 3669
BWB - LRS
1 - 7 - 60

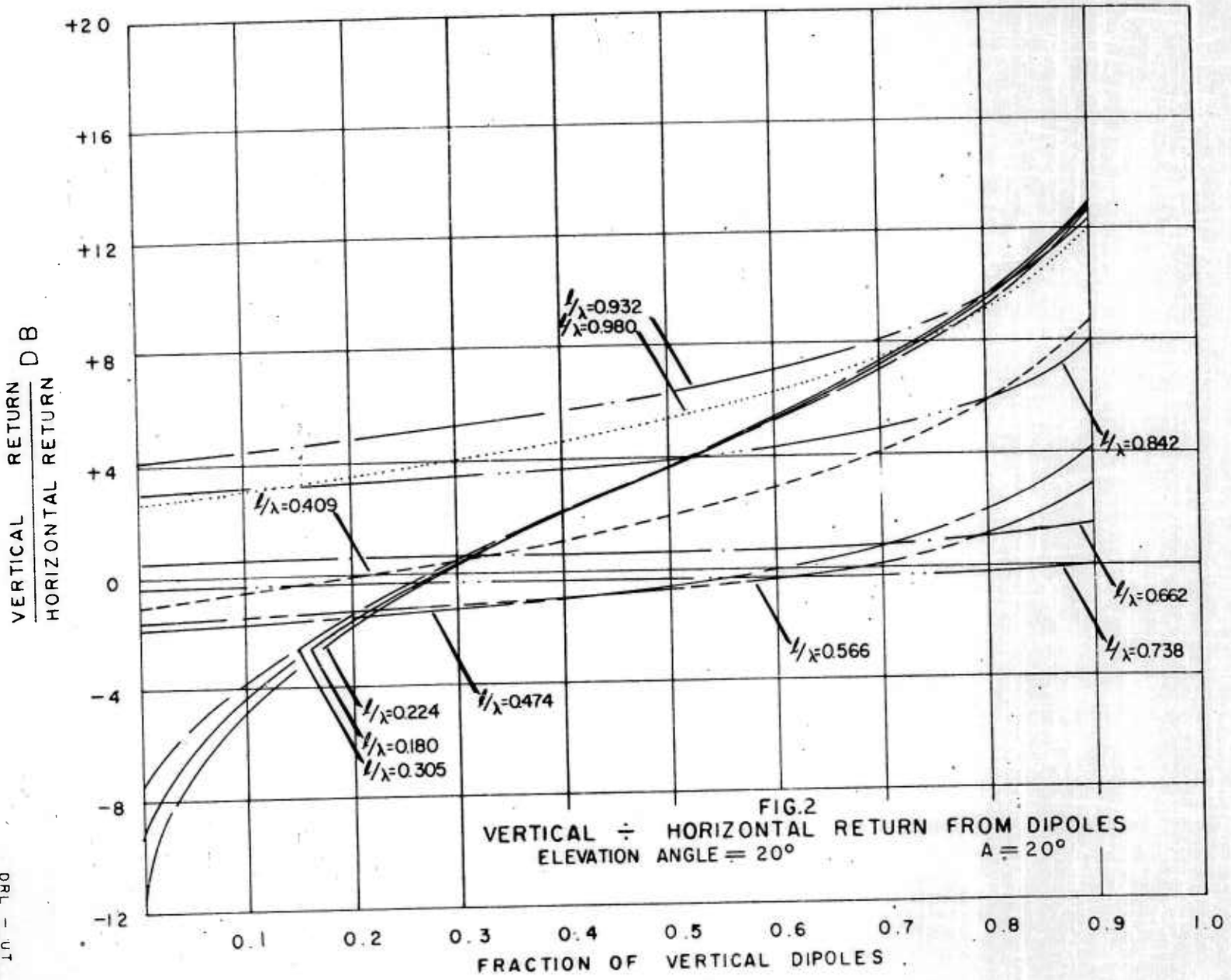


FIG.2
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
ELEVATION ANGLE = 20° A = 20°

DRL - UT
DWG. AE 3670
BWB - LRS
1-7-60

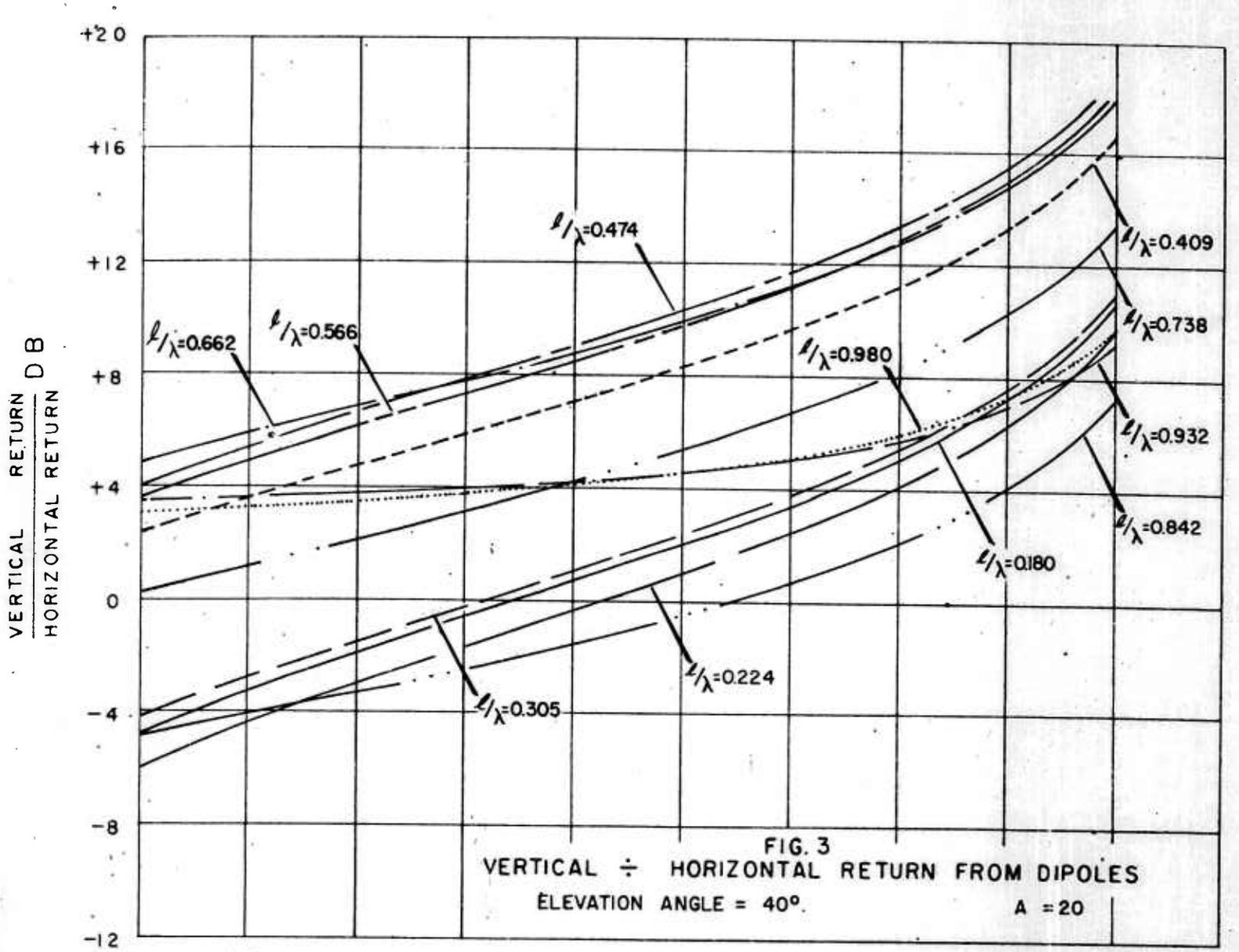


FIG. 3
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
ELEVATION ANGLE = 40°. A = 20

ORL - UT
DWG A E3671
BWB - LRS
1-7-60

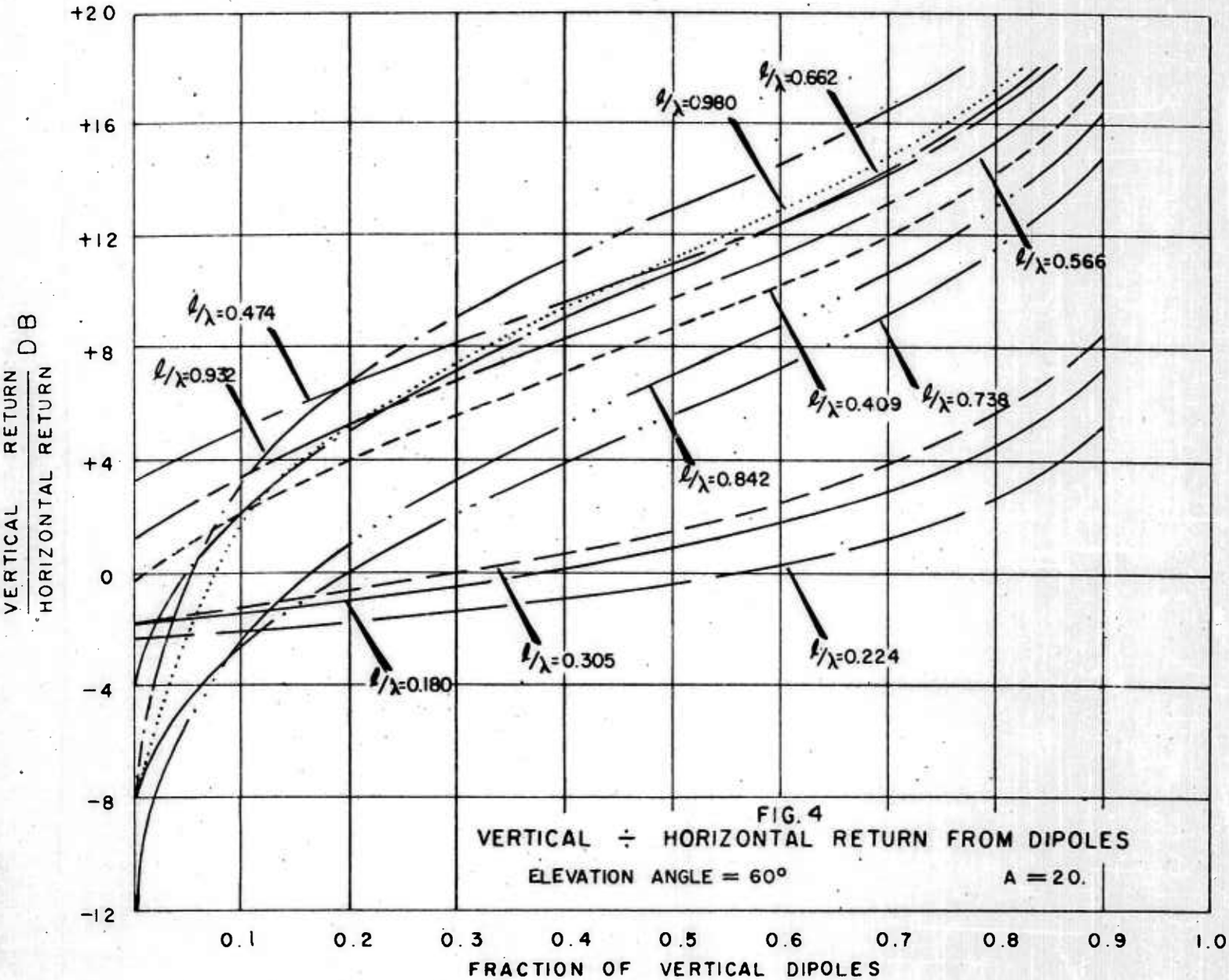


FIG. 4

VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES

ELEVATION ANGLE = 60° A = 20.

DRL - UT
DWG AE 3672
BWB - LRS
1-7-60

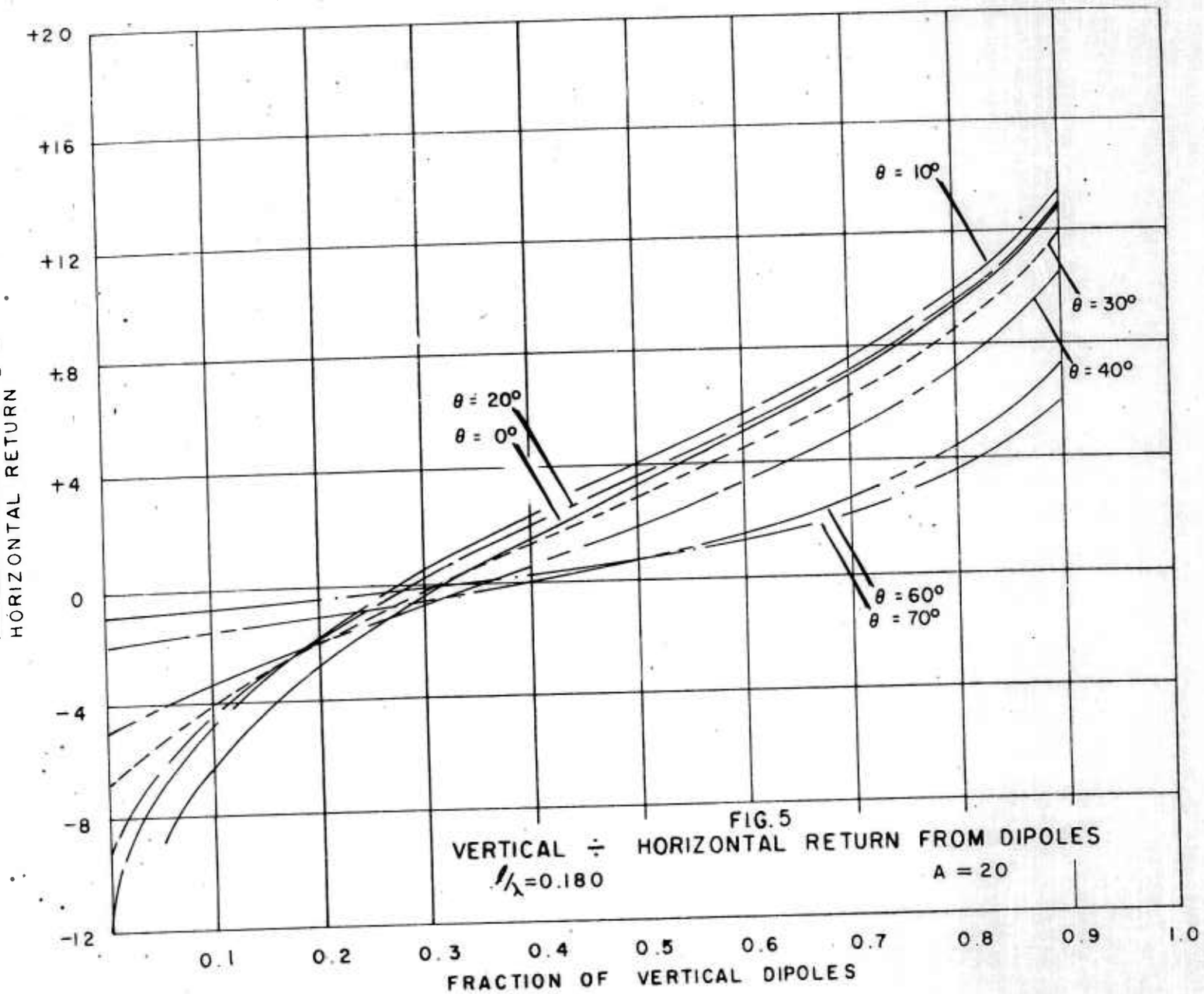


FIG.5

VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES

$l/\lambda = 0.180$ A = 20

ASD TN 61-37

61WWRN 2515

DRL — UT
DWG AE 3673
BWB — LRS
1 — 7 — 60

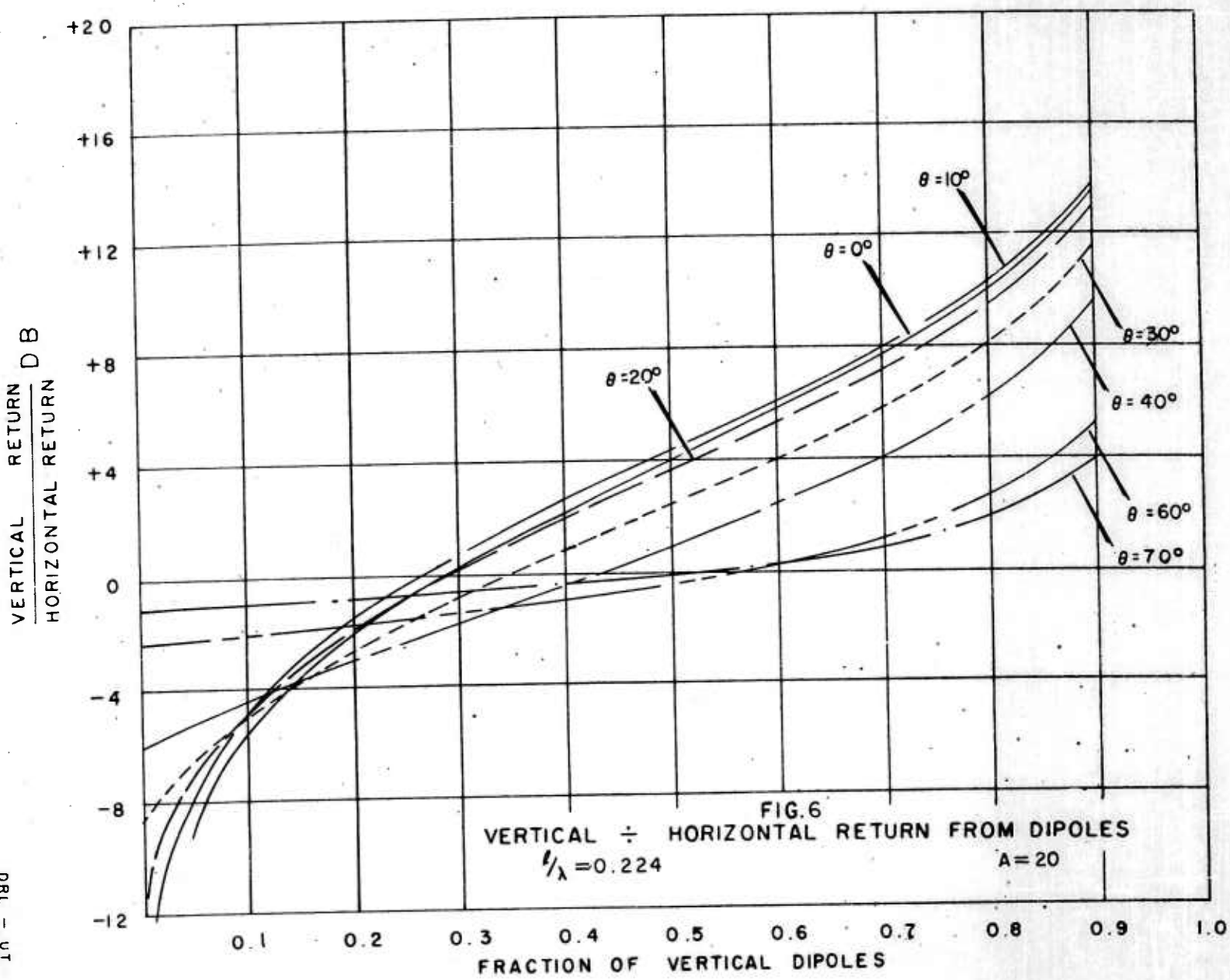


FIG.6
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.224$ A=20

DRL - UT
DWG AE3674
BWB - LRS
1-7-60

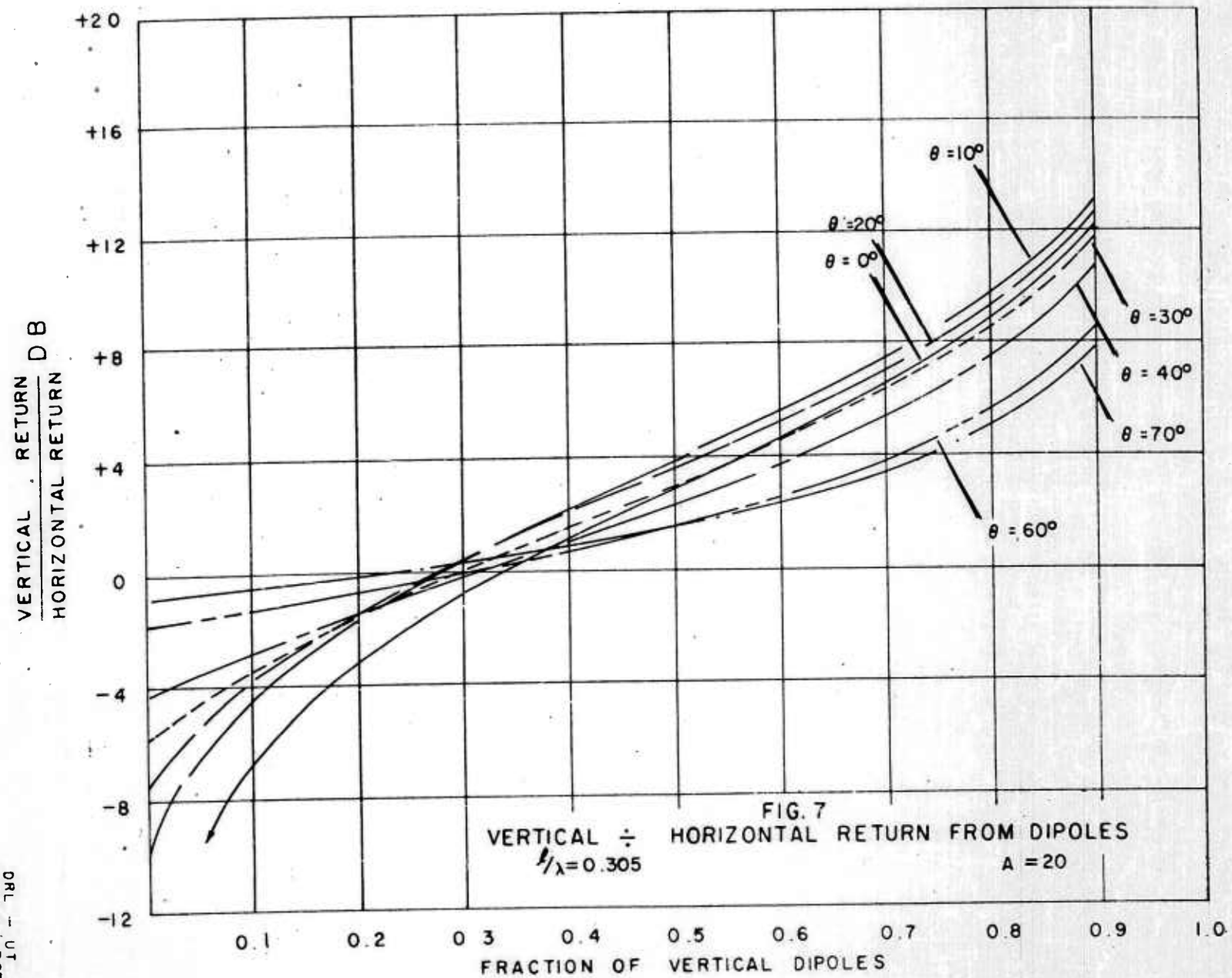


FIG. 7
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.305$
A = 20

DRL - UT
DWG AE 3675
BWB - LRS
1-7-60

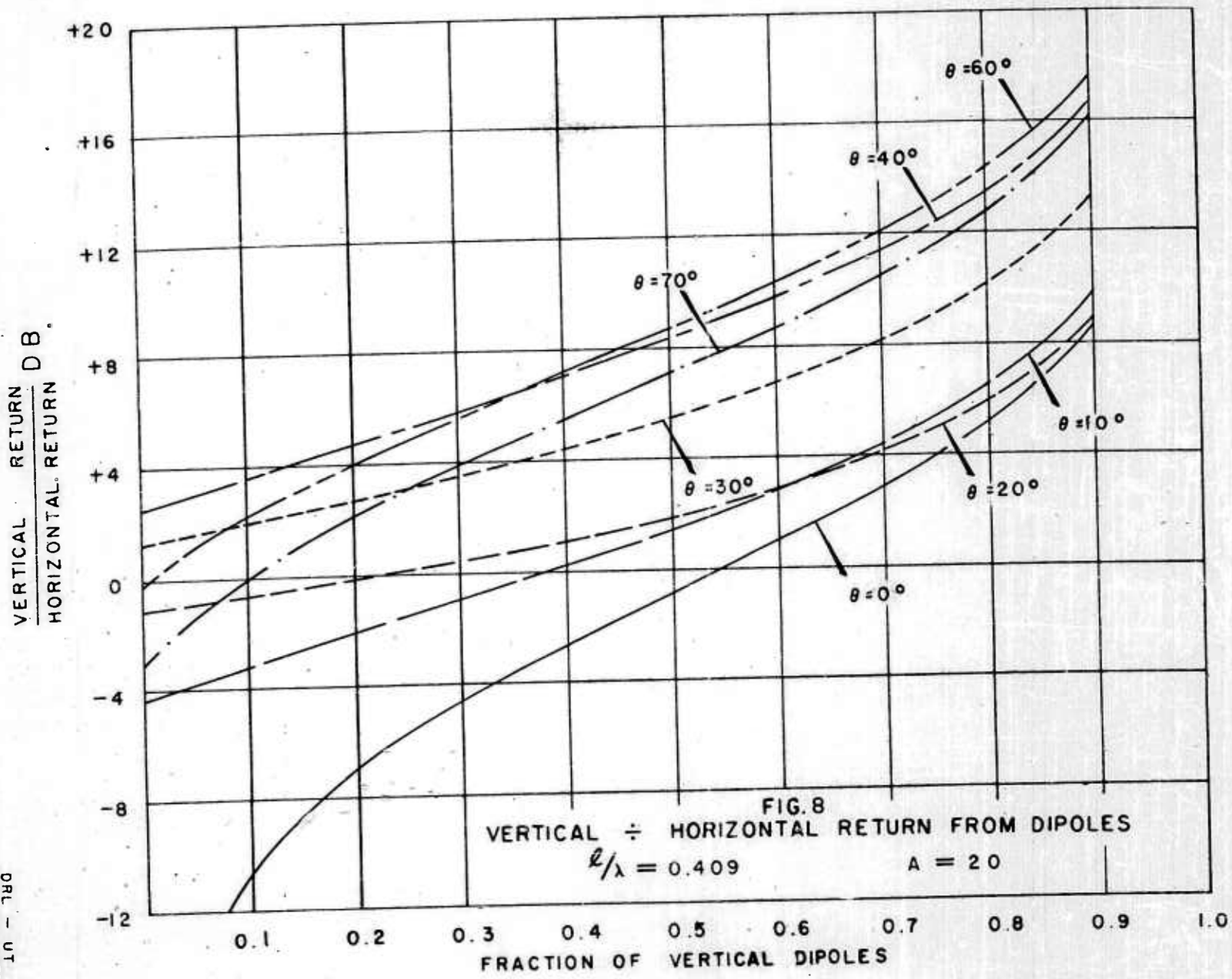


FIG. 8
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.409$ A = 20

DRL - UT
DWG AE 3676
BWB-LRS
1-7-60

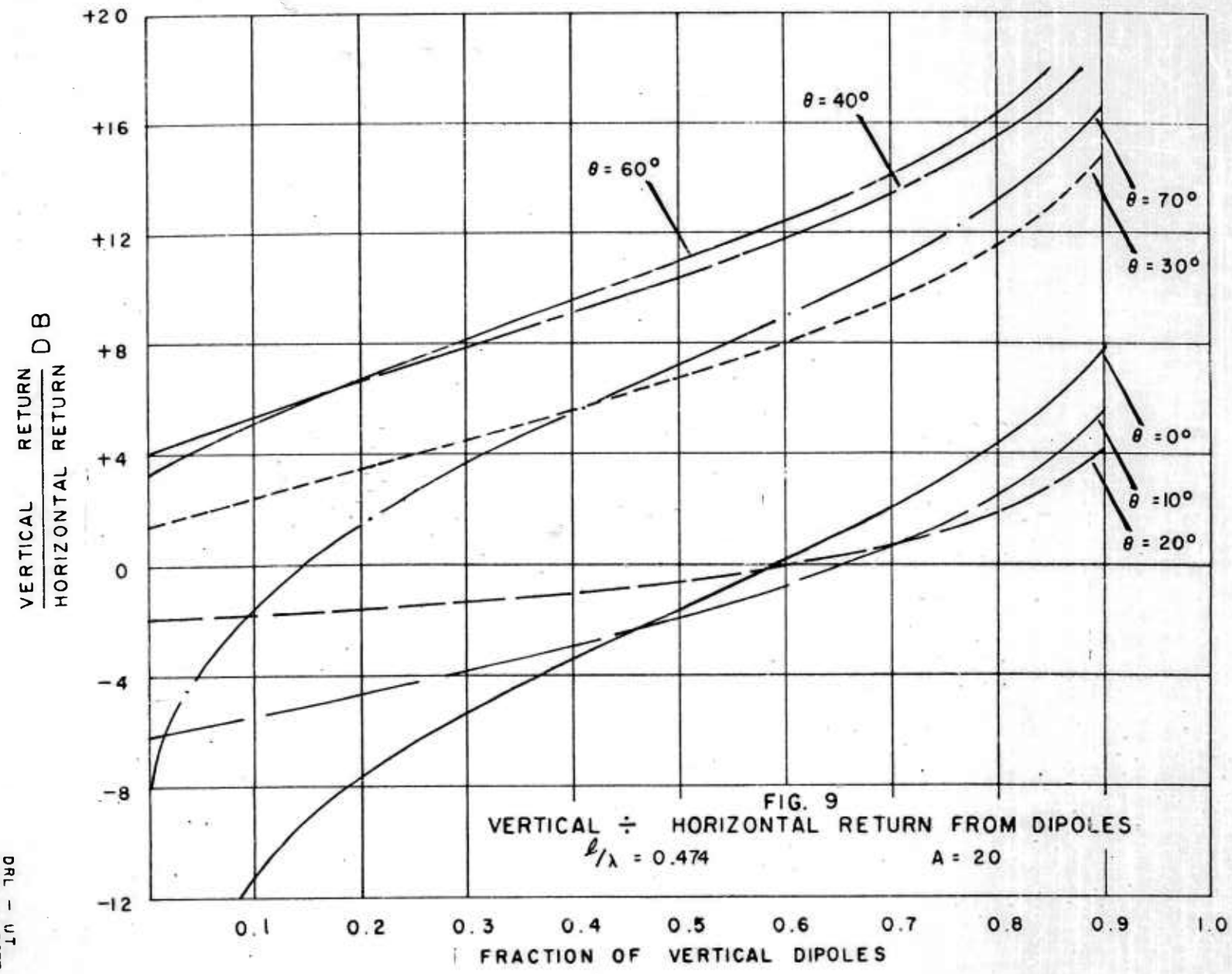


FIG. 9
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.474$ A = 20

ASD TN 61-37

61WWRN 2515

DRL - UT
DWG A E 3677
BWB - LRS
1-7-60

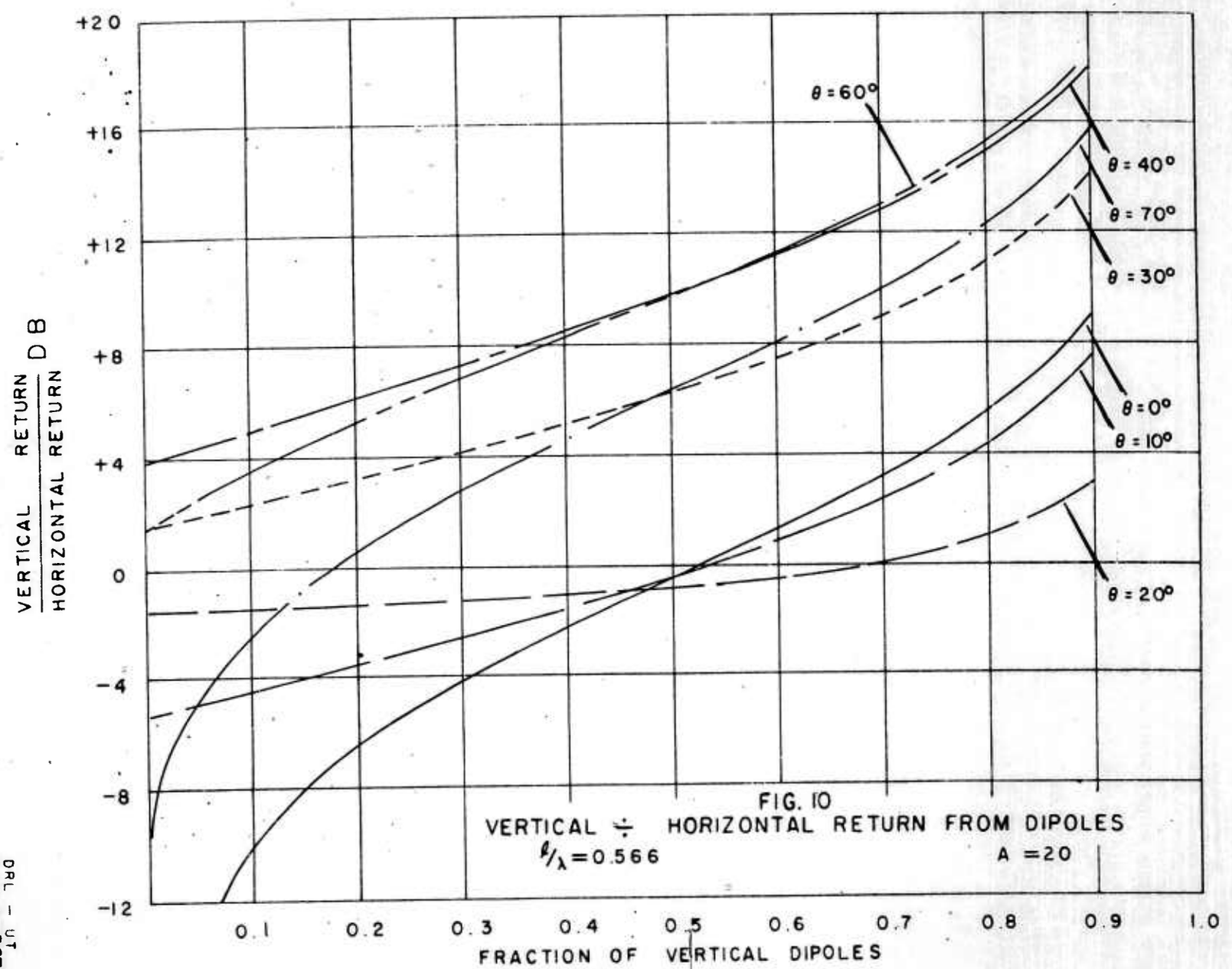


FIG. 10
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.566$ A = 20

DRL - UT
CAC AE 3670
RMB - LHS
1-27-60

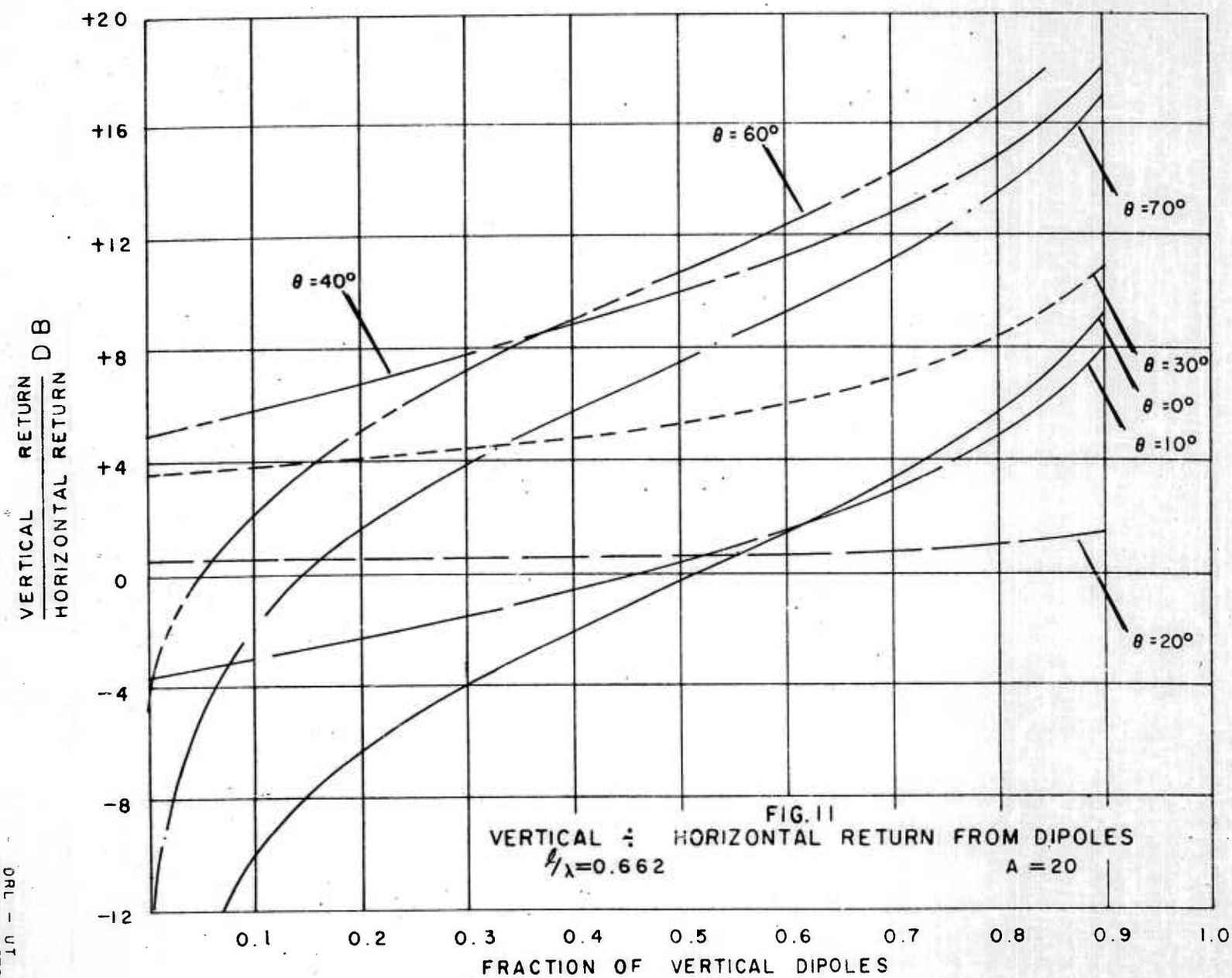


FIG. 11
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
ℓ/λ=0.662 A = 20

ORL - UT
DWG AE 3679
BWB - LRS
1-7-60

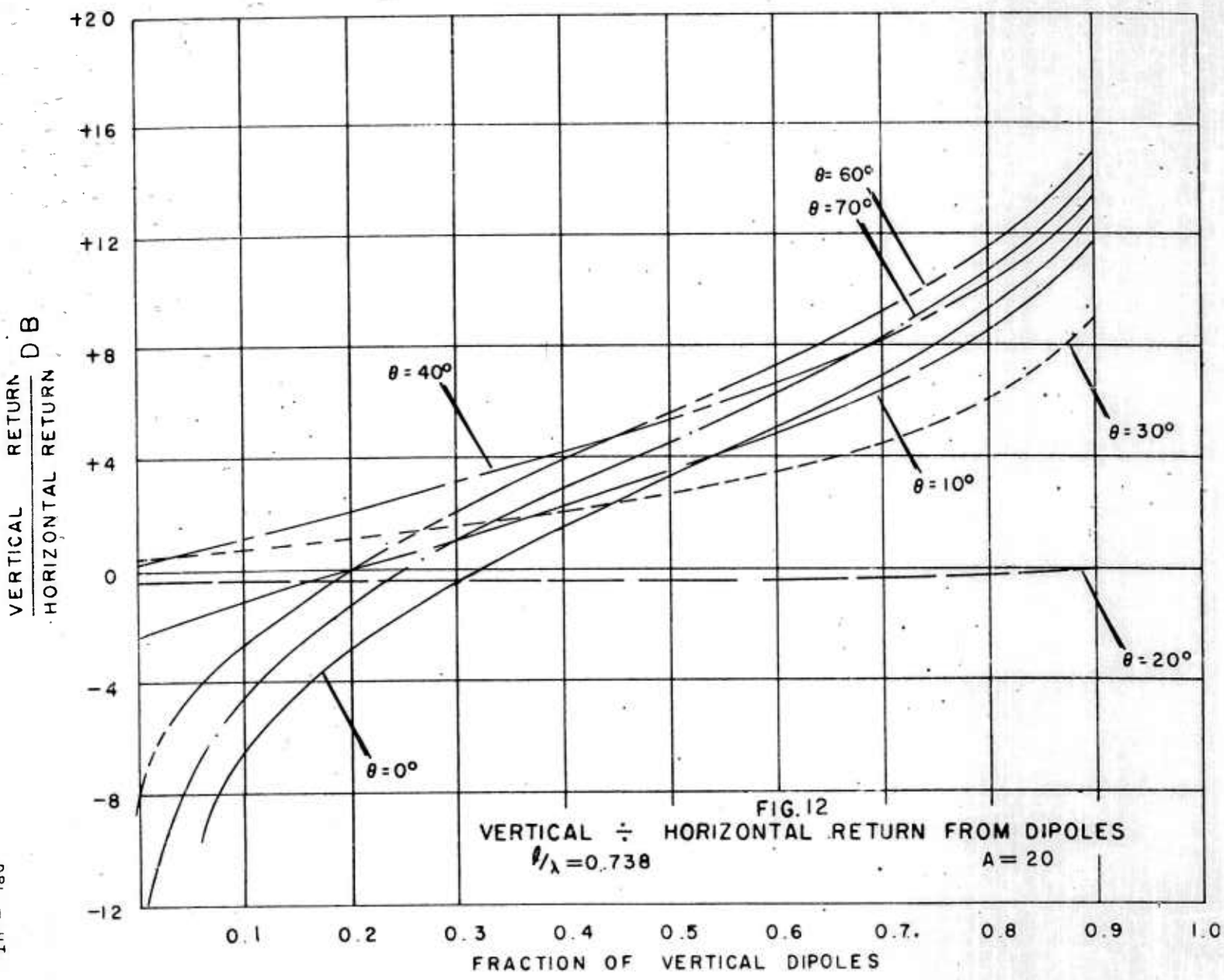


FIG. 12
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\theta/\lambda = 0.738$ A = 20

DRL - UT
DWG AE 3680
BWB — LRS
1 — 7 — 60

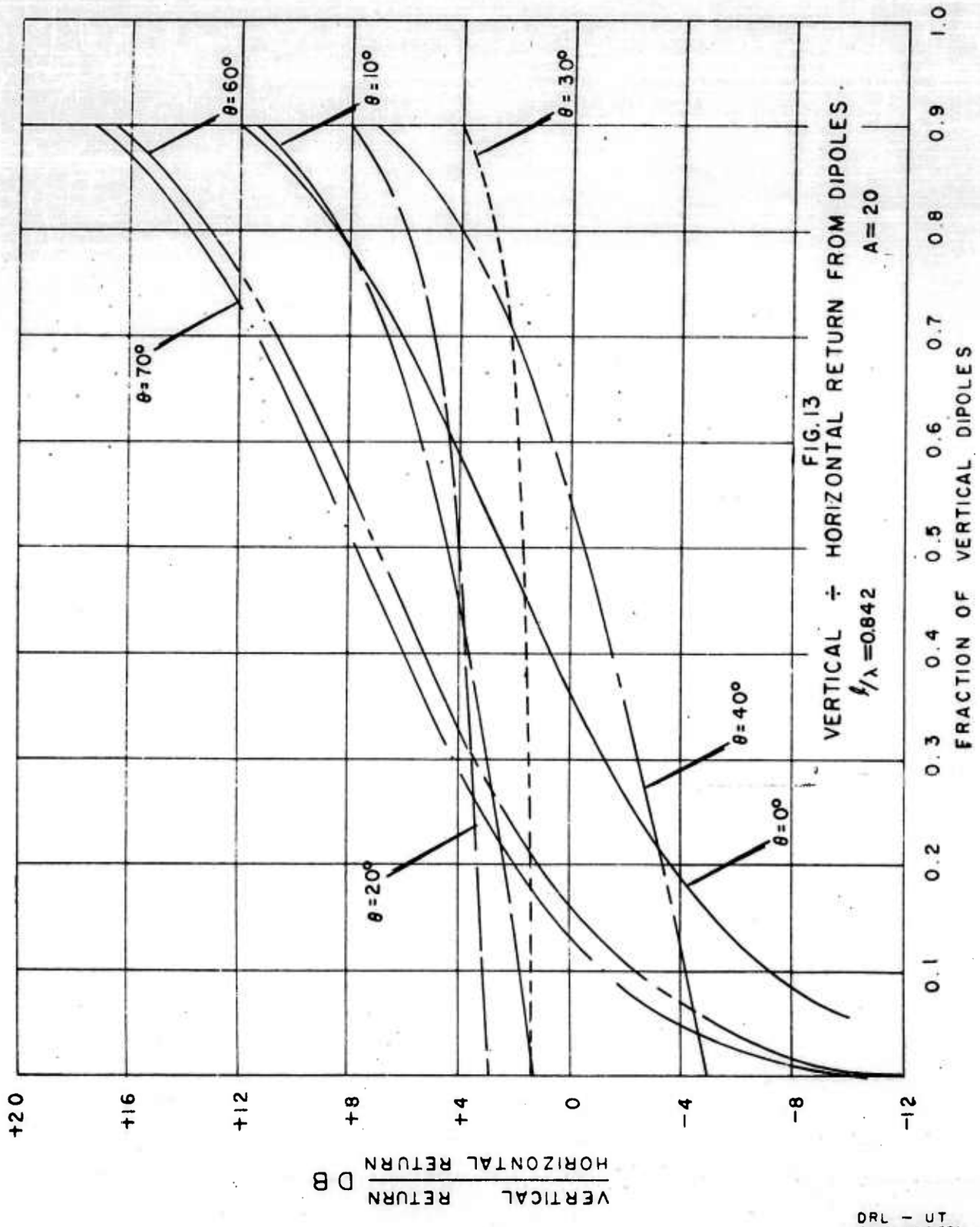


FIG. 13
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES.
$\ell/\lambda = 0.842$
A = 20

DRL – UT
DWG AE 3681
BWB – LRS
1 – 7 – 60

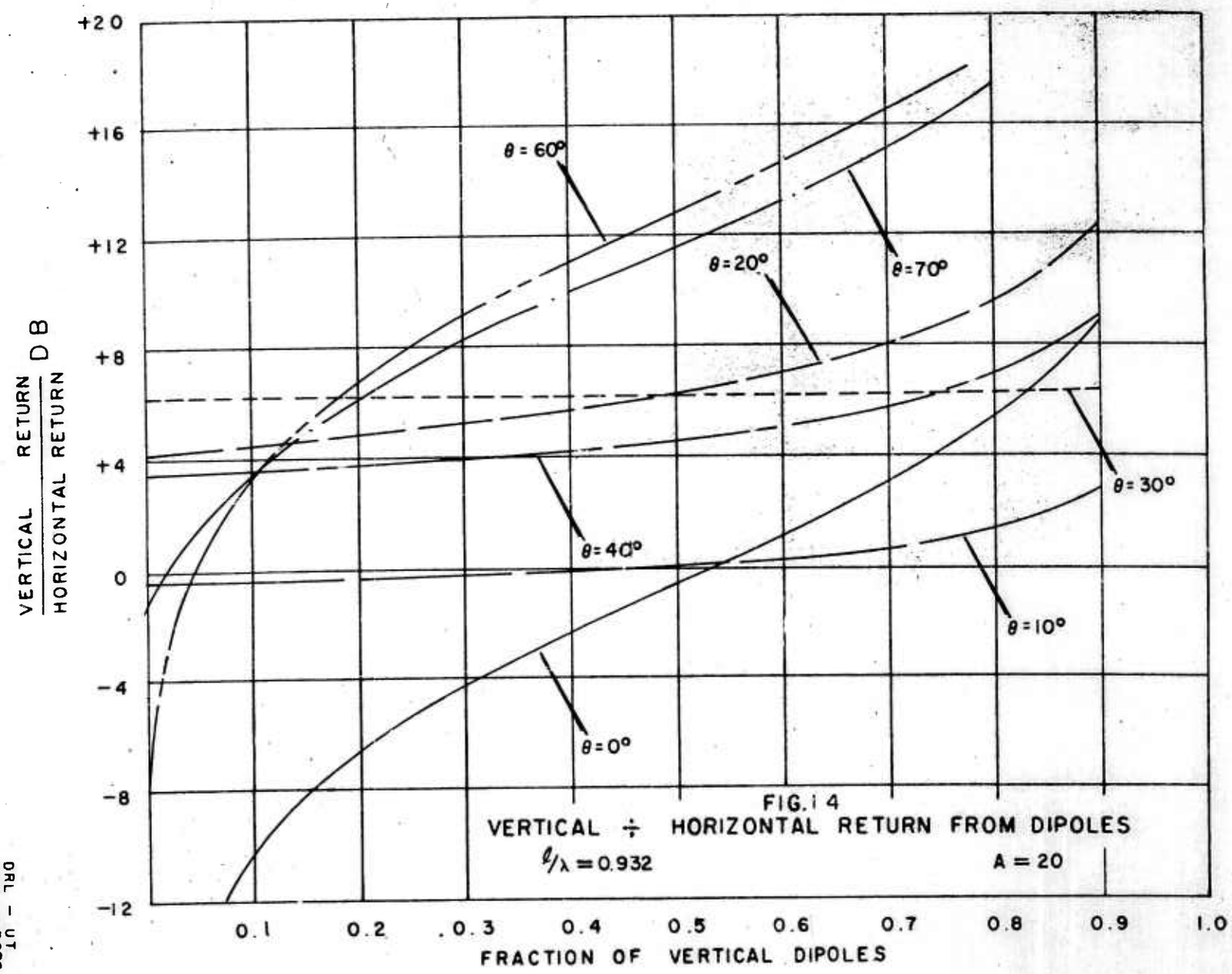


FIG. 14
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.932$ A = 20

DRL - UT
DWG AE 3682
BWB-LRS
1-7-60

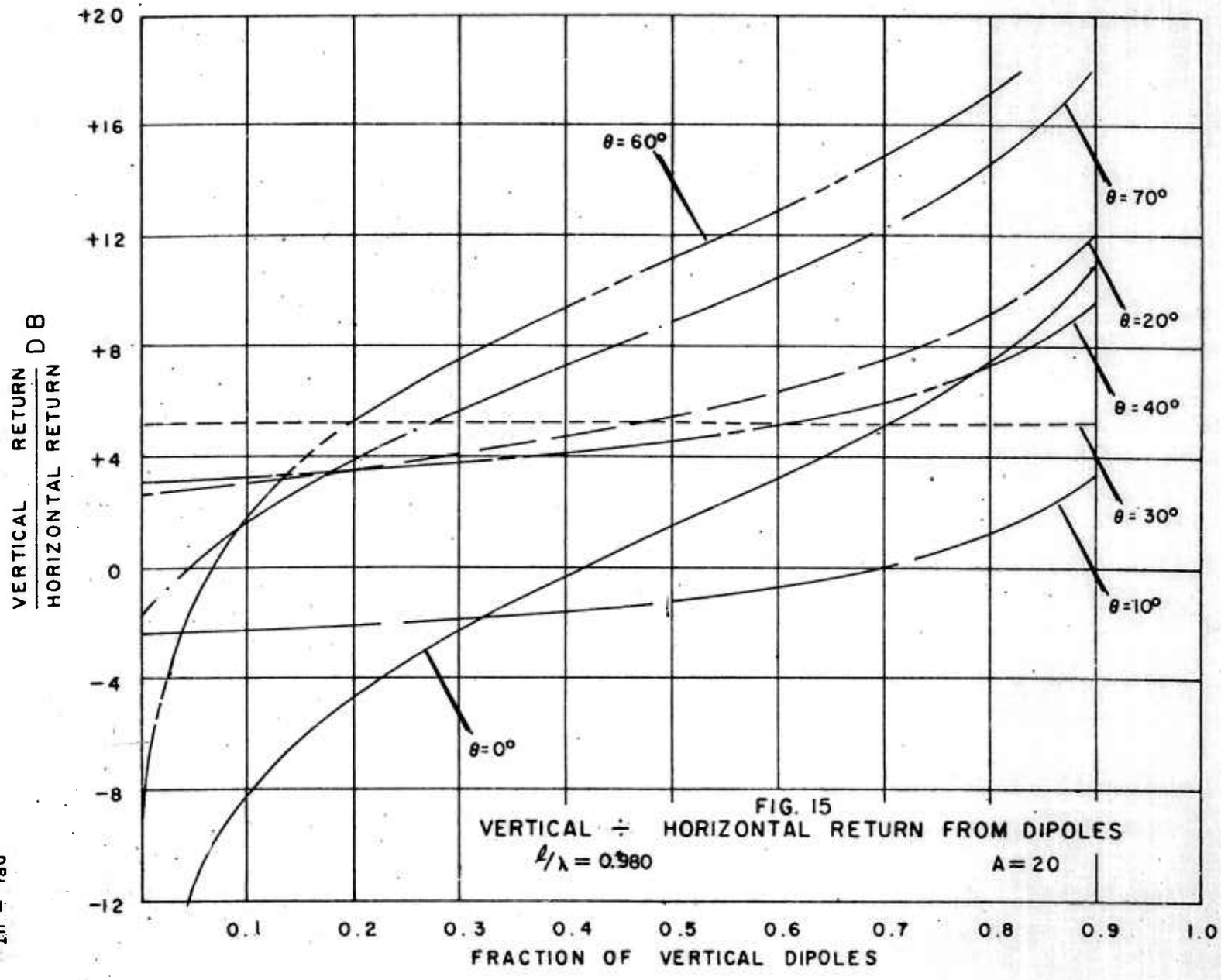


FIG. 15
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.980$ A = 20

DRL - UT
DWG AE3683
BWB - LRS
1-7-60

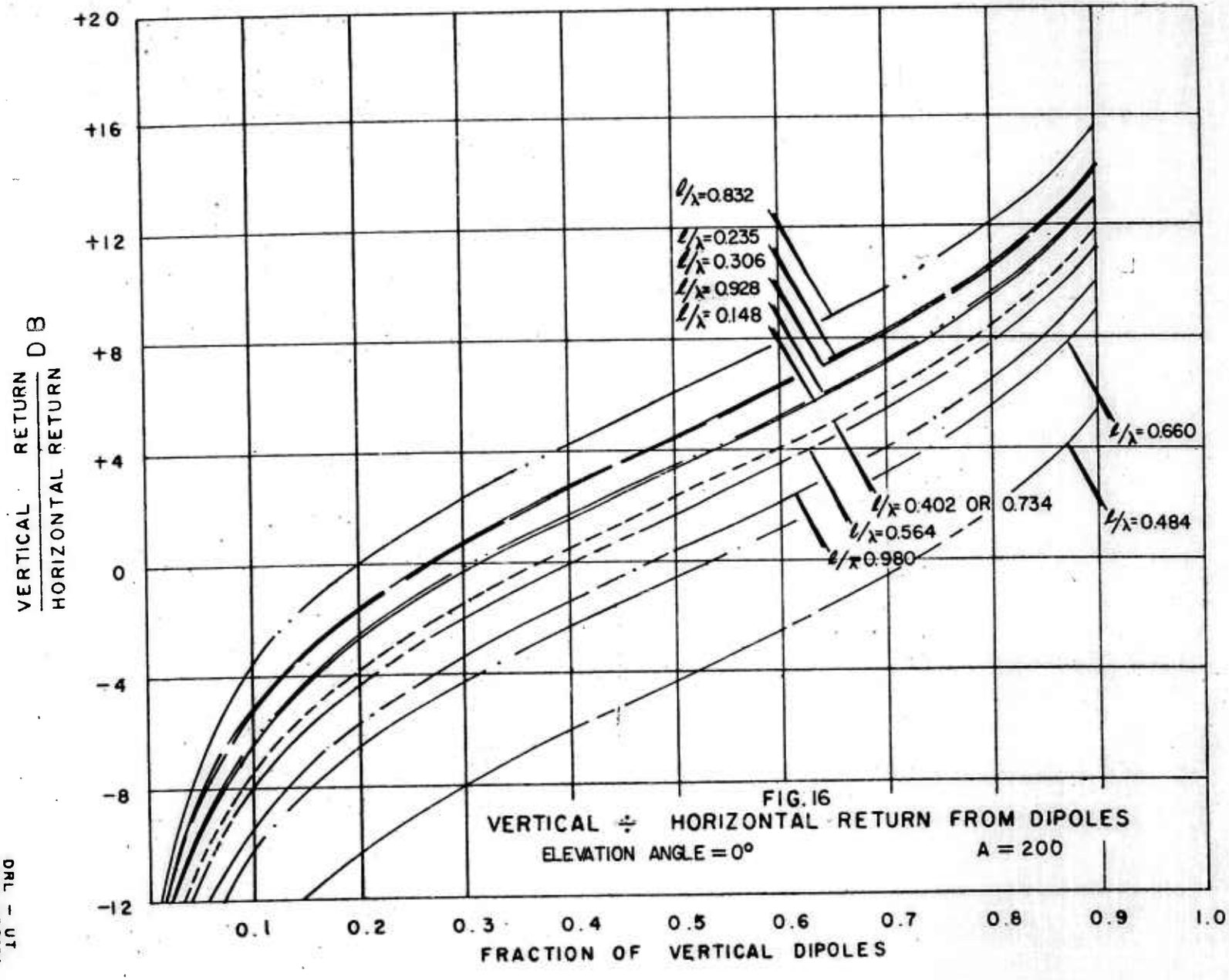


FIG. 16
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
ELEVATION ANGLE = 0° A = 200

DRL - UT
DWG AE 3694
BWB - LRS
1 - 7 - 60

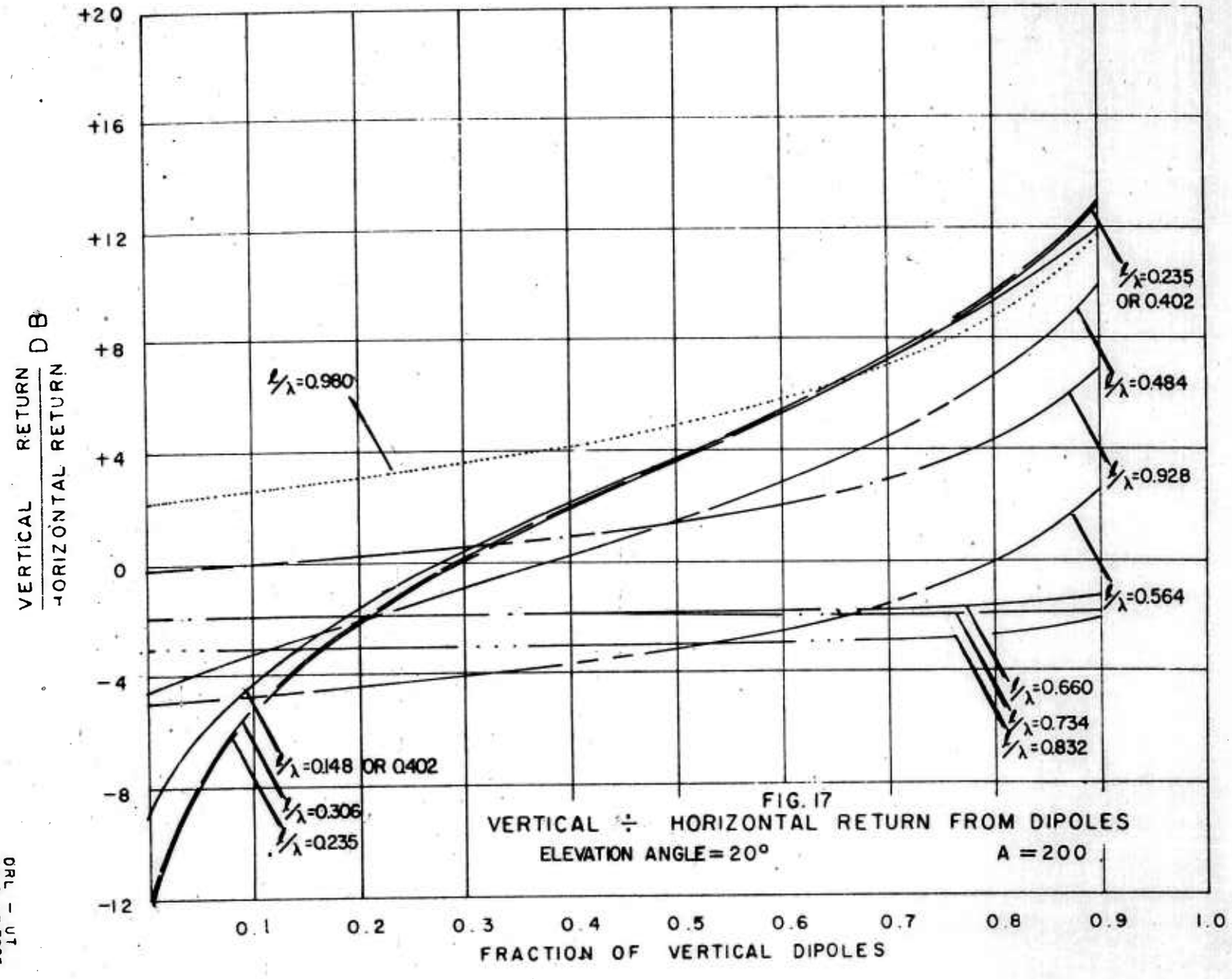


FIG. 17
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
ELEVATION ANGLE = 20° A = 200

ORL - UT
DWG AE 3686
BWB - LRS
1-7-60

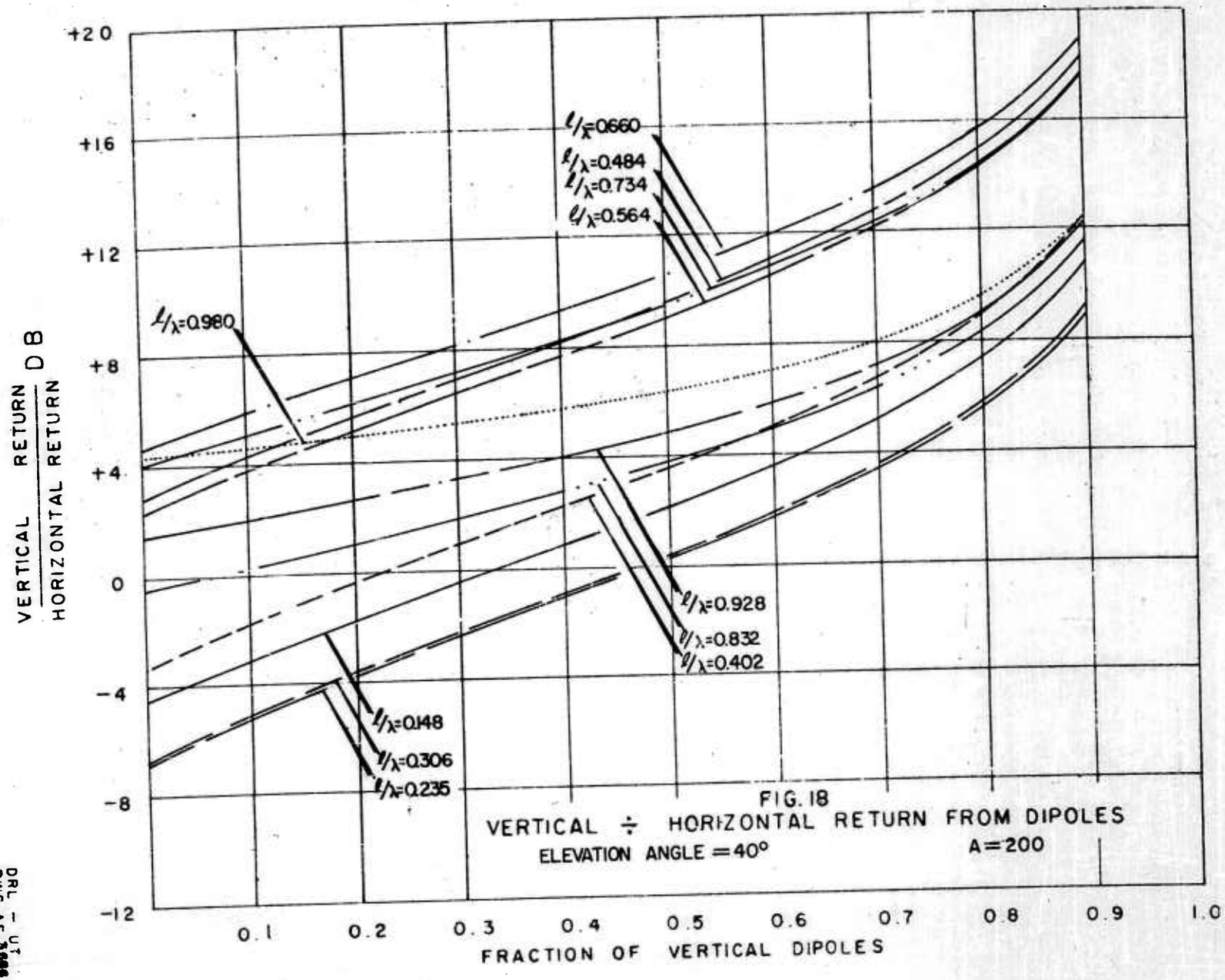


FIG. 18
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
ELEVATION ANGLE = 40° A=200

DRL - U of
DWG AE 3666
BWB - LRS
1 - 7 - 60

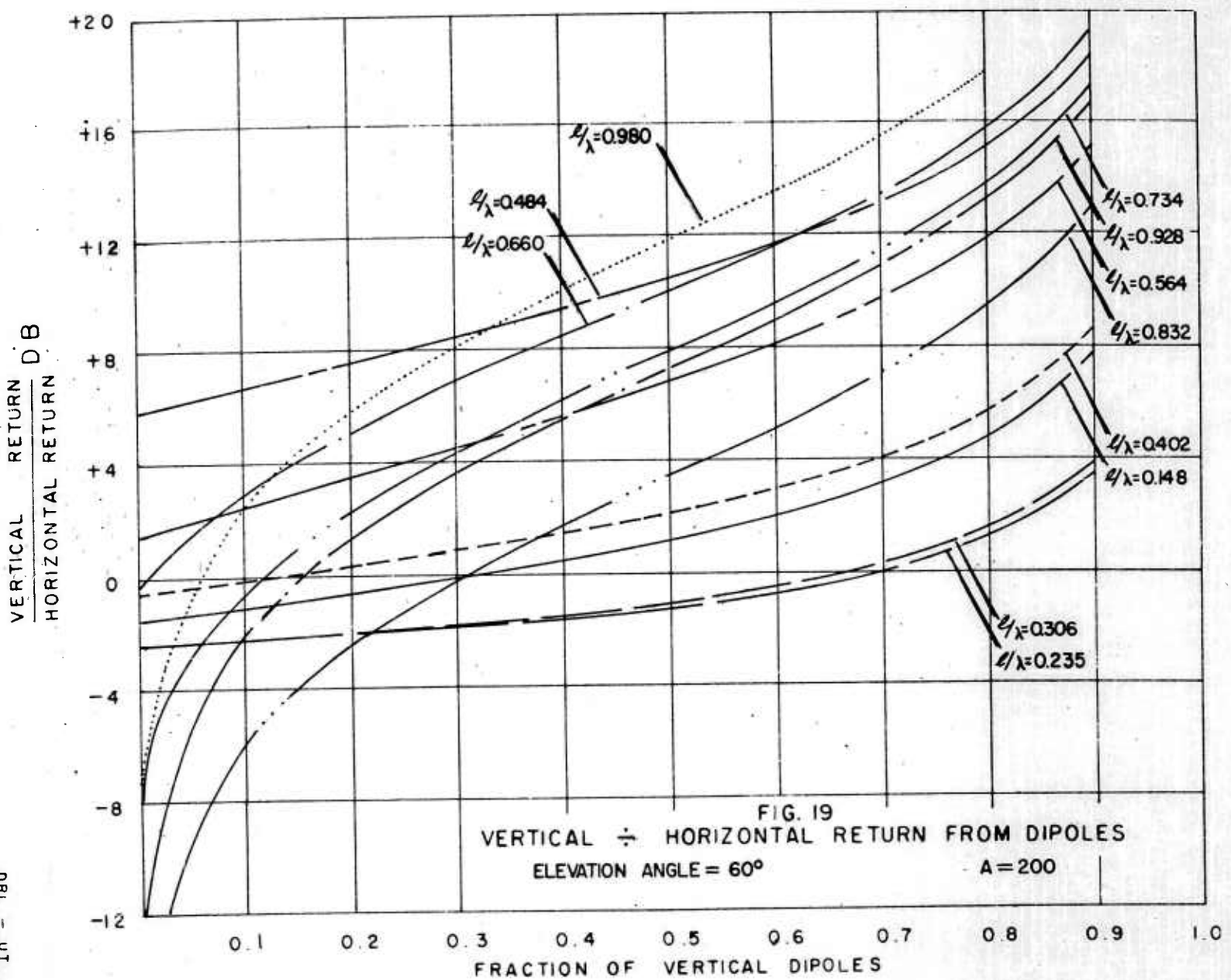


FIG. 19

VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES

ELEVATION ANGLE = 60° A=200

DRL - UT
DWG AE 3687
BWB - LRS
1 - 7 - 60

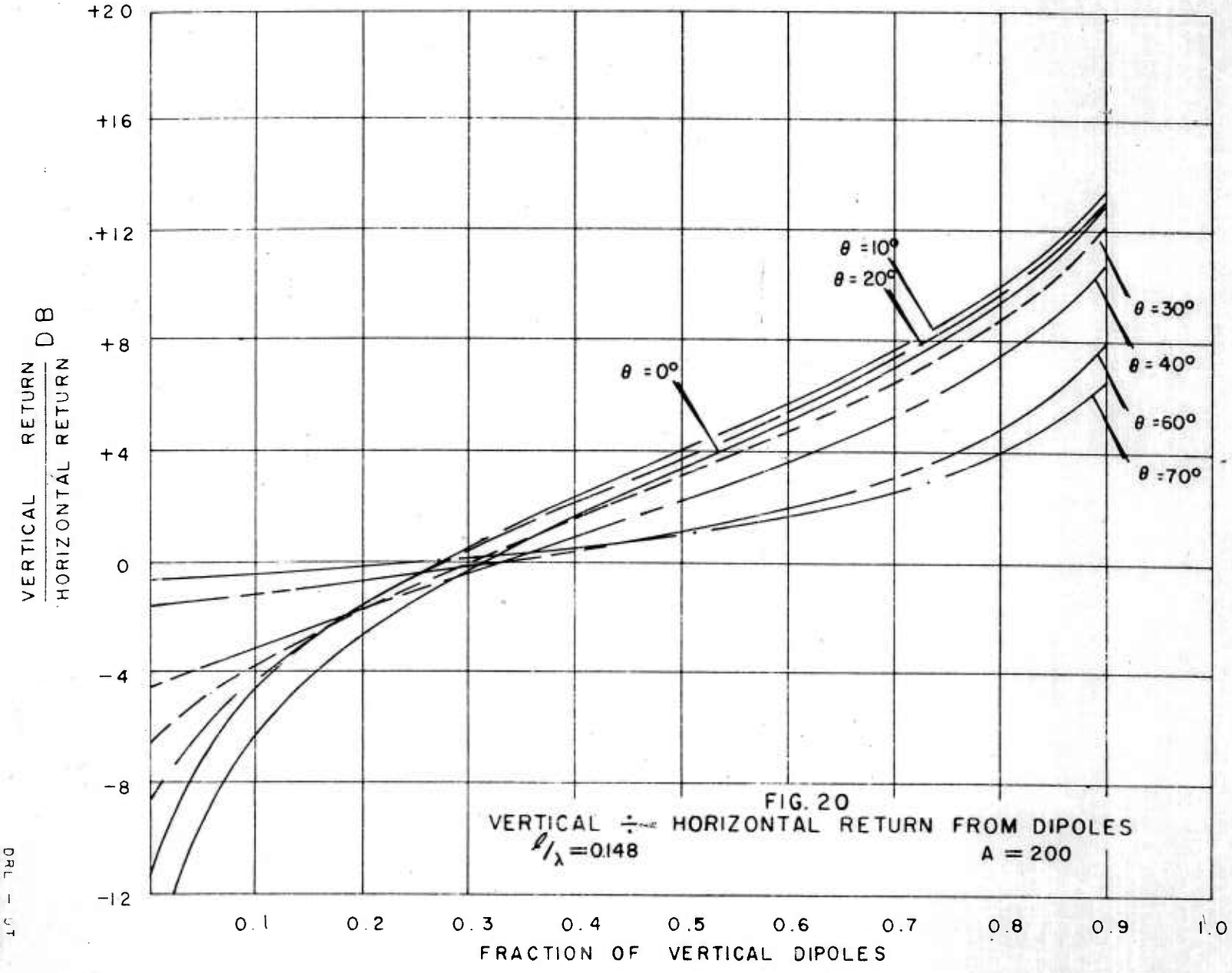


FIG. 20
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.148$
A = 200

DRL — UT
DWG AE 3688
BMB — LRS
1 — 7 — 60

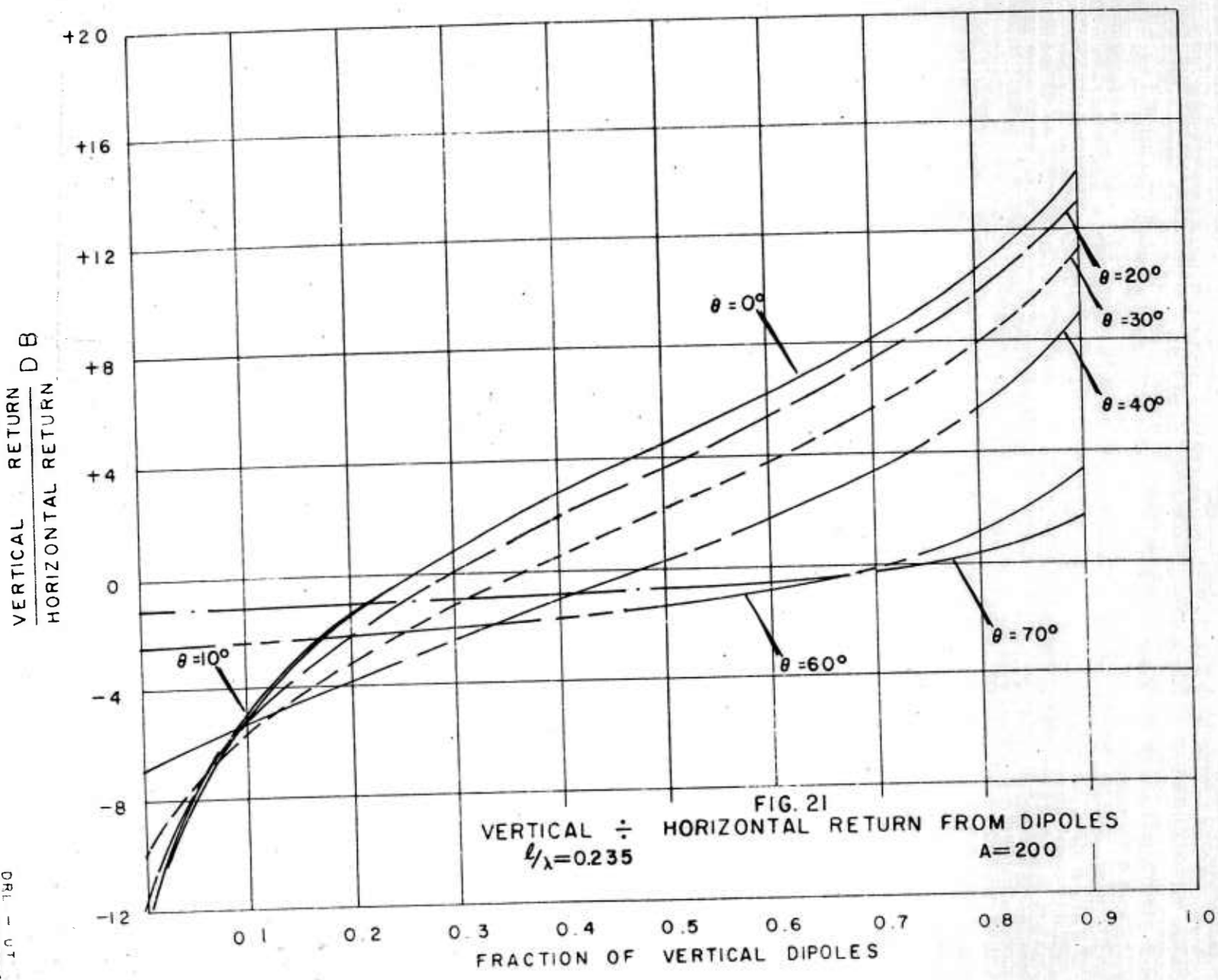


FIG. 21
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
ℓ/λ=0.235
A=200

DRL - UT
DAS AE 3669
BWB-LRS
1-7-60

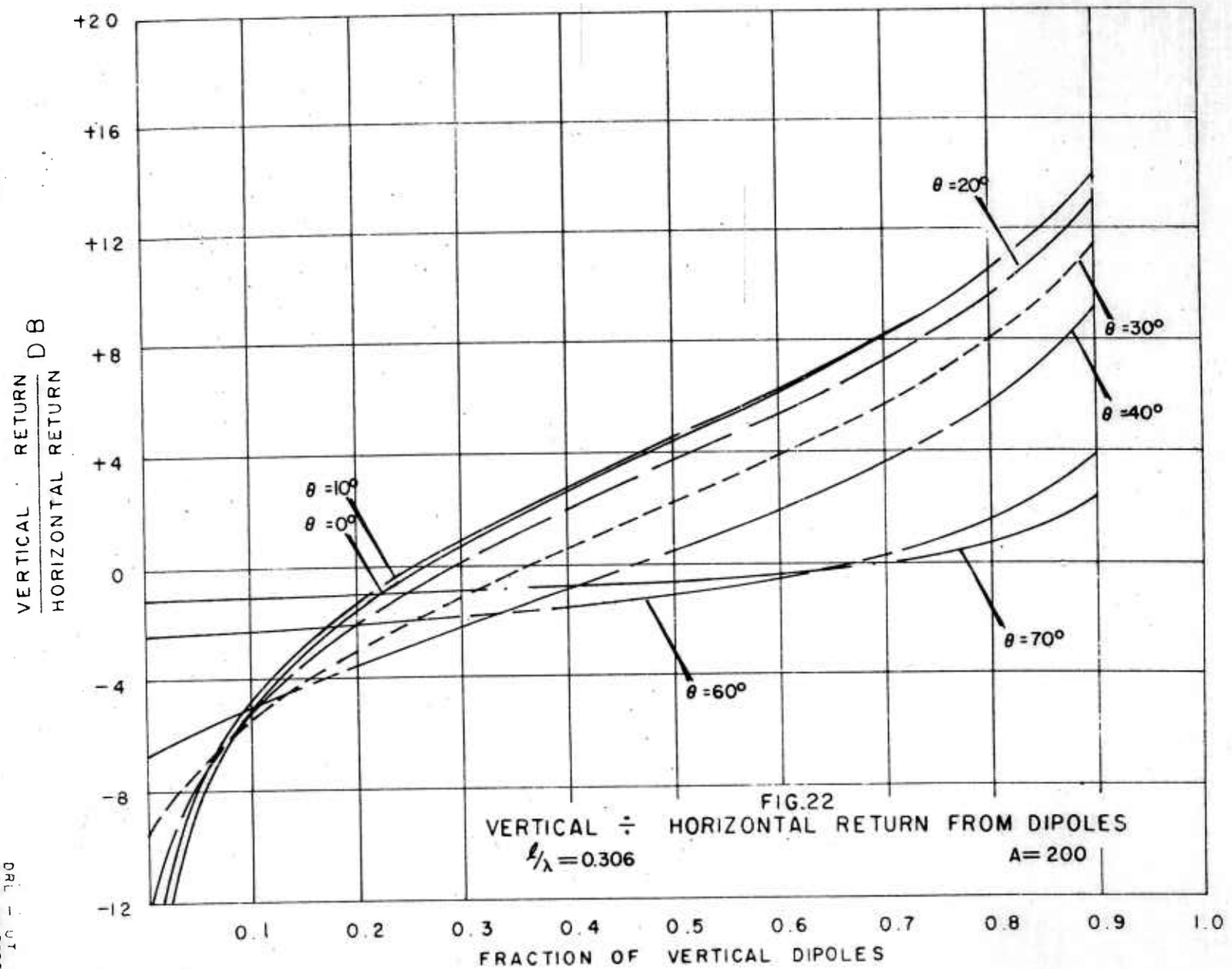
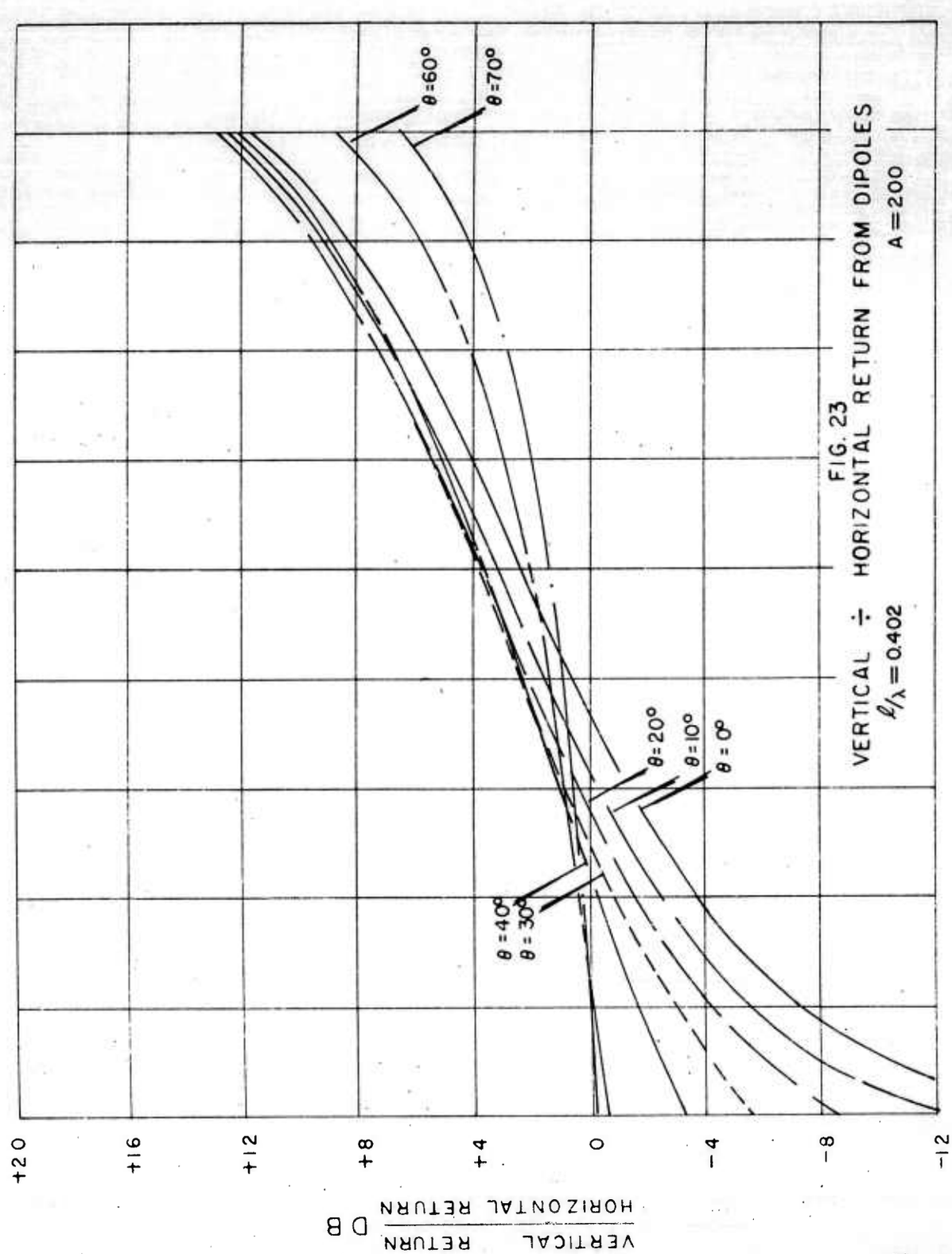


FIG.22
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.306$ A= 200

DRL - OUT
DWG AE 3880
BWB-LRS
1-7-60



DRL – UT
DAG AE 3691
BWB – LRS
1 – 7 – 60

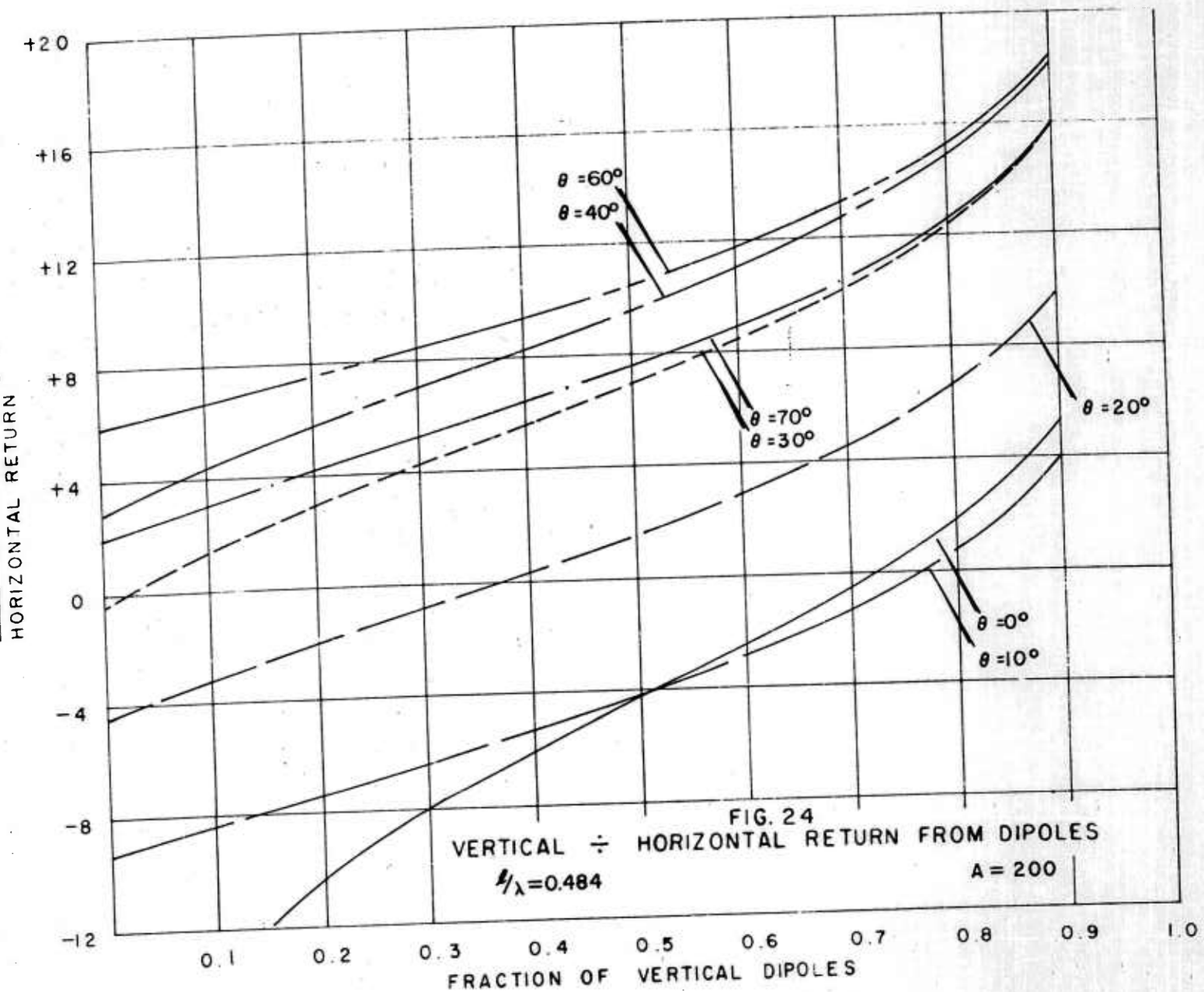


FIG. 24

VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES

$\ell/\lambda = 0.484$

A = 200

DRL — UT
DWG AE 3692
BWB — LRS
1 — 7 — 60

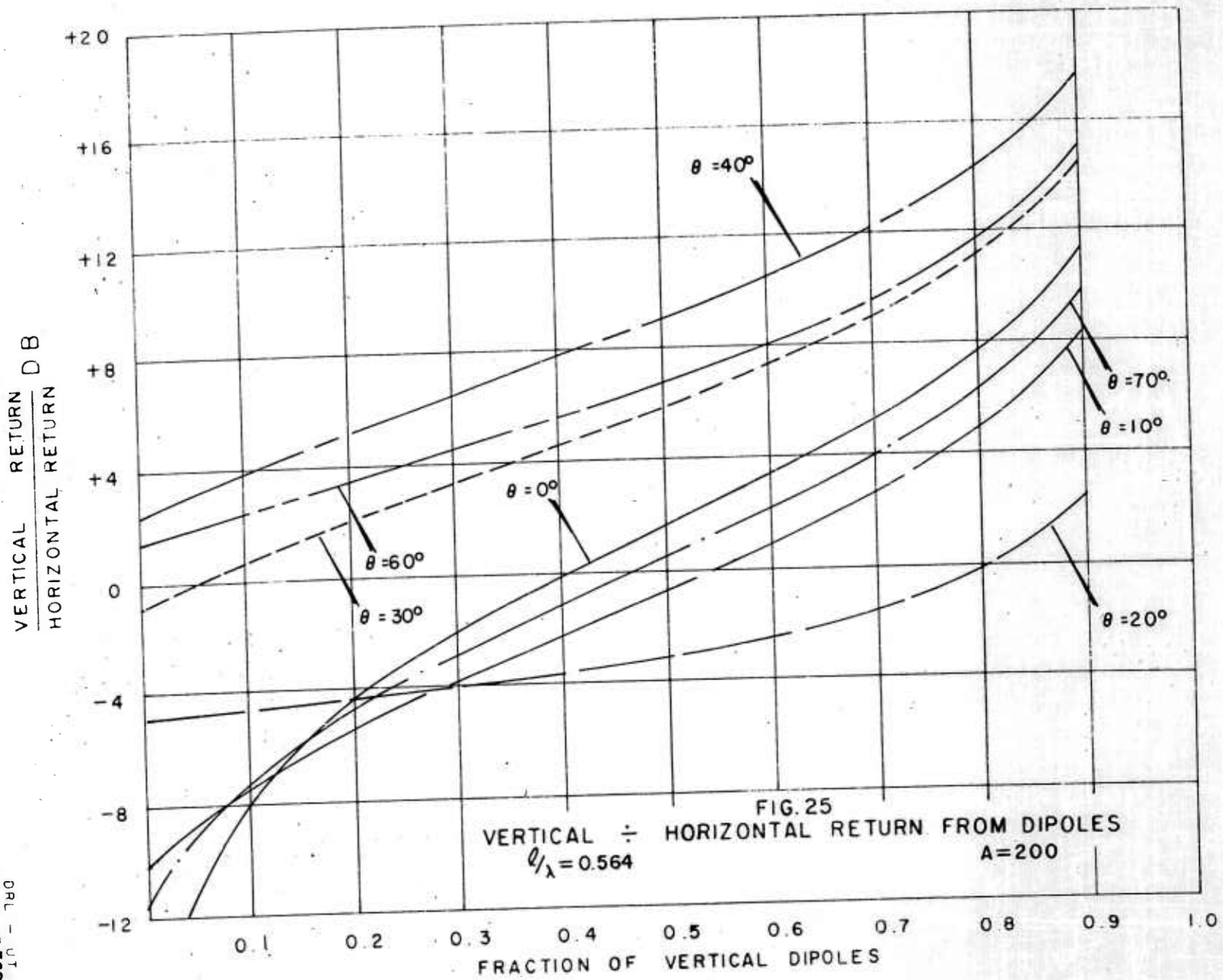


FIG. 25
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.564$
A=200

ASD TN 61-37

61WWRN 2515

ORL - UT
DWG AE 3693
BWB-LRS
1-7-60

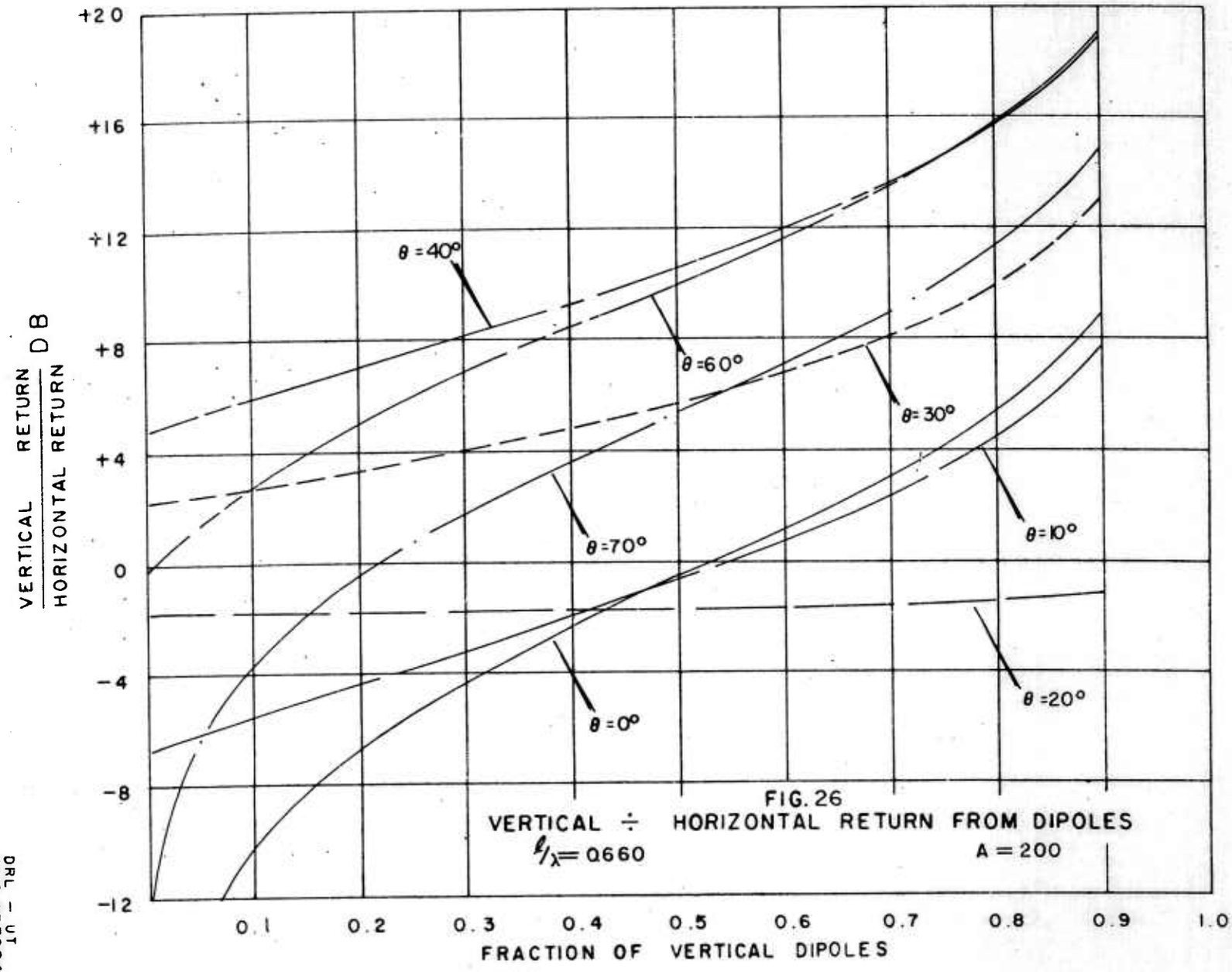


FIG. 26
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0660$ A = 200

DRL - UT
DWG AE 3694
BWB - LRS
1-7-60

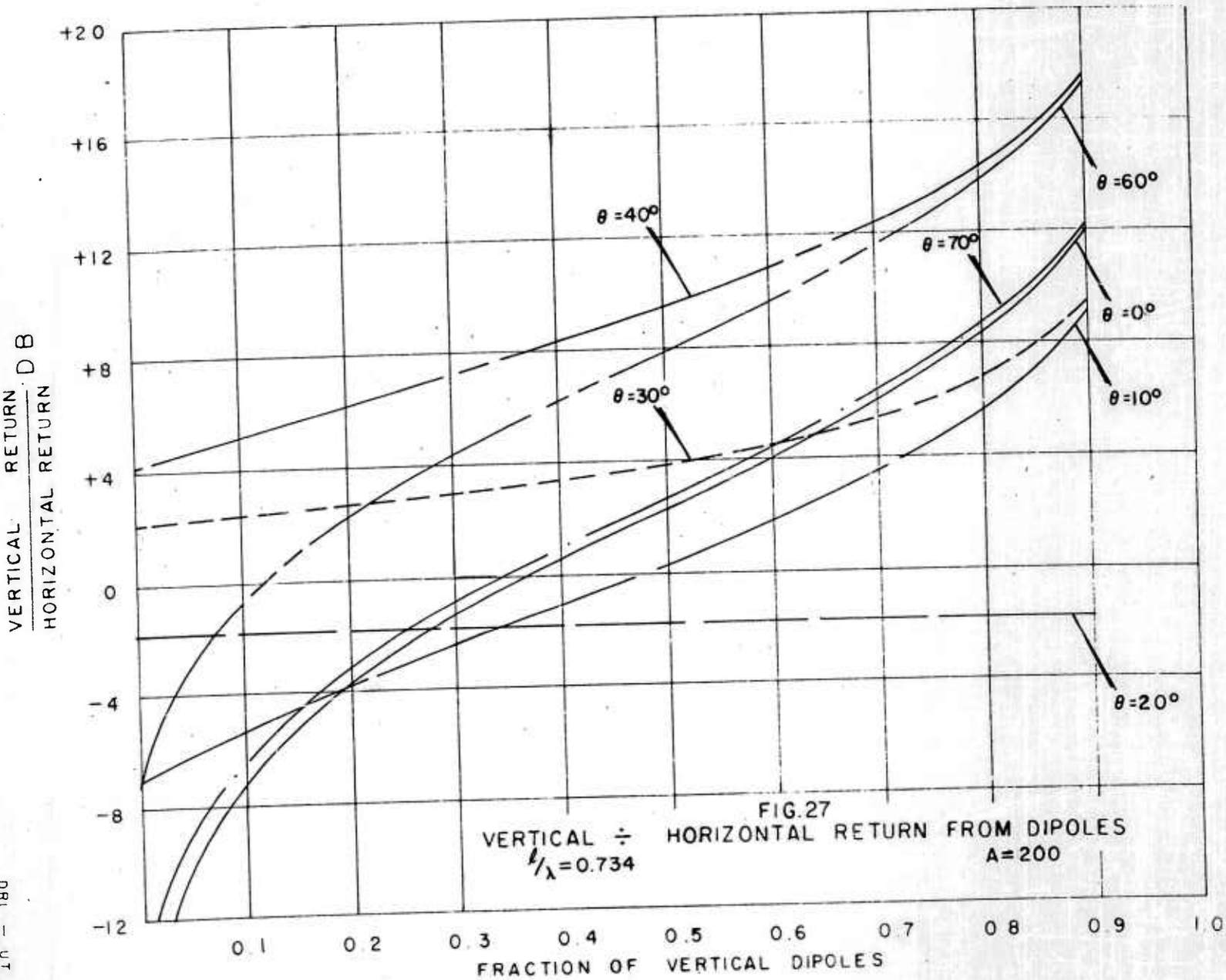


FIG.27
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.734$
A=200

DRL — UT
DAC AE 3695
BWB — LRS
1 — 7 — 60

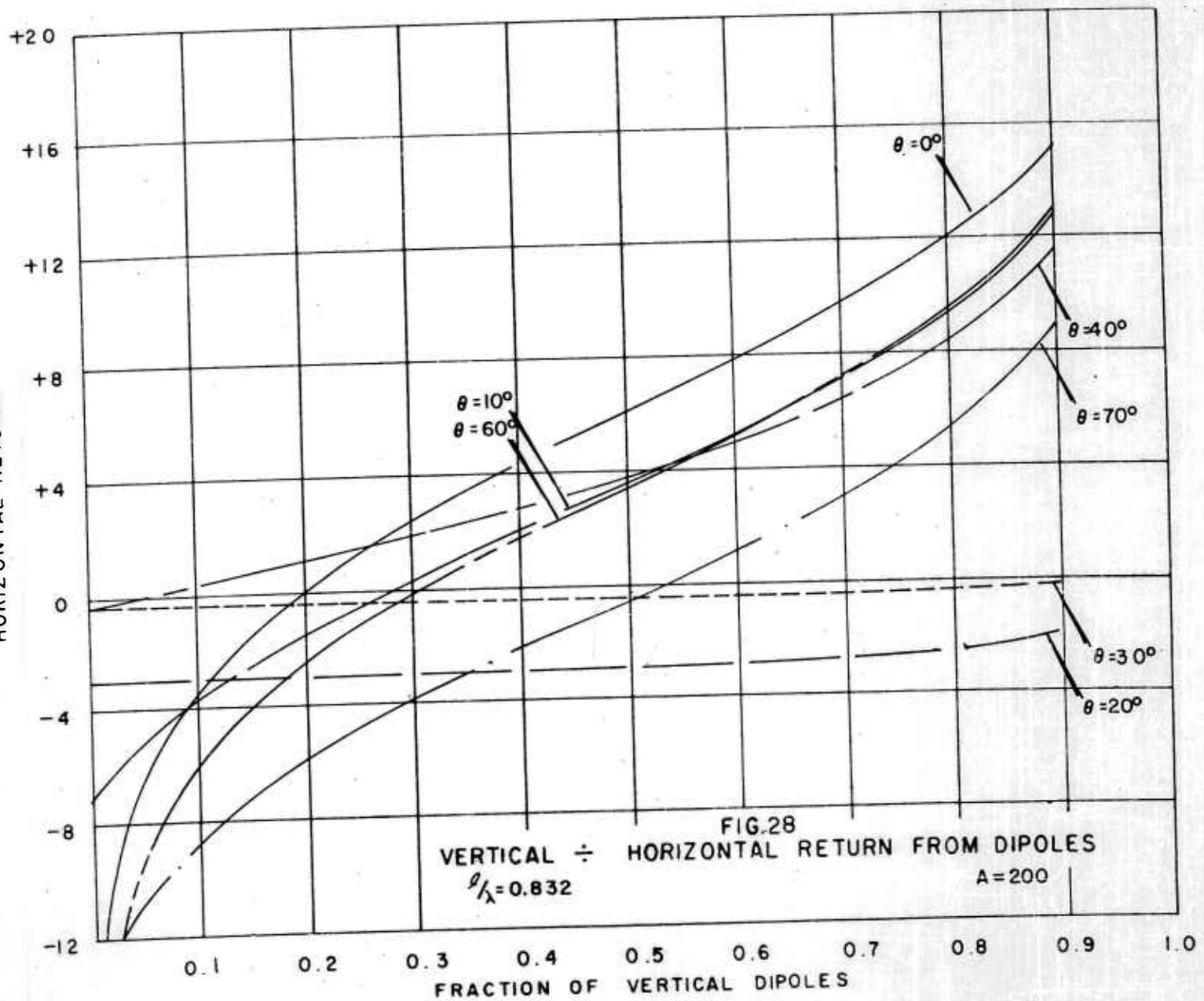


FIG.28

DRL – UT
DWG AE 3696
BWB – LRS
1 – 7 – 60

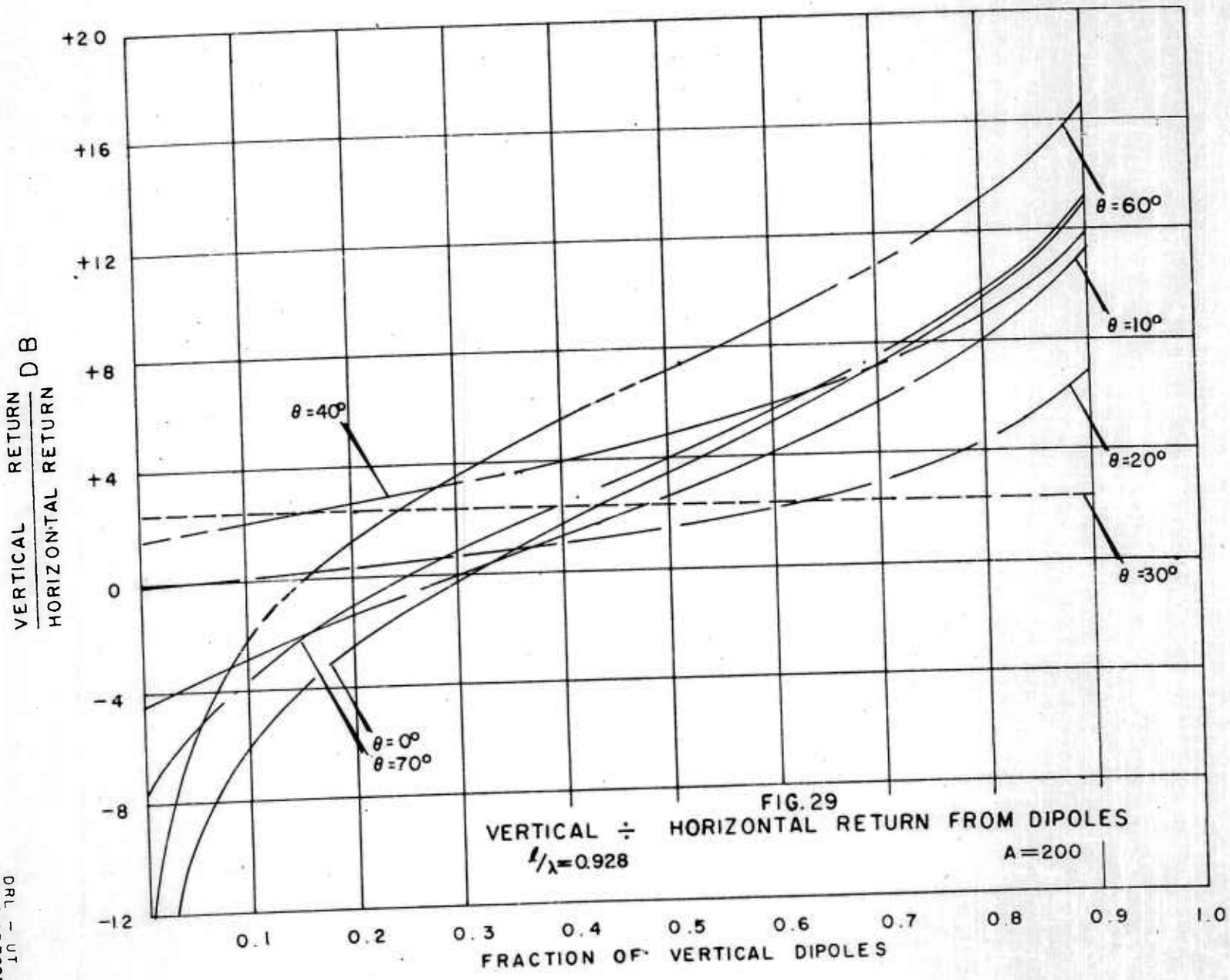


FIG. 29
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.928$
A=200

DRL - UT
DWG AE3697
BWB-LRS
1-7-60

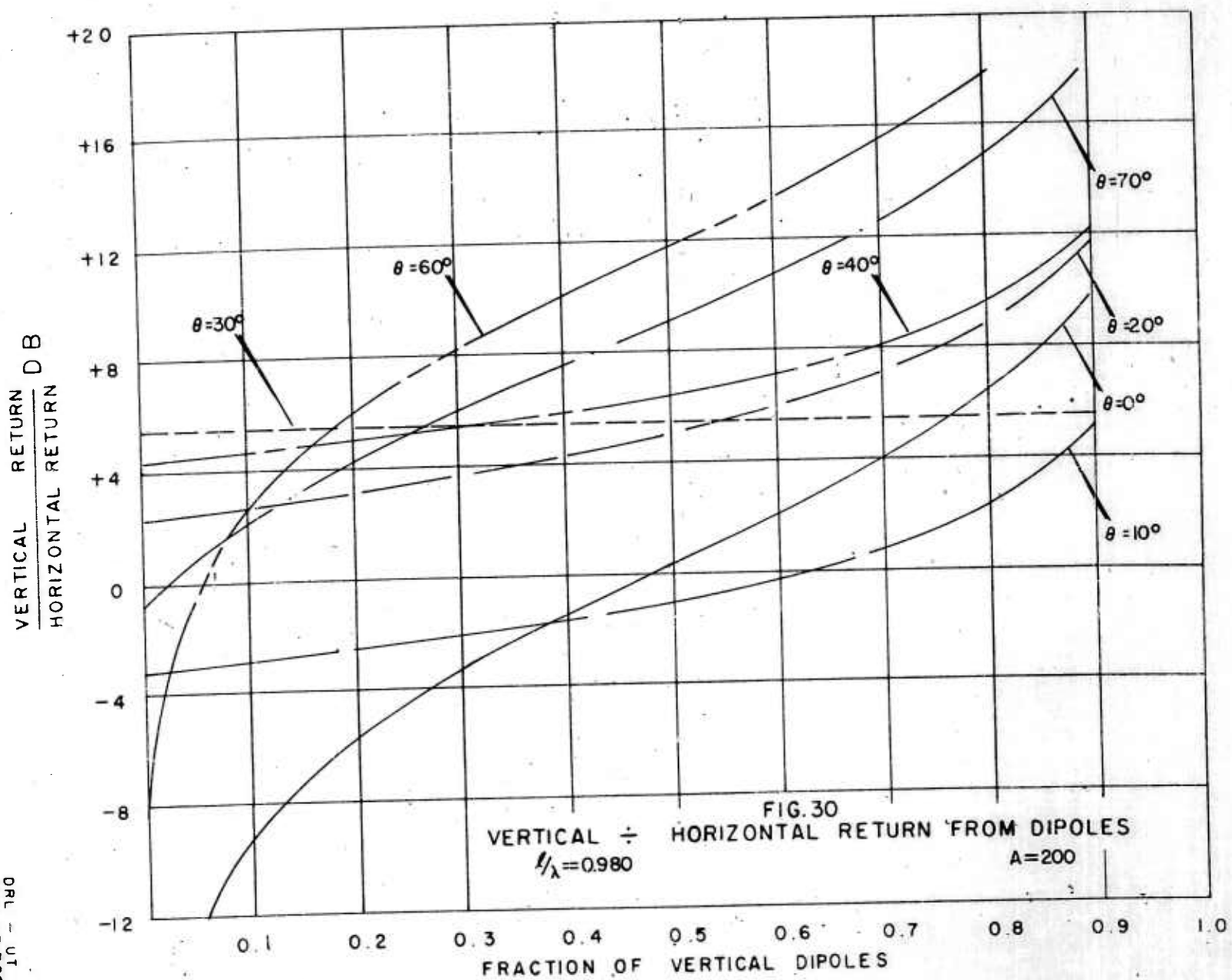


FIG. 30
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
ℓ/λ=0.980
A=200

DRL - UT
DWG AE 3698
BWB—LRS
1—7—60

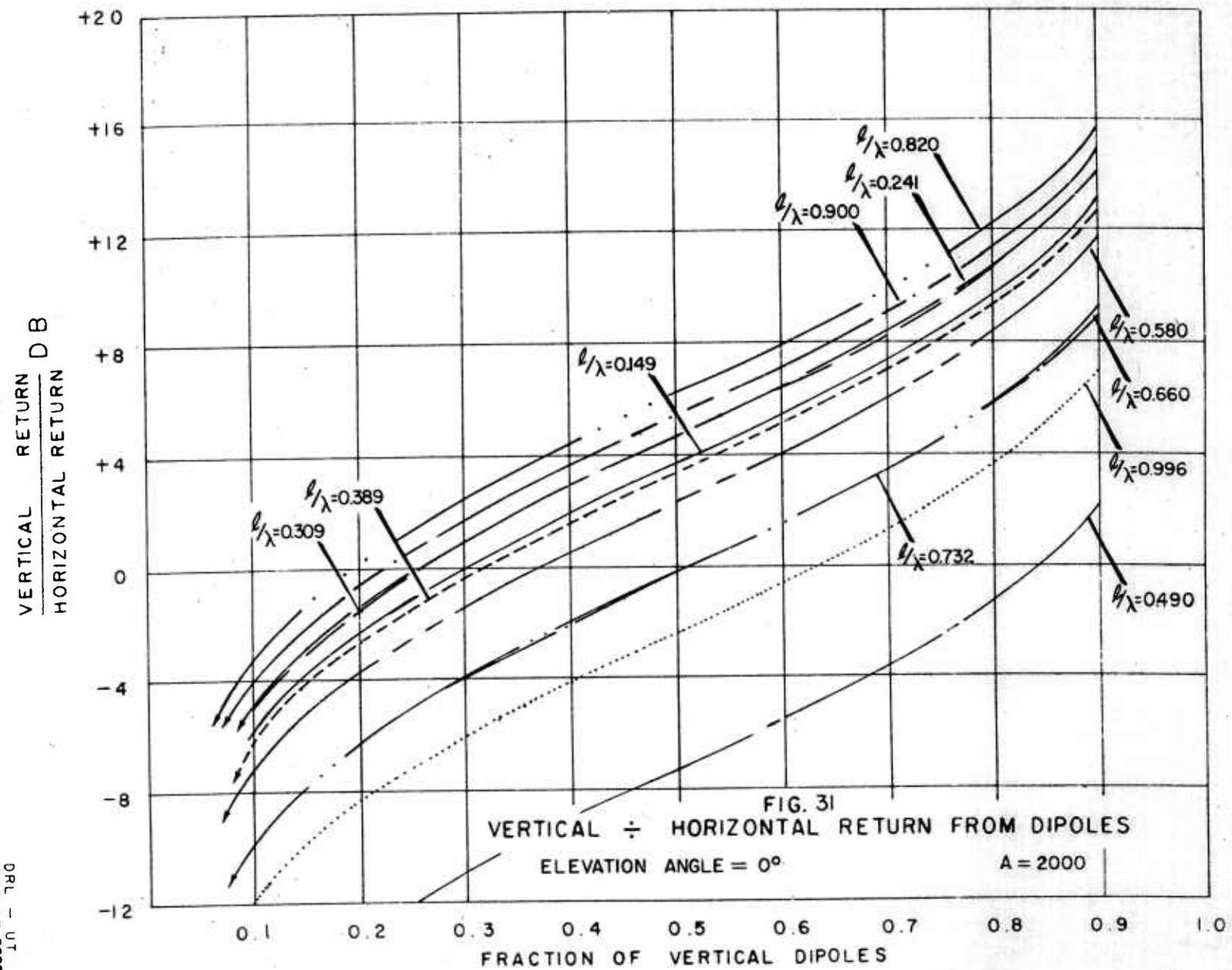


FIG. 31
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
ELEVATION ANGLE = 0° A = 2000

DRL - UT
DWG AE 3699
BWB - LRS
1 - 7 - 60

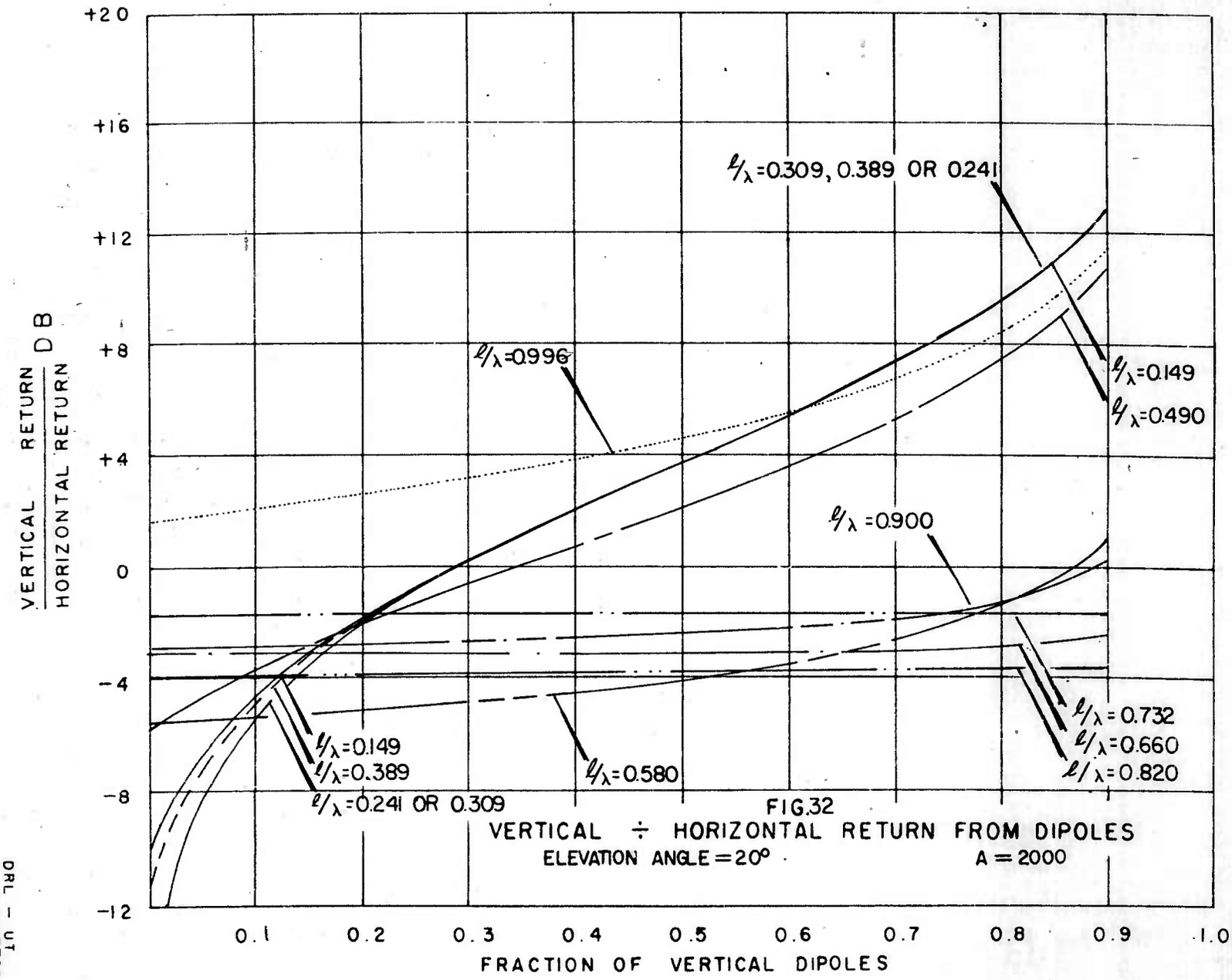


FIG.32

VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES

ELEVATION ANGLE = 20° A = 2000

ASD TN 61-37

61WWRN 2515

DRL - UT
DWG AE 3700
BWB - LRS
1-7-60

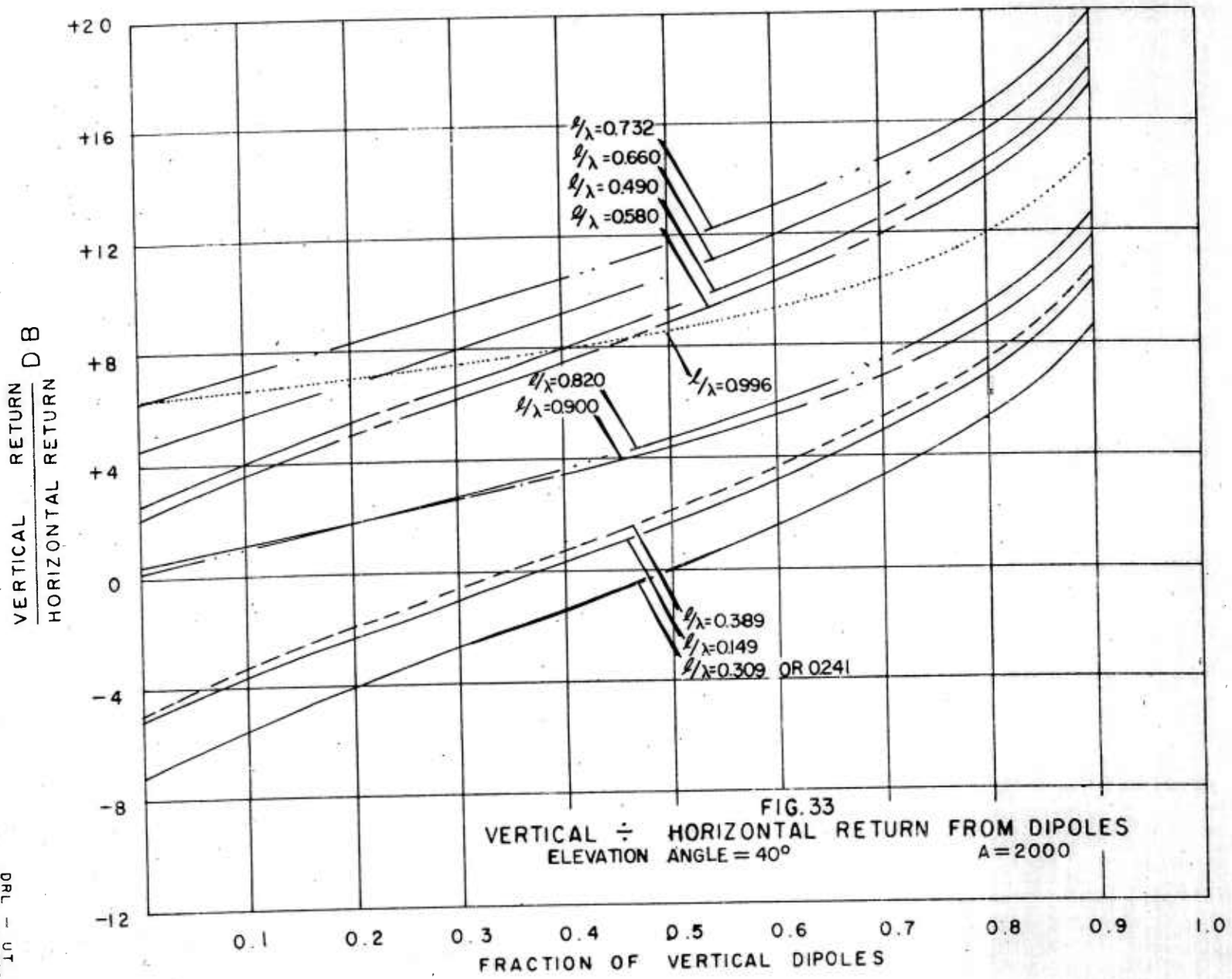


FIG. 33
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
ELEVATION ANGLE = 40° A = 2000

DRL - UT
DWG AE 3701
BWB - LRS
1-7-60

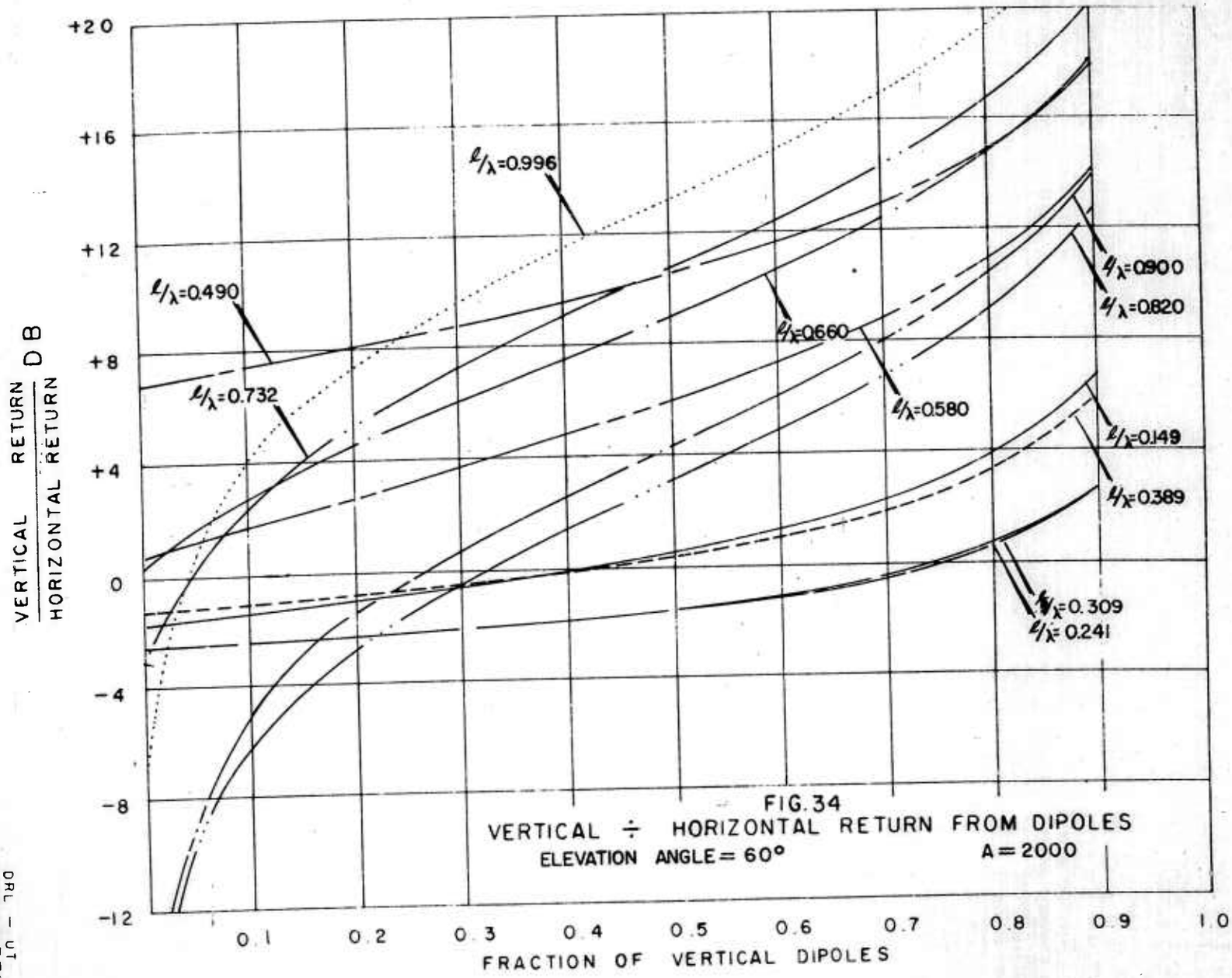


FIG. 34
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
ELEVATION ANGLE = 60° A = 2000

DRL — UI
DWG AE 3702
BWB — LRS
1 — 7 — 60

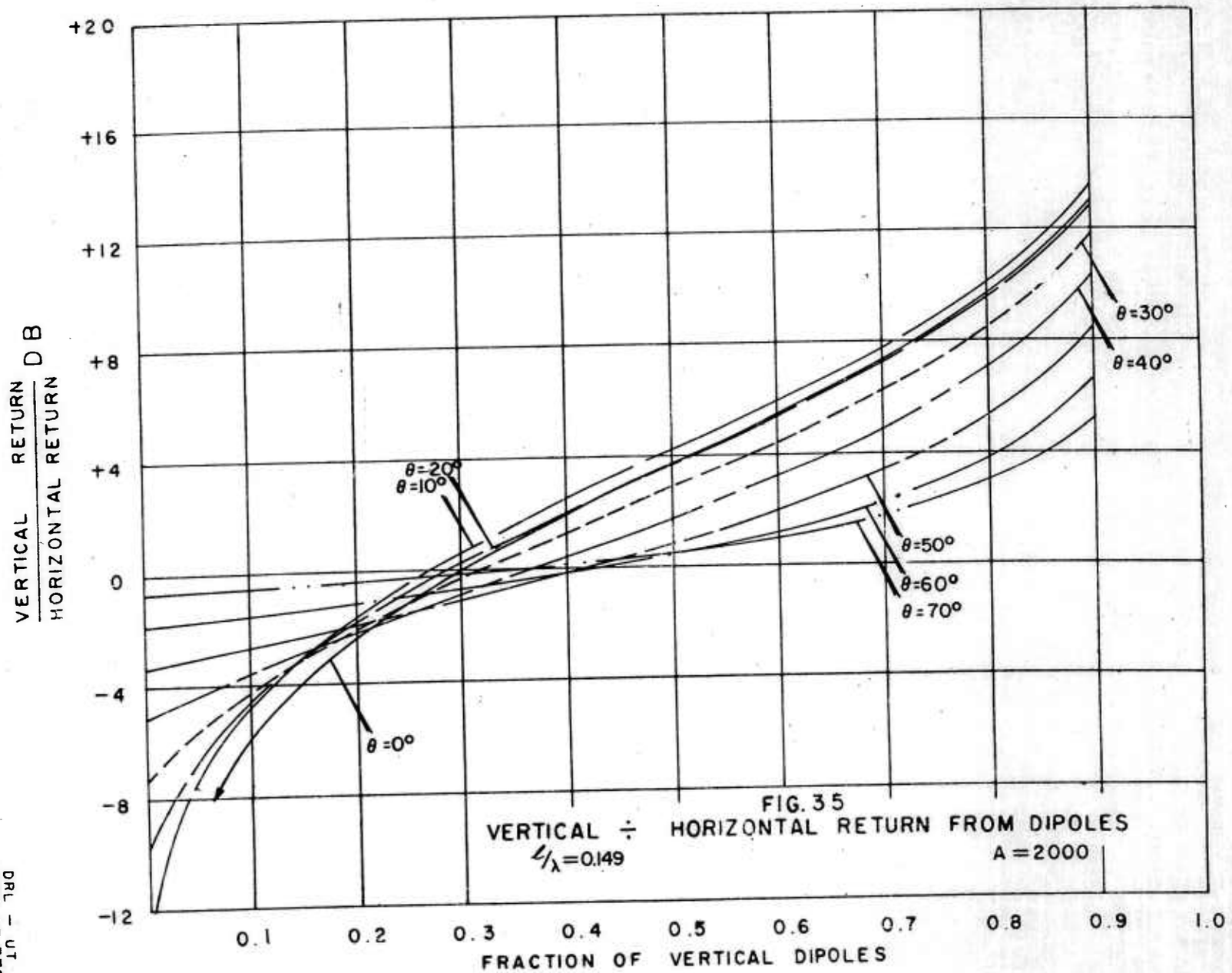


FIG. 35
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.149$
A = 2000

DRL — UT
DWG AE 3703
BWB — LRS
1 — 7 — 60

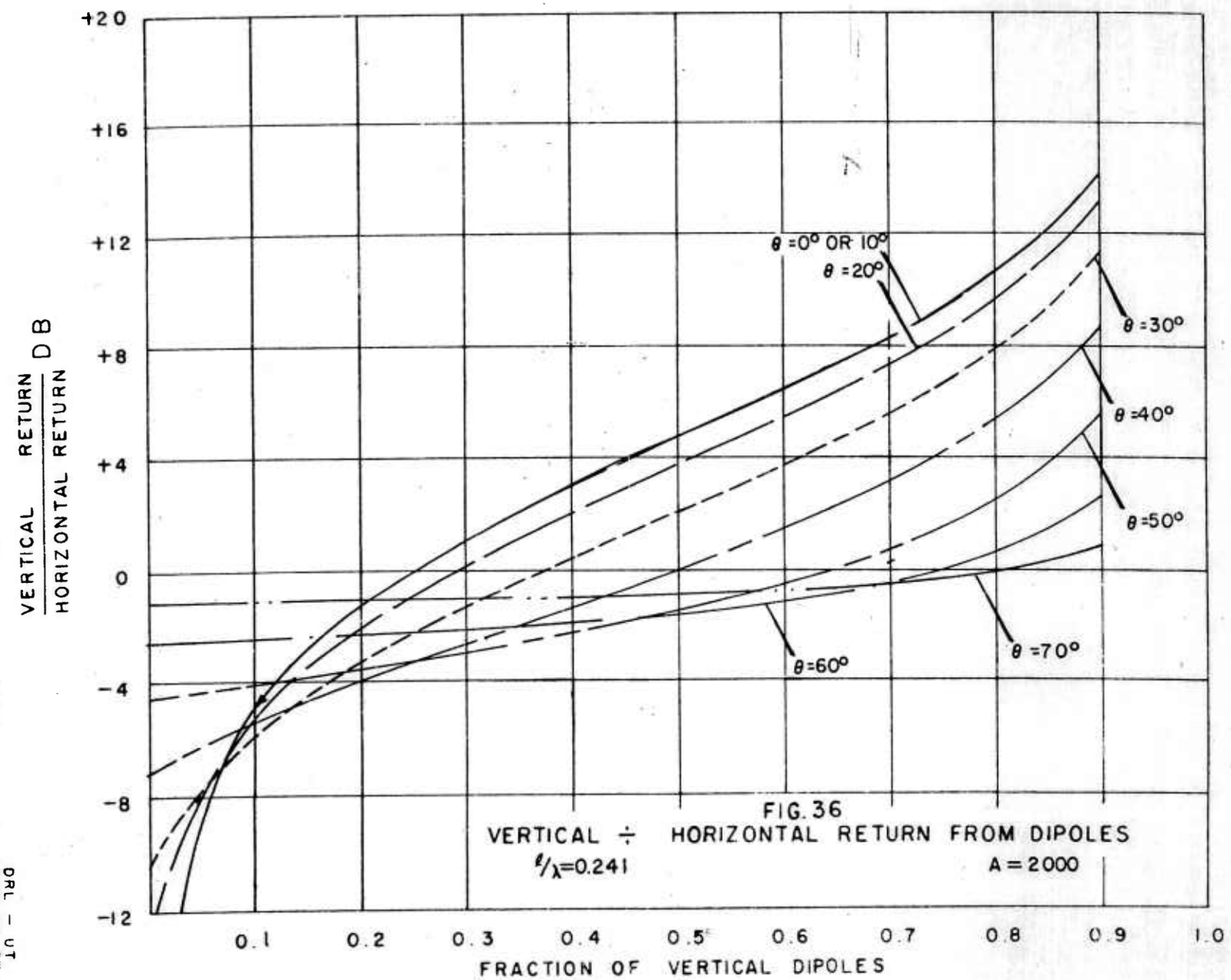


FIG. 36
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
ℓ/λ=0.241 A = 2000

DRL - UT
DWG AE 3704
BWB - LRS
1-7-60

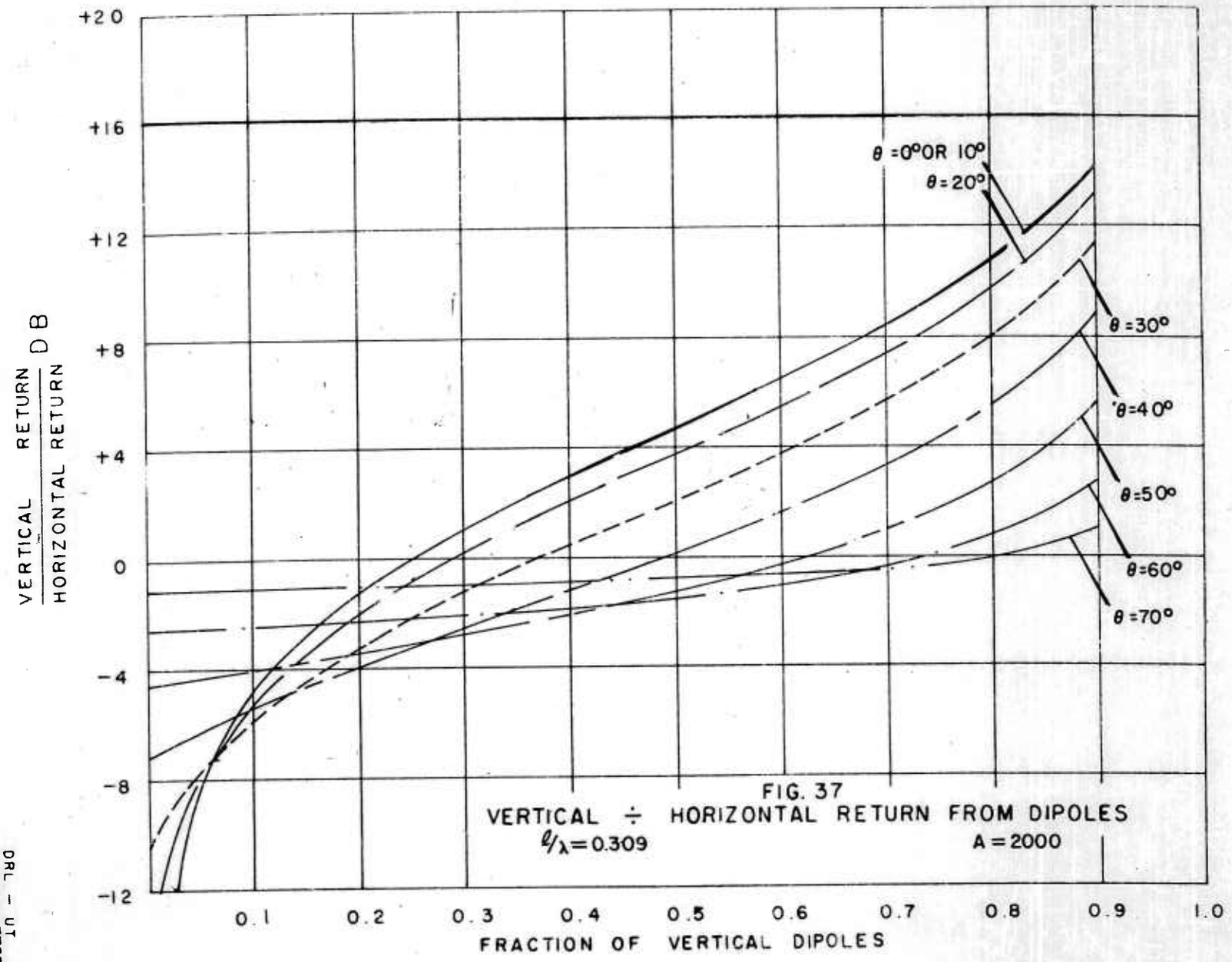


FIG. 37
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.309$ A = 2000

DRL – UT
DWG AE 3705
BWB – LRS
1 – 7 – 60

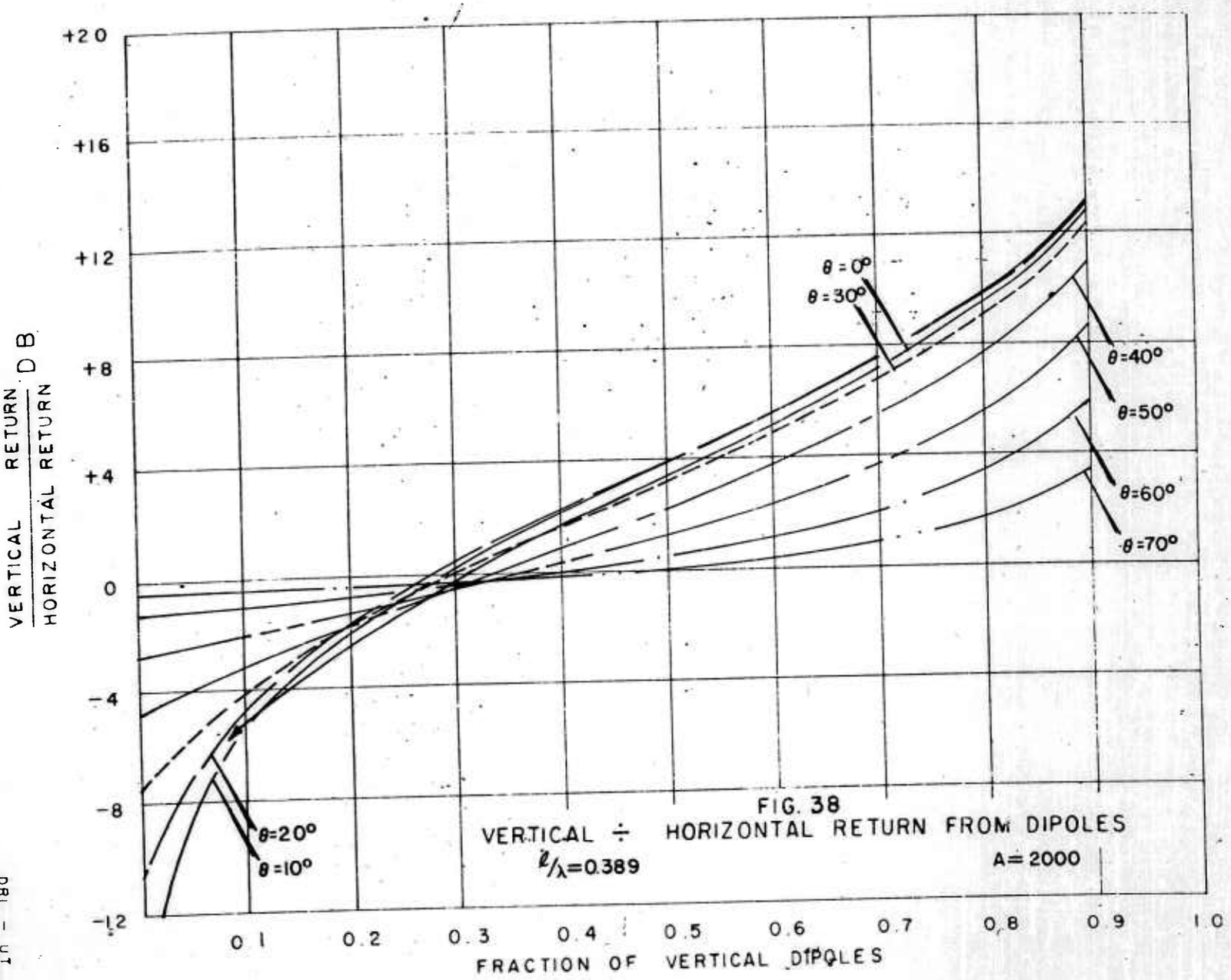


FIG. 38

ASD TN 61-37

61WWRN 2515

DRL - UT
DAG AE 3706
BWB - LRS
1-7-60

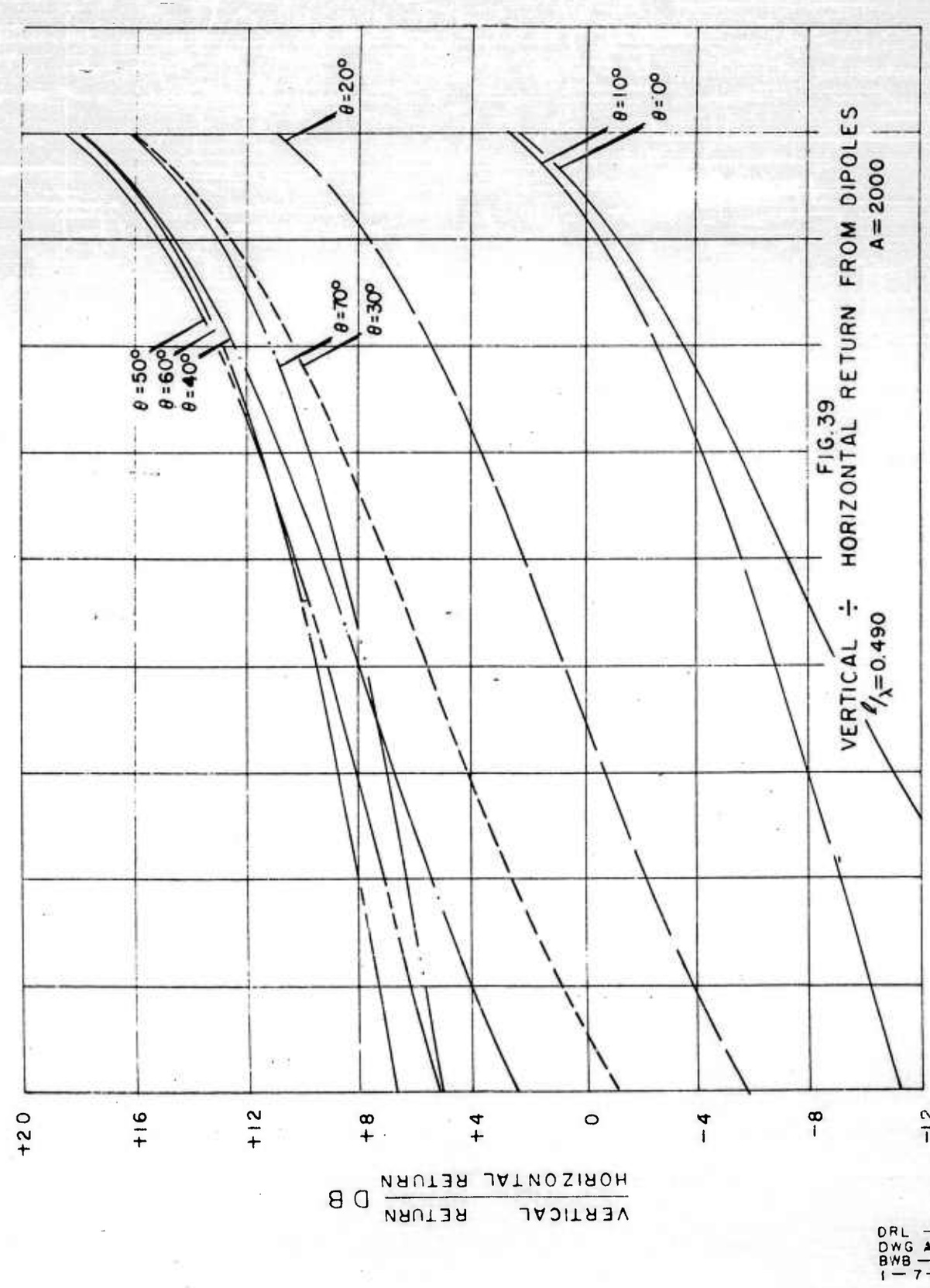


FIG.39

DRL – UT
DWG AE 3707
BWB – LRS
1 – 7 – 60

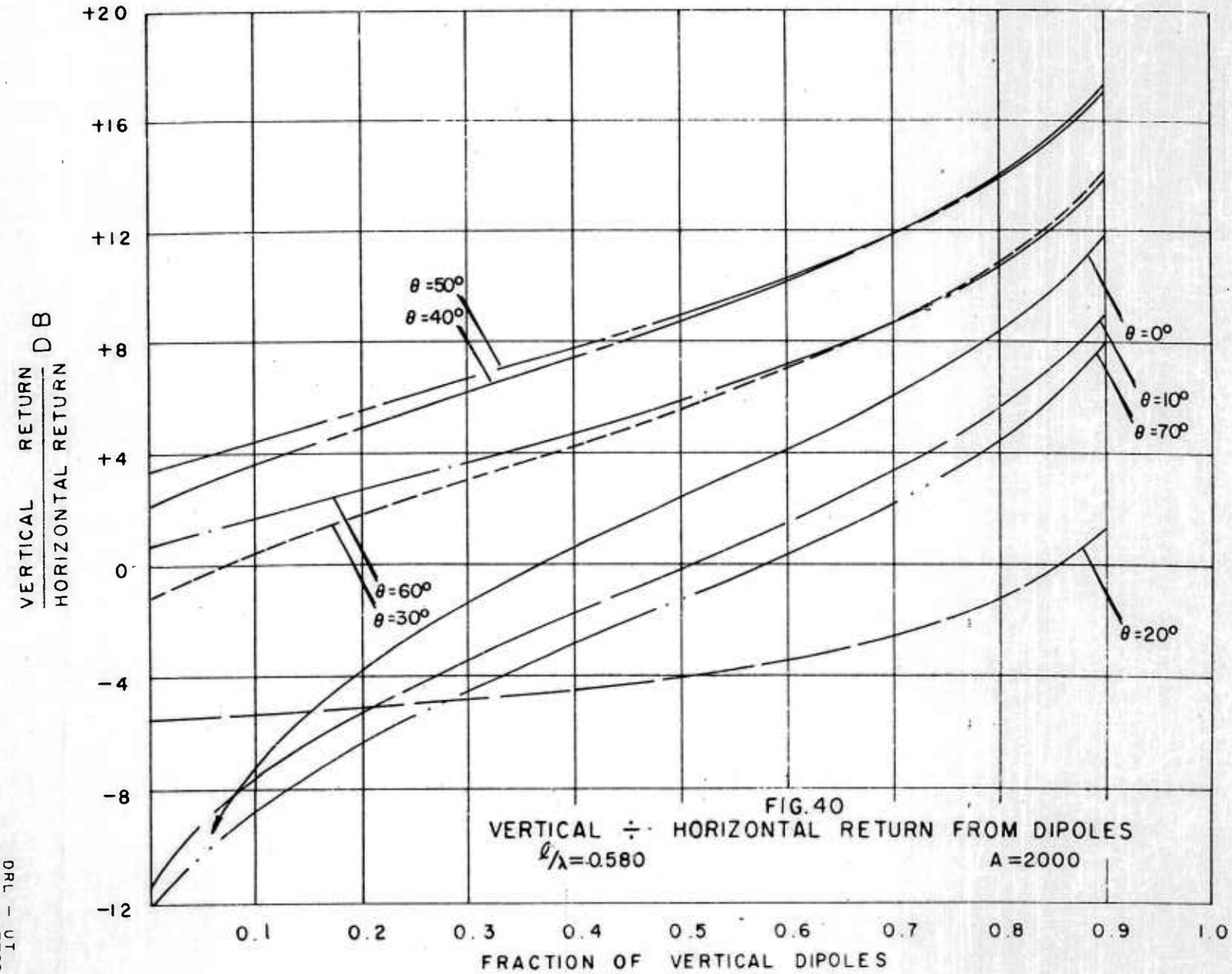


FIG. 40
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
ℓ/λ=0.580 A=2000

DRL - UT
DWG AE 3708
BWB - LRS
1-7-60

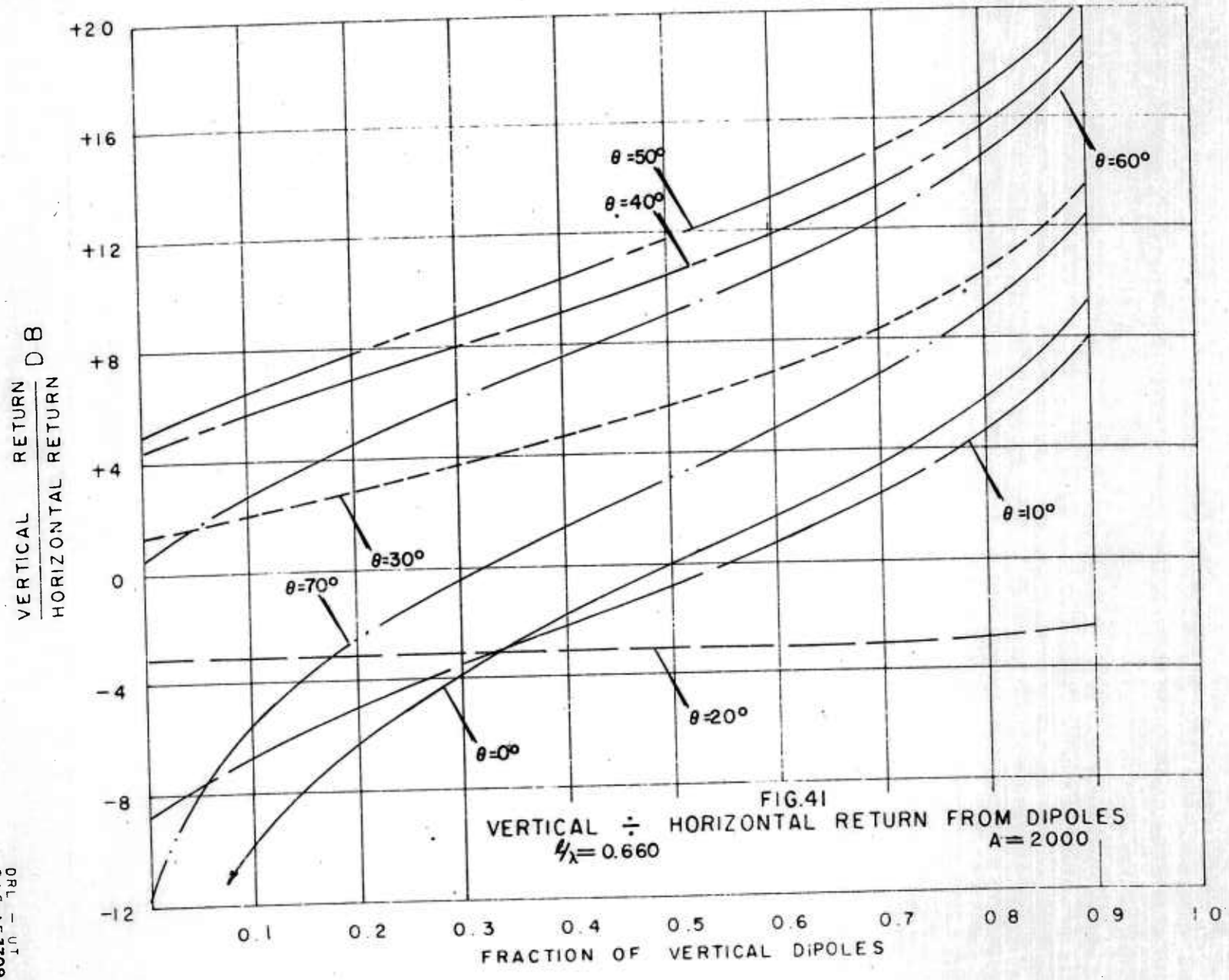


FIG.41
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.660$ A = 2000

DRL – UT
DWG AE3709
BWB – LRS
1 – 7 – 60

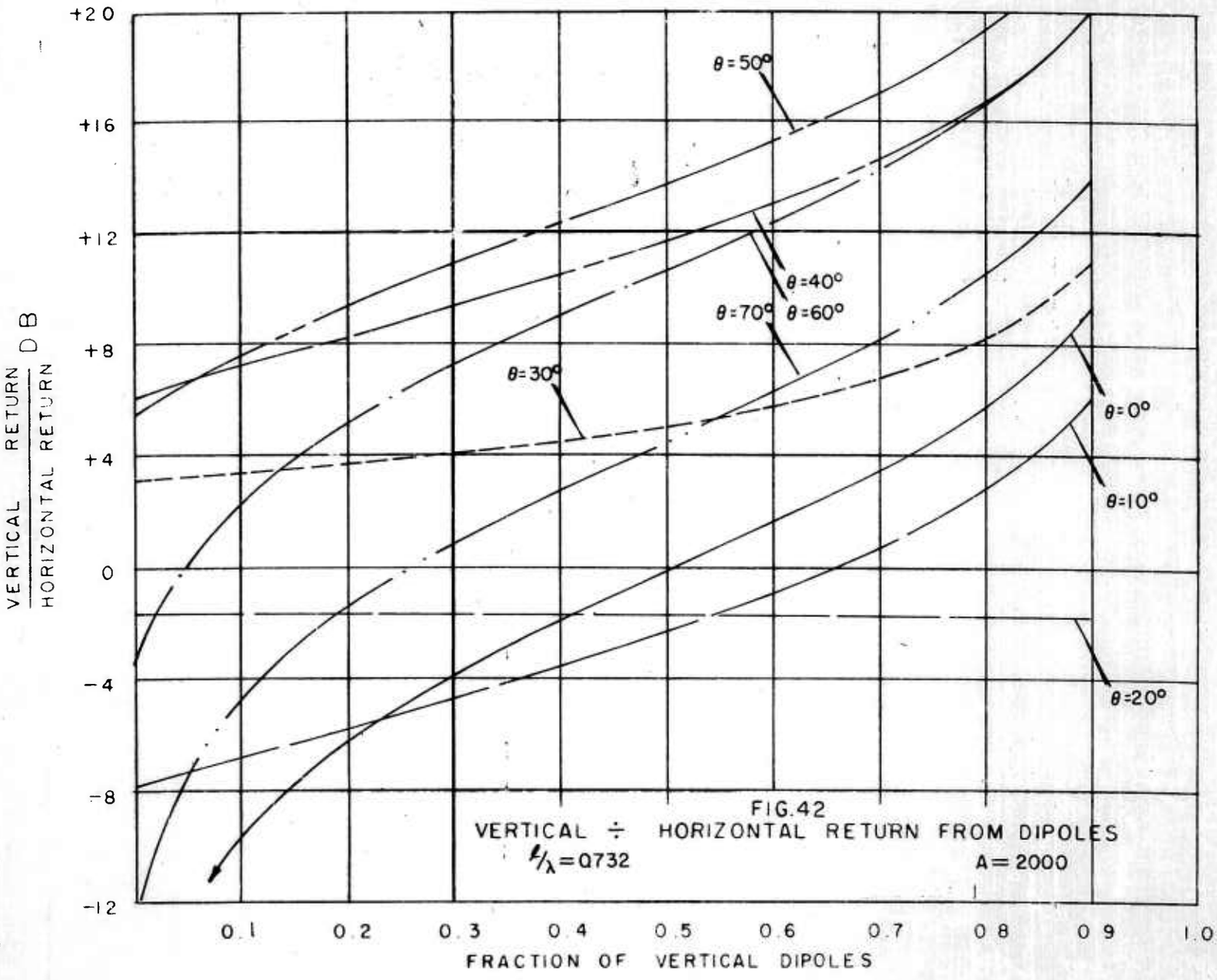


FIG.42
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.732$
A = 2000

DDL - 63
CYCLE 3710
BNB-1RS
1-7-60

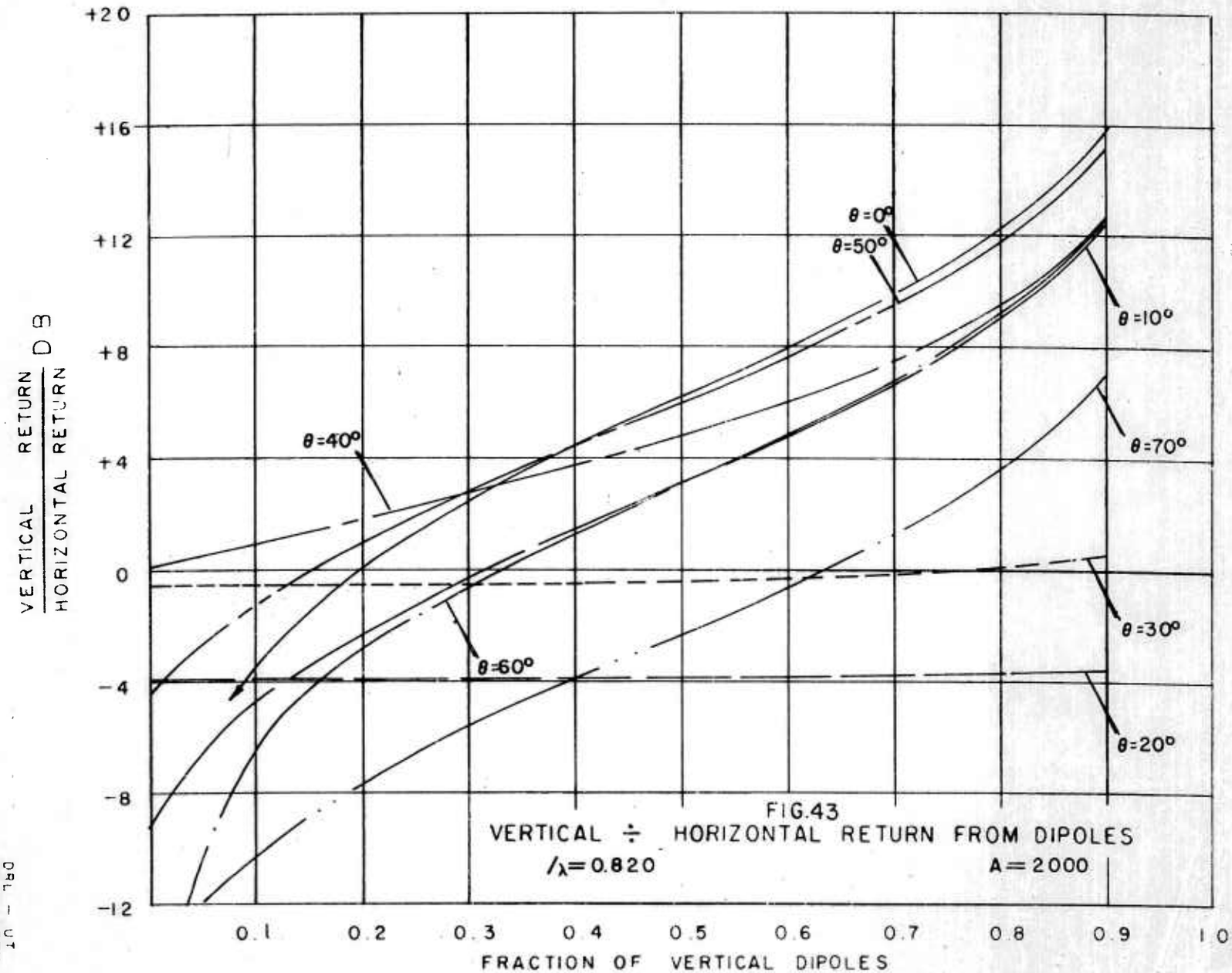


FIG.43
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
/λ=0.820 A=2000

DRL - UT
DA-36-039 SC-78311
AF 33(616)-6079
RADC-TDR-62-7
1-7-60

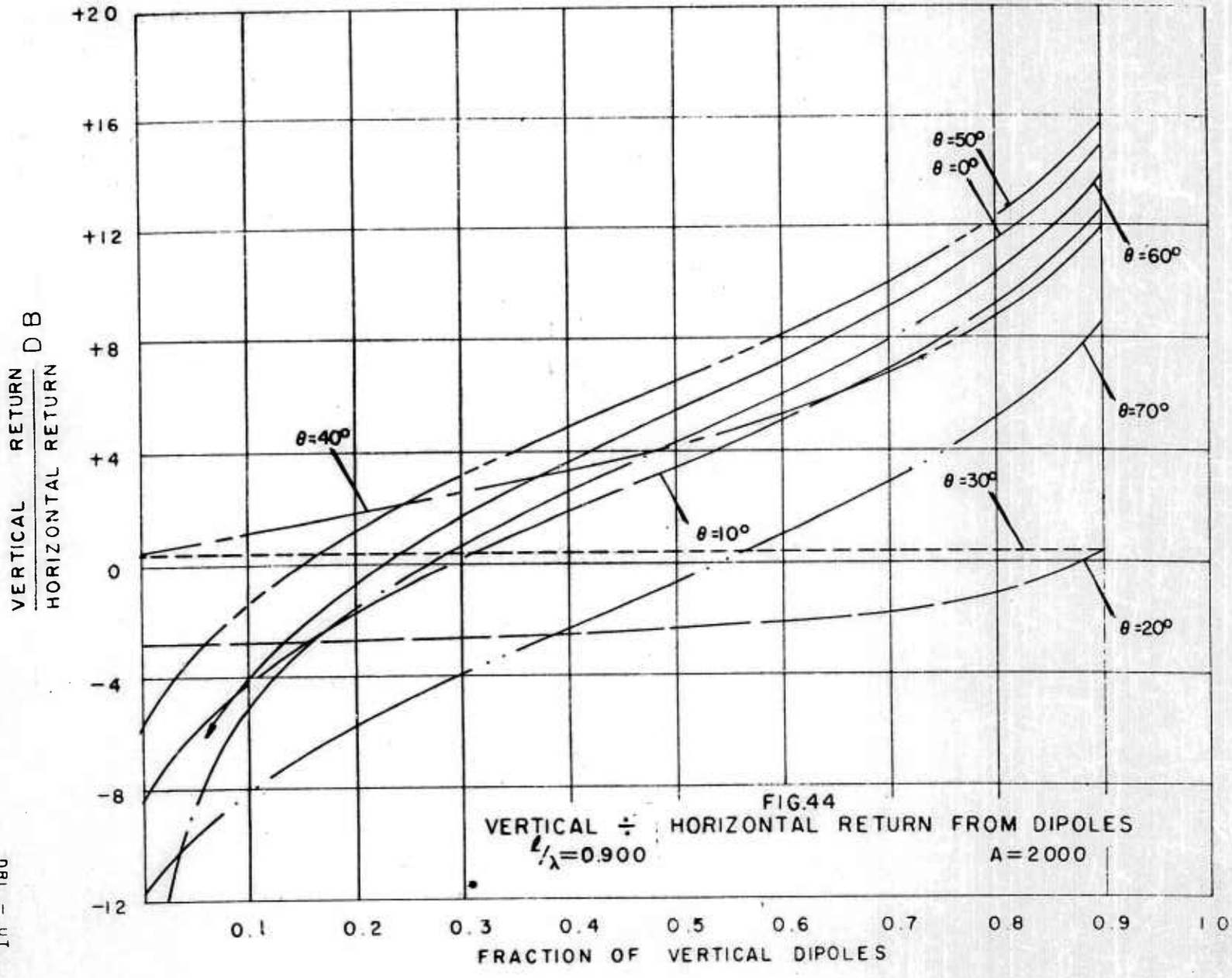


FIG.44
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
ℓ/λ=0.900 A=2000

DRL - UT
DWG AE 3712
BWB - LRS
1-7-60

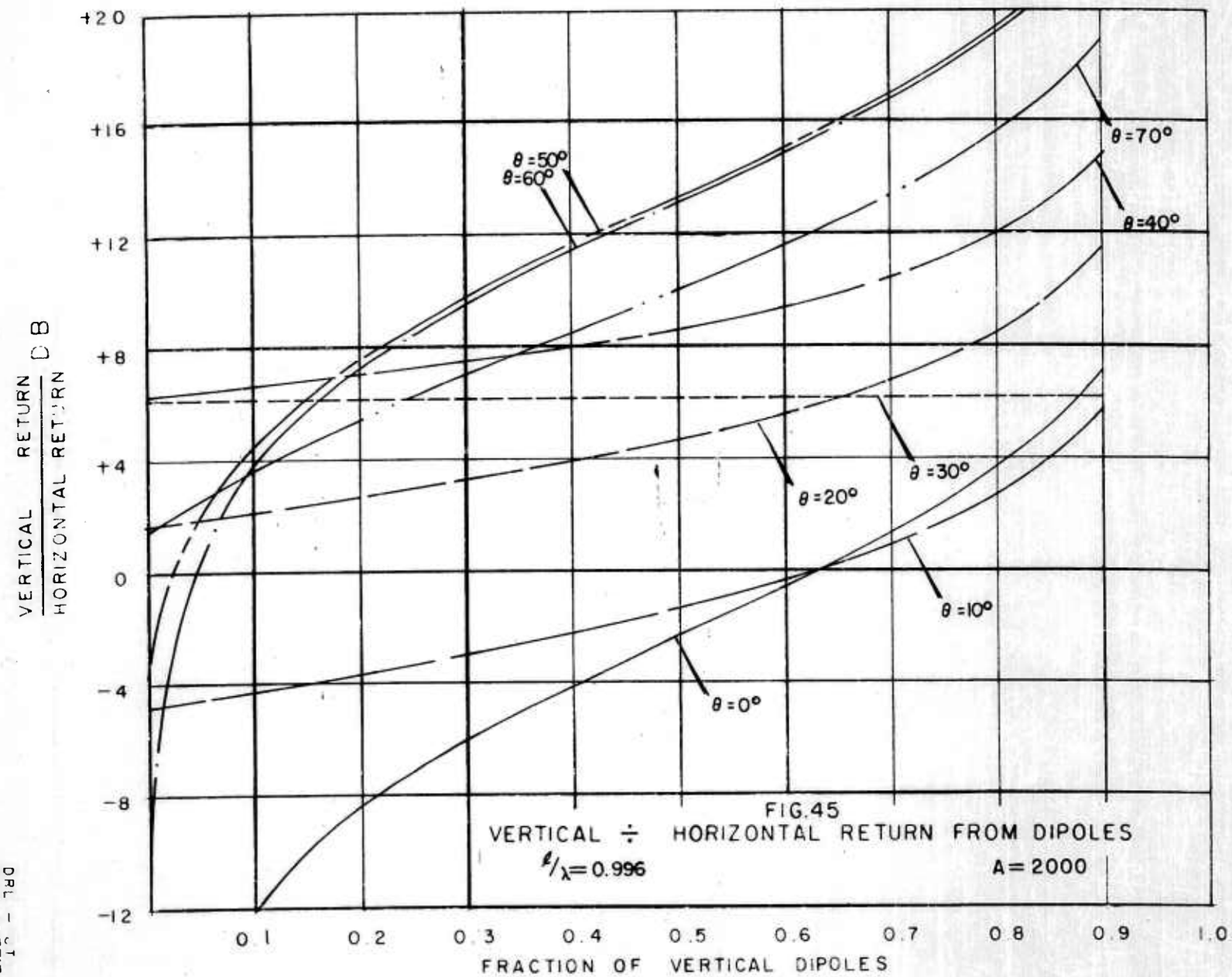


FIG.45
VERTICAL ÷ HORIZONTAL RETURN FROM DIPOLES
$\ell/\lambda = 0.996$ A = 2000

DRL - 3713
DAG AE
BWB—LRS
1-7-60

FIG. 46 — RADAR CROSS-SECTION PER DIPOLE

VERTICAL POLARIZATION; VERTICAL DIPOLES.

$\frac{\sigma_{vv}(0)}{\lambda^2}$ FOR A = 20.

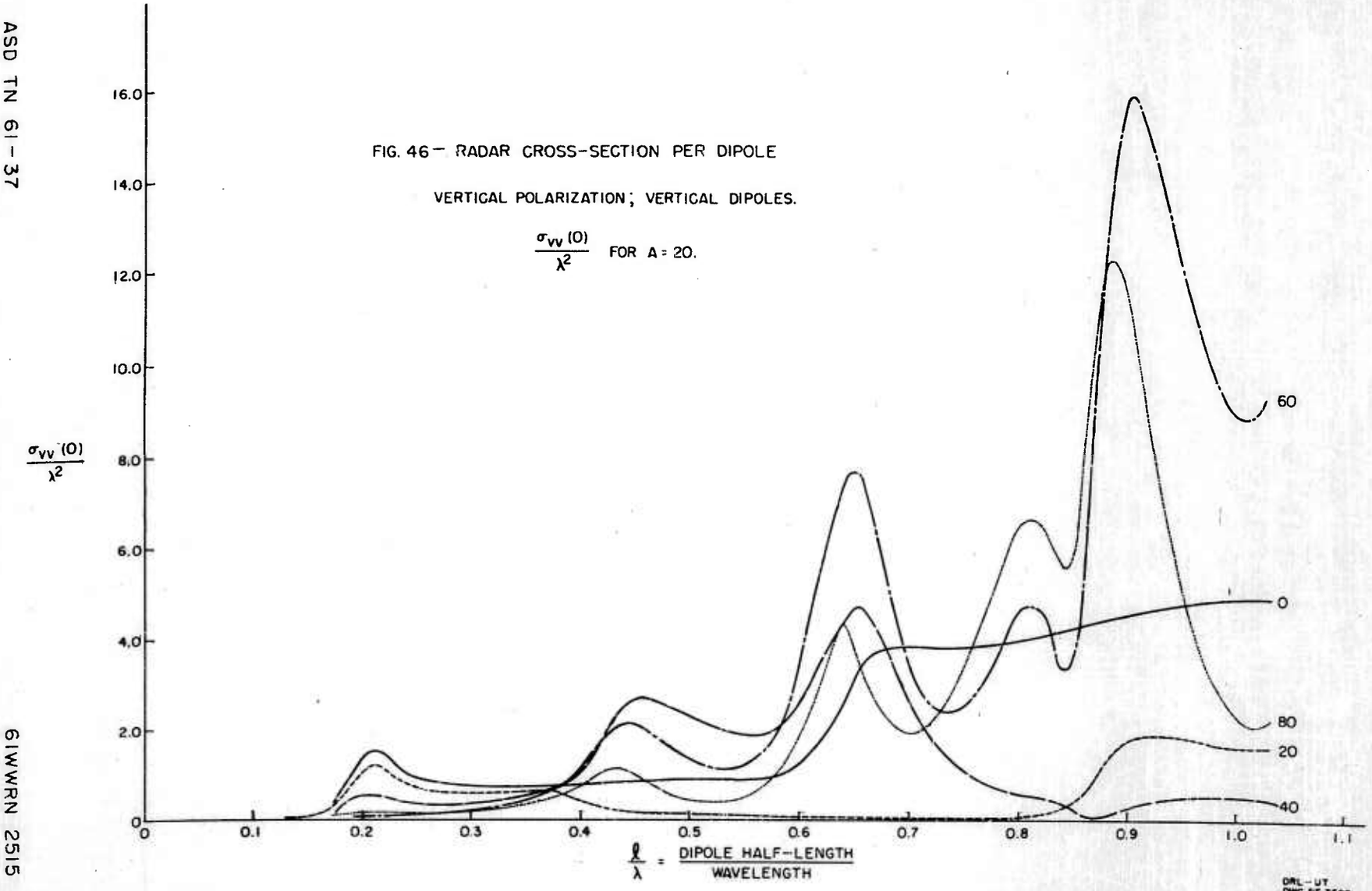


FIG. 47 – RADAR CROSS-SECTION PER DIPOLE

HORIZONTAL POLARIZATION; HORIZONTAL DIPOLES.

$\frac{\sigma_{hh}(90)}{\lambda^2}$ FOR A = 20.

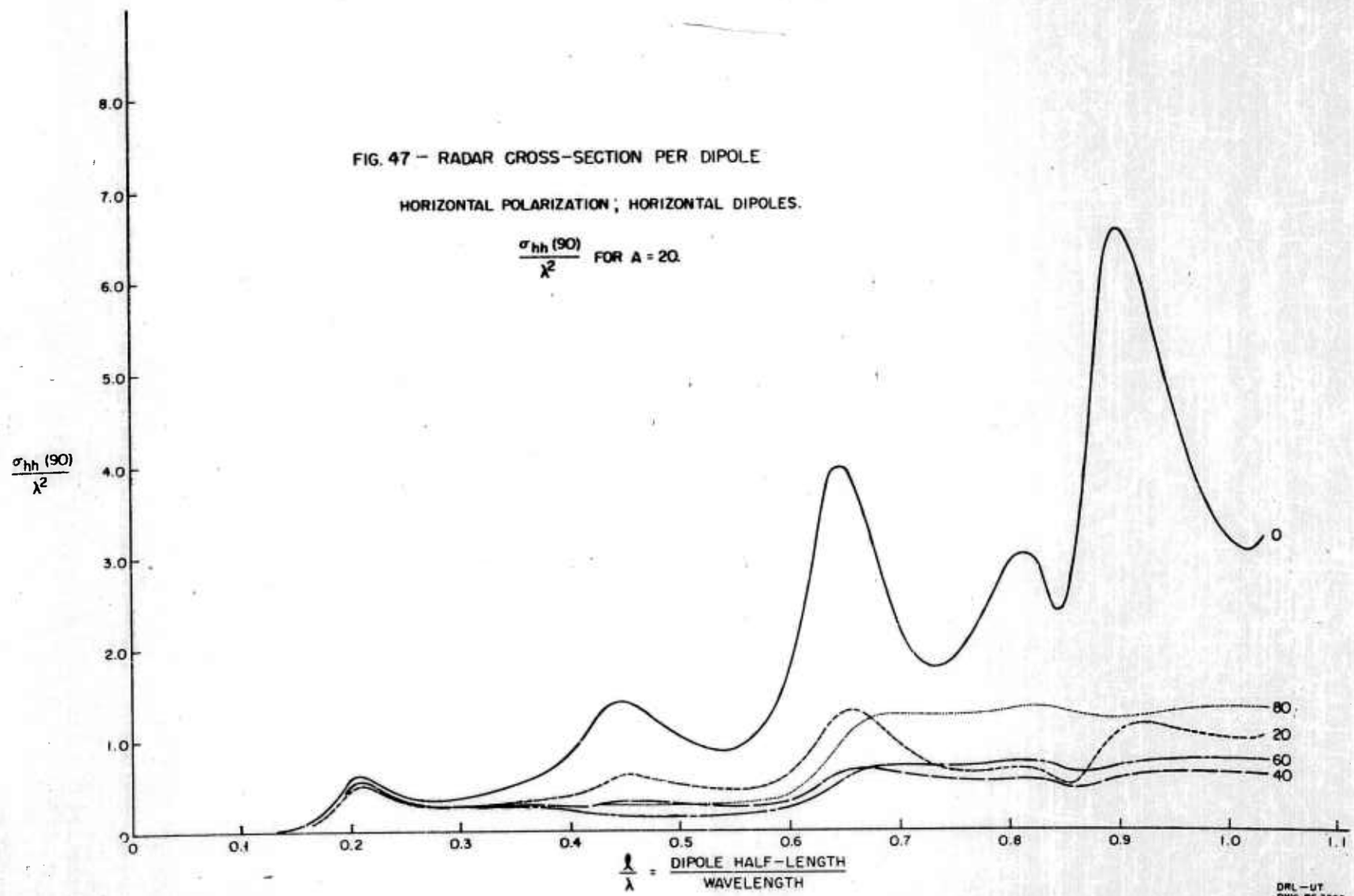


FIG. 48 – RADAR CROSS-SECTION PER DIPOLE

VERTICAL POLARIZATION; HORIZONTAL DIPOLES.

$\frac{\sigma_{VV}(90)}{\lambda^2}$ FOR A = 20.

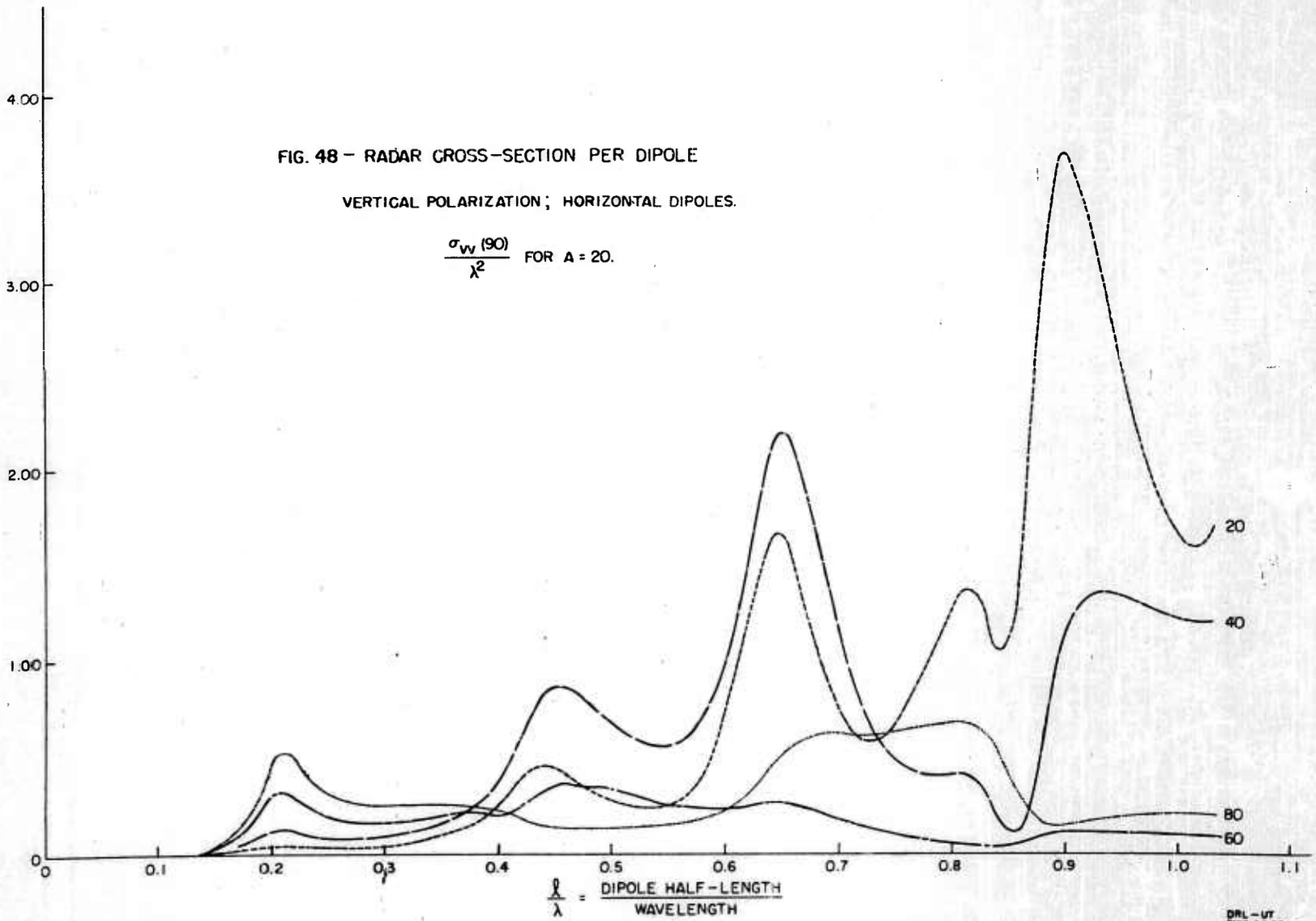


FIG. 49 – RADAR CROSS-SECTION PER DIPOLE

VERTICAL POLARIZATION, VERTICAL DIPOLES.

$\frac{\sigma_{VV}(0)}{\lambda^2}$ FOR A = 200.

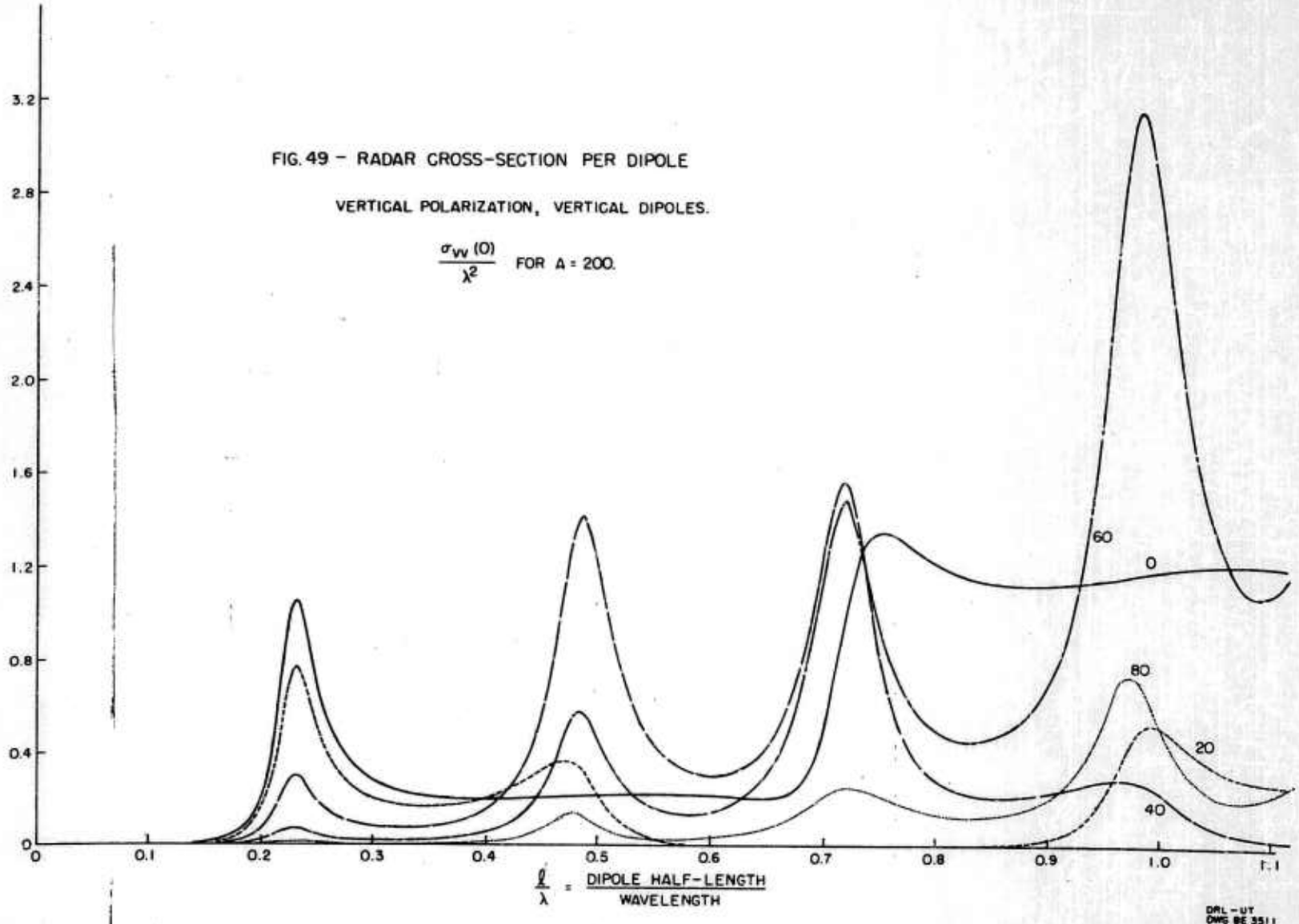


FIG. 50 – RADAR CROSS-SECTION PER DIPOLE

HORIZONTAL POLARIZATION, HORIZONTAL DIPOLES.

$\frac{\sigma_{hh}(90)}{\lambda^2}$ FOR A = 200.

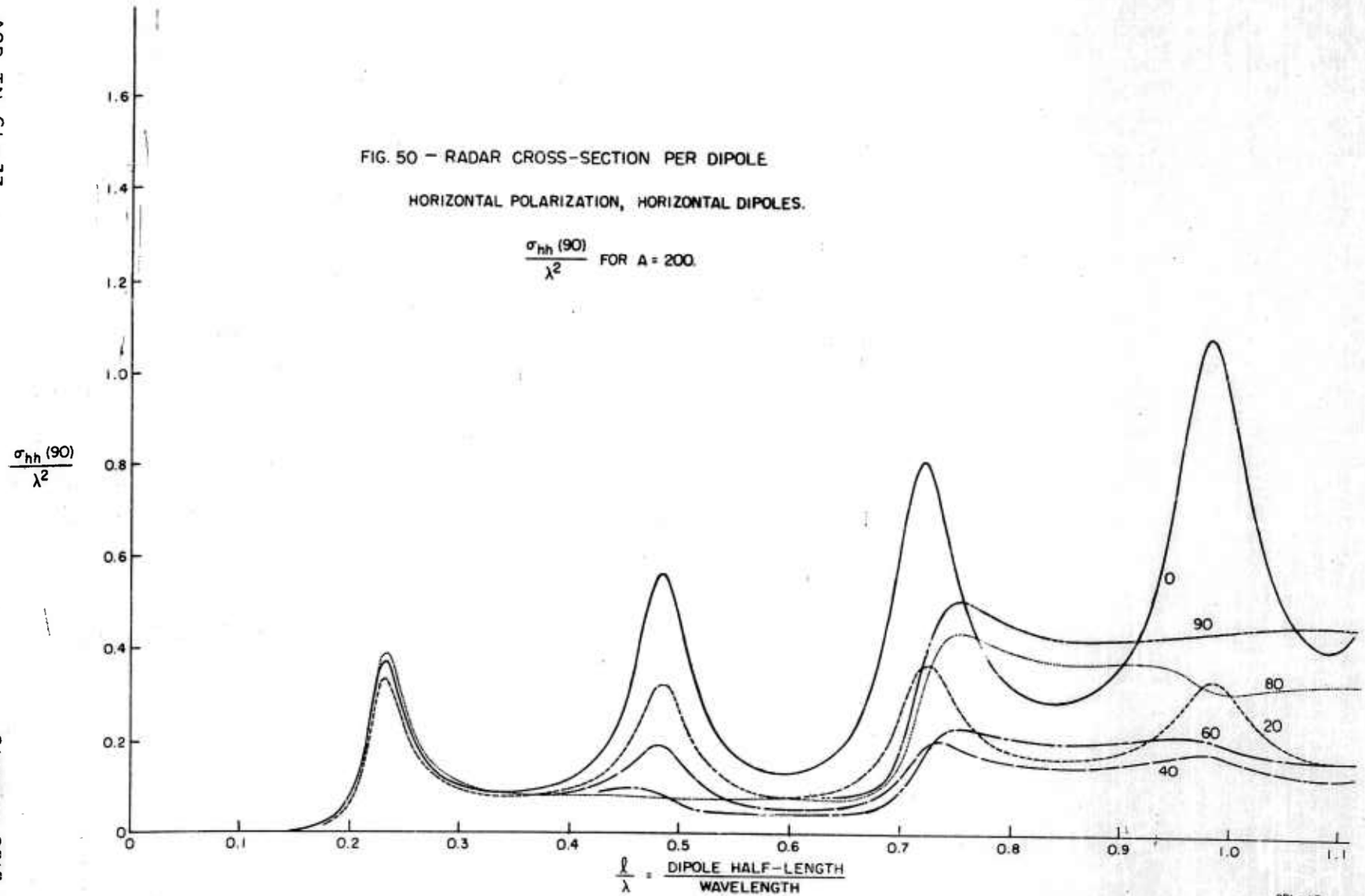
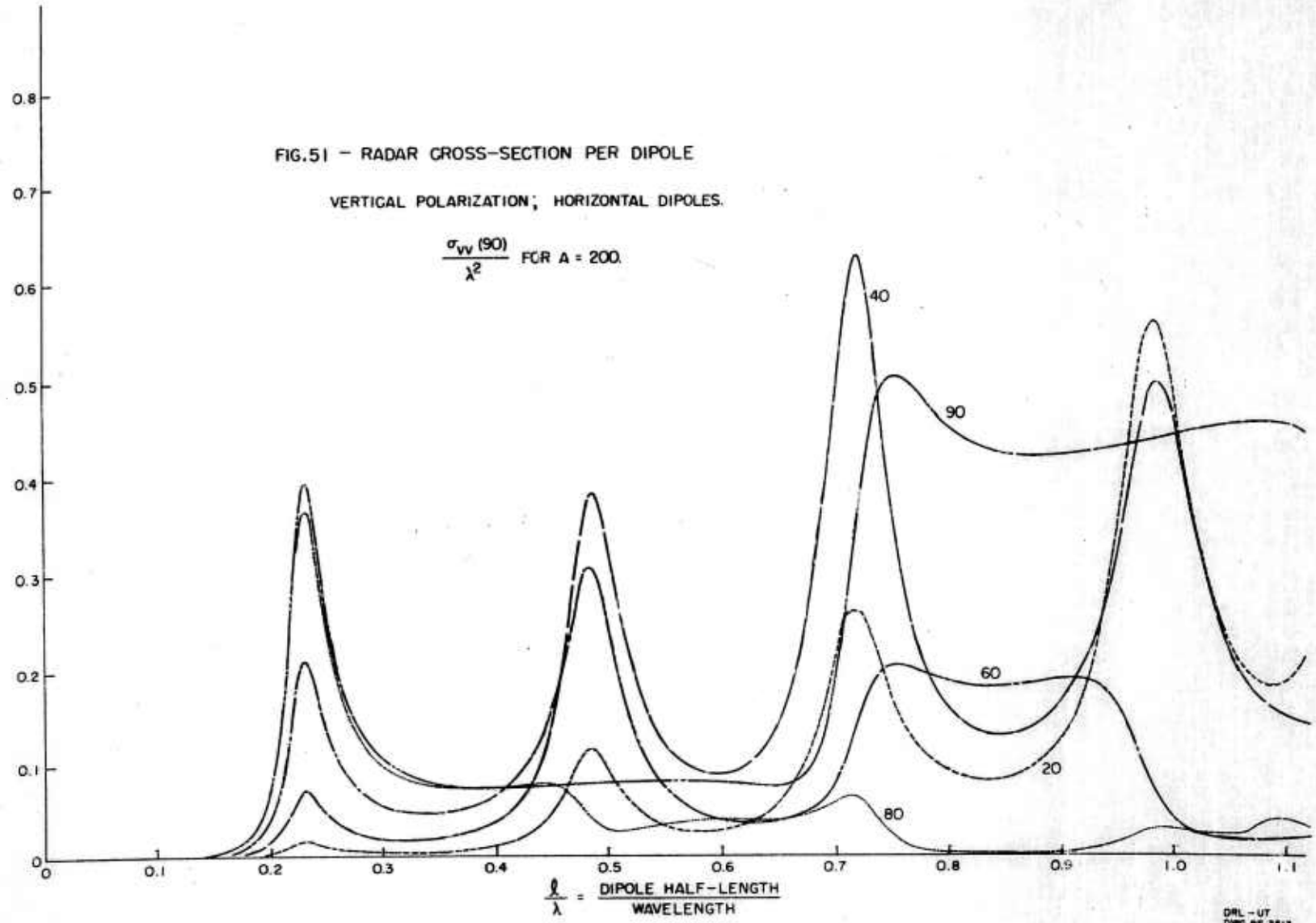


FIG. 51 – RADAR CROSS-SECTION PER DIPOLE

VERTICAL POLARIZATION; HORIZONTAL DIPOLES.

$\frac{\sigma_{vv}(90)}{\lambda^2}$ FOR A = 200.



DRL – UT
DWG BE 3543
BMB – CLW
1 – 22 – 60

FIG. 52 – RADAR CROSS-SECTION PER DIPOLE

VERTICAL POLARIZATION; VERTICAL DIPOLES.

$\frac{\sigma_{VV}(0)}{\lambda^2}$ FOR A = 2000.

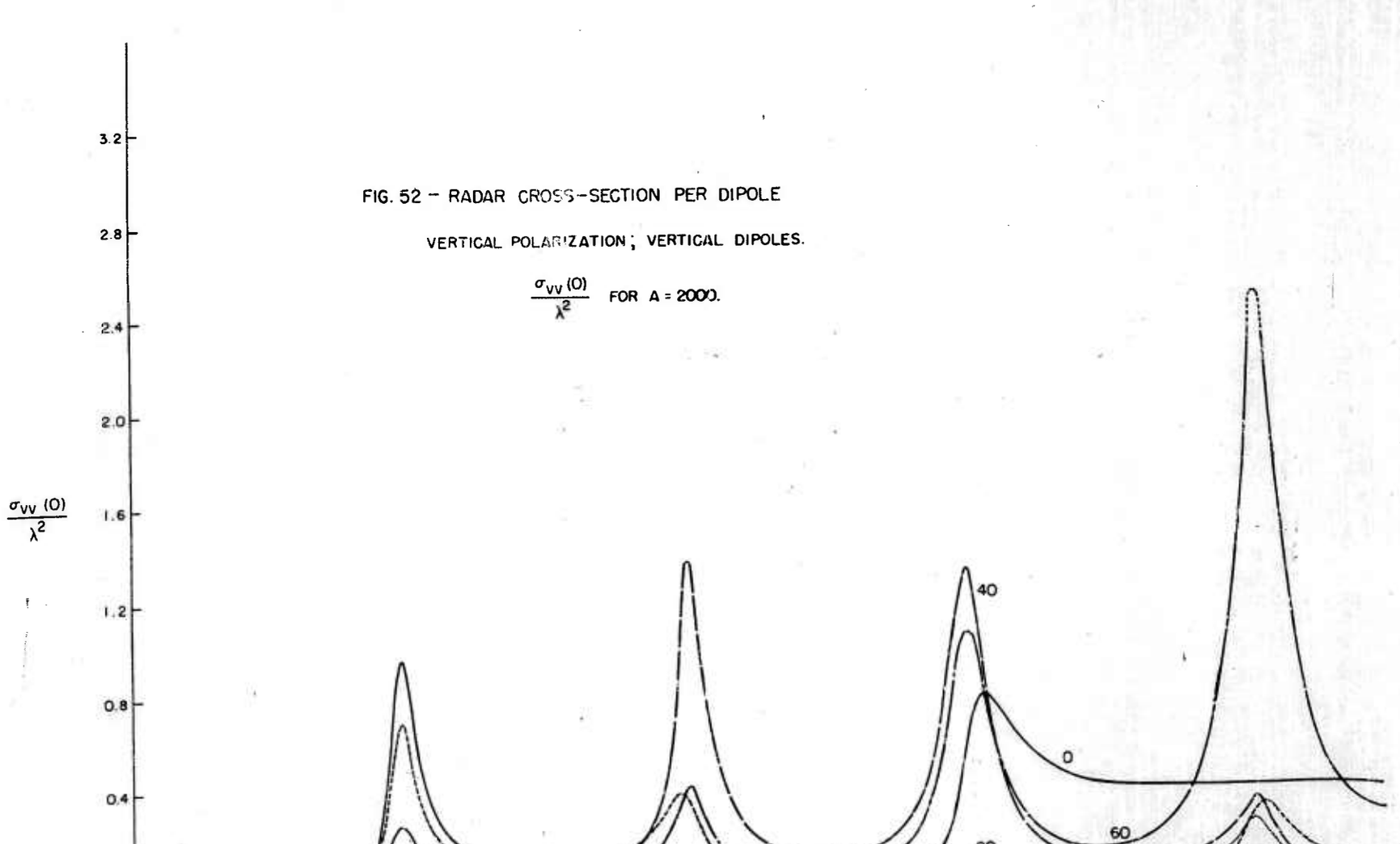


FIG. 53 – RADAR CROSS-SECTION PER DIPOLE

HORIZONTAL POLARIZATION; HORIZONTAL DIPOLES.

$\frac{\sigma_{hh}(90)}{\lambda^2}$ FOR A = 2000.

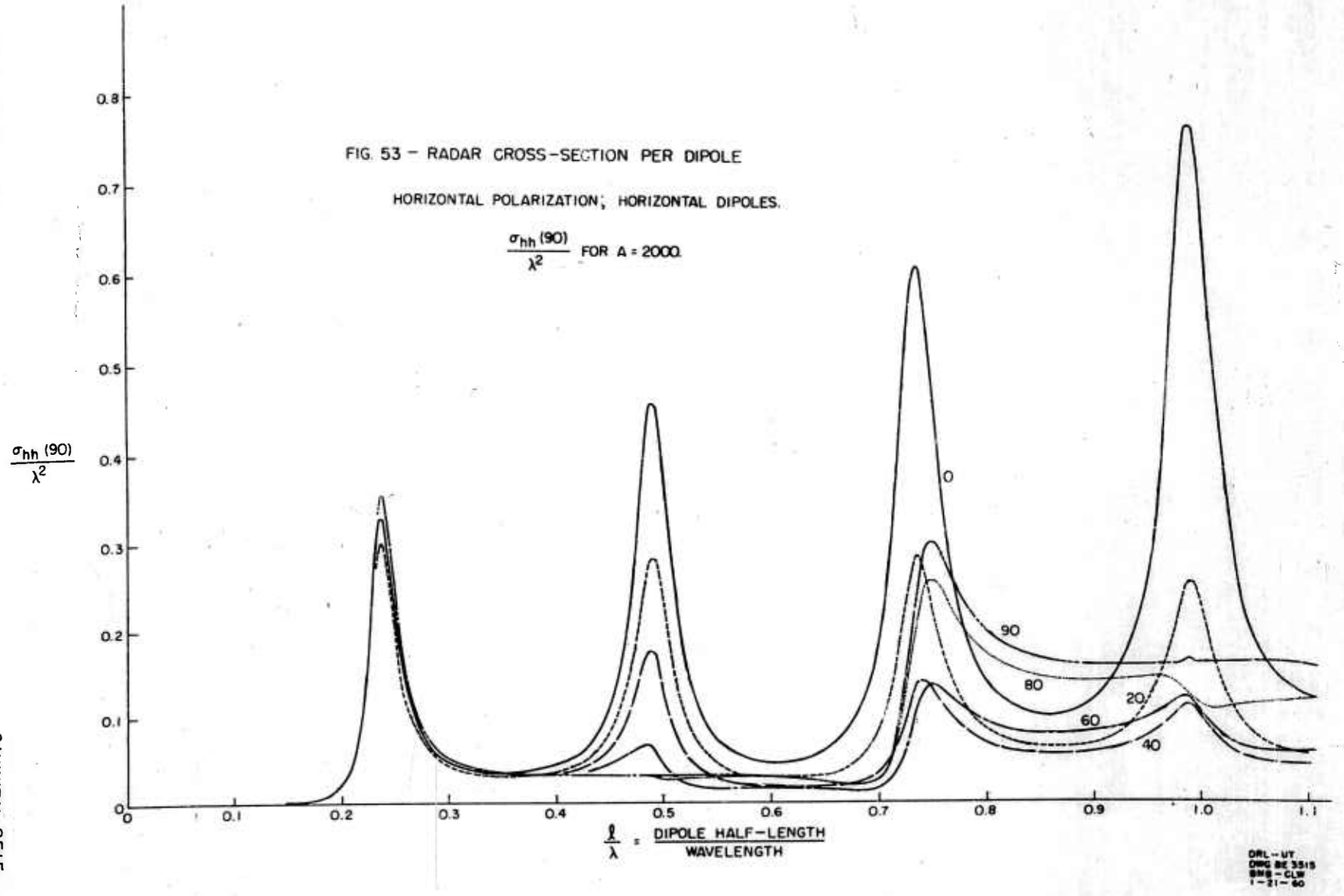
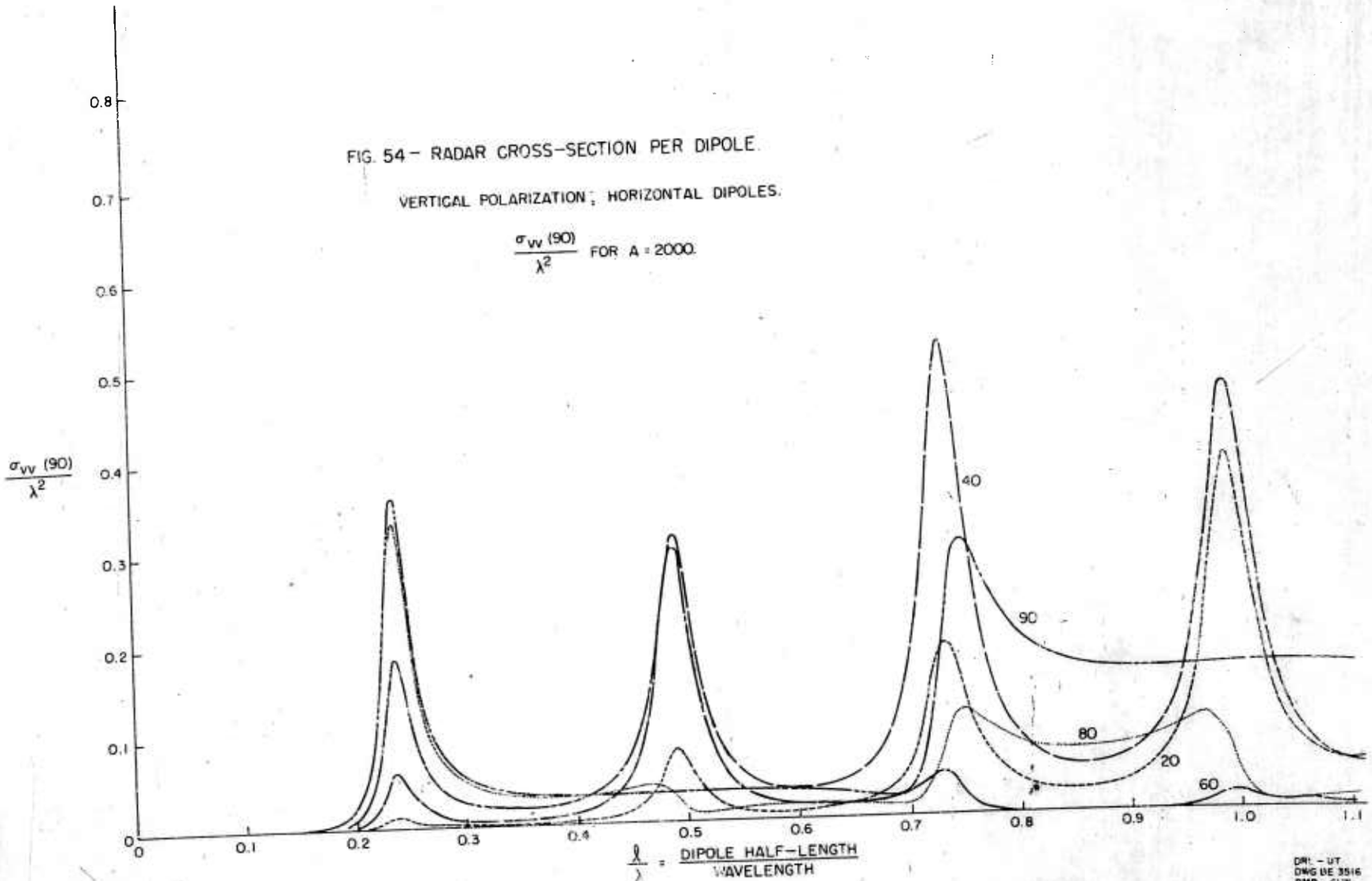


FIG. 54 – RADAR CROSS-SECTION PER DIPOLE.

VERTICAL POLARIZATION; HORIZONTAL DIPOLES.

$\frac{\sigma_{vv}(90)}{\lambda^2}$ FOR A = 2000.



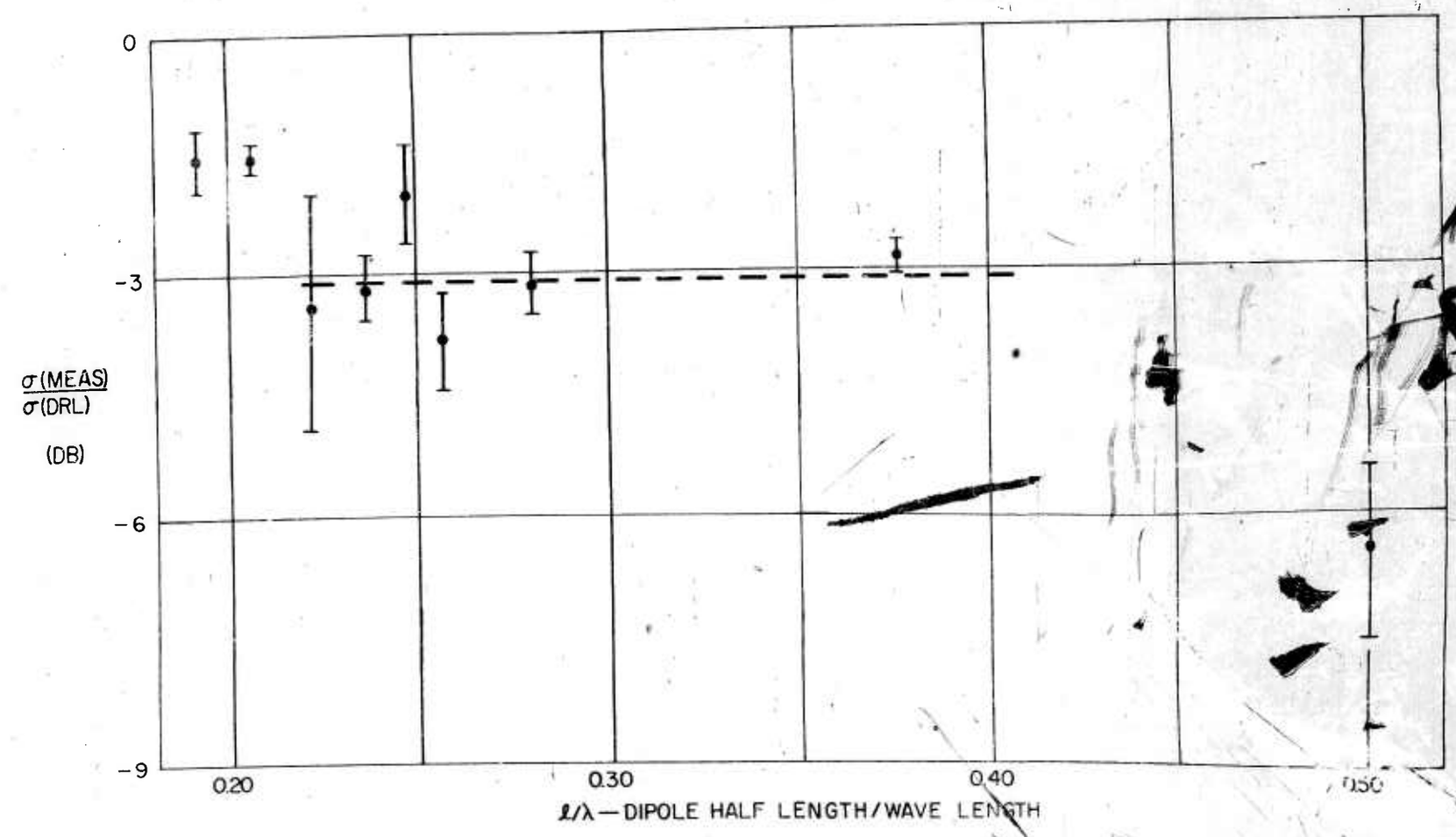


FIG. 55
COMPARISON OF MEASURED CROSS SECTIONS
WITH COMPUTED CROSS SECTIONS
(DRL HORIZONTAL-VERTICAL DISTRIBUTION)

DRL-UT
DWG AE 3752
AMS-LGTH
9-23-60

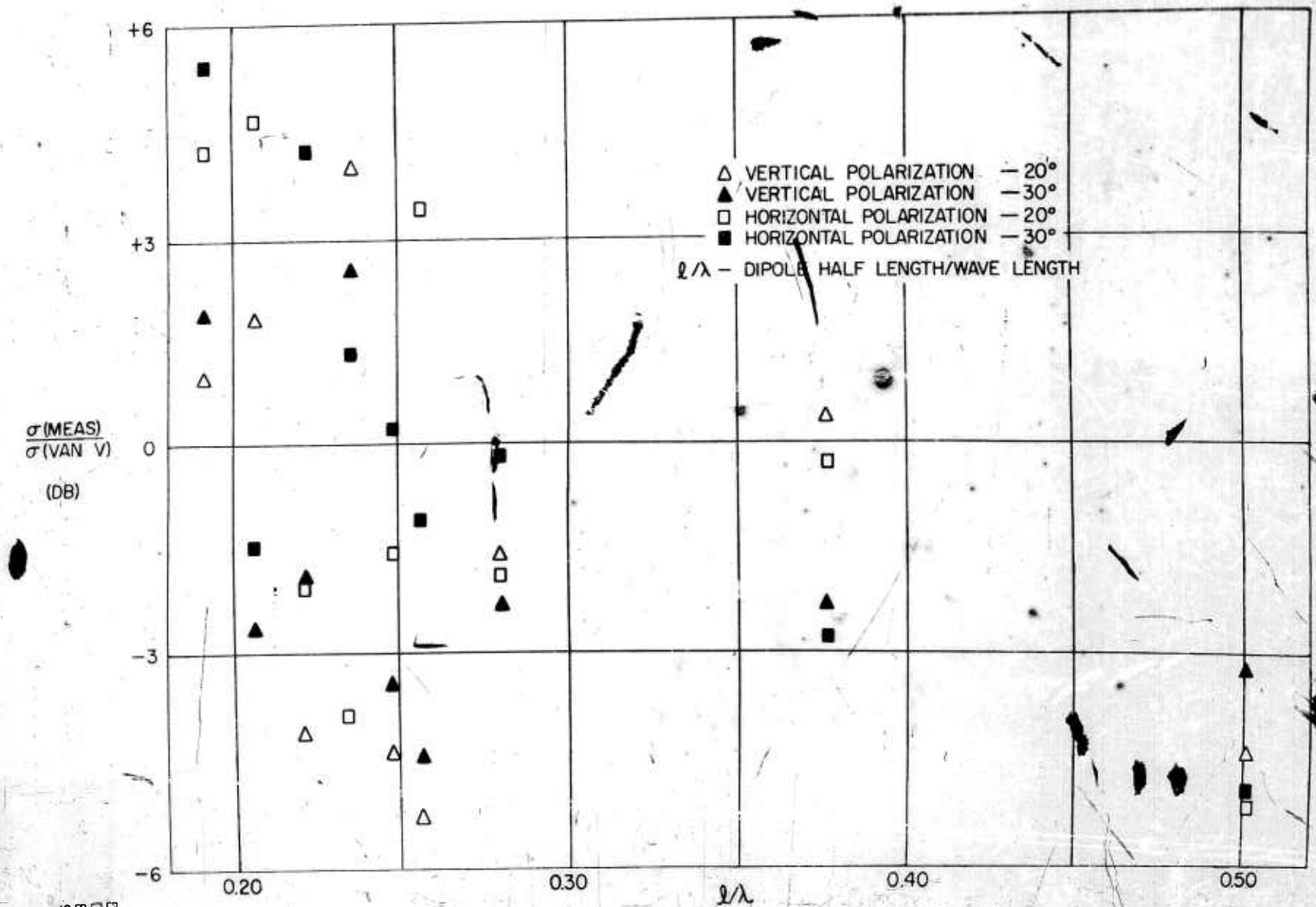


FIG. 56
COMPARISON OF MEASURED CROSS SECTIONS
WITH COMPUTED CROSS SECTIONS
(VAN VLECK RANDOM DISTRIBUTION)

DRL-UT
DWG AE 3753
BMB-LFH
9-26-60