### Observing Log

**Object** NGC 6205 - M13  
**Date** 12/3/03 UTC/civil  
**Right Ascension** 16° 41.7  
**Time** 6:43 PM UTC/std/ds  
**Declination** +36° 28'  
**Seeing: Transparency** OK  
**Constellation** Her  
**Steadiness** Fair  
**Magnitude** 5.7  
**Temperature** 45°  
**Telescope** 18" 6/14.2  
**Eye piece/Magnification** 40mm/163x  
**Size** Large  
**Filters** None

**Notes:**

Always nice to see one of my favorites.  
Fills FOV nicely. Round. See lots of  
member stars.

---

### Observing Log

**Object** NGC 6341 - M92  
**Date** 12/3/03 UTC/civil  
**Right Ascension** 17° 17.1  
**Time** 6:40 PM UTC/std/ds  
**Declination** +43° 05'  
**Seeing: Transparency** OK  
**Constellation** Her  
**Steadiness** Fair  
**Magnitude** 6.4  
**Temperature** 45°  
**Telescope** 18" 6/14.2  
**Eye piece/Magnification** 40mm/163x  
**Size** Small  
**Filters** None

**Notes:**

Small, dim yet easy to see. Saw many member stars.
Observing Log

Object: NGC 6120 - M57
Right Ascension: 19h 53m 4
Declination: +33° 02'
Constellation: Lyr
Magnitude: 7.8
Size: Small

Date: 12/3/03 UTC/civil
Time: 7:35p UTC/std/ds
Seeing: Transparency
Steadiness: OK
Temperature: 40°
Telescope: 18" f/4.2
Eyepiece/Magnification: 40mm / 163
Filters: None

Notes:
Nice green hue to oval shape. Rather dim yet very easy to see.

Observing Log

Object: B Cygni
Right Ascension: 19h 30.7
Declination: +27° 58'
Constellation: Cyg
Magnitude: 3.1 S.1
Size: Small

Date: 12/3/03 UTC/civil
Time: 7:40p UTC/std/ds
Seeing: Transparency
Steadiness: OK
Temperature: 40°
Telescope: 18" f/4.2
Eyepiece/Magnification: 40mm / 163
Filters: None

Notes:
Nicest double in sky, IMHO.
Love the blue & gold, widely separated.
Fills FOV nicely in center.
### Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>Right Ascension</th>
<th>Time</th>
<th>Declination</th>
<th>Seeing: Transparency</th>
<th>Constellation</th>
<th>Magnitude</th>
<th>Size</th>
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<tbody>
<tr>
<td>E Lyra</td>
<td>12/3/03</td>
<td>17 44 1.3</td>
<td>6:45 P</td>
<td>+39 40</td>
<td>OK</td>
<td>Lyr</td>
<td>5.2, 5.5</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

Nice double, double. Split the doubles some of the time. Mostly 00 blob.

---

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>Right Ascension</th>
<th>Time</th>
<th>Declination</th>
<th>Seeing: Transparency</th>
<th>Constellation</th>
<th>Magnitude</th>
<th>Size</th>
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<tbody>
<tr>
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<td>1-12-04</td>
<td>00 29 9</td>
<td>9:04</td>
<td>+60 14</td>
<td>Good</td>
<td>Casio</td>
<td>6.5</td>
<td>21.0'</td>
</tr>
</tbody>
</table>

**Notes:**

Small, compact glow of about 8 blue-white stars.
## Observing Log

**Object:** M45  
**Right Ascension:** 03 46.9  
**Declination:** +24 07  
**Constellation:** Tau  
**Magnitude:** 1.2  
**Size:** 110'  
**Date:** 1-12-04  
**Time:** 9:10 P.  
**Seeing:** Good  
**Transparency:** Good  
**Steadiness:** Good  
**Temperature:** 45°  
**Telescope:** 20x80  
**Eyepiece/Magnification:**  
**Filters:**  

### Notes:

Nice - completely fills FOV of 20x80  
8-10 Brighter blue-white stars w/ 20+ much dimmer forming this OC.

---

## Observing Log

**Object:** Hyades  
**Right Ascension:** 04 27.0  
**Declination:** +16 00  
**Constellation:** Tau  
**Magnitude:** 0.5  
**Size:** 320'  
**Date:** 1-12-04  
**Time:** 9:10 P.  
**Seeing:** Good  
**Transparency:** Good  
**Steadiness:** Good  
**Temperature:** 45°  
**Telescope:** 20x80  
**Eyepiece/Magnification:**  
**Filters:**  

### Notes:

Very loose association of stars, anchored by Aldebaran. Forms a hint w/ 20-30 Blue white stars scattered amongst :  
Stars concentrated around this one. Brightest of area, ~9 or so about same magnitude.
# Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>Date UTC/civil</th>
<th>Right Ascension</th>
<th>Time UTC/std/ds</th>
<th>Declination</th>
<th>Seeing: Transparency</th>
<th>Constellation</th>
<th>Steadiness</th>
<th>Magnitude</th>
<th>Temperature</th>
<th>Telescope</th>
<th>Eyepiece/Magnification</th>
<th>Filters</th>
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</thead>
<tbody>
<tr>
<td>M42</td>
<td>1-12-04</td>
<td>05 35 14</td>
<td>9:24.6</td>
<td>-05 27</td>
<td>Good</td>
<td>0</td>
<td>Good</td>
<td>3.7</td>
<td>45°</td>
<td>20x80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>90' x 90'</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Notes:  
Blowing gaseous easy to see. Diffs away a bit from central part. Trapezium easy to see

---

# Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>Date UTC/civil</th>
<th>Right Ascension</th>
<th>Time UTC/std/ds</th>
<th>Declination</th>
<th>Seeing: Transparency</th>
<th>Constellation</th>
<th>Steadiness</th>
<th>Magnitude</th>
<th>Temperature</th>
<th>Telescope</th>
<th>Eyepiece/Magnification</th>
<th>Filters</th>
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<tbody>
<tr>
<td>N6C 1981</td>
<td>1-12-04</td>
<td>05 35 2</td>
<td>9:25</td>
<td>-04 26</td>
<td>Good</td>
<td>Ori</td>
<td>Good</td>
<td>4.2</td>
<td>45°</td>
<td>20x80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>25.0'</td>
<td></td>
<td></td>
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Notes:  
Move North from M42. 8-10 Blue white stars of same magnitude above (w) of top sword star. 0C is loose but somewhat together.
## Observing Log

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<thead>
<tr>
<th>Object</th>
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<tbody>
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<tr>
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<th>Time</th>
<th>UTC/std/ds</th>
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</thead>
<tbody>
<tr>
<td>23 57.0</td>
<td>9:19p</td>
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<table>
<thead>
<tr>
<th>Declination</th>
<th>Seeing: Transparency</th>
<th>Constellation</th>
<th>Steadiness</th>
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<tbody>
<tr>
<td>+56 44</td>
<td>Good</td>
<td>Cassiopeia</td>
<td>Good</td>
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<table>
<thead>
<tr>
<th>Magnitude</th>
<th>Temperature</th>
<th>Telescope</th>
<th>Eyepiece/Magnification</th>
<th>Filters</th>
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<tbody>
<tr>
<td>6.7</td>
<td>45°</td>
<td>20x80</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Size</th>
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</thead>
<tbody>
<tr>
<td>15.0'</td>
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</table>

**Notes:**

Faint glow underneath 3 dim field stars.

---

## Observing Log

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<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>UTC/civil</th>
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<tbody>
<tr>
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<td>1-12-04</td>
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<tr>
<th>Right Ascension</th>
<th>Time</th>
<th>UTC/std/ds</th>
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<tbody>
<tr>
<td>01 46.8</td>
<td>9:31p</td>
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<table>
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<tr>
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<th>Seeing: Transparency</th>
<th>Constellation</th>
<th>Steadiness</th>
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<tbody>
<tr>
<td>+61 15</td>
<td>Good</td>
<td>Cassiopeia</td>
<td>Good</td>
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<table>
<thead>
<tr>
<th>Magnitude</th>
<th>Temperature</th>
<th>Telescope</th>
<th>Eyepiece/Magnification</th>
<th>Filters</th>
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<tbody>
<tr>
<td>7.1</td>
<td>45°</td>
<td>20x80</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Size</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>16.0'</td>
<td></td>
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</tbody>
</table>

**Notes:**

Small, round glow w/ 4 brighter stars on top of glow.
Observing Log

Object M37 - NGC 2099  Date 1-12-04 UTC/civil
Right Ascension 05 52.4  Time 9:15P UTC/std/ds
Declination +32 32\'  Seeing: Transparency Good
Constellation Aur  Steadiness Good
Magnitude 5.6  Temperature 45°
Size 23.0  Telescope 20x80

Eyepiece/Magnification
Filters

Notes: Large, dim glow. Round. Member stars easily seen.

Observing Log

Object M31 - NGC 224  Date 1-12-04 UTC/civil
Right Ascension 00 42.7  Time 9:12P UTC/std/ds
Declination 41 16\'  Seeing: Transparency Good
Constellation And  Steadiness Good
Magnitude 4.1  Temperature 45°
Size 180' x 63'  Telescope 20x80

Eyepiece/Magnification
Filters

Notes: Large, bright glow. Easy to see. Brighter nuclear & dims into halo. 12x80.
Observing Log

Object: M38 - NGC 1912
Right Ascension: 05 29.1
Declination: 35 55
Constellation: Aur
Magnitude: 6.4
Size: 21.0'
Date: 1-12-04
Time: 9:15
Seeing: Transparency: Good
Steadiness: Good
Telescope: 20x80
Eyepiece/Magnification:
Filters:

Notes:
Faint glow w/ some stars seen. 20x80

Observing Log

Object: M36 - NGC 1960
Right Ascension: 05 36.1
Declination: 34 05
Constellation: Aur
Magnitude: 6.0
Size: 12.0'
Date: 1-12-04
Time: 9:10P
Seeing: Transparency: Good
Steadiness: Good
Temperature: 45°
Telescope: 20x80
Eyepiece/Magnification:
Filters:

Notes:
Small, round glow. Stars easily seen. Brightest:
M 36, 37 & 38.
Observing Log

Object: M67 457
Right Ascension: 01 19.1
Declination: 58 20
Constellation: Cas
Magnitude: 6.4
Size: 13.0 '
Date: 1-12-04
UTC/civil
Time: 9:34P
UTC/std/cs
Seeing: Transparence: Good
Steadiness: Good
Temperature: 45°
Telescope: 20 x 90
Eyepiece/Magnification:
Filters:

Notes:
2 bright stars found
this faint glow on the south.
Some very faint stars seen on glow

---

Observing Log

Object: M67 869
Right Ascension: —
Declination: 57 09
Constellation: Per
Magnitude: 5.3
Size: 29.0 '
Date: 1-12-04
UTC/civil
Time: 9:14P
UTC/std/cs
Seeing: Transparence: Good
Steadiness: Good
Temperature: 45°
Telescope: 20 x 80
Eyepiece/Magnification:
Filters:

Notes:
Small compact glow w 2 brighter
field stars on top of it. in same FOV
as 884.
Observe Log

Object: N6C 884  Date: 1-12-04 UTC/civil
Right Ascension: 02 22.4  Time: 9:45 P. UTC/std/ds
Declination: 57 07   Seeing: Transparency: Good
Constellation: Per   Steadiness: Good
Magnitude: 6.1    Temperature: 45°
Size: 29.0'    Telescope: 20 x 80
Eyepiece/Magnification:  
Filters:  

Notes:

Bit fainter than 869, just as small & compact as 869. 4-5 dim stars around 42. 4 glow at this ox.

---

Observe Log

Object: Gamma Aurumedia  Date: 1-22-04 UTC/civil
Right Ascension: 02 08.9  Time: 6:58 P UTC/std/ds
Declination: 42 20   Seeing: Transparency: Good
Constellation: And    Steadiness: Good
Magnitude: 2.3 5.5  Temperature: 35°
Size: 8.5'   Telescope: 7 3/8
Eyepiece/Magnification: 85x
Filters:  

Notes:

Faint companion. It was hard to because one star was so bright.
Both blue-white in color.
Observing Log

Object  M32 - NGC 221  Date  1-22-04  UTC/civil
Right Ascension  00 42.7  Time  7:01 P  UTC/std/ds
Declination  40 52  Seeing: Transparency  (good)
Constellation  And  Steadiness  (good)
Magnitude  9.0  Temperature  35°
Size  7.6' x 5.8'  Telescope  8" f/8

Notes:

Very small smudge of light w/ very bright, starlike nucleus.

---

Observing Log

Object  E Casseopiae  Date  1-22-04  UTC/civil
Right Ascension  06 49.1  Time  7:06 P  UTC/std/ds
Declination  57 49  Seeing: Transparency  (good)
Constellation  Cae  Steadiness  (good)
Magnitude  3.4, 7.5  Temperature  35°
Size  12"  Telescope  8" f/8

Notes:

Again, very faint companion at about 8 o'clock, overpowered by primary. Companion easy to see w/ advanced vision. Both stars blue-white.
**Observing Log**

Object: Algol
Right Ascension: 03 9.2
Declination: 40 5.7
Constellation: Per
Magnitude: 2.1 - 3.4
Size:
Date: 1-22-04 UTC/civil
Time: 21:08 UTC/std/ds
Seeing: Transparency: (good)
Steadiness: (good)
Temperature: 35°
Telescope: 8" f/8
Eyepiece/Magnification: 55x
Filters:

**Notes:**

Nice blue-white stars. Much dimmer than when I saw it the other night.

---

**Observing Log**

Object: Trapezium
Right Ascension: 05 38.3
Declination: -05 22.3
Constellation: Ori
Magnitude: 6.7, 7.9, 5.1, 6.7
Size: 9.8", 13", 21.5
Date: 1-22-04 UTC/civil
Time: 21:09 UTC/std/ds
Seeing: Transparency: (good)
Steadiness: (good)
Temperature: 34°
Telescope: 8" f/8
Eyepiece/Magnification: 85x, 168x
Filters:

**Notes:**

All 4 stars easily see. I love looking at M42 anytime. At 168x see a 5th star.
### Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>1-22-04 UTC/civil</th>
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</thead>
<tbody>
<tr>
<td>Right Ascension</td>
<td>01 53.1</td>
</tr>
<tr>
<td>Declination</td>
<td>19 18</td>
</tr>
<tr>
<td>Constellation</td>
<td>Ari</td>
</tr>
<tr>
<td>Magnitude</td>
<td>4.8, 4.9</td>
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<tr>
<td>Size</td>
<td>7.8&quot;</td>
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<tr>
<td>Seeing</td>
<td>Good</td>
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<td>8&quot; f/8</td>
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<tr>
<td>Eyepiece/Magnification</td>
<td>85x</td>
</tr>
</tbody>
</table>

**Notes:**

"Two evenly bright, blue white stars. Close together but easy to split w/ black between them."

### Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>1-22-04 UTC/civil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right Ascension</td>
<td>02 37.3</td>
</tr>
<tr>
<td>Declination</td>
<td>55 59</td>
</tr>
<tr>
<td>Constellation</td>
<td>Per</td>
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<tr>
<td>Magnitude</td>
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<td>Steadiness</td>
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<td>Temperature</td>
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<td>Telescope</td>
<td>8&quot; f/8</td>
</tr>
<tr>
<td>Eyepiece/Magnification</td>
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</tr>
</tbody>
</table>

**Notes:**

"About 8, blue-white stars about 2x brighter than about 12 much fainter stars. A loose, linear shaped association w/ a red star right in the middle of it."
### Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
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<tbody>
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<td>1-22-04</td>
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<tr>
<td>Right Ascension</td>
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<td></td>
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<tr>
<td>Declination</td>
<td>37 41</td>
<td></td>
</tr>
<tr>
<td>Constellation</td>
<td>And</td>
<td></td>
</tr>
<tr>
<td>Magnitude</td>
<td>5.7</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>50.0'</td>
<td></td>
</tr>
</tbody>
</table>

**Date:** 1-22-04  
**UTC/civil:**  
**Right Ascension:** 01 57.8  
**Declination:** 37 41  
**Constellation:** And  
**Magnitude:** 5.7  
**Size:** 50.0'  
**Notes:** Nicely fills FOV, with lots of stars in a star poor field. 50-60 stars of roughly the same magnitude w/1 much brighter, just off center of cluster at 2 o'clock. All blue-white stars.

---

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>UTC/civil</th>
</tr>
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<tbody>
<tr>
<td>Stock 2</td>
<td>1-22-04</td>
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<tr>
<td>Right Ascension</td>
<td>02 15.8</td>
<td></td>
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<tr>
<td>Declination</td>
<td>59 16</td>
<td></td>
</tr>
<tr>
<td>Constellation</td>
<td>Cep</td>
<td></td>
</tr>
<tr>
<td>Magnitude</td>
<td>4.4</td>
<td></td>
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<tr>
<td>Size</td>
<td>60.0'</td>
<td></td>
</tr>
</tbody>
</table>

**Date:** 1-22-04  
**UTC/civil:**  
**Right Ascension:** 02 15.8  
**Declination:** 59 16  
**Constellation:** Cep  
**Magnitude:** 4.4  
**Size:** 60.0'  
**Notes:** Much larger than NGC 752. 1/2 FOV in width. Basically circular. All blue-white stars. Approx 60 of a much brighter magnitude. Approx 20 more stars of much dimmer stars of 2 different magnitudes. Easy to spot because of density of stars in this OC. It was nice a very large, but very loose a roughly circular in shape. I used size to help me find the above 2 OCs.
Observing Log

Object  CR 463  Date  1-22-04  UTC/civil
Right Ascension  01 48.4  Time  21:48P  UTC/std/cs
Declination  -11 57  Seeing: Transparency  good
Constellation  Cas  Steadiness  good
Magnitude  5.7  Temperature  29°
Size  34.0'  Telescope  9.7 8/8
Notes:  Eyepiece/Magnification  85x
Filters

Also saw it in 7x35 binoculars. Small, bright concentration
of 6-8 stars.

8.5x 7 bright stars. 1 pair very close like a
double star. These 7 of one magnitude w/approx
1/4 more of a much dimmer magnitude. Bit
compact & [ ] in shape.
Observing Log

Object Mel 20
Right Ascension 03 22.0
Declination 49 00
Constellation Per
Magnitude 1.2
Size 185'

Date 1-22-04 UTC/civil
Time 8:08 P UTC/std/ds
Seeing: Transparency Good
Steadiness Good
Temperature
Telescope 7x35 binocular
Eyepiece/Magnification
Filters

Notes:
Large group of stars seen in 7x35. Mostly south of α Per. Approx 8 much brighter a same magnitude @ 15+ more much dimmer. Basically circular in shape.

Observing Log

Object Tr 3
Right Ascension 03 11.8
Declination 63 15
Constellation Leo
Magnitude 7.0
Size 23.0'

Date 1-22-04 UTC/civil
Time 8:30 P UTC/std/ds
Seeing: Transparency Good
Steadiness Good
Temperature 79°
Telescope 8'' f/18
Eyepiece/Magnification 85x
Filters

Notes:
Sky a bit softer than an hour ago. Roughly circular in shape except for some stars in this area.

Approx 12 stars of same magnitude w/ 15+ stars much dimmer, yet easy to see. Somewhat compact, could see a glow in 7x35 binocular.
Observing Log

Object: NGC 1647
Right Ascension: 04 46.0
Declination: 19 04
Constellation: Taurus
Magnitude: 6.4
Size: 45.0'
Date: 1-22-04
Time: 8:44 P
Seeing: Transparency: Good
Steadiness: Good
Temperature: 79°
Telescope: 8" f/8
Eyepiece/Magnification: 85x
Filters:

Notes:

50+ stars seen. OC is dim, yet stars stand out easily. Circular in shape. It was easy to spot in a star poor field.

Observing Log

Object: NGC 1342
Right Ascension: 03 31.6
Declination: 37 20
Constellation: Pegasus
Magnitude: 6.7
Size: 14.0'
Date: 1-22-04
Time: 8:49 P
Seeing: Transparency: Good
Steadiness: Good
Temperature: 
Telescope: 8" f/8
Eyepiece/Magnification: 85x
Filters:

Notes:

Is blue-white stars much brighter than 20 more much dimmer stars. Small. Compact. Again, this stands out in a star poor area.
Observing Log

Object: NGC 1807  
Right Ascension: 05 10.7  
Declination: +63 22  
Constellation: Tau  
Magnitude: 7.0  
Size: 17.0'  
Date: 1-22-04  
Time: 8:59 P  
Seeing: Transparency  
Steadiness  
Telescope: 8' 1/8  
Eyepiece/Magnification: 85x  
Filters  

Notes:  
16 stars of same magnitude in an X shape.

definite separation btw. these two. Both in same FOV

Observing Log

Object: NGC 1817  
Right Ascension: 05 21.1  
Declination: +63 12  
Constellation: Tau  
Magnitude: 7.7  
Size: 15.0'  
Date: 1-22-04  
Time: 8:59 P  
Seeing: Transparency  
Steadiness  
Telescope: 8' 1/8  
Eyepiece/Magnification: 85x  
Filters  

Notes:  
Circular glow w/ 4 brighter stars on left side. COULD see lots of very faint stars on top of glow.
Observing Log

Object \( M 3 S - N G C 2 1 6 9 \)
Date \( 1 - 2 2 - 0 4 \) UTC/civil
Right Ascension \( 0 4 \text{h} 0 5 \text{m} \)
Declination \( 2 4 \text{°} 2 0 \text{'} \)
Constellation \( G e m \)
Magnitude \( 5.1 \)
Size \( 2 8 0 \text{'} \)
Temperature \( C o l d \text{'} \)
Telescope \( 8 \text{''} 5 / 8 \)
Eyepiece/Magnification \( 8 5 x \)
Filters

Notes:

After all the previous faint or seen tonight, this one is big, bright, tons of stars a circular in shape, nicely fills FOV.

---

Observing Log

Object \( N G C 2 1 6 9 \)
Date \( 1 - 2 2 - 0 4 \) UTC/civil
Right Ascension \( 0 4 \text{h} 0 6 \text{m} \)
Declination \( 1 3 \text{°} 5 7 \text{'} \)
Constellation \( O c i \)
Magnitude \( 5.9 \)
Size \( 6.0 \text{'} \)
Temperature
Telescope \( 8 \text{''} 5 / 8 \)
Eyepiece/Magnification \( 8 5 x \)
Filters

Notes:

Small, tight grouping of Approx 13 blue white stars of 2 magnitudes
Observing Log

Object: NGC 2281
Right Ascension: 06 49.3
Declination: 41 04'
Constellation: Aur
Magnitude: 5.4
Size: 14.0'
Date: 1-22-04
Time: 9:12 P
Seeing: Transparency: (Good)
Steadiness: (Good)
Temperature: 
Telescope: 8.5/8
Eyepiece/Magnification: 85x
Filters: 

Notes: 12 brighter stars on this end

Small, compact w/ 12 blue white brighter stars on left side. Approx. 15 bit dimmer stars on right side. Stars out in this area for rest of stars in this area of sky are not as dense.

Approx. 15 fainter ones on this end

Observing Log

Object: NGC 2264
Right Ascension: 06 41.1
Declination: 09 53'
Constellation: Mon
Magnitude: 3.9
Size: 20.3'
Date: 3-7-04
Time: 7:25 P
Seeing: Transparency: (OK)
Steadiness: (Good)
Temperature: 35°
Telescope: 8.5/8
Eyepiece/Magnification: 85x
Filters: 

Notes: 25-30 blue-white stars w/ (relative) extremely bright field star to the northern end. Approx. 3 magnitudes of stars w/ most easy to see and the same magnitude. Very Loose. Most of OC south of the bright field star.
Observing Log

Object N6C 2244  Date 3-7-04 UTC/civil
Right Ascension 06 32.4  Time 7:29 PM UTC/std/ds
Declination 04 52.8  Seeing: Transparency OK
Constellation Mon  Steadiness Good
Magnitude 4.8  Temperature 35°
Size 23.0'  Telescope 8" f/8
Eyepiece/Magnification 85x
Filters

Notes:

Seen as a faint glow of stars w/7x35 binocs. 3-4 brighter stars about glow cf OC. 32mm = 10-15 stars in a rectangular box shape.

Observing Log

Object N6C 2232  Date 3-7-04 UTC/civil
Right Ascension 06 26.6  Time 7:40 PM UTC/std/ds
Declination 04 45.4  Seeing: Transparency OK
Constellation Mon  Steadiness Good
Magnitude 3.9  Temperature 35°
Size 29.0'  Telescope 8" f/8
Eyepiece/Magnification 85x
Filters

Notes:

Sky glow to south can barely see stars on MON w/o averted vision. 32mm-approx 16 stars that are very bright blue-white and stand out in a very dim star poor area of the sky. There is a field star on the east side of this very loose association of stars.
### Observing Log

<table>
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<tr>
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<th>Date 3-7-04</th>
<th>Time 7:44 PM</th>
<th>UTC/civil</th>
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<th>Steadiness</th>
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<td></td>
<td></td>
<td></td>
<td>OK</td>
<td>Good</td>
</tr>
<tr>
<td>Right Ascension</td>
<td>06 29.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Declination</td>
<td>-07 02</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Constellation</td>
<td>Mon</td>
<td></td>
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<tr>
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<tr>
<td>Size</td>
<td>7.3&quot;</td>
<td></td>
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</tr>
</tbody>
</table>

**Notes:**

With 32mm, can see 2 equally bright blue-white stars that are very close together but easy to split. 19mm-VERY easy to split now. Can see nice black sky between the 2 stars. There is a nice separation now.

---

### Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>Date 3-7-04</th>
<th>Time 7:50 PM</th>
<th>UTC/civil</th>
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<th>Steadiness</th>
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<tr>
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<td></td>
<td></td>
<td>Fair</td>
<td>Good</td>
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<tr>
<td>Declination</td>
<td>00 29</td>
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<td></td>
</tr>
<tr>
<td>Constellation</td>
<td>Mon</td>
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<td></td>
</tr>
<tr>
<td>Magnitude</td>
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</tr>
<tr>
<td>Size</td>
<td>12.0'</td>
<td></td>
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</tr>
</tbody>
</table>

**Notes:**

Can see it in 7x35 binoc. 19mm gives best view. A very loose cluster. 5 very bright (relatively) blue-white stars in the area with 25-30 very faint stars grouped into 2 groups.
Observing Log

Object: M5D - NGC 2323
Right Ascension: 07 03.2
Declination: -08 20
Constellation: Mus
Magnitude: 5.9
Size: 16.0'
Date: 3-7-04
Time: 9:06 PM
Seeing: Transparency: Fair
Steadiness: Good
Temperature: 35°
Telescope: 8" 8/8
Eyepiece/Magnification: 7x35, 85x
Filters

Notes:
25-30 stars seen in a very loose assoc. Fills over 1/2 field of view in 32mm. Can see this with 7x35 binocs. This cluster was hard to star hop to as sky glow is bright in the south and these stars barely stand out.

Observing Log

Object: M41 - NGC 2277
Right Ascension: 06 46.1
Declination: -20 46
Constellation: CMa
Magnitude: 4.5
Size: 36.0'
Date: 3-7-04
Time: 8:09 PM
Seeing: Transparency: Fair
Steadiness: Good
Temperature: 35°
Telescope: 8" 8/8
Eyepiece/Magnification: 85x
Filters

Notes:
40+ stars of approx 3 magnitudes stands out nicely in 32mm eyepiece in this star poor area of the sky. Fills center of field of view nicely. Most of OC is loose yet is more compact than those previously seen tonight.
Observing Log

Object **NGC 2392**  
Right Ascension **07 29.2**  
Declination **20 55**  
Constellation **Gem**  
Magnitude **9.2**  
Size **47" x 43"**  
Date **3-7-04** UTC/civil  
Time **8:14 PM** UTC/std/ds  
Seeing: Transparency **Fair**  
Steadiness **Good**  
Temperature **35°**  
Telescope **8" f/8**  
Eyepiece/Magnification **10 mm**  
Filters

Notes:

With the 10mm eyepiece, this was easy to see. Can see central stars easily embedded in a small, circular glow.

---

Observing Log

Object **NGC 2539**  
RightAscension **03 10.7**  
Declination **-12 50**  
Constellation **Pup**  
Magnitude **4.5**  
Size **21.0**  
Date **3-7-04** UTC/civil  
Time **8:28 PM** UTC/std/ds  
Seeing: Transparency **Fair**  
Steadiness **Good**  
Temperature **35°**  
Telescope **8" f/8**  
Eyepiece/Magnification **7x35, 16x**  
Filters

Notes:

Could see this in the 7x35 binocs and took some time to find with the telescope. The moon is up now but I didn’t realize this for about another half an hour. I found 20+ stars of approx 3-4 magnitudes. Stars very blue-white and bright as compared to stars in this part of the sky. Oval in shape yet still loose, is about ½ FOV in size. There is a nice double right in the middle. These are very close yet easy to split. Both of these stars of same magnitude. One star to east of OC is much brighter than rest and stands alone in magnitude.
Observing Log

Object M48 - N63 2593 Date 3-7-04 UTC/civil
Right Ascension 06 13.8 Time 8:35 PM UTC/std/ds
Declination -05 48 Seeing: Transparency Fair
Constellation Hya Steadiness Good
Magnitude 5.8 Temperature 35°
Size 54.0' Telescope 8' 2' 1/2
Eyepiece/Magnification 85x
Filters

Notes:
50-60+ stars. Fills field of view nicely in 32mm eyepiece. Very loose but center is more compact.

Observing Log

Object M44 - N63 2432 Date 3-7-04 UTC/civil
Right Ascension 08 40.1 Time 8:35 PM UTC/std/ds
Declination 19 59 Seeing: Transparency Fair
Constellation Cnc Steadiness Good
Magnitude 3.1 Temperature 35°
Size 95.0' Telescope 7x35, 2' 1/2
Eyepiece/Magnification 7x, 85x
Filters

Notes:
In 7x35 easy to see many blue-white stars in a circular shaped OC. With 32mm eyepiece, this is very nice. Many blue-white stars seen of approx 4 different magnitudes. Stars all over FOV in this one.
### Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>Right Ascension</th>
<th>Time</th>
<th>Seeing</th>
<th>Declination</th>
<th>Constellation</th>
<th>Magnitude</th>
<th>Size</th>
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</thead>
<tbody>
<tr>
<td>M67 N66 2682</td>
<td>3-7-04</td>
<td>0° 20.1</td>
<td>8:55 PM</td>
<td>Fair</td>
<td>11.49</td>
<td>Cnc</td>
<td>6.9</td>
<td>79.0'</td>
</tr>
</tbody>
</table>

**Notes:**

32mm - Very small, dim and compact. Very bright field star at western edge. All stars of this OC are very faint.
19mm - Easier to see. 2-3 magnitude of stars makeup this OC. 20 or so stars of approx same magnitude.

---

### Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>Right Ascension</th>
<th>Time</th>
<th>Seeing</th>
<th>Declination</th>
<th>Constellation</th>
<th>Magnitude</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y 240</td>
<td>3-7-04</td>
<td>10 20.1</td>
<td>8:55 PM</td>
<td>Fair</td>
<td>19.51</td>
<td>Leo</td>
<td>2.3</td>
<td>4.4'</td>
</tr>
</tbody>
</table>

**Notes:**

These are very close together. Lower left star is a hare brighter than upper right. Can split them with the 19mm eyepiece.
### Observing Log

**Object**: Mizar  
**Date**: 3-7-04 UTC/civil  
**Right Ascension**: 13:23:9  
**Time**: 9:07 PM UTC/STD/ds  
**Declination**: +54:56  
**Seeing/Transparency**: Fair  
**Constellation**: UMa  
**Steadiness**: Good  
**Magnitude**: 2.3, 4.0, 4.0  
**Temperature**: 35°  
**Telescope**: 8" f/8  
**Eyepiece/Magnification**: 168x  
**Size**: 14.4", 7.09"  
**Filters**:  

**Notes**:  

> 2 stars of same magnitude & other just a bit fainter. Fills FOV nicely.

---

### Observing Log

**Object**: M77 - NGC 1068  
**Date**: 3-7-04 UTC/civil  
**Right Ascension**: 02:42:7  
**Time**: 7:05 PM UTC/STD/ds  
**Declination**: -00:01  
**Seeing/Transparency**: Good  
**Constellation**: Cet  
**Steadiness**: Good  
**Magnitude**: 8.8  
**Temperature**: 54°  
**Telescope**: 8" f/8  
**Eyepiece/Magnification**: 168x  
**Size**: 6.9" x 5.9"  
**Filters**:  

**Notes**:  

> Found it @ 6:39 PM. Then darker @ 7:05 PM. There is a field star just to the North. Small, bright, starlike nucleus centered in a dim round halo. Looks a bit like a tiny comet.  

7:21 PM - one last look. Easy to find for it stands out nicely. Looks circular. Nucleus is still bright & may not be as starlike as I saw earlier. Need advanced vision to see this well.
Observing Log

Object M81-NGC 3031  Date 3-8-04  UTC/civil
Right Ascension 09 55.4  Time 7:14 PM  UTC/std/ds
Declination -69 04  Seeing: Transparency Good
Constellation UMa  Steadiness Great
Magnitude 6.8  Temperature 54 °
Size 26' x 14'  Telescope 8" f/8
Eyepiece/Magnification 162 x
Filters

Notes:
In same FOV as M82 and much brighter than M82. Oval in shape. Easy to see nucleus is brighter than halo. Halo quite large & extended.

Observing Log

Object M82-NGC 3034  Date 3-8-04  UTC/civil
Right Ascension 09 55.8  Time 7:14 PM  UTC/std/ds
Declination +69 41  Seeing: Transparency Good
Constellation UMa  Steadiness Great
Magnitude 7.4  Temperature 54 °
Size 11' x 4.6'  Telescope 8" f/8
Eyepiece/Magnification 162 x
Filters

Notes:
Relatively bright sliver (cigar shaped) of light with brighter in center region. Almost see dust lanes in this one. Can tell center region different than edges.

Both quite nice in same FOV.
Observing Log

Object  $6c$  3242  Date  3/30/04  UTC/civil
Right Ascension  10 24.8  Time  8:36 PM  UTC/std/ds
Declination  -19 38  Seeing: Transparency  Good
Constellation  Hydra  Steadiness  Good
Magnitude  7.8  Temperature  50°
Size  45'' x 36''  Telescope  8'' f/8 Newtonian

Notes:
Small, round blue fuzz ball. Looks like out of focus star. Stands right out in field of view.

---

Observing Log

Object  Mel 111  Date  4/18/04  UTC/civil
Right Ascension  12 75.0  Time  2:43 PM  UTC/std/ds
Declination  +26 00  Seeing: Transparency  Good
Constellation  Com  Steadiness  OK
Magnitude  1.2  Temperature  53°
Size  275'  Telescope  7x35 Binoculars

Notes:
15-20 blue white stars form a pyramid shaped open cluster. Easy to see in 7x35s. Nicely fills field of view.
### Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>UTC/civil</th>
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</thead>
<tbody>
<tr>
<td>M87 (NGC 4486)</td>
<td>4/19/04</td>
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<th>Time</th>
<th>UTC/std/ds</th>
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<tbody>
<tr>
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<td>9:03:00</td>
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<tbody>
<tr>
<td>+12 24</td>
<td>Good</td>
<td>OK</td>
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</table>

<table>
<thead>
<tr>
<th>Constellation</th>
<th>Temperature</th>
<th>Telescope</th>
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</thead>
<tbody>
<tr>
<td>Virgo</td>
<td>53°</td>
<td>9.75/18</td>
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<table>
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<tr>
<th>Magnitude</th>
<th>Eyepiece/Magnification</th>
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<table>
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<th>Size</th>
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<tbody>
<tr>
<td>7.2' x 6.8'</td>
</tr>
</tbody>
</table>

**Notes:**

Small, dim fuzzy circle of light. Can tell it has a have brighter nucleus. Easy to see.

---

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>UTC/civil</th>
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<tbody>
<tr>
<td>M86 (NGC 4406)</td>
<td>4/19/04</td>
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<th>Right Ascension</th>
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<tbody>
<tr>
<td>12:30:7</td>
<td>9:03:00</td>
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<table>
<thead>
<tr>
<th>Declination</th>
<th>Seeing: Transparency</th>
<th>Steadiness</th>
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<tr>
<td>+12 57</td>
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<table>
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<tr>
<th>Constellation</th>
<th>Temperature</th>
<th>Telescope</th>
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<tbody>
<tr>
<td>Virgo</td>
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<td>9.75/18</td>
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<table>
<thead>
<tr>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.9' x 5.8'</td>
</tr>
</tbody>
</table>

**Notes:**

In same field of view as M81, z 2, four from M87.

M86 is a have bigger & brighter than M84. Small, dim fuzzy patch of light w/ brighter nucleus that is stellar in center of nucleus glow. Easy to see.
### Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>UTC/civil</th>
<th>Right Ascension</th>
<th>Time</th>
<th>UTC/standard</th>
<th>Seeing: Transparency</th>
<th>Steadiness</th>
<th>Constellation</th>
<th>Magnitude</th>
<th>Temperature</th>
<th>Telescope</th>
<th>Eyepiece/Magnification</th>
<th>Filters</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>M84</td>
<td>4/18/04</td>
<td>20:06</td>
<td>12h 25.1m</td>
<td>9:03 P</td>
<td>23h 00m</td>
<td>Good</td>
<td>OK</td>
<td>Virgo</td>
<td>10.1</td>
<td>53°C</td>
<td>8.0 f/8</td>
<td>95x</td>
<td>None</td>
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</tr>
<tr>
<td>Size</td>
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</tbody>
</table>

Notes:

M84 is a have smaller & dimmer than M86. Small, dim fuzzy patch of light w/ brighter nucleus that is starellae in center of nucleus. Easy to see.

---

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>UTC/civil</th>
<th>Right Ascension</th>
<th>Time</th>
<th>UTC/standard</th>
<th>Seeing: Transparency</th>
<th>Steadiness</th>
<th>Constellation</th>
<th>Magnitude</th>
<th>Temperature</th>
<th>Telescope</th>
<th>Eyepiece/Magnification</th>
<th>Filters</th>
<th>Notes</th>
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<tbody>
<tr>
<td>M64</td>
<td>4/18/04</td>
<td>20:06</td>
<td>12h 36.7m</td>
<td>9:13 P</td>
<td>23h 00m</td>
<td>Good</td>
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<td>Com</td>
<td>7.5</td>
<td>53°C</td>
<td>8.0 f/8</td>
<td>85x</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>9.3' x 5.4'</td>
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</tr>
</tbody>
</table>

Notes:

Small, round dim glow. Bit larger than M86/M84. Has a have brighter nucleus w/ starellae point of light seen at center of nucleus every once in a while.
### Observing Log

**Object:** M3 (NGC 5272)  
**Date:** 4/18/04 UTC/civil  
**Right Ascension:** 13 42.2  
**Time:** 9:18 P UTC/std/ds  
**Declination:** +29 23  
**Seeing:** Transparency: Good  
**Constellation:** CVn  
**Steadiness:** OK  
**Magnitude:** 5.9  
**Temperature:** 53°  
**Size:** 16.0'  
**Telescope:** 8'' f/8  
**Eyepiece/Magnification:** 85x  
**Filters:** None  

**Notes:**

Large, bright, very easy to spot. Big, bright nucleus dims quickly into large halo area. Member star speckles seen.

---

### Observing Log

**Object:** M94 (NGC 4736)  
**Date:** 4/18/04 UTC/civil  
**Right Ascension:** 13 50.9  
**Time:** 9:12 P UTC/std/ds  
**Declination:** +41 07  
**Seeing:** Transparency: Good  
**Constellation:** CVn  
**Steadiness:** OK  
**Magnitude:** 8.1  
**Temperature:** 53°  
**Size:** 11' x 9.11'  
**Telescope:** 8'' f/8  
**Eyepiece/Magnification:** 85x  
**Filters:** None  

**Notes:**

Bright, easy to see. Large, bright nucleus w/ small amount of a dim, circular halo seen. Most of what you can see is nucleus w/ hint of halo surrounding this nucleus glow.
Observing Log

Object: NGC 6121 (M4)  Date: 7/21/04 UTC/civil
Right Ascension: 16° 28.6'  Time: 9:23 P UTC/std/ds
Declination: -26° 32'  Seeing: Transparency: Good
Constellation: Scop  Steadiness: Good
Magnitude: 5.8  Temperature: 85°
Size: 2.6'  Telescope: 8" f/8
Eyepiece/Magnification: 168x
Filters

Notes:

Small, faint glows with some glow tail of very faint nebula
store. It's easy to see though, 5-8 little brighter field stars
scattered around glow. w/hv, can feel nucleus is a little brighter
10:14 P - darker so it's easier to see. Now you can feel
its quite large, yet still very dim.

Observing Log

Object: β Scopii  Date: 7/21/04 UTC/civil
Right Ascension: 16° 5.4'  Time: 9:08 P UTC/std/ds
Declination: -19° 41.1'  Seeing: Transparency: Good
Constellation: Scop  Steadiness: Good
Magnitude: 2.6.4.9  Temperature: 85°
Size: 13.4" Separation
Telescope: 8" f/8
Eyepiece/Magnification: 168x
Filters

Notes:

2 blue white stars, easily separated. The upper one is 2.1 x the size of the lower one. There is a
good separation between them & both stand
right out in FOV.
Observing Log

**Object:** M104

Right Ascension: 17 48 0.0
Declination: -11 37
Constellation: Virgo
Magnitude: 8.3
Size: 9.9 x 4.1

**Date:** 4/18/04 UTC/civil
**Time:** 9:13:23 UTC/std/dst
**Seeing:** Transparency: Good
Steadiness: 0.1

**Temperature:** 53.0
**Telescope:** 6" f/1.8
**Eyepiece/Magnification:** 85 x
**Filters:** None

**Notes:**

Small, oval (cigar) shaped dim sliver of light w/ tiny, brighter nucleus centered in oval glow.

---

Observing Log

**Object:** NGC 5904 (M5)

Right Ascension: 15 18.6
Declination: +2 5
Constellation: Ser
Magnitude: 5.7
Size: 17.4

**Date:** 7/21/04 UTC/civil
**Time:** 9:29 UTC/std/cst
**Seeing:** Transparency: Good
Steadiness: Good

**Temperature:** 85.0
**Telescope:** 8" f/8
**Eyepiece/Magnification:** 163 x
**Filters:**

**Notes:**

Much brighter than M4. A small dense glow, with nucleus much brighter than halo area. Member stars easily seen. Whole object stands right out. Nucleus is tiny & bright & dims evenly from there into halo. Tons of member stars easily seen.
Observing Log

Object NGC 6254 (M110) Date 7/21/04 UTC/civil
Right Ascension 16° 57.1' Time 9:34 P UTC/std/ds
Declination -4° 5.6' Seeing: Transparency Good
Constellation Oph Steadiness Good
Magnitude 6.6 Temperature 85°
Size 15.0' Telescope 8" 8 / 8
Eyepiece/Magnification 16X x
Filters

Notes:

Dimmer than M5 but brighter than M4. Uniformly lit nucleus. Much looser than M5. Nucleus not prominent, but member stars easily seen. Halo is a bit extended around uniformly lit nucleus.

Observing Log

Object NGC 6718 (M12) Date 7/21/04 UTC/civil
Right Ascension 16° 47.2' Time 9:39 P UTC/std/ds
Declination -1° 57' Seeing: Transparency Good
Constellation Oph Steadiness Good
Magnitude 6.8 Temperature 85°
Size 15.0' Telescope 8" 8 / 8
Eyepiece/Magnification 16X x
Filters

Notes:

Dim, like M4. Small, round glow w/hints of a small, more brighter nucleus. Approx 8 bright field stars sit distributed on glow. No member stars seen. Glow stands out in FoV like the glow of a comet.
Observing Log

Object IC 4665  
Right Ascension 17\textdegree\ 46.3\arcmin 
Declination +5\textdegree\ 43\arcmin 
Constellation Oph 
Magnitude 4.2  
Size 70.0\arcmin 
Date 7/21/04 UTC/UT  
Time 9:46.0 UTC/UT  
Seeing: Transparency Good  
Steadiness Good  
Temperature 78\textdegree  
Telescope 8\textquoteright\ 5\textquoteright\ 5/7 
Eyepiece/Magnification 86x 
Filters 

Notes:  
Several bright, blue white stars all over 32mm FOV.  
32-38 stars of approx 3 magnitudes fill 1\frac{1}{4} FOV.  
In central heart of OC in FOV, 31 of these stars alone.  
Rest are to E side of FOV. This OC stands right out in star poor area of sky.

Observing Log

Object NGC 6266 (M62)  
Right Ascension 17\textdegree\ 1.2\arcmin 
Declination -30\textdegree\ 7\arcmin 
Constellation Oph 
Magnitude 6.7  
Size 14.0\arcmin 
Date 7/21/04 UTC/UT  
Time 9:51.0 UTC/UT  
Seeing: Transparency Good  
Steadiness Good  
Temperature 85\textdegree  
Telescope 8\textquoteright\ 5\textquoteright\ 5/7 
Eyepiece/Magnification 168x 
Filters 

Notes:  
Easy to see.  Have brighter nucleus & small,  
round, dim halo. No member stars seen.
### Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>Time</th>
<th>Seeing</th>
<th>Transparency</th>
<th>Steadiness</th>
<th>Temperature</th>
<th>Telescope</th>
<th>Eyepiece/Magnification</th>
<th>Filters</th>
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</thead>
<tbody>
<tr>
<td>M65</td>
<td>7/21/04 UTC/civil</td>
<td>10:06</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>85°</td>
<td>8' 8/8'</td>
<td>168x</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

Very tiny, like out of focus star, yet very blue green in color compared to other blue white field stars in FOV. Has a star-like nucleus in center of a tiny, blue green glow.

---

### Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>Time</th>
<th>Seeing</th>
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<th>Steadiness</th>
<th>Temperature</th>
<th>Telescope</th>
<th>Eyepiece/Magnification</th>
<th>Filters</th>
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<tbody>
<tr>
<td>M65 (M7)</td>
<td>7/21/04 UTC/civil</td>
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<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>85°</td>
<td>8' 8/8'</td>
<td>168x</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

Approx 60 bright, blue white stars of approx 3:4 different magnitudes, completely fills FOV of 19mm EP. Very open & loose & easy to see in this star poor area of my urban sky to the south.
Observing Log

Object: NGC 6405 (M 6)  Date: 7/21/04 UTC/UTCT
Right Ascension: 17° 40.1'  Time: 10:16 P UTC/UTCT
Declination: -32° 13'  Seeing: Transparency: Good
Constellation: Sco  Steadiness: Good
Magnitude: 4.2  Temperature: 85°
Size: 53.0'  Telescope: 8" f/8
Eyepiece/Magnification: 168x
Filters

Notes:

Much smaller than M7. 60-70 stars nicely fill center of FOV. Roughly circular, flat on 1 side, in shape, but loose. 1 very bright field star on W side. Approx 4 different magnitudes makeup this OC w/4th set of stars very dim yet easy to see. Approx 1/4 FOV in diameter.

Observing Log

Object: NGC 6520  Date: 7/21/04 UTC/UTCT
Right Ascension: 17° 3.4'  Time: 10:21 P UTC/UTCT
Declination: -27° 6.4'  Seeing: Transparency
Constellation: Sgr  Steadiness
Magnitude: 7.6  Temperature
Size: 6.0'  Telescope
Eyepiece/Magnification
Filters

Notes:

6 Field stars bound this glow that my eye is drawn to in FOV. Its small & glow is very dim, yet there.
Observing Log

Object: N4C 7523 (M8)  Date: 7/21/04  UTC/civil
Right Ascension: 18°3.7'  Time: 10:27 P  UTC/std/ds
Declination: -24°23'  Seeing: Transparency: Good
Constellation: Sgr  Steadiness: Good
Magnitude: 5.0  Temperature: 95°
Size: 90' x 40'  Telescope: 8'  f/8
Eyepiece/Magnification: 168x  Filters

Notes:
Nice glow, easy to see, small, w/ Z field stars on glow. In same FOV is a small, tight OC of approx 20 blue white stars, all of about the same magnitude. Right next to M8.

---

Observing Log

Object: N4C 6656 (M22)  Date: 7/21/04  UTC/civil
Right Ascension: 18°36.4'  Time: 10:30 P  UTC/std/ds
Declination: -23°54'  Seeing: Transparency: Good
Constellation: Sgr  Steadiness: Good
Magnitude: 5.1  Temperature: 95°
Size: 24.0'  Telescope: 8'  f/8
Eyepiece/Magnification: 168x  Filters

Notes:
Large, round, uniformly lit nucleus. Easy to see. Many member stars seen but overall a rather dim object.
### Observing Log 1

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<tr>
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<th>NGC 6705 (M11)</th>
<th>Date</th>
<th>7/21/04 UTC/civil</th>
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<tr>
<td>Declination</td>
<td>-6° 16'</td>
<td>Seeing:</td>
<td>Transparency: Good</td>
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<tr>
<td>Constellation</td>
<td>Sc</td>
<td>Steadiness: Good</td>
<td></td>
</tr>
<tr>
<td>Magnitude</td>
<td>5.7</td>
<td>Temperature</td>
<td>85°</td>
</tr>
<tr>
<td>Size</td>
<td>13.0'</td>
<td>Telescope</td>
<td>8' 5/8</td>
</tr>
<tr>
<td>Eyepiece/Magnification</td>
<td>168x</td>
<td>Filters</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**  
Small, tight group of dim, yet easy to see individual stars. Too many to count w/ I very bright field star in center of cluster.

### Observing Log 2

<table>
<thead>
<tr>
<th>Object</th>
<th>Y Delphini</th>
<th>Date</th>
<th>7/21/04 UTC/civil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right Ascension</td>
<td>20° 46.7'</td>
<td>Time</td>
<td>10:41 UT/cst/dst</td>
</tr>
<tr>
<td>Declination</td>
<td>+16° 07'</td>
<td>Seeing:</td>
<td>Transparency: Good</td>
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<tr>
<td>Constellation</td>
<td>Del</td>
<td>Steadiness: Good</td>
<td></td>
</tr>
<tr>
<td>Magnitude</td>
<td>4.5 - 5.5</td>
<td>Temperature</td>
<td>85°</td>
</tr>
<tr>
<td>Size</td>
<td>9.6'' sep.</td>
<td>Telescope</td>
<td>8' 5/8</td>
</tr>
<tr>
<td>Eyepiece/Magnification</td>
<td>168x</td>
<td>Filters</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**  
2 blue white stars. One on right is just a bit brighter. Very close yet easy to separate.
### Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>Time</th>
<th>Seeing: Transparency</th>
<th>Steadiness</th>
<th>Temperature</th>
<th>Telescope</th>
<th>Eyepiece/Magnification</th>
<th>Filters</th>
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<tbody>
<tr>
<td>NGC 6709</td>
<td>7/21/04</td>
<td>10:45:10 PM</td>
<td>Good</td>
<td>Good</td>
<td>85°</td>
<td>8&quot; 6/8</td>
<td>168x</td>
<td></td>
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<tr>
<td>Right Ascension</td>
<td>18h 51.5'</td>
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<td></td>
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<tr>
<td>Declination</td>
<td>+10° 21'</td>
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<tr>
<td>Size</td>
<td>13.0'</td>
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</table>

**Notes:**

Small and somewhat compact. Approx 20-30 Blue white stars of approx 3 different magnitudes. It is dim overall yet is a higher concentration of stars in this area of the sky.

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### Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>Time</th>
<th>Seeing: Transparency</th>
<th>Steadiness</th>
<th>Temperature</th>
<th>Telescope</th>
<th>Eyepiece/Magnification</th>
<th>Filters</th>
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<tbody>
<tr>
<td>Delta Cepheus</td>
<td>9-4-04</td>
<td>10:20 AM</td>
<td>Good</td>
<td>Good</td>
<td>72°</td>
<td>8&quot; 6/8</td>
<td>168x</td>
<td></td>
</tr>
<tr>
<td>Right Ascension</td>
<td>22h 29.2m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Declination</td>
<td>+58° 25'</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Constellation</td>
<td>Cepheus</td>
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<td></td>
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<tr>
<td>Magnitude</td>
<td>3.9 6.3</td>
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<tr>
<td>Size</td>
<td>41&quot;</td>
<td></td>
<td></td>
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</table>

**Notes:**

A diminutive version of Alberio. A pretty blue, gold double star nicely separated, with the yellow star much brighter than the blue.
**Observing Log**

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>Right Ascension</th>
<th>Time</th>
<th>Declination</th>
<th>Constellation</th>
<th>Magnitude</th>
<th>Size</th>
<th>Seeing: Transparency</th>
<th>Seeing: Steadiness</th>
<th>Temperature</th>
<th>Telescope</th>
<th>Eyepiece/Magnification</th>
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<tbody>
<tr>
<td>N66 7160</td>
<td>8-4-04 UTC/civil</td>
<td>21h 53.7m</td>
<td>10:28p UTC/std/ds</td>
<td>+47° 36'</td>
<td>Cep</td>
<td>6.1</td>
<td>7.0'</td>
<td></td>
<td></td>
<td>72°</td>
<td>8.5/8.5</td>
<td>168x</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

About 7 stars make up this guy with 2 of 7 really bright. Seen in 7x35 binos as fuzzy area but can see stars.

---

**Observing Log**

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>Right Ascension</th>
<th>Time</th>
<th>Declination</th>
<th>Constellation</th>
<th>Magnitude</th>
<th>Size</th>
<th>Seeing: Transparency</th>
<th>Seeing: Steadiness</th>
<th>Temperature</th>
<th>Telescope</th>
<th>Eyepiece/Magnification</th>
<th>Filters</th>
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<tbody>
<tr>
<td>N66 6910</td>
<td>8-4-04 UTC/civil</td>
<td>20h 23.1m</td>
<td>10:33p UTC/std/ds</td>
<td>+40° 47'</td>
<td>Cyg</td>
<td>7.4</td>
<td>7.0'</td>
<td></td>
<td></td>
<td>72°</td>
<td>8.5/8.5</td>
<td>168x</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

8-10 stars of same magnitude are situated to the west of 2 much brighter stars are between these stars.
# Observing Log

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<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>UTC/civil</th>
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<tbody>
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<td>20° 34.6</td>
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<td>22° 19'</td>
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<th>Telescope</th>
<th>Eyepiece/Magnification</th>
<th>Filters</th>
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</thead>
<tbody>
<tr>
<td>Vul</td>
<td>72°</td>
<td>8° 5/9</td>
<td>16x</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>31.0'</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

Lots of stars seen in roughly a circular shape. Several magnitudes of stars seen. It's easy to lose this is the OC because star density drops off quickly if you sweep the scope a bit off of it. Nicely fill Fou. Very nice.

---

# Observing Log

<table>
<thead>
<tr>
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<th>Date</th>
<th>UTC/civil</th>
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<tbody>
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<td>9-4-04</td>
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<th>Time</th>
<th>UTC/std/ds</th>
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<tbody>
<tr>
<td>19° 59.6</td>
<td>10:37</td>
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<table>
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<th>Declination</th>
<th>Seeing: Transparency</th>
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<tbody>
<tr>
<td>22° 43'</td>
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<table>
<thead>
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<th>Telescope</th>
<th>Eyepiece/Magnification</th>
<th>Filters</th>
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<tbody>
<tr>
<td>Vul</td>
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<td>8° 5/7</td>
<td>16x</td>
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<tr>
<td>Magnitude</td>
<td>7.3</td>
<td></td>
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<tr>
<td>Size</td>
<td>8' x 5.7</td>
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<td></td>
</tr>
</tbody>
</table>

**Notes:**

Bright. Bow tie glow. Easy to see.
Observing Log

Object M 4756 | Date 7-4-04 UTC/civil
Right Ascension 12h 39.6' | Time 11:00 P UT/STD/DS
Declination +5° 27' | Seeing: Transparency Good
Constellation Leo | Steadiness Good
Magnitude 4.6 | Temperature 72°
Size 10.0' | Telescope 8" f/8
Eyeepiece/Magnification 8x5X
Filters

Notes:
Roughly circular in shape. Overwhelms 32mm FOV. Several blue-white stars of about same magnitude makeup this loose OC.

Observing Log

Object M 633 | Date 7-4-04 UTC/civil
Right Ascension 1° 27.7' | Time 11:06 P UT/STD/DS
Declination 6° 34' | Seeing: Transparency Good
Constellation Ophiuchus | Steadiness Good
Magnitude 4.9 | Temperature 72°
Size 20.0' | Telescope 8" f/8
Eyeepiece/Magnification 8x5X
Filters

Notes:
32mm - 30-10 blue-white stars are bony in shape. Switches side to side in FOV & not quite as much up & down. Stars of 2-3 different magnitudes with 1 really bright star at top edge of OC. Somewhat compact. Goes from 10 o'clock to 4 o'clock on long side of box.
### Observing Log

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<th>Time</th>
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<table>
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<td>-141° 9'</td>
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<th>Telescope</th>
<th>Eyepiece/Magnification</th>
<th>Filters</th>
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<tbody>
<tr>
<td>Sgr</td>
<td>72°</td>
<td>8&quot; f/1.9</td>
<td>168 x</td>
<td></td>
</tr>
<tr>
<td>Magnitude</td>
<td>Size</td>
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<td></td>
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</tr>
<tr>
<td>9.3</td>
<td>22&quot;x15&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

Small. Round. Dim. Looks like out of focus star w/other stars in FOV in focus. This guy stands right out.

---

### Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>Date</th>
<th>UTC/civil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nbc 6926</td>
<td>9-5-04</td>
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<table>
<thead>
<tr>
<th>Right Ascension</th>
<th>Time</th>
<th>UTC/std/ds</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 h 44.8'</td>
<td>9:29 P</td>
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<table>
<thead>
<tr>
<th>Declination</th>
<th>Seeing: Transparency</th>
<th>Steadiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>50° 31'</td>
<td>Good</td>
<td>Good</td>
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</table>

<table>
<thead>
<tr>
<th>Constellation</th>
<th>Temperature</th>
<th>Telescope</th>
<th>Eyepiece/Magnification</th>
<th>Filters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyg</td>
<td>64°</td>
<td>8&quot; f/1.9</td>
<td>168 x</td>
<td></td>
</tr>
<tr>
<td>Magnitude</td>
<td>Size</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.8</td>
<td>27&quot;x24&quot;</td>
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</tbody>
</table>

**Notes:**

Tiny. Round, blue-green halo around a stellar center. Easily seen. Again, stars in FOV are points while this thing is fuzzy. w/AV, it is easier to see, larger & brighter than by looking directly at it.
### Observing Log

**Object:** NGC 618 (M17)  
**Right Ascension:** 17h 20m 44s  
**Declination:** -16° 11'  
**Constellation:** Sag  
**Magnitude:** 6.0  
**Size:** 11.0'  
**Date:** 9-5-04  
**Time:** 9:42:00  
**Seeing:** Transparency: Good  
**Steadiness:** Good  
**Temperature:** 65°  
**Telescope:** 8" f/8  
**Eyepiece/Magnification:** 148x  
**Filters:**

**Notes:**
Fairly large & easy to see. It appears long on one axis & maybe oval in shape. Dim in FOV yet easy to see. There is a hint of gas (a glow) above & below this long axis. There are many stars below it, might be an OC there.

### Observing Log

**Object:** Cz 399  
**Right Ascension:** 19h 25m 49s  
**Declination:** 20° 11'  
**Constellation:** Vul  
**Magnitude:** 3.6  
**Size:** 60.0'  
**Date:** 9-5-04  
**Time:** 9:53:00  
**Seeing:** Transparency: Good  
**Steadiness:** Good  
**Temperature:** 65°  
**Telescope:** 8" f/8  
**Eyepiece/Magnification:** 168x-75x  
**Filters:**

**Notes:**
19 mm - Several bright blue-white stars make up this OC. Very loose. One set forms a teapot shape.

32 mm - 12 bright stars w/ a 2nd level of magnitude of 4-15-20 more stars.
Observing Log

Object NCG 6934
Right Ascension 20h 34m 26s
Declination 7° 24´
Constellation Del
Magnitude 8.7
Size 5.9´
Date 8-5-04 UTC/civil
Time 11:01 UT
Seeing: Transparency Good
Steadiness Good
Temperature 65°
Telescope 8" f/8
Eyepiece/Magnification 168x
Filters

Notes:
Small, dim, round glow just next to a much brighter field star. Fairly faint. Its uniformly lit.

---

Observing Log

Object NCG 7078 (M15)
Right Ascension 21h 30m
Declination 12° 10´
Constellation Peg
Magnitude 6.0
Size 12.0´
Date 8-5-04 UTC/civil
Time 10:09 UT
Seeing: Transparency Good
Steadiness Good
Temperature 65°
Telescope 8" f/8
Eyepiece/Magnification 168x
Filters

Notes:
Large, round glow w/ bright small nucleus and a large extended halo area. Can almost make out member stars. Halo is textured, not a constant glow.
Observing Log

Object: NGC 7089 (M12)  Date: 8-5-04  UTC/civil
Right Ascension: 21° 33.5'  Time: 10:20 PM  UTC/std/ds
Declination: -00° 49'  Seeing: Transparency: Good
Constellation: Aqr  Steadiness: 6004
Magnitude: 6.4  Temperature: 65°F
Size: 13.0'  Telescope: 8'' f/8
Eye piece/Magnification: 168x
Filters:

Notes:
Larger than M15. Nucleus is large & uniformly lit. Dims into extended halo w/many member stars seen.

Observing Log

Object: NGC 7092 (M39)  Date: 8-5-04  UTC/civil
Right Ascension: 21° 32.2'  Time: 10:30 PM  UTC/std/ds
Declination: +4° 26'  Seeing: Transparency: Good
Constellation: Cyg  Steadiness: 6004
Magnitude: 4.6  Temperature: 65°F
Size: 31.0'  Telescope: 8'' f/8
Eye piece/Magnification: 168x
Filters:

Notes:
20-25 Bright blue-white stars of 2 magnitudes. 2nd just a bit dimmer. Fills 1/2 FOV of 19mm. Very loose. These are the brightest stars in this area of the sky.
### Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>7243</th>
<th>Date</th>
<th>8-5-04 UTC/civil</th>
<th>Right Ascension</th>
<th>22h 15m 30s</th>
<th>Time</th>
<th>10h 45m 30s UTC/std/ds</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Seeing: Transparency</td>
<td>Good</td>
<td>Steadiness</td>
<td>Good</td>
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<tr>
<td>Constellation</td>
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<td>Temperature</td>
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<td>Telescope</td>
<td>8&quot; f/8</td>
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<tr>
<td>Magnitude</td>
<td>6.4</td>
<td>Eyepiece/Magnification</td>
<td>168x</td>
<td>Filters</td>
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</tbody>
</table>

**Notes:**

Very loose, 20-30 stars of approx same magnitude make up this OC. Fills approx ½ FOV in width. Three stars in FOV differ from area field stars because they are tighter together & of approx same magnitude.

### Observing Log

<table>
<thead>
<tr>
<th>Object</th>
<th>7209</th>
<th>Date</th>
<th>8-5-04 UTC/civil</th>
<th>Right Ascension</th>
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<th>Time</th>
<th>10h 51m UTC/std/ds</th>
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<tbody>
<tr>
<td>Declination</td>
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<td>Steadiness</td>
<td>Good</td>
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<tr>
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<td>Temperature</td>
<td>65°</td>
<td>Telescope</td>
<td>8&quot; f/8</td>
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<tr>
<td>Magnitude</td>
<td></td>
<td>Eyepiece/Magnification</td>
<td>168x</td>
<td>Filters</td>
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<tr>
<td>Size</td>
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</tbody>
</table>

**Notes:**

Smaller & tighter than 7243. Approx 40 stars of 2 to 3 magnitudes make up this OC. No shape, but nicely fills center of FOV.
Observing Log

Object NGC 7009
Right Ascension 21h 42.2'
Declination -11° 22'
Constellation Aqr
Magnitude 9.0
Size 44'' x 23''
Date 9-5-04 UTC/civil
Time 9:19 PM UTC/std/ds
Seeing: Transparency OK
Steadiness Good
Temperature 65°
Telescope 8" f/8
Eyepiece/Magnification 168x
Filters OIII used

Notes:
Small, fuzzy ball. Bluish in color. Much larger than stars in area. O3 filter shows bright fuzzy ball. It's a lot brighter than anything else in FOV. Central star often seen w/Adrived version, as a point in middle of fuzzy glow.

Observing Log

Object NGC 7662
Right Ascension 23h 25.9'
Declination 42° 33.3'
Constellation And
Magnitude 8.3
Size 32'' x 28''
Date 9-5-04 UTC/civil
Time 9:13 PM UTC/std/ds
Seeing: Transparency OK
Steadiness Good
Temperature 65°
Telescope 8" f/8
Eyepiece/Magnification 168x
Filters OIII used

Notes:
Easier to see than 7009, maybe just a bit brighter. Small fuzzy ball. This one is definitely blue-green in color. Here smaller than 7009. O3 shows no better view. Sometimes see central point of light in middle of glow.

9:40 PM went back to 7009 to compare. Both very similar, yet I think 7662 was brighter.