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Doveed at Camp Minnowbrook
in 1968
after flunking out of McGill
For the 2nd time.
Photoby Jeff Van Lee.

Jarnac Observatory

Log 24

begun October 1, 2010.

Jarnac Observatory

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$110^{\circ}43'10''W$

$31^{\circ}58'35''N$.

10-16

15757.5. Friday, October 1, 2010/160 to 1615/10/
Jamaica/SS2 Cordelia 1:4, 12 prominences.

15758.5. Saturday, October 2 / 0735-0750/10/
Jamaica/SS2 ~~15~~ 2. 1:4, 8 prominences.

15759E2 2145-2200/7/Mercy College, at the
hotel.

15760E Sunday, October 3/1915-2030/2-11
Mercy College/CN3s and SS3. Looking
through Athena at a distant light and at a
more distant sign.

15761S Tues Oct 5/1800-1830/10/Adirondack Train/Summit.

15762M Tuesday, October 5/0220-0115/7/818+
Summit walk / CMP-1. walk. nice.

15762.5. ~~MSK~~ Thursday, Oct. 7/18:2015-2030/10/Jamaica/
CMP-1.

15764M2 0325-0545/10/Jamaica/CMP-1, CN31,
CN5, CN3h hill 21140m roll s.

15765S Friday, Oct. 8/1730-1745/10/Jamaica/
SS2 0, 9 prominences.

15766E2 2030 to 2050/10/Jamaica/CN3, Comet
Hartley next to Double Cluster, seen through
Pegasus.

15767M2 0325-0600/10/Jamaica/with Thom/CMP-1/CN1/CN5.
• DRACONID METEOR WATCH 2 meteors. 1 Cl draconid! CN3: hill 1144

15768. Saturday, October 9, 2010 / 1700-1715 /
SS2 with Cordelia 0, 9 prominences.

15769E2 1930-2300 int / 10 - Jarnae / CMP-1.

15770M3 0325-0550 / 10 / Jarnae / CMP-1
DRACONID METEOR WATCH. 3 meteors
CN1, CN5 CN3 j h k l l 40m n l

15771S. Sunday, Oct. 10 / 10 - Jarnae / 1700-1715 / 10 /
Jarnae / SS2 0, 12 prominences.

15772E2. 2100-2245 int / 10 / Jarnae / CMP-1.

15773M3 0325 to 0645 / 10 / Jarnae / CN-1, CN5, CN
3 meteoric meteors. CN3 h k l l j r l l l l
n l l t.

15774S Oct 11 / 1630-1645 / 10 / Jarnae / SM3, SM4 /
Cordelia SS2 0, 12.

15775E2 1900 to 2100 / 9-10 / Jarnae / with Dick P.
CN3 0.7^h 40.

15776M3 0325 to 0545 / 10 / Jarnae / with Thom
CMP-1 3 meteoric meteors. CN1, CN5, CN3
0.8^h CN3 h k l l j k l l 40m, t,

15777S Oct 12 / 1630-1650 / 10 / Jarnae / GSS2 D,

15778E2 2045-2300 int / 10 / Jarnae / Wendy, Thom
CMP-1.

15768. Saturday, October 9, 2010 / 1700-1715 /
SS2 with Cordelia 0, 9 prominences.

15769E2 1930-2300 int / 10 - Jarnae / CMP-1.

15770M3 0325-0550 / 10 / Jarnae / CMP-1
DRACONID METEOR WATCH. 3 meteors
CN1, CN5 CN3 j h k l l 40m n l

15771S. Sunday, Oct. 10 / 10 - Jarnae / 1700-1715 / 10 /
Jarnae / SS2 0, 12 prominences.

15772E2. 2100-2245 int / 10 / Jarnae / CMP-1.

15773M3 0325 to 0645 / 10 / Jarnae / CN-1, CN5, CN
3 meteoric meteors. CN3 h k l l j r l l
n l l t.

15774S Oct 11 / 1630-1645 / 10 / Jarnae / SM3, SM4 /
Cordelia SS2 0, 12.

15775E2 1900 to 2100 / 9-10 / Jarnae / with Dick P
CN3 0, 7 h 40.

15776M3 0325 to 0545 / 10 / Jarnae / with Thom
CMP-1 3 meteoric meteors. CN1, CN5, CN3
0, 8 CN3 h k l l j k l l 40m, t,

15777S Oct 12 / 1630-1650 / 10 / Jarnae / G, SS2 D,

15778E2 2045-2300 int / 10 / Jarnae / Wendy, Thom
CMP-1.

15779 M3 0325-0550/10 windy/CMP-1, 3 meteors
CN-1, CN5, CN3h, h11, j11, l11, 40m, n11. CN3 1hE 10-10

15780 E.S. October 14/3/1700-1715/10/Jarmac/
SS2 0, 6.

15781 E2 2200-2300 int/7/Jarmac/CMP-1. Wanda
& the Beagle.

15782 M3 0325-0555/10/CMP-1 6 meteors.
ORIONID METEOR WATCH - several
OCTOBER CETA METEOR WATCH - 1
CN3d 1hE. CN3h h11 j11 l11 40m n t.

15783 E October 15, 2010/2200-2300 int/7
Jarmac/CMP-1.

15784 M2 @ 0325-0550/10/3/Jarmac/CMP-1
CN1 CN5 CN3h h11 j11 l11 40m
a break in clouds that lasted whole session

15785 A-E Oct 16/2200-2315 int/Jarmac/7m
CMP-1 Wanda & the Beagle.

15786 M2 0325-0605/10-3/Jarmac/CMP-1
ORIONID METEOR WATCH - 4 meteors,
- 2 fireballs. CN1, CN5, CN3d 1hE.
CN3h h11 j11 l11 40m n t.

15787 S. October 18/1645-1700/3/Jarmac/SS2 2.

15788 E2 2200-2300 int/7m/Jarmac/CMP, CN36. Wanda
& the Beagle.

15789MB 0320-0600 / 10 / Journal / CMP-1
ORIONID METEOR WATCH 11 meteors.
CN1 CN5 CN3d 1.3h E.
CN3h kll j kll 2ll 40m n t.

15790S Oct 19 / 1630-1700 / 3 / Journal / SS2 2, 4, 2.

15791EM Oct 20 / 2100-0200 very int / 2 / Journal.

15792EM October 21 / 2100-0050 / int / 7-3 / Journal /
CMP-1. Wendee + the Beaglekins.

15793EM. Oct 22 / 2215-230050 / 3 / Journal /
CMP-1. Wendee + the Beagle.

15794S. October 23 / 1710-1725 / 3 / Journal / SS2 3, 12; 12.

15795EM2. 2330-0100 int / 7m / Journal / CMP-1.

15796S. Oct 24 / 1710-1725 / 3 / Journal / SS2: 3; 12, 16.

15797EM 2300-0000^{int} / 1-7m / Journal / CMP-1.

15798EM Oct 26 / 2215-0000 / int / 7m / Journal /
CMP-1.

15799S. Oct 28 / 1700-1715 / 10 / Journal / SS2
7: 19, 15.

15800E2 1830~~2300~~^{int}-2355 / 7m / Journal / CMP-1.
SS3. Vairt Astronomy fields. Unak Gray
other telescopes. ~4 @ kite. Jupiter, Uranus, N

15801S. Oct 29 / 1715-1730 / 10 / Jarnae / SS2 1:15, 1:18 ¹⁰⁻¹¹

15802R2 2100-2310 int / 10 / Jarnae / SS CN3t, CMP

15803M3 0335-0615 / 7m / Jarnae / CMP-1 meteor
CNI, CN5, CN3d 0.8^hE. CM3e Fhklkl 1140
CN3nt. CMP-1 1 probable Eps. Geminid meteor
EPSILON GEMINID METEOR WATCH.

15804S Oct 30 / 1655-1710 / 10 / Jarnae / SS2 with
Cordelia / SS2 1:18, 1:19.

15805R2 2050 to 2230 / 10 / Jarnae / CMP-1 + SS3
with Tim Douette, Amanda Douette, + Wendee
M45, M-1 The Crab Nebula, + Comet NEAT 2
TAURID METEOR WATCH 1 meteor.

15806M3 0400-0410 / 7m / Jarnae / checkin' doors after
Wendee from a probable dream.

15807S Oct 31 / 1705-1720 / 10 / Jarnae / SS2 with Cordelia
SS2: 1:2, 8.

15808R2 2205-2330 int / 10 / Jarnae / CMP-1.

15809S. November 2 Tuesday / 1600-1615 / 10 / Jarnae /
SS2 with Cordelia 0, 5 prominences, prominence

15810M2. 0330-0610 / 10 / Jarnae / CMP-1 2 meteors
TAURID METEOR WATCH.
CNI, CN5, CMP-1 - CN3e hllkl 1140m t.

Optine 15811S Nov 3 / 1600-1615 / 10 / Jarnae / SS2 0, 9.

15812R 2000-2300 ut / 10 / Jarmac / CN3s -
Mercy imaging test successful with Dr. J. El
above CN3E.

15813M3 0330-0615 / 10 / Jarmac - VERY WINDY
from East / with Thom + Christian /
CMP-1 THURSDAY METEOR WATCH - Tmt
CN3E + CN3J.

15814S Thursday, November 4 / ^{→ 1600-1615 / 10 / SS 20, 8} 1900 to 2000 ut /
15815R. 10 / Jarmac / CN3s Mercy - 9 observed
with student Ashley Lape, who took good
images of M33, M31, M34 + NGC 253.

15815R2 2300-2350 ut / 10 / CMP-1.

15816M3. 0330-0640 / 10-3 / Jarmac /
CMP-1, CN1, CN5, CN3d. 0.9^h E.
Comet Ikeya-Murakami, Comet Hartley-2,
CN3e h h k l l l l 40m n and s.

15817S. Friday, Nov 5 / 1600-1620 / 10 / Jarmac /
SS 2 0: 16.

15818EM2 2350-0020 / 10 / Jarmac / CMP-1

15819MS. Saturday, November 5 / 0510-0715 /
10 / Jarmac, then start of journey to
Las Cruces / CMP-1, 2 meteoric meteors.
1a Taurid, the other probably sporadic.
Then green flash.

15820.E. Saturday, November 6/2155-2210/3/10-11
Jarnae / CMP-1. Walk with the Beagle.

15821M2. 0325 to 0600/10/Jarnae/Thom/CN1, CN5,
CMP-1, CN3b 1^h with Gemini. CN3e hll kll d 40m.

15822S. Monday, Nov 8/1600-1615/10/Jarnae/
SS2 with Cordelia 1:2, 15 or so.

15823ER. 2000 to 2305/3/Jarnae/CMP-1 w/ Wa
deet + the BEAGLE.

15824MP3 0330-0335/2/Jarnae/checkin!

15825S. Tuesday, November 9/1600-1610/
10/Jarnae/SS3, Vail Astronomy Club.

15826E2. Jupiter, Moon, M13 and M31 with Unab Coy
Also we saw a -5 or -6 gridium flavie Dove

15827M2 0330-0620/10 - VERY COOL
Jarnae/SS3, CN1, CN5, CMP-1 - 2 meteoric meteors.
Bright HST. CN3e hll kll d 40m st. CN3b 1^h

15828S. Wednesday, Nov 10/1600-1615/10/Jarnae/
SS2 1:13, 15.

15829ER 2015-2315 with 7m/Jarnae/CMP-1.

15830M3 0330 to 0610/10/Jarnae/CMP-1 3
meteors. CN1, CN5, CN3d 1^hE, CN3e hll kll d
40m.

15831^M Friday, November 12 / 0330 to 0610 / 10 /
Jamae / CN3 10.6 h E. CN3e hllkllll 40m.
CMP-1, 2 meteors.

LEONID METEOR WATCH: 2 meteors.

15832S Nov 12 / 1350-1415 / 10 / Jamae / SS 2 with
Mintaka 1:7, 10. Esther checkin?

15833E2 1925-1945 / 7-Fm / Jamae / CN3 6 0.1 h

15834M3 0335-0610 / 10 / Jamae / Dood /
CN-1, CN5, CMP-1 LEONID METEOR WATCH -
3 meteors. and CN3 1 h E. CN3e hllkllll 40m

15835S November 13, Saturday / 1140-1200 / 10 / Jamae,
SS 2 with Mintaka 2, 7, 10.

15836M2 0330-0550 / 2-3 ish / Jamae /
CN3e hll 40m. No visual search this morning.
CMP-1 3 / meteoric meteors.

15837S November 14 / 1230-1255 / 10 / Jamae / SS 2 2-10
a few prominences.

15838E2 2115 to 2345 int / 8m / Jamae / CN3
working with a Marcy Me College Student.

15839E November 15, Monday / 2330-2350 /
7m / Carbondale Holiday Inn / LPO-1 Moon

15840E Tuesday, November 16 / 2135-2350 / 3m /
SIUC, + E. Ho. Inn / LPO-1, CN35. Moon, 24.

10-11
15841E. Wednesday, November 17/2/15-2310
7m / Jarnac / Back with Wendee + the Beagle

→ 0335 to 0600 / 7m then 10 / Jarnac / CMP /
15842M2 LEONID METEORWATCH: I counted 22 meteor
network. CN340.21E. CN3e 211K1121190m, t.

15843S. Thursday, November 18 / 1200-1215 / 10 / Jarnac
SS2 with Mintaka 2:5, 4. Rest in Peace,
Brucein Mission.

15844E2 1900-2310 int / 7m / Jarnac / Wendee + the
Beagle.

15845S. Friday, November 20 / 1100-1120 / 10 / Jarnac
SS2 with Mintaka 1:3, 5.

15846S. Saturday, November 21 / 0910 to 1215 /
3 / Jarnac / Dean + David / SS2 1:2, 4.
Dean + David repaired Obadiiah success-
fully. CN3F.

15847E2 2100-2345 / 7m / Jarnac / CN3F
Obadiiah SUCCESSFUL TEST.
Full Moon.

15848M Tuesday (Monday) November 22/23/
0600-0615 / 7m / Jarnac / Dawn.

15849E Thursday Nov 25 / 2000-2015 / 7 / Albuquerque

15850E Fri Nov 26 / 2100-0000 int / 10 + 3 / 7m / Jarnac /
Moonrise.

15857EM Saturday, 27 November/1930 to
0350 int!

15858EM Sunday 28 November/1900 to 0015/
2.

15859S. H. Tuesday, 30 November/1900-1600-
1640/11 Harvest Inn, Napa Valley.
pictures

15260E2 1815-2130 int/7/walk to +
restaurant + Harvest Inn, Napa Valley
CMP-1, SS3.

15861E W. Wednesday 1 December/1845-2200 int
7/ Napa Valley, Harvest Inn + nearby rest area
CMP-1, SS3.

15862E Friday, 3 December/1830-2240
CMP-1.

15863M2 Sat, 4 Dec/0330-0650/3/Jarnac/10-
Jarnac/ CMP-1, 2 meteoric meteoroids.
CN-1, CN5, CN3e F h hll kll 2ll 40m nt.

15864M Sun, 5 Dec/0335-0640/3/Jarnac/
CMP-1, CN, CN5 CN3e F h hll kll 2ll 40m nt

15865M Mon 6 Dec/0335-0655/3/Jarnac/
CMP-1, CN-1, CN5, CN3e F h hll kll 2ll 40m

158665. Tues, 7 December / 1230-1245 / 3 / Journal / SS2 2:4, 2.

158675^{M2} 2015-2055 / 3 / Journal / CN3s, SS3 with Flair, done with honors student Sierra Makepeace from SUC. M42, M1

158685. Wed, 8 December / 1520-1535 / 10 / Journal / SS2 2:2, 5.

158695^{M2} 2045-midnight or even 0055 / 10 - Journal / Wendee and the Beagle.

158705. Thurs, 9 December / 1540-1555 / 10 / Journal / SS2 2:2, 27 mostly small prominences.

158715^{M2} 1950 to 0030 / 10 / Journal / CMP-1. / Wendee & the Beagle.

158725^{M3} 0330-0630 / 10 / Journal / CM-P-1, 13 Gemnido. CN1, CNS, CN3e Fh11, R11, L11, 40m, nll, +. CN3 1.3^h 1.3^h E.

²⁷³ 158735 Fri 10 Dec / 1500-1530 / 10 / Journal / SS2 2:2, 5.

158745 0330-0630 / 10 / Journal / CN1, CNS, CN3. 1.5^h / ~~Sat 11 Dec~~

158755^{M2} Sat 11 Dec / 1130-1630 with / Journal / CN1, CNS, CMP-SS2 2:3, 11.

158765^{M2} 0340-0650 / 10 / Journal / CN1, CNS, CN3 1.4^h K

15877D. Sunday December 12/1230-1715/10/Jarmac/
SS2 2:2, 15.

15878E2. 2000 to 2200/7m/Jarmac/SS3.
with Christine White; scope not working
tonight; I fixed it at the end by rebooting.

15879M3. 0340-0655/10, windy/Jarmac/
3 CNI, CNS, CMP-1. GEMINID METEOR
WATCH. I saw 49 meteoric meteors; Thom
saw more than 120. CN3 0.1 hr.

15880S. Monday, December 13/1245 to 1708 with
10/Jarmac/SS2 2:2, with Muntaka,
1 prom. with Corblin.

15881E2. 1820 to 2345/7m/Jarmac/SS3
Flare on live images M42.

15882M3 0335-0650/10/Jarmac/
CMP-1. GEMINID METEOR WATCH.
124 meteors in 2 hours, all Geminids
but some sporadics.
CMP-1 URSIDS METEOR WATCH
4 meteors were early Ursids
CMP-1 CEPHEID METEOR WATCH.
1 probable Cepheid from N. out of Cass.
It seemed like a fast-moving satellite
and it vanished after 2 seconds.
CNI, CNS, CN3e FLH1 RH1 11 40m n.a.
CN3 0.1 hr.

15883S 1500-1600 int / 10 / Jarnac / SS2 with Cordelia 1:2, 17 prominences

15884E2 1900-2015 / 10 + 7m / Jarnac / SS3 with Christine White from Mercy College

15886W2 0335-0700 / 10 / Jarnac / CMP, CN4, 5, 3 1h, 5 E

15885S.F Wednesday, December 15 / 1640-2300 / SS2 with Cordelia t=0, 3 prominences

*15887E.S. Thursday, December 16 / 1300-1700 int 1-0 / Jarnac CN3-N11. 50 years observing.

15888S. Friday, December 17 / 1130-1200 / 3 Jarnac / SS2 t=0-9 / 4 prominences

*15889E2 2000 to 2350 / int / 3 / Jarnac / CN3n11 testing.

15890S. Saturday, December 18 / 1200-1500 int / 3 / Jarnac / SS2 0, 5.

15891E2 1900-2355 int / 7m / Jarnac / SS CN3n11 testing.

15892S. Sunday Dec 19 / 1235-1330 / 10 / 3 / Jarnac / SS2 0, 7. No spots but a goodly # of prominences.

15893E2 2315-0030 / 3m / Jarnac / almost full Moon. CMP-1. Wendel the beagle.

*15894EM. Monday, December 20/21/1908-0300,
3-1 / Jarnae / Saras-1, CMP-1, with Wanda
Thom, & T. First we gave Wanda a
surprise mortgage-burning party. It was
fun. We noticed penumbra shading
around 2315 and first umbra contact
just after 2330. Light clouds disappeared
about 15 minutes before totality, & we
enjoyed seeing the rudely Moon plas-
tered against a sea of faint Milky Way
stars in Gemini. URSID NR WATCH & Under

15895EM Wednesday, Dec 22/23/1930-0130
3h Jarnae CN3n11 + 11b testing & prep.

15896S. Thursday, December 23/1300-1350 int /
3h Jarnae / SS 2 0, 4.

15897EM 1930-0030 / 7m / Jarnae / CN3n prep.
I got both the Canon & the DSL focuser
at long last. CN3n11 and CN3n1b.

15898S Friday, December 24/1340-1400 / 1h
Jarnae / SS 2 with Min. break 0, 1. unrec.

15899E2 1930 to 2100 int / 10-7m / Jarnae
CN3n11, CN3g11 testing.

*15900EM 2145 to 0025 / 7m / Jarnae / CN3n 11, CN
testing continues. Imaging complete
Narcissus performing well.

15901S Christmas Day 11325-1340/10/windy 10-12
Mintaka / SS 2 0, 4. Jarnae

15902EM2 2030-0055/10, windy / Jarnae / CN 3n 11, CN 3g 11 test

15902S December 26 - Sunday / 1235-1335 / 3 / Jarnae
Mintaka / SS 2: 0, 10.

15904E2 1930-2355/10 / Jarnae / CN 3n 11, g 11. test

15905S December 27, Monday / 1615-1630 / 10 / Jarnae /
SS 2 0:10.

15906EM2 2030-0110/10 / Jarnae / CN 3n 11, g
testing run.

15907S. December 28, Tuesday / 1635-1650 / 10 / Jarnae /
new / SS 2 0, 20 mostly small prominences,
some big ones.

15908E2 1900-2355/10 / Jarnae / CN 3n 11
new with DS / on lens, focused, and CN 3g.

15909S December 30 (yesterday was raining). /
1630-1645 / 3 / Jarnae / SS 2 with Cordelia 9, 8

15910EM2 2030-00 110 / Jarnae / CMP CEPIT 54
METEOR WATCH, intermittently during the
evening.

15911S December 31 / 1705-1720 / 10-3 / Jarnae /
SS 2 Cordelia 2: 3, 3.

P.M.T.

15912E12 Friday, December 31, 2010 / 1930-01
10/Jarman / CMI CEPHEID METEORIC
METEOR WATCH
Hap - py New Year.

2011.

15913S Saturday, January 1/1545-1600/10/Jarman
SS2 blim - Cordelia: 3:15, 6

15914E2 1930 - midnight w/ CMI.

15915M3 0335 to 060705/10/F - ~250 pl
bridge / CMI, CNS, CMI
CEPHEID METEORIC METEOR
WATCH: 2 meteors, possibly Cephe
One through telescope, one naked eye
in Lepus CN36 0.5^h E.
CN30F h hll kll lll 40m n all g ll.

15916S Sunday, January 2/1530-1550/10/
Jarman / SS2 2:15, 6.

15917E2 1900-0000/10/Jarman/testing
new hummingbird camera. Also confirm
no SN in a Northern galaxy

15918M3 0335-0355 w/ 31 Jarman/observing some
15919S Monday, Jan 3/1600-1615/SS2

15920E2 0340-0710/10/Jarman/CMI, CNS
CMI QUADRANTID METEOR WATCH
6 meteors, between evening & morning

15920E (before 921/1900-2000/test CNS all g ll CMI 10

11-01

15922E January 4/ 1615-1630/ #3/ Jarmac/ SS2 2:36

15923E2 1902-2315 int/ 10/ Jarmac/ CN3g || test jwa

15924M3 0340-0715/ 3/ Jarmac/ CN1, CN5, CMP-1,
CN3d e f h k l l l l l m n o p q r t. all scopes worked
but data from most lost. CN8 potus + hyperion

15925E January 4/5/ 2100-2140/ 3/ Jarmac/ Gladwick/
LP-1, Wendee and I enjoyed a look at
Jupiter, his moons, + Uranus. all in the same
field of view at low power. This is what
it looked like.

15926M. January 7/8/ 0335-0710/ 10-3/ Jarmac/
CN1, CN5, CMP-1, CN3d 1.5" E. CN8e f h k l
CN3k l l l 40m n o p q r.

15927S. Jan 8, Saturday/ 1710-1725/ 10/ Jarmac/
CN8 SS2 1:1, 2. Session held in hopes that
Congresswoman Giffords will recover quickly
and completely after being almost fatally shot
this morning.

15928E2 1955-2050/ 10/ Jarmac/ a small
oraxent Mon/ CN3 n l l g || adaptation of 2nd
tehrad. also used Pegasus to look at Moon.

15929M3 0340-0355/ 2/ Jarmac/ just closing J/
due to cloudy choppy clouds.

15930E. January 9, Sunday / 2100-2345 vit / 3 /
Jarmac / CMP-1, checking.

15931M2 0330-0607~~10~~ / 0650 / 10 / Jarmac /
CNI, CNS, CMP-1 2 meters, CN3L 1.6h.
CN3e, FHllkll 40m nllgll.

15932S. Jan 10, Monday / 1215-1235 / 10 / Jarmac /
SS2 1:1, 2.

15933E2. 1830-1850 / 1 / Jarmac / ISS pass to N.

15934M3 0335-0715 / 10, a little breezy / Jarmac /
CMP-1 2 meters CNS, CNI, CN3e, FHllkll 40m
CN3n 3.6h nll, CN3b 1.1h. accidentally opened ra
before opening s. wall.

15935S. January 11 / 1150-1210 / 3 / Jarmac / SS2 1:2, 4.

15936S2 1645-1730 / 3 / Jarmac / Thom repairs s. wa

15937E3 2100-2115 / 10 / Jarmac / walk w/ Wanda + Beag

15938M4 0335-0350 / 2 / Jarmac.

15939S. Wednesday, Jan. 12 / 1630-1645 / 10 / Jarmac /
SS2 0, T.

15940E2 1900-2255 / vit / Tim / Jarmac / no ISS

~~15941M3~~ 0340-0710 / 10 but windy at first then bree
• CMP1 CNI CNS (Thom) CN3b 1.3h e. CN3e FHllkll
all 40m nllabl.

159425. Thursday, Jan 13/1630-1645/10/Journal/SS2 0, 7.

15943M2 0350-0725/10/Journal/CN3^d 0.7hE. CN3efhkl||L||K||40m n||nb||. S. wall still a bit too low. Flare problematic fil near the end.

159445 1200-1230/10/Journal/SS2 0, 7.

15945M2 0335-0650/10/Journal - some breeze but not much/CMP-1, 3 telescopic masts. CN1, CN5 CN3^d 0.7hE. CN3^e Fh||h||K||L||40m n||nb||. Flare didn't work, all others did.

15946ES. Saturday, Jan 15/1500-1540/10/Journal/SS2 0, 7. 7 big prominences; some of which are really big.

15947E2 2300-2355/7m/Journal. Checkin.?

Time	Activity	Count
15948M3	CN3 ^d 0335-0655/10/SS-3/Journal/CN3 ^a , d 1.3hE	
	CN3 ^e TVGW with obadiah.	4 pictures
	CN3 ^f with obadiah.	108 "
	CN3 ^h with Esther.	61
	CN3 ^h with Lutus	80
	CN3 ^k with Samwale.	64
	CN3 ^{40m} with Flare.	7 "
	CN3 ⁿ with Esther.	84
	CN3 ⁿ with Abricassus.	32
	CN3 ^{nb} with Abricassus.	28
	CN3 ^{30a} with finder of Miranda	
	CN3 ^d with Miranda	
	CN3 ^{4h} with other scope.	
		<u>448</u> Total.

15949S. Sunday, Jan 16/1630-1645/3/6/Jamae/SS2 1:2, 9,

15950E2 1815-2300 int | 2-fm/Jamae/
CN340m. with Flare. One good set +
one partial set. Set sub rate to 2.5%.
Also fixed CN3t for Tom.

15951S. Monday, January 17/1700-1730/10/Jamae/
SS2 1:2, 9.

2
15958S. Tuesday, Jan 18/1715-1745/10/Jamae/
SS2 1:2, 9, 15.

3
15959E2M 1925-2055 int/7m/Jamae/CN3g ll
new lens successful, finally get Flare itself
reconnected.

54
15960S. ~~to~~ Thursday Jan ²⁰19/1450-1505/3/Jamae
SS2 1:1, 7.

55
15961S. Friday, Jan ²¹20/1600-1630/10/Jamae/
SS2: 1:15, 6.

56
15962E2 ~~2000-0000~~ ^{int 10-} 7m/Jamae/CN3h ll, CN3g ll
with Petrus. Walk with the Beagle at 120
Carry St.

57
15963S. Sat Jan 21/1345-1630/10/Jamae/
SS2 1:16, 6.

58
15964E12 2200-0220 ^{int} 10-7m/Jamae/Flare still
not working.

15960^B. Sunday, January 23/1200 to 1400/10/¹¹⁻⁰²
Jarnac/Mintaka/SS2 1:19, 6.

15960E2 2015-2100/10/Jarnac-still not working.

15961E3 2230-2250/10-7m/Jarnac. 120 Courcy St
Walk with The Beagle.

15962^B. Monday, Jan. 24/1350-1540/10/Jarnac
*SS2 1:10, 10.

15963E2 1930-2355/10/Jarnac/CN3 k11-
unworking.

15964SE Tuesday, Jan. 25/1745-2000/
Wtd observatory, Uncle Guy/Green Fla
at sunset and SS3, STS star party.
M42, Sirius, Betelgeuse, M31, Xmas Tree
cluster C11/12 make through Caplaux.

15965E Sunday, January 30/2300-2340/6/
818 + Ven/CN3, walk to 1/2 way up Sunnyside
Avenue + back. Orion, Sirius.

15966S. 1630 to 1715/3/Jarnac/SS2 0, 9.

15967E2. 2000-2350/mt/10/CN3 k11-checkin' Ansa
SN.

15969ES. Feb 1/1715-1730/10/Jarnac/SS2 0, 7.

15969S. Wed. Jan. Feb 2/1600-1730/10, cold/SS2
0, 9.

159805. Thursday February 3 / 1615-1645 / 10 -
bitterly cold & windy / SSR 0: 7. with Cordelia.

⁷¹
159801M2 0015-0045 / 10 / Jarmac / CN3E + VOW - C145

⁷²
159815. Fri Feb 4 / 1230-1500 / 10 / Jarmac / SSR 0: 4.

⁷³
15982ERM 2345-0015 / 10 / Jarmac / CN3e IVOW 6149.

⁷⁴
15983S Sat February 5 / 1700-1720 / 10 / Jarmac /
SS2 with Cordelia 0, 9.

⁷⁵
15984ER 2100-0000 / ^{with} 7-10 / Jarmac / CN340m
repairs. - 7 flare at 19:07.

⁷⁶
15985M3 0340-0715 / 10 / Jarmac / CMP-1, 2 motor,
CN-1, CN6, CN3e Fhll kll 2ll nll 4 nll 5.

⁷⁷
15986S. Mon Feb 7 / 1150-1330 / 10 / Jarmac /
SS2 with Mintaka, Rolf & Linda &
Wendee / SSR 1: 4, 4.

⁷⁸
15987K2 1945-2000 / 9 / ~~Jarmac~~ / W/D/D / SS3
end of STS Starlight.

⁷⁹
15988E3. 2045-2130 / 9 / Jarmac / SS3 with
Rolf. Nice session. Rolf did some comet
sweep with Miranda.

⁸⁰
15989S. Tuesday, February 8 / 1705-1750 / 10 / Jarmac /
SS2 0, 1.

15981M2 0340-0720/10/Jamae/cold/CMP-1,
CN1, CN5, CN3ae Fhllkllkllnllnllgllt.
CN3d 0.6^hE. 11-02

15982S. Wednesday February 9, 1986/1500-1600/
10/Jamae/SS'2 0,4, with Wendell Army
Hauptman - Gordon after our PSI-STS meeting.

15983E3. 2030-~~0000~~ unit/10/Jamae/CN3 40m test

15984M4 0340-0405/10 but very windy/closing up

15985S - Thursday Feb 10/~~#8~~ 1500-1600/10/SS2 0,6.
also CN3 40m test.

15986E 1940-0000 unit/10/Jamae/CN3 40m
test successful!

15987M2 0340-0650/10/windy/Jamae/CN1, CN5,
CMP-1 1 meter. FSS. CN3ed, 1.2^hE.
CN3e Fhllkllkllkll 40m nllnllgllt.

15988S Fri Feb 11/ 1530-1545/10/Jamae/SS2 with
Mintaka 1:6, 5.

15989E2 1210-~~1250~~^{unit} 7m/Jamae/CN3gll. -5 Flare
not photographed.

15990M3 0340-0650/10/Jamae, windy again/
CMP-1 2 meters, CN1, CN5, CN3e Fhllkllkll 40m
• CN3nllnllgll rest ad 1.1^hE.

159919. Saturday, February 11/1700-1715/10/Jarman/
SS2 2:21, 11 with Cordelia.

1599202 0340-0700/10/slight breeze/Jarman/
CN3e F h k l l k l l d l l 40m n i l l n b l l g l l E. CN3d 1^h E
CN3a, r.

159925. Sunday, February 12/ ¹⁵⁰⁰⁻¹⁵¹⁵ ~~1300-1315~~ / Jarman/
SS2 with Minitaka. 2:21, 9.

15994M2 0350 to 0700/3-7-10/Jarman/
CN3d 1^h E, with Miranda.
CN3a with finder.
CN3f with secondary scope
CN3e 4 pieces of TV Orv
CN3f Gladial 104 pictures
CN3h with Esther 61 pictures.
CN3kll with Clyde 50 pictures.
CN3dll with Sammie 64 pictures.
CN340m with Flare - 50 pictures
CN3n with Esther, 64 pictures.
CN3nll with Narcissus 32 pics
CN3n bll with Narcissus 28 pics
CN3t - not this morning
CN3g ll with Canon - not this morning

159955. Monday, Feb 14/ Valentine's Day Sun
Session/1350-1405/10/Jarman/SS2
with Minitaka 2:31, 6.

15996M2 0335-0710 | 7-10 | Jarnae | 10 CMP-1, 11-02

CN-1, CN5,

CN3a

CN3r

CN3d OK E.

CN3e TV Cam

C14.9.

CN3F 112 pictures

CN3h 54 pictures.

CN3 h11 38 "

CN3 k11 108 "

CN3 L11 64 "

CN3 40m 108 "

CN3 n 54 "

CN3 n11 32 "

CN3 nb11 0 "

CN3 g11 2 "

Thom has a com suspect, I suspect it's a glabular but I am unfamiliar with it.

15997S

Tuesday Feb 15 / 1730-1800 / 10 | Jarnae / GS2 2:31, 13. 2 Beautiful groups filled with spots. Roly said it is the best view of prominences he's seen.

15998E2

1915-2320 int / 7m / Jarnae /

CN3g11 pictures with Roly

later CN3nb11 32 "

Total pictures = pictures.

15999S

Wed February 16 / 1055-1105 / 10 | Jarnae / Mintaka SS2 2:63, 9. Lots of spots in 2 group really a macro view sight.

16000S. Monday, Feb 21 / 1300-1315 / 10 / Jarmac /
SS2 with Minkaka 1: 17, 18.

16001E2. 18-1915-0030 int / 10-7 / Jarmac / CN3g 11
with Shakespeare.

16002S. Tuesday, Feb 22 / 1600-1630 / 10 / Jarmac /
SS2 with Minkaka 1: 8, 5.

16003E2. 1915-2315 / 10 / Jarmac / CN3g, CN3g 4.

16004S. Wednesday, February 23 / 1400-1420 / 10,
Wendy / SS2 with Minkaka 1: 4, 5.

16005E2. 2015-2315 / 10 / Jarmac / CN3g 11.

16006E. Thursday, February 24 / 15:30 to
1600 / 10 / Jarmac / SS2 (Minkaka) 0, 8.

16007S2. 1620-1700 / 10 / Jarmac / CN3g 6 [photos
of Shakespeare.

16008E3. 2100-0000 int / 10 / Jarmac / CN3g 4,

16009S. Friday, February 25 / 1530-1550 / 10
Jarmac / SS2 with Minkaka 0, 2.

16010E2. 2000-0000 int / 3 / Jarmac / CN3g 11 no

16011ES. Saturday, Feb 26 / 1500-1600 / 3 / Jarmac /
SS2 0, 1? through light clouds.

11-03

16012E2 2315-2340/9-windy/Jamaica/CN3e.
Wind dropped while I was out, rain started late

16013S. Sunday, February 27/1715-1730/~~#~~³/Jamaica
SS2 with Cordelia 7:6, 5.

16014E2 2310-2330/10/Jamaica/Obadiah/
CN3e TV Ow.

16015S. Monday Feb 28/1505-1520/10/Jamaica
SS2 with Mintaka 2:22, 7.

16016E2 2355-0010/10/Jamaica/CN3e TV Ow.

16017S. Tuesday March 1/1510-1530/10/Jamaica/
2:40, 4.

16018E2 2100-2300/int/10/Jamaica/S preparation
for morning observations

16019M3 0315-0645/10/Jamaica/CMP-1, 2 meteor
meteors. CN-1, CN5, CN3e Fh III K II g L II 40
n n l l t l g l l t.
Wed Mar 2.

16020S 1500-1530/3/Jamaica SS2 w/ Mintaka
1:14, 3.

16021E2. 1930 to 0000/int/10-3/Jamaica/CN3e,
CN3g l mounted on Narcissus. Session in
memory of Habrie. CMP-1, 2 meteors.

16022S. Thurs March 3/1715-1755/3/Jamaica/
SS2 w/ Cordelia Mintaka 1:44, 2:40, 6.

16023E2. 1940-2000/3-10/ W+D L Obs. / Unob Gray
other scopes. 65FS SS3. Sharing the
Sky + Void Astronomy Unob at Crown
Foothills Middle School. M42. 9
told them the story of Bob + Valerie, now
in rest in M42. This session.
Dedicated to Bob + Valerie

16024E3 2145-2330 int / 10-3 / Jarnac / CMP1.

16025M4 0250-0620/10 / Jarnac / CMP1, 2 meters
CN3d 1.3h

meadows, CN-1, CN5,		
CN3e } 4	4	
CN3F with Obadiak	101	
CN3h with Esther	67	and
CN3R11" Clyde	100	CN3h11 7.3
CN3L11" Samwise.	67	
CN340m" Flare	108	
CN3n " Esther	64	
CN3n11" Narcissus	32	
CN3nb11" Narcissus	32	
CN3g11" Shefarspeare/Narcissus	32	
Total	=	680 pictures

16026S Friday March 4 / 1530-1550 / 10-3 / Jarnac,
SS2 2:43, 5.

16027E2. 2030-2045/7/ U of R / TAAA meeting

16028M3 0310-0350/9-10/ Jarnac. post med
no-go for CN3; too windy.

16029~~9~~ S. ¹¹⁻⁰³ Saturday, Shalvat, March 5 / 1540-160 / 3/Jaruae / SS 2 with Cordelia 2: 24, 1.

16030 M2 0250-0650 / 10-3 / Jaruae / CN-1, CN5
CMP-1. CN3e Fh kll kll 2ll 40m nll nll gll r t a
CN3d 1.6^h E. Very nice session.

16031 S. Sunday, Mar 6 / 1300-1320 / 3 / Jaruae / SS2 (Mintaka)
2: 40, 5: 2.

16032 E2 2220-2235 / 3 / Jaruae / CMP-1.

16033 S Monday, March 7 / 1630-1645 / 10-3, windy / Jaruae / SS 2 with Cordelia 3: 41, 5.

16034 M2 0305-0630 / 3 / Jaruae / slight West C! with
CN3e Fh kll kll 2ll 40m nll nll gll r t a d CN3d 1.5^h E

16035 S Tues Mar 8 / 1300-1530 / 10 / Jaruae / SS 2 with
Mintaka 3: 73, 2. 1 very large + long prominence.
Photographed it.

16036 M2 0315-0630 / 10 / Jaruae / very clear
with only a small E. wind. CMP-1, CN-1, CN5,
CN3d 1.6^h, CN3e F nll gll.

16037 S. Wednesday, March 9 / 1630-1650 / 10 / Jaruae /
SS 2 with Cordelia 2: 53, 3. SS 3 with
Sid Leach.

16038 M2 ^{CN3ia} 0310 to 0630 / 10, breezy / Jaruae / CMP-1, CN-1,
CN5, CN3e Fh kll kll 2ll 40m nll nll gll r t CN3d 1.4^h E.

16039S Thursday, March 10/1610-1625/10/3/Jaruae/
SS2 2:15, 3.

16040E2. Friday, March 11/1920 - 2300/3/
Jaruae/SS3. Sharing the sky session
conjunction with Doug + Ashley Fish's
wedding. Moon, M42, Saturn through
Miranda's guide scope.

16041M3 0315 to 0625/10-3/Jaruae/CN-1, CN-
CN3e F h k l l k l l l l 40m n all n b l l g l
CN3r CN3t CN3a CN3b 1^h E.

⁴²
16042S Saturday, March 12/1600-1630/3/Jaruae/
SS2 2:45, 3. with Mintaka.

16043E2M2 2345-0030/10/Jaruae/CN3e.

16044S Sunday, March 13/1715-1730/10/Jaruae
SS2 with Cordelia 2:25, 2.7.

16045M2 0310 to 0625/10/Jaruae/very crisp,
clear morning/CMR-1, 2 markers, one naked
eye, one telescopic. CN-1, CN5,
CN3e F h k l l k l l l l 40m n all n b l l g l
CN3r a CN3d 1.3^h E.

16046S Monday, March 14/2 1430-1450/3/Jaruae/
SS2 1:18, 2. with Mintaka.

16047M2 0350-0645/3/Jaruae/CN1, CMR1, CN5
CN3d 0.5^h E. CN3e F h k l l 40m n l l g l.

16048S. Tuesday He Joke of March / 16.30-16.50 / 3 / Jarmac /
Mintaka SS2 1:8, 1. 11-03

16049M2 0300-0630 / 140 / Jarmac / CN3, CN5, CMP-1,
3 meteors. (one was a possible.) CN3e, F, H, I, K
2 || 40m n all nbl | gll r s t CN3d / KE.

16050S. Wednesday, March 16 / 1645-1705 / 10 / Jarmac /
SS2 with Mintaka 2:6, 2.

^F
16051M2 2315-0030 / 7m / Jarmac / CN3e.
with Obadiah L13.3 14.9

16052S Thursday, Mar 17 / 1300-1315 / 10 / Jarmac / SS2 2:1:6

16053M2 0000-0030 / 7m / Jarmac / SS2 CN3e TVGw (13)

16054S. Fri Mar 18 / 1645-1700 / 3 / Jarmac / SS2 1:6, 1.

16055EM2. 2.300-2.330 / 7m / Jarmac / CN3e TVGw

16056S. Saturday March 19 / ~~2~~ 1215-1245 / 3 / Jar-
nac / SS2 with Mintaka 1:15, 5.

¹⁹
16057EM2 2050-0030 int / 3 / Jarmac / 3 unsuc
cessful search for Jupiter / Mercury due to clouds
CN3n || nbl | gll test of Paracusey / Shaker-
poure combination. CN3e.

16058S. Sunday March 20 / 1230-1715 / 3 / Jarmac
SSR 0, 0, then 1:7, 2 under better sky
with Mintaka.

16059S Tuesday, March 22 / 1545-1615 / 10 / Jarnac /
Beautiful afternoon. SS 2 with Muntaka 2:17, 5

16060E2 Tuesday March 22 / 1855-2005 / 10 /
Jarnac / This evening the sky was perfect.
CN-3 0.1^hW with Spica.
CN3 6 0.1^hW with Apollo.
CN3 0.1^hW with Coffee = 0.3^hW total.
Also at least, I succeeded in using Pogson
to spot Jupiter a degree or so off the western
horizon then later the same telescope to
see little Mercury. I also saw Mercury
Apollo.

16061E3 2145-2200 / 10 / Jarnac / CN3e TVCw.

16062M4 0000-0015 / 10 / Jarnac / CMP-1.

16063S Wednesday, March 23, our anniversary /
1720-1740 / 10 / Jarnac / SS 2 with Muntaka
1:17, 5.

16064E2 1930-2045 / 10 / Jarnac / CN3 with
Apollo 0.1^hW; with Spica 0.1^hW, with Pogson
0.1^hW, and Coffee 0.1^hW = total 0.4^hW
(Gemini:) LPO-1 Saturn beautiful, hanging the

16065E3 2140-2200 / 10 / Jarnac / CN3e TVCw.

16066E4 2350-0030 A / Jarnac / CMP-1.

16067S We Thursday March 24 / 1310-1330
10 / Jarnac / SS 2 with Muntaka 1:22, 5

16068E2 210 to 2145 / 10 / Jarnac / CN3 0.4^hW rooftop
with Apollo, Spica (W, SW), Pogson (W) + Coffee (1

160699 Friday, March 25/1515-1530/10/Jamaica/SS2 (Mintaka) 1:16, 5. 11-03

16070E2. 2000 to 2115/10/Jamaica/CMP-1, CN3e TV Cams with newly repaired Flare and now CN3 with respectively Apollo, Spica, Pegasus, and Coffee 0.4^h W. Rice evening session

16071M3 0005-0025/10/Jamaica/CMP-1.

16072S Shabat/Saturday, March 26/1130-1155/10/Jamaica/SS2 5:46, 5 promences.

16073E2 1945-2050/10/Jamaica/CMP-1, CN3a, CN3b 0.4^h E - respectively with Apollo, Spica, Pegasus, + Coffee.

16074M3 0000-0020/¹⁰8/Jamaica/CN3e TV Cams.

16075S Sunday, March 27/1050-1105/10/Jamaica/SS2 5:51, 11 with Mintaka.

16076E 2000 to 2045/10/Jamaica/CMP, CN-1, CN5, CN3 0.1^h W. setting fields for cameras.

16077M2 0205 to 0610/10/Jamaica/CMP1, CN-1, CN5, CN3d 1.3^h E, CN3e F h h l k l l 40m n all nbl/gll t.

16078 Monday, March 28/1450-1505/10/Jamaica/Mintaka/Now SS2 3:36, 7.

16079E2 2015-2050/10/Jamaica/Pegasus CN3b 0.1^h W. Shabat, 16080E2 2000-2030-0030-0040-0050-0100-0110-0120-0130-0140-0150-0160-0170-0180-0190-0200-0210-0220-0230-0240-0250-0260-0270-0280-0290-0300-0310-0320-0330-0340-0350-0360-0370-0380-0390-0400-0410-0420-0430-0440-0450-0460-0470-0480-0490-0500-0510-0520-0530-0540-0550-0560-0570-0580-0590-0600-0610-0620-0630-0640-0650-0660-0670-0680-0690-0700-0710-0720-0730-0740-0750-0760-0770-0780-0790-0800-0810-0820-0830-0840-0850-0860-0870-0880-0890-0900-0910-0920-0930-0940-0950-0960-0970-0980-0990-1000-1010-1020-1030-1040-1050-1060-1070-1080-1090-1100-1110-1120-1130-1140-1150-1160-1170-1180-1190-1200-1210-1220-1230-1240-1250-1260-1270-1280-1290-1300-1310-1320-1330-1340-1350-1360-1370-1380-1390-1400-1410-1420-1430-1440-1450-1460-1470-1480-1490-1500-1510-1520-1530-1540-1550-1560-1570-1580-1590-1600-1610-1620-1630-1640-1650-1660-1670-1680-1690-1700-1710-1720-1730-1740-1750-1760-1770-1780-1790-1800-1810-1820-1830-1840-1850-1860-1870-1880-1890-1900-1910-1920-1930-1940-1950-1960-1970-1980-1990-2000-2010-2020-2030-2040-2050-2060-2070-2080-2090-2100-2110-2120-2130-2140-2150-2160-2170-2180-2190-2200-2210-2220-2230-2240-2250-2260-2270-2280-2290-2300-2310-2320-2330-2340-2350-2360-2370-2380-2390-2400-2410-2420-2430-2440-2450-2460-2470-2480-2490-2500-2510-2520-2530-2540-2550-2560-2570-2580-2590-2600-2610-2620-2630-2640-2650-2660-2670-2680-2690-2700-2710-2720-2730-2740-2750-2760-2770-2780-2790-2800-2810-2820-2830-2840-2850-2860-2870-2880-2890-2900-2910-2920-2930-2940-2950-2960-2970-2980-2990-3000-3010-3020-3030-3040-3050-3060-3070-3080-3090-3100-3110-3120-3130-3140-3150-3160-3170-3180-3190-3200-3210-3220-3230-3240-3250-3260-3270-3280-3290-3300-3310-3320-3330-3340-3350-3360-3370-3380-3390-3400-3410-3420-3430-3440-3450-3460-3470-3480-3490-3500-3510-3520-3530-3540-3550-3560-3570-3580-3590-3600-3610-3620-3630-3640-3650-3660-3670-3680-3690-3700-3710-3720-3730-3740-3750-3760-3770-3780-3790-3800-3810-3820-3830-3840-3850-3860-3870-3880-3890-3900-3910-3920-3930-3940-3950-3960-3970-3980-3990-4000-4010-4020-4030-4040-4050-4060-4070-4080-4090-4100-4110-4120-4130-4140-4150-4160-4170-4180-4190-4200-4210-4220-4230-4240-4250-4260-4270-4280-4290-4300-4310-4320-4330-4340-4350-4360-4370-4380-4390-4400-4410-4420-4430-4440-4450-4460-4470-4480-4490-4500-4510-4520-4530-4540-4550-4560-4570-4580-4590-4600-4610-4620-4630-4640-4650-4660-4670-4680-4690-4700-4710-4720-4730-4740-4750-4760-4770-4780-4790-4800-4810-4820-4830-4840-4850-4860-4870-4880-4890-4900-4910-4920-4930-4940-4950-4960-4970-4980-4990-5000-5010-5020-5030-5040-5050-5060-5070-5080-5090-5100-5110-5120-5130-5140-5150-5160-5170-5180-5190-5200-5210-5220-5230-5240-5250-5260-5270-5280-5290-5300-5310-5320-5330-5340-5350-5360-5370-5380-5390-5400-5410-5420-5430-5440-5450-5460-5470-5480-5490-5500-5510-5520-5530-5540-5550-5560-5570-5580-5590-5600-5610-5620-5630-5640-5650-5660-5670-5680-5690-5700-5710-5720-5730-5740-5750-5760-5770-5780-5790-5800-5810-5820-5830-5840-5850-5860-5870-5880-5890-5900-5910-5920-5930-5940-5950-5960-5970-5980-5990-6000-6010-6020-6030-6040-6050-6060-6070-6080-6090-6100-6110-6120-6130-6140-6150-6160-6170-6180-6190-6200-6210-6220-6230-6240-6250-6260-6270-6280-6290-6300-6310-6320-6330-6340-6350-6360-6370-6380-6390-6400-6410-6420-6430-6440-6450-6460-6470-6480-6490-6500-6510-6520-6530-6540-6550-6560-6570-6580-6590-6600-6610-6620-6630-6640-6650-6660-6670-6680-6690-6700-6710-6720-6730-6740-6750-6760-6770-6780-6790-6800-6810-6820-6830-6840-6850-6860-6870-6880-6890-6900-6910-6920-6930-6940-6950-6960-6970-6980-6990-7000-7010-7020-7030-7040-7050-7060-7070-7080-7090-7100-7110-7120-7130-7140-7150-7160-7170-7180-7190-7200-7210-7220-7230-7240-7250-7260-7270-7280-7290-7300-7310-7320-7330-7340-7350-7360-7370-7380-7390-7400-7410-7420-7430-7440-7450-7460-7470-7480-7490-7500-7510-7520-7530-7540-7550-7560-7570-7580-7590-7600-7610-7620-7630-7640-7650-7660-7670-7680-7690-7700-7710-7720-7730-7740-7750-7760-7770-7780-7790-7800-7810-7820-7830-7840-7850-7860-7870-7880-7890-7900-7910-7920-7930-7940-7950-7960-7970-7980-7990-8000-8010-8020-8030-8040-8050-8060-8070-8080-8090-8100-8110-8120-8130-8140-8150-8160-8170-8180-8190-8200-8210-8220-8230-8240-8250-8260-8270-8280-8290-8300-8310-8320-8330-8340-8350-8360-8370-8380-8390-8400-8410-8420-8430-8440-8450-8460-8470-8480-8490-8500-8510-8520-8530-8540-8550-8560-8570-8580-8590-8600-8610-8620-8630-8640-8650-8660-8670-8680-8690-8700-8710-8720-8730-8740-8750-8760-8770-8780-8790-8800-8810-8820-8830-8840-8850-8860-8870-8880-8890-8900-8910-8920-8930-8940-8950-8960-8970-8980-8990-9000-9010-9020-9030-9040-9050-9060-9070-9080-9090-9100-9110-9120-9130-9140-9150-9160-9170-9180-9190-9200-9210-9220-9230-9240-9250-9260-9270-9280-9290-9300-9310-9320-9330-9340-9350-9360-9370-9380-9390-9400-9410-9420-9430-9440-9450-9460-9470-9480-9490-9500-9510-9520-9530-9540-9550-9560-9570-9580-9590-9600-9610-9620-9630-9640-9650-9660-9670-9680-9690-9700-9710-9720-9730-9740-9750-9760-9770-9780-9790-9800-9810-9820-9830-9840-9850-9860-9870-9880-9890-9900-9910-9920-9930-9940-9950-9960-9970-9980-9990-10000-10010-10020-10030-10040-10050-10060-10070-10080-10090-10100-10110-10120-10130-10140-10150-10160-10170-10180-10190-10200-10210-10220-10230-10240-10250-10260-10270-10280-10290-10300-10310-10320-10330-10340-10350-10360-10370-10380-10390-10400-10410-10420-10430-10440-10450-10460-10470-10480-10490-10500-10510-10520-10530-10540-10550-10560-10570-10580-10590-10600-10610-10620-10630-10640-10650-10660-10670-10680-10690-10700-10710-10720-10730-10740-10750-10760-10770-10780-10790-10800-10810-10820-10830-10840-10850-10860-10870-10880-10890-10900-10910-10920-10930-10940-10950-10960-10970-10980-10990-11000-11010-11020-11030-11040-11050-11060-11070-11080-11090-11100-11110-11120-11130-11140-11150-11160-11170-11180-11190-11200-11210-11220-11230-11240-11250-11260-11270-11280-11290-11300-11310-11320-11330-11340-11350-11360-11370-11380-11390-11400-11410-11420-11430-11440-11450-11460-11470-11480-11490-11500-11510-11520-11530-11540-11550-11560-11570-11580-11590-11600-11610-11620-11630-11640-11650-11660-11670-11680-11690-11700-11710-11720-11730-11740-11750-11760-11770-11780-11790-11800-11810-11820-11830-11840-11850-11860-11870-11880-11890-11900-11910-11920-11930-11940-11950-11960-11970-11980-11990-12000-12010-12020-12030-12040-12050-12060-12070-12080-12090-12100-12110-12120-12130-12140-12150-12160-12170-12180-12190-12200-12210-12220-12230-12240-12250-12260-12270-12280-12290-12300-12310-12320-12330-12340-12350-12360-12370-12380-12390-12400-12410-12420-12430-12440-12450-12460-12470-12480-12490-12500-12510-12520-12530-12540-12550-12560-12570-12580-12590-12600-12610-12620-12630-12640-12650-12660-12670-12680-12690-12700-12710-12720-12730-12740-12750-12760-12770-12780-12790-12800-12810-12820-12830-12840-12850-12860-12870-12880-12890-12900-12910-12920-12930-12940-12950-12960-12970-12980-12990-13000-13010-13020-13030-13040-13050-13060-13070-13080-13090-13100-13110-13120-13130-13140-13150-13160-13170-13180-13190-13200-13210-13220-13230-13240-13250-13260-13270-13280-13290-13300-13310-13320-13330-13340-13350-13360-13370-13380-13390-13400-13410-13420-13430-13440-13450-13460-13470-13480-13490-13500-13510-13520-13530-13540-13550-13560-13570-13580-13590-13600-13610-13620-13630-13640-13650-13660-13670-13680-13690-13700-13710-13720-13730-13740-13750-13760-13770-13780-13790-13800-13810-13820-13830-13840-13850-13860-13870-13880-13890-13900-13910-13920-13930-13940-13950-13960-13970-13980-13990-14000-14010-14020-14030-14040-14050-14060-14070-14080-14090-14100-14110-14120-14130-14140-14150-14160-14170-14180-14190-14200-14210-14220-14230-14240-14250-14260-14270-14280-14290-14300-14310-14320-14330-14340-14350-14360-14370-14380-14390-14400-14410-14420-14430-14440-14450-14460-14470-14480-14490-14500-14510-14520-14530-14540-14550-14560-14570-14580-14590-14600-14610-14620-14630-14640-14650-14660-14670-14680-14690-14700-14710-14720-14730-14740-14750-14760-14770-14780-14790-14800-14810-14820-14830-14840-14850-14860-14870-14880-14890-14900-14910-14920-14930-14940-14950-14960-14970-14980-14990-15000-15010-15020-15030-15040-15050-15060-15070-15080-15090-15100-15110-15120-15130-15140-15150-15160-15170-15180-15190-15200-15210-15220-15230-15240-15250-15260-15270-15280-15290-15300-15310-15320-15330-15340-15350-15360-15370-15380-15390-15400-15410-15420-15430-15440-15450-15460-15470-15480-15490-15500-15510-15520-15530-15540-15550-15560-15570-15580-15590-15600-15610-15620-15630-15640-15650-15660-15670-15680-15690-15700-15710-15720-15730-15740-15750-15760-15770-15780-15790-15800-15810-15820-15830-15840-15850-15860-15870-15880-15890-15900-15910-15920-15930-15940-15950-15960-15970-15980-15990-16000-16010-16020-16030-16040-16050-16060-16070-16080-16090-16100-16110-16120-16130-16140-16150-16160-16170-16180-16190-16200-16210-16220-16230-16240-16250-16260-16270-16280-16290-16300-16310-16320-16330-16340-16350-16360-16370-16380-16390-16400-16410-16420-16430-16440-16450-16460-16470-16480-16490-16500-16510-16520-16530-16540-16550-16560-16570-16580-16590-16600-16610-16620-16630-16640-16650-16660-16670-16680-16690-16700-16710-16720-16730-16740-16750-16760-16770-16780-16790-16800-16810-16820-16830-16840-16850-16860-16870-16880-16890-16900-16910-16920-16930-16940-16950-16960-16970-16980-16990-17000-17010-17020-17030-17040-17050-17060-17070-17080-17090-17100-17110-17120-17130-17140-17150-17160-17170-17180-17190-17200-17210-17220-17230-17240-17250-17260-17270-17280-17290-17300-17310-17320-17330-17340-17350-17360-17370-17380-17390-17400-17410-17420-17430-17440-17450-17460-17470-17480-17490-17500-17510-17520-17530-17540-17550-17560-17570-17580-17590-17600-17610-17620-17630-17640-17650-17660-17670-17680-17690-17700-17710-17720-17730-17740-17750-17760-17770-17780-17790-17800-17810-17820-17830-17840-17850-17860-17870-17880-17890-17900-17910-17920-17930-17940-17950-17960-17970-17980-17990-18000-18010-18020-18030-18040-18050-18060-18070-18080-18090-18100-18110-18120-18130-18140-18150-18160-18170-18180-18190-18200-18210-18220-18230-18240-18250-18260-18270-18280-18290-18300-18310-18320-18330-18340-18350-18360-18370-18380-18390-18400-18410-18420-18430-18440-18450-18460-18470-18480-18490-18500-18510-18520-18530-18540-18550-18560-18570-18580-18590-18600-18610-18620-18630-18640-18650-18660-18670-18680-18690-18700-18710-18720-18730-18740-18750-18760-18770-18780-18790-18800-18810-18820-18830-18840-18850-18860-18870-18880-18890-18900-18910-18920-18930-18940-18950-18960-18970-18980-18990-19000-19010-19020-19030-19040-19050-19060-19070-19080-19090-19100-19110-19120-19130-19140-19150-19160-19170-19180-19190-19200-19210-19220-19230-19240-19250-19260-19270-19280-19290-19300-19310-19320-19330-19340-19350-19360-19370-19380-19390-19400-19410-19420-19430-19440-19450-19460-19470-19480-19490-19500-19510-19520-19530-19540-19550-19560-19570-19580-19590-19600-19610-19620-19630-19640-19650-19660-19670-19680-19690-19700-19710-19720-19730-19740-19750-19760-19770-19780-19790-19800-19810-19820-19830-19840-19850-19860-19870-19880-19890-19900-19910-19920-19930-19940-19950-19960-19970-19980-19990-20000-20010-20020-20030-20040-20050-20060-20070-20080-20090-20100-20110-20120-20130-20140-20150-20160-20170-20180-20190-20200-20210-20220-20230-20240-20250-20260-20270-20280-20290-20300-20310-20320-20330-20340-20350-20360-20370-20380-20390-20400-20410-20420-20430-20440-20450-20460-20470-20480-20490-20500-20510-20520-20530-20540-20550-20560-20570-20580-20590-20600-20610-20620-20630-20640-20650-20660-20670-20680-20690-20700-20710-20720-20730-20740-20750-20760-20770-20780-20790-20800-20810-208

160809 Tuesday, March 29/1600-1615/10/Jarman/
SS2 with Minkaka. 5:43, 7.

160812 1945-2035/3/Jarman/CN3b O. 2h with
Narcissus and Pegasus. CN3e TVCw. Adjusted
CN3j with Clyde.

1608213 0210-0620/10/Jarman/CN3d, a, r 1, 7h E.
CN3F hll kll lll 40m n all noll gll t.

160845 Wed Mar 30/1600-1615/3/Jarman/
SS2 Minkaka 5:39, 5.

160852 2005-2040/3/Jarman/CN3e.

1608613 0355-0550/3/Jarman/CN3 O.5h E
unsuccessful check for comet suspect.
CN3F 40m gll. also checkin?

160875 Thursday, March 31/1215-1230/10/Jarman
SS2 3:31, 7.

1608812 0210-0600/10/Jarman/clear + very nice/
Thom | CN3e F hll kll lll 40m n all noll gll r.
CN3 l. 6h E.

160895 Friday, April 1/1215-1230/10/Jarman/
SS2.

1609012 0215-0615/10/VERY NICE/Thom
CN3 e F hll kll lll 40m n all noll gll. rest d. 6

16091S. Shabat, April 2. /1245-1305/ 10 / Jarnac /
Muntaka / SS2. 11-04

16092M2 0220-0610 / Jarnac / 3 / Jarnac /
CN3d 1hE. CN3e Fhllkll 40m nallnollg
CN3r.

16093S. Sunday, April 3 /1340-1400/ 10 / Jarnac / 2:28.

16094M2 0215 to 0555 / 10 / Jarnac / CN3d 1.7h
Independently discovered Comet McNaught
(C/2011C1) tonight in the morning. Plus
the ten cameras. also CMP-1, CN-1 + CN

16095S Monday, April 4 /1700-1715/ 10 / Jarnac /
Muntaka / SS2 2:15, 7.

16096E2 1945-2035 / 10 / Jarnac / CMP-1, one
meteoric meteor, plus Liridium flare near 20h
CN3e. TV av - C14.9. CN36 0.1h 40.

16097M3 Wed. 0200-0545 / 10 / Jarnac / CN3 - all
cameras, all systems working 1.5h E
CMP-1 3 meteoric meteors, CN1, CN5.

16098SE. Mo-Tuesday, April 5 / 10 / Jarnac / actually
Vant Astronomy Club. SS3.

16099S. Thursday, April 7 / 1600-1615 / 10 / Jarnac /
~~SS~~ SS2 with Muntaka 2:25 25, 4.

16100MR 0210-0550/10; a little breezy / Jarmac
CN3 8 of 10 cameras working flawlessly
CN3d 2.0 h E. CN3F picture of MR & Comet.
McNaughton same frame.

16101S April 9, Friday / 1600-1615 / ~~10~~ 3 / Jarmac
SS2 2:18, 3.

16102E2 2315-2355 / 3 / Jarmac / CN3e with dual disk

16103M3 April 9 / 0315-0530 / 3 / Jarmac
very clear but fog patches & very humid /
CN3 1 h E - plus all 10 cameras working.

16104S April 10, Sunday / 1555-1620 / 10 / Jarmac
SS2, Mintaka 2:30, 7.

16105M2 0205-0600 / 10 / Jarmac / CN3b 1.6 h E.
CN3e f h k l l l 40 min all 10 all g l r s t a b.
Used Gemini for the bulk of this morning's

16106S April 11 / 1615-1630 / 3 / Jarmac / SS2 with
Mintaka-

16107MR April 11/12 / 0215-0545 / 3-2 / Jarmac
clouds of the circumpolar blurry cloud just
interfered; failed to photograph a - 2 flar
But the cameras were all fine!

16108S Wednesday, April 12 / 1615-1640 / 10 / Jarmac
SS2 with Mintaka 4:44 and 4.

11-04

16109E2 1930-2300 int / 7m / Jarnae / 4 LPO-1 Sat
+ Ken with Gemini, very striking! CN3e. CN3j

16110M3 0230-0550/10 / Jarnae (CN3 full set
+5 → 1.2° E.

16112S. April 13 / ~~1600~~ to 1200 1610-1640/10 / Jarnae
SS2.

16113E2. 1930-2345 int / 7m / Jarnae / CN3e, CN3j

16114M3. ~~19~~ 0230-0535 / 10 / Jarnae / CN3 full.
1.5° E.

16115S April 14, Titanic Day. SS2 with Minitaka
3.

16116E2 1940 to 2335 int / 7m / Jarnae / CN3e.
CN3j Kreutz Search.

16117M3 0230 to 0645 / 7m 10 / Jarnae / CN3 1.1°
full set, all cameras working. CMP-1 Lyrid watch

16118S April 15 / 1600-1620 / 10 / Jarnae / SS2 with
Minitaka 3:47, 9.

16119E2 ^M 0025
200 to ~~2355~~ int / 7m / Jarnae / CN3j.
CMP-1 Lyrid watch.

16120S April 16 / 1755-1810 / 10 / Jarnae / SS2 with
Minitaka | 3:49, 17-16.

16121S. April 18 / 1600-1745 / 3 / Jarnae / SS2 3:29, 9.

16121E. 2100-2320 int (3/Jamaica)

²
16128E. Tuesday, April 19 - Jayce's birth day!
2005-2030 int / 60-7m / Jamaica /
CN3e TVCw - C14.9. CN3j with Clyde.
Yesterday I separated Shakespeare
from Narcissus, reducing substantially
by the steeper the LX075 mount.

³
16125E. Wednesday, April 20 / 1615-1630 / (3/Jamaica)
SS2 4:28, 3 with Mintaka.

⁴
16125E. 1935-0000 int / 3-107 Jamaica / CN3e,
CN3j. CMP-1 - Lyrids. No meteors seen

16126E. Thursday, April 28 / 1140-1220 / 10 / Jamaica
SS2 with Mintaka / 2:15, 4.

16127E. 2145-2200 / 10 / Jamaica / CMP-1 Lyrid
Meteorite Meteor Watch. 1 bright Lyrid

16127E. 2310-2355 / 10-2 / Jamaica / CMP-1
Lyrid Meteorite Meteor Watch. 1 faint sporadic.
450-1 Delta Sec 1.8

16128E. Friday, April 22 / 2235 EDT to 2350 /
3-7 / Summit with 7818 / CMP-1 Lyrids O.
CN2 9 Kuya Seki remake, SS3.

²⁹
16129E. Saturday, April 23 / 1340-1400 / 10 /
Jamaica / SS2 1.4, 1.

11-05

16130E.2. 2108-2340/10/Jamaica/10/Jamaica
CMP-1, CN3e.

16131M3 0230-0515/10/Jamaica/CN3 full service
CMP-1, CN2, CN5. CN3d 0.2 KE. CN3e.

16133. Sunday May 1/1215-1235/10/Jamaica/
SS2 2:4, 4.

16133E2 2015-2355/10/Jamaica CN3e. Bin taba
has been built by US forces! ~~CN3~~

16134M3 0220-0540/10/Jamaica/CN3 full system
CN3 still not working; all others but CN3K1
OK. CMP-1/1 meter. CN3 0.4, 0.5 KE
with Gemini.

16135S. Monday, May 2/10/1200-1715 int/10/
Jamaica/SS2 2:4, 5.

16136E2. Fr 2010-2345 int/CN3b 40m
CN3e with Flare.

16137M3 0200-0600/10-WINDY/a difficult
session. CMP-1 2 Eta Aquarid meteoric
meteors. CN-1, CN5, CN3 full system, CN3 0.7

16138S. Tuesday 3/2000-1920-2200/10/9-10/Vail
Astronomy Under/SS2-CN2. Saturn: LPO-1.
CN3e after returning home.

16139~~EE~~ MP. Wednesday, May 4/0215-0225)
CMP-1 n Aquarius - high winds, some cirrus.

16140S. Wed May 4/1330-1345 | ~~10~~ | Jarmac/
SS2 2:13, 4.

16141E2 2015-2045/31 Jarmac/CN3e

16142M3. Thursday, May 5/2015-2200^{with} | 10 | Jarmac/
CN3e TVCov, as usual.

16143S. Friday, May 6/10 | ~~15~~ 1700-1715 | 10 | Jarmac/
Cordelia | SS2 2:12, 3.

16144E2 2300-2350/10 | Jarmac | CN3e^{No.} CMP-1,
CN-1, CN5. South shutter failure.

16145S Saturday, May 7, Star Night Day | 1100-1115/
10 | Jarmac | Mintaka | SS2 1:14, 5.

16146SE2 Star Night | ¹⁴¹⁵ 0215 to 2225 | 7 | Uof
SS3, CN2, CN5, CMP-1, LPO-1. NSSF
Star Night!

16147S. Sunday, May 8/1700-1715 | 10 | Jarmac/
SS2 with Cordelia 2:14, 8 prominences

16148E2. 2115-2145/7m | Jarmac | CN3e with Hyper
TVCov imaged at ~19th mag.

16149S. Monday, May 9/1800-1830 | 10 | -3 | Jarmac/
SS2 with Cordelia 3:9, 9.

11-05

16150M2 0000-0050 int/10/Jarman/CMP-1.

16151S. Tues May 10/1715-1735/10/Jarman/
SS2 with Cordelia 3, 6, 6.

16152E2 2135-2155/7m/Jarman/CN3e.

16153S. Wed May 11/1600-1615/10/Jarman SS2 with
Mintaka 3:6, 8.

16154E2 2135-2155/7m/Jarman/Hyparion/CN3e.
CN3g ll setup.

16155M3 0215-0430/10/Jarman/CN3g ll, rstad.
1.3h.

16156S Thu May 12/1600-1615/10/Jarman/SS2(Mintaka)
2:4, 3.

16157E2 2015-2040/10/Jarman/CN3t, CN3e TVGw

16158M3 0215-0500/10/Jarman/CN3t, CN3rsad,
CMP-1 5 meters. CN1, CN5.

16159S Fri the 13th of May/1400-1415/10/Jarman/
SS2 with Mintaka 0, 10.

16160M2 0215-0440/7m, then 10/Jarman/
ETA LYRID METEOR WATCH. 2 meteors,
possibly (or not) Lyrids. CN3g ll - camera
worked fine. CN3d 1, 1 E.

16174

~~16165~~ Saturday, May 14/1500-1515/10/Jamaa/
GS 2, CN 2 1:4, 8.

16161S Sunday, May 15/1700-1715/10/Jamaa/
SS 2: 1, 12, 11.

16162M2 0015-0030/7m/Jamaa/CMP1.

16163S. Monday 16 May/1715-1730/10/Jamaa/
SS 2 with Mintaka 2:12, 4.

16164E2 2000-2040/10:7m/Jamaa/CN 3e down

16165M3 0000-0015/7m/full Moon/CMP1.

16167S. Tues 17 May/1740-1800/10/Jamaa/SS:
(Mintaka) 2:12, 8.

16168M2 0005-0030/7m/windy, bright Moon/
CMP1, CN 3e, CN 5:

16169S. ~~Wed~~ ^{Thu} 18¹⁹ May/1200-1230/10/2/Jamaa/
Green/SS 2 1:2, 8.

16170E2 19 May/2130-2150/10m/Jamaa/CN 3e

16171S. Fri 20 May/1200-1215/10/Jamaa/GS 2

16172E2 2015-2050/10/Jamaa/CN 3e.

16173E2M3 2350-01^{int}0/7m/Jamaa/CMP-1.

16166S Saturday, May 21/1200-1215/10/Jamaica/ beautiful day. SS2 1:1, 8. 11-05

16174E2 21~~00~~ 2015-2355/10-7m/Jamaica/ CMP-1, CN1, CNS, CN3e TVCw.

16175S Sunday, May 22/1215-1230/10/Jamaica/ SS2 1:1, 7. Happy Birthday Doreed.

16176E2 2005-2050/10/Jamaica/CN3e.

16177S Mon May 23/1800-1830/10/Jamaica/SS2 with Mintaka AND Cordelia 1:1, 8.

16178E2 2300-2330/10-7m/Jamaica/CN3e.

16179E2 Tues May 24/1900-2030/10/Jamaica/ SS2 1:1, 4, CN3e.

16180M2 0000-0020/10/Jamaica/ CMP-1.

16181MP3 0410-0415/10/Jamaica/ CMP-1. Bright Moon.

16182S Wed May 25/1800-1815/10/Jamaica/Cordelia/ SS2 1:1, 4.

16183E2 2020-2035/10/Jamaica/CN3e with Hyperion

16184M3 0000-0015/10/Jamaica/ CMP-1

16185S Thursday, May 26/1800-1815/10/Jamaica/ SS2 3:6, 9 Prominences with Cordelia.

16186E 2030-2045 / 10 / Journal / CN3e TV Corvi

16187A SRN. Friday May 27 / 1740- 110 - Jour
SS2: with Corbelin 2:8, 8 prominences.
CN3d 1.8^h E. full operation.

16188S Sat May 28 / 17:45-1800 / 10 (Journal)
SS2 8:26, 14 prominences using Corbelin
→ SOUTHERN MAY OPHIUCHID METEOR WATCH

16189E MR 2030-0540 int / 10 / Journal ²⁵
CN3e F H I L K L L L L 40m n o l l b l l g l l. all
sets operating except Samwise. also CN3
CN3r, CN3L 2^h E

NORTHERN MAY OPHIUCHID METEOR WATCH.

16190E SR Sunday, May 30 / 2030-2300 int / 10 /
Journal / CN3e, CMP-1. 1 meteor.

16191M 2 0130-0520 / 10 / Journal / CN3F H I L K L L L L L
g l l.

16192S Monday May 30 / 1740-1800 / 10 / Journal / Earth
taken / SS2 3:32, 17.

16193E 2015-2050 / 10 / Journal / CN3e. Test on
Perseus - Shubapore.

16194E 3 2200-2310 / 10 / Journal / CMP-1. CN3e set

16195M 4 0155-0510 / 8 / Journal / CMP-1, 1 meteor,
CN-5, CN1 CN3 full set

16196S. Tuesday May 31 / 1700-215 / 10 / Journal /
SS2 5:17, 8.

2011-06.

- 16197E2 2045-2300/3/Jarnac/CN3e, setup
- Jarnac) 16198M3 0130-0350/3-2/Jarnac/CN3 0.2^E
CN3 images not usable due to clouds.
- 16199E 2040-2055/1/Jarnac/Robert Summerfield
- 16200S June 5/1900-1920/10/Jarnac/SS2 with
Cordelia/SS2.
- 16201E2 2045-2130/10/Jarnac/5 CN3e + setup.
- 16202M3 0145-0515/10/Jarnac/CN3e F11K11L11
40m n all ribll gllt CN3d 1.6^E.
- 16202S June 6/1900-1915/10/Jarnac/SS2 with Cordelia
- 16204AE2 2100-2130/10/Jarnac/CN3e + setup.
- 16205M3 0140-0510/10/Jarnac/CN3 full setup 1.7^E
- 16206S June 7/1300-1315/10/Jarnac/SS2 with
Maitaka 3:5, 8. †
- 16207SK^{AN} 1915 - 2230/10/ Kitt Peak / astronomy
camp / SS2 3:8. This with McMath-Perc
kotel, ~~SS2~~ SS2 + SS3, M51 with 90-
Then at Jarnac. CN3e + prep. Later
- ~~16208AN~~ Still CN3d 1.7^E. CN3 full program
- 16208S June 8/1920-1935/10/Jarnac/SS2 Cordelia
1:3, 10.

16209E2. 2045-2115/7m/Jarnac/CN3e.

16210M3 0145-0450/10/Jarnac/CN3l,
CN3n1. CN3b 0.8hE.
TRIETID METEOR WATCH - 2 meteors.

16211S. Thursday June 9/1850-1905/10/
Jarnac/SS2 0, 13.

16212E2. 2100-2200/7m/Jarnac/CN3e + setup

16213M3. 0140-0505/10/Jarnac/CN3b 1.2
full programme.

16214S. Fri June 10/1315-1400/10/Jarnac
SS2 0:5 with Mintaka, final repair
of rolling shutter.

16215E2 2030-2310(10^{7m})¹⁰/Jarnac/CN3e +
setup.

16216M3 0135-0500/10/Jarnac/CN3l 3 meteors
CN3 full program 1.7^h.

16217S Sat June 11/1815-1830/10/Jarnac/
SS2 Cordelia 0.5.

16218E. 2100-2200/7m/Jarnac/CN3e + setup.

16219M2. 0145-0510/10^{7m-10}/Jarnac/
CN3l 1.2^h E. CN3 full program.

16220S. Sun June 12/1850-1905/10/Jarnac/SS2

16221E2 2030-2215 / ~~10~~ 7m / Jarnae / CN3e + setup. 11-06

16221M3 0140 to 0510 / 7m-10 / Jarnae /

CMP-1 3 meteors.

TAU HERCULID METEOR WATCH.

TITETA OPHUCHID METEOR WATCH.

~~CMP~~ CN-1, CN5.

CN3F 108 images with Obadiah

CN3-40m 108 " with Flair!

CN3R11-CN1 100 " with Clyde.

CN3H4 73 " with Patric.

CN3h prime 61 " with Esther.

CN3n " 50 " with Esther.

CN3L11 60 " with Sammie.

~~CN3n~~ 61 " with Narcissus.

CN3nb 24 " with Narcissus.

CN3g 80 " with Shakespeare.

For a total of 725 images in the full programme

16223S. Monday June 13 / 1815-1830 / 10 / Jarnae /
SS2 with Cordelia 0:5.

16224E2 2020-0000 int / ~~10~~ 7m / Jarnae /
CMP1 - ISS nice pass with Wendee, also
Dale. Then CN3e + CN3h11.

16225S Tuesday, June 14 / 1815-1830 / 10 / Jarnae /
SS2 with Cordelia 2:14, 4.

16226EM2 2100-0015 / 7m / Jarnae / CN3e
TVow.

16227S. Wed June 15 / 1900-1920 / 10 / Jarnae / SS2 2:27, 5.

16229E2 2100-0000 / ~~10~~ 7m / Jarmac /
CN3e, CN3h 11.

16230S Thursday ¹⁶ the ~~9th~~ June / 1800-1815 /
3 / Jarmac / Cordelia / SS2 2: 19, 15.

16231E2 2100-0000 / ~~10~~ 7m / Jarmac / CN3e, CN3h.

16232S. Friday, ¹⁷ June / 1915-1930 / 3 / Jarmac /
SS2 with Cordelia 1: 6, 2.

16233EM2 2135-0010 / 3m / Jarmac / CN3e T/Kw

16234S. Saturday, 18 June / ~~18~~ 1130-1200 / 10 / Jarmac,
CNS SS2 with Mintaka 1: 14, 6.

16235EM2 2100-0020 / ~~10~~ 7m 10-7m / Jarmac / CN3e, 11

16236S. Sunday, 19 June / 1215-1230 / 10 / Jarmac /
SS2 with Mintaka 1: 8, 10.

16237EM2 2210-0045 / 10-7m / Jarmac / CN3e, h 11.

16238S. Monday, 20 June / 12:55-13:10 / 10 / Jarmac /
SS2 with Mintaka 1: 8, 12 prominences.

16239EMR 2105-0030 / 10-7m / Jarmac /
Oph OPH10CHLD METEOR WATCH.
1 meteor as soon as I went outside.
CN3e, CN3h 11.

SUMMER of 2011.

11-06

16228S. to Tuesday, 21 June / 1815-1830/10 /
Jamaica / Mintaka / SS2 1:5, 13.

215)

16240E2 1900 to 2100/10 / Jamaica / CN3e,
CN3h11, LPO-1 Saturn + Virginia,
CMP-1.

CN3h11

16241EM3 2330-0020/7m / Jamaica / CN3e, h11,
CMP-1.

TV Cur.

16242S. Wed 22 June. / 1830-1845/10 / SS2 w.
Cordelia 1:2, 13.

Jamaica)

16243EM2 2045-0030/10, then TF / Jamaica
Patrol / CN3e TV Cur, CN3h11.

h11.

16244S. Thursday, 23 June / 1215-1230/10 / Jamaica
Mintaka / SS2 1:2, 9.

rel windy)

16245EM2 2040 to 0030 int / 10 - Jamaica /
CN3e, CN3h11.

h11.

0 / Jamaica)

16246S. Friday 24 June / 1000 - 1015/10 / Jamaica /
SS2 with Mintaka 1:2, 5.

16247EM2 2000 to 0030/10 / Jamaica / CN3e, CN3h11
LPO-1 Saturn through Surveyor-2.

16248S. Sat 25 June / 10P: 45-1000 / SS2 with Mintaka
1:2, 5.

211.0 to 10

*16249E2 2045 to 2215 / 10 / Jarnac / CMP-1, CN3, QPO-1
Saturn. First Matthew I enjoyed Saturn
through Caffe. then Summer Mark came
out for about an hour & we enjoyed Saturn
through Oladial. also

SCORPIO - SAGITTARIUS METEOR WATCH
I saw 1 meteor in the East
Mark saw 1 " in the S,
Summer saw 3 meteors in S.
probably all from this shower.

16250G Monday, June 27. 0945-1010 / 3 / Jarnac
SS2 '0, 4.

16251E#2 1900 to 2150 / 10 / Jarnac / Kitt Peak /
McMath - Pierce Solar Telescope; sunset
Bart Bok 90-inch: 6 my talk, plus view of
MSI with possible view of the SN.

16252#3E3 2315-2330 / Jarnac / partial setup.
CMP-1 1 meteor.

16253M4 0150 to 0500 / 3 / Jarnac / CMP-1, 1 other meteor
CN1, CN5, CN3 full set.

16254#5 Tues June 28 / 1115-1130 / 3 / Jarnac / SS2

16255M2 0135 to 0530 / 3 / Jarnac / CN3 full set
This morning David Sanders & Tony Phillips
visited to photograph me hopefully for
front page story in the Arizona Daily
July 4. CN 3d 0.11E

11-06

- 16256S. Wed June 29 / 1200-1215 / 10 / Jarnac / SS2 - Mifaka; 1: 10, 8.
- 16257E2 2030-2300 int / 3 / Jarnac / CN3e, 11.
- 16258M3 0150-0205 / 2 / Jarnac / ~~ET~~ CN3 cancelled for today.
- 16259S. Thu June 30 / 1040-1100 / ~~10~~ / 3 / Jarnac / SS2 (Mifaka) 1: 6, 10.
- 16260E2 2045 to 2130 / 10 / Jarnac / CN3e, CN3h11.
- 16261M3 0145 to 0520 / 10 / Jarnac / CN3 full set. CN34 2^h East. farmer Doved fed me.
- 16262S Friday JULY 1 / 1130-1145 / 10 / Jarnac / SS2 1: 6, 2.
- 16263E2 2150-2215 / ~~10~~ 3 / Jarnac / CN3e, CN3h11 1 Fleure - 6.
- 16264M3. 0145-0505 / 3 / Jarnac / CN3 full set, cameras ok but Narcissus, Samwise, & Shakespeare didn't save their images. CN3 0.8^h 1 fleure ~ 0.
- 16265S. Sat July 2 / 1145-1200 / 3 / Jarnac / SS2 with Mifaka 1: 9, 6.
- 16266M2 0150-0510 / 10-3 / Jarnac / Beagle walk. Then CN3 full program. CN3d 0.71E.
- 16267S. Sun July 3 / 1220-1235 / 3 / Jarnac / SS2 2: 11, 2.

0-11
16268M2. 0150 to 0505 / 3 / Jarnae / CN3 full set. 1KE. with CN3 on Gemini.

16269S. Monday, July 4 / The 4th of July / SS2 with Mintaka / 2: 8, 50

16270E2 ~~2100~~ 2035-2100 / 3-2 / Jarnae / CN3e TV Cr.

16271M2 0150 to 0510 / 10-3 / Jarnae / Thom / CN3 full program.

Tues July 5.
16271S. 1115-1135 / 3 / Jarnae / SS2 Mintaka / 2: 5, 2.

16272M2 0150-0510 / 10 / Jarnae / CN3d 1KE
CN3 full set.

16273S. Wed July 6 / 1150-1205 / 10 / Jarnae / SS2 with Mintaka 1: 9, 6.

16274M2 0145-0515 / 10³⁻ / Jarnae / CN3 1KE.
CN3 full set, allot but Samwise + Potus

16275S. Thu July 7 / 1200-1215 / 3 / Jarnae / SS2 with Mintaka 1: 4, 5.

16276M2 0230 to 0235 / 2 - mostly cloudy

16277S. Fri July 8 / 1500-1530 / 3 / Jarnae / SS2 1: 4, 6.

16278E2 2110-2300 int / mostly cloudy.

16280 S. Sunday, July 10, the day after July 9, when the US exploded a nuclear weapon in space
1215-1230 / 3 / Jarmac / Mintakal / SS2 4:11

16281 E2 2045-2310 int / 3-1 / Jarmac / cloudy
summer evening.

16282 S. Mon Jul 11 / 170-1715 / 3 / Jarmac / Mintakal
G, SS2 4:16, 2.

16283 E2 2100-2120 / 3 / Jarmac / CN3e (Potas) CN3h

16284 M 2 0145-0510 / Jarmac / 3 / CN3 full set
CN3d 0.8^hE.

16285 S. Tues July 12 / 1215-1230 / 3 / Jarmac / SS2 with
Mintakal G 2, 4, 5.

16286 E2 2040-2310 int / 2 / Jarmac / CN3e CN3h

16287 M3 0140-0510 / 3-2 / Jarmac / extra night /
CN3 full set; CN3d 1.3^hE.

16288 S. Wed July 13 / 1230-1245 / 3 / Jarmac / SS2 Mintakal
2:14, 5.

16289 E2 2010 to 0000 / 7-3 / Jarmac / bright Moon.
CN3h11, e, k11.

16290 S. Thu BASTILLE DAY. July 14 / 1100-1130 / 10
Jarmac / SS2 1:2, 2. Not too active today.

16291E2 2045-0000 int / ~~10~~ 7m / Jarmac / CN3e, CN3

16292S Friday, July 15 / 1115-1130 / 10 / Jarmac / SS2
(Mintaka) 2: 2, 2.

16293E2 2130 ~~to~~ 0030 / 7m / Jarmac / ~~to~~ CN3e, k.

16294S Sat July 16 / ~~1100-1115~~¹⁰³⁰⁻¹⁰⁴⁵ / 10 / Jarmac / SS2 23

16295E12 2050-0030 int / 3 / Jarmac / CN3e k11.

16296S Sun July 17 / 1015-1035 / 3 / Jarmac / SS2 3:12
~~with Mintaka~~

1629712 0015-0030 ~~10~~ / 1 / Jarmac / cloudy

16298S Mon July 18 / 0915-0930 / 3 / Jarmac / SS2 22

16299E12 2345-0005 / 1 / Jarmac / cloudy

16300S Tue July 19 / 1038-1050 / 3 / Jarmac /
SS2 3:11, 3:00

16301E2 2100-2350 int / cloudy

16302EM Wed Thurs July 21 / 2345-0255 / 1-2 /
Jarmac / mostly cloudy. Just a few stars

16303S Fri Jul 22 / 1500-1515 / 1: 3 / Jarmac /
SS2 with Mintaka, 2: 12, 2.

CN3k 11

16304EMR Sat 2300-0100 int/0/ steady rain 11-07

SSR

163055 Sun July 24 / 1100-1115 / 3 / Jarnac / cool /
SSR 0 but 1 big region of faculae, 3.

3e, k 11

16306PM2 0015-0045 int / 1-1 / Jarnac / cloudy

2, 3, 1

16307S Mon July 25 / 1105-1120 / 3 / Jarnac / SSR
1:6, 3.

11

16308E2 2315-2340 int / 3 / Jarnac

3:12, 3.

16309S: Tues July 26 / 1105-1120 / 3 / Jarnac /
SSR 1:4, 2.

3:12, 3.

16310E2 2115-2340 / int / 10 / Jarnac / CN3 k11-CN1,
CN3e:

2, 3, 1

16311E. Thursday, July 28.

3:12, 3.

THE ADIRONDACK ASTRONOMY RETREAT

3:12, 3.

2130 to 2330 / 2-1 / AAR / ASC / Minerva /
CN3s 0.2h Eastern sky.

2/

16312EM Friday, July 29 / 2000 to 0200 /
1 to 10 to 3 to 20. CN3s 2, 8h W, S, N, E.

stars

16313S Saturday July 30 / 1500-1530 / SSR 2:3, 14, 4.
The Adirondack Astronomy Retreat.

1635AN2 Second night / The Adirondack
Astronomy Retreat / 2000 to 0430/
10+ / ASC-AAR / CMP-1.
THE DELTA AQUARIUS METEOR WA
4 meteoric meteors. 14.

ISS pass at 4:15 am; saw
H-shape through Herschel. Also we
saw M15

Comet Gorrada!

Herschel is a beautiful telescope.
CN 3s 4.8^h W, N, E. Used Hers
Munira, + Athena.

16316AN. July 31, a Sunday / 1930 to 0430/
The Adirondack Astronomy Retreat.
A beautiful ISS pass at 3:15. I saw the
H-shape through Herschel again. Also
we saw Comet Gorrada pretty close to
M15! DELTA AQUARIUS METEOR WA

CMP-1 - 12 meteors.

CN 3s with Miranda and Herschel.
5.0^h S, W, N, + E.

16317EM. August 1 / 2215 to 0100 / 3, then 10, 11
Started at the Wild Center, in Tupper
Lake, then along the drive home see
lightening from the North. Then
saw Comet Gorrada AND M15 in
same field from the AAR. But I
was forced to leave + returned
shortly after.

11-08
16318AN. August 2/ 2030 to 0450/10+1/ASC
AAR The Obisnack Roundback Astronomy Retreat /
Munira CMP-1 meteors
KAPPA CYGNID METEOR WATCH.
Wendie saw + pointed out a slow-
moving Kappa Cygnid meteor
CN3s 6h, W, N, S, E.

16319EM. August 3/ 2100 to 0100 int/11/ASC-AA
adisnack Astronomy Retreat / Munira
clouds. opaque sky.

16320AN August 4/ 2015 to 0450/10 plus/AAR-
ASC The Obisnack Roundback Astronomy Retreat. /
CMP-1, several meteors.
PERSEID METEOR WATCH.
CN3s 1.25h W. with Aar the 14"
2.25h AS, N. with Munira the 6"
1.50h E with Aar the 14"
Total 30 ps this night. A great night to
bring to a close the best Retreat yet.

16321E. August 6/ 2000-2215 int/1-0/ The Morgan
Arboretum / RASC meeting, Bettina Figgel,
Carl Jorgensen. Saw the concrete form for the
Montreal Center's 14 inch.

16322EM August 7/ 230 to 0030/0-1/818/ Summit Walk in
Montreal.

16323E August 10/ 2120 to 2135/2/ Jarnac / return at last
to Tucson.

163249 August 12 / 1200-1215 / 3 / Journal / SS2 0, 4.

16325EM2 ~~123~~ 0030-0130 / 3 / Journal / CMP-1, LPO-

Jupiter using Gemini. Also:

PERSEID METEOR WATCH.

3 meteors, possibly 4.

1 Perseid going "up" the sky in N

1 late DA in E.

1 possible faint meteor in Auriga, uncertain

1 Perseid in high west.

Written about in *Los Nightfall* 92.

16326S Aug 13 / 1115-1130 / ~~10~~² / Journal / SS2 0, 2.

16327M2 0000-0015 / ~~10~~ / Journal / Logical positivism

Beagle walk.

16328S Aug 14 / 1030-1045 / 3 / Journal / SS2 0, 5.

16329EM 2330-0015 int / 1 / Journal / Beagle walk

16330S Aug 15 / 1015-1030 / 3 / Journal / SS2 1:8, 1

16331EM2 0040-0055 / 3 / Moon.

16332S Aug 16 / 1025-1040 / 10 / Journal / SS2 with Moon
1:15, 7.

16333M2 0100-0115 / 2 / Journal / Moon.

16334S Friday, August 19 / 1500-1515 / ~~3~~² / Journal
SS2 2:11, 5 prominences with *Mintaka*

1633532. 1730-1800/0, definitely 0/11-08
Big major thunderstorm with lightning
thunder, microburst. Heavy rain & hail.

16336E3 2200-0115/Int. 11- /Jarmac. Int /Mean

163375. Schlapf. August 20 / 1030-1100 / 3 / Jarmac
Mintaka / SS2 2:18, 7.

16338E2 1940-2015 / 3 / Jarmac / Apollo / CN36
0.1 h W.

163395 Sunday, August 21 / 1000-1215 / 2 / Kit
Peak / Pour of 50 inch, McMath-Pierce, 84,
4-meters.

16340E2 2350-0005 / 2 / Jarmac / Summer A.

163415 Monday, August 22 / 1040-1055 / 10 / Jarmac / Mintaka
SS2 2:45, 5 prominences. One very large group, 1 small

16342E2 2315-2330 / 9 / Jarmac / Beagle walk with
logical position.

16343E2 0200 to 0530 / 10-3 / Jarmac / CMP-1 no
meteors. CN1, CN3 full set. 0.5 h E. CN5.

163445 Tues Aug 23 / 1045-1100 / 10 / Jarmac / Mintaka
SS2 2:31, 13.

16345E2 2300-0000 int | ~~20~~² | Jarmac | SS2
CMP-1, beagle logical + vism walk.

16346M3 0200-0530 | Jarmac | 3 | Jarmac |
SS CMP-1, CN-1, CN-5, and CN3 full set
despite clouds; 0.5^h E. 1 meteor, a faint one

Thursday
16347S Wednesday, August 23 | 145-0120 | 3 |
SS2 with Min taka | 2, 6.

16348SE2 1700-2330 int | 0-3 | Jarmac | major
rainstorm, 0.2 inches fell in a few minutes.

16349M3 0200-0630 | 10 | Jarmac | CMP-1, 2 met
CN-1, CN5, CN3 1^h E. + full set. Beagle
walk.

16350S ~~Thur~~ Friday Aug 26 | Robby's birthday
1050-1105 | 3+~~0~~ | Jarmac | SS2 2, 22, 10.

16351E2 1830-^{0000 int} 2330 | 3-2 - int | hazy, clear
in west

16352M3 0200-0530 | 10-3 | Jarmac | CN3 1.1^h E, full set CMP-1,
16352S Sat Aug 27 | 1200-1215 | 3 | Jarmac |
Min taka | SS2 1: 11, 7.5.

16354E2 1930 - midnight int | 1 | Jarmac |

16355MP3 0200-0210 | 2 | Jarmac. Obs. cancelled
by + 2 Aur visible.

16356S Sun Aug 28 | 1100-1115 | 10 | Jarmac | SS2 w.
Min taka | 1: 4, 5.

16357E2 1930-0000 110-3/Jamaica 11-09

16358M3 0200 to 0545 / 10 / Jamaica / CN3 full set
1.1^h E. nice images; good, clear, crisp
summer morning.

16359S Monday Aug 29 / 1115-1130 / 10 / Jamaica /
SS2 with Muntaka 1:5, 6.

16360M2 0200-0550 / 10-31 / Jamaica / CN3 full set
0.8^h E. nice images, clear, crisp summer morning.

16361S Tues Aug 30 / 1315-1330 / 3 / Jamaica / Muntaka
SS2 2:2, 3.

16362E2 2000 to 2315 int / 3 / Jamaica / Wendee / Beagle
walk.

16363M3 0200-0215 / 2 / Jamaica / Beagle walk; roobs.

16364S Wed Aug 31 / 1100-1115 / 10 / Jamaica / SS2 4:38, 6.

16365E2 2000-0200 int / 11- (int) / clouds.

16366M3 0200 to 0540 int / 3-2, then 3 / Jamaica /
CN3 full set 1.0^h E. The sky was clear so I
got dressed but it clouded over again during my
walk with the Beagle. By 2:30 it was clearing
from the East so I took a chance. The only remaining
problem was wind. Nice summer morning.

16367S Thu Sept 1 / 1155-1215 / 3 / Jamaica / SS2 4:47, 5.

16368E2 1910 to 2115/2-3-2/ Jarnac / Wendee + Deen
Observatory / SS3, CN3s. Veil Astronomy
monthly star party. Unob Coy's object was Veg

16369M3 0200-0550/3-2-3/ Jarnac / CN3d /
CN3 full set. No wind, calm, nice morn

16370S Friday, #September 2/ 1200-12 1115-1130,
10/ Jarnac / SS2 (Mintaka) 3:50, 3.

16371E2 2100 - midnight int / 3-2-4/

16372S Sat Sept 3/ # 0715-0730/3/ Jarnac/
SS2 done with Mintaka, just white light: #, 5

^{Mon Sept 4}
^{seen Sept 4}
16373E2 PR 2130-2140/3/ Lowell Observatory/
Carolyn, Brent, So Anne / 1st quarter Moon.

16374M2 0200-0550/3/ Jarnac / First Walk
the Beagle, then set up all the telescopes
CN3 1-R. CN3 full set (except 2
CMP-1 4 meteors. Nice night, nice sun
morning.

16375S. Tues Sept 6/ 1115-1130/3/ Jarnac / SS:
2:23, 3

16376E2 2100-0000 int / Beagle walk under most
cloudy sky; gullows Mon.

David Lee
Army Antel
as Vega.

16377M2 0200 to 0550 / # 3-10 / Jarmac / CN3 1, 3^h E
CMP-1, 2 meters. CN-1, CN5. Full set
Sumwise camera CN3L11 moved to Flaise!

3d 1h E.
morning

16378S Sept 7 / 1130-1145 / B / Jarmac / SS2 2 groups
5 prominences.

1130)

16379E2 1920-0000 / 2 / Jarmac int / walks with
The Beagle.

16380M3 0200-0540 / 3-10 / Jarmac / CN3 6 1, 3^h E
Full set except Sumwise.

#, 5h.

16381S. September 8 / 1145-noon / 10 / Jarmac / Muntaka
SS2 3: 11, 5.

n.

16382E2 1930-midnight / 3 / Jarmac / walks with the
Beagle; nice summer evening.

alked
escaped.
L
summer

16383M3 0200 to 0500 / 3 / Jarmac / The Beagle, walk
CN3 full set which means!
CN3 1^h E
CN3F h h11 R11 L11 40m n n11 n611 g11 r, a11

SS2

16384S Sept 9 / 1130-1145 / 10-3 / Jarmac / Muntaka
SS2 3: 18, 4.

+

16385E2 2000 to 0000 int / 0-3 int / Beagle walks /

16386MP3 0430-0435 / 10 / Jarmac / Moonset clear cool +
windy

16387S, Saturday, Sept 10 / 0940-0955 / 10 / Jarmac / Muntaka / SS2 3: 23, 11

16388EM 22000 to 0200 very int / ~~10~~ 0-3 / Jarmac / rain,
later Full Moon.

Sunday, Sept. 11 /
16389S 1040-1055 / 3 / Jarmac / 2 SS 2 w. Muntaka
3:23, 5. One very large spot group.

Monday, Sept 12 / 1445-1500 / 3 / Jarmac /
16390S SS2 with Muntaka 4:29, 7. One huge group.

16391E2 2100-0200 int / 2 / Jarmac / Moon + beagle w.

Tues Sept 13 / 1035-1050 / 3 / Jarmac / SS2
16392S Muntaka 6:41, 9.

16393E2 2000-0000 / 3-0 / Jarmac / heavy
rain, then partial clearing + Moon.

Wed Sept 14 / 1100-1115 / 3 / Jarmac / Muntaka
16394S 6 SS2 6:63, 3.

5
163946EM2 2200-0100 int / 0-3 / Jarmac / Moon

6
163947S Thu Sep 15 / 1000-1015 / 3 / Jarmac / Muntaka
SS2 8:33, 4. still big group.

16395EM Friday Sept 16 / 2200 to 0030 int /
3-moon / Tom Glavin / Nyponion

16396S Sat Sept 17 / 0745-0805 / 10 / Jarmac
SS2 6:29, 8.

16397E2 1930-1940 / 3 / Pasadena Conv. Ctr. / Vega?

- 11-09
- rain
 400
 16392EM2 Sun Sept 18/2330-midnight - 0030/7m/Jarmac
 earlier Coronado Tucson walk with Beagle.
- Mintaka
 421
 11395 Monday September 19/1025-1045/10/Jarmac
 SS2 with Mintaka 3:29, 4.
- mac/
 group.
 Beagle walks
 1640RE2 2035-2100/10/Jarmac/CN3t - helped Tom
 align his telescope. I decided to delay the new
 so lunation because the Moon is still too
 bright + I have a black test on the 21st
- SS2 with
 16403M3 0025-0100/7m/Old house in Cde T, Jarmac/Moon
 at last quarters. Walk with The Beagle.
- heavy
 16404S Tuesday, Sept 20/1015-1030/10/Jarmac/Mint
 SS2 3:26, 4. Beautiful late summer morning.
- Mintaka/
 16405RE2 2330-0000/10/CdeT beagle walk.
- Moon.
 16406M3 0240-0600/3/Jarmac/rice final summer session
 CN3 full sat. CN3b to da: 0.7hE. CMP-1 (reflex), 3CN1, CN5.
- Mintaka/
 16407S Wed Sept 21/0950-1005/10/Jarmac/
 SS2 (Mintaka)/2:38, 12.
- it/
 16408E2 2240-2300/10/Coronado Tucson home - 4th
 final walk.
- mac/
 16409S Thursday, Sept 22/1040-1110/3/Jarmac/
 SS2 with Mintaka 4:43, 10.
- e?
 16410E2 2040-2130/3/Jarmac/CN3t, CN3, all M3/attempt.

16410E2 2330-0000 | 3/Jarnac | The Bicycle walk

16412EM3 0250-0645 | 3/Jarnac | CN3 full set, all cameras,

16413S. Friday, Sept 23 | 1150-1205 | 3/Jarnac/
Mintaka | SS2 3; 25, 5?

16414E2 2040-2130 | 10/Jarnac | CN3t, CN3nll,
again.

16415M3 0300-0630 | 3/Jarnac | CN3 full set - 1^h k

16416S. Sat Sept 24 | 1120-1145 | 3/Jarnac | SS2 3: 47,
all with Mintaka.

16417E2 2130-2300 int | 3/Jarnac | Jupiter.

16418S. Sunday, September 25 | 1200-1215 | CM
SS2 4: 56, 6.

16419EM2 2130 to 0015 | 10-3/Jarnac | OMP-1, B
walk.

16420M3 0315-0630 | 10/Jarnac | CN3 r, b, d, a
CN3 Full set.

16421S. ^{Monday 26} 12^a 1150-1205 | Monday September 26,
3/Jarnac | Mintaka | SS2 3: 59, 5.

16422E2 2300-0000 int | 10/Jarnac | Jupiter.

16423S. Tuesday, Sept 27 | 1130-1145 | 3/Jarnac
SS2 with Mintaka | 5: 43, 4.

- 11-10
- 16424E2 2800-0000 int | 10 | Jarmac | The Boagle | CN3t
adjustment; CMP-1.
- 16425S. Wed Sept 28 / 1035-1050 / 3 | Jarmac | Mintaka
SS2 6:53, 7.
- 16426E2 2030-2355 int | 3 | Jarmac | CMP-1 Boagle walk
- 16427S. 0945-1000 / 3 | Jarmac | Mintaka / SS2 4:54, 4.
- 16428E2 ¹⁹0745-0200 int | 3 | Jarmac | ~~Mintaka~~ Flaire | CN
Meray Mo test.
- 16429M3 0300 to 0630 / 10 | Jarmac | CN3 1hE.
CN3F hll kll j 40m all nll gll r, a, d.
- 16430S. Thurs. Firi, Sept. 30 / 1145-1200 / 3 | Jarmac | Min-
taka / SS2. 4:48, 1 but windy so maybe more.
- 16431E2 1915-0200 int | 10 | Jarmac | Flaire | CN3 with 2
students from Meray
- 16432M3 0300-0645 / 3 | Jarmac | CN3b 1hE with Gemini, CN3 full set.
- 16433S. Sat, October 1 / 1200-1215 / 3 | Jarmac | clouds from
Tropical depression Hikory / SS Mintaka / SS2: 4, 4, 4
- 16434E2 2130-0000 int | Jupiter only * visible through clouds.
- 16435M3 0310-0630 / 10 | Jarmac | CN3b 1hE (Gemini)
CN3F hll kll lll 40m all nll gll s. / 1 hcm. CMP 1 int.
- AUTUMN ARIETID METEOR WATCH**
- 16436S Sun Oct 2 / 1200-1225 / 3 | Jarmac | Mintaka | - /
SS2 5:40, 6.

16437E2 1920-0000 int / 7m / Jarnac / CN3s F live
bat appl didn't show up. CMI.

16438S. Monday October 3 / 1130-1145 / 3 / Jarnac /
Munitaka / SS2 6, 42, 6.

16439E2. 1930-0000 int / 1 / Jarnac /

16440S. Tuesday, Oct 4 / 1150-1205 / 3 / Jarnac / Min
SS2: 5, 35?, 2?.

16441E2 1915-0000 int / 1 / Jarnac.

16442N3 0325-0450 / 3 / Jarnac / CN3d 0.3 LE
CN3 F hll kll 2ll 40m nll gll.

16443S. Wed Oct 4 / ~~1115-1130~~ 13140-1415 / 3 / Jarnac
Munitaka / SS2 5, 30, 5. 4, 14, 4.

16444E2 2000-midnight / 7m / Jarnac / Wende
the Beagle / CN3s, with Mercy me.

16445M2 0300-0545 / 10 / Jarnac / CN3d 0.5 LE
CMI, CN5, CMI 1 mtr. CN3 F hll kll 2ll 40m
DELTA AURIGWO METEOR WATCH.

16446S. Thursday October 5 / 1200-1215 / 3 / Jarnac
Munitaka / SS2 5:30, 5.

16447E2 1900-0000 / 2-1 / Jarnac.

11-10.

16448E M3 0300-0630 / 3 / Jarnac / CN3 0.8"E. CN3 F/A
R11 L11 40m n all nb / g / r t a d. Started well but
clouds in West, North & East threatened the session. However
I did get ~3/4 of the images I had planned.

16449S Friday, October 7 / 1235-1250 / 3 / Jarnac / SS2 (Mintaka)
4:17, 8.

(Mintaka)

16450E2 2200-midnight / 7m / Jarnac

16451S Saturday, Ym Kippur, Oct 8 / 1500-1515 / 10 / Mintaka /
SS2 5:15, 4.

31 E.

16452E Sunday, Oct 9 / 2300 to midnight / 7m / Montreal
CMP-1 Montreal CN2 walk from Summit
Lac Roux, along the CN2 route along where I
first saw the tail of Comet Ikeya-Seki. Then
from 318 to 3579. Nice session.

mac /

ndes *

16453E Friday, October 14 / 2000-2200 / 1-7m / Meray
College / a small group including Joseph,
John Votto and others. The session began with
a brief presentation conference in the Main Building and
then as we were leaving the sky cleared suddenly.
We set up Athena and explored Jupiter & Io
Europa, Ganymede, & Callisto, and then the Mo
I took a couple out-of-focus pictures. Essentially
this was an excellent session at Meray.

4 E.

11 40m n all nb / !!
H. 8 11.

mac /

16454E. Sat Oct. 15 / 2200-2215 / 7-m / Doubletree, near
Meray / CN3s, SS3. / Bill Ehmann Susan & her
sister. Moon, Jupiter, clear sky.

16455S Sunday October 16/1805-1820/10/Jarnac/O
SS2 with Cordelia 6:20, 5.

16456E 1900-2300 int/10-7m/Jarnac/Obadia
CN3s, SS3. appt doesn't show up.

16457S Monday, October 17/0+1310-1330/10/Jarnac/
Muntaka/SS 2:5, 5, 3.

16458EM2 1830-0145 int/10-7m/Jarnac/CMP
CN3s. Three students from Meray tonight
M31, M33, NGC 253, and the Veil Nebula.

16459S Tuesday, October 18/1115-1130/10/Jarnac/
-SS2 7:57, 3.

16460EM2 2000-0005/10/Jarnac/1-CMP/1

16461S Wednesday, October 19/1040-1215/10/
Jarnac/Muntaka/SS2 7:66, 6.

16462EM2 1830-0015/10-7m/Jarnac/CN3s
with student Richard Escudre from Meray
M31, M33, NGC 253, Veil Nebula

16463MP3 0410-0415/7/Jarnac/CMP-1 10RIONID

16464S Thursday October 20/10:55-11:05/10/Jarnac/
Muntaka/SS2 6:89, 9.

16465EM2 1920-0035^{int}/10/Jarnac/CMP-1 9 meteors
ORIONID METEOR WATCH. CN3s

16466S Fri 21 Oct/10:10-10:25/10/Jarnac/Muntaka
SS2 9:102, 13. First time over 100 this year

11-10

Obadiah)

16467 ER M2. 1930-0015 / 10 - Jarnac / Obadiah /
CN3s, Mercy Me session with Laura Gariffo
M31, M33, NGC 253, NGC 6960 (The Veil Nebula)
Later, Orionids: 3 meteors seen
SOUTHERN TAURID METEOR WATCH.
One S. Taurid, one 2 Orionids.

Obadiah)

Jarnac)

16468 S. Saturday, 22 October / 1015-1030 / 10 / Jarnac
SS2 with Mintaka 6:102, 16.

CMP-1,
night.

16469 EM2 201-1930 to 0030^{int} / 10 / Jarnac / CN3s with
Mercy Me. CMP-1.

Jarnac / Mintaka)

16470 S Sunday, 23 Oct / 0945-1025 / 10 / Jarnac /
SS2 8, 99, 2.

CMP-1 int

16471 E2 20:1950 to 2315^{int} / 10 / Jarnac /
CN3 of 11 - M31 31 images taken. CMP-1.

/ 10 /

16472 RSM3 M: 0340-0650 / 10 / Jarnac / CN1, CN5, CMP1,
CN3 full set CN3b 0.6^h E.

3s

Mercy College.

16473 S Monday, 24 Oct / 1510-1525 / 3 / Jarnac / Mintaka,
SS2 6: 36, 6.

Jarnac)

16474 EM2 2:1930 to 0335 very-int / 3 / Jarnac / CN3s,
CMP1, clouds prevented full session.

2s

Mintaka /
Mintaka

16475 S Tues 25 Oct / 1200-1215 / 3 / Jarnac / Mintaka /
SS2 6, 51, 5. breezy.

16476E2. 2000-2330 int | CMP-1.

16477M3 0325-0650/10 | Jarnae / CMP-1
5 meteoric meteors. At least 1 was an
Epsilon Geminid. ~~so~~
EPSILON GEMINID METEOR WATCH
CN3 full set. CN3 & 0.7h.K.

16478S. Wed 26 October | 2350-0205/10 | Jarnae
Mintaka | SS2 4:36, 5.

16479E2 1900 to midnight | 13-10 | Jarnae / cl
checking - 2 too cloudy for CN3S. Be
later: with Jarnae, a David Jerry sky.
SS2: Vega, Deneb, Capella, Oxley.

16480M3 0320-0430 int | 10 | Jarnae. CMP-1

16481S. Thursday, 27 October | 10:50-11:05/10 |
Mintaka | SS2 4:39, 9. One sig. rec p
well above Sun.

16482E2 ~~20~~ 1930 to 0000 int | 10 | Jarnae/
CN3s, SS3.

16483M3 0330-0650/10 | Jarnae | CN3 full set
1h.K.

16484S. Fri 28 October | ~~1600~~ 1700-1715/3 | Jarnae/
breezy / Cordelia | SS2 4:39, 19. N

485R2 1830-midnight int / 10-3 / Jarnac / 11-10
& CN3s + SS3. with a student.

16486M3 0315-0645 / 3 / Jarnac / CN3 full set except
Flaire Beautiful strips of cirrus from west
CN3d 0.6^hE.

16487S Sat, 29 Oct / 1400-1430 / 3 / Jarnac / SS2 with
Mintaka 4:39, 15~.

16488E2 1900-midnight int / 10 / Jarnac / CMP-1.

16489M2 0310-0650 / 10 / Jarnac / VERY CLEAR sky
CN3 full set except for Flaire. CN3d 1.2^hE.
Thom fixed Flaire's camera. Very pleased!

16490S Sunday, 30 October / 1155-1210 / 10 / Jarnac / Mintaka
SS2 4, 39, 12.

16491E2 1850-0000 int / 10^{7a} / Jarnac / CN3s, SS3 with
Cladiak. CN3 all, M31 30 images.

16492M3 0310 to 0700 / 3 / Jarnac / CN3d 1.2^hE.
CN3 complete set including Flaire + a newly
focused Clyde. Clouds covered M42 but essentially
left E+S. clear throughout the session
LEO MINOR TO ME PEOR WATCH.

16493S Monday, 31 October, Halloween / 1220-1235 / 3 / Jarnac
Mintaka / SS2: 2:35, 5.

16494E2 2250-2300 / 10 / Jarnac / CMP-1.

1649513 0310-0650 / 10 / Jarnac / Gemini / CN3b
CN3 full set - run beautifully again
CMP-1 ALPHA PEGASID METEOR WA
5 meteors of which I might have been on & Pegasus

164965 Tuesday, Nov 1 / 1215-1230 / 10 / Jarnac
Mintaka 1 SS2: 5, 42, 6

16497E2 1900-0200 int / 10 / Jarnac / CMP-1,
CN3g test on wide angle lens.

1649813 0310 to 0700 / 10 / Jarnac / CN3 full
set; evening. CN3b + dta 1.1^hE CMP 5 mete

164995 Wednesday, Nov 2 / 1245-1300 / 10 / Jarnac
SS2 (Mintaka) 4, 32, 8.

16500E2 1850 to 2000 int / ^{7m} / Jarnac / CN3s,
SS3 with one of Mercy's students. She
could not connect so I took the p
I sent them to her.

1650113 0005-0015 / 9m / Jarnac / CMP no meteors

16502134 0305-0720 / 10 - but very windy / J
CN3d 1.1^hE CMP-1 4 meteors.
TAURID METEOR WATCH Most of the
smaller stable scopes did well, Potus was
real sail through, F Obolab had some
images. F line was rock solid.

36.2^hE

WATCH
grid,

mac)

U
teers

mac)

Sto
pictures

ms.

Jamaica)

like
own
had

11-11
16503S. Thursday Nov 3 / 1200-1215 / 10³ / Jamaica /
SS2 with Mintaka.

16504E2 2000-0000 int / 7m / Jamaica.

16505M3 0315-0700 / 3 / Jamaica / CN3 full set.

16506S. Friday Nov 4 / 1200-1215 / 3 / Jamaica / Mintaka / SS

16507S Sat Nov 5 / 1300-1330 / 10 / Jamaica / cold /
Mintaka / SS2 4: 62, 4.

16508E2 1915-0000 int very int / 3-1 / Jamaica /
Shakespeare / CN3g II evening set after 9
successfully aligned the wide L lens with the
telescope.

16509S Sun November 6 / 1130-1145 / 3 / Jamaica / Mintaka,
SS2 5, 77, 6.

16510E2 1200-midnight very int / 3 / Jamaica /
CMP-1 ISS pass through clouds. Fully cloudy
later.

16511M3 0010-0025 / 2 / Jamaica. The Beagle walk.
Clouds thickening

16512S Monday, Nov 7 / 1140-1155 / 7 / 3 / Jamaica / Mintaka /
SS2 7: 89, 7.

16513EM2 1900-0015 very int / 3 / Jamaica / CMP-1.

16514M2 0315-0715/7m-10/Jamaica/CN3d, 1hE.
CN3b, r, a, e Fh hll kll dll 40m null nhl gll - full set
CMP-1 2 meters.

16515. Tuesday, Nov 8/1200-1300/10/Jamaica/
Mintaka | SSR: 4, 77, 5.

16516E2 +8-1750-2000/7m/Vail Astronomy Unab, Wt.
Obs/ Unab Gray | 2, M13, M57.

16517E3 2100-0015 nit/2/Jamaica/No attempt at
approacher 20050455 because of clouds.

16518S Wednesday, November 9./1125-1140/10, h
from E/ Jamaica/Mintaka | SSR: 8:66, 16

16519M2 0005-0020/3m/windy | CMP-1.

16520S Thursday, 10 November/0945-1000/10 - wa
Jamaica | SSR 9:62, 11.

16521E2 1730-1745/2/Jamaica/Bowen's full
rising in the East.

16522MP3 0055-0100/2/Jamaica/During this
session I spotted everything the sky
offer - The Moon, + Jupiter. All other
stars were clouded out.

16523M Midnight to 0015, Sunday, 13 Nov/3/
CMP-1.

ht.
not.

165249 Monday, November 14 / 1515-1530 / ¹¹⁻¹¹3 / Jarmac /
SSR: 8:23, 11.

16525EH2 1945-0030 / 3 / Jarmac / 3+ CMP-1, SS3
Wanda, The Bangle.

Wt-DL

16526S Tuesday, November 15 / 1555-1610 / ~~10~~ 3 / Jarmac
SS2 7.15, 22 approximate.

at
la.

16527EM2. 1900-0030 int / 10-7m / Jarmac / CN3b 0.14h
CN3g 11. CMP-1.

0, breezy
16

16528S Wednesday, November 16 / 1145-1200 / 10 / Jarmac
SS2: 5:16, 11, plus one possible flare. a sunset
a sunset.

-windy/

16529EM2 2100-0030 / 10-7m / Jarmac / CN3g 11.
setting up for raw lumination, CMP-1 1 meteor
possible & Pogorid.
ALPHA PEGASID METEOR WATCH.

full moon

16530S Thursday, Nov 17 / 1200-1215 / 10, a bit
breezy / SS Jarmac / Mintaka / SS2 5:30, 7.

this
y hard to
to the

16531EM2 2100-0100 int / 10-7m / Jarmac /
CMP-1 Jarmac Meteor Watch this night.
1 meteoric meteor sporadic only.

3 / Jarmac

16532S Friday, November 18 / 1155-1210 / ¹⁰⁻3 / Jarmac
SS2 8, 19, 9. 8, 19, +9.

16533EM2 1800-2040 int / 10 - Jao Tanguel Verde Sch
telescopes / 5th grade kids + adults, incl.
Larry Jelefsky and ~~at~~ Wendee. 1 SS3,
before, then 5. Later, at Furness,
CMP-1.

16534S Saturday Shabat, November 19/
1135-1150 / 3-2 / Jarnac / Mintaka /
SS 2, 1, 4, 2. Seen through thin cloud
clouds.

16535S Sunday, November 20 / 1150-1205,
3 / Jarnac / Mintaka / SS 2 6: 31, 2.

16536S Monday, November 21 / 1400-1420 / 3
Jarnac / Mintaka / SS 2 5: 34, 7, 8
ant hills in front of our home.

16537EM2 Nov 21 / 2015-0030 / 3 - / Jarnac /
CMP-1.

16538S Tuesday, November 22, Kennedy plus 4
12:35-12:50 / 10, breezy / Mintaka / SS 2

16539EM2 1930 to 0030 int / 10 - a bit breezy
Obudiah, Flavie / SS 2, CN 3s.
NGC 6939, 6946, NGC 253, M31, M33
all imaged twice.

16540EP Wed Nov 23 / 1900-1910 / 7 / Dawn
home / general constellation obs

School)

SS3, SS2,
ac,

a)
urus

5) 8

3)
Beautiful

d)

4 years)
26, 35, 2

y)

mette's
siring

16541E Saturday, November 26 / 1830-2300¹¹⁻¹¹ int /
10 / 30 on way home from Albuquerque,
then Jarnac / Wendel / Moon (thin crescent
+ Venus. Watched them get lower + set as
we drove home.

16542S Sun November 27 / 1010-1025 / 10 / Jarnac /
- breezy / SS2 6:20, 5.

16543S2. 1300-1450 / 10 / Granite Gap, and Rough
Hi dalgas / Photo Park / Tim Hunter, Gene Turner,
Bob Masterson, 1 discussion. SS2, CN3s.

16544M3 0000-0015 / 10 / Jarnac / The Beagle walk

16545M4 Monday November 28 / 28 / 0340-0715 / 10 / Jarnac /
CN3 full set - all camera work but Canon.
CN3d 0.5h E.

16546S 1630-1645 / 10 / Jarnac / Cordelia / SS2 5:44, 8.

16547E2 1930-0035 int / 10 / Jarnac / Wanda + the
Beagle / CMP-1, Beagle walk

16548M3 0340-0710 / 3 / Jarnac / - 1 CN3 full set
despite some opposition from light clouds.
CN3d + 1h E.

16549S Tuesday November 29 / 1215-1230 / 3 / Jarnac /
Mintaka / SS2: 7, 6, 12 prominence.

16550EM2 1900-0050 int / 7m / Jarnac / CMP- /
SS3. Beagle walk. a bit breezy.

16551M3 0330-0710 / 10, breezy / Jarnac /
CMP-1, CN-1, CN5, full set with CN3
4 meteoric meteors all in NE.

16552S Wednesday November 30 / 1320-1340 / 11
Jarnac / replace Esther's plug, SS2 with M
7:51, 5.

16553EM2 1820-0055 int / 3 / Jarnac / clear
a few clouds during Beagle walk at the end

16554M3 0330-0700 / 10; windy during
2nd half / Jarnac / 5 CN3s CN36 / 11
with Gemini. CN3 Full set.

~~NU ORIONID~~ NU ORIONID METEOR WATCH. After

16555EM Thursday, December 1 / 2100-0150
to 2 / Jarnac / Capella visible at times
Cassiopeia.

16556S Friday, December 2 / 1430-1455 / 3
Jarnac / Mirtaka + Cordelia /
SS2 5:28, 7. Used 3M4 for

16557EM2 1830 to 0030 very int- / 2-1 / Jarnac

16558S Saturday, December 3 / 1110-1130 / 2 / Jarnac
SS2 with Mirtaka 7.62, 6

11-12.

(P-)
16559EM2 2200 to 0030 int / 0-2 / Jarmac / Rain, then partial clearing.

rac/
CN3.
16560S Sunday, December 4 / 1315-1335 / 3-2 / Jarmac / SS2 with Mintaka 7:53, 3. Some clouds over Sun.

10/10-3) /
th Mintaka
16561EM2 2000-0025 int / 7m / Jarmac / ~~EN3~~ CMP-1

16562M3 0450 to 0600 / 3-2 / Jarmac / Miranda / CN3 dr h E. CMP-1.

day,
to end
16563EM Monday, December 5 / 2230-0015 int / 7m / Jarmac / CMP-1.

ing
1 h E
16564M2 0340-0600 / 10 7m, then 10 / Jarmac / CN3 dr a - 1.7 h E. CMP-1, 5 meteors.

At least 1.
0155) /
times, 7
16565S Tues December 6 / 1530-1545 / 10 / Jarmac / cold / Cordelia / SS2 5:23, 5.

5 / 3 /
16566EM2 2200-0045 ^{int} / 10 / 7m / Jarmac / general const

14 for frames
16567M3 0335 to 0630 / 3-brazy / Jarmac / CN3 full set minus ~~Revised~~ / CN3 dr 1 h E.

1 / Jarmac.
16568S Wednesday, December 7 / 1700-1730 / 3 / Jarmac / Cordelia / SS2 5:15, 5.

1 / Jarmac /
16569EM2 1915 to 00 / 3 / Jarmac / CMP-1.

65

16570S Thursday December 8 / 1400-1415 / 3 / Jar
Muntaka / SS2 3:5. Light clouds,

16571EM2 2100-00 / 3 / Jarraac / Full Moon dm

16572S Friday December 9 / ~~1130~~ 1150-1210 /
10 / Jarraac / Muntaka / SS2 5:27, 6.

16573EM2 1930-0030 int / 3m Jarraac / prep
for the Lunar Eclipse. So far the sky is
good although the forecast is for clouds
10:30, clouds have moved in but they
are so far very light.

²⁰16574M3 0430-0730 / 3-7m / Jarraac / Saras
The Total Eclipse of the Moon - my 80th.
First there were cirrus clouds but they were
clearing from the West. I detected the first
trace of penumbra when ~ 40% of Cygnus
Thomas arrived. Wendee and the Beagle arrived
deep in the partial phase. ~ 6:25, as the
partial grew deeper the sky quickly
brightened, + we watched the Moon
grow redder + dimmer till it vanished
behind haze + clouds near the western
horizon. A very nice 80th eclipse

16575S Saturday, December 10 / 1300-1310
10, breezy / Jarraac / SS2 4:25, 5.

16576EM2 2000 to 0030 / 7m / Jarraac / CM
Beagle walk, etc.

(Jarnac)

16577S Sunday, December 11 / 1155-1210 / 3 / Jarnac
SS2 3:6, 6 with Mintaka.

almost

16578M Tuesday, December 13 / 2000-0010 int /
0-3 / Jarnac / CMP-1
GEMINID METEOR WATCH.

210/
6

16579M2 0035-0110 / 3,2 / Jarnac / CMP-1
GEMINID METEOR WATCH
2 meteors through passing cloud

preparing
is
clouds
at they

11580EM Wednesday Dec 14 / 2030-0015 int /
CMP-1 GEMINID METEOR WATCH.
1 - 2 Geminid fireball at 2041; in EN
Beautiful sight.

no 2.

16581M2 0025-0100 / 3 in Jarnac / CMP-1 Geminid M/M
Watch. 4 meteors - 5 total this night.

were
first
covered.

16582S Thursday, December 15 / 1530-1545 / 10 /
Jarnac / SS2 with Cordelia 3:9, 10.

arrival

16583EM2 2030-0130 int / 10-7m / Jarnac /
CMP-1.

likely
look
is heard
term
pre

16584MP3 0545-0550 / 7m / Jarnac / Quick look for
Comet Lovejoy, unsuccessful.

-1315 /

16585S Friday, December 16 / 1640-1655 / 3 / Jarnac /
Cordelia / SS2. 3:12, 11. approx

CMP-1,

16586EM2 1720 - 0000 int / 3 / Jarnac / Pegasus / failed to
comet but saw beautiful blue-green flash through fog

16587M2 0230 - 0530 int / 3 / Jarnac / windy / unsuccess
search for Comet Lovejoy.

16588M3 0550 - 0630 / 3 / Jarnac / windy / binoculars /
CN3s. Failed to spot Comet Lovejoy.

16589S Tuesday, December 20 / 3 / Jarnac /
SS 2 with Muntaka / 1255 - 1400 / SSR 4,

16590EM2 2350 - 0030 int / 10 - 3 / Jarnac. / CMP-1.

16591M3 0345 - 0750 / 3 / Jarnac / CN3 almost
set. CN3 1/2 E. Comet Lovejoy too far.

16592S Wed, December 21 / 1300 - 1315 / ~~10~~ 3 / Jarnac /
Muntaka / SSR 4, 86, 13.

16593M2 Thursday morning, December 21 / 22 /
0350 to 0700 / 3 / Jarnac / CN3 0.5
Comet in east behind clouds. Sky
pretty clear except in East.

16594S Thu Dec 22 / 1300 - 1315 / ~~10~~ 3 / Jarnac /
SSR 4, 86, 9.

16595S Fri Dec 23 / 1300 - 1315 / 3 / Jarnac /
breezy / SSR 4, 16, 5. wind interfered

16596M2 0500 - 0730 / 10, breezy / Jarnac /
CN3 0.5 h E. Comet Corrad
confirmed - not a new comet.
CMP-1 URSID MI R WATCH - 6 in

- 11-12
- successful 1597S Saturday, December 24/1300-1530 int/
10-breezy / Jarmac / SS2 3, 15, 9.
- 11592M2 0115-0155 int / 10-breezy / CMP-1.
- 1659TS Sunday, Christmas day / 1300-1315 / 10-windy
Jarmac / SS2 (Mintaka) / 4, 27, 3, VBS10
- 32 4, 60, 7 16600EMR 2350-0030 int / 10-breezy / CMP-1.
- P-1. 11611S Monday, December 26 / 1600-1620 / 10 / Jarmac
Cordelia / SS2 4, 50, 8.
- almost full
for south. 16602M2 0410-0715 / 10 / Jarmac / CN3 0.5^{NE}.
CN3 almost full set (e, f, h, k11, k11, l11, 40m,
n, g11, d, a.
- 3 / Jarmac / 16603S Tuesday, December 27 / 1315-1335 / 3 / Jarmac
SS2 with Mintaka, #3 3, 18, 15.
- 0.4^{NE} 16604ER 2000-2020 / 3 / Jarmac / Apollo / CN3b 0.1^{NE}
- 16605MP3 0000-0010 / 10 / Jarmac / CMP-1.
- 16606MH 0415-0730 / 10 / Jarmac / Them /
CN3 full set, except Mercusur. CN3b 0.8^{NE}.
- 16607S Wednesday, December 28 / 10 / Cordelia / 0430
0445 / Jarmac / SS2 5, 25, 12.
- 16608EM2 1930 - 0120^{int} / 7m-10 / Jarmac / CN3b 0.1^{NE}
(Jarmac) / Apollo.
- ntro

16609EM Thursday, December 29/2115 - 0030 int/7-10
Jarmac/ CMP-1 with The Beagle.

16610M2 0410-0720/10 | Jarmac/CN3 e F hll, kll e
40m, n, gll, b.

16611S Friday, December 30/10 | Jarmac/ Minda
SS2 4:20, 13.

16612EM2 1945-0030 | 7m | Jarmac/ CMP-1; The
Beagle walk,

16613M3 0415 to 0735/10 | Jarmac/ CMP-1, 1 meter
CN5, CN1, CN3 e F hll kll 40m n gll
CN3d 1hE. Them observed also. SS3

16614MS Saturday, December 31/1630-1650/10/S
Cordelia/ SS2: 5:19, 17.

16615EM2 ~~2000~~ 1725-0045 int/ 7m-10 | Jarmac/
SS-2 Green Flash. Later, December Cepheid
Meteor Shower. 1 possible Cepheid

16616M3 0410 to 0730/10, breezy | Jarmac/
CMP-1 - 6 meteors; including the one from
the evening. ~~was~~ One was a possible
Cepheid, through Miranda N-S. ~7
CN3d 1hE. CMP-1, SS3, (Them) ca
DECEMBER CEPHEID METEOR

~~16617S~~ WATCH Photograph of 1 possible
Cepheid Meteor using Clyde.

2012.

01-12

- 17-10/
kill-CV1,
Mint/Pea/
The
meter,
53.
0/Journal
- 16617S. January 1, 2012, New Year's Day |
1631705-1720/10 | Jarnac / Cordelia /
SS2 4:14, ~~11~~ 11.
- 16618EM2 2000-0055mH 7m, breezy | Jarnac |
CMP-1.
- 16619S Monday, January 2 | 1550-1605/10, windy |
Jarnac | SS2 3:10, 7.
- 16620EM2 2100-0035mH 7m - windy | Jarnac |
Thom, Turia / CMP-1.
- 16621S Tuesday, January 3 | 1650-1730/2 | Jarnac |
Cordelia | SS2 at sunset 1:2, 3. only 2/30
Sun visible.
- 16622EM3 1930-^{uit-} 0050 | 7m | Jarnac | CMP-1.
- *16623MH 0300 to 0715 | 7m - 10 | Jarnac | Thom |
QUADRANTID METEOR WATCH. 76 meteors
A RECORD for this shower. Also CN3 e F h k l l k
40m n g ll.
- 16624S Wednesday, Jan 4 | 1300-1600-1615/10 | 3 |
Jarnac | SS2. 3:8, 13.?
- 16625EM2 0415-0730 | 10 | Jarnac | a bit breezy
Thom | CN3 e F h k l l k ll 40m n g ll, r, d
CN3 1k E.
- from
~7th mag.
CN5.
FOR
be

166265 Thursday, January 5 / ~~1700-1715~~
1315-1330 / 10 / Jarnac / SS2 with Mintak
t. ?

1662752 1630-1700 / 3 / Jarnac / CN3 testing

166285AN3 1720-0655 / 10 / Jarnac.

1720-1730 sunset

1730-1900 int 1900-2000 CN3 testare

2000-2300 int. 2300-0155 c N3 test

0155-0255 int (rest) 0255-0655 CN3c

CN3E hll kll 21(?) 40m n nbll(?) gll.

CN3b, CN3d 1hE. CMP-1 JANUARY

BOOTID METEOR WATCH 7 meteors

166295. Friday, January 6 / 1600-1615 / 10 /
Jarnac / Cordoba / SS2 4.48, 9.

16630EM2 2100-0055 int / 10 7m / Jarnac /
CMP-1.

166315 Saturday, January 7 / 1555-1610 /
Jarnac / cooler than yesterday / SS2:

16632EM2 2000-0030 int / 10 7m / Jarnac

166335 Sunday January 8 / 1215-1230 / 10
SS2 (Mintaka) 5; 41, 7.

16634EM2 2000-0130 / 7m / Jarnac / CMP-1

~~16635~~ Monday, Jan 9 / ~~#~~ 1300-1315 / 10 / Jarmac / SSR.

16637⁶EM2 2000-0115 / ~~#~~ 7m / Jarmac / CMP-1

16638⁷S Tuesday, January 10 / ~~#~~ 1230-1245 / 10 / Jarmac / SSR 4:36, 12.

16638⁸EM2 1900-0040 110 / Jarmac / 7m / Jarmac / CMP-1.

16639³⁹S Wednesday, January 11 / 1700-1725 / 2 / Jarmac / 8 Cordelia / SSR: 4:23, 7?

16640⁴⁰EM2 2030-0100 int / 2-7m / Jarmac / CMP-1; nothing.

16641⁴¹S Thursday, Jan 12 / SSR.

16642⁴²EM2 2100-0030 / ~~#~~ 3m / Jarmac / CMP-1

16643³⁹EM4 Fri January 13 / 2100-0020 int / ~~#~~ 7m / Jarmac / CMP-1

16644⁴⁴S Saturday, January 14 / ~~#~~ 1530-1555 / 2- / Jarmac / Cordelia / SSR 3:14, 7.

16645⁴⁵EM2 1835-0100 int / 0-2 / Jarmac / CMP-1.

16646⁴⁶EM Monday, Jan 16 / 1800-0030 / 2 / Jarmac / ~~#~~ CMP-1.

16647⁴⁷S Tues 17 / 1715-1730 / 10 / Jarmac / Cordelia / SSR 5, 13?, 12

16448EM2 1930-00 10-7m / Jarnac / Apollo /
CN3b O, H, E; CN3e TV Cw, CMP-1
CN3e was TV Cw at C H, 8, 16, 7.
CMP-1 1 meteoric Meteor.
BETA BOOTID METEOR WATCH.

16449S - January 18 / 1300-1415 / 10 / Jarnac /
SS2 5:40, 12 Interview with Guy
about observing by archive.

16450FM2 2000-0030 / 10 / Jarnac / CN3
CMP-1.

16451S. Jan 19, Thursday / 1700-1615
Jarnac / SS2 with Corabelle 6:60, 6.

16452FR. ^{18 10} 1755 - to 0030 / 10 / Corona Foothills /
School, then Jarnac / Uncle Guy + a
telescopes / ~ 30 children + adults /
M42. CMP-1; 2 meteors, both prob.
DELTA CANCRID METEOR WATCH. 2

16453M3 0305-0710 / 10 / Jarnac / CN3e Fh Hll k
L-ll, 40m CN1, n, nbll, gl, r, a, d CN3 1, 4
ALPHA HYDRID METEOR WATCH 4m
This was a beautiful night. Not too cold,
wind; delightful. I felt "like a slip of
scarce worth recovery."

16454S January 20 / 1400-1415 / 10 / Jarnac /
SS2 (Mintaka) 7:58, 7.

llo | - |
MP-1
7

16455EM2 2100-0050 int | 19-3 | Jarmac | CMP-1 |
Tracks on Ecker successful. Mount is still functional.

IC H.
nael
Ingrid

16456M3 0850 to 0720/10, clouds moving in just after dawn / Jarmac / Miranda, Gemini + few set / Thom / CN36 1.1h E. CMP-1, CN-9, S

CN3e,

16457S Shabat, Jan 21 / 1700-1715 / 2 | Jarmac / Cond SS2 6:25, 3.

1615/10)
6.

16458EM2 2100-0050 / 3 | Jarmac | CMP-1.

Mich Middle
Father
prob. of line do
+ 2 photos.

16459M3 0405-0720/10, some haze due to earlier clouds / Jarmac / CN3d 1.3h E. full set except Narcissus.

Wednesday
16460S Sunday, Jan 22 / 1410-1425/10, still some Jarmac / Mintaka / SS2 4:36, 7.

hll kll - CN]
1.4h E.
4 meteors
old, no
of comet

16461EM2 2200-0045 int / 10 | Jarmac / CMP-1

16462M3 0410-0740/10 | Jarmac / CMP-1, 4 meteors CN-1, CN5, CN3 1.3h E. CN3d e f hll kll dll gll r, a, and d, and g since Tom was here. Lovely, brilliant morning.

16463S Jan 25 / 1400-1420/10 | Jarmac / SS2 with Mintaka SS2 3:14, 2.

nael

16464E2 1840-0055 / 10 | Jarmac | CMP-1.

16465MS 0410 to 0740 / 10 / Jarnac / Miranda
Thom's 10-inch / CN-1, CN5, SS3, CN3d /
CN3e FgHllKll Lll 40m gll r s a d.
CMP1 3 meteors.

ETA CARINID METEOR WATCH. 1 per
LapB CENTAURID METEOR WATCH. 1.
1 sporadic or maybe a Hybrid

16466S. Thursday January 26 / 1345-1400 / 10 /
Jarnac / Mintaka / SS2 3, 9, 7.

* 16467E2 2100-2250 / 10 / Jarnac / Miranda /
CN3c. Thom + I believe we have spotted
Comet Lovejoy. Just as Alan suggests
it looks like a faint glow, like the Geminid
extended somewhat. Also took several exp
with CN3F Obaydiak. Thom was pretty diff
I now share his opinion. Very happy
with this observing session.

16468S Friday, January 27 / 1330-1350 / 3 / Jarnac
SS2. 2, 7, 0.

16469ES Saturday, January 28 / 1440-1445
~~10~~, 1545-1600 / 10 / Cordoba / SS2
2, 4, 7.

16470EM2 2100-0050^{int} / 10 / Jarnac / CMP-

16471S Sunday, January 29 / 1400-1415 / 10
19 / SS2 5, 4, 7. Sky clear, breeze here

scud, etc
CN3d 1.5h E
d.

16472EM 1945-0055 int / 7m / Jarnac / CMP-1.

16473M3 0405 to 0700 / 10 - breezy, moderate breeze
Jarnac, CMP1, SS-3, CN5, CN3e fgl k 11214
gl r s ad. CN3 1.2h E.

1 possible.

16474S Tuesday, January 30 / 1415-1430 / 10 / J
Quintana / 2:19, 7 approx.

ad
2/10/

16475EM2 1900-0035 / 10 / Jarnac / CMP-1.

nda / Thom
atted
ygested;
enackin,
l exposures
ty definite;
appy

16476E Wednesday Jan, February 31 / 2200-2
int / 7m.

16477M2 0410-0730 / 10 / Jarnac / 10 / Thom / CN3d
full set almost. CMP-1, 1 meteoric meteor
CN5.

16478S Thursday, February 2 / 1400-1730 int / 10
windy / Jarnac / SS2. 2:16, 7.

3 / Jarnac /

16479E2 2015-2340 int / Jarnac / 7m / CMP-1.

1415 /
SS 2

16480M3 0410-0740 / 10 / ~~COZ D 3~~ / Jarnac / CN-4
CMP-1 3 meteors. CN3 1.1h E. CN3 most scop

CMP-1.

16481S Friday, the February Thrid. / 1330-1345 / 10 / J
SS2 2:6, 5.

15 / Quintana /
e lessening.

16482EM2 2000-0145 int / 7m³ / Jarnac / CMP-1. High
clouds allow the sky. DELTA LEON
METEORS WATCH 1 meteor

16483 MP3. 0400-0405/3 | Jarnac / checky

*16484S Shabat. February 4/1600-1800/3 | Jarnac
This session reminds me of the launch of SS2, where I waited for the Sun to be beneath a cloud layer, which it did. ~~of~~ #168 SS1. I listened to "A Prairie Home Companion" with Garrison Keillor and finished reading Bergonzi's biography of Gerard Manley Hopkins. The Sun cleared the clouds but not enough to get a reading. Later, though, it did SS2 1, 2, 7.

16485 EM2 2100-0100 int / 3 | Jarnac / CMP-1.
to partly cloudy.

16486S Sunday, Feb 5/1730-1745/10 | Jarnac,
Coroletia | SS2: 1, 2, 7.

16487 EM2 2230-0100 1# 7m | Jarnac / CMP-1.

16488 EM. Monday, February 6/2015-2100
on to 0100 int / 2-m | Jarnac / Y
CN3n bill mounted on Fleire

16489S Tues. February 7/1330-1800 int / 3 | Jarnac
Muntaka 1- | SS2 0, 9. Work on F

16490 EM2 2100-0100 -int / 2-1 | Jarnac.

Kofsky

16491SE. Wednesday, Feb. 8/1730-1830/2/Jarnac/
SS2 with Cordelia 0:5- Successful
repair + restart of Flare

Jarnac)

Link
Session
Home

16492EM2 2000-0935 int/2/Jarnac/CN3F40m
CN3H11 repair + successful restart of Potus.

and
graphy
Sun

16493S. Thurs Feb. 9/1310-1330/10/Jarnac/Mintaka
SS2 1:16, 7.

to
did.

16494EM2 2100-0100 int/7m/Jarnac/CMP-1. Walk
with Beagle, some images with Flare until failed
again.

16495S Friday, February 10/1330-1350/10/Jarnac/
Mintaka/SS2 2:24, 7

16496EM2 1230-0100 int/7m/Jarnac/CMP-1.

16497S Saturday, February 11/1240-1305/10-3/Jarnac/Mintaka
SS2 2:27, 13.

105 find
Thom)

16498EM2 1810-0100 int/10-7m/Jarnac/CMP-1.
Session began with a look at Venus.

Jarnac/
Flare.

16499EM Sunday Feb-12. 1230-0100 int/ Rick back from
Patsy's memorial service in Las Cruces. Wendee
got a good look at the Clyde's Memorial Window.
Venus Mars Jupiter, Saturn. CN3e.
ELTA LEONID METEOR WATCH (with

16500S Tuesday, February 14/1730-1750/3/Jarnac/
Cordelia/SS2 2:20, 10.

1501502 2.350-0055/3 | Jarnac / ~~23:33~~ / Oh
CN3c TV Gw C16.7. CMP 11 meteor m
DELTA LEONID METEOR WATCH
1 meter.

165025 Wednesday February 15 / 1400-1415 /
10 / Jarnac / 1 ~~SS2~~ Mintaka / SS2: 2

16503EM2 1800-0130^{int} 13-2 | Jarnac / CN3c
failed to spot new comet Brunner.

16504S Thursday February 16 / 1400-1415 / 3 / SS
SS2 with Mintaka 2:4, 10.

16505EM2 Sat, Feb. 18
2000-0110^{int} / 10 | Jarnac / CN3c / 1
unsuccessful attempt to see Comet Bra
later, unsuccessful to complete Fla

16506M3 0340-0655 / 10 | Jarnac / Thom / Ge
+ other telescopes / CN3b 1^h E, CN3c
All gll.

16507S Sunday Feb. 19 / 1450-1505 / 10 /
Jarnac / Mintaka / SS2: 3:18, 8.

16508EM2 2030-0100 / 13 | Jarnac / Miranda
CN3 M74, no comet.

16509M3 0335-0650 / 10 | Jarnac / Miran
Thom, CN3d 1^h E. CN3e full all gll.
1 early Virgind meteor.

Phar...
meter
H.

16510S, Monday, Feb. 20/1500-1530/3/Jamaica
SS2 3:19, 8.

15/
2: 7, 7.

16511EM2 @ 1845-0130 unit 19-3/Fa W4DL observation
Void of spraying unclub / 10/ Thom, ~50 people
Monthly session with Uncle Gray. M31, M42, M74
No comet. Then intermittently at Jamaica.

13-

16512S Tuesday, February 21/1800-1815/10/Jamaica
SS2 2:13, 10.

(Jamaica)

16513EM2 1915 to 0100 unit 10/Jamaica/Miranda/-
CN3e TVGw, no comet again.

(Thom)
punches
wire

16514M3 0340-0655/10/Jamaica/Miranda etc/Thom/
CN3 1, 4^h E. CN3e F hll kll gll.

seminj
Be F 211

16515S Wednesday, February 22/1715-1730/10/Jamaica
SS PF Cordelia/SS2 2:13, 13. The 54 doors burst
into Cordelia but there was no damage either to the tele-
scope or me.

/

16516EM2 2115-0100 unit 10/Jamaica/CMP1, CN3 40m
repair.

day

16517M3 0335-0700/10/Jamaica/CN-1, CMP1, CN5,
CN3 1, 4^h E. 1^h E. CN3e F hll kll gll.

mda)

16518S. Thursday, Feb 23/1700-1725/10/Jamaica/Cordelia/
SS2 +: 2:13, 13.

16519EM2 1905-0100int | 10 | Jarmare,

16520M3 0340-0710 | 10 | Jarmare / Miranda, etc. 10
SS2 CN3d 1.4h Very bright H&T pass
CMP-1. VIRGINID METEOR W
2 meteors. CN3e F || K || g ||.

16521S. Friday February 24 / 1545-1605 / 10 | Jarmare
SS2 with Muntaka 2.5, 13.

16522EM2 2115 to 0100 | 10 | Jarmare / CMP-
VIRGINID METEOR WATCH, 4 mete
but not this session. Next session

16523M3 0345-0702 | 10 | Jarmare / CMP-
VIRGINID METEOR WATCH, 4 mete
CN3d 1.5h E. CN3e F || K || g ||

16524S. Shabat, February 25 / 1530-1642 / 1540
1555 / 10 | Jarmare / SS2 1.2, 10.

16525EM2 1920-0100int | 7m | Jarmare / Wanda
CMP-1. Wanda called my attention to
bright flare - not - P.3 as we thought
but nice.

16526M4 0340-0655 | 10 | Jarmare / CN3d
CMP-1 2 meteors. SS2 Thom. C
CN5, CN-1.

16527S Sunday, February 26 / 1600-1615 / 10
Jarmare / SS2 4.2, 10.

03-12

16528EM2 2030-0100 int/10/Jarman/CMP-1, CN3
40m work.

16529S. Monday, Feb 28/1300-1315/8/3/Jarman
SS2 with Mintaka 2.6, 8. Wind from E.

16530EM2: 1910-0100 int/3/Jarman/ALPO
Mercury, Venus, Jupiter, + the crescent Moon

16531AEM. Wednesday, February 29/2355-
0130/0 (snow) 18/8, Summit walk in 3
parts (1) Summit to 818 (2) 818 to
Roslyn School and (3) Roslyn School to 3577.
Weather was cold, windy, & Snowy, but
successful walk nevertheless.

16532EM Sunday, March 4/2335-0130/
7m/Jarman/obadiak/CN3e TV Ow.

16533S. Monday, March 5/1400-1630/2/Jarman,
Flaire/Steve Peterson/CN3 40m. Flaire
mostly works.

16534EM2 1930-0100 int/3/Jarman/
Flaire! works mostly. CMP-1.

16535S. Tues Mar 6/1630-1650/10, windy/Jarman
Cordelia-1 SS2 3:53, 14.

16536EM2 1900-00 int/7m/Jarman/CMP-1.

16537EM. Wednesday March 7/ 1745-0110 int
10-3, breezy + cold. GSS2: Cordelia

16538S. Thursday, March 8/ 1630-1645/ Cordelia
SS2 4:47, 8.

16539EM 2030-0110 int/ 7m/ Jarmac/CMP-1

16540EM Friday, March 9/ 50th anniversary
of March 9, 1962 preparations for S
Night. 12000-0115 int/CMP-1.

16541S Shabbat March 10/ 1335-1430/ 10
Jarmac/Mintaka/SS2 4:38, 9.

16542EM2 2150-0115 int/ 7m/ Jarmac/Oba
CN3e - TVCw - C14, 9. CMP-1.

16543EM Sunday March 11/ 1745-0110 int/ 7
Jarmac/SS2 2:13, 1. partial view too to
CN3e TVCw.

16544S Monday, Mar 12/ 1400-1530/ 3/ Jarmac/
SS2 2:38, 1.

16545EM2. 1850-0110 int/ 10-7/ Jarmac/Obadia
CN3F TVCw.

16546S. Tuesday, March 13/ 1450-1530/ 10/ Jarmac/
3:51, 9.

16547EM2. 2040- int/ 10-7m/ Jarmac/ CN3e TVCw, L
CMP-1.

03-12

6548S Wednesday, March 14/ 1200-1215/10/Jaruae/
Mintaka/SS2 2:51, 2.

6549EM2 2100-0030 int/10-7m/Jaruae/Jaruae &
Wendee/LPO-1 Mars & Saturn. Heavenly G
CN3e TVGw (16,7).

6550S Thursday, March 15 the Jobs of March/1600-1620/
10/Jaruae/Mintaka/Jean-ellen/SS2 3:35
5.

6551EM2 2130-0215 int/160-10 m/Jaruae/
SS: CN-1, CNS, CN3e TVGw (16,7).

6552S Friday, March 16/1600-1615/10/Jaruae/
Mintaka/-/SS2 2:12, 8?.

6553EM2 2200-0219 int/10/Jaruae/Jaruae
Wendee/Obadiak/E. LPO-1-Saturn. CN3e/
TVGw (16,7).

6554S Saturday, March 17/1100-1115/3/Jaruae/
Mintaka/SS2 3:29, 8?.

6555EM2 2115-0130 int/3/Jaruae/CMP-1,
LPO I Saturn, Jupiter, Venus, Mars.

6556EM Sunday, March 18/2045-0130 int/3-1/Jaruae
LPO-1, CMP-1.

6557EM Monday, March 19/2035- int/03/Jaruae
Newly proposed Jaruae CN3e TVGw (16,7) CMP-1
LPO-1, CMP-1. Venus, Jupiter, Mars Saturn.

16558S. ~~Wednesday~~ ~~M~~ Tuesday
March 20/21/ 1100-1115/10/ Journal/
SS2 2: 10; 4?

16559EM2 2100-0130 int/ LPO-1, CMP-1.

16560S. Wednesday, March 21/22/ 1600-
1615/10/ Journal/ SS2: 3, 12, 5?

16561AM2 1840-0630; int from 1830 to 2245,
then just on break before full morning
observing, including Fleuro
CN3 1^hE.

DELTA-G-THEIA DRACONID METEOR WA
CMP-1 5 meteors.
CN-1, CN5, CN3e F1111 11 40m ab 11 g 11.

16562BMS Saturday, March 2. Thurs March 22
1600-1615/ SS2.

16563BEM2 1930-0130/10/ Journal.

16564M3. 0315-0630/12/ Journal/ CN3 1^hE

16564S. & Friday, March 23, our fifteenth
wedding anniversary/ 1630-1700/SS2:

16565EM2 1900-0100 int/10/ Journal.

16566M3. 0345-0615/10/ Journal/ & CN3/1
CN3 1, 1^hE.

16568S. Saturday, Mar 24/ 1600-1615/10/ Journal/
SS2 2, 4, 1, 2, 12

03-12

5569EM2 2130 to 0030 int / CN3 testing.

557M3 0300 to 0615 / ~~10~~ 3 / Jarmac / CN3 0.5^h
E with Gemini. CN3e (Obadiak turned off after
16 pictures) CN-1, CN5, CMP-1 2 meters, one
very bright, ~3.

557IS Sat March 24 / 1700-1800 / 11 / Jarmac / CN3 F
successful repair.

5572EM2 1915-0005 / 10 / Jarmac /

Sunday March 25.

5573M3 0335 to 0640 / 10 / Jarmac / CN1, CMP-1,
CN5, CN3e F H11 K11 L11 40m g b. CN3 1K
with Gemini.

5574S ~~Sunday~~ Monday March 26 / 1800-1830 / 10 / Jarmac /
Cordelia / SS2 - 3:28, 13.

5575EM2 1935 to 0015 / 10 / Jarmac / CN3^{nh11} F / wire
testing. CN3e TV Gw C16.7.

5576 Tuesday March 27 - Dad's 103rd
birthday / 1700-1730 / 10 / Jarmac / SS
Mintaka / SS2 2:18, 18.

5577EM2 1920-0015 int / 7m / Jarmac / CMP-1,
CN-1, CN3e, CN5.

5578B 0330-0640 / 10 / Jarmac / CMP-1, CN-1, CN5,
CN3e F H11 K11 L11 40m g r & a d 1K E.
2 meters

165795. March 28, Wednesday / 1730-1805 /
10 | Jarnac | Cordelia + Casper! | SS2 5;

16580EM2 1930 to 0015 int / 7m | Jarnac /
using "Cordelia II" mounted atop Flair
Casper in now mounted on Cordelia!

16581M3 0320-0650 / 10 | Jarnac / CN3 11.
CN3 full set e FH || R || L || 40m g || rad.
CN1, CN5, CMP-1 1 meteoric meteor.

165825. Thursday, 29 March / 1445-1500 / 10 | Min
SS2 3:10, 10.

16583EM2 1950-0100 int / 7m | Jarnac | CMP-1.
testing.

165845 Friday, 30 March / 1710-1725 / 10 | Jar
SS2 (Mintaka) 8 2: 10, 13.

16585EM2 2000-0100 int / 7m | Jarnac /
Finally Flair! is working with 3c
Replaced luminera with Canon.

165865. Saturday, 31 March / 1220-1235
Jarnac (Mintaka) SS2 2: 8, 5.

16587EM2 1350 to 2230 /

6588M3 0315 to 0700 / 10 / Jarmac / CN3e FHll Rll
Lll hll gll. CN3d 0.3hE.

6589S Sunday April Fool's day / 1700-1720 / 10 /
Jarmac / Muntaka / SSR 1, 2, 7?

6590E12 2000-2340 int / 7m / Jarmac / CMP-1.

6591M3 M 0315-0415 / 10 / Jarmac / 16 night fl
hll - no computers worked - closed up.

6592S Monday April 2. / 1200-1220 / 10 / Jarmac /
SS2 2, 14, 4?

6593EM2 2100-0100 int / 7m / Jarmac / CMP-1,
CN3e.

6594S Tuesday April 3 / 1710-1730 / 10 / Jarmac /
Cordelia and Caster / - / SSR 3: 28, 13?

6595EM2 2000-0030 int / 7m / Jarmac / CMP-1,
CN3e. CN3 40m testing successful on all carriers

6596M3 0300 0250 to 0700 / 7m-10-3 / Jarmac /
CMP1 CN-1 CN5. CN3d 0.8hE. CN3e FHll Rll
Lll 40m hll gll ra and d.

6597S Wednesday April 4 / 1710-1730 / 3-2 / Jarmac
Cordelia + Caster / SSR 3: 13, 8, 7.

6598EM2 2135-0045 int / 3m / Jarmac / CMP-1.

6599S. Thurs April 5 / 1700+1720 / 10 / Jarmac / SSR 2-

16600EM2. 2000 to 0100 int / Sarnae.

16605. Friday, April 6 / 1700-1715 / 10 / 3
SS2.

16602EM. 2100-0100 int / 3 / Sarnae, 1CN
with Flaine

16603EM. Sunday, April 7 / 2100-0200 int
to 3 / Sarnae / CN3e. with Obadiah.

16604S. Monday, April 8 / 1700-1715 / 3 / Sarnae / 6 / Mintaka / SS

16605EM. Mon April 8 / 2000 to 0100 int / 3

16606S. Tuesday, April 10 / 1830-1845 / 3 / Sarnae
Cordelia / SS2: 0, 3.

16607EM2. April 11 Wednesday / 1830-02
3 / Sarnae / CN3e, CMP-1. Mars above
distance from Regulus ($\approx 5^\circ$) as Saturn is fr

16608S. Wednesday April 11 / ~~1830~~ 1755-1810 /
Sarnae / Cordelia + Caster / SS2 0, 6.

16609EM2. 2100-0030 int / 10-7m / Sarnae / CN3e
CMP-1. Mars is closer to Regulus though
Saturn is to Spica.

16610S. Thursday, April 12 / 1200-1215 / 3 /
Mintaka / SS2: 1, 8, 12.

16611EM2. 2100-0200 int / 3 / Sarnae / CM1
CN-3e.

04-12

11612S Friday, April 13/1825-1840/10/Jarnac/
Cordelia and Caster. SS2 2:0,6.

11613EMR 2100 to 0340 int/10³/Jarnac/CMP-1,
CN3e, CN3F Caster + Pollux region.

11614S. Saturday, April 14. 100th anniversary
the Titanic's loss / ~~17~~ 1600-1800/3/Ja
nac/SS2 with Cordelia + Caster; 2:10,

11615EMR 2000 to 0155/10-7/Jarnac/CN3e,
2nd try at Pollux-Caster area.

11616EM. Sunday April 15 - 100th anniversary
of Titanic sinking/2100-0150 int
10/Jarnac 120 Carey St then Jarnac
again/CMP-1, CN3e, CN3F. Third
try at Pollux-Caster area.

11617S Monday April 16/1515-1530/10/Jarnac/
Cordelia, Caster/SS2. 2;13,6.

11618EMR 2100-0055 int/10/Jarnac/GSCN3e
TV Cw. CN3F The Gemini set. also SS3 at VAG
at Wt. Ph Observatory at Corona Park, M. Scha

11619S Tues. April 17/1745-1800/10/Jarnac/Mintak
Cordelia BOTH/SS2 3:37,10.

120EMR 1950-0150 int/10/Jarnac/SS3, CN3e,
CN3F. TV Cw + 2 + B Gem set.

21S. Thurs APR 19/1350-1405/10/Jarnac/Mintaka/SS2 5:84,2

16622E. Friday, April 20/2345-0000/11 Bozeman
Montana/ short walk around hotelly walk

16623S SATURDAY, APRIL 21/1200 to 1645/1.
Montana State University Planetarium. /9.
The Sky event / SS2. SSR: 8: 94, 3.
used two different telescopes to make
observation.

16624E2 2230-2245/7/Bozeman, Montana
walk around hotel.
Home!

16625S SUNDAY, APRIL 22/1805-1820/3/101/Ja
SS2 (Cordelia & Castor) SSR 8: 95, 5.

16626EM2 2200-0055 int / 3/ Journal/
CN3e.

16627S Monday, April 23/1805-1820/3/ Journal
Cordelia + Castor / -1 SSR 8: 6, 64, 10.

16628EM2 201950-0100 int / 10- Journal/
CMP1, Lyrid Meteoric Meteors, CN3e, CN3F.

16629S Tuesday, April 24/1715-1730/3/ Journal
SS2 8: 83, 5.

16630S Thursday, April 26/1800-1815/10/3
Cordelia & Castor / SSR 5: 43, 17.

16631EM2 2015-0015 int / 7m / Journal / CN3
CN3F.

16622E. Friday, April 20/2345-0000/11 Bozeman
Montana/ short walk around hotelly well

16623S SATURDAY, APRIL 21/1200 to 1645, 1.
Montana State University Planetarium, /9.
The Sky event / SS2. SS2: 8: 94, 3.
used two different telescopes to make
observation.

16624E2 2230-2245/7/Bozeman, Montana
walk around hotel.
Home!

16625S SUNDAY, APRIL 22/1805-1820/3/1019/Ja
SS2 (Cordelia & Castor) SS2 8: 95, 5.

16626EM2 2200-0055 int / 3/ Journal/
CN3e.

16627B Monday, April 23/1805-1820/3/ Journal
Cordelia + Castor / -1 SS2 8: 6, 64, 10.

16628EM2 201950-0100 int / 10- Journal
CMPI, Lyrid Meteoric Meteors; CN3e, CN3F.

16629S Tuesday, April 24/1715-1730/3/ Journal
SS2 5: 83, 5.

16630S Thursday, April 26/1800-1815/10/3
Cordelia & Castor / SS2 5: 43, 17.

16631EM2 2015-0015 int / 7m / Journal CN3
CN3F.

04-12

6632M3 0240-0540/10/Jamaica/CMP-1, CN1, CN5, CN3e f hll kll 2ll 40mgll rad. CN3 0.7h

6633S Friday, April 27/1700-1715/10/Jamaica/SS2 with Cordelia + Coaster 5:47, 15

6634EM2 2100-0010/int/7m/Jamaica/SS2 CMP-1, CN1, CN3e F.

6635S Shabat, April 28/1555-1815/10/Jamaica/Cordelia + Coaster/Read Life Magazine's Titanic Picture book. / After, SS2: 5, 47, 11, (insure a bit about the number of prominences.)

6636EM2 2000-0010^{int}/7-m/Jamaica/CN3e, CMP-1, CN3h.

6637M3
~~6638EM2~~ 0240-0550/10/Jamaica/CMP-1
n AQUARIUM METEOR WATCH. 2 meteors, 1 sporadic
CN3a 0.8h E. CN3e F hll kll 2ll 40m n bll gll rad

6638S Sunday, April 29, Bar Mitzvah + 5/years / 1750-1805/10/Jamaica/SS2 4: 37, 17?

6639EM2 2040-0010/int/10-Jamaica/CN3e, CN3h ll. CMP-1, CN-5.

47
6638M3 0200-0550/10/Jamaica/beagle walk then CN3e F hll kll 2ll 40m n bll gll rad - CN3 1.1h E. CMP-1 1 meteor n Aquarid.

41
6639S Monday, April 30/1800-1815/10/Jamaica/-/SS2 with Coaster + Cordelia - 4, 41?, 11?

16642EM2 1945-00 1int | 7m | Jarnae | Petrus /
CN3e CN3h11 - Gemini (2 + B Gem) set.
TV Grw - C16.7

16643S Tuesday, MAY DAY / 1805-1820 / 10 | Jarnae
Cordelia + Castor / SSR: 5: 29, 15.

16644EM2 2100-00 1 7m | Jarnae | CMP-1,
CN3e TV Grw, CN3h11 & -B Gem.

16645M3. 0210 to 05.55 / 10 | Jarnae | The Beagle /
CN3e, h11 k11 2 11 40m n b11 g11 b.
CN3 with Gemini 1.2^h E. 2 meteoric meteors
CMP-1. ALPHA SCORPIID METEOR WATCH.
One bright meteor S-N. Beautiful.
Also P in Aquarid.

16646S Wednesday, May 2 / 1740-1755 / 10 | Jarnae /
Cordelia, Castor / SSR 38 43, 18.

16647EM2 2000-0100 int | ^{7m} CMP-1, CN3e, h11.

16648S Thurs May 3 / 1820-1835 | ^{7m} ~~10~~ / Jarnae / SSR.

16649EM2 2100-0400 int | ^{7m} ~~10~~ / Jarnae / CN3e, h11.

16650S. Fri May 4 / 1830-1845 / 10 | Jarnae / SSR.

16651EM2 2000-0300 int | 7m | Jarnae / CN3e, h11
Moon in loose st. LA with Spier + Saturn.

05-12

6652S. Shabat, May 5/1555-1810/3/Jarmac/
Sifting out of cups reading "To Killa Mocky
bird" by Herperda, listening at the same time
to "A Prairie Home Companion." Finally SS2 is
Caster and Cordelia. 3:34, 14.

6653EM2 2050 to 0255 int/7m/Jarmac/ Perigee
full Moon: considerably larger (apparently) and
brighter than normal. LPO-1, Moon. CN3e,
CN3h11 & BCemogion.

6654S. Sunday, May 6/1815-1830/10/Jarmac/
Caster, Cordelia/SS2 2:34, 12.

6655EM2 1930-0250 int/7m/Jarmac/LPO-1/
Perigee Moonrise - much later than we thought
but bright and big o'er the horizon.
CN3e, CN3h11.

6656S Monday, May 7/1830-1845/3/Jarmac 4/
Cordelia + Caster/SS2 3:50, 5.

6657EM2 2020-0200 int/10-7m/Jarmac³/CN3e,
CN3h11, CXP-1, LPO-1 (big Moon still).

6658EM Tuesday, May 8/2000-0130 int/2/Jarmac
Session in loving memory of The Beagle, who died
today.

6659S Thursday, May 10/1800-1815 to Jarmac/SS2 with CXP

6660EM2 1820 to 0100 int/10/Jarmac/SS2 at
Vail Astronomy Unabst with Unger Gray &
other telescopes Saturn, M64. Later, at
Jarmac, CN3e, CN3h11.

166619 Friday, May 11 / 1835-1850 / 10 / Jarmac /
SS2 with Cordelia and Castor / SS2 5:5

16662EM2 1955-0220 int / 10 / Jarmac / G.
CMP-1, CN3e, CN3h11. TV aw, Gem fu

16663S Saturday, May 12 / 1740-1820 / 10 / J.
SS2 with Cordelia and Castor 5:52, 7.

16664EM2 2000 to 0250 int / 10 / Jarmac /
CMP-1, CN3e, CN3h11.

16665S Sunday, May 13 / 1850-1905 / 10 / J.
SS2 5:36, 2.

Monday, May 14.
16666EM2 2200-0210 int / 10 / Jarmac / CN3e,
CMP-1. Visit from Craig & Helen McCall
CN3e. SS3 Omega Cen through Gemini 1

16667S Tuesday, May 15 / 1815-1830 / 3 / Jarmac /
Cordelia, Castor / SS2 5:36, 27.

16668EM2 2100-0200 int / 10 / Jarmac /
CN3e, CN3h11, CMP-1.

16669S Wed May 16 / 1830-1845 / 10 / Jarmac
Cordelia, Castor / SS2 6:42, 7?

16670EM2 2055-0150 int / 10 / Jarmac /
CN3e, CN3h11, CMP-1.

SE Friday, May 18/1745-2200 int / Nanners' house
then walk at Clarion hotel / Wendie / Sunset + green
flash. L + B Gem later.

05-12

SE Saturday, May 19/1800 to 2100 int MDT /
Nanette's house, then out Clarion hotel / T- /
SS2 with Minerva and its PST / 4.16, 0.
Then Venus in darkening sky.

SE. Sunday, May 20/1100 to 2000 / 9 / Vigil
home, Albuquerque / ANNULAR ECLIPSE OF
THE SUN; ECLIPSE NO. 81. I began this
all-day long session by sitting outdoors
in the Vigil yard for 6 hours before the 2-hr
eclipse was about to begin.

SS2 at 12:00 with Minerva 4:29, 0.

4:30 " " + PST 4:40, 3.

4:32 " " 5:37, 5

5:00 " " 5:38, 7.

5:20 " " 5:36, 9

5:40 " " 5:42, 6.

6:15 8" Celestron + PST. 6:77, 5

6:20 : Minerva + PST 6:64, 5

MDT

The crowd gathered around 6, and Jonniett Lane
set up his 8" reflector. The eclipse began promptly
at 6:31 and the Moon quickly demonstrated it was
near perigee and smaller than the Sun. It slowly
obscured the many sunspot groups. Near
annularity, the tree near a neighbor's house
cast eclipse shadows on the wall of the house.
As the ring formed my hands were trembling as
I tried to keep Minerva steady. We saw
a faint green flash as the upper cusp set and
soon after used Minerva to see Venus + Saturn
A marvellous eclipse!

166745. May 21/1815-1830/10/JARNAC - hem
SS2 3, 4, 11.

16675EM2 1940-0005 int/10/Jarnac/
CN3e, CN3h11.

16676M3 0150-0500/10/Jarnac/CN3F h1
CN3d 0.3hE.

16677S. MAY 22! WHEN I'M 64.
1850-1905/10/Jarnac/Cordelia, Cast
SS2 3:19, 15.

16678EM2 2000 to 0030 int/10/Jarnac/
~~SS2~~ CN3e, CN3h11-CN1 areas
56+71.

16679M3 0150-0500/10/Jarnac/CMP-1;
2 meteors. CNS, CN3e f h11 k11 211 h b11 g1b
CN3 1^h E. NORTHERN MAY OPHEUC
METEOR WATCH. CN3 1^h E.

16680S. May 23/1830-1850/10/Jarnac/SS2
high winds 2:6, 16; 7.

16681EM2 2150-0030 int/4-1/Jarnac/4
ing winds | CN3e, CN3h11 - CN1 ar

16682M3 0150-0500/10/Jarnac/
CN3F h11, k11, 211, g1 and CN3e, a, 4e

16683 May 24, Thursday/1820-1835/10/Jar
SS2 with Castor and Cordelia/SS2 3

166745. May 21/1815-1830/10/JARNAC-home/
SS2 3, 4, 11.

16675EM2 1940-0005 int/10/Jarnac/
CN3e, CN3h11.

16676M3 0150-0500/10/Jarnac/CN3F h11 k1
CN3d 0, 3hE.

16677S. MAY 22! WHEN I'M 64.
1850-1905/10/Jarnac/Cordelia, Castor/
SS2 3:19, 15.

16678EM2 2000 to 0030 int/10/Jarnac/
~~SS2~~ CN3e, CN3h11-CN1 areas
56+71.

16679M3 0150-0500/10/Jarnac/CMP-1;
2 meteors. CN5, CN3ef h11 k1/2 11 h b 11 g b a e
CN3 1^h E. NORTHERN MAY OPTIC HIK
METEOR WATCH. CN3 1^h E

16680S. May 23/1830-1850/10/Jarnac/SS2 un
high winds 2:6, 16; 7.

16681EM2 2150-0030 int/4-1/Jarnac/home
ing winds | CN3e, CN3h11-CN1 areas

16682M3 0150-0500/10/Jarnac/
CN3F h11, k11, L11, g11 and CN3r, a, + d

16683 May 24, Thursday/1820-1835/10/Jarnac
SS2 with Castor and Cordelia/SS2 3:1

05-12

16684A5EM2 / 2000-0015 int / 10 - Jarnae / CN3e, hll

16685M3 0155-0610 / 10 / Jarnae / CN3 / h E.
CMP-1, 7 meters; CN1, CN5.

16686 Friday, May 25 / 10 / Jarnae / SS2 2:16, 20

16687E2 1900-2345 / 7m / Jarnae / STS Thank
you party. ~30 people were here. Sam was
looking at Moon. CN3e, CN3hll.

16688M3 0150-0215 / 10 but high winds /
just closed up J2 and J1 buildings.

16689S Shabat, May 26 / 1600 to 1815 / 10, cool / Jarnae
outdoors reading "To Kill a Mockingbird" and
listening to A Prairie Home Companion. Then
SS2: 3:36, 21.?

16690EM2 2000 to 0010 int / 10 / Jarnae /
CN3e, hll. CMP-1.

16691M3 0200 to 0500 / 10 / Jarnae / CN3 / h E.
CMP-1 int recorded / CN3F hll Rll gll. CN-1.

16692S Sunday, May 27 / 1235-1250 / 10 / Jarnae /
SS2 with Cordelia and Gustav / SS2-8:43 ?12.

16693EM2 2030-0010 int / 10 / Jarnae /
CN-1, CN3hll. CN3e.

16994M3. 0115-0530 / 10¹/₂ Jarnae / a beaut
morning; cool and pleasant. CN3F,
g 11. CN²-3 da 1.6^hE.

16995S. T. Monday, May 28, Memorial Day
Cordelia and Castor / SS2 3:27, 14.

16996EM2 2015-2015 int / 10 / Jarnae /
CN3 h 11, Areas 56 + 71.

16997M3 0155 to 0505 / 10¹/₂ Jarnae / CN3 d
CN3F h 11 k 11 g 11 rad.

16998S Tuesday, May 29 / 1805-1820 / 10 / 3
SS2 6:34, 12.

16999EM2 2020 to 0010 int / 10 / Jarnae
CMP-1, CN3e, ~~CN3h~~ CN3b 0.2 h with
Coffee + Sammie.

16700M3 0155-0440 / 10 / Jarnae /
CN3F h 11 k 11 g 11. CN3 d r, a 1.5^hE

16701S. Wed May 30 / ~~1800~~ 1845-1900 / 1
Jarnae / Castor, Cordelia 5:15, 8.

16702EM2 2015-0030 int / 7m / Jarnae /
CN3 0.1^hW with Pegasus. CN3e
~~CN3~~

16703EM Thu May 31 / 1910 to 0100 int /
~~CN3~~ smoky sky. Esther set
successfully.

16713SEM Tuesday, June 5/1900-1300 to 0100. last half int/10/Jarnae/SARAS-1, GS3, SS 6:45, 3rd; CN5, CN3e.

The Transit of Venus. With Elin Dalia Maor, Tim + Carol Hunter, John + Lisa Karlos, and Twyla Peak. A wonderful treat, I'll never see again as long as I live. I took some pictures with my Coronet 2 and my Cupid, and Cordelia. Also Cass + the telescopes belonging to John + Later. CN3e TV Cov.

16714S Wed June 6. 1855-1910/10/Jarnae SS2 with Cordelia + Cass: 5:36.

16715EM2 2055-0150 int/10, 7m/Jarnae/CN3e.

16716S Thursday, June 7/1645-1700/10/Jarnae Cordelia and Cass/SS2.

*16717EM2 1910 to 0100 last part int/ Kitt then Jarnae 10-7m/ Sunset at the M lecture to 29 kids, including a young skater, and their staff. Then SS3:6 and a fabulous view of M51!

16718S Friday, June 8/1915-1930/10/Jarnae Cordelia, Cass/ 4:16, 3.

16719EM2 2000 to 0130 int/10+7m/Jarnae/SS2 ' roof broke again.

16730S. Sunday, June 17/ 1900-1915/ 10/3a
SS2.

16731EM2 ²¹⁰⁰⁻⁰⁰⁴⁰
~~0040-0530~~/10/ Jarmac/ CN3e, CM.

16732M3 000-0530/10/ Jarmac/ CN3HF h 11
40m CN3 1.7^hE.

16733S. Monday June 18/ 1815-1845/ 10/ Jarmac
SS2 4:14, 14.

16734ER2 2125-2200/ 10/ Jarmac/ SS CN3e CN3eC.

16735S. Tuesday, June 19/ 1840-1855/ 10/
SS2 with Cordelia + Ceasar 2:24, 12.

16736EM2 2055-0005 int/ 10/ Jarmac/ SS CN
CMP-1.

Wed June 20
16737M3 0150 to 0435/ 10/ Jarmac/ CMP-1,
possible early σ Draconid meteor just lit
the 1956 one towards Vega.

CN-1, CN5 CN3FH11 & n gll rat & d. CN3
Fridium flare - 7 I saw by accident
16738S ^{Thurs} Wed June 21, 1900-1915/ 10/ Jarmac/
SS2 2:2, 5.

16739EM2 2040-0005 int/ 10/ Jarmac/ CN3e.

16740M3 0150-0450/ 10/ Jarmac/ CN
h, h11, R11 (Chole works!) n, gll
CN3d 1^hE. CMP-1, a

16752S Sunday, July 1 / 1815-1830 / 3 / Jarr
SS2 Cordelia + Coaster 5: 59, 13.

16753EM 2 2030-0010 int / 10 / 3 / Ja
CMP-1.

16754S Thursday, July 5 / 1850-1905 / 10-3 / Ja
Cordelia and lovely Coaster. / SS2: 5: 54, 5

16755M 2 0000-0015 / 2 / Jarrnae.

16756S Friday, July 6 / 1835-1850 / 3 / Jarrnae Co
Coaster / SS2 8: 76, 10.

16757E 2 2300-0000 int / 3 / Jarrnae

16758S Saturday, 7 July / 1835-1850 / 10 / Ja
Cordelia, Coaster / SS2: 5; 72, 10.

16759EM Sunday, 8 July / 2215-0030 int
CMP-1. Jarrnae.

16760EM 10 July / 2300-0100 int / 3⁴ / CMP

16761EM 11 July / 2200-0130 int / 1- / CMP

THE ADIRONDACK ASTRONOMY RETREAT

16762AM 14 July, Bastille Day / 2100-0330 / 10-3-4 / ADIR
ONDACK ASTRONOMY RETREAT. GA3 Minerva / CM
• CMP-1 Cometaria network. Auroa, possible glow in North
through clouds 10-inch telescope

The Adirondack Astronomy Retreat.

Summer-2012, 07-12

6763EM. Sunday, 15 July / 2300-0100/0 to 10
Plan 1. The Adirondack Astronomy Retreat
CMP-1. Nice hour or so before clouds
returned, but no aurora.

6764AN Monday, 16/17 July / 2000 to 0400/
7-9-1-3-4 / The Adirondack Astronomy
Retreat first session. Murray, Part
2.5" (David Fowler) 10" (Clara Scatthorn)
by binoculars + telescope (Marty Rice), Bob
Anderson's 12-inch, + other people + telescopes
Plus: WOKR. Beautiful piano music
The pianist's hand is few across the keys!
Then Tizhak Pearlman played Bach's
Brandenburg Concerto #3. He is undi-
passed on the violin. He knows his way about
a fiddle. With Venus rising over Tergus
Mountain, I ended the session.

6765M. Tuesday, July 17 / 0000-0030/2-1/
The Adirondack Astronomy Retreat. After a
major thunderstorm late this afternoon and a
smaller one tonight we saw the Milky Way
together stars in the overhead region. But
then lower clouds obscured it + once more
the whole sky was opaque.
Now we are getting a night off. The fore-
cast for Session 2 is excellent. Even though
the session ended, sky stayed cloudy through
the rest of the night. Cleared a bit near sunrise.
Nice guy David - BFF Steve Durham -

Sunrise over the
Adirondack Astronomy Retreat.

16766MS. Wednesday, July 18 / 2000-0640 / 3 / The
Adirondack Astronomy Retreat. I took pictures
'using my old Yashica - Mat R4G and
Kodak of Dawn + Sunrise. Sunrise
ARR.

16767AN2. 2100 to 0420 / 10+ / Adirondack, As
Retreat. Mirewa + Hart + other telescope
people. CN3s 4.5^h SW, W, NW, N, NE
CMP-1 3 meteoric meteors Auroral - v
A beautiful, gorgeous night. One of those
that one never forgets.

16768AN Thursday, July 19 / 2030 to 0415 / 42.
in spots very clear and dark / CMP-1 2
meteors / The Adirondack Astronomy
(2nd session) / CN3 3.3^h N, W, (then
finally E) with Hart + Mirewa! One of
meteors was very bright - I saw the bright
train. The hour with Hart in the field
was extremely pleasant. I was feeling
rather unsteady for a while but much better
later. A good - a very good session
(1753-1849)

Windman sat for Pattern
Austrian scientist + printer.

16769S Friday, July 20 / 1930-2000 / 3 / ~~James~~
Adirondack Astronomy Retreat / Sun goes
down; completing Yashica pieces of telescope
The observing field; also Wendee + Joanie

16774E. Wednesday evening at the Observator
n of the old one. At the new David
telescope at The Bellevue Observator
Very nice opening. I made a spec
quipped from the night "It is mag
hooz filled with golden fire. Very
evening. "What a piece of work is

16775M. ~~Saturday~~ Thursday, Friday, July 28/
020-0315/1-0/London. Watched fo
with Peter. I enjoyed seeing one ecc
train moving under the new bridge. It
fun being with Peter.

16776M. Saturday, July 29/0000 to 0130/RAF
tonight. Moon, CMP-1. / Peter Le

16777AS. Sunday, July 30/1930-2015/1A7
Peter riding in his lovely Mercedes-Benz ca
like sports car. View of the Moon!

16778E2. 2245-2350/3/London/ ~~side of the view~~
the new bridge - over C P track. No trains
CMP-1.

16779MB. 0040-0125/3/London/ bridge view ov
Again, no trains.

16780E. Monday, July 31/2015-2130/3/Lond
NY/ Janie, Philip, Wendee/ The full Mo

6781M ~~Monday~~ ^{Monday} August 6 / 200-0100 int / Moonrise
on East. LPO-1. Partial cloudiness. Summer 2012, 08/12

6782S. Tuesday, August 7 / 1800-1815 / 3 / Jarnac /
SS2 with Comba and Caspar / SS2: 7:49, 19.

6783EM2 2100 - int / 3 / Jarnac / Near the end of my
BBC interview I went outside with my microphone
recorder. LPO-1. Mars, Saturn + Spica
in a near perfect equilateral Δ in the southwest.
Very pretty sight.

6784S. ~~Wednesday~~ Thursday, Aug 9 / 1815-1830 / 3 / Jarnac /
Caspar + Comba / SS2: 8:24, 7.

785EM2 2030 to 0155 int / 10-9 / Jarnac.
CN3 with Spica! 0.1^h W. Later, CMP-1,
PERSEID METEOR WATCH 10 meteors.
The first was iffy + I didn't count several
other iffy. Ten meteoric meteors.

786E Saturday, August 11 / 2200-2230 / 2 /
Jarnac / 'Check in' on sky conditions.

787M2 0045-0215 / 10+ / Jarnac / CMP-1
PERSEID METEOR WATCH
DELTA AQUARIID METEOR WATCH.
KAPPA CYGNID METEOR WATCH
25 meteors seen in a beautiful
summer evening sky.

16788S. Sunday August 12/13 | 1745-1800 |
FIFTY YEARS SINCE THE GREAT
1962 PERSEID METEOR WATCH
SS2 with Coaster + Cordelia 3: 8, 8.

16789M2 0100-0320 / 3 | Journal | CMP-
PERSEID METEORIC METEOR W
50 years since 1962. 30 meteors
KAPPA CYGNID METEOR WATCH.

16790EM Friday, August 17/18 | 2200-01
10 | NOVA EAST STAR PARTY, at Sm
Provincial Park. / FF With Bertha,
8" telescope belonging to Blair McDonald
I did some comet hunting + saw 4
CMP-1 4 meteors.
CN36 15W. with Bertha.

16791S Saturday, August 18 | 1500-1650 |
Nova East Star Party, Smiley's Camp
Royal's Solar projection scope. SS2 2

16792E2 2000 to 2130 / 11 | Nova East / Sn close
lots of mosquitoes.

16793E3 2300-2345 in / Nova East - Downs
Motel / 5 | Vega Decl. A Wayer, G
Later, stars still visible but dense fog

16794MP Wed/Thu August 22/23 | 0500-0500
3 | Journal. In between rains. Oris

Summer 2012 08/12.

795E Thurs Aug 23 / 2:00 - 2:30 / 3 / Jernac /
CN3 test. CMP-1.

796M2 0250-0515 / 10-3 / Jernac / CMP1, CN-1,
CN5, CN3FHll kll 40m alt, n, gll, d CN3 0.4^hE

797E Friday / 1830-1845 / 3 / Jernac / SS2 with Castor
Cordelia / 4r 27, 9.

798E2 2000-2145 / 7-3 / Jernac / CN3 testing. CMP-1
nice summer evening.

799M3 0150 to 0515 / 10 / Jernac / CMP1, CN1, CN5,
CN3 0.6^hE. CN3FHll 2ll 40m gll. lovely summer
morning.

800S Sat. Shaloo Aug 25 / 1615-1630 / 2 reporters from
KGVN-9 interviewing me about the passing of
Neil Armstrong.

801S2 1830-1845 / 3 / Jernac / SS2 with Cordelia and
Castor / SS2 4:24, 7.

802M3 0250 to 0515 / Jernac / CN-1, CN5, CMP-1,
CN3FHll kll 2ll 40m n gll rad CN3 0.8^hE.

803S Sunday, Aug 26 / Jernac / 1330-1400 / 3 / Jernac
Mintaka / SS2 4:19, 7.

804E2 2000 to midnight int / 3 / Jernac / LPO-1-9
look at the Moon find a wink to remember Neil
Armstrong, who died yesterday. CN3F data recovered.

16805M3 0250 to 0530 / 10 / Jarnac /
Beautiful crisp summer morning. CMP
CNI, CN5, CN3 FH11 K11 211 40m n of 11
CN3 0.5 hE.

16806E Tuesday Aug 28 / 2045-2210 / Unsuccessful
test w/ Meade Pictr. Also running vacuum
for Obadiak.

16807M2 0250-0525 / 7m-10 / Jarnac
Lovely session except for Petrus. E
imaging went well. CN3 0.6 hE C
CNI, CN5.

16808EM Fri Aug 31 / 2300-0130 int / 7m / Jarnac / testing

16809EM Saturday September 1 / 2245-0150 int / 7-3
testing, + CMP-1.

16810EM Sunday, September 2 / 2145-0030 int
Jarnac / CMP-1.

16811S Tuesday, September 4 / 1800-1815 / 3 / Ja
Castor, Cordelia SS2 6:53, 11.

16812EM2 2355-0045^{int} / 3m / Jarnac

16813S Wed Sept. 5 / 1750-1805 / 3 / Jarnac
Cordelia Castor / SS2 re-reading
due clouds.

16814EM2 2215-0030^{int} / 3 / Jarnac / CMP-1.

Summer of 2012 09/2012.

16815Fr. Friday, Sept. 7/2245-2330/~~10~~ 3-2/
Jamaica/CN3L1 successful test of spare
camera.

16816S. Sunday, September 9/1400-1475/3/Jamaica
SS2 with ~~Cordelia~~ Mintaka 5, 15, 6.

16817EM2 2300-0030 int/~~10~~ 3/Jamaica/CMP-1.

16818EM Mon Sept 10/2245-0050 int/Jamaica/CN

16819S. Tues September 11/1300 to 1630/3/Jamaica/
J-2, J-4. SS2 with Cordelia 3:11, 10.

16820EM 2000-0100 int/3-2/Jamaica/CMP-1.
Clear with some clouds, then clouds, then RAIN

16821S Wed Sept 12/¹⁴³⁰⁻¹⁵³⁰1345-1400/3/Jamaica/SS2 with
Mintaka. 6: 17, 10.

16822E2 @ 1900-2000 int/³~~10~~/Jamaica/8 CN3b 0.1h U
with Apollo.

16823M3 0200-0600/10/Jamaica/CMP-1 3 notes
plus 2 more (probably) on CN3L1 + CN3h image
CN3Fh 11/11/40 min g rad CN3, 1.2h E. This
was one of the best sessions, short of discovering
a comet. I set up the telescopes + got
them to work except for Narcissus (as usual) +
~~observed~~ Clyde BUT, Esther was red perfectly.
Then I began visual comet hunting. As

not

11823113
Concluded
soon as I sat down to start, a sense of
transcendental peace filled my mind and my
heart. The more than an hour I spent was
great. Near the end, I saw a satellite
pass low in the east heading north. I got
in the telescope and could tell by its bifur-
cated shape that it was the ISS. With
the sky brightening in the east after a weak
display of zodiacal light I could stop
copy the images. Finally I went to the
south end to check that the wall was
closed. As I headed back North again
witnessed a spectacular launch from
of White Sands, a Juno rocket heading
into the heavens leaving a big white
vapor trail. I watched it for a minute
before the booster cut off its engines & had
gone downwards ballistically, leaving a
fat white vapor trail. I even got some
blurry pictures of it, & woke up Wendie
so she could see it too. Finally the
session ended at 6 am. This was the
session that deserves a chapter in my
book. I could write about the image
progress, the visual comet hunt, & the
Juno launch. A truly moving ses-

118245 Thursday September 13/1400-1415/10/3/5am
SS2.

118252 1845-1900/1-01/Vail Astrophysics Unatub.
• Got talk done & then rained!

09/12

1826E. Saturday September 14/15/2200-2215/
1-6/8, Yucca Valley, CA / SS 3. General
constellation observing.

1827M Sunday September 16/2300-0045 int/
10/Jarman / CMP-1.

1828S Mon September 17/1815-1845/10/Jarman / SS2:
2:5, 19 at least.

1829E12 1950-0030 int/10/Jarman / CMP-1.

1830M3 0250-0600/10/Jarman / CN3 F h l i j k l l 2 l l 40m n g l
rad CN3 1^E.

1831S. Tuesday Sept 18/1800-1815/10/Jarman / SS2 with
Caster, ~~to~~ Coradelia. 3:7, 14.

1832E2 2000-2115/19/3/Jarman / CN3 0.1^^b with Pegasus
checkin' with Esther + Flaire.

1833M3 0250 to 0600/10/3/Jarman / CN3 1^^b E
with Gemini. CN3 F h l i j k l l 2 l l 40m n
CMP-1 / protein through telescope.

1834S Wednesday, September 19/1830-1845/
3/Jarman / SS2, Coradelia + Caster. 3:13,

1835S Thursday September 20/1100-1315/
Jarman / Alhambra / SS2 2:5, ~10, Earliest
unsuccessful attempt to spot the
ecowon flying over Tucson.

Sensory Green flash;
10/12 only partial

118475 Sunday Sept 30/2012-1815/10 Jarnae | SS2 Crest + Cap | SS2 1, 1,
11848EM2 2245 to 0050 int | 7m | Jarnae | CMP

11849S Monday, Sept. Oct 1/1740-1755/10 | Jarnae
Cordelia, Castor | SS2 3:4, 33. Many small
prominences, a few big ones.

11850EM2 2200-0115 int | 7m | Jarnae | CMP-1.

11851S Thursday, October 4 1957/1515-1530/10 | Jarnae
Cordelia, Castor | SS2 3:13, 12.

11852EM2 ~~20~~ 1930-0130 int | 10, 7m | Jarnae | CMP-1

11853S Friday October 5, 2012/1500-1520/3 | Jarnae
Cordelia, Castor | SS2 3:17, 7.

11854EM2 2145-0200 int | 3+7m | Jarnae | CN3h II.-
CN-1 Areas 56 & 71.

11855S Shabat, October 6 / 1100-1300/3 | Jarnae |
Mintaka | SS2 2:7, 13 or more.

11856EM2 Sunday Oct 7/1200 1545-1600/3 | Jarnae,
Castor, Cordelia | SS2 .2: 12 or more, 12 or more

11857EM2 1950 to 0145 int | 10-7 | Jarnae | CMP-1,
CN3h, CN3h II. CN3c. Comet Neigenrothen
probable sighting

11858EM Mon Oct 8/1945-0100 int | 10-3 | Jarnae |
CMP-1, CN3h, CN3h II, CN3c. Comet Neigenrothen
confirmed easily this lovely evening.

Tuesday, Oct 9.

16859EM 1915-2130 int/10/Jamaica/CMP-1 no
Draconid meteors, CN3h, CN3h11. @

16860EM Wednesday Oct 10. / 1915-0100
10/Jamaica/CMP-1, CN3h, 25 pieces
Then 2 sets with Esther + the Pater.

16861MR 0305-0610/3/Jamaica/CN3 0.5hE, CMP1, CN3FH11K11

16862S. Thursday, October 11 / 1645-1700/3/5
Caster, Cordelia / -1SS2.

16863EM2 2115-0030 int / 3/Jamaica / CM

16864S. Sunday, October 14 / 1705-1720 / 10/
SS2 with Caster and Cordelia / SS2: 6.6

16865EM2 2220-0045 int / 10/Jamaica / ~~SS~~ CMP

16866M3 0255 to 0605 / 10-3 / Jamaica / some breeze
some clouds / CN3 1hE. CMP1 4 meteors, 3.
ORIONID METEOR WATCH. CN3FH11K11J114
DELTA AURIGID METEOR WATCH. 1p

16867S Monday October 15 / 1225-1240 / 3 / San
Antonio / SS2 4: 33 or more, 12 or more.

16868M2 0230 to 0640 / 10 / Jamaica / CMP-1 6 meteor
meteors. OCTOBER DRACONID METEOR W
3 probably LATE Oct. Draconids.
CN-1, CN5, CN3 1.5hE. CN3adFH11K11J11
OCTOBER DRACONID METEOR WATCH

16869EM Tuesday Oct 16 / 2130-0005 int / 2 / CM

16870S Wednesday, Oct 17 / 1700-1715 / 3 / San
Cordelia, Caster / SS2 4 / 16+, 13+.

10/2012
16871S Thursday, October 18/1600-1615/3/Jarnae
Caster, Cordelia SS2 3:29, 12+.

16872EM2 1800-0100 int/3/5/Wendy & David
Levy Observatory / Vail Astronomy Anclut/S
CR0-1, CN-1, EW5. M31. Later, CN3h
at Jarnae. The first part ended at 2015,
flowed into 2nd part at Jarnae.

16873S Fri Oct 19/1600-1730/3/Jarnae/Caster
SS2 4:18, 48 prominences.

16874SEM2 1745 to 0115 int/3-10/Jarnae/Caster
plus successful installation of new Meade LX8
mount!

16875M3 0250 to 0615/10/Jarnae/CN3n with
multimount a big success apparently. CN3h 1.
CN3 Fhlljkl 2ll 40m n g ll red.
CMP. ORIONID METEOR WATCH. 3 Faint to less.

16876S Saturday, October 20/1650+1715/10/Jarnae
Caster, Cordelia SS2 3:18+, 36 or so prominences

16877EM2 2215 to 0145 int/7m-10/Jarnae/CMP-
1 Orionid only. ORIONID METEOR WATCH

16878SE Sunday, October 21/1720-1805/3/Jarnae
SS2 with Caster Cordelia 4:28, 36.

16879EM2 1930-0130 int/7m/Jarnae/CMP-

16880M3. 0145 to 0615 / 10 / Jarnac / Beauty
all morning. CMP-1 14 meteors + 2
images; = 16 meteors mostly Orion
CN-1, CN5, CN36 1.3h E. CN3f, h, j, k
g, l + b. ORIONID MTR WATCH.

16881S. Monday October 21 / 1700-1720 / 10 /
Caster, Cordelia / CN+ SS2 4; 36, =

16882EM2 2200 to 0115 int / 10 / Jarnac / CMP
E 1 sporadic meteor, CN3h, l, Areas 5

16883M3 0215-0620 / 10 / Jarnac / CN3
CMP1 4 meteoric meteors ORIONID MTR. 4

16884E Tuesday October 23 / 1930-2045 / 3 / Jarnac
Joshua set up.

16885S Wednesday October 24 / 1976 / 1700-
10 / Jarnac / SS1 with Caster + Cordelia 3
Jarnac included the final following names
telescopes:
in J 4: Cordelia, Caster.
in J 1: Joshua Caster, Narcissus, C
in J 5: Spica.

16886M2 0240-0615 / 10 7m-10 / Jarnac / C
4 meteors, 2 of which are possible Jarnac
TAURID METEOR WATCH. CN-1, CN-
CN3d 1.2h E. CN3e, f, h, i, j, k, l, 12, 14 mag

16887 ~~REM~~ M, October 25/26/1930 - 0100 int / 7m / Journal & Flare adjustments. 12/10

16888 M2 0245-0645 / 7m - 10 / Journal
CMP1 5 meteors, at least one of which was probably an early Taurid. CN1, CN5, CN3d 1/4 E
CN3F hllly kllll 40m n gll rad.

16889 S. Oct 26/27 / 1415-1430 / 10 / Journal Mintaka
SS2 3:24, 17 or more.

16890 ~~M2~~ 2015-0030 / Jim / Journal CN3d 1/1, test
+ adjustment of Lother & Paula's Himmelskamera.

16891 M3 0250-0345 / 7m (Dinky) Journal / CN3d
camera close to alignment. One image captured a meteor, either a late Orionid or an early Taurid.

16892 S. Oct 27 / 1515-1800 / 10 / Journal Castor & Cordelia / SS2: 3:24, 13.

16893 ~~REM~~ M2 Oct 27/28 / 2100-0130 int / TF (Journal)
CMP1.

16894 S. October 28 / 1700-1715 / 10 / Journal Castor & Cordelia / SS2: 3:17, 21.

16895 ~~REM~~ M2 1745-0115 int / 7m / Journal soft green
flash. / CMP1, Sky 2.

16896S Monday October 29 / 3:45 - 4 pm / Jan
SS2 with Chester & Coraelia 3:13, 29.

16897EM2 2100 - 0115 int / 7m / Jarnae / CMP-1

16898S Tues October 30 / 1535 - 1550 / 10 / Jarnae / ^{Co}
SS2 Mintaka / SS2 2:4, 10.

16899EM2 1945 - 0115 int / 7m / Jarnae / CMP-1.

16900EM Wed, Halloween / 2 1830 - 0045 int / 7m

16901S Thursday, November 1 / 1605 - 1620 / 3 / Jarnae
Mintaka / SS2 2:5, 20 plus prominences

16902EM2 2100 - 0130 int / 7m / Jarnae / CMP-1

16903S Friday, November 2 / 1605 - 1620 / 3 /
Chester & Coraelia. SS2 2:4, 10.
Partial clouds covered $\frac{1}{2}$ of Sun.

16904EM2 1905 - 0115 int / 10 - 3 / Jarnae / A,
CN36 0.140. CMP4.

16905SE Saturday, November 3 / 1520 - 1845 / B / Jan
Chester & Coraelia / SS2 1:2, 19. G sky
Green Flash.

16906EM2 2030 - 0105 int / 3 - 7m / Jarnae / C
TAURID METEOR WATCH. 2 meteors faint

12/11

69075 Sunday November 4/1540-1740/10/Jornae/
Cordelia, Castor/SS2 0, about 20 prominences

69080 1800-0120 int/10-7m/Jornae/CN3b D, 1/4
with Samurise, CMP-1 TAURID METEOR WAVE
2 meteors; 1 nice bright burst in far south.

69095 Monday November 5/1600-1715/10/Jornae/Caster,
Cordelia/SS2 2:19 about, 25 approximately.

69105EM. Tuesday November 6/Election Day/1645-0130^{int}
10-Forming then Wendee G David Day Observing
Then Jornae/SS2 with Cordelia, Castor/
SS2 2:8, 20 approximately prominences.
Vid Ast. Includ. Unab Gray. M13, M57.
Watching Barack Obama win 2nd term.
CMP-1.

69115 Wednesday November 7/1530-1615/3/
Jornae/Wendee Herb Unruh, others/Mun-
taka/SS2 2:4, 15 or so.

6912EM2 2225 to 0130 int int/3/Jornae/CMP-1.

6913EM Thursday, November 8/2000 to 0100 int/3-1/
Jornae/SS3, with Wendee, Scott Roberts, &
Sheldon, Leo Rat telescopes in J1.

69145 Friday, November 9/1435-1450/3/Jornae/
Caster + Cordelia/SS2 7:20, 21.

16915E Sunday, November 11, Australia Time/20
2030int / 3/ Cairns, Queensland, Australia
CMP-1. No meteors but several bats!

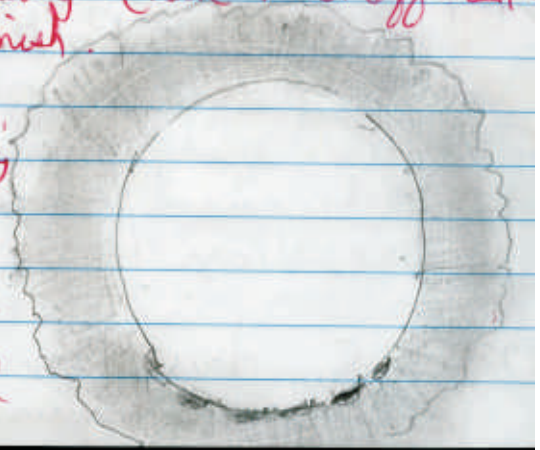
~~16916M~~
~~16916S~~
16916MS Monday - Wednesday, November 14, 1968
to 1330 / 10-3 / Green Island, Australia / T
Eclipse of the Sun, Eclipse No. 82. This was one I ap-
pared to miss. The long-range stats indicated at best a
chance of visibility, and after an interminable 13-hr
across the Pacific we arrived at Brisbane on Nov. 11.
From the start of my visit to Cairns the sky was cloudy
most of the time. By Nov 13 I had made a kind of peace
seen so many eclipses; life would go on if I missed the
I awoke at 2 am on Wed morning, Nov 14.
Drizzling outside. By 3 I was downstairs + walked
group to the Ocean Freedom boat, which left at 4
we were at Green Island. At this tiny spot in the
Barrier Reef, except for a few clouds to the west, the
clear. Callisto, Venus, + Jupiter were disappearing
as dawn advanced. I finally found my obs
partner, Dave Eicher + set Cupid up next to him. The
went well. Then I set up the camera and adapter
except the camera's battery. I could have been
I wasn't. I immediately went into plan B, which is
a strictly visual experience. This was the best plan
strong east breeze would have made any photo
a challenging task. ~ About a quarter high
the Moon took its first tentative bite of the "red-hot
the Sun" as Leslie Peltier so aptly put it. The main
Moon was deliberate and efficient, + it was unimped-
by clouds except for a couple of 30-second bursts
rapidly forming and dissipating clouds passed by de-

11-2012

1691618 opening partial phase. But as the Moon covered more of the Sun, the decline of light grew more palpable obvious, and as the temp. dropped the few clouds began to dissipate I snatched up all the 36 sunspots I counted. By the time it ate the just a tiny sliver of Sun was left. A minute or 2 later I removed the solar filter. Behind me a faint set of shadow bands crossed over a of beach sand behind me. I could see the beams of a fine-thin crescenting through the eyepiece. The dark moon shadow was hurtling down at us above. "It's going to be a dark eclipse," Dennis Mamana said you right. I looked on more at the Sun - now a ring then line of gold. Melik Thorpe walked by to discuss totality with David and me. The ring grew smaller until it congealed into a single point, a spectacular dark ring. The corona - shot out - along with an exquisite roughing prominence the leading side. I could still record the prominences! By end of totality I counted 19. This was one of the darkest eclipses I've ever seen, probably due to the area's high humidity. I saw Canopus + Venus, + because not getting any pictures, I could take in the whole unearthly scene. Then Melik through the telescope. As I looked up I could see the Moon's shadow from heaven into the sea as if began its eastward rush across the Pacific. The brilliant of a second diamond ring marked third contact.

SS2: 7:36, 19. David + I walked to a set of tables, sat down at one of them and chatted about nothing in partular for several hours. It was good to catch up with Melik on an great standing job of changing a site that offered sprawling blue sky from start to finish.

"The moving finger writes, + having writ, moves on," Leslie Peltier writing Starlight Nights, "but writing now with invisible ink across the empty page of space." Once again, I had a good within the always precise forever welcome shadow of the Moon!



16917S Thursday, November 15/20 0230-0900/2 / Jarrod
Cupid / SS2 3: 3 at least.

16918E2 F 2200-2215 Adia Springs Time / ^{near} Lapa
Hotel + Casino; in front of restaurant / the
Orion Sirius Canopus.

16919S Friday, November 16/04 30-0735/3 / La
Hotel and Casino Pool / Cupid / SS2 photos
using Cupid. SS2 with Cupid: 5: 36.

16920E2 1745-1845/10 / Uluru (Ayers Rock) at
Took ~~5~~ pictures six pictures.

16921E3 2015-2245/10 72 lots of lights / Desert
Hotel, near Ayers Rock / first I took a few
of the bon with Cupid + the Canon camera. A
small group of people were joined prefer an
observing session. It was we looked at
M42, Betelgeuse and their favorite was
Jupiter. Then we I pointed out the L
SMC. A nice evening despite the lights.

#16922M4 0400-0415/10 - ~~Iron~~ Desert Gardens by
near Ayers Rock. / CMP-1 Leonid Meteorite
/ meteor seen, a faint point. Because my
was screaming for sleep, I stopped ear
returned to bed. But still, fun observing
session.

16923. Sunday, November 18/1000-1230 / Canberra
Space Communication Complex / our "02" Group

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1924E2 1930-2200/9/ Mount Stromlo/
Oun "D2" group plus lots of the public/
CMP-1, 3 meters, one of which was a
bolide low in the NE. (I think NE) SS 3.
Used Cupid to look at Moon (photos), and
the LMC. A 14" Dob was used to spot
the 47 Tucanae Cluster plus the Tarantula
nebula in the LMC. A Meade (probably 11")
was used to see the Moon. Very windy & cold.
Guinea blanket to keep warm.

1925E Monday, November 19/2100-2130/3-2/Syd-
ney, ^{NSW}Australia/SS3 - Crescent Moon facing off
east direction. Pointed that out to Dawn &
the others. Few walking with me from the Lick's
Restaurant to the wonderful Grace hotel which
is my home for the next 2 days.

1926E Tuesday, November 20/1915-1930/Grace Hotel,
Sydney, New South Wales, Australia/SS3 -
Moon pictures with Canon & new lens.

1927E Wednesday, November 21/1920-2300 int/
7m/Jarnac.

1928E Thursday, November 22/1615-1630/
10/Jarnac/Caster, Cordelia/SS2 5:54, 15.

1929E 2300-0130 int/7m/Jarnac/CMP-1.

1930E Friday Nov 23/1930-1945/10/Jarnac/Caster &
Cordelia/SS2 3:54, 15.

1931E 1930 to int/7m, windy from E/Jarnac/CMP-1.

16932EM2 S. Sunday October November 25/16
3/Jamaica P., Koster, Cordelia / SS 2 O.C.
prevented the sighting of any spots.

16933EM2 1830 to 0055 int / 7m / Jamaica / CMP

16934S. Monday, November 26/1305-1400 / 3/Jar
Mintaker / -1 SS 2 4.27, 4.

16935EM2 2100-0100 int / 7m / Jamaica / CM.

16936EM Tues Nov 27/1900-0100 int / 3m / Jamaica
CMP-1.

Eclipse No. 875.

16937M2 0520 to 0655 / 3 / Jamaica / Ex Sarah
with Cupid. Penumbra Eclipse of the Moon.
At its best, this eclipse was barely detectable.
I did enjoy viewing it through Cupid, &
took many pictures with the Canon.
Most of the time the Moon was in the clouds
until near moonset when it went behind
thicker cloud. Then I went outside.
Despite not the best showing, I still
enjoyed the simplicity of this eclipse.

16938EM Wednesday, November 28/2000-0115 int

16939EM Thursday, November 29/1900-0115 int / CMP-1

16940S. Friday November 30/1300-1315 / 10/3
Mintaker / SS 2: 4:20, 17.

16941EM2. 2045-0116 int / 7m / Jarnae / CMP-1 ¹²⁻¹²

16942EM. Sat December 1 / 2115-0100 / 7-10 / Jarnae / CMP-1.

16943S. Sunday, December 2 / 1500-1515 / 10 / Jarnae / Mintaka / SS2: 2:8.

16944EM2 2045 to 0130 int / 10-7m / Jarnae / CMP-1

16945S Monday, December 3 / 1305-1320 / 3 / Jarnae / Mintaka / SS2 2:6, 17.

16946EM2 2200-0045 int / 10-7m / Jarnae / CMP-1.

16947S Thursday, December 4 / 1300-1315 / 3 / Jarnae / SS2 w/ Mintaka 2:4.

16948EM2 17~~45~~³⁰ to 0055 int / 10 / Jarnae / ^{7m-3} earlier
Wt Navy Observatory / Unab Gray etc. /
Unit Astronomy Unab mtg at Cr. FHL. M.S.
Jupiter, M45, NGC 884, DELTA ARIET.
METEOR SHOWER / 1 DA, 1 non DA
all within ~2 minutes as Wendee was per-
ing out of yarder. Nice catch! Clouds
rolled in during evening OR the bright mtr may
have been from the real shower, so.

16949S Friday, December 7 / ~~21~~ 1215-1230 /
10 / Jarnae / Mintaka / SS2 1:4, 12 or m

16950EM2 2100- - int / 7-10 / VofA then Jarnae
CMP-1. lecture at TAAA on skyG-literature

16951E. Saturday, December 8 / 2045-2100 / 7 / Vigil home, Albuquerque / Summer + Matt correctly pointed out the Pleiades, Orion, and Jupiter. SS 3.

16952S Sunday, December 9 / 1100-1300 / 11 / Albuquerque Nanners, Mark, Summer, Matthew, Barbara, Connor, and of course Wendee + Red up to Sandia peaks in an aerial tram - a visit to the summit, + then down again. Winter storm moving in.

16953E. Monday, December 10 / 1930-2000 / 3 / Albuquerque, Vigil home / Kaia / Mark, Kenneth, Summer, Matthew, + Wendee / SS 3, LPO - Mark used Kaia's 3" telescope to see Jupiter + its 4 moons, Wendee said they were in a perfect straight line. Mark did a good job finding Jupiter.

16954E Tuesday Dec 11 / 1900-0220 / 10 / Jarroa / CMP1. CN3 e F h i l k l l d l l 40m ng ll setup, failed to spot Toutatis.

16955M2 0255-0700 / 10 / Jarroa / CMP-1 Gemini Meka Watch: 10 photos + 1 on film = 14 altogether. CN3d, 1^h E. CN3 e F h i l k l l d l l 40m ng ll r, a, d. Beautiful, calming, lovely session.

16956S. Wednesday, December 12 / 1230-1245 / 10 / Jarroa
Mintaka S2 3:27, 9.

16957EMR 1900-0005 int/10/Jarnae/CMP-1
GEMINO METEOR WATCH. 4 so
Got Esther CN3k to work. Great, 50

*16958M3 0355 to 0700/10-3/Jarnae/CM
GEMINID METEOR WATCH. 80 meteors
despite having some difficulty. I even
got all the telescopes to work, and spent
hours so counting the 75 Geminids,
ing my total to 80.
And later: Comet Tombaugh-Tennig
1931 AN = P/2012 WX32. has finally
been announced. 83 meteors total

16959EM2 1600-0100 int/3-2/Jarnae/
work on Narcissus; later CMP-1.

16960S. December 16/1350-1405/10-3/Jarnae/SS
Mintaka 4:12:11.

16961M2 0355-0700/10/Jarnae/CMP-1 4 meteors.
CN1, CN5, CN3 all cameras but Potus.
CN-3d 1HE

December 17, 2012 CN3 47th anniversary
16962EM 1500-0100 int/10/Jarnae/West
Joshua Cob this afternoon. CMP-1. CN3
celebration on occasion of its 47th anniversary

16963M2 0400 to 0700/10/Jarnae/CMP-1, 2 meteors.
DRSID METEOR WATCH. I was an Uraid.
CN-1, CN5, CN3e Fd 1140m galrad CN3d

16964S. December 18. 1215-1700 int/3/Jarnae/M
S 2 1,3,6. Joshua construction + align

- 16965EM2. 2000-0105int / 3-1 / Jarnac / Aligned
Joshua Cob. Camera focused.
- 16966S. Tues, Wed. December 19 / 1200-1215 int / Min
-1 SS2 4:17, 19. Later, scope alignment.
- 16967E2 1850 @ 105int / 10, 0033 / Jarnac / CMP-1,
CN3n. Alignment of Joshua.
- 16968S. Thurs Dec 20 / 1235-1250 / 10 - windy /
Jarnac / SS2 with Mintaka 4: 46, 120
look at h2 today
- 16969EM2 2145-0110 int / 7m Lierny / CMP-1.
- 16970S Friday, December 21 / 1235-1300 / 3 / Jarnac / Mintaka
SS2 4:27, 13.
- 16971S Saturday, December 22 / 12:30-1800 int /
Mintaka / SS2 4:41, 20. Transferred coffee
new 36 station.
- 16972EM2 2100-01 int / 3-2 / Jarnac / Test of Cop
CMP-1.
- 16973M3 0400 to 0700 / 3 / Jarnac / CMP-1 6 meters
DRSID METEOR WATCH.
SIGMA SERPENTIS METEOR WATCH.
2 birds, at least one sigma serpentis.
CMP-1, CN1, CN5, CN3e FL11 mod CN3d 0.145
- 16974S Sunday, December 23 / 1230-1245 / 10 / Jarnac /
Mintaka / SS2 4:27, 13.

12-12

169755 Monday, December 24/1140-1155/3/Jarman/Mintaka
SS1 2:30, 9.

169761/2 0355 to 0700/10-3/Jarman/CMP-1
Country recorded 10 meteors though I do not think
saw that many CN-1, CN5, CN3 1.44.
CN3e FR 11211 mng rad.

169775 Tuesday, December 25 Christmas Day/1235-
1250/3/Jarman/Mintaka/ ~~SS2~~ SS2 2:17, 4.

16978E2 2045-2105/2/Jarman/Wendee/Mars and
Jupiter in a close conjunction; also lunar halo.

16978 Wednesday, Dec 26/1215-1230/3/Jarman/
Mintaka/SS2.

16978E2 220-2330/3-2/Jarman/CMP-1. testing
on Esther, Flaurie.

169785 Thursday, December 27/1205-1220/Jarman/
Mintaka/SS2 2, 12, 6.

16978E2 2130-2330/10/Jarman/CMP-1. more testing
Specia LPO-1, Moon & Jupiter.

169785 Friday, December 28/1205-1220/Jarman/
Mintaka/SS2 2:12, 30 about.

16978E2 1930-0115 int/3-2/Jarman/CN3m testing
CN3h testing.

169785 Sat, December 29/1200-1230/3/Jarman/Mintaka/SS2.

16988EM2 2000-0100 int | 10/Jarnac/ Spica | LPO-1 - Moon +

16988S Sunday, December 30/1200-1230/31/Jarnac/
SS2 2:6, 20. many small prominences

16988S Monday, December 31/1200-1215/2/Jarnac/
Mintaka/ SS2: 2:19, 25 prominences.

16989E2 2000-2120/10-8m/Jarnac/-1 Planning
for next AM series. CMP1
DECEMBER CEPHEID METEOR WATCH
DECEMBER MONOCEROTID METEOR WATCH.
2 faint meteors. One was a December Monocerotid in
2013.

16990S Tuesday, January 1, 2013 | 1200-1215/10/
Jarnac/ Mintaka/ SSR: 4:32, 30.

16991E2 2315-0130 int | 31/Jarnac/ breezy from E
CMP-1

16992S Wednesday, January 2 | 1205-1230-1245/10/
Jarnac/ SS2 ~~6:20, 30~~, 4:32, 30.

16993EM2 1930-0045 int | 10/Jarnac/ CMP-1;
CN3h, failed to get Estha focused, but did get
Joshua core focused.

1704M3 0350-0716/7m/Jarnac/ CN3eFl k1121140mg/11-
CMP1 Quadrantids

16994E1 Friday, Friday, January 4/1915-0115 int/
10-7m/Jarnac/ CN3 Comet/ linear c/2012 K1
Could not find it with Pegasus then I later
searched around the star El Nath in Auriga,
with Miranda I found it easily with a bit.
Confirmed it with Pegasus, I saw it a 3rd time
later with Pegasus. Very nice!

16995S Saturday, January 5, 2013/1305-1320/10⁰¹⁻¹³
Jamaica/SS2 with Mintaka 3:41, 3.

16997E12 1940-0115 int/10-7m/Jamaica/CMP
CN3c Comet Lemmon. I spent ~ 1/2 hr, then we
to get a revised position & found it right away.
Wendee came out and she enjoyed, her looks
well. Then I tried to focus Esther's replace-
ment pichoy camera. It worked! It showed
near-perfect images. So, CN3h, and CN
the 1965 Gemini set.

16998EM2 Monday, January 6/2030-0100 int/Jam
31 CMP1 CN3F.

16998M3 0335-0700/3/Jamaica/CMP1 3 meters
THETA CORONA BOREALID METEOR WATCH.
CN1, CN5, CN3 0.4h E. CN3e Fh klllllling ll.
Found Comet Lemmon, bright but featureless.

16999S Tues Jan 7/1315-1330/10/Jamaica/Mintaka/SS2

16700E1 Tuesday, January 8/1930-2100/10/Jamaica/Pata
17002E CN3h/CN Areas 56+71! Potusilio again.

16701M2 0355-0720/10/Jamaica/nice clear sky, quite d
17001M2 CMP1 meteora, CN1, CN5, CN3d 1A E.
CN3e Fh kllllllll 40.0 ng ll rad.

16702S Wed January 9/1315-1330/3/Jamaica/Mintaka/
17003S SS2 7:49, 2.

7004EM2 0355-0750/3/Jamaica/CN3 1kE.
CN3 e f h k l l l l 40m g l rad. CMP-1, 5 meteors
CN1, CN5. FAMMA VALID METEOR WATCH.

7005M3 0510 to 0630/10 - and very cold (21)°F
Jamaica/CN3d 1kE. CMP-1, 1 meteor.

7006S Sunday January 13/1500-1700/10-3/Jamaica
Castor/Cordelia SS2 alignment: 5; 50, 2.

7007M2 0530-0650/10/Jamaica/Miranda/CN3d 0.1
kE. Possible but unconfirmed sighting of Comet
Pons-Gebhart. 10° cold for electronic observing.

7008S Monday, January 14/1300-1320/3-co H/
Jamaica/Mintaka SS2 5.51, 3.

7009S Tuesday, January 15/1550-16
1250-1330/10-co H/
Jamaica/Cordelia & Castor/SS2.

7010EM2 1930-0200 int/10-very cold?/Jamaica/
Kepler, Pallas, Narcisus | test - (CN3n, CN3n1)
CN3h11. CMP-1.

7011S Wednesday, January 16/1230-1245/10/Jamaica/warm
SS2 with Mintaka 6: 44, 8.

7012EM2 1925-0730 int/10-windy/Jamaica/CMP
CN3 L11, H11 test.

7013M3 0545-0630/D-very windy/CN30.4kE. Failed to find
7014S Thursday Jan 17. 0615-0630/10/Jamaica
Castor/Cordelia SS2 3; 17, 5.

01-13

17015EM2 ~~2130~~-0040 int / 10-windy / Jarnae / CMP

17016M3 0530 & 0655 / 3 / Jarnae - breezy / CMP-1, CN3 0.25E Spotted Comet Pons-Gambart last, as a faint patch of hazy light moving among the worlds of our solar system.

17017S. Friday, January 18 / 1220-1235 / 3 / Jarnae / SS2 with Mintaka 3:31, 7.

17018EM2 Saturday 1950-0050 int / 10-breezy / Jarnae / CMP-1, CN3.

17019M3 0330-0725 / 10 / Jarnae / CMP-1. CN3e FKH kill 40m nll gll CN3 0.7h with Gemini. Saw Comet Pons Gambart again.

17020S. Saturday, Jan. 19 / 1245-1315 / 10 / Jarnae / Mintaka / SS2. 2:30, 13.

17021EM2 1920-0045 int / 10 / Jarnae / CN3 testings

17022M3 0325-0725 / 10 / Jarnae / CN3e FKH kill 40mn gll rad, CN3 1.3hE. Pons-Gambart.

Sunday, January 20

17023EM 2230-0020 int / 3 / Jarnae / CMP-1. Some clouds in the sky.

17024S. Monday, January 21 / 1345-140 / 10 / Jarnae / Mintaka / SS2 2:49, 11.

17025EM2 1850-0040 int / 7 / Jarnae / CMP-1.

- 7026 AB 0355-0730 / 10-3 / Jarnac / CMP-1, no meteors
CN-1, CN5, CN3 full set plus CN3 h. 2⁺. E.
- 7027 S Wednesday, January 23 / 1800-1715 / 3 / Jarnac /
Castor, Cordelia / SS2 2.
- 7028 EM2 1830 to 0050 int / 10-7m-3 / Jarnac /
CMP-1.
- 7029 S. Saturday, January 26 / 1545-1200 / 3 / Jarnac /
Castor, Cordelia / SS2 ~~2~~ 1, 2, 7, 8.
- 7030 EM2 1950-0130 int / 3-1 / Jarnac / CN3 h11 fasting.
Sky too cloudy for areas 56+71.
- 7031 S Sunday, January 27 / 1655-1730 / 3-2 / Jarnac /
Castor, Cordelia / SS2 2: 7, 13 or so.
- 7032 EM2 2130-0115 int / 2-1 / Jarnac / CMP-1.
- 7033 S. Thursday, January 31 / 1700-1712 / 3 / Jarnac /
SS2 with Cordelia and Castor $1:1, \approx 7$.
- 7034 EM2 2145-0130 int / 3 / Jarnac / windy / CMP-1;
CN3 h11, CN3e.
- 7035 S. Friday, February 2 / 1715-1740 / 3 / Jarnac /
Castor, Cordelia / SS2 1, 1, 1.
- 7036 EM2 2015-0130 int / 10-3 / Jarnac / CMP-1,
CM, CN3 h11, CN3e.

13-02

17037EM Saturday February 2, Groundhog Day
2300-0140 / 10 L 3 / Jarnac / CMP-1, CN3H II.
CN3e.

17038EM Sunday February 3 / 2100-0130 int / 3 / Jarnac
CN3e, CN3H II, CN3M P.

17039 S. Mon 4 Feb / 1630-1645 / 3 / J / ^{center} Cordelia / SS2 2:6, 10

17040EM Monday 4 February - Clyde Lombough's
birthday / 2030-0200 int / 10 / Jarnac /
CMP-1, CN3H II, CN3e Clyde's star town as
usual.

17041 S. Tuesday, 5 February / 1130-1200 / 10 / Jarnac
Mintaka / SS2 2:2:23.

*17042EM 1945-0125 int / 10 / Jarnac / CMP-2 meteor
CN-1, CMP / CN5 CN3H II,
CN3e TV Corvi OUTBURST! M=3.9.
After almost 3 years, my favorite variable
star is in outburst! Also ALPHA LEONIS
METEOR WATCH.

17043EM Thursday, February 7 / 2140 to 0125 int /
10 L 3 / Jarnac / CN3e, CMP-1, CN1, CN3H
Clyde's star in SU UMa-type superoutburst
M=13.4! SU UMa-type

17044EM Friday, Feb 8 / 2350-0335 / 3-10 / Jarnac
CN3e TV Cr M=13.9.

17045 Saturday, February 9 / 1715-1735 / 3 Jarnac /
SS2 / Center Cordelia SS2 2:8, 11.

17046EM2 2315-0115 int/10/Jarnac/CMP-1 Imdear.
CN3e TV Corv still 13.8. CN3h11.

17047S Sunday, 10 Feb/1715-1735/10/Jarnac/
Caster, Cordelia/SS2: 2:8, 11.2 Doves.

17048EM2 1900-0030 int/ CN3h11, CN3e/

17049M3 0330 to 0645/10/Jarnac/CMP-1, 1 m
DELTA LEONID METEOR WATCH.
CN3e Fh11k11 40mg/rad CN3d 1.1^hE.

17050EM2 2300-0115 int/10/very cold/CN3e, CMP

17051S Wednesday, 13 February/1720-1725/
10/Jarnac/Caster, Cordelia/SS2 2:6, 13.

17051EM2 ~~1900~~ 1245-0025 int/7m-10/Jarnac/
CN3 0.1^hW. CN3m, 211 aligned + working
CN3h11. CN3e TV Corv now at 14.6 like
last night.

17052M3 0330-0645/10/perfect/Jarnac/
CN3 1.5^hE. CN3e Fh11k11 40mg/rad
CMP-1 6 meteoric meteors. Beautiful night

17053S Thursday, February 14! ^{1425-1440/} Valentine's Day
Mintaka/SS2 1:1, 43.

17054EM2 2100 to 2035 int/3/Jarnac/CN3h11 test.
CN3 40m test.

17055S Friday, 15 Feb/1535-1550/3/Jarnac/Caster
Cordelia/SS2 1:1, 5. One large spot.

17069A3 0255-0730 / 7m-10 / Jarmac / CMP-1, CN1,
CN5, CN3 1, 3 h k.

CN3: e. F h hll kll 2ll 40m g h f s t
C. N3 all using Hyperion successfully start
Very cold night but a good session.

17070S Saturday, February 23 / 1600-1800 / 10 / Jarmac
Caster, Cordelia 1 SS2 1:2, 3.

17071M2 0010-0030 - 0 dark 30 / 7m / Jarmac
CMP-1.

17072S Sunday, February 24 / 1615-1630 / 3 / Jarmac
Cordelia, Caster 1 SS2 1, 2, 4.

17073M2 005-0230 / 7m / Jarmac / CN3F, kll, h. Ch
film taken of comet suspect.

17074S Monday, February 25 / 1400-1430 / 10 / Jarmac / M
SS2 2: 10, 9.

17075S2 1700-1740 / 10 / Tanagra Observatories / Wender
Michael Schwartz / Tang of his observatory + ~~the~~
^{int}

17076E3 2130-0200 / 7m / Jarmac / Wender / Joshua C
A² M42, Moon. SS3. Lector, views of Moon

17077S Tuesday, Feb 26 / 1350-1405 / 10 / Jarmac
Mintaka 1 SS2 3: 21, 15.

17078E2 1915-2045 / 7m / Rossmont Mup light h h h / Tim
Don Davis, Jan Braccius, Ed Lopez SS3
Sup M31, M42, M45 AND Moon.

03-13

17079 E. Wednesday, February 27/2100-2040
2200/7m/Jarnac Wanda, Ed Legendre,
Ursula + Martin, Berdie Hargim, Ches. Rice
group | Joshua Cole | Jupiter, M45, M42,
Moon, and Sirius.

17080 EM Thursday, February 28/2100 - int/
10, 7m | Jarnac | Joshua Cole

17081 S. Friday, March 1/1235-1250/10 | Jarnac
Muntaka / SS2 4, 17, 6.

17082 EM2 / 2040 - int / 10-7m | Jarnac /
Joshua Cole | M42, Moon. CMP-1.

17083 SEM. Saturday, March 2/1550-0145 int/
10-7m | Jarnac | SS2 with Caster and Cordelia
3:45, 6. Then, in the eventide,
CN3 0.1^hW. with Apollo.
Viewing M42, later Moon, with Joshua Cole

— end of log 24 —

C/2006

Comet McNaught. Great
Comet of 2007. Fairfield





McGill