THE MINOR PLANET BULLETIN

BULLETIN OF THE MINOR PLANETS SECTION
OF THE ASSOCIATION OF LUNAR AND PLANETARY OBSERVERS

VOLUME 4, NUMBER 2 A.D. 1976 OCTOBER - DECEMBER

GENERAL REPORT OF OBSERVATIONS BY THE A.L.P.O. MINOR PLANETS SECTION FOR THE YEAR 1975

By Prof. Richard G. Hodgson, Recorder

Since its establishment in early 1973 the A.L.P.O. Minor Planets Section has grown steadily. (For data on 1973 and 1974, see MPB 2, 34). At the beginning of 1975 paid subscriptions totalled 84; at the end of the year, 95. (The current figure in 1976 September is 126). As a result of this increased membership longer and better quality MPB issues have been published, and a two-column off-set printed format has been adopted. Increased membership has also has also resulted in an increased number of observers and observing activities.

Observationally the Minor Planets Section accomplished valuable work in 1975. This was particularly true in the area of photometry, thanks to the leadership of Alain C. Porter and Derek Wallentine. (See discussion of 233 Asterope in MPB 3, 47-48 and 270 Anahita in MPB 3, 49-50). Errors in published magnitudes of planets have also been found (cf. 99 Dike in MPB 3, 51). Indeed many of the items published in MPB reflect upon the observational work of Section members, and are too numerous to recount here.

This General Report will be for the most part limited to observations previously unreported, concentrating upon positional observations made chiefly in 1975. In some cases where observations involved a series which ran into 1976 exceptions to this date requirement were made.

While most positional observations reported to the Section must be regarded as routine and not especially significant from a scientific point of view, they may have considerable educational benefit to those making them. A few positional observations may, however, have significant scientific value when they reveal (1) important errors in published ephemerides, or, more rarely, (2) planets in need of orbital improvement. Numbered planets in the latter category are probably few, but there are some which were assigned numbers prematurely. (These are chiefly planets bearing numbers between 1000 and 1500). In the course of routine positional work other errors -- for example Pilcher's discovery concerning the brightness of 99 Dike -- have been detected. Thus carefully done positional observations, even with telescopes of modest aperture, can be of scientific value. This is especially true when the positions are based on measures of good quality photographs. (Cf. articles by A.T. Son and Donald S. Lynn in MPB 3, 39-41, 51-52 and 4, 3-4).

It is obvious the many positions reported to the Section cannot be published here without making this Report far too long. At the same time the astronomical community should know what planets have been observed, by whom, and be alerted to any unusual findings. Presented in summary form below are the planets reported observed, arranged in numerical order. Under each observed planet the names of the observers are given in alphabetical order, followed by telescope aperture(s) used (expressed in cm), the period their observations covered, the number of observations. Special notes are appended when deemed important.

Please note this summary includes only positional observations received by the Recorder on appropriate forms; photometry and some other kinds of observations are generally not included as they are otherwise reported. Dates are given in Universal Time; the year 1975 should be assumed unless another year is stated.

PLANET	OBSERVER & APERTURE(cm)	OBSERVING PERIOD	NO. OBS.	NOTES
1 Ceres	Hudgens, 25	Nov 6-Dec 28	7	
	Pilcher, 36	Oct26-Nov 12	10	
	Welch, 20, 41	Dec 2-12	8	
2 Pallas	Hodgson, 41	Nov 6-7	2	
	Hudgens, 25	Aug 27-Nov 10	10	
	McConnell,15	Aug 9-Nov 6	6	
	McEldery, 15	Sep 28-Nov 18	8,6	photos
	Pilcher, 36	Sep 7-Nov 9	13	
	Porter, 15	Sep 10	1	
	Welch, 20, 41	Sep 29-Nov 16	17	
4 Vesta	Hodgson, 41	Nov 6-7	2	
	McConnell,15	Aug 9-Nov	6	
	McEldery, 15	Sep 28-Nov 18	8,7	photos
	Pilcher, 36	Sep 7-Nov 9	13	
	Porter, 15	Aug 28-Sep 4	2	
	Welch, 20, 41	Sep 29-Nov 16	17	
5 Astraea	Binzel, 15	Apr 12	1	
	McConnell,15	May 11-July 5	4	
	Pilcher, 36	Apr 4-22	8	
	Welch, 20, 41	May 1-17	6	
6 Hebe	Coskrey, 15	May 13-19	2	
	McConnell,15	May 11-July 31	7	
	Pilcher, 36	Apr 4-22	9	
	Welch, 20, 41	May 1-17	6	
7 Iris	Coskrey,15	May 13-19	2	
	McConnell,15	July 2-5	3	
	Welch, 20, 41	May 1-17	6	
9 Metis	Pilcher, 36	Sep 28-Oct 14	12	
12 Victoria	Hudgens, 25	Sep 10-Nov 15	10	
	McConnell,15	Aug 9-Nov 6	5	
	Pilcher, 36	Sep 26-Oct 7	10	
	Porter, 15	Sep 10-Nov 7	10	
	Welch, 20, 41	Sep 5-Oct 27	11	
16 Psyche	Hudgens, 25	Nov 10-Dec 30	4	
	McConnell,15	Oct 4-Nov 6	2	
19 Fortuna	Welch, 20	Jan 31-Mar 26	2	
20 Massalia	McConnell,15	July 2-Oct 4	8	
	Pilcher, 36	Sep 1-14	6	
	Porter, 15	Aug 28-Sep 5	5	
21 Lutetia	McConnell,15	Jan 6-12	3	
23 Thalia	McConnell,15	Sep 14-Nov 6	3	
	Pilcher, 36	Sep 7-14	5	
24 Themis	Pilcher, 36	Feb 10-21	4	

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PLANET	OBSERVER & APERTURE(cm)	OBSERVING PERIOD	NO. OBS.	NOTES
26 Prosperina	McConnell,15	Jul 30-Aug 10	4	
	Pilcher, 36	Aug 4-Sep 4	6	
27 Euterpe	Hudgens, 25	Sep 10-Oct 10	3	
	McConnell,15	Aug 9-Nov 6	5	
	Porter, 15	Sep 10	1	
	Welch, 20, 41	Sep 5-Oct 8	7	
28 Bellona	Pilcher, 36	May 13-18	4	
	Welch, 41	May 10-17	3	
32 Pomona	McConnell,15	Nov 6	1	
	Pilcher, 36	Oct 26-Nov 9	9	
33 Polyhymnia	McConnell,15	Jul 2-Aug 10	6	
	Pilcher, 36	Jun 8-Jul 2	8	
36 Atalante	Pilcher, 36	Jan 4-7	6	
37 Fides	McConnell,15	Jul 31-Sep 14	4	
39 Laetitia	McConnell,15	Jan 6-12	2	
40 Harmonia	Binzel, 15	Mar 14-15	2	
	Hough, 15	Mar 14	1	
	McConnell,15	Apr 10-12	2	
	Son, 6.4 astrocamera	Feb 9	1	Ilford HP3 plate
	Welch, 41	Mar 14-16	2	
42 Isis	McConnell,15	Sep 14-Nov 6	3	
	Pilcher, 36	Oct 7-14	5	
	Porter, 15	Nov 7-Jan 20'76	3	
	Welch, 41	Oct 27	1	
43 Ariadne	McConnell,15	Jul 1-Aug 10	7	
	Pilcher, 36	Jun 6-14	7	
	Porter, 15	July 2	1	
	Welch, 41	Jun 20-25	3	
44 Nysa	McConnell,15	Jul 5-Oct 4	7	
	Porter	Sep 4	1	
45 Eugenia	McConnell,15	Oct 4	1	
	Pilcher, 36	Sep 26-Oct 7	10	
	Welch, 41	Oct 27	1	
48 Doris	Pilcher, 36	Jan 4-7	3	
51 Nemausa	McConnell,15	May 11-Aug 28	10	
	Pilcher, 36	May 13-18	4	
	Porter, 15	Jul 2-Sep 4	2	
	Welch, 41	Jun 13-25	2	
53 Kalypso	Pilcher, 36	Oct 27-Nov 9	7	
55 Pandora	Welch, 41	Mar 14-16	2	
57 Mnemosyne	Pilcher, 36	May 1-4	5	
59 Elpis	Welch, 41	May 17	1	
60 Echo	McConnell,15	Sep 30-Oct 4	2	
	Pilcher, 36	Oct 5-11	7	
	Welch, 41	Oct 5	1	
64 Angelina	Binzel, 15	Feb 10	1	
	Fabré, 20	Feb 15-Mar 9	8	
	Hough, 15	Feb 28-Mar 16	2	
	Pilcher, 36	Feb 20-Mar 5	9	
	Porter, 15	Feb 2-3	2	
	Welch, 41	Mar 14-17	3	
65 Cybele	McConnell,15	Apr 10-12	2	
	Pilcher, 36	Mar 4-Mar 20	6	
66 Maja	McConnell,15	Oct 4	1	
	Pilcher, 36	Sep 26-Sep 30	5	
	Welch, 41	Oct 5	1	
69 Hesperia	Pilcher, 36	May 1-5	5	
	Welch, 41	May 10-17	3	
70 Panopaea	McConnell,15	Apr 12-May 11	2	
	Pilcher, 36	Apr 4-7	4	
76 Freia	Pilcher, 36	Oct 5-13	7	
80 Sappho	McConnell,15	May 11	1	
	Pilcher, 36	Apr 4-7	4	
81 Terpsichore	McConnell,15	Sep 30-Oct 4	2	
	Pilcher, 36	Oct 5-11	6	
	Welch, 41	Oct 5	1	
83 Beatrix	McConnell,15	May 11	1	
	Pilcher, 36	Apr 4-7	4	
	Welch, 41	May 1-17	5	
86 Semele	Pilcher, 36	Dec 1-5	7	
89 Julia	McConnell,15	Apr 12-May 11	2	
92 Undina	McConnell,15	Jul 1-4	3	
93 Minerva	Pilcher, 36	Jan 17-23	5	
	Wallentine,11	Feb 12-13	3	
96 Aegle	McConnell,15	Apr 12	1	
	Pilcher, 36	Mar 4-9	5	
	Welch, 41	Mar 16	1	
97 Klotho	Hudgens, 25	Sep 25-Oct 10	3	
	McConnell,15	Sep 14-Oct 4	3	
	Pilcher, 36	Sep 7-14	6	
	Welch, 20, 41	Sep 29-Oct 8	6	
103 Hera	Pilcher, 36	Oct 7-14	5	
	Welch, 41	Oct 25-27	2	
106 Dione	McConnell,15	Jul 31-Aug 9	2	
	Pilcher, 36	Sep 1-4	4	x
107 Camilla	McConnell,15	Apr 10-12	2	
	Pilcher, 36	Mar 4-20	6	
	Welch, 41	Mar 14-16	2	
108 Hecuba	Pilcher, 36	Sep 2-7	5	
111 Ate	McConnell,15	Oct 4-Nov 6	2	
	Pilcher, 36	Oct 5-11	7	x
	Welch, 41	Oct 5	1	
113 Amalthea	McConnell,15	Oct 4	1	
	Porter, 15	Nov 1	1	
	Welch, 41	Oct 27	1	
114 Kassandra	Pilcher, 36	Apr 20-22	4	
116 Sirona	Binzel, 15	Mar 15	1	
	McConnell,15	Apr 10-12	2	
	Pilcher, 36	Mar 9-20	4	
	Welch, 41	Mar 12-14	2	
117 Lomia	Pilcher, 36	Sep 26-Oct 7	12	
118 Peitho	McConnell,15	Apr 12	1	
124 Alkeste	McConnell,15	Oct 4	1	
	Pilcher, 36	Oct 6-13	6	x
125 Liberatrix	Pilcher, 36	Mar 3-9	5	
127 Johanna	McConnell,15	Apr 12	1	
	Pilcher, 36	Apr 5-13	4	
128 Nemesis	McConnell,15	May 11	1	
129 Antigone	McConnell,15	Jan 6-Apr 12	4	
130 Elektra	Hudgens, 25	Sep 9-Oct 10	3	
	Porter, 15	Sep 4-13	2	
	Welch, 20, 41	Sep 29-Oct 5	3	
131 Vala	Pilcher, 36	Mar 3-9	5	
133 Cyrene	Pilcher, 36	Sep 1-7	5	
136 Austria	McConnell,15	Jul 30-31	2	
137 Meliboea	Pilcher, 36	Oct 6-13	7	
144 Vibilia	McConnell,15	Jul 31-Sep 14	3	
	Pilcher, 36	Sep 1-4	5	x
	Porter, 10,15	Aug 28-Sep 4	3	
145 Adeona	Pilcher, 36	Apr 4-22	6	
149 Medusa	Pilcher, 36	Dec 1-11	6	

PLANET	OBSERVER & APERTURE(cm)	OBSERVING PERIOD	NO. OBS.	NOTES
151 Abundantia	Pilcher, 36	Sep 27-Oct 3	5	
152 Atala	Pilcher, 36	Sep 27-Oct 3	6	
153 Hilda	Pilcher, 36	May 2-18	8	
161 Athor	McConnell,15	Apr 12	1	
	Pilcher, 36	Mar 5-17	6	
164 Eva	Hudgens, 25	Nov 13-14	2	
	Pilcher, 36	Oct 26-31	6	
	Porter, 15	Nov 7-28	3	
	Welch, 41	Dec 2-7	2	
166 Rhodope	Pilcher, 36	Feb 7-8	3	
167 Urda	Pilcher, 36	Jan 4-5	4	
168 Sibylla	Pilcher, 36	Sep 1-4	5	
170 Maria	Pilcher, 36	Jan 13-17	6	x
185 Eunike	McConnell,15	Jul 30-Sep 14	5	
188 Menippe	Pilcher, 36	Aug 4-Sep 2	7	x
190 Ismene	Pilcher, 36	Mar 2-5	5	
196 Philomela	McConnell,15	Oct 4-Nov 6	2	
	Pilcher, 36	Oct 6-13	6	
	Welch, 41	Oct 25-27	2	
197 Arete	Pilcher, 36	Sep 1-2	4	
200 Dynamene	Hough, 15	Nov 11	1	
201 Penelope	McConnell,15	Jul 1-5	4	
	Pilcher, 36	Jun 4-9	5	
208 Lacrimosa	Pilcher, 36	Mar 3-5	5	
214 Aschera	Pilcher, 36	Oct 3-7	6	
216 Kleopatra	McConnell,15	Jul 1-Aug 10	9	
218 Bianca	McConnell,15	May 11	1	
	Pilcher, 36	May 1-6	8	
220 Stephania	Pilcher, 36	Jul 8-11	5	
226 Weringia	Pilcher, 36	Apr 4-6	5	
227 Philosophia	Pilcher, 36	Jan 5-7	4	
233 Asterope	Hough, 15	Sep 10	1	
	Hudgens, 25	Sep 10	2	
	McConnell,15	Jul 30-Aug 10	4	
	Pilcher, 36	Sep 1-14	9	
	Porter, 15,10	Aug 29-Oct 28	13	
234 Barbara	Pilcher, 36	Jun 4-9	8	
	Welch, 41	Jun 20-25	2	
237 Coelestina	Pilcher, 36	Mar 9-20	5	
241 Germania	Pilcher, 36	Oct 3-7	5	
246 Asporina	Welch, 41	Oct 5	1	
250 Bettina	Pilcher, 36	Oct 3-7	5	
252 Clementina	Pilcher, 36	Nov 11-12	4	
253 Mathilde	Pilcher, 36	Jul 2-10	5	
259 Aletheia	McConnell,15	Jul 1-4	3	
260 Huberta	Pilcher, 36	Jul 7-8	4	
264 Libussa	McConnell, 15	Oct 4	1	
	Welch, 41	Oct 27	1	
269 Justitia	Pilcher, 36	Apr 4-7	6	x
270 Anahita	Hudgens,25,7.6	Sep 25-28	9	
	McConnell,15	Sep 14-Oct 4	3	
	Pilcher, 36	Oct 5-11	5	
	Porter, 15	Oct 28-Nov 7	8	
	Welch, 20, 41	Sep 29-Oct 27	9	
282 Clorinde	Pilcher, 36	Feb 20-21	3	
286 Iclea	Pilcher, 36	Sep 4-7	4	
287 Nephthys	McConnell,15	May 11	1	
	Pilcher, 36	May 1-5	5	
	Welch, 41,20	May 9-Jun 16	6	
289 Nenetta	Pilcher, 36	Jul 7-10	4	
295 Theresia	Pilcher, 36	Dec 11	2	
297 Caecilia	Pilcher, 36	Sep 1-7	5	
301 Bavaria	Pilcher, 36	Sep 28-Oct 2	5	
306 Unitas	McConnell,15	Jul 1-5	4	
307 Nike	Pilcher, 36	Jan 2-4	4	
308 Polyxo	McConnell,15	Oct 4	1	
	Pilcher, 36	Sep 26-Oct 7	11	
	Welch, 41	Oct 27	1	
309 Fraternitas	Pilcher, 36	Sep 28-Oct 2	5	
314 Rosalia	Pilcher, 36	Sep 2-13	4	
324 Bamberga	Binzel, 15	Mar 14-15	2	
	Hough, 15	Feb 27	1	
	McConnell,15	Jan 6-12	2	
	Pilcher, 36	Feb 7-21	5	
	Son, 6,4 astrocamera	Feb 9	1	-Ilford HP3 plate
	Welch, 41,20	Feb 17-Mar 16	3	
333 Badenia	Pilcher, 36	Sep 4-10	6	
337 Deuoso	McConnell,15	Apr 12	1	
339 Dorothea	Pilcher, 36	Jul 7-8	4	
346 Hermentaria	McConnell,15	Jul 1-5	3	
349 Dembowska	McConnell,15	May 11-Jul 4	3	
	Welch, 41	May 10-17	3	
354 Eleonora	McConnell,15	Sep 14-Nov 6	3	
365 Corduba	Pilcher, 36	Sep 30-Oct 4	6	
367 Amicitia	Pilcher, 36	Jan 2-5	5	
368 Haidea	Pilcher, 36	Nov 8-12	4	
370 Modestia	Pilcher, 36	Sep 30-Oct 3	6	
371 Bohemia	Pilcher, 36	Sep 30-Oct 3	4	
374 Burgundia	Pilcher, 36	Apr 4-7	4	
379 Huenna	Pilcher, 36	Aug 4-Sep 2	6	
380 Fiducia	Bohn	Aug 7-8	2	
	Pilcher, 36	Jul 11-Aug 5	5	x
381 Myrrha	Pilcher, 36	Mar 3-5	4	
383 Janina	Pilcher, 36	Sep 2-7	5	
386 Siegena	McConnell,15	Jul 30-Sep 14	5	
	Pilcher, 36	Aug 4-5	4	
	Porter, 15,10	Aug 28-Sep 4	3	
389 Industria	McConnell,15	Jul 1-5	4	
391 Ingeborg	Pilcher, 36	Jul 1-2	4	
397 Vienna	McConnell,15	Oct 4-Nov 6	2	
	Pilcher, 36	Sep 26-30	4	
	Welch, 41	Oct 25-27	2	
399 Persephone	Pilcher, 36	Feb 20-21	4	
406 Erna	Pilcher, 36	Sep 27-30	6	
409 Aspasia	Pilcher, 36	Jan 7-14	4	
	Porter, 15	Jan 3	1	
	Wallentine,11	Jan 3-Feb 13	6	
412 Elizabetha	Pilcher, 36	Apr 4-7	5	
416 Vaticana	Binzel, 15	Apr 8-11	1	
	McConnell,15	Apr 12	1	
	Pilcher, 36	Mar 2-8	5	
417 Suevia	Pilcher, 36	Jan 14-23	4	

PLANET	OBSERVER & APERTURE(cm)	OBSERVING PERIOD	NO. OBS.	NOTES
419 Aurelia	McConnell,15	Jul 1-5	4	
	Pilcher, 36	Mar 20-Jul 2	34	
	Welch, 41	May 10-Jun 25	7	
420 Bertholda	Pilcher, 36	Jan 14-23	4	
433 Eros	Binzel, 13.5 camera	Jan 24	4	photos
	Hough, 15	1974 Dec 29-31	2	
	Lynn, 7x50mm binoculars, 36mm camera	Jan 9-Feb 13	16	incl. 4 photos
	McConnell,15	1974 Oct 27-1975 Apr 12	10	
	McEldery, 15	1974 Dec 11-1975 Feb 10	9	
	Nagel, 15	Jan 21-Feb 9	8	
	Pilcher, 36	Jan 14-Feb 20	16	
	Porter,10,15	1974 Nov 10-1975 Feb 2	14	
	Son, 6.35camera	Jan 17-19	2	-photos
	Stelzer, 20	Jan 24	1	
	Wallentine, 11	1974 Nov 15-1975 Feb 6	8	
	Welch,20,41	1974 Sep 5-1975 May 1	18	
442 Eichsfeldia	Bohn, 25	May 10-13	2	
	Pilcher, 36	May 1-6	8	x
443 Photographica	Pilcher,36	Mar 4-9	4	
462 Eriphyla	Pilcher, 36	Jan 5-7	4	
472 Roma	Pilcher, 36	Nov 8-12	6	
474 Prudentia	Pilcher, 36	Jun 4-8	6	
478 Tergeste	McConnell, 15	Nov 6	1	
	Pilcher, 36	Oct 26-Nov 9	9	
481 Emita	Welch, 41	Mar 14	1	
482 Petrina	Pilcher, 36	Apr 4-5	4	
489 Comacina	Pilcher, 36	Sep 2-6	3	
498 Tokio	McConnell, 15	Sep 14-Oct 4	2	
503 Evelyn	Pilcher, 36	Mar 2-5	5	
505 Cava	Pilcher, 36	Mar 9-20	4	
508 Princetonia	Pilcher, 36	Jan 2-5	4	
511 Davida	Binzel, 15	Mar 15-17	2	
	Hough, 15	Apr 14	1	
	McConnell, 15	Apr 12	1	
	Pilcher, 36	Jan 4-7	3	
	Welch, 20, 41	Feb 17-Mar 17	4	
512 Taurinensis	Pilcher, 36	Dec 4-11	3	
514 Armida	Pilcher, 36	Feb 7-20	4	
524 Fidelio	Pilcher, 36	Dec 1-4	6	
530 Turandot	Pilcher, 36	Sep 27-30	5	
532 Herculina	McConnell, 15	Sep 14-Nov 6	3	
534 Nassovia	Pilcher, 36	Dec 1-2	4	
535 Montague	Pilcher, 36	Sep 13-30	6	
544 Jetta	Pilcher, 36	Oct 2-6	8	
551 Ortrud	Pilcher, 36	Sep 27-Oct 7	11	
554 Peraga	Welch, 41	Mar 16	1	
556 Phyllis	Pilcher, 36	Feb 7-Mar 9	12	
558 Carmen	Pilcher, 36	Apr 4-5	4	
566 Stereoskopia	Pilcher, 36	Sep 4-14	8	
570 Kythera	Pilcher, 36	Sep 4-6	4	
586 Thekla	Pilcher, 36	Feb 20-Mar 3	5	

PLANET	OBSERVER & APERTURE(cm)	OBSERVING PERIOD	NO. OBS.	NOTES
589 Croatia	Pilcher, 36	Sep 10-14	4	
593 Titania	Pilcher, 36	Sep 27-Oct 3	6	x
599 Luisa	Pilcher, 36	Apr 4-5	4	
600 Musa	Pilcher, 36	May 1-4	6	
611 Valeria	Pilcher, 36	Feb 7-20	4	
635 Vundtia	Pilcher, 36	Sep 1-4	4	
638 Moira	Pilcher, 36	Jun 6-9	6	
639 Latona	Pilcher, 36	Jul 1-8	6	
660 Crescentia	Pilcher, 36	Oct 28-Nov 11	5	
665 Sabine	Pilcher, 36	Jul 6-7	4	
666 Desdemona	Pilcher, 36	Sep 2-4	4	
673 Edda	Pilcher, 36	Dec 11	2	
674 Rachele	McConnell, 15	Apr 10-12	2	
	Pilcher, 36	Mar 2-9	7	
	Welch, 41	Mar 12-16	3	
676 Melitta	Pilcher, 36	Jun 13-16	3	
677 Aaltje	Pilcher, 36	Jan 7-13	6	
683 Lanzia	Pilcher, 36	Jul 2-7	4	
690 Wratislavia	Pilcher, 36	Jun 6-9	5	
692 Hippodamia	Pilcher, 36	Oct 30-Nov 11	6	
705 Erminia	Pilcher, 36	Sep 27-Oct 2	5	
714 Ulula	Pilcher, 36	Jan 12-17	4	
720 Bohlinia	Pilcher, 36	Oct 30-Nov 11	4	
735 Marghanna	Pilcher, 36	Oct 3-7	7	
748 Simeisa	Pilcher, 36	Jan 14-Feb 8	4	
773 Irmintraud	Pilcher, 36	Sep 2-4	4	
774 Armor	Pilcher, 36	Jun 4-9	7	
787 Moskva	Pilcher, 36	Jun 6-9	6	x
788 Hohensteina	Pilcher, 36	May 11-18	5	x
791 Ani	Pilcher, 36	Jul 7-10	5	
838 Seraphina	Pilcher, 36	Sep 1-2	4	
839 Valborg	Pilcher, 36	Sep 2-6	5	
849 Ara	Pilcher, 36	May 1-5	6	
852 Wladilena	Pilcher, 36	Oct 7-11	4	
866 Fatme	Pilcher, 36	Sep 6-7	3	
909 Ulla	Pilcher, 36	Jul 7-10	5	
910 Anneliese	Pilcher, 36	May 1-5	4	
934 Thuringia	Pilcher, 36	Sep 1-2	4	
978 Aidamina	Pilcher, 36	Oct 3-5	6	
1001 Gaussia	Pilcher, 36	Nov 6-11	4	
1052 Belgica	Pilcher, 36	Oct 10-11	4	
1056 Azalea	Pilcher, 36	Jul 7-11	5	
1093 Freda	Pilcher, 36	May 1-4	5	
1140 Crimea	Pilcher, 36	Dec 11	2	
1171 Rusthawelia	Pilcher, 36	Oct 7-13	5	
1248 Jugurtha	Pilcher, 36	Mar 4-5	3	
1310 Villigera	Pilcher, 36	Sep 27-30	6	
1321 Majuba	Pilcher, 36	Aug 4-5	4	
1366 Piccolo	Pilcher, 36	Sep 7-13	4	
1653 Yakhontovia	Pilcher, 36	Sep 1-3	5	

NOTES

"x" indicates large residuals reported by Pilcher equal to or greater than $1^m.0$ in Right Ascension, and/or 5' in Declination. See table below.

The positional observations given above were contributed by the observers listed below.(Please note that non-positional observations are not listed. This list does not therefore represent a complete picture of Section activities.)

Observer, Instrument	Location	Planets Obs.	Positions Obs.
Binzel, Rick 15 cm f/8 Newtonian	Syracuse, Indiana USA	8	16
Bohn, Dennis 25 cm f/7 Newtonian	Mt. Horeb, Wisconsin USA	2	4
Coskrey, Wayne 15 cm f/9.8 Newt.	Starkville, Mississippi USA	2	4
Fabré, Ramon 20 cm f/8 Newtonian	Norfolk, Virginia, USA	1	8
Hodgson, Richard G. 41 cm f/7 Newtonian	Sioux Center, Iowa, USA	2	4
Hough, David 15 cm f/8 Newtonian	Plainfield, New Jersey, USA	7	9
Hudgens, Ben F. 32 cm f/7 Newtonian	Clinton, Mississippi, USA	10	53
Lynn, Donald S. 7x50mm binoculars 36mm camera	Inglewood, California, USA	1	16
McConnell, Mark 15 cm f/7.3 Newt.	Horseheads, New York, USA	74	221
McEldery, Claude 15 cm f/4 Newtonian	Dearborn, Michigan, USA	3	25
Nagel, Arie P. 15 cm f/4 Newtonian	Woensel•Eindhoven The Netherlands	1	8
Pilcher, Frederick 36 cm Celestron 25 cm Celestron	Jacksonville, Illinois, USA	193	1,084
Porter, Alain C. 15 cm f/8 Newtonian 10 cm f/15 refr.	Narragansett, Rhode Island, USA	19	76
Son, Andrew T. 6.35 cm f/5.6 astrocamera	Zeist, The Netherlands	3	4
Stelzer, Harold J. 20 cm Celestron	River Forest, Illinois, USA	1	1
Wallentine, Derek 11 cm f/10 Newt. 7x35mm binoculars	Albuquerque, New Mexico, USA	3	17
Welch, Douglas L. 20 cm f/7 Newtonian 41 cm f/5 Newtonian	Ottawa, Ontario Canada	48	193

In all, positional observations were reported for 227 planets for the year 1975. Positional observations totalled 1,743, considerably more than the previous year thanks to the amazing labors of Professor Frederick Pilcher of Illinois College (which had not been fully reported to us the previous year). Pilcher supplied 62.2% of the positional observations; McConnell 12.7%; Welch 11.1%; Porter 4.4%; Hudgens 3.0%. Seventeen observers reported positional observations, a welcome increase from the ten of 1974.

Quality, not quantity, however, must be the chief consideration in positional observations (or any astronomical observations for that matter!). The quality of most of the work submitted has been very good, but observers are reminded that hasty measures or other careless work has no value. Let us all be "workmen that need not to be ashamed."(2 Timothy 2:15).

With his lengthy report of observations, Prof. Pilcher has submitted a list giving the residuals for each planet he observed visually, measured by means of Vehrenberg's Atlas Falkau or Atlas Stellarum grids. While this method does not yield highly precise positions, it is sufficiently accurate in most cases to permit discovery of planets with large residuals which are deserving of improved ephemerides. From Pilcher's report the Recorder has noted with an "x" in the listing above those planets with residuals equal to or greater than $1^m.0$ in Right Ascension, and/or 5' in Declination. These planets are as follows:

Planet	O - C		Notes
106 Dione	$0^m.0$	+ 5'	1
111 Ate	-1.2	- 7	1
124 Alkeste	0.0	- 5	1
144 Vibilia	-0.1	+ 5	1
170 Maria	+0.3	- 5	2, 3
188 Menippe	+1.0	+ 5	2
269 Justitia	-1.1	+ 5	2, 3
380 Fiducia	-1.7	- 7	2, 3
442 Eichfeldia	-2.1	+ 6	2, 3
593 Titania	+2.0	+13	2, 3
787 Moskva	+2.3	- 2	2, 3
788 Hohensteina	+1.4	- 1	2, 3

Notes: 1 = measured off Atlas Falkau grid;
2 = measured off Atlas Stellarum grid
3 = improved orbital elements have just been published in Ephemerides of Minor Planets for 1977 (Leningrad, USSR: Institute for Theoretical Astronomy, 1976)

Presumably the newly improved elements for some of these planets will significantly reduce ephemeris errors in the future, but all of these planets deserve reobservation when there is a favorable opportunity.

While it is true that in 1975 much of the observing was done with larger apertures than in previous years, there is still plenty of work for persons with telescopes of 10 to 25 cm aperture provided they are used in a disciplined way. The use of photography in positional work is particularly commended. Such apertures could be used to make a significant contribution to photometric studies, which is an increasingly important field, although not covered in this report.

Awards

Last year (MPB 2, 40) the Recorder inaugurated annual awards for outstanding contributions to the A.L.P.O. Minor Planets Section:

1. MINOR PLANET OBSERVER OF THE YEAR, given to the Section member who has engaged in the most extensive observing program during a given year. In making this award not only the quantity of observations, but also their quality and scientific value will be considered. The winner receives a one year extension of their MPB subscription. For 1975 this award is given to PROF. FREDERICK PILCHER, who reported 1,084 positional observations of 193 minor planets, reporting their residuals, and contributed valuable photometry observations on 127 Johanna and 233 Asterope as well.
2. MINOR PLANET RESEARCH/DISCOVERY AWARD, given to the Section member or members who make the most significant scientific discovery or discoveries, or who contribute the most important research papers on minor planets in a particular year.

The award for papers published in MPB in the year 1975 is given to JEAN MEEUS of Belgium for his excellent papers "Calculation of the Magnitudes of Asteroids" in which he offered some significant improvements on the subject, and "Least Distances of Apollo and Amor Objects to Planetary Orbits", also an important contribution. These articles are found in MPB 3, 7-10 and MPB 3, 1-3 respectively. M. Meeus will have his subscription extended a year as an expression of appreciation for his fine work.

The Recorder would like to commend many other Section members for their labors in 1975. It would be impossible to thank all who deserve it, but a few may be singled out for special commendation: Dr. J.U. Gunter for his continuing work of promoting minor planet work among amateur astronomers by means of his excellent newsletter Tonight's Asteroids; Alain C. Porter and Derek Wallentine for their fine work in getting the Section's visual photometry program underway; Mark McConnell, the 1974 Minor Planet Observer of the Year, and Douglas Lindsay Welch for their many observations. To these and many others who have done so much to promote the investigation of minor planets, a word of thanks!

It is often customary to conclude a General Report of this nature with recommendations regarding areas which need investigation in the future. This need not be done here inasmuch as the recent article "Minor Planet Work for Smaller Observatories" (MPB 4, 1-2 (1976)) will serve the purpose.

MINOR PLANET ROTATION STUDIES: 1976 January-June

by Alain C. Porter and Derek Wallentine

ABSTRACT. Nine observers submitted 51 observations of 16 minor planets in the period 1976 January - June. Of these 10 were being observed photometrically for the first time. However, only 2 definite new rotation periods were derived: those of 41 Daphne and 1580 Betulia.

INTRODUCTION. The A.L.P.O. Minor Planets Section photometry program continues to grow at a pleasing rate. This report covers two more light curves than the first (cf. MPB 3,47-50 (1976)) in half the time. It is hoped this trend will continue. Regrettably half the asteroids in this report were observed only once.

The observations for this report were as follows:

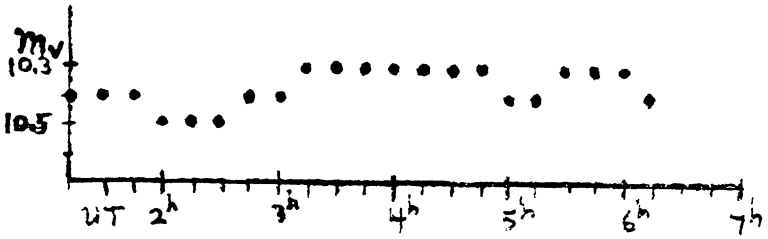
OBSERVER: ASTEROID	RB	GC	HF	DH	PK	FP	AP	MR	DW	Planet Total
9 Metis				1			5			6
16 Psyche							1			1
18 Melpomene							1			1
19 Fortuna				1	4		5			10
24 Themis							2			2
30 Urania							1			1
41 Daphne	5						5			10
48 Doris	1									1
63 Ausonia								1	2	3
79 Eurynome	2				1					3
123 Brunhild							1			1
129 Antigone							1			1
321 Florentina						1				1
409 Aspasia							1			1
631 Philippina	3									3
1580 Betulia	1	1	1				3			6
Observer Totals:	12	1	1	2	5	1	26	1	2	51

List of Observers

RB = Ray Bryant, Orinda, California, USA, 20cm Catadioptric
GC = Georg Comello, Groningen, Netherlands 20cm Cass.
HF = Henk Feijth, Leeuwander, Netherlands, 14cm Newt.
DH = David Hough, S. Plainfield, New Jersey, USA, 15cm Newtonian
PK = Phil Kirby, Springfield, Ohio, USA, 15cm Newt.
FP = Frederick Pilcher, Jacksonville, Illinois, USA, 36cm Celestron
AP = Alain Porter, Narragansett, Rhode Island, USA, 15cm Newt., 40cm Folded Newtonian
MR = Michael Roney, Ottawa, Ontario, Canada, 41cm Newt.
DW = Douglas Welch, Ottawa, Ontario, Canada, 41cm Newt. 20 cm Newtonian

DISCUSSION OF OBSERVATIONS.

9 Metis. One of the best observed asteroids photometrically speaking, Metis has been studied at 5 oppositions since 1949. Between 1976 Jan 29 and Feb 24 four maxima and three minima were observed and timed, yielding a period of $30^{h}.5$, which is quite compatible with the photoelectrically determined synodic period of $30^{h}.797$. Hough's curve of Feb. 15 (see below) is the most interesting. The only curve made with a real magnitude sequence, it suggests unequal minima.



The work on 9 Metis raises questions about the method used to determine 270 Anahita's axial orientation (MPB 3, 49 (1976). It was then noted the longer the interval between two of the timings made, the shorter the derived period was, and that the solution of the equation

$$(1) \qquad P_{sid} = \frac{360T}{360N + \delta \sin \phi}$$

for $\sin \phi$ gave a value greater than 1. It was concluded Anahita's axis was near normal to the ecliptic and that observational error was responsible for the greater-than-one value. However, application of this method to Metis, known to have a large obliquity (cf. Gehrels, T., and Owings, D., Astrophysical Journal 135, 906-24 (1962)), gave the same result. The 0.2 magnitude variation observed this year is consistent with their determination. It appears the accuracy of observations reported in MPB 3, 49 was overestimated despite the length of Anahita's period, and its axial orientation is still unknown. Observational error can be unexpectedly complex even when the observations have a high degree of self-consistency.

16 Psyche. Porter made one additional short curve in February, detecting no variation. Cf. MPB 3, 49 (1976).

18 Melpomene. A single 3 hour curve was made Feb. 21. Variation was small and uncertain; possible maximum around $1^{h}17^{m}$ UT. In 1974 at $\lambda=330^{\circ}$, observed amplitude was 0.18 magnitudes; in 1958 at $\lambda=70^{\circ}$ it was 0.35 mags. This year Melpomene was at $\lambda = 55^{\circ}$ when observed, near the longitude Messrs. Welch, Binzel and Patterson suggested for Melpomene's pole. More observations are needed.

19 Fortuna. Large amplitudes of 0.4 to 0.6 mag. were observed by Kirby and Porter on several nights (greater than the 0.25 mag. of the previous apparition) suggesting a large obliquity which deserves future study. The synodic period in 1976, using only intervals measured between identical phenomena (whole number of rotations to avoid problems of asymmetry in the light curve) was $446^{m}.6$ ($7^{h}26^{m}.6$), almost identical to the previously determined period of 447^{m} ($7^{h}27^{m}$).

24 Themis. The 2 observations of late May are short and inconclusive; a period of $8^{h}.5$ and amplitude of 0.12 mag. has been reported (cf. E. Tedesco, private communication).

30 Urania. The sole observation was uselessly short. Urania's reported period and amplitude are $13^h.668$ and 0.14 magnitude (E. Tedesco, private communication).

41 Daphne. The best Daphne observations were made by Ray Bryant with a visual photometer, and account for over two-thirds of the timings obtained. Due to limited space observed maxima and minima are not given here. Bryant observed May 26, 27, 29, June 24, 25; Porter on May 23, June 5 and 27. Study of observations from consecutive nights showed a range of possible periods from a little under 3^h to a little under 4^h. Analysis was made using May 29, $6^h05^m.94$ as standard maximum; times to 4 other chosen maxima were measured and corrected for light time. Only maxima observed by visual photometer were used; there were quite enough of them. Elapsed epochs for those intervals were then calculated for the various approximate periods.

Squared residuals are next calculated from the formula

$$(2)\quad \Sigma\Delta^2 = \Sigma(e_nP - t_n)^2$$

where t_n is the time elapsed in interval n and e_n is the number of rotations elapsed in that interval assuming a period in the neighborhood of P. By differentiating and setting to 0, we find the following expression for the period P which gives minimum residual $\Sigma\Delta^2$:

$$(3)\quad P = \frac{\Sigma\, e_n t_n}{\Sigma\, e_n^2}$$

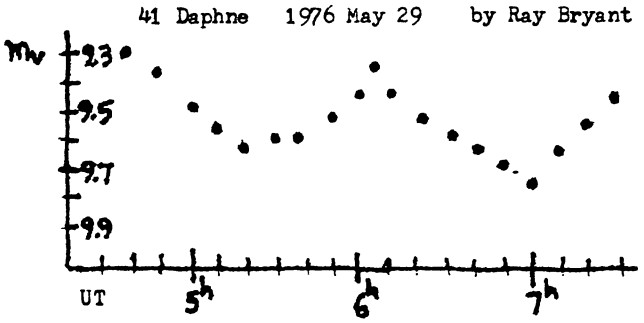
This is done for each approximate period, and from among the refined periods P we choose as our final value the one with the minimum minimum residual, as it were. In the following table residuals in 10^{-6} days^2 are given for various periods as calculated from the maxima and also from an equal number of minima (min0= May 29, $6^h58^m.76$ UT). The last column is the sum of the residuals from maxima and minima (the slight deviation for the fourth period is due to rounding of figures):

From Maxima		From Minima		
Period	$\Sigma\Delta^2(d^2\times10^{-6})$	Period	$\Sigma\Delta^2$	Final Σ^2
$168^m.25$	39	168.26	507	546
178.69	31	178.70	318	349
190.52	26	190.52	169	195
204.02	28	204.02	82	111
219.58	40	219.57	93	133

From the above table it is obvious the maxima were more sharply defined than the minima (cf. also the light curve). From the maxima a period of $190^m.52$ or $204^m.02$ would best fit the data, and the minima, plus the final combination, weigh in favor of $204^m.02$. Another factor favoring this period is that Bryant's observations may indicate a real difference in the shape of the primary and secondary minima. The figure below shows the first minimum markedly rounder than the next one observed. The $204^m.02$ ($3^h24^m1^s.2$) period identifies rounded minima Bryant observed on other nights as the same phenomenon, while the $190^m.52$ period would require classing minima of unequal observed shape as the same phenomenon.

41 Daphne's light curve amplitude, according to Bryant's three May observations (which covered nearly an entire rotation each) showed an average amplitude of 0.43 magnitudes with only 0.07 magnitudes scatter. (Note: Bryant's observations with the visual photometer are made to 1/30 of a magnitude -- i.e., 0.03 magnitude steps. The above values are given in decimal form to avoid fractions, but do not claim 0.01 magnitude precision. Thus Daphne's period appears to be $3^h24^m01^s$. Probable error is unknown due to the novelty of the visual photometer method, but given the very low residuals in the above table, it is probably not more than a few minutes.

(See light curve in the next column)



48 Doris. Bryant made one short visual light curve which showed some possible shallow variation, but is inconclusive.

63 Ausonia. Three observations came from observers in Ottawa, one of April 9, and a simultaneous pair made on April 10. The period appears to be short, but cannot yet be defined. Welch's light curve of April 9 -- apparently covering an entire rotation -- indicates a period of just over 2^h. The simultaneous curves of Welch and Roney on the 10th both indicate a maximum within a minute of $2^h54^m.4$, which would make such a period 132^m, but both observations measured an hour-long decline to minimum. The only apparent difference in observing conditions was that on the first night a 20cm f/7 reflector was used, and on the second night, a 41cm f/5 reflector. More study is clearly needed.

79 Eurynome. Bryant made light curves of over 2^h on April 26 and 28, and Kirby observed 4^h21^m on April 30. Irregular scatter of 0.2-0.3 magnitude was observed, but no visually detectable periodic variation.

123 Brunhild and 129 Antigone. Only one short, inconclusive observation was made for each of these planets.

321 Florentina. Pilcher made a single 4^h curve on Jan. 4, 1976 indicating a period of about 3^h in confirmation of the photoelectric period of 2^h52^m from the 1955 apparition (cf. van Houten-Groeneveld, Ingrid, and van Houten, C.J., in Astrophysical Journal 127, 269 (1958)). An arbitrary magnitude scale was used, so no conclusions can be drawn concerning amplitude, which in 1955 was 0.38 magnitude. In 1976 it was probably at least this large as there was very little scatter in the data points. Florentina deserves further study.

409 Aspasia. It has been reported (MPB 3, 50 (1976) Wallentine observed no variation in Jan-Feb 1975. Aspasia was reobserved for $1\frac{1}{2}^h$ on 1976 May 23, and again showed no change in brightness. Either (a) Aspasia is nearly spherical and/or has a long period, or (b) its axis runs through the two areas it occupied in 1975 and 1976: they are not far from antipodal ($\lambda_{75}=110^\circ$; $\lambda_{76}=240^\circ$). Amplitude should be studied in late 1977 and subsequent apparitions.

631 Philippina. Bryant's observations of January 29, 30 and 31 show a large ($\geq$ 0.4 magnitude) variation with a period of at least 6^h. Observations began about the same time every night, and the period is such the same phenomena were observed every night: a rise to maximum followed by a fading to the original brightness. Unfortunately the curves were not long enough to include the neighboring minima, and clouds cut the observation short on the last night. The planet's next apparition should be carefully observed.

1580 Betulia. Betulia will be the subject of a special report by Edward Tedesco, Jack Drummond and the authors in a future issue of MPB, so these comments will be brief. The visual photometry response was limited to three useful curves (two maxima and one minimum) yielding a $343^m.2$ rotation period; photoelectric photometry gave a period of close to 368^m (6^h08^m) and an amplitude of about 0.2 to 0.3 magnitude.

NEWS NOTES

Dr. H.J. Schober of the Universitätssternwarte, Graz, Austria, has recently communicated findings concerning minor planet rotations secured by European astronomers, chiefly of Graz, for which the Editor is most thankful. In summary form these findings are as follows:

654 Zelinda. Observed during the 1973 opposition with a photoelectric photometer and a 60 cm telescope at the Observatoire de Haute Provence for a total of 31^h, 654 Zelinda has been found by H.J. Schober to have a synodic period of rotation of $31^h54^m\pm3^m$, and a maximum amplitude of about 0.3 mag. The composite light curve appears with a double maximum and a double minimum. The synodic period is the longest yet measured for a minor planet. (Cf. Astronomy & Astrophysics 44, 85-89 (1975)).

675 Ludmilla. Observed during the 1973 opposition with a photoelectric photometer and a 60 cm telescope at the Observatoire de Haute Provence, 675 Ludmilla has been found by H.J. Schober and Rudolf Dvorak to have a synodic period of rotation of $7^h43^m01^s\pm16^s$, and an amplitude of 0.28 mag. The light curve appears to be fairly symmetric with a double maximum and a double minimum. (Cf. Astronomy & Astrophysics 44, 81-84 (1975)).

43 Ariadne and 71 Niobe. Examined photoelectrically at Observatoire de Haute Provence in August 1972 and February 1974 respectively by G. Lustig and R. Dvorak, 43 Ariadne was found to have a rotation period of $5^h.760$ and an amplitude of 0.66 mag.; 71 Niobe was determined to rotate in $11^h.213$ with an amplitude of 0.10 mag. (Cf. Acta Physica Austriaca 43, 89-97 (1975)).

89 Julia. H.J. Schober and G. Lustig obtained new photometric data of the light curve of 89 Julia on nine nights during the 1972 opposition using the 60 cm telescope at Observatoire de Haute Provence. A synodic period of $11^h23^m14^s\pm7^s$ and an amplitude of 0.25 mag. were obtained. The light curve is rather unsymmetric and no plausible explanation has yet been offered for this. (Cf. Icarus 25, 339-343 (1975)).

2 Pallas and 704 Interamnia. Pallas was observed photoelectrically in April 1973 and August 1974, and Interamnia was observed in August 1974 at the Observatoire de Haute Provence. The amplitude of Pallas was found to be 0.055 mag. in 1973 and 0.11 mag. in 1974 according to G. Lustig and G. Hahn. (They used a rotation period of $7^h48^m.4$ based on the work of A. Schroll, H. Haupt and H.M. Maitzen). The rotation period of 704 Interamnia was found to be $8^h43^m.6$ with an amplitude of 0.11 mag. (Cf. Acta Physica Austriaca 44, 199-205 (1976)).

* * * * *

1976 UA. This very fast moving minor planet was discovered almost simultaneously on October 25 by W. Sebok with the 122 cm Schmidt telescope at Palomar Mountain Observatory, and by E. Helin, T. Lauer and D. Zelinsky with the 46 cm Schmidt. It was reobserved on October 26. It was also later identified with a very fast moving object found on a plate taken October 22 by C. Kowal with the 46 cm Schmidt.

Provisional elements have been computed by Dr. Brian G. Marsden (cf. IAU Circulars 2999 and 3000) which indicate 1976 UA is an Apollo-type asteroid (i.e., its orbit crosses that of the Earth) with a perihelion distance of 0.46661 AU, and a semi-major axis of 0.84393 AU. The semi-major axis is the smallest of any minor planet yet discovered. Eccentricity is 0.44710, and the inclination to that of the Earth is only $5^\circ.799$ (which is rather small for an Apollo object). The period is 0.775 years. 1976 UA was originally thought to have an absolute magnitude, g, of 22.5, but Dr. Marsden (telephone communication with Editor on Nov. 1) believes this should be amended so that g = 21.5, which would still make this asteroid a very small object.

1976 UA was at minimum distance (about 0.008 AU or 1,200,000 km) from the Earth on October 20. When discovered two days later it was 12.5 photographic magnitude. By October 25 it was estimated to be photographic magnitude 16, and $14\frac{1}{2}$ to 15 photovisual.

Other orbital elements (all for Epoch 1976 August 10.584) are $\omega = 39^\circ.580$, $\Omega = 211^\circ.241$, and $M = 1^\circ.2713$. Certainly 1976 UA is a remarkable planet, and calls to mind the case of 1976 AA previously discussed in MPB 3, 55-56 (1976), the only other case of a planet with a semi-major axis smaller than that of the Earth.

SECTION NEWS

MPB PUBLISHING PLANS. The Editor regrets that this issue is approximately a month late in appearing because of heavy demands made upon his time (the astronomy courses at Dordt College have a record enrollment), and because this particular issue required an unusual amount of editorial and typing time. The patience of our readers is appreciated. The Editor had hoped to include G. Merton's article in this issue (cf. MPB 4,3) but that would involve further delay. It will definitely appear in the next issue, which promises to be a fairly long issue which may be published in two parts.

Occasionally in the past the Editor has received long papers of value which could not be accomodated in the available space of MPB. It has been decided that this problem could be met in the future by means of a Minor Planet Bulletin Supplement Series, numbers of which would be published as the situation arose. The publication of such papers would be announced in advance in MPB, and interested persons would be given approximately $1\frac{1}{2}$ to 2 months to enter their subscription for a particular number in the Supplement Series. Payment must be made in advance of the publication date except in the case of institutions. On the announced publication date the copy which the author has submitted will be Xeroxed in only a quantity sufficient to fill orders received; these Xerox copies will then be distributed by surface mail anywhere in the world at one fixed price. Since such copying will be time-consuming, orders received late will not ordinarily be honored. No inventory of extra copies will be maintained, since this is costly. The first such publication is announced immediately below.

MPB SUPPLEMENT SERIES, No. 1. Mark McConnell, "The Use of Amateur Observations in the Determination of Preliminary Planetary Orbits", 40 pages. Includes three programs detailed in an appendix written for an IBM Systems 3 computer. Price $ 3.25 postpaid. Publication date will be 1977 January 4, by which date all orders must be received.

"SELECT EPHEMERIS". A special ephemeris will not be published for 1977 (cf. MPB 4, 8) since the response received was not deemed sufficient to justify the time and expense involved. MPB, however, will try to include more ephemerides of planets of special interest in 1977, similar to MPB 4, 7 to meet the need.

THE A.L.P.C. MINOR PLANETS SECTION is directed by its Recorder, Prof. Richard G. Hodgson, who also edits MPB. Items for publication, subscriptions, and reports of unusual observations should be communicated to him. Address either Dordt College, Sioux Center, Iowa 51250 USA, or his home at 316 South Main Avenue, Sioux Center, Iowa 51250 USA (the latter is faster in holiday periods). His home telephone is (712)-722-4081. Positional observations should be reported to Prof. Frederick Pilcher, Assistant Recorder, at Illinois College, Jacksonville, Illinois 62650 USA. Visual photometry observations should be reported to Alain C. Porter, 10 Sea Lea Drive, Narragansett, Rhode Island 02882, USA.

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