GEOS
AO 1

GEOS CIRCULAR ON ASTEROIDAL OCCULTATIONS

1985 March 03

GEOS
12 rue Bezout
F-75014 PARIS

SURVEILLANCE OF PREDICTED EVENTS
• FIRST LIST (July - October 1984)

ABSTRACT. SURVEILLANCE OF PREDICTED EVENTS : FIRST LIST (July - October 1984).

Results of some possible asteroidal occultations, from July to October 1984, are given below :

- 1984 July 16, (386) Siegena and AGK3 + 5° 2112
  3 stations, no occultation
- 1984 September 3, (118) Menippe and SAO 143 998
  1 station, no occultation
- 1984 October 16, (735) Marghanna and AGK3 + 13° 0253
  2 stations, no occultation
- 1984 October 21, (545) Messalina and AGK3 + 36° 0536
  14 stations, no occultation

RESUME. SURVEILLANCE DE PHENOMENES PREDITS : PREMIERE LISTE (juillet - octobre 1984).

Les résultats de quelques occultations d'étoiles par les petites planètes sont donnés pour la période s'étendant de juillet à octobre 1984 :

- 16 juillet 1984, (386) Siegena et AGK3 + 5° 2112
  3 stations, pas d'occultation
- 3 septembre 1984, (118) Menippe et SAO 143 998
  1 station, pas d'occultation
- 16 octobre 1984, (735) Marghanna et AGK3 + 13° 0253
  2 stations, pas d'occultation
- 21 octobre 1984, (545) Messalina et AGK3 + 36° 0536
  14 stations, pas d'occultation

I) INTRODUCTION

This first circular presents the results of the surveillance of five possible asteroidal occultations, from July to October 1984. These events were predicted by D. Dunham (1984), E. Goffin, G. Taylor and L.H. Wasserman (1983). The observations were made by professional as well as amateur astronomers aware of the usefulness of collaboration for this kind of phenomena.

II) RESULTS

No occultation was observed. Next pages give complete information about these observations, but a short summary is presented below.

- 1984 July 16, (386) Siegena and AGK3 + 5°2112
  3 stations - no occultation
- 1984 September 3, (188) Menippe and SAO 143998
  1 station - no occultation
- 1984 October 16, (735) Marghanna and AGK3 + 13° 0253
  2 stations - no occultation
- 1984 October 21, (545) Messalina and AGK3 + 36° 0536
  14 stations - no occultation

BIBLIOGRAPHY

Dunham, D.W. (1984). Occultation Newsletter, 3, 119

Goffin, E. (1984). Occultation of SAO stars by minor planets.

Taylor, G.E. (1983). Bulletin 29, IAU Commission 20, Working Group on Predictions of Occultations by Satellites and Minor Planets.

Wasserman, L.H. and al. (1983). Astronomical Journal, 88, 1670

Roland BONINSEGNA

OBSERVER	ABBR.	PLACE	LONG. o E	LAT. o N	ALT. m	INSTR.
CANDELA B.	CDL	F Solliès-Pont	6.0444	43.1894	70	T 210 v
CAVAGNA M.	CVG	I Sesto St Gio	9.067	45.872	1310	T 250 v
DECONINCK M.	DNK	B Bruxelles	4.3436	50.7953	79	T 150 v
LHEUREUX A.	LHX	B Bruxelles	4.3436	50.7953	79	T 200 v
LOUYS L.	LYS	B Bruxelles	4.3831	50.8128	147	T 282 v
MIDAVAINE T.	MDA	F Paris	2.3447	48.8486	80	L 153 v
C.E.R.G.A. Obs.	cer	F Caussols	6.9267	43.7483	1270	T 1500 pp
Haute-Prov. Obs.	ohp	F St-Michel	5.7133	43.9317	700	s.results
Meudon Obs.	meu	F Meudon	2.2314	48.8050	162	T 1000 tv
PINSON J.	PNS	F La Seyne s/M	5.8725	43.0992	50	T 350 v
ROUSSELOT P.	RST	F Besançon	5.9875	47.2494		T 400 v
SOSTERO G.	SOS	I Tavagnacco	13.22	46.18	120	T 225 v
THOORIS B.	THO	B Wervik	3.081	50.786	17	T 115 v
VAN CAMP J.	JVC	B Waarloos	4.4547	51.1072	5	T 200 v
VAN LOO F.	FVL	B Heist/Berg	4.7136	51.1061	10	B 100 v
ZIMMERMANN L.	ZMN	B Bruxelles	4.3831	50.8128	147	L 158 v

Table I: Observers, places, geographical positions and instruments

column 1: Obs. means Observatory
column 2: Abbreviation of the observer's name
(small letters for the professional observatories)
column 3: B for Belgium, F for France, I for Italy
columns 4 and 5: East Longitude and North latitude in degrees and decimals

column 6: Altitude in metres
column 7: Instrument (aperture in mm) and equipment used
T for reflector — v for visual observation
L for refractor — pp for photoelectric photometer
B for binoculars — tv for video camera and recorder

Following tables: Results of the observations

column I: Observer's abbreviated name (table I, column 2), and result of the observation (+/-).
column 4: Method of timing and recording (MR), timekeeping (MT)

MR		MT	
P	Photoelectric	R	Radio signal (standard time signal)
X	Chronograph	C	Clock (adjusted by standard time signal)
T	Tape recorder	T	Telephone
V	Television		

A) I984 July I6 , (386) Siegena and AGK 3 + 5°2II2

ABBR.	+/-	OBSERVATION Start U.T. h m s	End h m s	COMMENTS (Times in U.T.)	MR MT
CVG	-	00 20	00 44		TR
ohp	-	00 25	00 45	good sky visual observation	
PNS	-	00 28	00 47		

B) I984 September 3 , (I88) Menippe and SAO I43998

THO	-	I8 55	I9 27 00	no observation, owing to clouds, between I9h03mI5s to I9h05m22s I9h09m38s to I9hI3m45s I9h22mI8s to I9h26m32s	XT

C) I984 September I4 , (6) Hebe and anonymous star (I0.7)

meu	-	04 07 30	04 I9	Hebe passed ≃ 2" south of the star. Least distance around 04hII.4m. The star seemed one magnitude brighter than expected (brighter than Hebe.	VT

D) I984 October I6 , (735) Marghanna and AGK 3 +I3° 0253

RST	-	00 30	00 50	The pair asteroid-star was well separated during all the observation, at 70X.	
SOS	-			The pair asteroid-star was separated, at closest distance, at 300X only.	TC

E) I984 October 2I ,(545) Messalina and AGK 3 +36°0536

ABBR. +/-	OBSERVATION Start U.T. h m s	End h m s	COMMENTS (Times in U.T.)	MR MT
CDL -	04 05 00	04 30 00	good conditions	
DNK -	04 04	04 29	good conditions	TR
LHX -	04 I4	04 30	good conditions	TR
LYS -	03 55 I5	04 26 48	good conditions	
MDA -	04 I7	04 29	troublesome clouds	
cer -	03 55	04 23	good conditions	P
ohp -			T 800 pp Messalina seems to have T I930 tv passed east of the star	P V
meu -	03 58 04 07 I0 04 I3	04 02 04 09 I0 04 I8	variable transparency (clouds) technical problems in declination no occultation longer than I sec.	VT
PNS -	03 59 50	04 35 00	good conditions	
THO -	04 05	04 40	very good conditions	TT
JVC -	03 50 04 I2	04 07 04 35	troublesome clouds	
FVL -	04 00	04 I9	good conditions	
ZMN -	03 55 00	04 26 25	good conditions	