CENTENNIAL OBSERVATORY

93 Currie St.,
Hamilton 57, Ont.,
Canada

SEMI*ANNUAL REPORT

January-June 1969

General

January was a very poor month, with no observations being made. However observations totalling 89 hours 12 minutes were made in the first half of 1969.

The mirrors of the 12½" (300mm) telescope were freshly silvered on March 7.

The director had the privilege of attending the following conferences during these 6 months:

The International Union of Amateur Astronomers-April 18-22 Bologna Italy

The General Assembly of the Royal Astronomical Society of Canada- May 21 Toronto

The Niagara Frontier Council of Amateur Astronomical Associations April 28 Buffalo N.Y.

An exchange of information was arranged with the Astronomical Observatory of the Colegio Estadual do Parana, Curitiba, Parana, Brazil and with the Observatorio do Capricornico, Sao Paulo, Brazil.

The observatory cooperated with the Smithsonian Institution Centre for Short-Lived Phenomena, searching for Transient Lunar Phenomena, during the Apollo 10 mission.

OBSERVATIONS

PLANETARY

Note: Copies of these observations, which are totally visual, with sketches, may be obtained from the Observatory.

VENUS: Observations of Venus were made as follows:

March 7	19:00	E.S.Time
March 18	19:10	
May 23	05:00	
June 10	03:45	

Mars: Mars was observed as follows:

Apr.11 23:45

(Mars stayed below the horizon as seen from the Observatory much of the time.)

JUPITER: * denotes that transit timings of features were made.

March 7	21:30	April 11*	20:05	
March 8	22:30	April 12*	01:00	
March 9*	21:10	April 12*	02:30	
March 15	21:00	April 12*	20:00	
March 15*	21:20	April 12*	21:45	
March 18*	20:00	April 12*	23:40	
March 18*	21:15	June 6*	21:15	(Transcription)
March 18*	22:30	May 14*	20:30	
March 23*	0:55	May 14*	22:40	
March 23*	20:15	May 21*	22:30	
March 23	22:40	May 25*	22:05	
March 31*	20:00	June 9*	22:00	
March 31*	21:00	June 9*	22:45	
March 31*	21:40	June 29	21:15	
April 8	20:45			

Jupiter's Satellites:

Timings were made, using the predicted times from the 1950 OBSERVER'S HANDBOOK of the R.A.S.C.

Date	Predicted Time	Sat.No.	Phenomenon	Observed Time	Deviation m s
Mar.8-9	22:28	I	SI	22:25:30	+2:30
Mar.8-9	22:42	I	TI	22:39:30	+2:30
Mar.15-16	0:17	I	SI	00:17:50	+0:50
Mar.15-16	0:26	I	TI	00:25:13	-0:47
Mar.15-16	2:38	I	Te	02:35:30	-2:30
Mar.17-18	21:04	I	Te	21:09:00	+5:00 (?)
Mar.22-23	02:10	I	SI	02:05:19	-4:41
Mar.22-23	02:11	I	TI	02:06:30	-4:30
Mar.23-24	23:15	I	OD	23:11:51	-4:09
Mar.31-Apr.1	22:19	I	TI	22:17:14	-1:46
Mar.31-Apr.1	22:34	I	SI	22:34:41	+0:41
Apr.8-9	21:10	I	OD	21:07:01	-2:59
Apr.12-13	00:07	II	SI	00:11:00	+4:00
May 14-15	21:42	II	TI	21:45:09	+3:09
Jun.9-10	22:36	I	ER	22:34:15	-1:45
Jun.16-17	21:00	I	OD	20:59:30	-0:30

Other Planets were poorly placed for observation during the first half of 1969.

VARIABLE STARS

Star	Designation	Julian Date 2440000 + (GMT)	Date	Magnitude
W Ori	050001	287.6	Feb.14	5.9
		288.6	Mar.7	5.9
		319.5	Apr.7	5.9
RX Lep	050611	287.6	Feb.14	6.1
		288.6	Mar.7	6.3
		290.6	Mar.9	6.1
		296.6	Mar.15	6.0
		297.6	Mar.16	6.0
		299.6	Mar.18	5.9
		303.6	Mar.22	5.9
		304.6	Mar.23	5.9
		312.6	Mar.31	5.9
		314.6	Apr.2	5.9
		319.5	Apr.7	5.8
		323.5	Apr.11	5.8
CK Ori	052404	287.6	Feb.14	6.6
		288.6	Mar.7	6.4
		319.5	Apr.7	6.6
RS Aur	055646	319.6	Apr.7	9.9
TV Gem	060521	288.6	Mar.7	6.9
		319.6	Apr.7	7.2
S CMi	072708	319.6	Apr.7	8.8
Y Hya	094622	319.6	Apr.7	7.3
U Hya	103212	319.6	Apr.7	5.2
		323.6	Apr.11	5.0
		355.6	May 14	5.2
		362.7	May 20	5.0
		382.6	June 9	5.2
ST UMa	112245	287.6	Feb.14	6.6
		288.6	Mar.7	6.3
		319.5	Apr.7	6.6
		355.6	May 14	6.1
		362.7	May 20	6.0
		382.6	June 9	6.4
		389.6	June 16	6.5
		398.6	June 25	6.7

Z UMa	115158	287.6	Feb.14	7.8
		308.7	Mar.22	7.4
		356.6	May 14	7.1
		382.6	June 9	6.7
T UMa	120150	Remained below observational limit		
RS UMa	123459	299.6	Mar.18	9.0
		319.7	Apr.7	9.9
		357.6	May 15	8.9
S UMa	123961	299.6	Mar.18	8.8
		323.6	Apr.11	8.1
		357.6	May 15	8.0
		382.6	June 9	8.2
Y CVn	124045	319.7	Apr.7	5.4
		382.6	June 9	5.5
V CVn	131546	303.8	Mar.22	7.0
		323.6	Apr.11	7.5
		365.8	May 23	8.1
S Vir	132705	303.7	Mar.22	12.0
		319.6	Apr.7	11.5
R Boo	143227	303.6	Mar.22	7.3
		320.6	Apr.8	7.3
		357.6	May 15	10.9
		382.6	June 9	10.7
S CrB	151731	323.6	Apr.11	7.3
		357.6	May 15	7.2
		389.6	June 16	8.4
S UMi	153378	323.6	Apr.11	8.4
		357.7	May 15	9.0
R Lyr	185243	323.8	Apr.11	4.8
		357.7	May 15	4.7
		362.7	May 20	4.4
		382.6	June 9	4.3
		389.6	June 16	4.5
CH Cyg	192150	357.7	May 15	7.5
		362.7	May 20	7.4
		382.6	June 9	7.5
		389.6	June 16	7.0
P Cyg	193449	323.9	Apr.11	7.8
		357.7	May 15	7.9
		382.6	June 9	8.3
RT Cyg	194048	323.9	Apr.11	9.0
		365.8	May 23	11.0
		389.6	June 16	9.0

U Cyg	201647	323.9	Apr.11	8.1
		357.7	May 15	8.2
		382.6	June 9	7.8

Special Project Variable

(Short term variations)

R Sct	184205	297.9	Mar.26	5.3
		303.8	Mar.22	5.4
		323.8	Apr.11	6.9
		357.7	May 15	6.7
		362.7	May 20	5.9
		365.8	May 23	5.1
		367.7	May 25	5.0
		382.6	June 9	5.0
		389.6	June 16	5.4
		393.6	June 20	5.4

LUNAR OBSERVATIONS

The Lunar Observation was divided into two parts:a.searching for Transient Lunar Phenomena in conjunction with the Smithsonian Institute and:B. making Moonhole Estimates in conjunction with the Lunar Section of the British Astronomical Association.

Transient Lunar Phenomena:

One TLP was seen here on the night of Mar.31--Apr.1 commencing at 21:10 EST in Aristarchus. This was confirmed by Fautley (Canada) Moore (Britain) and Kozyrez (USSR).

Moonhole Estimates: (Estimations of what fraction of a crater is filled with shadow.)

Crater	Date	Time E.S.T.	Fraction
Ariadaeus	June 21	20:35	.4
Beer	May 25	21:26	.3
Birt	May 25	21:37	.7
Bode	May 25	21:50	.2
Carlini	May 26	21:22	.5
Darney	May 25	21:44	.8
	May 26	21:14	.5
Dionysius	June 21	20:30	.7

Diophantus	May 26	21:27	.8
Euclides	May 26	21:06	.7
Feuillee	May 25	21:26	.5
Flamsteed	June 10	04:00	.5
Herigonius	May 26	21:16	.6
Hortensius	May 26	21:00	.7
Kirch	May 25	21:30	.4
	May 26	21:28	.2
Konig	May 26	21:12	.4
Kunowsky	May 26	21:01	.3
Manners	June 21	20:34	.3
	June 22	20:36	.3
Nicollet	May 25	21:40	.5
P.Smyth	May 25	21:30	.3
	May 26	21:28	.3
Schmidt	June 21	20:30	.4
Sosigenes	June 21	20:45	.2
Wichmann	June 10	04:05	.8

LUNAR OCCULTATIONS

On the night of Mar.22 the Pleiades were occulted by the Moon. The following times were observed. (predicted times taken from the RASC OBSERVER'S HANDBOOK and corrected for the observatory's position Latitude 43°13'00" N. Longitude 79°50'32" W.

Star	I or E	Predicted Time	Observed Time	Deviation
17 Tau	I	20h 01m 04.5s	20h 01m 06.5s	+2.0s
16 Tau	I	07 54.5	07 56.3	+1.7
20 Tau	I	46 10.9	46 15.6	+4.7
BD+23°523	I	54 05.5	54 08.2	+2.7
BD+23°540	I	21h 25m 28.8s	21h 25m 34.3	+5.5
Eta Tauri	I	27 02.3	27 03.0	+0.7
105B TAU	I	56 02.1	56 05.5	+3.4
28 Tau	I	22h 16m 48.9s	22h 16m 56.4	+7.5
27 Tau	I	28 27.1	28 48.9	+21.8

Associated Organizations

The Royal Astronomical Society of Canada

252 College St., Toronto 2B, Ont.

The British Astronomical Association

303 Bath Rd., Hounslow West, Middlesex, England

The Royal Astronomical Society
Burlington House, Picadilly, London W.1, England

The American Association of Variable Star Observers
187 Concord Ave., Cambridge Mass. USA, 02138

The International Union of Amateur Astronomers
(The Director id Secretary of the Union.)

Observatorio do Capricornio
Caixa Postal 9011, Sao Paulo SP, Brazil

Observatorio Astronomical do Colegio Estadual do Parana
Caixa Postal 6648, Curitiba, Parana, Brazil

Observatorio do Valongo
Ladeira Pedro Antonio, 43-Z.C.-05 Rio de Janeiro, Brazil

Director.....K.E.Chilton,FRAS