

Observing report: Making Lemonade at Michelle's....

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I spent three nights observing at Michelle Stone's and Paul Plett's (Plettstone) property outside Mariposa (California) this new moon. All three nights had excellent conditions, with great transparency each night and seeing improving from good Thursday to excellent last two night. We had a big turnout, with a dozen bay area observers making the drive. Fun group observing together... Jardine, Highe, Al–Mansour, Dillon, LaFlamme, Santangeli, Crilly, Hawley, Cash, Ozer, Stone and your's truly. This felt like the opening of the 2007 summer observing season. And it sure felt like summer! Thursday the thermometer showed 102 degrees, dropping to a low of 72 overnight. T–shirt and sandals observing! And during the day, relaxing with the group indoors enjoying each other's company in the air conditioning! Temperatures moderated a bit over the three days, and Saturday night's low of 62 degrees felt cool and comfortable.

My plan was to spend the three nights attempting to finish about 120 objects I had not observed in the Herschel Catalog. But while setting up I discovered my printed list had been left on my desk back home. Virgo and the H2500 will have to wait another season. I was bummed – what a lemon! But then I remembered I had two good observing lists on my laptop, in Excels, one for June and another for July. Time to make some lemonade! I'd been submitting the list to the SJAA Ephemeris and pointing to them on a web–page via TAC (but not observing them!). The lists take a 2 hour window of RA rising in the east at astronomical dark, and contain targets ranging from eye candy to severely challenged, and all sorts of goodies in between. So, there would be plenty of variety, which keeps this boy happy. Here is the list I worked from for the three nights at Michelle's:

<http://www.resource–intl.com/Deep.Sky.Jun.07.html>

July's is:

<http://www.resource–intl.com/Deep.Sky.Jul.07.html>

The first night we had a great time, Michelle, Rashad, Albert and I, hunting down components of one of my list's first targets, Hickson 84. This is a challenging target, but others during the three nights were undoubtedly more so. I found two components of the Hickson 84 with my 18" f/4.5, then Rashad got interested. In his 16" f/4.5 he found it, and said he saw a third member. That got Albert involved. Albert put it in his 16" and found a fourth member! Michelle jumped in too, finding it in her new 16". We kept trading views. It was

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astonishing... the A component is mag 15.4, and was easy. Soon I saw the B component, and knew it was a good night, as B is at mag 16.5 (but its small size helps its surface brightness), Rashad's find was the C component, at a mere mag 16.2. What was surprising was Albert coming up with the D component, a tiny 0.3'x0.2' intermittent glimmer at mag 17.2. Try as we might, we could not separate the E component out from A, or bring in component F. But it was sure fun trying, and describing to each other what we were seeing.

For anyone interested in my observations over the three nights (I passed out and slept for half of the second night), here below is what I saw. I did not complete the end of the June list, which is almost exclusively globulars in the southern Milky Way, but I didn't push myself at all over the three nights. The last few observations (non-observations) may be faulty, as sleep dep had taken its toll and was staggering me by then. I figure maybe three hours of real sleep each of the first two nights....

Thanks to Michelle and Paul for their wonderful hospitality and support of our astronomy community....

Oh.... and not to forget, the views of the Veil and Crescent Nebulae, in exquisite seeing and transparency on Friday night, which came close Huxley's cleansing of "The Doors of Perception" or Krishna's revelation to Arjuna, mind boggling in their beauty (and detail). The views were of such clarity that it bordered on the religious...

June 2007 observing list notes (followed by a post-observing description):

Target Type Size Mag R.A. Dec.
Notes

AGC2256 GXCL 56.0' 15.3 17 03 42 78 43 00
UGC 10726 is most obvious of 4 dim galaxies. NGC 6331 is next, mcg13-12-17 next by brt star, mcg 13-12-20 most difficult. Nice field.

HCG 84 GXCL 0.7'x0.4' 15.4 16 44 22 77 50 20
Hickson 84A and B visible. A is just E of dim star which is offset alone in triangle of brighter stars, B is directly to its north, and comes in after watching a while.. Later, several observers picked up the C and D components.

Arp 38 GX 2.5'x2.1' 12.3 17 29 37 75 42 18 Possible spiral, brighter core, roundish Maybe elongated nw/se, chain of three brt stars also ne/se to the e of galaxy. The Sky calls it a globular!

N6340 GC 3.2'x2.9' 11.9 17 10 24 72 18 16 Bright round galaxy with bright core that diffuses out evenly. Core is tiny stellar. Large galaxy IC 251 visible to north. And IC 254 to NE

Arp 81 GX 2.0'x0.7' 13.6 18 12 55 68 21 49 Appear interacting - about same size and e/w and nnw/sse.

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NGC 6543 PN 1.0'x0.4' 8.8 17 58 15 66 38 05 Central star easily visible, elongated sw/ne, egg shaped, Fainter envelope appears more pronounced to east. NGC 6552 visible easily in same 7mm field, elongated e/w and same size as pn. IC 4677 very difficult due to brightness of pn and only about 10% view.

Arp 30 GX 1.5'x1.0' 14.5 17 22 43 62 09 56

Surprising pair. One is bright and elongated with a relatively bright star involved. The other large diffuse and dim.

Arp 124 GX 2.2'x0.6' 13.9 17 18 41 60 36 31

Pair of bright stars in a row to the west point at this small bright pair of galaxies. The NGC is notably brighter, both seem canted in same direction.

Arp 293 GX 1.5'x1.4' 14.1 16 58 31 58 56 16

Wonderful asterism of pairs of stars point directly at this pair of canted elongated galaxies that are very close and at about 80 degrees to each other. Almost identical. Three other galaxies visible close by.

Arp 310 GX 0.5'x0.3' 15.9 17 27 24 58 31 01

Easy close pair, one toward S is brighter and elongated e/w with a bowing to the s. Other is indistinct in shape, dimmer and possibly some extrusion toward brighter galaxy. Bow in brighter may be due to dust along dimmer edge.

N6155 GX 1.3'x0.8' 13.2 16 28 08 48 22 01

Part of a "fish hook" of stars. Bright and compact, Bright and perhaps tilted spiral canted nw/se? Difficult to get good detail.

NGC 6229 GC 4.5' 9.4 16 46 58 47 31 40

Bright globular cluster, tight core, bright inner dense area dropping to about 1/2 intensity about halfway out, then off to stragglers in even diffusion around entire cluster.

M92 GC 14.0' 6.5 17 17 07 43 08 11

Estimated at 12' diameter with small but well populated core. Several bright members overlay and extend somewhat beyond the core. Bright stings of stars overlay a more sparse outer halo, in almost "chain-arms" of stars, some extending straight out, others in long curves. Most notable arc is on north side extending back east.

N6239 GX 3.3'x1.2' 12.9 16 50 05 44 44 22

Three pair of stars at alternating angles make this easy to identify. To south of galaxy. Galaxy elongated without dramatic core – pretty even with longitudinal brightening along its entire major e/w axis, perhaps a bit brighter in the western half.

AGC 2199 GXCL 89.6' 13.9 16 28 46 39 31 00

Centered on bright NGC 6166, a total of 14 galaxies were visible in a 12 arc minute area!

NGC 6207 GX 3.3'x1.7' 11.9 16 43 04 36 49 56

This galaxy would be more well known if it wasn't overshadowed by M13. Long,

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elongated, clearly a lenticular spiral, is that a star overlaying the core or an intensely bright core? Disk seems brighter to the south, or maybe bisected with a dark lane? Ends seem splayed. Next to M13 and IC4617 4617 visible easily.

M13 GC 20' 5.8 16 41 41 36 27 37

Large dense core, inner 3.5' is intense but not so much so that it overwhelms the mass of stars surrounding it. Streamers flow out of the larger core asymmetrically mostly to the W and S, curving back making the globular look as if it is moving to the E with a "wind" blowing by it. Overall size is about 24' with center offset to E.

HCG 82 GXCL 0.8'x0.5' 15.3 16 28 27 32 50 47

Four galaxies in a parallelogram with two brightest to W and separated by about 2.5'. Brightest to SW, next is NW, then maybe 8' to E is second pair, brightest is SE, all three oriented mostly ne/sw elongations, with fourth appearing almost stellar on the NE end.

Abell 46 PN 60.0" 15.6 18 31 18 26 56 11

Notable triangle of three mag 8 – 9 stars point to pn. Round, faint, requires OIII to be more than a hint. Dim with OIII but possible brightening along W and S edges, with possible bright intrusion from SW toward center of neb.

N6181 GX 2.5'x1.1' 12.5 16 32 21 19 49 29

Oriented n/s, tiny stellar nucleus with elongated core surrounded by dimmer elongated halo.

HCG 81 GXCL 0.5'x0.3' 17 16 18 36 12 48 11

UGC 10319 visible but extremely dim, Hickson B is possible but fleeting lumpy darkness, lumpy darkness may include 2 other galaxies but no distinct sighting.

N6106 GX 2.5'x1.3' 12.9 16 18 47 07 24 40

Elongated galaxy with condensed but not stellar core, nnw/sse.

HCG 83 GXCL 0.2'x0.2' 16.4 16 35 36 06 15 55

Possibly sighted A and B. WWSW direction between the galaxies.

Abell 43 PN 78.0"x72.0" 14.7 17 53 32 10 37 25

Large and mostly round with some slight elongation wnw/eese, possible star involved on north side, opaque but slightly annular. Seen w/o filter at 100x, 190x with OIII is definite.

NGC 6633 OC 27.0' 4.6 18 27 13 06 30 37

Bright OC broken into mainly three clumps, two smaller ones bracketing the large bright center section. Unusual shape.

NGC 6426 GC 4.2' 10.9 17 44 54 03 10 13

Dim, moderately concentrated globular, fairly large, borders on resolving, possibly a few stars resolve.

N6070 GX 3.5'x1.8' 12.5 16 09 58 00 42 31

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Large, fairly bright, mottled galaxy sw/ne orientation, about 2x1, possibly brighter in SW

M12 GC 16' 6.1 16 47 14 -01 56 52

Large and well resolved, core is slightly brighter than outer shell of stars which extend unevenly in almost a cross or star shape ne/sw and nw/se. Branch of stars running e/w to the south of the main body, along with a chain to the n, give this cluster overall somewhat of a square appearance.

M10 GC 20' 6.6 16 57 09 -04 05 58

Large bright well defined core takes up most of the body of this glob. Distinct streamers of stars extend outward in several directions, giving this glob a larger appearance than M12. One area of stars S seem detached from the rest of the glob. Another detached area is in closer to the SW.

M14 GC 11.0' 7.6 17 37 36 -03 14 45

Dim compared to two prior globulars, but very distinct. Stars resolve with many even magnitudes. Seems to extend more nw/se, with more stars to e of center. Most of glob is occupied by the core. Nice object.

Abell 42 PN 60.0" 17.8 17 31 29 -08 19 09

Extremely fleeting feeling of dim glow with elongation wsw/eene. Giggling scope helps. 190x with OIII. No distinct shape, maybe less than 10% view if at all.

NGC 6517 GC 4.0' 10.1 18 01 50 -08 57 32

Obvious although not very bright. Very small nearly stellar nucleus in brighter inner core, dim outer halo, unresolved.

Abell 45 PN 4.8' 18 30 16 -11 35 36

Very very faint glow with OIII and averted vision using 12mm. Very indistinct, but possibly a brighter western edge that appears as an arced strand. Relatively large.

M107 GC 13.0' 13 16 32 31 -13 03 13

Well resolved globular with distinct core of even mag and possibly extended more e/w. Core is about 1/4 the diameter of the entire main ball of the cluster.

Large asymmetric bunching of stars to the west of the core running n/s in two groups, another clump extending E from the core. Very nice cluster.

Abell 41 PN 18.0" 17.2 17 29 02 -15 13 07

Extremely extremely faint with a dim star about 3.5' to N, small, maybe elongated with brightening on the nw section. Took extended watching to start seeing. Faint to the point of it being an impression of observing it.

Abell 44 PN 60.0"x48.0" 17.4 18 30 11 -16 25 44

Small, about 1', mostly round but perhaps slight elongation e/w, brighter nw edge or perhaps just seemingly so due to star or multiple stars embedded in that edge. Longer views result in more confirmed observation. Done with 12 Nagler and OIII. With 7mm elongation is slightly n of w, 3x2, with star embedded in wnw end and wnw as well.

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NGC 6645 OC 10.0' 8.5 18 32 36 -16 53 Very nearby Abell 44, very rich, striking, moderately large, has ring of stars to the NE of the center of the cluster that surround an empty "hole". Cluster seems to extend in a WSW/ENE cant.

N6507 OC 6.0' 9.6 17 59 36 -17 23 00

Couple dozen brighter stars in sparse rather poor cluster, but many dim haze components, elongated 11' x 7' n/s

NGC 6356 GC 8.2' 10 17 23 35 -17 48 47

Bright globular cluster with brightest part of core slightly offset to the n/w in the center of the cluster. Even diffusion of diminishing brightness. Core is 1/3 the size of the cluster, which resolves.

M9 GC 12.0' 7.8 17 19 11 -18 30 59

Brighter and larger core than prior object, although overall the globular is not much larger. Core is uneven and ragged, but much more distinctly resolved than prior globular.

M23 OC 27.0' 5.5 17 56 54 -19 01 00

Bright, coarse, many stars of similar magnitude, maybe 40' in size, chain of stars running n/s in the center.

NGC 6342 GC 4.4' 9.5 17 21 10 -19 35 14

Small, rather dim, unresolved, core has nucleus that is nearly stellar. Even distribution outward except seeming empty notch on eastern side.

NGC 6440 GC 4.4' 9.3 17 48 52 -20 21 34

Tiny stellar core, unresolved, small, distinct break in mags between core and extended portion of the cluster. NGC 6445 nice planetary in same 12mm FOV, w/7mm annular and extended 3x2 n/s with seeming flat ends on the n and s, which are easily the brightest edges. Thick "walls".

Abell 40 PN 29.0" 16.8 16 48 34 -21 00 51

Negative observation. Sky brightness too much due to proximity of Jupiter.

NGC 6568 OC 12.0' 8.6 18 12 48 -21 35 00

Fairly large, coarse, but many very dim "haze" components. Two chains at center form two C shapes back to back.

NGC 6583 OC 4.0' 10 18 50 15 -22 08 38

Pacman shape due to dark section on nne quadrant. Many dim components, smaller than prior open cluster.

NGC 6235 GC 5.0' 8.9 16 53 25 -22 10 38

Jupiter too close! No observation.

NGC 6287 GC 4.8' 9.3 17 05 09 -22 42 29

Small, dim but not difficult, partially resolved, seems triangular with apex to west.

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Upon leaving Michelle's, I turned right toward the small hamlet of Hornitos instead of my usual route home via the Mount Bullion Cutoff. What a treat of a drive! From Michelle's, the mountain climbs toward the west and then gives a great view of ranch lands and the eastern central valley. The road curves down the mountain's western flank to follow a seasonal stream, awash in river rock and greenery. Ranches, some big, some small, fill the valley, which after an intersection (one direction toward highway 99, the other to Cathys Valley) takes you into Hornitos. This is the remnant of a gold rush town. Old walls of mud and adobe still stand. Behind a modern school house (small) is the old one room school, looking proper in its whitewash and steeple bell. The real find for me though, which caused me to stop in the road to read the sign, was an old era building, which had been a store, owned and run by one Mr. D. Ghiradelli, who became a wealthy member of San Francisco society. One of Ghiradelli's friends at the time was a piano maker, whom I believe lived in Chile or Argentina for a while perfecting his craft. Later, the piano maker would come to California, during the gold rush, to become friends with Ghiradelli... the piano maker's name was James Lick.

You never know when you'll observe something good!

Clear skies,

Mark

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<http://www.goldenstatestarparty.org>