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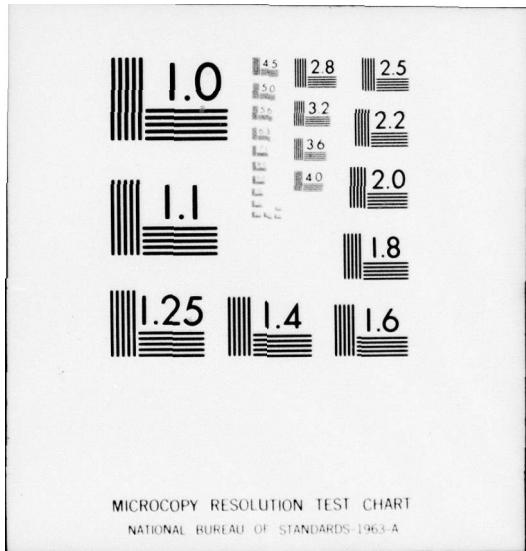
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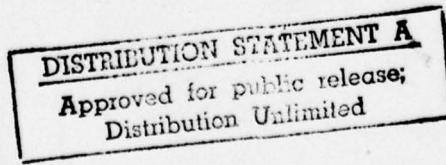
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AN EXTENDED SET OF COSMIC RAY VARIATIONAL  
COEFFICIENTS FOR EUROPEAN COSMIC RAY STATIONS

O.H. Binder  
M.A. Shea  
D.F. Smart



INSTITUT FÜR REINE UND ANGEWANDTE KERNPHYSIK

DER

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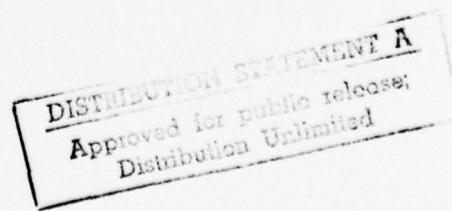
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AN EXTENDED SET OF COSMIC RAY VARIATIONAL  
COEFFICIENTS FOR EUROPEAN COSMIC RAY STATIONS

O.H. Binder  
M.A. Shea \*  
D.F. Smart \*



\*Air Force Geophysics Laboratory  
L.G. Hanscom Air Force Base,  
Bedford, Massachusetts 01731, USA



OLSHAUSENSTR.40-60, 2300 KIEL, BUNDESREPUBLIK DEUTSCHLAND

AN EXTENDED SET OF COSMIC RAY VARIATIONAL  
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ABSTRACT

Variational coefficients quantitatively relate cosmic-ray spatial anisotropies and spectral changes to variations in ground-based cosmic ray monitor counting rates. We have calculated variational coefficients that are applicable to the analysis of a wide variety of transient cosmic-ray phenomena. These calculations have been made for (1) a wide range of upper limiting rigidities from 29 to 500 GV; (2) power law rigidity spectra extending to exponents as high as +1.6; (3) spatial profiles independent of latitude; and (4) longitudinal profiles including square waves of 10°, 30°, 60° and an isotropic case. These variational coefficients have been calculated for eleven European cosmic ray stations, the tables being compatible with a previous publication for stations in the Western Hemisphere.

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## PREFACE

The concept of variational coefficients, which quantitatively relate cosmic ray spatial anisotropies and spectral changes to variations in ground-based cosmic ray monitor counting rates, was introduced in 1963. Since that time three sets of variational coefficients have been published. The first two sets of tables were intended primarily for studies of diurnal variations, and as such contained limiting factors that made the use of these tables impractical for the study of other transient phenomena. In the third set of tables the variational coefficients for the American stations were extended with the removal of the original limiting factors, thus making these tables applicable for a variety of transient cosmic ray phenomena. Here in this extended set of variational coefficients the corresponding tables for European stations are now published, making possible the evolution of the longitudinal dependence and the temporal evolution of an anisotropy in the European-American range of longitudes.

It is necessary to know the asymptotic directions of cosmic-ray particles detected at a specific point on the earth for the calculation of the variational coefficients. These values were determined using a geomagnetic field model appropriate for 1975. A computer tape containing the asymptotic directions utilized in these tables has been deposited in World Data Center A for Solar-Terrestrial Physics, NOAA, Boulder, Colorado 80302, USA.

The authors gratefully thank Mr. S.R. Weniger for his valuable assistance with the calculations contained in this report.

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## 1. INTRODUCTION

Variational coefficients, which quantitatively relate spatial and spectral cosmic ray anisotropies to changes in ground-based cosmic ray detector counting rates, are the key to our detailed understanding of such cosmic ray features as the diurnal variation. The concept of the variational coefficients was introduced by Rao et al. (1963), and three sets of tables have been published (McCracken et al., 1965; Shea et al., 1968; Gold et al., 1974). In spite of their ability to separate and analyze spatial and spectral sources of cosmic ray time variations, variational coefficients have not been widely used. We believe that one of the factors leading to the low usage are scientific limitations in the first two tables and geographical limitations in the third set. The first two tables of variational coefficients were oriented toward studies of the diurnal variation and they contain an unrealistically high upper limiting rigidity ( $R_{\max}$ ) for the anisotropy. While the high  $R_{\max}$  produced errors of less than 25 percent in diurnal wave analysis, it is a much more severe limitation for anisotropies with amplitudes that increase with rigidity. The variational coefficients in the IQSY tables also include latitudinal and longitudinal dependences that are inappropriate for a number of cosmic ray phenomena as well as an insufficient range of spectra.

Since most neutron monitor cosmic ray events are characterized by counting rate changes on the order of only a few percent, reliable measurements can be made only with detectors having high counting rates. Only the superneutron monitors (NM-64) have sufficient counting rates at sea level for accurate measurements, but they are not distributed in an idealized network (Shea, 1972; Gold et al., 1975). Since most events are transient in nature or undergo considerable temporal evolution, measurements must be completed in a relatively short time. Spatial and spectral features of an anisotropy can be separated, however, only with

data from both a chain of cosmic ray monitors that cover a wide range of longitudes from which the longitudinal dependence and its temporal evolution can be determined and a second chain that covers a wide range of latitudes which yields the spectrum and latitudinal profile.

In an attempt to make the original tables of variational coefficients applicable for a variety of transient cosmic ray phenomena, an extended set of cosmic ray variational coefficients, with the removal of the original limiting factors, was published by Gold et al., (1974) for the following neutron monitor locations in the Western Hemisphere: Alert, Inuvik, Goose Bay, Deep River, Dallas, Mexico City, Chacaltaya, and Kula. In the present report, a similar set of tables for European neutron monitors, extending from Apatity in the north to Athens in the south are presented, thus expanding the global area over which analysis of identical transient phenomena can be undertaken.

## **2. ASYMPTOTIC CONES OF ACCEPTANCE**

Ground-based cosmic ray monitors are useful in the study of cosmic ray anisotropies in space. However, in order to understand the relationship between observed cosmic ray time variations and spatial anisotropies, a thorough knowledge of the interdependence of asymptotic arrival directions and energies is required.

The asymptotic direction of a cosmic ray particle is generally determined by the trajectory-tracing technique in which the orbit of the particle with a specific rigidity is traced by numerical integration through a mathematical representation of the geomagnetic field. Asymptotic directions for particles with different rigidities are then utilized to determine the asymptotic cone of acceptance for a specific location on the earth. Both the asymptotic directions for a selected set of rigidities and the cutoff rigidity for each station must be determined for the calculation of the variational coefficients.

For the tables in this report, these values have been calculated using the International Geomagnetic Reference Field model of the quiescent internal geomagnetic field with the time derivatives applied such that the coefficients are appropriate for describing the geomagnetic field for Epoch 1975.0 (IAGA Commission 2, Working Group 4, 1969). Details of these type of calculations for the vertically incident cosmic ray particles are given by Shea and Smart (1975). All previous calculations of the variational coefficients (McCracken et al., 1965, Shea et al., 1968; Gold et al., 1974) were made utilizing asymptotic directions and cutoff rigidity values calculated with the coefficients for the Finch and Leaton geomagnetic field model which were derived for a 1955.0 Epoch (Finch and Leaton, 1957). It is emphasized that the different epochs of the magnetic field utilized in these calculations are not a limitation for their joint use. Although the vertical cutoff rigidities for stations such as Buenos Aires

and Mexico City have changed significantly over this 20-year interval (Shea, 1971), the corresponding changes in the variational coefficients are small.

The asymptotic cone of acceptance as defined by McCracken (1962) is the asymptotic solid angle containing the particle trajectories which make significant contributions to the detector counting rate. The properties of asymptotic cones of acceptance have been discussed in detail by Rao et al. (1963) so only some general properties will be listed here.

The asymptotic cone of acceptance for a given station is not a simple geometric region of detector sensitivity centered over the station meridian. Rather, asymptotic cones form complex shapes on the celestial sphere. Yet, there are some consistent properties related to the station location.

(1) Equatorial cosmic ray stations tend to have asymptotic cones that are relatively narrow in latitude and quite wide in longitude. For example, Ahmedabad, India (latitude  $23.01^{\circ}$ N, longitude  $72.61^{\circ}$ E, geomagnetic vertical cutoff rigidity  $15.98$  GV\*) has an asymptotic cone that is close to the equator with a latitude spread of  $\pm 20^{\circ}$  and a longitudinal width of  $\sim 180^{\circ}$ .

(2) Mid-latitude stations, from about  $30^{\circ}$  to  $70^{\circ}$  geomagnetic latitude, have cones with large latitude spreads and narrower longitude spreads but still have a significant fraction of their sensitivity near the equator. Thus, for Kiel, FRG (latitude  $54.33^{\circ}$ N, longitude  $10.13^{\circ}$ E, geomagnetic vertical cutoff rigidity  $2.28$  GV), the width of the asymptotic cone in latitude and longitude is about  $40^{\circ}$  and  $100^{\circ}$  respectively. Among the mid-latitude stations there is a systematic change of asymptotic cone shape with station latitude. The cones tend to be narrower in

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\*Vertical cutoff rigidities in this report are those calculated with a 1975 representation of the geomagnetic field. Earlier publications of variational coefficients gave vertical cutoff rigidities as calculated using a 1955 representation of the geomagnetic field.

longitude but more widely spread in latitude as the station latitude rises. However, stations in this group, up to a geomagnetic latitude of approximately  $45^{\circ}$ , still have most of their sensitivity near the equator. Only those stations above about  $50^{\circ}$  geomagnetic latitude record a significant fraction of their counts from non-equatorial directions. For Inuvik, Canada, which is near the high latitude end of this group (latitude  $68.35^{\circ}$  N, longitude  $226.27^{\circ}$  E, geomagnetic vertical cutoff rigidity 0.17 GV), the latitude range is about  $70^{\circ}$  while the longitude spread is only about  $10^{\circ}$ .

(3) Polar cosmic ray stations have cones that for galactic cosmic ray responses are compact in both latitude and longitude. For example, Thule, Greenland (latitude  $76.55^{\circ}$  N, longitude  $291.16^{\circ}$  E, geomagnetic vertical cutoff rigidity approximately 0.0 GV) has an asymptotic cone that spreads only about 15 degrees in both latitude and longitude.

For positive particles, the geomagnetic field shifts the sensitivity peaks of all stations to an asymptotic position east of the station location. This magnetic deflection ranges from as little as  $10^{\circ}$  for polar stations to more than  $70^{\circ}$  for some mid-latitude stations.

### 3. VARIATIONAL COEFFICIENTS

Because of the complexity of the geomagnetic field, the asymptotic cones of acceptance of cosmic ray stations may be quite different, even for stations at the same latitude or longitude. The quantitative comparison of counting rate changes at different stations requires a detailed knowledge of the combined effects of the asymptotic cosmic ray trajectories, their positions as a function of rigidity, the coupling coefficients (as defined by Dorman, 1957) for the detector and the spatial and rigidity dependence of the anisotropy. The effects of each of these factors have been combined by Rao et al. (1963) in the concept of the variational coefficient.

If the isotropic differential cosmic ray intensity is  $J_o(R)$  where R is the particle rigidity and there is an anisotropy in an element of asymptotic solid angle  $\Omega_i$  that can be expressed as  $J_i(R) = J_o(1+A_iR^\beta)$  then the fractional change in the detector counting rate resulting from the anisotropy  $J_o A_i R^\beta$  is

$$\frac{dN(\Omega_i)}{N} = A_i v(\Omega_i, \beta)$$

where  $v(\Omega_i, \beta)$  is the variational coefficient. Rao et al. (1963) have shown that the variational coefficients are given by

$$v(\Omega_i, \beta) = \int_{R_{\text{cutoff}}}^{\infty} W(R) R^\beta U(\Omega_i, R) dR$$

where  $W(R)$  is the coupling coefficient for the detector and  $U(\Omega_i, R)$  describes the accessibility to the detector of particles in the asymptotic solid angle  $\Omega_i$  which have rigidity R. Since the asymptotic cones of cosmic ray stations vary considerably, their responses to an anisotropy may be quite different even though the anisotropy is constant with time.

The variational coefficients describe the change in counting rate resulting from an anisotropy in a small solid angle, so if the variational

coefficients for all solid angles are known, the effects of any hypothetical anisotropy on the counting rate of a given detector may be calculated. An example of how the variational coefficients of stations in different latitudes can reveal the true nature of the structure of a free space anisotropy has been given for American stations (Gold et al. 1974). A similar example for Europe is not possible because there are no true polar nor equatorial cosmic ray stations in the European range of longitudes.

#### **4. COMPARISON WITH EXISTING TABLES OF VARIATIONAL COEFFICIENTS**

In order to use the variational coefficients to determine a station response to a given anisotropy, the spatial structure and the rigidity spectrum of the anisotropy must be included in the calculation. The IQSY tables of variational coefficients (McCracken et al., 1965; Shea et al., 1968) list the cutoff rigidities, trajectories and variational coefficients for 127 cosmic ray stations. However, the IQSY tables were oriented toward the study of the cosmic ray diurnal variations and have three features built into them which severely limit their usefulness in the study of transient cosmic ray phenomena.

(1) The anisotropy in the IQSY tables was assumed to have an upper limiting rigidity of 500 GV. Although the diurnal variation is not effective up to this extreme limit, the error introduced by extending the calculation to 500 GV was small since the sensitivity of neutron monitors is quite low at these high rigidities and the diurnal wave is essentially independent of rigidity. Transient anisotropies, on the other hand, may have positive exponents, and events have been observed (Gold and Peacock, 1973) with  $\beta$  as high as +1.8. With these sharply-rising rigidity spectra the anisotropy becomes very large at high rigidities and it becomes important to accurately specify the upper limiting rigidity ( $R_{max}$ ), otherwise there may be large errors in the calculation. A series of six values of  $R_{max}$  covering the range from 29 to 500 GV have been chosen for the tables included in this report, and it is felt that they form a useful set for the description of most phenomena.

(2) The IQSY tables were calculated for power law spectra with  $\beta$  covering the range from -1.5 to +0.6. While the lower end of the  $\beta$  range is sufficient, there are cosmic ray modulation phenomena which have exponents higher than  $\beta = +0.6$ . The semidiurnal anisotropy, for example, (Pomerantz and Duggal, 1971, and references therein) has been shown to have a spectrum that is proportional to rigidity ( $\beta = 1$ ) with

considerable spectral fluctuations from day to day, while Gold and Peacock (1973) have analyzed transient (fwhm  $\sim$ 4 hrs) Forbush predecreases with values from +0.2 to +1.8.

Phenomenological models that include a rising rigidity spectrum and a sharp cutoff at  $R_{\max}$  are poor approximations in the vicinity of  $R_{\max}$  as the actual modulation would certainly exhibit a more gradual cutoff. Spectral functions such as a power law multiplying an exponential may be more realistic on both physical and theoretical grounds. However, such functions would require recalculation of the variational coefficients for each case and are not practical alternatives for a set of tables designed for general use. Thus, the tables included in this report have been calculated for power law anisotropies with exponents ranging from -0.2 to +1.6 and sharp upper rigidity cutoffs. The user is cautioned not to attach too much significance to spectral features near the upper cutoff.

(3) The computational method requires that the latitude dependence be included in the individual  $v(\Omega_i, R)$  and cosine of the asymptotic latitude was included in the IQSY tables. The cosine is not a very severe limitation on the use of the tables since the asymptotic cones of all but the polar stations are concentrated near the equator where the latitude function is only a perturbation on the detector response. The tables presented in this report, however, have been calculated for anisotropies that are independent of latitude, which makes little difference for equatorial and mid-latitude stations but permits the polar stations to be used to determine the latitude dependence of an observed anisotropy.

The longitudinal dependences in the IQSY tables were sine waves with periods of  $180^\circ$  and  $360^\circ$  to simulate the semidiurnal and diurnal anisotropies. For transient phenomena an aperiodic function such as a square pulse would be more appropriate. The exact profile of the pulse (square, sine, Gaussian, etc.) is not critical for pulses up to about  $90^\circ$  in width. As long as the full width at half maximum of the pulses are the same, the wide asymptotic cones of most stations are unable to

distinguish among the various profiles. Only the polar stations and the extreme stations of the mid-latitude group have asymptotic cones that are longitudinally compact enough to separate different pulse shapes. Three longitudinal profiles corresponding to different widths of square waves have been included in the tables presented in this report along with diurnal and semidiurnal waves and an isotropic profile.

## 5. CHOICE OF STATIONS

All cosmic ray phenomena undergo temporal evolution; however, it is in the analysis of well-defined spatial anisotropies that the effects of temporal development are particularly severe. The idealized network (Gold, et al., 1975) would be a group of stations with asymptotic cones that are well clustered in longitude but spread in latitude so that a sufficient number of measurements may be taken at the same time to provide a "snapshot" of the event. Since equatorial and mid-latitude stations have the bulk of their sensitivity near the equator and cover a wide range of cutoff rigidities, they may be used to determine the rigidity spectrum of the anisotropy. The range of stations from the high mid-latitude group (geomagnetic vertical cutoff rigidity  $\leq 1$  GV) through the polar group all have the same effective vertical cutoff rigidity (atmospheric) while their asymptotic cones cover a wide range of latitudes. Once the rigidity spectrum is known, the variational coefficients for these stations may be used to estimate the latitudinal structure of an anisotropy.

Only the American chain of stations from Chacaltaya on the equator up to the polar station Alert fulfill these conditions of being clustered in asymptotic longitude but having a wide spread in asymptotic latitude. Therefore, data from these stations can be used to analyze well-defined spatial anisotropies without disturbance of temporal development. The somewhat restricted rigidity span covered by the European group of stations is not sufficient for identical analyses since the asymptotic cone of the most northerly station, Apatity, still extends down to the equator while the cutoff of the most southerly station, Athens, is only 8.55 GV. All cosmic ray phenomena undergo temporal evolution, the amplitude of the anisotropy most likely changing in the course of time. However, it may be difficult to observe this phenomena utilizing data solely from the American chain of stations. In addition it is necessary to have the variational coefficients from stations in another range of longitudes to

observe the development of the longitudinal profile of an anisotropy. To delineate features such as these, the variational coefficients of the European stations, when combined with those published for the American stations, may be extremely useful. The stations selected for the tables in this report are Apatity, Oulu, Leeds, Kiel, Utrecht, Dourbes, Kiev, Jungfraujoch, Pic du Midi, Rome and Athens.

## 6. USE OF THE VARIATIONAL COEFFICIENTS

One reason that the variational coefficients have only occasionally been applied to the analysis of cosmic ray phenomena is that many researchers are unfamiliar with their use. Actually, all applications of the coefficients are simply fits of the values in the tables to the observed counting rate changes. The five characteristics of an observed cosmic ray anisotropy which can be determined with the aid of variational coefficients are its longitudinal, temporal and spectral dependence, the amplitude of the anisotropy and its latitudinal profile. However, because of the wide asymptotic cones of acceptance and the rigidity range of most cosmic ray monitors, these characteristics of the anisotropy mutually interact and are most easily separated when they are calculated in the order stated.

The determination of the longitudinal profile must be done with data from similar asymptotic latitudes to prevent contamination by any latitude effects. Therefore, a ring of equatorial or mid-latitude stations may be used since they all have the major fraction of their sensitivity centered near the equator. The equatorial stations have asymptotic cones of acceptance that are more closely confined to equatorial regions so they are not as disturbed by strong latitudinal profiles. But the resulting longitudinal profile of the anisotropy is strongly model-dependent, and these stations, with their wide asymptotic cones, can still only define the full width half maximum of an anisotropy that is significantly narrower than the asymptotic cone. Mid-latitude stations tend to have asymptotic cones which are more confined longitudinally and therefore yield more accurate profiles. Stations with very narrow asymptotic cones can almost give the longitudinal profile directly. The temporal dependence of the anisotropy may be found by fitting the anisotropy to the data from more westerly stations at later times and comparing the ratios of the observed change in counting rate to the variational coefficient amplitude for the chosen stations as a function of time.

The rigidity spectrum of the anisotropy may be determined by fitting the appropriate model to the observations (see Appendix A for diurnal waves, Appendix C for square waves and isotropic disturbances). The stations used in the spectral analysis must have similar asymptotic cones yet cover as wide a range of cutoff rigidity as possible. Uncertainties in cosmic ray measurements are usually relatively large since they include not only counting rate errors but also cosmic ray modulations such as the diurnal variation. Thus, in some cases it may not be possible to determine  $\beta$  and  $R_{\max}$  uniquely, and a curve of  $\beta$  and  $R_{\max}$  combinations may be the best that the data permits.

All the tables in the appendices are normalized to 100 percent at 1 GV; thus the amplitude of the anisotropy is simply the ratio of the observed variation to that predicted by the tables.

In principle, the latitude dependence could be found, once the spectrum is known, from the ratio of observed to predicted variations of stations with similar cutoff rigidities and asymptotic longitude but different asymptotic latitudes. The European chain of stations, by itself does not extend far enough in the poleward direction to be utilized to derive an unique latitudinal dependence. However, the variational coefficients for the European stations greatly enhance the possibilities of determining longitudinal and temporal variations of cosmic-ray anisotropies.

## 7. FORMAT OF THE TABLES

The tables have been calculated in three steps with the first group in Appendix A containing the variational coefficients calculated for  $R_{\max}$  values of 500, 188.75, 111.25, 80, 50 and 29 GV, independent of latitude. The format is similar to the IQSY listings with diurnal and semidiurnal amplitudes and phases listed along with the value of  $R_{\max}$ .

Appendix B contains the amplitudes and phases of the station responses to a square wave (lunes of the celestial sphere)  $60^{\circ}$  wide as a function of the asymptotic longitude of the center of the pulse.

Appendix C lists the amplitudes and phases of the station responses to  $10^{\circ}$ ,  $30^{\circ}$  and  $60^{\circ}$  square waves and isotropic ( $360^{\circ}$ ) modulations as a function of the upper limiting rigidity. The response to other longitudinal profiles may be computed by taking appropriately weighted sums of the variational coefficients in Appendix A.

The amplitudes listed throughout these tables are normalized to  $A_i = 100$  percent at 1 GV while the phase gives the correction for geomagnetic bending of the trajectories in hours or degrees measured from the geographic longitude of the station.

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## APPENDIX A

### COSMIC-RAY VARIATIONAL COEFFICIENTS

In the following section the cosmic-ray variational coefficients for eleven stations are tabulated together with ten values of  $\beta = +1.6$  to  $\beta = -0.2$ . Tables are given for upper limiting rigidity values of 500, 188.75, 111.25, 80 and 29 GV.

APATITY											
GEOGRAPHIC LATITUDE = 67.55 GEOGRAPHIC LONGITUDE = 33.33											
ASY.LONG./BETA=		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	2414.27	711.45	209.65	61.78	18.21	5.37	1.58	0.47	0.14	0.04	
5 10	9418.16	2962.83	939.41	301.14	98.03	32.59	11.15	3.96	1.47	0.57	
10 15	2264.57	854.19	322.77	122.19	46.34	17.61	6.71	2.56	0.98	0.37	
15 20	2622.00	902.16	312.82	109.44	38.67	13.82	5.00	1.83	0.68	0.26	
20 25	195.45	84.81	36.80	15.97	6.93	3.01	1.30	0.57	0.25	0.11	
25 30	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14	
30 35	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20	
35 40	6322.29	2014.75	647.40	209.87	68.66	22.68	7.56	2.54	0.86	0.30	
40 45	2703.19	980.99	368.82	144.70	59.52	25.68	11.58	5.42	2.62	1.29	
45 50	21662.87	7355.18	2541.11	895.32	322.49	119.06	45.17	17.66	7.13	2.98	
50 55	1632.20	707.70	309.21	136.25	60.61	27.24	12.38	5.70	2.66	1.26	
55 60	677.18	323.84	157.41	77.79	39.08	19.94	10.33	5.42	2.88	1.55	
60 65	717.17	367.14	190.94	100.94	54.26	29.65	16.46	9.28	5.31	3.07	
65 70	1707.93	881.58	471.89	260.96	148.39	86.34	51.17	30.78	18.73	11.51	
70 75	1015.43	560.88	316.72	182.38	106.85	63.57	38.34	23.42	14.47	9.04	
75 80	3190.03	1138.09	452.60	204.95	105.37	60.05	36.81	23.70	15.77	10.73	
80 85	8259.45	2979.68	1104.03	423.12	169.36	71.69	32.55	16.04	8.64	5.06	
85 90	560.57	278.07	139.69	71.38	37.33	20.15	11.34	6.73	4.23	2.84	
90 95	622.42	301.28	146.30	71.30	34.88	17.13	8.45	4.19	2.09	1.05	
95 100	579.80	251.99	109.59	47.69	20.77	9.05	3.95	1.72	0.75	0.33	
100 105	2603.55	1010.17	395.65	156.78	63.02	25.78	10.78	4.63	2.06	0.96	
105 110	6942.32	2163.07	675.74	211.78	66.70	21.21	6.91	2.38	0.94	0.47	
110 115	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
120 125	181.48	89.13	43.77	21.50	10.56	5.19	2.55	1.25	0.61	0.30	
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
130 135	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20	
135 140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
140 145	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14	
145 150	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
150 155	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	
155 160	195.47	84.83	36.82	15.99	6.95	3.03	1.33	0.59	0.27	0.13	
160 165	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
165 170	195.14	82.29	34.70	14.63	6.17	2.60	1.10	0.46	0.20	0.08	
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
175 180	194.26	79.89	32.86	13.51	5.56	2.29	0.94	0.39	0.16	0.07	
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	651.46	262.03	105.39	42.39	17.05	6.86	2.76	1.11	0.45	0.18	
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230 235	1613.11	592.17	217.38	79.80	29.29	10.75	3.95	1.45	0.53	0.20	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
250 255	2232.59	739.98	245.26	81.29	26.94	8.93	2.96	0.98	0.33	0.11	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	4709.18	1422.58	430.02	130.07	39.37	11.92	3.61	1.10	0.33	0.10	
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
350 355	9980.41	3348.65	1140.50	394.75	138.98	49.80	18.16	6.74	2.55	0.98	
355 360	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20	
<b>FIRST HARMONIC</b>											
AMPLITUDE	63310.1622486.56	8350.42	3280.53	1378.52	624.07	304.68	159.61	88.93	52.20		
PHASE	0.62	0.79	1.00	1.23	1.49	1.75	1.98	2.17	2.33	2.46	
<b>(IN HOURS)</b>											
<b>SECOND HARMONIC</b>											
AMPLITUDE	39911.1114333.92	5404.20	2173.73	946.93	649.97	232.16	128.38	74.96	45.66		
PHASE	0.96	1.08	1.24	1.43	1.66	1.89	2.09	2.26	2.40	2.50	
<b>(IN HOURS)</b>											
THE UPPER LIMIT FOR THIS CALCULATION IS 500.00 GV											

APATITY											
GEOGRAPHIC LATITUDE = 67.55 GEOGRAPHIC LONGITUDE = 33.33											
ASY.LONG./BETA=		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	10	181.48	89.13	43.77	21.50	10.56	5.19	2.55	1.25	0.61	0.30
10	15	2264.57	854.19	322.77	122.19	46.34	17.61	6.71	2.56	0.98	0.37
15	20	389.40	162.18	67.56	28.14	11.73	4.89	2.04	0.85	0.35	0.15
20	25	195.45	84.81	36.80	15.97	6.93	3.01	1.30	0.57	0.25	0.11
25	30	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14
30	35	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20
35	40	1613.11	592.17	217.38	79.80	29.29	10.75	3.95	1.45	0.53	0.20
40	45	470.60	241.01	123.55	63.41	32.57	16.75	8.62	4.44	2.29	1.18
45	50	7779.32	3030.04	1190.55	472.60	189.87	77.35	32.03	13.51	5.81	2.56
50	55	1632.20	707.70	309.21	136.25	60.61	27.24	12.38	5.70	2.66	1.26
55	60	677.18	323.84	157.41	77.79	39.08	19.94	10.33	5.42	2.88	1.55
60	65	717.17	367.14	190.94	100.94	54.26	29.65	16.46	9.28	5.31	3.07
65	70	1707.93	881.58	471.89	260.96	148.39	86.34	51.17	30.78	18.73	11.51
70	75	1015.43	560.88	316.72	182.38	106.85	63.57	38.34	23.42	14.47	9.04
75	80	775.76	426.64	242.95	143.17	87.16	54.68	35.23	23.24	15.63	10.69
80	85	3731.95	1528.57	638.40	273.54	121.26	56.20	27.55	14.43	8.12	4.89
85	90	560.57	278.07	139.69	71.38	37.33	20.15	11.34	6.73	4.23	2.84
90	95	622.42	301.28	146.30	71.30	34.88	17.13	8.45	4.19	2.09	1.05
95	100	579.80	251.99	109.59	47.69	20.77	9.05	3.95	1.72	0.75	0.33
100	105	2603.55	1010.17	395.65	156.78	63.02	25.78	10.78	4.63	2.06	0.96
105	110	0.54	0.50	0.46	0.42	0.39	0.36	0.33	0.31	0.28	0.26
110	115	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115	120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120	125	181.48	89.13	43.77	21.50	10.56	5.19	2.55	1.25	0.61	0.30
125	130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130	135	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20
135	140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140	145	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14
145	150	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
150	155	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04
155	160	195.47	84.83	36.82	15.99	6.95	3.03	1.33	0.59	0.27	0.13
160	165	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
165	170	195.14	82.29	34.70	14.63	6.17	2.60	1.10	0.46	0.20	0.08
170	175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175	180	194.26	79.89	32.86	13.51	5.56	2.29	0.94	0.39	0.16	0.07
180	185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190	195	651.46	262.03	105.39	42.39	17.05	6.86	2.76	1.11	0.45	0.18
195	200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200	205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210	215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215	220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220	225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225	230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230	235	1613.11	592.17	217.38	79.80	29.29	10.75	3.95	1.45	0.53	0.20
235	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240	245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250	255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270	275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320	325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330	335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340	345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350	355	3038.63	1186.08	465.22	183.39	72.67	28.95	11.59	4.67	1.89	0.77
355	360	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20

FIRST HARMONIC  
 AMPLITUDE 24484.6410527.37 4671.42 2150.53 1031.84 517.69 271.97 149.51 85.80 51.22  
 PHASE 1.56 1.66 1.77 1.88 2.00 2.12 2.23 2.33 2.43 2.51  
 (IN HOURS)  
 SECOND HARMONIC  
 AMPLITUDE 17172.05 7352.01 3279.23 1535.00 757.55 394.40 215.91 123.61 73.55 45.24  
 PHASE 1.36 1.49 1.63 1.78 1.94 2.09 2.23 2.34 2.44 2.53  
 (IN HOURS)  
 THE UPPER LIMIT FOR THIS CALCULATION IS 188.75 GV

APATITY										
GEOGRAPHIC LATITUDE = 67.55			GEOGRAPHIC LONGITUDE = 33.33							
ASY. LONG./BETA =	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	181.48	89.13	43.77	21.50	10.56	5.19	2.55	1.25	0.61	0.30
10 15	651.45	262.03	105.39	42.39	17.05	6.86	2.76	1.11	0.45	0.18
15 20	389.40	162.18	67.56	28.14	11.73	4.89	2.04	0.85	0.35	0.15
20 25	195.45	84.81	36.80	15.97	6.93	3.01	1.30	0.57	0.25	0.11
25 30	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14
30 35	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20
35 40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40 45	470.60	241.01	123.55	63.41	32.57	16.75	8.52	4.44	2.29	1.18
45 50	2939.99	1253.54	538.40	233.20	101.99	45.09	20.18	9.16	4.22	1.97
50 55	1632.22	707.70	309.21	136.25	60.61	27.24	12.38	5.70	2.66	1.26
55 60	677.18	323.84	157.41	77.79	39.08	19.94	10.33	5.42	2.88	1.55
60 65	717.17	367.14	190.94	100.94	54.26	29.65	16.46	9.28	5.31	3.07
65 70	1707.93	881.58	471.89	260.96	148.39	86.34	51.17	30.78	18.73	11.51
70 75	1015.43	560.88	316.72	182.38	106.85	63.57	38.34	23.42	14.47	9.04
75 80	775.76	426.64	242.95	143.17	87.16	54.68	35.23	23.24	15.63	10.69
80 85	2118.84	936.40	421.02	193.74	91.96	45.45	23.61	12.98	7.59	4.69
85 90	560.57	278.07	139.69	71.38	37.33	20.15	11.34	6.73	4.23	2.84
90 95	622.42	301.28	146.30	71.30	34.88	17.13	8.45	4.19	2.09	1.05
95 100	579.80	251.99	109.59	47.69	20.77	9.05	3.95	1.72	0.75	0.33
100 105	990.44	418.00	178.27	76.98	33.73	15.03	6.83	3.18	1.52	0.76
105 110	0.54	0.50	0.46	0.42	0.39	0.36	0.33	0.31	0.28	0.26
110 115	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120 125	181.48	89.13	43.77	21.50	10.56	5.19	2.55	1.25	0.61	0.30
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130 135	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20
135 140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140 145	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14
145 150	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
150 155	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04
155 160	195.47	84.83	36.82	15.99	6.95	3.03	1.33	0.59	0.27	0.13
160 165	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
165 170	195.14	82.29	34.70	14.63	6.17	2.60	1.10	0.46	0.20	0.08
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175 180	194.26	79.89	32.86	13.51	5.56	2.29	0.94	0.39	0.16	0.07
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	651.46	262.03	105.39	42.39	17.05	6.86	2.76	1.11	0.45	0.18
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350 355	1425.52	593.91	247.84	103.59	43.37	18.12	7.64	3.22	1.36	0.57
355 360	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20

## FIRST HARMONIC

AMPLITUDE	15461.23	7234.16	3470.61	1713.07	872.59	459.75	250.90	141.85	83.02	50.21
PHASE	2.03	2.08	2.13	2.18	2.24	2.30	2.36	2.42	2.49	2.55

## (IN HOURS)

SECOND HARMONIC	9657.60	4660.65	2322.45	1197.33	639.07	352.97	201.44	118.55	71.78	44.62
PHASE	1.76	1.86	1.97	2.07	2.17	2.26	2.35	2.42	2.49	2.56

## (IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 111.25 GV

APATITY										
		GEOGRAPHIC LATITUDE = 67.55				GEOGRAPHIC LONGITUDE = 33.33				
ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	181.48	89.13	43.77	21.50	10.56	5.19	2.55	1.25	0.61	0.30
10 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 20	195.14	82.29	34.70	14.63	6.17	2.60	1.10	0.46	0.20	0.08
20 25	195.45	84.81	36.80	15.97	6.93	3.01	1.30	0.57	0.25	0.11
25 30	189.24	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14
30 35	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20
35 40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40 45	470.60	241.01	123.55	63.41	32.57	16.75	8.62	4.44	2.29	1.18
45 50	1248.55	569.70	261.90	121.40	56.77	26.81	12.79	6.17	3.01	1.48
50 55	786.48	365.78	170.97	80.35	38.00	18.09	8.68	4.20	2.05	1.01
55 60	677.18	323.84	157.41	77.79	39.08	19.94	10.33	5.42	2.88	1.55
60 65	717.17	367.14	190.94	100.94	54.26	29.65	16.46	9.28	5.31	3.07
65 70	1056.47	619.55	366.50	218.57	131.34	79.48	48.42	29.67	18.29	11.32
70 75	821.17	480.99	283.86	168.87	101.29	61.28	37.41	23.04	14.31	8.98
75 80	775.76	426.64	242.95	143.17	87.16	54.68	35.23	23.24	15.63	10.69
80 85	1273.12	594.48	282.77	137.84	69.35	36.30	19.91	11.49	6.98	4.45
85 90	560.57	278.07	139.69	71.38	37.33	20.15	11.34	6.73	4.23	2.84
90 95	622.42	301.28	146.30	71.30	34.88	17.13	8.45	4.19	2.09	1.05
95 100	579.80	251.99	109.59	47.69	20.77	9.05	3.95	1.72	0.75	0.33
100 105	144.72	76.08	40.02	21.08	11.12	5.89	3.13	1.68	0.92	0.51
105 110	0.54	0.50	0.46	0.42	0.39	0.26	0.33	0.31	0.28	0.26
110 115	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120 125	181.48	89.13	43.77	21.50	10.56	5.19	2.55	1.25	0.61	0.30
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130 135	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20
135 140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140 145	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14
145 150	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
150 155	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04
155 160	195.47	84.83	36.82	15.99	6.95	3.03	1.33	0.59	0.27	0.13
160 165	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
165 170	195.14	82.29	34.70	14.63	6.17	2.60	1.10	0.46	0.20	0.08
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350 355	579.80	251.99	109.59	47.69	20.77	9.05	3.95	1.72	0.75	0.33
355 360	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20
<b>FIRST HARMONIC</b>										
AMPLITUDE	10386.85	5184.93	2643.16	1379.01	737.75	405.33	228.24	132.99	79.44	48.77
PHASE	2.22	2.25	2.28	2.31	2.35	2.39	2.43	2.47	2.52	2.58
<b>(IN HOURS)</b>										
<b>SECOND HARMONIC</b>										
AMPLITUDE	6760.78	3521.41	1875.43	1022.20	570.53	326.15	190.94	114.44	70.17	43.99
PHASE	2.17	2.22	2.27	2.31	2.36	2.40	2.45	2.50	2.54	2.59
<b>(IN HOURS)</b>										
THE UPPER LIMIT FOR THIS CALCULATION IS 80.00 GV										

APATITY											
			GEOGRAPHIC LATITUDE = 67.55				GEOGRAPHIC LONGITUDE = 33.33				
ASY. LONG./BETA = +1.6			+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	181.48	89.13	43.77	21.50	10.56	5.19	2.55	1.25	0.61	0.30	
10 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30 35	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20	
35 40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40 45	470.60	241.01	123.55	63.41	32.57	16.75	8.62	4.44	2.29	1.18	
45 50	473.60	235.42	117.61	59.07	29.83	15.16	7.74	3.98	2.06	1.07	
50 55	401.82	196.08	96.08	47.29	23.40	11.65	5.83	2.94	1.50	0.77	
55 60	286.58	156.74	85.90	47.19	25.98	14.33	7.93	4.39	2.44	1.36	
60 65	527.96	282.25	152.85	83.85	46.59	26.21	14.92	8.59	5.00	2.94	
65 70	1056.47	619.55	366.50	218.57	131.34	79.48	48.42	29.67	18.29	11.33	
70 75	821.17	480.99	283.86	168.87	101.29	61.28	37.41	23.04	14.31	8.98	
75 80	580.61	344.35	208.25	128.53	80.99	52.08	34.14	22.77	15.43	10.61	
80 85	497.87	257.68	136.38	74.18	41.66	24.25	14.66	9.20	5.98	4.01	
85 90	371.36	193.17	101.60	54.29	29.66	16.71	9.80	6.03	3.92	2.70	
90 95	622.42	301.28	146.30	71.30	34.88	17.13	8.45	4.19	2.09	1.05	
95 100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100 105	144.72	76.08	40.02	21.08	11.12	5.89	3.13	1.68	0.92	0.51	
105 110	0.54	0.50	0.46	0.42	0.39	0.36	0.33	0.31	0.28	0.26	
110 115	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
120 125	181.48	89.13	43.77	21.50	10.56	5.19	2.55	1.25	0.61	0.30	
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
130 135	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20	
135 140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
145 150	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
150 155	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	
155 160	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	
160 165	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
355 360	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20	
<b>FIRST HARMONIC</b>											
AMPLITUDE	6515.45	3501.57	1910.79	1060.20	598.90	344.83	202.56	121.49	74.42	46.58	
PHASE	2.34	2.35	2.37	2.39	2.42	2.45	2.48	2.51	2.56	2.60	
(IN HOURS)											
<b>SECOND HARMONIC</b>											
AMPLITUDE	5029.87	2772.75	1551.47	881.97	509.80	299.85	179.56	109.51	68.04	43.07	
PHASE	2.38	2.39	2.41	2.43	2.45	2.47	2.50	2.53	2.57	2.61	
(IN HOURS)											
THE UPPER LIMIT FOR THIS CALCULATION IS 50.00 GV											

APATITY											
GEOGRAPHIC LATITUDE = 67.55				GEOGRAPHIC LONGITUDE = 33.33							
ASY.LONG./BETA=		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30 35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35 40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40 45	289.12	151.88	79.78	41.91	22.02	11.56	6.08	3.19	1.68	0.88	
45 50	107.00	59.83	33.46	18.72	10.47	5.86	3.28	1.83	1.03	0.57	
50 55	35.22	20.49	11.92	6.94	4.04	2.35	1.37	0.79	0.46	0.27	
55 60	286.58	156.74	85.90	47.19	25.98	14.33	7.93	4.39	2.44	1.36	
60 65	342.84	195.79	112.47	64.99	37.78	22.10	13.00	7.60	4.58	2.74	
65 70	874.99	530.43	322.72	197.07	120.78	74.30	45.87	28.42	17.67	11.03	
70 75	821.17	480.99	283.86	168.87	101.29	61.28	37.41	23.04	14.31	8.98	
75 80	580.61	344.35	208.25	128.53	80.99	52.08	34.14	22.77	15.43	10.61	
80 85	131.27	82.09	52.23	33.82	22.29	14.95	10.19	7.05	4.95	3.52	
85 90	189.89	104.05	57.83	32.79	19.10	11.52	7.25	4.78	3.31	2.39	
90 95	70.69	39.23	21.77	12.08	6.70	3.72	2.06	1.15	0.64	0.36	
95 100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
100 105	144.72	76.08	40.02	21.08	11.12	5.89	3.13	1.68	0.92	0.51	
105 110	0.54	0.50	0.46	0.42	0.39	0.36	0.33	0.31	0.28	0.26	
110 115	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
120 125	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
130 135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
135 140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
145 150	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
150 155	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	
155 160	0.07	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	
160 165	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
355 360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

## FIRST HARMONIC

AMPLITUDE	3775.43	2188.47	1281.14	758.10	453.87	275.17	169.09	105.39	66.68	42.85
PHASE	2.42	2.43	2.44	2.46	2.48	2.50	2.53	2.56	2.59	2.64

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	3495.99	2036.21	1197.62	711.90	428.03	260.52	160.64	100.41	63.66	40.96
PHASE	2.42	2.43	2.45	2.46	2.48	2.50	2.53	2.56	2.59	2.63

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 29.00 GV

ATHENS											
		GEOGRAPHIC LATITUDE = 37.97					GEOGRAPHIC LONGITUDE = 23.72				
ASY. LONG./BETA =		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5		919.00	369.63	148.67	59.80	24.05	9.67	3.89	1.56	0.63	0.25
5 10		7192.47	2235.59	701.91	223.19	72.08	23.71	7.97	2.74	0.97	0.35
10 15		3425.19	1163.52	397.90	137.20	47.78	16.84	6.02	2.18	0.81	0.30
15 20		9185.64	2961.93	967.00	320.16	107.67	36.84	12.84	4.57	1.66	0.61
20 25		4859.95	1607.93	547.74	192.62	70.00	26.27	10.16	4.03	1.64	0.68
25 30		16454.75	5213.83	1658.40	529.80	170.10	54.93	17.86	5.85	1.94	0.65
30 35		19860.95	6221.01	1957.12	618.84	196.86	63.07	20.38	6.66	2.20	0.74
35 40		12774.71	4630.81	1688.10	619.40	229.02	85.45	32.22	12.30	4.77	1.88
40 45		6666.42	2636.50	1046.59	417.04	166.83	67.01	27.03	10.95	4.45	1.82
45 50		8929.81	2964.26	1008.15	352.15	126.49	46.72	17.72	6.88	2.73	1.10
50 55		4751.45	1766.81	673.03	262.99	105.44	43.33	18.22	7.82	3.41	1.51
55 60		3935.38	1553.73	620.48	251.06	103.11	43.05	18.30	7.92	3.50	1.58
60 65		2507.15	1088.22	475.56	209.28	92.76	41.41	18.61	8.43	3.84	1.76
65 70		8190.52	2713.44	931.42	333.78	125.56	49.68	20.62	8.93	4.01	1.85
70 75		6475.27	2388.23	901.55	350.05	140.44	58.43	25.25	11.32	5.26	2.51
75 80		1754.29	766.15	337.61	150.19	67.50	30.66	14.08	6.54	3.08	1.46
80 85		1645.85	758.59	352.91	165.77	78.62	37.66	18.21	8.89	4.38	2.18
85 90		771.20	355.54	204.74	106.90	56.26	29.83	15.92	8.55	4.62	2.51
90 95		872.03	439.23	222.19	112.89	57.62	29.54	15.21	7.87	4.09	2.13
95 100		610.24	320.40	169.04	89.63	47.77	25.60	13.79	7.47	4.07	2.23
100 105		150.95	84.41	47.20	26.40	14.77	8.26	4.62	2.59	1.45	0.81
105 110		250.32	142.22	80.84	45.97	26.15	14.89	8.48	4.83	2.75	1.57
110 115		402.74	220.95	121.51	66.99	37.03	20.52	11.40	6.35	3.55	1.99
115 120		100.91	57.97	33.31	19.14	11.00	6.33	3.64	2.09	1.20	0.69
120 125		141.98	84.24	50.05	29.77	17.73	10.57	6.31	3.77	2.26	1.35
125 130		99.09	58.48	34.53	20.39	12.04	7.11	4.20	2.48	1.47	0.87
130 135		49.40	29.58	17.71	10.60	6.35	3.80	2.28	1.36	0.82	0.49
135 140		240.17	139.43	81.09	47.24	27.57	16.12	9.44	5.54	3.26	1.92
140 145		49.40	29.58	17.71	10.60	6.35	3.80	2.28	1.36	0.82	0.49
145 150		77.41	48.58	30.50	19.15	12.03	7.55	4.75	2.98	1.87	1.18
150 155		92.58	54.67	32.34	19.17	11.38	6.77	4.04	2.41	1.44	0.86
155 160		90.76	55.18	33.56	20.41	12.42	7.56	4.60	2.80	1.71	1.04
160 165		41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
165 170		77.41	48.58	30.50	19.15	12.03	7.55	4.75	2.98	1.87	1.18
170 175		49.69	28.91	16.82	9.79	5.69	3.31	1.93	1.12	0.65	0.38
175 180		36.05	22.98	14.65	9.34	5.95	3.79	2.42	1.54	0.98	0.63
180 185		28.30	18.45	12.02	7.84	5.11	3.33	2.17	1.41	0.92	0.60
185 190		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200		64.35	41.43	26.67	17.17	11.06	7.12	4.59	2.96	1.90	1.23
200 205		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215		162.85	101.14	62.85	39.09	24.33	15.15	9.44	5.89	3.67	2.29
215 220		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225		36.05	22.98	14.65	9.34	5.95	3.79	2.42	1.54	0.98	0.63
225 230		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235		28.30	18.45	12.02	7.84	5.11	3.33	2.17	1.41	0.92	0.60
235 240		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320		41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
320 325		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345 350		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350 355		9792.62	3050.69	952.60	298.16	93.54	29.42	9.27	2.93	0.93	0.29
355 360		2275.58	835.36	306.66	112.57	41.33	15.17	5.57	2.04	0.75	0.28
<b>FIRST HARMONIC</b>											
AMPLITUDE		122842.2241991.1714698.63	5294.03	1973.65	767.18	313.52	135.76	62.56	30.64		
PHASE		0.82	0.98	1.18	1.46	1.82	2.27	2.81	3.44	4.11	4.78
(IN HOURS)											
<b>SECOND HARMONIC</b>											
AMPLITUDE		94603.7231584.3010710.32	3697.97	1304.17	471.78	175.99	68.09	27.46	11.56		
PHASE		0.73	0.84	0.98	1.18	1.39	1.66	1.99	2.37	2.81	3.28
(IN HOURS)											
THE UPPER LIMIT FOR THIS CALCULATION IS 500.00 GV											

ATHENS										
GEOGRAPHIC LATITUDE = 37.97 GEOGRAPHIC LONGITUDE = 23.72										
ASY. LUNG./BETA	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	919.00	369.63	148.67	59.80	24.05	9.67	3.89	1.56	0.63	0.25
5 10	549.33	228.79	95.30	39.70	16.54	6.89	2.87	1.20	0.50	0.21
10 15	275.72	119.64	51.92	22.53	9.78	4.24	1.84	0.80	0.35	0.15
15 20	2542.49	955.12	360.39	136.68	52.14	20.02	7.75	3.02	1.19	0.47
20 25	1454.19	604.30	251.99	105.46	44.32	18.70	7.93	3.38	1.44	0.62
25 30	275.29	116.08	48.95	20.64	8.70	3.67	1.55	0.65	0.28	0.12
30 35	275.72	119.64	51.92	22.53	9.78	4.24	1.84	0.80	0.35	0.15
35 40	9625.24	3586.93	1342.12	504.73	191.01	72.85	28.05	10.92	4.31	1.72
40 45	6666.42	2636.50	1046.59	417.04	166.83	67.01	27.03	10.95	4.45	1.82
45 50	2286.67	957.46	401.53	168.66	70.96	29.90	12.62	5.34	2.26	0.96
50 55	1601.98	722.93	327.04	148.31	67.43	30.74	14.05	6.44	2.96	1.36
55 60	3935.38	1553.73	620.48	251.06	103.11	43.05	18.30	7.92	3.50	1.58
60 65	2507.15	1088.22	475.56	209.28	92.76	41.41	18.61	8.43	3.84	1.76
65 70	1547.37	706.63	324.80	150.30	70.03	32.86	15.32	7.39	3.54	1.71
70 75	3325.80	1344.35	555.57	235.37	102.43	45.83	21.07	9.94	4.80	2.36
75 80	1754.29	766.15	337.61	150.19	67.50	30.66	14.08	6.54	3.08	1.46
80 85	1645.85	758.59	352.91	165.77	78.62	37.66	18.21	8.89	4.38	2.18
85 90	771.20	395.54	204.74	106.90	56.26	29.83	15.92	8.55	4.62	2.51
90 95	872.03	439.23	222.19	112.89	57.62	29.54	15.21	7.87	4.09	2.13
95 100	610.24	320.40	169.04	89.63	47.77	25.60	13.79	7.47	4.07	2.23
100 105	150.95	84.41	47.20	26.40	14.77	8.26	4.62	2.59	1.45	0.81
105 110	250.32	142.22	80.84	45.97	26.15	14.89	8.48	4.83	2.75	1.57
110 115	402.74	220.95	121.51	66.99	37.03	20.52	11.40	6.35	3.55	1.99
115 120	100.91	57.97	33.31	19.14	11.00	6.33	3.64	2.09	1.20	0.69
120 125	141.98	84.24	50.05	29.77	17.73	10.57	6.31	3.77	2.26	1.35
125 130	99.09	58.48	34.53	20.39	12.04	7.11	4.20	2.48	1.47	0.87
130 135	49.40	29.58	17.71	10.60	6.35	3.80	2.28	1.36	0.82	0.49
135 140	240.17	139.43	81.09	47.24	27.57	16.12	9.44	5.54	3.26	1.92
140 145	49.40	29.58	17.71	10.60	6.35	3.80	2.28	1.36	0.82	0.49
145 150	77.41	48.58	30.50	19.15	12.03	7.55	4.75	2.98	1.87	1.18
150 155	92.58	54.67	32.34	19.17	11.38	6.77	4.04	2.41	1.44	0.86
155 160	90.76	55.18	33.56	20.41	12.42	7.56	4.60	2.80	1.71	1.04
160 165	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
165 170	77.41	48.58	30.50	19.15	12.03	7.55	4.75	2.98	1.87	1.18
170 175	49.69	28.91	16.82	9.79	5.69	3.31	1.93	1.12	0.65	0.38
175 180	36.05	22.98	14.65	9.34	5.95	3.79	2.42	1.54	0.98	0.63
180 185	28.30	18.45	12.02	7.84	5.11	3.33	2.17	1.41	0.92	0.60
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200	64.35	41.43	26.67	17.17	11.06	7.12	4.59	2.96	1.90	1.23
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	162.85	101.14	62.85	39.09	24.33	15.15	9.44	5.89	3.67	2.29
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	36.05	22.98	14.65	9.34	5.95	3.79	2.42	1.54	0.98	0.63
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235	28.30	18.45	12.02	7.84	5.11	3.33	2.17	1.41	0.92	0.60
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355 360	2275.58	835.36	306.66	112.57	41.33	15.17	5.57	2.04	0.75	0.28
<b>FIRST HARMONIC</b>										
AMPLITUDE	42065.311	7097.92	7056.51	2965.41	1273.30	560.95	254.73	119.76	58.48	29.69
PHASE	1.72	1.90	2.11	2.37	2.69	3.07	3.51	4.00	4.53	5.07
<b>(IN HOURS)</b>										
<b>SECOND HARMONIC</b>										
AMPLITUDE	31419.231	212440.67	4968.89	2004.28	817.65	337.93	141.75	60.46	26.25	11.61
PHASE	1.59	1.70	1.84	1.99	2.18	2.40	2.65	2.93	3.26	3.62
<b>(IN HOURS)</b>										
THE UPPER LIMIT FOR THIS CALCULATION IS 188.75 GV										

ATHENS											
		GEOGRAPHIC LATITUDE = 37.97					GEOGRAPHIC LONGITUDE = 23.72				
ASY.LONG./BETA=		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	919.00	369.63	148.67	59.80	24.05	9.67	3.89	1.56	0.63	0.25	
5 10	549.33	228.79	95.30	39.70	16.54	6.89	2.87	1.20	0.50	0.21	
10 15	275.72	119.64	51.92	22.53	9.78	4.24	1.84	0.80	0.35	0.15	
15 20	266.91	119.76	53.73	24.11	10.82	4.85	2.18	0.98	0.44	0.20	
20 25	1454.19	604.30	251.99	105.46	44.32	18.70	7.93	3.38	1.44	0.62	
25 30	275.29	116.08	48.95	20.64	8.70	3.67	1.55	0.65	0.28	0.12	
30 35	275.72	119.64	51.92	22.53	9.78	4.24	1.84	0.80	0.35	0.15	
35 40	522.92	245.48	115.48	54.43	25.71	12.17	5.77	2.74	1.30	0.62	
40 45	4390.84	1801.14	739.93	304.47	125.51	51.84	21.46	8.90	3.70	1.54	
45 50	2286.67	957.46	401.53	168.66	70.96	29.90	12.02	5.34	2.26	0.96	
50 55	1601.98	722.93	327.04	148.31	67.43	30.74	14.05	6.44	2.96	1.36	
55 60	1659.80	718.37	313.82	138.49	61.78	27.88	12.73	5.88	2.75	1.30	
60 65	2507.15	1088.22	475.56	209.28	92.76	41.41	18.61	8.43	3.84	1.76	
65 70	1547.37	706.63	324.80	150.30	70.03	32.86	15.52	7.39	3.54	1.71	
70 75	1050.22	508.99	248.91	122.80	61.11	30.66	15.50	7.89	4.05	2.09	
75 80	1754.29	766.15	337.61	150.19	67.50	30.66	14.08	6.54	3.08	1.46	
80 85	1645.85	758.59	352.91	165.77	78.62	37.66	18.21	8.89	4.38	2.18	
85 90	771.20	395.54	204.74	106.90	56.26	29.83	15.92	8.55	4.62	2.51	
90 95	872.03	439.23	222.19	112.89	57.62	29.54	15.21	7.87	4.09	2.13	
95 100	610.24	320.40	169.04	89.63	47.77	25.60	13.79	7.47	4.07	2.23	
100 105	150.95	84.41	47.20	26.40	14.77	8.26	4.62	2.59	1.45	0.81	
105 110	250.32	142.22	80.84	45.97	26.15	14.89	8.48	4.83	2.75	1.57	
110 115	402.74	220.95	127.51	66.99	37.03	20.52	11.40	6.35	3.55	1.99	
115 120	100.91	57.97	33.31	19.14	11.00	6.33	3.64	2.09	1.20	0.69	
120 125	141.98	84.24	50.05	29.77	17.73	10.57	6.31	3.77	2.26	1.35	
125 130	99.09	58.48	34.53	20.39	12.04	7.11	4.20	2.48	1.47	0.87	
130 135	49.40	29.58	17.71	10.60	6.35	3.80	2.28	1.36	0.82	0.49	
135 140	240.17	139.43	81.09	47.24	27.57	16.12	9.44	5.54	3.26	1.92	
140 145	49.40	29.58	17.71	10.60	6.35	3.80	2.28	1.36	0.82	0.49	
145 150	77.41	48.58	30.50	19.15	12.03	7.55	4.75	2.98	1.87	1.18	
150 155	92.98	54.67	32.34	19.17	11.38	6.77	4.04	2.41	1.44	0.86	
155 160	90.76	55.18	33.56	20.41	12.42	7.56	4.60	2.80	1.71	1.04	
160 165	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55	
165 170	77.41	48.58	30.50	19.15	12.03	7.55	4.75	2.98	1.87	1.18	
170 175	49.69	28.91	16.82	9.79	5.69	3.31	1.93	1.12	0.65	0.38	
175 180	36.05	22.98	14.65	9.34	5.95	3.79	2.42	1.54	0.98	0.63	
180 185	28.30	18.45	12.02	7.84	5.11	3.33	2.17	1.41	0.92	0.60	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
195 200	64.35	41.43	26.67	17.17	11.06	7.12	4.59	2.96	1.90	1.23	
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	162.85	101.14	62.85	39.09	24.33	15.15	9.44	5.89	3.67	2.29	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	36.05	22.98	14.65	9.34	5.95	3.79	2.42	1.54	0.98	0.63	
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230 235	28.30	18.45	12.02	7.84	5.11	3.33	2.17	1.41	0.92	0.60	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
355 360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

## FIRST HARMONIC

AMPLITUDE 23536.4310395.67 4647.87 2107.89 972.09 457.13 219.86 108.45 54.98 28.67  
 PHASE 2.37 2.54 2.76 3.01 3.30 3.64 4.02 4.44 4.89 5.34

## (IN HOURS)

## SECOND HARMONIC

AMPLITUDE 17052.49 7337.48 3177.31 1385.59 608.96 269.92 120.73 54.51 24.85 11.43  
 PHASE 2.10 2.29 2.42 2.57 2.73 2.92 3.13 3.37 3.64 3.94

## (IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 111.25 GV

## ATHENS

		GEOGRAPHIC LATITUDE = 37.97						GEOGRAPHIC LONGITUDE = 23.72			
ASY. LONG./BETA =		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	10	275.29	116.08	48.95	20.64	8.70	3.67	1.55	0.65	0.28	0.12
10	15	275.72	119.64	51.92	22.53	9.78	4.24	1.84	0.80	0.35	0.15
15	20	266.91	119.76	53.73	24.11	10.82	4.85	2.18	0.98	0.44	0.20
20	25	261.15	121.97	56.96	26.60	12.43	5.80	2.71	1.27	0.59	0.28
25	30	275.29	116.08	48.95	20.64	8.70	3.67	1.55	0.65	0.28	0.12
30	35	275.72	119.64	51.92	22.53	9.78	4.24	1.84	0.80	0.35	0.15
35	40	522.92	245.48	115.48	54.43	25.71	12.17	5.77	2.74	1.30	0.62
40	45	811.72	354.14	154.87	67.89	29.83	13.14	5.81	2.57	1.14	0.51
45	50	1093.63	475.12	206.51	89.80	39.07	17.01	7.41	3.23	1.41	0.61
50	55	1601.98	722.93	327.04	148.31	67.43	30.74	14.05	6.44	2.96	1.36
55	60	740.80	348.73	165.15	78.69	37.73	18.20	8.84	4.32	2.12	1.05
60	65	1040.07	493.18	234.19	111.36	53.03	25.29	12.07	5.77	2.76	1.32
65	70	1547.37	706.63	324.80	150.30	70.03	32.86	15.52	7.39	3.54	1.71
70	75	1050.22	508.99	248.91	122.80	61.11	30.66	15.50	7.89	4.05	2.09
75	80	835.29	396.52	188.93	90.40	43.45	20.98	10.19	4.98	2.45	1.21
80	85	1371.81	645.89	306.56	146.70	70.79	34.44	16.89	8.35	4.16	2.09
85	90	771.20	395.54	204.74	106.90	56.26	29.83	15.92	8.55	4.62	2.51
90	95	872.03	439.23	222.19	112.89	57.62	29.54	15.21	7.87	4.09	2.13
95	100	610.24	320.40	169.04	89.63	47.77	25.60	13.79	7.47	4.07	2.23
100	105	150.95	84.41	47.20	26.40	14.77	8.26	4.62	2.59	1.45	0.81
105	110	250.32	142.22	80.84	45.97	26.15	14.89	8.48	4.83	2.75	1.57
110	115	402.74	220.95	121.51	66.99	37.03	20.52	11.40	6.35	3.55	1.99
115	120	100.91	57.97	33.31	19.14	11.00	6.33	3.64	2.09	1.20	0.69
120	125	141.98	84.24	50.05	29.77	17.73	10.57	6.31	3.77	2.26	1.35
125	130	99.09	58.48	34.53	20.39	12.04	7.11	4.20	2.48	1.47	0.87
130	135	49.40	29.58	17.71	10.60	6.35	3.80	2.28	1.36	0.82	0.49
135	140	240.17	139.43	81.09	47.24	27.57	16.12	9.44	5.54	3.26	1.92
140	145	49.40	29.58	17.71	10.60	6.35	3.80	2.28	1.36	0.82	0.49
145	150	77.41	48.58	30.50	19.15	12.03	7.55	4.75	2.98	1.87	1.18
150	155	92.58	54.67	32.34	19.17	11.38	6.77	4.04	2.41	1.44	0.86
155	160	90.76	55.18	33.56	20.41	17.42	7.55	4.60	2.80	1.71	1.04
160	165	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
165	170	77.41	48.58	30.50	19.15	12.03	7.55	4.75	2.98	1.87	1.18
170	175	49.69	28.91	16.82	9.79	5.69	3.31	1.93	1.12	0.65	0.38
175	180	36.05	22.98	14.65	9.34	5.95	3.79	2.42	1.54	0.98	0.63
180	185	28.30	18.45	12.02	7.84	5.11	3.33	2.17	1.41	0.92	0.60
185	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190	195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195	200	64.35	41.43	26.67	17.17	11.06	7.12	4.59	2.96	1.90	1.23
200	205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210	215	162.85	101.14	62.85	39.09	24.33	15.15	9.44	5.89	3.67	2.29
215	220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220	225	36.05	22.98	14.65	9.34	5.95	3.79	2.42	1.54	0.98	0.63
225	230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230	235	28.30	18.45	12.02	7.84	5.11	3.33	2.17	1.41	0.92	0.60
235	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240	245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250	255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270	275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	320	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
320	325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330	335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340	345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350	355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355	360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

## FIRST HARMONIC

AMPLITUDE 14029.54 6620.76 3158.55 1525.42 746.93 371.43 187.89 96.82 50.89 27.29  
 PHASE 3.05 3.24 3.45 3.69 3.96 4.26 4.59 4.94 5.31 5.69

## (IN HOURS)

SECOND HARMONIC  
 AMPLITUDE 9931.79 4563.97 2108.83 972.95 458.01 215.29 101.75 48.33 23.06 11.05  
 PHASE 2.79 2.90 3.03 3.16 3.31 3.48 3.66 3.86 4.09 4.34

## (IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 80.00 GV

## ATHENS

		GEOGRAPHIC LATITUDE = 37.97				GEOGRAPHIC LONGITUDE = 23.72						
		ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	25	261.15	121.97	56.96	26.60	12.43	5.80	2.71	1.27	0.59	0.28	
25	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	40	256.01	125.73	61.75	30.33	14.89	7.31	3.59	1.76	0.87	0.43	
40	45	261.15	121.97	56.96	26.60	12.43	5.80	2.71	1.27	0.59	0.28	
45	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50	55	517.15	247.70	118.71	56.93	27.32	13.12	6.30	3.03	1.46	0.70	
55	60	465.08	229.09	113.24	56.17	27.95	13.96	7.00	3.52	1.77	0.90	
60	65	773.16	373.43	180.46	87.26	42.21	20.43	9.89	4.79	2.32	1.13	
65	70	721.09	354.82	174.99	86.49	42.85	21.27	10.59	5.28	2.64	1.32	
70	75	507.59	269.59	143.26	76.17	40.52	21.56	11.48	6.12	3.26	1.74	
75	80	568.37	276.76	135.20	66.29	32.63	16.13	8.01	4.00	2.01	1.01	
80	85	820.81	410.17	205.70	103.53	52.31	26.52	13.50	6.90	3.54	1.82	
85	90	504.29	275.78	151.01	82.79	45.45	24.98	13.75	7.58	4.18	2.31	
90	95	872.03	439.23	222.19	112.89	57.62	29.54	15.21	7.87	4.09	2.13	
95	100	610.24	320.40	169.04	89.63	47.77	25.60	13.79	7.47	4.07	2.23	
100	105	150.95	84.41	47.20	26.40	14.77	8.26	4.62	2.59	1.45	0.81	
105	110	250.32	142.22	80.84	45.97	26.15	14.89	8.48	4.83	2.75	1.57	
110	115	402.74	220.95	121.51	66.99	37.03	20.52	11.40	6.35	3.55	1.99	
115	120	100.91	57.97	33.31	19.14	11.00	6.33	3.64	2.09	1.20	0.69	
120	125	141.98	84.24	50.05	29.77	17.73	10.57	6.31	3.77	2.26	1.35	
125	130	99.09	58.48	34.53	20.39	12.04	7.11	4.20	2.48	1.47	0.87	
130	135	49.40	29.58	17.71	10.60	6.35	3.80	2.28	1.36	0.82	0.49	
135	140	240.17	139.43	81.09	47.24	27.57	16.12	9.44	5.54	3.26	1.92	
140	145	49.40	29.58	17.71	10.60	6.35	3.80	2.28	1.36	0.82	0.49	
145	150	77.41	48.58	30.50	19.15	12.03	7.55	4.75	2.98	1.87	1.18	
150	155	92.58	54.67	32.34	19.17	11.38	6.77	4.04	2.41	1.44	0.86	
155	160	90.76	55.18	33.56	20.41	12.42	7.56	4.60	2.80	1.71	1.04	
160	165	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55	
165	170	77.41	48.58	30.50	19.15	12.03	7.55	4.75	2.98	1.87	1.18	
170	175	49.69	28.91	16.82	9.79	5.69	3.31	1.93	1.12	0.65	0.38	
175	180	36.05	22.98	14.65	9.34	5.95	3.79	2.42	1.54	0.98	0.63	
180	185	28.30	18.45	12.02	7.84	5.11	3.33	2.17	1.41	0.92	0.60	
185	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190	195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
195	200	64.35	41.43	26.67	17.17	11.06	7.12	4.59	2.96	1.90	1.23	
200	205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
205	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210	215	162.85	101.14	62.85	39.09	24.33	15.15	9.44	5.89	3.67	2.29	
215	220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220	225	36.05	22.98	14.65	9.34	5.95	3.79	2.42	1.54	0.98	0.63	
225	230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230	235	28.30	18.45	12.02	7.84	5.11	3.33	2.17	1.41	0.92	0.60	
235	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240	245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
245	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
250	255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
255	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260	265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
265	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
270	275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280	285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
285	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290	295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
295	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300	305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310	315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315	320	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55	
320	325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330	335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
340	345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
345	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
350	355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
355	360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

## SECOND HARMONIC

AMPLITUDE	5365.55	2660.48	1322.49	658.92	328.98	164.53	82.39	41.29	20.70	10.38
PHASE	3.66	3.75	3.85	3.96	4.08	4.21	4.36	4.51	4.69	4.90
(IN HOURS)										

THE UPPER LIMIT FOR THIS CALCULATION IS 50.00 GV

ATHENS											
		GEOGRAPHIC LATITUDE = 37.97			GEOGRAPHIC LONGITUDE = 23.72						
ASY. LONG./BETA =		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 15		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 20		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 25		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 30		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30 35		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35 40		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40 45		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45 50		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50 55		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55 60		203.93	107.13	56.27	29.56	15.53	8.16	4.29	2.25	1.18	0.62
60 65		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65 70		203.93	107.13	56.27	29.56	15.53	8.16	4.29	2.25	1.18	0.62
70 75		507.59	269.59	143.26	76.17	40.52	21.56	11.48	6.12	3.26	1.74
75 80		51.22	29.06	16.49	9.36	5.31	3.01	1.71	0.97	0.55	0.31
80 85		303.66	162.47	86.99	46.60	24.99	13.41	7.20	3.87	2.08	1.12
85 90		504.29	275.78	151.01	82.79	45.45	24.98	13.75	7.58	4.18	2.31
90 95		354.88	191.53	103.48	55.96	30.30	16.42	8.91	4.84	2.63	1.43
95 100		354.24	194.67	107.29	59.31	32.88	18.28	10.20	5.70	3.20	1.80
100 105		150.95	84.41	47.20	26.40	14.77	8.26	4.62	2.59	1.45	0.81
105 110		250.32	142.22	80.84	45.97	26.15	14.89	8.48	4.83	2.75	1.57
110 115		402.74	220.95	121.51	66.99	37.03	20.52	11.40	6.35	3.55	1.99
115 120		100.91	57.97	33.31	19.14	11.00	6.33	3.34	2.09	1.20	0.69
120 125		141.98	84.24	50.05	29.77	17.73	10.57	5.31	3.77	2.26	1.35
125 130		99.09	58.48	34.53	20.39	12.04	7.11	3.20	2.48	1.47	0.87
130 135		49.40	29.58	17.71	10.60	6.35	3.80	2.28	1.36	0.82	0.49
135 140		240.17	139.43	81.09	47.24	27.57	16.12	9.44	5.54	3.26	1.92
140 145		49.40	29.58	17.71	10.60	6.35	3.80	2.28	1.36	0.82	0.49
145 150		77.41	48.58	30.50	19.15	12.03	7.55	4.75	2.98	1.87	1.18
150 155		92.58	54.67	32.34	19.17	11.38	6.77	4.04	2.41	1.44	0.86
155 160		90.76	55.18	33.56	20.41	12.42	7.56	4.60	2.80	1.71	1.04
160 165		41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
165 170		77.41	48.58	30.50	19.15	12.03	7.55	4.75	2.98	1.87	1.18
170 175		49.69	28.91	16.82	9.79	5.69	3.31	1.93	1.12	0.65	0.38
175 180		36.05	22.98	14.65	9.34	5.95	3.79	2.42	1.54	0.98	0.63
180 185		28.30	18.45	12.02	7.84	5.11	3.33	2.17	1.41	0.92	0.60
185 190		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200		64.35	41.43	26.67	17.17	11.06	7.12	4.59	2.96	1.90	1.23
200 205		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215		162.85	101.14	62.85	39.09	24.33	15.15	9.44	5.89	3.67	2.29
215 220		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225		36.05	22.98	14.65	9.34	5.95	3.79	2.42	1.54	0.98	0.63
225 230		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235		28.30	18.45	12.02	7.84	5.11	3.33	2.17	1.41	0.92	0.60
235 240		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320		41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
320 325		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345 350		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350 355		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355 360		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

## FIRST HARMONIC

AMPLITUDE	3787.97	2095.85	1164.21	649.48	364.03	205.07	116.15	66.17	37.92	21.88
PHASE	5.47	5.60	5.74	5.89	6.05	6.22	6.40	6.58	6.78	6.98

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	2497.47	1337.57	716.24	383.40	205.13	109.68	58.61	31.29	16.70	8.92
PHASE	4.87	4.94	5.01	5.10	5.19	5.30	5.41	5.54	5.69	5.86

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 29.00 GV

DOUBLES										
GEOGRAPHIC LATITUDE = 50.10 GEGOGRAPHIC LONGITUDE = 4.60										
ASY. LONG./BETA =	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	5283.73	1642.31	515.64	163.96	52.95	17.42	5.86	2.02	0.71	0.25
5 10	7584.46	2421.35	783.30	257.86	86.84	30.10	10.80	4.03	1.57	0.64
10 15	9703.59	3095.92	993.44	320.99	104.59	34.43	11.48	3.89	1.34	0.47
15 20	14072.44	4785.38	1642.76	569.37	199.28	70.45	25.17	9.09	3.32	1.23
20 25	5306.61	2110.98	842.74	337.63	135.74	54.76	22.17	9.00	3.67	1.50
25 30	1843.95	807.01	355.36	157.45	70.20	31.49	14.22	6.46	2.95	1.35
30 35	5769.05	1892.00	643.68	229.48	86.44	34.54	14.60	6.49	3.00	1.43
35 40	2895.80	1034.09	377.34	141.23	54.39	21.59	8.83	3.72	1.61	0.71
40 45	3147.93	1284.87	535.35	228.28	99.81	44.79	20.63	9.74	4.71	2.32
45 50	985.19	446.48	205.10	95.66	45.36	21.89	10.76	5.38	2.74	1.42
50 55	1025.02	514.78	261.13	133.82	69.29	36.24	19.14	10.20	5.49	2.98
55 60	8748.43	2983.33	1062.78	400.78	161.80	70.29	32.76	16.21	8.41	4.52
60 65	3986.88	1710.39	762.20	354.71	172.87	88.16	46.87	25.82	14.64	8.49
65 70	1677.52	846.59	435.71	228.81	122.60	66.99	37.30	21.13	12.17	7.11
70 75	668.75	341.54	178.17	95.12	52.03	29.17	16.74	9.82	5.88	3.58
75 80	257.92	139.03	76.54	43.12	24.88	14.69	8.87	5.47	3.43	2.18
80 85	26.23	17.77	12.04	8.15	5.53	3.75	2.54	1.72	1.17	0.79
85 90	47.74	32.78	22.52	15.47	10.64	7.32	5.04	3.47	2.39	1.65
90 95	45.75	31.69	21.95	15.21	10.54	7.30	5.06	3.51	2.43	1.69
95 100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100 105	9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86	0.61	0.44
105 110	40.30	28.37	19.98	14.07	9.92	6.99	4.93	3.47	2.45	1.73
110 115	9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86	0.61	0.44
115 120	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57	0.42
120 125	9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86	0.61	0.44
125 130	12.63	9.35	6.92	5.12	3.79	2.81	2.08	1.54	1.14	0.84
130 135	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57	0.42
135 140	22.02	16.03	11.67	8.50	6.19	4.51	3.29	2.40	1.75	1.28
140 145	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57	0.42
145 150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150 155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155 160	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57	0.42
160 165	9.89	7.46	5.63	4.25	3.21	2.43	1.83	1.39	1.05	0.80
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	4880.18	1474.24	445.63	134.79	40.80	12.35	3.74	1.14	0.34	0.10
330 335	6487.29	2117.81	696.71	230.97	77.15	25.96	8.80	3.00	1.03	0.36
335 340	3254.67	1091.29	371.63	128.70	45.36	16.27	5.94	2.20	0.83	0.32
340 345	404.78	173.17	74.10	31.71	13.58	5.81	2.49	1.07	0.46	0.20
345 350	7389.93	2329.07	739.27	236.74	76.66	25.17	8.41	2.87	1.00	0.36
350 355	3985.35	1380.53	479.45	166.94	58.28	20.40	7.16	2.52	0.89	0.31
355 360	866.96	361.14	151.06	63.47	26.80	11.37	4.85	2.08	0.90	0.39
<b>FIRST HARMONIC</b>										
AMPLITUDE	89003.10309C7.4411098.56	4160.21	1645.76	694.47	314.83	153.41	79.84	43.91		
PHASE	0.73	0.90	1.12	1.40	1.76	2.17	2.63	3.10	3.55	3.96
<b>(IN HOURS)</b>										
<b>SECOND HARMONIC</b>										
AMPLITUDE	60775.79206C6.88	7181.71	2605.56	1003.36	419.43	192.87	96.89	52.07	29.31	
PHASE	0.68	0.85	1.07	1.38	1.76	2.21	2.68	3.13	3.52	3.86
<b>(IN HOURS)</b>										
THE UPPER LIMIT FOR THIS CALCULATION IS 500.00 GV										

DURBES										
GEOGRAPHIC LATITUDE = 50.10			GEOGRAPHIC LONGITUDE = 4.60							
ASY. LONG./BETA	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	403.55	168.07	70.01	29.17	12.15	5.06	2.11	0.88	0.37	0.15
5 10	390.61	180.25	83.50	38.83	18.12	8.49	3.99	1.88	0.89	0.42
10 15	196.08	87.98	39.47	17.71	7.95	3.57	1.60	0.72	0.32	0.14
15 20	6878.59	2544.29	942.96	350.34	130.56	48.84	18.36	6.94	2.64	1.01
20 25	5306.61	2110.98	842.74	337.63	135.74	54.76	22.17	9.00	3.67	1.50
25 30	1843.95	807.01	355.36	157.45	70.20	31.49	14.22	6.46	2.95	1.35
30 35	888.86	417.76	198.05	94.69	45.65	22.18	10.86	5.36	2.66	1.33
35 40	582.14	267.24	123.17	56.99	26.46	12.33	5.77	2.71	1.27	0.60
40 45	3147.93	1284.87	535.35	228.28	99.81	44.79	20.63	9.74	4.71	2.32
45 50	985.19	446.48	205.10	95.66	45.36	21.89	10.76	5.38	2.74	1.42
50 55	1025.02	514.78	261.13	133.82	69.29	36.24	19.14	10.20	5.49	2.98
55 60	1554.58	742.24	362.98	181.75	93.08	48.68	25.94	14.06	7.73	4.31
60 65	3986.88	1710.39	762.20	354.71	172.87	88.16	45.87	25.82	14.64	8.49
65 70	1677.52	846.59	435.71	228.81	122.60	66.99	37.30	21.13	12.17	7.11
70 75	668.75	341.54	178.17	95.12	52.03	29.17	16.74	9.82	5.88	3.58
75 80	257.92	139.03	76.54	43.12	24.88	14.69	8.87	5.47	3.43	2.18
80 85	26.23	17.77	12.04	8.15	5.53	3.75	2.54	1.72	1.17	0.79
85 90	47.74	32.78	22.52	15.47	10.64	7.32	5.04	3.47	2.39	1.65
90 95	45.75	31.69	21.95	15.21	10.54	7.30	5.06	3.51	2.43	1.69
95 100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100 105	9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86	0.61	0.44
105 110	40.30	28.37	19.98	14.07	9.92	6.99	4.93	3.47	2.45	1.73
110 115	9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86	0.61	0.44
115 120	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57	0.42
120 125	9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86	0.61	0.44
125 130	12.63	9.35	6.92	5.12	3.79	2.81	2.08	1.54	1.14	0.84
130 135	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57	0.42
135 140	22.02	16.03	11.67	8.50	6.19	4.51	3.29	2.40	1.75	1.28
140 145	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57	0.42
145 150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150 155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155 160	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57	0.42
160 165	9.89	7.46	5.53	4.25	3.21	2.43	1.83	1.34	1.05	0.80
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	1671.69	613.67	225.28	82.70	30.36	11.14	4.09	1.50	0.55	0.20
335 340	876.43	354.33	143.27	57.93	23.43	9.47	3.83	1.55	0.63	0.25
340 345	404.78	173.17	74.10	31.71	13.58	5.81	2.49	1.07	0.46	0.20
345 350	196.08	87.98	39.47	17.71	7.95	3.57	1.60	0.72	0.32	0.14
350 355	1671.69	613.67	225.28	82.70	30.36	11.14	4.09	1.50	0.55	0.20
355 360	866.96	361.14	151.06	63.47	26.80	11.37	4.85	2.08	0.90	0.39

## FIRST HARMONIC

AMPLITUDE 31891.5313309.61 5696.21 2512.82 1148.60 546.52 271.52 140.95 76.31 42.93  
 PHASE 1.65 1.80 1.99 2.21 2.47 2.77 3.09 3.42 3.76 4.08

## (IN HOURS)

SECOND HARMONIC  
 AMPLITUDE 22548.89 9305.23 3939.62 1722.85 783.75 372.99 186.14 97.23 52.88 29.76  
 PHASE 1.69 1.84 2.03 2.26 2.52 2.80 3.09 3.38 3.67 3.94

## (IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 188.75 GV

DOPPLERS											
			GEOGRAPHIC LATITUDE = 50.10				GEOGRAPHIC LONGITUDE = 4.60				
ASY.LONG.	BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5		403.55	168.07	70.01	29.17	12.15	5.06	2.11	0.88	0.37	0.15
5 10		390.61	180.25	83.50	38.83	18.12	8.49	3.99	1.88	0.89	0.42
10 15		196.08	87.98	39.47	17.71	7.95	3.57	1.60	0.72	0.32	0.14
15 20		191.85	89.60	41.85	19.54	9.13	4.26	1.99	0.93	0.43	0.20
20 25		3634.92	1497.31	617.47	254.93	105.38	43.61	18.07	7.50	3.12	1.30
25 30		1843.95	807.01	355.36	157.45	70.20	31.49	14.22	6.46	2.95	1.35
30 35		888.86	417.76	198.05	94.69	45.65	22.18	10.86	5.36	2.66	1.33
35 40		582.14	267.24	123.17	56.99	26.46	12.33	5.77	2.71	1.27	0.60
40 45		1476.24	671.19	310.07	145.58	69.45	33.65	16.54	8.24	4.15	2.12
45 50		985.19	446.48	205.10	95.66	45.36	21.89	10.76	5.38	2.74	1.42
50 55		1025.02	514.78	261.13	133.82	69.29	36.24	19.14	10.20	5.49	2.98
55 60		1554.58	742.24	362.98	181.75	93.08	48.68	25.94	14.06	7.73	4.31
60 65		2315.19	1096.72	536.92	272.01	142.51	77.02	42.78	24.32	14.09	8.29
65 70		1677.52	846.59	435.71	228.81	122.60	66.99	37.30	21.13	12.17	7.11
70 75		668.75	341.54	178.17	95.12	52.03	29.17	16.74	9.82	5.88	3.58
75 80		257.92	139.03	76.54	43.12	24.88	14.69	8.87	5.47	3.43	2.18
80 85		26.23	17.77	12.04	8.15	5.53	3.75	2.54	1.72	1.17	0.79
85 90		47.74	32.78	22.52	15.47	10.64	7.32	5.04	3.47	2.39	1.65
90 95		45.75	31.69	21.95	15.21	10.54	7.30	5.06	3.51	2.43	1.69
95 100		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100 105		9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86	0.61	0.44
105 110		40.30	28.37	19.98	14.07	9.92	6.99	4.93	3.47	2.45	1.73
110 115		9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86	0.61	0.44
115 120		6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57	0.42
120 125		9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86	0.61	0.44
125 130		12.63	9.35	6.92	5.12	3.79	2.81	2.08	1.54	1.14	0.84
130 135		6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57	0.42
135 140		22.02	16.03	11.67	8.50	6.19	4.51	3.29	2.40	1.75	1.28
140 145		6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57	0.42
145 150		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150 155		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155 160		6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57	0.42
160 165		9.89	7.46	5.63	4.25	3.21	2.43	1.83	1.39	1.05	0.80
165 170		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175 180		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180 185		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185 190		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195		3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
195 200		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230		3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
230 235		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265		3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
265 270		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305		3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
305 310		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320		3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
320 325		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340		876.43	354.33	143.27	57.93	23.43	9.47	3.83	1.55	0.63	0.25
340 345		404.78	173.17	74.10	31.71	13.58	5.81	2.49	1.07	0.46	0.20
345 350		196.08	87.98	39.47	17.71	7.95	3.57	1.60	0.72	0.32	0.14
350 355		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355 360		866.96	361.14	151.06	63.47	26.80	11.37	4.85	2.08	0.90	0.39
<b>FIRST HARMONIC</b>											
AMPLITUDE		18563.35	8470.32	3946.76	1884.08	924.34	467.27	243.81	131.36	73.03	41.82
PHASE		2.20	2.33	2.49	2.67	2.88	3.12	3.37	3.64	3.92	4.20
<b>(IN HOURS)</b>											
<b>SECOND HARMONIC</b>											
AMPLITUDE		13460.16	6137.09	2858.79	1365.12	670.22	339.03	176.82	95.03	52.53	29.80
PHASE		2.28	2.41	2.56	2.73	2.92	3.13	3.35	3.57	3.79	4.02
<b>(IN HOURS)</b>											
THE UPPER LIMIT FOR THIS CALCULATION IS 111.25 GV											

DURBES										
GEOGRAPHIC LATITUDE = 50.10			GEOGRAPHIC LONGITUDE = 4.60							
ASY.LONG./BETA	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	202.23	85.28	35.96	15.16	6.39	2.70	1.14	0.48	0.20	0.09
5 10	390.61	180.25	83.50	38.83	18.12	8.49	3.99	1.88	0.89	0.42
10 15	196.08	87.98	39.47	17.71	7.95	3.57	1.60	0.72	0.32	0.14
15 20	191.85	89.60	41.85	19.54	9.13	4.26	1.99	0.93	0.43	0.20
20 25	1005.63	434.31	187.67	81.14	35.10	15.19	6.58	2.85	1.24	0.54
25 30	1168.83	535.47	246.14	113.52	52.53	24.39	11.36	5.31	2.49	1.17
30 35	687.55	334.97	164.00	80.69	39.89	19.81	9.89	4.95	2.49	1.26
35 40	582.14	267.24	123.17	56.99	26.46	12.33	5.77	2.71	1.27	0.60
40 45	801.12	399.65	200.86	101.65	51.79	26.54	13.68	7.09	3.69	1.93
45 50	783.88	363.69	171.05	81.65	39.60	19.52	9.78	4.98	2.58	1.35
50 55	1025.02	514.78	261.13	133.82	69.29	36.24	19.14	10.20	5.49	2.98
55 60	879.47	470.70	253.76	137.82	75.41	41.57	23.09	12.91	7.27	4.12
60 65	1237.44	659.60	359.61	200.08	113.32	65.17	37.97	22.37	13.30	7.97
65 70	1677.52	846.59	435.71	228.81	122.60	66.99	37.30	21.13	12.17	7.11
70 75	668.75	341.54	178.17	95.12	52.03	29.17	16.74	9.82	5.88	3.58
75 80	257.92	139.03	76.54	43.12	24.88	14.69	8.87	5.47	3.43	2.18
80 85	26.23	17.77	12.04	8.15	5.53	3.75	2.54	1.72	1.17	0.79
85 90	47.74	32.78	22.52	15.47	10.64	7.32	5.04	3.47	2.39	1.65
90 95	45.75	31.69	21.95	15.21	10.54	7.30	5.06	3.51	2.43	1.69
95 100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100 105	9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86	0.61	0.44
105 110	40.30	28.37	19.98	14.07	9.92	6.99	4.93	3.47	2.45	1.73
110 115	9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86	0.61	0.44
115 120	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57	0.42
120 125	9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86	0.61	0.44
125 130	12.63	9.35	6.92	5.12	3.79	2.81	2.08	1.54	1.14	0.84
130 135	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57	0.42
135 140	22.02	16.03	11.67	8.50	6.19	4.51	3.29	2.40	1.75	1.28
140 145	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57	0.42
145 150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150 155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155 160	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57	0.42
160 165	9.89	7.46	5.63	4.25	3.21	2.43	1.83	1.39	1.05	0.80
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	404.78	173.17	74.10	31.71	13.58	5.81	2.49	1.07	0.46	0.20
345 350	196.03	87.98	39.47	17.71	7.95	3.57	1.60	0.72	0.32	0.14
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355 360	191.85	89.60	41.85	19.54	9.13	4.26	1.99	0.93	0.43	0.20

## FIRST HARMONIC

AMPLITUDE	11615.91	5686.69	2834.75	1441.55	749.07	398.24	216.80	120.87	68.99	40.27
PHASE	2.63	2.76	2.90	3.06	3.23	3.43	3.64	3.86	4.09	4.32

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	8801.22	4323.24	2161.08	1100.85	572.05	303.43	164.31	90.81	51.19	29.41
PHASE	2.71	2.82	2.95	3.09	3.24	3.39	3.56	3.74	3.92	4.11

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 80.00 GV

DOWRSES										
		GEOGRAPHIC LATITUDE = 50.10					GEOGRAPHIC LONGITUDE = 4.60			
ASY.	LONG.	/BETA+	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2
0	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	10	188.07	92.36	45.36	22.28	10.94	5.37	2.64	1.30	0.64
10	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	20	191.85	89.60	41.85	19.54	9.13	4.26	1.99	0.93	0.43
20	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	30	567.98	274.33	132.57	64.10	31.01	15.01	7.27	3.52	1.71
30	35	491.47	246.99	124.53	62.98	31.94	16.25	8.29	4.24	2.17
35	40	379.91	181.96	87.21	41.82	20.07	9.64	4.63	2.23	1.07
40	45	598.58	311.76	162.72	85.10	44.60	23.43	12.33	6.50	3.44
45	50	183.02	102.55	57.48	32.23	18.08	10.15	5.70	3.20	1.80
50	55	828.94	426.80	221.66	116.11	61.34	32.67	17.54	9.49	5.17
55	60	879.47	470.70	253.76	137.82	75.41	41.57	23.09	12.91	7.27
60	65	832.67	486.43	285.51	168.37	99.75	59.36	35.48	21.30	12.84
65	70	1076.67	585.45	322.14	179.39	101.08	57.62	33.21	19.35	11.39
70	75	472.67	253.57	138.70	77.41	44.09	25.60	15.14	9.11	5.56
75	80	257.92	139.03	76.54	43.12	24.88	14.69	8.87	5.47	3.43
80	85	26.23	17.77	12.04	8.15	5.53	3.75	2.54	1.72	1.17
85	90	47.74	32.78	22.52	15.47	10.64	7.32	5.04	3.47	2.39
90	95	45.75	31.69	21.95	15.21	10.54	7.30	5.06	3.51	2.43
95	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100	105	9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86	0.61
105	110	40.30	28.37	19.98	14.07	9.92	6.99	4.93	3.47	2.45
110	115	9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86	0.61
115	120	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57
120	125	9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86	0.61
125	130	12.63	9.35	6.92	5.12	3.79	2.81	2.08	1.54	1.14
130	135	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57
135	140	22.02	16.03	11.67	8.50	6.19	4.51	3.29	2.40	1.75
140	145	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57
145	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150	155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155	160	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77	0.57
160	165	9.89	7.46	5.63	4.25	3.21	2.43	1.83	1.39	1.05
165	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170	175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175	180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190	195	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48
195	200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200	205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210	215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215	220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220	225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225	230	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48
230	235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240	245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250	255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	265	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48
265	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270	275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	305	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48
305	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	320	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48
320	325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330	335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340	345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350	355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355	360	191.85	89.60	41.85	19.54	9.13	4.26	1.99	0.93	0.43

## FIRST HARMONIC

AMPLITUDE	6885.95	3647.68	1957.09	1064.53	587.52	329.24	187.43	108.42	63.74	38.07
PHASE	3.17	3.26	3.37	3.49	3.62	3.77	3.93	4.11	4.29	4.49

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	5698.06	3015.87	1613.93	873.73	478.73	265.56	149.19	84.89	48.94	28.59
PHASE	3.18	3.26	3.35	3.45	3.55	3.67	3.79	3.93	4.08	4.23

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 50.00 GV

DOWRSES									
		GEOGRAPHIC LATITUDE = 50.10					GEOGRAPHIC LONGITUDE = 4.60		
ASY. LONG.	BETA	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2
0	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	35	299.62	157.39	82.68	43.43	22.82	11.98	6.30	3.31
35	40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40	45	410.51	219.40	117.36	62.83	33.66	18.05	9.69	5.21
45	50	183.02	102.55	57.48	32.23	18.08	10.15	5.70	3.20
50	55	445.24	247.60	137.97	77.02	43.09	24.15	13.56	7.63
55	60	503.34	285.97	163.04	93.27	53.53	30.83	17.81	10.32
60	65	832.67	486.43	285.51	168.37	99.75	59.36	35.48	21.30
65	70	696.76	403.48	234.94	137.56	81.01	47.98	28.58	17.12
70	75	280.83	163.97	96.86	57.87	34.96	21.34	13.15	8.18
75	80	69.85	46.66	31.18	20.84	13.94	9.32	6.24	4.17
80	85	26.23	17.77	12.04	8.15	5.53	3.75	2.54	1.72
85	90	4.74	3.278	2.252	1.547	1.064	7.32	5.04	3.47
90	95	45.75	31.69	21.95	15.21	10.54	7.30	5.06	3.51
95	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100	105	9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86
105	110	40.30	28.37	19.98	14.07	9.92	6.99	4.93	3.47
110	115	9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86
115	120	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77
120	125	9.39	6.68	4.75	3.38	2.40	1.71	1.21	0.86
125	130	12.63	9.35	6.92	5.12	3.79	2.81	2.08	1.54
130	135	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77
135	140	22.02	16.03	11.67	8.50	6.19	4.51	3.29	2.40
140	145	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77
145	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150	155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155	160	6.31	4.67	3.46	2.56	1.90	1.40	1.04	0.77
160	165	9.80	7.46	5.63	4.25	3.21	2.43	1.83	1.39
165	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170	175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175	180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190	195	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62
195	200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200	205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210	215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215	220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220	225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225	230	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62
230	235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240	245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250	255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	265	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62
265	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270	275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	305	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62
305	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	320	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62
320	325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330	335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340	345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350	355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355	360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>FIRST HARMONIC</b>									
AMPLITUDE		3793.41	2174.34	1255.63	730.87	429.01	254.06	151.84	91.62
PHASE		3.70	3.77	3.85	3.94	4.04	4.15	4.28	4.41
(IN HOURS)									
<b>SECOND HARMONIC</b>									
AMPLITUDE		3416.41	1941.47	1109.49	637.77	368.87	214.73	125.84	74.28
PHASE		3.64	3.69	3.75	3.82	3.90	3.98	4.07	4.18
(IN HOURS)									
THE UPPER LIMIT FOR THIS CALCULATION IS 29.00 GV									

## JUNGFRAUJOCH

		GEOGRAPHIC LATITUDE = 46.55					GEOGRAPHIC LONGITUDE = 7.98				
ASY.	LONG./BETA	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0	5	3119.53	1107.52	398.36	145.40	53.94	20.36	7.83	3.07	1.22	0.50
5	10	5136.99	1603.83	508.11	164.64	55.32	19.73	7.73	3.45	1.79	1.05
10	15	9431.78	3008.48	964.59	311.12	101.06	33.10	10.95	3.66	1.24	0.43
15	20	17669.75	5753.10	1893.12	630.72	213.21	73.32	25.73	9.24	3.41	1.29
20	25	4861.12	1850.86	707.38	271.49	104.69	40.58	15.82	6.21	2.45	0.98
25	30	3952.76	1566.91	624.10	249.76	100.42	40.57	16.46	6.71	2.75	1.13
30	35	1864.92	801.29	345.94	150.10	65.47	28.71	12.66	5.61	2.50	1.12
35	40	7909.75	2610.54	884.27	309.58	112.79	42.99	17.18	7.19	3.13	1.41
40	45	2396.66	959.69	391.09	162.49	68.91	29.85	13.21	5.96	2.74	1.28
45	50	1634.52	732.87	333.21	153.70	71.94	34.16	16.44	8.02	3.96	1.98
50	55	1574.67	682.30	298.29	131.75	58.87	26.65	12.24	5.71	2.71	1.31
55	60	7767.80	2564.98	874.99	312.15	117.94	47.64	20.53	9.53	4.64	2.35
60	65	2537.27	1050.28	448.38	198.16	90.86	43.22	21.29	10.82	5.64	3.01
65	70	2113.78	940.06	424.43	194.92	91.21	43.54	21.22	10.56	5.36	2.78
70	75	1155.02	582.77	297.60	153.91	80.65	42.82	23.04	12.55	6.92	3.86
75	80	838.29	456.91	250.73	138.54	77.09	43.20	24.38	13.86	7.93	4.57
80	85	242.30	146.52	88.91	54.13	33.07	20.26	12.45	7.68	4.74	2.94
85	90	213.37	131.94	81.83	50.89	31.74	19.85	12.44	7.82	4.93	3.11
90	95	181.97	116.52	74.75	48.04	30.93	19.95	12.89	8.34	5.41	3.51
95	100	53.38	34.76	22.64	14.75	9.62	6.27	4.09	2.67	1.74	1.14
100	105	63.04	42.15	28.19	18.86	12.62	8.45	5.56	3.79	2.54	1.70
105	110	32.00	21.39	14.29	9.55	6.38	4.27	2.85	1.91	1.27	0.85
110	115	14.75	10.14	6.98	4.80	3.30	2.27	1.56	1.07	0.74	0.5
115	120	60.28	41.49	28.58	19.69	13.57	9.36	6.46	4.46	3.08	2.13
120	125	14.75	10.14	6.98	4.80	3.30	2.27	1.56	1.07	0.74	0.51
125	130	29.52	20.28	13.95	9.59	6.60	4.54	3.12	2.15	1.48	1.02
130	135	14.79	10.52	7.48	5.32	3.78	2.69	1.91	1.36	0.97	0.69
135	140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140	145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150	155	29.53	20.66	14.45	10.11	7.08	4.96	3.47	2.43	1.70	1.19
155	160	29.57	21.03	14.95	10.63	7.56	5.38	3.82	2.72	1.93	1.37
160	165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165	170	26.82	19.42	14.07	10.20	7.39	5.36	3.89	2.82	2.05	1.49
170	175	14.79	10.52	7.48	5.32	3.78	2.69	1.91	1.36	0.97	0.69
175	180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190	195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195	200	14.79	10.52	7.48	5.32	3.78	2.69	1.91	1.36	0.97	0.69
200	205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205	210	12.03	8.91	6.59	4.88	3.61	2.67	1.98	1.47	1.08	0.80
210	215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215	220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220	225	12.03	8.91	6.59	4.88	3.61	2.67	1.98	1.47	1.08	0.80
225	230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230	235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240	245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250	255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270	275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320	325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330	335	4718.88	1425.81	431.08	130.41	39.48	11.96	3.62	1.10	0.33	0.10
335	340	3918.88	1358.18	471.93	164.41	57.43	20.11	7.06	2.49	0.88	0.31
340	345	875.43	353.95	143.12	57.88	23.41	9.47	3.83	1.55	0.63	0.25
345	350	2602.23	792.52	244.37	76.58	24.49	8.03	2.71	0.94	0.34	0.13
350	355	9494.75	2979.33	939.43	297.98	95.21	30.70	10.01	3.31	1.11	0.38
355	360	1863.04	700.24	264.38	100.34	38.31	14.72	5.70	2.23	0.88	0.35

## FIRST HARMONIC

AMPLITUDE	88145.88	30529.69	10905.08	4050.97	1981.38	656.28	292.46	140.55	72.55	39.81
PHASE	0.79	0.96	1.19	1.50	1.90	2.39	2.95	3.55	4.14	4.69

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	63434.662	1332.66	7320.22	2583.15	950.70	373.15	160.08	75.78	38.98	21.21
PHASE	0.71	0.86	1.07	1.34	1.70	2.15	2.68	3.21	3.70	4.11

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 500.00 GV

JUNGFRAUJUCH												
GEOGRAPHIC LATITUDE = 46.55			GEOGRAPHIC LONGITUDE = 7.98									
ASY. LUNG.	BETA =	+1.6    +1.4    +1.2    +1.0    +0.8    +0.6    +0.4    +0.2    0.0    -0.2										
0 5	863.61	359.80	150.53	63.26	26.71	11.34	4.84	2.07	0.89	0.39		
5 10	418.11	178.02	77.03	34.22	15.84	7.77	4.10	2.35	1.45	0.96		
10 15	201.07	87.25	37.86	16.43	7.13	3.09	1.34	0.58	0.25	0.11		
15 20	3720.15	1406.06	535.31	205.60	79.80	31.36	12.50	5.06	2.08	0.87		
20 25	4861.12	1850.86	707.38	271.49	104.69	40.58	15.82	6.21	2.45	0.98		
25 30	3952.76	1566.91	624.10	249.76	100.42	40.57	16.46	6.71	2.75	1.13		
30 35	1864.99	801.29	345.94	150.10	65.47	28.71	12.66	5.61	2.50	1.12		
35 40	934.96	437.02	205.37	97.03	46.09	22.01	10.56	5.10	2.47	1.20		
40 45	2396.66	959.69	391.09	162.49	68.91	29.85	13.21	5.96	2.74	1.28		
45 50	1634.52	732.87	333.21	153.70	71.94	34.16	16.44	8.02	3.96	1.98		
50 55	1574.67	682.30	298.29	131.75	58.87	26.65	12.24	5.71	2.71	1.31		
55 60	793.10	391.46	196.09	99.60	51.23	26.66	14.72	7.44	3.98	2.14		
60 65	2537.27	1050.28	448.38	198.16	90.86	43.22	21.29	10.82	5.64	3.01		
65 70	2113.78	940.06	424.43	194.92	91.21	43.54	21.72	10.56	5.36	2.78		
70 75	1155.02	582.77	297.60	153.91	80.65	42.82	23.04	12.55	6.92	3.86		
75 80	838.29	456.91	250.73	138.54	77.09	43.20	24.38	13.86	7.93	4.57		
80 85	242.30	146.52	88.91	54.13	33.07	20.26	12.45	7.68	4.74	2.94		
85 90	213.37	131.94	81.83	50.89	31.74	19.85	12.44	7.82	4.93	3.11		
90 95	181.97	116.52	74.75	48.04	30.93	19.95	12.89	8.34	5.41	3.51		
95 100	53.38	34.76	22.64	14.75	9.62	6.27	4.09	2.67	1.74	1.14		
100 105	63.04	42.15	28.19	18.86	12.62	8.45	5.66	3.79	2.54	1.70		
105 110	32.00	21.39	14.29	9.55	6.38	4.27	2.85	1.91	1.27	0.85		
110 115	14.75	10.14	6.98	4.80	3.30	2.27	1.56	1.07	0.74	0.51		
115 120	60.28	41.49	28.58	19.69	13.57	9.36	6.46	4.46	3.08	2.13		
120 125	14.75	10.14	6.98	4.80	3.30	2.27	1.56	1.07	0.74	0.51		
125 130	29.50	20.28	13.95	9.59	6.60	4.54	3.12	2.15	1.48	1.02		
130 135	14.79	10.52	7.48	5.32	3.78	2.69	1.91	1.36	0.97	0.69		
135 140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
145 150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
150 155	29.53	20.66	14.45	10.11	7.08	4.96	3.47	2.43	1.70	1.19		
155 160	29.57	21.03	14.95	10.63	7.56	5.38	3.82	2.72	1.93	1.37		
160 165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
165 170	26.82	19.42	14.07	10.20	7.39	5.36	3.89	2.82	2.05	1.49		
170 175	14.79	10.52	7.48	5.32	3.78	2.69	1.91	1.36	0.97	0.69		
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
195 200	14.79	10.52	7.48	5.32	3.78	2.69	1.91	1.36	0.97	0.69		
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
205 210	12.03	8.91	6.59	4.88	3.61	2.67	1.98	1.47	1.08	0.80		
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
220 225	12.03	8.91	6.59	4.88	3.61	2.67	1.98	1.47	1.08	0.80		
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
335 340	1662.96	610.47	224.10	82.27	30.20	11.09	4.07	1.49	0.55	0.20		
340 345	875.43	353.95	143.12	57.88	23.41	9.47	3.83	1.55	0.63	0.25		
345 350	202.24	85.28	35.96	15.16	6.39	2.70	1.14	0.48	0.20	0.09		
350 355	201.07	87.25	37.86	16.43	7.13	3.09	1.34	0.58	0.25	0.11		
355 360	1863.04	700.24	264.38	100.34	38.31	14.72	5.70	2.23	0.88	0.35		
<b>FIRST HARMONIC</b>												
AMPLITUDE	31676.43	31313.6.01	5573.66	2431.84	1097.21	514.84	252.43	129.65	69.71	39.11		
PHASE	1.68	1.86	2.08	2.35	2.68	3.06	3.48	3.93	4.39	4.84		
(IN HOURS)												
<b>SECOND HARMONIC</b>												
AMPLITUDE	22515.90	9127.58	3771.42	1597.83	699.43	318.94	152.45	76.50	40.12	21.81		
PHASE	1.66	1.81	2.01	2.25	2.53	2.85	3.20	3.55	3.90	4.22		
(IN HOURS)												
THE UPPER LIMIT FOR THIS CALCULATION IS 188.75 GV												

JUNGFRAUJOCH											
			GEOGRAPHIC LATITUDE = 46.55			GEOGRAPHIC LONGITUDE = 7.98					
ASY. LUNG.	/BETA =	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5		863.61	359.80	150.53	63.26	26.71	11.34	4.84	2.07	0.89	0.39
5 10		418.11	178.02	77.03	34.22	15.84	7.77	4.10	2.35	1.45	0.96
10 15		201.07	87.25	37.86	16.43	7.13	3.09	1.34	0.58	0.25	0.11
15 20		394.24	185.12	87.11	41.07	19.40	9.19	4.36	2.07	0.99	0.47
20 25		1535.20	629.93	259.18	106.96	44.29	18.41	7.68	3.22	1.35	0.57
25 30		2289.80	956.44	399.99	167.49	70.22	29.48	12.39	5.22	2.20	0.93
30 35		1864.99	801.29	345.94	150.10	65.47	28.71	12.66	5.61	2.50	1.12
35 40		934.96	437.02	205.37	97.03	46.09	22.01	10.56	5.10	2.47	1.20
40 45		733.70	349.22	166.99	80.22	38.71	18.77	9.14	4.47	2.19	1.08
45 50		1634.52	732.87	333.21	153.70	71.94	34.16	16.44	8.02	3.96	1.98
50 55		1574.67	682.30	298.29	131.75	58.87	26.65	12.24	5.71	2.71	1.31
55 60		793.10	391.46	196.09	99.60	51.23	26.66	14.02	7.44	3.98	2.14
60 65		874.31	439.81	224.28	115.90	60.66	32.13	17.22	9.32	5.10	2.81
65 70		2113.78	940.06	424.43	194.92	91.21	43.54	21.22	10.56	5.36	2.78
70 75		1155.02	582.77	297.60	153.91	80.65	42.82	23.04	12.55	6.92	3.86
75 80		838.29	456.91	250.73	138.54	77.09	43.20	24.38	13.86	7.93	4.57
80 85		242.30	146.52	88.91	54.13	33.07	20.26	12.45	7.68	4.74	2.94
85 90		213.37	131.94	81.83	50.89	31.74	19.85	12.44	7.82	4.93	3.11
90 95		181.97	116.52	74.75	48.04	30.93	19.95	12.89	8.34	5.41	3.51
95 100		53.38	34.76	22.64	14.75	9.62	6.27	4.09	2.67	1.74	1.14
100 105		63.04	42.15	28.19	18.86	12.62	8.45	5.66	3.79	2.54	1.70
105 110		32.00	21.39	14.29	9.55	6.38	4.27	2.85	1.91	1.27	0.85
110 115		14.75	10.14	6.98	4.80	3.30	2.27	1.56	1.07	0.74	0.51
115 120		60.28	41.49	28.58	19.69	13.57	9.36	6.46	4.46	3.08	2.13
120 125		14.75	10.14	6.98	4.80	3.30	2.27	1.56	1.07	0.74	0.51
125 130		29.50	20.28	13.95	9.55	6.60	4.54	3.12	2.15	1.48	1.02
130 135		14.79	10.52	7.48	5.32	3.78	2.69	1.91	1.36	0.97	0.69
135 140		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140 145		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145 150		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150 155		29.53	20.66	14.45	10.11	7.08	4.96	3.47	2.43	1.70	1.19
155 160		29.57	21.03	14.95	10.63	7.56	5.38	3.82	2.72	1.93	1.37
160 165		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165 170		26.82	19.42	14.07	10.20	7.39	5.36	3.89	2.82	2.05	1.49
170 175		14.79	10.52	7.48	5.32	3.78	2.69	1.91	1.36	0.97	0.69
175 180		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180 185		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185 190		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200		14.79	10.52	7.48	5.32	3.78	2.69	1.91	1.36	0.97	0.69
200 205		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210		12.03	8.91	6.59	4.88	3.61	2.67	1.98	1.47	1.08	0.80
210 215		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225		12.03	8.91	6.59	4.88	3.61	2.67	1.98	1.47	1.08	0.80
225 230		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345		875.43	353.95	143.12	57.88	23.41	9.47	3.83	1.55	0.63	0.25
345 350		202.24	85.28	35.96	15.16	6.39	2.70	1.14	0.48	0.20	0.09
350 355		201.07	87.25	37.86	16.43	7.13	3.09	1.34	0.58	0.25	0.11
355 360		200.08	89.77	40.28	18.07	8.11	3.64	1.63	0.73	0.33	0.15

FIRST HARMONIC  
 AMPLITUDE 18365.04 8320.02 3842.63 1815.46 880.58 440.01 227.14 121.32 67.05 38.28  
 PHASE 2.28 2.45 2.65 2.89 3.17 3.40 3.84 4.22 4.60 4.99  
 (IN HOURS)  
 SECOND HARMONIC  
 AMPLITUDE 13152.85 5877.22 2671.31 1239.48 589.36 288.17 145.21 75.42 40.31 22.08  
 PHASE 2.29 2.44 2.61 2.80 3.03 3.27 3.53 3.80 4.07 4.33  
 (IN HOURS)  
 THE UPPER LIMIT FOR THIS CALCULATION IS 111.25 GV

JUNGFRAUJOCH										
GEOGRAPHIC LATITUDE = 46.55					GEOGRAPHIC LONGITUDE = 7.98					
ASY.	LONG.	/BETA	= +1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2
0	5		192.02	89.68	41.89	19.56	9.14	4.27	1.99	0.93
5	10		214.27	94.19	42.56	20.05	10.01	5.37	3.12	1.94
10	15		201.07	87.25	37.86	16.43	7.13	3.09	1.34	0.58
15	20		394.24	185.12	87.11	41.07	19.40	9.19	4.36	2.07
20	25		192.02	89.68	41.89	19.56	9.14	4.27	1.99	0.93
25	30		1006.69	434.83	187.92	81.26	35.15	15.22	6.59	2.86
30	35		989.56	447.33	202.81	92.23	42.06	19.24	8.83	4.06
35	40		934.96	437.02	205.37	97.03	46.09	22.01	10.56	5.10
40	45		733.70	349.22	166.99	80.22	38.71	18.77	9.14	4.47
45	50		759.09	378.92	190.09	95.82	48.53	24.69	12.61	6.47
50	55		903.08	412.18	189.64	88.05	41.30	19.58	9.40	4.57
55	60		589.26	307.63	161.61	85.42	45.40	24.26	13.03	7.03
60	65		874.31	439.81	224.28	115.90	60.66	32.13	17.22	9.32
65	70		1238.35	586.11	281.31	137.04	67.80	34.07	17.39	9.01
70	75		1155.02	582.77	297.60	153.91	80.65	42.82	23.04	12.55
75	80		838.29	456.91	250.73	138.54	77.09	43.20	24.38	13.86
80	85		242.30	146.52	88.91	54.13	33.07	20.26	12.45	7.68
85	90		213.37	131.94	81.83	50.89	31.74	19.85	12.44	7.82
90	95		181.97	116.52	74.75	48.04	30.93	19.95	12.89	8.34
95	100		53.38	34.76	22.64	14.75	9.62	6.27	4.09	2.67
100	105		63.04	42.15	28.19	18.86	12.62	8.45	5.66	3.79
105	110		32.00	21.39	14.29	9.55	6.38	4.27	2.85	1.91
110	115		14.75	10.14	6.98	4.80	3.30	2.27	1.56	1.07
115	120		60.28	41.49	28.58	19.69	13.57	9.36	5.46	4.46
120	125		14.75	10.14	6.98	4.80	3.30	2.27	1.56	1.07
125	130		29.50	20.28	13.95	9.59	6.60	4.54	3.12	2.15
130	135		14.70	10.52	7.48	5.32	3.78	2.69	1.91	1.36
135	140		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140	145		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145	150		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150	155		29.53	20.66	14.45	10.11	7.08	4.96	3.47	2.43
155	160		29.57	21.03	14.95	10.63	7.56	5.38	3.82	2.72
160	165		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165	170		26.82	19.42	14.07	10.20	7.39	5.36	3.89	2.82
170	175		14.79	10.52	7.48	5.32	3.78	2.69	1.91	1.36
175	180		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	185		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185	190		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190	195		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195	200		14.79	10.52	7.48	5.32	3.78	2.69	1.91	1.36
200	205		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205	210		12.03	8.91	6.59	4.88	3.61	2.67	1.98	1.47
210	215		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215	220		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220	225		12.03	8.91	6.59	4.88	3.61	2.67	1.98	1.47
225	230		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230	235		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235	240		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240	245		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245	250		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250	255		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255	260		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	265		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	270		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270	275		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	280		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	285		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	290		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	295		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	300		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	305		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	310		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	315		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	320		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320	325		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	330		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330	335		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335	340		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340	345		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345	350		202.24	85.28	35.95	15.16	6.39	2.70	1.14	0.48
350	355		201.07	87.25	37.86	16.43	7.13	3.09	1.34	0.58
355	360		200.08	89.77	40.28	18.07	8.11	3.64	1.63	0.73

## FIRST HARMONIC

AMPLITUDE 11450.04 5562.75 2748.98 1384.76 712.54 375.22 202.51 112.12 63.67 37.07

PHASE 2.81 2.98 3.16 3.38 3.63 3.90 4.19 4.50 4.83 5.16

## (IN HOURS)

SECOND HARMONIC

AMPLITUDE 8475.50 4076.34 1990.05 987.89 499.44 257.44 135.36 72.58 39.63 22.00

PHASE 2.80 2.93 3.08 3.25 3.43 3.62 3.83 4.04 4.25 4.47

## (IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 80.00 GV

JUNGFRAUJUCH									
ASY.LONG./BETA	+1.6	GEOGRAPHIC LATITUDE = 46.55			GEOGRAPHIC LONGITUDE = 7.98			0.0	-0.2
		+1.4	+1.2	+1.0	+0.8	+0.6	+0.4		
0 5	192.02	89.68	41.89	19.56	9.14	4.27	1.99	0.93	0.43
5 10	12.03	8.91	5.59	4.88	3.61	2.67	1.98	1.47	1.08
10 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 20	194.16	95.36	46.83	23.00	11.30	5.55	2.72	1.34	0.66
20 25	192.02	89.68	41.89	19.56	9.14	4.27	1.99	0.93	0.43
25 30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30 35	386.18	185.04	88.72	42.56	20.43	9.81	4.72	2.27	1.09
35 40	532.64	261.97	129.13	63.79	31.58	15.67	7.79	3.89	1.94
40 45	532.64	261.97	129.13	63.79	31.58	15.67	7.79	3.89	1.94
45 50	559.01	289.15	149.81	77.75	40.42	21.05	10.98	5.74	3.00
50 55	299.70	149.88	75.55	38.39	19.66	10.16	5.29	2.77	1.47
55 60	589.26	307.63	161.61	85.42	45.40	24.26	13.03	7.03	3.81
60 65	672.07	354.53	188.32	100.73	54.26	29.44	16.08	8.84	4.89
65 70	433.90	236.56	129.35	70.95	39.04	21.55	11.94	6.63	3.70
70 75	954.94	493.00	257.32	135.84	72.54	39.18	21.40	11.82	6.59
75 80	838.29	456.91	250.73	138.54	77.09	43.20	24.38	13.86	7.93
80 85	242.30	146.52	88.91	54.13	33.07	20.26	12.45	7.68	4.74
85 90	213.37	131.94	81.83	50.89	31.74	19.85	12.44	7.82	4.93
90 95	181.97	116.52	74.75	48.04	30.93	19.95	12.89	8.34	5.41
95 100	53.38	34.76	22.64	14.75	9.62	6.27	4.09	2.67	1.74
100 105	63.04	42.15	28.19	18.86	12.62	8.45	5.66	3.79	2.54
105 110	32.00	21.39	14.29	9.55	6.38	4.27	2.85	1.91	1.27
110 115	14.75	10.14	6.98	4.80	3.30	2.27	1.56	1.07	0.74
115 120	60.28	41.49	28.58	19.69	13.57	9.36	6.46	4.46	3.08
120 125	14.75	10.14	6.98	4.80	3.30	2.27	1.56	1.07	0.74
125 130	29.50	20.28	13.95	9.59	6.60	4.54	3.12	2.15	1.48
130 135	14.79	10.52	7.48	5.32	3.78	2.69	1.71	1.36	0.97
135 140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145 150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150 155	29.53	20.66	14.45	10.11	7.08	4.96	3.47	2.43	1.70
155 160	29.57	21.03	14.95	10.63	7.56	5.38	3.82	2.72	1.93
160 165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165 170	26.82	19.42	14.07	10.20	7.39	5.35	3.89	2.82	2.05
170 175	14.79	10.52	7.48	5.32	3.78	2.69	1.91	1.36	0.97
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200	14.79	10.52	7.48	5.32	3.78	2.69	1.91	1.36	0.97
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	12.03	8.91	5.59	4.88	3.61	2.67	1.98	1.47	1.08
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	12.03	8.91	5.59	4.88	3.61	2.67	1.98	1.47	1.08
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355 360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

## FIRST HARMONIC

AMPLITUDE	6699.77	3526.43	1879.24	1015.07	556.36	309.74	175.30	100.93	59.12	35.24
PHASE	3.49	3.63	3.79	3.96	4.16	4.37	4.51	4.66	5.12	5.39

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	5277.93	2747.94	1444.52	767.13	411.75	223.43	122.57	67.97	38.08	21.53
PHASE	3.41	3.52	3.63	3.75	3.88	4.02	4.17	4.33	4.49	4.66

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 50.00 GV

JUNGFRAUJOCH												
		GEOGRAPHIC LATITUDE = 46.55				GEOGRAPHIC LONGITUDE = 7.98						
ASY.	LONG.	BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0	5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	10		12.03	8.91	6.59	4.88	3.61	2.67	1.98	1.47	1.08	0.80
10	15		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	20		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	25		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	30		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	35		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	40		146.46	76.94	40.42	21.23	11.15	5.86	3.08	1.62	0.85	0.45
40	45		146.46	76.94	40.42	21.23	11.15	5.86	3.08	1.62	0.85	0.45
45	50		364.85	193.79	102.98	54.75	29.13	15.50	8.26	4.40	2.35	1.25
50	55		107.68	60.20	33.66	18.82	10.53	5.89	3.29	1.84	1.03	0.58
55	60		397.24	217.95	119.73	65.85	36.27	20.00	11.04	6.10	3.38	1.87
60	65		283.75	163.82	94.66	54.73	31.67	18.34	10.63	6.17	3.58	2.08
65	70		433.90	236.56	129.35	70.95	39.04	21.55	11.94	6.63	3.70	2.07
70	75		376.74	218.28	128.72	73.72	42.97	25.10	14.69	8.62	5.07	2.99
75	80		644.13	361.55	203.90	115.54	65.80	37.66	21.66	12.52	7.27	4.24
80	85		242.30	146.52	88.91	54.13	33.07	20.26	12.45	7.68	4.74	2.94
85	90		213.37	131.94	81.83	50.89	31.74	19.85	12.44	7.82	4.93	3.11
90	95		181.97	116.52	74.75	48.04	30.93	19.95	12.89	8.34	5.41	3.51
95	100		53.38	34.76	22.64	14.75	9.62	6.27	4.09	2.67	1.74	1.14
100	105		63.04	42.15	28.19	18.86	12.62	8.45	5.66	3.79	2.54	1.70
105	110		32.00	21.39	14.29	9.55	6.38	4.27	2.85	1.91	1.27	0.85
110	115		14.75	10.14	6.98	4.80	3.30	2.27	1.56	1.07	0.74	0.51
115	120		60.28	41.49	28.58	19.69	13.57	9.35	6.46	4.46	3.08	2.13
120	125		14.75	10.14	6.98	4.80	3.30	2.27	1.56	1.07	0.74	0.51
125	130		29.50	20.28	13.95	9.59	6.60	4.54	3.12	2.15	1.48	1.02
130	135		14.79	10.52	7.48	5.32	3.78	2.69	1.91	1.36	0.97	0.69
135	140		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140	145		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145	150		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150	155		29.53	20.66	14.45	10.11	7.08	4.96	3.47	2.43	1.70	1.19
155	160		29.57	21.03	14.95	10.63	7.56	5.38	3.82	2.72	1.93	1.37
160	165		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165	170		26.82	19.42	14.07	10.20	7.39	5.36	3.89	2.82	2.05	1.49
170	175		14.79	10.52	7.48	5.32	3.78	2.69	1.91	1.36	0.97	0.69
175	180		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	185		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185	190		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190	195		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195	200		14.79	10.52	7.48	5.32	3.78	2.69	1.91	1.36	0.97	0.69
200	205		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205	210		12.03	8.91	6.59	4.88	3.61	2.67	1.98	1.47	1.08	0.80
210	215		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215	220		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220	225		12.03	8.91	6.59	4.88	3.61	2.67	1.98	1.47	1.08	0.80
225	230		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230	235		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235	240		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240	245		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245	250		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250	255		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255	260		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	265		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	270		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270	275		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	280		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	285		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	290		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	295		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	300		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	305		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	310		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	315		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	320		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320	325		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	330		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330	335		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335	340		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340	345		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345	350		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350	355		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355	360		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST HARMONIC

AMPLITUDE	3604.12	2060.07	1186.20	688.46	402.98	238.03	141.95	85.50	52.04	32.01
PHASE	4.28	4.39	4.51	4.65	4.80	4.96	5.14	5.32	5.52	5.73

(IN HOURS)

SECOND HARMONIC

AMPLITUDE	3014.17	1694.94	957.35	543.21	309.65	177.33	102.01	58.93	34.18	19.90
PHASE	4.09	4.16	4.24	4.32	4.41	4.50	4.61	4.72	4.83	4.96

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 29.00 GV

## KIEL

		GEOGRAPHIC LATITUDE = 54.33						GEOGRAPHIC LONGITUDE = 10.13					
		ASY.LONG.	BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0	5	3293.75	1064.27	351.50	118.90	41.24	14.66	5.33	1.98	0.75	0.29		
5	10	2713.31	887.33	294.89	99.91	34.61	12.29	4.48	1.68	0.64	0.25		
10	15	3070.24	1642.89	342.84	183.96	64.38	23.45	8.96	3.63	1.57	0.74		
15	20	9332.33	2903.46	904.92	282.54	88.38	27.69	8.69	2.73	0.86	0.27		
20	25	15975.67	5413.17	1849.42	637.25	221.51	77.71	27.53	9.85	3.57	1.31		
25	30	3731.65	1547.77	643.30	268.02	111.99	46.97	19.81	8.42	3.63	1.60		
30	35	2717.96	1111.40	462.73	196.34	84.93	37.45	16.81	7.68	3.56	1.67		
35	40	1572.54	683.69	299.87	132.77	59.38	26.83	12.26	5.66	2.64	1.25		
40	45	7652.03	2492.64	832.24	287.47	103.83	39.61	16.07	6.94	3.17	1.52		
45	50	2299.10	932.29	388.07	166.46	73.79	33.84	16.04	7.85	3.95	2.03		
50	55	1705.68	772.23	357.22	169.15	82.07	40.81	20.77	10.81	5.73	3.09		
55	60	1422.26	743.10	396.72	216.32	120.33	68.16	39.24	22.92	13.54	8.09		
60	65	1274.25	712.32	402.18	229.33	132.05	76.75	45.02	26.64	15.89	9.56		
65	70	9358.26	3171.81	1115.29	412.69	163.24	69.90	32.56	16.41	8.84	5.01		
70	75	2418.52	1033.54	448.01	198.00	89.81	42.13	20.60	10.57	5.71	3.24		
75	80	388.88	189.40	95.45	49.91	27.11	15.29	8.93	5.38	3.34	2.12		
80	85	998.15	461.28	216.19	103.23	50.52	25.50	13.37	7.31	4.18	2.50		
85	90	18.31	13.02	9.26	6.59	4.68	3.33	2.37	1.68	1.20	0.85		
90	95	42.44	30.26	21.60	15.42	11.02	7.88	5.64	4.04	2.90	2.08		
95	100	24.63	18.23	13.49	9.99	7.39	5.47	4.05	3.00	2.22	1.64		
100	105	21.47	15.63	11.38	8.29	6.04	4.40	3.21	2.34	1.71	1.25		
105	110	9.30	7.00	5.28	3.98	3.00	2.27	1.71	1.29	0.98	0.74		
110	115	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33		
115	120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
120	125	6.29	4.89	3.81	2.96	2.31	1.80	1.40	1.09	0.85	0.66		
125	130	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33		
130	135	9.43	7.34	5.71	4.65	3.46	2.69	2.10	1.63	1.27	0.94		
135	140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
140	145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
145	150	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14		
150	155	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33		
155	160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
160	165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
165	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
170	175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
175	180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
180	185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
185	190	1.46	1.21	1.01	0.84	0.70	0.58	0.49	0.40	0.34	0.28		
190	195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
195	200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
200	205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
205	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
210	215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
215	220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
220	225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
225	230	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14		
230	235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
235	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
240	245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
245	250	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14		
250	255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
255	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
260	265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
265	270	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14		
270	275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
275	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
280	285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
285	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
290	295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
295	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
300	305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
305	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
310	315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
315	320	4757.95	1437.32	434.47	131.41	39.77	12.05	3.55	1.11	0.34	0.10		
320	325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
325	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
330	335	9269.37	2932.61	930.08	295.68	94.22	30.09	9.63	3.09	0.99	0.32		
335	340	2288.02	863.04	326.12	123.46	46.82	17.79	6.78	2.59	0.99	0.38		
340	345	393.44	163.86	68.26	28.44	11.85	4.94	2.06	0.86	0.36	0.15		
345	350	389.37	172.07	75.17	33.82	15.10	6.81	3.12	1.47	0.73	0.34		
350	355	7013.66	2184.96	682.27	213.55	67.00	21.07	6.64	2.10	0.66	0.21		
355	360	1816.86	685.66	260.43	99.68	38.50	15.02	5.93	2.37	0.96	0.40		

## FIRST HARMONIC

AMPLITUDE	83949.3829303.3410604.78	4020.68	1615.81	695.64	322.81	161.32	86.18	48.70
PHASE	0.65	0.82	1.04	1.32	1.65	2.03	2.44	2.83

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	51080.4417654.47	6334.77	2399.32	978.66	436.49	212.97	112.06	62.40	36.21
PHASE	0.68	0.87	1.12	1.44	1.82	2.22	2.62	2.97	3.26

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 500.00 GV

KIEL										
GEOGRAPHIC LATITUDE = 54.33 GEOGRAPHIC LONGITUDE = 10.13										
ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	854.48	345.46	139.68	56.48	22.84	9.24	3.74	1.51	0.61	0.25
5 10	394.64	168.83	72.24	30.92	13.24	5.67	2.43	1.04	0.45	0.14
10 15	375.25	176.43	83.21	39.41	18.76	9.01	4.38	2.17	1.10	0.59
15 20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 25	6706.30	2480.56	919.34	341.57	127.29	47.62	17.90	6.76	2.57	0.99
25 30	3731.65	1547.77	643.30	268.02	111.99	46.97	19.81	8.42	3.63	1.60
30 35	2717.96	1111.40	462.73	196.34	84.93	37.45	16.81	7.68	3.56	1.67
35 40	1572.54	683.69	299.87	132.77	59.38	26.83	12.26	5.66	2.64	1.25
40 45	638.37	307.68	149.97	73.92	36.83	18.54	9.43	4.84	2.50	1.31
45 50	2299.10	932.29	388.07	166.46	73.79	33.84	16.04	7.85	3.95	2.03
50 55	1705.68	772.23	357.22	169.15	82.07	40.81	20.77	10.81	5.73	3.09
55 60	1422.26	743.10	396.72	216.32	120.33	68.16	39.24	22.92	13.54	8.09
60 65	1274.25	712.32	402.18	229.33	132.05	76.75	45.02	26.64	15.89	9.56
65 70	2344.60	986.85	433.01	199.14	96.24	48.83	25.92	14.31	8.17	4.80
70 75	2418.52	1033.54	448.01	198.00	89.81	42.13	20.60	10.57	5.71	3.24
75 80	388.88	189.40	95.45	49.91	27.11	15.29	8.93	5.38	3.34	2.12
80 85	998.15	461.28	216.19	103.23	50.52	25.50	13.37	7.31	4.18	2.50
85 90	18.31	13.02	9.26	6.59	4.68	3.33	2.37	1.68	1.20	0.85
90 95	42.44	30.26	21.60	15.42	11.02	7.88	5.64	4.04	2.90	2.08
95 100	24.63	18.23	13.49	9.99	7.39	5.47	4.05	3.00	2.22	1.64
100 105	21.47	15.63	11.38	8.29	6.04	4.40	3.21	2.34	1.71	1.25
105 110	9.30	7.00	5.28	3.98	3.00	2.27	1.71	1.29	0.98	0.74
110 115	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120 125	6.29	4.89	3.81	2.96	2.31	1.80	1.40	1.09	0.85	0.66
125 130	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
130 135	9.43	7.34	5.71	4.45	3.46	2.69	2.10	1.63	1.27	0.99
135 140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145 150	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
150 155	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
155 160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160 165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185 190	1.46	1.21	1.01	0.84	0.70	0.58	0.49	0.40	0.34	0.28
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	2288.02	863.04	326.12	123.46	46.82	17.79	6.78	2.59	0.99	0.38
340 345	393.44	163.86	68.26	28.44	11.85	4.94	2.06	0.86	0.36	0.15
345 350	389.37	172.07	76.17	33.82	15.10	6.81	3.12	1.47	0.73	0.39
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355 360	1816.86	685.66	260.43	99.68	38.50	15.02	5.93	2.37	0.96	0.40

## FIRST HARMONIC

AMPLITUDE	31023.2613007.00	5603.73	2494.61	1153.90	557.23	281.76	149.25	82.66	47.68
PHASE	1.63	1.76	1.92	2.11	2.33	2.57	2.84	3.10	3.37

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	21591.68	9033.63	3898.29	1747.16	818.33	402.09	207.32	111.82	62.76
PHASE	1.69	1.83	2.01	2.21	2.43	2.67	2.91	3.14	3.36

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 188.75 GV

KIEL										
GEOGRAPHIC LATITUDE = 54.33			GEOGRAPHIC LONGITUDE = 10.13							
ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	854.48	345.46	139.68	56.48	22.84	9.24	3.74	1.51	0.61	0.25
5 10	394.64	168.83	72.24	30.92	13.24	5.67	2.43	1.04	0.45	0.19
10 15	375.25	176.43	83.21	39.41	18.76	9.01	4.38	2.17	1.10	0.59
15 20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 25	187.04	87.36	40.80	19.05	8.90	4.16	1.94	0.91	0.42	0.20
25 30	3731.65	1547.77	643.30	268.02	111.99	46.97	19.81	8.42	3.63	1.60
30 35	1088.14	513.09	243.10	115.72	55.34	26.58	12.82	6.21	3.02	1.48
35 40	1572.54	683.69	299.87	132.77	59.38	26.83	12.26	5.66	2.64	1.25
40 45	638.37	307.68	149.97	73.92	36.83	18.54	9.43	4.84	2.50	1.31
45 50	669.28	333.99	168.44	85.83	44.19	22.97	12.06	6.38	3.41	1.84
50 55	1705.68	772.23	357.22	169.15	82.07	40.81	20.77	10.81	5.73	3.09
55 60	1422.26	743.10	396.72	216.32	120.33	68.16	39.24	22.92	13.54	8.09
60 65	1274.25	712.32	402.18	229.33	132.05	76.75	45.02	26.64	15.89	9.56
65 70	714.79	388.54	213.38	118.52	66.64	37.97	21.93	12.85	7.64	4.60
70 75	2418.52	1033.54	448.01	198.00	89.81	42.13	20.60	10.57	5.71	3.24
75 80	388.88	189.60	95.45	49.91	27.11	15.29	8.93	5.38	3.34	2.12
80 85	998.15	461.28	216.19	103.23	50.52	25.50	13.37	7.31	4.18	2.50
85 90	18.31	13.02	9.26	6.59	4.68	3.33	2.37	1.68	1.20	0.85
90 95	42.44	30.26	21.60	15.42	11.02	7.88	5.64	4.04	2.90	2.08
95 100	24.63	18.23	13.49	9.99	7.39	5.47	4.05	3.00	2.22	1.64
100 105	21.47	15.63	11.38	8.29	6.04	4.40	3.21	2.34	1.71	1.25
105 110	9.30	7.00	5.28	3.98	3.00	2.27	1.71	1.29	0.98	0.74
110 115	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120 125	6.29	4.89	3.81	2.96	2.31	1.80	1.40	1.09	0.85	0.66
125 130	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
130 135	9.43	7.34	5.71	4.45	3.46	2.69	2.10	1.63	1.27	0.99
135 140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145 150	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
150 155	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
155 160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160 165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185 190	1.46	1.21	1.01	0.84	0.70	0.58	0.49	0.40	0.34	0.28
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	658.21	264.74	106.48	42.83	17.23	6.93	2.79	1.12	0.45	0.18
340 345	393.44	163.86	68.26	28.44	11.85	4.94	2.06	0.86	0.36	0.15
345 350	389.37	172.07	76.17	33.82	15.10	6.81	3.12	1.47	0.73	0.39
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355 360	187.04	87.36	40.80	19.05	8.90	4.16	1.94	0.91	0.42	0.20

FIRST HARMONIC  
AMPLITUDE 18012.55 8272.89 3886.54 1874.26 930.93 477.55 253.46 139.27 79.16 46.46  
PHASE 2.16 2.26 2.38 2.53 2.69 2.88 3.07 3.28 3.50 3.71  
(IN HOURS)  
SECOND HARMONIC  
AMPLITUDE 12729.97 5924.54 2825.16 1384.53 698.99 364.05 195.67 108.43 61.85 36.23  
PHASE 2.28 2.38 2.51 2.64 2.79 2.95 3.12 3.29 3.46 3.64  
(IN HOURS)  
THE UPPER LIMIT FOR THIS CALCULATION IS 111.25 GV

KIEL									
		GEOGRAPHIC LATITUDE = 54.33					GEOGRAPHIC LONGITUDE = 10.13		
ASY.	LONG./BETA	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2
0	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	10	394.64	168.83	72.24	30.92	13.24	5.67	2.43	1.04
10	15	375.25	176.43	83.21	39.41	18.76	9.01	4.38	2.17
15	20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	25	187.04	87.36	40.80	19.05	8.90	4.16	1.94	0.91
25	30	1168.21	511.39	224.27	98.58	43.47	19.26	8.60	3.89
30	35	1088.14	513.09	243.10	115.72	55.34	26.58	12.82	6.21
35	40	718.06	338.24	160.20	76.29	36.54	17.59	8.52	4.15
40	45	638.37	307.68	149.97	73.92	36.83	18.54	9.43	4.84
45	50	669.28	333.99	168.44	85.83	44.19	22.97	12.06	6.38
50	55	851.20	426.77	217.54	112.67	59.23	31.57	17.04	9.29
55	60	1422.26	743.10	396.72	216.32	120.33	68.16	39.24	22.92
60	65	1274.25	712.32	402.18	229.33	132.05	76.75	45.02	26.64
65	70	714.79	388.54	213.38	118.52	66.64	37.97	21.93	12.85
70	75	905.83	423.34	201.85	98.69	49.74	25.96	14.08	7.93
75	80	192.61	108.69	62.26	36.26	21.49	12.98	7.98	4.99
80	85	998.15	461.28	216.19	103.23	50.52	25.50	13.37	7.31
85	90	18.31	13.02	9.26	6.59	4.68	3.33	2.37	1.68
90	95	42.44	30.26	21.60	15.42	11.02	7.88	5.64	4.04
95	100	24.63	18.23	13.49	9.99	7.39	5.47	4.05	3.00
100	105	21.47	15.63	11.38	8.29	6.04	4.40	3.21	2.34
105	110	9.30	7.00	5.28	3.98	3.00	2.27	1.71	1.29
110	115	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54
115	120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120	125	6.29	4.89	3.81	2.96	2.31	1.80	1.40	1.09
125	130	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54
130	135	9.43	7.34	5.71	4.45	3.46	2.69	2.10	1.63
135	140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140	145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145	150	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20
150	155	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54
155	160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160	165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170	175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175	180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185	190	1.46	1.21	1.01	0.84	0.70	0.58	0.49	0.40
190	195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195	200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200	205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210	215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215	220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220	225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225	230	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20
230	235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240	245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245	250	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20
250	255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	270	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20
270	275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320	325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330	335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340	345	197.16	83.14	35.06	14.78	6.23	2.63	1.11	0.47
345	350	389.37	172.07	76.17	33.82	15.10	6.81	3.12	1.47
350	355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355	360	187.04	87.36	40.80	19.05	8.90	4.16	1.94	0.91

## FIRST HARMONIC

AMPLITUDE	11377.57	5605.26	2815.86	1445.49	759.68	409.38	226.42	128.58	74.95	44.81
PHASE	2.50	2.59	2.70	2.82	2.95	3.10	3.26	3.43	3.61	3.80

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	8601.03	4295.35	2186.78	1136.50	603.59	327.79	182.07	103.41	60.03	35.59
PHASE	2.59	2.68	2.78	2.89	3.01	3.13	3.26	3.40	3.55	3.70

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 80.00 GV

## KIEL

GEOGRAPHIC LATITUDE = 54.33				GEOGRAPHIC LONGITUDE = 10.13							
ASY-LONG./BETA=		+1.0	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	15	184.08	50.66	44.73	22.14	11.02	5.53	2.82	1.47	0.79	0.44
15	20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	25	187.04	87.36	40.80	19.05	8.90	4.16	1.94	0.91	0.42	0.20
25	30	187.77	87.96	41.30	19.48	9.25	4.45	2.18	1.11	0.59	0.34
30	35	699.81	344.18	169.55	83.67	41.36	20.48	10.16	5.05	2.51	1.25
35	40	329.42	166.78	84.53	42.89	21.79	11.08	5.64	2.88	1.47	0.75
40	45	441.21	224.53	114.91	59.14	30.60	15.92	8.32	4.37	2.31	1.22
45	50	471.81	248.30	131.25	69.70	37.19	19.93	10.74	5.81	3.16	1.73
50	55	462.87	257.86	144.00	80.62	45.25	25.46	14.37	8.13	4.61	2.62
55	60	1033.62	571.64	321.05	182.92	105.58	61.65	36.37	21.64	12.98	7.84
60	65	1274.25	712.32	402.18	229.33	132.05	76.75	45.02	26.64	15.89	9.56
65	70	714.79	388.54	213.38	118.52	66.64	37.97	21.93	12.85	7.64	4.60
70	75	320.03	168.74	91.13	50.51	28.76	16.82	10.09	6.20	3.88	2.48
75	80	192.61	108.69	62.26	36.26	21.49	12.98	7.98	4.99	3.18	2.05
80	85	412.34	206.68	105.46	55.05	29.54	16.36	9.38	5.57	3.42	2.17
85	90	18.31	13.02	9.26	6.59	4.68	3.33	2.37	1.68	1.20	0.85
90	95	42.44	30.26	21.60	15.42	11.02	7.88	5.64	4.04	2.90	2.08
95	100	24.63	18.23	13.49	9.99	7.39	5.47	4.05	3.00	2.22	1.64
100	105	21.47	15.63	11.38	8.29	6.04	4.40	3.21	2.34	1.71	1.25
105	110	9.30	7.00	5.28	3.98	3.00	2.27	1.71	1.29	0.98	0.74
110	115	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
115	120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120	125	6.29	4.89	3.81	2.96	2.31	1.80	1.40	1.09	0.85	0.66
125	130	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
130	135	9.43	7.34	5.71	4.45	3.46	2.69	2.10	1.63	1.27	0.99
135	140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140	145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145	150	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
150	155	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
155	160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160	165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170	175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175	180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185	190	1.46	1.21	1.01	0.84	0.70	0.58	0.49	0.40	0.34	0.28
190	195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195	200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200	205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210	215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215	220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220	225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225	230	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
230	235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240	245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245	250	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
250	255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	270	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
270	275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320	325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330	335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340	345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345	350	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
350	355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355	360	187.04	87.36	40.80	19.05	8.90	4.16	1.94	0.91	0.42	0.20

## FIRST HARMONIC

AMPLITUDE	5819.27	3633.21	1963.19	1077.13	600.74	340.90	196.97	115.95	69.54	42.50
PHASE	2.90	2.97	3.05	3.14	3.24	3.35	3.47	3.61	3.76	3.91

## (IN HOURS)

SECOND HARMONIC										
AMPLITUDE	5748.03	3077.53	1668.72	917.04	511.11	289.06	165.97	96.78	57.33	34.50
PHASE	2.93	2.99	3.06	3.14	3.22	3.31	3.42	3.53	3.64	3.77

## (IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 50.00 GV

KIEL										
		GEOGRAPHIC LATITUDE = 54.33					GEOGRAPHIC LONGITUDE = 10.13			
ASY.LONG./BETA*		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0
0	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	15	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17
15	20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	30	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17
30	35	146.06	76.73	40.30	21.17	11.12	5.84	3.07	1.61	0.85
35	40	146.06	76.73	40.30	21.17	11.12	5.84	3.07	1.61	0.85
40	45	254.17	137.18	74.11	40.08	21.70	11.76	6.38	3.46	1.88
45	50	288.45	158.25	87.03	47.98	26.52	14.70	8.16	4.55	2.54
50	55	462.87	257.86	144.00	80.62	45.25	25.46	14.37	8.13	4.61
55	60	659.54	396.92	239.46	144.81	87.78	53.34	32.48	19.83	12.13
60	65	907.54	532.22	313.73	185.89	110.71	66.28	39.88	24.11	14.65
65	70	531.43	298.49	169.15	96.80	55.98	32.73	19.36	11.59	7.02
70	75	132.99	81.38	50.33	31.45	19.86	12.66	8.15	5.29	3.46
75	80	192.61	108.69	62.26	36.26	21.49	12.98	7.98	4.99	3.18
80	85	41.95	29.28	20.44	14.27	9.97	6.97	4.87	3.40	2.38
85	90	18.31	13.02	9.26	6.59	4.68	3.33	2.37	1.68	1.20
90	95	42.44	30.26	21.60	15.42	11.02	7.88	5.64	4.04	2.90
95	100	24.63	18.23	13.49	9.99	7.39	5.47	4.05	3.00	2.22
100	105	21.47	15.63	11.38	8.29	6.04	4.40	3.21	2.34	1.71
105	110	9.30	7.00	5.28	3.98	3.00	2.27	1.71	1.29	0.98
110	115	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54	0.42
115	120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120	125	6.29	4.89	3.81	2.96	2.31	1.80	1.40	1.09	0.85
125	130	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54	0.42
130	135	9.43	7.34	5.71	4.45	3.46	2.69	2.10	1.63	1.27
135	140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140	145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145	150	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17
150	155	3.14	2.45	1.90	1.48	1.15	0.90	0.70	0.54	0.42
155	160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160	165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170	175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175	180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185	190	1.46	1.21	1.01	0.84	0.70	0.58	0.49	0.40	0.34
190	195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195	200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200	205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210	215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215	220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220	225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225	230	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17
230	235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240	245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245	250	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17
250	255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	270	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17
270	275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320	325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330	335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340	345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345	350	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17
350	355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355	360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>FIRST HARMONIC</b>										
AMPLITUDE		3792.73	2187.17	1272.33	747.14	443.19	265.73	161.15	98.89	61.44
PHASE		3.28	3.33	3.39	3.45	3.53	3.61	3.71	3.82	3.94
(IN HOURS)										
<b>SECONDO HARMONIC</b>										
AMPLITUDE		3505.61	2012.12	1163.27	677.71	398.07	235.86	141.04	85.16	51.95
PHASE		3.26	3.30	3.35	3.40	3.46	3.53	3.61	3.69	3.79
(IN HOURS)										
THE UPPER LIMIT FOR THIS CALCULATION IS 29.00 GV										

## KIEV

		GEOGRAPHIC LATITUDE = 50.72					GEOGRAPHIC LONGITUDE = 30.30						
		ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2	
0	5	885.78	358.11	144.79	58.55	23.68	9.58	3.87	1.57	0.63	0.26		
5	10	2812.70	919.83	305.69	103.57	35.88	12.74	4.64	1.74	0.67	0.26		
10	15	7468.75	2353.91	747.16	239.27	77.48	25.44	8.50	2.90	1.01	0.36		
15	20	1689.52	620.22	227.68	83.98	30.68	11.26	4.13	1.52	0.56	0.20		
20	25	3214.55	1140.02	409.56	149.29	55.30	20.84	8.00	3.13	1.25	0.51		
25	30	5340.09	1659.83	521.14	165.71	53.51	17.61	5.92	2.04	0.72	0.26		
30	35	5071.68	1609.01	515.01	166.58	54.55	18.12	6.12	2.11	0.74	0.27		
35	40	12405.37	3970.69	1283.47	420.61	140.61	48.41	17.42	6.69	2.82	1.34		
40	45	14222.55	4836.43	1600.28	575.45	201.41	71.20	25.44	9.19	3.36	1.24		
45	50	3265.53	1340.78	551.10	226.77	93.43	38.54	15.92	6.58	2.73	1.13		
50	55	3074.28	1245.07	510.86	212.47	89.59	38.30	16.60	7.29	3.24	1.45		
55	60	4504.07	1623.98	614.52	244.05	101.38	43.80	19.55	8.97	4.20	2.00		
60	65	5214.27	1737.68	589.12	204.39	73.09	27.15	10.55	4.31	1.85	0.84		
65	70	2425.14	983.05	407.88	173.67	76.00	34.19	15.80	7.48	3.62	1.79		
70	75	1828.12	809.93	364.96	167.62	78.61	37.68	18.46	9.24	4.72	2.45		
75	80	996.78	458.58	251.92	128.62	66.37	34.61	18.24	9.71	5.21	2.83		
80	85	8730.82	2952.60	1038.82	385.14	152.28	64.68	29.51	14.35	7.35	3.92		
85	90	4286.88	1851.44	829.49	387.28	188.84	96.08	50.83	27.81	15.64	8.99		
90	95	1432.24	728.13	377.50	199.62	107.63	59.13	33.06	18.79	10.84	6.33		
95	100	871.65	443.22	229.62	11.50	65.79	36.50	20.76	12.09	7.20	4.37		
100	105	56.34	37.63	25.15	16.81	11.24	7.52	5.03	3.37	2.26	1.51		
105	110	28.52	19.06	12.74	8.51	5.69	3.80	2.54	1.70	1.14	0.76		
110	115	33.99	23.60	16.39	11.38	7.91	5.50	3.82	2.66	1.85	1.28		
115	120	38.76	26.38	17.96	12.23	8.33	5.67	3.86	2.63	1.79	1.22		
120	125	33.99	23.60	16.39	11.38	7.91	5.50	3.82	2.66	1.85	1.28		
125	130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
130	135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
135	140	40.73	28.68	20.19	14.22	10.02	7.06	4.98	3.51	2.47	1.75		
140	145	9.49	6.75	4.80	3.41	2.43	1.73	1.23	0.87	0.62	0.44		
145	150	14.09	10.33	7.58	5.58	4.11	3.04	2.25	1.67	1.24	0.92		
150	155	15.87	11.47	8.30	6.00	4.34	3.14	2.28	1.65	1.20	0.87		
155	160	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43		
160	165	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43		
165	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
170	175	15.87	11.47	8.30	6.00	4.34	3.14	2.28	1.65	1.20	0.87		
175	180	19.15	14.17	10.49	7.76	5.75	4.25	3.15	2.33	1.73	1.28		
180	185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
185	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
190	195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
195	200	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43		
200	205	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43		
205	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
210	215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
215	220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
220	225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
225	230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
230	235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
235	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
240	245	4.59	3.58	2.78	2.17	1.69	1.31	1.02	0.80	0.62	0.48		
245	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
250	255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
255	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
260	265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
265	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
270	275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
275	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
280	285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
285	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
290	295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
295	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
300	305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
305	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
310	315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
315	320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
320	325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
325	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
330	335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
335	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
340	345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
345	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
350	355	4932.24	1489.97	450.38	136.23	41.23	12.49	3.78	1.15	0.35	0.11		
355	360	6556.49	2140.40	704.15	233.43	77.97	26.24	8.89	3.03	1.04	0.36		

## FIRST HARMONIC

AMPLITUDE	89930.4531237.0411219.34	4205.81	1663.48	701.61	317.91	154.93	80.75	44.57
PHASE	0.72	0.88	1.10	1.38	1.73	2.15	2.61	3.09

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	61325.2620848.82	7295.43	2660.94	1030.07	431.43	197.46	98.03	51.80	28.58
PHASE	0.67	0.84	1.07	1.36	1.72	2.15	2.58	2.99	3.35

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 500.00 GV

KIEV										
GEOGRAPHIC LATITUDE = 50.72 GEOGRAPHIC LONGITUDE = 30.30										
ASY.	LONG./BETA	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0
0 5	885.78	358.11	144.79	58.55	23.68	9.58	3.87	1.57	0.63	0.26
5 10	409.09	175.01	74.89	32.05	13.72	5.87	2.52	1.08	0.46	0.20
10 15	198.17	88.91	39.89	17.90	8.03	3.60	1.62	0.73	0.33	0.15
15 20	1689.52	620.22	227.68	83.58	30.68	11.26	4.13	1.52	0.56	0.20
20 25	876.21	364.99	152.68	64.15	27.08	11.49	4.90	2.10	0.91	0.34
25 30	407.85	169.86	70.76	29.48	12.28	5.12	2.13	0.89	0.37	0.15
30 35	204.71	88.83	38.54	16.73	7.26	3.15	1.37	0.59	0.26	0.11
35 40	392.84	185.84	88.52	42.58	20.77	10.35	5.31	2.83	1.59	0.94
40 45	6951.96	2571.43	953.02	354.08	131.96	49.36	18.55	7.01	2.67	1.12
45 50	3265.53	1340.78	551.10	226.77	93.43	38.54	15.92	6.58	2.73	1.13
50 55	3074.28	1245.07	510.86	212.47	89.59	38.30	16.60	7.29	3.24	1.45
55 60	1975.44	878.83	394.93	179.34	82.31	38.18	17.90	8.48	4.05	1.96
60 65	472.32	217.83	101.44	47.73	22.71	10.93	5.32	2.62	1.31	0.66
65 70	2425.14	983.05	407.88	173.67	76.00	34.19	15.80	7.48	3.62	1.79
70 75	1828.12	809.93	364.96	167.62	78.61	37.68	18.46	9.24	4.72	2.45
75 80	996.78	498.58	251.92	128.62	66.37	34.61	18.24	9.71	5.21	2.83
80 85	1460.23	687.60	331.56	163.77	82.83	42.84	22.63	12.18	6.67	3.70
85 90	4286.88	1851.44	829.49	387.28	188.84	96.08	50.83	27.81	15.64	8.99
90 95	1432.24	728.13	377.50	199.62	107.63	59.13	33.06	18.79	10.84	6.33
95 100	871.65	443.22	229.62	121.50	65.79	36.50	20.76	12.09	7.20	4.37
100 105	56.34	37.63	25.15	16.81	11.24	7.52	5.03	3.37	2.26	1.51
105 110	28.52	19.06	12.74	8.51	5.69	3.80	2.54	1.70	1.14	0.76
110 115	33.99	23.60	16.39	11.38	7.91	5.50	3.82	2.66	1.85	1.28
115 120	38.76	26.38	17.96	12.23	8.33	5.67	3.86	2.63	1.79	1.22
120 125	33.99	23.60	16.39	11.38	7.91	5.50	3.82	2.66	1.85	1.28
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130 135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135 140	40.73	28.68	20.19	14.22	10.02	7.06	4.98	3.51	2.47	1.75
140 145	9.49	6.75	4.80	3.41	2.43	1.73	1.23	0.87	0.62	0.44
145 150	14.09	10.33	7.58	5.58	4.11	3.04	2.25	1.67	1.24	0.92
150 155	15.87	11.47	8.30	6.00	4.34	3.14	2.28	1.65	1.20	0.87
155 160	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43
160 165	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	15.87	11.47	8.30	6.00	4.34	3.14	2.28	1.65	1.20	0.87
175 180	19.15	14.17	10.49	7.76	5.75	4.25	3.15	2.33	1.73	1.28
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43
200 205	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	4.59	3.58	2.78	2.17	1.69	1.31	1.02	0.80	0.62	0.48
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355 360	1689.52	620.22	227.68	83.58	30.68	11.26	4.13	1.52	0.56	0.20

## FIRST HARMONIC

AMPLITUDE	32210.4013445.34	5754.63	2538.22	1159.81	951.63	274.01	142.31	77.19	43.58
PHASE	1.63	1.78	1.96	2.18	2.44	2.74	3.07	3.41	3.76

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	22811.22	9443.62	4010.77	1758.11	800.22	379.92	188.44	97.44	52.27
PHASE	1.68	1.83	2.01	2.22	2.46	2.72	2.98	3.25	3.50

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 188.75 GV

KIEV											
			GEOGRAPHIC LATITUDE = 50.72			GEOGRAPHIC LONGITUDE = 30.30					
ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2	
0 5	885.78	358.11	144.79	58.55	23.68	9.58	3.87	1.57	0.63	0.26	
5 10	409.09	175.01	74.89	32.05	13.72	5.87	2.52	1.08	0.46	0.20	
10 15	198.17	88.91	39.89	17.90	6.03	3.60	1.62	0.73	0.33	0.15	
15 20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
20 25	876.21	364.99	152.68	64.15	27.08	11.49	4.90	2.10	0.91	0.39	
25 30	407.85	169.86	70.76	29.48	12.28	5.12	2.13	0.89	0.37	0.15	
30 35	204.71	88.83	38.54	16.73	7.26	3.15	1.37	0.59	0.26	0.11	
35 40	392.84	185.84	88.52	42.58	20.77	10.35	3.31	2.83	1.59	0.94	
40 45	193.89	90.56	42.29	19.75	9.23	4.31	2.01	0.94	0.44	0.21	
45 50	3265.53	1340.78	551.10	226.77	93.43	38.54	15.92	6.58	2.73	1.13	
50 55	1384.76	624.86	283.18	128.89	58.91	27.04	12.46	5.77	2.68	1.25	
55 60	1975.44	878.83	394.93	179.34	82.31	38.18	17.90	8.48	4.05	1.96	
60 65	472.32	217.83	101.44	47.73	22.71	10.93	5.32	2.62	1.31	0.66	
65 70	735.63	362.83	180.20	90.08	45.32	22.93	11.67	5.97	3.07	1.58	
70 75	1828.12	809.93	364.96	167.62	78.61	37.68	18.46	9.24	4.72	2.45	
75 80	996.78	498.58	251.92	128.62	66.37	34.61	18.24	9.71	5.21	2.83	
80 85	1460.23	687.60	331.56	163.77	82.83	42.84	22.63	12.18	6.67	3.70	
85 90	2597.36	1231.22	601.81	303.69	158.15	84.82	46.70	26.30	15.09	8.79	
90 95	1432.24	728.13	377.50	199.62	107.63	59.13	33.06	18.79	10.84	6.93	
95 100	871.65	443.22	229.62	121.50	65.79	36.50	20.76	12.09	7.20	4.37	
100 105	56.34	37.63	25.15	16.81	11.24	7.52	5.03	3.37	2.26	1.51	
105 110	28.52	19.06	12.74	8.51	5.69	3.80	2.54	1.70	1.14	0.76	
110 115	33.99	23.60	16.39	11.38	7.91	5.50	3.82	2.66	1.85	1.28	
115 120	38.76	26.38	17.96	12.23	8.33	5.67	3.86	2.63	1.79	1.22	
120 125	33.99	23.60	16.39	11.38	7.91	5.50	3.82	2.66	1.85	1.28	
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
130 135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
135 140	40.73	28.68	20.19	14.22	10.02	7.06	4.98	3.51	2.47	1.75	
140 145	9.49	6.75	4.80	3.41	2.43	1.73	1.23	0.87	0.62	0.44	
145 150	14.09	10.33	7.58	5.58	4.11	3.04	2.25	1.67	1.24	0.92	
150 155	15.87	11.47	8.30	6.00	4.34	3.14	2.28	1.65	1.20	0.87	
155 160	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43	
160 165	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43	
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
170 175	15.87	11.47	8.30	6.00	4.34	3.14	2.28	1.65	1.20	0.87	
175 180	19.15	14.17	10.49	7.76	5.75	4.25	3.15	2.33	1.73	1.28	
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
195 200	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43	
200 205	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	4.59	3.58	2.78	2.17	1.69	1.31	1.02	0.80	0.62	0.48	
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
355 360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
FIRST HARMONIC											
AMPLITUDE	18758.57	8559.37	3987.52	1902.84	933.10	471.50	246.01	132.65	73.90	42.47	
PHASE	2.17	2.30	2.45	2.64	2.85	3.09	3.35	3.63	3.92	4.21	
(IN HOURS)											
SECOND HARMONIC											
AMPLITUDE	13692.60	6252.48	2914.54	1390.95	681.34	343.12	177.72	94.59	51.63	28.83	
PHASE	2.26	2.38	2.52	2.67	2.85	3.03	3.23	3.43	3.63	3.83	
(IN HOURS)											
THE UPPER LIMIT FOR THIS CALCULATION IS 111.25 GV											

KIEV										
GEOGRAPHIC LATITUDE = 50.72 GEOGRAPHIC LONGITUDE = 30.30										
ASY.LONG./BETA	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	409.09	175.01	74.89	32.05	13.72	5.87	2.52	1.08	0.46	0.20
10 15	198.17	88.91	39.89	17.90	8.03	3.60	1.62	0.73	0.33	0.15
15 20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 25	193.89	90.56	42.29	19.75	9.23	4.31	2.01	0.94	0.44	0.21
25 30	204.39	86.19	36.34	15.33	6.46	2.73	1.15	0.48	0.20	0.09
30 35	204.71	88.83	38.54	16.73	7.26	3.15	1.37	0.59	0.26	0.11
35 40	392.84	185.84	88.52	42.58	20.77	10.35	5.31	2.83	1.59	0.94
40 45	193.89	90.56	42.29	19.75	9.23	4.31	2.01	0.94	0.44	0.21
45 50	811.65	350.12	151.13	65.28	28.21	12.20	5.28	2.29	0.99	0.43
50 55	1101.30	541.18	248.76	114.73	53.09	24.65	11.48	5.36	2.51	1.18
55 60	1089.66	520.72	250.14	120.79	58.63	28.60	14.03	6.91	3.42	1.70
60 65	472.32	217.83	101.44	47.73	22.71	10.93	5.32	2.62	1.31	0.66
65 70	735.63	362.83	180.20	90.08	45.32	22.93	11.67	5.97	3.07	1.58
70 75	942.34	451.82	220.16	109.07	54.93	28.10	14.59	7.68	4.09	2.20
75 80	996.78	498.58	251.92	128.62	66.37	34.61	18.24	9.71	5.21	2.83
80 85	777.92	413.17	221.18	119.37	64.97	35.66	19.74	11.02	6.20	3.51
85 90	1508.12	789.44	422.60	230.99	128.65	72.85	41.84	24.32	14.28	8.46
90 95	1432.24	728.13	377.50	199.62	107.63	59.13	33.06	18.79	10.84	6.33
95 100	871.65	443.22	229.62	121.50	65.79	36.50	20.76	12.09	7.20	4.37
100 105	56.34	37.63	25.15	16.81	11.24	7.52	5.03	3.37	2.26	1.51
105 110	28.52	19.06	12.74	8.51	5.69	3.80	2.54	1.70	1.14	0.76
110 115	33.99	23.60	16.39	11.38	7.91	5.50	3.82	2.66	1.85	1.28
115 120	38.76	26.38	17.96	12.23	8.33	5.67	3.86	2.63	1.79	1.22
120 125	33.99	23.60	16.39	11.38	7.91	5.50	3.82	2.66	1.85	1.28
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130 135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135 140	40.73	28.68	20.19	14.22	10.02	7.06	4.98	3.51	2.47	1.75
140 145	9.49	6.75	4.80	3.41	2.43	1.73	1.23	0.87	0.62	0.44
145 150	14.09	10.33	7.58	5.58	4.11	3.04	2.25	1.67	1.24	0.92
150 155	15.87	11.47	8.30	6.00	4.34	3.14	2.28	1.65	1.20	0.87
155 160	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43
160 165	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	15.87	11.47	8.30	6.00	4.34	3.14	2.28	1.65	1.20	0.87
175 180	19.15	14.17	10.49	7.76	5.75	4.25	3.15	2.33	1.73	1.28
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43
200 205	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	4.59	3.58	2.78	2.17	1.69	1.31	1.02	0.80	0.62	0.48
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355 360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

## FIRST HARMONIC

AMPLITUDE	11750.17	5749.40	2864.14	1455.45	755.80	401.66	218.69	122.05	69.82	40.91
PHASE	2.58	2.70	2.84	3.00	3.19	3.39	3.61	3.84	4.09	4.34

## (IN HOURS)

## SECOND HARMONIC

AMPLITUDE	8986.25	4407.69	2198.36	1116.25	577.52	304.57	163.71	89.63	49.94	28.27
PHASE	2.64	2.75	2.86	2.99	3.13	3.28	3.43	3.59	3.75	3.93

## (IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 80.00 GV

KIEV											
GEOGRAPHIC LATITUDE = 50.72			GEOGRAPHIC LONGITUDE = 30.30								
ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2	
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 25	193.89	90.56	42.29	19.75	9.23	4.31	2.01	0.94	0.44	0.21	
25 30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
30 35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
35 40	194.67	96.92	48.63	24.68	12.74	6.74	3.69	2.11	1.26	0.80	
40 45	193.89	90.56	42.29	19.75	9.23	4.31	2.01	0.94	0.44	0.21	
45 50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
50 55	574.04	277.25	133.98	64.78	31.34	15.17	7.35	3.56	1.73	0.84	
55 60	686.78	342.98	171.70	86.16	43.34	21.85	11.04	5.59	2.84	1.44	
60 65	267.93	131.65	65.10	32.41	16.25	8.21	4.17	2.14	1.10	0.57	
65 70	530.92	274.00	141.65	73.36	38.06	19.78	10.30	5.37	2.81	1.47	
70 75	335.07	187.89	105.38	59.12	33.18	18.62	10.46	5.87	3.30	1.85	
75 80	798.61	409.66	212.02	110.72	58.34	31.01	16.62	8.98	4.89	2.68	
80 85	777.92	413.17	221.18	119.37	64.97	35.66	19.74	11.02	6.20	3.51	
85 90	900.86	525.51	307.82	181.04	106.90	63.37	37.71	22.52	13.50	8.12	
90 95	1023.15	553.11	302.61	167.57	93.91	53.26	30.55	17.71	10.38	6.14	
95 100	673.48	354.31	189.73	103.60	57.76	32.90	19.14	11.36	6.87	4.23	
100 105	56.34	37.63	25.15	16.81	11.24	7.52	5.03	3.37	2.26	1.51	
105 110	28.52	19.06	12.74	8.51	5.69	3.80	2.54	1.70	1.14	0.76	
110 115	33.99	23.60	16.39	11.38	7.91	5.50	3.82	2.66	1.85	1.28	
115 120	38.76	26.38	17.96	12.23	8.33	5.67	3.86	2.63	1.79	1.22	
120 125	33.99	23.60	16.39	11.38	7.91	5.50	3.82	2.66	1.85	1.28	
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
130 135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
135 140	40.73	28.68	20.19	14.22	10.02	7.06	4.98	3.51	2.47	1.75	
140 145	9.49	6.75	4.80	3.41	2.43	1.73	1.23	0.87	0.62	0.44	
145 150	14.09	10.33	7.58	5.58	4.11	3.04	2.25	1.67	1.24	0.92	
150 155	15.87	11.47	8.30	6.00	4.34	3.14	2.28	1.65	1.20	0.87	
155 160	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43	
160 165	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43	
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
170 175	15.87	11.47	8.30	6.00	4.34	3.14	2.28	1.65	1.20	0.87	
175 180	19.15	14.17	10.49	7.76	5.75	4.25	3.15	2.33	1.73	1.28	
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
195 200	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43	
200 205	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	4.59	3.58	2.78	2.17	1.69	1.31	1.02	0.80	0.62	0.48	
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
355 360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

## FIRST HARMONIC

AMPLITUDE 6956.65 3682.64 1974.50 1073.35 592.15 331.82 189.01 109.50 64.54 38.71  
 PHASE 3.10 3.20 3.31 3.43 3.58 3.73 3.91 4.09 4.30 4.51

## (IN HOURS)

SECOND HARMONIC  
 AMPLITUDE 5770.40 3046.71 1625.52 876.74 478.17 263.76 147.14 83.00 47.33 27.28  
 PHASE 3.09 3.16 3.24 3.34 3.43 3.54 3.65 3.78 3.91 4.05

## (IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 50.00 GV

KIEV											
GEOGRAPHIC LATITUDE = 50.72 GEOGRAPHIC LONGITUDE = 30.30											
ASY. LONG./BETA		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30 35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35 40	4.59	3.58	2.78	2.17	1.69	1.31	1.02	0.80	0.62	0.48	
40 45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45 50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50 55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55 60	302.82	159.07	83.56	43.90	23.06	12.11	6.36	3.34	1.76	0.92	
60 65	74.04	41.09	22.80	12.65	7.02	3.90	2.16	1.20	0.67	0.37	
65 70	340.85	180.65	95.81	50.84	27.00	14.35	7.63	4.06	2.16	1.15	
70 75	335.07	187.89	105.38	59.12	33.18	18.62	10.46	5.87	3.30	1.85	
75 80	410.83	228.55	127.44	71.22	39.89	22.39	12.60	7.10	4.01	2.27	
80 85	397.77	226.47	129.49	74.34	42.85	24.80	14.41	8.40	4.91	2.88	
85 90	900.86	525.51	307.82	181.04	106.90	63.37	37.71	22.52	13.50	8.12	
90 95	639.19	369.21	214.47	125.30	73.63	43.52	25.87	15.46	9.29	5.62	
95 100	289.52	170.40	101.59	61.34	37.48	23.16	14.46	9.11	5.79	3.70	
100 105	56.34	37.63	25.15	16.81	11.24	7.52	5.03	3.37	2.26	1.51	
105 110	28.52	19.06	12.74	8.51	5.69	3.80	2.54	1.70	1.14	0.76	
110 115	33.99	23.60	16.39	11.38	7.91	5.50	3.82	2.66	1.85	1.28	
115 120	38.76	26.38	17.96	12.23	8.33	5.67	3.86	2.63	1.79	1.22	
120 125	33.99	23.60	16.39	11.38	7.91	5.50	3.82	2.66	1.85	1.28	
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
130 135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
135 140	40.73	28.68	20.19	14.22	10.02	7.06	4.98	3.51	2.47	1.75	
140 145	9.49	6.75	4.80	3.41	2.43	1.73	1.23	0.87	0.62	0.44	
145 150	14.09	10.33	7.58	5.58	4.11	3.04	2.25	1.67	1.24	0.92	
150 155	15.87	11.47	8.30	6.00	4.34	3.14	2.28	1.65	1.20	0.87	
155 160	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43	
160 165	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43	
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
170 175	15.87	11.47	8.30	6.00	4.34	3.14	2.28	1.65	1.20	0.87	
175 180	19.15	14.17	10.49	7.76	5.75	4.25	3.15	2.33	1.73	1.28	
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
195 200	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43	
200 205	6.38	4.72	3.50	2.59	1.92	1.42	1.05	0.78	0.58	0.43	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	4.59	3.58	2.78	2.17	1.69	1.31	1.02	0.80	0.62	0.48	
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
355 360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

FIRST HARMONIC  
AMPLITUDE 3818.34 2187.75 1263.01 735.11 431.60 255.77 153.08 92.58 56.60 35.00  
PHASE 3.64 3.71 3.80 3.90 4.01 4.13 4.27 4.41 4.58 4.75  
(IN HOURS)  
SECOND HARMONIC  
AMPLITUDE 3409.11 1932.56 1101.10 630.65 363.14 210.24 122.39 71.64 42.17 24.96  
PHASE 3.54 3.59 3.65 3.71 3.78 3.85 3.94 4.03 4.13 4.25  
(IN HOURS)  
THE UPPER LIMIT FOR THIS CALCULATION IS 29.00 GV

## LEEDS

GEOGRAPHIC LATITUDE = 53.82 GEOGRAPHIC LONGITUDE = 358.45  
 ASY. LONG./BETA = +1.6 +1.4 +1.2 +1.0 +0.8 +0.6 +0.4 +0.2 0.0 -0.2

0 5	4935.63	1518.94	471.66	148.27	47.39	15.48	5.20	1.80	0.65	0.24
5 10	12494.85	4117.95	1365.61	455.69	153.00	51.68	17.56	6.00	2.06	0.71
10 15	11940.38	4068.00	1404.66	491.82	174.68	62.95	23.02	8.54	3.22	1.23
15 20	3837.56	1531.08	614.60	248.24	100.89	41.27	16.98	7.03	2.93	1.23
20 25	2084.19	937.68	425.90	195.32	90.44	42.27	19.94	9.49	4.56	2.20
25 30	3073.10	1012.23	348.77	126.92	49.06	20.15	8.74	3.97	1.87	0.91
30 35	5308.47	1826.62	649.00	240.36	93.60	38.54	16.79	7.70	3.69	1.83
35 40	2148.26	853.34	346.59	144.59	62.22	27.71	12.78	6.11	3.02	1.54
40 45	1876.35	844.58	387.91	182.24	87.74	43.33	21.96	11.40	6.06	3.29
45 50	1544.18	832.89	457.40	255.59	145.15	83.66	48.86	28.86	17.22	10.36
50 55	3429.88	1279.78	531.63	246.09	124.70	67.44	38.06	22.08	13.04	7.80
55 60	8473.81	3102.03	1173.27	461.61	190.22	82.59	37.92	18.43	9.45	5.09
60 65	797.63	351.63	161.17	77.60	39.55	21.40	12.25	7.36	4.59	2.95
65 70	584.45	271.80	130.16	64.52	33.25	17.87	10.01	5.84	3.52	2.19
70 75	784.36	367.40	174.11	83.82	41.23	20.85	10.91	5.95	3.39	2.02
75 80	42.33	30.18	21.54	15.38	10.99	7.86	5.63	4.03	2.89	2.07
80 85	27.55	20.13	14.71	10.75	7.86	5.75	4.21	3.08	2.26	1.65
85 90	21.41	15.58	11.35	8.26	6.02	4.39	3.20	2.33	1.70	1.24
90 95	15.41	11.53	8.63	6.46	4.84	3.62	2.72	2.04	1.53	1.15
95 100	3.13	2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
100 105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105 110	9.40	7.32	5.70	4.43	3.45	2.69	2.09	1.63	1.27	0.99
110 115	3.13	2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
115 120	6.27	4.88	3.80	2.96	2.30	1.79	1.39	1.09	0.84	0.66
120 125	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130 135	3.13	2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
135 140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145 150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150 155	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
155 160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160 165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180 185	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
230 235	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	2432.63	716.86	211.25	62.25	18.34	5.41	1.59	0.47	0.14	0.04
310 315	2312.35	716.54	222.04	68.80	21.32	6.61	2.05	0.63	0.20	0.06
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	10869.48	3521.28	1146.58	375.28	123.48	40.84	13.58	4.54	1.53	0.52
325 330	852.15	344.52	139.30	56.33	22.78	9.21	3.73	1.51	0.61	0.25
330 335	393.56	168.37	72.05	30.83	13.20	5.65	2.42	1.04	0.44	0.19
335 340	4935.63	1518.94	471.66	148.27	47.39	15.48	5.20	1.80	0.65	0.24
340 345	3874.94	1342.28	466.16	162.32	56.67	19.83	6.96	2.45	0.86	0.31
345 350	842.94	351.13	146.88	61.71	26.05	11.05	4.72	2.02	0.87	0.38
350 355	5137.34	1596.81	501.35	159.41	51.48	16.94	5.69	1.96	0.69	0.25
355 360	2629.35	920.87	328.31	119.66	44.77	17.25	6.86	2.82	1.19	0.52

## FIRST HARMONIC

AMPLITUDE 83924.4629266.8810580.25 4006.75 1608.33 691.64 320.58 159.99 85.31 48.08  
 PHASE 0.59 0.76 0.98 1.26 1.59 1.98 2.39 2.80 3.17 3.51

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE 51167.4317589.55 6274.64 2364.51 962.57 430.72 211.89 112.73 63.53 37.31  
 PHASE 0.59 0.78 1.03 1.36 1.76 2.18 2.59 2.95 3.25 3.69

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 500.00 GV

LEEDS												
GEOGRAPHIC LATITUDE = 53.82			GEOGRAPHIC LONGITUDE = 358.45									
ASY.LONG./BETA= +1.6    +1.4    +1.2    +1.0    +0.8    +0.6    +0.4    +0.2    0.0    -0.2												
0 5	190.65	85.54	38.38	17.22	7.73	3.47	1.56	0.70	0.31	0.14		
5 10	3250.75	1193.34	438.07	160.82	59.04	21.67	7.96	2.92	1.07	0.39		
10 15	4945.84	1888.99	724.25	278.86	107.87	41.94	16.40	6.45	2.55	1.02		
15 20	3837.56	1531.08	614.60	248.24	100.89	41.27	16.98	7.03	2.93	1.23		
20 25	2084.19	937.68	425.90	195.32	90.44	42.27	19.94	9.49	4.56	2.20		
25 30	640.47	295.37	137.53	64.67	30.72	14.74	7.15	3.50	1.73	0.87		
30 35	746.55	364.47	179.83	89.65	45.13	22.94	11.76	6.08	3.17	1.66		
35 40	2148.26	853.34	346.59	144.59	62.22	27.71	12.78	6.11	3.02	1.54		
40 45	1876.35	844.58	387.91	182.24	87.74	43.33	21.96	11.40	6.06	3.29		
45 50	1544.18	832.89	457.40	255.59	145.15	83.66	48.86	28.86	17.22	10.36		
50 55	997.26	562.93	320.38	183.84	106.36	62.03	36.47	21.61	12.90	7.76		
55 60	3911.89	1639.88	704.10	310.90	141.75	56.98	32.89	16.80	8.93	4.92		
60 65	797.63	351.63	161.17	77.60	30.55	21.40	12.25	7.36	4.59	2.95		
65 70	584.45	271.80	130.16	64.52	33.25	17.87	10.01	5.84	3.52	2.19		
70 75	784.36	367.40	174.11	83.82	41.23	20.85	10.91	5.95	3.39	2.02		
75 80	42.33	30.18	21.54	15.38	10.99	7.86	5.63	4.03	2.89	2.07		
80 85	27.55	20.13	14.71	10.75	7.86	5.75	4.21	3.08	2.26	1.65		
85 90	21.41	15.58	11.35	8.26	6.02	4.39	3.20	2.33	1.70	1.24		
90 95	15.41	11.53	8.63	6.46	4.84	3.62	2.72	2.04	1.53	1.15		
95 100	3.13	2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33		
100 105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
105 110	9.40	7.32	5.70	4.43	3.45	2.69	2.09	1.63	1.27	0.99		
110 115	3.13	2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33		
115 120	6.27	4.88	3.80	2.96	2.30	1.79	1.39	1.09	0.84	0.66		
120 125	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
130 135	3.13	2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33		
135 140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
145 150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
150 155	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19		
155 160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
160 165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
170 175	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19		
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
180 185	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19		
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
195 200	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19		
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
210 215	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19		
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
225 230	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19		
230 235	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19		
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
245 250	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19		
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
320 325	1625.37	596.67	219.04	80.41	29.52	10.84	3.98	1.46	0.54	0.20		
325 330	852.15	344.52	139.30	56.33	22.78	9.21	3.73	1.51	0.61	0.25		
330 335	393.56	168.37	72.05	30.83	11.20	5.65	2.42	1.04	0.44	0.19		
335 340	190.65	85.54	38.38	17.22	7.73	3.47	1.56	0.70	0.31	0.14		
340 345	1625.37	596.67	219.04	80.41	29.52	10.84	3.98	1.46	0.54	0.20		
345 350	842.94	351.13	146.88	61.71	24.05	11.05	4.72	2.02	0.87	0.38		
350 355	392.36	163.41	68.07	28.36	11.82	4.92	2.05	0.86	0.36	0.15		
355 360	379.79	175.26	81.19	37.75	17.62	8.25	3.88	1.83	0.87	0.41		

FIRST HARMONIC

AMPLITUDE	30712.2312881.13	5551.70	2472.50	1144.14	552.65	279.41	147.91	81.79	47.06
PHASE	1.54	1.68	1.85	2.05	2.27	2.53	2.79	3.07	3.35

(IN HOURS)

SECOND HARMONIC

AMPLITUDE	20845.49	8742.34	3785.39	1704.62	803.47	397.91	207.05	112.80	63.99
PHASE	1.61	1.76	1.95	2.17	2.40	2.65	2.89	3.13	3.34

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 188.75 GV

LEEDS											
		GEOGRAPHIC LATITUDE = 53.82					GEOGRAPHIC LONGITUDE = 350.45				
ASY.LONG./BETA=		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0	5	190.65	85.54	38.38	17.22	7.73	3.47	1.56	0.70	0.31	0.14
5	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	15	1695.09	695.65	286.18	118.04	48.83	20.27	8.44	3.53	1.48	0.62
15	20	2212.19	934.41	395.56	167.83	71.38	30.43	13.00	5.57	2.39	1.03
20	25	2084.19	937.68	425.90	195.32	90.44	42.27	19.94	9.49	4.56	2.20
25	30	640.47	295.37	137.53	64.67	30.72	14.74	7.15	3.50	1.73	0.87
30	35	746.55	364.47	179.83	89.65	45.13	22.94	11.76	6.08	3.17	1.66
35	40	522.89	256.67	127.55	64.18	32.70	16.87	8.81	4.65	2.48	1.34
40	45	1876.35	844.58	387.91	182.24	87.74	43.33	21.96	11.40	6.06	3.29
45	50	1544.18	832.89	457.40	255.59	145.15	83.66	48.86	28.86	17.22	10.36
50	55	997.26	562.93	320.38	183.84	106.36	62.03	36.47	21.61	12.90	7.76
55	60	2286.52	1043.21	485.06	230.49	112.24	56.15	28.91	15.34	8.39	4.73
60	65	797.63	351.63	161.17	77.60	39.55	21.40	12.25	7.36	4.59	2.95
65	70	584.45	271.80	130.16	64.52	33.25	17.87	10.01	5.84	3.52	2.19
70	75	784.36	367.40	174.11	83.82	41.23	20.85	10.91	5.95	3.39	2.02
75	80	42.33	30.18	21.54	15.38	10.99	7.86	5.63	4.03	2.89	2.07
80	85	27.55	20.13	14.71	10.75	7.86	5.75	4.21	3.08	2.26	1.65
85	90	21.41	15.58	11.35	8.26	6.02	4.39	3.20	2.33	1.70	1.24
90	95	15.41	11.53	8.63	6.46	4.84	3.62	2.72	2.04	1.53	1.15
95	100	3.13	2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
100	105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105	110	9.40	7.32	5.70	4.43	3.45	2.69	2.09	1.63	1.27	0.99
110	115	3.13	2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
115	120	6.27	4.88	3.80	2.96	2.30	1.79	1.39	1.09	0.84	0.66
120	125	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125	130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130	135	3.13	2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
135	140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140	145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150	155	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
155	160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160	165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170	175	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
175	180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	185	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
185	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190	195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195	200	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
200	205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210	215	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
215	220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220	225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225	230	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
230	235	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
235	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240	245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245	250	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
250	255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270	275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320	325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	330	852.15	344.52	139.30	56.33	22.78	9.21	3.73	1.51	0.61	0.25
330	335	393.56	168.37	72.05	30.83	13.20	5.65	2.42	1.04	0.44	0.19
335	340	190.65	85.54	38.38	17.22	7.73	3.47	1.56	0.70	0.31	0.14
340	345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345	350	842.94	351.13	146.88	61.71	26.05	11.05	4.72	2.02	0.87	0.38
350	355	392.36	163.41	68.07	28.36	11.82	4.92	2.05	0.86	0.36	0.15
355	360	379.79	175.26	81.19	37.75	17.62	8.25	3.88	1.83	0.87	0.41

FIRST HARMONIC  
 AMPLITUDE 17947.41 8241.65 3871.21 1866.48 926.78 475.18 251.99 138.27 78.43 45.90  
 PHASE 2.10 2.21 2.33 2.48 2.65 2.84 3.04 3.26 3.48 3.70  
 (IN HOURS)  
 SECOND HARMONIC  
 AMPLITUDE 12640.88 5885.59 2809.42 1379.32 698.36 365.22 197.36 110.11 63.32 37.44  
 PHASE 2.22 2.34 2.47 2.61 2.76 2.93 3.10 3.27 3.44 3.60  
 (IN HOURS)  
 THE UPPER LIMIT FOR THIS CALCULATION IS 111.25 GV

LEEDS											
		GEOGRAPHIC LATITUDE = 53.82					GEOGRAPHIC LONGITUDE = 358.45				
ASY.LONG./BETA=		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	
0	5	190.65	85.54	38.38	17.22	7.73	3.47	1.56	0.70	0.31	0.14
5	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	15	186.53	87.12	40.69	19.00	8.88	4.15	1.94	0.90	0.42	0.20
15	20	1164.30	509.40	223.16	97.89	43.00	18.91	8.33	3.68	1.62	0.72
20	25	1427.77	673.67	319.71	152.61	73.26	35.36	17.16	8.37	4.11	2.02
25	30	444.73	214.87	104.42	51.05	25.12	12.44	6.20	3.11	1.57	0.80
30	35	746.55	364.47	179.83	89.65	45.13	22.94	11.76	6.08	3.17	1.66
35	40	522.89	256.67	127.55	64.18	32.70	16.87	8.51	4.65	2.48	1.34
40	45	1024.20	500.06	248.61	125.91	64.96	34.12	18.23	9.90	5.45	3.04
45	50	1544.18	832.89	457.40	255.59	145.15	83.66	48.86	28.86	17.22	10.36
50	55	997.26	562.93	320.38	183.84	106.36	62.03	36.47	21.61	12.90	7.76
55	60	1434.37	698.69	345.77	174.17	89.46	46.93	25.19	13.84	7.78	4.48
60	65	141.22	87.61	54.98	34.89	22.37	14.49	9.47	6.24	4.14	2.77
65	70	388.71	191.30	97.05	50.90	27.65	15.56	9.06	5.45	3.36	2.13
70	75	784.36	367.40	174.11	83.82	41.23	20.85	10.91	5.95	3.39	2.02
75	80	42.33	30.18	21.54	15.38	10.99	7.86	5.63	4.03	2.89	2.07
80	85	27.55	20.13	14.71	10.75	7.86	5.75	4.21	3.08	2.26	1.65
85	90	21.41	15.58	11.35	8.26	6.02	4.39	3.20	2.33	1.70	1.24
90	95	15.41	11.53	8.63	6.46	4.84	3.62	2.72	2.04	1.53	1.15
95	100	3.13	2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
100	105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105	110	9.40	7.32	5.70	4.43	3.45	2.69	2.09	1.63	1.27	0.99
110	115	3.13	2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
115	120	6.27	4.88	3.80	2.96	2.30	1.79	1.39	1.09	0.84	0.66
120	125	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125	130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130	135	3.13	2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
135	140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140	145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150	155	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
155	160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160	165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170	175	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
175	180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	185	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
185	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190	195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195	200	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
200	205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210	215	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
215	220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220	225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225	230	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
230	235	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
235	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240	245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245	250	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
250	255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270	275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320	325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330	335	393.56	168.37	72.05	30.83	13.20	5.65	2.42	1.04	0.44	0.19
335	340	190.65	85.54	38.38	17.22	7.73	3.47	1.56	0.70	0.31	0.14
340	345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345	350	186.53	87.12	40.69	19.00	8.88	4.15	1.94	0.90	0.42	0.20
350	355	196.63	82.91	34.96	14.74	6.22	2.62	1.11	0.47	0.20	0.08
355	360	379.79	175.26	81.19	37.75	17.62	8.25	3.88	1.83	0.87	0.41
FIRST HARMONIC											
AMPLITUDE		11362.28	5596.04	2810.30	1442.06	757.47	407.87	225.33	127.76	74.30	44.29
PHASE		2.47	2.57	2.67	2.79	2.93	3.08	3.24	3.42	3.60	3.80
(IN HOURS)											
SECOND HARMONIC											
AMPLITUDE		8657.51	4320.79	2199.53	1143.86	608.46	331.33	184.77	105.51	61.67	36.87
PHASE		2.57	2.67	2.76	2.87	2.99	3.11	3.25	3.38	3.52	3.66
(IN HOURS)											
THE UPPER LIMIT FOR THIS CALCULATION IS 80.00 GV											

LEEDS											
GEOGRAPHIC LATITUDE = 53.82 GEOGRAPHIC LONGITUDE = 358.45											
ASY.LONG./BETA=		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 15	186.53		87.12	40.69	19.00	8.88	4.15	1.94	0.90	0.42	0.20
15 20	186.53		87.12	40.69	19.00	8.88	4.15	1.94	0.90	0.42	0.20
20 25	843.56		419.76	209.29	104.55	52.33	26.25	13.19	6.64	3.35	1.69
25 30	254.09		129.33	66.04	33.83	17.39	8.97	4.65	2.41	1.26	0.66
30 35	549.93		281.56	144.87	74.91	38.92	20.32	10.65	5.61	2.97	1.58
35 40	325.96		171.22	90.47	48.09	25.72	13.84	7.49	4.08	2.24	1.23
40 45	440.00		246.15	138.19	77.86	44.04	25.00	14.25	8.16	4.69	2.71
45 50	1353.53		747.35	419.03	238.37	137.42	80.19	47.30	28.17	16.91	10.22
50 55	997.26		562.93	320.38	183.84	106.36	62.03	36.47	21.61	12.90	7.76
55 60	850.16		444.78	235.34	126.11	68.53	37.82	21.21	12.10	7.03	4.15
60 65	141.22		87.61	54.98	34.89	22.37	14.49	9.47	6.24	4.14	2.77
65 70	192.08		108.39	62.09	36.16	21.44	12.94	7.96	4.98	3.17	2.04
70 75	396.78		196.40	98.65	50.51	26.52	14.35	8.04	4.68	2.83	1.77
75 80	42.33		30.18	21.54	15.38	10.99	7.86	5.63	4.03	2.89	2.07
80 85	27.55		20.13	14.71	10.75	7.86	5.75	4.21	3.08	2.26	1.65
85 90	21.41		15.58	11.35	8.26	6.02	4.39	3.20	2.33	1.70	1.24
90 95	15.41		11.53	8.63	6.46	4.84	3.62	2.72	2.04	1.53	1.15
95 100	3.13		2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
100 105	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105 110	9.40		7.32	5.70	4.43	3.45	2.69	2.09	1.63	1.27	0.99
110 115	3.13		2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
115 120	6.27		4.88	3.80	2.96	2.30	1.79	1.39	1.09	0.84	0.66
120 125	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125 130	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130 135	3.13		2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
135 140	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140 145	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145 150	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150 155	0.97		0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
155 160	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160 165	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165 170	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	0.97		0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
175 180	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180 185	0.97		0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
185 190	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200	0.97		0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
200 205	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.97		0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
215 220	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.97		0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
230 235	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.97		0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
250 255	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345 350	186.53		87.12	40.69	19.00	8.88	4.15	1.94	0.90	0.42	0.20
350 355	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355 360	182.86		89.80	44.10	21.66	10.64	5.22	2.57	1.26	0.62	0.30

## FIRST HARMONIC

AMPLITUDE	6798.94	3622.08	1956.92	1073.44	598.44	339.36	195.88	115.12	68.90	41.98
PHASE	2.88	2.95	3.03	3.12	3.22	3.33	3.46	3.59	3.75	3.91

## (IN HOURS)

## SECOND HARMONIC

AMPLITUDE	5738.09	3074.95	1669.69	919.47	513.90	291.73	168.30	98.72	58.90	35.75
PHASE	2.92	2.98	3.05	3.13	3.21	3.30	3.40	3.51	3.62	3.74

## (IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 50.00 GV

LEEDS											
GEOGRAPHIC LATITUDE = 53.82 GEOGRAPHIC LONGITUDE = 358.45											
ASY.LONG./BETA=		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 15	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 20	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 25	291.32		153.03	80.39	42.23	22.18	11.65	6.12	3.22	1.69	0.89
25 30	71.23		39.53	21.94	12.17	6.76	3.75	2.08	1.15	0.64	0.36
30 35	363.40		194.44	104.18	55.90	30.04	16.17	8.72	4.71	2.55	1.38
35 40	143.10		81.41	46.36	26.43	15.08	8.62	4.93	2.82	1.62	0.93
40 45	440.00		246.15	138.19	77.86	44.04	25.00	14.25	8.16	4.69	2.71
45 50	797.62		483.31	293.55	178.70	109.03	66.68	40.86	25.10	15.45	9.53
50 55	814.40		473.12	276.27	162.18	95.72	56.81	33.90	20.35	12.28	7.45
55 60	480.77		267.86	150.55	85.45	49.02	28.45	16.71	9.94	5.98	3.65
60 65	141.22		87.61	54.98	34.89	22.37	14.49	9.47	6.24	4.14	2.77
65 70	192.08		108.39	62.09	36.16	21.44	12.94	7.96	4.98	3.17	2.04
70 75	27.40		19.48	13.85	9.85	7.00	4.98	3.54	2.52	1.79	1.27
75 80	42.33		30.18	21.54	15.38	10.99	7.86	5.63	4.03	2.89	2.07
80 85	27.55		20.13	14.71	10.75	7.86	5.75	4.21	3.08	2.26	1.65
85 90	21.41		15.58	11.35	8.26	6.02	4.39	3.20	2.33	1.70	1.24
90 95	15.41		11.53	8.63	6.46	4.84	3.62	2.72	2.04	1.53	1.15
95 100	3.13		2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
100 105	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105 110	9.40		7.32	5.70	4.43	3.45	2.69	2.09	1.63	1.27	0.99
110 115	3.13		2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
115 120	6.27		4.88	3.80	2.96	2.30	1.79	1.39	1.09	0.84	0.66
120 125	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125 130	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130 135	3.13		2.44	1.90	1.48	1.15	0.90	0.70	0.54	0.42	0.33
135 140	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140 145	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145 150	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150 155	0.97		0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
155 160	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160 165	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165 170	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	0.97		0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
175 180	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180 185	0.97		0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
185 190	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200	0.97		0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
200 205	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.97		0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
215 220	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.97		0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
230 235	0.97		0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
235 240	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.97		0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
250 255	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345 350	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350 355	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355 360	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST HARMONIC  
 AMPLITUDE 3775.99 2177.75 1266.87 743.83 441.07 264.29 160.10 98.10 60.81 38.15  
 PHASE 3.27 3.31 3.37 3.43 3.51 3.59 3.69 3.80 3.93 4.07  
 (IN HOURS)  
 SECOND HARMONIC  
 AMPLITUDE 3483.32 2003.84 1161.56 678.86 400.24 238.20 143.19 86.99 53.45 33.23  
 PHASE 3.25 3.29 3.33 3.38 3.44 3.51 3.58 3.67 3.76 3.85  
 (IN HOURS)  
 THE UPPER LIMIT FOR THIS CALCULATION IS 29.00 GV

DULU											
GEOGRAPHIC LATITUDE = 65.00 GEOGRAPHIC LONGITUDE = 25.42											
ASY.LONG./BETA=		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	9356.05	2874.02	884.93	273.14	84.52	26.22	8.15	2.54	0.79	0.25	
5 10	4740.96	1654.46	586.91	211.97	78.06	29.35	11.28	4.44	1.79	0.74	
10 15	2622.00	902.16	312.82	109.44	38.67	13.82	5.00	1.83	0.68	0.26	
15 20	195.45	84.81	36.80	15.97	6.93	3.01	1.30	0.57	0.25	0.11	
20 25	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14	
25 30	2599.40	797.91	250.03	80.64	27.01	9.48	3.50	1.36	0.56	0.24	
30 35	6140.61	2043.29	683.01	229.38	77.40	26.24	8.94	3.06	1.05	0.36	
35 40	10675.51	3601.10	1237.48	434.91	157.02	58.51	22.50	9.07	3.79	1.64	
40 45	12494.08	4426.81	1607.46	599.26	229.69	90.60	36.80	15.40	6.63	2.94	
45 50	791.23	358.26	163.63	75.44	35.13	16.53	7.87	3.79	1.85	0.91	
50 55	1502.48	684.90	318.00	150.52	72.67	35.77	17.94	9.15	4.75	2.50	
55 60	520.34	292.05	166.61	96.44	56.55	33.53	20.06	12.10	7.35	4.48	
60 65	1457.33	803.97	451.35	257.33	148.72	86.99	51.42	30.69	18.47	11.20	
65 70	7617.18	2537.17	889.15	336.61	141.28	66.57	34.89	19.86	11.95	7.46	
70 75	3759.96	1598.45	705.20	325.91	159.17	82.64	45.67	26.74	16.46	10.54	
75 80	727.83	348.19	170.82	86.54	45.60	25.16	14.58	8.88	5.67	3.76	
80 85	776.78	390.40	197.82	101.34	52.68	27.94	15.22	8.57	5.03	3.09	
85 90	574.79	260.33	118.74	54.81	25.81	12.56	6.44	3.54	2.13	1.40	
90 95	2656.98	1018.88	392.41	152.07	59.52	23.70	9.74	4.24	2.03	1.10	
95 100	7086.35	2238.52	715.19	232.33	77.33	26.65	9.63	3.69	1.51	0.67	
100 105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
105 110	181.48	89.13	43.77	21.50	10.56	5.19	2.55	1.25	0.61	0.30	
110 115	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	
115 120	185.59	86.89	40.78	19.22	9.14	4.42	2.21	1.16	0.66	0.42	
120 125	0.15	0.14	0.13	0.12	0.11	0.10	0.10	0.09	0.08	0.07	
125 130	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14	
130 135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
135 140	195.45	84.81	36.80	15.97	6.93	3.01	1.30	0.57	0.25	0.11	
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
145 150	195.14	82.29	34.70	14.63	6.17	2.60	1.10	0.46	0.20	0.08	
150 155	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
155 160	194.26	79.89	32.86	13.51	5.56	2.29	0.94	0.39	0.16	0.07	
160 165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
170 175	6514.45	262.03	105.39	42.39	17.05	6.86	2.76	1.11	0.45	0.18	
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
225 230	1613.11	592.17	217.38	79.80	29.29	10.75	3.95	1.45	0.53	0.20	
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
250 255	2232.59	739.98	245.26	81.29	26.94	8.93	2.96	0.98	0.33	0.11	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	2294.91	711.13	220.36	68.28	21.16	6.56	2.03	0.63	0.20	0.06	
265 270	2414.28	711.46	209.66	61.79	18.21	5.37	1.59	0.47	0.15	0.05	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
340 345	8554.89	2754.74	892.66	291.16	95.60	31.61	10.52	3.53	1.19	0.40	
345 350	1236.31	509.02	209.75	86.50	35.71	14.75	6.10	2.52	1.05	0.43	
350 355	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14	
355 360	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20	
<b>FIRST HARMONIC</b>											
AMPLITUDE	65596.1523233.56	8598.30	3364.30	1407.44	634.26	308.30	160.85	89.30	52.23		
PHASE	0.61	0.78	1.00	1.25	1.52	1.80	2.06	2.28	2.46	2.61	
<b>(IN HOURS)</b>											
<b>SECOND HARMONIC</b>											
AMPLITUDE	41228.9514800.40	5571.98	2234.83	969.27	457.99	234.85	129.08	74.94	45.41		
PHASE	1.05	1.17	1.33	1.53	1.76	1.99	2.21	2.39	2.54	2.67	
<b>(IN HOURS)</b>											
THE UPPER LIMIT FOR THIS CALCULATION IS 500.00 GV											

DULU										
GEOGRAPHIC LATITUDE = 65.00					GEOGRAPHIC LONGITUDE = 25.42					
ASY. LONG./BETA =	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	2446.05	943.32	366.55	143.69	56.90	22.80	9.25	3.81	1.59	0.68
10 15	389.40	162.18	67.56	28.14	11.73	4.89	2.04	0.85	0.35	0.15
15 20	195.45	84.81	36.80	15.97	6.93	3.01	1.30	0.57	0.25	0.11
20 25	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14
25 30	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20
30 35	1613.11	592.17	217.38	79.80	29.29	10.75	3.95	1.45	0.53	0.20
35 40	3733.74	1438.53	562.20	223.55	90.71	37.66	16.03	7.00	3.13	1.43
40 45	5552.30	2264.25	932.18	387.91	163.38	69.75	30.23	13.32	5.97	2.73
45 50	791.23	358.26	163.63	75.44	35.13	16.53	7.87	3.79	1.85	0.91
50 55	1502.48	684.90	318.00	150.52	72.67	35.77	17.94	9.15	4.75	2.50
55 60	520.34	292.05	166.61	96.44	56.55	33.53	20.06	12.10	7.35	4.48
60 65	1457.33	803.97	451.35	257.33	148.72	86.99	51.42	30.69	18.47	11.20
65 70	675.40	374.61	213.87	125.25	74.97	45.72	28.32	17.78	11.29	7.25
70 75	3759.96	1558.45	705.20	325.91	159.17	82.64	45.67	26.74	16.46	10.54
75 80	727.83	348.19	170.82	86.54	45.60	25.16	14.58	8.88	5.67	3.76
80 85	776.78	390.40	197.82	101.34	52.68	27.94	15.22	8.57	5.03	3.09
85 90	574.79	260.33	118.74	54.81	25.81	12.56	6.44	3.54	2.13	1.40
90 95	2656.98	1018.88	392.41	152.07	59.52	23.70	9.74	4.24	2.03	1.10
95 100	144.58	75.95	39.91	20.97	11.02	5.80	3.05	1.61	0.86	0.46
100 105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105 110	181.48	89.13	43.77	21.50	10.56	5.19	2.55	1.25	0.61	0.30
110 115	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04
115 120	185.59	86.89	40.78	19.22	9.14	4.42	2.21	1.16	0.66	0.42
120 125	0.15	0.14	0.13	0.12	0.11	0.10	0.10	0.09	0.08	0.07
125 130	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14
130 135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135 140	195.45	84.81	36.80	15.97	6.93	3.01	1.30	0.57	0.25	0.11
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145 150	195.14	82.29	34.70	14.63	6.17	2.60	1.10	0.46	0.20	0.08
150 155	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
155 160	194.26	79.89	32.86	13.51	5.56	2.29	0.94	0.39	0.16	0.07
160 165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	651.46	262.03	105.39	42.39	17.05	6.86	2.76	1.11	0.45	0.18
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
225 230	1613.11	592.17	217.38	79.80	29.29	10.75	3.95	1.45	0.53	0.20
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	1613.11	592.17	217.38	79.80	29.29	10.75	3.95	1.45	0.53	0.20
345 350	1236.31	509.02	209.75	86.50	35.71	14.75	6.10	2.52	1.05	0.43
350 355	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14
355 360	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20
<b>FIRST HARMONIC</b>										
AMPLITUDE	25062.15	10767.43	4771.58	2192.39	1049.29	524.89	274.86	150.60	86.14	51.25
PHASE	1.60	1.71	1.82	1.95	2.08	2.21	2.33	2.45	2.57	2.67
(IN HOURS)										
<b>SECOND HARMONIC</b>										
AMPLITUDE	17694.98	7570.00	3370.83	1573.52	773.55	400.79	218.24	124.25	73.53	44.99
PHASE	1.45	1.58	1.73	1.89	2.05	2.21	2.35	2.48	2.59	2.70
(IN HOURS)										
THE UPPER LIMIT FOR THIS CALCULATION IS 188.75 GV										

DULU											
GEOGRAPHIC LATITUDE = 65.00			GEOGRAPHIC LONGITUDE = 25.42								
ASY. LONG.	BETA	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	832.94	351.15	149.16	63.89	27.61	12.04	5.30	2.36	1.06	0.48	
10 15	389.40	162.18	67.56	28.14	11.73	4.89	2.04	0.85	0.35	0.15	
15 20	195.45	84.81	36.80	15.97	6.93	3.01	1.30	0.57	0.25	0.11	
20 25	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14	
25 30	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20	
30 35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
35 40	507.52	254.19	127.43	63.95	32.12	16.15	8.13	4.10	2.07	1.04	
40 45	3939.19	1672.08	714.80	308.10	134.08	58.99	26.28	11.87	5.44	2.54	
45 50	791.23	358.26	163.63	75.44	35.13	16.53	7.87	3.79	1.85	0.91	
50 55	1502.48	684.90	318.00	150.52	72.67	35.77	17.94	9.15	4.75	2.50	
55 60	520.34	252.05	166.61	96.44	56.55	33.53	20.06	12.10	7.35	4.48	
60 65	1457.33	803.97	451.35	257.33	148.72	86.99	51.42	30.69	18.47	11.26	
65 70	675.40	374.61	213.87	125.25	74.97	45.72	28.32	17.78	11.29	7.25	
70 75	2146.85	1006.28	487.82	246.11	129.88	71.89	41.72	25.29	15.92	10.34	
75 80	727.83	348.19	170.82	86.54	45.60	25.16	14.58	8.88	5.67	3.76	
80 85	776.78	390.40	197.82	101.34	52.68	27.94	15.22	8.57	5.03	3.09	
85 90	574.79	260.33	118.74	54.81	25.81	12.55	6.44	3.54	2.13	1.40	
90 95	1043.87	426.71	175.03	72.27	30.22	12.95	5.80	2.79	1.49	0.90	
95 100	144.58	75.95	39.91	20.97	11.02	5.80	3.05	1.61	0.86	0.46	
100 105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
105 110	181.48	89.13	43.77	21.50	10.56	5.19	2.55	1.25	0.61	0.30	
110 115	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	
115 120	185.59	86.89	40.78	19.22	9.14	4.42	2.41	1.16	0.66	0.42	
120 125	0.15	0.14	0.13	0.12	0.11	0.10	0.10	0.09	0.08	0.07	
125 130	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14	
130 135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
135 140	195.45	84.81	36.80	15.97	6.93	3.01	1.30	0.57	0.25	0.11	
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
145 150	195.14	82.29	34.70	14.63	6.17	2.60	1.10	0.46	0.20	0.08	
150 155	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
155 160	194.26	79.89	32.86	13.51	5.56	2.29	0.94	0.39	0.16	0.07	
160 165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
170 175	651.46	262.03	105.39	42.39	17.05	6.85	2.76	1.11	0.45	0.18	
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
265 270	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
345 350	1236.31	509.02	209.75	86.50	35.71	14.75	6.10	2.52	1.05	0.43	
350 355	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14	
355 360	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20	

## FIRST HARMONIC

AMPLITUDE	15998.81	7462.96	3568.15	1754.63	890.23	467.15	253.91	143.00	83.38	50.26
PHASE	2.10	2.15	2.20	2.27	2.33	2.40	2.48	2.55	2.63	2.71

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	9962.49	4803.75	2389.02	1227.82	652.66	358.73	203.64	119.19	71.78	44.39
PHASE	1.85	1.96	2.07	2.18	2.29	2.38	2.48	2.57	2.65	2.73

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 111.25 GV

GULU										
ASY. LONG.			LATITUDE = 65.00			GEOGRAPHIC LONGITUDE = 25.42				
BETA	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	181.48	89.13	43.77	21.50	10.56	5.19	2.55	1.25	0.61	0.30
10 15	195.14	82.29	34.70	14.63	6.17	2.60	1.10	0.46	0.20	0.08
15 20	195.45	84.81	36.80	15.97	6.93	3.01	1.30	0.57	0.25	0.11
20 25	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14
25 30	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20
30 35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35 40	507.52	254.19	127.43	63.95	32.12	16.15	8.13	4.10	2.07	1.04
40 45	1590.29	726.22	332.91	153.91	71.82	33.85	16.13	7.77	3.79	1.87
45 50	596.97	278.37	130.78	61.93	29.57	14.25	6.93	3.41	1.69	0.85
50 55	851.02	422.87	212.61	108.14	55.62	28.91	15.18	8.04	4.30	2.12
55 60	520.34	292.05	160.61	96.44	56.55	33.53	20.06	12.10	7.35	4.48
60 65	1263.07	724.08	418.49	243.81	143.16	84.70	50.48	30.30	18.31	11.14
65 70	675.40	374.61	213.87	125.25	74.97	45.72	28.32	17.78	11.29	7.25
70 75	1301.12	664.36	349.57	190.21	107.27	62.75	38.02	23.79	15.32	10.10
75 80	727.83	348.19	170.82	86.54	45.60	25.16	14.58	8.88	5.67	3.76
80 85	776.78	390.40	197.82	101.34	52.68	27.94	15.22	8.57	5.03	3.09
85 90	574.79	260.33	118.74	54.81	25.81	12.56	5.44	3.54	2.13	1.40
90 95	198.15	84.79	36.78	16.37	7.61	3.80	2.10	1.30	0.89	0.66
95 100	144.58	75.95	39.91	20.97	11.02	5.80	3.05	1.61	0.86	0.46
100 105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105 110	181.48	89.13	43.77	21.50	10.56	5.19	2.55	1.25	0.61	0.30
110 115	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04
115 120	185.59	86.89	40.78	19.22	9.14	4.42	2.21	1.16	0.66	0.42
120 125	0.15	0.14	0.13	0.12	0.11	0.10	0.10	0.09	0.08	0.07
125 130	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14
130 135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135 140	195.45	84.81	36.80	15.97	6.93	3.01	1.30	0.57	0.25	0.11
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145 150	195.14	82.29	34.70	14.63	6.17	2.60	1.10	0.46	0.20	0.08
150 155	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
155 160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160 165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345 350	390.59	167.10	71.50	30.60	13.10	5.61	2.40	1.03	0.44	0.19
350 355	189.21	84.89	38.09	17.09	7.67	3.44	1.54	0.69	0.31	0.14
355 360	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20
FIRST HARMONIC										
AMPLITUDE	10660.11	5307.37	2697.97	1401.44	748.53	410.00	230.87	133.72	79.64	48.75
PHASE	2.30	2.33	2.37	2.41	2.45	2.50	2.55	2.61	2.68	2.75
(IN HOURS)										
SECOND HARMONIC										
AMPLITUDE	7154.58	3703.30	1958.95	1060.14	587.41	333.38	193.81	115.38	70.31	43.82
PHASE	2.30	2.34	2.39	2.43	2.48	2.53	2.59	2.64	2.70	2.76
(IN HOURS)										
THE UPPER LIMIT FOR THIS CALCULATION IS 80.00 GV										

DULU											
		GEOGRAPHIC LATITUDE = 65.00			GEOGRAPHIC LONGITUDE = 25.42						
ASY. LONG.	BETA	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	181.48	89.13	43.77	21.50	10.56	5.19	2.55	1.25	0.61	0.30	
10 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15 20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
20 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
25 30	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20	
30 35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
35 40	507.52	254.19	127.43	63.95	32.12	16.15	8.13	4.10	2.07	1.04	
40 45	436.69	222.23	113.73	58.53	30.28	15.75	8.24	4.33	2.28	1.21	
45 50	401.82	196.08	96.08	47.29	23.40	11.65	5.83	2.94	1.50	0.77	
50 55	466.37	253.17	137.72	75.08	41.02	22.46	12.33	6.79	3.74	2.07	
55 60	520.34	292.05	166.61	96.44	56.55	33.53	20.06	12.10	7.35	4.48	
60 65	1263.07	724.08	418.49	243.81	143.16	84.70	50.48	30.30	18.31	11.14	
65 70	480.26	292.32	179.17	110.62	68.80	43.12	27.22	17.32	11.10	7.16	
70 75	910.53	497.26	278.07	159.61	94.17	57.14	35.62	22.77	14.88	9.91	
75 80	153.96	93.59	57.84	36.39	23.34	15.27	10.19	6.93	4.80	3.38	
80 85	776.78	390.40	197.82	101.34	52.68	27.94	15.22	8.57	5.03	3.09	
85 90	190.13	90.63	43.85	21.75	11.21	6.17	3.59	2.29	1.58	1.16	
90 95	3.01	2.50	2.08	1.73	1.44	1.20	1.00	0.83	0.69	0.58	
95 100	144.58	75.95	39.91	20.97	11.02	5.80	3.05	1.61	0.86	0.46	
100 105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
105 110	181.48	89.13	43.77	21.50	10.56	5.19	2.55	1.25	0.61	0.30	
110 115	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	
115 120	185.59	86.89	40.78	19.22	9.14	4.42	2.21	1.16	0.66	0.42	
120 125	0.15	0.14	0.13	0.12	0.11	0.10	0.10	0.09	0.08	0.07	
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
130 135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
135 140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
145 150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
150 155	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
155 160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
160 165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
265 270	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
355 360	185.12	86.46	40.38	18.86	8.81	4.11	1.92	0.90	0.42	0.20	
<b>FIRST HARMONIC</b>											
AMPLITUDE	6615.42	3549.04	1933.18	1070.63	603.64	346.89	203.38	121.73	74.42	46.47	
PHASE	2.44	2.46	2.48	2.51	2.54	2.58	2.62	2.66	2.72	2.78	
(IN HOURS)											
<b>SECOND HARMONIC</b>											
AMPLITUDE	5268.09	2885.92	1604.74	906.64	520.90	304.57	181.34	109.99	67.98	42.82	
PHASE	2.48	2.50	2.52	2.54	2.57	2.60	2.64	2.68	2.73	2.79	
(IN HOURS)											
THE UPPER LIMIT FOR THIS CALCULATION IS 50.00 GV											

DULU									
		GEOGRAPHIC LATITUDE = 65.00					GEOGRAPHIC LONGITUDE = 25.42		
ASY. LUNG.	BETA =	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2
0	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	40	144.56	75.94	39.89	20.96	11.01	5.78	3.04	1.60
40	45	251.56	135.77	73.35	39.67	21.48	11.64	6.31	3.43
45	50	35.22	20.49	11.92	6.94	4.04	2.35	1.37	0.79
50	55	466.37	253.17	137.72	75.08	41.02	22.46	12.33	6.79
55	60	335.22	205.59	126.23	77.58	47.74	29.41	18.14	11.20
60	65	1081.60	634.96	374.72	222.32	132.60	79.52	47.94	29.05
65	70	480.26	252.32	179.17	110.52	68.80	43.12	27.22	17.32
70	75	543.93	321.68	193.92	119.25	74.81	47.84	31.15	20.62
75	80	153.96	93.59	57.84	36.39	23.34	15.27	10.19	6.93
80	85	228.70	125.69	69.89	39.48	22.76	13.46	8.20	5.17
85	90	5.01	4.17	3.47	2.89	2.41	2.00	1.67	1.39
90	95	3.01	2.50	2.08	1.73	1.44	1.20	1.00	0.83
95	100	144.58	75.95	39.91	20.97	11.02	5.80	3.05	1.61
100	105	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105	110	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110	115	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04
115	120	0.46	0.43	0.39	0.36	0.34	0.31	0.29	0.26
120	125	0.15	0.14	0.13	0.12	0.11	0.10	0.10	0.09
125	130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130	135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135	140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140	145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145	150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150	155	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
155	160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160	165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165	170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170	175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175	180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185	190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190	195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195	200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200	205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205	210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210	215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215	220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220	225	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
225	230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230	235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235	240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240	245	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
245	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250	255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255	260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	270	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
270	275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	285	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
285	290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	295	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
295	300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320	325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330	335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335	340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340	345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350	355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355	360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FIRST HARMONIC									
AMPLITUDE		3780.15	2190.58	1281.94	758.26	453.73	274.92	165.81	105.12
PHASE		2.55	2.57	2.58	2.60	2.62	2.65	2.68	2.72
IN HOURS									
SECOND HARMONIC									
AMPLITUDE		3513.19	2043.97	1200.63	712.62	427.73	259.83	159.85	99.68
PHASE		2.55	2.56	2.58	2.60	2.62	2.65	2.68	2.72
IN HOURS									
THE UPPER LIMIT FOR THIS CALCULATION IS 29.00 GV									

PIC DU MINI										
GEOGRAPHIC LATITUDE = 42.93			GEOGRAPHIC LONGITUDE = 0.25							
ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	7792.34	2452.45	776.15	247.24	79.37	25.71	8.42	2.79	0.94	0.32
5 10	12758.09	4046.58	1289.04	412.71	132.94	43.13	14.12	4.67	1.56	0.53
10 15	15240.26	5224.41	1813.71	638.89	229.08	84.05	31.83	12.60	5.30	2.42
15 20	5083.30	2007.24	795.63	316.61	126.51	50.76	20.45	8.28	3.37	1.38
20 25	1823.90	763.81	320.38	134.60	56.64	23.87	10.08	4.26	1.81	0.77
25 30	9074.62	3038.81	1044.90	370.70	136.20	51.93	20.54	8.41	3.55	1.53
30 35	2613.23	1037.19	418.19	171.64	71.84	30.71	13.41	5.98	2.72	1.26
35 40	2036.64	870.99	376.12	164.15	72.46	32.37	14.64	6.70	3.11	1.46
40 45	1405.27	646.40	299.92	140.39	66.30	31.58	15.18	7.35	3.59	1.77
45 50	8375.99	2732.40	911.85	313.73	112.29	42.19	16.75	7.05	3.13	1.46
50 55	2837.23	1170.56	495.66	215.92	96.89	44.77	21.27	10.36	5.16	2.62
55 60	1753.71	763.94	337.42	151.44	69.22	32.28	15.38	7.49	3.73	1.90
60 65	1411.00	686.90	337.97	168.14	84.60	43.05	22.15	11.53	6.06	3.22
65 70	783.99	393.15	198.39	100.80	51.59	26.62	13.85	7.27	3.85	2.06
70 75	463.34	257.70	143.71	80.36	45.06	25.34	14.29	8.08	4.59	2.61
75 80	378.91	213.44	120.73	68.57	39.11	22.40	12.88	7.43	4.31	2.51
80 85	137.71	82.03	48.92	29.21	17.46	10.45	5.26	3.76	2.26	1.36
85 90	181.91	106.83	62.89	37.12	21.96	13.02	7.74	4.61	2.75	1.64
90 95	246.68	152.36	94.28	58.45	36.30	22.58	14.07	8.78	5.49	3.44
95 100	22.89	14.59	9.30	5.93	3.78	2.41	1.54	0.98	0.62	0.40
100 105	152.26	95.10	59.53	37.34	23.47	14.78	9.32	5.89	3.73	2.37
105 110	90.65	57.36	36.38	23.12	14.72	9.39	6.01	3.85	2.47	1.59
110 115	143.99	93.67	61.00	39.78	25.97	16.97	11.11	7.28	4.77	3.13
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120 125	57.96	37.74	24.58	16.02	10.44	6.81	4.44	2.90	1.89	1.24
125 130	52.76	35.61	24.04	16.23	10.96	7.40	5.00	3.38	2.28	1.54
130 135	17.69	11.53	7.51	4.90	3.19	2.08	1.36	0.88	0.58	0.38
135 140	35.39	24.00	16.28	11.05	7.50	5.09	3.45	2.35	1.59	1.08
140 145	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
145 150	35.35	24.72	17.29	12.09	8.46	5.92	4.15	2.90	2.04	1.43
150 155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155 160	17.37	11.61	7.76	5.19	3.47	2.32	1.55	1.03	0.69	0.46
160 165	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175 180	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
180 185	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	7572.77	2359.86	737.11	230.78	72.42	22.78	7.18	2.27	0.72	0.23
330 335	1805.53	662.81	243.31	89.32	32.79	12.04	4.42	1.62	0.60	0.22
335 340	950.49	384.30	155.39	62.84	25.41	10.28	4.16	1.68	0.68	0.28
340 345	5561.32	1735.36	548.19	175.90	57.55	19.27	6.63	2.35	0.86	0.32
345 350	7790.00	2457.33	780.84	250.40	81.23	26.73	8.95	3.06	1.08	0.39
350 355	1805.53	662.81	243.31	89.32	32.79	12.04	4.42	1.62	0.60	0.22
355 360	6214.04	2061.36	696.22	239.94	84.54	30.50	11.28	4.27	1.66	0.66
<b>FIRST HARMONIC</b>										
AMPLITUDE	96002.893	3102.701	11740.36	4314.43	1658.62	674.81	293.91	137.98	69.69	37.48
PHASE	0.81	0.98	1.21	1.53	1.94	2.45	3.06	3.71	4.35	4.93
<b>(IN HOURS)</b>										
<b>SECOND HARMONIC</b>										
AMPLITUDE	71132.662	3756.71	8045.19	2767.70	970.81	350.28	132.73	54.90	25.83	13.85
PHASE	0.71	0.84	1.02	1.25	1.56	1.97	2.52	3.22	3.99	4.73
<b>(IN HOURS)</b>										
THE UPPER LIMIT FOR THIS CALCULATION IS 500.00 GV										

PIC DU MINI										
GEOGRAPHIC LATITUDE = 42.93					GEOGRAPHIC LONGITUDE = 0.25					
ASY. LONG./BETA:	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	219.58	92.59	39.04	16.46	6.94	2.93	1.23	0.52	0.22	0.09
5 10	218.30	94.73	41.11	17.84	7.74	3.36	1.46	0.63	0.27	0.12
10 15	7667.50	2864.55	1076.60	408.11	156.66	61.27	24.65	10.33	4.59	2.19
15 20	5083.30	2007.24	795.63	316.61	126.51	50.76	20.45	8.28	3.37	1.38
20 25	1823.90	763.81	320.38	134.60	56.64	23.87	10.08	4.26	1.81	0.77
25 30	1501.85	678.95	307.79	139.92	63.78	29.15	13.36	6.14	2.83	1.30
30 35	2613.23	1037.19	418.19	171.64	71.84	30.71	13.41	5.98	2.72	1.26
35 40	2036.64	870.99	376.12	164.15	72.46	32.37	14.64	6.70	3.11	1.46
40 45	1405.27	646.40	299.92	140.39	66.30	31.58	15.18	7.35	3.59	1.77
45 50	803.23	372.53	174.74	82.95	39.87	19.41	9.57	4.78	2.41	1.23
50 55	2837.23	1170.56	495.66	215.92	96.89	44.77	21.27	10.36	5.16	2.62
55 60	1753.71	763.94	337.42	151.44	69.22	32.28	15.38	7.49	3.73	1.90
60 65	1411.00	686.90	337.97	168.14	84.60	43.05	22.15	11.53	6.06	3.22
65 70	783.99	393.15	198.39	100.80	51.59	26.62	13.85	7.27	3.85	2.06
70 75	463.34	257.70	143.71	80.36	45.06	25.34	14.29	8.08	4.59	2.61
75 80	378.91	213.44	120.73	68.57	39.11	22.40	12.88	7.43	4.31	2.51
80 85	137.71	82.03	48.92	29.21	17.46	10.45	6.26	3.76	2.26	1.36
85 90	181.91	106.83	62.89	37.12	21.96	13.02	7.74	4.61	2.75	1.64
90 95	246.68	152.36	94.28	58.45	36.30	22.58	14.07	8.78	5.49	3.44
95 100	22.89	14.59	9.30	5.93	3.78	2.41	1.54	0.98	0.62	0.40
100 105	152.26	95.10	59.53	37.34	23.47	14.78	9.32	5.89	3.73	2.37
105 110	90.65	57.36	36.38	23.12	14.72	9.39	6.01	3.85	2.47	1.59
110 115	143.99	93.67	61.00	39.78	25.97	16.97	11.11	7.28	4.77	3.13
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120 125	57.96	37.74	24.58	16.02	10.44	6.81	4.44	2.90	1.89	1.24
125 130	52.76	35.61	24.04	16.23	10.96	7.40	5.00	3.38	2.28	1.54
130 135	17.69	11.53	7.51	4.90	3.19	2.08	1.36	0.88	0.58	0.38
135 140	35.39	24.00	16.28	11.05	7.50	5.09	3.45	2.35	1.59	1.08
140 145	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
145 150	35.35	24.72	17.29	12.09	8.46	5.92	4.15	2.90	2.04	1.43
150 155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155 160	17.37	11.61	7.76	5.19	3.47	2.32	1.55	1.03	0.69	0.46
160 165	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175 180	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
180 185	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	1805.53	662.81	243.31	89.32	32.79	12.04	4.42	1.62	0.60	0.22
335 340	950.49	384.30	155.39	62.84	25.41	10.28	4.16	1.68	0.68	0.28
340 345	437.88	187.32	80.15	34.30	14.68	6.29	2.69	1.15	0.49	0.21
345 350	217.23	97.47	43.73	19.62	8.80	3.95	1.77	0.80	0.36	0.16
350 355	1805.53	662.81	243.31	89.32	32.79	12.04	4.42	1.62	0.60	0.22
355 360	1158.97	481.67	200.87	84.08	35.33	14.91	6.32	2.69	1.15	0.50
<b>FIRST HARMONIC</b>										
AMPLITUDE	34163.891	4065.25	5910.92	2547.56	1132.39	522.31	251.39	126.70	66.87	36.83
PHASE	1.71	1.89	2.13	2.42	2.78	3.19	3.65	4.15	4.64	5.12
(IN HOURS)										
<b>SECOND HARMONIC</b>										
AMPLITUDE	24509.35	9739.16	3908.87	1588.30	656.04	277.45	121.60	56.20	27.86	14.93
PHASE	1.61	1.75	1.94	2.16	2.45	2.80	3.23	3.74	4.31	4.88
(IN HOURS)										
THE UPPER LIMIT FOR THIS CALCULATION IS 188.75 GV										

PIC DU MIDI											
GEOGRAPHIC LATITUDE = 42.93 GEOGRAPHIC LONGITUDE = 0.25											
ASY.LONG./BETA	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2	
0 5	219.58	92.59	39.04	16.46	6.94	2.93	1.23	0.52	0.22	0.09	
5 10	218.30	94.73	41.11	17.84	7.74	3.36	1.46	0.63	0.27	0.12	
10 15	445.38	213.33	103.34	50.83	25.50	13.13	6.97	3.84	2.20	1.32	
15 20	3277.77	1344.43	552.31	227.29	93.72	38.72	16.04	6.66	2.77	1.16	
20 25	1823.90	763.81	320.38	134.60	56.64	23.87	10.08	4.26	1.81	0.77	
25 30	1501.85	678.95	307.79	139.92	63.78	29.15	13.36	6.14	2.83	1.30	
30 35	807.70	374.38	174.88	82.32	39.05	18.67	8.99	4.36	2.13	1.05	
35 40	2036.64	870.99	376.12	164.15	72.46	32.37	14.64	6.70	3.11	1.46	
40 45	1405.27	646.40	299.92	140.39	66.30	31.58	15.18	7.35	3.59	1.77	
45 50	803.23	372.53	174.74	82.95	39.87	19.41	9.57	4.78	2.41	1.23	
50 55	1031.70	507.75	252.34	126.60	64.10	32.73	16.85	8.74	4.57	2.40	
55 60	1753.71	763.94	337.42	151.44	69.22	32.28	15.38	7.49	3.73	1.90	
60 65	1411.00	686.90	337.97	168.14	84.60	43.05	22.15	11.53	6.06	3.22	
65 70	783.99	393.15	198.39	100.80	51.59	26.62	13.85	7.27	3.85	2.06	
70 75	463.34	257.70	143.71	80.36	45.06	25.34	14.29	8.08	4.59	2.61	
75 80	378.91	213.44	120.73	68.57	39.11	22.40	12.88	7.43	4.31	2.51	
80 85	137.71	82.03	48.92	29.21	17.46	10.45	6.26	3.76	2.26	1.36	
85 90	181.91	106.83	62.89	37.12	21.96	13.02	7.74	4.61	2.75	1.64	
90 95	246.68	152.36	94.28	58.45	36.30	22.58	14.07	8.78	5.49	3.44	
95 100	22.89	14.59	9.30	5.93	3.78	2.41	1.54	0.98	0.62	0.40	
100 105	152.26	95.10	59.53	37.34	23.47	14.78	9.32	5.89	3.73	2.37	
105 110	90.65	57.36	36.38	23.12	14.72	9.39	6.01	3.85	2.47	1.59	
110 115	143.99	93.67	61.00	39.78	25.97	16.97	11.11	7.28	4.77	3.13	
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
120 125	57.96	37.74	24.58	16.02	10.44	6.81	4.44	2.90	1.89	1.24	
125 130	52.76	35.61	24.04	16.23	10.96	7.40	5.00	3.38	2.28	1.54	
130 135	17.67	11.53	7.51	4.90	3.19	2.08	1.36	0.88	0.58	0.38	
135 140	35.39	24.00	16.28	11.05	7.50	5.09	3.45	2.35	1.59	1.08	
140 145	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62	
145 150	35.35	24.72	17.29	12.09	8.46	5.92	4.15	2.90	2.04	1.43	
150 155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
155 160	17.37	11.61	7.76	5.19	3.47	2.32	1.55	1.03	0.69	0.46	
160 165	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62	
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
175 180	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62	
180 185	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81	
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	950.49	384.30	155.39	62.84	25.41	10.28	4.16	1.68	0.68	0.28	
340 345	437.88	187.32	80.15	34.30	14.68	6.29	2.69	1.15	0.49	0.21	
345 350	217.23	97.47	43.73	19.62	8.80	3.95	1.77	0.80	0.36	0.16	
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
355 360	1158.97	481.67	200.87	84.08	35.33	14.91	6.32	2.69	1.15	0.50	

## FIRST HARMONIC

AMPLITUDE	19598.68	8806.47	4026.80	1880.03	899.59	442.84	224.99	118.22	64.25	36.05
PHASE	2.35	2.34	2.76	3.03	3.34	3.69	4.08	4.48	4.89	5.29

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	13754.51	5989.33	2632.71	1170.77	528.48	243.37	115.17	56.53	29.06	15.74
PHASE	2.27	2.42	2.59	2.80	3.06	3.36	3.72	4.12	4.57	5.04

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 111.25 GV

PIC DU MIDI										
GEOGRAPHIC LATITUDE = 42.93			GEOGRAPHIC LONGITUDE = 0.25							
ASY. LONG./BETA	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	219.58	92.59	39.04	16.46	6.94	2.93	1.23	0.52	0.22	0.09
5 10	218.30	94.73	41.11	17.84	7.74	3.36	1.46	0.63	0.27	0.12
10 15	445.38	213.33	103.34	50.83	25.50	13.13	6.97	3.84	2.20	1.32
15 20	647.64	282.55	123.57	54.17	23.81	10.49	4.63	2.05	0.91	0.41
20 25	873.42	379.51	164.98	71.76	31.23	13.59	5.92	2.58	1.13	0.49
25 30	1280.53	587.93	270.36	124.53	57.45	26.55	12.29	5.70	2.65	1.23
30 35	807.70	374.38	174.88	82.32	39.05	18.67	8.99	4.36	2.13	1.05
35 40	578.30	284.43	140.20	69.26	34.29	17.02	8.46	4.22	2.11	1.06
40 45	1183.95	555.38	262.49	124.99	59.97	28.98	14.10	6.91	3.41	1.69
45 50	581.91	281.52	137.31	67.55	33.54	16.80	8.50	4.34	2.23	1.16
50 55	1031.70	507.75	252.34	126.60	64.10	32.73	16.85	8.74	4.57	2.40
55 60	803.22	379.64	182.02	88.60	43.81	22.00	11.22	5.81	3.05	1.62
60 65	1411.00	686.90	337.97	168.14	84.60	43.05	22.15	11.53	6.06	3.22
65 70	783.99	393.15	196.39	100.80	51.59	26.62	13.85	7.27	3.85	2.06
70 75	463.34	257.70	143.71	80.36	45.06	25.34	14.29	8.08	4.59	2.61
75 80	378.91	213.44	120.73	68.57	39.11	22.40	12.88	7.43	4.31	2.51
80 85	137.71	82.03	48.92	29.21	17.46	10.45	6.26	3.76	2.26	1.36
85 90	181.91	106.83	62.89	37.12	21.96	13.02	7.74	4.61	2.75	1.64
90 95	246.68	152.36	94.28	58.45	36.30	22.58	14.07	8.78	5.49	3.44
95 100	22.89	14.59	9.30	5.93	3.78	2.41	1.54	0.98	0.62	0.40
100 105	152.26	65.10	50.53	37.34	23.47	14.79	9.32	5.89	3.73	2.37
105 110	90.65	57.36	36.38	23.12	14.72	9.39	6.01	3.85	2.47	1.59
110 115	143.99	93.67	61.00	39.78	25.97	16.97	11.11	7.28	4.77	3.13
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120 125	57.96	37.74	24.58	16.02	10.44	6.81	4.44	2.90	1.89	1.24
125 130	52.76	35.61	24.04	16.23	10.96	7.40	5.00	3.38	2.28	1.54
130 135	17.69	11.53	7.51	4.90	3.19	2.08	1.36	0.88	0.58	0.38
135 140	35.39	24.00	16.28	11.05	7.50	5.09	3.45	2.35	1.59	1.08
140 145	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
145 150	35.35	24.72	17.29	12.09	8.46	5.92	4.15	2.90	2.04	1.43
150 155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155 160	17.37	11.61	7.76	5.19	3.47	2.32	1.55	1.03	0.69	0.46
160 165	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175 180	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
180 185	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	437.88	187.32	80.15	34.30	14.68	6.29	2.69	1.15	0.49	0.21
345 350	217.23	97.47	43.73	19.62	8.80	3.95	1.77	0.80	0.36	0.16
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355 360	208.48	97.37	45.48	21.24	9.92	4.63	2.16	1.01	0.47	0.22

## FIRST HARMONIC

AMPLITUDE	12060.53	5812.38	2845.56	1418.24	721.21	374.96	199.63	108.94	60.93	34.89
PHASE	2.97	3.15	3.37	3.61	3.88	4.18	4.50	4.84	5.17	5.51

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	8444.07	3957.81	1872.85	896.21	434.66	214.33	107.89	55.73	29.69	16.38
PHASE	2.88	3.02	3.19	3.39	3.62	3.88	4.17	4.50	4.86	5.24

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 80.00 GV

PIC DU MIDI										
GEOGRAPHIC LATITUDE = 42.93 GEOGRAPHIC LONGITUDE = 0.25										
ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.1
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 15	228.14	115.86	59.61	31.21	16.70	9.18	5.20	3.05	1.85	1.16
15 20	208.48	97.37	45.48	21.24	9.92	4.63	2.16	1.01	0.47	0.22
20 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 30	627.77	298.27	141.80	67.45	32.10	15.29	7.29	3.47	1.66	0.79
30 35	369.82	187.06	94.73	48.02	24.37	12.38	6.30	3.21	1.64	0.83
35 40	578.30	284.43	140.20	69.26	34.29	17.02	8.46	4.22	2.11	1.06
40 45	528.84	270.59	138.61	71.07	36.48	18.74	9.64	4.96	2.56	1.32
45 50	364.68	184.05	93.58	47.93	24.73	12.85	6.73	3.54	1.88	1.00
50 55	812.12	415.16	213.30	110.14	57.15	29.80	15.62	8.22	4.35	2.31
55 60	365.34	192.32	101.87	54.30	29.12	15.72	8.53	4.66	2.56	1.41
60 65	758.24	397.24	209.40	111.06	59.25	31.79	17.15	9.30	5.07	2.78
65 70	783.99	393.15	198.39	100.80	51.59	26.62	13.85	7.27	3.85	2.06
70 75	463.34	257.70	143.71	80.36	45.06	25.34	14.29	8.08	4.59	2.61
75 80	378.91	213.44	120.73	68.57	39.11	22.40	12.88	7.43	4.31	2.51
80 85	137.71	82.03	48.92	29.21	17.46	10.45	6.26	3.76	2.26	1.36
85 90	181.91	106.83	62.89	37.12	21.96	13.02	7.74	4.61	2.75	1.64
90 95	246.68	152.36	94.28	58.45	36.30	22.58	14.07	8.78	5.49	3.44
95 100	22.89	14.59	9.30	5.93	3.78	2.41	1.54	0.98	0.62	0.40
100 105	152.26	95.10	59.53	37.34	23.47	14.78	9.32	5.89	3.73	2.37
105 110	90.65	57.36	36.38	23.12	14.72	9.39	6.01	3.85	2.47	1.59
110 115	143.99	93.67	61.00	39.78	25.97	16.97	11.11	7.28	4.77	3.13
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120 125	57.96	37.74	24.58	16.02	10.44	6.81	4.44	2.90	1.89	1.24
125 130	52.76	35.61	24.04	16.23	10.96	7.40	5.00	3.38	2.28	1.54
130 135	17.69	11.53	7.51	4.90	3.19	2.08	1.36	0.88	0.58	0.38
135 140	35.39	24.00	16.28	11.05	7.50	5.09	3.45	2.35	1.59	1.08
140 145	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
145 150	35.35	24.72	17.29	12.09	8.46	5.92	4.15	2.90	2.04	1.43
150 155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155 160	17.37	11.61	7.76	5.19	3.47	2.32	1.55	1.03	0.69	0.46
160 165	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175 180	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
180 185	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355 360	208.48	97.37	45.48	21.24	9.92	4.63	2.16	1.01	0.47	0.22
FIRST HARMONIC										
AMPLITUDE	6978.15	3644.42	1925.37	1030.14	558.81	307.65	172.03	97.76	56.46	33.13
PHASE	3.78	3.94	4.12	4.32	4.53	4.77	5.01	5.27	5.53	5.79
(IN HOURS)										
SECOND HARMONIC										
AMPLITUDE	5060.44	2571.67	1315.93	678.72	353.33	185.99	99.23	53.81	29.76	16.83
PHASE	3.63	3.75	3.90	4.06	4.24	4.45	4.68	4.94	5.22	5.51
(IN HOURS)										
THE UPPER LIMIT FOR THIS CALCULATION IS 50.00 GV										

PIC DU MIDI										
GEOGRAPHIC LATITUDE = 42.93 GEOGRAPHIC LONGITUDE = 0.25										
ASY. LONG./BETA	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 15	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
15 20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30 35	159.02	83.53	43.88	23.05	12.11	6.36	3.34	1.76	0.92	0.48
35 40	159.02	83.53	43.88	23.05	12.11	6.36	3.34	1.76	0.92	0.48
40 45	318.03	167.06	87.76	46.10	24.22	12.72	6.68	3.51	1.84	0.97
45 50	156.20	86.68	48.10	26.69	14.81	8.22	4.56	2.53	1.40	0.78
50 55	392.84	214.26	116.98	63.93	34.97	19.15	10.49	5.76	3.16	1.74
55 60	154.53	88.79	51.03	29.33	16.86	9.69	5.57	3.21	1.84	1.06
60 65	549.76	299.87	163.93	89.82	49.33	27.16	14.99	8.29	4.60	2.56
65 70	153.90	88.72	51.22	29.61	17.15	9.94	5.77	3.36	1.95	1.14
70 75	463.34	257.70	143.71	80.36	45.06	25.34	14.29	8.08	4.59	2.61
75 80	378.91	213.44	120.73	68.57	39.11	22.40	12.88	7.43	4.31	2.51
80 85	137.71	82.03	48.92	29.21	17.46	10.45	6.26	3.76	2.26	1.36
85 90	181.91	106.83	62.89	37.12	21.96	13.02	7.74	4.61	2.75	1.64
90 95	246.68	152.36	94.28	58.45	36.30	22.58	14.07	8.78	5.49	3.44
95 100	22.89	14.59	9.30	5.93	3.78	2.41	1.54	0.98	0.62	0.40
100 105	152.26	95.10	59.53	37.34	23.47	14.78	9.32	5.89	3.73	2.37
105 110	90.65	57.36	36.38	23.12	14.72	9.39	6.01	3.85	2.47	1.59
110 115	143.99	93.67	61.00	39.78	25.97	16.97	11.11	7.28	4.77	3.13
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120 125	57.96	37.74	24.58	16.02	10.44	6.81	4.44	2.90	1.89	1.24
125 130	52.76	35.61	24.04	16.23	10.96	7.40	5.00	3.38	2.28	1.54
130 135	17.69	11.53	7.51	4.90	3.19	2.08	1.36	0.88	0.58	0.38
135 140	35.39	24.00	16.28	11.05	7.50	5.09	3.45	2.35	1.59	1.08
140 145	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
145 150	35.35	24.72	17.29	12.09	8.46	5.92	4.15	2.90	2.04	1.43
150 155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155 160	17.37	11.61	7.76	5.19	3.47	2.32	1.55	1.03	0.69	0.46
160 165	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175 180	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
180 185	18.01	12.39	8.52	5.86	4.03	2.77	1.91	1.31	0.90	0.62
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
355 360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

## FIRST HARMONIC

AMPLITUDE	3685.34	2092.78	1196.45	688.99	399.83	233.93	138.03	82.17	49.35	29.91
PHASE	4.79	4.91	5.05	5.19	5.35	5.51	5.69	5.86	6.05	6.23

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	2738.89	1515.84	842.40	470.38	264.11	149.27	85.03	48.88	28.40	16.71
PHASE	4.58	4.68	4.79	4.92	5.06	5.21	5.38	5.57	5.76	5.98

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 29.00 GV

ROME											
GEOGRAPHIC LATITUDE = 41.90				GEOGRAPHIC LONGITUDE = 12.52							
ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2	
0 5	4973.82	1685.20	577.64	200.51	70.56	25.19	9.13	3.36	1.26	0.48	
5 10	790.84	318.08	127.94	51.46	20.70	8.32	3.35	1.35	0.54	0.22	
10 15	9124.39	2927.08	950.78	313.64	105.43	36.24	12.78	4.64	1.74	0.67	
15 20	14305.25	4490.15	1416.67	449.65	143.72	46.32	15.08	4.96	1.66	0.56	
20 25	18289.54	6035.79	2012.16	678.75	232.14	80.69	28.59	10.35	3.84	1.47	
25 30	6890.26	2579.63	968.64	364.98	138.08	52.48	20.06	7.71	2.99	1.17	
30 35	3000.19	1229.87	504.46	207.04	85.03	34.94	14.37	5.91	2.43	1.00	
35 40	8359.19	2867.08	1015.95	372.77	141.67	55.67	22.55	9.37	3.98	1.72	
40 45	3797.35	1406.59	536.68	211.62	86.38	36.48	15.91	7.14	3.28	1.54	
45 50	2640.53	1034.97	410.72	165.25	67.48	27.99	11.80	5.05	2.20	0.97	
50 55	2635.06	1120.47	480.97	208.70	91.66	40.80	18.42	8.44	3.93	1.85	
55 60	4339.92	1519.62	562.32	220.63	91.58	39.94	18.14	8.50	4.08	1.99	
60 65	8045.89	2757.93	960.90	341.83	124.85	47.12	18.49	7.59	3.27	1.48	
65 70	2138.49	971.74	448.72	210.69	100.60	48.83	24.09	12.06	6.12	3.15	
70 75	1283.00	598.79	282.51	134.85	65.16	31.88	15.80	7.93	4.03	2.07	
75 80	797.05	402.32	204.84	105.24	54.58	28.57	15.10	8.05	4.33	2.35	
80 85	787.18	406.53	210.84	109.84	57.50	30.25	15.99	8.50	4.54	2.44	
85 90	336.57	192.62	110.40	63.37	36.44	20.98	12.10	6.99	4.05	2.35	
90 95	348.91	192.53	106.52	59.09	32.86	18.33	10.25	5.74	3.23	1.82	
95 100	120.86	72.36	43.35	25.99	15.59	9.36	5.62	3.38	2.03	1.22	
100 105	187.50	113.19	68.39	41.36	25.03	15.17	9.20	5.58	3.39	2.06	
105 110	121.41	69.66	40.07	23.11	13.37	7.75	4.51	2.63	1.54	0.90	
110 115	206.02	125.29	76.32	46.56	28.45	17.41	10.67	6.55	4.03	2.48	
115 120	71.67	45.55	28.97	18.43	11.74	7.48	4.77	3.04	1.94	1.24	
120 125	91.01	55.64	34.08	20.92	12.87	7.93	4.90	3.03	1.88	1.17	
125 130	101.88	64.55	40.91	25.94	16.45	10.44	6.62	4.21	2.67	1.70	
130 135	93.61	59.30	37.67	23.99	15.31	9.80	6.29	4.04	2.61	1.68	
135 140	18.04	11.76	7.66	5.00	3.26	2.12	1.38	0.90	0.59	0.38	
140 145	95.80	60.93	38.77	24.68	15.72	10.02	6.39	4.08	2.60	1.66	
145 150	33.06	22.09	14.77	9.87	6.60	4.41	2.95	1.97	1.32	0.88	
150 155	44.57	29.44	19.47	12.90	8.56	5.69	3.78	2.52	1.68	1.17	
155 160	18.04	11.76	7.66	5.00	3.26	2.12	1.38	0.90	0.59	0.38	
160 165	16.53	11.05	7.38	4.93	3.30	2.20	1.47	0.98	0.66	0.44	
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
170 175	34.57	22.81	15.05	9.93	6.55	4.33	2.86	1.89	1.25	0.82	
175 180	16.53	11.05	7.38	4.93	3.30	2.20	1.47	0.98	0.66	0.44	
180 185	20.45	14.06	9.67	6.65	4.57	3.15	2.16	1.49	1.02	0.70	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14	
195 200	20.45	14.06	9.67	6.65	4.57	3.15	2.16	1.49	1.02	0.70	
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
245 250	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14	
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	2930.80	863.66	254.51	75.00	22.10	6.51	1.92	0.57	0.17	0.05	
340 345	5496.14	1761.58	565.25	181.58	58.40	18.80	6.06	1.96	0.63	0.20	
345 350	1958.23	718.86	263.89	96.87	35.56	13.05	4.79	1.76	0.65	0.24	
350 355	1263.55	514.96	209.95	85.62	34.93	14.26	5.82	2.38	0.97	0.40	
355 360	11595.00	3591.86	1118.94	350.96	111.01	35.48	11.48	3.77	1.26	0.43	
FIRST HARMONIC											
AMPLITUDE	105684.47	36287.14	12793.00	4660.38	1768.70	706.41	300.16	136.80	66.97	34.97	
PHASE	0.80	0.97	1.19	1.49	1.89	2.39	2.99	3.66	4.34	5.00	
(IN HOURS)											
SECOND HARMONIC											
AMPLITUDE	79053.14	26357.18	8914.14	3064.38	1074.51	987.07	145.37	58.42	25.92	12.85	
PHASE	0.70	0.82	0.98	1.20	1.48	1.85	2.32	2.92	3.60	4.30	
(IN HOURS)											
THE UPPER LIMIT FOR THIS CALCULATION IS 500.00 GV											

## ROME

GEOGRAPHIC LATITUDE = 41.90 GEOGRAPHIC LONGITUDE = 12.52  
 ASY.LONG./BETA= +1.6 +1.4 +1.2 +1.0 +0.8 +0.6 +0.4 +0.2 0.0 -0.2

	2187.92	821.92	310.13	117.62	44.87	17.23	6.67	2.60	1.02	0.41
0 5	790.84	318.08	127.94	51.46	20.70	8.32	3.35	1.35	0.54	0.22
5 10	697.45	301.84	131.03	57.06	24.93	10.93	4.81	2.12	0.94	0.42
10 15	237.26	102.96	44.68	19.39	8.41	3.65	1.58	0.69	0.30	0.13
15 20	4366.45	1648.97	627.16	240.59	93.25	36.58	14.55	5.88	2.41	1.01
20 25	6890.26	2579.63	968.64	364.98	138.08	52.48	20.06	7.71	2.99	1.17
25 30	3000.19	1229.87	504.46	207.04	85.03	34.94	14.37	5.91	2.43	1.00
30 35	2642.49	1140.14	493.93	214.88	93.88	41.20	18.16	8.04	3.58	1.60
35 40	1087.11	508.29	238.94	112.94	53.67	25.64	12.32	5.95	2.89	1.41
40 45	2640.53	1034.97	410.72	165.25	67.48	27.99	11.80	5.05	2.20	0.97
45 50	2635.06	1120.47	480.97	208.70	91.66	40.80	18.42	8.44	3.93	1.85
50 55	1409.12	655.96	307.81	145.63	69.48	33.43	16.22	7.93	3.91	1.94
55 60	2549.75	996.35	395.66	160.25	66.45	28.32	12.43	5.64	2.64	1.27
60 65	2138.49	971.74	448.72	210.69	100.60	48.83	24.09	12.06	6.12	3.15
65 70	1283.00	598.79	282.51	134.85	65.16	31.88	15.80	7.93	4.03	2.07
70 75	797.05	402.32	204.84	105.24	54.58	28.57	15.10	8.05	4.33	2.35
75 80	787.18	406.53	210.84	109.84	57.50	30.25	15.99	8.50	4.54	2.44
80 85	336.57	192.62	110.40	63.37	36.44	20.98	12.10	6.99	4.05	2.35
85 90	348.91	192.53	106.52	59.09	32.86	18.33	10.25	5.74	3.23	1.82
90 95	120.86	72.36	43.35	25.99	15.59	9.36	5.62	3.38	2.03	1.22
100 105	187.50	113.19	68.39	41.36	25.03	15.17	9.20	5.58	3.39	2.06
105 110	121.41	69.66	40.07	23.11	13.37	7.75	4.51	2.63	1.54	0.90
110 115	206.02	125.29	76.32	46.56	28.45	17.41	10.67	6.55	4.03	2.48
115 120	71.67	45.55	28.97	18.43	11.74	7.48	4.77	3.04	1.94	1.24
120 125	91.01	55.64	34.08	20.92	12.87	7.93	4.90	3.03	1.88	1.17
125 130	101.88	64.55	40.91	25.94	16.45	10.44	6.62	4.21	2.67	1.70
130 135	93.61	59.30	37.67	23.99	15.31	9.80	6.29	4.04	2.61	1.68
135 140	18.04	11.76	7.66	5.00	3.26	2.12	1.38	0.90	0.59	0.38
140 145	95.80	60.93	38.77	24.68	15.72	10.02	6.39	4.08	2.60	1.66
145 150	33.06	22.09	14.77	9.87	6.60	4.41	2.95	1.97	1.32	0.88
150 155	44.57	29.44	19.47	12.90	8.56	5.69	3.78	2.52	1.68	1.12
155 160	18.04	11.76	7.66	5.00	3.26	2.12	1.38	0.90	0.59	0.38
160 165	16.53	11.05	7.38	4.93	3.30	2.20	1.47	0.98	0.66	0.44
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	34.57	22.81	15.05	9.93	6.55	4.33	2.86	1.89	1.25	0.82
175 180	16.53	11.05	7.38	4.93	3.30	2.20	1.47	0.98	0.66	0.44
180 185	20.45	14.06	9.67	6.65	4.57	3.15	2.16	1.49	1.02	0.70
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14
195 200	20.45	14.06	9.67	6.65	4.57	3.15	2.16	1.49	1.02	0.70
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345 350	1958.23	718.86	263.89	96.87	35.56	13.05	4.79	1.76	0.65	0.24
350 355	1263.55	514.96	209.95	85.82	34.93	14.26	5.82	2.38	0.97	0.40
355 360	237.26	102.96	44.68	19.39	8.41	3.65	1.58	0.69	0.30	0.13

## FIRST HARMONIC

AMPLITUDE	36702.8215045.22	6283.39	2684.12	1178.46	534.72	252.13	124.08	63.84	34.28	
PHASE	1.70	1.88	2.12	2.40	2.75	3.17	3.64	4.15	4.69	5.27

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	26525.7710526.42	4217.22	1709.08	702.89	294.95	127.37	57.29	27.20	13.75	
PHASE	1.59	1.72	1.89	2.10	2.35	2.66	3.04	3.48	3.98	4.50

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 188.75 GV

ROME											
GEOGRAPHIC LATITUDE = 41.90			GEOGRAPHIC LONGITUDE = 12.52								
ASY.LONG./BETA=		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	229.69	103.05	46.24	20.75	9.31	4.18	1.87	0.84	0.38	0.17	
5 10	790.84	318.08	127.94	51.46	20.70	8.32	3.35	1.35	0.54	0.22	
10 15	697.45	301.84	131.03	57.06	24.93	10.93	4.81	2.12	0.94	0.42	
15 20	237.26	102.96	44.68	19.39	8.41	3.65	1.58	0.69	0.30	0.13	
20 25	449.99	211.25	99.37	46.84	22.12	10.47	4.97	2.36	1.12	0.54	
25 30	1015.57	423.04	176.96	74.35	31.39	13.32	5.68	2.44	1.05	0.46	
30 35	3000.19	1229.87	504.46	207.04	85.03	34.94	14.37	5.91	2.43	1.00	
35 40	2642.49	1140.14	493.93	214.88	93.88	41.20	18.16	8.04	3.58	1.60	
40 45	1087.11	508.29	238.94	112.94	53.67	25.64	12.32	5.95	2.89	1.41	
45 50	682.30	316.11	146.83	68.38	31.92	14.94	7.01	3.29	1.55	0.73	
50 55	2635.06	1120.47	480.97	208.70	91.66	40.80	18.42	8.44	3.93	1.85	
55 60	1409.12	655.96	307.81	145.63	69.48	33.43	16.22	7.93	3.91	1.94	
60 65	591.52	277.49	131.76	63.38	30.89	15.26	7.64	3.88	1.99	1.03	
65 70	2138.49	971.74	448.72	210.69	100.60	48.83	24.09	12.06	6.12	3.15	
70 75	1283.00	598.79	282.51	134.85	65.16	31.88	15.80	7.93	4.03	2.07	
75 80	797.05	402.32	204.84	105.24	54.58	28.57	15.10	8.05	4.33	2.35	
80 85	787.18	406.53	210.84	109.84	57.50	30.25	15.99	8.50	4.54	2.44	
85 90	336.57	192.62	110.40	63.37	36.44	20.98	12.10	6.99	4.05	2.35	
90 95	348.91	192.53	106.52	59.09	32.86	18.33	10.25	5.74	3.23	1.82	
95 100	120.86	72.36	43.35	25.99	15.59	9.36	5.62	3.38	2.03	1.22	
100 105	187.50	113.19	68.39	41.36	25.03	15.17	9.20	5.58	3.39	2.06	
105 110	121.41	69.66	40.07	23.11	13.37	7.75	4.51	2.63	1.54	0.90	
110 115	206.02	125.29	76.32	46.56	28.45	17.41	10.67	6.55	4.03	2.48	
115 120	71.67	45.55	28.97	18.43	11.74	7.48	4.77	3.04	1.94	1.24	
120 125	91.01	55.64	34.08	20.92	12.87	7.93	4.90	3.03	1.88	1.17	
125 130	101.88	64.55	40.91	25.94	16.45	10.44	6.62	4.21	2.67	1.70	
130 135	93.61	59.30	37.67	23.99	15.31	9.80	6.29	4.04	2.61	1.68	
135 140	18.04	11.76	7.66	5.00	3.26	2.12	1.38	0.90	0.59	0.38	
140 145	95.80	60.93	38.77	24.68	15.72	10.02	6.39	4.08	2.60	1.66	
145 150	33.06	22.09	14.77	9.87	6.60	4.41	2.95	1.97	1.32	0.88	
150 155	44.57	29.44	19.47	12.90	8.56	5.69	3.78	2.52	1.68	1.12	
155 160	18.04	11.76	7.66	5.00	3.26	2.12	1.38	0.90	0.59	0.38	
160 165	16.53	11.05	7.38	4.93	3.30	2.20	1.47	0.98	0.66	0.44	
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
170 175	34.57	22.81	15.05	9.93	6.55	4.33	2.86	1.89	1.25	0.82	
175 180	16.53	11.05	7.38	4.93	3.30	2.20	1.47	0.98	0.66	0.44	
180 185	20.45	14.06	9.67	6.65	4.57	3.15	2.16	1.49	1.02	0.70	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14	
195 200	20.45	14.06	9.67	6.65	4.57	3.15	2.16	1.49	1.02	0.70	
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
245 250	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14	
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
350 355	1263.55	514.96	209.95	85.62	34.93	14.26	5.82	2.38	0.97	0.40	
355 360	237.26	102.96	44.68	19.39	8.41	3.65	1.58	0.69	0.30	0.13	

## FIRST HARMONIC

AMPLITUDE 20892.82 9336.41 4237.53 1959.03 925.52 448.42 223.55 114.97 61.08 33.50  
 PHASE 2.36 2.55 2.77 3.03 3.34 3.70 4.10 4.53 4.98 5.43

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE 14802.23 6420.28 2808.11 1240.74 555.24 252.61 117.45 56.18 27.84 14.38  
 PHASE 2.25 2.38 2.54 2.73 2.96 3.22 3.54 3.89 4.29 4.71

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 111.25 GV

ROME									
GEOGRAPHIC LATITUDE = 41.90 GEOGRAPHIC LONGITUDE = 12.52									
ASY.LONG./BETA=		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2
0 5	229.69	103.05	46.24	20.75	9.31	4.18	1.87	0.84	0.38
5 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 15	461.62	204.85	91.14	40.66	18.18	8.15	3.66	1.65	0.75
15 20	237.26	102.96	44.68	19.39	8.41	3.65	1.58	0.69	0.30
20 25	449.99	211.25	99.37	46.84	22.12	10.47	4.97	2.36	1.12
25 30	224.73	104.96	49.02	22.89	10.69	4.99	2.33	1.09	0.51
30 35	711.05	302.74	128.92	54.91	23.39	9.97	4.25	1.81	0.77
35 40	1615.83	725.07	326.11	147.02	66.44	30.10	13.67	6.23	2.84
40 45	1087.11	508.29	238.94	112.94	53.67	25.64	12.32	5.95	2.89
45 50	682.30	316.11	146.83	68.38	31.92	14.94	7.01	3.29	1.55
50 55	817.57	387.32	185.21	89.39	43.52	21.37	10.58	5.28	2.65
55 60	1173.30	558.97	267.92	129.23	62.73	30.65	15.08	7.46	3.72
60 65	591.52	277.49	131.76	63.38	30.89	15.26	7.64	3.88	1.99
65 70	1111.83	556.67	280.90	142.82	73.15	37.74	19.60	10.24	5.39
70 75	1283.00	598.79	282.51	134.85	65.16	31.88	15.80	7.93	4.03
75 80	797.05	402.32	204.84	105.24	54.58	28.57	15.10	8.05	4.33
80 85	787.18	406.53	210.84	109.84	57.50	30.25	15.99	8.50	4.54
85 90	336.57	192.62	110.40	63.37	36.44	20.98	12.10	6.99	4.05
90 95	348.91	192.53	106.52	59.09	32.86	18.33	10.25	5.74	3.23
95 100	120.86	72.36	43.35	25.99	15.59	9.36	5.62	3.38	2.03
100 105	187.50	113.19	68.39	41.36	25.03	15.17	9.20	5.58	3.39
105 110	121.41	69.66	40.07	23.11	13.37	7.75	4.51	2.63	1.54
110 115	206.02	125.29	76.32	46.56	28.45	17.41	10.67	6.55	4.03
115 120	71.67	45.55	28.97	18.43	11.74	7.48	4.77	3.04	1.94
120 125	91.01	55.64	34.08	20.92	12.87	7.93	4.90	3.03	1.88
125 130	101.88	64.55	40.91	25.94	16.45	10.44	6.62	4.21	2.67
130 135	93.61	59.30	37.67	23.99	15.31	9.80	6.29	4.04	2.61
135 140	18.04	11.76	7.66	5.00	3.26	2.12	1.38	0.90	0.59
140 145	95.80	60.93	38.77	24.68	15.72	10.02	6.39	4.08	2.60
145 150	33.06	22.09	14.77	9.87	6.60	4.41	2.95	1.97	1.32
150 155	44.57	29.44	19.47	12.90	8.56	5.69	3.78	2.52	1.68
155 160	18.04	11.76	7.66	5.00	3.26	2.12	1.38	0.90	0.59
160 165	16.53	11.05	7.38	4.93	3.30	2.20	1.47	0.98	0.66
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170 175	34.57	22.81	15.05	9.93	6.55	4.33	2.86	1.89	1.25
175 180	16.53	11.05	7.38	4.93	3.30	2.20	1.47	0.98	0.66
180 185	20.45	14.06	9.67	6.65	4.57	3.15	2.16	1.49	1.02
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68
195 200	20.45	14.06	9.67	6.65	4.57	3.15	2.16	1.49	1.02
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350 355	236.89	99.89	42.12	17.76	7.49	3.16	1.33	0.56	0.24
355 360	237.26	102.96	44.68	19.39	8.41	3.65	1.58	0.69	0.30

## FIRST HARMONIC

AMPLITUDE	12697.71	6079.63	2951.90	1456.17	731.26	374.57	196.05	104.99	57.56	32.30
PHASE	2.97	3.16	3.38	3.63	3.91	4.23	4.57	4.93	5.30	5.68

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	8843.07	4118.75	1934.82	917.94	440.61	214.46	108.15	53.61	27.72	14.72
PHASE	2.83	2.97	3.13	3.31	3.51	3.75	4.01	4.31	4.63	4.97

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 80.00 GV

ROME											
		GEOGRAPHIC LATITUDE = 41.90					GEOGRAPHIC LONGITUDE = 12.52				
ASY. LONG./BETA =		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 15	224.73	104.96	49.02	22.89	10.69	4.99	2.33	1.09	0.51	0.24	
15 20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
20 25	220.30	108.19	53.14	26.10	12.82	6.29	3.09	1.52	0.75	0.37	
25 30	224.73	104.96	49.02	22.89	10.69	4.99	2.33	1.09	0.51	0.24	
30 35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
35 40	445.03	213.15	102.16	48.99	23.51	11.29	5.42	2.61	1.25	0.60	
40 45	620.52	305.34	150.58	74.43	36.87	18.31	9.11	4.54	2.27	1.14	
45 50	445.03	213.15	102.16	48.99	23.51	11.29	5.42	2.61	1.25	0.60	
50 55	350.98	184.37	96.85	50.88	26.73	14.04	7.37	3.87	2.04	1.07	
55 60	706.34	352.96	177.01	89.10	45.01	22.82	11.62	5.94	3.04	1.57	
60 65	354.62	177.59	89.64	45.61	23.40	12.10	6.31	3.32	1.75	0.93	
65 70	874.57	453.71	236.22	123.44	64.74	34.09	18.01	9.56	5.09	2.72	
70 75	349.46	189.83	103.24	56.21	30.64	16.72	9.14	5.00	2.74	1.50	
75 80	797.05	402.32	204.84	105.24	54.58	28.57	15.10	8.05	4.33	2.35	
80 85	787.18	406.53	210.84	109.84	57.50	30.25	15.99	8.50	4.54	2.44	
85 90	336.57	192.62	110.40	63.37	36.44	20.98	12.10	6.99	4.05	2.35	
90 95	348.91	192.53	106.52	59.09	32.86	18.33	10.25	5.74	3.23	1.82	
95 100	120.86	72.36	43.35	25.99	15.59	9.36	5.62	3.38	2.03	1.22	
100 105	187.50	113.19	68.39	41.36	25.03	15.17	9.20	5.58	3.39	2.06	
105 110	121.41	69.66	40.07	23.11	13.37	7.75	4.51	2.63	1.54	0.90	
110 115	206.02	125.29	76.32	46.56	28.45	17.41	10.67	6.55	4.03	2.48	
115 120	71.67	45.55	28.97	18.43	11.74	7.48	4.77	3.04	1.94	1.24	
120 125	91.01	55.64	34.08	20.92	12.87	7.93	4.90	3.03	1.88	1.17	
125 130	101.88	64.55	40.91	25.94	16.45	10.44	6.62	4.21	2.67	1.70	
130 135	93.61	59.30	37.67	23.99	15.31	9.80	6.29	4.04	2.61	1.68	
135 140	18.04	11.76	7.66	5.00	3.26	2.12	1.38	0.90	0.59	0.38	
140 145	95.80	60.93	38.77	24.68	15.72	10.02	6.39	4.08	2.60	1.66	
145 150	33.06	22.09	14.77	9.87	6.60	4.41	2.95	1.97	1.32	0.88	
150 155	44.57	29.44	19.47	12.90	8.56	5.69	3.78	2.52	1.68	1.12	
155 160	18.04	11.76	7.66	5.00	3.26	2.12	1.38	0.90	0.59	0.38	
160 165	16.53	11.05	7.38	4.93	3.30	2.20	1.47	0.98	0.66	0.44	
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
170 175	34.57	22.81	15.05	9.93	6.55	4.33	2.86	1.89	1.25	0.82	
175 180	16.53	11.05	7.38	4.93	3.30	2.20	1.47	0.98	0.66	0.44	
180 185	20.45	14.06	9.67	6.65	4.57	3.15	2.16	1.49	1.02	0.70	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14	
195 200	20.45	14.06	9.67	6.65	4.57	3.15	2.16	1.49	1.02	0.70	
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
245 250	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14	
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
355 360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

1ST HARMONIC	742.19	3756.07	1967.67	1042.23	558.74	303.48	167.16	93.44	53.03	30.57
MID. HARMONIC	3.83	4.00	4.19	4.40	4.63	4.88	5.15	5.43	5.72	6.02
3RD HARMONIC	814.45	2584.38	1313.80	672.40	346.78	180.43	94.84	50.45	27.21	14.91

THE LIGHT FOR THIS CALCULATION IS 50.00 GV

ROME											
GEOGRAPHIC LATITUDE = 41.90 GEOGRAPHIC LONGITUDE = 12.52											
ASY.LONG./BETA=		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30 35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35 40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40 45	175.49	92.19	48.43	25.44	13.36	7.02	3.69	1.94	1.02	0.53	
45 50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
50 55	350.98	184.37	96.85	50.88	26.73	14.04	7.37	3.87	2.04	1.07	
55 60	261.31	139.81	74.85	40.10	21.50	11.54	6.19	3.33	1.79	0.96	
60 65	129.89	72.63	40.62	22.72	12.71	7.11	3.98	2.23	1.25	0.70	
65 70	433.96	237.32	129.95	71.25	39.11	21.50	11.83	6.52	3.60	1.99	
70 75	349.46	189.83	103.24	56.21	30.64	16.72	9.14	5.00	2.74	1.50	
75 80	347.59	192.40	106.80	59.46	33.19	18.58	10.43	5.87	3.32	1.88	
80 85	346.58	190.14	104.57	57.65	31.86	17.66	9.81	5.47	3.05	1.71	
85 90	336.57	192.62	110.40	63.37	36.44	20.98	12.10	6.99	4.05	2.35	
90 95	348.91	192.53	106.52	59.09	32.86	18.33	10.25	5.74	3.23	1.82	
95 100	120.86	72.36	43.35	25.99	15.59	9.36	5.62	3.38	2.03	1.22	
100 105	187.50	113.19	68.39	41.36	25.03	15.17	9.20	5.58	3.39	2.06	
105 110	121.41	69.66	40.07	23.11	13.37	7.75	4.51	2.63	1.54	0.90	
110 115	206.02	125.29	76.32	46.56	28.45	17.41	10.67	6.55	4.03	2.48	
115 120	71.67	45.55	28.97	18.43	11.74	7.48	4.77	3.04	1.94	1.24	
120 125	91.01	55.64	34.08	20.92	12.87	7.93	4.90	3.03	1.88	1.17	
125 130	101.88	64.55	40.91	25.94	16.45	10.44	6.62	4.21	2.67	1.70	
130 135	93.61	59.30	37.67	23.99	15.31	9.80	6.29	4.04	2.61	1.68	
135 140	18.04	11.76	7.66	5.00	3.26	2.12	1.38	0.90	0.59	0.38	
140 145	95.80	60.93	38.77	24.68	15.72	10.02	6.39	4.08	2.60	1.66	
145 150	33.06	22.09	14.77	9.87	6.60	4.41	2.95	1.97	1.32	0.88	
150 155	44.57	29.44	19.47	12.90	8.56	5.69	3.78	2.52	1.68	1.12	
155 160	18.04	11.76	7.66	5.00	3.26	2.12	1.38	0.90	0.59	0.38	
160 165	16.53	11.05	7.38	4.93	3.30	2.20	1.47	0.98	0.66	0.44	
165 170	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
170 175	34.57	22.81	15.05	9.93	6.55	4.33	2.86	1.89	1.25	0.82	
175 180	16.53	11.05	7.38	4.93	3.30	2.20	1.47	0.98	0.66	0.44	
180 185	20.45	14.06	9.67	6.65	4.57	3.15	2.16	1.49	1.02	0.70	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14	
195 200	20.45	14.06	9.67	6.65	4.57	3.15	2.16	1.49	1.02	0.70	
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230 235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
245 250	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14	
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
355 360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
<b>FIRST HARMONIC</b>											
AMPLITUDE	3814.37	2146.21	1214.43	691.41	396.26	228.72	133.03	77.99	46.11	27.50	
PHASE	4.95	5.09	5.23	5.39	5.56	5.74	5.93	6.13	6.35	6.56	
<b>(IN HOURS)</b>											
<b>SECOND HARMONIC</b>											
AMPLITUDE	2754.88	1511.61	831.94	459.43	254.71	141.84	79.40	44.71	25.36	14.50	
PHASE	4.62	4.72	4.82	4.93	5.05	5.19	5.33	5.49	5.66	5.85	
<b>(IN HOURS)</b>											
THE UPPER LIMIT FOR THIS CALCULATION IS 29.00 GV											

UTRECHT												
			GEOGRAPHIC LATITUDE = 52.06				GEOGRAPHIC LONGITUDE = 5.07					
ASY.LONG./BETA= +1.6 +1.4 +1.2 +1.0 +0.8 +0.6 +0.4 +0.2 0.0 -0.2												
0 5	2554.51	813.96	261.67	85.06	28.04	9.40	3.21	1.12	0.40	0.15		
5 10	7508.15	2396.99	775.42	255.27	85.97	29.80	10.69	3.99	1.56	0.63		
10 15	7315.58	2305.64	731.83	234.36	75.89	24.92	8.33	2.84	0.99	0.36		
15 20	16221.24	5496.38	1877.84	647.04	224.92	78.90	27.95	10.00	3.62	1.33		
20 25	5052.71	2002.74	796.51	317.85	127.26	51.12	20.60	8.33	3.38	1.38		
25 30	1825.40	798.89	351.78	155.87	69.49	31.18	14.07	6.39	2.92	1.34		
30 35	1266.60	562.00	278.71	132.17	63.13	30.36	14.70	7.17	3.51	1.73		
35 40	7584.11	2431.91	792.12	263.58	90.27	32.10	11.96	4.70	1.96	0.86		
40 45	2411.54	983.91	411.74	177.22	78.58	35.90	16.88	8.15	4.02	2.03		
45 50	1480.14	645.41	286.04	129.20	59.62	28.17	13.64	6.77	3.44	1.78		
50 55	1316.70	655.36	330.36	168.70	87.27	45.73	24.26	13.02	7.06	3.87		
55 60	3599.97	1354.68	566.30	262.85	133.09	71.77	40.34	23.30	13.69	8.15		
60 65	8930.55	3324.41	1294.93	533.88	235.13	111.02	56.00	29.90	16.69	9.64		
65 70	1331.58	644.00	317.51	159.96	82.53	43.67	23.73	13.24	7.58	4.45		
70 75	592.19	277.94	133.23	65.45	33.06	17.20	9.24	5.12	2.92	1.71		
75 80	615.49	298.59	147.13	73.99	38.16	20.30	11.18	6.39	3.79	2.32		
80 85	59.26	40.70	27.97	19.22	13.22	9.09	6.26	4.31	2.97	2.04		
85 90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
90 95	37.19	26.45	18.81	13.37	9.51	6.76	4.81	3.42	2.43	1.73		
95 100	21.30	14.86	10.38	7.25	5.06	3.54	2.47	1.73	1.21	0.85		
100 105	21.80	15.87	11.55	8.41	6.13	4.47	3.26	2.38	1.73	1.27		
105 110	12.50	9.25	6.85	5.07	3.75	2.78	2.06	1.52	1.13	0.83		
110 115	28.05	20.49	14.98	10.95	8.01	5.86	4.29	3.14	2.30	1.68		
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
120 125	15.69	11.74	8.78	6.58	4.92	3.69	2.77	2.07	1.56	1.17		
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
130 135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
135 140	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33		
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
145 150	6.38	4.97	3.87	3.01	2.34	1.82	1.42	1.10	0.86	0.67		
150 155	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33		
155 160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
160 165	6.38	4.97	3.87	3.01	2.34	1.82	1.42	1.10	0.86	0.67		
165 170	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33		
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
230 235	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33		
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
320 325	2476.77	729.87	215.08	63.38	18.68	5.50	1.62	0.48	0.14	0.04		
325 330	7185.40	2188.95	667.21	203.49	62.09	18.96	5.79	1.77	0.54	0.17		
330 335	3945.25	1366.64	474.62	165.26	57.69	20.19	7.09	2.49	0.88	0.31		
335 340	1067.81	435.19	177.42	72.36	29.52	12.05	4.92	2.01	0.82	0.34		
340 345	2490.89	846.14	280.37	99.78	34.75	12.25	4.38	1.59	0.59	0.22		
345 350	7315.58	2305.64	731.83	234.36	75.89	24.92	8.33	2.84	0.99	0.36		
350 355	1844.78	696.20	264.44	101.21	39.09	15.25	6.02	2.41	0.98	0.40		
355 360	3344.38	1080.63	356.90	120.73	41.87	14.88	5.42	2.01	0.76	0.29		

## FIRST HARMONIC

AMPLITUDE	86819.4830222.3610892.45	4105.25	1636.61	697.72	320.32	158.39	83.79	46.93	
PHASE	0.69	0.86	1.08	1.37	1.72	2.13	2.58	3.45	3.84

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	56048.8119151.06	6755.19	2497.15	987.81	426.62	202.44	104.25	57.02	32.52
PHASE	0.65	0.84	1.08	1.40	1.79	2.23	2.67	3.07	3.41

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 500.00 GV

UTRECHT										
			GEOGRAPHIC LATITUDE = 52.06				GEOGRAPHIC LONGITUDE = 5.07			
ASY.	LONG.	/BETA	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2
0	5		200.20	84.42	35.60	15.01	6.33	2.67	1.13	0.47
5	10		386.68	178.44	82.66	38.44	17.94	8.40	3.95	1.86
10	15		194.11	87.09	39.07	17.53	7.87	3.53	1.58	0.71
15	20		6809.39	2518.69	933.47	346.82	129.25	48.35	18.17	6.87
20	25		5052.71	2002.74	796.51	317.85	127.26	51.12	20.60	8.33
25	30		1825.40	798.89	351.78	155.87	69.49	31.18	14.07	6.39
30	35		1266.60	592.00	278.71	132.17	63.13	30.36	14.70	7.17
35	40		462.63	213.36	99.36	46.75	22.24	10.71	5.21	2.57
40	45		2411.54	983.91	411.74	177.22	78.58	35.90	16.88	8.15
45	50		1480.14	645.41	286.04	129.20	59.62	28.17	13.64	6.77
50	55		1316.70	655.36	330.36	168.70	87.27	45.73	24.26	13.02
55	60		1123.20	624.81	351.22	199.46	114.42	66.26	38.72	22.82
60	65		4285.85	1835.73	817.25	380.43	185.78	95.13	50.88	28.25
65	70		1331.58	644.00	317.51	159.96	82.53	43.67	23.73	13.24
70	75		592.19	277.94	133.23	65.45	33.06	17.20	9.24	5.12
75	80		615.49	298.59	147.13	73.99	38.16	20.30	11.18	6.39
80	85		59.26	40.70	27.97	19.22	13.22	9.09	5.26	4.31
85	90		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90	95		37.19	26.45	18.81	13.37	9.51	6.76	4.81	3.42
95	100		21.30	14.86	10.38	7.25	5.06	3.54	2.47	1.73
100	105		21.80	15.87	11.55	8.41	6.13	4.47	3.26	2.38
105	110		12.50	9.25	6.85	5.07	3.75	2.78	2.06	1.52
110	115		28.05	20.49	14.98	10.95	8.01	5.86	4.29	3.14
115	120		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120	125		15.69	11.74	8.78	6.58	4.92	3.69	2.77	2.07
125	130		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130	135		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135	140		3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55
140	145		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145	150		6.38	4.97	3.87	3.01	2.34	1.82	1.42	1.10
150	155		3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55
155	160		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160	165		6.38	4.97	3.87	3.01	2.34	1.82	1.42	1.10
165	170		3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55
170	175		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175	180		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180	185		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185	190		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190	195		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195	200		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200	205		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205	210		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210	215		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215	220		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220	225		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225	230		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230	235		3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55
235	240		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240	245		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245	250		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250	255		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255	260		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	265		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	270		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270	275		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	280		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	285		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	290		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	295		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	300		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	305		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	310		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	315		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	320		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320	325		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	330		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330	335		1654.87	607.50	223.01	81.87	30.05	11.03	4.05	1.49
335	340		1067.81	435.19	177.42	72.36	29.52	12.05	4.92	2.01
340	345		200.51	87.01	37.75	16.38	7.11	3.08	1.34	0.58
345	350		194.11	87.09	39.07	17.53	7.87	3.53	1.58	0.71
350	355		1844.78	696.20	264.44	101.21	39.09	15.25	6.02	2.41
355	360		867.61	350.77	141.82	57.35	23.19	9.38	3.79	1.53

## FIRST HARMONIC

AMPLITUDE 31549.1113196.06 5666.36 2511.40 1155.24 554.20 278.16 146.18 80.31 45.95

PHASE 1.63 1.78 1.96 2.17 2.42 2.70 3.01 3.32 3.64 3.96

## (IN HOURS)

## SECOND HARMONIC

AMPLITUDE 22119.01 9183.03 3922.56 1736.11 801.57 387.85 196.85 104.48 57.86 32.88

PHASE 1.67 1.83 2.02 2.24 2.48 2.75 3.02 3.28 3.53 3.77

## (IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 188.75 GV

UTRECHT											
		GEOGRAPHIC LATITUDE = 52.06					GEOGRAPHIC LONGITUDE = 5.07				
ASY.LONG./BETA=		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5		200.20	84.42	35.60	15.01	6.33	2.67	1.13	0.47	0.20	0.08
5 10		386.68	178.44	82.66	38.44	17.94	8.40	3.95	1.86	0.88	0.42
10 15		194.11	87.09	39.07	17.53	7.87	3.53	1.58	0.71	0.32	0.14
15 20		189.92	88.70	41.43	19.35	9.04	4.22	1.97	0.92	0.43	0.20
20 25		3397.85	1395.24	573.50	235.98	97.21	40.09	16.55	6.84	2.83	1.17
25 30		1825.40	798.89	351.78	155.87	69.49	31.18	14.07	6.39	2.92	1.34
30 35		1266.60	592.00	278.71	132.17	63.13	30.36	14.70	7.17	3.51	1.73
35 40		462.63	213.36	99.36	46.75	22.24	10.71	5.21	2.57	1.28	0.65
40 45		756.67	376.41	188.73	95.35	48.53	24.87	12.83	6.66	3.48	1.83
45 50		1480.14	645.41	286.04	129.20	59.62	28.17	13.64	6.77	3.44	1.78
50 55		1316.70	655.36	330.36	168.70	87.27	45.73	24.26	13.02	7.06	3.87
55 60		1123.20	624.81	351.22	199.46	114.42	66.26	38.72	22.82	13.55	8.10
60 65		2630.98	1228.23	594.24	298.56	155.72	84.10	46.83	26.76	15.62	9.27
65 70		1331.58	644.00	317.51	159.96	82.53	43.67	23.73	13.24	7.58	4.45
70 75		592.19	277.94	133.23	65.45	33.06	17.20	9.24	5.12	2.92	1.71
75 80		615.49	298.59	147.13	73.99	38.16	20.30	11.18	6.39	3.79	2.32
80 85		59.26	40.70	27.97	19.22	13.22	9.09	6.26	4.31	2.97	2.04
85 90		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90 95		37.19	26.45	18.81	13.37	9.51	6.76	4.81	3.42	2.43	1.73
95 100		21.30	14.86	10.38	7.25	5.06	3.54	2.47	1.73	1.21	0.85
100 105		21.80	15.87	11.55	8.41	6.13	4.47	3.26	2.38	1.73	1.27
105 110		12.50	9.25	6.85	5.07	3.75	2.78	2.06	1.52	1.13	0.83
110 115		28.05	20.49	14.98	10.95	8.01	5.86	4.29	3.14	2.30	1.68
115 120		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120 125		15.69	11.74	8.78	6.58	4.92	3.69	2.77	2.07	1.56	1.17
125 130		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130 135		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135 140		3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
140 145		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145 150		6.38	4.97	3.87	3.01	2.34	1.82	1.42	1.10	0.86	0.67
150 155		3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
155 160		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160 165		6.38	4.97	3.87	3.01	2.34	1.82	1.42	1.10	0.86	0.67
165 170		3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
170 175		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175 180		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180 185		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185 190		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235		3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
235 240		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340		1067.81	435.19	177.42	72.36	29.52	12.05	4.92	2.01	0.82	0.34
340 345		200.51	87.01	37.75	16.38	7.11	3.08	1.34	0.58	0.25	0.11
345 350		194.11	87.09	39.07	17.53	7.87	3.53	1.58	0.71	0.32	0.14
350 355		189.92	88.70	41.43	19.35	9.04	4.22	1.97	0.92	0.43	0.20
355 360		867.61	350.77	141.82	57.35	23.19	9.38	3.79	1.53	0.62	0.25

## FIRST HARMONIC

AMPLITUDE	18367.64	8407.98	3934.05	1887.99	932.42	475.22	250.43	136.54	76.99	44.82
PHASE	2.18	2.31	2.45	2.62	2.82	3.04	3.27	3.53	3.79	4.06

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	13192.31	6072.27	2860.28	1383.19	688.51	353.32	186.97	101.93	57.12	32.83
PHASE	2.28	2.41	2.55	2.70	2.88	3.06	3.25	3.45	3.65	3.84

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 111.25 GV

## UTRECHT

		GEOGRAPHIC LATITUDE = 52.06				GEOGRAPHIC LONGITUDE = 5.07					
ASY. LONG./BETA =	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2	
0 5	200.20	84.42	35.60	15.01	6.33	2.67	1.13	0.47	0.20	0.08	
5 10	386.68	178.44	82.66	38.44	17.94	8.40	3.95	1.86	0.88	0.42	
10 15	194.11	87.09	39.07	17.53	7.87	3.53	1.58	0.71	0.32	0.14	
15 20	189.92	88.70	41.43	19.35	9.04	4.22	1.97	0.92	0.43	0.20	
20 25	795.01	342.93	148.03	63.94	27.63	11.95	5.17	2.24	0.97	0.42	
25 30	1157.07	530.08	243.66	112.38	52.00	24.14	11.24	5.25	2.46	1.16	
30 35	1067.31	510.04	245.01	118.31	57.43	28.02	13.74	6.77	3.35	1.67	
35 40	462.63	213.36	99.36	46.75	22.24	10.71	5.21	2.57	1.28	0.65	
40 45	756.67	376.41	188.73	95.35	48.53	24.87	12.83	6.66	3.48	1.83	
45 50	612.52	294.65	144.21	71.85	36.43	18.79	9.84	5.23	2.82	1.53	
50 55	1316.70	655.36	330.36	168.70	87.27	45.73	24.26	13.02	7.06	3.87	
55 60	1123.20	624.81	351.22	199.46	114.42	66.26	38.72	22.82	13.55	8.10	
60 65	1095.04	608.65	344.30	197.73	115.04	67.68	40.21	24.09	14.54	8.83	
65 70	1132.29	562.04	283.81	146.10	76.82	41.33	22.77	12.85	7.42	4.38	
70 75	592.19	277.94	133.23	65.45	33.06	17.20	9.24	5.12	2.92	1.71	
75 80	615.49	298.59	147.13	73.99	38.16	20.30	11.18	6.39	3.79	2.32	
80 85	59.26	40.70	27.97	19.22	13.22	9.09	6.26	4.31	2.97	2.04	
85 90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
90 95	37.19	26.45	18.81	13.37	9.51	6.76	4.81	3.42	2.43	1.73	
95 100	21.30	14.86	10.38	7.25	5.06	3.54	2.47	1.73	1.21	0.85	
100 105	21.80	15.87	11.55	8.41	6.13	4.47	3.26	2.38	1.73	1.27	
105 110	12.50	9.25	6.85	5.07	3.75	2.78	2.06	1.52	1.13	0.83	
110 115	28.05	20.49	14.98	10.95	8.01	5.86	4.29	3.14	2.30	1.68	
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
120 125	15.69	11.74	8.78	6.58	4.92	3.69	2.77	2.07	1.56	1.17	
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
130 135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
135 140	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33	
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
145 150	6.38	4.97	3.87	3.01	2.34	1.82	1.42	1.10	0.86	0.67	
150 155	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33	
155 160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
160 165	6.38	4.97	3.87	3.01	2.34	1.82	1.42	1.10	0.86	0.67	
165 170	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33	
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230 235	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	200.20	84.42	35.60	15.01	6.33	2.67	1.13	0.47	0.20	0.08	
340 345	200.51	87.01	37.75	16.38	7.11	3.08	1.34	0.58	0.25	0.11	
345 350	194.11	87.09	39.07	17.53	7.87	3.53	1.58	0.71	0.32	0.14	
350 355	189.92	88.70	41.43	19.35	9.04	4.22	1.97	0.92	0.43	0.20	
355 360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

## FIRST HARMONIC

AMPLITUDE	11533.25	5666.08	2836.75	1450.28	758.53	406.48	223.40	125.99	72.90	43.25
PHASE	2.59	2.70	2.83	2.97	3.13	3.31	3.51	3.72	3.94	4.17

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE	8744.71	4332.77	2186.58	1125.42	591.32	317.32	173.92	97.32	55.55	32.32
PHASE	2.68	2.78	2.90	3.02	3.15	3.29	3.44	3.59	3.75	3.92

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 80.00 GV

UTRECHT										
GEOGRAPHIC LATITUDE = 52.06			GEOGRAPHIC LONGITUDE = 5.07							
ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	186.17	91.43	44.90	22.05	10.83	5.32	2.61	1.28	0.63	0.31
10 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 20	189.92	88.70	41.43	19.35	9.04	4.22	1.97	0.92	0.43	0.20
20 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 30	562.26	271.57	131.24	63.45	30.70	14.86	7.20	3.49	1.69	0.82
30 35	672.70	335.94	168.18	84.40	42.45	21.40	10.82	5.48	2.78	1.41
35 40	262.44	128.95	63.76	31.74	15.91	8.04	4.09	2.10	1.08	0.56
40 45	556.17	289.40	150.98	78.97	41.42	21.78	11.49	6.08	3.22	1.72
45 50	218.22	123.14	69.54	39.30	22.23	12.59	7.13	4.05	2.30	1.31
50 55	922.08	481.26	253.53	134.79	72.30	39.11	21.33	11.72	6.49	3.62
55 60	1123.20	624.81	351.22	199.46	114.42	66.26	38.72	22.82	13.55	8.10
60 65	894.84	524.23	308.70	182.72	108.71	65.02	39.08	23.61	14.34	8.75
65 70	737.67	387.95	206.98	112.18	61.85	34.72	19.85	11.56	6.85	4.13
70 75	191.49	106.51	59.88	34.06	19.62	11.45	6.77	4.06	2.47	1.52
75 80	421.38	211.50	108.06	56.45	30.30	16.77	9.59	5.68	3.47	2.18
80 85	59.26	40.70	27.97	19.22	13.22	9.09	6.26	4.31	2.97	2.04
85 90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90 95	37.19	26.45	18.81	13.37	9.51	6.76	4.81	3.42	2.43	1.73
95 100	21.30	14.86	10.38	7.25	5.06	3.54	2.47	1.73	1.21	0.85
100 105	21.80	15.87	11.55	8.41	6.13	4.47	3.26	2.38	1.73	1.27
105 110	12.50	9.25	6.85	5.07	3.75	2.78	2.06	1.52	1.13	0.83
110 115	28.05	20.49	14.98	10.95	8.01	5.86	4.29	3.14	2.30	1.68
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120 125	15.69	11.74	8.78	6.58	4.92	3.69	2.77	2.07	1.56	1.17
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130 135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135 140	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145 150	6.38	4.97	3.87	3.01	2.34	1.82	1.42	1.10	0.86	0.67
150 155	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
155 160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160 165	6.38	4.97	3.87	3.01	2.34	1.82	1.42	1.10	0.86	0.67
165 170	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230 235	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350 355	189.92	88.70	41.43	19.35	9.04	4.22	1.97	0.92	0.43	0.20
355 360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FIRST HARMONIC  
 AMPLITUDE 6870.62 3652.20 1967.87 1075.97 597.61 337.47 193.91 113.43 67.58 41.00  
 PHASE 3.05 3.14 3.24 3.35 3.47 3.61 3.76 3.93 4.11 4.31  
 (IN HOURS)  
 SECOND HARMONIC  
 AMPLITUDE 5727.75 3051.81 1645.27 897.99 496.43 278.07 157.86 90.83 52.98 31.32  
 PHASE 3.08 3.15 3.23 3.32 3.41 3.51 3.63 3.75 3.88 4.02  
 (IN HOURS)  
 THE UPPER LIMIT FOR THIS CALCULATION IS 50.00 GV

UTRECHT											
ASY.	LONG./BETA	GEOGRAPHIC LATITUDE = 52.06				GEOGRAPHIC LONGITUDE = 5.07				0.0	-0.2
		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2		
0 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30 35	296.61	155.81	81.85	43.00	22.59	11.86	6.23	3.27	1.72	0.90	
35 40	72.52	40.25	22.33	12.39	6.88	3.82	2.12	1.18	0.65	0.36	
40 45	369.99	197.97	106.07	56.92	30.59	16.46	8.88	4.79	2.59	1.41	
45 50	218.22	123.14	69.54	39.30	22.23	12.59	7.13	4.05	2.30	1.31	
50 55	542.25	303.87	170.68	96.09	54.23	30.67	17.39	9.88	5.63	3.21	
55 60	750.85	441.94	261.41	155.36	92.76	55.62	33.50	20.25	12.29	7.49	
60 65	894.84	524.23	308.70	182.72	108.71	65.02	39.08	23.61	14.34	8.75	
65 70	361.58	207.82	120.65	70.78	41.98	25.18	15.26	9.35	5.79	3.62	
70 75	191.47	106.51	59.88	34.06	19.62	11.45	6.77	4.06	2.47	1.52	
75 80	45.29	31.37	21.73	15.05	10.43	7.23	5.01	3.47	2.41	1.67	
80 85	59.26	40.70	27.97	19.22	13.22	9.09	6.26	4.31	2.97	2.04	
85 90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
90 95	37.19	26.45	18.81	13.37	9.51	6.76	4.81	3.42	2.43	1.73	
95 100	21.30	14.86	10.38	7.25	5.06	3.54	2.47	1.73	1.21	0.85	
100 105	21.80	15.87	11.55	8.41	6.13	4.47	3.26	2.38	1.73	1.27	
105 110	12.50	9.25	6.85	5.07	3.75	2.78	2.06	1.52	1.13	0.83	
110 115	28.05	20.49	14.98	10.95	8.01	5.86	4.29	3.14	2.30	1.68	
115 120	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
120 125	15.69	11.74	8.78	6.58	4.92	3.69	2.77	2.07	1.56	1.17	
125 130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
130 135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
135 140	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33	
140 145	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
145 150	6.38	4.97	3.87	3.01	2.34	1.82	1.42	1.10	0.86	0.67	
150 155	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33	
155 160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
160 165	6.38	4.97	3.87	3.01	2.34	1.82	1.42	1.10	0.86	0.67	
165 170	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33	
170 175	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
175 180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
180 185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
185 190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
190 195	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
195 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
200 205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
205 210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
210 215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215 220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
220 225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
225 230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230 235	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33	
235 240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
240 245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
245 250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
250 255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
255 260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
260 265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
265 270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
270 275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
275 280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
280 285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
285 290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
290 295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
295 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
300 305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
305 310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
310 315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
315 320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320 325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
325 330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
330 335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
335 340	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
340 345	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
345 350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
350 355	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
355 360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

## FIRST HARMONIC

AMPLITUDE 3815.71 2194.89 1272.99 744.88 440.02 262.58 156.38 96.62 59.64 37.27  
 PHASE 3.52 3.59 3.66 3.74 3.83 3.94 4.06 4.20 4.34 4.51

(IN HOURS)

## SECOND HARMONIC

AMPLITUDE 3491.91 1994.17 1146.03 662.98 386.20 226.60 133.96 79.82 47.95 29.06  
 PHASE 3.47 3.52 3.57 3.63 3.70 3.77 3.86 3.95 4.06 4.17

(IN HOURS)

THE UPPER LIMIT FOR THIS CALCULATION IS 29.00 GV

## APPENDIX B

### AMPLITUDES AND PHASES OF THE STATION RESPONSES TO A SQUARE WAVE $60^{\circ}$ WIDE

The following section contains the amplitudes and phases of the station responses to a square wave (lunes of the celestial sphere)  $60^{\circ}$  wide as a function of the asymptotic longitude of the center of the pulse. The exponential of the spectrum ( $\beta$ ) ranges from +1.6 to -0.2 and the upper limiting rigidity is 80 GV in all cases.

APATITY  
 GEOGRAPHIC LATITUDE = 67.55    GEOGRAPHIC LONGITUDE = 33.33  
 SQUARE WAVE REPRESENTATION - SIZE = 60 DEGREES

ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	+0.0	-0.2
0	1526.20	679.57	303.33	135.74	60.91	27.40	12.36	5.59	2.54	1.16
5	1711.32	766.03	343.71	154.60	69.72	31.51	14.28	6.49	2.96	1.36
10	1711.32	766.03	343.71	154.60	69.72	31.51	14.28	6.49	2.96	1.36
15	2181.92	1007.04	467.26	218.01	102.29	48.26	22.90	10.93	5.25	2.54
20	3430.47	1576.74	729.16	339.41	159.06	75.07	35.69	17.10	8.26	4.02
25	3637.15	1690.53	790.54	372.07	176.29	84.11	40.42	19.58	9.56	4.70
30	4129.21	1927.91	907.57	431.00	206.56	99.94	48.83	24.10	12.02	6.05
35	4846.38	2295.05	1098.51	531.94	260.82	129.59	65.29	33.38	17.33	9.12
40	5721.37	2825.47	1421.24	729.01	381.60	203.88	111.16	61.80	35.01	20.15
45	6542.54	3306.46	1705.10	897.88	482.89	265.16	148.57	84.84	49.32	29.13
50	7123.16	3650.81	1913.35	1026.42	563.88	317.24	182.70	107.62	64.75	39.74
55	8200.83	4160.48	2159.32	1148.29	626.30	350.53	201.31	118.54	71.48	44.08
60	8572.19	4353.66	2260.92	1202.58	655.96	367.24	211.11	124.58	75.40	46.78
65	9009.49	4568.48	2366.84	1255.02	682.03	380.26	217.64	127.87	77.07	47.63
70	9589.29	4820.47	2476.43	1302.71	702.80	389.31	221.59	129.59	77.82	47.96
75	9263.41	4655.54	2392.90	1260.38	681.35	378.45	216.10	126.83	76.45	47.29
80	8015.40	4086.34	2131.46	1139.40	624.97	352.00	203.64	120.97	73.72	46.07
85	7228.92	3720.56	1960.49	1059.05	586.97	333.91	194.96	116.77	71.67	45.06
90	6551.74	3396.72	1803.08	981.26	547.89	313.97	184.63	111.35	68.79	43.51
95	6016.05	3118.71	1655.91	901.82	504.19	289.51	170.72	103.32	64.09	40.74
100	4959.58	2499.16	1289.41	683.25	372.85	210.03	122.30	73.65	45.80	29.41
105	4323.53	2104.63	1045.93	533.24	280.37	152.86	86.81	51.51	31.91	20.63
110	3547.77	1677.99	802.98	390.07	193.21	98.18	51.58	28.27	16.28	9.94
115	2463.86	1168.40	558.30	269.32	131.53	65.32	33.21	17.47	9.61	5.63
120	1903.30	890.34	418.62	197.95	94.21	45.18	21.88	10.75	5.39	2.80
125	1280.91	589.09	272.35	126.68	59.36	28.08	13.46	6.59	3.33	1.79
130	896.58	421.93	199.58	94.98	45.54	22.06	10.84	5.46	2.85	1.59
135	751.87	345.86	159.57	73.91	34.43	16.18	7.72	3.79	1.94	1.09
140	946.47	427.65	193.81	88.12	40.21	18.42	8.49	3.94	1.86	0.91
145	946.47	427.65	193.81	88.12	40.21	18.42	8.49	3.94	1.86	0.91
150	946.47	427.65	193.81	88.12	40.21	18.42	8.49	3.94	1.86	0.91
155	764.99	338.52	150.04	66.62	29.65	13.23	5.94	2.69	1.25	0.61
160	764.99	338.52	150.04	66.62	29.65	13.23	5.94	2.69	1.25	0.61
165	579.87	252.06	109.66	47.76	20.84	9.12	4.02	1.79	0.83	0.41
170	579.87	252.06	109.66	47.76	20.84	9.12	4.02	1.79	0.83	0.41
175	390.66	167.17	71.57	30.67	13.17	5.68	2.48	1.10	0.52	0.27
180	390.65	167.16	71.56	30.66	13.16	5.67	2.47	1.09	0.51	0.26
185	390.62	167.13	71.53	30.63	13.13	5.64	2.44	1.06	0.48	0.22
190	195.15	82.30	34.71	14.64	6.18	2.61	1.11	0.47	0.21	0.09
195	195.14	82.29	34.70	14.63	6.17	2.60	1.10	0.46	0.20	0.08
200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
220	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	579.80	251.99	109.59	47.69	20.77	9.05	3.95	1.72	0.75	0.33
330	764.92	338.45	149.97	66.55	29.58	13.16	5.87	2.62	1.17	0.53
335	764.92	338.45	149.97	66.55	29.58	13.16	5.87	2.62	1.17	0.53
340	946.40	427.58	193.74	88.05	40.14	18.35	8.42	3.87	1.78	0.83
345	946.40	427.58	193.74	88.05	40.14	18.35	8.42	3.87	1.78	0.83
350	1141.54	509.87	228.44	102.68	46.31	20.95	9.52	4.33	1.98	0.91
355	1336.99	594.68	265.24	118.65	53.24	23.96	10.82	4.90	2.23	1.02

AMPLITUDE	9589.29	4820.47	2476.43	1302.71	702.80	389.31	221.59	129.59	77.82	47.96
POSITION (DEGREES)	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00

PHASE (DEGREES)	-323.33	-323.33	-323.33	-323.33	-323.33	-323.33	-323.33	-323.33	-323.33	-323.33
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ATHENS  
GEOGRAPHIC LATITUDE = 37.97 GEOGRAPHIC LONGITUDE = 23.72

SQUARE WAVE REPRESENTATION - SIZE = 60 DEGREES

ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	+0.0	-0.2
0	1354.36	593.53	260.51	114.52	50.43	22.23	9.83	4.35	1.94	0.87
5	1630.08	713.17	312.43	137.05	60.21	26.47	11.67	5.15	2.29	1.07
10	2153.00	958.65	427.91	191.48	85.92	38.64	17.44	7.89	3.59	1.64
15	2964.72	1312.79	582.78	259.37	115.75	51.78	23.25	10.46	4.73	2.15
20	4058.35	1787.91	789.29	349.17	154.82	68.79	30.66	13.69	6.14	2.76
25	5660.33	2510.84	1116.33	497.48	222.25	99.53	44.71	20.13	9.10	4.12
30	6401.13	2859.57	1281.48	576.17	259.98	117.73	53.55	24.45	11.22	5.17
35	7441.20	3352.75	1515.67	687.53	313.01	143.02	65.62	30.22	13.98	6.49
40	8713.28	3943.30	1791.52	817.19	374.34	172.21	79.59	36.96	17.24	8.08
45	9487.78	4332.65	1988.51	917.46	425.67	198.63	93.25	44.05	20.94	10.02
50	10056.16	4609.41	2123.71	983.75	458.30	214.76	101.26	48.05	22.95	11.03
55	11166.82	5133.33	2373.31	1103.85	516.66	243.40	115.44	55.13	26.52	12.84
60	11662.73	5412.79	2529.10	1190.11	564.22	269.56	129.81	63.03	30.86	15.23
65	12259.04	5732.38	2699.37	1280.47	612.06	294.86	143.18	70.10	34.60	17.21
70	12346.36	5807.30	2752.93	1315.67	634.12	308.29	151.20	74.83	37.37	18.82
75	11685.59	5537.57	2645.26	1274.18	619.06	303.41	150.01	74.85	37.68	19.12
80	10842.28	5204.67	2519.59	1230.35	606.14	301.29	151.08	76.45	39.02	20.08
85	9643.04	4702.69	2314.06	1149.03	575.74	291.07	148.43	76.36	39.61	20.71
90	9003.15	4411.93	2182.22	1089.48	549.01	279.20	143.23	74.13	38.69	20.35
95	8105.06	4002.99	1998.08	1007.89	513.71	264.48	137.47	72.13	38.19	20.38
100	6656.78	3354.84	1707.81	877.98	455.72	238.73	126.15	67.22	36.12	19.54
105	5655.96	2875.43	1476.61	765.78	400.96	211.87	112.93	60.69	32.89	17.94
110	5060.84	2618.34	1368.77	722.62	385.08	207.01	112.18	61.25	33.70	18.65
115	3738.43	2002.03	1079.92	586.52	320.64	176.37	97.57	54.26	30.36	17.05
120	3044.64	1655.07	905.68	498.77	276.41	154.09	86.40	48.69	27.61	15.72
125	2265.19	1270.51	715.83	405.05	230.17	131.32	75.23	43.23	24.96	14.45
130	1745.71	1005.29	580.35	335.83	194.82	113.28	66.04	38.56	22.60	13.26
135	1636.12	946.48	549.00	319.24	186.12	108.78	63.75	37.61	22.04	13.00
140	1463.21	852.84	498.66	292.42	172.00	101.44	60.02	35.56	21.16	12.61
145	1110.16	660.80	393.97	235.22	140.66	84.23	50.55	30.33	18.26	11.00
150	1045.30	625.81	375.31	225.42	135.61	81.69	49.33	29.78	18.04	10.94
155	931.62	560.02	337.28	203.49	122.99	74.45	45.19	27.42	16.70	10.19
160	832.53	501.54	302.75	183.10	110.95	67.34	40.99	24.94	15.23	9.32
165	783.13	471.96	285.04	172.50	104.60	63.54	38.71	23.58	14.61	8.83
170	607.31	373.96	230.62	142.43	88.09	54.54	33.86	21.00	13.05	8.14
175	557.91	344.38	212.91	131.83	81.74	50.74	31.58	19.64	12.23	7.65
180	480.50	295.80	182.41	112.68	69.71	43.19	26.83	16.66	10.36	6.47
185	550.77	342.27	212.92	132.60	82.66	51.57	32.23	20.14	12.59	7.90
190	460.01	287.09	179.36	112.19	70.24	44.01	27.63	17.34	10.88	6.86
195	454.70	284.47	178.16	111.72	70.12	44.04	27.72	17.44	10.97	6.94
200	377.29	235.89	147.66	92.57	58.09	36.49	22.97	14.46	9.10	5.76
205	355.90	225.43	142.86	90.62	57.51	36.51	23.21	14.75	9.37	5.98
210	319.85	202.45	128.21	81.28	51.56	32.72	20.79	13.21	8.39	5.35
215	291.55	184.00	116.19	73.44	46.45	29.39	18.62	11.80	7.47	4.75
220	291.55	184.00	116.19	73.44	46.45	29.39	18.62	11.80	7.47	4.75
225	291.55	184.00	116.19	73.44	46.45	29.39	18.62	11.80	7.47	4.75
230	227.20	142.57	89.52	56.27	35.39	22.27	14.03	8.84	5.57	3.52
235	227.20	142.57	89.52	56.27	35.39	22.27	14.03	8.84	5.57	3.52
240	227.20	142.57	89.52	56.27	35.39	22.27	14.03	8.84	5.57	3.52
245	64.35	41.43	26.67	17.18	11.06	7.12	4.59	2.95	1.90	1.23
250	64.35	41.43	26.67	17.18	11.06	7.12	4.59	2.95	1.90	1.23
255	28.30	18.45	12.02	7.84	5.11	3.33	2.17	1.41	0.92	0.60
260	28.30	18.45	12.02	7.84	5.11	3.33	2.17	1.41	0.92	0.60
265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
295	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
300	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
305	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
310	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
315	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
320	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
325	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
330	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
335	41.36	25.60	15.85	9.81	6.07	3.76	2.33	1.44	0.89	0.55
340	316.65	141.68	64.80	30.45	14.77	7.43	3.88	2.09	1.17	0.67
345	592.37	261.32	116.72	52.98	24.55	11.67	5.72	2.89	1.52	0.82
350	817.92	355.48	154.60	67.28	29.30	12.76	5.57	2.43	1.07	0.47
355	1079.07	477.45	211.56	93.88	41.73	18.56	8.28	3.70	1.66	0.75

AMPLITUDE      12346.36  5807.30  2752.93  1315.67  634.12  308.29  151.20  76.45  39.61  20.71  
 POSITION      70.00    70.00    70.00    70.00    70.00    70.00    70.00    80.00    85.00    85.00  
 (DEGREES)

PHASE      -313.72 -313.72 -313.72 -313.72 -313.72 -313.72 -313.72 -303.72 -298.72 -298.72  
 (DEGREES)

THE UPPER LIMIT IS 80.00 GV

DOUBLES  
GEOGRAPHIC LATITUDE = 50.10 GEOGRAPHIC LONGITUDE = 4.60

SQUARE WAVE REPRESENTATION - SIZE = 60 DEGREES

ASY.LONG./BETA= +1.6 +1.4 +1.2 +1.0 +0.8 +0.6 +0.4 +0.2 +0.0 -0.2

0	3947.94	1763.64	790.01	354.86	159.88	72.24	32.74	14.89	6.78	3.10
5	4635.49	2098.61	954.01	435.55	199.77	92.05	42.63	19.84	9.27	4.36
10	5217.63	2365.85	1077.18	492.54	226.23	104.38	48.40	22.55	10.54	4.96
15	5613.97	2592.33	1203.94	562.48	264.44	125.11	59.59	28.57	13.77	6.69
20	6201.77	2868.04	1335.52	626.42	296.09	141.06	67.77	32.83	16.03	7.90
25	7226.79	3382.82	1596.65	760.24	365.38	177.30	86.91	43.03	21.52	10.88
30	7914.41	3763.92	1808.56	878.52	431.66	214.51	108.01	55.01	28.36	14.80
35	8949.62	4338.24	2132.21	1063.44	538.59	277.08	144.84	76.90	41.46	22.68
40	10236.53	5004.58	2484.42	1253.42	643.07	335.58	178.15	96.15	52.74	29.37
45	10709.20	5258.14	2623.12	1330.83	687.15	361.18	193.29	105.25	58.30	32.81
50	10775.27	5307.57	2657.81	1354.41	702.90	371.61	200.17	109.79	61.30	34.79
55	9795.87	4891.03	2482.18	1281.42	673.33	360.17	196.13	108.66	61.23	35.04
60	8674.78	4388.34	2258.56	1183.37	631.44	343.10	189.81	106.82	61.13	35.52
65	8032.98	4085.06	2116.51	1117.89	602.09	330.59	184.98	105.38	61.07	35.95
70	7450.84	3817.82	1993.34	1060.90	575.63	318.26	179.21	102.67	59.80	35.35
75	6659.11	3424.85	1797.23	962.63	526.24	293.43	166.74	96.44	56.72	33.86
80	5915.53	3089.53	1646.16	895.05	496.56	280.90	161.89	94.93	56.59	34.24
85	4899.90	2581.43	1389.78	764.61	429.67	246.37	143.96	85.59	51.71	31.70
90	4026.74	2115.40	1139.48	629.35	356.16	206.20	121.91	73.45	45.01	28.00
95	2798.69	1462.48	784.62	432.65	245.24	142.74	85.15	51.94	32.32	20.47
100	1133.80	625.24	355.83	208.96	126.43	78.56	49.93	32.35	21.29	14.20
105	471.36	288.37	181.12	116.40	76.30	50.79	34.23	23.30	15.98	11.04
110	235.46	165.37	116.25	81.78	57.61	40.61	28.65	20.23	14.30	10.14
115	215.54	152.27	107.67	76.19	53.98	38.26	27.15	19.28	13.70	9.77
120	167.80	119.49	85.15	60.72	43.34	30.94	22.11	15.81	11.31	8.12
125	122.05	87.80	63.20	45.51	32.80	23.64	17.05	12.30	8.88	6.43
130	128.36	92.47	66.66	48.07	34.70	25.04	18.09	13.07	9.45	6.85
135	128.86	93.25	67.54	48.94	35.51	25.76	18.71	13.60	9.89	7.21
140	88.56	64.88	47.56	34.87	25.59	18.77	13.78	10.13	7.44	5.48
145	79.17	58.20	42.81	31.49	23.19	17.06	12.57	9.27	6.83	5.04
150	72.66	53.53	39.35	28.93	21.29	15.66	11.53	8.50	6.26	4.62
155	63.47	46.85	34.60	25.55	18.89	13.95	10.32	7.64	5.65	4.18
160	50.84	37.50	27.68	20.43	15.10	11.14	8.24	6.10	4.51	3.34
165	48.11	35.62	26.39	19.56	14.51	10.76	8.00	5.95	4.42	3.30
170	26.09	19.59	14.72	11.06	8.32	6.25	4.71	3.55	2.67	2.02
175	19.78	14.92	11.26	8.50	6.42	4.85	3.67	2.78	2.10	1.60
180	19.78	14.92	11.26	8.50	6.42	4.85	3.67	2.78	2.10	1.60
185	19.78	14.92	11.26	8.50	6.42	4.85	3.67	2.78	2.10	1.60
190	13.47	10.25	7.80	5.94	4.52	3.45	2.63	2.01	1.53	1.18
195	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
200	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
205	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
210	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
215	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
220	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
225	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
230	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
235	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
240	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
245	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
250	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
255	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
260	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
265	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
270	3.58	2.79	2.17	1.69	1.31	1.02	0.80	0.62	0.48	0.38
275	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
280	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
285	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
290	10.74	8.37	6.51	5.07	3.93	3.06	2.40	1.86	1.44	1.14
295	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
300	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
305	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
310	7.16	5.58	4.34	3.38	2.62	2.04	1.60	1.24	0.96	0.76
315	411.94	178.75	78.44	35.09	16.20	7.85	4.09	2.31	1.42	0.96
320	608.02	266.73	117.91	52.80	24.15	11.42	5.69	3.03	1.74	1.10
325	608.02	266.73	117.91	52.80	24.15	11.42	5.69	3.03	1.74	1.10
330	799.87	356.33	159.76	72.34	33.28	15.68	7.68	3.96	2.17	1.30
335	998.52	438.82	193.55	85.81	38.36	17.36	8.02	3.82	1.89	1.01
340	1389.13	619.07	277.05	124.64	56.48	25.85	12.01	5.70	2.78	1.43
345	1585.21	707.05	316.52	142.35	64.43	29.42	13.61	6.42	3.10	1.57
350	1773.48	793.86	356.20	160.20	72.25	32.66	14.80	6.73	3.05	1.39
355	2779.11	1228.17	543.87	241.34	107.35	47.85	21.38	9.58	4.29	1.93

AMPLITUDE	10775.27	5307.57	2657.81	1354.41	702.90	371.61	200.17	109.79	61.30	35.95
POSITION (DEGREES)	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	55.00

PHASE (DEGREES)	-314.60	-314.60	-314.60	-314.60	-314.60	-314.60	-314.60	-314.60	-314.60	-299.60
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JUNGFRAUJUCH  
GEOGRAPHIC LATITUDE = 46.55 GEOGRAPHIC LONGITUDE = 7.98

SQUARE WAVE REPRESENTATION - SIZE = 60 DEGREES

ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	+0.0	-0.2
0	2803.70	1243.05	553.33	247.59	111.60	50.84	23.50	11.10	5.41	2.76
5	3793.26	1690.38	756.14	339.82	153.66	70.08	32.33	15.16	7.29	3.63
10	4728.22	2127.40	961.51	436.85	199.75	92.09	42.89	20.26	9.76	4.83
15	5461.92	2476.62	1128.50	517.07	238.46	110.86	52.03	24.73	11.95	5.91
20	6018.77	2770.26	1282.63	597.73	280.60	132.85	63.50	30.72	15.08	7.54
25	6720.78	3095.19	1434.41	669.35	314.77	149.34	71.56	34.71	17.08	8.55
30	7109.96	3313.05	1555.74	736.70	352.06	169.96	82.96	41.01	20.56	10.47
35	7792.25	3663.18	1738.13	833.04	403.58	197.82	98.19	49.40	25.23	13.08
40	8816.33	4155.10	1976.88	950.03	461.37	226.52	112.46	56.47	28.68	14.71
45	9770.28	4650.62	2236.62	1087.51	534.89	266.25	134.16	68.44	35.35	18.46
50	10214.33	4922.41	2400.24	1184.98	592.58	300.26	154.18	80.23	42.29	22.56
55	10264.61	4979.25	2447.26	1219.55	616.51	316.25	164.64	86.98	46.60	25.30
60	9471.29	4676.36	2341.17	1189.18	613.10	320.88	170.49	91.94	50.29	27.87
65	8663.70	4345.55	2213.11	1144.99	601.97	321.59	174.55	96.22	53.82	30.51
70	7782.12	3943.29	2030.38	1062.71	565.50	305.85	168.08	93.79	53.09	30.45
75	7111.46	3636.22	1891.58	1001.35	539.41	295.53	164.60	93.11	53.44	31.07
80	6384.37	3278.69	1715.78	915.08	497.26	275.11	154.84	88.55	51.38	30.20
85	5496.04	2876.65	1533.12	831.83	459.26	257.80	147.00	85.05	49.87	29.59
90	4967.06	2610.51	1400.09	766.10	427.43	242.90	140.43	82.48	49.14	29.65
95	4107.50	2180.84	1182.79	655.00	370.07	213.04	124.77	74.23	44.78	27.35
100	2898.65	1615.01	915.43	527.55	308.87	183.51	110.50	67.37	41.52	25.85
105	1758.42	1042.76	625.31	378.96	232.00	143.38	89.37	56.18	35.57	22.68
110	920.13	585.85	374.58	240.42	154.91	100.18	64.99	42.32	27.64	18.11
115	677.83	439.33	285.67	186.29	121.84	79.92	52.54	34.64	22.90	15.17
120	464.46	307.39	203.84	135.40	90.10	60.07	40.10	26.82	17.97	12.06
125	312.02	211.53	143.54	97.47	66.25	45.08	30.68	20.91	14.26	9.74
130	288.21	197.80	135.85	93.35	64.19	44.19	30.41	20.96	14.45	9.97
135	225.17	155.65	107.66	74.49	51.57	35.74	24.75	17.17	11.91	8.27
140	219.99	153.68	107.44	75.14	52.58	36.83	25.79	18.08	12.69	8.91
145	220.03	154.06	107.94	75.66	53.06	37.25	26.14	18.37	12.92	9.09
150	159.75	112.57	79.36	55.97	39.49	27.89	19.68	13.91	9.84	6.96
155	145.00	102.43	72.38	51.17	36.19	25.62	18.12	12.84	9.10	6.45
160	115.50	82.15	58.43	41.58	29.59	21.08	15.00	10.69	7.62	5.43
165	100.71	71.63	50.95	36.26	25.81	18.39	13.09	9.33	6.65	4.74
170	115.50	82.15	58.43	41.58	29.59	21.08	15.00	10.69	7.62	5.43
175	115.50	82.15	58.43	41.58	29.59	21.08	15.00	10.69	7.62	5.43
180	127.53	91.06	65.02	46.46	33.20	23.75	16.98	12.16	8.70	6.23
185	98.00	70.40	50.57	36.35	26.12	18.79	13.51	9.73	7.00	5.04
190	68.43	49.37	35.62	25.72	18.56	13.41	9.69	7.01	5.07	3.67
195	80.46	58.28	42.21	30.60	22.17	16.08	11.67	8.48	6.15	4.47
200	53.64	38.86	28.14	20.40	14.78	10.72	7.78	5.66	4.10	2.98
205	38.85	28.34	20.66	15.08	11.00	8.03	5.87	4.30	3.13	2.29
210	38.85	28.34	20.66	15.08	11.00	8.03	5.87	4.30	3.13	2.29
215	38.85	28.34	20.66	15.08	11.00	8.03	5.87	4.30	3.13	2.29
220	38.85	28.34	20.66	15.08	11.00	8.03	5.87	4.30	3.13	2.29
225	38.85	28.34	20.66	15.08	11.00	8.03	5.87	4.30	3.13	2.29
230	24.06	17.82	13.18	9.76	7.22	5.34	3.96	2.94	2.16	1.60
235	24.06	17.82	13.18	9.76	7.22	5.34	3.96	2.94	2.16	1.60
240	12.03	8.91	6.59	4.88	3.61	2.67	1.98	1.47	1.08	0.80
245	12.03	8.91	6.59	4.88	3.61	2.67	1.98	1.47	1.08	0.80
250	12.03	8.91	6.59	4.88	3.61	2.67	1.98	1.47	1.08	0.80
255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320	202.24	85.28	35.96	15.16	6.39	2.70	1.14	0.48	0.20	0.09
325	403.31	172.53	73.82	31.59	13.52	5.79	2.48	1.06	0.45	0.20
330	603.19	262.30	114.10	49.66	21.63	9.43	4.11	1.79	0.78	0.35
335	795.41	351.98	155.99	69.22	30.77	13.70	6.10	2.72	1.21	0.55
340	1009.58	446.17	198.55	89.27	40.78	19.07	9.22	4.66	2.50	1.44
345	1210.75	533.42	236.41	105.70	47.91	22.16	10.56	5.24	2.75	1.55
350	1604.99	718.54	323.52	146.77	67.31	31.35	14.92	7.31	3.74	2.02
355	1797.01	808.22	365.41	166.33	76.45	35.62	16.91	8.24	4.17	2.22

AMPLITUDE	10264.61	4979.25	2447.26	1219.55	616.51	321.59	174.55	96.22	53.82	31.07
POSITION (DEGREES)	55.00	55.00	55.00	55.00	55.00	65.00	65.00	65.00	65.00	75.00

PHASE (DEGREES)	-312.98	-312.98	-312.98	-312.98	-312.98	-302.98	-302.98	-302.98	-302.98	-292.98
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KIEL  
 GEOGRAPHIC LATITUDE = 54.33 GEOGRAPHIC LONGITUDE = 10.13

SQUARE WAVE REPRESENTATION - SIZE = 60 DEGREES

ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	+0.0	-0.2
0	2898.71	1286.58	572.55	255.61	114.60	51.70	23.52	10.86	5.12	2.51
5	3986.85	1799.67	815.65	371.33	169.94	78.28	36.34	17.07	8.14	3.99
10	4704.91	2137.91	975.85	447.62	206.48	95.87	44.86	21.22	10.17	4.99
15	5146.12	2362.45	1090.76	506.76	237.08	111.78	53.18	25.59	12.47	6.22
20	5426.03	2524.37	1183.03	558.77	266.17	127.94	62.12	30.50	15.15	7.67
25	6277.23	2951.14	1400.57	671.44	325.40	159.51	79.16	39.79	20.27	10.52
30	7512.45	3606.88	1756.49	868.71	436.83	223.51	116.46	61.80	33.39	18.41
35	8786.70	4319.20	2158.67	1098.04	568.88	300.26	161.48	88.44	49.28	27.97
40	9106.85	4538.91	2299.81	1185.64	622.28	332.56	180.98	100.25	56.47	32.38
45	9637.43	4785.82	2418.45	1244.92	653.26	349.51	190.68	106.01	60.01	34.60
50	9830.04	4894.51	2480.71	1281.18	674.75	362.49	198.66	111.00	63.19	36.65
55	10641.15	5268.43	2656.10	1365.36	716.37	383.83	210.09	117.40	66.95	38.95
60	9491.25	4770.06	2441.09	1273.37	677.58	367.90	203.86	115.19	66.35	38.94
65	8445.55	4287.23	2219.59	1173.07	633.26	349.20	196.68	113.02	66.23	39.54
70	7752.12	3967.22	2072.88	1106.77	604.11	337.08	192.21	111.87	66.42	40.18
75	7135.22	3675.17	1934.29	1041.14	573.32	322.94	185.99	109.37	65.63	40.12
80	6475.24	3348.18	1771.13	959.29	532.13	302.24	175.64	104.28	63.20	39.02
85	5627.18	2923.86	1555.49	848.10	474.05	271.57	159.30	95.53	58.50	36.50
90	4204.92	2180.76	1158.77	631.78	353.72	203.41	120.06	72.61	44.96	28.41
95	2936.96	1473.33	760.40	405.41	223.98	128.46	76.44	47.06	29.92	19.51
100	2225.31	1087.24	548.92	288.37	158.49	91.39	55.21	34.75	22.70	15.24
105	1328.91	671.24	352.78	194.13	112.21	68.12	43.23	28.45	19.33	13.42
110	1136.30	562.55	290.52	157.87	90.72	55.14	35.25	23.46	16.15	11.37
115	138.15	101.27	74.33	54.64	40.20	29.64	21.88	16.15	11.97	8.87
120	120.57	88.86	65.58	48.47	35.87	26.60	19.75	14.67	10.94	8.16
125	81.27	61.05	45.88	34.53	26.00	19.62	14.81	11.17	8.46	6.41
130	56.64	42.82	32.39	24.54	18.61	14.15	10.76	8.17	6.24	4.77
135	35.17	27.19	21.01	16.25	12.57	9.75	7.55	5.83	4.53	3.52
140	25.87	20.19	15.73	12.27	9.57	7.48	5.84	4.54	3.55	2.78
145	22.73	17.74	13.83	10.79	8.42	6.58	5.14	4.00	3.13	2.45
150	22.73	17.74	13.83	10.79	8.42	6.58	5.14	4.00	3.13	2.45
155	16.44	12.85	10.02	7.83	6.11	4.78	3.74	2.91	2.28	1.79
160	14.76	11.61	9.13	7.19	5.66	4.46	3.53	2.77	2.20	1.74
165	5.33	4.27	3.42	2.74	2.20	1.77	1.43	1.14	0.93	0.75
170	5.33	4.27	3.42	2.74	2.20	1.77	1.43	1.14	0.93	0.75
175	5.33	4.27	3.42	2.74	2.20	1.77	1.43	1.14	0.93	0.75
180	4.60	3.66	2.91	2.32	1.85	1.48	1.19	0.94	0.76	0.61
185	1.46	1.21	1.01	0.84	0.70	0.58	0.49	0.40	0.34	0.28
190	1.46	1.21	1.01	0.84	0.70	0.58	0.49	0.40	0.34	0.28
195	1.46	1.21	1.01	0.84	0.70	0.58	0.49	0.40	0.34	0.28
200	2.19	1.82	1.52	1.26	1.05	0.87	0.73	0.60	0.51	0.42
205	2.19	1.82	1.52	1.26	1.05	0.87	0.73	0.60	0.51	0.42
210	2.19	1.82	1.52	1.26	1.05	0.87	0.73	0.60	0.51	0.42
215	2.19	1.82	1.52	1.26	1.05	0.87	0.73	0.60	0.51	0.42
220	1.46	1.22	1.02	0.84	0.70	0.58	0.48	0.40	0.34	0.28
225	1.46	1.22	1.02	0.84	0.70	0.58	0.48	0.40	0.34	0.28
230	1.46	1.22	1.02	0.84	0.70	0.58	0.48	0.40	0.34	0.28
235	1.46	1.22	1.02	0.84	0.70	0.58	0.48	0.40	0.34	0.28
240	2.19	1.83	1.53	1.26	1.05	0.87	0.72	0.60	0.51	0.42
245	2.19	1.83	1.53	1.26	1.05	0.87	0.72	0.60	0.51	0.42
250	2.19	1.83	1.53	1.26	1.05	0.87	0.72	0.60	0.51	0.42
255	2.19	1.83	1.53	1.26	1.05	0.87	0.72	0.60	0.51	0.42
260	1.46	1.22	1.02	0.84	0.70	0.58	0.48	0.40	0.34	0.28
265	1.46	1.22	1.02	0.84	0.70	0.58	0.48	0.40	0.34	0.28
270	1.46	1.22	1.02	0.84	0.70	0.58	0.48	0.40	0.34	0.28
275	1.46	1.22	1.02	0.84	0.70	0.58	0.48	0.40	0.34	0.28
280	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
285	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
290	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
295	0.73	0.61	0.51	0.42	0.35	0.29	0.24	0.20	0.17	0.14
300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	197.16	83.14	35.06	14.78	6.23	2.63	1.11	0.47	0.20	0.08
320	586.53	255.21	111.23	48.60	21.33	9.44	4.23	1.94	0.93	0.47
325	586.53	255.21	111.23	48.60	21.33	9.44	4.23	1.94	0.93	0.47
330	773.57	342.57	152.03	67.65	30.23	13.60	6.17	2.85	1.35	0.67
335	773.57	342.57	152.03	67.65	30.23	13.60	6.17	2.85	1.35	0.67
340	1168.21	511.40	224.27	98.57	43.47	19.27	8.60	3.89	1.80	0.86
345	1543.46	687.83	307.48	137.98	62.23	28.28	12.98	6.06	2.90	1.45
350	1543.46	687.83	307.48	137.98	62.23	28.28	12.98	6.06	2.90	1.45
355	1730.50	775.19	348.28	157.03	71.13	32.44	14.92	6.97	3.32	1.65

AMPLITUDE	10641.15	5268.43	2656.10	1365.36	716.37	383.83	210.09	117.40	66.95	40.18
POSITION (DEGREES)	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	70.00

PHASE (DEGREES)	-315.13	-315.13	-315.13	-315.13	-315.13	-315.13	-315.13	-315.13	-315.13	-300.13
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AD-A036 992 KIEL UNIV (WEST GERMANY) INSTITUT FUER REINE UND ANG--ETC F/G 4/1  
AN EXTENDED SET OF COSMIC RAY VARIATIONAL COEFFICIENTS FOR EURO--ETC(U)  
MAR 77 O H BINDER, M A SHEA, D F SMART

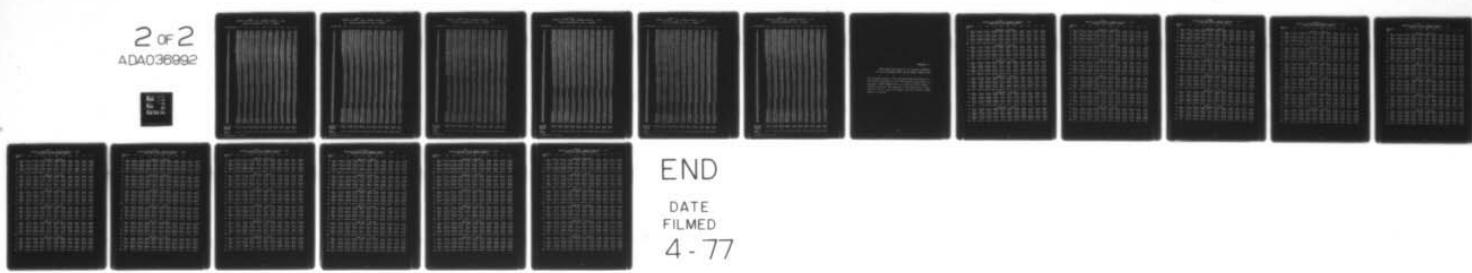
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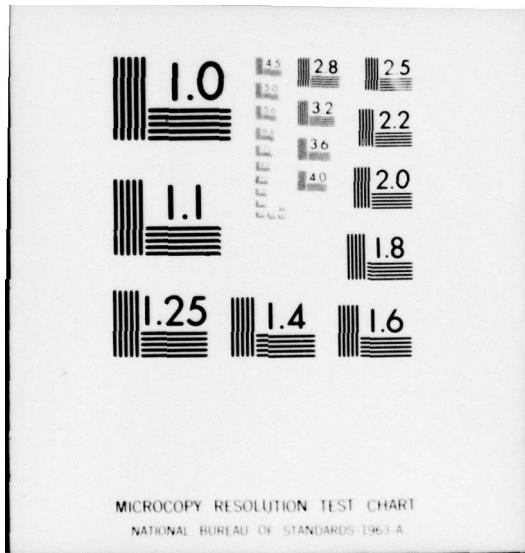
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MICROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS 1963-A

KIEV  
GEOGRAPHIC LATITUDE = 50.72 GEOGRAPHIC LONGITUDE = 30.30

SQUARE WAVE REPRESENTATION - SIZE = 60 DEGREES

ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	+0.0	-0.2
0	1005.54	440.67	193.41	85.03	37.44	16.51	7.30	3.23	1.43	0.65
5	1210.25	529.50	231.95	101.76	44.70	19.66	8.67	3.82	1.69	0.76
10	1603.09	715.34	320.47	144.34	65.47	30.01	13.98	6.65	3.28	1.70
15	1796.98	805.90	362.76	164.09	74.70	34.32	15.99	7.59	3.72	1.91
20	2608.63	1156.02	513.89	229.37	102.91	46.52	21.27	9.88	4.71	2.34
25	3789.93	1697.20	762.65	344.10	156.00	71.17	32.75	15.24	7.22	3.52
30	4879.59	2217.92	1012.79	464.89	214.63	99.77	46.78	22.15	10.64	5.22
35	5351.91	2435.75	1114.23	512.62	237.34	110.70	52.10	24.77	11.95	5.88
40	5678.45	2623.57	1219.54	570.65	268.94	127.76	61.25	29.66	14.56	7.26
45	6422.62	2986.48	1399.81	661.82	315.84	152.26	74.22	36.61	18.32	9.31
50	7419.40	3485.06	1651.73	790.44	382.21	186.87	92.46	46.32	23.53	12.14
55	8003.43	3807.67	1830.62	890.06	437.95	218.22	110.19	56.40	29.29	15.44
60	9307.16	4510.92	2216.88	1105.72	560.14	288.34	150.88	80.24	43.37	23.81
65	10534.69	5150.22	2555.84	1288.61	660.51	343.32	182.57	98.44	53.95	30.03
70	11013.50	5407.60	2696.94	1367.53	705.53	370.47	198.02	107.70	59.56	33.46
75	10875.95	5354.67	2679.80	1364.59	707.54	373.68	201.04	110.13	61.38	34.76
80	10092.82	5023.61	2541.41	1307.82	685.02	365.28	198.30	109.54	61.53	35.09
85	8945.51	4506.03	2309.04	1204.47	639.84	346.13	190.64	106.84	60.87	35.19
90	7894.61	4011.69	2076.86	1095.91	589.54	323.20	180.47	102.56	59.24	34.71
95	7456.28	3817.46	1991.81	1059.56	574.74	317.77	178.97	102.60	59.78	35.33
100	6720.65	3454.63	1811.61	969.48	529.42	294.84	167.30	96.63	56.71	33.75
105	5778.31	3002.81	1591.45	860.41	474.49	266.74	152.71	88.95	52.62	31.55
110	4822.26	2532.91	1359.72	746.01	418.14	239.19	139.45	82.75	49.88	30.47
115	4053.83	2126.49	1143.34	630.05	355.60	205.26	120.94	72.60	44.30	27.40
120	2559.80	1347.38	728.32	404.64	231.06	135.45	81.35	49.95	31.26	19.86
125	1143.43	630.72	359.12	211.02	127.77	79.46	50.57	32.81	21.62	14.40
130	278.16	192.22	133.00	92.11	63.90	44.38	30.86	21.50	15.00	10.46
135	228.20	159.31	111.35	77.89	54.58	38.28	26.88	18.91	13.32	9.38
140	199.68	140.25	98.61	69.38	48.89	34.48	24.34	17.21	12.18	8.62
145	181.56	128.12	90.52	64.00	45.32	32.12	22.80	16.20	11.53	8.21
150	161.95	115.91	83.05	59.53	42.74	30.70	22.09	15.90	11.47	8.27
155	127.96	92.31	66.66	48.15	34.83	25.20	18.27	13.24	9.62	6.99
160	127.96	92.31	66.66	48.15	34.83	25.20	18.27	13.24	9.62	6.99
165	127.96	92.31	66.66	48.15	34.83	25.20	18.27	13.24	9.62	6.99
170	93.61	68.35	49.97	36.52	26.73	19.56	14.34	10.51	7.73	5.67
175	90.50	66.32	48.67	35.70	26.22	19.25	14.16	10.42	7.69	5.66
180	76.41	55.99	41.09	30.12	22.11	16.21	11.91	8.75	6.45	4.74
185	60.54	44.52	32.79	24.12	17.77	13.07	9.63	7.10	5.25	3.87
190	54.16	39.80	29.29	21.53	15.85	11.65	8.58	6.32	4.67	3.44
195	47.78	35.08	25.79	18.94	13.93	10.23	7.53	5.54	4.09	3.01
200	47.78	35.08	25.79	18.94	13.93	10.23	7.53	5.54	4.09	3.01
205	31.91	23.61	17.49	12.94	9.59	7.09	5.25	3.89	2.89	2.14
210	12.76	9.44	7.00	5.18	3.84	2.84	2.10	1.56	1.16	0.86
215	17.35	13.02	9.78	7.35	5.53	4.15	3.12	2.36	1.78	1.34
220	17.35	13.02	9.78	7.35	5.53	4.15	3.12	2.36	1.78	1.34
225	17.35	13.02	9.78	7.35	5.53	4.15	3.12	2.36	1.78	1.34
230	10.97	8.30	6.28	4.76	3.61	2.73	2.07	1.58	1.20	0.91
235	4.59	3.58	2.78	2.17	1.69	1.31	1.02	0.80	0.62	0.48
240	4.59	3.58	2.78	2.17	1.69	1.31	1.02	0.80	0.62	0.48
245	4.59	3.58	2.78	2.17	1.69	1.31	1.02	0.80	0.62	0.48
250	4.59	3.58	2.78	2.17	1.69	1.31	1.02	0.80	0.62	0.48
255	4.59	3.58	2.78	2.17	1.69	1.31	1.02	0.80	0.62	0.48
260	4.59	3.58	2.78	2.17	1.69	1.31	1.02	0.80	0.62	0.48
265	4.59	3.58	2.78	2.17	1.69	1.31	1.02	0.80	0.62	0.48
270	4.59	3.58	2.78	2.17	1.69	1.31	1.02	0.80	0.62	0.48
275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
340	409.09	175.01	74.89	32.05	13.72	5.87	2.52	1.08	0.46	0.20
345	607.26	263.92	114.78	49.95	21.75	9.47	4.14	1.81	0.79	0.35
350	607.26	263.92	114.78	49.95	21.75	9.47	4.14	1.81	0.79	0.35
355	801.15	354.48	157.07	69.70	30.98	13.78	6.15	2.75	1.23	0.56

AMPLITUDE	11013.50	5407.60	2696.94	1367.53	707.54	373.68	201.04	110.13	61.53	35.33
POSITION (DEGREES)	70.00	70.00	70.00	70.00	75.00	75.00	75.00	75.00	80.00	95.00

PHASE  
(DEGREES)

LEEDS  
GEOGRAPHIC LATITUDE = 53.82 GEOGRAPHIC LONGITUDE = 358.45

SQUARE WAVE REPRESENTATION - SIZE = 60 DEGREES

ASY.LONG./BETA= +1.6 +1.4 +1.2 +1.0 +0.8 +0.6 +0.4 +0.2 +0.0 -0.2

0	4761.14	2169.80	993.63	457.31	211.64	98.47	46.10	21.70	10.27	4.90
5	5114.13	2365.90	1101.41	516.13	243.57	115.76	55.44	26.74	13.00	6.37
10	5446.37	2537.03	1190.58	563.09	268.54	129.16	62.69	30.69	15.17	7.57
15	6470.57	3037.09	1439.19	689.00	333.50	163.28	80.92	40.59	20.62	10.61
20	7828.22	3782.86	1855.90	925.59	469.77	242.79	127.84	68.55	37.42	20.77
25	8628.85	4262.88	2141.32	1094.69	569.91	302.20	163.20	89.69	50.12	28.45
30	9683.43	4786.31	2405.90	1231.11	641.75	340.88	184.51	101.70	57.03	32.52
35	9634.00	4788.38	2422.50	1248.78	656.39	351.90	192.42	107.24	60.86	35.15
40	10022.71	4979.68	2519.55	1299.68	684.04	367.46	201.48	112.69	64.22	37.28
45	10620.54	5259.96	2652.97	1364.50	716.39	384.16	210.45	117.74	67.19	39.10
50	9498.57	4780.74	2451.35	1281.99	684.38	373.11	207.75	118.09	68.46	40.45
55	8098.35	4127.20	2146.35	1140.13	618.98	343.50	194.80	112.80	66.61	40.08
60	7675.03	3927.91	2053.28	1097.34	599.88	335.45	191.80	112.02	66.74	40.52
65	6943.89	3574.97	1882.08	1014.15	559.59	316.13	182.76	107.98	65.10	40.01
70	6424.13	3320.74	1756.43	951.45	528.04	300.16	174.65	103.87	63.04	39.00
75	5399.93	2820.68	1507.82	825.54	463.08	266.04	156.42	93.97	57.59	35.94
80	3865.15	1995.11	1056.12	574.38	321.38	185.07	109.65	66.74	41.64	26.59
85	2871.02	1434.62	737.64	392.02	216.17	123.94	73.88	45.67	29.16	19.16
90	1442.92	740.81	395.67	220.81	129.01	78.80	50.08	32.92	22.22	15.34
95	1301.70	653.20	340.69	185.92	106.64	64.31	40.61	26.68	18.08	12.57
100	912.99	461.90	243.64	135.02	78.99	48.75	31.55	21.23	14.72	10.44
105	131.76	96.94	71.43	52.68	38.91	28.80	21.34	15.82	11.75	8.75
110	89.43	66.76	49.89	37.30	27.92	20.94	15.71	11.79	8.86	6.68
115	61.88	46.63	35.18	26.55	20.06	15.19	11.50	8.71	6.60	5.03
120	40.47	31.05	23.83	18.29	14.04	10.80	8.30	6.38	4.90	3.79
125	26.03	20.32	15.87	12.39	9.66	7.57	5.90	4.61	3.59	2.83
130	22.90	17.88	13.97	10.91	8.51	6.67	5.20	4.07	3.17	2.50
135	22.90	17.88	13.97	10.91	8.51	6.67	5.20	4.07	3.17	2.50
140	13.50	10.56	8.27	6.48	5.06	3.98	3.11	2.44	1.90	1.51
145	11.34	8.92	7.04	5.56	4.37	3.47	2.73	2.17	1.70	1.37
150	5.07	4.04	3.24	2.60	2.07	1.68	1.34	1.08	0.86	0.71
155	6.04	4.84	3.91	3.16	2.53	2.07	1.66	1.35	1.08	0.90
160	6.04	4.84	3.91	3.16	2.53	2.07	1.66	1.35	1.08	0.90
165	2.91	2.40	2.01	1.68	1.38	1.17	0.96	0.81	0.66	0.57
170	3.88	3.20	2.68	2.24	1.84	1.56	1.28	1.08	0.88	0.76
175	3.88	3.20	2.68	2.24	1.84	1.56	1.28	1.08	0.88	0.76
180	3.88	3.20	2.68	2.24	1.84	1.56	1.28	1.08	0.88	0.76
185	3.88	3.20	2.68	2.24	1.84	1.56	1.28	1.08	0.88	0.76
190	3.88	3.20	2.68	2.24	1.84	1.56	1.28	1.08	0.88	0.76
195	3.88	3.20	2.68	2.24	1.84	1.56	1.28	1.08	0.88	0.76
200	4.85	4.00	3.35	2.80	2.30	1.95	1.60	1.35	1.10	0.95
205	4.85	4.00	3.35	2.80	2.30	1.95	1.60	1.35	1.10	0.95
210	4.85	4.00	3.35	2.80	2.30	1.95	1.60	1.35	1.10	0.95
215	3.88	3.20	2.68	2.24	1.84	1.56	1.28	1.08	0.88	0.76
220	4.85	4.00	3.35	2.80	2.30	1.95	1.60	1.35	1.10	0.95
225	4.85	4.00	3.35	2.80	2.30	1.95	1.60	1.35	1.10	0.95
230	3.88	3.20	2.68	2.24	1.84	1.56	1.28	1.08	0.88	0.76
235	3.88	3.20	2.68	2.24	1.84	1.56	1.28	1.08	0.88	0.76
240	3.88	3.20	2.68	2.24	1.84	1.56	1.28	1.08	0.88	0.76
245	2.91	2.40	2.01	1.68	1.38	1.17	0.96	0.81	0.66	0.57
250	2.91	2.40	2.01	1.68	1.38	1.17	0.96	0.81	0.66	0.57
255	2.91	2.40	2.01	1.68	1.38	1.17	0.96	0.81	0.66	0.57
260	1.94	1.60	1.34	1.12	0.92	0.78	0.64	0.54	0.44	0.38
265	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
270	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
275	0.97	0.80	0.67	0.56	0.46	0.39	0.32	0.27	0.22	0.19
280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	393.56	168.37	72.05	30.83	13.20	5.65	2.42	1.04	0.44	0.19
310	584.21	253.91	110.43	48.05	20.93	9.12	3.98	1.74	0.75	0.33
315	584.21	253.91	110.43	48.05	20.93	9.12	3.98	1.74	0.75	0.33
320	770.74	341.03	151.12	67.05	29.81	13.27	5.92	2.64	1.17	0.53
325	967.37	423.94	186.08	81.79	36.03	15.89	7.03	3.11	1.37	0.61
330	1347.16	599.20	267.27	119.54	53.65	24.14	10.91	4.94	2.24	1.02
335	1537.81	684.74	305.65	136.76	61.38	27.61	12.47	5.64	2.55	1.16
340	1537.81	684.74	305.65	136.76	61.38	27.61	12.47	5.64	2.55	1.16
345	1724.34	771.86	346.34	155.76	70.26	31.76	14.41	6.54	2.97	1.36
350	2888.64	1281.26	569.50	253.65	113.26	50.67	22.74	10.22	4.59	2.08
355	4316.41	1954.93	889.21	406.26	186.52	86.03	39.90	18.59	8.70	4.10

AMPLITUDE	10620.54	5259.96	2652.97	1364.50	716.39	384.16	210.45	118.09	68.46	40.52
POSITION (DEGREES)	45.00	45.00	45.00	45.00	45.00	45.00	45.00	50.00	50.00	60.00

PHASE  
(DEGREES) -673.45 -673.45 -673.45 -673.45 -673.45 -673.45 -673.45 -668.45 -668.45 -658.45

DULU  
GEOGRAPHIC LATITUDE = 65.00 GEOGRAPHIC LONGITUDE = 25.42

SQUARE WAVE REPRESENTATION - SIZE = 60 DEGREES

ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	+0.0	-0.2
0	1711.32	766.03	343.71	154.60	69.72	31.51	14.27	6.49	2.96	1.36
5	1711.32	766.03	343.71	154.60	69.72	31.51	14.27	6.49	2.96	1.36
10	2218.84	1020.22	471.14	218.55	101.84	47.66	22.40	10.59	5.03	2.40
15	3815.13	1746.44	804.05	372.46	173.66	81.51	38.53	18.36	8.82	4.27
20	4021.51	1857.71	863.33	403.79	190.13	90.15	43.06	20.74	10.07	4.93
25	4683.32	2195.69	1037.85	494.84	238.08	115.62	56.70	28.09	14.06	7.11
30	5018.54	2401.28	1164.08	572.42	285.82	145.04	74.84	39.29	20.99	11.39
35	6281.61	3125.36	1582.57	816.23	428.98	229.74	125.32	69.59	39.30	22.53
40	6775.53	3410.84	1752.67	919.98	493.39	270.27	151.09	86.12	49.98	29.48
45	7881.51	3992.91	2067.54	1095.56	594.49	330.42	188.01	109.45	65.10	39.50
50	8413.89	4256.29	2201.56	1166.13	633.16	352.57	201.29	117.76	70.52	43.15
55	9001.46	4561.80	2361.29	1250.38	678.17	377.07	214.97	125.64	75.24	46.10
60	9391.13	4735.67	2439.65	1286.33	695.17	385.52	219.69	128.28	76.95	47.30
65	9589.28	4820.46	2476.43	1302.70	702.78	389.32	221.59	129.58	77.84	47.96
70	9226.34	4642.22	2388.91	1259.72	681.68	378.97	216.51	127.09	76.63	47.38
75	7630.05	3916.00	2056.00	1105.81	609.86	345.12	200.38	119.32	72.84	45.51
80	7214.56	3726.76	1968.99	1065.38	590.85	336.06	196.00	117.16	71.76	44.96
85	6363.62	3303.96	1756.45	957.30	535.29	307.20	180.87	109.16	67.50	42.68
90	6028.87	3098.80	1630.62	880.08	487.88	278.09	163.02	98.22	60.81	38.62
95	4765.95	2374.86	1212.26	636.39	344.83	193.49	112.64	68.01	42.58	27.55
100	4279.76	2085.14	1036.48	528.23	277.53	151.21	85.86	50.92	31.60	20.44
105	2978.64	1420.78	686.91	338.02	170.26	88.46	47.84	27.13	16.28	10.34
110	2446.26	1157.40	552.89	267.45	131.59	66.31	34.56	18.82	10.86	6.69
115	1669.48	767.00	355.07	166.11	78.91	38.37	19.34	10.25	5.83	3.60
120	1289.83	588.96	271.03	125.93	59.27	28.41	14.00	7.17	3.90	2.28
125	1091.69	504.18	234.26	109.57	51.67	24.62	11.91	5.88	3.02	1.63
130	947.11	428.23	194.35	88.60	40.65	18.82	8.86	4.27	2.16	1.17
135	947.11	428.23	194.35	88.60	40.65	18.82	8.86	4.27	2.16	1.17
140	765.63	339.10	150.58	67.10	30.09	13.63	6.31	3.02	1.55	0.87
145	765.55	339.03	150.51	67.04	30.03	13.58	6.26	2.98	1.51	0.83
150	579.96	252.14	109.73	47.82	20.89	9.16	4.05	1.82	0.85	0.41
155	579.81	252.00	109.60	47.70	20.78	9.06	3.95	1.73	0.77	0.34
160	390.60	167.11	71.51	30.61	13.11	5.62	2.41	1.04	0.46	0.20
165	390.60	167.11	71.51	30.61	13.11	5.62	2.41	1.04	0.46	0.20
170	195.15	82.30	34.71	14.64	6.18	2.61	1.11	0.47	0.21	0.09
175	195.15	82.30	34.71	14.64	6.18	2.61	1.11	0.47	0.21	0.09
180	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
195	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
200	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
205	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
210	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
215	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
220	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
225	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
230	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
235	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
240	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
245	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
250	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
255	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
260	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
265	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
270	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
275	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
280	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
285	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
290	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
295	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
300	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
305	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
310	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
315	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
320	390.60	167.11	71.51	30.61	13.11	5.62	2.41	1.04	0.45	0.20
325	579.80	251.99	109.59	47.69	20.77	9.05	3.94	1.72	0.75	0.33
330	764.92	338.45	149.97	66.55	29.58	13.16	5.86	2.62	1.17	0.53
335	764.92	338.45	149.97	66.55	29.58	13.16	5.86	2.62	1.17	0.53
340	946.40	427.58	193.74	88.05	40.14	18.35	8.41	3.87	1.78	0.83
345	1141.54	509.87	228.44	102.68	46.31	20.95	9.51	4.33	1.98	0.91
350	1336.99	594.68	265.24	118.65	53.24	23.96	10.81	4.90	2.23	1.02
355	1526.20	679.57	303.33	135.74	60.91	27.40	12.35	5.59	2.54	1.16

AMPLITUDE	9589.28	4820.46	2476.43	1302.70	702.78	389.32	221.59	129.58	77.84	47.96
POSITION (DEGREES)	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00

PHASE (DEGREES)	-320.42	-320.42	-320.42	-320.42	-320.42	-320.42	-320.42	-320.42	-320.42	-320.42
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PIC DU MIDI  
GEOGRAPHIC LATITUDE = 42.93 GEOGRAPHIC LONGITUDE = 0.25

SQUARE WAVE REPRESENTATION - SIZE = 60 DEGREES

ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	+0.0	-0.2
0	4548.44	2032.80	911.76	410.75	186.07	84.92	39.12	18.28	8.70	4.25
5	5356.14	2407.18	1086.64	493.07	225.12	103.59	48.11	22.64	10.83	5.30
10	5934.44	2691.61	1226.84	562.33	259.41	120.61	56.57	26.86	12.94	6.36
15	6680.51	3059.67	1409.18	653.02	304.70	143.30	67.98	32.62	15.86	7.84
20	7045.19	3243.72	1502.76	700.95	329.44	156.15	74.71	36.16	17.73	8.84
25	8076.89	3751.47	1755.10	827.55	393.54	188.88	91.56	44.90	22.30	11.24
30	8671.63	4033.74	1891.64	894.91	427.43	206.25	100.62	49.70	24.88	12.64
35	9863.05	4628.05	2190.57	1046.59	505.09	246.37	121.54	60.71	30.72	15.77
40	10428.74	4926.47	2347.85	1129.55	548.94	269.63	133.93	67.35	34.30	17.71
45	10446.70	4970.84	2388.22	1159.08	568.50	281.84	141.25	71.59	36.69	19.00
50	10177.97	4901.73	2385.38	1173.48	583.80	293.75	149.50	76.97	40.09	21.10
55	9442.26	4604.25	2269.32	1130.93	570.03	290.61	149.84	78.15	41.22	21.97
60	8343.64	4123.15	2061.85	1043.52	534.54	277.08	145.29	77.06	41.32	22.38
65	7782.62	3901.13	1981.25	1019.65	531.79	280.99	150.37	81.48	44.68	24.77
70	7227.21	3631.29	1850.35	956.32	501.28	266.38	143.45	78.24	43.19	24.11
75	6195.52	3171.01	1647.39	868.67	464.78	252.18	138.67	77.22	43.51	24.79
80	5704.26	2946.85	1546.46	824.24	445.96	244.77	136.18	76.73	43.75	25.22
85	4816.55	2532.77	1355.12	737.42	407.83	229.01	130.44	75.27	43.95	25.95
90	4013.33	2153.13	1173.10	648.82	364.02	207.01	119.22	69.46	40.90	24.33
95	2660.29	1503.97	859.71	496.70	289.86	170.77	101.51	60.83	36.73	22.35
100	1929.06	1146.43	685.36	412.13	249.23	151.55	92.66	56.94	35.16	21.83
105	1483.41	900.26	549.16	336.67	207.36	128.29	79.73	49.74	31.15	19.60
110	1139.89	710.82	444.71	279.15	175.75	110.98	70.30	44.66	28.43	18.17
115	1020.19	641.18	404.31	255.80	162.32	103.30	65.95	42.21	27.07	17.43
120	873.63	559.07	358.71	230.77	148.82	96.20	62.36	40.50	26.36	17.22
125	626.95	406.71	264.43	172.32	112.52	73.62	48.29	31.72	20.87	13.78
130	621.43	403.73	262.89	171.58	112.21	73.53	48.30	31.77	20.94	13.84
135	487.18	321.02	211.88	140.10	92.77	61.52	40.89	27.19	18.11	12.09
140	396.53	263.66	175.50	116.98	78.05	52.13	34.88	23.34	15.64	10.50
145	252.54	169.99	114.50	77.20	52.08	35.16	23.77	16.06	10.87	7.37
150	270.55	182.38	123.02	83.06	56.11	37.93	25.68	17.37	11.77	7.99
155	230.60	157.03	106.96	72.90	49.70	33.89	23.15	15.78	10.78	7.37
160	177.84	121.42	82.92	56.67	38.74	26.49	18.15	12.40	8.50	5.83
165	177.49	122.22	84.18	58.00	39.98	27.56	19.03	13.11	9.05	6.26
170	142.10	98.22	67.90	46.95	32.48	22.47	15.58	10.76	7.46	5.18
175	124.09	85.83	59.38	41.09	28.45	19.70	13.67	9.45	6.56	4.56
180	88.74	61.11	42.09	29.00	19.99	13.78	9.52	6.55	4.52	3.13
185	88.74	61.11	42.09	29.00	19.99	13.78	9.52	6.55	4.52	3.13
190	71.37	49.50	34.33	23.81	16.52	11.46	7.97	5.52	3.83	2.67
195	53.36	37.11	25.81	17.95	12.49	8.69	6.06	4.21	2.93	2.05
200	53.36	37.11	25.81	17.95	12.49	8.69	6.06	4.21	2.93	2.05
205	53.36	37.11	25.81	17.95	12.49	8.69	6.06	4.21	2.93	2.05
210	35.35	24.72	17.29	12.09	8.46	5.92	4.15	2.90	2.03	1.43
215	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
220	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
270	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
275	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
280	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
285	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
290	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
295	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
300	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
305	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
310	17.34	12.33	8.77	6.23	4.43	3.15	2.24	1.59	1.13	0.81
315	455.22	199.65	88.92	40.53	19.11	9.44	4.93	2.74	1.62	1.02
320	672.45	297.12	132.65	60.15	27.91	13.39	6.70	3.54	1.98	1.18
325	655.11	284.79	123.88	53.92	23.48	10.24	4.46	1.95	0.85	0.37
330	863.59	382.16	169.36	75.16	33.40	14.87	6.62	2.96	1.32	0.59
335	1083.17	474.75	208.40	91.62	40.34	17.80	7.85	3.48	1.54	0.68
340	1301.47	569.48	249.51	109.46	48.08	21.16	9.31	4.11	1.81	0.80
345	1746.85	782.81	352.85	160.29	73.58	34.29	16.28	7.95	4.01	2.12
350	2394.49	1065.36	476.42	214.46	97.39	44.78	20.91	10.00	4.92	2.53
355	3267.91	1444.87	641.40	286.22	128.62	58.37	26.83	12.58	6.05	3.02

AMPLITUDE 10446.70 4970.84 2388.22 1173.48 583.80 293.75 150.37 81.48 44.68 25.95  
 POSITION 45.00 45.00 45.00 50.00 50.00 50.00 65.00 65.00 65.00 85.00  
 (DEGREES)

PHASE -315.25 -315.25 -315.25 -310.25 -310.25 -310.25 -295.25 -295.25 -295.25 -275.25  
 (DEGREES)

ROME  
GEOGRAPHIC LATITUDE = 41.90 GEOGRAPHIC LONGITUDE = 12.52

SQUARE WAVE REPRESENTATION - SIZE = 60 DEGREES

ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	+0.0	-0.2
0	2077.44	929.92	417.25	187.68	84.61	38.25	17.32	7.88	3.60	1.65
5	2788.49	1232.66	546.17	242.59	108.00	48.22	21.57	9.69	4.37	1.98
10	4404.32	1957.73	872.28	389.61	174.44	78.32	35.24	15.92	7.21	3.28
15	5491.43	2466.02	1111.22	502.55	228.11	103.96	47.56	21.87	10.10	4.69
20	6173.73	2782.13	1258.05	570.93	260.03	118.90	54.57	25.16	11.65	5.42
25	6754.41	3069.56	1401.14	642.56	296.06	137.11	63.82	29.88	14.06	6.66
30	7690.45	3525.57	1624.38	752.40	350.38	164.11	77.32	36.65	17.48	8.40
35	8052.28	3700.01	1709.90	795.03	371.96	175.19	83.09	39.69	19.09	9.26
40	9164.11	4256.68	1990.80	937.85	445.11	212.93	102.69	49.93	24.48	12.11
45	9985.49	4650.62	2182.17	1032.04	492.09	236.66	114.83	56.21	27.76	13.84
50	10545.28	4949.98	2342.33	1117.89	538.26	261.58	128.35	63.57	31.79	16.06
55	10882.47	5145.26	2453.80	1180.89	573.64	281.36	139.37	69.71	35.21	17.96
60	10994.31	5232.92	2515.18	1221.37	599.39	297.35	149.14	75.61	38.75	20.07
65	10632.17	5122.71	2492.78	1225.55	608.86	305.71	155.14	79.54	41.21	21.56
70	9137.20	4470.00	2210.02	1104.52	558.01	284.97	147.09	76.69	40.40	21.48
75	8237.59	4074.90	2039.47	1032.94	529.37	274.50	143.97	76.32	40.90	22.13
80	7676.70	3828.45	1932.71	987.67	510.82	267.31	141.67	75.66	40.89	22.30
85	7065.15	3566.42	1823.82	944.84	495.75	263.35	141.56	76.93	42.27	23.44
90	5963.52	3053.00	1584.87	834.04	444.76	240.18	131.25	72.51	40.49	22.81
95	5463.01	2831.15	1487.19	791.58	426.74	232.85	128.51	71.66	40.38	22.95
100	4453.06	2339.03	1247.20	674.70	370.04	205.55	115.53	65.63	37.66	21.80
105	3263.67	1799.54	1002.36	563.84	320.19	183.47	106.02	61.74	36.24	21.41
110	2484.66	1408.98	805.18	463.60	268.87	157.02	92.30	54.59	32.50	19.44
115	1793.28	1063.38	633.11	378.44	227.09	136.79	82.70	50.17	30.56	18.66
120	1489.77	892.85	537.48	324.94	197.25	120.22	73.55	45.15	27.83	17.19
125	1185.43	729.76	450.43	278.75	172.95	107.58	67.08	41.93	26.28	16.49
130	1082.61	669.16	414.74	257.76	160.62	100.34	62.84	39.45	24.84	15.65
135	911.64	567.02	353.73	221.33	138.89	87.37	55.11	34.85	22.11	14.03
140	790.23	497.36	313.66	198.22	125.52	79.52	50.60	32.22	20.57	13.13
145	618.78	394.88	252.79	161.59	103.62	66.54	42.79	27.56	17.79	11.47
150	563.64	360.38	230.80	148.09	95.18	61.26	39.49	25.50	16.51	10.67
155	493.08	318.80	206.39	133.82	86.88	56.48	36.75	23.96	15.65	10.20
160	391.20	254.25	165.48	107.88	70.43	46.04	30.13	19.75	12.98	8.50
165	334.56	220.06	144.86	95.47	62.99	41.59	27.48	18.18	12.05	7.96
170	336.97	222.36	140.87	97.12	64.30	42.62	28.26	18.77	12.48	8.28
175	241.17	161.43	108.10	72.44	48.58	32.60	21.87	14.69	9.88	6.62
180	208.11	139.34	93.33	62.57	41.98	28.19	18.92	12.72	8.56	5.74
185	163.54	109.90	73.86	49.67	33.42	22.50	15.14	10.20	6.88	4.62
190	145.50	98.14	66.20	46.67	30.16	20.38	13.76	9.30	6.29	4.24
195	128.97	87.09	58.82	39.74	26.86	18.18	12.29	8.32	5.63	3.80
200	128.97	87.09	58.82	39.74	26.86	18.18	12.29	8.32	5.63	3.80
205	94.40	64.28	43.77	29.81	20.31	13.85	9.43	6.43	4.38	2.98
210	77.87	53.23	36.39	24.88	17.01	11.65	7.96	5.45	3.72	2.54
215	57.42	39.17	26.72	18.23	12.44	8.50	5.80	3.96	2.70	1.84
220	94.39	64.28	43.77	29.81	20.31	13.85	9.44	6.43	4.38	2.98
225	57.42	39.17	26.72	18.23	12.44	8.50	5.80	3.96	2.70	1.84
230	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14
235	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14
240	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14
245	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14
250	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14
255	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14
260	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14
265	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14
270	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14
275	36.97	25.11	17.05	11.58	7.87	5.35	3.64	2.47	1.68	1.14
280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
315	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	236.89	99.89	42.12	17.76	7.49	3.16	1.33	0.56	0.24	0.10
330	474.15	202.85	86.80	37.15	15.90	6.81	2.91	1.25	0.54	0.23
335	703.84	305.90	133.04	57.90	25.21	10.99	4.78	2.09	0.92	0.40
340	703.84	305.90	133.04	57.90	25.21	10.99	4.78	2.09	0.92	0.40
345	1165.46	510.75	224.18	98.56	43.39	19.14	8.44	3.74	1.67	0.74
350	1402.72	613.71	268.86	117.95	51.80	22.79	10.02	4.43	1.97	0.87
355	1852.71	824.96	368.23	164.79	73.92	33.26	14.99	6.79	3.09	1.41

AMPLITUDE	10994.31	5232.92	2515.18	1225.55	608.86	305.71	155.14	79.54	42.27	23.44
POSITION (DEGREES)	60.00	60.00	60.00	65.00	65.00	65.00	65.00	65.00	85.00	85.00

PHASE (DEGREES)	-312.52	-312.52	-312.52	-307.52	-307.52	-307.52	-307.52	-307.52	-287.52	-287.52
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UTRECHT  
 GEOGRAPHIC LATITUDE = 52.06 GEOGRAPHIC LONGITUDE = 5.07  
 SQUARE WAVE REPRESENTATION - SIZE = 60 DEGREES

ASY.LONG./BETA=	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	+0.0	-0.2
0	3707.73	1658.88	744.30	334.92	151.16	68.41	31.06	14.13	6.46	2.95
5	4775.04	2168.92	989.31	453.23	208.59	96.43	44.80	20.90	9.81	4.62
10	5037.47	2297.86	1053.07	484.97	224.50	104.47	48.88	23.00	10.89	5.19
15	5593.63	2587.26	1204.05	563.94	265.92	126.26	60.37	29.08	14.12	6.91
20	6012.04	2794.82	1309.19	618.26	294.48	141.52	68.63	33.60	16.62	8.30
25	7138.82	3361.48	1598.12	767.61	372.71	183.03	90.92	45.70	23.25	11.97
30	8262.02	3986.29	1949.34	967.07	487.13	249.29	129.64	68.52	36.80	20.07
35	9156.86	4510.52	2258.04	1149.79	595.84	314.30	168.72	92.14	51.14	28.82
40	9902.47	4894.12	2459.19	1257.45	654.72	347.23	187.54	103.13	57.68	32.78
45	10300.55	5084.97	2553.35	1305.37	679.91	360.90	195.20	107.54	60.28	34.35
50	10726.12	5294.86	2659.05	1360.01	709.03	376.98	204.41	113.01	63.64	36.47
55	9990.37	4992.63	2538.99	1315.29	694.62	374.12	205.50	115.08	65.64	38.09
60	8833.30	4462.55	2295.33	1202.91	642.62	349.98	194.26	109.83	63.18	36.93
65	7803.18	3578.96	2069.13	1097.97	594.70	328.72	185.33	106.48	62.26	36.99
70	7361.85	3780.46	1980.15	1058.47	577.52	321.55	182.59	105.64	62.19	37.19
75	6626.98	3419.92	1802.97	971.53	535.12	301.15	173.02	101.36	60.44	36.63
80	6026.96	3134.52	1665.61	904.75	502.44	285.14	165.24	97.65	58.75	35.93
85	4738.31	2499.65	1350.23	747.00	423.18	245.27	145.27	87.77	53.99	33.74
90	3615.11	1874.84	999.01	547.54	308.76	179.01	106.55	64.95	40.44	25.64
95	2535.76	1277.93	663.49	356.39	198.64	115.02	69.11	42.93	27.46	17.98
100	1403.47	715.89	379.68	210.29	121.82	73.69	46.34	30.08	20.04	13.60
105	811.28	437.95	246.45	144.84	88.76	56.49	37.10	24.96	17.12	11.89
110	198.98	141.84	101.25	72.35	51.77	37.10	26.63	19.12	13.76	9.90
115	139.72	101.14	73.28	53.13	38.55	28.01	20.37	14.81	10.79	7.86
120	146.10	106.11	77.15	56.14	40.89	29.83	21.79	15.91	11.65	8.53
125	112.10	82.14	60.27	44.27	32.55	23.98	17.69	13.04	9.65	7.13
130	90.80	67.28	49.89	37.02	27.49	20.44	15.22	11.31	8.44	6.28
135	75.38	56.38	42.21	31.62	23.70	17.79	13.38	10.03	7.57	5.68
140	66.07	49.61	37.29	28.05	21.12	15.92	12.03	9.06	6.87	5.18
145	38.02	29.12	22.31	17.10	13.11	10.06	7.74	5.92	4.57	3.50
150	38.02	29.12	22.31	17.10	13.11	10.06	7.74	5.92	4.57	3.50
155	22.33	17.38	13.53	10.52	8.19	6.37	4.97	3.85	3.01	2.33
160	22.33	17.38	13.53	10.52	8.19	6.37	4.97	3.85	3.01	2.33
165	22.33	17.38	13.53	10.52	8.19	6.37	4.97	3.85	3.01	2.33
170	19.14	14.90	11.60	9.02	7.02	5.46	4.26	3.30	2.58	2.00
175	19.14	14.90	11.60	9.02	7.02	5.46	4.26	3.30	2.58	2.00
180	12.76	9.93	7.73	6.01	4.68	3.64	2.84	2.20	1.72	1.33
185	9.57	7.45	5.80	4.51	3.51	2.73	2.13	1.65	1.29	1.00
190	9.57	7.45	5.80	4.51	3.51	2.73	2.13	1.65	1.29	1.00
195	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
210	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
215	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
220	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
225	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
230	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
235	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
240	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
245	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
250	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
255	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
260	3.19	2.48	1.93	1.50	1.17	0.91	0.71	0.55	0.43	0.33
265	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	200.20	84.42	35.60	15.01	6.33	2.67	1.13	0.47	0.20	0.08
315	400.71	171.43	73.35	31.39	13.44	5.75	2.47	1.05	0.45	0.19
320	594.82	258.52	112.42	48.92	21.31	9.28	4.05	1.76	0.77	0.33
325	784.74	347.22	153.85	68.27	30.35	13.50	6.02	2.68	1.20	0.53
330	784.74	347.22	153.85	68.27	30.35	13.50	6.02	2.68	1.20	0.53
335	984.94	431.64	189.45	83.28	36.68	16.17	7.15	3.15	1.40	0.61
340	1371.62	610.08	272.11	121.72	54.62	24.57	11.10	5.01	2.28	1.03
345	1565.73	697.17	311.18	139.25	62.49	28.10	12.68	5.72	2.60	1.17
350	1755.65	785.87	352.61	158.60	71.53	32.32	14.65	6.64	3.03	1.37
355	2550.66	1128.80	500.64	222.54	99.16	44.27	19.82	8.88	4.00	1.79

AMPLITUDE      10726.12 5294.86 2659.05 1360.01 709.03 376.98 205.50 115.08 65.64 38.09  
 POSITION      50.00 50.00 50.00 50.00 50.00 50.00 55.00 55.00 55.00 55.00  
 (DEGREES)

PHASE      -315.07 -315.07 -315.07 -315.07 -315.07 -315.07 -310.07 -310.07 -310.07 -310.07  
 (DEGREES)

## APPENDIX C

### AMPLITUDES AND PHASES OF THE STATION RESPONSES TO SELECTED SQUARE WAVES AND ISOTROPIC MODULATIONS

The following section lists the amplitudes and phases of the station responses to  $10^0$ ,  $30^0$  and  $60^0$  square waves and isotropic ( $360^0$ ) modulations as a function of the upper limiting rigidity. The exponent of the spectrum ( $\beta$ ) ranges from +1.6 to -0.2 while the upper limiting rigidity ranges from 29 to 500 GV.

**APATITY**  
**GEOGRAPHIC LATITUDE = 67.55 GEOGRAPHIC LONGITUDE = 33.33**  
**SQUARE WAVE AMPLITUDE AND PHASE (DEGREES)**

WIDTH/BETA =	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
(DEG)										
UPPER LIMIT = 500.00 GV										
10 AMPL.	24366.06	8336.17	2909.93	1040.02	383.10	149.91	89.51	54.20	33.20	20.55
PHASE	11.67	11.67	11.67	11.67	16.67	36.67	36.67	36.67	36.67	36.67
30 AMPL.	33714.90	11749.60	4214.89	1653.64	731.68	345.80	186.67	109.95	67.15	42.25
PHASE	16.67	16.67	16.67	26.67	26.67	26.67	41.67	41.67	41.67	41.67
60 AMPL.	58142.66	19472.82	6846.12	2778.96	1206.80	563.18	282.14	150.88	85.39	50.71
PHASE	-13.33	-13.33	31.67	31.67	31.67	31.67	31.67	31.67	31.67	36.67
360 AMPL.	96997.78	33960.61	12332.62	4690.47	1888.16	812.25	375.77	187.20	100.02	56.88
UPPER LIMIT = 188.75 GV										
10 AMPL.	9411.52	3737.74	1499.76	608.85	255.24	149.91	89.51	54.20	33.20	20.55
PHASE	16.67	16.67	16.67	16.67	36.67	36.67	36.67	36.67	36.67	36.67
30 AMPL.	13529.23	5871.18	2636.72	1230.92	599.06	310.59	180.09	107.88	66.49	42.04
PHASE	26.67	26.67	26.67	26.67	26.67	41.67	41.67	41.67	41.67	41.67
60 AMPL.	22403.28	9667.90	4309.30	1994.78	963.48	487.08	258.01	143.05	82.97	49.97
PHASE	41.67	41.67	41.67	41.67	41.67	41.67	41.67	41.67	36.67	36.67
360 AMPL.	34521.81	14497.52	6255.10	2788.23	1291.36	624.57	316.62	168.53	94.07	54.99
UPPER LIMIT = 111.25 GV										
10 AMPL.	4572.19	1961.24	847.61	443.34	255.24	149.91	89.51	54.20	33.20	20.55
PHASE	16.67	16.67	16.67	36.67	36.67	36.67	36.67	36.67	36.67	36.67
30 AMPL.	8689.90	4094.68	1984.57	991.52	527.70	299.84	176.15	106.43	65.96	41.84
PHASE	26.67	26.67	26.67	26.67	36.67	41.67	41.67	41.67	41.67	41.67
60 AMPL.	14337.73	6707.06	3222.39	1595.78	817.01	435.04	240.06	137.06	80.85	49.18
PHASE	41.67	41.67	41.67	41.67	41.67	36.67	36.67	36.67	36.67	36.67
360 AMPL.	20003.82	9168.01	4298.67	2070.03	1027.72	527.80	281.08	155.48	89.29	53.21
UPPER LIMIT = 80.00 GV										
10 AMPL.	2048.88	1100.54	650.36	387.44	232.63	140.76	85.83	52.71	32.60	20.31
PHASE	46.67	36.67	36.67	36.67	36.67	36.67	36.67	36.67	36.67	36.67
30 AMPL.	5320.87	2812.64	1524.43	847.18	482.48	281.54	168.77	103.45	64.75	41.36
PHASE	36.67	36.67	36.67	36.67	36.67	41.67	41.67	41.67	41.67	41.67
60 AMPL.	9589.29	4820.47	2476.43	1302.71	702.80	389.31	221.59	129.59	77.82	47.96
PHASE	36.67	36.67	36.67	36.67	36.67	36.67	36.67	36.67	36.67	36.67
360 AMPL.	12392.34	6090.73	3054.43	1566.93	824.24	445.49	247.82	142.01	83.84	51.00
UPPER LIMIT = 50.00 GV										
10 AMPL.	1877.64	1100.54	650.36	387.44	232.63	140.76	85.83	52.71	32.60	20.31
PHASE	36.67	36.67	36.67	36.67	36.67	36.67	36.67	36.67	36.67	36.67
30 AMPL.	3949.90	2197.02	1249.44	728.29	431.53	260.01	159.35	99.30	62.93	40.57
PHASE	46.67	46.67	41.67	41.67	41.67	41.67	41.67	41.67	41.67	41.67
60 AMPL.	6110.46	3308.52	1818.88	1016.55	578.19	335.03	197.92	119.24	73.31	46.00
PHASE	31.67	31.67	31.67	31.67	31.67	31.67	31.67	31.67	31.67	31.67
360 AMPL.	7174.11	3822.81	2068.11	1137.70	637.32	364.06	212.31	126.51	77.07	48.06
UPPER LIMIT = 29.00 GV										
10 AMPL.	1696.16	1011.42	606.58	365.94	222.07	135.58	83.28	51.46	31.98	20.01
PHASE	36.67	36.67	36.67	36.67	36.67	36.67	36.67	36.67	36.67	36.67
30 AMPL.	3037.46	1790.39	1065.43	640.47	389.11	239.04	148.54	93.75	60.25	39.27
PHASE	36.67	36.67	36.67	36.67	36.67	36.67	36.67	41.67	41.67	41.67
60 AMPL.	3729.38	2165.87	1270.19	752.91	451.44	274.05	168.58	105.10	66.50	42.70
PHASE	31.67	31.67	31.67	31.67	31.67	31.67	31.67	31.67	31.67	31.67
360 AMPL.	3874.71	2242.52	1310.74	774.48	463.02	280.37	172.11	107.17	67.78	43.56

**ATHENS**  
**GEOGRAPHIC LATITUDE = 37.97    GEOGRAPHIC LONGITUDE = 23.72**  
**SQUARE WAVE AMPLITUDE AND PHASE (DEGREES)**

WIDTH/BETA =		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
(DEG)											
UPPER LIMIT = 500.00 GV											
10	AMPL.	36315.70	11434.84	3645.22	1238.24	425.88	152.46	59.25	23.25	9.27	4.69
	PHASE	6.28	6.28	11.28	11.28	11.28	16.28	16.28	16.28	46.28	61.28
30	AMPL.	69802.42	23433.22	8031.39	2800.22	994.74	360.51	133.87	54.30	25.50	13.02
	PHASE	6.28	16.28	16.28	16.28	16.28	16.28	21.28	26.28	61.28	61.28
60	AMPL.	104592.00	35746.70	12475.14	4457.17	1634.28	621.40	248.50	106.40	48.14	22.64
	PHASE	21.28	21.28	21.28	21.28	21.28	31.28	31.28	41.28	41.28	46.28
360	AMPL.	136161.90	47440.81	17071.60	6388.48	2503.02	1032.46	449.73	206.72	100.01	50.57
UPPER LIMIT = 188.75 GV											
10	AMPL.	16291.66	6223.43	2388.71	921.77	357.84	139.86	55.08	21.87	9.00	4.69
	PHASE	16.28	16.28	16.28	16.28	16.28	16.28	16.28	16.28	61.28	61.28
30	AMPL.	26622.84	10545.77	4213.32	1699.08	692.10	284.96	118.66	50.00	25.04	12.87
	PHASE	26.28	26.28	26.28	26.28	26.28	26.28	26.28	26.28	61.28	61.28
60	AMPL.	36539.38	14956.26	6211.14	2620.50	1124.56	491.34	218.67	99.18	45.83	22.29
	PHASE	41.28	41.28	41.28	41.28	41.28	41.28	41.28	41.28	41.28	61.28
360	AMPL.	48028.37	19984.63	8498.21	3705.05	1661.16	767.71	366.29	180.39	91.66	47.93
UPPER LIMIT = 111.25 GV											
10	AMPL.	6677.51	2758.60	1141.46	473.13	196.47	81.74	34.13	17.44	9.00	4.69
	PHASE	21.28	21.28	21.28	21.28	21.28	21.28	41.28	61.28	61.28	61.28
30	AMPL.	13993.81	5994.75	2582.68	1119.51	488.47	214.63	97.84	47.69	24.29	12.60
	PHASE	31.28	31.28	31.28	31.28	31.28	31.28	51.28	51.28	61.28	61.28
60	AMPL.	20697.64	9183.65	4118.08	1867.69	857.35	398.58	187.70	89.59	43.34	21.74
	PHASE	46.28	46.28	46.28	46.28	46.28	46.28	46.28	46.28	46.28	61.28
360	AMPL.	27548.15	12466.38	5738.27	2691.90	1289.24	631.18	316.16	161.99	84.90	45.45
UPPER LIMIT = 80.00 GV											
10	AMPL.	2695.61	1215.62	573.71	273.10	131.14	64.27	32.81	16.90	8.78	4.64
	PHASE	26.28	46.28	46.28	46.28	46.28	61.28	61.28	61.28	61.28	66.28
30	AMPL.	7074.07	3255.58	1508.13	729.99	359.26	178.31	89.23	45.11	23.44	12.26
	PHASE	36.28	36.28	51.28	56.28	56.28	56.28	56.28	61.28	61.28	61.28
60	AMPL.	12346.36	5807.30	2752.93	1315.67	634.12	308.29	151.20	76.45	39.61	20.71
	PHASE	46.28	46.28	46.28	46.28	46.28	46.28	46.28	56.28	61.28	61.28
360	AMPL.	16810.79	8125.36	3983.07	1982.16	1002.23	515.10	269.23	143.01	77.23	42.36
UPPER LIMIT = 50.00 GV											
10	AMPL.	1494.25	759.63	391.23	202.52	105.39	55.14	29.00	15.45	8.27	4.44
	PHASE	41.28	71.28	71.28	71.28	71.28	71.28	71.28	66.28	66.28	66.28
30	AMPL.	3994.18	2026.35	1032.35	531.30	276.30	144.33	75.74	39.94	21.15	11.24
	PHASE	56.28	56.28	56.28	61.28	61.28	61.28	61.28	61.28	61.28	61.28
60	AMPL.	6761.08	3423.60	1744.64	900.58	467.26	243.66	127.72	67.30	35.63	18.97
	PHASE	56.28	56.28	61.28	61.28	61.28	61.28	61.28	61.28	71.28	71.28
360	AMPL.	9449.55	4926.05	2591.70	1376.69	738.57	400.19	219.12	121.15	67.66	38.18
UPPER LIMIT = 29.00 GV											
10	AMPL.	859.17	467.31	254.49	138.75	75.75	41.40	22.66	12.42	6.81	3.74
	PHASE	66.28	66.28	66.28	66.28	66.28	66.28	66.28	66.28	66.28	66.28
30	AMPL.	2075.88	1123.10	611.33	337.42	186.58	103.35	57.36	31.89	17.76	9.91
	PHASE	61.28	61.28	76.28	76.28	76.28	76.28	76.28	76.28	76.28	76.28
60	AMPL.	3326.71	1820.02	997.70	548.02	301.66	166.39	91.99	51.19	28.85	16.35
	PHASE	71.28	71.28	71.28	71.28	71.28	71.28	71.28	76.28	86.28	86.28
360	AMPL.	4795.17	2696.77	1523.29	864.32	492.70	282.15	162.42	93.87	54.53	31.85

DOUBLES											
GEOGRAPHIC LATITUDE = 50.10						GEOGRAPHIC LONGITUDE =			4.60		
WIDTH/BETA =		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
<b>SQUARE WAVE AMPLITUDE AND PHASE (DEGREES)</b>											
10	AMPL.	23776.03	7881.30	2636.20	907.00	335.02	158.45	84.17	46.95	26.81	15.60
	PHASE	10.40	10.40	10.40	15.40	15.40	55.40	60.40	60.40	60.40	60.40
30	AMPL.	44280.10	15112.64	5261.28	1872.78	683.09	328.36	167.46	88.65	50.02	28.86
	PHASE	15.40	15.40	15.40	15.40	15.40	50.40	50.40	60.40	60.40	60.40
60	AMPL.	69219.99	23144.65	8465.18	3227.26	1322.37	575.62	269.19	133.06	68.70	37.59
	PHASE	350.40	10.40	30.40	30.40	35.40	35.40	40.40	40.40	45.40	45.40
360	AMPL.	100502.30	35179.42	12768.74	4851.19	1948.87	835.27	384.15	189.61	99.98	55.91
<b>UPPER LIMIT = 300.00 GV</b>											
10	AMPL.	12185.20	4655.27	1785.70	687.97	295.47	155.15	84.17	46.95	26.81	15.60
	PHASE	15.40	15.40	15.40	15.40	60.40	60.40	60.40	60.40	60.40	60.40
30	AMPL.	18648.08	7432.15	2997.63	1225.38	603.01	306.75	160.64	86.50	49.34	28.65
	PHASE	25.40	25.40	25.40	25.40	50.40	50.40	60.40	60.40	60.40	60.40
60	AMPL.	28546.02	12034.17	5202.92	2315.25	1063.65	505.52	248.76	126.62	67.34	37.17
	PHASE	40.40	40.40	40.40	40.40	40.40	40.40	40.40	40.40	45.40	45.40
360	AMPL.	35757.68	15009.58	6470.55	2879.90	1330.40	640.77	322.84	170.25	93.86	53.95
<b>UPPER LIMIT = 188.75 GV</b>											
10	AMPL.	5478.87	2304.32	972.83	500.82	265.11	144.01	80.08	45.45	26.26	15.40
	PHASE	20.40	20.40	20.40	60.40	60.40	60.40	60.40	60.40	60.40	60.40
30	AMPL.	9411.30	4318.00	2111.91	1057.63	542.29	284.47	152.66	85.00	48.79	28.45
	PHASE	30.40	50.40	50.40	50.40	50.40	50.40	55.40	60.40	60.40	60.40
60	AMPL.	16910.28	7787.89	3660.67	1759.93	866.89	437.94	226.99	120.65	65.68	36.72
	PHASE	45.40	45.40	45.40	45.40	45.40	45.40	45.40	45.40	45.40	60.40
360	AMPL.	20712.49	9486.53	4443.05	2135.60	1057.17	540.48	286.01	156.74	88.89	52.14
<b>UPPER LIMIT = 111.25 GV</b>											
10	AMPL.	5478.87	2304.32	972.83	500.82	265.11	144.01	80.08	45.45	26.26	15.40
	PHASE	20.40	20.40	20.40	60.40	60.40	60.40	60.40	60.40	60.40	60.40
30	AMPL.	6404.45	3255.01	1682.12	883.83	472.25	258.66	144.02	81.90	47.54	27.94
	PHASE	50.40	50.40	50.40	50.40	55.40	55.40	55.40	60.40	60.40	60.40
60	AMPL.	10775.27	5307.57	2657.81	1354.41	702.90	371.61	200.17	109.79	61.30	35.95
	PHASE	45.40	45.40	45.40	45.40	45.40	45.40	45.40	45.40	45.40	60.40
360	AMPL.	12824.62	6297.55	3153.66	1614.21	846.32	455.71	251.53	142.78	83.24	49.86
<b>UPPER LIMIT = 80.00 GV</b>											
10	AMPL.	2914.96	1506.19	795.32	428.89	235.92	132.16	75.27	43.50	25.47	15.08
	PHASE	60.40	60.40	60.40	60.40	60.40	60.40	60.40	60.40	60.40	60.40
30	AMPL.	6404.45	3255.01	1682.12	883.83	472.25	258.66	144.02	81.90	47.54	27.94
	PHASE	50.40	50.40	50.40	50.40	55.40	55.40	55.40	60.40	60.40	60.40
60	AMPL.	10775.27	5307.57	2657.81	1354.41	702.90	371.61	200.17	109.79	61.30	35.95
	PHASE	45.40	45.40	45.40	45.40	45.40	45.40	45.40	45.40	45.40	60.40
360	AMPL.	12824.62	6297.55	3153.66	1614.21	846.32	455.71	251.53	142.78	83.24	49.86
<b>UPPER LIMIT = 50.00 GV</b>											
10	AMPL.	1909.34	1071.88	607.65	347.76	200.83	116.98	68.69	40.65	24.23	14.54
	PHASE	60.40	60.40	60.40	60.40	60.40	60.40	60.40	60.40	60.40	60.40
30	AMPL.	4399.35	2383.69	1303.27	722.22	406.55	231.51	133.33	77.63	45.66	27.10
	PHASE	50.40	50.40	50.40	60.40	60.40	60.40	60.40	60.40	60.40	60.40
60	AMPL.	6595.53	3497.34	1874.86	1016.60	557.78	309.74	174.09	99.04	57.96	34.58
	PHASE	50.40	50.40	50.40	50.40	50.40	50.40	50.40	50.40	60.40	60.40
360	AMPL.	7416.94	3947.25	2131.53	1169.41	652.62	370.82	214.73	126.74	76.24	46.79
<b>UPPER LIMIT = 29.00 GV</b>											
10	AMPL.	1529.43	889.91	520.45	305.93	180.76	107.34	64.06	38.42	23.16	14.02
	PHASE	60.40	60.40	60.40	60.40	60.40	60.40	60.40	60.40	60.40	60.40
30	AMPL.	3071.54	1745.43	996.30	571.28	330.42	193.81	114.82	68.72	41.37	25.05
	PHASE	50.40	50.40	50.40	50.40	55.40	55.40	60.40	60.40	60.40	60.40
60	AMPL.	3795.81	2164.00	1241.58	717.04	417.01	244.23	144.09	85.83	51.96	31.70
	PHASE	55.40	55.40	55.40	55.40	55.40	55.40	55.40	60.40	60.40	60.40
360	AMPL.	3997.71	2309.57	1346.67	793.02	472.01	284.10	173.07	106.70	66.60	42.16

JUNGFRAUJOCH  
GEOGRAPHIC LATITUDE = 46.55 GEOGRAPHIC LONGITUDE = 7.98  
SQUARE WAVE AMPLITUDE AND PHASE (DEGREES)

WIDTH/BETA =	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
(DEG)										
UPPER LIMIT = 500.00 GV										
10	AMPL. PHASE	27101.53 7.02	8761.58 7.02	2857.71 7.02	941.84 7.02	317.90 12.02	113.90 12.02	47.42 67.02	26.41 67.02	14.85 67.02
30	AMPL. PHASE	46715.84 -2.98	15591.18 17.02	5419.40 17.02	1922.77 17.02	697.64 17.02	259.27 17.02	123.01 62.02	65.00 62.02	35.52 67.02
60	AMPL. PHASE	70303.35 7.02	23734.31 7.02	8273.47 27.02	3075.94 32.02	1197.37 32.02	494.05 37.02	215.92 37.02	108.04 57.02	58.11 57.02
360	AMPL.	98497.67	34568.24	12585.09	4797.79	1934.42	832.03	383.69	189.72	99.98
UPPER LIMIT = 188.75 GV										
10	AMPL. PHASE	8813.88 17.02	3417.77 17.02	1331.48 17.02	521.25 17.02	205.11 17.02	86.76 57.02	47.42 67.02	26.41 67.02	14.85 67.02
30	AMPL. PHASE	17730.65 22.02	7021.83 22.02	2809.19 22.02	1136.47 22.02	465.38 22.02	226.09 57.02	116.40 62.02	63.29 67.02	35.52 72.02
60	AMPL. PHASE	27539.01 37.02	11401.57 37.02	4807.19 37.02	2068.51 37.02	910.14 37.02	421.97 42.02	201.34 42.02	103.86 57.02	56.79 57.02
360	AMPL.	35724.52	15006.56	6474.95	2884.80	1334.07	643.20	324.15	170.89	94.01
UPPER LIMIT = 111.25 GV										
10	AMPL. PHASE	4154.79 22.02	1757.73 22.02	745.93 22.02	348.83 62.02	171.86 62.02	86.36 62.02	47.42 67.02	26.41 67.02	14.85 67.02
30	AMPL. PHASE	9032.64 32.02	3959.14 32.02	1773.90 52.02	849.78 52.02	419.71 57.02	215.00 57.02	112.33 62.02	61.79 67.02	35.29 72.02
60	AMPL. PHASE	16342.34 42.02	7400.08 42.02	3402.10 42.02	1590.12 42.02	756.43 42.02	368.39 47.02	186.04 57.02	100.87 57.02	55.70 57.02
360	AMPL.	20757.88	9512.34	4458.04	2144.40	1062.27	543.43	287.52	157.44	89.08
UPPER LIMIT = 80.00 GV										
10	AMPL. PHASE	2393.37 62.02	1168.88 62.02	578.91 62.02	292.45 67.02	157.74 67.02	86.02 67.02	47.42 67.02	26.41 67.02	14.85 67.02
30	AMPL. PHASE	5598.31 57.02	2785.41 57.02	1405.17 57.02	718.86 57.02	372.90 57.02	196.74 62.02	107.51 62.02	60.24 67.02	34.67 72.02
60	AMPL. PHASE	10264.61 47.02	4979.25 47.02	2447.26 47.02	1219.55 47.02	616.51 47.02	321.59 57.02	174.55 57.02	96.22 57.02	53.82 57.02
360	AMPL.	12879.01	6326.77	3169.95	1623.51	851.61	458.21	253.05	143.49	83.45
UPPER LIMIT = 50.00 GV										
10	AMPL. PHASE	1793.23 67.02	949.91 67.02	508.05 67.02	274.38 67.02	149.63 67.02	82.38 67.02	45.78 67.02	25.68 67.02	14.52 67.02
30	AMPL. PHASE	3788.16 57.02	1998.51 57.02	1076.24 62.02	585.61 62.02	321.40 62.02	177.89 62.02	99.28 62.02	56.65 67.02	33.30 72.02
60	AMPL. PHASE	6254.30 52.02	3275.10 52.02	1730.41 52.02	928.26 57.02	507.31 57.02	280.24 57.02	156.46 57.02	88.31 57.02	50.75 67.02
360	AMPL.	7448.55	3966.09	2143.06	1176.52	656.91	373.35	216.03	127.36	76.38
UPPER LIMIT = 29.00 GV										
10	AMPL. PHASE	1020.87 67.02	579.83 67.02	330.62 67.02	189.26 67.02	108.77 67.02	62.76 67.02	36.35 67.02	21.14 67.02	12.34 67.02
30	AMPL. PHASE	2378.06 62.02	1344.68 62.02	763.27 62.02	434.92 62.02	248.82 62.02	144.37 72.02	86.07 72.02	51.61 72.02	31.12 72.02
60	AMPL. PHASE	3538.85 57.02	2001.01 57.02	1137.33 57.02	649.88 57.02	373.45 57.02	218.82 67.02	129.04 67.02	76.58 67.02	45.74 67.02
360	AMPL.	3972.93	2300.76	1344.62	793.46	473.04	285.03	173.60	106.94	66.58

KIEL  
GEOGRAPHIC LATITUDE = 54.33 GEOGRAPHIC LONGITUDE = 10.13  
SQUARE WAVE AMPLITUDE AND PHASE (DEGREES)

WIDTH/BETA =	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
(DEG)	UPPER LIMIT = 500.00 GV									
10 AMPL. PHASE	25308.00 9.87	8316.63 9.87	2754.34 9.87	919.79 9.87	333.50 14.87	146.65 54.87	84.26 49.87	49.56 49.87	29.43 49.87	17.65 49.87
30 AMPL. PHASE	40982.18 19.87	14152.13 19.87	4992.48 19.87	1804.39 19.87	675.31 44.87	331.59 49.87	174.23 49.87	95.20 49.87	53.66 49.87	31.11 54.87
60 AMPL. PHASE	63189.10 9.87	22126.77 29.87	8194.80 29.87	3196.34 34.87	1331.31 34.87	587.85 34.87	275.64 39.87	139.13 39.87	74.18 44.87	41.73 59.87
360 AMPL.	97998.92	34309.48	12457.92	4736.93	1905.88	819.09	378.31	187.94	100.01	56.53
UPPER LIMIT = 188.75 GV										
10 AMPL. PHASE	10437.95 14.87	4028.33 14.87	1562.64 14.87	609.59 14.87	252.38 49.87	144.91 49.87	84.26 49.87	49.56 49.87	29.43 49.87	17.65 49.87
30 AMPL. PHASE	17665.92 24.87	7063.39 24.87	2863.28 24.87	1179.08 24.87	594.29 49.87	310.52 49.87	167.59 49.87	93.10 49.87	52.99 49.87	30.90 54.87
60 AMPL. PHASE	27220.11 39.87	11500.83 39.87	4995.87 39.87	2240.93 39.87	1041.82 39.87	503.22 39.87	252.73 39.87	132.39 44.87	72.84 44.87	41.31 59.87
360 AMPL.	34875.99	14644.83	6317.45	2815.01	1302.90	629.48	318.57	169.05	94.02	54.64
UPPER LIMIT = 111.25 GV										
10 AMPL. PHASE	4819.79 19.87	2060.86 19.87	886.40 19.87	445.65 49.87	252.38 49.87	144.91 49.87	84.26 49.87	49.56 49.87	29.43 49.87	17.65 49.87
30 AMPL. PHASE	9405.66 29.87	4158.45 29.87	1985.95 49.87	1017.15 49.87	535.09 49.87	288.79 49.87	159.62 49.87	90.17 49.87	51.92 49.87	30.70 54.87
60 AMPL. PHASE	16622.51 44.87	7686.63 44.87	3633.83 44.87	1760.72 44.87	876.26 44.87	448.50 44.87	236.24 44.87	127.99 44.87	71.23 44.87	40.92 59.87
360 AMPL.	20207.65	9260.11	4340.75	2089.36	1036.53	531.70	282.67	155.87	89.18	52.87
UPPER LIMIT = 80.00 GV										
10 AMPL. PHASE	2696.51 49.87	1455.42 49.87	798.90 49.87	445.65 49.87	252.38 49.87	144.91 49.87	84.26 49.87	49.56 49.87	29.43 49.87	17.65 49.87
30 AMPL. PHASE	5837.61 49.87	3028.06 49.87	1600.11 49.87	881.36 49.87	472.18 49.87	263.38 49.87	149.37 49.87	86.01 49.87	50.24 49.87	29.96 54.87
60 AMPL. PHASE	10641.15 44.87	5268.43 44.87	2656.10 44.87	1365.36 44.87	716.37 44.87	383.83 44.87	210.09 44.87	117.40 44.87	66.95 44.87	40.18 59.87
360 AMPL.	12517.32	6150.99	3083.66	1581.03	830.95	448.55	249.04	142.26	83.68	50.64
UPPER LIMIT = 50.00 GV										
10 AMPL. PHASE	2307.87 49.87	1283.96 49.87	723.23 49.87	412.25 49.87	237.63 49.87	138.40 49.87	81.39 49.87	48.28 49.87	28.87 49.87	17.40 49.87
30 AMPL. PHASE	4398.55 44.87	2403.19 44.87	1326.77 44.87	740.23 44.87	417.31 44.87	238.58 44.87	138.52 44.87	81.27 44.87	48.18 44.87	29.15 54.87
60 AMPL. PHASE	6540.53 44.87	3486.22 44.87	1881.00 44.87	1028.09 44.87	569.50 44.87	319.85 44.87	182.37 44.87	105.81 44.87	63.39 59.87	38.87 64.87
360 AMPL.	7245.09	3859.58	2087.12	1147.39	642.12	366.27	213.15	126.62	76.85	47.63
UPPER LIMIT = 29.00 GV										
10 AMPL. PHASE	1567.08 49.87	929.14 49.87	553.19 49.87	330.70 49.87	198.49 49.87	119.62 49.87	72.36 49.87	43.94 49.87	26.78 49.87	16.39 49.87
30 AMPL. PHASE	3104.00 44.87	1780.92 44.87	1027.48 44.87	596.18 44.87	347.94 44.87	205.17 44.87	122.40 44.87	73.94 44.87	45.05 54.87	27.64 54.87
60 AMPL. PHASE	3781.98 49.87	2166.75 49.87	1250.37 49.87	727.09 49.87	426.18 49.87	253.93 54.87	153.69 59.87	94.07 59.87	58.17 59.87	36.54 64.87
360 AMPL.	3911.53	2262.93	1321.92	780.40	466.00	281.71	172.52	107.06	67.47	43.09

KIEV											
GEOGRAPHIC LATITUDE = 50.72 GEOGRAPHIC LONGITUDE = 30.30											
SQUARE WAVE AMPLITUDE AND PHASE (DEGREES)											
WIDTH/BETA =	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2	
(DEG)											
UPPER LIMIT = 900.00 GV											
10	AMPL.	26627.92	8807.12	2943.75	996.06	342.02	160.76	83.89	46.60	26.48	15.32
	PHASE	9.70	9.70	9.70	9.70	9.70	54.70	59.70	59.70	59.70	59.70
30	AMPL.	43519.77	14754.63	5209.35	1883.74	699.51	328.68	170.86	91.99	50.96	28.89
	PHASE	4.70	19.70	19.70	19.70	19.70	54.70	54.70	54.70	54.70	54.70
60	AMPL.	68283.36	23459.24	8617.43	3325.69	1369.24	593.77	274.72	135.81	69.96	37.61
	PHASE	4.70	29.70	29.70	34.70	34.70	34.70	39.70	39.70	39.70	44.70
360	AMPL.	101566.41	35548.48	12900.17	4899.21	1966.75	841.93	386.45	190.31	100.04	55.65
UPPER LIMIT = 188.75 GV											
10	AMPL.	10217.49	3912.21	1504.12	586.90	296.47	155.21	83.89	46.60	26.48	15.32
	PHASE	14.70	14.70	14.70	59.70	59.70	59.70	59.70	59.70	59.70	59.70
30	AMPL.	18164.67	7236.99	2919.23	1220.58	600.28	306.84	163.98	89.82	50.28	28.67
	PHASE	24.70	24.70	24.70	49.70	49.70	54.70	54.70	54.70	54.70	54.70
60	AMPL.	29040.57	12255.89	5304.28	2362.47	1086.07	516.34	254.07	129.28	67.90	37.17
	PHASE	39.70	39.70	39.70	39.70	39.70	39.70	39.70	39.70	39.70	44.70
360	AMPL.	36131.17	15163.48	6534.78	2906.88	1341.69	645.36	324.51	170.73	93.86	53.66
UPPER LIMIT = 111.25 GV											
10	AMPL.	4650.29	1965.64	979.31	503.31	265.78	143.95	79.76	45.09	25.93	15.12
	PHASE	19.70	19.70	59.70	59.70	59.70	59.70	59.70	59.70	59.70	59.70
30	AMPL.	9661.80	4398.68	2157.37	1084.82	559.38	295.58	159.85	88.31	49.73	28.47
	PHASE	29.70	54.70	54.70	54.70	54.70	54.70	54.70	54.70	54.70	54.70
60	AMPL.	17213.95	7914.37	3710.51	1777.38	873.30	440.72	228.15	121.10	65.83	36.56
	PHASE	39.70	39.70	39.70	39.70	44.70	44.70	44.70	44.70	44.70	44.70
360	AMPL.	20925.51	9581.52	4485.65	2154.63	1065.55	544.01	287.31	157.08	88.85	51.84
UPPER LIMIT = 80.00 GV											
10	AMPL.	2940.36	1517.57	800.10	630.61	236.28	131.98	74.90	43.11	25.12	14.79
	PHASE	59.70	59.70	59.70	59.70	59.70	59.70	59.70	59.70	59.70	59.70
30	AMPL.	6529.05	3324.36	1722.98	909.17	488.34	266.85	148.23	83.61	47.82	27.70
	PHASE	54.70	54.70	54.70	54.70	54.70	54.70	54.70	54.70	54.70	54.70
60	AMPL.	11013.50	5407.60	2696.94	1367.53	707.54	373.68	201.04	110.13	61.53	35.33
	PHASE	39.70	39.70	39.70	39.70	44.70	44.70	44.70	44.70	44.70	44.70
360	AMPL.	12953.50	6358.54	3182.48	1627.68	852.44	457.82	252.46	142.97	83.13	49.54
UPPER LIMIT = 50.00 GV											
10	AMPL.	1924.01	1078.62	610.43	348.61	200.81	116.63	68.26	40.23	23.88	14.26
	PHASE	59.70	59.70	59.70	59.70	59.70	59.70	59.70	59.70	59.70	59.70
30	AMPL.	4509.09	2443.65	1338.74	741.42	415.06	234.82	134.22	77.46	45.14	26.53
	PHASE	54.70	54.70	54.70	54.70	54.70	54.70	54.70	54.70	54.70	54.70
60	AMPL.	6762.65	3560.09	1893.46	1023.45	560.98	311.15	174.65	99.19	57.14	34.03
	PHASE	39.70	39.70	39.70	49.70	49.70	49.70	49.70	49.70	54.70	64.70
360	AMPL.	7488.12	3983.17	2149.45	1178.12	656.69	372.53	215.25	126.73	76.05	46.45
UPPER LIMIT = 29.00 GV											
10	AMPL.	1540.05	894.72	522.29	306.34	180.53	106.89	63.58	37.98	22.79	13.74
	PHASE	59.70	59.70	59.70	59.70	59.70	59.70	59.70	59.70	59.70	59.70
30	AMPL.	3024.57	1718.28	986.19	572.36	333.93	195.86	115.51	68.46	40.80	24.44
	PHASE	49.70	49.70	54.70	54.70	54.70	54.70	54.70	54.70	54.70	54.70
60	AMPL.	3809.80	2169.13	1242.64	716.45	415.85	243.04	143.05	85.54	51.85	31.64
	PHASE	54.70	54.70	54.70	54.70	54.70	54.70	54.70	64.70	64.70	64.70
360	AMPL.	4032.45	2328.02	1356.21	797.73	474.14	284.87	173.14	106.48	66.30	41.74

LEEDS  
GEOGRAPHIC LATITUDE = 53.82 GEOGRAPHIC LONGITUDE = 358.45  
SQUARE WAVE AMPLITUDE AND PHASE (DEGREES)

WIDTH/BETA =	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2	
(DEG)											
UPPER LIMIT = 900.00 GV											
10	AMPL.	24435.23	8185.95	2770.27	947.51	327.68	151.10	86.92	50.94	30.26	18.16
	PHASE	-348.45	-348.45	-348.45	-348.45	-348.45	-308.45	-308.45	-308.45	-308.45	-308.45
30	AMPL.	40975.11	13753.65	4808.54	1758.35	703.63	343.27	176.37	94.58	53.88	31.68
	PHASE	-353.45	-353.45	-338.45	-338.45	-313.45	-313.45	-313.45	-313.45	-303.45	-303.45
60	AMPL.	62743.81	21925.12	8177.00	3196.74	1319.09	582.99	274.86	136.97	73.34	42.25
	PHASE	-8.45	-328.45	-328.45	-328.45	-328.45	-323.45	-323.45	-313.45	-308.45	-308.45
360	AMPL.	97732.99	34216.89	12424.81	4724.70	1901.19	817.38	377.68	187.78	99.96	56.62
UPPER LIMIT = 188.75 GV											
10	AMPL.	8783.40	3420.07	1338.85	527.10	251.51	145.69	85.33	50.47	30.12	18.12
	PHASE	-343.45	-343.45	-343.45	-343.45	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45
30	AMPL.	15505.36	6210.93	2520.18	1166.81	588.35	306.65	165.21	92.14	53.22	31.47
	PHASE	-338.45	-338.45	-338.45	-313.45	-313.45	-313.45	-308.45	-308.45	-303.45	-303.45
60	AMPL.	26780.93	11296.18	4897.73	2192.32	1016.86	489.94	247.45	130.53	72.02	41.83
	PHASE	-323.45	-323.45	-323.45	-323.45	-323.45	-323.45	-318.45	-318.45	-313.45	-308.45
360	AMPL.	34782.10	14605.83	6301.12	2808.06	1299.90	628.28	318.10	168.96	94.00	54.73
UPPER LIMIT = 111.25 GV											
10	AMPL.	4296.38	1872.09	845.31	439.43	251.51	145.69	85.33	50.47	30.12	18.12
	PHASE	-338.45	-338.45	-313.45	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45
30	AMPL.	8086.39	3907.04	1958.13	1005.99	529.32	284.98	158.46	90.41	52.68	31.28
	PHASE	-303.45	-303.45	-313.45	-313.45	-313.45	-313.45	-303.45	-303.45	-303.45	-303.45
60	AMPL.	15987.77	7391.29	3494.63	1693.97	843.49	432.54	230.03	125.65	70.90	41.44
	PHASE	-318.45	-318.45	-318.45	-318.45	-318.45	-313.45	-313.45	-313.45	-308.45	-308.45
360	AMPL.	20153.75	9235.80	4329.78	2084.37	1034.24	530.75	282.29	155.82	89.16	52.95
UPPER LIMIT = 80.00 GV											
10	AMPL.	2592.07	1395.82	777.78	439.43	251.51	145.69	85.33	50.47	30.12	18.12
	PHASE	-338.45	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45
30	AMPL.	6269.45	3215.71	1679.54	893.34	483.76	266.55	149.32	85.90	50.85	30.54
	PHASE	-313.45	-313.45	-313.45	-313.45	-313.45	-313.45	-313.45	-303.45	-303.45	-303.45
60	AMPL.	10620.54	5259.96	2652.97	1364.50	716.39	384.16	210.45	118.09	68.46	40.52
	PHASE	-313.45	-313.45	-313.45	-313.45	-313.45	-313.45	-313.45	-308.45	-308.45	-298.45
360	AMPL.	12484.40	6135.16	3076.10	1577.42	829.24	447.84	248.76	142.26	83.67	50.73
UPPER LIMIT = 50.00 GV											
10	AMPL.	2350.79	1310.28	739.41	422.21	243.78	142.22	83.77	49.78	29.81	17.98
	PHASE	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45
30	AMPL.	4516.84	2453.99	1348.28	749.18	420.99	239.20	137.37	81.26	48.84	29.65
	PHASE	-313.45	-313.45	-313.45	-313.45	-313.45	-313.45	-303.45	-303.45	-303.45	-303.45
60	AMPL.	6531.10	3482.60	1880.02	1028.12	572.03	324.06	186.31	108.71	64.38	39.19
	PHASE	-313.45	-313.45	-313.45	-313.45	-308.45	-308.45	-308.45	-308.45	-298.45	-298.45
360	AMPL.	7226.54	3849.98	2082.29	1144.94	640.91	365.79	212.97	126.62	76.88	47.75
UPPER LIMIT = 29.00 GV											
10	AMPL.	1612.02	956.43	569.82	340.88	204.75	123.49	74.76	45.45	27.73	16.98
	PHASE	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45
30	AMPL.	3039.29	1746.29	1009.10	586.52	342.93	204.37	123.15	74.77	45.71	28.15
	PHASE	-313.45	-313.45	-313.45	-313.45	-313.45	-303.45	-303.45	-303.45	-303.45	-303.45
60	AMPL.	3804.87	2184.51	1263.89	737.20	433.67	257.40	154.17	94.26	58.52	36.69
	PHASE	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45	-308.45	-298.45	-298.45	-298.45
360	AMPL.	3902.06	2257.67	1319.14	778.98	465.27	281.46	172.44	107.17	67.51	43.25

DULU											
GEOGRAPHIC LATITUDE = 65.00					GEOGRAPHIC LONGITUDE = 25.42						
WIDTH/BETA =		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
(DEG)											
UPPER LIMIT = 500.00 GV											
10	AMPL.	23169.59	8027.91	2844.94	1034.17	386.71	153.56	86.31	50.55	30.42	18.66
	PHASE	14.58	14.58	14.58	14.58	14.58	14.58	39.58	39.58	39.58	39.58
30	AMPL.	34203.31	11912.27	4259.61	1613.90	699.78	330.66	184.56	107.42	64.93	40.53
	PHASE	14.58	14.58	14.58	24.58	24.58	39.58	39.58	39.58	44.58	44.58
60	AMPL.	51827.32	17882.50	6840.56	2774.32	1202.92	563.04	283.23	152.03	86.11	51.02
	PHASE	4.58	29.58	29.58	29.58	29.58	34.58	39.58	39.58	39.58	39.58
360	AMPL.	96997.81	33960.61	12332.64	4690.46	1888.13	812.25	375.79	187.20	100.05	56.85
UPPER LIMIT = 188.75 GV											
10	AMPL.	9286.04	3702.78	1494.38	611.46	254.09	132.71	79.74	48.47	29.76	18.45
	PHASE	14.58	14.58	14.58	14.58	14.58	39.58	39.58	39.58	39.58	39.58
30	AMPL.	13713.20	5841.96	2593.97	1191.19	567.16	309.81	177.99	105.34	64.27	40.32
	PHASE	19.58	24.58	24.58	24.58	24.58	39.58	39.58	39.58	44.58	44.58
60	AMPL.	22729.16	9832.82	4392.83	2037.11	984.91	497.95	263.52	145.80	84.13	50.39
	PHASE	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58
360	AMPL.	34521.82	14497.51	6255.14	2788.24	1291.35	624.58	316.65	168.52	94.11	54.98
UPPER LIMIT = 111.25 GV											
10	AMPL.	4730.42	2030.34	878.43	383.54	223.69	132.71	79.74	48.47	29.76	18.45
	PHASE	19.58	19.58	19.58	19.58	19.58	39.58	39.58	39.58	39.58	39.58
30	AMPL.	8885.97	4185.87	2028.26	1013.08	528.39	299.06	174.04	103.89	63.73	40.12
	PHASE	29.58	29.58	29.58	29.58	29.58	39.58	39.58	39.58	44.58	44.58
60	AMPL.	14663.61	6871.97	3305.92	1638.10	838.43	444.18	243.78	138.55	81.46	49.41
	PHASE	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58
360	AMPL.	20003.83	9167.98	4298.70	2070.03	1027.71	527.80	281.11	155.47	89.32	53.20
UPPER LIMIT = 80.00 GV											
10	AMPL.	2193.26	1098.69	632.36	369.06	218.13	130.42	78.80	48.08	29.60	18.39
	PHASE	19.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58
30	AMPL.	5503.09	2826.16	1531.97	850.39	483.17	280.77	166.68	101.42	62.97	39.82
	PHASE	29.58	39.58	39.58	39.58	39.58	39.58	44.58	44.58	44.58	44.58
60	AMPL.	9589.28	4820.46	2476.43	1302.70	702.78	389.32	221.59	129.58	77.84	47.96
	PHASE	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58
360	AMPL.	12392.34	6090.72	3054.46	1566.93	824.23	445.51	247.83	142.01	83.88	51.01
UPPER LIMIT = 50.00 GV											
10	AMPL.	1783.41	1016.40	597.66	354.43	211.96	127.82	77.70	47.62	29.41	18.30
	PHASE	34.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58
30	AMPL.	4104.94	2289.70	1298.00	748.21	438.70	261.70	158.79	97.99	61.47	39.16
	PHASE	44.58	44.58	44.58	44.58	44.58	44.58	44.58	44.58	44.58	44.58
60	AMPL.	6110.48	3308.50	1818.89	1016.54	578.17	335.03	197.91	119.27	73.33	45.99
	PHASE	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58
360	AMPL.	7174.14	3822.79	2068.15	1137.70	637.31	364.07	212.33	126.54	77.10	48.05
UPPER LIMIT = 29.00 GV											
10	AMPL.	1561.86	927.28	553.89	332.94	201.40	122.64	75.16	46.37	28.80	17.99
	PHASE	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58
30	AMPL.	3061.34	1801.31	1069.60	641.24	388.31	237.62	146.97	91.91	58.11	37.36
	PHASE	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58	39.58	44.58
60	AMPL.	3729.42	2165.88	1270.22	752.92	451.46	274.07	168.57	105.13	66.52	42.71
	PHASE	44.58	44.58	44.58	44.58	44.58	44.58	44.58	44.58	44.58	44.58
360	AMPL.	3874.73	2242.52	1310.77	774.49	463.05	280.38	172.12	107.19	67.79	43.55

PIC DU MIDI  
GEOGRAPHIC LATITUDE = 42.93 GEOGRAPHIC LONGITUDE = 0.25  
SQUARE WAVE AMPLITUDE AND PHASE (DEGREES)

WIDTH/BETA = (DEG)	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
UPPER LIMIT = 900.00 GV										
10 AMPL. PHASE	27998.35 9.75	9270.99 9.75	3102.75 9.75	1051.60 9.75	362.02 9.75	134.81 14.75	52.28 14.75	20.88 14.75	9.91 64.75	5.28 64.75
30 AMPL. PHASE	51772.51 14.75	17533.30 14.75	6039.81 14.75	2120.75 14.75	760.74 14.75	284.45 19.75	110.95 24.75	52.16 64.75	27.70 64.75	14.92 64.75
60 AMPL. PHASE	77793.27 9.75	26358.34 9.75	9237.77 24.75	3366.52 24.75	1265.06 24.75	510.69 34.75	215.80 34.75	97.28 39.75	48.03 64.75	26.23 84.75
360 AMPL.	106830.83	37451.17	13605.52	5166.72	2069.49	881.00	400.40	194.13	100.00	54.30
UPPER LIMIT = 188.75 GV										
10 AMPL. PHASE	12750.80 14.75	4871.79 14.75	1872.23 14.75	724.72 14.75	283.17 14.75	112.03 14.75	45.10 14.75	19.02 59.75	9.91 64.75	5.28 64.75
30 AMPL. PHASE	20726.42 24.75	8222.73 24.75	3294.71 24.75	1335.03 24.75	547.89 24.75	228.13 24.75	99.82 64.75	52.16 64.75	27.70 64.75	14.92 64.75
60 AMPL. PHASE	29720.85 39.75	12256.21 39.75	5138.81 39.75	2194.67 39.75	956.36 39.75	425.84 39.75	193.99 39.75	90.47 39.75	47.31 64.75	26.23 84.75
360 AMPL.	38675.94	16212.42	6971.54	3089.71	1417.67	675.98	335.75	173.70	93.52	52.24
UPPER LIMIT = 111.25 GV										
10 AMPL. PHASE	5101.67 19.75	2108.24 19.75	872.69 19.75	361.89 19.75	153.82 59.75	75.33 59.75	37.53 59.75	19.02 59.75	9.91 64.75	5.28 64.75
30 AMPL. PHASE	10853.13 29.75	4678.96 29.75	2031.40 29.75	888.67 29.75	396.55 49.75	191.42 49.75	95.40 64.75	50.54 64.75	27.11 64.75	14.70 64.75
60 AMPL. PHASE	17100.10 44.75	7660.93 44.75	3475.97 44.75	1598.96 44.75	746.39 44.75	353.79 44.75	170.38 44.75	86.52 64.75	46.72 64.75	26.23 84.75
360 AMPL.	22426.17	10247.15	4781.71	2285.83	1122.56	567.64	295.98	159.11	88.15	50.28
UPPER LIMIT = 80.00 GV										
10 AMPL. PHASE	2214.22 59.75	1080.05 64.75	536.36 64.75	268.94 64.75	136.19 64.75	69.67 64.75	36.00 64.75	18.80 64.75	9.91 64.75	5.28 64.75
30 AMPL. PHASE	5795.77 54.75	2804.34 54.75	1370.52 54.75	676.68 54.75	337.61 54.75	172.14 64.75	91.24 64.75	48.86 64.75	26.43 64.75	14.42 64.75
60 AMPL. PHASE	10446.70 44.75	4970.84 44.75	2388.22 44.75	1173.48 49.75	583.80 49.75	293.75 49.75	150.37 64.75	81.48 64.75	44.68 64.75	25.95 84.75
360 AMPL.	13871.79	6788.46	3383.18	1720.27	893.85	475.13	258.53	143.98	82.03	47.79
UPPER LIMIT = 50.00 GV										
10 AMPL. PHASE	1542.23 64.75	790.39 64.75	407.79 64.75	211.86 64.75	110.84 64.75	58.41 64.75	31.00 64.75	16.57 64.75	8.92 64.75	5.12 74.75
30 AMPL. PHASE	3613.21 54.75	1869.01 64.75	987.40 64.75	525.23 64.75	281.28 64.75	151.67 64.75	82.32 64.75	44.96 64.75	24.73 64.75	13.68 64.75
60 AMPL. PHASE	6169.06 54.75	3175.44 54.75	1645.24 54.75	858.17 54.75	452.50 64.75	246.33 64.75	135.22 64.75	74.83 64.75	42.47 64.75	25.30 84.75
360 AMPL.	7975.78	4225.38	2268.27	1234.98	682.45	382.99	218.38	126.44	74.30	44.44
UPPER LIMIT = 29.00 GV										
10 AMPL. PHASE	842.25 74.75	471.14 74.75	264.44 74.75	148.93 74.75	84.17 74.75	47.74 74.75	27.17 74.75	15.51 74.75	8.90 74.75	5.12 74.75
30 AMPL. PHASE	2093.28 64.75	1162.78 64.75	647.60 64.75	361.62 64.75	202.48 64.75	113.68 64.75	63.99 64.75	36.13 64.75	21.35 79.75	12.70 79.75
60 AMPL. PHASE	3292.83 64.75	1841.27 64.75	1033.43 64.75	582.24 64.75	329.34 64.75	187.03 64.75	109.55 84.75	65.52 84.75	39.38 84.75	23.81 84.75
360 AMPL.	4202.22	2417.28	1401.37	819.07	482.82	287.09	172.27	104.29	63.68	39.30

ROME											
GEOGRAPHIC LATITUDE = 41.90 GEOGRAPHIC LONGITUDE = 12.52							SQUARE WAVE AMPLITUDE AND PHASE (DEGREES)				
WIDTH/BETA =	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2	(DEG)
UPPER LIMIT = 900.00 GV											
10	AMPL.	32594.79	10525.94	3428.83	1128.40	375.86	133.17	48.65	19.99	10.15	5.22
	PHASE	7.48	7.48	7.48	7.48	7.48	12.48	12.48	57.48	57.48	57.48
30	AMPL.	59968.82	20129.60	6868.66	2386.83	846.07	306.58	116.56	52.63	26.37	14.18
	PHASE	12.48	12.48	12.48	12.48	12.48	17.48	17.48	57.48	57.48	67.48
60	AMPL.	86401.42	29286.77	10268.97	3745.55	1408.62	547.50	223.32	98.10	47.04	24.31
	PHASE	12.48	12.48	27.48	27.48	27.48	27.48	37.48	37.48	52.48	72.48
360	AMPL.	117513.09	41052.68	14843.54	5599.94	2222.66	934.55	417.93	198.68	100.07	52.87
UPPER LIMIT = 188.75 GV											
10	AMPL.	11256.71	4228.60	1595.80	605.57	231.33	89.06	39.89	19.99	10.15	5.22
	PHASE	12.48	12.48	12.48	12.48	12.48	12.48	57.48	57.48	57.48	57.48
30	AMPL.	20627.03	8141.87	3243.85	1305.68	531.39	223.05	102.06	50.11	26.30	14.18
	PHASE	22.48	22.48	22.48	22.48	22.48	27.48	52.48	57.48	67.48	67.48
60	AMPL.	31439.50	12887.50	5364.36	2271.04	979.32	430.66	194.76	91.21	45.45	24.05
	PHASE	37.48	37.48	37.48	37.48	37.48	37.48	42.48	42.48	52.48	72.48
360	AMPL.	41670.61	17425.53	7465.76	3290.75	1498.17	706.74	346.12	176.01	92.84	50.60
UPPER LIMIT = 111.25 GV											
10	AMPL.	5642.68	2370.01	998.39	421.92	178.91	80.71	39.89	19.99	10.15	5.22
	PHASE	22.48	22.48	22.48	22.48	22.48	57.48	57.48	57.48	57.48	57.48
30	AMPL.	11456.27	4970.84	2172.94	957.57	425.64	198.77	97.27	49.27	26.30	14.18
	PHASE	32.48	32.48	32.48	32.48	32.48	52.48	52.48	67.48	67.48	67.48
60	AMPL.	18069.08	8050.75	3628.57	1655.92	770.81	366.72	177.22	86.97	44.15	23.81
	PHASE	42.48	42.48	42.48	42.48	47.48	47.48	47.48	52.48	52.48	72.48
360	AMPL.	24046.54	10955.77	5090.72	2418.89	1178.11	589.26	302.99	160.18	87.02	48.46
UPPER LIMIT = 80.00 GV											
10	AMPL.	2702.94	1233.36	565.05	277.67	138.31	69.62	35.40	18.17	9.42	4.92
	PHASE	27.48	27.48	27.48	57.48	57.48	57.48	57.48	57.48	57.48	57.48
30	AMPL.	6087.16	2800.77	1378.77	685.36	344.01	174.35	89.21	47.45	25.57	13.88
	PHASE	32.48	57.48	57.48	57.48	57.48	57.48	67.48	67.48	67.48	67.48
60	AMPL.	10994.31	5232.92	2515.18	1225.55	608.86	305.71	155.14	79.54	42.27	23.44
	PHASE	47.48	47.48	47.48	52.48	52.48	52.48	52.48	52.48	72.48	72.48
360	AMPL.	14806.60	7220.14	3580.29	1808.14	931.10	489.36	262.57	143.83	80.42	45.79
UPPER LIMIT = 50.00 GV											
10	AMPL.	1584.23	808.85	415.68	215.08	112.08	58.82	31.09	16.55	8.87	4.79
	PHASE	67.48	67.48	67.48	67.48	67.48	67.48	67.48	67.48	67.48	67.48
30	AMPL.	3869.22	1982.94	1021.79	529.44	276.76	148.94	80.59	43.84	23.98	13.18
	PHASE	57.48	57.48	57.48	57.48	67.48	67.48	67.48	67.48	67.48	67.48
60	AMPL.	6416.26	3284.10	1690.46	875.19	455.79	238.79	128.52	71.24	39.76	22.34
	PHASE	52.48	52.48	52.48	52.48	52.48	52.48	72.48	72.48	72.48	72.48
360	AMPL.	8471.96	4466.98	2382.98	1287.07	704.23	390.49	219.45	125.03	72.19	42.19
UPPER LIMIT = 29.00 GV											
10	AMPL.	783.42	427.15	233.19	127.46	69.75	39.31	22.35	12.73	7.28	4.17
	PHASE	57.48	57.48	57.48	57.48	57.48	77.48	77.48	77.48	77.48	77.48
30	AMPL.	2163.07	1194.84	661.48	367.03	204.10	113.77	63.56	35.59	19.99	11.25
	PHASE	67.48	67.48	67.48	67.48	67.48	67.48	67.48	67.48	67.48	67.48
60	AMPL.	3335.02	1846.86	1025.61	571.19	320.75	182.11	103.73	59.80	34.80	20.32
	PHASE	67.48	67.48	67.48	67.48	72.48	72.48	82.48	82.48	82.48	82.48
360	AMPL.	4466.68	2548.61	1463.57	846.17	492.64	288.91	170.65	101.56	60.93	36.76

**UTRECHT**  
 GEOGRAPHIC LATITUDE = **52.06**    GEOGRAPHIC LONGITUDE = **5.07**  
 SQUARE WAVE AMPLITUDE AND PHASE (DEGREES)

WIDTH/BETA =		+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.2	0.0	-0.2
(DEG)											
		UPPER LIMIT = <b>500.00 GV</b>									
10	AMPL.	23536.82	7802.02	2674.35	964.89	368.22	182.79	96.34	53.20	30.38	17.79
	PHASE	9.93	9.93	14.93	14.93	54.93	54.93	54.93	54.93	54.93	54.93
30	AMPL.	41996.57	14096.34	4828.79	1750.87	683.96	336.26	174.85	94.38	52.48	30.14
	PHASE	4.93	4.93	19.93	19.93	44.93	49.93	49.93	49.93	49.93	59.93
60	AMPL.	65846.28	22988.32	8493.58	3277.99	1330.62	584.84	273.37	136.09	70.96	39.92
	PHASE	349.93	29.93	29.93	29.93	29.93	34.93	39.93	39.93	44.93	49.93
360	AMPL.	99498.63	34831.29	12644.77	4805.89	1931.95	829.01	381.95	189.00	100.00	56.09
		UPPER LIMIT = <b>188.75 GV</b>									
10	AMPL.	11862.10	4521.43	1729.98	664.67	300.20	161.39	89.60	51.07	29.71	17.57
	PHASE	14.93	14.93	14.93	14.93	54.93	54.93	54.93	54.93	54.93	54.93
30	AMPL.	17828.27	7109.59	2871.57	1214.97	608.20	314.86	168.11	92.25	51.81	29.92
	PHASE	24.93	24.93	24.93	49.93	49.93	49.93	49.93	49.93	49.93	59.93
60	AMPL.	27957.93	11792.84	5107.18	2279.88	1052.63	503.78	250.10	128.70	69.61	39.49
	PHASE	39.93	39.93	39.93	39.93	39.93	39.93	39.93	39.93	44.93	49.93
360	AMPL.	35405.41	14864.36	6409.93	2854.42	1319.72	636.47	321.24	169.83	93.93	54.14
		UPPER LIMIT = <b>111.25 GV</b>									
10	AMPL.	5223.25	2194.13	945.46	498.02	270.14	150.36	85.55	49.58	29.17	17.37
	PHASE	19.93	19.93	54.93	54.93	54.93	54.93	54.93	54.93	54.93	54.93
30	AMPL.	9189.29	4174.22	2068.10	1051.23	548.09	292.80	160.01	89.27	50.73	29.72
	PHASE	29.93	49.93	49.93	49.93	49.93	49.93	49.93	49.93	49.93	59.93
60	AMPL.	16799.43	7750.24	3651.81	1761.44	871.38	442.64	230.96	123.75	68.12	39.09
	PHASE	44.93	44.93	44.93	44.93	44.93	44.93	44.93	44.93	49.93	49.93
360	AMPL.	20511.61	9396.87	4402.84	2117.61	1049.25	537.19	284.79	156.43	89.02	52.33
		UPPER LIMIT = <b>80.00 GV</b>									
10	AMPL.	2439.90	1280.17	695.52	397.19	229.46	133.94	78.93	46.91	28.09	16.93
	PHASE	49.93	49.93	54.93	54.93	54.93	54.93	54.93	54.93	54.93	54.93
30	AMPL.	6036.42	3121.92	1642.63	879.19	478.51	264.66	148.63	84.67	49.28	29.71
	PHASE	49.93	49.93	49.93	49.93	49.93	49.93	49.93	49.93	59.93	59.93
60	AMPL.	10726.12	5294.86	2659.05	1360.01	709.03	376.98	205.50	115.08	65.64	38.09
	PHASE	44.93	44.93	44.93	44.93	44.93	44.93	44.93	44.93	49.93	49.93
360	AMPL.	12703.08	6239.95	3126.44	1601.48	840.52	452.77	250.66	142.62	83.44	50.07
		UPPER LIMIT = <b>50.00 GV</b>									
10	AMPL.	2045.28	1149.04	659.92	382.18	223.13	131.28	77.80	46.43	27.89	16.85
	PHASE	49.93	54.93	54.93	54.93	54.93	54.93	54.93	54.93	54.93	54.93
30	AMPL.	4452.18	2430.79	1340.95	747.42	420.93	239.48	137.60	79.84	47.17	28.30
	PHASE	49.93	49.93	49.93	49.93	49.93	49.93	49.93	49.93	59.93	59.93
60	AMPL.	6621.71	3525.96	1900.04	1036.74	573.13	321.09	182.33	104.96	61.21	36.16
	PHASE	49.93	49.93	49.93	49.93	49.93	49.93	49.93	49.93	49.93	49.93
360	AMPL.	7349.77	3913.31	2114.61	1161.14	648.78	369.23	214.22	126.74	76.50	47.06
		UPPER LIMIT = <b>29.00 GV</b>									
10	AMPL.	1645.69	966.17	570.11	338.08	201.47	120.64	72.58	43.86	26.63	16.24
	PHASE	54.93	54.93	54.93	54.93	54.93	54.93	54.93	54.93	54.93	54.93
30	AMPL.	3137.73	1798.97	1037.05	601.17	350.50	205.54	121.24	71.93	42.94	26.26
	PHASE	49.93	49.93	49.93	49.93	49.93	49.93	49.93	49.93	59.93	59.93
60	AMPL.	3802.90	2173.61	1250.81	724.89	423.24	248.99	147.63	88.92	54.43	33.60
	PHASE	49.93	49.93	49.93	49.93	49.93	49.93	49.93	64.93	64.93	64.93
360	AMPL.	3964.95	2292.13	1337.62	788.54	469.98	283.37	172.97	106.88	66.96	42.47