Rev. Mexicana Astron. Astrof., 5, 233-260 (1983)

ON THE REDUCTION OF THE CARTE DU CIEL CATALOGUES

Jürgen Stock and Johnny Cova S.

Centro de Investigación de Astronomía, Mérida, Venezuela

Received 1981 December 23

RESUMEN

Con miras a recuperar de la Carte du Ciel (CdC) posiciones útiles para la determinación de movimientos propios utilizando métodos de ajuste de bloques recién desarrollados, un área de la zona de Oxford de la CdC que consiste en 24 placas sobrepuestas y con época relativamente homogénea se reanalizó utilizando las medidas originales contenidas en el catálogo. Se obtuvieron posiciones para el equinoccio 1950.0 y época 1901.2 de 2911 estrellas hasta la magnitud límite del catálogo utilizando independientemente como sistema de referencia tanto el AGK3 como el FK4. Nuestros resultados demuestran que se pueden obtener posiciones precisas hasta 0".3 y que el método de ajuste de bloques empleado, es capaz de absorber términos de distorsión que son función lineal de las coordenadas. También se demuestra que no existen otros términos importantes de distorsión en el área escogida.

ABSTRACT

In the hope of retrieving useful positions for proper motion determinations from the Carte du Ciel (CdC) using recently developed block adjustment methods, an area from the Oxford Zone I of the CdC consisting of 24 overlapping plates of relatively homogeneous epoch was reanalized using the original measurements contained in the catalogue. Positions for equinox 1950.0 and epoch 1901.1 were obtained for 2911 stars down to the limiting magnitude of the catalogue using independently both the AGK3 and the FK4 catalogues as reference systems. Our results show that positions accurate to 0".3 may be obtained and that the block adjustment method used is capable of absorbing distortion terms which are a linear function of the coordinates. It is also shown that no other important distortion terms are present in the chosen plate material.

Key words: **PROPER MOTIONS – STARS-CATALOGS**

I. INTRODUCTION

The Carte du Ciel is the oldest practically complete astrophotographic coverage of the sky. The authors were fully aware of the necessity to complete coverage within as short a time span as possible. This, together with atmospheric refraction problems, led to a distribution of the work among a fairly large number of observatories. The consequence of this is a rather inhomogeneous material. Some zones, through subsequent analysis, have become known to be of surprisingly high accurary, while others may possibly never serve their original purpose.

To make full use of the usable part of the Carte du Ciel two additional sources of data are needed: first, a modern epoch of position observation has to be produced. As has been shown by Della Prugna (1981) and by Cova (1981), not necessarily do the new observations have to be made with the same telescopes. A second and far more serious problem is the production of a reference system for the Carte du Ciel plates, unless one is satisfied with relative proper motions. The latter shall not be pursued any further in this paper.

Furthermore, a detailed analysis of the specific characteristics of the telescopes involved is required. Here we refer to systematic errors such as field distortion (radial or asymmetric), color and magnitude dependent distortions, etc. For the telescopes responsible for the modern epoch this constitutes no major problem, since comparisons can be made with error-free data (see for instance Stock 1978). Concerning the Carte du Ciel material, use has to be made of the same old epoch plates since it cannot be assumed that the characteristics of the respective telescopes have remained unchanged for almost a century. As will be shown, the generous plate overlap provided by the Carte du Ciel plan permits an *a posteriori* determination of such errors based on the same plate material.

An extensive and detailed description of the status of the Carte du Ciel project is given by Eichhorn (1974). In some cases, for instance the Oxford zones, the original authors already give expressions which permit the conversion of the measured plane coordinates into equatorial coordinates. More recently, Günther and Kox (972) reanalized one of the Oxford zones and give revised plate constants including color and magnitude terms. Also they refer the positions to the now generally accepted reference system defined by the FK4 Catalogue.

We proposed ourselves to elaborate a pilot project of

a reanalysis of a limited section of the Oxford I zone, using the original measurements contained in the catalogue and block adjustment principles. The project shall include an attempt to determine the field distortion of the Oxford astrograph. The AGK3 catalogue will be used as reference system, but it will also be attempted to use the FK4 as the only reference source.

II. THE TEST FIELD

Within a limited portion of the Oxford I catalogue presently available to us we selected as large a block of overlapping plates as possible, imposing the condition of a uniform epoch. The best choice that could be made is a field of 24 plates. Their numbers, epochs, and relative location as shown schematically in Figure 1.

The next step was to identify stars common to two or more plates. For this purpose the plate constants given in the catalogue were used, converting the original X and Y values into equatorial coordinates on a uniform system. These coordinates then were used to establish identities. Figure 2 shows the number of links which exist between the different plates.

III. COORDINATE TRANSFORMATION

Following a procedure proposed by Stock (1981) the measured coordinates X and Y are transformed to cartesian space coordinates u, v, w by

$$\tan r = \frac{(x^2 + y^2)^{1/2}}{F} \tag{1}$$

$$u = x \cos r \ , \tag{2}$$

$$v = y \cos r \ , \tag{3}$$

and

$$w = F \cos r \ . \tag{4}$$

Here it is assumed that tangential projection is applicable to the specific case. It is assumed that the origin of

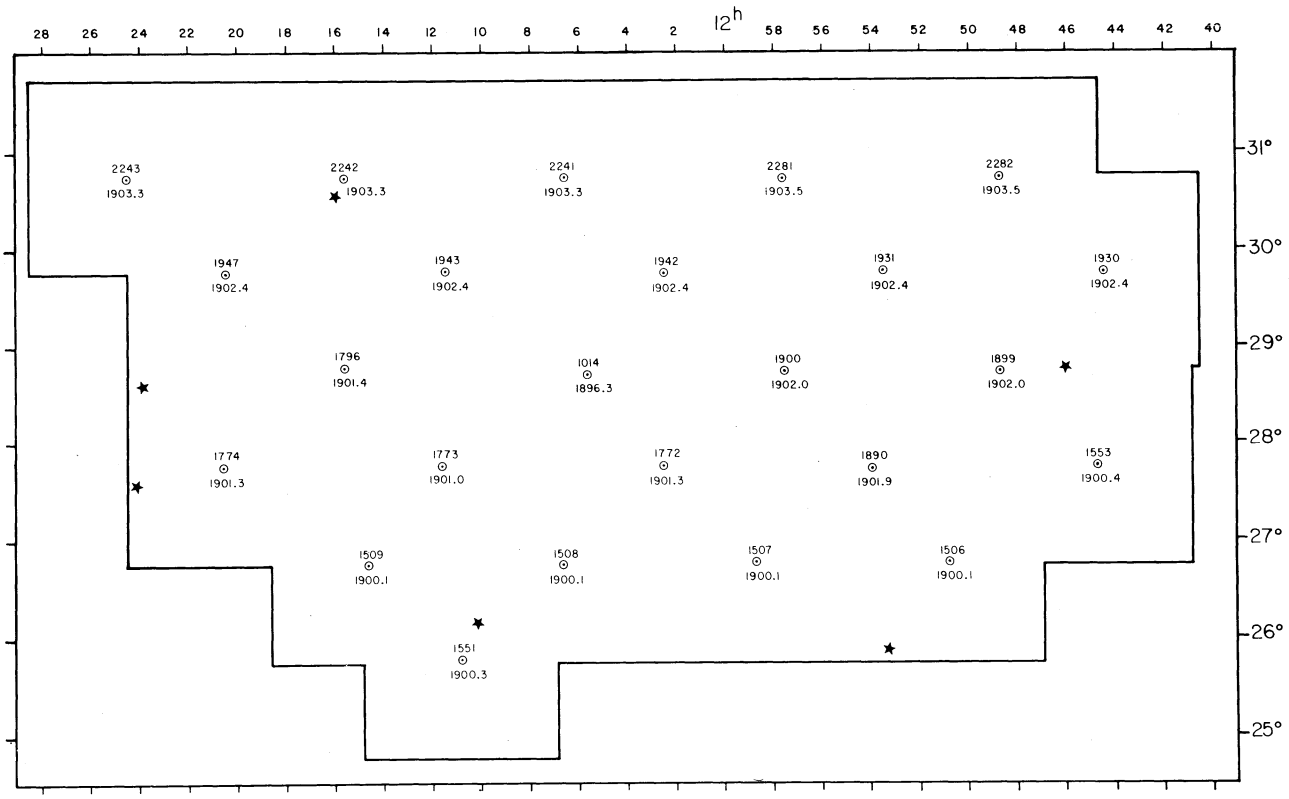

Fig. 1. Relative location, number, and epoch of the Oxford plates used in this paper. Asterisks indicate the location of reference stars contained in the FK4 supplements.

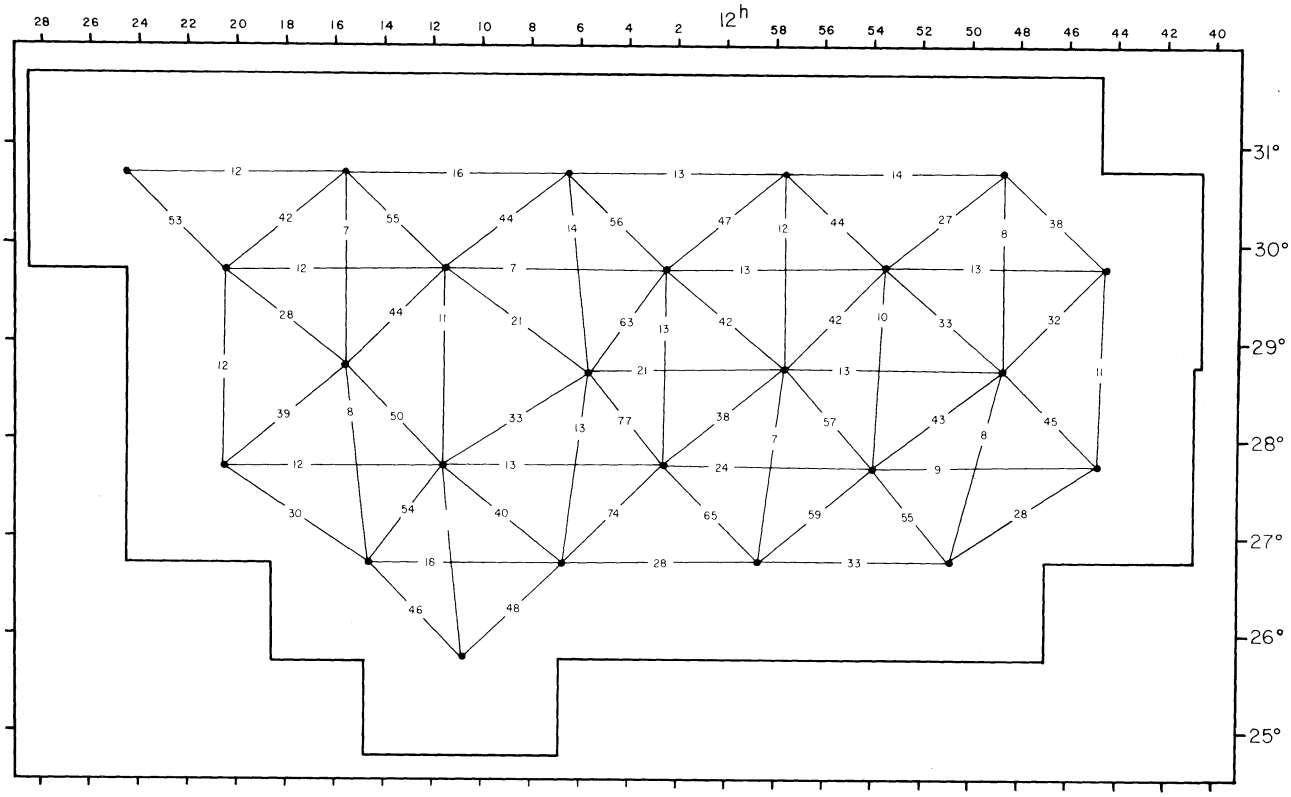

Fig. 2. Schematic representation of stars common to neighboring plates.

the X and Y coordinates coincides with the tangential point. These coordinates are transformed into standard three-dimensional coordinates ξ, η, ζ by

$$\xi = a_{11}\, u + a_{12}\, v + a_{13}\, w \quad , \tag{5}$$

$$\eta = a_{21}\, u + a_{22}\, v + a_{23}\, w \quad , \tag{6}$$

$$\zeta = a_{31}\, u + a_{32}\, v + a_{33}\, w \quad . \tag{7}$$

The latter are related to the equatorial coordinates α and δ by

$$\xi = F \sin\alpha \cos\delta \quad , \tag{8}$$

$$\eta = F \cos\alpha \cos\delta \quad , \tag{9}$$

$$\zeta = F \sin\delta \quad . \tag{10}$$

The matrix a_{ij} in equations (5) to (7) is an orthogonal rotation matrix. The values of the coefficients are determined from stars for which X and Y as well as α and δ are known. If a plate by plate reduction is carried out, a minimum of three reference stars per plate is required. When overlapping plates covering a larger field are available, block adjustment principles may be used. In such a case, a minimum of three reference stars in the entire field is required. Least square methods are applied when the number of equations exceeds the number of unknowns. The equations to be used are

$$a_{m_{11}}\, u_{mi} + a_{m_{12}}\, v_{mi} + a_{m_{13}}\, w_{mi} = \xi_i + \epsilon_{\xi i} \quad , \tag{11}$$

$$a_{m_{21}}\, u_{mi} + a_{m_{22}}\, v_{mi} + a_{m_{23}}\, w_{mi} = \eta_i + \epsilon_{\eta i} \quad , \tag{12}$$

$$a_{m_{31}}\, u_{mi} + a_{m_{32}}\, v_{mi} + a_{m_{33}}\, w_{mi} = \zeta_i + \epsilon_{\zeta i} \quad , \tag{13}$$

in the case of a reference star with the number i measured on the plate with the number m, the values ξ_i, η_i, ζ_i are calculated from equations (8) to (10). The coefficients

a_{mij} are the rotation matrix corresponding to plate m. The errors $\epsilon_{\xi i}$, $\epsilon_{\eta i}$, $\epsilon_{\zeta i}$ are residuals accumulated by errors in the measured coordinates, the coefficients, and the catalogue positions.

For an object i measured on plates m and n the equations

$$a_{m11}\, u_{mi} + a_{m12}\, v_{mi} + a_{m13}\, w_{mi} - a_{n11}\, u_{ni} - a_{n12}\, v_{ni} - a_{n13}\, w_{ni} = \epsilon_{\xi i} \quad , \tag{14}$$

$$a_{m21}\, u_{mi} + a_{m22}\, v_{mi} + a_{m23}\, w_{mi} - a_{n21}\, u_{ni} - a_{n22}\, v_{ni} - a_{n23}\, w_{ni} = \epsilon_{\eta i} \quad , \tag{15}$$

$$a_{m31}\, u_{mi} + a_{m32}\, v_{mi} + a_{m33}\, w_{mi} - a_{n31}\, u_{ni} - a_{n32}\, v_{ni} - a_{n33}\, w_{ni} = \epsilon_{\zeta i} \tag{16}$$

may be used.

Evidently, the distribution of the residuals calculated in the equations (11) to (16) is not necessarily Gaussian, even if the error distribution of the measured data or the catalogue positions are of a Gaussian type. Even so, experience shows that very good approximations for the coefficients a_{mij} can be obtained by imposing

$$\Sigma\, \epsilon_{\xi i}^2 = \text{Minimum} \quad ,$$

$$\Sigma\, \epsilon_{\eta i}^2 = \text{Minimum} \quad ,$$

$$\Sigma\, \epsilon_{\zeta i}^2 = \text{Minimum} \quad .$$

In any case the procedure which we have used leads to an algorithm which is very easy to handle.

The sums of the residuals must include all objects and all plates for which either set of the above equations is applicable. For each object weight factors may be applied to either equations (11) to (13) or equations (14) to (16).

IV. FIELD DISTORTION

When the measured plate coordinates X and Y contain distortion components, then equations (1) to (3) cannot be applied directly. The coordinates have to be corrected first to an undistorted system. However, as was mentioned by Stock (1981), if orthogonality is not imposed on the matrices, then the system worked out in Section III is capable of absorbing distortion terms which are linear functions of the coordinates. This means that, excepting large zenith distances, no correction for differential refraction is required. The same is true for other minor effects, such as for example the aberration of light due to the earth's motion. The principal effect we are concerned with here is due to the optical system. We can distinguish several types of distortions. Some are related to the location of the images, others to their structure. We can also distinguish distortion of radial symmetry which is independent of the position angle on the plate from unsymmetric types which show a position-angle dependence.

Considering the type of optics of the Oxford refractor we may at first instance expect what is usually termed as a "pin cushion" or "barrel" deformation of the field. We shall at this point neglect effects due to either coma or to chromatic aberrations. Thus, the displacement ΔR of an image in the direction of the radius R (distance from tangential point) takes the form

$$\Delta R(R) = \sum_{i=1}^{N} b_i\, R^{2i} \tag{17}$$

with

$$R = (X^2 + Y^2)^{1/2} \quad . \tag{18}$$

For reasons of symmetry only even powers of R are used. The extent of the expansion, i.e., the value of N, has to be determined empirically.

Let us consider the case of two partially overlapping plates, with the measured coordinates X_1, Y_1 and X_2, Y_2 respectively. If no distortion is present, the three dimensional coordinares ξ_1, η_1, ζ_1, and ξ_2, η_2, ζ_2 can be calculated from equations (1) to (4). Between these two sets of coordinates we expect the relation

$$\xi_1 = a_{11}\, \xi_2 + a_{12}\, \eta_2 + a_{13}\, \zeta_2 \quad , \tag{19}$$

$$\eta_1 = a_{21}\, \xi_2 + a_{22}\, \eta_2 + a_{23}\, \zeta_2 \quad , \tag{20}$$

$$\zeta_1 = a_{31}\, \xi_2 + a_{32}\, \eta_2 + a_{33}\, \zeta_2 \quad , \tag{21}$$

Again the matrix a_{ij} is an orthogonal matrix. This time, however, its diagonal elements will be near unity, and the remaining ones near zero.

For the field size under consideration $\xi \sim X$ and $\eta \sim Y$, such that we may use

$$\rho = (\xi^2 + \eta^2)^{1/2} \tag{22}$$

and

$$\Delta\rho(\rho) = \sum_{i=1}^{N} b_i\, \rho^{2i} \tag{23}$$

instead of equations (17) and (18).

The components of the distortion in the ξ- and η- direction are

$$\Delta\xi = \frac{\xi}{\rho}\Delta\rho \qquad (24)$$

and

$$\Delta\eta = \frac{\eta}{\rho}\Delta\rho \quad . \qquad (25)$$

These terms have to be introduced into equations (19) and (20). Considering that these correction terms may be expected to be very small, we shall neglect their products with the matrix elements which are small, and find

$$\xi_1 \left(1 + \frac{\Delta\rho_1}{\rho_1}\right) = a_{11}\,\xi_2\left(1 + \frac{\Delta\rho_2}{\rho_2}\right) + a_{12}\,\eta_2 + a_{13}\,\zeta_2 \quad , \qquad (26)$$

$$\eta_1 \left(1 + \frac{\Delta\rho_1}{\rho_1}\right) = a_{21}\,\xi_2 + a_{22}\,\eta_2 \left(1 + \frac{\Delta\rho_2}{\rho_2}\right) + a_{23}\,\zeta_2 \quad . \qquad (27)$$

Each of these two equations contains 3 + N unknowns, of which the b_k-terms are common to both. For a least-square determination of the latter from plate pairs with more than 3 + N stars in common we can either solve the ξ- and η terms separately and check whether both lead to the same b_k coefficients, or we can combine them into one single set of 6 + N equations with an equal number of unknowns, thus imposing equality of the b_k-terms.

For the empirical determination of the b_k-coefficients we selected all plate pairs which had forty or more stars in common, a total of 24 pairs. The effectiveness of the method outlined above was demonstrated accidentally using these plate pairs. Due to an error in the computer program an improper projection geometry was applied to the plates. This error was detected on the basis of the large and consistent coefficients which the test produced, and which corresponded exactly to the difference between the applied and the correct projection. After correcting the error the coefficients became of an erratic nature, amounting to insignificant values if averaged over the 24 plate pairs. The matrix coefficients, on the other hand, deviate significantly and consistently from an orthogonal matrix. This means that the type of field distortion present in the Oxford Refractor, due to the optics, telescope alignment, atmospheric refraction, screw errors of the measuring machine, etc., are effectively absorbed by the matrix if orthogonality is not imposed.

V. REDUCTION WITH THE AGK3 SYSTEM

A total of 335 stars were found to be in common with the AGK3 catalogue, with an average of 25 stars per plate. For each catalogue star the position was calculated for the epoch of 1901.2, the latter being the average epoch of the 24 Oxford plates. The block reduction was then carried out using unit weight for all links and for all reference objects.

From the position obtained for stars occurring on two or more plates their mean errors can be calculated. The mean rms errors ϵ_α and ϵ_δ for a single image are

$$\epsilon_\alpha = 0^s.031 \qquad \text{and} \qquad \epsilon_\delta = 0''.22.$$

These correspond to just a little more than half of the last digit of the coordinates in the original Oxford Catalogue. This does not leave much room for color- or magnitude-dependent systematic errors. The latter type of error cannot be absorbed by the matrix elements.

VI. REDUCTION WITH THE FK4 CATALOGUE

Six stars were found in common with the supplements of the FK4 (1963), none with the main catalogue. As may be appreciated in Figure 2, these stars are not "strategically" located in the field covered by the plates under consideration. Again several solutions were calculated with weights for the reference stars ranging from 1.0 to 100.0. Only minor differences were found between the different solutions. However, they produce rather large systematic differences with the AGK3 in the regions away from the reference stars. These differences amount to several seconds of arc at one edge of the field. Evidently more reference stars, or at least a more favorable distribution is needed. We plan to add plates from neighbouring Carte du Ciel zones in order to increase the number of fundamental reference stars.

VII. THE PROPER MOTIONS

Proper motions were calculated by comparing the positions of the AGK2 catalogue with those obtained from the Oxford data. For the latter, naturally, we used the solution based on the AGK3 as reference source. A mean epoch difference of 28.9 years was adopted. Comparisons of these proper motions, i.e., AGK2–Oxford, with the proper motions AGK3–AGK2 is shown in Figure 3. Only stars appearing on two or more Oxford plates were used for the graphs. In this form practically all stars along the edge of the field were eliminated. The remaining stars were plotted in Figure 4. The notorious increase in the

scatter is attributed to two sources, namely, (1) the Oxford position has less weight, and (2) most of the stars are located outside of the area where the block adjustment is effective. Thus, positions and proper motions, as given in Table 1 and Table 2, are of full weight only when the position is located within the limits.

$11^h\,45^m < \alpha < 12^h\,20^m,\quad 26^\circ\,45' < \delta < 30^\circ\,45'$.

VIII. THE POSITION CATALOGUE

The positions given in Table 1 are for a mean epoch of 1901.2, for the equinox 1950.0. The columns contain the following data:

column 1: Running number
columns 2- 4: Right ascension
column 5: Mean error of right ascension

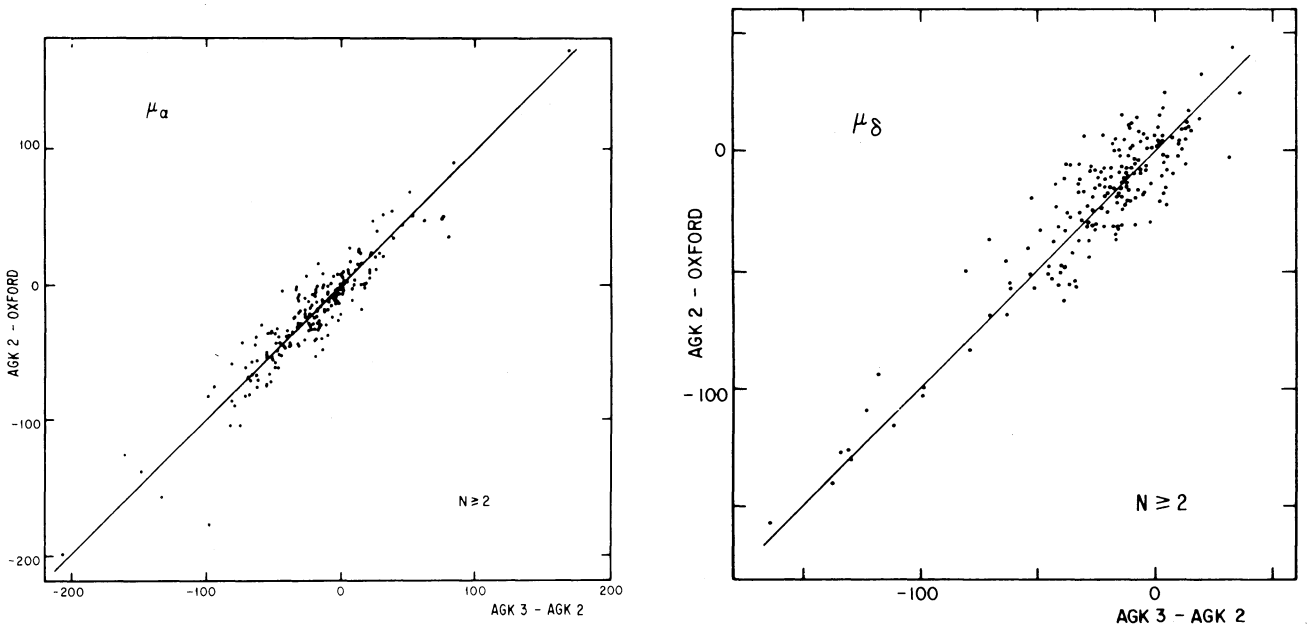

Fig. 3. Comparisons of proper motions AGK3–AGK2 versus AGK2–Oxford for stars which occur on two or more Oxford plates.

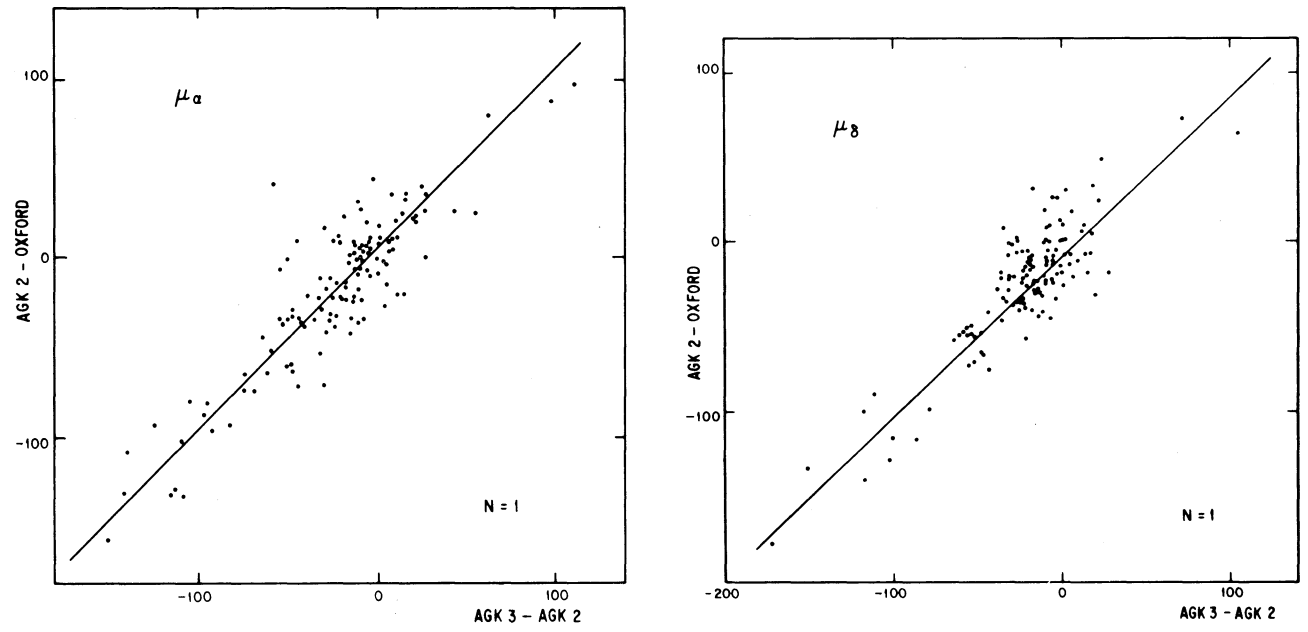

Fig. 4. Comparisons of proper motions AGK3–AGK2 versus AGK2–Oxford for stars which occur on only one Oxford plate.

columns 6- 8: Declination
column 9: Mean error of declination
column 10: Magnitude as given in the Oxford Catalogue
column 11: Number of Oxford plates on which the stars occurs
column 12: 1 indicates that the star appears in the AGK3; 2 indicates that it appears in the FK4-Supplement.

IX. THE CATALOGUE OF PROPER MOTIONS

The proper motions AGK2–Oxford and AGK3–AGK2 are given in Table 2. The columns contain:

column 1: Running number of Table 1
column 2: Right ascension
column 3: Declination
column 4: Magnitude as given in the Oxford Catalogue
column 5: Proper motion in right ascension in 0.″001/year from AGK2–Oxford
column 6: Proper motion in declination in 0.″001/year from AGK2–Oxford
column 7: Proper motion in right ascension in 0.″001/year from AGK3–AGK2
column 8: Proper motion in declination in 0.″001/year from AGK3–AGK2.

X. THE CROSS REFERENCE CATALOGUE

For future reference and for other users we give in Table 3 the running number of Table 1 and the corresponding Oxford plate numbers and star numbers. It is important to note that we have used only the last four digits of the star numbers given in the Oxford catalogue.

REFERENCES

Cova, J. 1981, *Rev. Mexicana Astron. Astrof.*, **6**, 123.
Della Prugna, F. 1981, *Rev. Mexicana Astron. Astrof.*, **6**, 119.
Eichhorn, H. 1974, in *Astronomy of Star Positions*, (New York: Frederick Ungar Publishing Co. Inc.), p. 279.
Fricke, W. and Kopff, A. 1963, *Veroff. des Astronomisches Rechen-Instituts Heidelberg, (FK4-Suppl.)* No. 11.
Günther, A. and Kox, H. 1972, *Astr. and Ap. Suppl.*, **6**, 201.
Heckmann, O. and Dieckvoss, W. 1975, *Dritter Katalog der Astronomischen Gesellschaft (AGK3)*, (Hamburg-Bergedorf).
Schorr, R. and Kohlschütter, A. 1951, *Zweiter Katalog der Astronomischen Gesellschaft (AGK2)*, (Hamburg-Bergedorf).
Stock, J. 1978, in *IAU Coll. No. 48, Modern Astrometry*, eds. F.V. Prochazka and R.H. Tucker, (Vienna: University Observatory), p. 411.
Stock, J. 1981, *Rev. Mexicana Astron. Astrof.*, **6**, 115.
Turner, H. 1910, *Oxford Astrographic Catalogue*, (Oxford: University Observatory).

1983RMxAA...5..233S

TABLE 1

THE POSITION CATALOGUE

No	α	ϵ_α	δ	ϵ_δ	m_p	N	A
1	11 39 44.33		29 57 11.5		8.0	1	1
2	11 39 46.89		30 2 36.7		10.4	1	
3	11 40 1.41		27 58 34.2		9.8	1	
4	11 40 1.94		27 51 46.9		11.6	1	
5	11 40 1.94		26 40 58.9		8.3	1	
6	11 40 2.30		29 20 21.5		11.0	1	
7	11 40 3.13		27 18 54.6		9.6	1	
8	11 40 7.73		27 31 40.8		7.8	1	
9	11 40 9.95		27 0 22.6		9.2	1	
10	11 40 12.86		27 19 24.3		10.6	1	
11	11 40 14.11		28 20 2.6		9.7	1	
12	11 40 16.18		28 27 21.2		12.0	1	
13	11 40 17.34		26 43 11.2		9.3	1	
14	11 40 18.29		27 55 22.7		12.0	1	
15	11 40 19.63	0.04	28 49 19.0	0.4	6.9	2	1
16	11 40 22.63		28 34 55.3		9.4	1	
17	11 40 23.54		30 15 54.8		10.7	1	
18	11 40 25.59		28 31 50.2		11.6	1	
19	11 40 27.69		27 8 27.8		9.8	1	1
20	11 40 27.72		26 50 14.9		12.0	1	
21	11 40 29.58		27 20 29.4		11.8	1	
22	11 40 31.71		29 11 39.1		9.4	1	
23	11 40 33.27		27 6 32.7		10.1	1	
24	11 40 33.62		29 37 8.9		10.7	1	
25	11 40 33.66		26 59 1.9		9.9	1	
26	11 40 34.03		27 47 40.7		11.0	1	
27	11 40 35.26		29 16 8.3		11.2	1	
28	11 40 36.70		29 27 29.5		10.1	1	
29	11 40 36.96		29 15 13.6		9.4	1	
30	11 40 37.47		27 4 19.4		8.9	1	
31	11 40 37.58		28 23 1.8		11.0	1	
32	11 40 38.61		28 1 16.5		11.2	1	
33	11 40 38.91		27 16 58.3		11.3	1	
34	11 40 44.41		30 2 50.4		10.9	1	
35	11 40 46.28		28 19 54.6		6.7	1	1
36	11 40 46.92		27 51 31.6		11.5	1	
37	11 40 51.26		27 50 45.3		8.0	1	1
38	11 40 54.42		30 17 31.0		11.2	1	
39	11 40 55.40		30 48 28.6		10.4	1	
40	11 40 55.59		30 32 21.5		8.9	1	
41	11 40 55.94		27 12 15.6		10.1	1	1
42	11 40 56.18		29 19 19.9		7.7	1	1
43	11 40 57.01		28 37 45.2		10.5	1	
44	11 40 57.54		28 22 52.3		10.6	1	
45	11 40 59.29		30 29 56.0		10.3	1	
46	11 41 1.61		27 35 58.8		10.4	1	
47	11 41 2.55		26 47 1.9		11.2	1	
48	11 41 5.54		28 30 26.1		10.3	1	
49	11 41 5.85		28 1 8.8		11.3	1	
50	11 41 7.57		30 44 27.5		9.2	1	1
51	11 41 8.97		27 57 27.0		11.3	1	
52	11 41 9.67		26 50 11.9		9.4	1	
53	11 41 9.70		29 27 17.6		10.7	1	
54	11 41 12.53		27 11 59.3		11.6	1	
55	11 41 15.50		28 35 24.3		10.0	1	
56	11 41 17.02		27 28 35.6		11.8	1	
57	11 41 20.99		30 17 5.2		10.7	1	
58	11 41 21.67		29 26 3.0		9.0	1	
59	11 41 25.40		27 20 49.4		12.2	1	
60	11 41 26.04		28 58 7.2		10.9	1	
61	11 41 30.69		29 51 28.2		7.0	1	1
62	11 41 31.20		30 3 1.7		10.1	1	
63	11 41 33.49		29 54 10.7		11.7	1	
64	11 41 34.73		28 35 38.8		11.5	1	
65	11 41 35.29		29 52 11.7		10.1	1	
66	11 41 36.29		30 10 23.9		6.9	1	1
67	11 41 40.10		27 28 42.1		11.0	1	
68	11 41 40.56		28 30 5.2		11.6	1	
69	11 41 42.16		30 27 1.0		10.5	1	
70	11 41 42.19		27 36 28.7		9.6	1	
71	11 41 44.27		27 3 17.0		10.4	1	
72	11 41 45.42		28 42 30.4		11.2	1	
73	11 41 47.52		30 7 7.8		10.7	1	
74	11 41 47.96		30 20 53.8		11.7	1	
75	11 41 51.83		26 41 23.7		9.9	1	
76	11 41 52.04		30 17 35.7		10.7	1	1
77	11 41 55.29		28 17 53.8		11.5	1	
165	11 43 35.72		27 28 17.6		9.6	1	1
166	11 43 36.84		28 32 14.3		11.5	1	
167	11 43 37.68	0.02	29 17 43.0	0.2	10.1	2	1
168	11 43 39.71		28 10 41.1		11.0	1	
169	11 43 40.58		27 35 48.9		11.3	1	
170	11 43 40.85		28 23 29.4		11.5	1	
171	11 43 41.27	0.00	28 30 52.9	0.3	10.1	2	
172	11 43 41.53		28 5 24.7		11.5	1	
173	11 43 44.18	0.00	30 41 46.8	0.2	11.6	2	
174	11 43 44.25		31 5 49.6		11.4	1	
175	11 43 44.85	0.01	29 25 21.6	0.4	10.4	2	
176	11 43 44.99		27 15 45.3		9.9	1	
177	11 43 45.52		31 47 56.9		8.7	1	
178	11 43 47.31		29 45 17.8		11.7	1	
179	11 43 49.68		28 3 34.7		11.6	1	
180	11 43 50.29		27 35 1.4		11.3	1	
181	11 43 52.67		27 7 7.2		11.2	1	
182	11 43 53.08		28 21 16.7		11.5	1	
183	11 43 53.49		27 34 26.0		11.2	1	
184	11 43 53.86	0.00	30 36 33.7	0.2	10.7	2	1
185	11 43 56.66	0.02	28 41 15.3	0.1	11.4	3	
186	11 43 57.16	0.02	29 39 41.7	0.4	11.2	2	
187	11 43 59.77	0.03	30 42 2.5	0.0	8.9	2	1
188	11 44 1.68		27 22 28.6		11.5	1	
189	11 44 2.62	0.01	30 34 32.4	0.1	11.7	2	
190	11 44 4.03		26 49 52.5		11.5	1	
191	11 44 7.08		27 20 16.7		10.6	1	
192	11 44 7.14		27 53 40.2		11.3	1	
193	11 44 9.13		31 8 41.8		10.8	1	
194	11 44 9.38		28 31 24.1		11.3	1	
195	11 44 11.15		31 6 54.8		10.0	1	
196	11 44 12.08	0.00	29 6 54.0	0.3	9.4	2	1
197	11 44 12.91		28 42 36.3		11.5	1	
198	11 44 13.57		28 13 29.1		11.3	1	
199	11 44 16.31		28 42 31.2		11.5	1	
200	11 44 17.48		27 51 17.5		11.5	1	
201	11 44 18.11		26 47 30.5		12.0	1	
202	11 44 19.28		27 19 6.8		8.8	1	1
203	11 44 19.62		30 53 21.3		8.5	1	
204	11 44 19.65		27 34 28.1		11.5	1	
205	11 44 19.81	0.00	28 17 10.9	0.4	9.6	2	
206	11 44 21.42		27 18 2.7		9.3	1	1
207	11 44 22.61		27 9 23.7		10.4	1	
208	11 44 22.83		30 50 10.0		11.2	1	
209	11 44 26.01		27 12 44.7		9.5	1	
210	11 44 28.50		28 32 37.3		11.5	1	
211	11 44 29.30	0.01	28 23 36.6	0.1	11.0	2	
212	11 44 29.96		27 59 42.6		11.3	1	
213	11 44 32.09	0.01	28 50 5.4	0.2	11.4	2	
214	11 44 35.12	0.02	28 28 12.4	0.1	8.9	2	1
215	11 44 35.16		31 33 4.1		10.0	1	
216	11 44 36.71		27 32 59.9		10.7	1	
217	11 44 38.53	0.01	29 48 28.5	0.2	11.7	2	
218	11 44 39.13	0.01	29 2 10.6	0.0	10.7	2	
219	11 44 40.68	0.01	27 43 3.1	0.3	9.5	2	1
220	11 44 44.65	0.05	27 40 33.3	0.6	7.9	2	1
221	11 44 47.06		27 28 18.5		11.5	1	
222	11 44 48.27		27 35 45.7		11.8	1	
223	11 44 49.42		30 45 51.1		11.6	1	
224	11 44 50.23		27 38 12.9		11.2	1	
225	11 44 50.77		27 55 57.4		11.3	1	
226	11 44 53.10		26 41 31.0		9.1	1	1
227	11 44 54.80	0.01	28 33 34.6	0.2	11.2	2	
228	11 44 58.49		30 52 55.8		11.0	1	1
229	11 45 3.59		30 30 58.1		11.6	1	
230	11 45 5.88	0.02	30 23 49.2	0.2	11.2	2	
231	11 45 6.15	0.03	30 47 40.8	0.0	11.6	2	
232	11 45 7.91	0.02	30 31 3.1	0.3	10.7	2	1
233	11 45 9.69	0.04	28 50 8.1	0.5	10.9	2	
234	11 45 10.47		28 17 48.1		11.5	1	
235	11 45 10.88		27 22 35.4		11.6	1	
236	11 45 11.50		31 2 23.6		11.4	1	
237	11 45 11.52	0.01	29 37 53.1	0.0	11.0	2	
238	11 45 12.91		27 4 13.3		11.2	1	
239	11 45 13.78		31 1 32.7		11.2	1	
240	11 45 14.70		31 27 24.4		11.0	1	
241	11 45 16.35		26 50 35.1		11.6	1	
329	11 46 49.39		31 45 36.7		11.0	1	
330	11 46 53.95	0.03	27 15 44.4	0.3	10.7	2	
331	11 46 54.78		26 50 13.5		11.6	1	
332	11 46 54.96		26 43 26.8		11.6	1	
333	11 46 54.99	0.02	27 47 46.8	0.1	10.1	3	
334	11 46 55.55	0.00	29 59 22.0	0.3	11.0	2	
335	11 46 55.63		26 31 0.9		9.7	1	
336	11 46 59.40	0.01	29 46 35.8	0.0	7.8	3	1
337	11 46 59.42		28 49 30.4		12.0	1	
338	11 46 59.95		28 1 56.0		11.2	1	
339	11 46 59.98	0.02	28 48 7.6	0.1	10.3	3	
340	11 47 2.15	0.02	28 39 35.7	0.0	10.1	2	
341	11 47 2.98		30 19 19.7		11.7	1	
342	11 47 3.71	0.02	29 24 52.5	0.0	11.7	2	
343	11 47 4.05		28 40 54.6		11.2	1	
344	11 47 4.42	0.00	28 28 29.5	0.4	11.3	2	
345	11 47 4.90	0.02	30 27 25.8	0.0	10.9	2	
346	11 47 6.32		27 34 5.7		11.8	1	
347	11 47 7.43		31 25 43.5		11.6	1	
348	11 47 8.04		28 22 59.2		11.3	1	
349	11 47 9.04	0.00	29 19 2.6	0.6	9.8	2	
350	11 47 9.62	0.00	26 55 59.2	0.1	11.2	2	
351	11 47 9.95		28 23 29.2		12.4	1	
352	11 47 10.31		26 34 17.2		11.6	1	
353	11 47 11.12	0.01	30 5 9.2	0.0	11.9	2	
354	11 47 12.25		28 16 26.8		11.3	1	
355	11 47 12.44	0.01	30 6 53.3	0.0	10.7	2	1
356	11 47 14.16		27 42 31.9		11.5	1	
357	11 47 14.49	0.01	29 12 6.9	0.0	11.4	2	
358	11 47 14.87		27 5 45.3		11.5	1	
359	11 47 14.90	0.03	29 3 31.7	0.1	10.3	2	
360	11 47 14.99		28 37 12.0		12.0	1	
361	11 47 15.82		28 4 8.0		11.8	1	
362	11 47 17.60		31 33 3.5		11.2	1	
363	11 47 18.09		25 56 50.6		11.3	1	
364	11 47 18.14		28 10 23.1		11.6	1	
365	11 47 19.46		27 45 27.2		11.5	1	
366	11 47 19.54		27 4 29.4		12.2	1	
367	11 47 20.85		27 4 58.2		11.5	1	
368	11 47 22.30		27 50 38.0		11.5	1	
369	11 47 22.83	0.02	27 38 26.4	0.5	11.0	2	
370	11 47 23.26		31 4 2.0		11.2	1	
371	11 47 23.54		31 40 45.2		11.6	1	
372	11 47 24.26	0.00	30 32 28.3	0.0	11.6	2	
373	11 47 24.28		31 1 3.4		11.6	1	
374	11 47 24.64		28 21 50.1		11.5	1	
375	11 47 27.35		31 34 17.2		11.0	1	
376	11 47 28.63	0.02	29 30 34.5	0.3	11.0	2	
377	11 47 29.11		31 22 24.2		11.0	1	
378	11 47 29.26		27 54 26.6		11.5	1	
379	11 47 29.36		30 58 35.3		11.4	1	
380	11 47 29.80	0.02	29 13 46.8	0.7	11.7	2	
381	11 47 32.09		31 29 4.8		11.0	1	
382	11 47 32.73	0.02	27 25 35.2	0.4	10.9	2	
383	11 47 34.71	0.01	27 26 33.4	1.2	11.5	2	
384	11 47 34.81	0.02	27 45 8.9	0.3	10.3	3	
385	11 47 34.85		28 10 32.2		11.8	1	
386	11 47 35.41	0.01	27 56 1.8	0.2	9.7	2	1
387	11 47 36.76	0.00	29 56 31.5	0.3	11.7	2	
388	11 47 36.84	0.02	30 37 56.3	0.6	11.7	2	
389	11 47 37.38		28 48 15.7		11.3	1	
390	11 47 37.45		26 1 48.3		9.9	1	
391	11 47 38.27		27 36 43.6		11.5	1	
392	11 47 39.41		28 47 53.8		11.0	1	
393	11 47 39.66		31 23 12.0		11.6	1	
394	11 47 39.81	0.02	28 40 3.4	0.5	11.2	2	
395	11 47 39.82		31 2 37.2		11.0	1	
396	11 47 40.48		31 38 8.1		11.4	1	
397	11 47 41.03		28 48 4.8		12.0	1	
398	11 47 42.93		25 46 41.5		11.5	1	
399	11 47 47.10		27 48 36.2		11.5	1	
400	11 47 47.23	0.01	26 54 22.7	0.5	11.0	2	
401	11 47 49.59		27 43 57.9		10.6	1	
402	11 47 49.61	0.02	27 43 57.0	0.0	10.1	2	
403	11 47 49.74		28 26 30.8		11.6	1	
404	11 47 50.01		26 12 20.9		12.1	1	
405	11 47 50.45		27 15 59.7		11.6	1	
406	11 47 52.16	0.06	27 6 46.4	0.3	11.2	2	

78	11	41	56.97		27	54	58.5		11.5	1	
79	11	41	57.45		29	25	17.8		10.4	1	
80	11	41	58.41		27	3	58.8		10.1	1	
81	11	41	59.78		27	56	16.3		11.3	1	
82	11	42	0.67		30	3	13.8		11.7	1	
83	11	42	1.12		27	8	56.5		11.5	1	
84	11	42	2.52	0.01	28	42	26.3	0.2	9.6	2	1
85	11	42	2.62		27	8	5.7		11.2	1	
86	11	42	4.20		30	41	11.1		10.7	1	
87	11	42	6.17		28	40	5.8		10.1	1	
88	11	42	6.59		27	37	44.8		10.0	1	
89	11	42	7.56		27	57	58.2		11.8	1	
90	11	42	7.64		28	56	50.7		6.9	1	1
91	11	42	8.10		26	43	48.0		11.0	1	
92	11	42	9.16		26	52	59.1		11.0	1	
93	11	42	10.70		30	34	9.4		11.7	1	
94	11	42	11.33		28	3	46.5		11.5	1	
95	11	42	12.02		27	2	59.8		11.5	1	
96	11	42	14.15	0.02	28	42	24.6	0.5	10.4	2	1
97	11	42	14.31	0.03	28	42	17.3	0.1	10.1	2	1
98	11	42	14.80		28	35	35.8		11.2	1	
99	11	42	17.80		27	12	54.9		11.5	1	
100	11	42	19.12		26	57	58.9		12.0	1	
101	11	42	20.61		27	56	23.6		9.2	1	1
102	11	42	21.83		27	41	19.0		8.0	1	1
103	11	42	23.46		27	16	26.2		11.3	1	
104	11	42	23.97		29	16	11.8		10.7	1	
105	11	42	24.04		27	7	1.3		11.6	1	
106	11	42	28.29		30	3	25.6		11.7	1	
107	11	42	30.25		30	11	29.1		12.2	1	
108	11	42	30.54		26	50	38.5		10.1	1	
109	11	42	34.21		27	9	35.9		11.5	1	
110	11	42	36.87		27	40	31.9		11.5	1	
111	11	42	37.01		28	24	4.2		8.9	1	1
112	11	42	37.02		28	8	19.3		11.8	1	
113	11	42	39.83		28	53	42.7		10.1	1	
114	11	42	39.84		28	3	32.8		11.0	1	
115	11	42	39.97		28	9	53.3		11.5	1	
116	11	42	41.55		29	50	38.8		11.7	1	
117	11	42	42.02		28	55	44.7		11.4	1	
118	11	42	42.19		27	21	15.7		11.6	1	
119	11	42	44.57		26	55	50.3		11.2	1	
120	11	42	46.24		28	37	51.2		11.0	1	
121	11	42	49.03		28	41	5.6		11.5	1	
122	11	42	49.39		27	29	46.7		7.3	1	1
123	11	42	49.47		29	18	55.6		11.7	1	
124	11	42	51.57		26	46	42.5		11.2	1	
125	11	42	53.71		26	57	52.2		10.3	1	
126	11	42	55.02		28	5	5.5		10.7	1	
127	11	42	56.04		28	26	27.2		11.5	1	
128	11	42	56.45		30	46	9.2		8.1	1	1
129	11	42	58.25		28	50	43.8		11.7	1	
130	11	43	0.14		27	20	53.8		11.5	1	
131	11	43	0.15		27	21	42.4		11.2	1	
132	11	43	2.17		28	43	33.2		11.2	1	
133	11	43	2.88		30	3	55.1		11.7	1	
134	11	43	7.62		29	56	4.0		11.7	1	
135	11	43	7.86		28	26	47.1		11.5	1	
136	11	43	8.33		27	29	4.7		11.5	1	
137	11	43	9.85		28	20	11.5		11.8	1	
138	11	43	10.07		28	16	43.0		11.2	1	
139	11	43	10.54		28	40	20.0		11.5	1	
140	11	43	11.07		27	27	30.8		12.2	1	
141	11	43	11.97		28	52	33.6		9.8	1	1
142	11	43	12.52	0.01	28	46	22.2	0.3	11.2	2	
143	11	43	13.35		28	6	12.3		11.3	1	
144	11	43	13.59		27	24	0.4		10.1	1	
145	11	43	14.32		27	27	34.1		11.5	1	
146	11	43	14.89		29	42	22.7		10.4	1	
147	11	43	16.83		29	17	18.4		10.9	1	
148	11	43	17.23		26	40	6.4		11.2	1	
149	11	43	18.30		26	58	40.2		10.1	1	
150	11	43	18.60		28	22	58.1		10.4	1	
151	11	43	18.66		26	49	3.4		10.3	1	
152	11	43	19.52		26	41	17.7		9.8	1	1
153	11	43	20.25		28	29	56.8		11.2	1	
154	11	43	20.34		30	48	33.2		10.1	1	1
155	11	43	21.17		29	19	34.4		11.7	1	
156	11	43	22.58		28	31	3.3		12.0	1	
157	11	43	23.25		28	56	47.5		8.9	1	1
158	11	43	24.44		30	30	31.0		11.6	1	
159	11	43	25.33		29	37	17.9		11.2	1	
160	11	43	25.58		27	18	29.4		9.1	1	
161	11	43	26.11		29	10	32.1		11.2	1	
162	11	43	28.41		27	7	17.8		9.1	1	1
163	11	43	29.38		28	33	11.5		11.2	1	
164	11	43	34.61	0.01	30	48	33.9	0.2	11.4	2	

242	11	45	16.69	0.01	28	8	9.5	0.1	10.1	2	
243	11	45	17.09		26	47	47.5		11.5	1	
244	11	45	17.34		28	46	5.3		11.5	1	
245	11	45	19.08		29	55	59.3		11.6	1	
246	11	45	19.67	0.01	28	17	14.4	0.2	8.9	2	
247	11	45	20.97		27	37	5.3		7.4	1	1
248	11	45	21.02	0.01	29	46	15.9	0.1	11.4	3	
249	11	45	23.85		28	37	12.6		11.6	1	
250	11	45	24.54	0.01	27	40	37.8	0.5	10.0	2	1
251	11	45	26.42		28	45	48.3		11.6	1	
252	11	45	27.01		26	57	47.0		9.7	1	1
253	11	45	27.19		27	36	40.9		11.5	1	
254	11	45	27.33		27	10	28.5		11.3	1	
255	11	45	29.89		28	3	15.2		11.2	1	
256	11	45	31.36		26	48	1.4		11.3	1	
257	11	45	32.94	0.01	28	8	4.7	0.2	10.1	2	
258	11	45	35.10		27	11	34.0		11.3	1	
259	11	45	37.62		26	52	47.5		10.0	1	
260	11	45	38.03		26	59	21.7		11.2	1	
261	11	45	38.85		28	32	59.4		11.5	1	
262	11	45	39.81		27	58	50.0		11.5	1	
263	11	45	40.23	0.02	27	47	48.1	0.1	10.3	2	
264	11	45	40.31	0.00	28	0	33.0	0.3	10.9	2	
265	11	45	43.57	0.04	30	40	5.8	0.0	11.7	2	
266	11	45	44.39		27	4	19.3		11.5	1	
267	11	45	44.69		27	14	42.5		11.6	1	
268	11	45	46.41		30	54	18.4		8.7	1	1
269	11	45	48.00	0.01	28	58	49.2	0.1	11.7	2	
270	11	45	48.50		31	40	3.3		11.0	1	
271	11	45	50.17	0.03	28	41	42.9	0.1	6.9	3	1
272	11	45	50.64	0.04	28	22	54.9	0.4	11.3	2	
273	11	45	51.57		28	18	46.3		11.5	1	
274	11	45	53.17		28	8	20.7		11.8	1	
275	11	45	53.78		28	26	24.5		11.2	1	
276	11	45	55.35		27	15	55.8		10.9	1	
277	11	45	56.57		31	20	32.2		11.4	1	
278	11	45	56.76		31	10	36.4		11.0	1	
279	11	45	59.81		28	24	31.3		11.5	1	
280	11	46	0.31		27	33	9.4		11.8	1	
281	11	46	1.12	0.01	29	4	40.6	0.3	6.4	2	1
282	11	46	1.81		27	11	8.2		11.8	1	
283	11	46	2.01	0.01	28	33	11.7	0.2	9.9	2	
284	11	46	5.18		26	45	54.9		11.3	1	
285	11	46	5.40	0.02	28	47	38.3	0.2	11.2	2	
286	11	46	5.92		28	45	57.1		11.2	1	
287	11	46	6.23		27	27	28.7		12.0	1	
288	11	46	8.34		31	29	1.3		8.2	1	1
289	11	46	9.37	0.03	29	55	57.6	0.5	11.2	2	
290	11	46	9.46	0.00	26	54	13.2	0.0	11.5	2	
291	11	46	12.73		30	10	0.9		11.6	1	
292	11	46	14.24		31	14	32.0		11.6	1	
293	11	46	14.29		28	6	11.1		11.5	1	
294	11	46	15.50	0.02	28	31	15.2	0.3	10.5	2	
295	11	46	17.09	0.02	26	47	32.3	0.4	11.0	2	
296	11	46	21.41	0.01	26	46	39.6	0.1	10.1	2	
297	11	46	21.90		26	40	32.6		12.0	1	
298	11	46	24.56	0.00	30	4	1.4	0.2	11.6	2	
299	11	46	25.39		31	6	42.5		11.0	1	
300	11	46	26.52		28	27	17.2		11.8	1	
301	11	46	26.75		26	54	42.1		11.6	1	
302	11	46	26.94		27	5	48.4		11.6	1	
303	11	46	28.59	0.02	28	27	44.1	0.4	10.4	2	
304	11	46	29.95		31	9	44.2		11.0	1	
305	11	46	30.26	0.00	30	23	4.2	0.1	11.9	2	
306	11	46	30.57		28	38	46.9		11.8	1	
307	11	46	31.16		31	26	54.9		11.6	1	
308	11	46	32.25		29	12	53.2		12.9	1	
309	11	46	32.62	0.02	27	14	43.4	0.1	10.3	2	
310	11	46	33.16		26	51	40.2		11.5	1	
311	11	46	33.24	0.00	26	43	21.3	0.7	11.3	2	
312	11	46	34.35		25	53	36.8		10.6	1	
313	11	46	34.58		28	2	39.3		11.6	1	
314	11	46	35.39	0.02	28	41	37.8	0.2	11.7	3	
315	11	46	36.67	0.03	28	23	57.6	0.3	7.3	2	1
316	11	46	36.97		31	44	6.0		9.4	1	1
317	11	46	37.91		29	46	13.2		11.4	1	
318	11	46	38.38	0.05	28	14	50.4	0.2	11.2	2	
319	11	46	38.40	0.01	29	11	30.0	0.3	11.7	2	
320	11	46	39.00		27	30	3.9		11.2	1	
321	11	46	39.07		28	28	4.8		11.6	1	
322	11	46	40.67	0.00	30	35	44.3	0.2	11.4	2	
323	11	46	41.52		27	0	47.5		11.8	1	
324	11	46	42.42	0.00	30	49	22.7	0.1	11.2	2	
325	11	46	43.69	0.02	28	48	37.8	0.1	10.4	3	
326	11	46	43.94		27	50	28.4		11.3	1	
327	11	46	45.55	0.01	27	21	48.4	0.1	9.8	2	
328	11	46	46.90		30	51	21.0		11.4	1	

407	11	47	59.62	0.00	28	1	8.1	0.2	11.3	2	
408	11	48	0.19	0.03	27	26	53.0	0.3	11.2	2	
409	11	48	0.29		28	48	5.8		11.0	1	
410	11	48	0.59		27	35	51.9		11.3	1	
411	11	48	2.26		27	15	24.4		12.2	1	
412	11	48	3.34		25	40	42.7		11.6	1	
413	11	48	4.25		28	43	37.7		11.2	1	
414	11	48	4.37		28	45	13.0		10.9	1	
415	11	48	4.45	0.01	28	23	45.3	0.2	9.6	2	
416	11	48	8.94	0.03	28	22	28.4	0.1	7.5	2	1
417	11	48	9.01	0.06	30	41	28.9	0.1	11.7	2	
418	11	48	10.04		31	26	58.6		11.0	1	
419	11	48	10.84		26	16	14.4		11.3	1	
420	11	48	11.96		28	41	40.2		11.3	1	
421	11	48	13.29	0.02	30	25	31.7	0.1	11.0	2	
422	11	48	13.81	0.03	26	41	13.5	0.0	11.2	2	
423	11	48	14.26	0.00	30	29	35.1	0.2	11.2	2	
424	11	48	16.35	0.03	27	20	12.4	0.2	10.1	2	
425	11	48	16.81		26	55	35.2		11.5	1	
426	11	48	16.90	0.01	28	21	20.6	0.2	10.1	2	
427	11	48	17.20	0.01	28	8	50.4	0.2	10.4	2	
428	11	48	17.88		27	45	51.6		11.5	1	
429	11	48	19.17	0.03	29	52	53.1	0.2	11.7	2	
430	11	48	20.18		26	13	41.0		9.9	1	
431	11	48	20.70	0.01	27	29	22.0	0.2	9.9	2	1
432	11	48	21.71	0.02	30	5	27.9	0.3	9.6	2	
433	11	48	23.77	0.01	30	1	5.3	0.5	11.7	2	
434	11	48	24.89		27	28	4.3		11.5	1	
435	11	48	26.16		31	11	48.9		11.4	1	
436	11	48	27.71		25	43	40.7		9.9	1	
437	11	48	27.82		26	34	49.1		11.3	1	
438	11	48	27.97	0.02	29	45	38.5	0.2	11.7	3	
439	11	48	29.26		27	46	36.8		12.0	1	
440	11	48	31.66		27	0	38.6		11.2	1	
441	11	48	32.43		26	18	33.2		10.0	1	1
442	11	48	33.59	0.01	28	13	13.8	0.0	10.9	2	
443	11	48	34.42		26	53	12.8		11.3	1	
444	11	48	36.03	0.01	27	3	51.4	0.2	10.0	2	
445	11	48	38.51	0.03	29	14	9.1	0.2	11.6	3	
446	11	48	39.06		28	11	49.3		11.5	1	
447	11	48	40.37		26	49	23.8		11.3	1	
448	11	48	40.48	0.03	27	33	49.0	0.1	11.2	2	
449	11	48	41.04	0.02	28	52	34.2	0.0	10.0	3	
450	11	48	41.99	0.01	29	30	28.9	0.2	10.7	3	
451	11	48	43.01	0.00	30	28	8.0	0.0	9.7	3	
452	11	48	47.07		31	39	36.4		11.6	1	
453	11	48	47.47		26	26	18.4		12.1	1	
454	11	48	47.91		31	46	56.7		11.0	1	
455	11	48	47.96		27	44	32.4		11.5	1	
456	11	48	48.14		32	37	25.0		10.6	1	1
457	11	48	49.05	0.01	29	12	54.7	0.3	10.4	3	
458	11	48	51.84		28	8	7.8		11.2	1	
459	11	48	52.16	0.02	30	28	35.0	0.1	11.2	3	
460	11	48	52.78		27	56	8.0		11.5	1	
461	11	48	54.07		25	41	44.3		10.0	1	
462	11	48	54.61		31	46	55.8		11.6	1	
463	11	48	56.73		25	56	22.8		11.6	1	
464	11	48	58.31	0.06	26	47	18.4	0.0	9.9	2	
465	11	48	59.03		27	58	45.8		11.2	1	
466	11	49	1.17		31	8	41.4		10.3	1	
467	11	49	4.63		27	39	22.6		11.5	1	
468	11	49	5.22	0.03	29	1	23.4	0.1	10.7	3	
469	11	49	5.23	0.05	26	51	34.5	0.1	11.2	2	
470	11	49	6.85		26	48	35.3		10.5	1	
471	11	49	7.11		31	35	24.4		11.4	1	
472	11	49	7.32		27	50	17.1		11.8	1	
473	11	49	8.28	0.00	29	18	56.9	0.2	10.5	3	1
474	11	49	9.33		27	48	58.4		11.5	1	
475	11	49	11.46	0.01	27	46	25.3	0.1	10.5	4	
476	11	49	12.12	0.04	30	24	25.3	0.8	11.4	2	
477	11	49	12.54		27	19	20.5		11.6	1	
478	11	49	12.94		30	40	14.1		11.4	1	
479	11	49	13.88	0.02	28	40	46.9	0.2	9.4	5	
480	11	49	14.44		27	42	11.8		11.5	1	
481	11	49	14.81	0.02	26	38	38.4	0.9	10.0	2	1
482	11	49	15.29	0.01	29	53	5.2	0.2	9.7	3	
483	11	49	17.66		31	40	32.6		9.5	1	
484	11	49	18.26		25	51	30.9		12.3	1	
485	11	49	18.55	0.01	28	22	37.1	0.2	9.7	3	
486	11	49	19.97	0.01	29	27	36.5	0.1	11.7	3	
487	11	49	20.26		28	16	27.2		10.5	1	
488	11	49	21.04		30	13	23.4		11.2	1	
489	11	49	22.03		27	52	58.0		11.5	1	
490	11	49	22.14		27	28	9.5		11.0	1	
491	11	49	22.14	0.03	29	59	33.6	0.1	10.7	3	
492	11	49	22.51	0.03	27	16	13.3	0.2	10.1	3	
493	11	49	24.41	0.01	28	4	51.0	0.3	9.6	3	

1983RMxAA...5..233S

TABLE 1 (CONTINUED)

No	α	ϵ_α	δ	ϵ_δ	m_p	N	A
494	11 49 24.89		26 32 57.9		12.5	1	
495	11 49 25.87	0.01	27 49 46.8	0.2	9.3	4	
496	11 49 26.16		31 31 24.1		11.6	1	
497	11 49 26.95		28 6 16.0		11.5	1	
498	11 49 27.14		26 4 56.7		12.1	1	
499	11 49 27.58	0.05	28 45 18.8	0.8	9.6	2	
500	11 49 30.16		26 0 7.4		9.2	1	
501	11 49 30.28		30 53 21.3		11.0	1	
502	11 49 32.57		25 50 48.6		11.3	1	
503	11 49 33.93	0.01	30 3 27.9	0.2	9.0	3	1
504	11 49 34.85	0.01	27 38 9.5	0.1	11.3	3	
505	11 49 35.24	0.02	27 16 4.7	0.2	9.8	3	
506	11 49 38.87	0.02	27 9 44.9	0.4	10.9	3	
507	11 49 39.41	0.02	29 47 24.3	0.1	11.4	2	
508	11 49 40.50	0.01	26 46 58.2	0.4	11.3	2	
509	11 49 41.42		31 1 7.4		9.4	1	1
510	11 49 41.74		31 18 2.8		11.0	1	
511	11 49 43.67	0.01	29 51 4.0	0.7	11.4	2	
512	11 49 44.43	0.00	28 35 3.6	0.0	10.5	2	
513	11 49 45.43	0.03	27 52 0.7	0.1	11.9	2	
514	11 49 47.26	0.01	29 22 43.4	0.1	10.8	2	
515	11 49 48.47		25 43 14.4		9.2	1	1
516	11 49 50.24		31 13 49.4		11.0	1	1
517	11 49 51.38	0.01	30 14 31.0	0.5	11.0	2	
518	11 49 51.44		26 7 23.1		11.1	1	
519	11 49 53.39		31 10 8.0		11.0	1	1
520	11 49 53.58		31 19 54.5		11.4	1	
521	11 49 55.52		31 37 36.1		11.0	1	
522	11 49 56.09		25 48 2.5		11.5	1	
523	11 49 56.74	0.03	27 8 19.6	0.1	10.9	2	
524	11 49 56.81	0.03	28 0 46.6	0.2	12.4	2	
525	11 49 58.37		26 10 23.8		12.1	1	
526	11 49 58.86		29 47 3.2		11.6	1	
527	11 49 59.20	0.01	27 53 9.6	0.7	12.9	2	
528	11 50 1.06	0.01	30 32 6.0	0.2	11.0	2	
529	11 50 1.53		26 27 38.5		10.0	1	1
530	11 50 3.67	0.01	27 48 8.2	0.7	12.9	2	
531	11 50 4.63		26 19 47.1		11.3	1	
532	11 50 4.88	0.01	27 59 7.3	0.1	11.4	2	
533	11 50 5.21		28 33 30.5		12.3	1	
534	11 50 5.67		25 46 42.8		10.9	1	
535	11 50 8.07	0.06	30 31 11.9	0.2	9.2	2	1
536	11 50 10.49	0.04	28 41 12.7	0.3	8.4	3	1
537	11 50 11.80	0.03	28 28 11.8	0.3	8.5	2	1
538	11 50 17.61		31 6 16.2		8.5	1	1
539	11 50 17.91		31 6 17.7		8.2	1	1
540	11 50 19.23		26 29 38.4		11.9	1	
541	11 50 22.00		27 9 29.8		12.8	1	
542	11 50 22.48	0.02	26 47 28.7	0.5	11.3	2	
543	11 50 22.72	0.01	28 38 2.1	0.1	12.4	2	
544	11 50 24.12		25 50 53.2		11.6	1	
545	11 50 25.39	0.00	28 17 25.9	0.2	10.8	2	
546	11 50 26.84		28 27 46.8		12.7	1	
547	11 50 31.22		30 18 36.2		11.6	1	
548	11 50 31.97	0.01	27 26 4.4	0.0	11.9	2	
549	11 50 34.41	0.01	28 47 36.6	0.1	9.6	3	1
550	11 50 34.53	0.02	26 41 3.6	0.0	9.7	2	1
551	11 50 34.87		31 0 13.5		10.6	1	
552	11 50 35.37	0.05	29 52 38.6	0.2	11.0	2	
553	11 50 36.35	0.01	27 48 32.2	0.0	10.7	3	
554	11 50 37.10		30 58 33.9		10.8	1	1
555	11 50 37.99	0.01	27 0 33.7	0.3	10.0	2	1
556	11 50 38.09		25 52 33.3		9.9	1	1
557	11 50 40.30	0.01	27 42 17.2	0.2	13.1	3	
558	11 50 40.67	0.00	28 27 23.3	0.5	11.6	2	
559	11 50 41.03	0.02	27 35 7.8	0.1	8.8	2	1
560	11 50 41.15		28 13 33.3		12.3	1	
561	11 50 42.00		26 26 55.0		11.6	1	
562	11 50 43.16	0.01	27 40 6.5	0.1	9.4	3	1
563	11 50 46.50		26 9 4.6		11.9	1	
564	11 50 46.76	0.01	28 14 55.4	0.2	12.6	2	
565	11 50 47.46		31 42 11.4		11.0	1	
566	11 50 48.51		27 31 31.9		12.3	1	
567	11 50 48.57		27 31 31.4		11.9	1	
568	11 50 48.62	0.01	29 25 35.8	0.9	10.8	2	
569	11 50 48.68		26 16 28.8		11.9	1	
570	11 50 53.32		26 23 7.5		11.6	1	
571	11 50 53.51		27 26 20.8		12.8	1	
572	11 50 54.92	0.02	28 48 44.4	0.1	12.4	2	
573	11 50 56.75	0.00	27 42 1.4	0.0	12.9	2	
661	11 52 33.80	0.02	29 47 28.6	0.3	11.0	3	
662	11 52 34.73		27 16 51.9		12.8	1	
663	11 52 35.72		27 38 42.3		12.8	1	
664	11 52 36.18		27 49 33.9		13.1	1	
665	11 52 36.44	0.02	29 7 17.9	0.1	12.6	2	
666	11 52 39.01		30 3 55.0		11.0	1	
667	11 52 39.46		26 25 21.6		12.1	1	
668	11 52 41.09	0.01	27 36 23.8	0.0	11.9	2	
669	11 52 41.40	0.01	28 47 55.5	0.1	9.6	4	1
670	11 52 41.45	0.01	28 37 53.2	0.2	12.1	3	
671	11 52 42.95		26 17 10.9		9.7	1	
672	11 52 43.20		28 10 35.9		12.8	1	
673	11 52 43.48		26 36 31.8		11.6	1	
674	11 52 45.50	0.03	31 4 42.7	0.1	11.0	2	
675	11 52 47.48		31 12 10.9		12.1	1	
676	11 52 48.57		25 54 36.0		11.6	1	
677	11 52 48.90		31 14 54.6		11.9	1	
678	11 52 49.54	0.02	29 17 24.5	0.3	12.3	3	
679	11 52 49.85		28 7 38.1		12.8	1	
680	11 52 50.37		25 48 2.9		7.4	1	1
681	11 52 50.48	0.02	27 54 53.2	0.1	11.9	3	
682	11 52 52.26	0.04	27 11 33.8	0.2	12.5	2	
683	11 52 53.98	0.00	27 15 19.8	0.1	11.9	2	
684	11 52 54.16		26 13 42.0		12.1	1	
685	11 52 54.33		26 28 40.3		11.6	1	
686	11 52 55.64	0.04	26 48 59.6	0.2	11.6	2	
687	11 52 55.74	0.01	28 43 43.7	0.2	12.1	4	
688	11 52 57.23	0.03	27 47 28.5	0.4	10.4	4	1
689	11 52 58.72	0.01	30 0 23.7	0.3	11.0	3	
690	11 52 59.71	0.03	28 1 6.6	0.1	11.1	3	
691	11 53 0.47	0.03	31 0 40.7	0.1	11.4	2	
692	11 53 0.52		26 26 44.8		11.5	1	
693	11 53 2.05		27 50 28.4		13.1	1	
694	11 53 3.25	0.01	27 3 6.2	0.0	11.6	2	
695	11 53 3.26		28 26 4.0		12.8	1	
696	11 53 4.27	0.06	30 11 58.0	0.1	11.6	2	
697	11 53 4.88	0.01	30 1 48.3	0.0	11.0	3	
698	11 53 5.73	0.00	30 10 19.3	0.0	11.6	2	
699	11 53 6.10	0.02	29 46 40.5	0.3	11.0	4	
700	11 53 8.09		27 27 28.6		12.8	1	
701	11 53 12.48	0.02	27 18 11.2	0.1	11.1	2	
702	11 53 12.61	0.01	28 45 55.7	0.1	11.2	4	
703	11 53 15.70	0.04	31 41 58.6	0.1	10.1	2	
704	11 53 16.17	0.01	26 45 21.3	0.1	10.2	2	
705	11 53 17.78	0.01	28 42 56.6	0.1	9.6	4	1
706	11 53 18.08	0.04	30 51 28.6	0.5	11.6	2	
707	11 53 20.07	0.03	27 12 27.2	0.2	10.0	2	1
708	11 53 23.18		28 15 20.6		12.8	1	
709	11 53 24.06	0.01	28 16 59.5	0.2	10.8	3	
710	11 53 24.21		26 26 55.1		12.1	1	
711	11 53 24.38	0.03	30 25 52.2	0.3	11.6	3	
712	11 53 24.90	0.53	30 0 23.1	0.0	11.6	2	
713	11 53 25.78	0.02	28 14 18.9	0.1	11.9	3	
714	11 53 26.10	0.02	29 14 55.4	0.2	10.3	3	
715	11 53 26.34		25 46 18.4		7.9	1	
716	11 53 26.52	0.01	31 28 50.2	0.1	8.2	2	1
717	11 53 28.59	0.02	31 18 42.8	0.1	11.2	2	
718	11 53 28.67		31 3 58.3		11.6	1	
719	11 53 28.71		29 43 7.4		11.2	1	
720	11 53 30.79		25 48 28.4		10.4	1	
721	11 53 31.68	0.02	29 23 0.9	0.1	9.3	3	1
722	11 53 31.76	0.03	30 46 38.0	0.2	10.3	3	
723	11 53 31.88		31 7 30.2		11.9	1	
724	11 53 32.53		27 17 36.8		12.8	1	
725	11 53 36.18		28 19 14.8		12.8	1	
726	11 53 36.47		26 11 5.7		11.6	1	
727	11 53 37.08		27 54 33.1		12.3	1	
728	11 53 37.51	0.01	28 14 19.2	0.0	11.6	2	
729	11 53 39.07	0.02	28 42 45.7	0.3	9.5	3	1
730	11 53 40.66		25 58 6.0		9.7	1	
731	11 53 40.98	0.03	29 8 11.7	0.5	6.9	2	1
732	11 53 41.58	0.00	28 3 6.0	0.2	10.9	2	
733	11 53 41.87		27 55 16.1		12.8	1	
734	11 53 42.12	0.01	26 50 52.4	0.2	11.1	2	
735	11 53 43.34	0.01	27 13 33.1	0.5	11.3	2	
736	11 53 43.77		31 21 29.1		9.9	1	
737	11 53 44.58		31 24 1.6		9.0	1	
738	11 53 46.11		28 26 49.1		12.7	1	
739	11 53 46.24		28 39 33.2		12.8	1	
740	11 53 47.21	0.02	26 57 27.1	0.2	6.8	3	1
828	11 55 6.08		31 17 30.4		11.6	1	
829	11 55 6.26	0.03	28 24 25.5	0.2	12.5	2	
830	11 55 6.91	0.06	27 50 52.1	0.0	12.8	2	
831	11 55 7.41	0.04	28 8 27.0	0.7	12.7	2	
832	11 55 7.66	0.01	25 52 31.6	0.1	10.8	2	
833	11 55 7.68		28 7 16.6		12.8	1	
834	11 55 8.07		26 33 44.7		10.8	1	
835	11 55 8.63		28 37 43.1		12.8	1	
836	11 55 8.95		28 5 50.5		12.8	1	
837	11 55 8.96		30 56 8.6		11.9	1	
838	11 55 10.61	0.01	26 6 24.5	0.4	10.0	2	1
839	11 55 11.76	0.01	30 32 4.6	0.4	11.3	2	
840	11 55 12.85	0.01	26 44 7.1	0.2	10.0	3	
841	11 55 13.63		26 37 54.4		11.6	1	
842	11 55 14.17	0.02	30 36 12.9	0.0	11.3	2	
843	11 55 14.26	0.02	28 8 55.1	0.2	10.9	2	
844	11 55 15.02	0.04	29 18 55.0	0.1	11.3	2	
845	11 55 15.37		31 45 29.2		11.6	1	
846	11 55 17.02	0.05	28 23 5.4	0.6	12.8	2	
847	11 55 17.32	0.02	27 56 50.2	0.2	12.3	2	
848	11 55 18.80	0.03	27 41 51.5	0.2	8.8	4	
849	11 55 21.64	0.00	30 47 17.5	0.2	11.1	2	
850	11 55 21.75	0.05	28 24 31.8	0.2	11.6	2	
851	11 55 23.90	0.01	30 39 15.5	0.4	11.6	2	
852	11 55 23.98		31 10 0.0		11.6	1	
853	11 55 24.20		30 24 21.1		11.4	1	
854	11 55 24.74		26 30 10.3		11.0	1	
855	11 55 27.47	0.03	30 2 49.6	0.2	11.6	2	
856	11 55 30.06	0.01	28 43 40.9	0.3	11.5	3	
857	11 55 30.72	0.01	29 23 43.5	0.3	11.6	2	
858	11 55 30.82	0.02	26 32 6.5	0.6	11.9	2	
859	11 55 32.05	0.02	29 14 24.8	0.2	11.5	2	
860	11 55 33.19		28 36 40.1		12.7	1	
861	11 55 33.96	0.01	26 55 7.9	0.1	11.3	3	
862	11 55 34.10		30 50 53.2		11.6	1	
863	11 55 34.74		28 32 47.1		12.8	1	
864	11 55 34.75		28 8 54.5		12.8	1	
865	11 55 34.97	0.01	26 55 23.9	0.6	12.1	3	
866	11 55 36.56		31 46 1.3		11.6	1	
867	11 55 37.34	0.04	27 13 29.3	0.0	12.8	2	
868	11 55 37.36	0.01	30 5 54.7	0.1	8.8	2	1
869	11 55 37.52	0.01	27 11 24.4	0.1	7.9	3	1
870	11 55 37.84	0.02	26 36 40.1	0.3	9.5	2	
871	11 55 39.48		31 11 59.9		11.4	1	
872	11 55 39.78	0.00	29 12 53.1	0.2	11.6	2	
873	11 55 40.01	0.01	27 47 26.7	0.0	12.3	3	
874	11 55 40.20	0.02	29 33 59.7	0.0	11.6	2	
875	11 55 42.03	0.01	30 3 15.3	0.3	9.7	2	1
876	11 55 42.23	0.04	29 19 29.7	0.1	10.9	2	
877	11 55 42.95	0.00	28 53 6.4	0.1	11.1	2	
878	11 55 43.48		30 34 57.8		11.6	1	
879	11 55 46.00	0.03	29 20 4.0	0.1	11.5	2	
880	11 55 47.02		25 43 39.4		11.2	1	
881	11 55 47.51		26 15 0.9		9.7	1	1
882	11 55 48.07	0.05	28 33 54.3	0.1	12.7	2	
883	11 55 48.12		28 18 56.2		12.8	1	
884	11 55 48.42		28 42 13.8		12.8	1	
885	11 55 48.97	0.05	27 28 48.2	0.4	12.1	2	
886	11 55 51.95		25 55 31.3		10.5	1	
887	11 55 52.71	0.02	27 6 56.2	0.4	7.5	2	1
888	11 55 52.80		30 28 53.1		11.6	1	
889	11 55 54.30		25 53 21.7		11.8	1	
890	11 55 54.55	0.01	29 37 21.1	0.4	11.6	2	
891	11 55 55.10	0.03	27 47 8.5	0.1	12.5	3	
892	11 55 56.21	0.01	27 13 11.9	0.0	9.8	2	
893	11 55 56.71	0.03	27 31 56.1	0.6	8.7	2	1
894	11 55 56.81		25 41 53.0		11.0	1	
895	11 55 57.25		31 15 19.4		12.1	1	
896	11 55 57.72		31 36 58.0		8.5	1	1
897	11 55 58.35		25 49 25.2		10.6	1	
898	11 55 58.96	0.04	26 55 22.4	0.1	12.7	2	
899	11 56 0.83		31 9 25.3		12.1	1	
900	11 56 2.13	0.02	27 16 48.0	0.5	12.8	2	
901	11 56 2.41		31 35 23.0		11.4	1	
902	11 56 5.09		25 58 57.4		10.1	1	
903	11 56 8.63	0.02	26 52 14.6	0.1	10.6	2	
904	11 56 9.00	0.00	30 40 19.8	0.4	11.5	2	
905	11 56 9.48		31 41 24.8		10.8	1	
906	11 56 9.69		29 58 31.7		11.9	1	
907	11 56 11.00	0.00	29 51 28.0	0.4	11.3	2	

574	11	50	56.78	0.02	29	40	35.9	0.3	11.6	3	
575	11	50	58.28	0.01	29	36	2.3	0.3	9.6	2	1
576	11	50	59.75		31	37	4.0		11.4	1	
577	11	51	4.30	0.06	30	36	44.5	0.3	11.0	2	
578	11	51	4.42	0.01	26	42	22.5	0.3	9.9	2	1
579	11	51	5.15	0.05	27	3	47.8	0.2	10.2	2	
580	11	51	5.76		29	57	29.9		11.6	1	
581	11	51	5.91		28	11	35.2		12.8	1	
582	11	51	8.02	0.02	27	6	3.6	0.1	11.5	2	
583	11	51	8.72	0.02	27	38	34.3	0.3	11.3	2	
584	11	51	8.79		28	0	2.9		12.8	1	
585	11	51	9.86		31	41	53.6		11.0	1	
586	11	51	11.04		29	55	28.6		11.6	1	
587	11	51	14.80	0.01	27	56	15.5	0.2	11.9	2	
588	11	51	15.09		26	14	44.7		11.5	1	
589	11	51	16.04		31	30	15.2		9.8	1	
590	11	51	18.32	0.02	30	31	42.4	0.3	11.0	2	
591	11	51	19.16		31	18	18.8		9.5	1	
592	11	51	19.30		27	34	44.4		12.8	1	
593	11	51	21.39		31	28	34.6		10.8	1	
594	11	51	22.18		31	13	32.0		11.4	1	
595	11	51	23.09	0.02	30	15	37.3	0.3	11.2	2	
596	11	51	23.39		29	20	1.4		12.4	1	
597	11	51	25.19	0.03	29	3	43.6	0.2	12.6	2	
598	11	51	26.40	0.02	29	56	3.6	0.3	11.0	2	
599	11	51	27.18	0.03	28	14	29.8	0.3	8.5	2	1
600	11	51	28.21	0.01	28	21	16.7	0.2	12.1	2	
601	11	51	28.36		26	25	31.3		11.3	1	
602	11	51	28.43	0.01	28	20	16.0	0.4	12.6	2	
603	11	51	28.53	0.01	27	55	10.5	0.0	12.9	2	
604	11	51	28.90		30	51	49.0		11.0	1	
605	11	51	29.04		25	58	39.8		10.0	1	1
606	11	51	29.48		26	30	38.1		11.9	1	
607	11	51	30.96		25	55	48.5		11.3	1	
608	11	51	31.06		26	27	24.2		11.5	1	
609	11	51	31.30	0.00	26	59	24.5	0.4	12.1	2	
610	11	51	31.67	0.05	29	13	26.9	0.7	12.6	2	
611	11	51	32.51	0.01	26	40	33.5	0.1	9.2	2	1
612	11	51	32.82		25	42	4.1		11.6	1	
613	11	51	33.53	0.02	28	49	7.7	0.1	12.4	2	
614	11	51	35.79	0.02	28	14	52.5	0.2	12.1	2	
615	11	51	37.71		28	53	17.9		13.1	1	
616	11	51	39.55		31	36	40.5		9.7	1	
617	11	51	40.12	0.02	30	8	29.1	0.2	11.4	2	
618	11	51	41.01	0.01	27	6	30.0	0.2	11.6	2	
619	11	51	41.28	0.01	28	59	21.8	0.1	11.9	2	
620	11	51	43.01	0.05	30	29	40.8	0.5	11.2	2	
621	11	51	44.32		28	37	42.0		12.7	1	
622	11	51	45.65		26	35	11.3		10.9	1	
623	11	51	47.69		25	45	28.8		11.3	1	
624	11	51	51.12	0.02	26	48	48.2	0.1	10.6	2	
625	11	51	51.56		28	20	31.3		12.5	1	
626	11	51	52.25		30	37	11.7		11.6	1	
627	11	51	56.55		25	46	30.6		11.9	1	
628	11	51	56.55		26	20	20.5		12.8	1	
629	11	51	56.70		26	33	12.4		11.1	1	
630	11	51	57.15	0.02	26	52	1.8	0.1	10.6	2	
631	11	51	59.58		30	54	7.8		11.0	1	
632	11	52	0.05		31	29	51.7		9.5	1	
633	11	52	0.81	0.03	28	28	22.5	0.1	10.7	2	
634	11	52	1.30		30	18	39.8		11.6	1	
635	11	52	2.23	0.02	28	39	2.4	0.2	12.6	2	
636	11	52	3.78		26	37	32.9		12.1	1	
637	11	52	6.32	0.01	28	31	5.2	0.0	11.0	2	
638	11	52	9.30		26	4	0.9		10.0	1	1
639	11	52	10.95		26	4	57.3		12.5	1	
640	11	52	11.14	0.01	29	47	59.9	0.1	11.4	3	
641	11	52	12.69		27	40	40.0		12.8	1	
642	11	52	16.08	0.01	27	29	29.6	0.4	11.3	2	1
643	11	52	20.38	0.02	28	33	15.7	0.1	12.4	2	
644	11	52	21.25	0.01	29	1	27.1	0.0	10.8	2	
645	11	52	21.51		27	28	39.4		12.8	1	
646	11	52	23.18	0.01	30	11	14.5	0.1	11.0	2	
647	11	52	23.33		31	11	1.6		11.0	1	
648	11	52	23.99	0.02	29	55	34.4	0.2	11.0	2	
649	11	52	25.37		26	2	16.6		9.5	1	1
650	11	52	26.22		29	15	13.9		12.3	1	
651	11	52	26.37	0.02	30	30	12.4	0.7	11.4	2	
652	11	52	26.71		26	59	42.2		12.8	1	
653	11	52	28.21	0.05	27	36	60.0	0.1	11.5	2	
654	11	52	28.95		30	2	57.1		11.6	1	
655	11	52	29.50	0.04	28	52	22.2	0.0	12.4	2	
656	11	52	30.84	0.01	28	39	21.2	0.2	11.1	2	
657	11	52	32.01	0.02	27	16	47.4	0.2	12.5	2	
658	11	52	32.56		26	55	29.6		12.8	1	
659	11	52	33.04	0.02	31	28	7.3	0.3	9.8	2	
660	11	52	33.13	0.02	29	16	17.3	0.2	12.4	2	
741	11	53	48.31	0.01	30	2	22.2	0.2	10.9	2	
742	11	53	49.21		30	55	11.5		9.8	1	
743	11	53	49.59	0.02	30	21	21.3	0.1	11.5	2	
744	11	53	50.05	0.03	30	5	35.0	0.2	11.1	2	
745	11	53	52.43	0.01	26	39	8.6	0.1	11.9	3	
746	11	53	52.59	0.00	26	21	4.8	0.3	9.9	2	
747	11	53	52.78	0.05	30	35	45.8	0.1	11.6	2	
748	11	53	54.21		31	14	25.5		10.6	1	
749	11	53	56.36		28	27	18.6		12.8	1	
750	11	53	56.80	0.00	30	43	49.0	0.3	11.6	2	
751	11	53	58.68	0.02	26	23	57.6	0.0	11.9	2	
752	11	53	58.76	0.04	25	43	18.7	0.0	9.7	2	
753	11	53	59.68	0.03	26	46	24.9	0.1	10.3	3	
754	11	54	0.01	0.02	28	11	0.9	0.1	12.8	2	
755	11	54	1.99		30	12	10.1		11.4	1	
756	11	54	2.03	0.02	26	29	57.1	0.1	11.6	2	
757	11	54	5.06		30	41	1.4		11.6	1	
758	11	54	5.32		31	1	19.5		9.8	1	1
759	11	54	5.47		31	34	54.5		10.6	1	
760	11	54	5.95		30	46	46.7		11.4	1	
761	11	54	6.10	0.02	28	20	44.6	0.2	10.0	2	1
762	11	54	6.26	0.01	29	57	21.0	0.0	11.6	2	
763	11	54	7.40	0.02	26	59	22.4	0.4	12.1	3	
764	11	54	8.55		28	25	54.9		12.8	1	
765	11	54	8.89		31	5	29.3		9.6	1	
766	11	54	12.12		30	46	1.9		11.6	1	
767	11	54	13.68		25	59	28.0		11.0	1	
768	11	54	13.72	0.00	30	46	58.0	0.1	11.6	2	
769	11	54	13.77	0.02	28	49	33.9	0.4	9.7	2	
770	11	54	13.96	0.02	26	2	32.7	0.2	10.0	2	1
771	11	54	14.11		26	56	32.5		12.8	1	
772	11	54	15.08	0.01	27	10	2.5	0.1	11.3	3	
773	11	54	17.79	0.03	25	43	1.9	0.8	10.6	2	
774	11	54	19.30	0.01	28	28	46.8	0.5	11.2	2	
775	11	54	20.87	0.01	26	21	5.7	0.2	12.1	2	
776	11	54	22.50	0.02	26	20	1.3	0.3	12.1	2	
777	11	54	25.61	0.01	26	22	32.4	0.1	11.6	2	
778	11	54	27.29	0.01	29	42	31.5	0.2	11.6	3	
779	11	54	27.34		28	33	38.1		12.8	1	
780	11	54	29.60	0.01	29	55	29.3	0.1	11.6	2	
781	11	54	29.70		27	51	46.4		12.8	1	
782	11	54	31.27		27	4	6.2		12.8	1	
783	11	54	34.80	0.02	27	48	22.8	1.0	12.8	2	
784	11	54	35.16	0.01	27	13	34.7	0.1	10.9	3	
785	11	54	36.22		26	10	44.0		11.2	1	
786	11	54	37.20	0.04	30	21	42.5	0.2	10.0	2	
787	11	54	38.06	0.02	27	26	18.2	0.3	8.3	3	1
788	11	54	38.13	0.02	28	35	42.1	0.1	12.7	2	
789	11	54	38.25	0.00	27	19	37.3	0.2	10.9	3	
790	11	54	39.09		30	58	22.8		11.6	1	
791	11	54	39.47	0.01	26	6	1.9	0.1	8.8	2	1
792	11	54	39.82	0.01	30	17	48.3	0.1	11.6	2	
793	11	54	41.82		31	25	40.0		11.6	1	
794	11	54	42.02		27	49	40.8		12.7	1	
795	11	54	42.32		28	47	36.3		12.8	1	
796	11	54	42.34	0.06	30	21	17.6	0.4	9.9	2	
797	11	54	42.56	0.01	26	20	54.7	0.2	11.9	2	
798	11	54	44.41	0.01	27	59	46.6	0.3	12.7	2	
799	11	54	44.56	0.02	26	35	47.8	0.6	10.0	2	
800	11	54	46.95	0.00	29	3	28.6	0.1	11.6	2	
801	11	54	47.74		31	4	48.3		12.1	1	
802	11	54	48.33	0.01	29	0	15.4	0.1	11.3	2	
803	11	54	50.41		31	4	13.7		11.4	1	
804	11	54	51.25	0.00	27	2	41.1	0.1	7.5	3	1
805	11	54	51.70	0.00	28	32	20.6	0.1	12.8	2	
806	11	54	52.61		28	1	22.9		12.8	1	
807	11	54	53.58	0.00	29	33	9.5	0.3	9.5	2	1
808	11	54	53.91		31	42	34.2		11.4	1	
809	11	54	54.69		31	0	55.5		12.1	1	
810	11	54	54.72	0.00	28	35	5.9	0.2	10.0	2	
811	11	54	55.44		31	13	38.3		9.9	1	
812	11	54	56.44	0.02	26	41	6.2	0.1	11.3	3	
813	11	54	57.33		31	20	34.7		11.6	1	
814	11	54	58.94	0.03	29	57	35.7	0.3	11.6	2	
815	11	54	59.26	0.02	25	53	52.6	0.3	10.3	2	
816	11	55	0.23		28	40	44.4		12.7	1	
817	11	55	1.06	0.02	28	50	0.8	0.5	7.3	2	1
818	11	55	1.46	0.01	29	45	36.4	0.2	10.6	3	1
819	11	55	2.05		31	36	17.6		11.4	1	
820	11	55	2.16	0.02	28	43	0.3	0.1	11.6	3	
821	11	55	3.16	0.01	26	30	22.2	0.3	11.3	2	
822	11	55	4.65	0.05	30	21	53.2	0.0	11.3	2	
823	11	55	5.11		31	16	58.8		11.0	1	
824	11	55	5.15		25	43	46.4		11.3	1	
825	11	55	5.19		31	24	38.9		9.5	1	
826	11	55	5.38	0.05	28	35	11.8	0.0	12.3	2	
827	11	55	5.44		31	7	25.9		11.9	1	
908	11	56	11.68		31	30	41.6		10.8	1	
909	11	56	12.25	0.00	28	25	33.1	0.0	10.2	2	
910	11	56	12.72		25	58	37.4		10.5	1	
911	11	56	13.52	0.04	27	0	48.0	0.2	11.1	2	
912	11	56	14.59	0.03	26	40	53.3	0.2	12.3	2	
913	11	56	14.96	0.01	27	0	1.6	0.1	12.5	2	
914	11	56	16.56		26	25	48.6		9.7	1	
915	11	56	22.94		25	43	56.4		11.3	1	
916	11	56	24.24	0.01	27	32	29.1	0.4	12.3	2	
917	11	56	24.24		31	23	9.0		12.4	1	
918	11	56	24.57		31	4	40.2		9.5	1	1
919	11	56	24.83		31	30	27.8		11.4	1	
920	11	56	25.11	0.01	28	7	35.9	0.0	10.1	2	
921	11	56	27.37		29	57	5.1		11.4	1	
922	11	56	27.59	0.00	26	48	10.3	0.3	9.7	2	1
923	11	56	28.15	0.00	27	35	51.6	0.7	12.0	2	
924	11	56	28.18	0.00	29	17	14.6	0.2	10.0	2	
925	11	56	31.31		31	48	3.2		11.6	1	
926	11	56	31.98	0.01	26	59	44.7	0.4	10.2	2	
927	11	56	32.48	0.00	27	3	44.1	0.3	12.8	2	
928	11	56	35.20		28	28	53.5		12.8	1	
929	11	56	38.45		29	52	8.0		11.4	1	
930	11	56	39.11	0.04	28	34	45.9	0.1	12.1	2	
931	11	56	39.66	0.02	29	56	44.6	0.0	11.6	2	
932	11	56	39.70	0.04	29	2	34.1	0.2	9.7	2	1
933	11	56	41.94	0.00	29	58	9.3	0.2	11.5	2	
934	11	56	44.49		31	1	41.1		11.6	1	
935	11	56	46.40	0.01	27	23	37.9	0.5	8.4	2	1
936	11	56	46.68	0.00	30	2	19.1	0.0	11.3	2	
937	11	56	51.52	0.03	27	45	48.9	0.1	12.8	2	
938	11	56	51.60		25	58	48.4		11.3	1	
939	11	56	52.82	0.00	29	56	45.4	0.0	11.6	2	
940	11	56	54.09	0.00	29	15	36.4	0.3	11.6	2	
941	11	56	55.50	0.02	28	41	1.1	0.1	12.5	2	
942	11	56	57.33	0.02	28	19	38.2	0.0	12.3	2	
943	11	56	58.54		30	9	42.5		12.1	1	
944	11	56	59.03	0.03	28	23	36.3	0.2	11.6	2	
945	11	57	3.03		30	17	37.1		11.6	1	
946	11	57	3.23	0.02	27	40	22.6	0.1	12.8	2	
947	11	57	3.68		28	0	49.3		12.8	1	
948	11	57	3.96		30	43	1.8		12.1	1	
949	11	57	4.02	0.03	29	38	54.3	0.2	11.9	2	
950	11	57	4.04	0.02	27	58	7.6	0.2	10.2	2	
951	11	57	4.10	0.03	26	52	35.1	0.1	12.7	2	
952	11	57	7.08	0.01	27	33	59.1	0.1	12.7	2	
953	11	57	8.07		25	45	3.6		10.5	1	
954	11	57	9.44		25	46	32.0		9.6	1	
955	11	57	10.33		31	9	9.8		11.6	1	
956	11	57	11.93	0.03	27	13	42.7	0.1	11.5	2	
957	11	57	12.10	0.03	28	3	35.2	0.1	11.5	2	
958	11	57	12.47	0.04	30	17	42.6	0.4	10.8	2	
959	11	57	12.69	0.01	27	39	46.5	0.2	10.9	3	1
960	11	57	13.38	0.02	27	8	47.5	0.1	10.9	2	
961	11	57	13.86	0.01	30	16	46.0	0.2	11.6	2	
962	11	57	16.16	0.02	28	50	51.1	0.7	9.9	2	1
963	11	57	16.91		27	56	37.9		12.8	1	
964	11	57	17.33		31	9	31.1		11.9	1	
965	11	57	20.95	0.01	30	50	24.2	0.2	9.7	2	
966	11	57	22.09	0.00	29	18	46.7	0.4	11.6	2	
967	11	57	23.30		25	48	33.7		9.7	1	
968	11	57	24.27	0.04	28	24	0.0	0.6	9.5	2	1
969	11	57	26.46		30	56	3.5		10.8	1	
970	11	57	27.11		31	10	58.7		11.4	1	
971	11	57	28.87	0.03	27	30	56.5	0.1	12.8	2	
972	11	57	29.12		26	7	49.5		11.0	1	
973	11	57	31.69	0.02	26	55	32.7	0.1	10.7	2	1
974	11	57	32.51		26	19	15.9		10.0	1	
975	11	57	32.59	0.02	28	15	1.7	0.1	12.5	2	
976	11	57	34.02		26	19	21.7		8.8	1	1
977	11	57	34.14	0.01	28	42	43.4	0.2	12.7	2	
978	11	57	35.92	0.02	26	49	28.2	0.2	12.8	2	
979	11	57	36.73	0.00	28	32	33.3	0.1	10.9	2	
980	11	57	37.79	0.01	28	17	22.7	0.3	12.3	2	
981	11	57	38.15	0.02	30	0	31.7	0.3	11.6	3	
982	11	57	38.17	0.02	29	41	12.1	0.2	11.3	4	
983	11	57	39.13	0.04	26	53	49.2	0.0	9.2	2	1
984	11	57	39.15	0.01	28	15	15.3	0.1	10.9	3	
985	11	57	39.36		26	11	24.7		9.4	1	
986	11	57	41.76	0.02	27	30	46.7	0.2	12.5	3	
987	11	57	42.60	0.02	27	32	7.5	0.1	12.8	3	
988	11	57	42.94		31	32	33.1		11.6	1	
989	11	57	47.85		25	54	20.7		11.0	1	
990	11	57	48.22	0.00	28	6	9.8	0.1	12.3	3	
991	11	57	49.12	0.05	27	15	25.0	0.3	12.8	2	
992	11	57	49.30	0.04	27	8	23.4	0.1	12.8	2	
993	11	57	49.80	0.02	29	5	3.4	0.2	11.1	3	
994	11	57	51.19	0.00	29	47	18.0	0.1	9.9	4	

1983RMxAA...5..233S

TABLE 1 (CONTINUED)

No	α	ϵ_α	δ	ϵ_δ	m_p	N	A
995	11 57 52.23		26 37 29.7		11.8	1	
996	11 57 52.28		31 21 59.7		11.4	1	
997	11 57 52.61		26 20 20.8		10.8	1	
998	11 57 57.72		26 26 6.1		9.9	1	
999	11 57 58.25	0.00	27 58 58.3	0.3	12.8	2	
1000	11 57 58.67	0.01	28 18 43.4	0.4	12.3	3	
1001	11 57 58.84		30 50 30.5		11.4	1	
1002	11 57 59.50		26 29 45.7		9.6	1	
1003	11 58 0.31	0.02	27 52 10.0	0.1	12.7	2	
1004	11 58 0.55	0.01	28 14 14.7	0.2	10.9	3	
1005	11 58 1.43	0.00	29 38 14.9	0.4	10.9	3	
1006	11 58 3.10	0.02	27 53 49.9	0.4	12.8	3	
1007	11 58 3.16		30 13 8.8		11.6	1	
1008	11 58 3.23		26 24 0.2		9.6	1	
1009	11 58 3.77		31 8 55.4		11.4	1	
1010	11 58 6.07	0.00	27 17 33.1	0.1	12.1	3	
1011	11 58 6.53		31 44 39.6		11.4	1	
1012	11 58 7.42		25 48 32.6		9.9	1	
1013	11 58 7.95	0.02	29 21 53.8	0.2	10.0	3	
1014	11 58 7.96	0.02	27 58 59.2	0.3	12.8	3	
1015	11 58 8.06	0.02	26 59 36.7	0.2	12.8	2	
1016	11 58 9.30	0.00	30 5 55.5	0.2	11.5	3	
1017	11 58 10.08	0.01	29 39 53.9	0.3	11.3	4	
1018	11 58 10.29	0.02	28 24 2.3	0.2	12.8	2	
1019	11 58 10.35	0.04	29 28 39.9	0.2	11.9	2	
1020	11 58 10.80		26 38 47.8		10.8	1	
1021	11 58 10.98	0.01	27 8 14.7	0.2	12.8	2	
1022	11 58 12.26		31 36 7.3		11.4	1	
1023	11 58 13.09		27 35 13.7		11.6	1	
1024	11 58 13.74	0.04	29 27 58.8	0.1	7.5	3	1
1025	11 58 15.80		26 27 22.0		10.5	1	
1026	11 58 15.86		25 55 3.9		10.1	1	
1027	11 58 16.95		25 45 8.1		9.6	1	
1028	11 58 18.51	0.00	27 36 5.4	0.1	12.1	3	
1029	11 58 18.74	0.01	27 38 57.4	0.2	12.8	3	
1030	11 58 19.37		31 0 12.3		11.6	1	
1031	11 58 21.22	0.01	29 40 56.8	0.4	11.6	4	
1032	11 58 22.81	0.02	29 1 24.8	0.1	11.1	3	
1033	11 58 23.12		31 24 28.3		9.6	1	
1034	11 58 29.28	0.01	30 18 21.6	0.4	11.6	3	
1035	11 58 30.01		29 56 55.5		11.9	1	
1036	11 58 30.21	0.02	27 3 25.0	0.2	12.5	3	
1037	11 58 31.30	0.01	28 14 28.8	0.2	8.7	3	1
1038	11 58 31.45	0.01	29 41 26.3	0.1	11.6	4	
1039	11 58 32.43	0.02	26 44 6.1	0.0	11.3	2	
1040	11 58 32.65	0.01	27 37 59.4	0.1	10.6	3	
1041	11 58 33.91		26 18 23.7		10.0	1	
1042	11 58 34.18		31 15 26.4		8.3	1	1
1043	11 58 35.80		31 21 42.5		11.9	1	
1044	11 58 37.68	0.02	27 58 24.2	0.3	13.1	2	
1045	11 58 39.52		29 37 7.1		11.9	1	
1046	11 58 40.27		30 55 5.3		7.0	1	1
1047	11 58 40.80	0.01	27 19 0.8	0.2	12.3	3	
1048	11 58 40.90	0.03	26 47 34.9	0.1	11.8	3	
1049	11 58 41.30	0.02	29 2 26.7	0.3	9.8	2	1
1050	11 58 43.19		28 9 10.3		11.6	1	
1051	11 58 43.32	0.04	28 44 39.4	0.3	12.1	3	
1052	11 58 44.58		31 26 16.1		11.0	1	
1053	11 58 44.58	0.00	28 2 39.7	0.1	12.8	3	
1054	11 58 44.89		31 31 38.1		11.0	1	1
1055	11 58 45.91	0.03	26 54 17.4	0.1	11.2	2	
1056	11 58 45.92		26 27 54.5		10.8	1	
1057	11 58 47.30	0.01	27 35 50.9	0.2	9.7	3	
1058	11 58 47.55	0.00	30 22 1.0	0.1	11.4	2	
1059	11 58 47.79	0.00	29 30 16.7	0.0	11.9	2	
1060	11 58 47.88		26 23 40.6		10.3	1	
1061	11 58 49.96		25 59 42.0		9.7	1	1
1062	11 58 50.55		25 52 44.1		10.5	1	
1063	11 58 52.14	0.01	30 7 38.0	0.2	11.4	2	
1064	11 58 53.76		27 16 38.2		12.8	1	
1065	11 58 56.87	0.01	29 56 23.0	0.1	11.4	2	
1066	11 58 58.07		31 5 23.2		12.1	1	
1067	11 58 58.09		31 14 32.5		12.1	1	
1068	11 58 58.10	0.04	30 25 49.8	0.0	10.6	2	1
1069	11 58 58.10		25 40 25.7		10.0	1	
1070	11 58 58.52		27 11 20.9		11.3	1	
1071	11 58 58.75		27 52 41.6		11.3	1	
1072	11 59 0.22	0.04	26 52 44.7	0.2	9.9	2	
1073	11 59 1.72	0.02	27 25 41.7	0.1	11.0	2	
1074	11 59 1.80	0.00	27 12 53.8	0.1	9.6	2	
1075	11 59 3.43		25 53 35.3		9.9	1	
1163	12 0 23.75	0.03	27 16 36.9	0.4	11.0	2	
1164	12 0 24.80	0.00	30 0 1.6	0.0	11.6	2	
1165	12 0 24.93	0.01	26 45 13.2	0.1	9.7	2	1
1166	12 0 25.95	0.02	29 23 27.8	0.3	10.0	2	
1167	12 0 27.84		26 28 37.8		11.0	1	
1168	12 0 28.30		28 46 4.7		11.4	1	
1169	12 0 28.57	0.01	30 7 23.0	0.3	11.4	2	
1170	12 0 28.69	0.02	28 57 44.5	0.3	10.6	2	
1171	12 0 29.07		28 5 4.7		11.9	1	
1172	12 0 29.20		28 37 58.2		11.1	1	
1173	12 0 31.09	0.03	30 21 57.6	0.2	11.4	2	
1174	12 0 31.85	0.02	27 41 38.1	0.0	11.6	2	
1175	12 0 32.13		31 6 40.3		9.9	1	1
1176	12 0 32.63		28 14 21.2		11.6	1	
1177	12 0 33.67		26 6 8.3		10.6	1	
1178	12 0 34.25	0.03	26 51 13.6	0.2	11.2	2	
1179	12 0 34.31	0.01	26 58 57.1	0.3	9.7	2	
1180	12 0 34.35	0.03	28 52 27.5	0.0	11.9	2	
1181	12 0 35.34		31 26 12.3		11.4	1	
1182	12 0 35.46	0.01	27 19 31.9	0.3	10.8	2	
1183	12 0 36.15	0.01	29 59 59.5	0.4	11.4	2	
1184	12 0 36.48	0.01	30 26 47.3	0.1	11.9	2	
1185	12 0 36.62	0.00	28 32 43.2	0.4	11.4	2	
1186	12 0 38.35		31 48 13.6		10.3	1	
1187	12 0 39.36	0.01	28 56 25.2	0.0	11.9	2	
1188	12 0 39.46		30 52 39.4		11.6	1	
1189	12 0 39.85		27 49 59.5		12.1	1	
1190	12 0 39.97		28 48 15.0		11.1	1	
1191	12 0 40.22	0.03	29 17 31.0	0.6	9.4	2	
1192	12 0 40.65	0.03	29 4 13.4	0.1	11.8	2	
1193	12 0 43.59	0.01	29 34 24.0	0.4	11.9	2	
1194	12 0 43.76	0.01	29 50 55.9	0.1	11.4	2	
1195	12 0 44.23	0.01	29 49 16.1	0.0	9.8	2	
1196	12 0 44.65	0.04	28 18 19.8	0.1	11.6	2	
1197	12 0 44.69		25 41 37.8		9.4	1	
1198	12 0 45.05	0.02	29 23 58.1	0.1	9.3	3	1
1199	12 0 45.49		28 25 0.7		11.4	1	
1200	12 0 46.07	0.03	28 20 4.3	0.1	10.5	3	
1201	12 0 46.43		28 25 20.9		12.1	1	
1202	12 0 46.68		26 16 54.3		9.4	1	
1203	12 0 47.77	0.00	29 56 39.5	0.3	9.6	2	1
1204	12 0 48.58	0.03	26 48 42.9	0.0	10.3	2	
1205	12 0 50.46		26 4 26.8		9.7	1	1
1206	12 0 52.32	0.02	27 55 29.9	0.1	11.4	3	
1207	12 0 52.94		25 45 12.4		9.6	1	
1208	12 0 53.49	0.00	30 15 5.0	0.2	11.6	2	
1209	12 0 53.81		25 56 27.4		9.6	1	
1210	12 0 55.64		28 19 26.3		11.9	1	
1211	12 0 55.81	0.02	30 2 27.7	0.3	11.4	2	
1212	12 0 56.56	0.00	27 17 59.8	0.2	10.5	2	
1213	12 0 56.94		25 45 47.8		10.3	1	
1214	12 0 58.41	0.02	30 17 56.0	0.6	11.6	2	
1215	12 0 58.41		27 18 5.8		11.4	1	
1216	12 0 59.78	0.00	29 57 29.1	0.2	7.8	2	1
1217	12 0 59.97	0.01	27 37 53.3	0.7	11.6	2	
1218	12 1 0.16	0.01	30 37 14.5	0.4	11.4	2	
1219	12 1 0.36	0.01	29 54 44.0	0.1	9.9	2	1
1220	12 1 0.65		28 6 50.9		11.6	1	
1221	12 1 2.32		31 16 53.1		11.4	1	
1222	12 1 2.88		31 40 15.5		11.4	1	
1223	12 1 4.22		29 16 20.1		11.6	1	
1224	12 1 4.42	0.02	28 8 46.9	0.1	10.3	3	
1225	12 1 5.58		26 14 45.7		10.3	1	
1226	12 1 5.77		28 10 51.4		12.1	1	
1227	12 1 7.38	0.02	26 53 10.4	0.3	10.0	2	
1228	12 1 10.20	0.03	28 8 3.3	0.1	11.8	3	
1229	12 1 10.43		27 59 8.7		11.6	1	
1230	12 1 10.72		31 7 52.2		11.4	1	
1231	12 1 11.66		31 23 51.0		11.6	1	
1232	12 1 11.97		26 4 13.2		9.7	1	1
1233	12 1 12.66	0.01	30 40 7.8	0.0	11.4	2	
1234	12 1 16.18		27 59 9.1		11.9	1	
1235	12 1 16.19		26 12 43.3		10.1	1	
1236	12 1 17.63		29 49 54.3		12.4	1	
1237	12 1 20.42		26 17 20.0		10.3	1	
1238	12 1 20.68	0.02	28 42 19.6	0.1	11.4	4	
1239	12 1 21.10		28 16 23.8		11.6	1	
1240	12 1 21.30		30 56 39.2		10.4	1	1
1241	12 1 21.33	0.01	28 22 18.8	0.0	10.0	3	
1242	12 1 22.20		27 6 35.6		12.3	1	
1328	12 2 48.48	0.01	26 53 45.6	0.2	9.3	3	
1329	12 2 49.89		31 29 19.3		7.2	1	1
1330	12 2 49.89	0.01	28 19 33.8	0.0	10.2	2	
1331	12 2 49.94	0.00	29 50 54.0	0.1	10.1	2	
1332	12 2 49.98	0.02	29 26 1.7	0.1	11.4	2	
1333	12 2 51.34	0.00	25 50 49.5	0.2	10.0	2	
1334	12 2 52.58	0.03	28 10 33.7	0.6	11.6	2	
1335	12 2 54.27	0.01	28 11 39.7	0.0	9.5	2	
1336	12 2 54.46	0.03	28 28 35.5	0.2	11.4	2	
1337	12 2 57.52	0.02	28 47 2.2	0.3	8.0	3	1
1338	12 2 57.67	0.00	27 55 38.7	0.3	11.4	2	
1339	12 3 0.50	0.00	26 38 22.0	0.2	8.3	2	1
1340	12 3 1.52	0.00	27 5 55.4	0.2	9.7	3	
1341	12 3 1.60		31 32 52.6		10.7	1	
1342	12 3 2.03		30 41 52.6		11.6	1	
1343	12 3 3.89	0.02	28 34 32.5	0.1	8.3	2	1
1344	12 3 4.47		29 19 17.1		11.4	1	
1345	12 3 6.57	0.03	29 55 41.3	0.4	11.4	2	
1346	12 3 12.91	0.00	26 25 59.9	0.1	9.7	2	
1347	12 3 12.99	0.00	29 38 30.1	0.4	9.8	3	
1348	12 3 13.06	0.02	27 19 29.5	0.1	11.4	2	
1349	12 3 14.16	0.04	30 41 23.7	0.0	11.3	2	
1350	12 3 14.19	0.01	30 45 10.1	0.1	11.4	2	
1351	12 3 15.01	0.02	28 29 24.7	0.0	11.9	2	
1352	12 3 15.59	0.01	27 14 58.1	0.2	11.1	2	
1353	12 3 16.32	0.01	26 29 58.2	0.0	10.0	2	
1354	12 3 16.79	0.02	28 46 17.4	0.0	11.4	3	
1355	12 3 17.01	0.01	29 31 51.4	0.3	9.8	2	
1356	12 3 17.02	0.06	25 48 28.9	0.6	10.8	2	
1357	12 3 17.26		27 1 5.7		11.9	1	
1358	12 3 18.33	0.01	30 4 26.4	0.1	10.9	2	
1359	12 3 18.87		30 39 33.6		12.2	1	
1360	12 3 19.30	0.02	29 9 52.9	0.2	11.4	2	
1361	12 3 20.40	0.03	27 45 41.1	0.2	10.6	4	
1362	12 3 21.16	0.02	28 15 24.8	0.2	9.8	2	
1363	12 3 21.47	0.03	30 35 5.9	0.3	11.4	2	
1364	12 3 21.76	0.02	26 44 49.1	0.2	8.2	3	1
1365	12 3 21.80	0.01	26 56 51.6	0.1	9.2	3	1
1366	12 3 22.73	0.01	29 15 38.4	0.3	9.4	2	1
1367	12 3 22.92	0.04	25 56 46.5	0.4	8.9	2	1
1368	12 3 24.11		26 4 50.5		11.0	1	
1369	12 3 24.31	0.04	30 48 47.9	0.1	10.9	2	
1370	12 3 24.62	0.03	26 32 8.2	0.5	10.6	2	
1371	12 3 25.59	0.02	27 20 34.2	0.1	9.6	3	
1372	12 3 26.37	0.02	28 29 59.4	0.2	11.4	2	
1373	12 3 26.47	0.00	28 18 17.1	0.3	11.1	2	
1374	12 3 28.21	0.04	28 26 5.4	0.1	9.8	2	
1375	12 3 32.65		26 2 58.2		9.2	1	1
1376	12 3 34.30	0.02	27 45 55.4	0.1	9.8	3	
1377	12 3 34.31		30 30 55.9		11.4	1	
1378	12 3 34.77		26 50 9.1		11.6	1	
1379	12 3 34.86		31 38 17.1		10.9	1	
1380	12 3 34.89		28 47 55.2		11.9	1	
1381	12 3 35.27	0.02	27 49 37.9	0.1	8.6	2	1
1382	12 3 36.36		26 1 9.0		9.6	1	
1383	12 3 36.62		31 32 36.5		8.9	1	
1384	12 3 37.93	0.01	30 21 58.9	0.6	11.3	2	
1385	12 3 38.05	0.01	27 13 4.1	0.3	11.1	2	
1386	12 3 38.57	0.03	29 5 10.8	0.1	11.1	2	
1387	12 3 38.86	0.01	29 40 51.7	0.1	9.1	3	1
1388	12 3 39.65	0.01	29 10 23.6	0.0	11.4	2	
1389	12 3 40.79	0.01	27 46 36.5	0.2	9.0	3	
1390	12 3 40.99	0.01	27 3 33.5	0.2	10.9	2	
1391	12 3 43.32	0.03	27 15 23.5	0.4	11.9	2	
1392	12 3 44.53		25 54 47.4		9.7	1	
1393	12 3 44.63	0.01	27 41 2.9	0.3	11.4	2	
1394	12 3 46.03		31 31 20.3		12.2	1	
1395	12 3 48.47	0.02	27 29 21.2	0.1	11.6	2	
1396	12 3 48.63	0.00	27 34 44.6	0.2	10.0	2	
1397	12 3 48.79		27 33 40.4		11.3	1	
1398	12 3 49.24	0.02	27 48 18.8	0.3	11.6	2	
1399	12 3 49.38		30 57 40.2		11.2	1	
1400	12 3 49.83	0.01	29 41 39.9	0.1	9.8	3	
1401	12 3 51.48	0.04	27 4 36.0	0.0	11.1	2	
1402	12 3 51.78		26 8 1.9		11.3	1	
1403	12 3 52.45		31 8 40.6		11.6	1	
1404	12 3 53.15		27 0 15.2		11.6	1	
1405	12 3 53.15		31 28 38.3		11.6	1	
1406	12 3 53.20		31 0 49.6		11.6	1	
1407	12 3 53.68	0.02	29 21 46.1	0.4	10.9	2	
1408	12 3 55.77		30 42 22.6		12.5	1	

1076	11	59	3.98	0.02	28	22	30.8	0.2	10.7	2	
1077	11	59	6.46	0.02	28	23	3.9	0.1	11.9	2	
1078	11	59	6.77		30	10	34.4		12.1	1	
1079	11	59	7.11		26	2	0.8		10.6	1	
1080	11	59	7.56		31	16	17.4		11.9	1	
1081	11	59	7.61	0.00	29	2	5.3	0.2	10.6	2	
1082	11	59	7.85		28	10	44.5		11.3	1	
1083	11	59	7.86		25	54	41.5		10.1	1	
1084	11	59	10.37	0.02	29	49	40.8	0.2	8.1	2	1
1085	11	59	10.55	0.01	28	33	11.8	0.3	11.6	2	
1086	11	59	10.88		28	5	0.9		11.6	1	
1087	11	59	10.95		25	41	32.4		9.9	1	
1088	11	59	11.43	0.01	29	27	15.8	0.5	11.8	2	
1089	11	59	12.05		31	10	39.1		8.5	1	1
1090	11	59	13.54		29	52	38.1		12.1	1	
1091	11	59	13.57	0.01	27	38	20.0	0.1	11.0	2	
1092	11	59	13.98	0.01	28	6	32.0	0.2	11.4	2	
1093	11	59	14.09	0.03	27	14	35.6	0.1	10.6	2	
1094	11	59	14.58	0.02	28	47	56.5	0.1	10.7	3	
1095	11	59	16.17	0.00	29	33	28.4	0.4	12.1	2	
1096	11	59	17.65		31	18	19.9		11.4	1	
1097	11	59	18.03		26	32	44.8		10.8	1	
1098	11	59	18.35		27	0	4.2		11.4	1	
1099	11	59	19.49	0.00	27	0	25.8	0.1	10.3	2	
1100	11	59	19.62		29	50	27.8		12.4	1	
1101	11	59	22.48		28	18	17.0		11.4	1	
1102	11	59	23.40	0.02	28	3	45.6	0.6	9.9	2	1
1103	11	59	23.67	0.01	29	40	53.2	0.1	11.4	3	
1104	11	59	24.11	0.02	28	57	45.3	0.1	11.8	2	
1105	11	59	26.21	0.04	30	11	49.8	0.3	11.6	2	
1106	11	59	27.64		26	11	24.5		11.0	1	
1107	11	59	27.94	0.05	29	44	42.4	0.1	11.6	2	
1108	11	59	29.09	0.01	27	54	26.4	0.1	10.0	2	
1109	11	59	29.14		27	42	19.5		11.6	1	
1110	11	59	29.16		27	55	36.7		11.4	1	
1111	11	59	29.35	0.01	27	19	12.8	0.0	10.1	2	1
1112	11	59	30.78	0.02	30	15	15.8	0.1	11.2	2	
1113	11	59	32.16		28	2	22.0		11.6	1	
1114	11	59	32.46	0.02	30	29	5.5	0.2	11.4	2	
1115	11	59	34.25	0.06	27	29	11.8	0.3	9.7	2	
1116	11	59	34.75		31	31	41.3		8.1	1	1
1117	11	59	37.38	0.02	27	47	17.1	0.3	11.4	3	
1118	11	59	38.10		31	12	18.9		11.4	1	
1119	11	59	41.76		26	35	39.3		10.1	1	
1120	11	59	42.92		27	20	53.6		11.9	1	
1121	11	59	44.95	0.02	26	47	7.3	0.2	10.3	2	
1122	11	59	46.15		28	29	6.4		11.4	1	
1123	11	59	47.34		25	53	23.0		11.0	1	
1124	11	59	48.17	0.02	29	27	2.1	0.3	9.9	2	1
1125	11	59	48.43		28	21	54.9		11.9	1	
1126	11	59	48.52		27	56	28.4		11.9	1	
1127	11	59	49.00		25	59	32.7		11.0	1	
1128	11	59	49.26		30	47	6.4		11.9	1	
1129	11	59	49.92	0.02	28	46	7.2	0.0	11.9	3	
1130	11	59	50.38		31	33	59.3		11.2	1	
1131	11	59	50.91		27	59	58.5		11.9	1	
1132	11	59	50.97	0.03	28	39	4.2	0.5	10.2	3	1
1133	11	59	51.58	0.02	29	57	41.3	0.7	11.9	2	
1134	11	59	53.06	0.01	26	44	39.9	0.5	11.0	2	
1135	11	59	53.31	0.01	27	22	8.0	0.1	11.3	2	
1136	11	59	53.77		25	51	16.9		9.7	1	
1137	11	59	53.85	0.00	26	57	32.5	0.4	10.1	2	
1138	11	59	55.75	0.00	26	48	23.8	0.3	9.9	2	
1139	11	59	55.84		27	23	35.6		11.6	1	
1140	11	59	56.38	0.01	29	59	24.4	0.1	11.6	2	
1141	11	59	56.65		25	49	30.5		11.0	1	
1142	11	59	56.91	0.01	29	11	38.6	0.0	11.1	2	
1143	11	59	58.58	0.02	29	46	10.3	0.2	11.9	2	
1144	12	0	1.43		28	26	50.9		11.4	1	
1145	12	0	1.94	0.05	27	3	14.9	0.2	11.2	2	
1146	12	0	2.58	0.01	28	56	53.2	0.2	11.4	2	
1147	12	0	4.27	0.00	27	50	53.6	0.4	11.9	2	
1148	12	0	6.65		29	21	53.3		11.3	1	
1149	12	0	10.12		25	52	50.8		10.5	1	
1150	12	0	10.42		27	14	2.5		11.9	1	
1151	12	0	11.54		31	47	26.4		8.5	1	1
1152	12	0	13.80		31	41	25.6		11.0	1	
1153	12	0	15.26	0.03	29	23	54.2	0.3	10.6	2	
1154	12	0	16.21	0.01	28	57	57.7	0.3	11.1	2	
1155	12	0	16.63	0.01	30	9	26.7	0.1	11.6	2	
1156	12	0	17.09	0.02	27	1	26.0	0.3	9.7	2	
1157	12	0	18.71		26	57	41.7		11.9	1	
1158	12	0	19.27	0.01	29	46	4.0	0.0	11.2	3	
1159	12	0	20.55	0.01	27	24	29.1	0.1	9.9	2	
1160	12	0	21.19		31	3	10.0		11.6	1	
1161	12	0	21.32		31	31	5.4		11.2	1	
1162	12	0	22.47	0.02	27	17	8.2	0.0	8.9	2	1

1243	12	1	24.97	0.01	30	43	24.9	0.1	11.4	2	
1244	12	1	27.67	0.00	30	49	7.9	0.2	11.6	2	
1245	12	1	27.96	0.02	27	6	1.5	0.3	10.1	2	
1246	12	1	28.71	0.00	26	50	9.2	0.1	9.9	2	
1247	12	1	28.90	0.01	28	31	1.8	0.2	11.6	3	
1248	12	1	30.70		25	42	6.9		11.6	1	
1249	12	1	31.94	0.03	28	20	21.0	0.0	7.8	3	1
1250	12	1	32.22	0.02	27	18	44.3	0.1	10.6	2	
1251	12	1	32.86		29	41	56.2		11.4	1	
1252	12	1	34.21	0.01	27	3	38.0	0.2	10.5	2	
1253	12	1	37.45	0.01	28	4	5.4	0.2	11.9	2	
1254	12	1	38.89	0.02	30	17	46.1	0.1	11.4	3	
1255	12	1	39.96	0.01	26	57	59.2	0.2	10.3	2	
1256	12	1	40.15		26	8	51.5		9.1	1	1
1257	12	1	40.52		27	49	45.7		11.4	1	
1258	12	1	40.76	0.01	27	27	32.1	0.4	10.8	2	
1259	12	1	41.60	0.02	27	39	34.4	0.2	11.2	4	
1260	12	1	43.47	0.01	28	26	11.5	0.3	10.6	3	
1261	12	1	45.95	0.02	27	50	27.0	0.1	11.9	3	
1262	12	1	46.04	0.01	29	52	23.5	0.1	11.4	3	
1263	12	1	46.42	0.01	27	18	1.8	0.2	9.6	3	
1264	12	1	47.47		31	22	41.0		11.6	1	
1265	12	1	48.62	0.02	29	38	33.0	0.2	11.4	3	
1266	12	1	49.10	0.01	27	13	58.8	0.1	10.8	3	
1267	12	1	49.38		26	34	49.0		11.8	1	
1268	12	1	49.62		27	37	8.5		11.6	1	
1269	12	1	50.04	0.05	27	0	4.2	0.4	11.2	2	
1270	12	1	50.06	0.01	27	27	56.3	0.2	9.7	3	1
1271	12	1	51.03	0.01	29	8	37.7	0.3	11.1	3	
1272	12	1	51.31	0.02	30	37	40.5	0.4	11.4	3	
1273	12	1	55.33	0.03	29	34	15.1	0.2	11.4	3	
1274	12	1	55.91	0.05	27	52	30.4	0.0	11.4	2	
1275	12	1	56.09	0.01	28	15	40.3	0.3	11.9	3	
1276	12	2	4.41	0.02	27	7	48.3	0.2	10.5	3	
1277	12	2	5.13		30	0	29.9		11.4	1	
1278	12	2	6.32	0.02	26	18	46.5	0.0	9.7	2	
1279	12	2	6.65		31	48	25.3		8.5	1	
1280	12	2	6.90	0.00	31	24	42.0	0.0	9.8	2	1
1281	12	2	7.03		31	28	36.3		11.9	1	
1282	12	2	7.85	0.02	28	9	39.9	0.0	10.0	3	
1283	12	2	9.94	0.02	29	58	33.5	0.4	11.4	2	
1284	12	2	10.59	0.02	29	8	21.9	0.2	11.4	2	
1285	12	2	11.82	0.01	27	53	44.7	0.1	11.4	2	
1286	12	2	11.89		31	18	16.8		11.9	1	
1287	12	2	14.89	0.01	29	2	47.6	0.1	11.4	3	
1288	12	2	16.50	0.01	27	5	5.2	0.1	10.6	3	
1289	12	2	17.17	0.00	27	45	28.9	0.4	11.4	2	
1290	12	2	18.36	0.04	27	29	55.2	0.5	11.2	2	
1291	12	2	18.40		28	22	5.0		11.9	1	
1292	12	2	20.77	0.03	30	55	35.3	0.4	10.8	2	
1293	12	2	22.05	0.01	28	26	43.7	0.1	11.4	3	
1294	12	2	22.32	0.04	25	43	57.4	0.4	9.2	2	
1295	12	2	23.10	0.03	31	18	35.8	0.0	11.6	2	
1296	12	2	23.24	0.02	31	14	39.3	0.3	11.9	2	
1297	12	2	23.97	0.00	29	0	28.5	0.2	11.4	2	
1298	12	2	24.33	0.01	26	27	5.2	0.5	9.9	2	
1299	12	2	25.38	0.01	31	37	50.6	0.3	8.9	2	
1300	12	2	26.04	0.02	27	39	28.2	0.3	9.3	5	1
1301	12	2	26.61	0.01	28	40	13.4	0.1	10.0	4	
1302	12	2	27.13	0.02	27	35	10.2	0.4	11.3	3	
1303	12	2	28.03		27	24	51.7		12.1	1	
1304	12	2	28.08		27	27	24.1		11.3	1	
1305	12	2	28.70	0.02	29	41	25.8	0.3	10.3	5	
1306	12	2	28.94		28	43	49.8		11.6	1	
1307	12	2	29.40		26	38	11.3		9.9	1	
1308	12	2	29.42		26	38	11.2		10.5	1	
1309	12	2	29.70		31	47	20.0		11.2	1	
1310	12	2	31.99	0.02	26	51	19.5	0.1	10.1	3	
1311	12	2	33.09	0.05	31	6	44.7	0.2	7.8	2	1
1312	12	2	34.16	0.02	27	28	17.9	0.1	10.8	3	
1313	12	2	35.72		29	9	27.5		11.4	1	
1314	12	2	35.99	0.02	31	22	9.9	0.0	11.6	2	
1315	12	2	36.93	0.01	30	26	40.7	0.1	11.6	3	
1316	12	2	38.70	0.02	29	23	32.7	0.2	11.6	2	
1317	12	2	40.16		27	10	57.7		12.1	1	
1318	12	2	40.35	0.01	29	1	46.7	0.2	11.4	2	
1319	12	2	40.65		27	36	0.0		11.4	1	
1320	12	2	40.95	0.00	25	52	46.2	0.1	9.2	2	
1321	12	2	41.48	0.01	31	30	6.6	0.4	11.0	2	
1322	12	2	42.75	0.01	27	23	18.1	0.1	9.7	3	
1323	12	2	42.79		27	20	24.4		11.9	1	
1324	12	2	44.41	0.01	29	19	50.6	0.4	11.4	2	
1325	12	2	47.13	0.01	26	12	28.4	0.3	9.6	2	
1326	12	2	47.47		26	43	29.9		11.4	1	
1327	12	2	48.37	0.03	29	9	39.8	0.2	11.4	2	

1409	12	3	59.49	0.02	28	11	28.4	0.5	11.4	2	
1410	12	4	0.59		30	58	48.6		12.5	1	
1411	12	4	1.23		28	42	27.8		11.6	1	
1412	12	4	1.24	0.05	27	2	23.3	0.0	11.1	2	
1413	12	4	1.32	0.01	29	29	53.4	0.0	9.8	2	
1414	12	4	1.53		31	20	32.7		11.4	1	
1415	12	4	3.12		31	23	49.5		11.6	1	
1416	12	4	3.99	0.00	28	33	41.5	0.4	10.1	2	
1417	12	4	4.09	0.01	29	57	33.9	0.1	11.4	2	
1418	12	4	4.72	0.01	27	22	31.6	0.3	10.1	2	
1419	12	4	5.46	0.02	26	55	0.1	0.3	11.1	2	
1420	12	4	6.07	0.02	26	44	36.1	0.9	11.6	2	
1421	12	4	6.60	0.01	30	48	58.3	0.1	10.9	2	
1422	12	4	7.92	0.00	29	47	18.1	0.2	11.1	2	
1423	12	4	7.94	0.02	29	21	19.7	0.1	11.9	2	
1424	12	4	9.45	0.02	29	46	4.6	0.1	8.3	3	1
1425	12	4	9.46	0.01	27	40	33.6	0.3	11.3	3	
1426	12	4	12.78	0.00	29	5	33.9	0.2	11.4	2	
1427	12	4	13.25		31	8	7.3		11.0	1	
1428	12	4	13.47		26	12	33.5		9.4	1	1
1429	12	4	14.18	0.00	30	32	24.8	0.4	8.8	2	1
1430	12	4	14.21	0.00	28	51	38.2	0.3	11.4	2	
1431	12	4	14.21	0.02	26	46	10.8	0.5	10.4	2	
1432	12	4	15.59	0.01	29	43	7.0	0.2	11.4	3	
1433	12	4	15.87	0.00	29	30	16.4	0.1	11.6	2	
1434	12	4	16.42	0.02	29	31	14.6	0.6	11.4	2	
1435	12	4	17.80	0.02	30	41	0.2	0.2	10.6	2	
1436	12	4	17.84	0.01	28	45	37.9	0.3	10.9	3	
1437	12	4	19.45	0.03	26	46	16.6	0.5	11.4	2	
1438	12	4	20.79	0.00	28	36	31.0	0.2	11.4	2	
1439	12	4	20.95	0.00	28	17	45.5	0.0	11.6	2	
1440	12	4	23.32	0.01	28	20	44.2	0.1	11.9	2	
1441	12	4	23.45	0.07	28	54	25.9	0.1	11.4	2	
1442	12	4	25.86		26	12	25.6		10.5	1	
1443	12	4	25.91	0.01	28	4	29.6	0.2	9.5	2	1
1444	12	4	27.94	0.00	27	17	40.1	0.2	9.5	2	1
1445	12	4	29.61	0.00	27	10	9.8	0.5	9.5	2	
1446	12	4	33.11		30	49	48.5		12.0	1	
1447	12	4	33.24	0.01	28	21	37.6	0.0	11.9	2	
1448	12	4	33.54	0.01	30	41	15.1	0.1	10.4	2	
1449	12	4	34.73		27	8	12.2		11.9	1	
1450	12	4	35.47	0.04	27	0	51.3	0.6	11.9	2	
1451	12	4	35.74		27	52	9.1		11.9	1	
1452	12	4	36.28	0.01	28	10	36.0	0.3	11.4	2	
1453	12	4	38.69		25	52	46.2		9.7	1	
1454	12	4	38.84		26	6	51.6		9.6	1	
1455	12	4	38.86	0.01	30	24	49.5	0.1	11.6	2	
1456	12	4	39.02	0.02	30	0	24.3	0.0	9.8	2	1
1457	12	4	39.47	0.01	30	18	52.8	0.1	9.8	2	1
1458	12	4	40.41		28	20	55.4		11.9	1	
1459	12	4	45.52		26	7	55.2		10.0	1	
1460	12	4	45.84	0.01	28	43	0.9	0.1	11.1	3	
1461	12	4	46.15	0.01	27	55	44.1	0.1	11.6	2	
1462	12	4	46.92		31	4	19.2		12.2	1	
1463	12	4	47.59	0.01	27	5	37.3	0.1	10.9	2	
1464	12	4	47.96	0.02	27	49	5.6	0.1	9.5	3	
1465	12	4	49.05	0.02	28	43	54.9	0.1	10.4	3	
1466	12	4	49.33		30	59	37.6		12.0	1	
1467	12	4	49.85	0.04	27	3	37.7	0.1	11.9	2	
1468	12	4	50.61	0.02	29	41	59.0	0.1	10.9	3	
1469	12	4	50.89	0.00	28	26	14.4	0.0	11.4	2	
1470	12	4	52.61	0.00	29	15	42.3	0.3	11.4	2	
1471	12	4	53.11		27	55	46.5		11.4	1	
1472	12	4	53.74		28	1	27.8		11.9	1	
1473	12	4	56.11	0.01	27	43	53.2	0.2	11.6	3	
1474	12	4	56.67	0.02	29	46	20.7	0.2	11.6	3	
1475	12	4	56.72		28	22	39.0		11.6	1	
1476	12	4	57.75	0.00	30	45	39.6	0.2	11.1	2	
1477	12	4	58.29	0.02	28	56	48.9	0.2	9.5	2	1
1478	12	4	59.30		31	4	22.1		12.5	1	
1479	12	5	3.13		26	10	39.8		9.7	1	1
1480	12	5	3.41	0.03	29	47	21.1	0.0	9.8	2	
1481	12	5	5.44	0.04	27	23	56.3	0.1	9.4	2	
1482	12	5	7.60	0.00	28	4	25.9	0.0	11.6	2	
1483	12	5	9.54	0.00	29	19	32.5	0.1	10.0	2	
1484	12	5	9.82	0.01	27	26	2.1	0.3	11.4	2	
1485	12	5	11.25	0.02	29	14	19.1	0.2	11.9	2	
1486	12	5	11.32		29	31	30.8		11.6	1	
1487	12	5	12.12	0.01	27	26	2.4	0.2	9.8	2	
1488	12	5	12.45	0.02	30	41	56.0	0.1	9.1	2	1
1489	12	5	12.73	0.01	30	17	36.8	0.1	9.8	2	
1490	12	5	13.06		26	53	29.2		11.9	1	
1491	12	5	13.84		31	11	19.9		11.8	1	
1492	12	5	14.07	0.02	26	47	3.8	0.1	10.9	2	
1493	12	5	15.92	0.00	27	35	49.3	0.3	10.2	2	1
1494	12	5	16.44		30	30	58.9		11.6	1	
1495	12	5	16.66	0.02	26	52	42.5	0.0	10.7	2	

1983RMxAA...5..233S

TABLE 1 (CONTINUED)

No	α	ϵ_α	δ	ϵ_δ	m_p	N	A
-496	12 5 16.71	0.00	29 20 0.1	0.1	11.3	2	
1497	12 5 16.97		31 26 58.3		9.6	1	1
1498	12 5 17.06		26 12 5.2		11.6	1	
1499	12 5 17.79	0.04	29 18 7.8	0.3	11.4	2	
1500	12 5 17.89		31 27 23.1		11.6	1	
1501	12 5 19.09	0.00	26 58 10.8	0.2	11.4	2	
1502	12 5 19.15	0.03	28 23 57.0	0.0	11.4	2	
1503	12 5 19.91	0.02	28 31 56.9	0.1	11.4	2	
1504	12 5 20.39		27 3 35.6		11.9	1	
1505	12 5 21.17		26 12 29.1		9.9	1	
1506	12 5 21.73	0.01	27 1 16.1	0.3	10.7	2	
1507	12 5 24.56	0.01	27 46 42.9	0.2	9.8	3	
1508	12 5 24.96		25 51 54.1		9.7	1	
1509	12 5 28.82		31 10 34.4		12.2	1	
1510	12 5 29.49		31 27 49.0		11.6	1	
1511	12 5 29.61	0.00	28 53 8.0	0.5	9.8	2	
1512	12 5 30.28	0.03	28 45 31.9	0.4	10.7	3	
1513	12 5 32.72		27 18 6.3		11.9	1	
1514	12 5 33.45		31 19 45.0		7.2	1	1
1515	12 5 35.30		26 36 0.2		11.0	1	
1516	12 5 36.20	0.00	29 57 22.9	0.1	11.4	2	
1517	12 5 37.10		31 35 55.3		11.2	1	
1518	12 5 37.46	0.02	30 33 6.4	0.4	11.4	2	
1519	12 5 38.03		28 0 39.1		11.9	1	
1520	12 5 40.27	0.01	30 48 56.4	0.3	10.2	2	
1521	12 5 40.61	0.02	28 16 20.6	0.2	10.9	2	
1522	12 5 42.93	0.06	30 33 14.0	0.0	8.3	2	1
1523	12 5 44.69	0.00	28 30 4.0	0.1	11.4	2	
1524	12 5 45.00		26 0 5.1		10.0	1	
1525	12 5 46.05	0.02	29 45 4.6	0.2	10.4	3	
1526	12 5 46.06	0.01	27 10 58.5	0.5	11.4	2	
1527	12 5 46.73		31 12 36.2		12.0	1	
1528	12 5 47.34		31 12 24.7		9.2	1	1
1529	12 5 47.62	0.01	26 54 22.0	0.3	10.0	2	
1530	12 5 48.58		30 53 12.0		11.8	1	
1531	12 5 49.47	0.02	27 33 43.4	0.0	11.4	2	
1532	12 5 49.48		26 7 49.5		11.0	1	
1533	12 5 50.54		26 12 41.3		10.8	1	
1534	12 5 51.03		25 43 9.8		9.7	1	
1535	12 5 51.24	0.01	29 42 31.8	0.4	11.1	3	
1536	12 5 52.57	0.02	28 15 43.7	0.1	8.8	2	1
1537	12 5 55.34		27 52 22.0		11.6	1	
1538	12 5 55.98	0.00	30 3 9.4	0.0	11.4	2	
1539	12 5 56.21	0.01	29 45 34.7	0.2	10.6	3	
1540	12 5 56.22		30 50 3.5		12.0	1	
1541	12 5 56.66	0.06	30 6 42.0	0.1	11.4	2	
1542	12 5 56.72		25 30 8.3		11.5	1	
1543	12 5 57.65	0.03	28 26 55.8	0.1	8.8	2	1
1544	12 5 57.87	0.01	26 32 7.7	0.4	10.8	2	
1545	12 5 58.05	0.15	28 47 36.6	0.2	10.9	3	
1546	12 5 58.27		28 47 37.0		10.7	1	
1547	12 5 58.47		31 32 42.5		11.4	1	
1548	12 5 59.32		25 4 42.8		8.1	1	1
1549	12 6 1.34	0.02	29 5 36.9	0.1	10.0	2	
1550	12 6 1.62		29 15 52.3		11.4	1	
1551	12 6 1.88	0.00	26 51 37.6	0.2	11.1	2	
1552	12 6 1.89	0.03	29 20 22.4	0.0	11.4	2	
1553	12 6 1.90		31 43 7.6		11.2	1	
1554	12 6 2.19	0.03	28 48 60.0	0.1	10.9	3	
1555	12 6 3.75		31 22 52.4		12.2	1	
1556	12 6 4.15	0.02	26 46 22.8	0.1	7.3	3	1
1557	12 6 5.63	0.00	29 31 46.3	0.1	10.0	2	
1558	12 6 5.89	0.01	29 57 4.4	0.4	11.4	2	
1559	12 6 7.11		27 21 46.5		11.9	1	
1560	12 6 8.49	0.01	26 4 6.4	0.5	10.1	2	
1561	12 6 8.58	0.03	28 52 35.3	0.0	11.4	2	
1562	12 6 9.28	0.01	26 51 19.6	0.6	11.1	2	
1563	12 6 10.16		26 22 54.7		10.8	1	
1564	12 6 12.10	0.05	25 47 28.3	0.6	9.7	2	
1565	12 6 14.36	0.02	27 15 8.3	0.2	11.9	2	
1566	12 6 14.90		31 13 15.4		9.5	1	1
1567	12 6 15.48	0.02	28 29 6.0	0.2	11.6	2	
1568	12 6 15.69	0.03	30 40 14.1	0.4	10.0	2	
1569	12 6 16.72	0.04	26 48 17.3	0.1	11.1	2	
1570	12 6 17.29		30 19 51.9		12.2	1	
1571	12 6 19.64	0.01	27 37 37.6	0.1	10.6	3	
1572	12 6 19.95	0.05	29 51 35.8	0.1	11.4	2	
1573	12 6 20.59	0.02	27 20 13.5	0.6	10.9	2	
1574	12 6 21.28	0.03	26 14 6.3	0.2	9.6	2	1
1575	12 6 21.76		27 38 17.2		11.6	1	
1663	12 7 48.53		31 1 25.2		12.2	1	
1664	12 7 48.57		31 10 21.0		11.2	1	
1665	12 7 48.93		25 21 26.2		10.9	1	1
1666	12 7 49.31	0.00	30 4 16.9	0.1	9.0	2	1
1667	12 7 50.17		25 25 16.6		11.9	1	
1668	12 7 50.22	0.05	27 15 41.8	0.0	10.0	2	
1669	12 7 50.24	0.04	28 31 16.0	0.2	9.8	2	
1670	12 7 50.98		28 15 5.3		12.2	1	
1671	12 7 52.27		25 36 36.9		8.8	1	1
1672	12 7 53.82		31 25 11.5		11.6	1	
1673	12 7 54.55		30 38 25.7		12.0	1	
1674	12 7 54.95		31 42 15.8		12.0	1	
1675	12 7 55.87	0.04	29 20 47.6	0.2	7.6	2	1
1676	12 7 56.80	0.01	26 51 58.9	0.7	11.2	2	
1677	12 7 57.76		29 0 58.1		11.4	1	
1678	12 8 0.86	0.01	25 49 18.1	0.0	10.5	2	
1679	12 8 3.17		27 37 8.5		11.7	1	
1680	12 8 4.09		31 12 41.7		11.2	1	
1681	12 8 4.19		29 49 40.4		12.2	1	
1682	12 8 4.53	0.00	27 45 43.1	0.3	11.0	3	
1683	12 8 8.58		24 55 15.1		12.9	1	
1684	12 8 9.40		29 51 3.7		12.2	1	
1685	12 8 10.09	0.00	30 16 3.0	0.2	10.2	2	
1686	12 8 11.49		26 29 32.0		10.3	1	
1687	12 8 12.77		28 45 10.2		11.4	1	
1688	12 8 13.88	0.01	27 33 36.5	0.1	5.6	2	1
1689	12 8 16.04	0.01	30 4 8.6	0.2	11.4	2	
1690	12 8 16.22		26 16 20.8		10.6	1	
1691	12 8 17.02	0.01	29 52 23.6	0.2	9.9	2	1
1692	12 8 17.57	0.00	27 0 11.3	0.0	10.1	2	
1693	12 8 17.63		30 57 33.3		11.4	1	
1694	12 8 17.88		24 49 35.9		12.1	1	
1695	12 8 18.53		28 12 3.3		12.2	1	
1696	12 8 18.78		27 47 6.1		12.2	1	
1697	12 8 19.81		29 15 38.1		11.4	1	
1698	12 8 19.96		30 49 57.9		11.6	1	
1699	12 8 19.96	0.01	27 44 12.5	0.4	10.1	3	
1700	12 8 21.33		27 13 37.5		11.7	1	
1701	12 8 21.35	0.01	27 34 49.5	0.3	11.0	2	
1702	12 8 21.49	0.01	29 21 20.1	0.3	11.0	2	
1703	12 8 23.03	0.01	28 38 47.2	0.3	11.0	2	
1704	12 8 24.70		31 7 2.1		10.9	1	
1705	12 8 24.32	0.02	25 58 38.7	0.1	10.1	2	
1706	12 8 26.56		27 22 17.4		12.2	1	
1707	12 8 26.78		30 51 7.5		12.0	1	
1708	12 8 28.84		28 11 46.6		9.8	1	1
1709	12 8 28.89		28 11 46.3		9.7	1	
1710	12 8 28.92		31 4 28.4		12.5	1	
1711	12 8 28.93		27 22 54.1		12.2	1	
1712	12 8 29.32	0.01	28 28 44.7	0.0	11.4	2	
1713	12 8 29.67		30 20 52.5		12.2	1	
1714	12 8 30.16		25 33 8.3		12.6	1	
1715	12 8 30.79		29 15 3.4		11.6	1	
1716	12 8 31.76	0.02	26 22 53.6	0.0	11.0	2	
1717	12 8 32.14	0.05	28 1 39.4	0.5	11.0	2	
1718	12 8 32.19	0.01	26 46 27.7	0.2	9.9	3	
1719	12 8 32.56	0.02	30 15 52.6	0.4	12.2	2	
1720	12 8 32.58		28 59 54.2		11.0	1	
1721	12 8 32.86		31 12 27.6		12.0	1	
1722	12 8 33.03		24 56 15.3		11.3	1	
1723	12 8 33.23	0.01	30 14 55.7	0.4	11.2	2	
1724	12 8 33.26		31 36 46.3		11.6	1	
1725	12 8 33.30		31 25 30.9		11.6	1	
1726	12 8 34.40	0.00	27 9 16.1	0.1	10.1	2	
1727	12 8 35.16	0.02	26 16 6.9	0.7	9.4	2	1
1728	12 8 36.54		31 44 39.0		11.4	1	
1729	12 8 38.11	0.00	29 49 29.3	0.1	11.8	2	
1730	12 8 38.44	0.01	30 19 0.2	0.1	12.0	2	
1731	12 8 41.37		27 53 19.7		12.4	1	
1732	12 8 41.84	0.00	29 23 12.4	0.1	8.8	2	1
1733	12 8 43.65		25 1 56.2		6.9	1	1
1734	12 8 46.32		31 44 31.5		11.6	1	
1735	12 8 46.67		27 57 54.1		12.4	1	
1736	12 8 47.07		25 29 28.6		11.7	1	
1737	12 8 47.23	0.01	28 0 38.4	0.0	11.0	2	
1738	12 8 48.65		31 16 16.1		12.0	1	
1739	12 8 50.21		28 8 7.0		12.2	1	
1740	12 8 52.99	0.02	27 56 24.4	0.1	10.7	2	
1741	12 8 53.26	0.04	26 2 0.6	0.2	11.0	2	
1742	12 8 53.52		27 55 29.6		12.2	1	
1830	12 9 57.19	0.00	30 24 59.7	0.2	11.8	2	
1831	12 9 58.05		31 11 7.9		12.0	1	
1832	12 9 58.24		25 11 49.1		12.4	1	
1833	12 9 58.28		25 33 12.4		10.3	1	
1834	12 9 59.20	0.02	27 29 3.0	0.0	9.4	3	
1835	12 9 59.31		28 55 39.7		11.0	1	
1836	12 10 0.06		28 24 57.1		12.2	1	
1837	12 10 0.11		29 3 9.4		11.4	1	
1838	12 10 0.16	0.00	28 39 39.3	0.3	9.8	2	1
1839	12 10 0.30		25 20 9.5		12.1	1	
1840	12 10 0.89	0.03	26 6 44.8	0.3	10.5	2	
1841	12 10 1.21		25 25 25.6		12.8	1	
1842	12 10 3.21		27 15 39.4		11.7	1	
1843	12 10 3.39	0.03	30 40 45.9	0.1	11.6	2	
1844	12 10 4.48		31 45 0.2		11.2	1	1
1845	12 10 6.52	0.01	26 54 55.0	0.4	10.5	2	
1846	12 10 6.96		31 35 58.9		11.2	1	
1847	12 10 9.41	0.01	30 16 38.3	0.3	8.6	2	1
1848	12 10 11.32	0.01	26 34 40.4	0.0	9.9	3	
1849	12 10 12.78		24 55 30.6		12.9	1	
1850	12 10 14.28	0.04	29 23 55.0	0.1	10.1	2	
1851	12 10 15.07		28 28 34.3		12.2	1	
1852	12 10 17.59	0.03	29 21 46.3	0.0	10.7	2	
1853	12 10 19.14	0.03	29 7 54.9	0.2	10.4	2	
1854	12 10 20.37	0.07	27 50 18.2	0.4	9.0	2	1
1855	12 10 21.26	0.01	26 31 43.7	0.1	9.7	3	
1856	12 10 22.23	0.03	28 35 44.3	0.1	11.0	2	
1857	12 10 22.33		30 5 49.8		12.2	1	
1858	12 10 22.79		28 8 51.3		11.9	1	
1859	12 10 23.21		31 4 50.0		12.0	1	
1860	12 10 23.78		31 40 46.6		10.9	1	
1861	12 10 25.02	0.01	30 30 40.2	0.7	12.2	2	
1862	12 10 25.92		24 46 8.6		11.0	1	
1863	12 10 26.51		27 2 34.6		12.2	1	
1864	12 10 27.10	0.01	30 6 3.5	0.0	10.1	2	
1865	12 10 27.16	0.02	25 52 15.0	1.1	11.3	2	
1866	12 10 29.94		25 38 20.5		9.7	1	
1867	12 10 31.27	0.00	28 54 46.1	0.3	8.1	2	1
1868	12 10 32.64	0.01	27 12 52.2	0.1	10.6	3	
1869	12 10 33.84	0.02	26 45 16.4	0.0	11.0	2	
1870	12 10 34.14		26 6 59.4		13.1	1	
1871	12 10 39.17		27 31 50.3		12.4	1	
1872	12 10 39.57		27 45 36.5		12.2	1	
1873	12 10 40.82	0.03	27 23 49.8	0.1	9.2	3	
1874	12 10 42.01		28 37 52.9		11.9	1	
1875	12 10 42.09	0.03	26 56 40.4	0.2	10.5	3	
1876	12 10 42.39		31 6 28.8		11.8	1	
1877	12 10 43.25		27 42 33.0		12.2	1	
1878	12 10 43.81	0.00	29 5 50.1	0.3	11.8	2	
1879	12 10 43.95	0.02	30 29 43.8	0.2	11.4	3	
1880	12 10 43.95	0.01	30 29 51.3	0.0	10.7	3	
1881	12 10 44.29	0.03	27 45 8.9	0.0	10.1	2	
1882	12 10 44.65	0.01	31 40 7.7	0.2	10.5	2	
1883	12 10 45.13	0.02	26 13 50.6	0.3	9.4	3	
1884	12 10 45.77	0.01	30 33 38.2	0.3	7.6	3	1
1885	12 10 46.44		26 28 30.1		13.1	1	
1886	12 10 47.69		29 35 1.9		11.8	1	
1887	12 10 47.96	0.01	29 32 5.0	0.1	9.4	2	1
1888	12 10 49.63	0.01	30 24 25.2	0.1	11.2	3	
1889	12 10 52.16		25 0 45.6		9.7	1	
1890	12 10 55.39		31 31 52.9		12.0	1	
1891	12 10 56.55		28 33 58.4		11.9	1	
1892	12 10 57.86		30 51 33.5		12.5	1	
1893	12 10 58.42		25 15 4.2		12.6	1	
1894	12 10 58.79		28 35 3.2		12.2	1	
1895	12 10 58.83	0.03	30 22 46.4	0.0	10.2	3	1
1896	12 10 59.12	0.01	27 19 16.6	0.1	9.2	3	1
1897	12 10 59.72	0.02	29 6 28.4	0.0	11.8	2	
1898	12 10 59.80	0.01	26 19 30.9	0.3	9.6	3	
1899	12 11 0.91		28 52 8.5		11.8	1	
1900	12 11 1.28		27 51 51.0		11.4	1	
1901	12 11 3.05	0.01	30 50 27.6	0.1	8.0	2	1
1902	12 11 3.82	0.04	31 14 29.1	0.2	8.4	2	1
1903	12 11 4.22	0.01	29 27 0.1	0.1	11.1	2	
1904	12 11 4.26		25 3 55.7		13.1	1	
1905	12 11 5.22	0.02	27 24 34.8	0.1	9.1	3	1
1906	12 11 5.31	0.02	30 42 58.4	0.1	11.6	3	
1907	12 11 6.12		29 19 19.1		12.1	1	
1908	12 11 6.19		24 48 47.3		11.6	1	
1909	12 11 7.01		25 6 36.4		11.5	1	

1576	12	6	22.74	0.02	29	7	53.0	0.4	11.4	2		1743	12	8	53.96	0.01	29	58	36.0	0.2	11.2	2	1	1910	12	11	8.34		28	18	59.1		11.9	1			
1577	12	6	22.79		31	45	38.1		12.0	1		1744	12	8	54.25	0.00	25	58	32.1	0.4	9.6	2		1911	12	11	8.41		25	25	41.7		12.4	1			
1578	12	6	23.49	0.01	26	57	18.3	0.2	11.3	2		1745	12	8	55.61		31	36	23.2		12.2	1		1912	12	11	8.51		27	37	21.2		11.4	1			
1579	12	6	23.76	0.00	28	10	20.0	0.0	11.4	2		1746	12	8	55.81	0.01	26	9	9.9	0.3	10.6	2		1913	12	11	10.22		27	50	31.9		11.6	1			
1580	12	6	24.01	0.02	27	16	54.9	0.2	11.1	2		1747	12	8	57.14		30	6	57.6		11.4	1		1914	12	11	10.78	0.02	25	51	20.0	0.2	9.3	3			
1581	12	6	24.03		24	58	46.7		8.6	1		1748	12	8	57.17		30	6	57.9		11.5	1		1915	12	11	11.81	0.01	30	33	54.5	0.2	11.2	3			
1582	12	6	24.53		31	24	0.5		12.0	1		1749	12	8	58.79	0.00	27	38	1.2	0.8	12.2	2		1916	12	11	12.77		28	19	36.5		11.7	1			
1583	12	6	27.88	0.03	28	58	47.9	0.1	9.8	2		1750	12	8	59.49	0.02	26	48	39.9	0.2	9.7	3		1917	12	11	13.59	0.04	27	7	39.4	0.2	10.3	3			
1584	12	6	28.14		30	33	47.9		11.8	1		1751	12	8	59.87		31	23	55.3		12.2	1		1918	12	11	14.30	0.03	28	48	18.8	0.2	15.8	3			
1585	12	6	29.06	0.01	25	49	33.7	0.4	9.7	2		1752	12	9	1.84	0.01	26	15	26.2	0.2	9.7	2		1919	12	11	16.17		27	36	9.4		11.9	1			
1586	12	6	29.41		31	11	47.2		12.2	1		1753	12	9	2.37	0.01	26	23	23.4	0.2	10.0	2		1920	12	11	17.28	0.03	25	48	38.2	0.1	12.6	2			
1587	12	6	30.05	0.03	29	16	39.2	0.0	11.4	2		1754	12	9	2.67	0.02	27	48	0.3	0.4	10.7	3		1921	12	11	18.95		25	15	3.0		10.5	1	1		
1588	12	6	30.45	0.02	27	15	14.2	0.6	11.9	2		1755	12	9	3.00		28	20	2.1		12.2	1		1922	12	11	20.36	0.02	26	48	1.2	0.0	11.6	2			
1589	12	6	30.84	0.02	28	35	35.9	0.6	11.4	2		1756	12	9	3.16	0.02	29	39	26.9	0.1	11.2	3		1923	12	11	20.48		27	5	8.8		12.2	1			
1590	12	6	32.26	0.01	30	6	20.8	0.3	11.4	2		1757	12	9	3.41		25	3	55.2		9.5	1	1	1924	12	11	20.49	0.01	26	47	14.9	0.1	9.6	4			
1591	12	6	32.34		27	5	5.6		11.6	1		1758	12	9	3.51		27	31	31.9		12.4	1		1925	12	11	21.02	0.01	28	34	21.9	0.2	8.6	2	1		
1592	12	6	35.05	0.02	27	12	8.3	0.2	11.6	2		1759	12	9	3.68	0.02	26	0	51.6	0.2	9.7	2		1926	12	11	21.16	0.01	28	54	46.1	0.1	10.8	2			
1593	12	6	36.49		30	35	33.4		12.7	1		1760	12	9	4.43		24	57	44.1		12.2	1		1927	12	11	21.94	0.03	28	29	11.5	0.1	11.4	2			
1594	12	6	38.83	0.00	27	2	28.8	0.2	11.1	2		1761	12	9	4.51	0.03	28	13	47.3	0.5	9.8	2		1928	12	11	22.98	0.02	30	49	38.3	0.1	11.6	3			
1595	12	6	38.88		31	35	12.7		11.6	1		1762	12	9	6.16	0.00	28	46	27.9	0.1	10.4	3		1929	12	11	23.03	0.01	30	41	38.6	0.2	11.2	3			
1596	12	6	39.35	0.00	26	33	2.2	0.0	10.1	2		1763	12	9	6.44		30	15	4.2		12.5	1		1930	12	11	25.11		25	21	50.9		12.2	1			
1597	12	6	39.95	0.01	26	56	21.4	0.1	11.1	2		1764	12	9	7.00		31	31	25.2		12.0	1		1931	12	11	26.19	0.02	29	14	47.0	0.3	11.8	2			
1598	12	6	40.21		29	30	2.4		11.6	1		1765	12	9	7.01		30	42	39.5		12.7	1		1932	12	11	26.42	0.02	30	4	25.4	0.1	11.2	3			
1599	12	6	40.54	0.02	28	38	51.4	0.1	9.8	3		1766	12	9	7.34	0.00	30	20	40.8	0.0	11.4	2		1933	12	11	26.79	0.00	28	8	42.1	0.3	10.5	2			
1600	12	6	40.58		31	18	25.1		9.9	1	1	1767	12	9	9.53	0.03	30	6	7.7	0.0	12.2	2		1934	12	11	26.90	0.00	27	10	0.5	0.2	10.6	3			
1601	12	6	40.82	0.02	27	1	19.2	0.1	9.8	2		1768	12	9	10.06		24	54	51.6		12.1	1		1935	12	11	27.47		25	34	15.7		12.6	1			
1602	12	6	40.94	0.00	29	52	22.3	0.1	9.8	3		1769	12	9	10.73		25	21	22.7		11.9	1		1936	12	11	27.54	0.02	26	2	59.9	0.2	11.0	3			
1603	12	6	41.15		31	44	57.6		11.2	1		1770	12	9	10.76	0.01	26	21	57.3	0.3	10.5	2		1937	12	11	27.69	0.03	29	50	20.1	0.4	9.8	3			
1604	12	6	42.70	0.01	26	26	3.7	0.3	9.7	2		1771	12	9	10.82	0.00	28	17	34.5	0.3	10.5	2		1938	12	11	27.97		27	33	7.5		11.4	1			
1605	12	6	42.90	0.04	30	47	59.4	0.4	9.8	2		1772	12	9	10.96		28	2	29.5		12.2	1		1939	12	11	28.87	0.03	30	3	25.9	0.1	9.9	3			
1606	12	6	43.14	0.02	26	30	1.0	0.1	10.3	2		1773	12	9	11.41	0.03	30	2	1.2	0.2	11.4	2	1	1940	12	11	30.80	0.01	30	12	49.5	0.1	10.9	3			
1607	12	6	44.66	0.01	29	44	16.2	0.1	11.4	3		1774	12	9	15.58	0.02	29	54	39.7	0.2	12.0	2		1941	12	11	31.82	0.00	26	58	7.9	0.0	11.4	2			
1608	12	6	44.99		31	43	49.1		12.2	1		1775	12	9	16.41	0.01	26	52	45.0	0.1	11.0	2		1942	12	11	32.01	0.00	30	15	47.0	0.0	10.8	2			
1609	12	6	46.57		28	52	3.2		11.4	1		1776	12	9	16.90		30	55	11.8		12.5	1		1943	12	11	34.12		31	30	9.1		12.2	1			
1610	12	6	47.69		31	1	31.7		12.0	1		1777	12	9	17.64	0.02	27	51	1.7	0.1	10.5	2		1944	12	11	34.85	0.01	29	40	58.5	0.2	10.5	3			
1611	12	6	48.73	0.03	26	39	42.7	0.3	10.9	4		1778	12	9	19.28	0.02	26	8	57.5	0.4	6.9	2	1	1945	12	11	36.20		29	3	18.1		12.1	1			
1612	12	6	49.57	0.01	29	44	19.8	0.1	7.7	4	1	1779	12	9	22.65		27	3	9.1		12.2	1		1946	12	11	36.20		28	46	18.3		11.9	1			
1613	12	6	49.76	0.01	28	8	59.1	0.2	11.4	2		1780	12	9	22.70		27	0	9.7		10.8	1		1947	12	11	37.87		31	6	0.6		7.8	1	1		
1614	12	6	49.97	0.04	26	13	45.2	0.5	9.7	2	1	1781	12	9	22.73		31	7	16.7		12.5	1		1948	12	11	38.01	0.01	30	48	31.7	0.5	11.8	2			
1615	12	6	50.19		30	28	29.7		11.3	1		1782	12	9	22.79		24	57	17.3		12.8	1		1949	12	11	39.42	0.01	26	58	0.6	0.0	9.8	2			
1616	12	6	51.25	0.03	26	15	9.8	0.4	9.7	2		1783	12	9	23.11	0.01	26	7	29.8	0.7	10.1	2		1950	12	11	39.48	0.01	29	5	20.3	0.0	11.8	2			
1617	12	6	53.64		24	58	14.8		11.0	1		1784	12	9	24.08		25	50	5.8		11.2	1		1951	12	11	40.22	0.03	27	3	42.1	0.2	11.6	2			
1618	12	6	54.82	0.00	29	59	32.9	0.1	10.6	3		1785	12	9	25.57	0.02	30	2	24.8	0.0	12.0	2		1952	12	11	40.29		31	29	41.6		11.1	1			
1619	12	6	55.20	0.03	28	29	1.3	0.4	8.9	3	1	1786	12	9	25.58	0.04	27	32	38.5	0.3	10.6	2		1953	12	11	42.52		31	10	9.6		12.1	1			
1620	12	6	55.48	0.03	27	22	52.3	0.2	11.4	3		1787	12	9	25.73	0.01	29	53	56.5	0.1	12.2	2		1954	12	11	43.50	0.03	26	40	44.9	0.1	11.2	3			
1621	12	6	59.64	0.02	27	13	55.2	0.2	11.1	3		1788	12	9	27.73	0.02	26	15	7.4	0.1	9.9	2		1955	12	11	43.72		25	59	39.0		12.9	1			
1622	12	7	0.20	0.01	28	15	37.4	0.1	9.8	3		1789	12	9	27.90		31	25	22.3		12.2	1		1956	12	11	44.02	0.01	29	42	36.2	0.3	12.1	2			
1623	12	7	1.11	0.05	30	33	44.7	0.3	11.3	2		1790	12	9	28.51	0.03	28	48	58.3	0.1	6.1	3	1	1957	12	11	44.31		28	0	4.4		11.6	1			
1624	12	7	1.82		31	29	35.4		11.2	1		1791	12	9	29.17	0.01	29	20	41.0	0.4	10.7	2		1958	12	11	44.68	0.00	29	51	42.2	0.0	11.8	2			
1625	12	7	1.98	0.02	26	53	56.0	0.2	11.1	3		1792	12	9	29.67	0.00	27	14	57.5	0.1	10.0	2		1959	12	11	45.46	0.01	25	39	56.5	0.3	11.7	2			
1626	12	7	4.86	0.02	27	24	27.3	0.3	11.4	3		1793	12	9	30.03		27	24	57.1		12.2	1		1960	12	11	46.17	0.01	26	47	0.3	0.2	7.8	3	1		
1627	12	7	6.48	0.02	28	21	4.7	0.1	11.4	3		1794	12	9	30.52		25	1	40.6		12.4	1		1961	12	11	46.38	0.01	28	8	44.2	0.3	10.1	2	1		
1628	12	7	12.15	0.02	25	40	12.5	0.1	9.7	2		1795	12	9	31.15		30	23	46.0		12.2	1		1962	12	11	47.56		28	34	7.8		11.6	1			
1629	12	7	14.22		31	21	0.9		11.2	1		1796	12	9	32.22		31	4	59.4		11.6	1		1963	12	11	48.17	0.01	30	25	11.9	0.2	11.8	2			
1630	12	7	14.93	0.04	28	34	5.7	0.3	11.4	3		1797	12	9	32.48	0.01	29	24	2.0	0.2	11.0	2		1964	12	11	48.43	0.05	26	37	36.1	0.2	9.9	2			
1631	12	7	15.89		31	5	15.3		11.2	1		1798	12	9	32.87		28	1	35.6		12.2	1		1965	12	11	49.04	0.02	28	5	48.8	0.2	9.2	2	1		
1632	12	7	16.92	0.01	27	8	3.3	0.1	11.6	2		1799	12	9	32.99	0.03	28	21	22.9	0.2	10.7	2		1966	12	11	49.47		29	4	33.3		12.5	1			
1633	12	7	18.32	0.02	29	12	23.8	0.2	9.1	3	1	1800	12	9	33.39	0.04	26	35	14.9	0.5	11.2	2		1967	12	11	49.67	0.01	25	56	50.8	0.5	12.4	2			
1634	12	7	20.96	0.00	28	3	6.3	0.0	11.9	3		1801	12	9	35.65	0.00	29	59	6.8	0.0	11.2	2		1968	12	11	51.87	0.02	26	46	38.8	0.1	11.0	3			
1635	12	7	22.09	0.03	30	8	32.2	0.1	11.1	2		1802	12	9	36.02	0.01	29	8	8.4	0.2	11.0	2		1969	12	11	52.07		31	29	54.2		11.0	1	1		
1636	12	7	22.32	0.02	26	48	17.7	0.2	9.7	4		1803	12	9	38.48	0.01	26	10	34.9	0.3	10.6	2		1970	12	11	52.22	0.05	27	1	33.5	0.2	12.6	2			
1637	12	7	22.87	0.01	25	44	21.4	0.6	9.9	2		1804	12	9	38.53	0.01	27	53	50.3	0.0	10.1	2	1	1971	12	11	53.97		24	52	44.1		12.9	1			
1638	12	7	23.98	0.04	29	10	41.5	0.1	9.8	3	1	1805	12	9	42.29		30	0	50.1		12.0	1		1972	12	11	55.22	0.01	26	31	16.5	0.2	10.4	2			
1639	12	7	24.19	0.03	27	14	17.0	0.2	11.3	3		1806	12	9	42.98	0.01	29	8	24.8	0.1	10.4	2		1973	12	12	1.12	0.01	30	45	27.1	0.1	11.7	2			
1640	12	7	24.73	0.02	29	59	2.3	0.3	11.4	2		1807	12	9	43.53	0.05	26	18	21.5	0.0	9.1	2	1	1974	12	12	1.16	0.03	30	33	17.1	0.1	11.0	2			
1641	12	7	29.15	0.03	27	19	31.6	0.2	9.1	2	1	1808	12	9	44.39	0.01	30	15	8.1	0.4	12.2	2		1975	12	12	3.97		28	33	9.5		12.2	1			
1642	12	7	30.80	0.06	28	25	16.8	0.2	10.7	2		1809	12	9	44.65	0.00	27	32	39.6	0.2	10.3	2		1976	12	12	3.99	0.01	28	35	4.1	0.0	11.4	2			
1643	12	7	30.82	0.01	25	58	23.8	0.0	9.9	2		1810	12	9	45.12	0.01	29	6	13.9	0.2	10.7	2		1977	12	12	4.41		25	32	26.2		12.4	1			
1644	12	7	31.05	0.02	30	28	38.2	0.1	9.5	3		1811	12	9	46.56	0.01	30	23	31.9	0.3	10.7	2		1978	12	12	5.67		31	0	29.1		12.5	1			
1645	12	7	32.41	0.03	30	40	27.5	0.0	6.6	3	1	1812	12	9	47.01		28	10	0.5		12.6	1		1979	12	12	5.87	0.00	28	6	15.7	0.5	11.4	2			
1646	12	7	32.66		24	46	56.4		9.4	1		1813	12	9	47.08		31	28	22.3		11.6	1		1980	12	12	6.34		25	37	52.2		12.6	1			
1647	12	7	32.87		31	28	33.9		12.0	1		1814	12	9	47.41		25	28	57.2		11.9	1		1981	12	12	8.10		28	7	2.2		11.9	1			
1648	12	7	35.96	0.02	26	10	25.9	0.1	9.4	2	1	1815	12	9	48.03	0.00	29	7	23.2	0.0	10.4	2		1982	12	12	10.14	0.02	26	46	30.2	0.2	11.0	3			
1649	12	7	36.32	0.03	30	19	48.8	0.5	11.2	2		1816	12	9	48.16		28	37	53.8		11.4	1		1983	12	12	10.87	0.01	30	19	17.0	0.1	11.5	2			
1650	12	7	37.24		30	55	8.0		11.8	1		1817	12	9	48.20		28	37	53.2		10.7	1		1984	12	12	10.88	0.01	28	10	9.5	0.0	9.6	2			
1651	12	7	37.85		31	45	54.5		11.6	1		1818	12	9	48.52		31	7	42.8		10.5	1		1985	12	12	11.55		25	50	48.5		13.4	1			
1652	12	7	38.63		27	10	3.4		11.9	1		1819	12	9	48.71		25	33	27.7		12.6	1		1986	12	12	12.48		31	22	24.4		11.9	1			
1653	12	7	39.81	0.01	28	1	12.3	0.1	10.4	2		1820	12	9	49.72		31	5	39.2		12.2	1		1987	12	12	13.00	0.01	30	20	39.5	0.1	11.8	2			
1654	12	7	41.46	0.03	28	19	31.2	0.1	11.0	2		1821	12	9	51.77	0.00	28	38	19.9	0.3	10.7	2		1988	12	12	13.56		25	35	29.6		12.1	1			
1655	12	7	43.63		27	42	36.3		11.4	1		1822	12	9	52.49		28	55	38.9		11.8	1		1989	12	12	13.62	0.00	29	14	13.3	0.1	11.0	2			
1656	12	7	45.22		25	30	27.1		10.2	1	1	1823	12	9	52.94	0.02	27	39	30.5	0.4	7.8	4	1	1990	12	12	14.06	0.01	30	18	34.9	0.2	10.5	2			
1657	12	7	45.26	0.03	25	43	57.3	0.2	9.7	2		1824	12	9	52.97	0.04	25	51	9.6	0.3	9.2	3	1	1991	12	12	16.91	0.02	30	12	39.0	0.1	11.8	2			
1658	12	7	47.20	0.02	30	29	28.4	0.2	11.2	2		1825	12	9	54.03	0.02	27	14	17.7	0.2	9.7	3	1	1992	12	12	17.71	0.00	28	55	36.1	0.2	11.5	2			
1659	12	7	47.44	0.02	27	36	45.2	0.1	10.3	2		1826	12	9	54.11	0.01	29	5	18.8	0.3	11.0	2		1993	12	12	20.32	0.02	28	54	30.3	0.3	9.0	2	1		
1660	12	7	47.62	0.02	25	53	47.0	0.1	11.0	2		1827	12	9	55.69	0.02	28	38	45.0	0.6	10.4	2		1994	12	12	22.58	0.01	26	18	35.9	0.4	12.4	2			
1661	12	7	47.98	0.03	28	35	49.7	0.3	9.3	2		1828	12	9	55.79		24	47	57.7		12.2	1		1995	12	12	23.44	0.01	28	3	9.6	0.3	10.9	2			
1662	12	7	48.44		31	10	40.0		11.2	1		1829	12	9	56.72	0.01	28	47	49.9	0.0	10.8	3		1996	12	12	24.15		25	1	58.3		12.6	1			

1983RMxAA...5..233S

TABLE 1 (CONTINUED)

No	α	ϵ_α	δ	ϵ_δ	m_p	N	A
1997	12 12 27.46	0.01	26 28 54.4	0.1	10.2	2	
1998	12 12 29.18		25 16 16.1		11.5	1	
1999	12 12 29.58	0.03	30 48 13.9	0.4	11.5	2	
2000	12 12 30.11	0.00	30 25 8.5	0.2	7.9	2	1
2001	12 12 31.15		31 28 17.5		11.8	1	
2002	12 12 31.81	0.00	30 14 56.6	0.1	11.8	2	
2003	12 12 32.86	0.02	26 1 28.2	0.4	11.6	2	
2004	12 12 33.44		24 43 55.7		12.6	1	
2005	12 12 33.55		28 36 46.3		12.2	1	
2006	12 12 33.57		27 5 41.9		12.2	1	
2007	12 12 34.06		29 16 3.5		12.1	1	
2008	12 12 34.73	0.03	27 32 54.4	0.2	11.4	2	
2009	12 12 36.00	0.01	27 43 12.9	0.1	8.9	3	1
2010	12 12 37.37	0.01	30 31 57.0	0.0	9.8	2	
2011	12 12 38.77	0.01	29 32 19.9	0.3	10.5	2	
2012	12 12 39.05		26 4 51.7		12.9	1	
2013	12 12 41.14		25 28 41.8		11.2	1	1
2014	12 12 41.94	0.00	26 31 9.6	0.2	11.3	2	
2015	12 12 42.76	0.02	26 58 50.3	0.2	11.4	2	
2016	12 12 43.06		28 11 36.7		12.2	1	
2017	12 12 43.82	0.01	29 47 7.4	0.0	11.8	3	
2018	12 12 43.96		26 53 4.8		11.9	1	
2019	12 12 45.24	0.00	30 43 14.3	0.3	10.1	2	
2020	12 12 45.74		31 5 47.3		11.6	1	
2021	12 12 45.83	0.00	26 5 41.6	0.0	12.6	2	
2022	12 12 45.86	0.05	27 24 45.2	0.2	12.2	2	
2023	12 12 46.63	0.01	29 44 24.6	0.3	11.8	2	
2024	12 12 48.27	0.00	29 23 9.1	0.2	9.7	2	
2025	12 12 51.24	0.02	28 52 14.3	0.0	11.8	2	
2026	12 12 51.38		29 19 0.6		11.8	1	
2027	12 12 52.44	0.06	26 20 37.7	0.2	12.6	2	
2028	12 12 53.09		26 41 1.2		11.9	1	
2029	12 12 54.35		28 44 48.6		12.2	1	
2030	12 12 54.41		25 20 1.7		12.6	1	
2031	12 12 55.67		27 59 47.0		11.9	1	
2032	12 12 56.46	0.00	26 7 21.8	0.5	12.1	2	
2033	12 12 59.42	0.01	28 48 30.4	0.3	11.7	3	
2034	12 12 59.77		25 12 33.4		12.6	1	
2035	12 12 59.88	0.01	30 3 55.0	0.0	10.5	2	
2036	12 13 1.34	0.00	29 50 31.4	0.0	11.8	2	
2037	12 13 2.41	0.02	26 32 24.0	0.4	12.2	2	
2038	12 13 6.30		31 14 43.2		12.7	1	
2039	12 13 6.38	0.02	30 5 39.2	0.1	11.8	2	
2040	12 13 6.67		31 32 33.4		11.9	1	
2041	12 13 8.58		25 25 39.7		12.9	1	
2042	12 13 8.95		31 13 36.3		12.7	1	
2043	12 13 8.98	0.02	28 10 28.5	0.1	9.6	2	1
2044	12 13 9.33	0.01	28 44 55.6	0.2	11.0	3	
2045	12 13 11.79		27 14 30.7		12.2	1	
2046	12 13 11.87		30 31 6.4		12.9	1	
2047	12 13 11.92		24 52 37.4		11.9	1	
2048	12 13 14.08	0.00	28 29 7.6	0.5	11.2	2	
2049	12 13 14.39	0.00	26 34 25.9	0.1	9.4	2	1
2050	12 13 18.41	0.02	29 4 35.8	0.2	9.9	2	1
2051	12 13 18.60		30 59 53.3		12.5	1	
2052	12 13 18.69	0.02	30 15 59.9	0.3	11.8	2	
2053	12 13 19.24	0.01	26 39 54.6	0.1	11.0	3	
2054	12 13 20.19		27 59 3.6		11.7	1	
2055	12 13 21.46	0.01	27 49 8.8	0.2	10.0	3	
2056	12 13 22.00		27 3 20.1		12.2	1	
2057	12 13 22.06		28 33 34.3		11.7	1	
2058	12 13 26.09	0.01	28 17 52.2	0.1	11.0	2	
2059	12 13 26.62		29 57 8.8		12.7	1	
2060	12 13 28.81		31 33 3.2		11.9	1	
2061	12 13 31.12		29 21 21.8		12.5	1	
2062	12 13 31.23		31 25 23.8		12.5	1	
2063	12 13 31.24	0.03	28 19 36.0	0.0	7.4	2	1
2064	12 13 31.69	0.01	27 46 33.0	0.3	11.4	3	
2065	12 13 32.82	0.04	30 20 20.1	0.2	11.8	2	
2066	12 13 33.31	0.03	30 44 51.5	0.0	11.7	2	
2067	12 13 33.44	0.04	25 47 54.0	0.1	12.1	2	
2068	12 13 33.83		25 35 5.8		12.8	1	
2069	12 13 34.09		25 34 40.6		12.8	1	
2070	12 13 34.99		30 5 59.8		12.5	1	
2071	12 13 35.20		30 53 21.5		12.5	1	
2072	12 13 36.34		25 23 11.9		12.9	1	
2073	12 13 36.84	0.01	26 2 19.0	0.3	6.8	2	1
2074	12 13 37.00		25 36 46.4		12.8	1	
2075	12 13 37.87	0.01	28 6 4.9	0.4	10.4	2	
2076	12 13 39.02		31 20 42.0		12.7	1	
2164	12 14 39.60		30 50 3.6		12.9	1	
2165	12 14 42.80		25 37 23.6		12.1	1	
2166	12 14 43.08		28 38 56.6		11.9	1	
2167	12 14 43.64	0.01	26 29 3.6	0.1	8.7	2	
2168	12 14 44.64		27 23 13.1		12.2	1	
2169	12 14 45.27		25 38 2.8		12.6	1	
2170	12 14 46.03	0.00	26 22 41.8	0.2	12.1	2	
2171	12 14 47.92		25 36 38.1		11.5	1	
2172	12 14 48.28	0.01	28 12 0.1	0.4	11.6	2	
2173	12 14 48.43	0.03	29 0 13.2	0.3	8.5	2	1
2174	12 14 49.56	0.01	27 42 37.4	0.2	11.2	3	
2175	12 14 50.72	0.01	25 58 57.0	0.3	11.3	2	
2176	12 14 51.13	0.02	29 28 50.2	0.1	11.5	2	
2177	12 14 51.77	0.00	26 16 43.9	0.0	11.5	2	
2178	12 14 52.31		28 18 49.6		11.7	1	
2179	12 14 53.18	0.02	29 54 42.9	0.0	11.5	2	
2180	12 14 54.25	0.02	27 31 12.6	0.4	10.5	2	
2181	12 14 55.75		31 5 33.4		12.9	1	
2182	12 14 56.25		30 46 31.6		12.9	1	
2183	12 14 58.77	0.00	28 6 2.9	0.2	11.4	2	
2184	12 14 59.11	0.03	29 29 35.7	0.0	11.5	2	
2185	12 14 59.74	0.03	29 12 49.9	0.2	5.7	2	1
2186	12 15 0.94		28 38 35.9		11.4	1	
2187	12 15 1.47	0.03	27 1 50.8	0.2	11.4	2	
2188	12 15 2.42	0.01	28 32 54.3	0.3	11.6	2	
2189	12 15 3.69	0.04	28 38 41.2	0.2	10.4	2	
2190	12 15 3.77		31 33 33.5		12.3	1	
2191	12 15 4.69		31 24 40.3		11.6	1	
2192	12 15 4.75	0.00	30 6 37.4	0.3	11.8	2	
2193	12 15 5.63	0.01	27 22 6.8	0.1	11.2	2	
2194	12 15 6.55		31 42 44.9		12.1	1	
2195	12 15 6.76	0.03	26 6 16.9	0.1	12.4	2	
2196	12 15 7.21	0.00	30 39 18.8	0.2	10.8	2	
2197	12 15 8.00		31 36 50.1		12.1	1	
2198	12 15 8.29	0.02	26 25 18.6	0.7	11.6	2	
2199	12 15 9.20	0.01	28 42 60.0	0.4	11.8	2	
2200	12 15 10.68		30 58 47.5		12.1	1	
2201	12 15 11.08		25 9 42.4		13.1	1	
2202	12 15 11.66		27 33 12.6		11.9	1	
2203	12 15 13.41		30 3 14.6		12.9	1	
2204	12 15 13.56	0.01	27 7 38.4	0.3	10.7	2	
2205	12 15 13.73		25 41 18.3		13.6	1	
2206	12 15 13.84		25 2 47.1		11.3	1	
2207	12 15 14.73	0.02	30 6 11.4	0.3	12.1	2	
2208	12 15 16.02		31 10 53.1		12.9	1	
2209	12 15 16.44		25 19 57.5		7.6	1	1
2210	12 15 16.49		31 9 53.1		13.1	1	
2211	12 15 18.79	0.03	26 32 2.4	0.4	11.3	2	
2212	12 15 19.60	0.01	25 50 57.8	0.1	6.3	2	1
2213	12 15 20.45	0.02	29 29 44.0	0.2	11.7	2	
2214	12 15 20.92		28 21 11.7		12.2	1	
2215	12 15 21.14		25 23 30.9		10.2	1	1
2216	12 15 22.96		30 12 3.5		12.9	1	
2217	12 15 23.01		30 45 40.0		12.9	1	
2218	12 15 24.67		26 5 44.5		12.4	1	
2219	12 15 27.64		28 8 5.7		12.2	1	
2220	12 15 29.28		28 32 12.6		12.2	1	
2221	12 15 29.72		29 5 35.4		11.8	1	
2222	12 15 31.09	0.01	27 10 58.6	0.0	11.2	2	
2223	12 15 31.23	0.03	28 55 47.5	0.3	9.1	2	
2224	12 15 32.41	0.02	28 11 17.9	0.1	11.2	2	
2225	12 15 33.39	0.02	26 48 40.2	0.5	10.4	3	
2226	12 15 34.23	0.03	29 18 18.5	0.2	10.2	2	1
2227	12 15 35.31		25 48 24.7		11.0	1	
2228	12 15 36.37		26 33 59.5		11.5	1	
2229	12 15 36.45	0.02	29 29 43.6	0.4	11.5	3	
2230	12 15 36.86		28 5 25.9		11.4	1	
2231	12 15 37.28		28 27 10.1		11.7	1	
2232	12 15 39.50	0.03	27 58 25.2	0.1	11.4	3	
2233	12 15 40.36	0.01	27 34 40.7	0.3	7.0	2	1
2234	12 15 41.58		26 17 45.3		11.5	1	
2235	12 15 41.86		29 20 27.5		12.3	1	
2236	12 15 42.28	0.01	29 51 58.3	0.1	11.8	3	
2237	12 15 43.58		28 34 47.2		11.9	1	
2238	12 15 43.85	0.01	27 47 47.6	0.0	9.8	4	
2239	12 15 43.97		29 29 46.1		11.8	1	
2240	12 15 46.24		29 11 42.0		12.5	1	
2241	12 15 46.42	0.01	27 34 42.1	0.3	9.8	3	
2242	12 15 47.19	0.01	29 14 26.8	0.3	10.4	3	
2243	12 15 48.17		31 4 33.8		12.1	1	
2331	12 17 15.91	0.02	29 47 50.7	0.1	12.1	3	
2332	12 17 17.71		31 30 10.2		12.9	1	
2333	12 17 18.28	0.02	29 57 57.0	0.2	12.7	2	
2334	12 17 18.51	0.01	27 5 51.1	0.7	11.5	2	
2335	12 17 19.98	0.03	28 44 31.9	0.2	5.6	3	1
2336	12 17 22.29		31 3 39.6		12.7	1	
2337	12 17 23.48		26 52 1.1		10.9	1	
2338	12 17 23.57		27 59 1.3		11.4	1	
2339	12 17 24.06		27 17 0.8		11.2	1	
2340	12 17 26.83		27 54 8.3		11.7	1	
2341	12 17 26.87		27 18 26.2		11.4	1	
2342	12 17 28.16	0.01	30 45 50.5	0.6	8.7	2	1
2343	12 17 28.49	0.04	30 32 41.0	0.3	11.1	2	
2344	12 17 28.62	0.02	30 31 54.1	0.4	11.8	2	
2345	12 17 34.45		31 36 43.7		12.3	1	
2346	12 17 34.80		26 11 18.1		11.0	1	
2347	12 17 34.88	0.01	28 11 8.5	0.1	9.8	2	1
2348	12 17 35.56	0.02	27 3 36.9	0.2	12.0	2	
2349	12 17 35.89	0.02	26 44 45.1	0.0	12.4	2	
2350	12 17 36.05		31 36 25.4		12.7	1	
2351	12 17 36.48		25 48 28.5		11.0	1	
2352	12 17 39.09		26 15 44.4		9.8	1	
2353	12 17 39.97		26 28 30.0		9.9	1	
2354	12 17 41.09		26 25 6.0		10.8	1	
2355	12 17 41.90	0.01	30 30 13.8	0.5	11.1	2	
2356	12 17 44.01		27 45 30.4		11.4	1	
2357	12 17 45.25	0.01	30 2 2.4	0.6	12.9	2	
2358	12 17 45.67		28 10 29.5		11.4	1	
2359	12 17 45.99		25 59 39.3		11.2	1	
2360	12 17 47.81		26 16 43.8		6.0	1	1
2361	12 17 49.29	0.02	26 53 59.7	0.1	6.0	2	
2362	12 17 51.13		30 55 59.2		12.3	1	
2363	12 17 52.13	0.03	26 51 33.5	0.1	12.4	2	
2364	12 17 52.94		26 19 24.1		9.9	1	
2365	12 17 52.97		26 7 17.0		11.2	1	
2366	12 17 53.40		26 48 53.5		11.5	1	
2367	12 17 53.50		31 6 33.7		12.7	1	
2368	12 17 54.22		31 28 32.7		12.1	1	
2369	12 17 54.89	0.04	30 16 38.0	0.2	11.9	2	
2370	12 17 55.46		31 44 31.2		10.7	1	
2371	12 17 55.75		26 25 5.1		11.5	1	
2372	12 17 56.21	0.02	27 24 0.6	0.3	12.0	2	
2373	12 17 58.35	0.00	29 57 36.4	0.4	11.8	2	
2374	12 17 59.17		30 53 53.7		12.7	1	
2375	12 18 0.30		27 9 53.1		11.4	1	
2376	12 18 2.42	0.00	27 6 20.4	0.3	10.8	2	
2377	12 18 3.14		31 24 46.1		12.5	1	
2378	12 18 3.63		27 16 21.8		11.7	1	
2379	12 18 3.74	0.01	28 15 36.0	0.1	11.4	2	
2380	12 18 4.20		31 25 10.9		12.9	1	
2381	12 18 4.83	0.01	27 55 24.3	0.5	11.6	2	
2382	12 18 5.89	0.02	30 26 17.6	0.3	10.8	2	
2383	12 18 6.25		30 47 31.2		12.9	1	
2384	12 18 6.60	0.01	30 5 35.7	0.3	12.7	2	
2385	12 18 7.90		25 53 39.2		10.8	1	
2386	12 18 8.95	0.00	28 2 37.6	0.0	11.1	2	
2387	12 18 9.63	0.02	28 29 17.2	0.1	11.4	2	
2388	12 18 9.90	0.01	27 20 2.8	0.6	7.4	2	
2389	12 18 10.42		29 49 33.4		12.9	1	
2390	12 18 10.43	0.02	29 48 38.0	0.2	10.7	3	1
2391	12 18 10.52	0.02	27 20 6.4	0.1	6.7	2	
2392	12 18 10.81		28 35 43.8		11.7	1	
2393	12 18 14.64		26 2 36.3		8.4	1	1
2394	12 18 16.35	0.03	30 22 5.4	0.4	10.8	2	1
2395	12 18 17.04	0.02	28 18 32.3	0.0	11.3	2	
2396	12 18 18.35		28 2 38.6		11.9	1	
2397	12 18 21.44		31 12 19.1		12.9	1	
2398	12 18 22.30		26 12 15.2		7.8	1	1
2399	12 18 24.42	0.03	28 13 6.1	0.2	11.4	2	
2400	12 18 26.32	0.02	30 32 55.2	0.2	12.9	2	
2401	12 18 26.99	0.02	28 38 6.3	0.4	11.3	2	
2402	12 18 28.07	0.03	27 45 54.4	0.9	11.3	3	
2403	12 18 28.51	0.00	28 50 2.6	0.3	11.1	2	
2404	12 18 29.51		28 34 14.3		11.2	1	
2405	12 18 31.54	0.01	27 21 4.0	0.2	11.2	2	
2406	12 18 32.85		31 28 17.6		13.1	1	
2407	12 18 33.14		30 55 41.1		12.3	1	
2408	12 18 33.89	0.03	30 17 12.6	0.0	12.5	2	
2409	12 18 33.98		25 59 53.6		7.7	1	1
2410	12 18 34.05		27 38 57.7		11.2	1	

2077	12	13	41.03	0.01	30	39	36.4	0.2	11.5	2	
2078	12	13	41.31		25	26	32.6		12.8	1	
2079	12	13	41.82		28	27	42.0		11.6	1	
2080	12	13	42.28	0.02	29	21	12.8	0.2	11.8	2	
2081	12	13	43.67		28	48	33.1		11.7	1	
2082	12	13	44.11	0.03	29	6	57.8	0.3	8.8	2	1
2083	12	13	44.41	0.00	27	15	17.2	0.0	9.8	2	1
2084	12	13	45.49	0.01	28	45	50.6	0.2	11.7	3	
2085	12	13	46.16		25	28	35.3		11.3	1	
2086	12	13	47.09	0.01	28	46	4.1	0.0	12.1	3	
2087	12	13	47.38		24	44	32.2		11.3	1	
2088	12	13	47.60	0.02	27	12	18.5	0.3	9.8	2	
2089	12	13	47.65	0.00	27	13	42.2	0.3	10.3	2	
2090	12	13	47.80	0.01	27	57	4.8	0.2	11.4	2	
2091	12	13	47.92	0.02	27	21	9.7	0.3	11.7	2	
2092	12	13	49.23	0.02	30	46	48.4	0.3	11.8	2	
2093	12	13	49.40		30	56	26.8		12.3	1	
2094	12	13	49.56	0.02	27	32	56.7	0.3	11.9	2	
2095	12	13	49.60		26	49	12.8		11.9	1	
2096	12	13	50.36	0.03	29	6	20.6	0.0	11.8	2	
2097	12	13	50.63		26	45	35.1		12.2	1	
2098	12	13	52.64		25	29	56.3		12.8	1	
2099	12	13	52.92		31	27	41.3		11.0	1	1
2100	12	13	53.03	0.01	26	40	50.3	0.2	10.1	3	
2101	12	13	53.31		27	51	50.6		11.9	1	
2102	12	13	55.65	0.01	27	14	17.7	0.9	11.2	2	
2103	12	13	59.15		31	13	15.5		11.6	1	
2104	12	13	59.93		24	54	24.5		11.5	1	
2105	12	14	0.08		31	7	26.5		12.5	1	
2106	12	14	0.15		27	4	16.1		12.4	1	
2107	12	14	0.20		31	3	35.4		13.1	1	
2108	12	14	0.21		25	6	30.1		12.6	1	
2109	12	14	2.19		24	53	15.7		9.4	1	1
2110	12	14	2.54	0.01	29	58	52.2	0.1	10.6	2	
2111	12	14	3.01	0.02	29	29	16.3	0.6	11.7	2	
2112	12	14	3.23	0.02	28	24	26.1	0.0	11.0	2	
2113	12	14	4.06	0.03	27	48	10.6	0.0	11.9	2	
2114	12	14	4.12		30	55	9.1		12.9	1	
2115	12	14	4.25	0.00	27	55	53.0	0.1	9.3	2	1
2116	12	14	5.55	0.01	27	9	51.6	0.1	10.4	2	
2117	12	14	6.48	0.02	29	50	22.5	0.3	11.0	2	
2118	12	14	6.59	0.00	26	28	45.3	0.0	11.2	2	
2119	12	14	7.12	0.03	30	48	20.2	0.2	11.8	2	
2120	12	14	7.70		31	18	41.8		12.1	1	
2121	12	14	7.84	0.01	26	21	37.9	0.2	12.6	2	
2122	12	14	8.94	0.02	28	34	33.6	0.1	9.6	2	
2123	12	14	9.47	0.01	28	10	32.1	0.1	10.7	2	
2124	12	14	11.30	0.02	27	39	4.1	0.1	12.2	2	
2125	12	14	15.06		27	25	1.8		12.2	1	
2126	12	14	15.21	0.00	29	51	52.7	0.0	9.3	2	1
2127	12	14	15.41	0.02	30	20	36.6	0.3	9.3	2	
2128	12	14	15.42	0.01	28	49	44.5	0.2	11.0	2	
2129	12	14	15.62	0.01	28	29	4.6	0.0	11.6	2	
2130	12	14	15.86	0.00	26	32	14.9	0.1	9.9	2	1
2131	12	14	16.24		28	37	25.9		11.6	1	
2132	12	14	17.22	0.02	28	32	22.1	0.2	11.0	2	
2133	12	14	17.34		30	10	7.1		12.9	1	
2134	12	14	17.44	0.01	26	29	22.1	0.1	11.0	2	
2135	12	14	17.74		25	8	11.6		10.4	1	
2136	12	14	18.45	0.03	27	17	18.4	0.0	11.7	2	
2137	12	14	18.70	0.01	29	12	46.2	0.3	12.3	2	
2138	12	14	19.29		28	27	19.6		12.2	1	
2139	12	14	19.82	0.01	26	43	51.3	0.2	10.3	3	
2140	12	14	20.17	0.01	28	45	57.5	0.1	11.8	3	
2141	12	14	20.78		31	23	50.1		12.9	1	
2142	12	14	22.20		25	12	54.4		12.9	1	
2143	12	14	22.39	0.01	26	54	44.5	0.3	10.1	2	1
2144	12	14	25.26	0.02	28	1	3.8	0.0	8.4	2	1
2145	12	14	25.55	0.02	28	14	35.2	0.1	10.3	2	
2146	12	14	25.67		30	57	21.5		12.5	1	
2147	12	14	26.02		29	29	27.6		11.8	1	
2148	12	14	26.28		27	40	54.4		12.4	1	
2149	12	14	28.11	0.00	28	21	43.7	0.3	10.1	2	
2150	12	14	28.14	0.01	25	52	28.0	0.1	12.6	2	
2151	12	14	29.42	0.01	28	1	48.1	0.1	10.5	2	
2152	12	14	29.83	0.02	26	45	35.0	0.2	10.0	3	
2153	12	14	30.57		25	12	22.4		11.0	1	
2154	12	14	31.27		28	41	39.7		11.4	1	
2155	12	14	32.86	0.01	29	53	51.3	0.4	10.8	2	1
2156	12	14	33.47	0.02	29	19	24.2	0.1	11.8	2	
2157	12	14	33.89		27	9	51.6		12.2	1	
2158	12	14	35.81	0.00	28	2	29.9	0.1	9.4	2	
2159	12	14	36.45		27	15	41.9		11.7	1	
2160	12	14	37.46	0.01	29	19	24.2	0.3	12.1	2	
2161	12	14	39.13	0.05	27	51	50.5	0.3	11.6	2	
2162	12	14	39.23		24	54	14.2		8.0	1	1
2163	12	14	39.46	0.02	27	9	57.2	0.2	11.4	2	
2244	12	15	48.42		31	11	55.1		11.6	1	
2245	12	15	50.19		28	26	21.5		11.7	1	
2246	12	15	53.12	0.01	28	6	4.3	0.1	11.4	3	
2247	12	15	54.48	0.01	30	13	58.3	0.4	10.2	3	
2248	12	15	56.28		30	44	11.6		12.9	1	
2249	12	15	58.31		28	47	30.3		12.1	1	
2250	12	15	58.33	0.02	30	16	17.4	0.2	11.8	3	
2251	12	15	58.59		28	48	52.8		11.2	1	
2252	12	15	59.34	0.01	29	23	15.0	0.3	10.5	3	
2253	12	15	59.85	0.02	28	48	23.5	0.2	11.8	4	
2254	12	16	0.32	0.02	30	31	47.2	0.2	5.7	3	1
2255	12	16	2.69		26	25	15.3		12.4	1	
2256	12	16	4.03	0.01	29	29	29.6	0.4	11.8	3	
2257	12	16	6.41	0.01	27	44	18.6	0.2	11.4	4	
2258	12	16	8.88	0.01	27	22	29.2	0.1	11.6	3	
2259	12	16	9.74		31	30	14.8		12.9	1	
2260	12	16	10.05		26	27	58.8		7.0	1	1
2261	12	16	11.69		27	10	29.2		12.4	1	
2262	12	16	11.90		31	37	51.9		12.5	1	
2263	12	16	12.53	0.03	27	38	16.7	0.1	11.7	2	
2264	12	16	13.01		31	2	49.9		12.9	1	
2265	12	16	13.51	0.01	27	56	43.2	0.0	11.2	3	
2266	12	16	15.18	0.01	28	8	27.1	0.2	11.4	3	
2267	12	16	16.32	0.05	26	47	13.0	0.1	10.9	3	
2268	12	16	17.02		31	6	43.0		12.7	1	
2269	12	16	17.63	0.02	29	2	30.5	0.1	11.8	3	
2270	12	16	20.39		26	36	7.9		10.2	1	
2271	12	16	21.28	0.01	29	23	57.4	0.3	11.7	3	
2272	12	16	21.61		25	43	27.0		12.0	1	
2273	12	16	22.65		31	35	6.4		12.9	1	
2274	12	16	24.17	0.02	30	44	46.9	0.3	7.9	3	1
2275	12	16	25.17		26	5	23.2		12.0	1	
2276	12	16	26.18		26	9	51.8		10.8	1	
2277	12	16	26.51	0.01	28	7	28.3	0.2	9.8	3	
2278	12	16	27.61		26	20	11.7		11.2	1	
2279	12	16	27.67	0.04	28	36	31.3	0.2	11.4	2	
2280	12	16	27.82		27	52	11.5		12.2	1	
2281	12	16	29.15		25	42	49.0		10.2	1	
2282	12	16	29.46		31	15	28.1		12.9	1	
2283	12	16	30.11		25	47	15.5		12.0	1	
2284	12	16	30.97		26	17	10.3		5.9	1	1
2285	12	16	31.35	0.01	28	19	44.0	0.1	8.4	2	1
2286	12	16	32.30		25	47	42.0		11.5	1	
2287	12	16	33.31	0.01	27	16	24.3	0.0	12.0	2	
2288	12	16	34.08		26	27	42.6		11.2	1	
2289	12	16	34.49	0.03	30	5	29.0	0.3	12.9	2	
2290	12	16	37.22		30	51	12.9		12.9	1	
2291	12	16	37.69		31	34	51.6		12.1	1	
2292	12	16	38.36		28	12	28.7		11.2	1	
2293	12	16	38.39		27	48	48.7		11.7	1	
2294	12	16	38.57	0.02	30	44	46.6	0.3	12.3	2	
2295	12	16	39.05		26	31	16.6		11.5	1	
2296	12	16	39.56		26	10	36.1		12.0	1	
2297	12	16	41.17	0.01	29	28	39.6	0.1	9.8	2	1
2298	12	16	41.34	0.01	27	44	47.1	0.3	11.1	3	
2299	12	16	43.80		27	54	43.8		11.2	1	
2300	12	16	43.80		28	12	30.8		11.2	1	
2301	12	16	43.81	0.01	27	6	34.6	0.2	11.4	2	
2302	12	16	44.27		30	57	34.0		12.7	1	
2303	12	16	44.47		25	47	7.6		11.4	1	
2304	12	16	44.58		30	28	42.9		12.9	1	
2305	12	16	45.20		25	42	50.9		9.9	1	
2306	12	16	47.76		31	1	13.5		10.5	1	1
2307	12	16	47.94		28	2	26.0		11.4	1	
2308	12	16	48.75		31	32	8.0		13.4	1	
2309	12	16	50.09	0.00	28	12	10.7	0.1	9.5	2	1
2310	12	16	51.15		25	59	14.6		9.4	1	
2311	12	16	54.65	0.04	28	28	31.5	0.2	11.6	2	
2312	12	16	55.73		28	14	36.1		10.9	1	
2313	12	16	57.15	0.05	26	53	11.4	0.2	12.0	2	
2314	12	16	58.06	0.01	28	39	27.8	0.0	11.1	3	
2315	12	16	59.24	0.01	26	53	29.4	0.0	11.0	2	1
2316	12	17	0.20	0.00	28	26	16.1	0.1	5.7	2	1
2317	12	17	0.53		30	39	28.6		12.5	1	
2318	12	17	0.85		27	27	50.5		11.9	1	
2319	12	17	0.89		26	9	26.6		11.4	1	
2320	12	17	0.97	0.02	30	26	43.3	0.1	9.2	2	1
2321	12	17	1.67		28	24	4.8		11.1	1	
2322	12	17	3.12	0.03	27	9	5.3	0.1	11.7	2	
2323	12	17	3.97	0.01	30	6	2.1	0.2	11.9	2	
2324	12	17	4.17		25	54	8.9		11.2	1	
2325	12	17	6.45		28	5	53.6		11.2	1	
2326	12	17	7.12		26	35	51.3		12.4	1	
2327	12	17	11.00	0.02	30	17	2.8	0.5	11.0	2	
2328	12	17	11.18		31	9	45.1		12.5	1	
2329	12	17	12.96	0.02	27	30	40.0	0.1	11.5	2	
2330	12	17	14.68	0.01	28	42	9.5	0.2	11.1	3	
2411	12	18	34.26		31	34	30.5		12.9	1	
2412	12	18	34.45		27	37	16.0		11.7	1	
2413	12	18	36.40	0.05	28	4	0.6	0.2	11.4	2	
2414	12	18	37.37		27	44	49.4		11.9	1	
2415	12	18	37.83		26	29	18.3		11.4	1	
2416	12	18	38.57	0.02	30	20	18.1	0.2	12.9	2	
2417	12	18	38.76	0.06	29	12	32.0	0.5	10.4	2	1
2418	12	18	39.30		28	38	12.3		11.7	1	
2419	12	18	40.03		28	36	59.5		11.2	1	
2420	12	18	40.11		31	34	48.9		9.2	1	1
2421	12	18	40.18		29	30	11.1		12.4	1	
2422	12	18	42.69		26	23	4.7		10.8	1	
2423	12	18	42.71		30	58	56.3		12.7	1	
2424	12	18	43.19		28	29	46.7		11.2	1	
2425	12	18	44.86		26	25	53.4		11.2	1	
2426	12	18	45.42	0.03	27	4	56.0	0.1	11.2	2	
2427	12	18	46.60	0.02	28	10	20.1	0.3	11.4	2	
2428	12	18	46.72		28	16	0.2		11.7	1	
2429	12	18	46.84	0.02	30	35	51.3	0.2	12.9	2	
2430	12	18	47.07	0.03	27	33	1.7	0.0	11.0	2	
2431	12	18	47.58		27	14	51.4		11.7	1	
2432	12	18	49.09		29	15	1.7		12.3	1	
2433	12	18	50.89	0.03	29	58	19.2	0.5	12.3	2	
2434	12	18	51.88		26	12	31.6		8.9	1	
2435	12	18	52.01	0.01	30	18	29.2	0.1	12.9	2	
2436	12	18	52.03		25	57	8.7		9.0	1	
2437	12	18	52.47		28	53	4.3		12.4	1	
2438	12	18	52.59		26	11	13.2		9.5	1	
2439	12	18	53.23		31	24	18.0		12.1	1	
2440	12	18	58.95	0.00	28	20	5.1	0.3	11.6	2	
2441	12	18	59.59		26	45	46.7		11.2	1	
2442	12	19	0.56		28	47	9.2		11.4	1	
2443	12	19	0.56	0.01	28	47	9.6	0.0	12.1	2	
2444	12	19	0.85	0.00	29	39	12.8	0.1	11.0	3	
2445	12	19	1.56	0.01	30	27	39.4	0.1	12.7	2	
2446	12	19	2.25		26	23	31.1		9.9	1	
2447	12	19	2.69	0.02	28	48	40.6	0.1	11.4	2	
2448	12	19	3.42	0.01	28	29	40.9	0.1	11.3	2	
2449	12	19	4.14	0.00	29	12	38.3	0.2	11.3	2	
2450	12	19	4.28	0.00	28	44	35.6	0.2	12.4	2	
2451	12	19	5.54		28	37	10.4		11.7	1	
2452	12	19	6.82	0.02	27	4	9.2	0.2	11.0	2	
2453	12	19	6.83	0.01	28	52	4.5	0.1	11.6	2	
2454	12	19	8.53	0.01	27	12	1.2	0.2	12.0	2	
2455	12	19	8.64	0.00	30	45	27.7	0.5	12.3	2	
2456	12	19	8.78	0.01	28	42	36.3	0.1	11.3	3	
2457	12	19	9.35	0.01	30	40	23.1	0.7	11.0	2	
2458	12	19	11.42		26	19	5.4		10.8	1	
2459	12	19	11.65	0.01	30	13	57.3	0.0	12.1	2	
2460	12	19	11.97	0.03	29	52	36.0	0.0	11.4	2	
2461	12	19	12.70	0.03	27	55	6.9	0.3	11.3	2	
2462	12	19	13.02	0.03	27	53	36.1	0.1	11.4	2	
2463	12	19	13.16	0.01	27	57	59.9	0.0	11.4	2	
2464	12	19	13.58	0.05	26	53	9.0	0.2	7.7	2	
2465	12	19	15.22		28	23	14.5		11.4	1	
2466	12	19	16.47		29	27	37.8		12.4	1	
2467	12	19	18.38	0.01	26	49	35.6	0.3	7.9	2	1
2468	12	19	18.39		28	42	3.6		11.7	1	
2469	12	19	21.29		28	2	14.7		11.7	1	
2470	12	19	21.84	0.00	28	25	39.9	0.2	9.4	2	1
2471	12	19	22.75		25	53	51.5		8.8	1	
2472	12	19	23.94		28	34	36.4		11.9	1	
2473	12	19	23.95	0.03	28	18	15.7	0.2	11.3	2	
2474	12	19	24.30		31	21	25.3		11.4	1	
2475	12	19	25.63	0.03	27	35	13.3	0.5	6.5	2	1
2476	12	19	25.89	0.01	28	49	25.7	0.2	9.5	2	
2477	12	19	27.15	0.01	30	35	45.7	0.3	12.5	2	
2478	12	19	27.19		31	23	19.1		12.3	1	
2479	12	19	29.59	0.03	29	24	34.8	0.4	11.4	2	
2480	12	19	31.84		27	38	48.2		11.4	1	
2481	12	19	32.81		28	20	40.3		11.7	1	
2482	12	19	32.95	0.02	28	58	14.3	0.0	11.4	2	
2483	12	19	34.45		31	32	3.5		12.5	1	
2484	12	19	38.49		27	42	16.6		11.2	1	
2485	12	19	39.96	0.01	28	7	25.3	0.3	11.4	2	
2486	12	19	40.18	0.01	31	18	48.2	0.1	11.1	2	
2487	12	19	43.36		26	57	49.6		11.2	1	
2488	12	19	43.67	0.01	30	31	17.1	0.0	12.9	2	
2489	12	19	45.02	0.02	28	21	5.7	0.2	11.4	2	
2490	12	19	47.64		26	41	34.7		10.9	1	
2491	12	19	49.37		27	10	33.0		11.7	1	
2492	12	19	51.41		26	47	33.1		11.2	1	
2493	12	19	52.85		27	0	44.9		11.7	1	
2494	12	19	54.95	0.01	29	23	59.6	0.4	11.1	2	
2495	12	19	56.51	0.01	31	30	52.1	0.1	11.9	2	
2496	12	19	56.97	0.02	29	25	14.3	0.6	11.3	2	
2497	12	19	58.78	0.01	28	22	57.4	0.2	11.3	2	

1983RMxAA...5..233S

TABLE 1 (CONTINUED).

No	α	ϵ_α	δ	ϵ_δ	m_p	N	A
249[illegible]	12 19 59.89		29 35 46.8		12.4	1	
2499	12 20 0.01		29 52 59.1		12.4	1	
2500	12 20 0.99		26 54 56.3		10.9	1	
2501	12 20 4.02		26 53 57.9		8.4	1	1
2502	12 20 4.64		28 26 9.4		11.7	1	
2503	12 20 4.68		27 52 58.4		10.5	1	1
2504	12 20 8.00	0.01	28 46 45.4	0.3	11.4	3	
2505	12 20 8.76		27 24 38.6		8.4	1	1
2506	12 20 9.72		27 13 31.4		10.9	1	
2507	12 20 11.24		27 12 50.2		11.1	1	
2508	12 20 11.68	0.04	31 31 34.7	0.5	9.2	2	1
2509	12 20 13.40	0.02	29 53 48.1	0.2	12.1	3	
2510	12 20 15.30	0.01	30 35 20.8	0.1	11.8	3	
2511	12 20 16.12	0.02	31 4 41.3	0.1	9.4	2	1
2512	12 20 17.32	0.03	29 45 48.8	0.5	11.3	4	
2513	12 20 19.10		26 40 57.1		9.9	1	
2514	12 20 20.08	0.02	31 0 23.5	0.1	12.1	2	
2515	12 20 21.52	0.11	28 21 42.0	0.1	11.1	2	
2516	12 20 21.86		26 55 2.7		10.5	1	
2517	12 20 22.16		26 51 8.3		11.4	1	
2518	12 20 23.03	0.04	31 4 38.4	0.3	12.1	2	
2519	12 20 23.90		28 12 51.1		11.2	1	
2520	12 20 25.92		27 19 41.3		9.8	1	
2521	12 20 29.61		28 35 40.3		9.6	1	
2522	12 20 30.13	0.02	29 49 18.1	0.3	9.4	4	1
2523	12 20 30.95	0.01	30 16 39.5	0.3	11.9	3	
2524	12 20 32.18		27 43 53.7		11.4	1	
2525	12 20 35.02	0.01	30 53 14.1	0.2	9.3	2	1
2526	12 20 35.68		27 41 26.1		10.4	1	
2527	12 20 38.44		27 4 8.6		11.2	1	
2528	12 20 40.24	0.01	28 42 8.7	0.2	12.4	2	
2529	12 20 40.97		28 58 48.0		12.1	1	
2530	12 20 41.30		26 49 5.6		9.5	1	
2531	12 20 41.62		31 44 17.6		9.7	1	
2532	12 20 41.87		29 31 38.0		11.6	1	1
2533	12 20 42.05		28 15 55.0		11.2	1	
2534	12 20 44.00		29 38 15.2		12.4	1	
2535	12 20 47.99	0.04	30 23 9.7	0.3	12.1	2	
2536	12 20 48.76		30 49 14.0		11.9	1	
2537	12 20 49.23		29 27 6.5		12.4	1	
2538	12 20 49.27		26 49 58.3		11.4	1	
2539	12 20 50.44		28 53 52.3		11.9	1	
2540	12 20 50.90	0.01	30 21 10.5	0.1	10.5	2	1
2541	12 20 51.97		27 34 26.6		10.5	1	
2542	12 20 52.17	0.03	30 27 9.9	0.2	12.4	2	
2543	12 20 52.40	0.02	30 9 36.7	0.1	12.4	2	
2544	12 20 52.67		27 3 59.5		11.1	1	
2545	12 20 53.68		31 0 31.4		11.5	1	
2546	12 20 54.36		28 12 36.9		11.2	1	
2547	12 20 54.97		28 9 12.9		11.9	1	
2548	12 20 55.24		27 3 28.9		11.2	1	
2549	12 20 55.62		31 39 29.0		10.1	1	
2550	12 20 59.04		31 8 3.7		11.9	1	
2551	12 20 59.23		27 22 51.8		11.1	1	
2552	12 20 59.34		26 50 33.8		8.1	1	1
2553	12 21 1.36		27 39 15.4		11.2	1	
2554	12 21 4.85		26 43 7.6		11.2	1	
2555	12 21 5.44		28 11 13.3		10.9	1	
2556	12 21 10.70		27 15 26.2		7.3	1	1
2557	12 21 11.48		26 52 43.7		8.2	1	1
2558	12 21 13.36		26 52 13.3		10.4	1	
2559	12 21 14.72		27 58 0.5		9.9	1	
2560	12 21 15.48	0.00	29 57 45.7	0.1	11.6	2	
2561	12 21 15.73		28 17 4.8		11.2	1	
2562	12 21 16.37		29 29 41.1		12.4	1	
2563	12 21 16.86		29 7 56.1		12.4	1	
2564	12 21 17.47	0.03	30 43 12.7	0.2	10.5	2	
2565	12 21 18.37		28 21 24.7		11.7	1	
2566	12 21 20.09		26 57 32.3		9.3	1	
2567	12 21 21.04		31 39 23.7		11.7	1	
2568	12 21 21.55	0.00	30 43 9.0	0.6	11.9	2	
2569	12 21 24.77		28 5 26.8		11.4	1	
2570	12 21 27.21		31 17 48.3		11.5	1	
2571	12 21 28.56		31 42 12.0		11.3	1	
2572	12 21 29.48		26 48 52.8		11.7	1	
2573	12 21 30.07		29 3 43.1		10.7	1	
2574	12 21 34.22		28 20 28.4		11.4	1	
2575	12 21 35.30		28 22 53.7		11.1	1	
2576	12 21 38.09		27 22 25.2		9.9	1	
2577	12 21 38.94		29 12 47.8		11.1	1	
2637	12 22 43.85		26 58 18.0		10.5	1	
2638	12 22 44.19	0.00	30 13 43.7	0.2	9.6	2	1
2639	12 22 45.17		31 8 47.1		11.3	1	
2640	12 22 47.01		27 51 45.2		10.5	1	
2641	12 22 47.84		27 50 31.4		11.1	1	
2642	12 22 50.55		26 58 47.2		11.7	1	
2643	12 22 50.95		29 9 4.1		12.4	1	
2644	12 22 51.59		27 49 25.3		11.1	1	
2645	12 22 52.18		31 31 35.6		11.9	1	
2646	12 22 52.87		29 20 13.2		12.4	1	
2647	12 22 53.06		29 29 22.2		11.6	1	
2648	12 22 53.57		27 16 27.3		10.2	1	
2649	12 22 53.79		27 9 36.1		9.9	1	
2650	12 22 53.95		28 54 58.1		10.4	1	1
2651	12 22 55.05		31 27 10.6		10.4	1	
2652	12 22 55.10		27 16 39.7		10.2	1	
2653	12 22 55.51		27 46 19.9		11.2	1	
2654	12 22 55.77		30 51 58.2		9.8	1	1
2655	12 22 55.99		29 1 53.3		12.4	1	
2656	12 22 57.22		27 18 27.5		10.0	1	
2657	12 22 57.84		29 7 3.8		12.4	1	
2658	12 22 57.92		28 16 47.4		11.4	1	
2659	12 23 1.27		27 6 34.9		11.2	1	
2660	12 23 2.05		27 24 14.1		9.5	1	1
2661	12 23 2.72		28 20 49.1		12.1	1	
2662	12 23 2.99		27 59 47.7		11.2	1	
2663	12 23 3.02		27 22 6.3		9.6	1	1
2664	12 23 3.37		29 35 19.5		11.9	1	
2665	12 23 4.31		31 21 49.7		11.9	1	
2666	12 23 5.55		28 19 43.5		11.2	1	
2667	12 23 6.67	0.00	30 40 18.8	0.5	12.3	2	
2668	12 23 8.59		31 33 24.4		9.8	1	
2669	12 23 9.19		28 11 18.9		11.2	1	
2670	12 23 9.47		26 53 45.0		11.2	1	
2671	12 23 11.89	0.04	30 0 2.7	0.0	12.4	2	
2672	12 23 11.94		29 28 24.3		12.3	1	
2673	12 23 12.73		29 32 48.7		12.4	1	
2674	12 23 14.71		27 45 37.8		9.9	1	
2675	12 23 15.10	0.01	28 45 29.0	0.3	12.4	2	
2676	12 23 15.41		31 23 36.7		11.3	1	
2677	12 23 17.04	0.01	30 44 18.5	0.1	11.7	2	
2678	12 23 17.53		27 7 22.1		11.7	1	
2679	12 23 17.99		29 12 59.3		11.9	1	
2680	12 23 18.15		31 7 6.5		11.3	1	
2681	12 23 18.54		26 50 19.8		10.7	1	
2682	12 23 20.03		27 14 5.8		11.4	1	
2683	12 23 20.43		27 13 54.4		11.7	1	
2684	12 23 20.71		29 19 4.7		12.4	1	
2685	12 23 20.88	0.01	28 48 39.7	0.1	11.7	2	
2686	12 23 21.13	0.01	30 5 37.3	0.1	12.4	2	
2687	12 23 21.39		28 6 2.9		11.7	1	
2688	12 23 21.93		27 3 13.8		7.5	1	1
2689	12 23 22.88	0.01	30 34 2.2	0.5	12.4	2	
2690	12 23 23.09		29 33 25.3		11.4	1	
2691	12 23 23.47		30 51 35.3		9.8	1	
2692	12 23 25.59	0.03	30 36 11.7	0.2	12.4	2	
2693	12 23 25.68		31 29 15.0		11.9	1	
2694	12 23 25.86		27 22 36.2		11.7	1	
2695	12 23 29.15		28 16 51.7		11.9	1	
2696	12 23 30.30		27 58 60.0		11.2	1	
2697	12 23 32.98	0.01	30 24 3.3	0.8	10.1	2	1
2698	12 23 35.26		31 16 49.9		11.9	1	
2699	12 23 35.40		27 1 16.0		9.2	1	1
2700	12 23 35.60		29 30 8.6		10.5	1	1
2701	12 23 37.08		26 50 19.6		11.4	1	
2702	12 23 38.75		29 16 42.6		12.4	1	
2703	12 23 39.32		27 21 10.5		11.7	1	
2704	12 23 42.03		27 1 30.9		12.1	1	
2705	12 23 42.36		31 24 54.7		11.7	1	
2706	12 23 43.77		29 27 57.0		12.4	1	
2707	12 23 43.89		27 1 28.2		9.3	1	
2708	12 23 47.24		28 27 57.1		11.4	1	
2709	12 23 48.77		29 10 55.7		12.4	1	
2710	12 23 49.25		27 5 50.6		11.9	1	
2711	12 23 49.70		27 39 54.5		9.3	1	1
2712	12 23 50.50		28 33 12.4		10.9	1	
2713	12 23 53.19		27 0 18.5		9.1	1	
2714	12 23 54.24		27 32 42.6		4.7	1	1
2715	12 23 57.06	0.01	30 25 8.2	0.0	11.6	2	
2775	12 24 56.39		26 56 17.3		11.1	1	
2776	12 24 57.54		31 30 51.3		11.7	1	
2777	12 24 58.32		27 53 59.6		11.7	1	
2778	12 24 59.49		27 17 8.1		10.4	1	
2779	12 24 59.60		27 12 16.1		11.4	1	
2780	12 24 59.94	0.01	28 45 15.2	0.4	12.1	2	
2781	12 25 1.45		29 20 12.9		12.4	1	
2782	12 25 2.38		31 10 40.6		11.5	1	
2783	12 25 3.21		28 23 10.7		7.6	1	1
2784	12 25 3.49		29 24 55.4		12.1	1	
2785	12 25 3.54		31 25 15.4		11.9	1	
2786	12 25 3.79		28 52 19.8		12.3	1	
2787	12 25 4.27		28 13 42.5		11.2	1	
2788	12 25 4.55		27 56 7.6		11.7	1	
2789	12 25 5.44		27 23 9.0		10.9	1	
2790	12 25 5.82		28 59 5.2		11.6	1	
2791	12 25 6.35		27 48 4.7		11.7	1	
2792	12 25 9.33		29 11 2.7		10.5	1	
2793	12 25 10.20	0.00	29 41 20.4	0.2	12.4	2	
2794	12 25 11.02		27 58 28.9		11.2	1	
2795	12 25 11.81		31 45 56.4		11.9	1	
2796	12 25 12.84	0.05	30 7 13.7	0.2	12.4	2	
2797	12 25 14.93		29 31 3.0		12.1	1	
2798	12 25 15.12		29 32 50.1		12.3	1	
2799	12 25 16.30		26 43 44.3		9.6	1	
2800	12 25 16.55		27 53 9.8		11.4	1	
2801	12 25 16.88		27 41 59.6		10.5	1	
2802	12 25 17.77		26 47 44.2		11.2	1	
2803	12 25 17.85	0.06	30 43 0.5	0.2	11.9	2	
2804	12 25 18.74		28 28 16.7		8.8	1	
2805	12 25 19.02		28 21 23.3		11.1	1	
2806	12 25 19.52		29 34 54.8		12.1	1	
2807	12 25 19.81		27 50 44.4		9.3	1	
2808	12 25 20.38		29 28 56.7		12.4	1	
2809	12 25 22.08	0.03	30 35 5.6	0.5	11.9	2	
2810	12 25 22.72		27 55 40.0		10.9	1	
2811	12 25 23.37		31 26 16.9		11.9	1	
2812	12 25 23.65	0.01	29 40 34.1	0.6	10.5	2	
2813	12 25 23.74		28 8 21.9		11.4	1	
2814	12 25 25.57		31 26 9.6		11.7	1	
2815	12 25 26.43		26 50 0.6		10.9	1	
2816	12 25 27.90		31 30 29.9		10.9	1	
2817	12 25 28.29	0.03	30 6 45.2	0.2	11.9	2	
2818	12 25 29.08		31 26 6.9		11.9	1	
2819	12 25 29.54		29 2 25.8		12.1	1	
2820	12 25 32.64	0.05	29 56 12.7	0.4	12.4	2	
2821	12 25 32.65	0.02	30 36 12.9	0.1	9.1	2	1
2822	12 25 34.50		30 5 37.7		9.1	1	1
2823	12 25 34.79		30 4 23.5		10.6	1	1
2824	12 25 38.16		31 30 35.6		11.9	1	
2825	12 25 38.30		30 28 0.3		11.5	1	
2826	12 25 40.50		30 35 15.3		11.7	1	
2827	12 25 49.10		30 39 55.5		11.3	1	
2828	12 25 50.77		31 34 59.1		11.9	1	
2829	12 25 53.43		31 22 46.7		9.8	1	
2830	12 25 53.78		30 12 44.9		9.7	1	
2831	12 25 55.51		31 9 34.4		11.9	1	
2832	12 25 56.36		30 10 30.8		10.0	1	
2833	12 25 58.33		30 51 18.2		11.7	1	
2834	12 25 58.66		30 9 18.2		9.5	1	
2835	12 26 1.23		30 13 25.9		9.8	1	1
2836	12 26 3.15		31 7 27.3		11.9	1	
2837	12 26 3.66		29 52 0.0		9.7	1	1
2838	12 26 10.59		31 5 4.6		10.3	1	
2839	12 26 18.33		31 24 14.5		11.9	1	
2840	12 26 18.47		31 21 8.8		11.9	1	
2841	12 26 22.92		31 1 51.5		11.7	1	
2842	12 26 33.20		31 16 49.3		11.9	1	
2843	12 26 33.22		30 48 13.3		11.7	1	
2844	12 26 34.48		30 52 11.5		11.9	1	
2845	12 26 37.90		31 40 4.8		7.2	1	1
2846	12 26 39.78		30 37 58.7		11.5	1	
2847	12 26 43.75		31 29 26.2		11.5	1	
2848	12 26 44.41		30 47 19.2		11.3	1	
2849	12 26 49.83		30 37 0.5		11.3	1	
2850	12 26 52.50		29 47 20.2		11.9	1	
2851	12 26 53.14		29 40 31.6		11.9	1	
2852	12 26 54.45		31 33 44.7		11.9	1	
2853	12 26 57.99		30 29 8.8		9.7	1	

2578	12	21	39.85		30	48	26.9		11.9	1	
2579	12	21	40.04		30	56	1.7		11.5	1	
2580	12	21	40.46	0.06	29	45	57.0	0.4	12.4	2	
2581	12	21	42.54		28	41	1.9		10.0	1	1
2582	12	21	42.55		28	41	2.0		9.1	1	
2583	12	21	44.27		27	52	29.7		11.2	1	
2584	12	21	45.68	0.01	30	46	43.7	0.4	12.4	2	
2585	12	21	46.23		27	14	2.4		11.7	1	
2586	12	21	47.79		31	3	24.6		11.3	1	
2587	12	21	48.20	0.00	30	23	32.4	0.3	11.9	2	
2588	12	21	49.55		28	19	40.0		11.7	1	
2589	12	21	49.89		28	36	43.3		9.6	1	1
2590	12	21	53.43		26	51	26.2		11.7	1	
2591	12	21	55.08		27	45	4.4		9.1	1	1
2592	12	21	56.89		29	24	43.7		10.5	1	1
2593	12	21	57.46		29	23	6.2		12.4	1	
2594	12	21	59.39		29	58	17.0		11.9	1	
2595	12	22	0.13		29	8	26.7		12.3	1	
2596	12	22	1.56		29	6	16.5		12.4	1	
2597	12	22	1.69	0.03	30	3	21.2	0.5	12.4	2	
2598	12	22	1.89		31	33	24.4		8.4	1	1
2599	12	22	2.70	0.05	30	21	43.6	0.1	12.1	2	
2600	12	22	4.61		30	53	24.4		10.1	1	
2601	12	22	5.99	0.00	30	45	3.9	0.2	11.9	2	
2602	12	22	8.82		27	51	58.4		11.7	1	
2603	12	22	8.96		28	46	52.7		11.4	1	
2604	12	22	9.86		26	56	24.4		11.2	1	
2605	12	22	12.42		29	24	36.2		12.3	1	
2606	12	22	12.72		27	28	11.9		11.7	1	
2607	12	22	14.20	0.02	30	17	38.1	0.3	12.4	2	
2608	12	22	15.38		28	20	0.9		11.9	1	
2609	12	22	15.46		27	1	21.5		10.4	1	
2610	12	22	16.20		31	35	49.8		8.9	1	
2611	12	22	16.95		31	39	0.9		10.1	1	
2612	12	22	17.31		28	43	1.6		11.2	1	
2613	12	22	17.69		27	28	37.7		10.9	1	
2614	12	22	18.10		31	22	23.3		11.9	1	
2615	12	22	18.16		29	8	6.9		12.4	1	
2616	12	22	19.76		29	12	2.1		12.4	1	
2617	12	22	19.79		31	18	39.1		7.6	1	1
2618	12	22	20.32		28	1	45.4		11.4	1	
2619	12	22	21.17		27	41	13.8		9.6	1	
2620	12	22	21.90		31	18	54.5		11.9	1	
2621	12	22	23.77		27	10	49.0		11.4	1	
2622	12	22	23.84		31	22	32.9		11.3	1	
2623	12	22	25.58		31	36	41.5		11.9	1	
2624	12	22	28.79		31	17	34.1		11.9	1	
2625	12	22	29.72		26	51	7.6		11.1	1	
2626	12	22	31.52	0.01	30	7	2.8	0.3	12.4	2	
2627	12	22	31.64	0.01	30	24	9.7	0.1	12.4	2	
2628	12	22	31.93		26	50	14.3		11.4	1	
2629	12	22	32.08	0.01	29	44	1.4	0.1	12.1	2	
2630	12	22	33.56		31	32	1.1		11.3	1	
2631	12	22	35.89		27	4	3.3		10.9	1	
2632	12	22	36.30		28	31	19.1		11.7	1	
2633	12	22	36.39		28	4	24.4		11.7	1	
2634	12	22	36.87		27	11	14.9		11.4	1	
2635	12	22	40.09		27	56	22.9		10.9	1	
2636	12	22	43.60		27	55	24.8		9.6	1	

2716	12	24	3.16	0.02	29	50	30.7	0.3	11.9	2	
2717	12	24	3.62		31	7	33.4		11.9	1	
2718	12	24	3.71	0.01	29	50	36.9	0.2	12.4	2	
2719	12	24	3.82	0.04	30	34	4.5	0.2	12.4	2	
2720	12	24	5.53		27	3	4.1		11.7	1	
2721	12	24	6.28		31	0	0.4		11.3	1	
2722	12	24	8.71		27	55	3.0		11.4	1	
2723	12	24	10.48	0.04	30	13	8.9	0.5	12.4	2	
2724	12	24	10.57		28	25	38.7		11.4	1	
2725	12	24	11.15		26	45	59.1		10.9	1	
2726	12	24	11.94		31	18	48.1		11.1	1	
2727	12	24	12.86		29	29	24.3		12.4	1	
2728	12	24	15.63		31	35	41.7		11.7	1	
2729	12	24	15.74	0.01	30	6	59.0	0.3	12.4	2	
2730	12	24	16.52	0.02	30	32	17.6	0.2	11.7	2	
2731	12	24	17.83		27	6	9.7		8.4	1	1
2732	12	24	18.64		29	0	27.3		12.4	1	
2733	12	24	19.58		28	29	19.3		11.4	1	
2734	12	24	20.57		27	45	14.5		11.4	1	
2735	12	24	23.66	0.00	30	1	6.7	0.4	12.4	2	
2736	12	24	23.97		28	19	14.7		10.2	1	
2737	12	24	25.27		28	31	45.1		9.8	1	
2738	12	24	27.20		28	32	50.5		5.4	1	1
2739	12	24	27.81		27	31	18.7		11.9	1	
2740	12	24	29.42		27	6	9.8		4.9	1	1
2741	12	24	30.97		30	5	44.4		11.9	1	
2742	12	24	31.39	0.00	29	53	14.3	0.1	11.9	2	
2743	12	24	32.72		29	1	4.3		12.3	1	
2744	12	24	33.38		28	15	48.8		10.9	1	
2745	12	24	35.80		27	3	41.3		9.2	1	
2746	12	24	36.37	0.02	30	44	44.1	0.4	11.7	2	
2747	12	24	36.41		27	7	21.5		9.3	1	
2748	12	24	36.51		27	55	3.4		11.7	1	
2749	12	24	36.55		27	11	50.1		11.2	1	
2750	12	24	36.56		28	5	45.3		11.4	1	
2751	12	24	36.79		27	22	12.5		11.2	1	
2752	12	24	36.94		31	39	5.8		11.9	1	
2753	12	24	37.17	0.02	30	6	45.8	0.2	12.4	2	
2754	12	24	40.40		27	37	17.0		11.7	1	
2755	12	24	41.64		26	51	45.8		10.9	1	
2756	12	24	42.31		26	44	0.0		9.8	1	
2757	12	24	42.76	0.03	30	12	58.4	0.0	12.4	2	
2758	12	24	43.03	0.00	29	46	57.7	0.1	11.9	2	
2759	12	24	43.18		27	18	30.1		8.2	1	1
2760	12	24	43.24	0.02	30	22	56.5	0.1	10.5	2	
2761	12	24	44.20		30	35	29.0		11.9	1	
2762	12	24	44.96		29	35	29.5		12.4	1	
2763	12	24	46.06		31	36	11.0		10.0	1	
2764	12	24	46.67		31	40	18.8		11.3	1	
2765	12	24	46.85		28	53	19.6		12.4	1	
2766	12	24	47.36		30	34	36.0		11.9	1	
2767	12	24	47.53		27	14	40.8		11.7	1	
2768	12	24	48.46	0.01	29	40	1.4	0.0	12.1	2	
2769	12	24	48.99		27	18	25.9		11.4	1	
2770	12	24	49.27		30	56	56.5		11.3	1	
2771	12	24	51.02		27	26	44.9		9.3	1	1
2772	12	24	54.27	0.01	28	46	25.8	0.7	11.9	2	
2773	12	24	55.26		27	12	25.1		9.6	1	
2774	12	24	55.79		28	1	31.0		11.7	1	

2854	12	26	59.57		31	44	46.5		11.5	1	
2855	12	27	0.75		29	46	10.8		8.6	1	1
2856	12	27	0.89		29	47	21.0		8.5	1	1
2857	12	27	4.17		29	50	17.0		11.9	1	
2858	12	27	4.20		30	54	32.9		8.6	1	1
2859	12	27	4.99		30	21	24.8		9.8	1	
2860	12	27	5.78		30	21	28.0		11.9	1	
2861	12	27	7.68		29	55	52.6		11.9	1	
2862	12	27	9.20		30	48	18.6		11.5	1	
2863	12	27	14.55		30	31	46.4		11.9	1	
2864	12	27	14.63		30	17	51.3		8.6	1	1
2865	12	27	18.99		30	44	41.1		11.9	1	
2866	12	27	23.65		30	14	45.2		11.3	1	
2867	12	27	26.11		30	34	15.8		11.3	1	
2868	12	27	30.02		29	45	45.8		11.9	1	
2869	12	27	30.08		29	40	15.2		9.8	1	
2870	12	27	32.83		31	0	17.6		9.8	1	
2871	12	27	33.71		30	43	2.2		11.7	1	
2872	12	27	34.33		30	26	35.4		11.3	1	
2873	12	27	39.34		29	41	16.9		9.7	1	
2874	12	27	43.83		31	46	46.3		11.7	1	
2875	12	27	47.69		29	59	42.8		11.3	1	
2876	12	27	49.19		30	9	57.7		11.9	1	
2877	12	27	49.24		31	16	6.0		8.6	1	1
2878	12	27	49.42		31	18	32.5		11.9	1	
2879	12	27	53.27		29	55	29.3		11.9	1	
2880	12	27	55.24		31	32	6.9		11.3	1	
2881	12	27	56.17		30	13	15.1		11.5	1	
2882	12	27	56.92		31	11	21.6		11.9	1	
2883	12	28	2.34		31	20	2.9		9.3	1	1
2884	12	28	10.25		30	39	20.0		9.8	1	
2885	12	28	12.80		31	3	39.9		11.9	1	
2886	12	28	13.73		30	23	13.5		11.7	1	
2887	12	28	14.86		30	35	23.3		11.5	1	
2888	12	28	22.89		30	10	25.7		10.9	1	
2889	12	28	26.83		31	33	42.0		10.0	1	
2890	12	28	28.75		29	46	4[illegible].8		11.9	1	
2891	12	28	31.36		31	14	24.1		11.9	1	
2892	12	28	32.25		31	41	57.5		6.3	1	1
2893	12	28	34.56		30	18	11.8		10.0	1	
2894	12	28	42.16		31	8	0.5		11.9	1	
2895	12	28	43.15		30	7	59.0		11.7	1	
2896	12	28	44.35		31	34	44.9		8.6	1	
2897	12	28	49.01		30	35	38.9		9.8	1	
2898	12	28	49.62		31	12	22.1		11.3	1	
2899	12	28	53.78		30	30	6.4		11.9	1	
2900	12	28	54.03		31	14	53.2		11.1	1	
2901	12	29	0.87		31	6	51.1		10.8	1	
2902	12	29	3.56		31	32	5.1		11.9	1	
2903	12	29	5.80		31	31	5.5		11.3	1	
2904	12	29	6.74		30	54	38.6		9.7	1	
2905	12	29	7.94		30	29	28.1		11.7	1	
2906	12	29	9.71		29	38	53.9		11.5	1	
2907	12	29	11.25		31	17	42.8		9.1	1	1
2908	12	29	22.00		29	48	55.9		11.9	1	
2909	12	29	23.13		30	16	46.9		11.5	1	
2910	12	29	25.66		30	56	56.1		11.9	1	
2911	12	29	27.01		30	44	6.9		10.9	1	

TABLE 2

THE PROPER MOTION CATALOGUE

N_0	α	δ	m_p	AGK2 -Oxf. μ_α	AGK2 -Oxf. μ_δ	AGK3 -AGK2 μ_α	AGK3 -AGK2 μ_δ
1	11 39 44.33	29 57 11.5	8.0	10	-55	-44	-60
15	11 40 19.63	28 49 19.0	6.9	-11	0	-13	-11
19	11 40 27.69	27 8 27.8	9.8	43	-1	0	-26
35	11 40 46.28	28 19 54.6	6.7	4	49	8	25
37	11 40 51.26	27 50 45.3	8.0	-12	1	-9	3
41	11 40 55.94	27 12 15.6	10.1	12	26	-2	-2
42	11 40 56.18	29 19 19.9	7.7	28	-9	-9	-17
50	11 41 7.57	30 44 27.5	9.2	-21	-21	-5	-10
61	11 41 30.69	29 51 28.2	7.0	26	-19	14	1
66	11 41 36.29	30 10 23.9	6.9	24	-32	22	-13
76	11 41 52.04	30 17 35.7	10.7	35	-8	16	6
84	11 42 2.52	28 42 26.3	9.6	-5	-18	-10	-17
90	11 42 7.64	28 56 50.7	6.9	-23	6	-17	13
96	11 42 14.15	28 42 24.6	10.4	-25	-15	-35	5
97	11 42 14.31	28 42 17.3	10.1	-44	4	-32	-13
101	11 42 20.61	27 56 23.6	9.2	-7	-12	-34	-18
102	11 42 21.83	27 41 19.0	8.0	40	-140	51	-136
111	11 42 37.01	28 24 4.2	8.9	36	-8	27	2
122	11 42 49.29	27 29 46.7	7.3	6	-46	-4	-6
128	11 42 56.45	30 46 9.2	8.1	4	-28	-8	-16
141	11 43 11.97	28 52 33.6	9.8	22	41	11	7
152	11 43 19.52	26 41 17.7	9.8	-4	-23	10	-16
154	11 43 20.34	30 48 33.2	10.1	8	-10	-8	-9
157	11 43 23.25	28 56 47.5	8.9	-21	30	-9	3
162	11 43 28.41	27 7 17.8	9.1	9	31	-21	-16
165	11 43 35.72	27 28 17.6	9.6	10	-14	7	5
167	11 43 37.68	29 17 43.0	10.1	8	-4	21	-15
184	11 43 53.86	30 36 33.7	10.7	26	-55	22	-37
187	11 43 59.77	30 42 2.5	8.9	-42	2	-42	-10
196	11 44 12.08	29 6 54.0	9.4	-5	-58	8	-33
202	11 44 19.28	27 19 6.8	8.8	-4	-47	-10	-35
206	11 44 21.42	27 18 2.7	9.3	-23	12	-8	-1
214	11 44 35.12	28 28 12.4	8.9	1	-13	2	-12
219	11 44 40.68	27 43 3.1	9.5	7	-4	5	-19
220	11 44 44.65	27 40 33.3	7.9	-68	-31	-63	-29
226	11 44 53.10	26 41 31.0	9.1	-23	-54	-19	-47
228	11 44 58.49	30 52 55.8	11.0	17	0	-29	2
232	11 45 7.91	30 31 3.1	10.7	-22	-11	-7	-39
247	11 45 20.97	27 37 5.3	7.4	-75	19	-39	8
250	11 45 24.54	27 40 37.8	10.0	-46	7	-31	3
252	11 45 27.01	26 57 47.0	9.7	-8	-18	-12	-8
268	11 45 46.41	30 54 18.4	8.7	-34	-11	-54	-5
271	11 45 50.17	28 41 42.9	6.9	-106	-11	-82	-7
281	11 46 1.12	29 4 40.6	6.4	-41	5	-63	0
288	11 46 8.34	31 29 1.3	8.2	-71	66	-104	106
315	11 46 36.67	28 23 57.6	7.3	-4	4	-3	2
316	11 46 36.97	31 44 6.0	9.4	33	-45	-10	-14
336	11 46 59.40	29 46 35.8	7.8	12	3	6	-6
355	11 47 12.44	30 6 53.3	10.7	-6	10	-1	-12
386	11 47 35.41	27 56 1.8	9.7	-15	-3	-4	10
416	11 48 8.94	28 22 28.4	7.5	-104	8	-75	11
431	11 48 20.70	27 29 22.0	9.9	38	-16	26	-26
441	11 48 32.43	26 18 33.2	10.0	21	-22	22	7
456	11 48 48.14	26 37 25.0	10.6	27	-56	44	-56
473	11 49 8.28	29 18 56.9	10.5	22	-57	13	-51
481	11 49 14.81	26 38 38.4	10.0	-3	-33	15	-17
503	11 49 33.93	30 3 27.9	9.0	-12	12	-10	2
509	11 49 41.42	31 1 7.4	9.4	7	-36	-5	-26
515	11 49 48.47	25 43 14.4	9.2	36	-22	56	-38
516	11 49 50.24	31 13 49.4	11.0	-81	-134	-95	-151
519	11 49 53.39	31 10 8.0	11.0	-23	-25	-13	-23
529	11 50 1.53	26 27 38.5	10.0	-29	-23	-30	-31
535	11 50 8.07	30 31 11.9	9.2	-50	-96	-42	-118
536	11 50 10.49	28 41 12.7	8.4	-38	0	-41	-3
537	11 50 11.80	28 28 11.8	8.5	-26	-9	-18	-4
538	11 50 17.61	31 6 16.2	8.5	-93	-19	-82	16
539	11 50 17.91	31 6 17.7	8.2	-80	1	-64	29
549	11 50 34.41	28 47 36.6	9.6	-41	-3	-39	12
550	11 50 34.53	26 41 3.6	9.7	-77	-51	-62	-45
554	11 50 37.10	30 58 33.9	10.8	3	-32	15	-15
555	11 50 37.99	27 0 33.7	10.0	-4	-19	1	-14
556	11 50 38.09	25 52 33.3	9.9	-2	-42	4	-17
559	11 50 41.03	27 35 7.8	8.8	-82	15	-71	2
562	11 50 43.16	27 40 6.5	9.4	-3	25	1	36
575	11 50 58.28	29 36 2.3	9.6	-45	-17	-45	-15
578	11 51 4.42	26 42 22.5	9.9	-18	-18	-2	-16
599	11 51 27.18	28 14 29.8	8.5	9	5	5	3
605	11 51 29.04	25 58 39.8	10.0	11	-55	9	-57
611	11 51 32.51	26 40 33.5	9.2	19	-19	25	-22
638	11 52 9.30	26 4 0.9	10.0	8	0	-12	4
642	11 52 16.08	27 29 29.6	11.3	-52	-25	-46	-26
649	11 52 25.37	26 2 16.6	9.5	-54	-27	-31	-1
669	11 52 41.40	28 47 55.5	9.6	1	-7	4	-10
680	11 52 50.37	25 48 2.9	7.4	-71	-18	-44	-23
688	11 52 57.23	27 47 28.5	10.4	16	-22	16	5
705	11 53 17.78	28 42 56.6	9.6	-10	-9	-4	7
707	11 53 20.07	27 12 27.2	10.0	-44	33	-64	20
716	11 53 26.52	31 28 50.2	8.2	-5	9	-10	1
721	11 53 31.68	29 23 0.9	9.3	-3	-3	-4	3
729	11 53 39.07	28 42 45.7	9.5	-31	14	-48	-8
731	11 53 40.98	29 8 11.7	6.9	-52	17	-19	3
740	11 53 47.21	26 57 27.1	6.8	-157	24	-133	4
758	11 54 5.32	31 1 19.5	9.8	13	-58	-21	-21
761	11 54 6.10	28 20 44.6	10.0	-18	-5	-10	-38
770	11 54 13.96	26 2 32.7	10.0	-2	-3	-10	3
787	11 54 38.06	27 26 18.2	8.3	0	-26	10	-14
791	11 54 39.47	26 6 1.9	8.8	50	-32	31	-27
804	11 54 51.25	27 2 41.1	7.5	25	-158	13	-164
807	11 54 53.58	29 33 9.5	9.5	-21	-4	-23	-9
817	11 55 1.06	28 50 0.8	7.3	-70	-4	-52	6
818	11 55 1.46	29 45 36.4	10.6	19	-14	-17	-43
838	11 55 10.61	26 6 24.5	10.0	8	-11	-2	-12
868	11 55 37.36	30 5 54.7	8.8	-12	-17	-15	-30
869	11 55 37.52	27 11 24.4	7.9	-9	9	-27	-11
875	11 55 42.03	30 3 15.3	9.7	-38	-15	-38	-2
881	11 55 47.51	26 15 0.9	9.7	36	-37	9	-22
887	11 55 52.71	27 6 56.2	7.5	24	13	15	19
893	11 55 56.71	27 31 56.1	8.7	-29	-8	-60	5
896	11 55 57.72	31 36 58.0	8.5	-132	-42	-115	-10
918	11 56 24.57	31 4 40.2	9.5	41	-66	36	-47
922	11 56 27.59	26 48 10.3	9.7	-32	9	-20	-7
932	11 56 39.70	29 2 34.1	9.7	-10	-11	-14	-32
935	11 56 46.40	27 23 37.9	8.4	0	-6	-1	-14
959	11 57 12.69	27 39 46.5	10.9	-11	5	-9	13
962	11 57 16.16	28 50 51.1	9.9	-4	-20	-3	-16
968	11 57 24.27	28 24 0.0	9.5	-12	-18	-32	-32
973	11 57 31.69	26 55 32.7	10.7	-4	0	-44	5
976	11 57 34.02	26 19 21.7	8.8	-41	-90	-38	-111
983	11 57 39.13	26 53 49.2	9.2	-53	-16	-55	-20
1024	11 58 13.74	29 27 58.8	7.5	38	-30	80	-22
1037	11 58 31.30	28 14 28.8	8.7	5	-27	21	-38
1042	11 58 34.18	31 15 26.4	8.3	-1	-29	-8	-31
1046	11 58 40.27	30 55 5.3	7.0	-129	-59	-113	-63
1049	11 58 41.30	29 2 26.7	9.8	-34	-2	-52	-3
1054	11 58 44.89	31 31 38.1	11.0	11	-25	-3	-5
1061	11 58 49.96	25 59 42.0	9.7	-21	-23	-13	-9
1068	11 58 58.10	30 25 49.8	10.6	68	-10	51	-12
1084	11 59 10.37	29 49 40.8	8.1	-10	-39	-14	-70
1089	11 59 12.05	31 10 39.1	8.5	-51	-12	-59	10
1102	11 59 23.40	28 3 45.6	9.9	-138	-27	-148	-32
1111	11 59 29.35	27 19 12.8	10.1	11	-15	26	-24
1116	11 59 34.75	31 31 41.3	8.1	-64	-34	-61	-3
1124	11 59 48.17	29 27 2.1	9.9	-72	-104	-55	-99
1132	11 59 50.97	28 39 4.2	10.2	-5	-5	-34	4
1151	12 0 11.54	31 47 26.4	8.5	6	-100	-9	-78
1162	12 0 22.47	27 17 8.2	8.9	-50	-46	-55	-63
1165	12 0 24.93	26 45 13.2	9.7	-8	-19	-2	-5
1175	12 0 32.13	31 6 40.3	9.9	35	-53	16	-56
1198	12 0 45.05	29 23 58.1	9.3	-2	-27	18	-20
1203	12 0 47.77	29 56 39.5	9.6	16	9	13	13
1205	12 0 50.46	26 4 26.8	9.7	-37	9	-40	14
1216	12 0 59.78	29 57 29.1	7.8	6	-20	1	-52
1219	12 1 0.36	29 54 44.0	9.9	-23	-32	-20	-41
1232	12 1 11.97	26 4 13.2	9.7	-1	-1	9	-11
1240	12 1 21.30	30 56 39.2	10.4	-55	-15	-40	-5
1249	12 1 31.94	28 20 21.0	7.8	-24	-6	-27	-32
1256	12 1 40.15	26 8 51.5	9.1	42	-41	58	-25
1270	12 1 50.06	27 27 56.3	9.7	5	14	-25	-14
1280	12 2 6.90	31 24 42.0	9.8	4	4	21	-17
1300	12 2 26.04	27 39 28.2	9.3	-60	-19	-71	-27
1311	12 2 33.09	31 6 44.7	7.8	-3	-69	18	-63
1320	12 2 40.95	25 52 46.2	9.2	-43	-4	-49	13
1329	12 2 49.89	31 29 19.3	7.2	-33	-15	-14	-1
1337	12 2 57.52	28 47 2.2	8.0	-7	2	1	-18
1339	12 3 0.50	26 38 22.0	8.3	-29	3	-30	10
1343	12 3 3.89	28 34 32.5	8.3	173	-115	170	-111
1364	12 3 21.76	26 44 49.1	8.2	-89	-55	-79	-62
1365	12 3 21.80	26 56 51.6	9.2	-19	-1	-30	-1
1366	12 3 22.73	29 15 38.4	9.4	21	-100	31	-99
1367	12 3 22.92	25 56 46.5	8.9	48	-138	24	-137
1375	12 3 32.65	26 2 58.2	9.2	-14	-22	6	-36
1381	12 3 35.27	27 49 37.9	8.6	-66	0	-53	-18
1387	12 3 38.86	29 40 51.7	9.1	-41	-17	-18	-20
1424	12 4 9.45	29 46 4.6	8.3	-29	-35	-32	-17
1428	12 4 13.47	26 12 33.5	9.4	5	-6	9	-20
1429	12 4 14.18	30 32 24.8	8.8	7	-20	0	-17
1443	12 4 25.91	28 4 29.6	9.5	-31	-18	-11	4
1444	12 4 27.94	27 17 40.1	9.5	-41	6	-14	-22
1456	12 4 39.02	30 0 24.3	9.8	-53	-14	-55	-22
1457	12 4 39.47	30 18 52.8	9.8	-58	-31	-81	-27
1477	12 4 58.29	28 56 48.9	9.5	-17	-45	-23	-28
1479	12 5 3.13	26 10 39.8	9.7	-3	5	9	-7
1488	12 5 12.45	30 41 56.0	9.1	-9	-19	-19	-16
1493	12 5 15.92	27 35 49.3	10.2	88	-84	84	-79
1497	12 5 16.97	31 26 58.3	9.6	83	-178	61	-172
1514	12 5 33.45	31 19 45.0	7.2	-71	-76	-29	-43
1522	12 5 42.93	30 33 14.0	8.3	-15	-24	-1	-14
1528	12 5 47.34	31 12 24.7	9.2	-36	-117	-53	-86
1536	12 5 52.57	28 15 43.7	8.8	-14	-8	-2	-12
1543	12 5 57.65	28 26 55.8	8.8	0	-56	19	-34
1548	12 5 59.32	25 4 42.8	8.1	-63	-12	-47	-9
1556	12 6 4.15	26 46 22.8	7.3	46	-54	62	-44
1566	12 6 14.90	31 13 15.4	9.5	-32	-32	-47	21
1574	12 6 21.28	26 14 6.3	9.6	-7	-32	-7	-19
1600	12 6 40.58	31 18 25.1	9.9	99	-116	111	-100
1612	12 6 49.57	29 44 19.8	7.7	-46	0	-39	-16
1614	12 6 49.97	26 13 45.2	9.7	-12	-51	-24	-41
1619	12 6 55.20	28 29 1.3	8.9	-14	-16	8	-33
1633	12 7 18.32	29 12 23.8	9.1	-5	-7	-19	-14
1638	12 7 23.98	29 10 41.5	9.8	-32	-21	-33	-12
1641	12 7 29.15	27 19 31.6	9.1	-28	-9	-24	-23
1645	12 7 32.41	30 40 27.5	6.6	-15	-11	-21	-28
1648	12 7 35.96	26 10 25.9	9.4	7	-32	-6	-16
1656	12 7 45.22	25 30 27.1	10.2	-16	-17	-17	-18
1665	12 7 48.93	25 21 26.2	10.9	23	-34	21	-22
1666	12 7 49.31	30 4 16.9	9.0	-4	-8	1	-6

TABLE 2 (CONTINUED)

N_0	α			δ		m_p	AGK2 -Oxf. μ_α	AGK2 -Oxf. μ_δ	AGK3 -AGK2 μ_α	AGK3 -AGK2 μ_δ
1671	12	7	52.27	25	36	36.9	8.8	1	-55	27	-58
1675	12	7	55.87	29	20	47.6	7.6	-50	-21	-47	2
1688	12	8	13.88	27	33	36.5	5.6	-18	-31	-18	-26
1691	12	8	17.02	29	52	23.6	9.9	10	-48	11	-45
1708	12	8	28.84	28	11	46.6	9.8	2	-27	1	-23
1727	12	8	35.16	26	16	6.9	9.4	-28	-12	-21	-24
1732	12	8	41.84	29	23	12.4	8.8	-13	-34	-19	-49
1733	12	8	43.65	25	1	56.2	6.9	-133	-29	-109	-16
1743	12	8	53.96	29	58	36.0	11.2	-21	-28	-27	-36
1757	12	9	3.41	25	3	55.2	9.5	4	-38	-12	-29
1773	12	9	11.41	30	2	1.2	11.4	53	-52	38	-53
1778	12	9	19.28	26	8	57.5	6.9	-61	-47	-46	-40
1790	12	9	28.51	28	48	58.3	6.1	48	-69	77	-70
1804	12	9	38.53	27	53	50.3	10.1	23	-48	29	-38
1807	12	9	43.53	26	18	21.5	9.1	-71	-19	-67	-8
1823	12	9	52.94	27	39	30.5	7.8	-7	-8	-31	-4
1824	12	9	52.97	25	51	9.6	9.2	-38	-28	-10	-2
1825	12	9	54.03	27	14	17.7	9.7	50	-31	53	-28
1838	12	10	0.16	28	39	39.3	9.8	-8	4	-19	1
1844	12	10	4.48	31	45	0.2	11.2	-2	-19	-16	-36
1847	12	10	9.41	30	16	38.3	8.6	-127	-127	-161	-130
1854	12	10	20.37	27	50	18.2	9.0	27	-12	6	-21
1867	12	10	31.27	28	54	46.1	8.1	-2	3	-18	-7
1884	12	10	45.77	30	33	38.2	7.6	-88	6	-81	7
1887	12	10	47.96	29	32	5.0	9.4	-62	7	-48	-11
1895	12	10	58.83	30	22	46.4	10.2	-37	17	-54	14
1896	12	10	59.12	27	19	16.6	9.2	-65	-2	-66	4
1901	12	11	3.05	30	50	27.6	8.0	-19	-36	16	-32
1902	12	11	3.82	31	14	29.1	8.4	-63	-10	-48	3
1905	12	11	5.22	27	24	34.8	9.1	-7	5	-21	-30
1921	12	11	18.95	25	15	3.0	10.5	-28	-22	-47	-31
1925	12	11	21.02	28	34	21.9	8.6	-37	-20	-36	-11
1947	12	11	37.87	31	6	0.6	7.8	-131	-129	-142	-102
1960	12	11	46.17	26	47	0.3	7.8	10	-42	1	-35
1961	12	11	46.38	28	8	44.2	10.1	-83	-23	-68	-14
1965	12	11	49.04	28	5	48.8	9.2	-58	-12	-62	-16
1969	12	11	52.07	31	29	54.2	11.0	0	-27	-50	-20
1993	12	12	20.32	28	54	30.3	9.0	-25	-11	-23	-19
2000	12	12	30.11	30	25	8.5	7.9	-14	-2	-9	32
2009	12	12	36.00	27	43	12.9	8.9	2	-15	10	-18
2013	12	12	41.14	25	28	41.8	11.2	-6	24	-54	23
2043	12	13	8.98	28	10	28.5	9.6	0	-9	2	-6
2049	12	13	14.39	26	34	25.9	9.4	0	-23	-13	-23
2050	12	13	18.41	29	4	35.8	9.9	-14	-4	-5	-8
2063	12	13	31.24	28	19	36.0	7.4	-20	-8	-27	-15
2073	12	13	36.84	26	2	19.0	6.8	-20	-37	-23	-28
2082	12	13	44.11	29	6	57.8	8.8	32	-57	40	-61
2083	12	13	44.41	27	15	17.2	9.8	-28	-18	-18	-5
2099	12	13	52.92	31	27	41.3	11.0	-38	1	-23	-9
2109	12	14	2.19	24	53	15.7	9.4	9	-29	-8	-38
2115	12	14	4.25	27	55	53.0	9.3	-24	-22	0	-42
2126	12	14	15.21	29	51	52.7	9.3	-12	-17	-6	-11
2130	12	14	15.86	26	32	14.9	9.9	1	-25	-33	-29
2143	12	14	22.39	26	54	44.5	10.1	-41	-4	-74	-9
2144	12	14	25.26	28	1	3.8	8.4	-2	-14	-7	-12
2155	12	14	32.86	29	53	51.3	10.8	42	-50	26	-80
2162	12	14	39.23	24	54	14.2	8.0	32	-67	12	-46
2173	12	14	48.43	29	0	13.2	8.5	-71	11	-69	14
2185	12	14	59.74	29	12	49.9	5.7	-42	44	-40	33
2209	12	15	16.44	25	19	57.5	7.6	-33	-40	-43	-21
2212	12	15	19.60	25	50	57.8	6.3	-23	-17	-16	-18
2215	12	15	21.14	25	23	30.9	10.2	-22	-6	-25	-8
2226	12	15	34.23	29	18	18.5	10.2	-37	-30	-24	-9
2233	12	15	40.36	27	34	40.7	7.0	-57	3	-66	1
2254	12	16	0.32	30	31	47.2	5.7	46	-110	76	-123
2260	12	16	10.05	26	27	58.8	7.0	-61	67	-58	53
2274	12	16	24.17	30	44	46.9	7.9	-54	-10	-44	-27
2284	12	16	30.97	26	17	10.3	5.9	-42	-13	-15	-18
2285	12	16	31.35	28	19	44.0	8.4	-207	-131	-206	-129
2297	12	16	41.17	29	28	39.6	9.8	-56	-7	-50	5
2306	12	16	47.76	31	1	13.5	10.5	-34	-13	-35	-9
2309	12	16	50.09	28	12	10.7	9.5	-4	-37	-12	-43
2315	12	16	59.24	26	53	29.4	11.0	-33	-62	-19	-39
2316	12	17	0.20	28	26	16.1	5.7	-228	-126	-203	-134
2320	12	17	0.97	30	26	43.3	9.2	-56	0	-51	-1
2335	12	17	19.98	28	44	31.9	5.6	-39	-30	-23	-14
2342	12	17	28.16	30	45	50.5	8.7	-73	4	-61	-14
2347	12	17	34.88	28	11	8.5	9.8	-84	-32	-98	-26
2360	12	17	47.81	26	16	43.8	6.0	-157	18	-151	10
2390	12	18	10.43	29	48	38.0	10.7	-39	0	-46	11
2393	12	18	14.64	26	2	36.3	8.4	0	-6	-28	1
2394	12	18	16.35	30	22	5.4	10.8	-46	-41	-38	-54
2398	12	18	22.30	26	12	15.2	7.8	-5	-41	5	-31
2409	12	18	33.98	25	59	53.6	7.7	-13	-42	-17	-43
2417	12	18	38.76	29	12	32.0	10.4	-10	-55	-32	-41
2420	12	18	40.11	31	34	48.9	9.2	-11	-32	-1	-31
2464	12	19	13.58	26	53	9.0	7.7	-30	4	-14	10
2467	12	19	18.38	26	49	35.6	7.9	-11	-9	-23	-9
2470	12	19	21.84	28	25	39.9	9.4	-18	-30	-13	-38
2475	12	19	25.63	27	35	13.3	6.5	-14	-9	-15	-26
2501	12	20	4.02	26	53	57.9	8.4	-35	-36	-26	-24
2503	12	20	4.68	27	52	58.4	10.5	-144	-66	-149	-33
2505	12	20	8.76	27	24	38.6	8.4	-18	-11	-5	-9
2508	12	20	11.68	31	31	34.7	9.2	7	-19	-13	-7
2511	12	20	16.12	31	4	41.3	9.4	-27	-12	-3	-13
2522	12	20	30.13	29	49	18.1	9.4	-17	12	-32	14
2525	12	20	35.02	30	53	14.1	9.3	-74	7	-94	15
2532	12	20	41.87	29	31	38.0	11.6	-11	-18	-5	-7
2540	12	20	50.90	30	21	10.5	10.5	-34	-5	-36	-36
2552	12	20	59.34	26	50	33.8	8.1	-1	-8	-15	13
2556	12	21	10.70	27	15	26.2	7.3	-17	-16	-10	-21
2557	12	21	11.48	26	52	43.7	8.2	-14	-7	-22	-27
2581	12	21	42.54	28	41	1.9	10.0	0	-24	-11	-23
2589	12	21	49.89	28	36	43.3	9.6	-21	-9	-39	-32
2591	12	21	55.08	27	45	4.4	9.1	-64	-72	-74	-51
2592	12	21	56.89	29	24	43.7	10.5	-95	-6	-92	3
2598	12	22	1.89	31	33	24.4	8.4	-207	5	-201	18
2617	12	22	19.79	31	18	39.1	7.6	-34	-20	-50	-2
2638	12	22	44.19	30	13	43.7	9.6	-31	-30	-17	-31
2650	12	22	53.95	28	54	58.1	10.4	-5	-2	-12	-29
2654	12	22	55.77	30	51	58.2	9.8	-22	-7	-32	18
2660	12	23	2.05	27	24	14.1	9.5	4	2	-5	-26
2663	12	23	3.02	27	22	6.3	9.6	-31	0	-26	-7
2688	12	23	21.93	27	3	13.8	7.5	-11	-29	-26	-15
2697	12	23	32.98	30	24	3.3	10.1	-33	-8	-49	-22
2699	12	23	35.40	27	1	16.0	9.2	24	-16	-18	-16
2700	12	23	35.60	29	30	8.6	10.5	-26	8	5	-34
2711	12	23	49.70	27	39	54.5	9.3	27	-23	27	-5
2714	12	23	54.24	27	32	42.6	4.7	-32	-10	-23	-18
2731	12	24	17.83	27	6	9.7	8.4	-59	-13	-48	-20
2738	12	24	27.20	28	32	50.5	5.4	-87	-100	-97	-79
2740	12	24	29.42	27	6	9.8	4.9	10	-33	-24	-11
2759	12	24	43.18	27	18	30.1	8.2	88	-258	98	-252
2771	12	24	51.02	27	26	44.9	9.3	8	8	1	-8
2783	12	25	3.21	28	23	10.7	7.6	-1	-34	8	-23
2821	12	25	32.65	30	36	12.9	9.1	-35	5	-27	-5
2822	12	25	34.50	30	5	37.7	9.1	-6	26	-7	-5
2823	12	25	34.79	30	4	23.5	10.6	-68	-8	-74	-22
2835	12	26	1.23	30	13	25.9	9.8	-60	-9	-50	-5
2837	12	26	3.66	29	52	0.0	9.7	-35	-25	-10	-9
2845	12	26	37.90	31	40	4.8	7.2	108	-56	140	-52
2855	12	27	0.75	29	46	10.8	8.6	25	-74	12	-55
2856	12	27	0.89	29	47	21.0	8.5	10	-21	-17	-20
2858	12	27	4.20	30	54	32.9	8.6	-17	-50	-28	-53
2864	12	27	14.63	30	17	51.3	8.6	-93	24	-125	14
2877	12	27	49.24	31	16	6.0	8.6	-37	72	-42	72
2883	12	28	2.34	31	20	2.9	9.3	19	-34	1	-34
2892	12	28	32.25	31	41	57.5	6.3	-3	17	5	6
2907	12	29	11.25	31	17	42.8	9.1	-102	-100	-110	-117

TABLE 3

THE CROSS REFERENCE CATALOGUE

No	Oxford	No	Oxford	No	Oxford	No	Oxford	No	Oxford	No	Oxford	No	Oxford
1	1930 7371		1553 3483		1553 3488	258	1553 3277	327	1553 3305		1899 1870	459	1930 7408
2	1930 7377	97	1930 7303		1899 1866	259	1553 3230		1506 8438	395	2282 7391		2282 7357
3	1553 3374		1553 3484	186	1930 7357	260	1553 3244	328	2282 7381	396	2282 7435		1931 7608
4	1553 3364	98	1553 3474		2282 7301	261	1553 3467	329	2282 7449	397	1553 3509	460	1553 3385
5	1553 3201	99	1553 3274	187	1930 7421	262	1553 3383	330	1553 3289	398	1506 8309	461	1506 8303
6	1930 7345	100	1553 3239		2282 7369	263	1553 3354		1506 8431	399	1553 3358	462	2282 7451
7	1553 3281	101	1553 3380	188	1553 3302		1899 1808	331	1553 3234	400	1553 3235	463	1506 8325
8	1553 3321	102	1553 3344	189	1930 7411	264	1553 3393	332	1553 3210		1506 8403	464	1553 3223
9	1553 3247	103	1553 3283		2282 7364		1899 1823	333	1553 3355	401	1506 8455		1506 8396
10	1553 3295	104	1930 7338	190	1553 3215	265	1930 7415		1899 1809	402	1553 3350	465	1553 3386
11	1553 3426	105	1553 3263	191	1553 3303		2282 7370		1506 8458		1899 1811	466	2282 7407
12	1553 3446	106	1930 7381	192	1553 3367	266	1553 3253	334	1930 7374	403	1553 3455	467	1553 3342
13	1553 3202	107	1930 7391	193	2282 7403	267	1553 3278		2282 7325	404	1506 8341	468	1930 7326
14	1553 3375	108	1553 3228	194	1553 3464	268	2282 7385	335	1506 8372	405	1553 3290		1899 1893
15	1930 7308	109	1553 3264	195	2282 7397	269	1930 7322	336	1930 7363	406	1553 3270		1931 7521
	1553 3498	110	1553 3345	196	1930 7327		1899 1892		2282 7305		1506 8418	469	1553 3237
16	1553 3470	111	1553 3430		1899 1896	270	2282 7440		1899 1928	407	1553 3397		1506 8404
17	1930 7392	112	1553 3399	197	1553 3489	271	1930 7305	337	1553 3505		1899 1824	470	1553 3224
18	1553 3456	113	1930 7314	198	1553 3412		1553 3491	338	1553 3395	408	1553 3317	471	2282 7436
19	1553 3259	114	1553 3390	199	1553 3490		1899 1867	339	1930 7313		1506 8441	472	1553 3372
20	1553 3225	115	1553 3410	200	1553 3368	272	1553 3436		1553 3506	409	1553 3510	473	1930 7344
21	1553 3296	116	1930 7368	201	1553 3216		1899 1842		1899 1877	410	1553 3341		1899 1914
22	1930 7328	117	1930 7320	202	1553 3286	273	1553 3423	340	1553 3478	411	1553 3291		1931 7536
23	1553 3260	118	1553 3298	203	2282 7377	274	1553 3405		1899 1869	412	1506 8301	474	1553 3361
24	1930 7355	119	1553 3240	204	1553 3324	275	1553 3450	341	1930 7396	413	1553 3495	475	1553 3362
25	1553 3238	120	1553 3475	205	1553 3420	276	1553 3288	342	1930 7348	414	1553 3511		1899 1812
26	1553 3353	121	1553 3485		1899 1833	277	2282 7415		1899 1919	415	1553 3442		1506 8459
27	1930 7335	122	1553 3322	206	1553 3287	278	2282 7404	343	1553 3493		1899 1851		1890 3709
28	1930 7349	123	1930 7339	207	1553 3267	279	1553 3437	344	1553 3454	416	1553 3443	476	1930 7401
29	1930 7336	124	1553 3213	208	2282 7378	280	1553 3326		1899 1858		1899 1843		2282 7351
30	1553 3248	125	1553 3241	209	1553 3275	281	1930 7324	345	1930 7405	417	1930 7422	477	1553 3292
31	1553 3427	126	1553 3400	210	1553 3465		1899 1897		2282 7348		2282 7371	478	2282 7372
32	1553 3387	127	1553 3447	211	1553 3435	282	1553 3279	346	1553 3328	418	2282 7423	479	1930 7307
33	1553 3282	128	1930 7424		1899 1848	283	1553 3468	347	2282 7422	419	1506 8346		1553 3497
34	1930 7378	129	1930 7315	212	1553 3381		1899 1862	348	1553 3439	420	1553 3496		1899 1871
35	1553 3428	130	1553 3299	213	1930 7310	284	1553 3219	349	1930 7343	421	1930 7400		1931 7501
36	1553 3365	131	1553 3300		1899 1883	285	1553 3502		1899 1913		2282 7349		1890 3818
37	1553 3366	132	1553 3486	214	1553 3449		1899 1876	350	1553 3245	422	1553 3211	480	1553 3352
38	1930 7393	133	1930 7382		1899 1856	286	1553 3503		1506 8409		1506 8388	481	1506 8380
39	1930 7423	134	1930 7372	215	2282 7425	287	1553 3314	351	1553 3440	423	1930 7406		1890 3601
40	1930 7409	135	1553 3448	216	1553 3325	288	2282 7426	352	1506 8373		2282 7356	482	1930 7370
41	1553 3272	136	1553 3309	217	1930 7361	289	1930 7373	353	1930 7384	424	1553 3306		2282 7315
42	1930 7337	137	1553 3431		2282 7313		2282 7320		2282 7333		1506 8432		1931 7570
43	1553 3471	138	1553 3419	218	1930 7323	290	1553 3231	354	1553 3424	425	1553 3246	483	2282 7443
44	1553 3429	139	1553 3487		1899 1891		1506 8402	355	1930 7389	426	1553 3444	484	1506 8317
45	1930 7402	140	1553 3310	219	1553 3346	291	2282 7338		2282 7334		1899 1844	485	1553 3445
46	1553 3330	141	1930 7316		1899 1807	292	2282 7410	356	1553 3349	427	1553 3407		1899 1845
47	1553 3212	142	1930 7309	220	1553 3347	293	1553 3406	357	1930 7331		1899 1831		1890 3776
48	1553 3457		1553 3499		1899 1801	294	1553 3469		1899 1903	428	1553 3359	486	1930 7354
49	1553 3388	143	1553 3401	221	1553 3313		1899 1857	358	1553 3269	429	1930 7369		1899 1926
50	1930 7418	144	1553 3301	222	1553 3335	295	1553 3220	359	1930 7325		2282 7314		1931 7549
51	1553 3376	145	1553 3311	223	2282 7373		1506 8394		1899 1898	430	1506 8342	487	1553 3425
52	1553 3226	146	1930 7359	224	1553 3336	296	1553 3221	360	1553 3479	431	1553 3318	488	2282 7339
53	1930 7350	147	1930 7340	225	1553 3382		1506 8395	361	1553 3396		1506 8442	489	1553 3373
54	1553 3273	148	1553 3205	226	1553 3207	297	1553 3208	362	2282 7427	432	1930 7385	490	1553 3320
55	1553 3472	149	1553 3242	227	1553 3466	298	1930 7383	363	1506 8324		2282 7335	491	1930 7376
56	1553 3307	150	1553 3432		1899 1861		2282 7332	364	1553 3414	433	1930 7386		2282 7327
57	1930 7394	151	1553 3214	228	2282 7379	299	2282 7398	365	1553 3356		2282 7326		1931 7574
58	1930 7351	152	1553 3206	229	2282 7353	300	1553 3451	366	1553 3255	434	1553 3319	492	1553 3293
59	1553 3297	153	1553 3459	230	1930 7398	301	1553 3232	367	1553 3256	435	2282 7406		1506 8433
60	1930 7318	154	1930 7425		2282 7347	302	1553 3268	368	1553 3370	436	1506 8302		1890 3662
61	1930 7365	155	1930 7341	231	1930 7427	303	1553 3452	369	1553 3339	437	1506 8374	493	1553 3398
62	1930 7379	156	1553 3460		2282 7374		1899 1849		1899 1803	438	1930 7364		1899 1928
63	1930 7366	157	1930 7321	232	1930 7412	304	2282 7405	370	2282 7399		2282 7306		1890 3748
64	1553 3473	158	1930 7404		2282 7354	305	1930 7399	371	2282 7441		1899 1929	494	1506 8375
65	1930 7367	159	1930 7356	233	1930 7311		2282 7346	372	1930 7413	439	1553 3360	495	1553 3363
66	1930 7390	160	1553 3284		1899 1884	306	1553 3477		2282 7355	440	1553 3257		1899 1816
67	1553 3308	161	1930 7329	234	1553 3421	307	2282 7421	373	2282 7389	441	1506 8347		1506 8466
68	1553 3458	162	1553 3265	235	1553 3304	308	1899 1901	374	1553 3441	442	1553 3416		1890 3715
69	1930 7403	163	1553 3461	236	2282 7387	309	1553 3280	375	2282 7434		1899 1832	496	2282 7429
70	1553 3331	164	1930 7426	237	1930 7358		1506 8424	376	1930 7352	443	1553 3236	497	1553 3409
71	1553 3249		2282 7376		1899 1924	310	1553 3233		1899 1922	444	1553 3258	498	1506 8331
72	1553 3480	165	1553 3312	238	1553 3252	311	1553 3209	377	2282 7416		1506 8414	499	1553 3512
73	1930 7388	166	1553 3462	239	2282 7388		1506 8387	378	1553 3371	445	1930 7333		1899 1878
74	1930 7397	167	1930 7342	240	2282 7420	312	1506 8316	379	2282 7390		1899 1907	500	1506 8326
75	1553 3203		1899 1912	241	1553 3229	313	1553 3394	380	1930 7332		1931 7530	501	2282 7382
76	1930 7395	168	1553 3411	242	1553 3403	314	1930 7306		1899 1906	446	1553 3417	502	1506 8318
77	1553 3418	169	1553 3333		1899 1829		1553 3492	381	2282 7428	447	1553 3222	503	1930 7387
78	1553 3377	170	1553 3433	243	1553 3217		1899 1868	382	1553 3315	448	1553 3329		2282 7336
79	1930 7346	171	1553 3463	244	1553 3500	315	1553 3438		1506 8439		1506 8446		1931 7592
80	1553 3250		1899 1855	245	2282 7319		1899 1850	383	1553 3316	449	1930 7317	504	1553 3343
81	1553 3378	172	1553 3402	246	1553 3422	316	2282 7448		1506 8440		1899 1886		1506 8449
82	1930 7380	173	1930 7420		1899 1834	317	2282 7304	384	1553 3357		1931 7515		1890 3699
83	1553 3261		2282 7368	247	1553 3337	318	1553 3413		1899 1810	450	1930 7353	505	1553 3294
84	1930 7301	174	2282 7396	248	1930 7362		1899 1835		1506 8454		1899 1923		1506 8434
	1553 3481	175	1930 7347		2282 7303	319	1930 7330	385	1553 3415		1931 7552		1890 3663
85	1553 3262		1899 1918		1899 1927		1899 1902	386	1553 3384	451	1930 7407	506	1553 3271
86	1930 7419	176	1553 3285	249	1553 3476	320	1553 3327		1899 1819		2282 7350		1506 8419
87	1553 3482	177	2282 7447	250	1553 3348	321	1553 3453	387	1930 7375		1931 7607		1890 3650
88	1553 3332	178	1930 7360		1899 1802	322	1930 7416		2282 7321	452	2282 7442	507	2282 7307
89	1553 3379	179	1553 3391	251	1553 3501		2282 7365	388	1930 7417	453	1506 8361		1899 1930
90	1930 7319	180	1553 3334	252	1553 3243	323	1553 3254		2282 7366	454	2282 7450	508	1506 8397
91	1553 3204	181	1553 3266	253	1553 3338	324	1930 7428	389	1553 3507	455	1553 3351		1890 3608
92	1553 3227	182	1553 3434	254	1553 3276		2282 7380	390	1506 8330	456	1506 8379	509	2282 7392
93	1930 7410	183	1553 3323	255	1553 3392	325	1930 7312	391	1553 3340	457	1930 7334	510	2282 7411
94	1553 3389	184	1930 7414	256	1553 3218		1553 3504	392	1553 3508		1899 1904	511	2282 7316
95	1553 3251		2282 7363	257	1553 3404		1899 1885	393	2282 7417		1931 7531		1931 7571
96	1930 7302	185	1930 7304		1899 1830	326	1553 3369	394	1553 3494	458	1553 3408	512	1899 1862

TABLE 3 (CONTINUED)

No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford	
	1890	3807		1931	7555		1890	3801		1899	1933		1507	8501	810	1890	3813		1507	8657
573	1899	1817	576	2282	7438	644	1899	1895		1931	7567	753	1506	8401		1900	2068	868	1931	7592
	1890	3716	577	2282	7367		1931	7523		2281	7510		1890	3611	811	2281	7650		2281	7554
514	1899	1915		1931	7616	645	1890	3683	700	1890	3678		1507	8607	812	1506	8392	869	1506	8430
	1931	7545	578	1506	8390	646	2282	7341	701	1506	8436	754	1890	3759		1890	3606		1890	3659
515	1506	8304		1890	3603		1931	7595		1890	3667		1900	2029		1507	8601		1507	8658
516	2282	7412	579	1506	8415	647	2282	7409	702	1899	1882	755	2281	7560	813	2281	7662	870	1506	8386
517	2282	7344		1890	3642	648	2282	7324		1931	7512	756	1506	8370	814	1931	7578		1507	8595
	1931	7594	580	2282	7322		1931	7575		1890	3834		1507	8584		2281	7527	871	2281	7640
518	1506	8336	581	1890	3757	649	1506	8334		1900	2082	757	2281	7594	815	1506	8322	872	1931	7535
519	2282	7408	582	1506	8421	650	1899	1908	703	2282	7446	758	2281	7620		1507	8522		1900	2108
520	2282	7418		1890	3643	651	2282	7362		2281	7695	759	2281	7688	816	1890	3825	873	1890	3712
521	2282	7437	583	1506	8451		1931	7610	704	1506	8391	760	2281	7601	817	1931	7514		1900	2006
522	1506	8316		1890	3703	652	1890	3632		1890	3610	761	1890	3781		1900	2088		1507	8710
523	1506	8320	584	1890	3740	653	1506	8452	705	1899	1875		1900	2044	818	1931	7568	874	1931	7554
	1890	3651	585	2282	7445		1890	3692		1931	7504	762	1931	7576		2281	7511		1900	2133
524	1899	1825	586	2282	7323	654	2282	7328		1890	3822		2281	7525		1900	2148	875	1931	7587
	1890	3738	587	1899	1820	655	1899	1890		1900	2072	763	1506	8413	819	2281	7689		2281	7543
525	1506	8337		1890	3727		1931	7516	706	2282	7384		1890	3634	820	1931	7506	876	1931	7540
526	2282	7308	588	1506	8343	656	1899	1874		2281	7607		1507	8626		1890	3826		1900	2118
527	1899	1818	589	2282	7430		1890	3821	707	1506	8427	764	1890	3793		1900	2074	877	1931	7517
	1890	3716	590	2282	7360	657	1506	8435		1890	3654	765	2281	7629	821	1506	8371		1900	2089
528	2282	7358		1931	7614		1890	3664	708	1890	3765	766	2281	7602		1507	8585	878	2281	7591
	1931	7610	591	2282	7413	658	1890	3623	709	1899	1840	767	1507	8534	822	1931	7606	879	1931	7541
529	1506	8363	592	1890	3691	659	2282	7424		1890	3766	768	1931	7624		2281	7578		1900	2119
530	1899	1813	593	2282	7431		2281	7670		1900	2034		2281	7603	823	2281	7651	880	1507	8504
	1890	3717	594	2282	7414	660	1899	1909	710	1506	8369	769	1931	7513	824	1507	8503	881	1507	8559
531	1506	8348	595	2282	7345		1931	7537	711	2282	7352		1900	2087	825	2281	7673	882	1890	3805
532	1899	1826		1931	7597	661	2282	7310		1931	7611	770	1506	8335	826	1890	3814		1900	2070
	1890	3739	596	1899	1916		1899	1932		2281	7581		1507	8544		1900	2069	883	1890	3769
533	1890	3808	597	1899	1899		1931	7566	712	2282	7331	771	1890	3625	827	2281	7632	884	1890	3828
534	1506	8311		1931	7522	662	1890	3665		2281	7540	772	1506	8423	828	2281	7652	885	1890	3680
535	2282	7359	598	2282	7318	663	1890	3705	713	1899	1841		1890	3656	829	1890	3795		1507	8681
	1931	7613		1931	7564	664	1890	3719		1890	3767		1507	8655		1900	2053	886	1507	8535
536	1899	1872	599	1899	1838	665	1899	1900		1900	2035	773	1506	8308	830	1890	3723	887	1890	3646
	1931	7502		1890	3763		1931	7528	714	1899	1911		1507	8502		1900	2009		1507	8648
	1890	3819	600	1899	1846	666	2282	7337		1931	7533	774	1890	3794	831	1890	3750	888	2281	7587
537	1899	1852		1890	3777	667	1506	8355		1900	2111		1900	2060		1900	2030	889	1507	8524
	1890	3799	601	1506	8354	668	1506	8453	715	1506	8314	775	1506	8358	832	1506	8323	890	1931	7556
538	2282	7400	602	1899	1847		1890	3693	716	2282	7433		1507	8568		1507	8523		1900	2134
539	2282	7401		1890	3778	669	1899	1880		2281	7679	776	1506	8352	833	1890	3751	891	1890	3713
540	1506	8363	603	1899	1821		1931	7511	717	2282	7419		1507	8569	834	1507	8586		1900	2007
541	1890	3652		1890	3728		1890	3832		2281	7660	777	1506	8359	835	1890	3815		1507	8711
542	1506	8398	604	2282	7383		1900	2080	718	2281	7627		1507	8570	836	1890	3752	892	1890	3660
	1890	3609	605	1506	8327	670	1899	1865	719	2282	7312	778	1931	7560	837	2281	7614		1507	8659
543	1899	1864	606	1506	8365		1890	3811	720	1506	8315		2281	7501	838	1506	8340	893	1890	3684
	1890	3809	607	1506	8328		1900	2066	721	1899	1917		1900	2140		1507	8549		1507	8689
544	1506	8319	608	1506	8366	671	1506	8351		1931	7546	779	1890	3802	839	1931	7615	894	1507	8505
545	1899	1836	609	1506	8411	672	1890	3758		1900	2116	780	1931	7577		2281	7586	895	2281	7653
	1890	3760		1890	3631	673	1506	8383	722	2282	7375		2281	7526	840	1506	8393	896	2281	7690
546	1890	3787	610	1899	1905	674	2282	7402		1931	7623	781	1890	3721		1890	3612	897	1507	8512
547	1931	7596		1931	7532		2281	7626		2281	7599	782	1890	3645		1507	8602	898	1890	3628
548	1506	8443	611	1506	8381	675	2281	7638	723	2281	7628	783	1890	3711	841	1507	8594		1507	8629
	1890	3676		1890	3604	676	1506	8321	724	1890	3668		1507	8709	842	1931	7619	899	2281	7641
549	1899	1879	612	1506	8305	677	2281	7648	725	1890	3780	784	1506	8429		2281	7590	900	1890	3669
	1931	7508	613	1899	1888	678	1899	1910	726	1506	8345		1890	3657	843	1890	3753		1507	8664
	1890	3831		1931	7510		1931	7538	727	1890	3730		1507	8656		1900	2031	901	2281	7691
550	1506	8389	614	1899	1839		1900	2110	728	1890	3768	785	1507	8553	844	1931	7539	902	1507	8536
	1890	3602		1890	3764	679	1890	3749		1900	2036	786	1931	7604		1900	2117	903	1890	3619
551	2282	7393	615	1899	1889	680	1506	8313	729	1931	7505		2281	7576	845	2281	7700		1507	8616
552	2282	7317	616	2282	7439	681	1899	1822		1890	3823	787	1506	8445	846	1890	3782	904	1931	7621
	1931	7572	617	2282	7340		1890	3729		1900	2073		1890	3679		1900	2045		2281	7596
553	1899	1814		1931	7590		1900	2012	730	1506	8329		1507	8680	847	1890	3732	905	2281	7697
	1506	8461	618	1506	8422	682	1506	8425	731	1931	7529	788	1890	3812		1900	2013	906	2281	7544
	1890	3718		1890	3644		1890	3653		1900	2107		1900	2067	848	1506	8457	907	1931	7573
554	2282	7394	619	1899	1894	683	1506	8426	732	1890	3742	789	1506	8437		1890	3706		2281	7516
555	1506	8410		1931	7519		1890	3666		1900	2019		1890	3674		1900	2001	908	2281	7680
	1890	3630	620	2282	7361	684	1506	8344	733	1890	3731		1507	8674		1507	8706	909	1890	3797
556	1506	8320		1931	7609	685	1506	8367	734	1506	8406	790	2281	7621	849	1931	7625		1900	2055
557	1899	1804	621	1890	3810	686	1506	8400		1890	3618	791	1506	8339		2281	7604	910	1507	8537
	1506	8456	622	1506	8376		1890	3617	735	1506	8428		1507	8548	850	1890	3796	911	1890	3636
	1890	3700	623	1506	8306	687	1899	1881		1890	3655	792	1931	7599		1900	2054		1507	8639
558	1899	1853	624	1506	8399		1931	7503	736	2281	7661		2281	7566	851	1931	7620	912	1890	3607
	1890	3788		1890	3615		1890	3633	737	2281	7671	793	2281	7672		2281	7595		1507	8603
559	1506	8447	625	1890	3779		1900	2081	738	1890	3791	794	1890	3722	852	2281	7639	913	1890	3637
	1890	3690	626	1931	7617	688	1899	1815	739	1890	3824	795	1890	3835	853	2281	7582		1507	8640
560	1890	3761	627	1506	8312		1506	8462	740	1506	8412	796	1931	7605	854	1507	8587	914	1507	8575
561	1506	8364	628	1506	8350		1890	3710		1890	3624		2281	7577	855	1931	7586	915	1507	8506
562	1899	1805	629	1506	8377		1900	2005		1507	8625	797	1506	8360		2281	7542	916	1890	3685
	1506	8450	630	1506	8405	689	2282	7329	741	1931	7585		1507	8571	856	1931	7507		1507	8690
	1890	3701		1890	3616		1931	7583		2281	7541	798	1890	3743		1890	3827	917	2281	7663
563	1506	8338	631	2282	7386		2281	7538	742	2281	7613		1900	2020		1900	2083	918	2281	7633
564	1899	1837	632	2282	7432	690	1899	1827	743	1931	7603	799	1506	8385	857	1931	7547	919	2281	7681
	1890	3762	633	1899	1854		1890	3741		2281	7575		1507	8593		1900	2123	920	1890	3755
565	2282	7444		1890	3789		1900	2018	744	1931	7591	800	1931	7524	858	1506	8378		1900	2024
566	1890	3681	634	1931	7598	691	2282	7395		2281	7552		1900	2103		1507	8588	921	2281	7528
567	1506	8448	635	1899	1873		2281	7619	745	1506	8384	801	2281	7630	859	1931	7534	922	1890	3613
568	1899	1921		1890	3820	692	1506	8366		1890	3605	802	1931	7520		1900	2112		1507	8608
	1931	7550	636	1506	8382	693	1890	3720		1507	8592		1900	2097	860	1890	3816	923	1890	3694
569	1506	8349	637	1899	1859	694	1506	8416	746	1506	8356	803	2281	7631	861	1506	8407		1507	8695
570	1506	8353		1890	3800		1890	3633		1507	8586	804	1506	8417		1890	3626	924	1931	7542
571	1890	3677	638	1506	8332	695	1890	3790	747	1931	7618		1890	3635		1507	8627		1900	2113
572	1899	1887	639	1506	8333	696	2282	7342		2281	7587		1507	8638	862	2281	7608	925	2281	7702
	1931	7509	640	2282	7309		2281	7558	748	2281	7645	805	1890	3803	863	1890	3804	926	1890	3638
573	1899	1806		1899	1931	697	2282	7330	749	1890	3792		1900	2061	864	1890	3754		1507	8630
	1890	3702		1931	7565		1931	7584	750	1931	7622	806	1890	3744	865	1506	8408	927	1890	3639
574	2282	7302	641	1890	3704		2281	7539		2281	7600	807	1931	7553		1890	3627		1507	8641
	1899	1926	642	1506	8444	698	2282	7343	751	1506	8357		1900	2130		1507	8628	928	1890	3798
	1931	7559		1890	3682		2281	7559		1507	8567	808	2281	7696	866	2281	7701	929	2281	7517
575	1899	1925	643	1899	1860	699	2282	7311	752	1506	8307	809	2281	7622	867	1890	3658	930	1890	3817

TABLE 3 (CONTINUED)

No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford	
	1900	2071		1772	4019		1507	8642	1095	1900	2132		1900	2150		1942	7866		1014	2329
931	1931	7579	987	1890	3689		1772	3941		1942	7772		1942	7801	1219	2281	7537	1272	2281	7593
	2281	7529		1507	8694	1037	1890	3775	1096	2281	7657	1159	1507	8677		1942	7819		1942	7867
932	1931	7525		1772	4020		1900	2041	1097	1507	8589		1772	4041	1220	1772	4090		2241	7884
	1900	2098	988	2281	7682		1772	4108	1098	1772	3942	1160	2281	7625	1221	2281	7658	1273	1900	2139
933	1931	7580	989	1507	8525	1038	1931	7563	1099	1507	8643	1161	2281	7685	1222	2281	7699		1942	7773
	2281	7530	990	1890	3756		2281	7506		1772	3943	1162	1507	8668	1223	1942	7748		1014	2370
934	2281	7623		1900	2025		1900	2145	1100	2281	7520		1772	3981	1224	1900	2032	1274	1772	4060
935	1890	3675		1772	4086		1942	7787	1101	1772	4109	1163	1507	8669		1772	4091		1014	2223
	1507	8675	991	1890	3670	1039	1507	8604	1102	1900	2027		1772	3982		1014	2235	1275	1900	2043
936	1931	7588		1772	3978		1772	3903		1772	4079	1164	2281	7548	1225	1507	8556		1772	4113
	2281	7545	992	1890	3648	1040	1890	3697	1103	2281	7507		1942	7829	1226	1772	4098		1014	2246
937	1890	3714		1507	8650		1507	8699		1900	2146	1165	1507	8613	1227	1507	8622	1276	1507	8653
	1507	8712	993	1931	7526		1772	4027		1942	7788		1772	3908		1772	3920		1772	3960
938	1507	8538		1900	2104	1041	1507	8562	1104	1900	2092	1166	1900	2122	1228	1900	2028		1508	8918
939	1931	7581		1942	7732	1042	2281	7654		1942	7719		1942	7758		1772	4092	1277	2281	7551
	2281	7531	994	1931	7569	1043	2281	7665	1105	2281	7564	1167	1507	8580		1014	2236	1278	1507	8565
940	1931	7543		2281	7512	1044	1890	3737		1942	7841	1168	1772	4172	1229	1772	4071		1508	8852
	1900	2114		1900	2149		1772	4066	1106	1507	8555	1169	2281	7557	1230	2281	7636	1279	2241	7995
941	1890	3829		1942	7798	1045	1900	2136	1107	2281	7513		1942	7837	1231	2281	7677	1280	2281	7678
	1900	2075	995	1507	8596	1046	2281	7616		1942	7799	1170	1900	2095	1232	1507	8547		2241	7961
942	1890	3783	996	2281	7664	1047	1890	3672	1108	1900	2016		1942	7722	1233	2281	7598	1281	2281	7686
	1900	2046	997	1507	8572		1507	8666		1772	4067	1171	1772	4089		1942	7869	1282	1900	2033
943	2281	7561	998	1507	8576		1772	3995	1109	1772	4039	1172	1772	4156	1234	1772	4072		1772	4099
944	1890	3784	999	1890	3735	1048	1890	3614	1110	1772	4068	1173	2281	7580	1235	1507	8557		1014	2237
	1900	2056		1772	4076		1507	8610	1111	1507	8667		1942	7851	1236	2281	7523	1283	2281	7552
945	2281	7567	1000	1890	3773		1772	3904		1772	3996	1174	1507	8708	1237	1507	8564		1942	7820
946	1890	3707		1900	2047	1049	1900	2100	1112	2281	7571		1772	4040	1238	1900	2078	1284	1942	7735
	1507	8707		1772	4106		1942	7727		1942	7844	1175	2281	7635		1942	7702		1014	2330
947	1890	3745	1001	2281	7610	1050	1772	4096	1113	1772	4080	1176	1772	4110		1772	4163	1285	1772	4061
948	2281	7597	1002	1507	8577	1051	1890	3836	1114	2281	7588	1177	1507	8551		1014	2295		1014	2224
949	2281	7502	1003	1890	3724		1900	2084		1942	7859	1178	1507	8621	1239	1772	4112	1286	2281	7667
	1900	2141		1772	4054		1772	4169	1115	1507	8683		1772	3919	1240	2281	7617	1287	1900	2102
950	1890	3733	1004	1890	3774	1052	2281	7675		1772	4021	1179	1507	8634	1241	1900	2051		1942	7729
	1900	2014		1900	2040	1053	1890	3747	1116	2281	7684		1772	3933		1772	4125		1014	2321
951	1890	3620		1772	4107		1900	2023	1117	1900	2008	1180	1900	2091		1014	2263	1288	1507	8647
	1507	8617	1005	1931	7557		1772	4078		1507	8713		1942	7714	1242	1772	3958		1772	3961
952	1890	3686		1900	2135	1054	2281	7683		1772	4046	1181	2281	7676	1243	2281	7606		1508	8919
	1507	8691		1942	7780	1055	1507	8619	1118	2281	7647	1182	1507	8670		1942	7870	1289	1772	4047
953	1507	8513	1006	1890	3725		1772	3930	1119	1507	8598		1772	4000	1244	2281	7612		1014	2207
954	1507	8514		1900	2015	1056	1507	8579	1120	1772	3997	1183	2281	7549		1942	7878	1290	1507	8686
955	2281	7642		1772	4065	1057	1890	3698	1121	1507	8611		1942	7830	1245	1507	8652		1772	4022
956	1890	3661	1007	2281	7562		1507	8700		1772	3905	1184	2281	7584		1772	3959	1291	1772	4127
	1507	8660	1008	1507	8573		1772	4028	1122	1772	4148		1942	7854	1246	1507	8615	1292	2281	7618
957	1890	3746	1009	2281	7645	1058	2281	7579	1123	1507	8529	1185	1900	2064		1772	3921		2241	7916
	1900	2021	1010	1890	3671		1942	7850	1124	1900	2127		1772	4149	1247	1900	2065	1293	1900	2059
958	1931	7600		1507	8665	1059	1900	2131		1942	7768	1186	2281	7705		1772	4150		1772	4140
	2281	7568		1772	3979		1942	7771	1125	1772	4122	1187	1900	2096		1014	2271		1014	2265
959	1890	3708	1011	2281	7703	1060	1507	8574	1126	1772	4069		1942	7723	1248	1507	8510	1294	1507	8511
	1900	2002	1012	1507	8516	1061	1507	8540	1127	1507	8541	1188	2281	7611	1249	1900	2052		1508	8801
	1507	8696	1013	1931	7548	1062	1507	8526	1128	2281	7605	1189	1772	4057		1772	4126	1295	2281	7668
960	1890	3647		1900	2121	1063	2281	7556	1129	1900	2086	1190	1772	4173		1014	2253		2241	7954
	1507	8649		1942	7755		1942	7836		1942	7707	1191	1900	2115	1250	1507	8672	1296	2281	7659
961	1931	7601	1014	1890	3736	1064	1890	3673		1772	4171		1942	7747		1772	3985		2241	7951
	2281	7569		1900	2022	1065	2281	7533	1130	2281	7693	1192	1900	2105	1251	1942	7789	1297	1942	7730
962	1931	7518		1772	4077		1942	7815	1131	1772	4081		1942	7733	1252	1507	8646		1014	2317
	1900	2090	1015	1890	3640	1066	2281	7634	1132	1900	2077	1193	1900	2137		1772	3946	1298	1507	8581
963	1890	3734		1507	8632	1067	2281	7655		1942	7701		1942	7781	1253	1772	4082		1508	8864
964	2281	7643	1016	1931	7593	1068	2281	7583		1772	4162	1194	2281	7521		1014	2231	1299	2281	7694
965	1931	7626		2281	7555		1942	7853	1133	2281	7534		1942	7809	1254	2281	7574		2241	7984
	2281	7609		1942	7835	1069	1507	8507		1942	7816	1195	2281	7522		1942	7847	1300	1900	2004
966	1931	7544	1017	1931	7558	1070	1772	3968	1134	1507	8605		1942	7810		2241	7853		1507	8704
	1900	2120		2281	7504	1071	1772	4055		1772	3906	1196	1900	2042	1255	1507	8635		1772	4042
967	1507	8515		1900	2143	1072	1507	8620	1135	1507	8676		1772	4111		1772	3934		1014	2202
968	1890	3785		1942	7785		1772	3918		1772	3998	1197	1507	8509	1256	1507	8552		1508	8976
	1900	2057	1018	1890	3786	1073	1507	8682	1136	1507	8530	1198	1900	2129	1257	1772	4058	1301	1900	2079
969	2281	7615		1772	4135		1772	4010	1137	1507	8633		1942	7759	1258	1507	8684		1942	7703
970	2281	7644	1019	1900	2124	1074	1507	8661		1772	3931		1014	2358		1772	4012		1772	4164
971	1890	3687		1942	7770		1772	3969	1138	1507	8612	1199	1772	4137	1259	1900	2003		1014	2288
	1507	8692	1020	1507	8597	1075	1507	8527		1772	3907	1200	1900	2050		1507	8703	1302	1507	8705
972	1507	8550	1021	1890	3649	1076	1900	2048	1139	1772	3999		1772	4123		1772	4041		1772	4032
973	1890	3629		1507	8651		1772	4120	1140	2281	7547		1014	2252		1014	2201		1508	8969
	1507	8631	1022	2281	7692	1077	1900	2049		1942	7828	1201	1772	4138	1260	1900	2058	1303	1772	4014
974	1507	8560	1023	1772	4025		1772	4121	1141	1507	8518	1202	1507	8562		1772	4139	1304	1507	8687
975	1890	3770	1024	1931	7551	1078	2281	7563	1142	1900	2109	1203	2281	7535		1014	2264	1305	2281	7509
	1900	2037		1900	2125	1079	1507	8545		1942	7740		1942	7817	1261	1900	2011		1900	2147
976	1507	8561		1942	7766	1080	2281	7656	1143	2281	7514	1204	1507	8614		1772	4059		1942	7790
977	1890	3830	1025	1507	8578	1081	1900	2101		1942	7800		1772	3909		1014	2215		2241	7801
	1900	2076	1026	1507	8539		1942	7728	1144	1772	4136	1205	1507	8546	1262	2281	7524		1014	2376
978	1890	3621	1027	1507	8517	1082	1772	4097	1145	1507	8644	1206	1900	2017		1942	7811	1306	1772	4165
	1507	8609	1028	1890	3695	1083	1507	8528		1772	3944		1772	4070		2241	7817	1307	1508	8875
979	1890	3806		1507	8697	1084	2281	7518	1146	1900	2093		1014	2222	1263	1507	8673	1308	1507	8599
	1900	2062		1772	4026		1942	7808		1942	7720	1207	1507	8519		1772	3986	1309	2281	7706
980	1890	3771	1029	1890	3696	1085	1900	2063	1147	1900	2010	1208	2281	7572		1508	8937	1310	1507	8623
	1900	2038		1507	8698	•	1772	4147		1772	4056		1942	7845	1264	2281	7666		1772	3922
981	1931	7589		1772	4038	1086	1772	4087	1148	1942	7756	1209	1507	8542	1265	2281	7508		1508	8893
	2281	7546	1030	2281	7624	1087	1507	8508	1149	1507	8531	1210	1772	4124		1900	2138	1311	2281	7637
	1942	7827	1031	1931	7562	1088	1900	2126	1150	1772	3970	1211	2281	7550		1942	7782		2241	7926
982	1931	7561		2281	7505		1942	7767	1151	2281	7704		1942	7831	1266	1507	8663	1312	1507	8688
	2281	7503		1900	2144	1089	2281	7646	1152	2281	7696	1212	1507	8671		1772	3971		1772	4015
	1900	2142		1942	7786	1090	2281	7519	1153	1900	2128		1772	3983		1508	8926		1508	8958
	1942	7784	1032	1931	7527	1091	1507	8701		1942	7757	1213	1507	8520	1267	1507	8590	1313	1014	2331
983	1890	3622		1900	2099		1772	4029	1154	1900	2024	1214	2281	7573	1268	1772	4031	1314	2281	7669
	1507	8618		1942	7726	1092	1900	2026		1942	7721		1942	7846	1269	1507	8638		2241	7955
984	1890	3772	1033	2281	7674		1772	4088	1155	2281	7565	1215	1772	3984		1772	3947	1315	2281	7585
	1900	2039	1034	1931	7602	1093	1507	8662		1942	7842	1216	2281	7536	1270	1507	8685		1942	7855
	1772	4105		2281	7570		1772	3980	1156	1507	8645		1942	7818		1772	4013		2241	7869
985	1507	8554		1942	7843	1094	1900	2085		1772	3945	1217	1507	8702		1508	8957	1316	1942	7760
986	1890	3688	1035	2281	7532		1942	7706	1157	1772	3933		1772	4030	1271	1900	2106		1014	2359
	1507	8693	1036	1890	3641		1772	4170	1158	2281	7515	1218	2281	7592		1942	7734	1317	1772	3972

TABLE 3 (CONTINUED)

No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford	
1318	1942	7731		1508	8819		1014	2204	1479	1508	8843		1014	2384	1598	1014	2369		1773	4386
	1014	2322	1368	1508	8831		1508	8977	1480	1942	7805	1540	2241	7910	1599	1772	4160	1643	1508	8821
1319	1772	4033	1369	1942	7880	1426	1942	7737		2241	7812	1541	1942	7838		1014	2289		1551	1492
1320	1507	8532		2241	7905		1014	2324	1481	1772	4006		2241	7942		1773	4426	1644	1942	7858
	1508	8810	1370	1507	8591	1427	2241	7927		1508	8951	1542	1551	1458	1600	2241	7959		2241	7879
1321	2281	7687		1508	8869	1428	1508	8841	1482	1772	4094	1543	1772	4144	1601	1772	3957		1943	8038
	2241	7971	1371	1507	8679	1429	1942	7861		1014	2233		1014	2269		1508	8915	1645	1942	7877
1322	1507	8676		1772	4004		2241	7876	1483	1942	7751	1544	1508	8870	1602	1942	7814		2241	7897
	1772	4061		1508	8949	1430	1942	7715		1014	2351		1551	1539		2241	7820		1943	8053
	1508	8947	1372	1772	4152		1014	2304	1484	1772	4016	1545	1942	7712		1943	7985	1646	1551	1403
1323	1772	4002		1014	2274	1431	1772	3912		1508	8960		1772	4179	1603	2241	7997	1647	2241	7979
1324	1942	7761	1373	1772	4115		1508	8882	1485	1942	7744		1014	2305	1604	1508	8866	1648	1508	8849
	1014	2348		1014	2255	1432	1942	7793		1014	2343	1546	1014	2306		1551	1532		1551	1515
1325	1507	8556	1374	1772	4142		2241	7805	1486	1942	7778	1547	2241	7977	1605	1942	7884	1649	2241	7865
	1508	8840		1014	2266		1014	2379	1487	1772	4017	1548	1551	1428		2241	7903		1943	8018
1326	1772	3901	1375	1508	8824	1433	1942	7776		1508	8961	1549	1942	7738	1606	1508	8872	1650	2241	7918
1327	1942	7741	1376	1772	4049		1014	2367	1488	1942	7875		1014	2325		1551	1541	1651	2241	7999
	1014	2332		1014	2209	1434	1942	7777		2241	7895	1550	1942	7753	1607	1942	7796	1652	1773	4243
1328	1507	8624		1508	8981		1014	2368	1489	1942	7849	1551	1772	3927		2241	7815	1653	1014	2229
	1772	3923	1377	1942	7860	1435	1942	7873		2241	7854		1508	8897		1014	2385		1773	4337
	1508	8894	1378	1772	3924		2241	7893	1490	1772	3925	1552	1942	7765	1608	2241	7998	1654	1014	2260
1329	2241	7972	1379	2241	7985	1436	1942	7710	1491	2241	7940		1014	2354	1609	1014	2314		1773	4379
1330	1772	4128	1380	1772	4176		1772	4177	1492	1772	3914	1553	2241	7991	1610	2241	7924	1655	1773	4302
	1014	2254	1381	1772	4062		1014	2297		1508	8884	1554	1942	7713	1611	1772	3902	1656	1551	1459
1331	1942	7812		1014	2216	1437	1772	3913	1493	1772	4035		1772	4180		1508	8878	1657	1508	8805
	2241	7818	1382	1508	8825		1508	8883		1508	8971		1014	2307		1773	4201		1551	1478
1332	1942	7769	1383	2241	7974	1438	1772	4158	1494	1942	7862	1555	2241	7958		1551	1550	1658	2241	7880
	1014	2360	1384	1942	7852		1014	2283	1495	1772	3926	1556	1772	3915	1612	1942	7797		1943	8039
1333	1507	8533		2241	7862	1439	1772	4116		1508	8895		1508	8885		2241	7816	1659	1508	8973
	1508	8811	1385	1772	3973		1014	2256	1496	1942	7764		1551	1557		1014	2386		1773	4292
1334	1772	4100		1508	8927	1440	1772	4129		1014	2352	1557	1942	7779		1943	7979	1660	1508	8814
	1014	2238	1386	1942	7736		1014	2257	1497	2241	7963		1014	2372	1613	1772	4095		1551	1485
1335	1772	4101		1014	2323	1441	1942	7716	1498	1508	8844	1558	1942	7824		1014	2243	1661	1014	2286
	1014	2239	1387	1942	7791		1014	2310	1499	1942	7752		2241	7935	1614	1508	8848		1773	4408
1336	1772	4141		2241	7803	1442	1508	8842		1014	2353	1559	1772	4007		1551	1514	1662	2241	7946
	1014	2272		1014	2374	1443	1772	4093	1500	2241	7964	1560	1508	8827	1615	1942	7857	1663	2241	7925
1337	1942	7708	1388	1942	7743		1014	2232	1501	1772	3937		1551	1498	1616	1508	8853	1664	2241	7947
	1772	4174		1014	2334	1444	1772	3989		1508	8905	1561	1942	7718		1551	1518	1665	1551	1442
	1014	2303	1389	1772	4050		1508	8940	1502	1772	4133		1014	2313	1617	1551	1415	1666	2241	7844
1338	1772	4073		1014	2210	1445	1772	3974		1014	2268	1562	1772	3928	1618	1942	7825		1943	8001
	1014	2225		1508	8982		1508	8928	1503	1772	4154		1508	8898		2241	7834	1667	1551	1448
1339	1507	8600	1390	1772	3949	1446	2241	7907		1014	2275	1563	1508	8860		1943	7997	1668	1508	8945
	1508	8876		1508	8909	1447	1772	4130	1504	1772	3954	1564	1508	8807	1619	1772	4146		1773	4258
1340	1507	8654	1391	1772	3988		1014	2258	1505	1508	8845		1551	1480		1014	2278	1669	1014	2279
	1772	3962		1508	8939	1448	1942	7874	1506	1772	3955	1565	1772	3991		1773	4398		1773	4399
	1508	8920	1392	1508	8820		2241	7894		1508	8913		1508	8941	1620	1772	4009	1670	1773	4372
1341	2241	7973	1393	1772	4043	1449	1772	3964	1507	1772	4053	1566	2241	7944		1508	8953	1671	1551	1467
1342	1942	7871		1014	2203	1450	1772	3952		1014	2212	1567	1772	4145		1773	4266	1672	2241	7967
1343	1772	4157	1394	2241	7975		1508	8911		1508	8984		1014	2277	1621	1772	3977	1673	2241	7898
	1014	2281	1395	1772	4023	1451	1772	4063	1508	1508	8813	1568	1942	7876		1508	8931	1674	2241	7992
1344	1014	2349		1508	8959	1452	1772	4103	1509	2241	7941		2241	7896		1773	4256	1675	1014	2355
1345	1942	7821	1396	1772	4034		1014	2241	1510	2241	7965	1569	1772	3916	1622	1772	4119		1943	7953
	2241	7826		1508	8970	1453	1508	8812	1511	1942	7717		1508	8886		1014	2250	1676	1508	8900
1346	1507	8582	1397	1508	8963	1454	1508	8833		1014	2312	1570	2241	7864		1773	4371		1773	4221
	1508	8865	1398	1772	4051	1455	1942	7856	1512	1942	7711	1571	1772	4036	1623	1942	7865	1677	1014	2319
1347	1942	7780		1014	2217		2241	7870		1772	4178		1014	2205		2241	7887	1678	1508	8809
	2241	7862	1399	2241	7917	1456	1942	7833		1014	2300		1508	8972	1624	2241	7978		1551	1482
	1014	2373	1400	1942	7792		2241	7832	1513	1772	3990	1572	1942	7813	1625	1772	3929	1679	1773	4293
1348	1772	4005		2241	7804	1457	1942	7848	1514	2241	7957		2241	7819		1508	8899	1680	2241	7948
	1508	8948		1014	2377		2241	7863	1515	1508	8877	1573	1772	4008		1773	4224	1681	2241	7821
1349	1942	7872	1401	1772	3963	1458	1772	4131	1516	1942	7823		1508	8952	1626	1772	4018	1682	1014	2213
	2241	7870		1508	8921	1459	1508	8834		2241	7828	1574	1508	8847		1508	8954		1508	8985
1350	1942	7879	1402	1508	8832	1460	1942	7704	1517	2241	7986		1551	1513		1773	4276		1773	4309
	2241	7901	1403	2241	7939		1772	4167	1518	1942	7863	1575	1772	4037	1627	1772	4134	1683	1551	1416
1351	1772	4151	1404	1772	3950		1014	2298		2241	7877	1576	1942	7739		1014	2259	1684	2241	7822
	1014	2273	1405	2241	7976	1461	1772	4074	1519	1772	4084		1014	2335		1773	4378	1685	2241	7855
1352	1772	3987	1406	2241	7921		1014	2226	1520	1942	7883	1577	2241	7996	1628	1508	8803		1943	8019
	1508	8938	1407	1942	7762	1462	2241	7928		2241	7908	1578	1772	3939		1551	1476	1686	1508	8867
1353	1507	8583		1014	2361	1463	1772	3965	1521	1772	4117		1508	8906	1629	2241	7960	1687	1014	2301
	1508	8868	1408	2241	7892		1508	8922		1014	2248	1579	1772	4104	1630	1772	4161	1688	1508	8965
1354	1942	7709	1409	1772	4102	1464	1772	4052	1522	1942	7864		1014	2242		1014	2285		1773	4281
	1772	4175		1014	2240		1014	2218		2241	7878	1580	1772	3992		1773	4407	1689	2241	7845
	1014	2275	1410	2241	7922		1508	8983	1523	1772	4155		1508	8942	1631	2241	7930		1943	8002
1355	1942	7774	1411	1772	4166	1465	1942	7705		1014	2276	1581	1551	1414	1632	1772	3967	1690	1508	8854
	1014	2371	1412	1772	3951		1772	4168	1524	1508	8826	1582	2241	7966		1508	8923	1691	2241	7823
1356	1507	8521		1508	8910		1014	2299	1525	1942	7806	1583	1942	7725	1633	1942	7745		1943	7986
	1508	8806	1413	1942	7775	1466	2241	7923		2241	7813		1014	2318		1014	2345	1692	1508	8916
1357	1772	3948		1014	2366	1467	1772	3953		1014	2382	1584	2241	7886		1943	7939		1773	4231
1358	1942	7832	1414	2241	7956		1508	8912	1526	1772	3975	1585	1508	8808	1634	1772	4085	1693	2241	7919
	2241	7841	1415	2241	7962	1468	1942	7794		1508	8929		1551	1481		1014	2234	1694	1551	1404
1359	2241	7891	1416	1772	4153		2241	7806	1527	2241	7942	1586	2241	7945		1773	4336	1695	1773	4361
1360	1942	7742		1014	2282		1014	2380	1528	2241	7943	1587	1942	7754	1635	1942	7840	1696	1773	4310
	1014	2333	1417	1942	7822	1469	1772	4143	1529	1772	3938		1014	2344		2241	7852	1697	1014	2346
1361	1507	8714		2241	7827		1014	2267		1508	8896	1588	1772	3993	1636	1772	3917	1698	2241	7911
	1772	4048	1418	1772	4005	1470	1942	7750	1530	2241	7909		1508	8943		1508	8887	1699	1014	2214
	1014	2268		1508	8950		1014	2342	1531	1772	4024	1589	1772	4159		1773	4207		1508	8979
	1508	8980	1419	1772	3936	1471	1772	4075		1508	8964		1014	2284		1551	1558		1773	4311
1362	1772	4114		1508	8904	1472	1772	4083	1532	1508	8835	1590	1942	7839	1637	1508	8804	1700	1773	4244
	1014	2247	1420	1772	3911	1473	1772	4045	1533	1508	8846		2241	7843		1551	1477	1701	1508	8966
1363	1942	7868		1508	8881		1014	2211	1534	1508	8802	1591	1772	3966	1638	1942	7746		1773	4294
	2241	7885	1421	1942	7881		1508	8978	1535	1942	7795	1592	1772	3976		1014	2336	1702	1014	2356
1364	1507	8606		2241	7906	1474	1942	7804		2241	7887		1508	8930		1943	7940		1943	7954
	1772	3910	1422	1942	7802		2241	7811		1014	2383	1593	1943	8050	1639	1772	3994	1703	1014	2290
	1508	8880		2241	7899		1014	2381	1536	1772	4118	1594	1772	3956		1508	8932		1773	4409
1365	1507	8637	1423	1942	7763	1475	1772	4132		1014	2249		1508	8914		1773	4257	1704	2241	7931
	1772	3935		1014	2350	1476	1942	7882	1537	1772	4064	1595	2241	7987	1640	1942	7826	1705	1508	8822
	1508	8903	1424	1942	7803		2241	7902	1538	1942	7834	1596	1508	8871		2241	7835		1551	1493
1366	1942	7749		2241	7810	1477	1942	7724		2241	7833		1551	1540	1641	1508	8944	1706	1773	4268
	1014	2341		1014	2378		1014	2311	1539	1942	7807	1597	1772	3940		1773	4267	1707	2241	7912
1367	1507	8543	1425	1772	4044	1478	2241	7929		2241	7814		1508	8907	1642	1014	2270	1708	1773	4362

TABLE 3 (CONTINUED)

No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford	
1709	1014	2244		1943	8003	1833	1551	1462	1892	2241	7913		2242	8142	2001	2242	8264		1796	2446
1710	2241	7932	1774	2241	7830	1834	1508	8962	1893	1551	1434	1943	2241	7983	2002	1943	8016	2064	1773	4316
1711	1773	4269		1943	7987		1773	4285	1894	1773	4415	1944	1943	7980		2242	8143		1796	2406
1712	1014	2280	1775	1508	8901		1509	9144	1895	2241	7875		2242	8101	2003	1551	1502		1509	9159
	1773	4387		1773	4222	1835	1014	2315		1943	8034		1796	2532		1509	9025	2065	1943	8036
1713	2241	7866	1776	2241	7920	1836	1773	4388		2242	8153	1945	1943	7922	2004	1551	1401		2242	8157
1714	1551	1460	1777	1014	2220	1837	1014	2328	1896	1508	8946	1946	1773	4434	2005	1773	4418	2066	1943	8059
1715	1014	2347		1773	4320	1838	1014	2294		1773	4271	1947	2242	8225	2006	1773	4241		2242	8192
1716	1508	8861	1778	1508	8837		1773	4427		1509	9134	1948	1943	8062	2007	1943	7948	2067	1551	1484
	1551	1526		1551	1506	1839	1551	1444	1897	1943	7934		2242	8205	2008	1773	4288		1509	9006
1717	1014	2245	1779	1773	4232	1840	1508	8839		1796	2500	1949	1773	4228		1509	9145	2068	1551	1465
	1773	4347	1780	1508	8917		1551	1508	1898	1508	8859		1509	9105	2009	1773	4305	2069	1551	1466
1718	1508	8888	1781	2241	7933	1841	1551	1451		1551	1523	1950	1943	7935		1796	2401	2070	2242	8132
	1773	4208	1782	1551	1419	1842	1773	4261		1509	9051		1796	2501		1509	9155	2071	2242	8210
	1551	1559	1783	1508	8838	1843	2241	7899	1899	1943	7915	1951	1773	4234	2010	1943	8048	2072	1551	1446
1719	2241	7856		1551	1507		1943	8055	1900	1773	4323		1509	9108		2242	8169	2073	1551	1504
	1943	8020	1784	1508	8815	1844	2241	8002	1901	2241	7914	1952	2242	8262	2011	1943	7977		1509	9026
1720	1014	2320	1785	2241	7838	1845	1508	8902		2242	8203	1953	2242	8236		1796	2530	2074	1551	1472
1721	2241	7949		1943	8004		1773	4225	1902	2241	7953	1954	1773	4262	2012	1551	1503	2075	1773	4355
1722	1551	1417	1786	1508	8967	1846	2241	7990		2242	8243		1551	1554	2013	1551	1453		1796	2428
1723	2241	7857		1773	4283	1847	2241	7860	1903	1943	7966		1509	9084	2014	1551	1545	2076	2242	8248
	1943	8021	1787	2241	7831		1943	8024		1796	2520	1955	1551	1495		1509	9073	2077	1943	8051
1724	2241	7988		1943	7988	1848	1508	8873	1904	1551	1425	1956	1943	7981	2015	1773	4229		2242	8185
1725	2241	7968	1788	1508	8857		1551	1542	1905	1508	8956		2242	8103		1509	9106	2078	1551	1455
1726	1508	8924		1551	1521		1509	9079		1773	4278	1957	1773	4341	2016	1773	4366	2079	1773	4392
	1773	4245	1789	2241	7970	1849	1551	1420		1509	9142	1958	1943	7990	2017	1943	7984	2080	1943	7962
1727	1508	8855	1790	1014	2308	1850	1014	2364	1906	2241	7904		2242	8107		2242	8104		1796	2515
	1551	1519		1943	7904		1943	7958		1943	8056	1959	1551	1467		1796	2533	2081	1773	4438
1728	2241	8000		1773	4431	1851	1773	4389		2242	8189		1509	9001	2018	1773	4223	2082	1943	7936
1729	2241	7824	1791	1014	2357	1852	1014	2365	1907	1943	7947	1960	1773	4213	2019	1943	8058		1796	2502
	1943	7983		1943	7956		1943	7959	1908	1551	1407		1551	1502		2242	8191	2083	1773	4263
1730	2241	7867	1792	1508	8933	1853	1014	2340	1909	1551	1429		1509	9070	2020	2242	8226		1509	9130
	1943	8022		1773	4259		1943	7932	1910	1773	4374	1961	1773	4351	2021	1551	1510	2084	1943	7908
1731	1773	4319	1793	1773	4277	1854	1014	2221	1911	1551	1452		1796	2425		1509	9029		1773	4439
1732	1014	2362	1794	1551	1423		1773	4322	1912	1773	4296	1962	1773	4401	2022	1773	4279		1796	2479
	1943	7955	1795	2241	7871	1855	1508	8874	1913	1773	4324	1963	1943	8042		1509	9143	2085	1551	1456
1733	1551	1421	1796	2241	7934		1551	1543	1914	1508	8818		2242	8162	2023	1943	7982	2086	1943	7909
1734	2241	8001	1797	1014	2363		1509	9071		1551	1488	1964	1551	1555		2242	8105		1773	4440
1735	1773	4328		1943	7957	1856	1014	2287		1509	9013		1509	9080	2024	1943	7960		1796	2480
1736	1551	1449	1798	1773	4340		1773	4413	1915	2241	7889	1965	1773	4352		1796	2514	2087	1551	1402
1737	1014	2230	1799	1014	2262	1857	2241	7848		1943	8046		1796	2426	2025	1943	7918	2088	1773	4248
	1773	4338		1773	4381	1858	1773	4349		2242	8179	1966	1943	7923		1796	2489		1509	9122
1738	2241	7952	1800	1508	8879	1859	2241	7937	1916	1773	4382	1967	1551	1426	2026	1943	7949	2089	1773	4249
1739	1773	4348		1551	1551	1860	2241	7993	1917	1508	8925		1509	9015	2027	1551	1529		1509	9123
1740	1014	2227	1801	2241	7839	1861	2241	7881		1773	4239	1968	1773	4241		1509	9052	2090	1773	4332
	1773	4329		1943	7999		1943	8044		1509	9113		1551	1563	2028	1773	4203		1796	2411
1741	1508	8828	1802	1014	2337	1862	1551	1406	1918	1943	7906		1509	9091	2029	1773	4435	2091	1773	4272
	1551	1499		1943	7927	1863	1773	4233		1773	4433	1969	2242	8263	2030	1551	1440		1509	9135
1742	1773	4330	1803	1508	8850	1864	2241	7849		1796	2476	1970	1773	4235	2031	1773	4343	2092	1943	8065
1743	2241	7836		1551	1516		1943	8010	1919	1773	4297		1509	9107	2032	1551	1511		2242	8193
	1943	7998	1804	1014	2228	1865	1508	8817	1920	1551	1483	1971	1551	1469		1509	9030	2093	2242	8211
1744	1508	8823		1773	4321		1551	1487		1509	9005	1972	1551	1544	2033	1943	7907	2094	1773	4289
	1551	1494	1805	2241	7840	1866	1551	1468	1921	1551	1435		1509	9072		1773	4436		1509	9146
1745	2241	7989	1806	1014	2338	1867	1014	2316	1922	1508	8891	1973	1943	8011		1796	2477	2095	1773	4216
1746	1508	8836		1943	7928		1943	7914		1773	4211		2242	8190	2034	1551	1436	2096	1943	7937
	1551	1505	1807	1508	8858	1868	1508	8935	1923	1773	4240	1974	1943	8047	2035	1943	8007		1796	2503
1747	2241	7946		1551	1522		1773	4246	1924	1508	8892		2242	8180		2242	8130	2097	1773	4217
1748	1943	8008	1808	2241	7859		1509	9120		1773	4212	1975	1773	4402	2036	1943	7991	2098	1551	1457
1749	1508	8974		1943	8023	1869	1508	8890		1551	1561	1976	1773	4417		2242	8110	2099	2242	8254
	1773	4295	1809	1508	8968		1773	4210		1509	9089		1796	2469	2037	1551	1546	2100	1773	4205
1750	1508	8889		1773	4284	1870	1551	1509	1925	1773	4416	1977	1551	1464		1509	9074		1551	1555
	1773	4209	1810	1014	2326	1871	1773	4286		1796	2465	1978	2242	8218	2038	2242	8244		1509	9086
	1551	1540		1943	7929	1872	1773	4313	1926	1943	7916	1979	1773	4353	2039	1943	8011	2101	1773	4325
1751	2241	7969	1811	2241	7872	1873	1508	8955		1796	2492		1796	2427		2242	8131	2102	1773	4250
1752	1508	8856		1943	8031		1773	4270	1927	1773	4390	1980	1551	1470	2040	2242	8265		1509	9124
	1551	1520	1812	1773	4364		1509	9133		1796	2457	1981	1773	4354	2041	1551	1454	2103	2242	8237
1753	1508	8862	1813	2241	7981	1874	1773	4414	1928	2241	7915	1982	1773	4215	2042	2242	8245	2104	1551	1411
	1551	1527	1814	1551	1450	1875	1508	8908		1943	8061		1551	1564	2043	1773	4367	2105	2242	8228
1754	1014	2219	1815	1014	2339		1773	4226		2242	8204		1509	9092		1796	2436	2106	1773	4237
	1508	8986		1943	7930		1509	9103	1929	2241	7900	1983	1943	8026	2044	1943	7901	2107	2242	8227
	1773	4312	1816	1773	4410	1876	2241	7938		1943	8057		2242	8154		1773	4437	2108	1551	1430
1755	1773	4380	1817	1014	2291	1877	1773	4304		2242	8184	1984	1773	4365		1796	2478	2109	1551	1412
1756	2241	7808	1818	2241	7935	1878	1943	7933	1930	1551	1445		1796	2435	2045	1773	4262	2110	1943	8000
	1014	2375	1819	1551	1461		1796	2499	1931	1943	7941	1985	1551	1489	2046	2242	8170		2242	8125
	1943	7978	1820	2241	7936	1879	2241	7883		1796	2510	1986	2242	8247	2047	1551	1410	2111	1943	7967
1757	1551	1422	1821	1014	2292		1943	8041	1932	2241	7850	1987	1943	8035	2048	1773	4391		1796	2521
1758	1773	4282		1773	4411		2242	8168		1943	8005		2242	8155		1796	2458	2112	1773	4393
1759	1508	8829	1822	1943	7919	1880	2241	7882		2242	8128	1988	1551	1471	2049	1551	1547		1796	2451
	1551	1500	1823	1014	2206		1943	8040	1933	1773	4350	1989	1943	7942		1509	9081	2113	1773	4317
1760	1551	1418		1508	8975		2242	8167		1796	2424		1796	2504	2050	1943	7924		1509	9160
1761	1014	2251		1773	4303	1881	1508	8987	1934	1508	8936	1990	1943	8027		1796	2496	2114	2242	8212
	1773	4363		1509	9154		1773	4314		1773	4247		2242	8156	2051	2242	8219	2115	1773	4333
1762	1014	2302	1824	1508	8816	1882	2241	7994		1509	9121	1991	1943	8015	2052	1943	8028		1796	2412
	1943	7903		1551	1486		2242	8281	1935	1551	1463		2242	8139		2242	8144	2116	1773	4251
	1773	4430		1509	9012	1883	1508	8851	1936	1508	8830	1992	1943	7920	2053	1773	4204		1509	9125
1763	2241	7858	1825	1508	8934		1551	1517		1551	1502		1796	2493		1551	1553	2117	1943	7992
1764	2241	7986		1773	4260		1509	9036		1509	9024	1993	1943	7917		1509	9085		2242	8111
1765	1943	8054		1509	9129	1884	2241	7888	1937	2241	7825		1796	2488	2054	1773	4331	2118	1551	1535
1766	2241	7865	1826	1014	2327		1943	8045		1943	7989	1994	1551	1524	2055	1773	4315		1509	9059
	1943	8030		1943	7931		2242	8178		2242	8108		1509	9043		1796	2405	2119	1943	8066
1767	2241	7847	1827	1014	2293	1885	1551	1533	1938	1773	4287	1995	1773	4342		1509	9158		2242	8194
	1943	8009		1773	4412	1886	1943	7975	1939	2241	7852		1796	2418	2056	1773	4236	2120	2242	8249
1768	1551	1408	1828	1551	1405	1887	1943	7976		1943	8006	1996	1551	1426	2057	1773	4403	2121	1551	1530
1769	1551	1443	1829	1014	2309		1796	2529		2242	8127	1997	1551	1534	2058	1773	4375		1509	9053
1770	1508	8863		1943	7905	1888	2241	7874	1940	2241	7861		1509	9058		1796	2445	2122	1773	4419
	1551	1528		1773	4432		1943	8033		1943	8014	1998	1551	1439	2059	2242	8118		1796	2466
1771	1014	2261	1830	2241	7873		2242	8161		2242	8138	1999	1943	8064	2060	2242	8266	2123	1773	4368
	1773	4373		1943	8032	1889	1551	1424	1941	1773	4237		2242	8206	2061	1943	7961		1796	2437
1772	1773	4339	1831	2241	7950	1890	2241	7982		1509	9104	2000	1943	8043	2062	2242	8253	2124	1773	4298
1773	2241	7837	1832	1551	1433	1891	1773	4400	1942	1943	8025		2242	8163	2063	1773	4383		1509	9150

TABLE 3 (CONTINUED)

No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford	
2125	1773	4280	2185	1943	7944		2242	8145	2306	2242	8222		1947	8203	2442	1796	2484		1947	8112
2126	1943	7993		1796	2506		1947	8221	2307	1774	4671	2374	2242	8216	2443	1947	8109		1774	4767
	2242	8112	2186	1773	4422	2248	2242	8197	2308	2242	8268	2375	1774	4569		1774	4765	2505	1774	4610
2127	1943	8037	2187	1773	4238	2249	1943	7912	2309	1796	2441	2376	1509	9118	2444	2242	8103	2506	1774	4572
	2242	8158		1509	9110	2250	1943	8029		1774	4693		1774	4556		1796	2531	2507	1774	4573
2128	1943	7910	2188	1773	4405		2242	8146	2310	1509	9021	2377	2242	8258		1947	8179	2508	2242	8272
	1796	2481		1796	2468		1947	8226	2311	1796	2460	2378	1774	4583	2445	2242	8166		2243	8472
2129	1773	4394	2189	1773	4423	2251	1773	4442		1774	4738	2379	1796	2448		1947	8244	2509	2242	8124
	1796	2459		1796	2470	2252	1943	7964	2312	1774	4704		1774	4705	2446	1509	9057		1947	8198
2130	1551	1548	2190	2242	8273		1796	2516	2313	1509	9098	2380	2242	8259	2447	1796	2485		2243	8324
	1509	9075	2191	2242	8256		1947	8150		1774	4531	2381	1796	2415		1947	8110	2510	2242	8183
2131	1773	4420	2192	1943	8012	2253	1943	7913	2314	1796	2471		1774	4657	2448	1796	2463		1947	8258
2132	1773	4404		2242	8133		1773	4443		1947	8101	2382	2242	8165		1774	4741		2243	8380
	1796	2467	2193	1773	4274		1796	2483		1774	4757		1947	8243	2449	1796	2509	2511	2242	8234
2133	2242	8140		1509	9136		1947	8107	2315	1509	9099	2383	2242	8201		1947	8140		2243	8429
2134	1551	1536	2194	2242	8283	2254	1943	8049		1774	4532	2384	2242	8137	2450	1947	8103	2512	2242	8107
	1509	9060	2195	1551	1512		2242	8171	2316	1796	2461		1947	8213		1774	4766		1796	2536
2135	1551	1431		1509	9031		1947	8247		1774	4731	2385	1509	9017	2451	1774	4753		1947	8191
2136	1773	4264	2196	1943	8052	2255	1509	9063	2317	2242	8187	2386	1796	2422	2452	1509	9112		2243	8308
	1509	9131		2242	8186	2256	1943	7974	2318	1774	4608		1774	4673		1774	4558	2513	1774	4502
2137	1943	7943	2197	2242	8274		1796	2526	2319	1509	9034	2387	1796	2462	2453	1796	2491	2514	2242	8224
	1796	2505	2198	1551	1538		1947	8171	2320	2242	8164		1774	4739		1947	8119		2243	8423
2138	1773	4395		1509	9062	2257	1773	4308		1947	8242	2388	1509	9139	2454	1509	9128	2515	1796	2456
2139	1773	4206	2199	1943	7902		1796	2403	2321	1774	4732		1774	4597		1774	4570		1774	4720
	1551	1556		1773	4429		1509	9157	2322	1509	9116	2389	2242	8115	2455	2242	8202	2516	1774	4537
	1509	9087	2200	2242	8220		1774	4634		1774	4568	2390	2242	8114		1947	8271	2517	1774	4516
2140	1943	7911	2201	1551	1432	2258	1773	4275	2323	2242	8136		1796	2535	2456	1796	2475	2518	2242	8235
	1773	4441	2202	1773	4291		1509	9137		1947	8212		1947	8190		1947	8104		2243	8430
	1796	2482	2203	2242	8126		1774	4595	2324	1509	9016	2391	1509	9140		1774	4759	2519	1774	4698
2141	2242	8255	2204	1773	4242	2259	2242	8267	2325	1774	4682		1774	4598	2457	2242	8188	2520	1774	4600
2142	1551	1437		1509	9114	2260	1509	9064	2326	1509	9083	2392	1774	4748		1947	8262	2521	1774	4755
2143	1773	4230	2205	1551	1479	2261	1773	4255	2327	2242	8147	2393	1509	9027	2458	1509	9050	2522	2242	8117
	1509	9107	2206	1551	1427	2262	2242	8275		1947	8227	2394	2242	8159	2459	2242	8151		1796	2537
2144	1773	4344	2207	1943	8013	2263	1773	4301	2328	2242	8241		1947	8233		1947	8222		1947	8192
	1796	2419		2242	8134		1774	4624	2329	1509	9148	2395	1796	2449	2460	2242	8116		2243	8317
2145	1773	4376	2208	2242	8238	2264	2242	8221		1774	4615		1774	4714		1947	8196	2523	2242	8152
	1796	2438	2209	1551	1441	2265	1773	4335	2330	1796	2473	2396	1774	4674	2461	1796	2416		1947	8231
2146	2242	8213	2210	2242	8239		1796	2414		1947	8102	2397	2242	8242		1774	4658		2243	8352
2147	1943	7968	2211	1551	1549		1774	4654		1774	4758	2398	1509	9040	2462	1796	2410	2524	1774	4639
2148	1773	4306		1509	9076	2266	1773	4359	2331	2242	8106	2399	1796	2443		1774	4659	2525	2242	8209
2149	1773	4384	2212	1551	1491		1796	2432		1796	2534		1774	4696	2463	1796	2417		2243	8409
	1796	2452		1509	9015		1774	4690		1947	8189	2400	2242	8176		1774	4660	2526	1774	4628
2150	1551	1490	2213	1943	7971	2267	1773	4220	2332	2242	8269		1947	8251	2464	1509	9102	2527	1774	4559
	1509	9014		1796	2524		1509	9095	2333	2242	8121	2401	1796	2472		1774	4514	2528	1947	8105
2151	1773	4345	2214	1773	4385		1774	4505		1947	8202		1774	4749	2465	1774	4716		1774	4761
	1796	2420	2215	1551	1447	2268	2242	8231	2334	1509	9117	2402	1796	2408	2466	1947	8159	2529	1947	8124
2152	1773	4218	2216	2242	8141	2269	1943	7926		1774	4554		1509	9163	2467	1509	9097	2530	1774	4517
	1551	1565	2217	2242	8196		1796	2498	2335	1796	2474		1774	4637		1774	4515	2531	2243	8501
	1509	9093	2218	1509	9032		1947	8127		1947	8108	2403	1796	2490	2468	1774	4760	2532	1947	8173
2153	1551	1438	2219	1773	4357	2270	1509	9082		1774	4764		1947	8117	2469	1774	4675	2533	1774	4708
2154	1773	4428	2220	1773	4406	2271	1943	7965	2336	2242	8232	2404	1774	4750	2470	1796	2464	2534	1947	8181
2155	1943	7994	2221	1943	7938		1796	2517	2337	1774	4512	2405	1509	9141		1774	4733	2535	1947	8235
	2242	8119	2222	1773	4254		1947	8151	2338	1774	4672		1774	4599	2471	1509	9018		2243	8360
2156	1943	7950		1509	9127	2272	1509	9002	2339	1774	4582	2406	2242	8260	2472	1774	4754	2536	2243	8410
	1796	2511	2223	1943	7921	2273	2242	8276	2340	1774	4656	2407	2242	8217	2473	1796	2450	2537	1947	8161
2157	1773	4252		1796	2494	2274	1943	8060	2341	1774	4596	2408	2242	8149		1774	4707	2538	1774	4518
2158	1773	4346	2224	1773	4370		2242	8198	2342	2242	8200		1947	8229	2474	2242	8250	2539	1947	8120
	1796	2421		1796	2440		1947	8268		1947	8270	2409	1509	9028	2475	1509	9153	2540	1947	8236
2159	1773	4265	2225	1773	4219	2275	1509	9033	2343	2242	8173	2410	1774	4625		1774	4621		2243	8361
2160	1943	7951		1551	1566	2276	1509	9037		1947	8248	2411	2242	8280	2476	1796	2486	2541	1774	4622
	1796	2512		1509	9094	2277	1773	4360	2344	2242	8174	2412	1774	4620		1947	8111	2542	1947	8245
2161	1773	4326	2226	1943	7952		1796	2433		1947	8249	2413	1796	2423	2477	2242	8182		2243	8367
	1796	2409		1796	2513		1774	4681	2345	2242	8278		1774	4683		1947	8257	2543	1947	8214
2162	1551	1413	2227	1509	9007	2278	1509	9055	2346	1509	9039	2414	1774	4638	2478	2242	8251		2243	8343
2163	1773	4253	2228	1509	9077	2279	1773	4425	2347	1796	2442	2415	1509	9069	2479	1796	2518	2544	1774	4560
	1509	9126	2229	1943	7972		1774	4747		1774	4694	2416	2242	8160		1947	8152	2545	2243	8424
2164	2242	8207		1796	2525	2280	1773	4327	2348	1509	9111		1947	8234	2480	1774	4626	2546	1774	4699
2165	1551	1473		1947	8170	2281	1509	9003		1774	4555	2417	1796	2508	2481	1774	4717	2547	1774	4700
2166	1773	4421	2230	1796	2430	2282	2242	8246	2349	1509	9088		1947	8139	2482	1796	2495	2548	1774	4544
2167	1551	1537	2231	1773	4396	2283	1509	9008		1774	4506	2418	1774	4751		1947	8123	2549	2243	8493
	1509	9061	2232	1773	4334	2284	1509	9046	2350	2242	8279	2419	1774	4752	2483	2242	8270	2550	2243	8431
2168	1773	4273		1796	2413	2285	1796	2447	2351	1509	9011	2420	2242	8261	2484	1774	4627	2551	1774	4601
2169	1551	1474		1774	4670		1774	4713	2352	1509	9047	2421	1947	8172	2485	1796	2434	2552	1774	4519
2170	1551	1531	2233	1773	4299	2286	1509	9009	2353	1509	9066	2422	1509	9056		1774	4684	2553	1774	4629
	1509	9054		1509	9151	2287	1509	9132	2354	1509	9067	2423	2242	8223	2486	2242	8252	2554	1774	4503
2171	1551	1475	2234	1509	9045		1774	4581	2355	2242	8175	2424	1774	4740		2243	8452	2555	1774	4701
2172	1773	4369	2235	1943	7963	2288	1509	9065		1947	8250	2425	1509	9070	2487	1774	4534	2556	1774	4585
	1796	2439	2236	1943	7996	2289	2242	8135	2356	1774	4636	2426	1509	9119	2488	2242	8177	2557	1774	4520
2173	1943	7925		2242	8113		1947	8211	2357	2242	8127		1774	4557		1947	8252	2558	1774	4521
	1796	2492		1947	8195	2290	2242	8208		1947	8207	2427	1796	2444	2489	1796	2454	2559	1774	4661
2174	1773	4307	2237	1773	4424	2291	2242	8277	2358	1774	4695		1774	4697		1774	4718	2560	1947	8205
	1796	2402	2238	1773	4318	2292	1774	4691	2359	1509	9022	2428	1774	4706	2490	1774	4501		2243	8325
	1509	9156		1796	2407	2293	1774	4645	2360	1509	9048	2429	2242	8181	2491	1774	4571	2561	1774	4709
2175	1551	1497		1509	9161	2294	2242	8199	2361	1509	9100		1947	8256	2492	1774	4508	2562	1947	8162
	1509	9020		1774	4633		1947	8269		1774	4533	2430	1509	9149	2493	1774	4543	2563	1947	8133
2176	1943	7969	2239	1943	7973	2295	1509	9078	2362	2242	8215		1774	4616	2494	1796	2519	2564	1947	8263
	1796	2522	2240	1943	7945	2296	1509	9038	2363	1509	9101	2431	1774	4584		1947	8153		2243	8394
2177	1551	1525	2241	1773	4300	2297	1796	2527		1774	4513	2432	1947	8147	2495	2242	8271	2565	1774	4721
	1509	9044		1509	9152		1947	8158	2364	1509	9049	2433	2242	8123		2243	8471	2566	1774	4538
2178	1773	4377		1774	4619	2298	1796	2404	2365	1509	9035		1947	8204	2496	1796	2528	2567	2243	8494
2179	1943	7995	2242	1943	7946		1509	9162	2366	1509	9096	2434	1509	9041		1947	9160	2568	1947	8264
	2242	8120		1796	2507		1774	4635	2367	2242	8233	2435	2242	8150	2497	1796	2455		2243	8395
2180	1773	4290		1947	8146	2299	1774	4655	2368	2242	8257		1947	8230		1774	4719	2569	1774	4685
	1509	9147	2243	2242	8230	2300	1774	4692	2369	2242	8148	2436	1509	9023	2498	1947	8180	2570	2243	8444
2181	2242	8229	2244	2242	8240	2301	1509	9115		1947	8228	2437	1947	8118	2499	1947	8197	2571	2243	8495
2182	2242	8195	2245	1773	4397		1774	4553	2370	2242	8284	2438	1509	9042	2500	1774	4535	2572	1774	4522
2183	1773	4356	2246	1773	4358	2302	2242	8214	2371	1509	9068	2439	2242	8261	2501	1774	4536	2573	1947	8128
	1796	2429		1796	2431	2303	1509	9010	2372	1509	9138	2440	1796	2453	2502	1774	4734	2574	1774	4722
2184	1943	7970		1774	4680	2304	2242	8172		1774	4609		1774	4715	2503	1774	4646	2575	1774	4723
	1796	2523	2247	1943	8017	2305	1509	9004	2373	2242	8122	2441	1774	4507	2504	1796	2487	2576	1774	4602

TABLE 3 (CONTINUED)

No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford		No	Oxford	
2577	1947	8141	2624	2243	8445	2672	1947	8165	2717	2243	8433	2760	1947	8241	2807	1774	4653	2856	2243	8314
2578	2243	8411	2625	1774	4524	2673	1947	8174	2718	1947	8200		2243	8363	2808	1947	8169	2857	2243	8322
2579	2243	8418	2626	1947	8215	2674	1774	4642		2243	8319	2761	2243	8384	2809	1947	8260	2858	2243	8420
2580	1947	8193		2243	8334	2675	1947	8213	2719	1947	8254	2762	1947	8183		2243	8386	2859	2243	8364
	2243	8309	2627	1947	8239		1774	4769		2243	8383	2763	2243	8488	2810	1774	4669	2860	2243	8365
2581	1947	8106		2243	8369	2676	2243	8464	2720	1774	4551	2764	2243	8498	2811	2243	8467	2861	2243	8328
2582	1774	4762	2628	1774	4525	2677	1947	8266	2721	2243	8426	2765	1947	8121	2812	1947	8188	2862	2243	8417
2583	1774	4647	2629	1947	8185		2243	8483	2722	1774	4664	2766	2243	8385		2243	8303	2863	2243	8377
2584	1947	8272		2243	8310	2678	1774	4563	2723	1947	8224	2767	1774	4594	2813	1774	4689	2864	2243	8356
	2243	8401	2630	2243	8474	2679	1947	8243		2243	8344	2768	1947	8186	2814	2243	8468	2865	2243	8407
2585	1774	4586	2631	1774	4561	2680	2243	8432	2724	1774	4736		2243	8301	2815	1774	4530	2866	2243	8357
2586	2243	8425	2632	1774	4742	2681	1774	4527	2725	1774	4509	2769	1774	4592	2816	2243	8479	2867	2243	8391
2587	1947	8237	2633	1774	4686	2682	1774	4590	2726	2243	8458	2770	2243	8419	2817	1947	8220	2868	2243	8315
	2243	8368	2634	1774	4575	2683	1774	4577	2727	1947	8167	2771	1774	4614		2243	8340	2869	2243	8305
2588	1774	4724	2635	1774	4662	2684	1947	8148	2728	2243	8487	2772	1947	8115	2818	2243	8469	2870	2243	8428
2589	1774	4756	2636	1774	4663	2685	1947	8114	2729	1947	8217		1774	4771	2819	1947	8132	2871	2243	8399
2590	1774	4523	2637	1774	4540		1774	4770		2243	8336	2773	1774	4579	2820	1947	8206	2872	2243	8373
2591	1774	4640	2638	1947	8223	2686	1947	8215	2730	1947	8255	2774	1774	4679		2243	8327	2873	2243	8306
2592	1947	8163		2243	8354		2243	8335		2243	8375	2775	1774	4542	2821	1947	8261	2874	2243	8504
2593	1947	8154	2639	2243	8438	2687	1774	4687	2731	1774	4565	2776	2243	8478		2243	8387	2875	2243	8333
2594	2243	8326	2640	1774	4649	2688	1774	4546	2732	1947	8130	2777	1774	4666	2822	2243	8341	2876	2243	8349
2595	1947	8134	2641	1774	4650	2689	1947	8253	2733	1774	4744	2778	1774	4593	2823	2243	8342	2877	2243	8448
2596	1947	8135	2642	1774	4541		2243	8381	2734	1774	4643	2779	1774	4580	2824	2243	8480	2878	2243	8461
2597	1947	8208	2643	1947	8137	2690	1947	8175	2735	1947	8210	2780	1947	8116	2825	2243	8372	2879	2243	8329
	2243	8330	2644	1774	4651	2691	2243	8414		2243	8332		1774	4772	2826	2243	8388	2880	2243	8482
2598	2243	8473	2645	2243	8475	2692	1947	8158	2736	1774	4728	2781	1947	8157	2827	2243	8398	2881	2243	8358
2599	1947	8238	2646	1947	8156		2243	8382	2737	1774	4745	2782	2243	8439	2828	2243	8489	2882	2243	8441
	2243	8362	2647	1947	8164	2693	2243	8477	2738	1774	4746	2783	1774	4729	2829	2243	8459	2883	2243	8462
2600	2243	8412	2648	1774	4587	2694	1774	4604	2739	1774	4618	2784	1947	8168	2830	2243	8346	2884	2243	8400
2601	1947	8273	2649	1774	4576	2695	1774	4711	2740	1774	4566	2785	2243	8466	2831	2243	8440	2885	2243	8436
	2243	8402	2650	1947	8125	2696	1774	4678	2741	2243	8337	2786	1947	8122	2832	2243	8347	2886	2243	8374
2602	1774	4648	2651	2243	8463	2697	1947	8240	2742	1947	8201	2787	1774	4703	2833	2243	8415	2887	2243	8392
2603	1774	4768	2652	1774	4588		2243	8370		2243	8320	2788	1774	4667	2834	2243	8348	2888	2243	8350
2604	1774	4539	2653	1774	4641	2698	2243	8446	2743	1947	8131	2789	1774	4607	2835	2243	8355	2889	2243	8491
2605	1947	8155	2654	2243	8413	2699	1774	4547	2744	1774	4712	2790	1947	8126	2836	2243	8434	2890	2243	8316
2606	1774	4611	2655	1947	8129	2700	1947	8176	2745	1774	4552	2791	1774	4644	2837	2243	8321	2891	2243	8449
2607	1947	8232	2656	1774	4589	2701	1774	4528	2746	1947	8274	2792	1947	8145	2838	2243	8435	2892	2243	8500
	2243	8353	2657	1947	8138	2702	1947	8149		2243	8404	2793	1947	8187	2839	2243	8470	2893	2243	8366
2608	1774	4725	2658	1774	4710	2703	1774	4605	2747	1774	4567		2243	8302	2840	2243	8460	2894	2243	8442
2609	1774	4545	2659	1774	4562	2704	1774	4548	2748	1774	4665	2794	1774	4668	2841	2243	8427	2895	2243	8351
2610	2243	8485	2660	1774	4613	2705	2243	8465	2749	1774	4578	2795	2243	8502	2842	2243	8447	2896	2243	8492
2611	2243	8496	2661	1774	4726	2706	1947	8166	2750	1774	4688	2796	1947	8219	2843	2243	8405	2897	2243	8393
2612	1774	4763	2662	1774	4677	2707	1774	4549	2751	1774	4606		2243	8339	2844	2243	8416	2898	2243	8443
2613	1774	4612	2663	1774	4603	2708	1774	4735	2752	2243	8497	2797	1947	8177	2845	2243	8499	2899	2243	8378
2614	2243	8454	2664	1947	8182	2709	1947	8144	2753	1947	8218	2798	1947	8178	2846	2243	8389	2900	2243	8450
2615	1947	8136	2665	2243	8457	2710	1774	4564		2243	8338	2799	1774	4504	2847	2243	8481	2901	2243	8437
2616	1947	8142	2666	1774	4727	2711	1774	4631	2754	1774	4623	2800	1774	4652	2848	2243	8406	2902	2243	8483
2617	2243	8453	2667	1947	8265	2712	1774	4743	2755	1774	4529	2801	1774	4632	2849	2243	8390	2903	2243	8484
2618	1774	4676		2243	8396	2713	1774	4550	2756	1774	4510	2802	1774	4511	2850	2243	8312	2904	2243	8421
2619	1774	4630	2668	2243	8476	2714	1774	4617	2757	1947	8225	2803	1947	8267	2851	2243	8304	2905	2243	8379
2620	2243	8455	2669	1774	4702	2715	1947	8246		2243	8345		2243	8397	2852	2243	8490	2906	2243	8307
2621	1774	4574	2670	1774	4526		2243	8371	2758	1947	8194	2804	1774	4737	2853	2243	8376	2907	2243	8451
2622	2243	8456	2671	1947	8209	2716	1947	8199		2243	8311	2805	1774	4730	2854	2243	8503	2908	2243	8323
2623	2243	8486		2243	8331		2243	8318	2759	1774	4591	2806	1947	8184	2855	2243	8313	2909	2243	8359
																		2910	2243	8422
																		2911	2243	8408

Johnny Cova S. and Jurgen Stock: Centro de Investigación de Astronomía "Francisco J. Duarte", Apartado Postal 264, Mérida 5101-A, Venezuela.