

Code	Long.	cos	sin	Name
000	0.0000	0.62411	+0.77873	Greenwich
001	0.1542	0.62992	+0.77411	Crowborough
002	0.62	0.622	+0.781	Rayleigh
003	3.90	0.725	+0.687	Montpellier
004	1.4625	0.72520	+0.68627	Toulouse
005	2.231000	.659891	+0.748875	Meudon
006	2.124170	.751042	+0.658129	Fabra Observatory, Barcelona
007	2.336750	.659470	+0.749223	Paris
008	3.0355	0.80172	+0.59578	Algiers-Bouzareah
009	7.4417	0.6838	+0.7272	Berne-Uecht
010	6.9267	0.72368	+0.68811	Caussols
011	8.797	0.6791	+0.7315	Wetzikon
012	4.358210	.633333	+0.771306	Uccle
013	4.483970	.614813	+0.786029	Leiden
014	5.395090	.728859	+0.682384	Marseilles
015	5.129290	.615770	+0.785285	Utrecht
016	5.9893	0.68006	+0.73076	Besancon
017	6.849240	.641946	+0.764282	Hoher List
018	6.7612	0.62779	+0.77578	Dusseldorf-Bilk
019	6.9575	0.68331	+0.72779	Neuchatel
020	7.3004	0.72391	+0.68767	Nice
021	8.3855	0.65701	+0.75138	Karlsruhe
022	7.7748	0.70790	+0.70409	Pino Torinese
023	8.2625	0.64299	+0.76335	Wiesbaden
024	8.7216	0.65211	+0.75570	Heidelberg-Konigstuhl
025	9.196500	.660205	+0.748637	Stuttgart
026	7.465110	.684884	+0.726402	Berne-Zimmerwald
027	9.1912	0.70254	+0.70929	Milan
028	9.9363	0.64686	+0.76009	Wurzburg
029	10.2406	0.59640	+0.80000	Hamburg-Bergedorf
030	11.254460	.723534	+0.688012	Arcetri Observatory, Florence
031	11.189850	.639061	+0.766705	Sonneberg
032	11.582950	.631624	+0.772706	Jena
033	11.711240	.630900	+0.773333	Karl Schwarzschild Observatory, Tautenburg
034	12.452460	.745176	+0.664656	Monte Mario Observatory, Rome
035	12.575920	.565008	+0.822321	Copenhagen
036	12.650400	.747247	+0.662420	Castel Gandolfo
037	13.7333	0.73660	+0.67416	Collurania Observatory, Teramo
038	13.7704	0.70033	+0.71144	Trieste
039	13.1874	0.56485	+0.82243	Lund
040	13.7298	0.63019	+0.77387	Lohrmann Institute, Dresden
041	11.380830	.679862	+0.731012	Innsbruck
042	13.064280	.611721	+0.788439	Potsdam
043	11.5286	0.69770	+0.71422	Asiago Astrophysical Observatory, Padua
044	14.2559	0.75738	+0.65082	Capodimonte Observatory, Naples
045	16.3390	0.66739	+0.74227	Vienna (since 1879)
046	14.2881	0.65922	+0.74965	Klet Observatory, Ceske Budejovice
047	16.8782	0.61146	+0.78864	Poznan
048	15.840800	.641709	+0.764432	Hradec Kralove
049	17.6067	0.5088	+0.8580	Uppsala-Kvistaberg
050	18.0582	0.51118	+0.85660	Stockholm (before 1931)
051	18.4766	0.83055	-0.55508	Cape
052	18.3083	0.51224	+0.85597	Stockholm-Saltsjobaden
053	18.9642	0.67688	+0.73373	Konkoly Observatory, Budapest (since 1934)
054	11.6654	0.56595	+0.82169	Brorfelde
055	19.9596	0.64321	+0.76316	Cracow
056	20.2450	0.65501	+0.75346	Skalnate Pleso
057	20.5133	0.71074	+0.70116	Belgrade
058	20.4950	0.57897	+0.81262	Kaliningrad
059	20.2201	0.65500	+0.75364	Lomnický štít
060	21.4200	0.61572	+0.78535	Warsaw-Ostrowik
061	22.298500	.662142	+0.746904	Uzhgorod
062	22.2293	0.49440	+0.86632	Turku

063 22.4450 0.49496 +0.86601 Turku-Tuorla
 064 22.7500 0.49489 +0.86605 Turku-Kevola
 065 12.63 0.673 +0.739 Traunstein
 066 23.718170.789321+0.611946Athens
 067 24.0297 0.64632 +0.76058 Lvov University Observatory
 068 24.0142 0.64627 +0.76062 Lvov Polytechnic Institute
 069 24.4042 0.54925 +0.83287 Baldone
 070 25.2865 0.57940 +0.81233 Vilnius (before 1939)
 071 24.7439 0.74803 +0.66185 NAO Rozhen, Smolyan
 072 7.17 0.629 +0.774 Scheuren Observatory
 073 26.0967 0.71549 +0.69630 Bucharest
 074 26.4058 0.87518 -0.48263 Boyden Observatory, Bloemfontein
 075 26.7216 0.52557 +0.84791 Tartu
 076 27.8768 0.90127 -0.43225 Johannesburg-Hartbeespoort
 077 28.0292 0.89819 -0.43876 Yale-Columbia Station, Johannesburg
 078 28.0750 0.89824 -0.43868 Johannesburg
 079 28.2288 0.90120 -0.43251 Radcliffe Observatory, Pretoria
 080 28.9667 0.75566 +0.65278 Istanbul
 081 27.8768 0.90127 -0.43225 Leiden Station, Johannesburg
 082 15.7561 0.66929 +0.74063 St. Polten
 083 30.5056 0.63918 +0.76651 Golosseevo-Kiev
 084 30.3274 0.50471 +0.86041 Pulkovo
 085 30.5023 0.63800 +0.76749 Kiev
 086 30.7582 0.68987 +0.72152 Odessa
 087 31.3411 0.86799 +0.49495 Helwan
 088 31.8250 0.86741 +0.49608 Kottomia
 089 31.9747 0.68359 +0.72743 Nikolaev
 090 8.25 0.645 +0.762 Mainz
 091 4.209190.703630+0.708287Observatoire de Nurol, Aurec sur Loire
 092 18.5546 0.60177 +0.79601 Torun-Piwnice
 093 20.3647 0.3537 +0.9322 Skibotn
 094 33.9974 0.71565 +0.69620 Crimea-Simeis
 095 34.0160 0.71172 +0.70024 Crimea-Nauchnij
 096 9.4283 0.69967 +0.71215 Merate
 097 34.7625 0.86165 +0.50608 Wise Observatory, Mitzpeh Ramon
 098 11.5688 0.69790 +0.71410 Asiago Observatory, Cima Ekar
 099 25.53 0.483 +0.873 Lahti
 100 24.13 0.462 +0.884 Ahtari
 101 36.2322 0.64403 +0.76246 Kharkov
 102 36.759530.564841+0.822468Zvenigorod
 103 14.47 0.694 +0.715 Ljubljana
 104 10.8042 0.71985 +0.69202 San Marcello Pistoiese
 105 37.5706 0.56403 +0.82302 Moscow
 106 14.0711 0.69662 +0.71519 Crni Vrh
 107 11.0030 0.70998 +0.70186 Cavezzo
 108 11.0278 0.72367 +0.68784 Montelupo
 109 3.0705 0.80241 +0.59481 Algiers-Kouba
 110 39.4150 0.54316 +0.83683 Rostov
 111 10.9721 0.72439 +0.68710 Piazzano Observatory, Florence
 112 10.9039 0.70232 +0.70950 Pleiade Observatory, Verona
 113 13.0166 0.63502 +0.77001 Volkssternwarte Drebach, Schoenbrunn
 114 41.4277 0.72489 +0.68702 Engelhardt Observatory, Zelenchukskaya Station
 115 41.4416 0.72492 +0.68699 Zelenchukskaya
 116 11.5958 0.66893 +0.74094 Giesing
 117 11.5385 0.66897 +0.74092 Sendling
 118 17.2740 0.66558 +0.74394 Astronomical and Geophysical Observatory, Modra
 119 42.8200 0.74731 +0.66262 Abastuman
 120 13.7261 0.70489 +0.70699 Visnjan
 121 36.9369 0.64883 +0.75842 Kharkov University, Chuguevskaya Station
 122 3.5035 0.72017 +0.69176 Pises Observatory
 123 44.2917 0.76352 +0.64398 Byurakan
 124 2.2550 0.72534 +0.68612 Castres
 125 44.789500.747594+0.662026Tbilisi
 126 9.7903 0.71893 +0.69283 Monte Viseggi

127 6.9797 0.63385 +0.77088 Bornheim
128 46.006610.623279+0.779393Saratov
129 45.92 0.777 +0.628 Ordubad
130 10.240700.700125+0.711807Lumezzane
131 4.725 0.7123 +0.6996 Observatoire de l'Ardeche
132 5.2461 0.71919 +0.69260 Bedoin
133 5.0906 0.72819 +0.68309 Les Tardieux
134 11.4842 0.63160 +0.77277 Groszschwabhausen
135 49.1210 0.56353 +0.82334 Kasan
136 48.8156 0.56282 +0.82383 Engelhardt Observatory, Kasan
137 34.8147 0.84821 +0.52790 Givatayim Observatory
138 7.5717 0.67550 +0.73494 Village-Neuf
139 7.1108 0.72526 +0.68618 Antibes
140 3.6294 0.69945 +0.71241 Augerolles
141 7.3672 0.65646 +0.75189 Hottviller
142 7.1874 0.62156 +0.78075 Sinsen
143 9.024060.692986+0.718590Gnosca
144 1.6660 0.65549 +0.75268 Bray et Lu
145 4.5597 0.62734 +0.77614 's-Gravenwezel
146 10.6673 0.71715 +0.69487 Frignano
147 8.573910.700430+0.711392Osservatorio Astronomico di Suno
148 2.0375 0.72481 +0.68667 Guitalens
149 4.2236 0.65403 +0.75396 Beine-Nauroy
150 2.1572 0.65806 +0.75045 Maisons Laffitte
151 8.7440 0.67719 +0.73346 Eschenberg Observatory, Winterthur
152 25.5633 0.57036 +0.81868 Moletai Astronomical Observatory
153 9.1747 0.66080 +0.74814 Stuttgart-Hoffeld
154 12.1043 0.68923 +0.72250 Cortina
155 10.1971 0.55864 +0.82664 Ole Romer Observatory, Aarhus
156 15.0858 0.79431 +0.60549 Catania Astrophysical Observatory
157 12.8117 0.74166 +0.66864 Frasso Sabino
158 7.6033 0.69871 +0.71333 Promiod
159 10.5153 0.72065 +0.69115 Monte Agliale
160 10.841440.722651+0.688913Castelmartini
161 8.1605 0.70725 +0.70467 Cerrina Tololo Observatory
162 15.7805 0.75988 +0.64808 Potenza
163 6.1492 0.65017 +0.75731 Roeser Observatory, Luxembourg
164 6.8861 0.66631 +0.74325 St. Michel sur Meurthe
165 1.7553 0.74984 +0.65946 Piera Observatory, Barcelona
166 16.0117 0.63730 +0.76812 Upice
167 8.5727 0.67662 +0.73398 Bulach Observatory
168 59.5472 0.54541 +0.83541 Kourovskaya
169 8.4016 0.70737 +0.70453 Airali Observatory
170 1.9206 0.75217 +0.65711 Observatorio de Begues
171 14.4697 0.81089 +0.58327 Flarestar Observatory, San Gwann
172 7.0364 0.68593 +0.72539 Onnens
173 55.5061 0.93464 -0.35447 St. Clotilde, Reunion
174 25.5131 0.46536 +0.88219 Nyrola Observatory, Jyvaskyla
175 7.6083 0.6932 +0.7188 F.-X. Bagnoud Observatory, St-Luc
176 2.8225 0.77098 +0.63475 Observatorio Astronomico de Consell
177 3.9414 0.72477 +0.68669 Le Cres
178 6.1344 0.69423 +0.71745 Collonges
179 9.0175 0.69694 +0.71507 Monte Generoso
180 3.9519 0.72571 +0.68570 Mauguio
181 55.4100 0.93288 -0.35941 Observatoire des Makes, Saint-Louis
182 55.2586 0.93394 -0.35634 St. Paul, Reunion
183 41.4200 0.72496 +0.68695 Starlab Observatory, Karachay-Cherkessia
184 6.0361 0.72081 +0.69097 Valmecca Observatory, Puimichel
185 7.4219 0.67876 +0.73200 Observatoire Astronomique Jurassien-Vicques
186 66.8821 0.77679 +0.62781 Kitab
187 17.0733 0.61314 +0.78735 Astronomical Observatory, Borowiec
188 66.895550.782059+0.621762Majdanak
189 6.1514 0.69340 +0.71823 Geneva (before 1967)
190 68.6819 0.78382 +0.61909 Gissar

191 68.7811 0.78306 +0.62006 Dushanbe
192 69.2936 0.75213 +0.65692 Tashkent
193 69.2178 0.78648 +0.61610 Sanglok
194 18.0094 0.91807 -0.39579 Tivoli
195 11.4492 0.66804 +0.74174 Untermenzing Observatory, Munich
196 7.3331 0.65296 +0.75490 Homburg-Erbach
197 12.1836 0.71739 +0.69434 Bastia
198 8.756740.662195+0.746924Wildberg
199 2.4380 0.66659 +0.74294 Buthiers
200 4.3036 0.63385 +0.77088 Beersel Hills Observatory
201 7.6033 0.69871 +0.71332 Jonathan B. Postel Observatory
202 5.8997 0.73137 +0.67971 Tamaris Observatoire, La Seyne sur Mer
203 8.9964 0.70160 +0.71022 GiaGa Observatory
204 8.7708 0.69765 +0.71430 Schiaparelli Observatory
205 11.2731 0.71478 +0.69703 Obs. Casalecchio di Reno, Bologna
206 10.5667 0.4922 +0.8677 Haagaar Observatory, Eina
207 9.3065 0.70156 +0.71025 Osservatorio Antonio Grosso
208 9.5875 0.70893 +0.70294 Rivalta
209 11.5688 0.69790 +0.71410 Asiago Observatory, Cima Ekar-ADAS
210 76.9573 0.73042 +0.68104 Alma-Ata
211 11.1764 0.72338 +0.68815 Scandicci
212 355.357470.803253+0.593708Osservatorio La Dehesilla
213 2.385390.749843+0.659421Osservatorio Montcabre
214 11.6569 0.66709 +0.74258 Garching Observatory
215 10.7328 0.67021 +0.73981 Buchloe
216 5.6914 0.65732 +0.75114 Observatoire des Cote de Meuse
217 77.871140.730114+0.681643Assah
218 78.4541 0.95444 +0.29768 Hyderabad
219 78.7283 0.95618 +0.29216 Japal-Rangapur
220 78.8263 0.97627 +0.21634 Vainu Bappu Observatory, Kavalur
221 16.3631 0.91960 -0.39228 IAS Observatory, Hakos
222 2.4939 0.66113 +0.74777 Yerres-Canotiers
223 80.2464 0.97427 +0.22465 Madras
224 7.3011 0.67722 +0.73336 Ottmarsheim
225 288.8250 0.7298 +0.6814 Northwood Ridge Observatory
226 11.8858 0.70293 +0.70888 Guido Ruggieri Observatory, Padua
227 281.2853 0.73683 +0.67392 OrbitJet Observatory, Colden
228 13.8750 0.70038 +0.71147 Bruno Zugna Observatory, Trieste
229 14.9743 0.75936 +0.64857 G. C. Gloriosi Astronomical Observatory, Salerno
230 12.0133 0.6744 +0.7363 Mt. Wendelstein Observatory
231 5.3983 0.64403 +0.76253 Vesqueville
232 1.3317 0.7500 +0.6593 Masquefa Observatory
233 10.5403 0.72226 +0.68931 Sauro Donati Astronomical Observatory, San Vito
234 1.128330.614951+0.785931Coddensham Observatory
235 13.113520.696669+0.714993CAST Observatory, Talmassons
236 84.9465 0.55370 +0.82995 Tomsk
237 2.7333 0.6822 +0.7288 Baugy
238 10.9094 0.50204 +0.86197 Grorudalen Optical Observatory
239 8.4114 0.64506 +0.76159 Trebur
240 8.833170.662308+0.746832Herrenberg Sternwarte
241 13.4700 0.66465 +0.74474 Schaerding
242 1.6956 0.72681 +0.68460 Varennes
243 9.4130 0.59572 +0.80050 Umbrella Observatory, Fredenbeck
244 0.000000.000000 0.000000Geocentric Occultation Observation
245 Spitzer Space Telescope
246 14.2881 0.65922 +0.74965 Klet Observatory-KLENOT
247 Roving Observer
248 0.000000.000000 0.000000Hipparcos
249 SOHO
250 Hubble Space Telescope
251 293.246920.949577+0.312734Arecibo
252 243.205120.817719+0.573979Goldstone DSS 13, Fort Irwin
253 243.110470.815913+0.576510Goldstone DSS 14, Fort Irwin
254 288.511280.736973+0.673692Haystack, Westford

255 33.164120.707954+0.703886Evpatoria
256 280.160170.784451+0.618320Green Bank
257 243.124610.816796+0.575252Goldstone DSS 25, Fort Irwin
260 149.0661 0.85560 -0.51626 Siding Spring Observatory-DSS
261 243.140220.836325+0.546877Palomar Mountain-DSS
262 289.266260.873440-0.486052European Southern Observatory, La Silla-DSS
285 2.3708 0.66135 +0.74759 Flammarion Observatory, Juvisy
286 102.7883 0.90694 +0.42057 Yunnan Observatory
290 250.107990.842743+0.537438Mt. Graham-VATT
291 248.4009 0.84947 +0.52647 LPL/Spacewatch II
292 285.1058 0.76630 +0.64033 Burlington, New Jersey
293 285.5899 0.76936 +0.63668 Burlington remote site
294 285.8467 0.76031 +0.64739 Astrophysical Obs., College of Staten Island
295 283.0000 0.7789 +0.6251 Catholic University Observatory, Washington
296 286.2515 0.7365 +0.6742 Dudley Observatory, Albany (after 1893)
297 286.819 0.7203 +0.6913 Middlebury
298 287.3408 0.74943 +0.65988 Van Vleck Observatory
299 107.6160 0.99316 -0.11808 Bosscha Observatory, Lembang
300 133.544440.823370+0.565720Bisei Spaceguard Center-BATTeRS
301 288.8467 0.70279 +0.70926 Mont Megantic
302 288.88 0.990 +0.150 University of the Andes station
303 289.1329 0.98889 +0.15190 Merida
304 289.2980 0.87559 -0.48217 Las Campanas Observatory
305 109.5514 0.82066 +0.56963 Purple Mountain, Hainan Island station
306 290.6769 0.98477 +0.17381 Observatorio Taya Beixo, Barquisimeto
309 289.595690.909943-0.414336Cerro Paranal
312 112.334 0.9574 +0.2877 Tsingtao field station, Xisha Islands
318 115.691 0.85206 -0.52170 Quinns Rock
319 116.1350 0.84883 -0.52702 Perth Observatory, Perth-Lowell Telescope
320 116.4381 0.85859 -0.51102 Chiro Observatory
321 115.7571 0.85078 -0.52378 Craigie
322 116.1340 0.84882 -0.52703 Perth Observatory, Bickley-MCT
323 116.1350 0.84882 -0.52703 Perth Observatory, Bickley
324 116.3277 0.76598 +0.64072 Peking Observatory, Shaho Station
327 117.5750 0.76278 +0.64470 Peking Observatory, Xinglong Station
330 118.8209 0.84828 +0.52788 Purple Mountain Observatory, Nanking
333 249.5236 0.84936 +0.52642 Desert Eagle Observatory
334 120.3196 0.80925 +0.58552 Tsingtao
337 121.1843 0.85708 +0.51348 Sheshan, formerly Zo-Se
340 135.4853 0.82199 +0.56762 Toyonaka
341 137.9486 0.80669 +0.58923 Akashina
342 134.3189 0.83425 +0.54955 Shishikui
343 127.1258 0.78688 +0.61507 Youchun
344 128.9767 0.80841 +0.58695 Bohyunsan Optical Astronomy Observatory
345 128.4575 0.80046 +0.59773 Sobaeksan Optical Astronomy Observatory
346 127.3854 0.80474 +0.59166 KNUE Astronomical Observatory
347 139.9086 0.80417 +0.59244 Utsunomiya-Imaizumi
348 135.2669 0.81698 +0.57475 Ayabe
349 139.566220.810402+0.583916Ageo
350 139.2635 0.80504 +0.59132 Kurohone
351 135.8678 0.81939 +0.57135 Sakamoto
352 136.1778 0.82061 +0.56963 Konan
353 135.0648 0.82265 +0.56669 Nishi Kobe
354 140.0206 0.80109 +0.59674 Kawachi
355 139.2133 0.81618 +0.57590 Hadano
356 141.0867 0.78319 +0.61970 Kogota
357 140.0064 0.80807 +0.58712 Shimotsuma
358 140.1586 0.78856 +0.61296 Nanyo
359 135.1719 0.82782 +0.55912 Wakayama
360 132.9442 0.83314 +0.55138 Kuma Kogen
361 134.8933 0.82649 +0.56106 Sumoto
362 140.6550 0.73673 +0.67398 Ray Observatory
363 130.7703 0.83416 +0.54967 Yamada
364 130.5747 0.85213 +0.52164 YCPM Kagoshima Station

365	135.9579	0.82597	+0.56196	Uto Observatory
366	138.3003	0.81147	+0.58267	Miyasaka Observatory
367	133.1670	0.81504	+0.57747	Yatsuka
368	138.8117	0.81213	+0.58191	Ochiai
369	139.1500	0.8101	+0.5844	Chichibu
370	133.5273	0.83424	+0.54956	Kochi
371	133.5965	0.82433	+0.56431	Tokyo-Okayama
372	133.8276	0.83450	+0.54920	Geisei
373	135.3397	0.82866	+0.55797	Oishi
374	134.7196	0.81915	+0.57174	Minami-Oda Observatory
375	134.8708	0.8206	+0.5697	Uzurano
376	139.0392	0.81321	+0.58022	Uenohara
377	135.7933	0.82014	+0.57031	Kwasan Observatory, Kyoto
378	136.0142	0.82437	+0.56426	Murou
379	137.6279	0.82300	+0.56613	Hamamatsu-Yuto
380	137.0349	0.82190	+0.56772	Ishiki
381	137.6283	0.81220	+0.58173	Tokyo-Kiso
382	137.5553	0.80915	+0.58639	Tokyo-Norikura
383	137.8959	0.80218	+0.59526	Chirorin
384	138.1792	0.8219	+0.5678	Shimada
385	138.4680	0.82039	+0.56997	Nihondaira Observatory
386	138.3217	0.81121	+0.58309	Yatsugatake-Kobuchizawa
387	139.1944	0.81000	+0.58469	Tokyo-Dodaira
388	139.5421	0.81330	+0.57991	Tokyo-Mitaka
389	139.7447	0.81347	+0.57965	Tokyo (before 1938)
390	139.8725	0.80425	+0.59234	Utsunomiya
391	140.778430	0.786177	+0.615960	Sendai Observatory, Ayashi Station
392	141.3667	0.73355	+0.67741	JCPM Sapporo Station
393	140.1292	0.8090	+0.5858	JCPM Sakura Station
394	142.3208	0.70692	+0.70493	JCPM Hamatonbetsu Station
395	142.3583	0.7224	+0.6891	Tokyo-Asahikawa
396	142.4208	0.7236	+0.6879	Asahikawa
397	141.4761	0.73210	+0.67892	Sapporo Science Center
398	139.1080	0.80870	+0.58630	Nagatoro
399	144.5900	0.73158	+0.67950	Kushiro
400	143.7827	0.72344	+0.68811	Kitami
401	139.4208	0.8088	+0.5861	Oosato
402	136.3078	0.81800	+0.57335	Dynic Astronomical Observatory
403	137.0556	0.81593	+0.57625	Kani
404	140.9292	0.7909	+0.6099	Yamamoto
405	139.3292	0.8069	+0.5887	Kamihoriguchi
406	141.8233	0.72946	+0.68174	Bibai
407	140.3099	0.78426	+0.61837	Kahoku
408	138.1747	0.81121	+0.58328	Nyukasa
409	139.5211	0.81234	+0.58124	Kiyose and Mizuho
410	134.8910	0.81883	+0.57222	Sengamine
411	139.4170	0.80739	+0.58805	Oizumi
412	140.5991	0.80011	+0.59803	Iwaki
413	149.066080	0.855595	-0.516262	Siding Spring Observatory
414	149.0077	0.81694	-0.57499	Mount Stromlo
415	149.0636	0.81615	-0.57606	Kambah
416	149.1336	0.81701	-0.57485	Barton
417	137.1371	0.79611	+0.60317	Yanagida Astronomical Observatory
418	150.940340	0.857259	-0.513294	Tamworth
419	150.8329	0.83370	-0.55038	Windsor
420	151.2050	0.83126	-0.55404	Sydney
421	133.7650	0.83244	+0.55262	Mt. Kajigamori, Otoyo
422	151.0461	0.85503	-0.51709	Loomberah
423	151.124730	0.831807	-0.553222	North Ryde
424	149.0658	0.81758	-0.57405	Macquarie
425	152.9316	0.88796	-0.45843	Taylor Range Observatory, Brisbane
426	136.8217	0.85618	-0.51498	Woomera
427	138.7283	0.82667	-0.56084	Stockport
428	153.3970	0.88271	-0.46837	Reedy Creek

429 149.0400 0.81761 -0.57402 Hawker
430 149.2123 0.85550 -0.51623 Rainbow Observatory, near Coonabarabran
431 149.7578 0.83548 -0.54793 Mt. Tarana Observatory, Bathurst
432 153.082220.863790-0.502166Boambee
433 152.1078 0.84197 -0.53771 Bagnall Beach Observatory
434 10.9206 0.70765 +0.70419 S. Benedetto Po
435 11.8936 0.70330 +0.70852 G. Colombo Astronomical Observatory, Padua
436 11.3356 0.71658 +0.69528 Osservatorio di Livergnano
437 284.6971 0.76700 +0.63953 Haverford
438 287.3621 0.74059 +0.66978 Smith College Observatory, Northampton
439 253.2539 0.81156 +0.58288 ROTSE-III, Los Alamos
440 278.6842 0.73025 +0.68097 Elginfield Observatory
441 357.1697 0.55559 +0.82867 Swilken Brae, St. Andrews
442 357.4822 0.7477 +0.6619 Gualba Observatory
443 301.4656 0.82370 -0.56513 Obs. Astronomico Plomer, Buenos Aires
444 243.2794 0.83507 +0.54868 Star Cruiser Observatory
445 359.4200 0.7802 +0.6235 Observatorio d'Ontinyent
446 262.1666 0.87049 +0.49058 Kingsnake Observatory, Seguin
447 255.2056 0.77154 +0.63448 Centennial Observatory
448 253.2801 0.84543 +0.53268 Desert Moon Observatory, Las Cruces
449 279.6503 0.82617 +0.56156 Griffin Hunter Observatory, Bethune
450 279.3339 0.81857 +0.57254 Carla Jane Observatory, Charlotte
451 262.7569 0.79447 +0.60536 West Skies Observatory, Mulvane
452 279.1063 0.8980 +0.4385 Big Cypress Observatory, Fort Lauderdale
453 242.1331 0.82030 +0.57021 Edwards Raven Observatory
454 283.376780.774542+0.630425Maryland Space Grant Consortium Observatory
455 237.9636 0.78912 +0.61218 CBA Concord
456 358.8278 0.61348 +0.78709 Daventry Observatory
457 18.3403 0.66221 +0.74685 Partizanske
458 355.9806 0.75992 +0.64805 Guadarrama Observatory
459 288.1172 0.72607 +0.68538 Smith River Observatory, Danbury
460 265.9981 0.83010 +0.55579 Area 52 Observatory, Nashville
461 19.8943 0.67153 +0.73869 University of Szeged, Piszkesteto Stn. (Konkoly)
462 283.0842 0.77905 +0.62488 Mount Belleview Observatory
463 254.7375 0.76726 +0.63959 Sommers-Bausch Observatory, Boulder
464 288.5013 0.75109 +0.65799 Toby Point Observatory, Narragansett
465 174.7801 0.80166 -0.59578 Takapuna
466 174.8487 0.8002 -0.5977 Mount Molehill Observatory, Auckland
467 174.7766 0.80058 -0.59724 Auckland Observatory
468 13.3296 0.74652 +0.66349 Astronomical Observatory, Campo Catino
469 7.3820 0.67873 +0.73205 Courroux
470 13.3286 0.74929 +0.66006 Ceccano
471 8.2389 0.56364 +0.82325 Houstrup
472 6.3203 0.71225 +0.69998 Merlette
473 13.316610.694793+0.716822Remanzacco
474 170.464960.720773-0.691079Mount John Observatory, Lake Tekapo
475 7.6965 0.70747 +0.70443 Turin (before 1913)
476 7.140440.706594+0.705356Grange Observatory, Bussoleno
477 0.4856 0.62103 +0.78117 Galleywood
478 3.0896 0.72548 +0.68597 Lamalou-les-Bains
479 6.0505 0.73020 +0.68096 Sollies-Pont
480 0.7733 0.61466 +0.78616 Cockfield
481 7.93 0.596 +0.800 Moorwarfen
482 357.1854 0.55560 +0.82866 St. Andrews
483 173.8036 0.74734 -0.66254 Carter Observatory, Black Birch Station
484 174.7594 0.75191 -0.65706 Happy Valley, Wellington
485 174.7654 0.75256 -0.65635 Carter Observatory, Wellington
486 175.47 0.765 -0.643 Palmerston North
487 355.4444 0.56858 +0.81989 Macnairston Observatory
488 358.3664 0.57486 +0.81553 Newcastle-upon-Tyne
489 359.87 0.612 +0.788 Hemingford Abbots
490 358.00 0.633 +0.772 Wimborne Minster
491 356.9000 0.76131 +0.64644 Centro Astronomico de Yebes
492 358.47 0.605 +0.795 Mickleover