

Filling in the blanks

- 390 Partial eclipse of sun seen from Apple Valley ~1970  
Shoemaker Levy
- 391 Shoemaker Levy impact
- 392 Halley
- 393 94, Solar eclipse
- 394-395 Hyakutake X2
- 396-399 Hale-Bopp X3



19970706/6  
400

- I'm resuming observations after a short lapse 1/3 century!
- After a week of rotten weather here at my cottage on Prinyar's Cove, the skies cleared tonight and I was able to try out my new 2" diagonal and 56mm Plössl eyepiece on my Meade 8" SCT. Threads on diagonal don't matter Meade threads.
- Observed objects tonight were: Venus, Mars (the day after the landing of the first mission to Mars in 20 years). As the sky darkened, I aligned the polar axis. ~~Then~~ Unable to spot Mercury - too faint some haze near the horizon. Lots of Messiers revisited: M4, M7, M6, M13 (well resolved at 160x), M51, M8, M20, M21, M11, M57 (nice hole in doughnut at 160x). Jupiter rose about 11 pm EDT. I used charts for S&T's WWW site to locate Uranus & Neptune. Uranus easy - blue-green disk at 200x. Neptune much harder to spot - tiny greyish disk at 200x - very dim. Oh, I also looked at  $\beta$  Cygni (Albireo) - pretty as ever - and Antares (unable to resolve green companion). In sum, 5 planets, 4 moons, 1 galaxy, 1 planetary, 1 globular, 1 diffuse, and lots of open clusters. Plus 2 nebulas!
- Just some notes on comets over the last few years. I saw Halley once - very difficult object even in good skies (at Peterborough airport). Last year's Hyakutake was spectacular for its proper motion - crossing the sky in a week - and readily observable from Toronto. This year's Hale-Bopp was spectacularly bright - I actually saw it twice in the early morning sky in New York City while there on March Break - framed by skyscrapers in a very bright sky!

19970707/8  
401

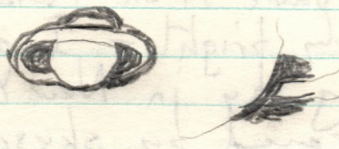
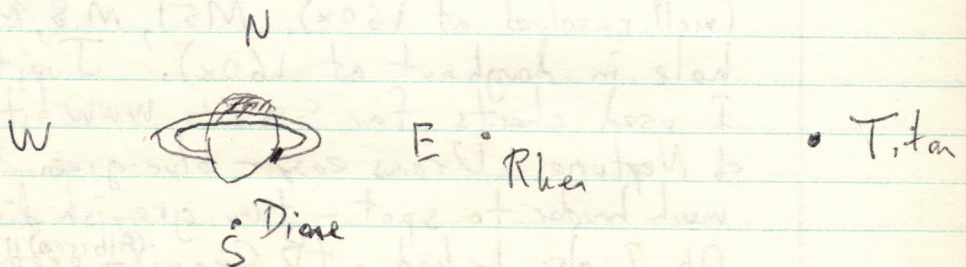
- saw Mercury right at the horizon with 7x50 binoculars about 1/2 hr after sunset
- observed Venus & new Moon - later Mars, Jupiter, Uranus & Neptune
- deep sky: in addition to what I saw two nights ago, I observed M27, M23, M24, M16, M31, and the Perseus cluster. I tried looking for 'North America', Pelican, and Veil nebulae in Cygnus without much luck. While doing this, a satellite passed through my binocular field and I followed it for about 5 minutes.
- it's 01:30 am EDT & I just saw Saturn rising in the east
- that's all the planets but Pluto observed in a space of less than 5 hours!



1250 mm fl.

ε Barlow

40mm	30x	60x
26mm	50x	100x
12.4mm	100x	200x
9.7mm	130x	260x
7.4mm	170x	340x





1997 07 09/10  
402

- aligned polar axis on Palaxis & marked positions of tripod legs on telescope pad
- astrophotography  $\bar{c}$  piggyback mount; 85 mm Nikkor f/2 lens on Kodacolor 400; fields centred on M11,  $\alpha$  Cygni, M8, &  $\eta$  Ursa Majoris - ~~at~~ between 10:30 & 11:00 EDT
- ~~(c)~~ - slanted crescent moon close to E horizon, high clouds encroaching from E, heavy dew & ferocious mosquitoes.

sun yields scale =  
400s 2000.0

1997 11 09/09

- removed corrector plate from 8" SCT & cleaned inner surface with Asahi cloth - hazy deposit all over inner surface

1997 11 09/10  
403

- 3.5" EXT in Lonsdale backyard
- Jupiter: NEB & SEB visible at 170x
- Moon: tested all eyepieces & 2x barlow - probably best with 9.7 mm & barlow = 260x
- Saturn: best at 170x (7.4 mm TeleVue Plössl) - Cassini resolved, clear shadow, N polar region appeared much darker than ring - clear shadow of planet on ring on E side. Rhea just visible @ 170x. Dione only became visible at higher powers  $\bar{c}$  barlow, especially 12.4 mm (= 200x)

1997 11 24/25  
404

- set up both 3.5" ETX & 8" SCT in Lonsdale backyard
- Jupiter in 8" was very blurry - tried star test on Altair - inside & outside focus images symmetrical, but no Airy disk - just a smear with spikes at 200x
- there seems to be some play in primary while focussing, which I never noticed before I disassembled it a few weeks ago.

- Saturn - bright but blurry in 8" - solid & sharp at 170x in 3.5" - shadow of globe on ring & ring on globe <sup>distinct</sup> / ~~through~~

1997 11 25

- first observations with 2nd hand 2" diagonal  $\bar{c}$  correct 1981 vintage
- contacted Jerry Melbye about reclaiming 8" Cave Newtonian - I will probably need to acquire a new, more solid mount with real drive - possibly Losmandy GM8 or GM11.

1997 12 08

- picked up 8" Cave from Jerry - mirror has  $\frac{1}{8}$ " for coating - after washing, there are hundreds of pinpoints in coating - will need re-aluminizing.



97 12 14/15  
405

- First clear night after cleaning mirrors and disassembling & cleaning mount. Mount's polar axis keeps slipping & counterweight not heavy enough to balance tube rings. Got a brief but very promising glimpse of Saturn at 230x

97 12 15/16  
406

- used C-clamp on polar axis & larger C-clamp to attach 5 lb wt to counterweight - axis now stays in place & PA axis is balanced. Looked at Saturn & Moon, but seeing is really poor

97 12 16/17  
407

- moved mount to NE corner of yard to see Venus & Jupiter. Jupiter very clear - some detail in NEB. Observed Ganymede emerging from transit. Around 8:30 it had become very hazy. Saturn was rock-solid at powers up to 375x (7.4 mm TV Plössl + Meade short Barlow) - just amazing. Mottling visible in SEB region. Cassini's division easy. Time to sell the Meade 2080!

97 12 27/28  
408

- North Bay (Caribell) - 3.5" ETX under excellent transparency but -20°C! M42 largest I've ever seen. Tried out new Celestron 10x50 binocs on numerous clusters & nebulae. M31 easy, M33 relatively easy. Very different in appearance: M31 shades off imperceptibly while M33 appears to have quite a sharp outline & not as brighter towards centre. ETX had to use near zenith because of low table - must get tripod.

97 12 31

- talked to Ray Khan about selling Meade 8" 2080 and ordering Germany G-11 mount for 8" Cave Newtonian, also re-aluminizing Cave mirrors. Packed up 2080 for sale. Bought Manfrotto tripod from Khan for ETX.

97 12 30/01  
409

- in Toronto, set up 8" Cave & ETX. Observed Jupiter, Saturn, M42, M31, M45, Double Cluster in Perseus, with both. Images of Saturn extremely good in both, but brighter & more detail in Cave. I'm very pleased with both. Manfrotto tripod makes ETX much easier to use - very solid. Tonight & in North Bay I'm very pleased with Gx30 finder on ETX. 16 mm Meade Super Wide very nice on both scopes, especially with 2x Barlow on Cave for Saturn



980101

Packed up Cave mirrors in biscuit tin to take to Khan

980112

- took rest of Meade 2080 stuff to Ray Khan. He says optics on 2080 are really bad, so bad he called Meade about them. I traded 56mm Super Plössl for 6.7mm Meade Ultra Wide, after trying Meade 6.7 and TeleVue 7mm Nagler. I found Nagler needed me to press my eye really hard against eyecup - very uncomfortable. At Etstun, I bought Orion 80mm Short Tube refractor, trading supplied eyepieces for star diagonal.

980113/14  
410

- found extension tube from ETX needed to get full focus range from Nikon FE on 80mm. At night, observed Saturn, full Moon, and Orion nebula with 80mm, mainly with 26mm (=15x) and 6.7mm (=60x). Quite a bit of colour on Moon, and my astigmatism bad at low power, but M42 region at 60x very impressive because of huge field.

980201/2  
411

- used ETX @ 80mm on Mars, Saturn, Orion. Tried Orion UltraBlack filter on Orion... not much difference.

980203/04  
412

- attended members star party / Tarns Centre RASC at Morningside Park. Only other attendees were Guy Mason & Dave Zackay. Guy had a 6" reflector on a G-11 mount with cut-down legs. Zeke had a 70mm Pronto with very expensive eyepieces: 35mm Paracopic & 16mm Nagler, but couldn't find anything any more than he could 40 years ago! Sky was much darker than at home... could see rings on M42 in 6" despite 1st quarter Moon. Also observed Moon, Saturn, Beehive, Pleiades. VERY cold.

980205/6  
413

- observed Moon from Lonsdale with ETX, about 2 days past 1st quarter, terminator through Copernicus (floor still in shadow). Seeing poor, transparency very good. Tried out "new" (actually used) Meade 8.8mm UWA eyepiece. It takes a bit of getting used to - "kidney bean" effect quite pronounced at first, but after a while I must have learned the knack of placing my eye correctly. Real "space walk" feeling - forget the scope



is there. It shall be great with Case 8". Also observed Orion Nebula, at various powers, with & without UltraBlock filter - nearby Moon a major problem. I think I prefer the view without the filter, at least on the ETX. I tried my old Edmund "Kellner" (? = Plössl) 28 mm - very hard to find exit pupil, both on Moon & Orion, similar to Meade 40 mm & 56 mm.  
(142x) (187x)

1998 02 07/8

414

- observed Moon mostly with 8.8 mm & 6.7 mm UWA on ETX. Terminator just past Gassendi. Haizel & Schiller prominent to Speth. John Herschel striking on N limb, filled with small craters & debris. Flooded craters very noticeable, such as Doppelmeyer just S of Gassendi, and various formations in the Oceanus Procellarum. Mons Bruithuisen Gamma & Delta both prominent, dome-like in shape, but too white. It almost seemed like more detail was visible in the 8.8 mm, the huge field giving the impression of just looking through a window picture window at the moon. Detail less than 2 km in diameter easily visible. I'm fixing the Atlas of the Moon by Antonín Růžek, which I bought a few days ago, very useful in identifying features on the Moon, but wish it had more detailed descriptions of the terrain, rather than the bio of the person after whom it's named.

1998 02 08/9

415

- Moon's primarily Aristarchus-Herodotus region. Vallis Schrotzki very prominent. Tried unsuccessfully to see Rima Marius, but either the Sun was too high or it is beyond the resolution of the ETX. Highlands & mountains in behind Herodotus are extremely complex. Schickhard is just emerging from shadows on the southern limb - huge and full of small craters. I'm still drawn to the craters drowned in lava such as "E" at ~~88~~ 5.7°W 8°S on Chart 39 of Růžek - just the southwestern wall is left. The views seem slightly better at 142x than at 187x - perhaps the seeing is not up to the higher power.

1998 02 09/10

416

- Moon: very close to full - a lot of high haze which cuts contrast.



19980213/14  
417

- SkyView mount arrived yesterday, and I picked up realuminized Cave mirrors today - mounted & collimated them. Both appear perfect. Tried observing Saturn with Cave, but it hadn't had time to cool down. Later, observed  $M_{42}^{42}$  at various powers, with & without UltraBlack Filter. Wings most obvious at 57x. UltraBlack at 57x emphasized "fish mouth" ~~As~~. Much mottling of detail at 158x (VWA). Pale green colour quite obvious to both David & I - neither of us could see any red. Pleiades too wide for lowest power 35x - David said "It looks like Star Trek."  $M_{42}$  faded as Moon rose. Observed Moon at 142x on ETX & 207x on Cave. Forgot to mention, I was trying ETX on SkyView mount to see how stable it is at high powers. It's not as vibration-free as the ETX mount on the Manfrotto tripod. Slow motion controls work very nicely - large knobs are great even with gloves on.

19980214/15  
418

- at cottage in Picton with 80mm Short Tube mounted on SkyView.
  - grease in mount is like molasses in  $-17^{\circ}$  temperature - azimuth keeps slipping because it turns more easily than RA & Dec!
  - observed Saturn <sup>near</sup> at 69x - using Barlow caused deterioration of image.
  - nebulae & clusters, mostly with 16x (24.5m OWA): M31, M33, M42, M45, M41, M35, Hyades, double cluster in Perseus.
  - sky very transparent, 40 fields spectacular. I love this scope! SkyView mount & big rack & pinion make this perfect for gloved hands.
  - I think I saw M79, but had to go to 22x to be sure. I also think I saw M1 at 16x

19980225/26  
419

- tested DC drive on SkyView mount - seems reasonably accurate
  - waiting for replacement RA lock screw from Orion, as the one supplied with drive didn't fit.  $M_{45}$
  - with ST 80, viewed M42, M41, M35, M44, NGC 2244 (Rosette)
    - some nebulosity suspected in latter - mottled background to star cluster
  - transparency quite good, with stars to about mag 4 visible to naked eye



1998 02 26  
420

- Observed partial solar eclipse from back yard with ETX  
& solar filter. Skies clear throughout except for light  
clouds close to 4th contact. 2 sunspot groups visible.  
57x seemed best power. Jim Law & Thom Sigan also  
observed. Internet sites were swamped & totally inaccessible.

1998 03 16

- started now observing lag in book with better binding