

Volume

1

**May 15, 1980
to
October 24, 1983**

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PAPIER EPAIS — HEAVYWEIGHT PAPER

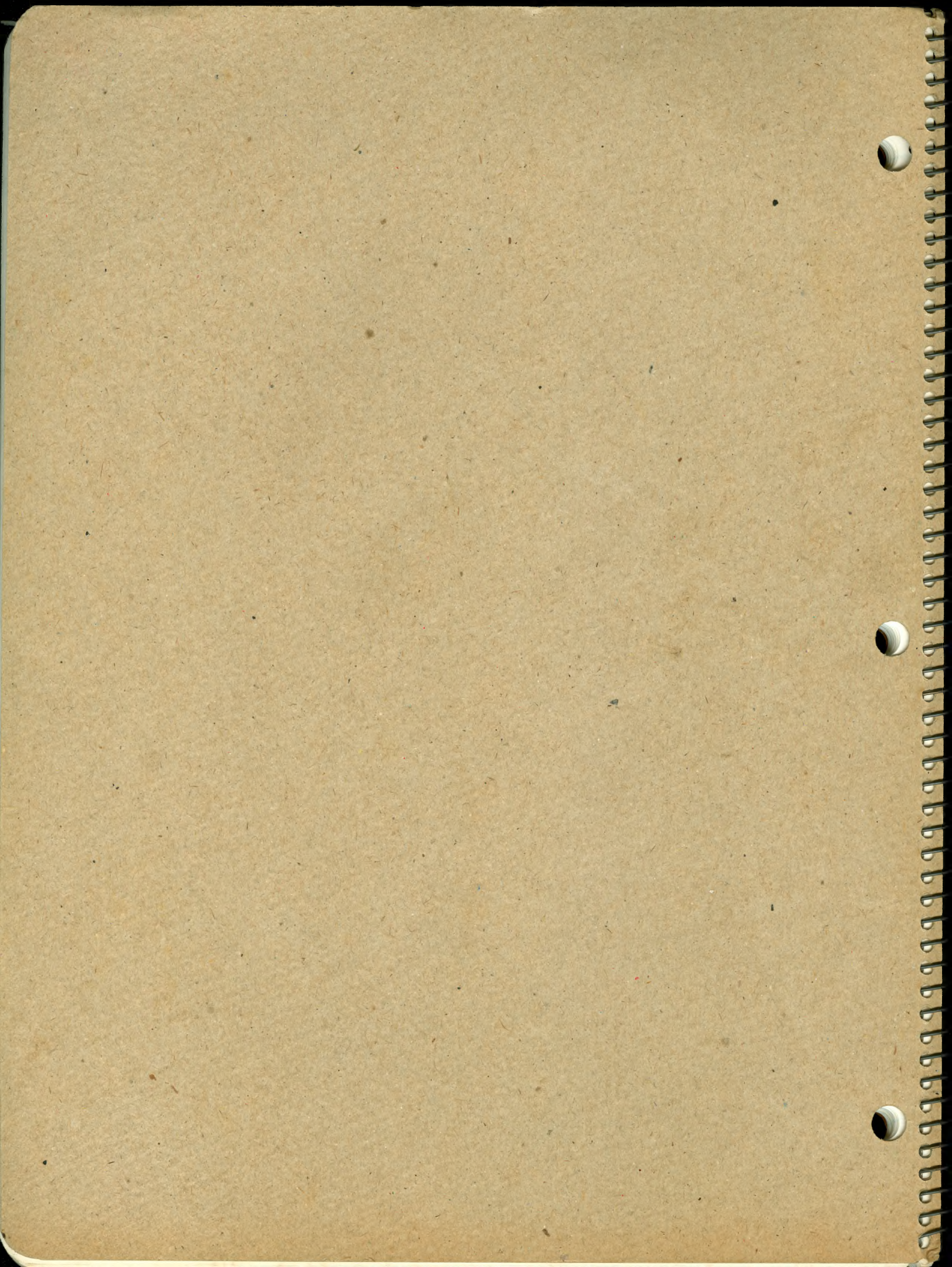


10-092

NOM / NAME Leo Enright

SUJET / SUBJECT Observatory Log

May 15, 1980 - Oct. 24, 1983



Observing And Astrophotography

Thu. May 15-16, 1980

observing - planets
- M57

photography - Planets: Mars, Jupiter, Saturn
- Antares area
- Deneb area

Fri. May 16-17, 1980

observing - planets including Uranus
- M53 in Coma Berenices

photography - Moon and Venus (200mm lens)

Tue. May 27, 1980

observing - Mercury with telescope (after observing it the previous night with binoculars) from about 9:05 to 9:25 when clouds intervened (2)
- also Venus, Jupiter, Mars, and Saturn

Wed. May 28, 1980.

observing - Mercury (with telescope and with naked eye) (3)
(Previous two nights it was not seen with the naked eye)
- also Venus, Jupiter, Mars and Saturn.

Sat. May 31, 1980.

observed - Mercury near Venus (with naked eye) (4)
and in Perseus
- 5 planets of antiquity by keeping head still and moving eyes only. They were relatively close in the western sky after sunset.

Wednesday June 3, 1980.

- observed Mercury with binoculars and naked eye. (5)

Wed June 4, 1980

Observed - Mercury with telescope (6)

- also other planets (Mars, Jupiter, Venus, Saturn) and M57 (Ring Nebula)

- photographed - Mercury with telescope and also Venus, Jupiter, and Saturn.

Thu. June 5, 1980

observed - Mercury visually, with binoculars, and with telescope (7)

- observed Jupiter, Mars, and Saturn.

Sun. June 8, 1980

observed - Mercury with binoculars and telescope (8)
photographed Jupiter and Mars.

Mon. June 9, 1980

observed - Mercury visually, with binoculars, and with telescope (9)

- Jupiter, Mars, Saturn, M13 and M57 with telescope.

Wed. June 11, 1980

observed - Mercury visually, with binoculars, and with telescope (10)

- also Jupiter, Mars, Saturn, and M57 with telescope.

Mon. June 16, 1980

- observed and photographed sunspots
- observed Mercury visually, with binoculars, and (11) with telescope
- observed and photographed Mercury, the Moon, Jupiter, Saturn, and Mars.

Wed. June 18, 1980

- after observing Mercury with binoculars (12) the previous night, observed Mercury with binoculars and telescope (13)
- also observed Jupiter, the Moon, Mars, and Saturn.

Sat. June 21, 1980

- tried to find Mercury (too cloudy)
- observed the Moon, Jupiter, Mars, and Saturn.

Sun. June 22, 1980

- visitors to the observatory:
 - (1) David H Levy - Jarnac Obs.
 - (2) Peter Jedicke - "Ganymede University"

Mon. June 23, 1980

- tried to find Mercury
- observed Jupiter, Mars, Saturn and the Moon.

Tue. June 24, 1980

- tried to find Mercury
- observed Jupiter, Mars, Saturn, and the Moon.

Trip to R.A.S.C. 1980 G.A. June 26 - July 3.

Thu. July 3, 1980 : visitors to observatory - Mr. & Mrs. Jim Allen.
- observed Saturn, Mars, M4, M57
- later observed M8 and M51.
- saw 3 meteorors from Hercules area.

Fri. July 4, 1980. observed Jupiter, Saturn, Mars,
M8, M57, M51, M13, M4.
- observed some Aurora and later
tried to photograph it.

- Wed. July 9, 1980 - observed M27, M51, M13, M29, M71, M4,
M31, M8, M57

Sat. July 12, 1980 - Sun. July 13, 1980
observed M8, M7, M6, M80, M13,
M92, M51, M20, M24, M17, M16,
M21, M57, M56, M11, M26

Tue. July 29, 1980 - observed Mars, M4, M51, and Moon about
17 days old

Wed. July 30, 1980 - observed Mars, M4, and objects in
Hercules, ~~at~~ Moon after rising.

Thu. July 31, 1980 - observed Mars, Alberio, M22 Sag. (Great!),
M28 Sag. (Good!), α Her. (Split it!),
(tried to split γ Her.), ρ Her. (Split it!),
M9 Oph. G.C., M10 Oph. G.C., M5(I),
and M8.

Sun. Aug. 3, 1980. - visitors to the observatory

- John E. J.

Marylou Enright

- Barbara Enright

Frank Enright

Donna Olivero

Harold Enright

Rosemary Enright

Walter Lane

Mon. Aug. 4, 1980 - observed several Messier objects

- photographed with Hypersensitized colour film
such as M8, M20 area.

- observed several meteors including one very bright one
of perhaps -5 mag. or brighter (perhaps a Perseid).

Fri. Aug. 15, 1980 - observed M4, M31, M32, M110, M103, M34, M30,
M45

Sat. Aug. 16, 1980 - observed α Her. double, δ Her. double,
K Her. ^{beautiful} double, (tried δ Her. binary (?) (1.4)), M13,
(tried δ Her.) 100 Her. ^{excellent} double, γ S Her. ^{excellent} double,
M12 Sph G.C., M70 Sag. G.C., M54 Sag. G.C.,
M15 Peg. G.C. (Excellent!), M33 Tri. G.

Tue. Aug. 19, 1980 - observed M13, M31, M2, M39, M57, M15, M92. (hazy)

Thu. Aug. 21, 1980 - observed with my guest, David H. Levy.
A thrilling and very special observing session
(Levy # *4772M4)

- observed M38, M35, M42, (and M1)

Fri.

Aug. 22, 1980

- guest at the observatory:

Arthur & Covington - Ottawa + Kingston - 3¹² P.M.

A great pleasure to see the observatory and its results - the photographs in H α .

Sat.

Sept. 6, 1980

- observed ϵ Bootis (spectacular double when observed with L.P.R. filter), ϵ Hyrae (the "double double")

Sun.

Sept. 28, 1980

guests at the observatory: -

"I see sun spots before my eyes"

I don't think any Roman ever said this

Ruth Gosling Duff.
Robert Duff

- observed sunspots.

Wed. Nov. 12, 1980

- searched for the newly discovered Comet Meier (1980-g)

(searched in Hercules area since the positions given

for the comet were (1) Nov. 6 (2:00?) U.T.):

R.A. 18^h 6^m 2^s Dec. +42° 9'

(2) Nov. 9 (0:15 U.T.):

R.A. 18^{hr.} 3.5^m Dec. +40° 22^m.

- observed M57

Sun.

Nov. 16, 1980

- observed sunspots - one large group near limb.

Thu. Dec. 4, 1980

- observed M57, M42, M43, M78, M38, M36, M37, M1 and Comet Stephan-Oterma very near M1, M41, M79, and M35
- photographed Orion area (85 mm lens guided)

Sat. Dec. 13, 1980.

- observed M42 and Trapezium (saw two Geminid meteors)
- attempted to photograph Moon but had trouble focussing in very cold weather

Tue. Dec. 30, 1980

- observed and photographed sunspots around noon.
- observed at night Mira (with binoculars), photographed M42 area, observed M50, M46 (binoculars), M47 (binoculars), M93, M48, M44, M67.

Tues Feb 17/81

Couldn't see anything above but a delightful place - will come back.

Leo R Vickers

Thu. Feb 26, 1981 - observed Vesta, Ceres, Comet Panther Jupiter, and Saturn

Fri. Feb. 27, 1981 - visitors at the observatory:
Tom Blinn "Canynede University"
Pete Jedike "Canynede University"

Thu. Apr 9, 1981 - observed Saturn, Jupiter (just missed occultation & reappearance of Io and Ganymede), Moon, split γ Virginis

Sat. Apr. 11, 1981

- without using observatory observed and photographed a fabulous Aurora with rays converging near the zenith and wide red bands extending up to near the zenith. A beautiful display!

(Sun. Apr. 12, 1981)

- without u

Sun. Apr. 12, 1981

- without using observatory, observed and photographed a very spectacular Auroral display with rays converging near the zenith, very large sheets of red Aurora, and Auroral activity over almost the whole sky. At times it extended into the southern ^{sky} with little activity in the northern sky. It may have been the result of a solar flare.

Sat. Apr. 18, 1981

- without using observatory (in fact in car, while going to Read), observed a fairly spectacular Aurora with large areas of Red Aurora - in spite of the bright Full Moon.

Mon. Apr. 20, 1981 - observed sunspots in the afternoon

Tue. Apr. 21, 1981 -

Tue. Apr. 24, 1981 - without using ~~observatory~~ observed Auroral display beginning about 8:55 p.m. E.S.T. The display with numerous rays was quite green in colour.

Th

Thu. Apr. 30, 1981 - observed sunspots with two guests/colleagues:
- Madeline Young
- Pamela Dinoux

Fri. May 1, 1981 - observed Jupiter and Saturn briefly

Sat. May 2, 1981 - under excellent conditions, and a moonless sky

observed M65, M66, NGC 3628 (near the former two),
M95, M96, M105; M98, M99, M100; M58, M59, M60; M85,
(and M90?), and also M57 and M4 as well as Saturn and
Jupiter

- Sun. May 3, 1981 - observed sunspots (with John Mason)
- Wed. May 6, 1981 - with binoculars observed M3, M13, M92, M44
- Thurs. May 14, 1981 - John & Susanne Kidner - guests at observatory
- Sun. May 17, 1981 - observed sunspots.
- in evening observed Mercury (while I was in Read.)
- Tue. May 19, 1981 - observed Mercury, Jupiter, Saturn, and M57.
- saw some Aurora (from about 10:22 to about 10:45 E.D.T.)
- Wed. May 20, 1981 - observed Mercury with naked eye and with binoculars.
- Sat. May 23, 1981 - observed Mercury with binoculars and (4)
with telescope observed Jupiter and Saturn,
M57, M13, M97, M108, M109, M3, M94
- Sun. May 24, 1981 - observed sunspots
- Tue. May 26, 1981 - observed Mercury, Venus, Jupiter, and Saturn (5)
- Fri. May 29, 1981 - observed Mercury with binoculars (6)
- Sat. May 30, 1981 - observed Mercury with binoculars and telescope (7)
- observed Jupiter, Saturn, M4, M104, M68,
(tried to observe M83), M101, M57, M81 and M82.
(the latter pair being a very interesting pair of galaxies)

- Sun. May 31, 1981 - observed sunspots.
- observed Mercury with binoculars. (8)
- Mon. June 1, 1981 - observed Venus, Mercury, Jupiter, and Saturn. (9)
- Tue. June 2, 1981 - observed Venus, Mercury, Jupiter (including a Transit Egress of I (Io)), and Saturn. (10)
- Thu. June 4, 1981 - observed Mercury (now very difficult to see with the naked eye), Venus, Jupiter, and Saturn. (11)
- Fri. June 5, 1981 - observed Venus, Mercury (with telescope and binoculars), Jupiter, and Saturn. (12)
- Sun. June 7, 1981 - observed Mercury (very low and faint), Venus, Jupiter, and Saturn. (13)
- Tue. June 9, 1981 - observed Venus, Saturn, Jupiter, M57, and looked for Mercury but there were clouds in the area and it was becoming quite faint.
- Wed. June 10, 1981 - observed Venus, Jupiter (including an eclipse reappearance), and Saturn and tried to find Mercury.
- Thu. June 11, 1981 - observed Venus, Jupiter, Saturn, and tried to find Mercury.
- Sat. June 13, 1981 - guests at the observatory: Lorraine Elder, Thanks for an interesting tour John Elder Evelyn Elder.
Angela Elder - it's been fun!

- Sun. June 21, 1981 - observed sunspots in the late afternoon-evening
- Thu. July 9, 1981 - observed briefly the Moon, Jupiter, Saturn, M57, Albireo and a few other objects
- Wed. July 15, 1981 - First Light with the C-14 - observed some craters on the near-full Moon.
- with C-8 observed Jupiter, Saturn, Venus, and M57 and showed them to the neighbours (Wotherspoons) who came over
- Thu. July 16, 1981 - after midnight - photographed the partial lunar eclipse after midnight (around 12:45 a.m. E.D.T.) near mid-eclipse (without using observatory) from the deck.
- Thu. July 23, 1981 - with C-14 observed Saturn, Jupiter, M4, M57, Albireo, and M13 (Superb!)
- with C-8 observed Jupiter, Saturn, M4, M107 (small globular), M14, M72
- Mon. July 27, 1981 - on a partly cloudy evening → observed Jupiter, Saturn, M11, M8, M20
- Thu. July 30, 1981 - observed Jupiter, Saturn, M4; tried to observe M102 and M62; observed M19, M25, M23 (very open), M18 (sparse), M17, M75, M31, M55, hand X Persei, ~~M27~~, and M57.

- Fri. July 31, 1981 - On an excellent night for observing, I observed M63, M102, M69 (a small cluster), M70, M73, M72, M106, M76 (quite small), M74 (quite faint), and looked for NGC 7009, and observed NGC 6207 (a small galaxy near M13), NGC 7331 (a large spiral), and N.G.C. 6992-5 (the eastern component of the Veil Nebula, near the star ϵ Cygni).
- Mon. Aug. 3, 1981 - observed Jupiter, Saturn, M57, and M31 on a very hazy, humid night ϵ Albireo, and ϵ Cyrae)
- Wed. Aug. 5, 1981 - Without using observatory, I observed a strange band-type Aurora from the N.W. from about 10:15 to 10:45 p.m. E.D.T.
- ~~Wed. Aug. 5, 1981~~
- Mon. Aug. 10, 1981 - observed Lunar Craters and M57
- Tue. Aug. 11, 1981 - guests at the observatory:
 John Juar - from England
 Jim Frar - from England
 Emmit - from France.
- Mon. Aug. 17, 1981 - observed Jupiter and Saturn very low in the west, M4, ϵ Cyrae (double double), α Herculis (double), and the moon.
 - photographed the Moon (2 days after full.)
- Tue. Aug. 18, 1981 - with the C-8 - observed M4, Uranus, γ Bootis (a double), γ Andromedae (beautiful double), and M13.
 - with the C-14 - observed M57, β Cygai, and M13.

- Wed. Aug. 19, 1981 - observed Collinger 399 ("the coathanger") in Vulpecula and the nearby faint cluster NGC 6802 on its eastern edge, and also the following doubles: μ Dra., 70 Oph., α Can Ven., and possibly could distinguish the stars of δ Cor. Bor., α Lyr., and ζ Her. though they were not actually 'split'.
- Thu. Aug. 20, 1981 - observed Uranus near 41 Lib. and the following "doubles": ζ Cor. Bor., and δ Ser. (which was very good at high power), and 16, 17 Dra. and ν , ν' Dra. (with binoculars) (two doubles of wide separation - 91" and 62" respectively)
- Fri. Aug. 21, 1981 - observed Neptune ^{at mag. 7.7} (between ξ Oph and ζ Oph) with binoculars, and M 27 and M 57 and NGC 7009 (the Saturn Nebula), and the doubles, ϵ Equ and 48 Cas (though "splitting the latter was questionable).
- observed Uranus with binoculars
- Fri. Aug. 28, 1981 - observed and photographed sunspots about noon. There were a large number spread well across the disk.
- Mon. Aug. 31, 1981. - guest at the observatory: Dick/Bahn
- Thu. ~~Aug.~~ ^{Sept.} 10, 1981 - observed and photographed lunar craters
- Mon. Oct. 12, 1981 - after a long while without observing, observed

and photographed sunspots in the late afternoon and, in the evening, observed Venus, Aldebaran, and the Moon very near to Full Moon.

Tue Oct. 13, 1981 - Without using the observatory, I observed and photographed a good Auroral display in spite of a Full Moon (red sheets and white and yellow rays.)

Sat. Oct. 17, 1981 - observed a few easy objects (M13, M31, M57) and photographed several constellation areas.

Sat. Oct. 24, 1981 - On a very good night for observing, I observed M57, M13, M27, the Pleiades, and later M42, M43, and M41 - I photographed constellation areas and some Aurora (some arcs and rays)

Tue. Nov. 3, 1981. - observed Moon, Venus, M57, M13, M31, and η and χ Persei

Sat. Nov. 7, 1981 - with a bright Moon, observed a few objects such as M57, M13, M31, Moon, and Venus in order to test two new Plössl eyepieces (26 mm. and 17 mm.). They were excellent.

Sun. Nov. 29, 1981 - briefly observed Venus and the Moon about 5:00 p.m. before it became cloudy (using new Meade oculers)

Sun. Dec. 6, 1981. - observed Sunspots (about 12 groups)

Sat. Dec. 19, 1981 - observed with C-8 and new Tele-vue Plössl and Meade (28^{mm} Orthoscopic and 15.5 Erfle) eyepieces. - observed M42, M31, and the Pleiades including a star newly suspected of being a variable (according to Gus Johnson) near Aleyone.

Sun. Dec. 20, 1981.

- observed Venus in daytime before sunset.
(very easy to observe at mag. -4.4.)

Wed. Dec. 30, 1981.

- without using the observatory, used the New Astroscan to observe the Moon, Venus, M31, M45, M33, and with binoculars, tried to observe Mira Ceti which seemed very faint for 7x35 binoculars.

Sat. Jan. 2, 1982.

- observed sunspots (few) and lunar craters in the daytime and looked for Venus.

Mon. Feb. 1, 1982

- observed and photographed an excellent Auroral display, (without using the observatory) - photographed until about 3:00 a.m. E.S.T.

Sun. Feb. 14, 1982

- observed Zodiacal light, Aurora, and with C-8 telescope observed cluster NGC 1647 in Taurus (not far from ν Tauri and on the map of that variable - sent by Gus Johnson) through which cluster the asteroid 433 Eros was scheduled to pass on the night of Feb 16-17.

Tue. Feb. 16, 1982

- observed an open cluster in Taurus (probably NGC 1647 (H 8⁸)) hoping to see the apparent passage of the asteroid 433 Eros through the cluster. It was to occur at this time, but I did not with certainty detect it. I used the C-8 telescope with several oculars.

Mon. Feb. 22, 1982.

- observed sunspots in late afternoon with C-8
- in evening especially about 7:40 E.S.T., observed a

Feb. 23, 1982 very spectacular Auroral display. It continued for several hours though was not always as spectacular as about 7:40 p.m. E.S.T. With the new König oculars, I also observed M31, M44, M42 and the trapezium.

Wed. Feb. 24, 1982 - Without using the observatory, I observed an interesting Aurora.

Thu. Feb. 25, 1982 - Without using the observatory, I observed another Aurora, though it was fainter than on the previous Monday or Wednesday evenings.

Sat-Sun Feb. 27-28, 1982 - observed Saturn, Mars, Jupiter, M65, M66, and the double, γ Virginis.

Sun Feb. 14-15, 1982 - without using the observatory, observed an excellent Zodiacal light, and with the Astroscan, observed M36, M37, M38, the trapezium

Mon. Feb. 15-16, 1982 - observed with a guest
- observed planets, Jupiter, Mars, Saturn, γ Vir., γ Leonis, M13.
- guest: *Bob Miller*

Fri-Sat. Apr 2-3, 1982. - observed some interesting Aurora (with arc and some flames up to the zenith) - about midnight.

Mon. Apr. 5, 1982. - with C-8 observed Mars and Saturn on date when Mars was currently closest to the earth in its orbit. (observed in spite of considerable haze)

- Mon. Apr. 12, 1982. - observed sunspots in the late afternoon
(Easter Monday)
- Wed. Apr. 14, 1982. - observed M61, Mars, Saturn, Jupiter
- Thu. Apr. 15, 1982 - observed Jupiter, Saturn, Mars, M64,
M84, M86, M87, M83, NGC 3877, M13
M51, M57, and ~~M13~~ (H-1-20)
- Thu. Apr. 22, 1982 - observed Jupiter, Mars, Saturn, M57, M13,
NGC 4565, after looking for Mercury.
- Sat-Sun. Apr. 24-25, 1982 - without using the observatory, observed an interesting
Auroral display between 3 and 4 a.m. E.S.T.
- Tue. Apr. 27, 1982 - observed Mercury
- Thu. Apr. 29, 1982 - observed Mercury
- Fri. Apr. 30, 1982 - about 3:00 a.m. E.S.T., observed Aurora.
- Tue. May 4, 1982 - observed (with C-8) Mercury (3), Mars,
Jupiter, Saturn, and lunar craters.
- Wed. May 5, 1982 - with binoculars, observed Mercury (4)
- Sun. May 9, 1982 - observed sunspots with C-8.
- in the evening observed Mercury (5) with
binoculars.
- Mon. May 10, 1982 - observed sunspots with C-8 in late
afternoon
- observed Mercury (6)

- Wed. May 12, 1982 - with binoculars, observed Mercury (7)
- Thu. May 13, 1982 - observed Mercury (8), Mars, Jupiter, and Saturn
- Fri. May 14, 1982 - during R.A.S.C. Kingston Centre meeting - observed Mercury (9) from parking lot (with binoculars and naked eye)
- Sat. May 15, 1982 - observed Mercury (10) with binoculars
- Tue. May 18, 1982. - observed Mercury (11) with binoculars and, with C-8, observed M49, M89 (NGC 4552) M90 (NGC 4569), M88 (NGC 4501), M91 (NGC 4548) M62, M57, and Albireo.
- Fri. May 21, 1982 - observed Mars, Jupiter, and Saturn with C-8.
- Sat. May 29, 1982 - guest at the observatory: Peter Jedicke
- Mon. June 14, 1982 - with C-8 observed Jupiter, Saturn, Mars M4, M51, M57, NGC 3877 (Herschell I-201 near X Ursae Majoris), γ Virg^{his}, γ Leonis, ρ Herculis, α Herculis, δ Herculis
- Wed. June 23, 1982 - observed Jupiter, Mars, and Saturn.
- Sat. June 27, 1982 - observed sunspots (and used the new Meade 20^{mm} Etfl (wide angle) ocular)
- Thu. July 1, 1982 - On night after observing with four other members of the Kingston Centre at St. Lawrence Islands National Park at

Malborntown, where we showed slides and observed the planets, I observed lunar craters, Mars, Jupiter, Saturn, M57, the "Double-double", Polaris (easily split), Cor Caroli.

Mon-Tue July 5-6, 1981

- Before observing the eclipse, my guests and I observed Mars, Jupiter, Saturn, M57, Mizar, Elyrae, Albireo, Polaris

guests: - Terry Hartz
- Ruth & Herb

- I observed the eclipse until about 3:45 am - past time of mid-totality. I photographed at intervals at Cassegrain focus of the C.B. It was a very dark eclipse with the moon almost disappearing at totality. There was a slight orangish tint at the southern part of the moon especially.

Thu. July 8, 1982 - On a night with very good seeing, I observed Mars, Saturn, Jupiter, M40, M52, M57, M4, M13, M51, and Albireo.

Fri. July 8, 1982. - After the centre meeting, I observed Mars, Jupiter, Saturn, M57, M13, M27, Albireo.

Sat. July 10, 1982 - with Mr. and Mrs. Dick Ballou and family, I observed Jupiter, Saturn, Mars, M57, M51, Albireo

Tue. July 13, 1982 - I observed a very intense Coronal Aurora covering the entire sky, probably second only to that of Apr 11, 12, 1981.

Wed. July 14, 1982. - observed a faint glowing northern Aurora.

Sun. July 18, 1982 - special guests at the observatory
 Madeline Milbich -
 Denise LeBlath -
 Clarence Milbich -
 Willie Burkholder -
 Drew Burkholder -
 Frank, Marylou -
 Nancy, Larry,
 John & Barb Enright
 Wayne Kidd
 Chris Bartok
 Jim Reich

Mon. - Tue. July 19 - 20, 1982 - observed a northern glowing Aurora which was seen flaring about 3:00 a.m. E.D.T.

Tue. July 20, 1982 - observed with the C-14 set on its tripod. - observed M13, M27, M51, Albireo, M4, M22, M8, Mizar, ϵ Lyrae, Mars, Jupiter, Saturn

Wed. July 21, 1982 - observed with C-14 on its tripod Jupiter, Mars, Saturn, M13, M27, M57, NGC 6826 (H-4-73), NGC 6802 (H-6-14), NGC 6207 (H-2-701), M51 (NGC 6826 is the Blinking Nebula)

Mon. July 26, 1982 - observed with C-14 on its tripod M13, M27, Albireo

Wed. - Thu. July 28, 29, 1982 - ^{photographed moon with C-14.} After 3:00 a.m. on July 29th, I observed M77 (NGC 1068), completing the Messier

catalogue, M57, Albireo, and α Ceti (Mira) which was very bright (about 2.5 - 3rd magnitude.)

Mon. Aug. 9, 1982 - Without using the observatory, I observed Meteors - about 5, 3 of which were probably Perseids.

Wed. Aug. 11, 1982 - In Read, with Tim and Peter, I observed Perseid Meteors, seeing probably 8 to 12.

Sat. Aug. 14, 1982 - Briefly before the clouds moved in I observed M22 with the C-14 and the C-8.

Mon. Aug. 23, 1982. After an astronomy presentation at Camp Oconto and without using the observatory, I observed, using the Astroscan, Albireo

Wed. Aug. 25, 1982 - Using the Astroscan, C-8, and C-14, I observed Comet Austin which had a tail and was quite spectacular, M2, M13, M57, M27, NGC 7009, NGC 7293 and some other objects. There was a slight Aurora.

Fri-Sat Aug 27-28, 1982.

observed with a very special guest
- Thanks to for a marvelous, inspiring session.

David H. Levy

(Sat. Aug 28.

- observed Comet Austin at David's Cottage)

Sat. Sept. 4, 1982. - observed Comet Austin in C-8, C-14 and 11x80 binoculars, Jupiter, M13, M57, and the Moon.

- At 8:48 p.m. E.D.T, I observed a very bright, very slow moving fireball (about -6 Magnitude) It appeared below Polaris and moved through western Cygnus to a point near β Capricorni.

Mon. Sept. 6, 1982 - observed, with C-8, Jupiter, Comet Austin, M57. There was an intense Aurora with a large arch and occasionally intense spikes and streamers.

Wed. Sept. 8, 1982. - with the Astroscan, I observed Jupiter and Comet Austin. There was Auroral arch.

Thu. Sept. 9, 1982. - -observed Jupiter, Comet Austin, NGC 7293, NGC 7009, M57, M27, NGC 6826, NGC 6802, M31, M51

Fri - Sat. Sept. 10-11, 1982. In a very special session with a special guest, I observed NGC 7009 (Saturn Nebula), NGC 7293 (Helix Nebula), NGC 6826 (Blinking Nebula), M57.

Guest: David H. Levy - your observatory is one of the finest of its type I ever have seen. You have done a magnificent piece of work, Leo. Congratulations.

Sat - Sun Sept. 11-12, 1982 - another special observing session with a guest: - Thanks Leo - David

- Sun. Sept. 19, 1982. - With the C-8 and Astroscan I observed M37, M57, Comet Austin, M13, Albireo
- Mon. Sept. 20, 1982 - In the afternoon, I observed sunspots.
- Tue. Sept. 21, 1982 - In the afternoon, I observed and photographed sunspots.
- Wed. Sept. 22, 1982 - Without using the observatory, I observed and photographed a very good Auroral display especially active between 9:20 and 9:50 p.m. E.D.T. It had a large arc, and many spikes, and coronal activity in the zenith.
- Wed. Sept. 22, 1982 - In the afternoon, I observed and photographed sunspots.
- Wed. Sept. 29, 1982 - observed sunspots in late afternoon.
- Mon. Oct. 4, 1982 - observed sunspots in afternoon.
- Wed. Oct. 13, 1982. - guests at the observatory:
- Madeline Sarasik
- Gillmore
- Sun. Oct. 17, 1982 - observed Mercury naked-eye in the morning sky
- Mon. Oct. 18, 1982 - observed a young crescent moon in the evening.
- Mon. Oct. 25, 1982 - In early morning, before sunrise, I photographed Orion, and observed and photographed Mercury and the Zodiacal Light.
In the evening, I observed a good Aurora

- Tue. Oct 26, 1982 In the morning before sunrise, I observed Mercury.
- Sun Nov. 7, 1982 - observed sunspots in the afternoon.
 - observed H-2-224 (NGC 404) very near β And., H-1-159 (NGC 278) in Cassiopea, H-1-52 (NGC 7006) a faint globular in Delphinus, and H-4-18 (NGC 7662) a superb planetary near ζ And. I also observed H-6-33 (N.G.C. 869) and H-6-34 (NGC 884) the two members of the Double Cluster in Perseus. All were observed with the C-14.
- Mon. Nov. 8, 1982 - With the Astroscan, I searched for Comet Churyumov-Gerasimenko, but did not positively identify it.
- Tue. Nov. 9, 1982 - With C-14, I observed Comet Churyumov-Gerasimenko in Gemini northwest of M35
- Mon - Tue Nov. 15-16, 1982 - Between 12:00 and 2:00 a.m. I observed the Trapezium in Orion and searched for Comet Churyumov-Gerasimenko with the C-14.
- Thu. Nov. 18, 1982 - With 11x80 binoculars, I observed M36, M37, M38, and other objects.
- Fri. Nov. 19, 1982 - Between 5:00 p.m. and 6:00 p.m. approximately, I photographed and observed the close conjunction of Mars and the crescent moon.

- Mon. Nov. 22, 1982. - From house, I briefly observed some Aurora between 1:00 and 1:30 a.m. E.S.T.
- Wed. Nov. 24, 1982. - In the evening while travelling on Highway 38, I observed Auroral activity.
- Thu. Dec. 9, 1982 - I took guided photographs of Orion and the Orion Nebula area.
- Fri. Dec. 17, 1982 - I observed an active, flaming Aurora about 3:00 a.m. E.S.T. - possibly the result of a major solar flare reported to have occurred on Tue. Dec. 14.
- Fri-Sat. Dec. 17-18, 1982 - I had a long photographing session, taking photographs of the crescent moon, Orion Nebula area, M33 area, M31 area, North America Nebula area, and Rosette Nebula area.
- Sat. Dec. 18, 1982 - I observed an Auroral display about 5:25 a.m. E.S.T.
- Thu. Dec. 30, 1982 - Between about 5:00 a.m. and 7:15 a.m. E.S.T., I observed and photographed the total lunar eclipse without using the observatory.
- Mon. Jan. 3, 1983 - I observed and tried to photograph the Quadrantid Meteor Shower. I saw 3 or 4 bright Quadrantids.

- Tue. Jan. 4, 1983 - I observed Venus very low in the west at about 5:40 p.m. E.S.T.
With Bob and Angelika Hackett, I observed with the 11x80 binoculars the Orion Nebula, M31, M33, the Pleiades. I also observed with the Astroscan.
- Sat. Jan. 8, 1983 I observed and photographed Venus after sunset ^{from the roof} and later also observed and photographed areas of the sky.
- Sun. Jan. 9, 1983 - In the afternoon, I observed and photographed sunspots.
- After sunset I observed and photographed Venus from the roof.
- Later I observed and photographed a quite intense and very widespread Auroral display.
- Fri-Sat. Feb 4-5, 1983 - I observed an interesting Aurora with flaming arcs periodically through the night.
- Sun. Feb 6, 1983 - Without optical aid, I observed the moon quite near Jupiter in the early morning.
- Tue. Feb. 8, 1983 - Using the Astroscan, I observed some common objects and at about 9:06 E.S.T. I saw an extremely bright meteor of estimated magnitude -10 to -12, green in colour and in the north.
- Wed. Feb. 9, 1983 - On a clear night, I photographed some areas of the sky - unguided photography with the camera on a tripod. I saw one meteor of about 0 or -1 magnitude.

Thu. Feb. 10, 1983 - On a very cold night I observed and photographed from the observatory. I did piggyback astrophotography using the C-14 and taking several areas including the Orion area in exposures of up to about 10 minutes.

Sun. Feb. 13, 1983 - In the evening I observed the zodiacal light in the west

Mon. Feb. 14, 1983 - In the afternoon I observed and photographed the solar disk which had very few sunspots.

Sat. Feb. 19, 1983 - I observed and photographed (with the C-14) lunar craters

Mon. Feb. 21, 1983 - I observed and photographed (with the C-14) lunar craters.

Sat. ^{Mar.} ~~Feb.~~ 5, 1983 - In Read, I observed some Aurora

Sat. ^{Mar.} ~~Feb.~~ 12, 1983 - I observed with 11x80 binoculars some familiar objects and the asteroids Melpomene and Astraea, both in the constellation Leo. Later, during the night, I observed Auroral activity.

Sun. ^{Mar.} ~~Feb.~~ 13, 1983 - I observed the sun, not noticing any sunspots.
- I observed M42, M43, M51 and other objects and photographed an area of Orion and of Leo using guided piggyback photography on the C-14. With 11x80 binoculars, I observed Melpomene and Astraea. Later, during the night, I observed Auroral activity.

- Fri. Mar. 25, 1983 - observed sunspots in the afternoon (few sunspots.)
- Wed. Mar. 30, 1983 - observed a number of doubles, Saturn, and looked for asteroid Melpomene
- Tue. Apr. 12, 1983 - observed Mercury in the north-west and later, with C-14, observed Saturn, the area of Pluto in the constellation Virgo without positively identifying Pluto, M51, NGC 4565, & CNV. Some Aurora was observed near the end of and after the observing session. (1)
- Wed. Apr. 13, 1983 - observed Mercury (from the roof.) (2)
- Sat. Apr. 16, 1983. - observed Mercury (from Kingston train station while returning home with new sidereal clock.) (3)
- Sun. Apr. 17, 1983 - observed Mercury and photographed it, and, using the C-14, photographed lunar craters. Earlier in the afternoon, I had observed and photographed sunspots. (4)
- Fri-Sat. Apr. 22 - Apr. 23 observed Jupiter, Saturn, M13, moon, Albireo. guests: Peter Jedicke, Gued Fchin
- Tue. Apr. 26, 1983 - observed Mercury in the evening (5)
- Wed. May 4, 1983 - observed for a little while with binoculars (11x80")
- Thu-Fri May 5-6, 1983 - observed and photographed a newly discovered comet

Thu:

May 5 David's phone call:

about 9:40 p.m. - comet found

- observed it 2:00 - 3:00 a.m.

Fri: Sat.

May 6 - 7 David's phone call

12:00 midnight Meteor

shower predicted for

Monday 10:00 p.m. E.D.T. in

EASTERN TIME ZONE as

earth moves into orbit of the
comet.

Monday

May 9. 10:00 p.m. E.D.T. David phone to

see if I were observing meteors. **G.A.**

However, it was cloudy that night

Rolf Meier phoned twice also earlier to
check on the weather.

June 2, 1983 which I heard about in a phone call from David Levy. It was near the star 46 Draconis and at about 4th magnitude. It could be seen with the naked eye. (The previous night I had scanned the area near Deneb about 15° to 20° away.) I saw it best between 2:00 and 3:00 a.m. E.D.T.

~~Feb-Mar~~ Tue.-Wed. May 10-11, 1983 After not being able to see the comet (called Comet Iras-Araki-Alcock) the previous night when it may have been closest to earth (about 5×10^6 km.) ^{apparently near Kochab} and the meteor shower which was predicted for about 10:00 p.m. E.D.T. (all because of cloudy weather), I observed and photographed the comet which was now near κ Ursae Majoris and very bright (about 2nd magnitude). Once I was frustrated for a while by clouds but the comet was easy to see and photograph between about 2:00 and 3:30 a.m. E.D.T. There was also an Aurora with spikes between 3:00 a.m. and 4:00 a.m. E.D.T.

Wed.-Thy. May 11-12, 1983 From about 10:00 p.m. to about 12:00 midnight E.D.T., I observed and photographed Comet Iras-Araki-Alcock which was very large and bright (about 2nd magnitude) and about 3 degrees south of Praesepe (or the Beehive Cluster). I also observed M51, Saturn, Jupiter, and Venus and M13. There was also an active and interesting Aurora. However after midnight it was partly cloudy.

Thu. May 12, 1983 - I observed the comet in the south-west, low in Hydra

Thu.	June 2, 1983	With the Astroscan and 11x80 binoculars, I observed Jupiter, Saturn, Venus, Mizar, Cor-Cardi, Uranus, and could detect M57 with the Astroscan using the 12 ^{mm} König ocular
Mon.	June 6, 1983	- Photographed and observed Jupiter
Fri.	June 10, 1983	About 1:15 a.m. E.P.T. I observed an Aurora.
Mon.	June 13, 1983	About 1:00 a.m. E.D.T. I observed a very widespread coronal Aurora
Tue.	June 14, 1983	On a hot, hazy night I observed with binoculars, looking for Comet Sugao-Igusa-Fujikama (1983e) (discovered on May 8 th) which was to have been near ϵ Scorpii, but I did not positively identify it.
Thu.	June 23, 1983 :	Guests at the observatory: Pam Wools, Karen Moland Dave Derivois Liamory
Tue.	June 28, 1983	- observed sunspots in the afternoon. There were about 5 small groups.
Wed.	June 29, 1983	- On a night of very good seeing, I observed Jupiter, Saturn, M13, and M57, using the C-14.
Fri.	July 1, 1983	- On a very hazy evening, I observed, with the Astroscan 2000, Jupiter, Saturn, and M13.

Sat.-Sun. July 2-3, 1983 - With the C-14, on a night with fairly good seeing, I observed Jupiter, Saturn, Uranus, M57, M27, M13, M51

Sun.-Mon. July 3-4, 1983 - At Terry Dickenson's dark site north of Odessa, I joined a group from the Kingston Centre and had a long observing session with the very large telescope owned by Steve Dodson of Sudbury. It is a 22" f-7.3 Newtonian which he had made. We also used Terry Dickenson's Quantum-6 telescope with his new 13^{mm} Nagler eyepiece. We observed Jupiter, Saturn, M13, M51, M11, Albireo, Mizar, ζ Boo, M27, M57,

Thu. July 7, 1983 - I observed Jupiter and Uranus with the Astroscan, but clouds prevented a long observing session.

Sat.-Sun. July 9-10, 1983 On an excellent night with superb clarity and good seeing I observed and photographed from about 9:30^{p.m.} to 3:30 a.m. E.D.T. I observed Venus, Jupiter, Saturn, M57 looking for the central star (?), M13, and photographed Jupiter, Saturn, M13, M57, M27, and M31 (photographing the latter four in exposures of 20 minutes or more.

Sun.-Mon. July 10-11, 1983 On a night of mainly good clarity and above average seeing, I observed and photographed from about 10:00 p.m. to 3:00 a.m. E.D.T. Objects seen were Jupiter including the Transit Ingress of Io, Saturn, Uranus, and the double or multiple stars: γ Vir, ν Sco,

- July 20, 1983 β Sco, α Sco, α Her, δ Her, α Oph, K Boo, π Boo
 ζ Boo, ϵ Boo, ξ Boo. Objects photographed using the
 C-14 off-axis were M13 (30^{min}) and M27 (35^{min}).
- Mon. July 11, 1983 With 11x80 binoculars, I observed Uranus, Neptune,
 M13, M31, Collinger 399, R Cor Bor, and the Veil Nebula,
 it seemed, was at the threshold of visibility.
- Tue. July 12, 1983 with 50^{mm} lens and tripod, I photographed
 constellations, and with the C-14, I observed
 and photographed deep sky objects using
 off-axis photography: Lagoon Nebula,
 North America Nebula and Ring Nebula. (In the
 early evening Venus and the Moon, near
 conjunction, had made a spectacular pair
 in the western sky. I photographed them)
- Wed.-Thu. July 13-14, 1983 I observed for a short while with 7x35 binoculars
 observing the area of Barnard's Star and
 Collinger 399. I photographed Ursa Minor
 unguided and the constellation Aquila, earlier.
- Mon. July 18, 1983 I observed, with the C-8 and C-14, lunar
 craters, Jupiter, Saturn, Uranus, M13 and M57.
 Because of poor seeing I did not photograph.
- Tue. July 19, 1983 - guests at the observatory: -
 Betty Brennan -
 Len Brennan
 Terry Brennan
 Catherine Ann Brennan

- Wed. July 20, 1983 - With the Astroscan, I observed Jupiter, Saturn, lunar craters, and Uranus.
- Sat. July 23, 1983 - With the Astroscan I observed lunar craters, Jupiter, Saturn, and Uranus.
- Mon. July 25, 1983 - With the Astroscan, I observed Jupiter, Saturn, Uranus, and Mizar.
- Tue. July 26, 1983. Before moonrise, with the C-14, I observed Jupiter (and a shadow transit of Io), and M13 and Uranus. With the R.V.6 Dynascope (in its first use in a number of years) I observed Jupiter, Saturn, Uranus, Mizar, M57. It was in good condition and gave very good views.
- Wed. July 27, 1983. Although there were some clouds, I observed with the Astroscan Jupiter, Saturn, M13, and Mizar.
- Tue.-Wed. Aug. 2-3, 1983 On a night with good transparency, I observed and photographed a number of objects. I observed Jupiter, Uranus, Saturn, M57, Elyrae, Neptune, ϵ Equulei (a double 1.1" separation - ?), NGC 6826 (H-IV-73), M13, β Cygni and with 11x80 binoculars I observed my area of the Sky Search Program (R.A.: XIX-XX; Dec +40°-50°) I photographed areas along the Milky Way.

Sun. Aug. 7, 1983

With the C-8, I observed sunspots.

Sun.-Mon. Aug. 7-8, 1983

With the C-8 outside the observatory, I observed Saturn, Jupiter, Uranus, M57, Mizar, β Cygni, M22, M8.

With 11x80 binoculars, I observed my Sky Search area near δ Cyg.

I also observed and photographed a spectacular Auroral display covering 70-80% of the sky and very active near the zenith.

There were also two bright Perseid meteors one of magnitude about -5 with a 30 second train.

Tue. Aug. 9, 1983

On a night of very good transparency, I observed at Read with 7x35 binoculars, observing some parts of my Sky Search area near δ Cyg.

Fri.-Sat. Aug 12-13, 1983

- At Doug Kaapp's cottage near Spdenham, I observed the Perseid Meteor Shower after our Kingston Centre Meeting - along with Jim O'Donovan, David Stokes, Gerald Schieven, Marty McConnell, Jocelyn Boily, John Hansen, Mark and Sue Sorensen. Weather was "mixed" - cloudy at times, and shower was "average."

Sat.-Sun. Aug. 13-14, 1983

With the C-14, I observed lunar craters, Jupiter, Saturn, Uranus, M57, M27, β Cyg and photographed both with eyepiece projection of lunar craters and with a 50 mm lens guided and unguided in order to attempt to photograph a Perseid Meteor. I saw several bright ones

- Mon.-Tue. Aug. 15-16, 1983 - with the Astroscan I observed lunar craters and Jupiter. With the C-14, I photographed lunar craters and some areas on or near the Milky Way
- Tue.-Wed. Aug. 16-17, 1983 - With C-14, I photographed lunar craters and observed M27, M57, M13, NGC 6826
- Sun. Aug. 21, 1983. With the C-8, I observed sunspots and photographed the solar disk.
- Wed. Aug. 24, 1983 with binoculars I observed various objects
- Thu. Aug. 25, 1983 with 11x80 binoculars I observed Jupiter, Uranus, M13, M39, and various other objects.
- Fri. Aug. 26, 1983 - guests at the observatory:
 - Peter Jedlike (bigshot)
 Dianne Victoria Kapitanuk
 This is a thrilling observatory.
 David H. King
- Wed. Aug 31, 1983 - I observed some Aurora - spikes in the north.
- Thu.-Fri. Sept. 1-2, 1983 - In the twilight I observed an Auroral spike in the north-west. Later with the C-8, I observed "straight-through with the new 2" adapter and 2" Erfle ocular and observed Jupiter and M11 which was superb. With the

C-14, I observed the Veil which was excellent, M13, M27, M57, to test the new 19mm Televue Wide Angle Eyepiece. I also photographed the Cygnus area, and with the Giant Easy Guider M57, M31, the North America Nebula, and the Pleiades.

Sat.-Sun. Sept. 3-4, 1983 - I observed some meteors and observed with 7x35 binoculars. I also observed several variable stars.

Thu. Sept. 8, 1983 - with 11x80 binoculars on a night of very good visibility, I observed my sky search area in Cygnus and other objects including estimates of three variables.

Tue. Sept. 20, 1983 - observed sunspots with - David H Levy

Tue. Wed. Sept. 20-21, 1983 - observed M57, Moon, M31, M36, Albireo using Minerva, David Levy's 6" f4 Newtonian (special guest: David H Levy - always a special thrill to observe at OSO observatory)

Sun. Sept. 25, 1983 - observed sunspots in late afternoon trying out new Nagler 9mm ocular

Wed. Sept. 28, 1983 - observed with new Nagler 9mm and Televue Wide Field 19mm oculars and photographed piggyback with C-14.

Thu. Sept. 29, 1983 - observed and photographed off-axis M57, M27, M31, and North America Nebula area. (also long (about 90-100) meteor about 0 magnitude)

Messier Objects And Dates Observed In 1980, And 1981, And 1982

M1 - Dec. 4.	M31 - July 9.	M61 - Apr. 14, 1982	M91 - May 18, 1982
2 - Aug 19.	32 - Aug. 15	62 - May 18, 1982	92 - July 12
3 May 6, 1981 (b), <small>May 23, 1981</small>	33 - Aug. 16	63 - July 31, 1981	93 - Dec. 30
4 - July 3	34 - Aug. 15	64 - Apr. 15, 1982.	94 May 23, 1981
5 - July 31	35 - Aug. 21	65 - May 2, 1981	95 - May 2, 1981
6 - July 12	36 - Dec. 4.	66 - May 2, 1981	96 - May 2, 1981
7 - July 12	37 - Dec. 4.	67 - Dec. 30.	97 May 23, 1981
8 - July 4	38 - Aug. 21	68 - May 30, 1981	98 - May 2, 1981
9 - July 31	39 - Aug. 19.	69 - July 31, 1981	99 - May 2, 1981
10 - July 31	40 - July 8, 1982	70 - Aug. 16	100 - May 2, 1981
11 - July 12	41 - Dec. 4.	71 - July 9	101 - May 30, 1981
12 - Aug. 16	42 - Aug. 21	72 - July 23, 1981	102 - July 31, 1981
13 - July 4	43 - Dec. 4	73 - July 31, 1981	103 - Aug. 15
14 - July 23, 1981	44 - Dec. 30	74 - July 31, 1981	104 - May 30, 1981
15 - Aug. 16	45 - Aug. 15	75 July 30, 1981	105 - May 2, 1981
16 - July 12	46 - Dec. 30 (b)	76 - July 31, 1981	106 - July 31, 1981
17 - July 12	47 - Dec. 30 (b)	77 - July 29, 1982	107 - July 23, 1981
18 July 30, 1981	48 - Dec. 30	78 - Dec. 4	108 May 23, 1981
19 July 30, 1981	49 - May 18, 1982	79 - Dec. 4.	109 May 23, 1981
20 - July 12	50 - Dec. 30	80 - July 12	110 - Aug. 15
21 - July 12	51 - July 4	81 - May 30, 1981	
22 - July 31	52 - July 8, 1982.	82 - May 30, 1981	
23 July 30, 1981	53 - May 16	83 - Apr. 15, 1982.	
24 - July 12.	54 - Aug. 16	84 - Apr. 15, 1982.	
25 July 30, 1981	55 July 30, 1981	85 - May 2, 1981	
26 - July 12	56 - July 12	86 - Apr. 15, 1982.	
27 - July 9	57 - May 15	87 - Apr. 15, 1982.	
28 - July 31	58 - May 2, 1981	88 - May 18, 1982.	
29 - July 9	59 - May 2, 1981	89 - May 18, 1982.	
30 - Aug. 15	60 - May 2, 1981	90 - May 18, 1982.	

Fri. Oct. 7, 1983 - observed sunspots in afternoon. There were four fairly large groups.

Mon. Oct. 10, 1983 - observed numerous sunspots.

Mon.-Tue. Oct. 10-11, 1983 At 12:10 a.m. I felt an earth tremor which lasted about 8 to 10 seconds. It was the third one in about a week reported in Ontario. It was reported in the Kingston Whig-Standard as measuring between 3.5 and 4.2 on the Richter scale. On Friday^(Oct. 7) tremors measuring 5.2 were reported in the Kingston area, and they were felt over a wide area in Ontario, Quebec, and the Maritimes and north-eastern United States. A few days before that tremors measured at 3.5 were reported in the Hamilton area.

Tue-Wed. Oct. 11-12, 1983 - With 11x80 binoculars I observed Messier objects in Auriga and the Pleiades. I recorded the following variable star observations:
 β Persei (Algol): 3.8 ("Is it possible for it to be that faint when at minimum even?")
 δ Cephei : 3.8
 β Lyrae : 3.4

Thu. Oct. 20, 1983 - observed sunspots in the afternoon.

Fri. Oct. 21, 1983 - observed sunspots in the afternoon.

Mon. Oct. 24, 1983 - observed sunspots in the afternoon.

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FV 029
0841
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