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# THE MINOR PLANET BULLETIN

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OF THE ASSOCIATION OF LUNAR AND PLANETARY OBSERVERS

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### ASTROMETRIC AND PHOTOMETRIC OBSERVATIONS OF 115 THYRA AT THE 1978-79 APPARITION

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A number of English observers have obtained photographic positions of 115 Thyra, which are given below. The coordinates of most of these have been previously published in the Minor Planet Bulletin<sup>1</sup>, the others are:

Observer	Place	Coordinates
Armstrong	Loudwater	Latitude 51°36'29"N, longitude 0°42'15"W, altitude 70 meters.
Ridley	Godalming	-λ 359°9, Δxy -268 ΔZ -331 (from IAUCs)

Armstrong used a 300 mm f/5.6 telephoto lens and Ridley a 500 mm focal length lens. All positions were measured by myself at the University of London Observatory.

Planet	1978/79 UT	RA (1950)	Dec	Observer
115 Oct	7.06131	4 <sup>h</sup> 44 <sup>m</sup> 49 <sup>s</sup> .4	+40°11'59"	Birtwhistle
115	7.06793	4 44 50.8	+40 12 00	Birtwhistle
115 Nov	26.8090	4 27 24.70	+42 11 38.9	Scott
115	26.8694	4 27 20.29	+42 11 18.2	Manning
115	26.8774	4 27 19.70	+42 11 15.9	Manning
115	27.8375	4 26 10.63	+42 05 37.4	Scott
115	27.89031	4 26 06.99	+42 05 19.0	Hurst
115	28.8642	4 24 56.24	+41 59 12.8	Manning
115	28.8726	4 24 55.57	+41 59 09.6	Manning
115	30.7792	4 22 38.14	+41 46 09.5	Scott
115	30.8215	4 22 34.91	+41 45 49.8	Scott
115 Dec	6.8861	4 15 30.86	+40 56 12.7	Scott
115	9.7903	4 12 22.47	+40 28 20.0	Scott
115	17.9517	4 04 50.28	+39 00 12.5	Armstrong
115	19.8925	4 03 24.0	+38 37 31	Armstrong
115	25.7847	3 59 59.88	+37 27 40.5	Van Looy
115	25.9277	3 59 55.60	+37 25 59.6	Van Looy
115	27.9666	3 59 06.13	+37 01 37.2	Van Looy
115	28.0062	3 59 05.41	+37 01 02.3	Van Looy
115 Jan	2.8395	3 57 47.06	+35 52 07.1	Van Looy
115	2.9126	3 57 46.24	+35 51 11.5	Van Looy
115	27.7878	4 08 03.09	+31 44 04.9	Manning
115	27.7969	4 08 03.55	+31 43 59.9	Manning
115	30.7632	4 10 44.57	+31 20 58.4	Scott
115 Feb	22.8557	4 39 08.58	+29 02 31.6	Manning
115	23.8198	4 40 34.03	+28 57 56.8	Manning
115	25.90972	4 43 42.14	+28 48 13.9	Ridley
115	28.87485	4 48 16.22	+28 35 01.7	Birtwhistle
115	28.89510	4 48 17.95	+28 34 56.1	Birtwhistle

From 20 observations, 1978 Nov 26 to 1979 Feb 28, I have calculated an orbit for 115 Thyra as follows:

T = 1978 Oct 1.5518 ET		
ω = 95.9948	}	e = 0.192619
Ω = 308.7000		a = 2.379545 AU
i = 11.5782		n <sup>o</sup> = 0.2685116
q = 1.921199 AU		P = 3.671 years

The mean residual is 1.42. Residuals of the individual observations from the elements above are given here, with residuals in ( ) not used in computation.

1978 UT	Δx Δy Δz	1978/9 UT	Δα Δδ Δζ
Oct 7.061	(-7.13 +4.0)	Dec 25.784	+1.3 -0.3
	7.067 (+5.1 +1.7)		25.927 +0.6 +0.9
Nov 26.809	-0.3 +0.9		27.966 (-0.8 +4.3)
	26.869 -0.1 -0.5		28.006 +1.8 -1.7
	26.877 -0.0 -0.2	Jan 2.839	(+0.5 +3.7)
	27.837 +1.5 +0.6		2.912 -2.3 -0.9
	27.890 (+4.6 +0.3)		27.787 -1.2 +1.8
	28.864 -0.0 +0.6		27.796 -1.1 +1.1
	28.872 -0.5 +0.5		30.763 +1.8 -1.4
	30.779 +0.1 +0.7	Feb 22.855	-2.4 +0.6
	30.821 -1.5 -1.7		23.819 -1.0 +0.2
Dec 6.886	(+0.5 +4.7)		25.909 +1.2 -1.4
	9.790 (+3.5 +0.8)		28.874 +2.1 +0.4
	17.951 (-5.1 +1.4)		28.895 +0.1 +0.2
	19.892 (-7.4 -10.0)		

The orbit was calculated to provide distance information for the asteroid, so that the magnitude reductions by Hurst could be analysed. The magnitudes were reduced using comparisons from the SAOC, USNOC, and various AAVSO fields. 63 magnitude reductions were used to produce the following formula:

$$m_{pv} = 6.86(\pm 0.05) + 5 \log D + 5 \log r + 0.061(\pm 0.003)\theta^{\circ}$$

Standard errors are quoted. The standard deviation of individual magnitudes was  $\pm 0.16$ .

This result is significantly different from data available in the "Ephemerides of Minor Planets." The observed magnitude around opposition was about 8.9<sub>pv</sub>. As the observations fall into two distinct ranges of phase angle, from 10-16° and 22-28°, an error in zero pointing for the brighter magnitudes (as possibly indicated by the opposition brightness being about 1 magnitude brighter than expected) would produce an anomalously bright value of the absolute magnitude m<sub>0</sub> and a correspondingly large value for the phase constant. These findings will have to be reviewed during a subsequent opposition.

All magnitude observations are given below. Four of these from Jan 2 were not used, these being about 0.5-0.6 magnitudes fainter than other estimates would suggest. Inclusion into the reduction changes the results by less than the given errors. The four observations are marked with a ? on the diagram of the phase function.

1978 UT	m <sub>pv</sub> obs	1978/9 UT	m <sub>pv</sub> obs	1979 UT	m <sub>pv</sub> obs	
Oct 7.06	+10.4 B	Dec 15.93	+9.1 S	Jan 2.91	+10.2 VL	
	7.06	10.3 B	17.80	9.1 S	2.91	10.3 VL
Nov 26.80	8.8 S	17.80	9.3 VL	11.76	10.0 S	
	26.86	9.0 M	17.81	9.2 VL	16.86	10.4 S
	26.87	9.0 M	18.80	9.1 VL	20.91	10.4 S
	27.83	8.9 S	18.81	9.1 VL	23.88	10.5 S
	27.89	8.9 H	18.85	9.1 H	26.98	10.6 VL
	28.86	8.9 M	18.86	9.1 A	27.79	10.7 VL
	28.87	8.9 M	19.85	9.2 S	27.79	10.7 VL
	28.93	9.1 VL	19.88	9.2 H	27.84	10.8 VL
	28.94	9.1 VL	19.88	9.3 H	27.84	10.8 VL
	29.96	9.2 VL	19.88	9.3 H	29.91	10.6 VL
	29.96	9.2 VL	25.78	9.1 VL	29.92	10.6 VL

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	30.77	8.9 S	25.78	9.0 VL	30.76	10.6 S
	30.82	9.0 S	25.85	9.2 S	Feb 2.75	10.8 S
	30.92	9.2 VL	25.92	9.1 VL	14.82	11.0 S
	30.92	9.2 VL	26.93	9.1 VL	22.78	11.2 S
Dec	1.82	8.9 S	26.96	9.2 VL	22.85	11.4 M
	4.83	8.8 S	27.96	9.2 VL	23.78	11.4 S
	6.88	8.8 S	28.00	9.2 VL	23.81	11.3 M
	9.79	9.2 S	Jan 2.83	10.3 VL	24.87	11.4 S
	13.90	9.1 S	2.84	10.2 VL	25.80	11.3 S
					28.86	11.5 S

negative should be reported without delay to Dr. David W. Dunham, P.O. Box 488, Silver Spring, Maryland 20907, U.S.A. Please be aware that predictions regarding the paths of these events are often in error by several hundreds of kilometers because of our imperfect knowledge of precise minor planet and star positions. Observers in bordering regions therefore should also attempt observation of these events.

1. Pilcher, F., MPB Vol 7, No. 1, 1979 Jul-Sept, p.6

**OCCULTATION NEWS**

Several occultations of stars by some of the brighter minor planets will be occurring in the near future. As has been discussed in previous issues of MPB, carefully timed observations by many observers can yield fairly accurate diameter determinations for the planets involved; secondary occultation events confirmed independently by observers at different stations would constitute strong evidence for the existence of satellites orbiting these planets.

**4 VESTA.** On 1979 November 23 at about 2h30<sup>m</sup> UT minor planet 4 Vesta will occult the star SAO 110541 which is of 3.7 magnitude. The path of this event is expected to cross Canada, and should be more than 540 km wide.

**27 EUTERPE.** On 1979 December 8 between 5h28<sup>m</sup> and 5h44<sup>m</sup> UT observers in northeastern Europe will have an opportunity to observe the occultation of the 9.0 magnitude star SAO 77426 by 27 Euterpe. The minor planet and the star will be of nearly equal brightness; their combined brightness will drop by 0.8 magnitude during the event. Duration along the central path should be about 17 seconds.

**9 METIS.** On 1979 December 11 between 8h05<sup>m</sup> and 8h17<sup>m</sup> UT the minor planet 9 Metis (then magnitude 10.0) will occult the moderately bright star SAO 80950 (magnitude 6.8), causing a dramatic 3.2 magnitude decline in combined brightness for observers in the eastern Caribbean Sea, western Venezuela, and Colombia. The path width of the event will be somewhat more than 160 km, the diameter of Metis. Observers elsewhere, especially on neighboring islands, Central America, and the southeastern United States should watch for possible secondary occultations which might be caused by possible satellites. (The Recorder will attempt observation in the Virgin Islands).

**3 JUNO.** On 1979 December 11 about 9<sup>h</sup> UT the bright minor planet Juno will occult the 9.0 magnitude star SAO 115946. The exact path has not yet been determined, but will involve eastern Canada to the west coast of the United States. Path width will be more than 240 km. The asteroid is brighter than the star so that reliable detection will probably require photoelectric photometry. Brief secondary events might be observable by experienced visual observers.

**48 DORIS.** On 1980 January 4, between about 2<sup>h</sup>05<sup>m</sup> and 2<sup>h</sup>12<sup>m</sup> UT planet 48 Doris (then magnitude 11.2) will occult the star SAO 94441 (magnitude 7.7). The path of this occultation begins in Europe, crosses the Atlantic Ocean and eastern Canada, and will terminate near Lake Superior. During the event the brightness of the combined objects will decline dramatically by 3.1 magnitudes for a duration of up to about 15 seconds. Path width will be more than 150 km, the diameter of Doris.

All occultation observations, both positive and

**MINOR PLANET NEWS**

**1977 HA RECOVERED.** The Apollo-type asteroid 1977 HA was recovered by C.T. Kowal on exposures with the 122 cm Schmidt telescope at Mt. Palomar made on 1979 June 1 and June 2. At the time the planet was magnitude 19. (Cf. IAU Circular 3371)

**1972 RA RECOVERED.** The Amor-type asteroid 1972 RA was recovered by E. Helin on exposures made with the 122 cm Schmidt telescope at Palomar Mountain Observatory on 1979 August 23. Further observations of this object were secured by G. Schwartz and C.-Y. Shao at Harvard College Observatory, Agassiz Station on August 31 and September 1. At the time of Helin's observation 1972 RA was estimated to be photographic magnitude 17 or 17½. (Cf. IAU Circular 3398)

**1979 QA DISCOVERED.** Eleanor Helin discovered this fast-moving asteroidal object on exposures made with the 122 cm Schmidt telescope at Mt. Palomar on 1979 August 22 and 23. Its estimated magnitude was then 18½ to 19. At time of discovery 1979 QA was apparently becoming fainter and drawing away from the Earth. It is unfortunate that more observations over a longer period of time have not been reported.

**1979 QB DISCOVERED.** On the same plates which revealed 1977 QA Eleanor Helin also found another object in direct motion at opposition, now designated 1977 QB. It is an Amor-type planet with the following orbital elements by Brian G. Marsden:

T = 1979 Sept. 25.005 ET	
Ω = 119304	e = 0.44299
Δ = 342.155	a = 2.33379 AU
i = 3.381	n° = 0.276446
q = 1.29996 AU	P = 3.57 years

(Cf. IAU Circulars 3401 and 3412)

**LONG-LOST PLANET 612 VERONIKA RECOVERED.** Lost since its discovery in 1906, the minor planet 612 Veronika has been identified by Brian G. Marsden with six single observations variously reported as 1950 LN, 1962 VB, 1973 RE, 1973 TQ, 1973 UH3 and 1974 XS. At opposition this year (November) Veronika is expected to be magnitude 16.4 photographic, too faint for most amateur telescopes. (Cf. IAU Circular 3411)

**DR. KARL REINMUTH**

Dr. Karl Reinmuth, who discovered more minor planets than any other person, died on 1979 May 6 at age 87 in Heidelberg. He spent his entire astronomical career there at Königstuhl Observatory from 1912 to 1957, during which time he discovered about 270 planets which have received permanent numbers.

Dr. Reinmuth's first discovery was 796 Sarita on October 15, 1914. He also discovered about one third of the currently numbered Trojan planets, and in 1937 found unnumbered Hermes, now lost, which swept past the Earth at about twice the Moon's distance. A very active observer, he obtained 12,500 precise positions of minor planets measured on Königstuhl photographs -- an enormous achievement before automatic measuring engines and electronic computers!

## AN UPDATED ALPHABETICAL LIST OF NAMES OF MINOR PLANETS

11

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Abstract: An alphabetical list of 1924 minor planet names, including diacritical marks, assigned through 1 March 1979 is presented.

In 1977 (MPB Vo. 4, No. 3, p. 19, 1977 Jan-Mar) this author published a list of names of 1781 minor planets which had been officially named by Jun 1976. Since that time the interest in and pace of minor planet naming has remained at a high level, and 143 additional names have been assigned in the Minor Planet Circulars through 1 March 1979. An updated list of names is now warranted, and is presented here. All diacritical marks, frequently omitted from computerized printout, have been carefully retained.

The author wishes to thank Michel Combes, Paris,

France, for carefully proofreading this list in advance of submission. Dr. Brian G. Marsden has pointed out two names which have been incorrectly spelled in the annual ephemeris volume, and these are corrected here. The name of 1379 was announced in MPC 1252 as "Lomonosowa" at the time the name was first assigned. For many years the alternative spelling "Lomonossova" has been used, but this has been corrected to its originally announced form. For planet 1760 the name has been spelled "Sandia," but the discoverer's letter, in the possession of Dr. Marsden, shows that it should be "Sandra."

677 Aaltje	978 Aidamina	198 Ampella	469 Argentina	1488 Aura
864 Aase	1568 Aisleen	29 Amphitrite	43 Ariadne	700 Auravictrix
1581 Abanderada	1404 Ajax	1065 Amundsenia	1225 Ariane	419 Aurelia
1390 Abastumani	2067 Aksnes	980 Anacostia	1395 Aribeda	1231 Auricula
456 Abnoba	738 Alagasta	270 Anahita	793 Arizona	94 Aurora
151 Abundantia	702 Alauda	824 Anastasia	780 Armenia	63 Ausonia
829 Academia	719 Albert	1173 Anchises	514 Armida	136 Austria
1150 Achaia	1290 Albertine	1296 Andrée	1464 Armisticia	1465 Autonomia
588 Achilles	1909 Alekhin	175 Andromache	774 Armor	1056 Azalea
523 Ada	465 Alekto	1172 Aneas	959 Arne	1501 Baade
330 Adalberta	418 Alemannia	1957 Angara	1100 Arnica	2063 Bacchus
1996 Adams	295 Aletheia	965 Angelica	1018 Arnolda	1814 Bach
525 Adelaide	1194 Aletta	64 Angelina	1304 Arosa	856 Backlunda
812 Adele	54 Alexandra	791 Ani	404 Arsinoë	333 Badenia
647 Adelgunde	1191 Alfaterna	1016 Anitra	1956 Artek	1280 Baillauda
276 Adelheid	1375 Alfreda	1457 Ankara	105 Artemis	1591 Baize
229 Adelinda	1778 Alfvén	265 Anna	2023 Asaph	1491 Balduinus
145 Adeona	1213 Algeria	910 Anneliese	214 Aschera	770 Bali
398 Admete	1394 Algoa	817 Annika	67 Asia	2031 Bam
608 Adolfine	929 Algunde	1943 Anteros	1216 Askania	324 Bamberga
2101 Adonis	291 Alice	129 Antigone	962 Aslög	1286 Banachiewiczza
268 Adorea	1567 Alikoski	651 Antikleia	409 Aspasia	1713 Bancelhon
239 Adrastea	887 Alinda	1583 Antilochus	958 Asplinda	597 Bandusia
143 Adria	266 Aline	1863 Antinous	246 Asporina	298 Baptistina
820 Adriana	124 Alkeste	90 Antiope	1041 Asta	234 Barbara
1903 Adzhimushkaj	82 Alkmene	272 Antiochia	672 Astarte	1860 Barbarossa
91 Aegina	457 Alleghenia	1294 Antwerpia	1218 Aster	945 Barcelona
96 Aegle	390 Alma	2061 Anza	658 Asteria	1615 Bardwell
159 Aemilia	925 Alphonsina	1388 Aphrodite	233 Asterope	819 Barnardiana
1155 Aëna	971 Alsatia	1862 Apollo	5 Astraea	1703 Barry
396 Aeolia	1617 Alschmitt	358 Apollonia	1128 Astrid	441 Bathilde
369 Aeria	955 Alstede	988 Appella	1154 Astronomia	592 Bathseba
1027 Aesculapia	119 Althaea	1768 Appenzella	1871 Astyanax	172 Baucis
446 Aeternitas	850 Altona	1063 Aquilegia	152 Atala	1553 Bauersfelda
132 Aethra	1169 Alwine	387 Aquitania	36 Atalante	813 Baumeia
1064 Aethusa	650 Amalasantha	849 Ara	1139 Atami	301 Bavaria
1142 Aetolia	284 Amalia	841 Arabella	111 Ate	656 Beagle
1187 Afra	113 Amalthea	1157 Arabia	2062 Aten	1043 Beate
1193 Africa	725 Amanda	1087 Arabis	515 Athalia	83 Beatrix
911 Agamemnon	1085 Amaryllis	407 Arachne	230 Athamantis	1349 Bechuana
228 Agathe	1035 Amata	1005 Arago	730 Athanasia	1896 Beer
1873 Agenor	1042 Amazone	973 Aralia	881 Athene	1815 Beethoven
47 Aglaja	1905 Ambartsumian	1020 Arcadia	161 Athor	943 Begonia
641 Agnes	193 Ambrosia	1031 Arctica	1827 Atkinson	1474 Beira
847 Agnia	986 Amelia	394 Arduina	1198 Atlantis	1052 Belgica
645 Agrippina	916 America	1502 Arenda	810 Atossa	178 Belisana
1800 Aguilar	516 Amherstia	737 Arequipa	273 Atropos	1074 Beljawska
744 Aguntina	367 Amicitia	197 Arete	1138 Attica	695 Bella
950 Ahrensa	871 Amneris	95 Arethusia	254 Augusta	1808 Bellerophon
861 Aida	1221 Amor	1551 Argelander	1480 Aunus	28 Bellona

1004	Belopolskya	374	Burgundia	489	Comacina	1789	Dobrovolsky	331	Etheridgea	1772	Gagarin
2030	Belyaev	834	Burnhamia	58	Concordia	382	Dodona	1432	Ethiopia	1358	Gaika
734	Benda	199	Byblis	1528	Conrada	1277	Dolores	1119	Euboea	1835	Gajdariya
1846	Bengt	297	Caecilia	315	Constantia	1398	Donnera	181	Eucharis	1250	Galanthus
976	Benjamina	952	Caia	815	Coppelia	668	Dora	217	Eudora	74	Galatea
863	Benkoela	341	California	1322	Coppernicus	48	Doris	45	Eugenia	427	Galene
1517	Beograd	1245	Calvinia	504	Cora	339	Dorothea	743	Eugenisis	697	Galilea
776	Berbericia	957	Camelia	365	Corduba	620	Drakonia	247	Eukrate	148	Gallia
653	Berenike	107	Camilla	425	Cornelia	263	Dresda	495	Eulalia	1036	Ganymed
716	Berkeley	377	Campania	1232	Cortusa	1621	Druzhba	2002	Euler	1435	Garlena
1313	Berna	1077	Campanula	1442	Corvina	1167	Dubiago	185	Eunike	180	Garumna
629	Bernardina	1120	Cannonia	915	Cosette	400	Ducrosa	15	Eunomia	951	Gaspra
422	Berolina	740	Cantabria	644	Cosima	564	Dudu	630	Euphemia	1001	Gaussia
154	Bertha	479	Caprera	2026	Cottrell	1961	Dufour	31	Euphrosyne	764	Gedania
420	Bertholda	1391	Carelia	1898	Cowell	571	Dulcinea	52	Europa	1267	Geertruida
1729	Beryl	491	Carina	1476	Cox	1962	Dunant	527	Euryanthe	1272	Gefion
1552	Bessel	1470	Carla	1725	Crao	1338	Duponta	75	Eurydike	1777	Gehrels
937	Bethgea	360	Carlova	486	Cremona	2048	Dwornik	195	Eurykleia	1047	Geisha
250	Bettina	558	Carmen	660	Crescentia	200	Dynamene	79	Eurynome	1199	Geldonia
1580	Betulia	671	Carnegia	1140	Crimea	1241	Dysona	27	Euterpe	1073	Gellivara
1611	Beyer	235	Carolina	589	Croatia	1205	Ebella	164	Eva	1385	Gelria
1963	Bezovec	1116	Catriona	1220	Crocus	60	Echo	503	Evelyn	1237	Geneviève
218	Bianca	1344	Caubeta	1899	Crommelin	1750	Eckert	1569	Evita	680	Genoveva
1146	Biarmia	505	Cava	1754	Cunningham	413	Edburga	1576	Fabiola	485	Genua
585	Bilkis	1252	Celestia	763	Cupido	673	Edda	1649	Fabre	1620	Geographos
960	Birgit	186	Celuta	1917	Cuyo	742	Edisona	1593	Fagnes	376	Geometria
1487	Boda	1240	Centenaria	403	Cyane	517	Edith	751	Faina	359	Georgia
998	Bodea	513	Centesima	65	Cybele	1341	Edmée	408	Fama	300	Geraldina
371	Bohemia	807	Ceraskia	1106	Cydonia	1761	Edmondson	1589	Fanatica	1433	Gerantina
720	Bohlinia	1865	Cerberus	133	Cyrene	445	Edna	821	Fanny	1227	Geranium
1141	Bohmia	1	Ceres	1864	Daedalus	340	Eduarda	1224	Fantasia	1337	Gerarda
1635	Bohrmann	1333	Cevenola	1669	Dagmar	1046	Edwin	866	Fatme	122	Gerda
1654	Bojeva	1622	Chacornac	1511	Daléra	13	Egeria	1418	Fayeta	663	Gerlinde
1983	Bok	1671	Chaika	61	Danaë	442	Eichsfeldia	294	Felicia	241	Germania
712	Boliviana	1246	Chaka	2068	Dangreen	2001	Einstein	109	Felicitas	686	Gersuind
1441	Bolyai	313	Chaldaea	1594	Danjon	694	Ekard	1453	Fennia	1382	Gerti
767	Bondia	2051	Chang	1381	Danubia	858	El Djezaïr	1048	Feodosia	710	Gertrud
361	Bononia	627	Charis	1419	Danzig	130	Elektra	1745	Ferguson	1756	Giacobini
1477	Bonsdorffia	1510	Charlois	41	Daphne	354	Eleonora	72	Feronia	1741	Giclas
1539	Borrelly	543	Charlotte	1270	Datura	567	Eleutheria	524	Fidelio	1812	Gilgamesh
1354	Botha	388	Charybdis	511	Davida	618	Elfriede	37	Fides	613	Ginevra
741	Botolphia	1804	Chebotarev	1037	Davidweilla	1329	Eliane	380	Fiducia	1599	Giomus
1543	Bourgeois	2010	Chebyshev	1618	Dawn	956	Elisa	1099	Figneria	352	Gisela
859	Bouzaréah	568	Cheruskia	1829	Dawson	412	Elisabetha	1616	Filipoff	492	Gismonda
1639	Bower	334	Chicago	541	Deborah	435	Ella	795	Fini	1687	Glarona
1215	Boyer	623	Chimaera	1295	Deflotte	616	Elly	1794	Finsen	857	Glasenappia
1342	Brabantia	1633	Chimay	1867	Deiphobus	59	Elpis	1021	Flammario	288	Glauke
1818	Brahms	1125	China	1244	Deira	182	Elsa	1736	Floirac	1870	Glaukos
640	Brambilla	2060	Chiron	1555	Dejan	277	Elvira	8	Flora	1823	Gliese
1168	Brandia	402	Chloe	157	Dejanira	1234	Elyna	321	Florentina	316	Gobertha
606	Brangane	410	Chloris	184	Dejopeja	576	Emanuela	1689	Floris-Jan	1728	Goethe Link
293	Brasilia	938	Chlosinde	395	Delia	481	Emita	1054	Forsytia	1614	Goldschmidt
1411	Brauna	1015	Christa	560	Delila	283	Emma	19	Fortuna	1226	Golia
786	Bredichina	628	Christine	1988	Delores	342	Endymion	1105	Fortaria	1891	Gondola
1609	Brenda	202	Chryseis	1274	Delportia	221	Eos	1212	Francette	1562	Gondolatsch
761	Brendelia	637	Chrysothemis	349	Dembowska	1810	Epimetheus	2050	Francis	1177	Gonnessia
1211	Bressole	1275	Cimbria	1108	Demeter	802	Epyaxa	982	Franklina	305	Gordonia
450	Brigitta	1307	Cimmeria	1335	Demoulina	62	Erato	862	Franzia	681	Gordona
655	Briseis	1373	Cincinnati	667	Denise	894	Erda	520	Franziska	1346	Gotha
1071	Brita	34	Circe	1339	Désagneauxa	1254	Erfordia	309	Fraternitas	1188	Gothlandia
1219	Britta	642	Clara	1588	Descamisada	1402	Eri	1093	Freda	1049	Gotho
521	Brixia	302	Clarissa	666	Desdemona	718	Erida	678	Fredegundis	1159	Granada
1315	Bronislawa	311	Claudia	344	Desiderata	163	Erigone	76	Freia	1451	Granö
1746	Brouwer	1101	Clematis	1686	De Sitter	636	Erika	1561	Fricke	1661	Granule
1643	Brown	1919	Clemence	337	Devosa	462	Eriphyla	722	Frieda	424	Gratia
455	Bruchsalia	252	Clementina	1328	Devota	705	Erminia	538	Friederike	984	Gretia
323	Brucia	1982	Cline	78	Diana	406	Erna	77	Frigga	1362	Griqua
290	Bruna	935	Clivia	209	Dido	698	Ernestina	709	Fringilla	493	Griseldis
123	Brunhild	661	Cloelia	1706	Dieckvoss	433	Eros	1253	Frisia	1674	Groeneveld
1570	Brunonia	282	Clorinde	99	Dike	889	Erynia	854	Frostia	1058	Grubba
901	Brunsia	237	Coelestina	1437	Diomedes	1509	Esclangona	1584	Fuji	496	Gryphia
1811	Bruwer	1764	Cogshall	106	Dione	1421	Esperanto	609	Fulvia	328	Gudrun
908	Buda	972	Cohnia	423	Diotima	622	Esther	355	Gabriella	799	Gudula
338	Budrosa	1135	Colchis	1805	Dirikis	1541	Estonia	1665	Gaby	2105	Gudy
384	Burdigala	327	Columbia	1319	Disa	2032	Ethel	1184	Gaea	1960	Guisan

891 Gunhild	685 Hermia	704 Interamnia	53 Kalyпсо	208 Lacrimosa	117 Lomia
983 Gunila	121 Hermione	85 Io	1387 Kama	1851 Lacroute	1379 Lomonosowa
657 Gunlöd	546 Herodias	509 Iolanda	818 Kapteynia	39 Laetitia	1755 Lorbach
961 Gunnie	1579 Herrick	112 Iphigenia	1959 Karbyshev	1006 Lagrangea	1287 Lorcia
1944 Gunter	2000 Herschel	794 Irenaea	1682 Karel	1412 Lagrula	165 Loreley
2012 Guo Shou-Jing	206 Hersilia	14 Irene	832 Karin	1498 Lahti	1939 Loretta
777 Gutemberga	135 Hertha	7 Iris	781 Kartvelia	822 Lalage	1114 Lorraine
806 Gyldenia	1693 Hertzsprung	177 Irma	1316 Kasan	187 Lamberta	1326 Losaka
444 Gyptis	69 Hesperia	1178 Irmela	1828 Kashirina	248 Lameia	429 Lotis
1894 Haffner	46 Hestia	591 Irmgard	114 Kassandra	393 Lampetia	868 Lova
682 Hagar	944 Hidalgo	773 Irmintraud	646 Kastalia	1767 Lampland	1886 Lowell
1971 Hagihara	996 Hilaritas	1485 Isa	320 Katharina	683 Lanzia	1292 Luce
368 Haidea	153 Hilda	210 Isabella	1113 Katja	1011 Laodamia	1935 Lucerna
1995 Hajek	684 Hildburg	364 Isara	1900 Katyusha	507 Laodica	222 Lucia
1483 Hakoila	898 Hildegard	939 Isberga	1976 Kaverin	1008 La Paz	1176 Lucidor
1098 Hakone	928 Hildrun	1271 Isergina	1508 Kemi	1029 La Plata	1892 Lucienne
518 Halawe	1642 Hill	42 Isis	1278 Kenya	1504 Lappeenranta	1930 Lucifer
1024 Hale	1897 Hind	1409 Isko	1134 Kepler	1819 Laputa	146 Lucina
1308 Halleria	426 Hippo	190 Ismene	842 Kerstin	1895 Larink	281 Lucretia
1460 Haltia	692 Hippodamia	211 Isolda	1540 Kevola	1162 Larissa	1158 Luda
449 Hamburga	1999 Hirayama	1374 Isora	1357 Khama	639 Latona	675 Ludmilla
452 Hamiltonia	1612 Hirose	183 Istria	1759 Kienle	1284 Latvia	292 Ludovica
723 Hammonia	706 Hirundo	477 Italia	1788 Kiess	1597 Laugier	1936 Lugano
1668 Hanna	804 Hispania	918 Itha	470 Kilia	467 Laura	1133 Lugduna
480 Hansa	1662 Hoffmann	1151 Ithaka	1780 Kippes	162 Laurentia	599 Luisa
1118 Hanskya	1726 Hoffmeister	497 Iva	1156 Kira	1938 Lausanna	141 Lumen
724 Hapag	788 Hohensteina	1627 Ivar	1578 Kirkwood	1401 Lavonne	775 Lumière
578 Happelia	872 Holda	1942 Jablunka	1825 Klare	38 Leda	1067 Lunaria
2003 Harding	1132 Hollandia	2079 Jacchia	216 Kleopatra	1261 Legia	809 Lundia
1372 Haremari	378 Holmia	1017 Jacqueline	84 Klio	691 Lehigh	1334 Lundmarka
40 Harmonia	236 Honoria	1893 Jakoba	97 Klotho	1565 Lemaitre	713 Luscinia
1744 Harriet	932 Hooveria	383 Janina	583 Klotilde	789 Lena	21 Lutetia
1531 Hartmut	1985 Hopmann	1843 Jarmila	1040 Klumpkea	969 Leocadia	1303 Luthera
736 Harvard	805 Hormuthia	1558 Järnefelt	104 Klymene	319 Leona	110 Lydia
362 Havnia	260 Huberta	1110 Jaroslawa	179 Klytaemnestra	1378 Leonce	1028 Lydina
1824 Haworth	379 Huenna	1461 Jean-Jacques	73 Klytia	728 Leonisis	917 Lyka
6 Hebe	434 Hungaria	1281 Jeanne	1384 Kniertje	696 Leonora	897 Lysistrata
1650 Heckmann	1840 Hus	1934 Jeffers	1311 Knopfia	844 Leontina	1353 Maartje
108 Hecuba	1678 Hveen	1606 Jekhovsky	1324 Knysna	893 Leopoldina	510 Mabella
207 Hedda	430 Hybris	526 Jena	1164 Kobolda	1264 Letaba	318 Magdalena
1251 Hedera	10 Hygiea	607 Jenny	1233 Kobresia	68 Leto	1060 Magnolia
476 Hedwig	1842 Hynek	1719 Jens	1850 Kohoutek	35 Leukothea	1459 Magnya
325 Heidelberga	238 Hypatia	1414 Jérôme	1522 Kokkola	1361 Leuschneria	1355 Magoeba
1732 Heike	1309 Hyperborea	549 Jessonda	191 Kolga	1997 Leverrier	66 Maja
2016 Heinemann	587 Hypsipyle	544 Jetta	1836 Komarov	2076 Levin	1321 Majuba
100 Hekate	98 Ianthe	726 Joëlla	1861 Komenský	2004 Lexell	1771 Makover
624 Hektor	1566 Icarus	1524 Joensuu	1406 Komppa	954 Li	754 Malabar
949 Hel	286 Iclea	127 Johanna	1283 Komsomolia	771 Libera	1415 Malautra
699 Helä	243 Ida	899 Jokaste	1445 Konkolya	125 Liberatrix	1179 Mally
101 Helena	1403 Idelsonia	836 Jole	1890 Konoshenkova	264 Libussa	1527 Malnquist
1872 Helenos	963 Iduberga	1423 Jose	2008 Konstitutsiya	1268 Libya	1072 Malva
1845 Helewalda	176 Iduna	649 Josefa	1631 Kopff	1951 Lick	749 Malzovia
522 Helga	1160 Illyria	303 Josephina	1505 Koranna	1107 Lictoria	758 Mancunia
1075 Helina	385 Ilmatar	921 Jovita	940 Kordula	356 Liguria	739 Mandeville
895 Helio	1182 Ilona	652 Jubilatix	1855 Korolev	213 Lilaea	870 Manto
967 Helionape	249 Ilse	948 Jucunda	158 Koronis	1181 Lilith	565 Marbachia
1370 Hella	919 Ilsebill	664 Judith	1799 Koussevitzky	1092 Liliun	1300 Marcelle
1273 Helma	979 Ilsewa	139 Juewa	867 Kovacia	756 Lilliana	1332 Marconia
1495 Helsinki	1520 Imatra	1248 Jugurtha	1859 Kovalevskaya	1003 Lillofee	310 Margarita
801 Helwerthia	926 Imhilde	89 Julia	1849 Kresák	1383 Limburgia	735 Marghanna
2005 Hencke	1813 Imhotep	816 Juliana	548 Kressida	1490 Limpopo	1175 Margo
225 Henrietta	1320 Impala	1285 Julietta	800 Kressmannia	468 Lina	1434 Margot
826 Henrika	1200 Imperatrix	3 Juno	488 Kreusa	1448 Lindbladia	1410 Margret
1516 Henry	1165 Imprinetta	269 Justitia	242 Kriemhild	1407 Lindelöf	170 Maria
1365 Henyey	1325 Inanda	1183 Jutta	1776 Kuiper	828 Lindemannia	602 Marianna
103 Hera	1532 Inari	605 Juvisia	1774 Kulikov	1469 Linzia	1486 Marilyn
880 Herba	1602 Indiana	1500 Jyvaskylä	553 Kundry	974 Lioba	1202 Marina
1363 Herberta	389 Industria	2015 Kachuevskaya	936 Kunigunde	846 Lippertá	506 Marion
532 Herculina	391 Ingeborg	1874 Kacivelia	1503 Kuopio	414 Lirioppe	912 Maritima
458 Hercynia	1026 Ingrid	1587 Kahrstedt	1559 Kustaanheimo	1062 Ljuba	1010 Marlene
1885 Herero	561 Ingwelde	1694 Kaiser	1289 Kutaissi	1858 Lobachevskij	746 Marlu
1751 Herget	1479 Inkeri	1519 Kajaani	669 Kypria	1066 Lobelia	1174 Marmara
923 Herluga	848 Inna	1454 Kalevala	570 Kythera	1937 Locarno	711 Marmulla
346 Hermentaria	1658 Innes	22 Kalliope	336 Lacadiera	1820 Lohmann	1877 Marsden
- Hermes	173 Ino	204 Kallisto	120 Lachesis	463 Lola	205 Martha

981 Martina	428 Monachia	875 Nympe	2039 Payne-Gaposchkin	1192 Prisma	1350 Rosselia
1585 Martir	833 Monica	44 Nysa	1629 Pecker	902 Probitas	1440 Rostia
1841 Masaryk	535 Montague	224 Oceana	118 Peitho	194 Prokne	615 Roswitha
1467 Mashona	797 Montana	475 Ocllo	1190 Pelagia	1809 Prometheus	874 Rotraut
20 Massalia	782 Montefiore	598 Octavia	1667 Pels	26 Proserpina	1413 Roucarie
1904 Masevitch	947 Monterosa	1144 Oda	1429 Pemba	147 Protogeneia	1518 Rovaniemi
760 Massinga	1257 Móra	1143 Odysseus	201 Penelope	474 Prudentia	317 Roxane
454 Mathesis	1901 Moravia	215 Oenone	271 Penthesilea	261 Prynno	1907 Rudneva
1592 Mathieu	1210 Morosovia	1259 Ógyalla	1102 Pepita	16 Psyche	1773 Rumpelstilz
253 Mathilde	787 Moskva	439 Ohio	554 Peraga	762 Pulcova	353 Ruperto-Carola
883 Matteredania	993 Moultona	1002 Olbersia	1515 Perrotin	1209 Pumma	1443 Ruppina
765 Mattiaca	1034 Mozartia	304 Olga	399 Persephone	1659 Punkaharju	1762 Russell
1748 Mauderli	1832 Mrkos	835 Olivia	975 Perseverantia	632 Pyrrha	232 Russia
745 Mauritia	1466 Mundleria	582 Olympia	1716 Peter	432 Pythia	1171 Rusthawelia
1607 Mavis	1472 Muonio	1022 Olympiada	482 Petrina	1297 Quadea	798 Ruth
1217 Maximiliana	941 Murray	1389 Onnie	830 Petropolitana	1239 Queteleta	1249 Ruthfordia
348 May	600 Musa	1691 Oort	968 Petunia	1915 Quetzálcoatl	1427 Ruvuma
1880 McCrosky	966 Muschi	171 Ophelia	174 Phaedra	755 Quintilla	1856 Růžena
991 McDonaldalda	1059 Mussorgskia	2099 Öpik	322 Phaeo	1624 Rabe	1115 Sabauda
873 Mechthild	381 Myrrha	255 Oppavia	296 Phaëtusa	674 Rachele	665 Sabine
212 Medea	1906 Naef	1492 Oppolzer	274 Philagoria	1420 Radcliffe	1626 Sadeya
149 Medusa	845 Naëma	1195 Orangia	280 Philia	1644 Rafita	1364 Safara
464 Megaira	1327 Namaqua	1080 Orchis	977 Philippa	1839 Ragazza	1163 Saga
1968 Mehlretter	2056 Nancy	701 Oriola	631 Philippina	1450 Raimonda	1533 Saimaa
688 Melanie	1203 Nanna	350 Ornamenta	1869 Philoctetes	1137 Raïssa	1166 Sakuntala
56 Melete	559 Nanon	551 Ortrud	196 Philomela	1530 Rantaseppä	562 Salome
137 Meliboea	853 Nansenia	1837 Osita	227 Philosophia	708 Raphaela	1083 Salvia
676 Melitta	1876 Napolitania	750 Oskar	25 Phocaea	1148 Rarahu	1760 Sandra
869 Mellena	1534 Nási	1369 Ostanina	443 Photographica	2100 Ra-Shalom	1288 Santa
18 Melpomene	534 Nassovia	343 Ostara	1291 Phryne	927 Ratisbona	275 Sapientia
373 Melusina	1086 Nata	1207 Ostenia	189 Phthia	572 Rebekka	80 Sappho
1247 Memoria	448 Natalie	1529 Osterma	556 Phyllis	573 Recha	533 Sara
1647 Menelaus	1121 Natascha	1126 Otero	614 Pia	285 Regina	1012 Sarema
188 Menippe	811 Nauheima	913 Otila	1000 Piazzia	574 Reginhild	796 Sarita
1078 Mentha	192 Nausikaa	670 Ottegebe	1366 Piccolo	1117 Reginita	1920 Sarmiento
1967 Menzel	903 Nealley	994 Otthild	803 Picka	1111 Reimuthia	461 Saskia
536 Merapi	1223 Neckar	401 Ottilia	784 Pickeringia	1577 Reiss	1494 Savo
1136 Mercedes	1122 Neith	1512 Oulu	1523 Pieksämäki	575 Renate	1525 Savonlinna
1051 Merope	51 Nemausa	1473 Ounas	1536 Pielinen	1416 Renauxa	1228 Scabiosa
1299 Mertona	128 Nemesis	1396 Outeniqua	1392 Pierre	1792 Reni	460 Scania
808 Merxia	289 Nenetta	363 Padua	312 Pierretta	1204 Renzia	1742 Schaifers
545 Messalina	431 Nephela	1061 Paeonia	1975 Pikelner	906 Repsolda	1542 Schalén
1050 Meta	287 Nephthys	1032 Pafuri	648 Pippa	1081 Reseda	1797 Schaumasse
794 Metcalfia	1318 Nerina	1535 Páijänne	1082 Pirola	1371 Resi	643 Scheherezade
9 Metis	601 Nerthus	953 Painleva	484 Pittsburghia	1096 Reunerta	596 Scheila
1574 Meyer	659 Nestor	1889 Pakhmutova	1069 Planckia	528 Rezia	1255 Schilowa
1739 Meyermann	1129 Neujmina	1921 Pala	1908 Pobeda	577 Rhea	1770 Schlesinger
1348 Michel	1603 Neva	415 Palatia	946 Poësia	907 Rhoda	922 Schlutia
1045 Michela	1679 Nevanlinna	49 Pales	1830 Pogson	1197 Rhodesia	1743 Schmidt
1376 Michelle	855 Newcombia	914 Palisana	2021 Poincaré	437 Rhodia	1782 Schneller
1981 Midas	662 Newtonia	2 Pallas	142 Polana	166 Rhodope	1235 Schorria
1910 Mikhailov	1831 Nicholson	372 Palma	1112 Polonia	879 Ricarda	1911 Schubart
1526 Mikkeli	843 Nicolaia	1548 Palomaa	2006 Polonskaya	1230 Riceia	2018 Schuster
1549 Mikko	1343 Nicole	1598 Paloque	33 Polyhymnia	1214 Richilde	837 Schwarzschilda
878 Mildred	1720 Niels	1243 Pamela	595 Polyxena	1514 Ricouxa	989 Schwassmannia
1630 Milet	307 Nike	539 Pamina	308 Polyxo	1025 Riema	1265 Schweikarda
1826 Miller	1185 Nikko	55 Pandora	32 Pomona	1796 Riga	876 Scott
1127 Mimi	779 Nina	70 Panopaea	203 Pompeja	1180 Rita	155 Scylla
1079 Mimosa	357 Ninina	471 Papagena	1305 Pongola	1145 Robelmonte	1306 Scythia
93 Minerva	71 Niobe	1857 Parchomenka	1499 Pori	1377 Roberbauxa	1482 Sebastiana
1458 Mineura	727 Nipponia	347 Pariana	1636 Porter	335 Roberta	892 Seeligeria
1670 Minnaert	1298 Nocturna	11 Parthenope	757 Portlandia	904 Rockefelleria	1521 Seinäjoki
594 Mireille	1563 Noël	888 Parysatis	1131 Porzia	1557 Roehla	1913 Sekanina
102 Miriam	703 Noëmi	451 Patientia	1572 Posnania	1657 Roemera	580 Selene
1610 Mirnaya	1068 Nofretete	1347 Patria	1484 Postrema	920 Rogeria	500 Selineur
569 Misa	473 Nolli	436 Patricia	1345 Potomac	1269 Rollandia	86 Semele
1088 Mitaka	783 Nora	617 Patroclus	547 Praxedis	472 Roma	584 Semiramis
1455 Mitchellia	1463 Nordenmarkia	1601 Patry	1238 Predappia	942 Romilda	1014 Semphyra
2090 Mizuho	555 Norma	1791 Patsayev	790 Pretoria	223 Rosa	550 Senta
57 Mnemosyne	1256 Normannia	1314 Paula	529 Preziosa	314 Rosalia	483 Seppina
733 Moccia	626 Notburga	278 Paulina	884 Priamus	900 Rosalinde	1103 Sequoia
370 Modestia	1206 Numerowia	537 Pauly	1359 Prieska	540 Rosamunde	838 Seraphina
766 Moguntia	1368 Numidia	1007 Pawlowia	970 Primula	2057 Rosemary	1737 Severny
638 Moira	150 Nuwa	1152 Pawona	508 Princetonia	985 Rosina	1648 Shajna
1428 Mombasa	1356 Nyanza	679 Pax	997 Priska	1646 Rosseland	1881 Shao

1123 Shapleya	1424 Sundmania	590 Tomyris	1053 Vigdis	999 Zachia
1902 Shaposhnikov	1656 Suomi	1266 Tone	1478 Vihuri	421 Zähringia
1196 Sheba	542 Susanna	924 Toni	1310 Villigera	1242 Zambesia
2036 Sheragul	933 Susi	1471 Tornio	366 Vincentina	1462 Zamenhof
1833 Shmakova	1844 Susilva	1685 Toro	231 Vindobona	1336 Zeelandia
2074 Shoemaker	329 Svea	2104 Toronto	759 Vinifera	851 Zeissia
1977 Shura	992 Swasey	715 Transvaalia	1544 Vinterhansenia	169 Zelia
1405 Sibelius	882 Swetlana	619 Triberga	1076 Viola	633 Zelima
1094 Siberia	1637 Swings	1208 Troilus	557 Violetta	654 Zelinda
168 Sibylla	1714 Sy	1408 Trusanda	50 Virginia	840 Zenobia
1258 Sicilia	519 Sylvania	1590 Tsiolkovskaja	1449 Virtanen	693 Zerbinetta
579 Sidonia	87 Sylvania	1481 Tübingia	494 Virtus	531 Zerlina
1632 Sieböhme	1104 Syringa	1038 Tuckia	1030 Vitja	438 Zeuxo
386 Siegena	721 Tabora	1323 Tugela	1623 Vivian	1802 Zhang Heng
552 Sigelinde	1089 Tama	1095 Tulipa	1439 Vogtia	1734 Zhongolovich
459 Signe	326 Tamara	1070 Tunica	1149 Volga	1775 Zimmerwald
1493 Sigrid	1084 Tamariwa	1425 Tuorla	1790 Volkov	689 Zita
502 Sigune	1497 Tampere	530 Trusandot	1380 Volodia	1468 Zomba
257 Silesia	772 Tanete	1496 Turku	2009 Voloshina	1793 Zoya
1733 Silke	825 Tanina	1186 Turnera	635 Vundtia	865 Zubaida
1446 Sillanpää	2102 Tantalus	258 Tyche	1600 Vyssotsky	1888 Zu Chong-Zhi
1317 Silvretta	1360 Tarka	1677 Tycho Brahe	1704 Wachmann	1922 Zulu
748 Simeisa	1109 Tata	1055 Tynka	1260 Walhalla	785 Zwetana
1033 Simona	769 Tatjana	1276 Uccia	1417 Walinska	1803 Zwicky
1675 Simonida	581 Tauntonia	1619 Ueta	877 Walküre	
1009 Sirene	512 Taurinensis	1279 Uganda	1153 Wallenbergia	
332 Siri	814 Tauris	1709 Ukraina	2114 Wallenquist	
116 Sirona	453 Tea	909 Ulla	987 Wallia	
823 Sisigambis	604 Tekmessa	885 Ulrike	256 Walpurga	
1866 Sisypheus	1749 Telamon	714 Ulula	890 Waltraut	
244 Sita	1399 Teneriffa	1397 Umtata	1057 Wanda	
1170 Siva	345 Tercidina	160 Una	886 Washingtonia	
140 Siwa	1189 Terentia	92 Undina	1645 Waterfield	
1884 Skip	478 Tergeste	1585 Union	1822 Waterman	
1130 Skuld	81 Terpsichore	306 Unitas	729 Watsonia	
1854 Skvortsov	1044 Teutonia	905 Universitas	1798 Watts	
1766 Slipher	1980 Tezcatlipoca	30 Urania	1352 Wawel	
1807 Slovakia	1236 Thais	167 Urda	1721 Wells	
1613 Smiley	23 Thalia	501 Urhixidur	1950 Wempe	
2083 Smither	586 Thekla	1838 Ursa	1438 Wendeline	
1731 Smuts	24 Themis	860 Ursina	621 Werdandi	
1262 Sniadeckia	1625 The NORC	375 Ursula	226 Weringia	
1393 Sofala	778 Theobalda	634 Ute	1302 Werra	
1331 Solvejg	440 Theodora	1282 Utopia	2017 Wesson	
1293 Sonja	295 Theresia	1447 Utra	2022 West	
1039 Sonneberga	1545 Thernöe	1351 Uzbekistania	930 Westphalia	
251 Sophia	1868 Thersites	1507 Vaasa	1940 Whipple	
134 Sophrosyne	1161 Thessalia	1573 Väisälä	931 Whitemora	
731 Sorga	17 Thetis	131 Vala	1941 Wild	
896 Sphinx	405 Thia	839 Valborg	392 Wilhelmina	
1091 Spiraea	1586 Thiele	262 Valda	1763 Williams	
1330 Spiridonia	88 Thisbe	447 Valentine	747 Winchester	
1564 Srbija	1023 Thomana	611 Valeria	1556 Wingolfia	
831 Stateira	2064 Thomsen	610 Valeska	1575 Winifred	
1147 Stavropolis	299 Thora	240 Vanadis	717 Wisibada	
2035 Stearns	279 Thule	1781 Van Biesbroeck	852 Wladilena	
707 Steina	934 Thuringia	1663 Van den Bos	827 Wolfiana	
220 Stephania	219 Thusnelda	1666 Van Gent	1795 Woltjer	
566 Stereokopia	115 Thyra	1673 Van Houten	1660 Wood	
995 Sternberga	753 Tiflis	1263 Varsavia	690 Wratislavia	
1847 Stobbe	1229 Tilia	2014 Vasilevskis	1747 Wright	
1386 Storeria	603 Timandra	1312 Vassar	1765 Wrubel	
1019 Strackea	1222 Tina	416 Vaticana	1785 Wurm	
1560 Strattonia	1933 Titchen	126 Velleda	411 Xanthe	
1201 Strenua	687 Tinette	487 Venetia	156 Xanthippe	
1628 Strobel	1400 Tirela	499 Venusia	625 Xenia	
1422 Strömgrenia	267 Tirza	245 Vera	1506 Xosa	
1124 Stroobantia	466 Tisiphone	490 Veritas	1653 Yakhontovia	
768 Struveana	593 Titania	612 Veronika	1475 Yalta	
964 Subamara	1998 Titius	4 Vesta	990 Yerkes	
1692 Subbotina	1550 Tito	2011 Veteraniya	1972 Yi Xing	
417 Suevia	732 Tjilaki	144 Vibia	351 Yrsa	
752 Sulamitis	498 Tokio	1097 Vicia	1554 Yugoslavia	
563 Suleika	138 Tolosa	12 Victoria	1340 Yvette	
1090 Sumida	1013 Tombecka	397 Vienna	1301 Yvonne	

## EDITORIAL COMMENTS

The Recorder-Editor sincerely regrets that this issue is late in appearing, and appreciates the patience of MPB readers during this sabbatical year. Living on a catamaran 8.5 meters long and 4 meters wide with a wife and three sons in the Virgin Islands is no small challenge, yet we are enjoying it. We have three cabins and a mid-ship cockpit. My wife and I have enjoyed photographing many of the southern constellations, and are working on special projects. During late August and early September we were visited by two dangerous hurricanes -- David and Frederic -- which we rode out quite successfully, although each took three days to pass by, much longer than most hurricanes. (Interestingly, hurricanes seldom strike the Virgin Islands: about once every 25 years).

One astronomical phenomenon my wife and I observed for the first time was a moonbow. Similar to a rainbow, but caused by the Moon rather than the Sun, it has a ghostly-whitish appearance with delicate tints of color. In order to have a moonbow the full (or nearly full) Moon must be at low altitude, and there must be rain precipitating from clouds in the opposite part of the sky. It is well worth observing if you have never seen one.

The Editor hopes that the next issue of MPB will be on time, but nothing is certain. Mails are very slow down here, so please continue to be patient! Most of the copies of this issue will be mailed from Sioux Center, Iowa by our printer. Because of this, information concerning subscription expiration will now be given by a code following the person (or institution's) name in the address on the envelope. Thus the code "7-4" should be interpreted to mean that according to the records the subscription will expire with volume 7, number 4, etc. Please report any inaccuracies. Except for institutions, special invoicing and notices of expiration are not sent, so please watch the expiration code and renew promptly at the appropriate time. Renewals may be made for either one or two years, but not longer.

THE A.L.P.O. MINOR PLANETS SECTION is directed by its Recorder, Prof. Richard G. Hodgson, who is also Editor of MPB. Items for publication, subscriptions and reports of unusual observations should be sent to him at his sabbatical address, which is Box 110, Cruz Bay, U.S. Virgin Islands 00830, U.S.A. Please remember that mail is slower to and from this address, and it may not be picked up every day, so please be patient.

POSITIONAL OBSERVATIONS of minor planets should be submitted to Prof. Frederick Pilcher, Assistant Minor Planets Section Recorder, Illinois College, Jacksonville, Illinois 62650 U.S.A. Please note that single observations of a given planet will no longer be received to avoid any cases of misidentification.

PHOTOMETRY OBSERVATIONS should be sent to Alain C. Porter, 10 Sea Lea Drive, Narragansett, Rhode Island 02882 U.S.A. Photometry Report Forms may be obtained free from him (U.S. residents should send a large, stamped, self-addressed envelope to help defray costs).

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