

MINOR PLANET VISUAL PHOTOMETRY LIST: OCTOBER-DECEMBER 1975

by Derek Wallentine and Alain Porter

Four close passages are featured among the visual photometry opportunities for the last three months of 1975. For all but one of the listed planets there is no knowledge of their lightcurves, so observers of these events could make significant contributions to our knowledge of these bodies.

One of the closest appulses is that of 444 Gytis to the object variously known as NGC 2261, Hubble's "Variable Nebula", and R Monocerotis. For about two days centered on minimum separation, it will be excellently placed in a field of suitable comparison stars of similar magnitude. Also favorable (though faint) is 113 Amalthea's passage through the field of Z Ceti. The very close passage of 1061 Paeonia is included for those fortunate observers among us equipped with telescopes of 30 cm aperture or greater. Although the T Tauri sequence extends only through 13.9 magnitude, observations of light variations would still be useful, even if precise values could not be determined due to lack of comparison stars. Incidentally, at opposition this planet will be about two degrees from the ecliptic and consequently may be a tenth of a magnitude or so brighter because of the opposition effect (cf. table, MPB 2, 6 (1974)).

Below are given the asteroid's number, name, opposition date and opposition magnitude; the number, name and type of AAVSO chart; and the date, separations and position angles (relative to the chart variable star) of the crossing. The following abbreviations apply:

- LU - light curve unknown; observations urgently requested
- PL - planet on Pilcher list (MPB 2, 13-14 (1974)); opposition highly favorable this year
- e - extrapolated position, that is, an extension of the asteroid's apparent track beyond the last published ephemeris position.
- c - closest approach
- * - AAVSO "b" type star chart useful only for the location of the field
- mv - visual magnitude (assumed to be 0.8 mag. brighter than photographic magnitude)

Asteroid	Opposition		Chart(s)	Date		PA
	Date	Mag.		(0 ^h UT)	Sep	
246 Asporina	Sept 24 LU	12.5 _{mv}	2352-09 V Ceti "b"*, "d"	Oct 1	41'	16°
				3	23	337
				4	22 c	301
				5	30	276
				7	52	256
113 Amalthea	Oct 16 LU	11.9 _{mv}	0101-02 Z Ceti "b"*, "d"	Oct 31	36'	60°
				Nov 2	17	30
				3	9 c	333
				4	18	284
				6	41	268
200 Dynamene	Dec 9 LU	11.4 _{mv}	0520+34 S Aur "b", "d"	Nov 7	28'	157°
				9	23	184
				10	22 c	201
				11	24	218
				13	32	241

26. Asteroid	Opposition		Chart(s)	Date	Sep	PA
	Date	Mag.		(^{oh} U.T.)		
530 Turandot	Oct 6 LU, PL	12.3 _m _v	0019-09 S Cet "b"*, "d"	Nov 12	33'	105°
				14	28	100
				16 e	24	94
				18 e	21 c	83
				20 e	22	71
1061 Paeonia	Nov 28 LU, PL	14.1 _m _v	0416+19 T Tau "b"*, "d"	Nov 20	19'	83°
				21	7	83
				~13 ^h	<1 c	0
				22	5	271
				23	17	269
444 Gypsis	Dec 26 LU	12.2 _m _v	0633+08 R Mon "b25"*, "d"	Nov 29	16'	76°
				30	7	86
				~16 ^h	2 c	180
				Dec 1	4	243
				2	14	247
16 Psyche	Dec 7	9.4 _m _v	0446+17 V Tau "b"	Dec 5	29'	44°
				7	19 c	345
				9	40	293
236 Honoria	Dec 4 LU	11.8 _m _v	0422+09 R Tau "b17"*, "d11", "e3"	Dec 17	21'	63°
				18	11	44
				19	7 c	333
				20	14	297

Note: Planets are listed in order of central crossing date, c.

As indicated previously (MPB 2, 31-32, 3, 20 (1975)) estimates should be made every few minutes for a number of hours -- preferably for 6 to 10 hours if possible to enable a full rotation or more to be observed. Observations covering several nights are highly desirable in order to define the rotation period more precisely.

Proper observing charts may be obtained for \$ 0.25 (US) each from the American Association of Variable Star Observers ("AAVSO"), 187 Concord Avenue, Cambridge, Massachusetts 02138, U.S.A. by identifying them by their number, variable star name and small letter subscript. If possible, obtain the chart(s) well ahead of time so that you can study the field before the passage of the planet, especially in the case of the fainter planets.

Photometry Report Forms are available free from co-author Alain Porter, 10 Sea Lea Drive, Narragansett, Rhode Island 02882, U.S.A. Their use is recommended for all visual photometric observations, and they may be best for photoelectric and photographic photometry as well. Please enclose a large, self-addressed stamped envelope to defray Alain's costs. Reports of any observations should be sent to Mr. Porter at the above address; the Section Recorder would also appreciate a copy for section files.

SECTION NEWS

PUBLISHING PLANS. Subscribers should note that vol. 3, no. 2 is being published in two parts, this being the first part. A larger second part will follow in a few weeks, and will include articles by M.A. Combes, A.T. Son, June LoGuirato, and others which should be of considerable interest.

PALLAS/VESTA CHART. Dr. J.U. Gunter has very kindly supplied us with free tracking charts for the 2 Pallas/4 Vesta appulse in November, a copy of which is enclosed. Try to observe these planets as they draw together if possible. Cf. MPB 3, 10 (1975) for further information.