

4/27/68

U. S. NAVAL OBSERVATORY COMPLETE LUNAR OCCULTATION PREDICTIONS COMPUTED FOR WASHINGTON (LAT 38.920 LONG 77.068)
FOR 1968, STANDARD STATION AT LAT 38.920 LONG 77.068 DISTANCE = 0 MILES)

DATE	TIME(UT)	ACC	V.E.Z.C.	LSNE	S.A.O.	MAG	SP	PERCENT	EGL	PA	CUSP	VA	MOON	SUN	AA	LIBRATION	MIN	PEF AL DEG	SCN.LAT	DEG ANGL	EG AL	ALT AZI	ALT DEG LENG	LAT MAG			
H	M	SEC																									
MAY 16	4 46 55	5	3 2	Z20C092	187946	8.4	K2	R	E1	WAN	130 267	90S 310	2 130	275	6.6	7-5											
MAY 16	4 54 25	5	3 3	Z20C100	187950	8.0	K2	R	E1	WAN	126 261	90S 323	4 101	266	6.5	7-5											
MAY 16	4 55 55	5	3 4	Z20C141	187950	8.8	K5	R	E1	WAN	120 323	34N 2	7 135	331	6.5	7-5											
MAY 16	6 4 14	5	5 6	Z20C172	188013	8.8	G5	R	E0	WAN	127 263	85S 298	12 143	274	6.5	7-6											
MAY 16	7 49 50	5	7 5	Z20C274	188093	9.0	K0	R	E0	WAN	127 283	21 165	291	6.3	7-6												
MAY 16	8 8 56	5	7 5	Z20C294	188103	9.2	G0	R	E0	WAN	127 282	74N 292	22 169	290	6.2	7-6											
MAY 16	8 15 10	6	6 6	Z2C112	188115	9.2	K0	R	E0	WAN	127 224	48S 233	22 170	234	6.2	7-6											
MAY 16	9 5 16	6	6 6	Z2C121	188118	9.2	K0	R	E0	WAN	127 224	23 140	-9 104	264	6.2	7-6											
MAY 17	6 13 36	5	5 8	Z21487	189235	8.4	K5	R	71	WAN	114 295	54K 336	8 132	308	5.5	7-4											
MAY 17	7 26 29	5	5 8	Z21737	189279	8.4	G5	R	70	WAN	114 276	71N 307	17 146	291	7-4	7-4											
MAY 17	8 32 42	5	5 8	Z21781	189312	9.0	G0	R	70	WAN	113 275	74N 292	23 160	285	7-2	7-4											
MAY 17	9 9 19	5	5 8	Z21815	189341	9.3	K0	R	70	WAN	113 242	73S 252	25 169	-8 256	7-1	7-3											
MAY 17	9 32 37	5	5 3	Z23066	190310	1.1	A3	R	59	WAN	101 240	77S 267	23 148	258	7-8	8-7											
MAY 18	9 32 37	6	5 3	Z23066	190333	9.0	K0	R	59	WAN	101 273	65N 295	28 160	-8 254	7-8	7-6											
MAY 18	9 7 19	6	5 9	Z230C0	190337	7.3	K0	R	59	WAN	103 195	32S 216	25 154	-212	7-7	6-7											
MAY 19	6 47 55	6	4 4	Z230C5	190342	9.2	G0	R	49	WAN	85 205	54K 333	4 114	305	8-1	9-3											
MAY 19	7 32 46	6	4 8	Z230D3	190346	9.0	K0	R	49	WAN	85 205	28S 250	6 107	321	8-1	9-3											
MAY 19	7 32 46	7	5 6	Z230E1	190349	8.6	C5	R	49	WAN	85 206	35N 20	12 122	306	8-1	9-3											
MAY 19	7 15 49	5	4 8	Z230E2	190352	8.6	K2	R	49	WAN	85 337	21 22	9 119	397	8-1	9-4											
GRAZING OCCULTATION NEARBY-- APPROXIMATE N. LIMIT LAT. = 38.61 + 0.111(LNG. - 77.061)																											
MAY 19	8 12 42	6	4 9	Z230E51	190393	9.1	F2	R	49	WAN	85 216	57S 255	18 129	236	8-0	8-8											
MAY 19	8 12 42	6	4 9	Z230E52	190395	9.2	F2	R	49	WAN	85 216	57S 255	18 129	236	8-0	8-8											
MAY 20	8 50 31	5	5 5	Z245459	190395	7.9	K0	R	38	WAN	76 220	54S 241	21 124	-11 241	7-4	7-7											
MAY 21	8 31 31	5	7 9	Z25131	190409	7.3	A2	R	29	WAN	65 246	89N 296	10 104	268	7-0	3-4											
MAY 21	8 34 46	5	6 9	Z25153	190422	7.7	K2	R	29	WAN	65 219	64S 267	15 109	244	6-9	3-4											
MAY 22	8 1 20	13	6 8 8	Z20380	190245	9.0	K0	R	21	WAN	54 303	27N 359	6 93	336	6-0	2-6											
MAY 22	8 42 51	6	6 9	Z20424	190256	8.2	F2	R	21	WAN	54 241	84S 293	13 99	-12 263	5-9	2-6											
MAY 23	8 12 57	6	6 8 1	Z204262	190281	8.2	F2	R	21	WAN	54 213	84S 293	13 99	-12 263	5-9	2-6											
MAY 23	8 2 11	6	8 2	Z01678	190743	8.4	FB	R	13	WAN	43 192	35S 243	2 82	322	4-8	0-6											
MAY 23	8 2 15	6	8 2	Z01678	190753	6.2	K0	R	13	WAN	43 203	31S 250	6 86	228	4-8	0-6											
MAY 23	8 2 15	6	8 2	Z01678	190765	8.9	FB	R	13	WAN	42 240	83S 292	13 93	-7 260	4-7	0-2											
MAY 23	8 2 15	6	8 2	Z01678	190765	8.9	FB	R	13	WAN	42 303	43N 352	3 89	-10 313	2-1	-2-2											
MAY 23	8 2 15	6	8 2	Z01678	190766	8.9	FB	R	13	WAN	42 303	43N 352	3 89	-10 313	2-1	-2-2											
MAY 23	8 2 15	6	8 2	Z01678	190766	8.9	FB	R	13	WAN	42 303	43N 352	3 89	-10 313	2-1	-2-2											
MAY 31	0 49 17	7	4 4	Z07452	79482	8.6	K2	R	12	WAN	41 151	32S 92	30 281	-4 142	-6-0	-6-2											
MAY 31	0 42 17	7	4 1	Z073C1	7949C	8.7	G5	C	12	WAN	41 70	67N 11	32 280	-3 62	-6-0	-6-2											
MAY 31	1 7 54	7	4 4	Z073C8	7949S	7.0	A2	C	12	WAN	41 156	28S 94	27 283	-147	-6-0	-6-1											
MAY 31	2 12 57	6	4 4	Z073C9	79527	8.0	K0	C	13	WAN	41 76	72N 22	19 292	-67	-6-0	-6-0											
MAY 31	2 12 57	6	4 4	Z07572	79550	8.0	K0	C	13	WAN	41 76	72N 22	19 292	-67	-6-0	-6-0											
MAY 31	2 34 49	7	4 2	Z07572	79550	8.0	K0	C	13	WAN	41 155	25S 103	11 294	146	-6-0	-6-0											
MAY 31	3 14 26	5	4 6	Z07623	79572	9.3	K7	O	13	WAN	42 108	70S 59	5 300	99	-6-0	-5-9											
MAY 31	3 26 59	6	4 3	Z07631	79576	9.2	K7	O	13	WAN	42 134	50S 86	3 302	124	-6-0	-5-9											

May 1968

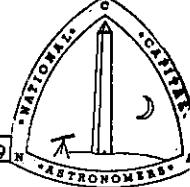
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A METEORITE ODYSSEY

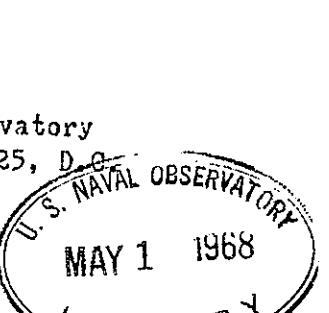
Since our April meeting was cancelled due to the curfew in effect in Washington, D. C., we have re-scheduled Dr. Edward Henderson for the May meeting.

Dr. Edward P. Henderson, a curator at the Smithsonian Institution, and well-known authority on meteorites, will describe the field work involved in obtaining, identifying, and studying meteorites, as well as summarizing the knowledge gleaned to date from these fascinating intruders. Dr. Henderson's emphasis on field work, and the techniques for recognizing meteorites, will be of interest to amateurs who would like to take up this activity, where they can make a worthwhile contribution to science.

- Every day, something like 10^8 meteors enter the earth's atmosphere. Most of these are vaporized completely by the high entry temperatures, but a small fraction are sufficiently massive to survive their fiery plunge; these may often be found and recognized by a careful rock collector. Meteorites of course carry useful clues as to the composition of matter in interplanetary space, and to the age and origin of the solar system.
- *****
- CALENDAR
- MAY 4 DINNER WITH THE SPEAKER 6:15 P.M. Bassins--at the corner of 14th & Penn. Ave. N.W. Call Jerry Hudson 948-2809 to make reservations.
- 4 8:15 P.M. A METEORITE ODYSSEY. Dr. Edward P. Henderson, Held in the Department of Commerce Auditorium. Followed by regular business meeting.
- 4 GENERAL MEETING OF JUNIOR DIVISION at 7:15 P.M. in the Dept. of Commerce Auditorium. Elections of Junior Officers. All Juniors are urged to attend.
- 11 MD-DC JUNIORS MEETING at 2 P.M. at Chevy Chase Library, 8005 Conn. Ave. in Chevy Chase, Md. Leith Holloway will lead a discussion on Science in the Year 2001.
- 18 EXPLORING THE SKY at 9:00 P.M. at Picnic Grove 16 West of the Nature Center Rock Creek Park. This is South of Military Road on Glover Rd. For further information, call Robert McCracken.
- 7,14,21,28. TELESCOPE MAKING CLASS at Chevy Chase Community Center at 7:30 with Hoy Walls.



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ATTENTION JUNIORS

Before the regular monthly lecture of the NCA there will be a general meeting of the entire Junior Division. On the agenda will be the election of Junior Officers for the coming program year. Be thinking of candidates that would make good officers. After the election we shall discuss plans for next year. One item to discuss is the vacancy in the office of Junior Division Director after my coming resignation.

As many of you already know, the laboratory in which I work is being moved to Princeton, N.J. on or around next September. I will resign my post as Director when I leave town. I shall ask the new NCA President to give members of the Junior Division some voice in the choice of a new Director.

I wish to take this opportunity to say that I have thoroughly enjoyed my work with the NCA Juniors over the last eleven years. My association with the NCA Juniors has been very rewarding to me.

Maryland-D.C. members wishing to prepare for our discussion on science in 2001, may find a trip to the science fiction movie now playing at the Uptown theatre helpful.

- Leith Holloway

MIDDLE EAST REGIONAL CONVENTION

The Amateur Astronomers Association of Pittsburgh cordially invites all your members to the Middle East Regional Convention June 14, 15, and 16, 1968.

Location.... Convention headquarters will be the Quality Court Motel East on U.S. Route 30 just east of the Westinghouse Bridge--approximately 10 miles from downtown Pittsburgh. Special daily rates are \$8.00 single, \$10 for 2 people and \$2.00 for extra person in a double room. A room reservation will be included with a request for information.

Program... Friday- A chartered bus or private car will leave the motel at 8 PM for a tour and program at Allegheny Observatory. The return bus will leave the Observatory at midnight. Round trip fare by bus is \$1.50.

Saturday- Devoted to sessions or papers and a business meeting, followed by a regional banquet. Dr. N. E. Wagman, Director of Allegheny Observatory will be the banquet speaker. Dr. Wagman has seen this great institution carry on its program during the years of extreme difficulty until now it is one of the most modern and important observatories in the world. Banquet tickets are \$1.75 each.

If you wish to present a paper at this Convention, please notify Mr. George Lindbloom, Program Chairman, 1606 Burchfield Road, Allison Park, Pennsylvania 15101.

Sunday-For those who can attend, a car caravan will depart from the motel at 9 AM for Dorseycville to see the new observatory and the 2½ inch reflector built by Mr. Rod Clutter. This is a must for all admirers of fine instruments.

Registration fee will be \$2.00 for any advance registration received before June 14 1968 and \$2.50 at the Convention. Advance registration should be sent to Mrs. Pat Meyerl, 5302 Duncan St., Pittsburgh, Pennsylvania 15201. Convention registration hours will be June 14 - 7 PM-9 PM; June 15 8:30 AM-NOON.

Exhibits --There will be room for a limited number of exhibits at the motel. Exhibit Chairmen are Messrs. R. A. Schmidt and Leo Enni, 127 Bateman St., Pittsburgh, Pennsylvania 15209.

For any additional information on Convention, please call Bob Wright 384-6748.

Due to an automobile accident, Mr. William L. Walter, Chairman of the Middle East Region has resigned; therefore, Mr. John King, of Harrisburg, Vice Chairman, will take over this responsibility and be in charge of the regional convention.

..But what comes after? What passes when all Creation is destroyed, when the gods are dead, and the chosen warriors, and the races of men?...Will there be gods again; will there by any earth or heaven?

..The Rognarok

DON'T FORGET THE NATIONAL ASTRONOMICAL LEAGUE CONVENTION IN CHICAGO OVER LABOR DAY.

L. S. NAVAL OBSERVATORY COMPLETE LUNAR OCCULTATION PREDICTIONS COMPUTED FOR WASHINGTON LAT 38.920 LONG 77.065 FOR 1968, STANARD STATION AT LAT 38.920 LONG 77.065 (DISTANCE = 0 MILES)

DATE	TIME	UT	ACC	V	C	S	USNO REF	S.A.D. NUMBER	MAG	SP	PH	PERCENT	ELD	PA	CUSP	VA	NOON	SUN	AA	LIBRATION	MIN											
		H	M	S	SEC																DEG	ANG	CEG	ALT	AZI	ALT	DEG	LCNG	LAJ	MAS		
MAY 1	1 17 17	E	5.5				Z04102	78795	3.3	RO	C	10	WAX	36	41	58	344	22	280	16	-4.1	-5.5										
MAY 1	2 0 16	E	5.5				Z04110	78945	6.4	F2	C	10	WAX	36	40	55	195	26	250	15	-4.1	-5.5										
MAY 1	2 10 56	E	5.5				Z04111	78946	6.4	F2	C	10	WAX	36	40	67	46	21	286	107	-4.1	-5.5										
MAY 1	2 21 58	E	5.5				Z04137	78965	6.3	++	C	10	WAX	37	73	84N	21	11	256	78	-4.1	-5.4										
MAY 2	1 4 41	E	4				Z05182	77777	0.7	EB	C	16	WAX	47	46	51N	346	32	282	-12	46	-5.2	-6.1									
MAY 2	1 27 58	E	4				ZG5187	78387	9.1	AZ	C	16	WAX	48	161	145	102	27	282	161	-5.3	-6.0										
MAY 2	2 34 49	E	4				Z05197	78388	7.4	BB	C	17	WAX	48	143	136	98	26	286	136	-5.3	-6.0										
MAY 2	2 39 02	E	3				Z05242	77816	7.4	CK	C	17	WAX	48	45	49N	348	22	289	44	-5.3	-6.0										
MAY 2	3 31 41	E	2				A Z05379	77894	8.8	F2	C	17	WAX	49	143	335	94	6	301	143	-5.4	-5.9										
MAY 2	3 55 42	E	1				Z05386	77905	7.4	AO	C	17	WAX	49	168	85	121	2	304	167	-5.4	-5.9										
MAY 3	0 54 1		3				Z06571	78815	9.0	FD	C	20	WAX	56	163	195	102	43	276	-1	58	-6.2	-6.4									
MAY 3	1 54 4		3				Z06572	78816	9.0	FD	C	20	WAX	56	137	45S	72	34	266	126	-5.4	-6.3										
MAY 3	2 54 3		3				Z06623	78862	8.7	F2	C	20	WAX	56	125	66	285	149	-6.4	-6.3												
MAY 3	3 20 32		16	1	9		ZG6247	78874	7.0	EB	C	25	WAX	59	164	155	107	22	298	158	-6.4	-6.2										
MAY 3	3 24 54		3				Z06665	78892	9.2	FS	C	25	WAX	59	128	55S	72	22	298	123	-6.4	-6.2										
MAY 3	5 50 48		3				ZG6659	78917	8.0	PO	C	25	WAX	60	114	138	32	17	296	9	-6.4	-6.2										
MAY 3	5 53 11		3				A Z06739	78924	9.0	FD	C	25	WAX	60	98	85S	49	5	302	92	-6.4	-6.1										
MAY 3	5 55 23		3				Z06761	78964	9.0	KO	C	25	WAX	60	75	72N	27	4	302	69	-6.4	-6.1										
MAY 3	6 47 47		3				Z06766	78965	9.0	KO	C	25	WAX	60	120	65S	73	3	303	113	-6.4	-6.1										
MAY 4	0 51 5		3				Z06767	78966	9.0	KO	C	25	WAX	60	90	84	206	5	302	81	-6.4	-6.1										
MAY 4	1 51 35		3				Z06776	78976	8.2	AD	C	25	WAX	62	59	19S	15	2	205	56	-6.4	-6.1										
MAY 4	2 27 44		2				ZC7721	79083	9.4	FB	C	33	WAX	70	127	61S	69	5	257	-5	117	-6.9	-6.5									
MAY 4	3 0 30 29		2				ZC7722	79084	9.4	KT	C	33	WAX	70	131	57S	72	5	258	-7	121	-6.9	-6.4									
MAY 4	3 35 16		2				ZC7725	79085	8.8	OS	C	33	WAX	70	122	66S	64	5	258	-7	120	-6.8	-6.4									
MAY 4	3 45 56		2				ZC7726	79086	8.8	OS	C	33	WAX	70	133	67S	65	5	258	-7	120	-6.8	-6.4									
MAY 4	3 59 16		2				ZC7727	79087	9.4	FO	C	33	WAX	71	120	65S	65	5	259	109	-7.3	-6.1										
MAY 4	4 45 18		2				A Z07933	79287	9.0	GO	C	34	WAX	71	153	345	103	10	295	144	-7.3	-6.1										
MAY 4	4 52 37		2				Z07943	79292	9.1	FO	C	34	WAX	72	142	47S	92	9	296	132	-7.3	-6.1										
MAY 5	1 30 32		5				Z08623	80370	9.2	KO	C	43	WAX	82	99	85K	45	5	256	85	-7.6	-6.6										
MAY 5	2 27 48		5				Z08624	80380	9.2	FS	C	43	WAX	82	114	80S	57	4	266	140	-7.6	-6.6										
MAY 5	2 58 41		5				Z08943	80441	9.1	KO	C	44	WAX	83	124	82S	64	5	268	93	-7.9	-6.6										
MAY 5	3 5 6		5				Z08944	80442	9.0	KO	C	44	WAX	83	76	32	138	2	268	71	-7.9	-6.7										
MAY 5	5 30 30		6				Z08946	80443	9.2	KO	C	44	WAX	83	161	345	109	9	291	146	-7.9	-5.4										
MAY 6	1 0 40		5				Z08983	80444	8.8	AO	C	45	WAX	84	121	186	285	5	297	161	2	298	287	-3								
MAY 6	1 1 39		5				Z08984	80445	8.8	AO	C	45	WAX	84	127	19S	103	5	298	161	2	298	287	-3								
MAY 6	1 21 17		5				Z08985	80446	8.8	AO	C	45	WAX	84	131	55K	347	9	298	161	2	298	287	-3								
MAY 6	1 39 53		5				Z08986	80447	8.8	AO	C	45	WAX	84	142	210	545	275	9	143	241	-5.1	-7.3									
MAY 6	2 0 52		5				Z08987	80448	8.8	AO	C	45	WAX	84	147	212	51	163	12	315	137	-5.2	-5.5									
MAY 6	2 14 10		5				Z10143	118274	8.7	GS	C	75	WAX	119	163	415	29	226	142	-7.4	-2.9											
MAY 6	2 24 22		3				Z10159	118763	8.3	KO	C	75	WAX	119	92	68	211	50	221	71	-7.3	-2.9										
MAY 6	2 32 26		3				Z10159	118764	8.4	KO	C	75	WAX	120	146	58S	99	34	230	124	-7.5	-2.7										
MAY 6	2 38 57		3				Z10159	118765	8.5	F2	C	75	WAX	120	159	45S	111	33	230	137	-7.5	-2.7										
MAY 6	3 0 46		4				Z10159	118766	8.6	F2	C	75	WAX	120	149	54S	116	33	230	137	-7.5	-2.7										
MAY 6	3 34 38		7				Z10159	118767	8.7	F2	C	75	WAX	120	159																	