

# Prospective Imaging Objects – August 16 2023

## Astronomical Data

Sunrise	Sunset	Astronomical Dusk	Astronomical Dawn	Imaging	New Moon
05:50am	07:12 pm	08:42 pm	04:20 am	07:38	Aug 16

## Hardware Info

Configuration	FL	FOV	FOV°	Image Scale (1 – 1.5) ideal
C11HD   ZWO ASI-6200 mono Pro	2800mm	45' x 30'	0.75° x 0.5°	0.280"/pix (Oversampled)
C11HD   0.7xReducer   ZWO6200MCc	1960mm	60' x 45'	1.0° x 0.75°	0.393"/pix (Oversampled)
C11HD HS-v4 ZWO6200MCc	540mm	228' x 150'	3.8° x 2.5°	1.4"/pix (Undersampled)

## How to use this document


**Sculptor Galaxy (NGC 253)**  
**Config: C11 | LF Corr |128c**

Type: **Galaxy**  
 Peak: **Oct 02**  
 Constellation: **Sculptor**  
 Coordinates:  
**00hr 47' 33"**  
**-25° 17' 15"**

Close Star: SAO-147420  
 Catalog Objects: [NGC 253](#)

Imaging Window: \*10:44 – 02:44  
 Transit: 12:48

Primary Focus



Sculptor Galaxy (NGC 253)  
 Constellation: Sculptor

**01: Background Fill Color** - Items that I have previously imaged will have a fill color of grey, Images not yet imaged will have a white background color.

**02: Object Name and catalog number** – Common name long with one of the reference catalog numbers associated with this object.

**03: Config** – The optimal configuration to image this object, and the configuration the provided image is based on based on what hardware I own. Configuration will either be the Celestron C-11 Primary focus (with focal reducer) or C-11 with HyperStar.

**04: Object Image** – If this is an object I have already imaged, the thumbnail is my photo. It is hyperlinked to my website, so selecting the image should open a larger image in your browser. If the object has not yet been imaged by me the image displayed is for the identified configuration as obtained from <http://www.telescopious.com>.




**05: Close Star** – A fairly bright star close to the target that can be used to check focus and sync the telescope before the imaging session begins.

**06: Catalog Objects** – List of objects that should appear in the field of view. When possible they are hyperlinked to <http://www.telescopious.com> where more information can be obtained.

**07: Imaging Window** – Ideally the time the object is 45° above the horizon. Southern objects with negative DEC that do not peak above 45° are indicated with a \*. Imaging window for these objects may be based on 30° or even 25° above horizon for the imaging window.

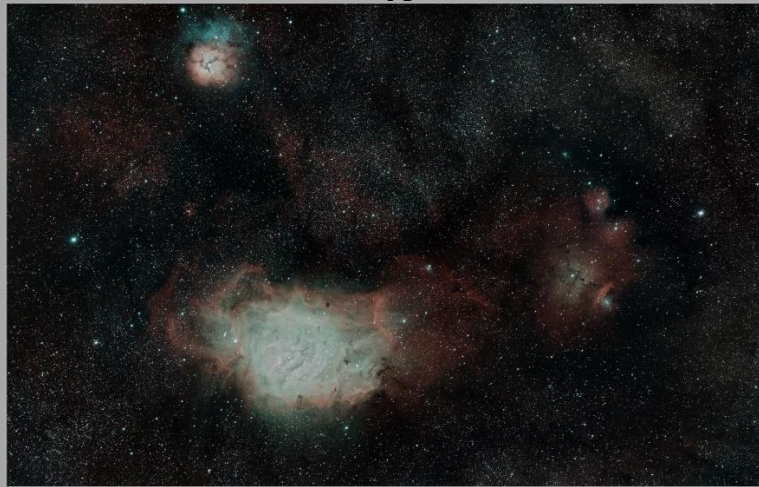
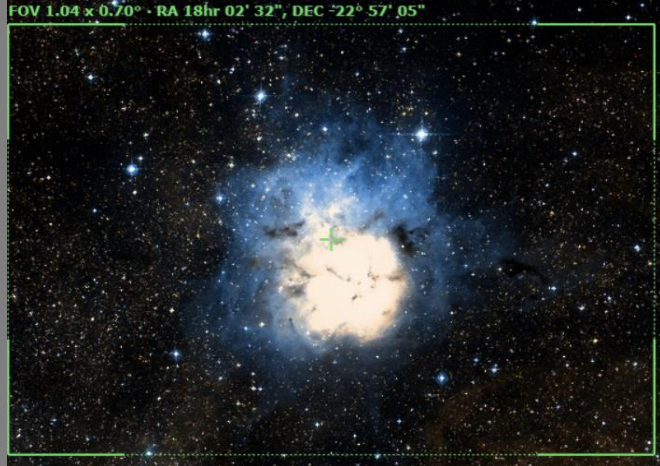

**08: Transit** – When the object is at the highest point in the sky for the night. For equatorial mounts this is when the meridian flip will occur.

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<p><b>Ptolemy Cluster</b><sup>(M-7)</sup>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Scorpius</b>            Coordinates:  <b>17h 53' 39"</b>  <b>-34° 48' 53"</b></p> <p>Close Star: <b>SAO-210091</b> (Kaus Aus.)            Catalog Objects: <a href="#">M-7</a>/NGC-6475            Imaging Window: *<b>08:42 – 09:49</b>            Transit: <b>08:42   22°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>M-23</b><sup>(NGC-6494)</sup>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Sagittarius</b>            Coordinates:  <b>17h 56' 56"</b>  <b>-19° 00' 42"</b></p> <p>Close Star: <b>SAO-184415</b> (Antares)            Catalog Objects: <a href="#">M-23</a>/NGC-6494            Imaging Window: *<b>08:42 – 11:23</b>            Transit: <b>08:45   38°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Cat's Eye Nebula</b><sup>(NGC-6543)</sup>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Draco</b>            Coordinates:  <b>17h 59' 00"</b>  <b>66° 37' 39"</b></p> <p>Close Star: <b>SAO-18222</b> (Altais)            Catalog Objects: <a href="#">NGC-6543</a>            Imaging Window: <b>08:42 – 12:15</b>            Transit: <b>08:46   57°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small;">Cat's Eye Nebula (NGC-6543)            Constellation: Draco            RA: 17h 59m 00s DEC: +66° 37' 39" Distance: 6,500 light years (2,000 parsecs)            Apparent Size: 5.5 arcmin (5.5 arcmin x 5.5 arcmin) (11.0 arcmin)            Apparent Magnitude: 4.7</p>



# Prospective Imaging Objects – August 16 2023




<p><b>Lagoon Region</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Sagittarius</b>            Coordinates:  <b>18h 05' 54"</b>  <b>-23° 56' 32"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis)            Catalog Objects: <a href="#">M-8</a>/NGC-6523, M-20, NGC-6544            Imaging Window: *08:42 – 10:56            Transit: 08:52   32°</p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 
<p><b>Trifid Nebula</b>(M-20)            Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Sagittarius</b>            Coordinates:  <b>18h 02' 32"</b>  <b>-22° 57' 05"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis)            Catalog Objects: <a href="#">M-20</a>/NGC-6514            Imaging Window: *08:42 – 11:07            Transit: 08:51   34°</p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> <p style="text-align: center;">FOV 1.04 x 0.70° • RA 18hr 02' 32", DEC -22° 57' 05"</p> 
<p><b>Trifid Nebula</b>(M-20)            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Sagittarius</b>            Coordinates:  <b>18h 02' 42"</b>  <b>-22° 57' 60"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis)            Catalog Objects: <a href="#">M-20</a>/NGC-6514            Imaging Window: *08:42 – 11:07            Transit: 08:51   34°</p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 

# Prospective Imaging Objects – August 16 2023

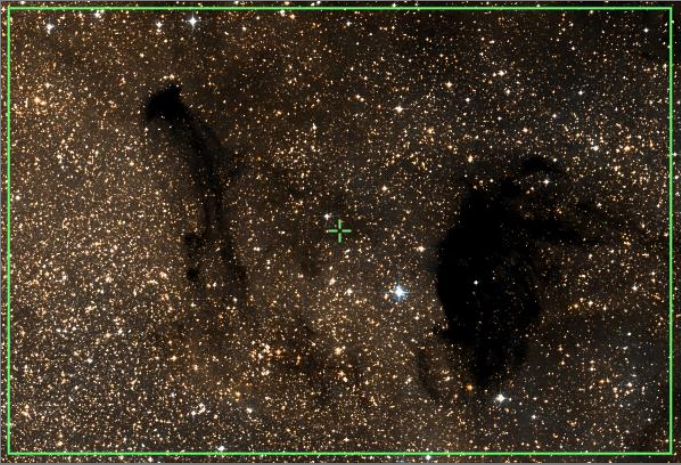
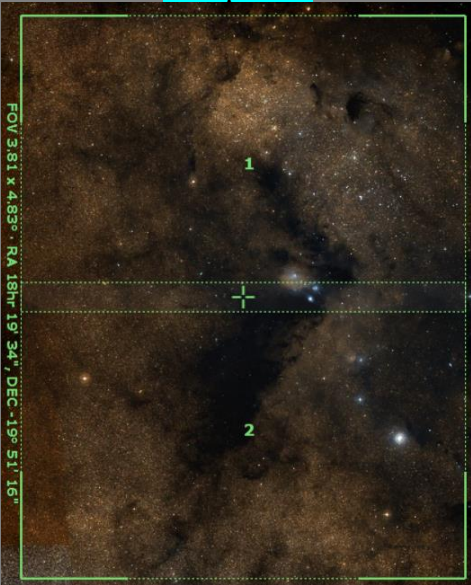

<p><b>Lagoon Nebula (M-8)</b>            Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Sagittarius</b>            Coordinates:  <b>18h 04' 04"</b>  <b>-24° 19' 52"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis)            Catalog Objects: <a href="#">M-8</a>/NGC-6523            Imaging Window: *<b>08:42 – 10:56</b>            Transit: <b>08:52</b>   32°</p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> 
<p><b>Lagoon Nebula (M-8)</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Sagittarius</b>            Coordinates:  <b>18h 04' 02"</b>  <b>-24° 20' 56"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis)            Catalog Objects: <a href="#">M-8</a>/NGC-6523            Imaging Window: *<b>08:42 – 10:56</b>            Transit: <b>08:52</b>   32°</p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> <p style="text-align: center; font-size: small;">FOV 0.73 x 0.49° • RA 18h 04' 02", DEC -24° 20' 56"</p> 
<p><b>M-21(NGC-6531)</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Sagittarius</b>            Coordinates:  <b>18h 04' 13"</b>  <b>-22° 30' 00"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis)            Catalog Objects: <a href="#">M-21</a>/NGC-6531            Imaging Window: *<b>08:42 – 11:07</b>            Transit: <b>08:52</b>   34°</p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 



# Prospective Imaging Objects – August 16 2023




<p><b>IC-4685</b> (IC-4685)            Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Sagittarius</b>            Coordinates:  <b>18h 09' 29"</b>  <b>-23° 50' 25"</b></p> <p>Close Star: SAO-209696 (Alnasl)  <b>Rotation 90°</b></p> <p>Catalog Objects: <a href="#">IC-1274</a>            Imaging Window: *08:42 – 11:07            Transit: 08:58   33°</p>	<p>C-11 HD: <b>Focal Reducer</b></p> 
<p><b>IC-1274</b> (IC-1275)            Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Sagittarius</b>            Coordinates:  <b>18h 09' 41"</b>  <b>-23° 52' 50"</b></p> <p>Close Star: SAO-184415 (Antares)</p> <p>Catalog Objects: <a href="#">IC-1274</a>            Imaging Window: *08:42 – 11:07            Transit: 08:58   33°</p>	<p>C-11 HD: <b>Focal Reducer</b></p>  <p><small>Bright Nebula IC-1274, IC-1275, IC-4685, NGC-6559            Constellation: Sagittarius            RA = 18h 09m 41s DEC = -23° 52' 50" Image Size = 60.8 x 39.5 Arcmin Orientation: 90deg Flip: 0 (Point scale = 0.627 arc/pixel) FL = 1900mm            Date: 2023-08-11 Location: Mountain View, CA            Config: C-11 HD   Focal Reducer   ZWO6200MC            Exposure: 100 (10000/100) Gain: 3200 Offset: 100</small></p>
<p><b>Emerald Nebula</b> (NGC-6572)            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Ophiuchus</b>            Coordinates:  <b>18h 12' 06"</b>  <b>06° 51' 15"</b></p> <p>Close Star: SAO-102932 (Rasalhague)            Catalog Objects: <a href="#">NGC-6572</a>            Imaging Window: 08:42 – 11:37            Transit: 09:00   64°</p>	<p>C-11 HD: <b>Primary Focus</b></p>  <p><small>Planetary Nebula NGC-6572            Constellation: Ophiuchus            Coordinates: RA = 18h 12m 06s DEC = 6° 51' 15" Image Size = 27.1 x 13.8 Arcmin Orientation: 90deg Flip: 0 (Point scale = 0.27 arc/pixel) FL = 2000mm            Date: 2023-07-05 Location: Mountain View, CA            Config: C-11 HD   Primary Focus   ZWO6200MC            Exposure: 100 (10000/100) Gain: 100 Offset: 0</small></p>

# Prospective Imaging Objects – August 16 2023

<p><b>B-93</b>(LDN-327) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Dark Nebula</b></p> <p>Constellation: <b>Sagittarius</b> Coordinates: <b>18h 16' 12"</b> <b>-18° 10' 19"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis) Catalog Objects: <a href="#">B-93</a>/LDN-327, B-92 Imaging Window: *<b>08:42 – 11:12</b> Transit: <b>09:05</b>   <b>30°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>IC-1283 Region</b> (NGC-6589) Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Dark Nebula</b></p> <p>Constellation: <b>Sagittarius</b> Coordinates:</p> <ul style="list-style-type: none"> <li>• <b>Frame 1</b> <ul style="list-style-type: none"> <li>○ RA: 18h 19' 34"</li> <li>○ DEC: -18° 42' 41"</li> </ul> </li> <li>• <b>Frame 2</b> <ul style="list-style-type: none"> <li>○ RA: 18h 19' 34"</li> <li>○ DEC: -20° 59' 51"</li> </ul> </li> </ul> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis) Catalog Objects: <a href="#">IC-1283</a>/NGC-6589 Imaging Window: *<b>08:42 – 11:01</b> Transit: <b>09:05</b>   <b>37°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4 Composite!</b></p> 
<p><b>IC-1283</b>(NGC-6589) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Sagittarius</b> Coordinates: <b>18h 17' 21"</b> <b>-19° 43' 10"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis) Catalog Objects: <a href="#">IC-1283</a>/NGC-6589 Imaging Window: *<b>08:42 – 11:01</b> Transit: <b>09:05</b>   <b>37°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 


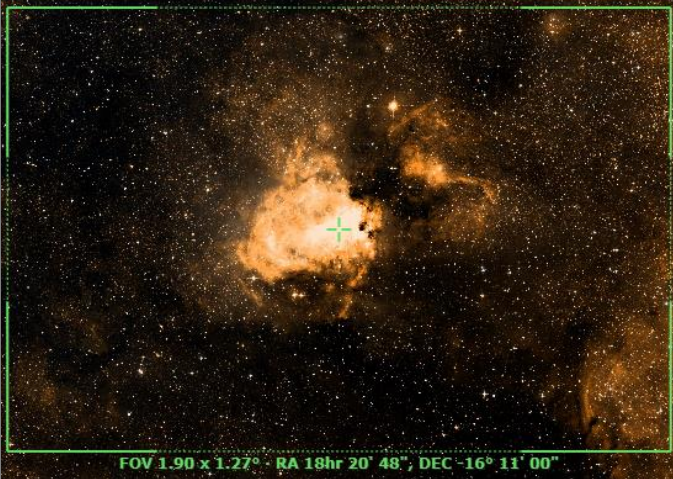
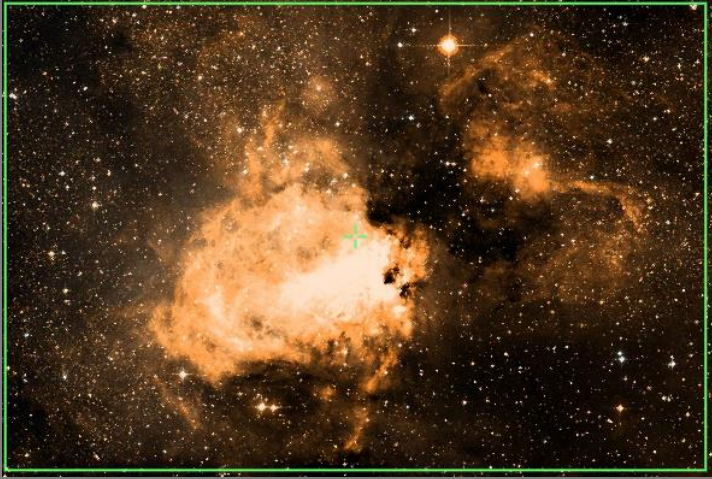


# Prospective Imaging Objects – August 16 2023

<p><b>Sagittarius Star Cloud(M-24)</b>            Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Sagittarius</b>            Coordinates:  <b>18h 18' 42"</b>  <b>-18° 30' 43"</b></p> <p>Close Star: <b>SAO-184415</b> (Antares)</p> <p>Catalog Objects: <a href="#">M-24</a>/IC-4715, NGC-6603            Imaging Window: *<b>08:42 – 11:12</b>            Transit: <b>09:07   38°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> 
<p><b>Eagle Nebula(M-16)</b>            Config:  C11-HD HS ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Serpens</b>            Coordinates:  <b>18h 18' 52"</b>  <b>-13° 51' 27"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis)            Catalog Objects: <a href="#">M-16</a>/NGC-6611            Imaging Window: *<b>08:42 – 11:40</b>            Transit: <b>09:07   43°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>  <p style="font-size: small;">Eagle Nebula (M-16) Region  <small>© 2013-2014, Skyline Imaging, LLC. All rights reserved. This image is a work of art and is not intended for scientific or educational purposes. It is a composite of several images taken over a period of several hours. The image is a work of art and is not intended for scientific or educational purposes. It is a composite of several images taken over a period of several hours.</small></p>
<p><b>Eagle Nebula(M-16)</b>            Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Serpens</b>            Coordinates:  <b>18h 18' 52"</b>  <b>-13° 51' 27"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis)            Catalog Objects: <a href="#">M-16</a>/NGC-6611            Imaging Window: *<b>08:42 – 11:40</b>            Transit: <b>09:07   43°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> 



# Prospective Imaging Objects – August 16 2023


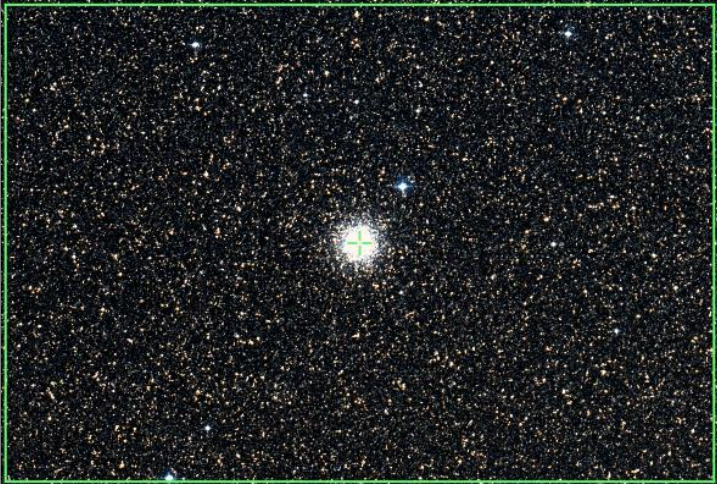
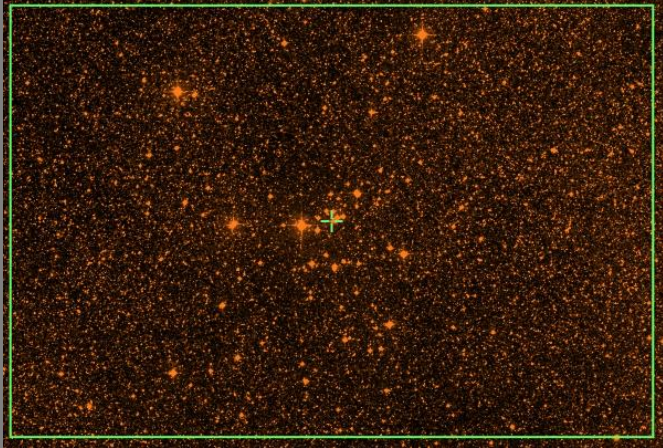
<p><b>Black Swan</b>(M-18/NGC-6613)            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Sagittarius</b>            Coordinates:  <b>18h 19' 58"</b>  <b>-17° 06' 06"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis)            Catalog Objects: <a href="#">M-18</a>/NGC-6613            Imaging Window: *<b>08:42 – 11:23</b>            Transit: <b>09:08   40°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Omega Nebula</b>(M-17)            Config:  C11-HD HS ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Sagittarius</b>            Coordinates:  <b>18h 20' 44"</b>  <b>-16° 07' 04"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis)            Catalog Objects: <a href="#">M-17</a>/NGC-6618, NGC-6618            Imaging Window: *<b>08:42 – 11:29</b>            Transit: <b>09:09   40°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 
<p><b>Omega Nebula</b>(M-17)            Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Sagittarius</b>            Coordinates:  <b>18h 20' 44"</b>  <b>-16° 07' 04"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis)            Catalog Objects: <a href="#">M-17</a>/NGC-6618, NGC-6618            Imaging Window: *<b>08:42 – 11:29</b>            Transit: <b>09:09   40°</b></p>	<p style="text-align: center;"><b>C-11 HD: <b>Focal Reducer</b></b></p> 







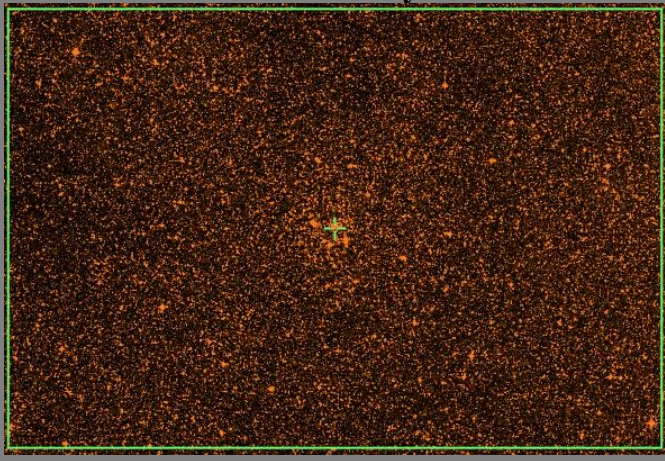


# Prospective Imaging Objects – August 16 2023

<p><b>NGC-6633</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Ophiuchus</b> Coordinates: <b>18h 27' 15"</b> <b>06° 30' 30"</b></p> <p>Close Star: <b>SAO-125122</b> (Altair) Catalog Objects: <a href="#">NGC-6633</a> Imaging Window: <b>08:42 – 11:51</b> Transit: <b>09:15   63°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>M-69</b>(<a href="#">NGC-6637</a>) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Globular Cluster</b></p> <p>Constellation: <b>Sagittarius</b> Coordinates: <b>18h 31' 23"</b> <b>-32° 20' 51"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis) Catalog Objects: <a href="#">M-69</a>/<a href="#">NGC-6637</a> Imaging Window: <b>*08:42 – 11:01</b> Transit: <b>09:19   24°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>M-25</b> (<a href="#">IC-4725</a>) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Sagittarius</b> Coordinates: <b>18h 31' 45"</b> <b>-19° 07' 12"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis) Catalog Objects: <a href="#">M-25</a> Imaging Window: <b>*08:42 – 11:23</b> Transit: <b>09:19   37°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 



# Prospective Imaging Objects – August 16 2023

<p><b>M-22</b>(NGC-6656) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Globular Cluster</b></p> <p>Constellation: <b>Sagittarius</b> Coordinates: <b>18h 36' 24"</b> <b>-23° 54' 10"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis) Catalog Objects: <a href="#">M-22</a>/NGC-6656 Imaging Window: *<b>08:42 – 10:39</b> Transit: <b>09:24   33°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>M-70</b>(NGC-6681) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Globular Cluster</b></p> <p>Constellation: <b>Sagittarius</b> Coordinates: <b>18h 43' 13"</b> <b>-32° 17' 29"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis) Catalog Objects: <a href="#">M-70</a>/NGC-6681 Imaging Window: *<b>08:42 – 11:07</b> Transit: <b>09:31   24°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>M-26</b>(NGC-6694) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Sagittarius</b> Coordinates: <b>18h 45' 15"</b> <b>-09° 23' 06"</b></p> <p>Close Star: <b>SAO-125122</b> (Altair) Catalog Objects: <a href="#">M-26</a>/NGC-6694 Imaging Window: *<b>08:42 – 11:57</b> Transit: <b>09:33   47°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 






# Prospective Imaging Objects – August 16 2023

<p><b>IC-4776</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Sagittarius</b> Coordinates: <b>18h 45' 51"</b> <b>-33° 20' 32"</b></p> <p>Close Star: <b>SAO-186841</b> (Kaus Borealis) Catalog Objects: <a href="#">IC-4776</a> Imaging Window: *<b>08:42 – 10:56</b> Transit: <b>09:34   23°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: center; font-size: small;">FOV 0.36 x 0.24° · RA 18hr 45' 51" · DEC -33° 20' 32"</p>
<p><b>B-104(LDN-532)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Dark Nebula</b></p> <p>Constellation: <b>Scutum</b> Coordinates: <b>18h 47' 09"</b> <b>-04° 28' 45"</b></p> <p>Close Star: <b>SAO-125122</b> (Altair) Catalog Objects: <a href="#">B-104/LDN-532</a> Imaging Window: *<b>08:42 – 11:51</b> Transit: <b>09:35   52°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Wild Duck Cluster(M-11/NGC-6705)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Scutum</b> Coordinates: <b>18h 51' 05"</b> <b>-06° 16' 12"</b></p> <p>Close Star: <b>SAO-125122</b> (Altair) Catalog Objects: <a href="#">M-11/NGC-6705</a> Imaging Window: *<b>08:42 – 11:46</b> Transit: <b>09:39   50°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 



# Prospective Imaging Objects – August 16 2023

<p><b>Ring Nebula</b> (M-57/NGC-6720)            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Lyra</b>            Coordinates:  <b>18h 53' 35"</b>  <b>33° 01' 46"</b></p> <p>Close Star: <b>SAO-67174</b> (Vega)            Catalog Objects: <a href="#">M-57</a>/NGC-6720            Imaging Window: <b>08:42 – 01:18</b>            Transit: <b>09:41   90°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small;">M-057 The Ring Nebula</p> <p style="font-size: small; text-align: right;">James Yoder- 2017.05.24</p>
<p><b>M-54</b> (NGC-6715)            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Globular Cluster</b></p> <p>Constellation: <b>Sagittarius</b>            Coordinates:  <b>18h 55' 03"</b>  <b>-30° 28' 39"</b></p> <p>Close Star: <b>SAO-187448</b> (Nunki)            Catalog Objects: <a href="#">M-54</a>/NGC-6715            Imaging Window: *<b>08:42 – 11:40</b>            Transit: <b>09:43   26°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: x-small;">Globular Cluster M-54 (NGC-6715)            Constellation: Sagittarius            RA = 18h 55m 03s DEC = -30° 28' 39" Date = 2017-05-24 Observation = 19h 54m 57s FWHM = 0.44 arcsec F1-C11HD</p> <p style="font-size: x-small; text-align: right;">James Yoder - Dec 2017-05-24 Location: Chandler, AZ            Config: C-11 HD/6200MC/Star Tracker (C11HD)            Exposure Info: 12000/1000/1000/1000/1000/1000/1000/1000/1000/1000</p>
<p><b>Abell 50</b> (NGC-6742)            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Draco</b>            Coordinates:  <b>18h 59' 20"</b>  <b>48° 27' 49"</b></p> <p>Close Star: <b>SAO-046872</b> (Iota Her)            Catalog Objects: <a href="#">NGC-6742</a>            Imaging Window: <b>08:42 – 01:37</b>            Transit: <b>09:47   87°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small; text-align: center;">FOV 0.73 x 0.49° RA 19hr 05' 54" DEC 06° 00' 00"</p>

# Prospective Imaging Objects – August 16 2023




<p><b>NGC-6751</b> (PK 29-5.1) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Aquila</b> Coordinates: <b>19h 05' 57"</b> <b>-05° 59' 29"</b></p> <p>Close Star: <b>SAO-142931</b> (i Aquilae) Catalog Objects: <a href="#">NGC-6751</a> Imaging Window: *<b>08:42 – 12:02</b> Transit: <b>09:54   51°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: center;">FOV 0.73 x 0.48° · RA 19hr 05' 57" · DEC -05° 59' 29" · 0.28"/px</p>
<p><b>NGC-6772</b> (PK 33-6.1) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Aquila</b> Coordinates: <b>19h 14' 36"</b> <b>-02° 42' 22"</b></p> <p>Close Star: <b>SAO-142931</b> (i Aquilae) Catalog Objects: <a href="#">NGC-6772</a> Imaging Window: *<b>08:42 – 12:30</b> Transit: <b>10:02   54°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: center;">FOV 0.73 x 0.48° · RA 19hr 14' 36" · DEC -02° 42' 22" · 0.28"/px</p>
<p><b>Barnard's Black Lizard</b> (B-138) Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Dark Nebula</b></p> <p>Constellation: <b>Aquila</b> Coordinates: <b>19h 15' 59"</b> <b>00° 13' 00"</b></p> <p>Close Star: <b>SAO-125122</b> (Altair) Catalog Objects: <a href="#">B-138</a> Imaging Window: <b>08:42 – 12:13</b> Transit: <b>10:04   57°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 



# Prospective Imaging Objects – August 16 2023




<p><b>M-56</b> (NGC-6779) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Globular Cluster</b></p> <p>Constellation: <b>Lyra</b> Coordinates: <b>19h 16' 35"</b> <b>30° 11' 07"</b></p> <p>Close Star: <b>SAO-67663</b> (Sulafat) Catalog Objects: <a href="#">M-56</a>/NGC-6779 Imaging Window: <b>08:42 – 01:37</b> Transit: <b>10:04   87°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>NGC-6778</b> (PK 34-6.1) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Aquila</b> Coordinates: <b>19h 18' 24"</b> <b>-01° 36' 00"</b></p> <p>Close Star: <b>SAO-124068</b> (Alya) Catalog Objects: <a href="#">NGC-6778</a>/PK 34-6.1 Imaging Window: <b>08:42 – 12:06</b> Transit: <b>10:06   55°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: center; font-size: small;">FOV 0.73 x 0.48° - RA 19hr 18' 24" - DEC -01° 36' 00" - 0.28"/px</p>
<p><b>NGC-6781</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Aquila</b> Coordinates: <b>19h 18' 28"</b> <b>06° 32' 25"</b></p> <p>Close Star: <b>SAO-125122</b> (Altar) Catalog Objects: <a href="#">NGC-6781</a>/PK 41-2.1 Imaging Window: <b>08:42 – 12:42</b> Transit: <b>10:06   63°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 

# Prospective Imaging Objects – August 16 2023


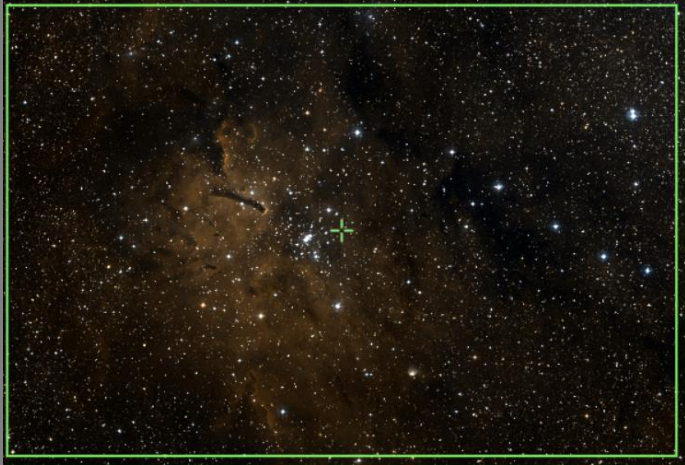

<p><b>LDN-673</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Dark Nebula</b></p> <p>Constellation: <b>Aquila</b>            Coordinates:  <b>19h 18' 14"</b>  <b>11° 15' 40"</b></p> <p>Close Star: SAO-125122 (Altair)            Catalog Objects: <a href="#">LDN-673</a>            Imaging Window: <b>08:42 – 01:00</b>            Transit: <b>10:08   68°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 
<p><b>Lot Ness Monster (LDN-772)</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Dark Nebula</b></p> <p>Constellation: <b>Vulpecula</b>            Coordinates:  <b>19h 26' 46"</b>  <b>23° 08' 59"</b></p> <p>Close Star: SAO-125122 (Altair)            Catalog Objects: <a href="#">LDN-772</a>            Imaging Window: <b>08:42 – 01:33</b>            Transit: <b>10:13   80°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>  <p style="font-size: small;">Lot Ness Monster (LDN-772)            Constellation: Vulpecula            RA = 19h 26m 46s DEC = 23deg 08' 59" Size = 3.52 x 2.14 deg (Observation: 300deg E of N, Focal scale = 2.28 arcsec/pix, FL=450mm)</p>
<p><b>NGC6804</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Aquila</b>            Coordinates:  <b>19h 31' 35"</b>  <b>09° 13' 33"</b></p> <p>Close Star: SAO-104728 (Omega Aq)            Catalog Objects: <a href="#">NGC-6826</a>            Imaging Window: <b>08:42 – 02:23</b>            Transit: <b>10:32   66°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small; text-align: center;">FOV 0.73 x 0.48" RA 19hr 31' 35", DEC 09° 13' 33" - 0.28"/pix</p>



# Prospective Imaging Objects – August 16 2023




<p><b>M-55</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Globular Cluster</b></p> <p>Constellation: <b>Sagittarius</b> Coordinates: <b>19h 39' 59"</b> <b>-30° 57' 42"</b></p> <p>Close Star: <b>SAO-191524</b> (Formalhaut) Catalog Objects: <a href="#">M-55</a>/NGC-6809 Imaging Window: *<b>09:38 – 11:18</b> Transit: <b>10:28   26°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Barnard's E (B-143)</b> Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Dark Nebula</b></p> <p>Constellation: <b>Aquila</b> Coordinates: <b>19h 40' 47"</b> <b>11° 01' 12"</b></p> <p>Close Star: <b>SAO-125122</b> (Altair) Catalog Objects: <a href="#">B-143</a>/LDN-694 Imaging Window: <b>08:42 – 01:20</b> Transit: <b>10:29   67°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> 
<p><b>Little Gem (NGC-6818)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Sagittarius</b> Coordinates: <b>19h 43' 58"</b> <b>-14° 09' 09"</b></p> <p>Close Star: <b>SAO-143021</b> (16 Aql) Catalog Objects: <a href="#">NGC-6818</a>/PK 25-17.1 Imaging Window: *<b>08:42 – 12:31</b> Transit: <b>10:31   43°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 

# Prospective Imaging Objects – August 16 2023

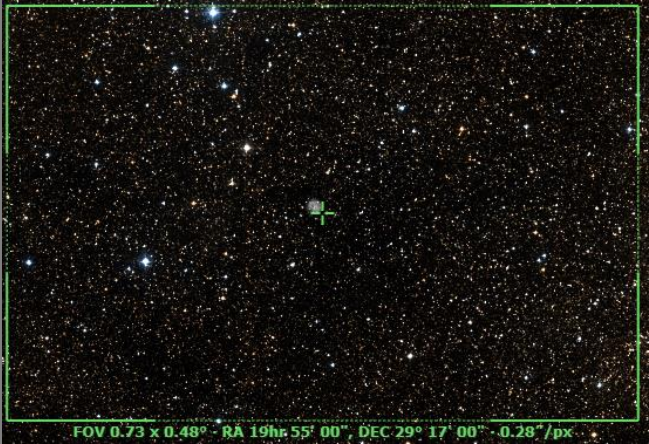
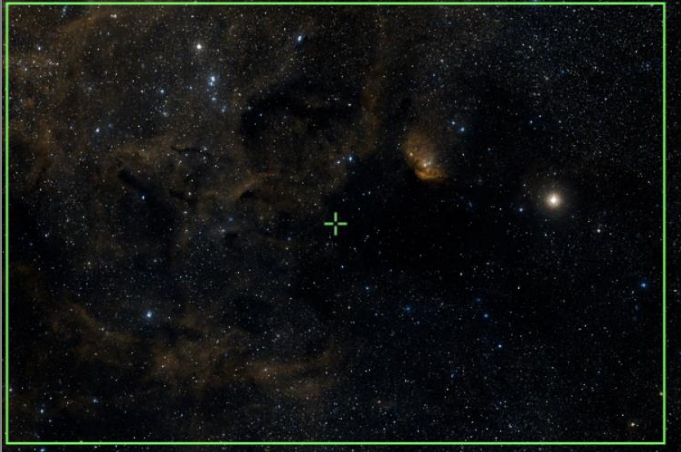

<p><a href="#">NGC-6820</a> (LDN-772)            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Open Cluster &amp; Nebula</b></p> <p>Constellation: <b>Vulpecula</b>            Coordinates:  <b>19h 43' 37"</b>  <b>23° 19' 29"</b></p> <p>Close Star: SAO-125122 (Altair)            Catalog Objects: <a href="#">NGC-6820</a>            Imaging Window: <b>08:42 – 01:51</b>            Transit: <b>10:31   80°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 
<p><a href="#">NGC-6820</a> (LDN-772)            Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Open Cluster &amp; Nebula</b></p> <p>Constellation: <b>Vulpecula</b>            Coordinates:  <b>19h 42' 56"</b>  <b>23° 18' 43"</b></p> <p>Close Star: SAO-125122 (Altair)            Catalog Objects: <a href="#">NGC-6820</a>            Imaging Window: <b>08:42 – 01:51</b>            Transit: <b>10:31   80°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> 
<p><a href="#">NGC-6820</a> (LDN-772)            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Open Cluster &amp; Nebula</b></p> <p>Constellation: <b>Vulpecula</b>            Coordinates:  <b>19h 43' 01"</b>  <b>23° 17' 12"</b></p> <p>Close Star: SAO-125122 (Altair)            Catalog Objects: <a href="#">NGC-6820</a>            Imaging Window: <b>08:42 – 01:51</b>            Transit: <b>10:31   80°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 



# Prospective Imaging Objects – August 16 2023


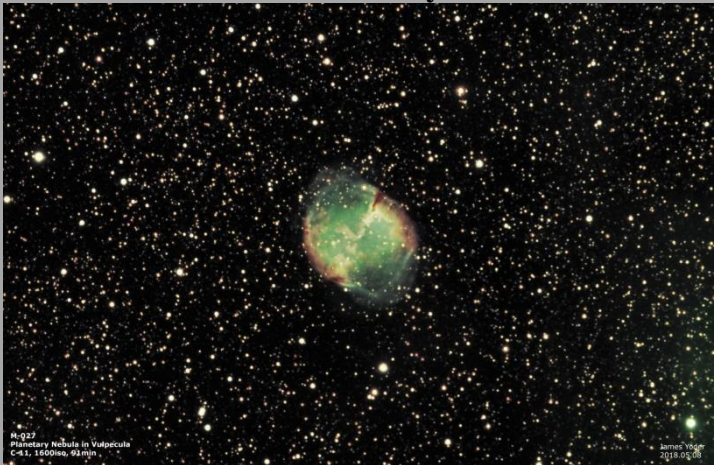

<p><b>Blinking Planetary</b> (NGC-6826) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: <b>19h 44' 48"</b> <b>50° 31' 32"</b></p> <p>Close Star: <b>SAO-31815</b> (13 Cyg) Catalog Objects: <a href="#">NGC-6826</a>/NGC-6826 Imaging Window: <b>08:42 – 02:23</b> Transit: <b>10:32   73°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: center; font-size: small;">FOV 0.73 x 0.48° · RA 19hr 44' 48", DEC 50° 31' 32" · 0.28"/px</p>
<p><b>Barnard's Galaxy</b> (NGC 6822) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Galaxy</b></p> <p>Constellation: <b>Sagittarius</b> Coordinates: <b>19h 44' 57"</b> <b>-14° 48' 23"</b></p> <p>Close Star: <b>SAO-191524</b> (Formalhaut) Catalog Objects: <a href="#">NGC-6822</a> Imaging Window: <b>*08:42 – 01:03</b> Transit: <b>10:32   42°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>M-71</b> (NGC-6838) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Globular Cluster</b></p> <p>Constellation: <b>Sagitta</b> Coordinates: <b>19h 53' 46"</b> <b>18° 46' 43"</b></p> <p>Close Star: <b>SAO-125122</b> (Altair) Catalog Objects: <a href="#">M-71</a>/NGC-6838 Imaging Window: <b>08:42 – 01:52</b> Transit: <b>10:41   75°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 

# Prospective Imaging Objects – August 16 2023




<p><b>NGC 6842</b> (PK 65+0.1)            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Vulpecula</b>            Coordinates:  <b>19h 55' 00"</b>  <b>29° 17' 00"</b></p> <p>Close Star: SAO-68637 (12 Cyg)            Catalog Objects: <a href="#">NGC-6842</a>/PK 65+0.1            Imaging Window: <b>08:42 – 02:14</b>            Transit: <b>10:43   86°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: center; font-size: small;">FOV 0.73 x 0.48° - RA 19h 55' 00\", DEC 29° 17' 00\" - 0.28\"/px</p>
<p><b>Fish on the Platter</b> (B-144)            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Dark Nebula</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:  <b>20h 02' 28"</b>  <b>34° 57' 42"</b></p> <p>Close Star: SAO-125122 (Altair)            Catalog Objects: <a href="#">B-144</a>, SH2-101            Imaging Window: <b>08:42 – 02:26</b>            Transit: <b>10:46   89°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 
<p><b>Tulip Nebula</b> (SH2-101)            Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:  <b>20h 00' 58"</b>  <b>35° 16' 30"</b></p> <p>Close Star: SAO-125122 (Altair)            Catalog Objects: <a href="#">SH2-101</a>            Imaging Window: <b>08:42 – 02:26</b>            Transit: <b>10:46   89°</b></p>	<p style="text-align: center;"><b>C-11 HD: <b>Focal Reducer</b></b></p> 



# Prospective Imaging Objects – August 16 2023




<p><b>Tulip Nebula (SH2-101)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: <b>20h 00' 57"</b> <b>35° 20' 11"</b></p> <p>Close Star: <b>SAO-125122 (Altair)</b> Catalog Objects: <a href="#">B-144</a> Imaging Window: <b>08:42 – 02:26</b> Transit: <b>10:46   89°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Dumbbell Nebula (M-27, NGC-6853)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Vulpecula</b> Coordinates: <b>19h 59' 36"</b> <b>22° 43' 17"</b></p> <p>Close Star: <b>SAO-125122 (Altair)</b> Catalog Objects: <a href="#">M-27/NGC-6853</a> Imaging Window: <b>08:42 – 02:07</b> Transit: <b>10:47   79°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>NGC-6852 (PK 42-14.1)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Aquila</b> Coordinates: <b>20h 00' 39"</b> <b>01° 43' 43"</b></p> <p>Close Star: <b>SAO-144150 (65 Aql)</b> Catalog Objects: <a href="#">NGC-6852/PK 42-14.1</a> Imaging Window: <b>08:42 – 01:05</b> Transit: <b>10:48   58°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 

# Prospective Imaging Objects – August 16 2023



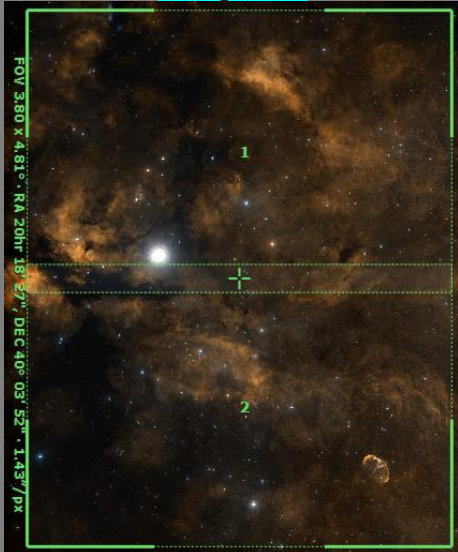
<p><b>M-75 (NGC-6864)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Globular Cluster</b></p> <p>Constellation: <b>Sagittarius</b> Coordinates: <b>20h 06' 05"</b> <b>-21° 55' 15"</b></p> <p>Close Star: <b>SAO-191524</b> (Formalhaut) Catalog Objects: <a href="#">M-75/NGC-6864</a> Imaging Window: *<b>09:16 – 12:30</b> Transit: <b>10:54   35°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Crescent Nebula (NGC-6888)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: <b>20h 12' 06"</b> <b>38° 21' 00"</b></p> <p>Close Star: <b>SAO-125122</b> (Altair) Catalog Objects: <a href="#">NGC-6888/Sh2-105</a> Imaging Window: <b>08:42 – 02:43</b> Transit: <b>11:00   85°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Propeller Nebula (DWB-111)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: <b>20h 16' 09"</b> <b>43° 41' 47"</b></p> <p>Close Ref Object: <a href="#">LDN 891</a> Close Star: <b>SAO-048796</b> (Al Fawaris) Catalog Objects: Simeis-57/DWB-111 Imaging Window: <b>08:42 – 01:58</b> Transit: <b>11:03   79°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small; margin-top: 5px;">Propeller Nebula (DWB 111) Constellation: Cygnus the Swan</p> <p style="font-size: x-small; margin-top: 5px;">Image Size: 2048x2112 Location: Chandler, AZ Config:  C11 Starizona LF Camera   Astrocam 6.3x4.5   QHY170 Equipment: 2.5"Mount/Star-Gate 3200   Optics: 180</p>



# Prospective Imaging Objects – August 16 2023

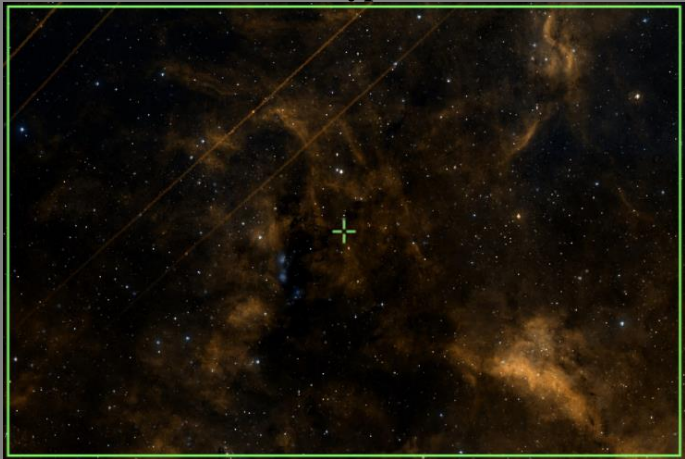


<p><b>NGC 6891</b> (PK 54-12.1) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Delphinus</b> Coordinates: <b>20h 15' 09"</b> <b>12° 42' 17"</b></p> <p>Close Star: <b>SAO-106230</b> (2 Del) Catalog Objects: <a href="#">NGC-6991</a> Imaging Window: <b>08:42 – 01:58</b> Transit: <b>11:03   77°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: center;">FOV 0.73 x 0.48° · RA 20hr 15' 09", DEC 12° 42' 17" · 0.28"/px</p>
<p><b>NGC-6894</b> (PK 69-2.1) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: <b>20h 16' 24"</b> <b>30° 33' 57"</b></p> <p>Close Star: <b>SAO-71070</b> (64 Cyg) Catalog Objects: <a href="#">NGC-6994</a> Imaging Window: <b>08:42 – 02:37</b> Transit: <b>11:04   87°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: center;">FOV 0.73 x 0.48° · RA 20hr 16' 24", DEC 30° 33' 57" · 0.28"/px</p>
<p><b>IC-4997</b> (PK 58-10.1) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Sagitta</b> Coordinates: <b>20h 20' 09"</b> <b>16° 43' 56"</b></p> <p>Close Star: <b>SAO-106316</b> (Rotanev) Catalog Objects: <a href="#">IC-4997</a> Imaging Window: <b>08:42 – 02:14</b> Transit: <b>11:08   87°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: center;">FOV 0.73 x 0.48° · RA 20hr 20' 09", DEC 16° 43' 56" · 0.28"/px</p>

# Prospective Imaging Objects – August 16 2023

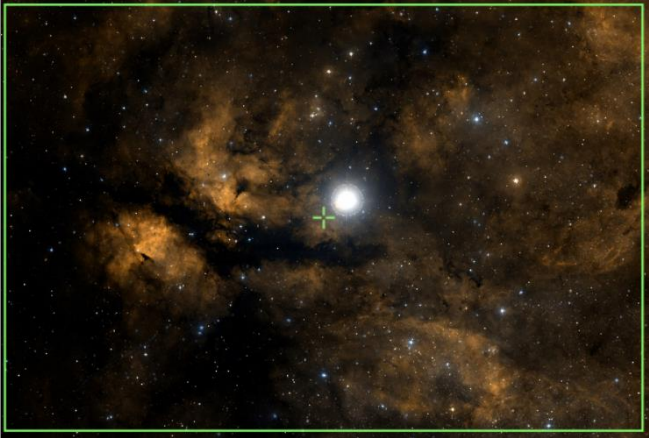
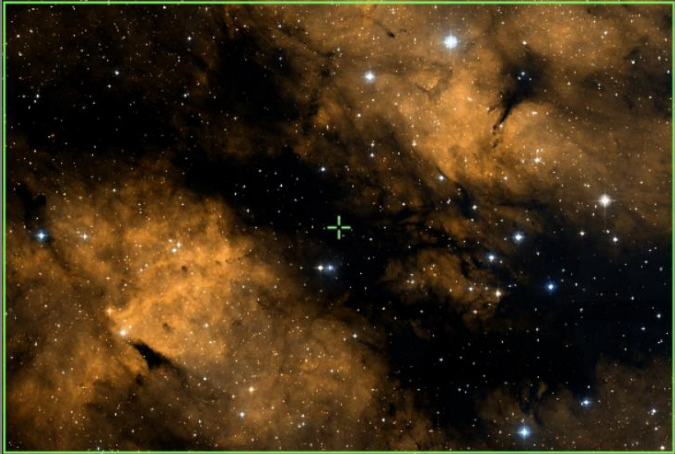

<p><b>Blue Flash Nebula</b> (NGC-6905) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Delphinus</b> Coordinates: <b>20h 22' 24"</b> <b>20° 06' 18"</b></p> <p>Close Star: <b>SAO-108378</b> (Markab) Catalog Objects: <a href="#">NGC-6905</a> Imaging Window: <b>08:42 – 02:24</b> Transit: <b>11:10   77°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Cooling Tower</b> (M-29 (NGC-6913) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: <b>20h 24' 06"</b> <b>38° 29' 36"</b></p> <p>Close Star: <b>SAO-90981</b> (Scheat) Catalog Objects: <a href="#">M-29/NGC-6913</a> Imaging Window: <b>08:42 – 02:55</b> Transit: <b>11:12   85°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>NGC-6914 Region</b> Config: <b>C11-HD   HS   ZWO6200MC</b></p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: Frame 1: RA=20hr 18' 27" DEC=41°12'10" Frame 2: RA=20hr 18' 38" DEC=38°55'33"</p> <p>Close Star: <b>SAO-49941</b> (Deneb) Catalog Objects: <a href="#">NGC-6914</a> Imaging Window: <b>08:42 – 02:59</b> Transit: <b>11:12   81°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4 Composite!</b></p>  <p style="font-size: small; transform: rotate(-90deg); position: absolute; left: -100px; top: 50px;">FOV 3.80 x 4.81° RA 20hr 18' 27" DEC 41° 03' 53" 1.43"/px</p>



# Prospective Imaging Objects – August 16 2023



<p><b>NGC-6914 Region</b> Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: <b>20h 22' 52"</b> <b>42° 38' 53"</b></p> <p>Close Star: SAO-49941 (Deneb) Catalog Objects: <a href="#">NGC-6914</a> Imaging Window: <b>08:42 – 02:59</b> Transit: <b>11:12   81°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 
<p><b>NGC-6914 Region</b> Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: <b>20h 24' 48"</b> <b>42° 29' 00"</b></p> <p>Close Star: SAO-49941 (Deneb) Catalog Objects: <a href="#">NGC-6914</a> Imaging Window: <b>08:42 – 02:59</b> Transit: <b>11:12   81°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> 
<p><b>NGC-6914 Region</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: <b>20h 25' 07"</b> <b>42° 24' 34"</b></p> <p>Close Star: SAO-49941 (Deneb) Catalog Objects: <a href="#">NGC-6914</a> Imaging Window: <b>08:42 – 02:59</b> Transit: <b>11:12   81°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 

# Prospective Imaging Objects – August 16 2023


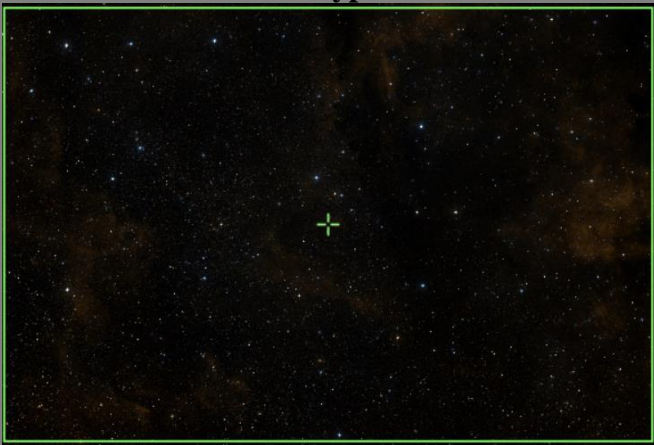
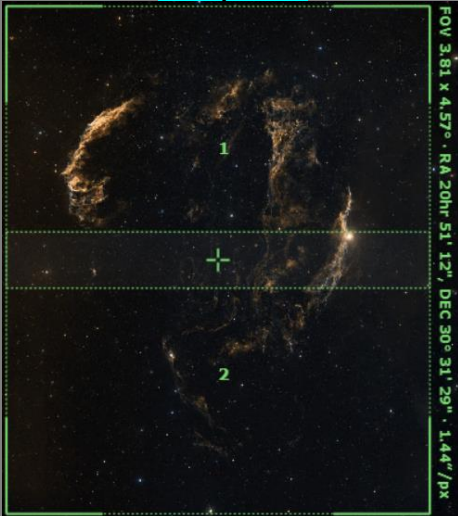
<p><b>Butterfly Nebula (IC-1318)</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:  <b>20h 22' 57"</b>  <b>40° 09' 33"</b></p> <p>Close Star: SAO-67174 (Vega)            Catalog Objects: <a href="#">IC-1318</a>            Imaging Window: <b>08:42 – 02:58</b>            Transit: <b>11:13   80°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 
<p><b>Butterfly Nebula (IC-1318)</b>            Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:  <b>20h 26' 59"</b>  <b>40° 06' 52"</b></p> <p>Close Star: SAO-67174 (Vega)            Catalog Objects: <a href="#">IC-1318</a>            Imaging Window: <b>08:42 – 02:58</b>            Transit: <b>11:13   80°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> 
<p><b>Butterfly Nebula (IC-1318)</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:  <b>20h 25' 40"</b>  <b>40° 17' 34"</b></p> <p>Close Star: SAO-67174 (Vega)            Catalog Objects: <a href="#">IC-1318</a>            Imaging Window: <b>08:42 – 02:58</b>            Transit: <b>11:13   80°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p><small>Butterfly Nebula (IC-1318)            Constellation: Cygnus (IC-1318)            RA = 20h 25m 40.00s DEC = 40deg 17' 34.00" Size = 63.3 x 28.5 arcmin. Observation: 0.1318kg 5 of 71 (Focal width = 0.441 arcsec/pixel (11.270um))</small></p> <p><small>Meta-Data: (Date: 2023-07-11 Location: Canada, AZ)            Config: C-11 HD-Intermediate-C55-C1318-081126            Exposure: 60s 2000000000 Gain: 1000 (0.05e-)</small></p>



# Prospective Imaging Objects – August 16 2023

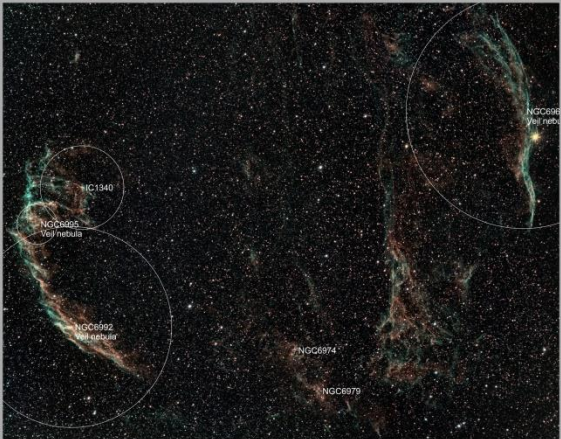

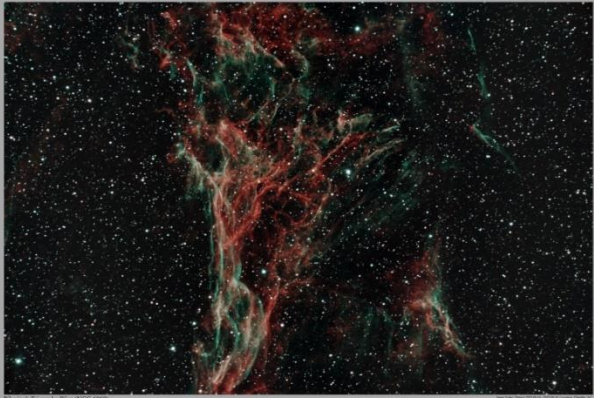
<p><b>Fireworks Galaxy (NGC-6946)</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Galaxy</b></p> <p>Constellation: <b>Cepheus</b>            Coordinates:  <b>20° 34' 54"</b>  <b>60° 08' 60"</b></p> <p>Close Star: <b>SAO-19302</b> (Alderamin)            Catalog Objects: <a href="#">NGC-6946</a>            Imaging Window: <b>08:42 – 03:07</b>            Transit: <b>11:22   63°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Pelican &amp; N. America Nebula (IC-5070)</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:            Frame 1:            RA=20hr56'10" DEC=44°55'07"            Frame 2:            RA=20hr56'10" DEC=42°37'57"</p> <p>Close Star: <b>SAO-50180</b> (57 Cygni)            Catalog Objects: <a href="#">IC5070</a>            Imaging Window: <b>08:42 – 03:27</b>            Transit: <b>11:38   79°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4 Composite!</b></p>  <p style="font-size: small; text-align: center;"> <small>North America (NGC-7600) and Pelican (IC-5070) Nebula            Constellation: Cygnus the Swan            RA = 20h 56m 12s DEC = 44 deg 55' 07" Size = 200 x 270 arcmin Orientation: Right Cl of N (Polar side = 1.43) mag/pxel: (15-150mag)</small> </p> <p style="font-size: x-small; text-align: right;"> <small>James Yeiler   Data(s) 2022-08-28-2022-09-06   Location: Chandler, AZ            Config:   C-11 HD   HyperStar v4   OPT Radian Triad Ultra   ZWO6200MC              Exposure Info: (Mount: 101 &amp; 121 Image/Sec) Gain: 100   Offset: 50</small> </p>

# Prospective Imaging Objects – August 16 2023


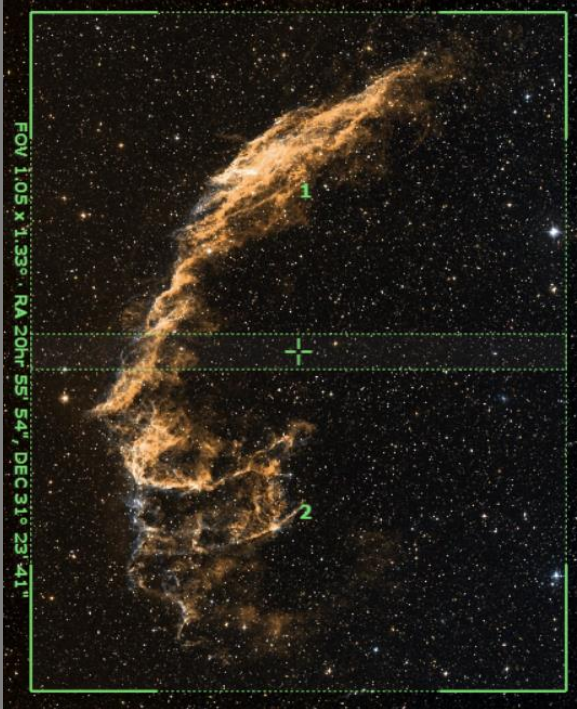
<p><b>Pelican &amp; N. America Nebula (IC-5070)</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:  <b>20h 57' 29"</b>  <b>44° 10' 10"</b></p> <p>Close Star: <b>SAO-50180</b> (57 Cygni)            Catalog Objects: <a href="#">IC5070</a>            Imaging Window: <b>08:42 – 03:27</b>            Transit: <b>11:38   79°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>  <p style="font-size: small;">North American Nebula (NGC 7000) Pelican Nebula (IC 5070) and Open Star Cluster (NGC 6997)            Constellation: Cygnus the Swan            James Yee   2019.02.20            Config: C11   HyperStar   Astronomik C15-CCD   OIII+H-alpha            Exposure Info: 35frames/sum. Gain: 3200   Offset: 100</p>
<p><b>Northern Coal Sack (LDN-904)</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Dark Nebula</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:  <b>20h 51' 52"</b>  <b>39° 13' 34"</b></p> <p>Close Star: <b>SAO-49941</b> (Deneb)            Catalog Objects: <a href="#">LDN-904</a>            Imaging Window: <b>08:42 – 03:25</b>            Transit: <b>11:40   84°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 
<p><b>Veil Nebula (NGC-6960)</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:  <b>P1: RA: 20h51'12" DEC: 31°32'26"</b>  <b>P2: RA: 20h51'12" DEC: 29°30'31"</b></p> <p>Close Star: <b>SAO-70467</b> (52 Cygni)            Catalog Objects: <a href="#">NGC-6960</a>, 6992, 6995            Imaging Window: <b>08:42 – 03:15</b>            Transit: <b>11:40   80°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b>  <b>Composite!</b></p> 



# Prospective Imaging Objects – August 16 2023



<p><b>Veil Nebula (NGC-6960)</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Supernova Remnant</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:  <b>20h 51' 15"</b>  <b>31° 03' 60"</b></p> <p>Close Star: SAO-70467 (52 Cygni)            Catalog Objects: <a href="#">NGC-6960</a>, 6992, 6995            Imaging Window: <b>08:42 – 03:15</b>            Transit: <b>11:40   80°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>  <p style="text-align: center;">Veil Nebula Complex            Constellation: Cygnus the Swan</p> <p style="text-align: right; font-size: small;"> <small>Image credit: Copyright © Skyline, LP 2013-2020            Config: C11   HyperStar   Astrodon 1.1"   QHY 124C            Exposure: 100"   11/18/2023   Gain: 1200   Offset: 180</small> </p>
<p><b>Witch's Broom (NGC-6960)</b>            Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:  <b>P1: RA=20hr 46' 20" DEC=30° 54' 54"</b>  <b>P2: RA=20hr 46' 20" DEC=30° 17' 06"</b></p> <p>Close Star: SAO-70467 (52 Cygni)            Catalog Objects: <a href="#">NGC-6960</a></p> <p>Imaging Window: <b>08:42 – 03:15</b>            Transit: <b>11:40   80°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer Composite!</b></p>  <p style="text-align: center; font-size: small;"> <small>Witch's Broom Nebula (NGC-6960)            Image credit: Copyright © Skyline, LP 2013-2020            Config: C11   HyperStar   Astrodon 1.1"   QHY 124C            Exposure: 100"   11/18/2023   Gain: 1200   Offset: 180</small> </p>
<p><b>Pickering's Triangular Wisp (NGC-6960)</b>            Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Supernova Remnant</b>            Constellation: <b>Cygnus</b>            Coordinates:  <b>20h 48' 16"</b>  <b>31° 37' 17"</b></p> <p>Close Star: SAO-70467 (52 Cygni)            Catalog Objects: <a href="#">NGC-6960</a>            Imaging Window: <b>08:42 – 03:15</b>            Transit: <b>11:40   80°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p>  <p style="text-align: center; font-size: small;"> <small>Pickering's Triangular Wisp (NGC-6960)            Image credit: Copyright © Skyline, LP 2013-2020            Config: C11   HyperStar   Astrodon 1.1"   QHY 124C            Exposure: 100"   11/18/2023   Gain: 1200   Offset: 180</small> </p>

# Prospective Imaging Objects – August 16 2023

<p><b>M-72 (NGC-6981)</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Globular Cluster</b></p> <p>Constellation: <b>Aquarius</b>            Coordinates:  <b>20h 53' 28"</b>  <b>-12° 32' 11"</b></p> <p>Close Star: <b>SAO-108378</b> (Markab)            Catalog Objects: <a href="#">M-72/NGC-6981</a>            Imaging Window: <b>*09:00 – 02:21</b>            Transit: <b>11:41   44°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Network Nebula (NGC-6992)</b>            Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Supernova Remnant</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:  <b>P1: RA= 20hr 55' 54" DEC= 31° 42' 35"</b>  <b>P2: RA= 20hr 55' 54" DEC= 31° 04' 47"</b></p> <p>Close Star: <b>SAO-70474</b> (Gienah)            Catalog Objects: <a href="#">NGC-6992</a>            Imaging Window: <b>08:42 – 03:19</b>            Transit: <b>11:44   88°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer Composite!</b></p> 



# Prospective Imaging Objects – August 16 2023

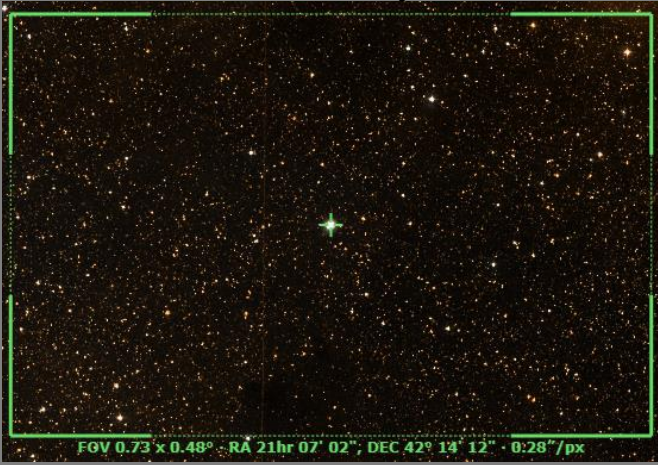


<p><b>M-73 (NGC-6994)</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Aquarius</b>            Coordinates:  <b>20h 59' 00"</b>  <b>-12° 37' 60"</b></p> <p>Close Star: <b>SAO-108378</b> (Markab)            Catalog Objects: <a href="#">M-73/NGC-6994</a>            Imaging Window: <b>*09:38 – 01:53</b>            Transit: <b>11:46   44°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Fetus Nebula (NGC-7008)</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:  <b>21h 00' 33"</b>  <b>54° 32' 38"</b></p> <p>Close Star: <b>SAO-49941</b> (Deneb)            Catalog Objects: <a href="#">NGC-7008</a>            Imaging Window: <b>08:42 – 03:38</b>            Transit: <b>11:48   69°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small;">Planetary Nebula NGC-7008            Constellation: Cygnus            RA = 21h 00m 33.00s DEC = +54° 32' 38.00" Size = 75.0 x 173.0 pixels Orientation: 0.34deg PA = 91.71 (Pixel size = 0.177 arcsec/pixel) (X=000000)</p> <p style="font-size: x-small; text-align: right;">Image: Video - Object: 2023-08-23-2013-00000 - Channel: 02            Config:  C11 HD - Remote Focus  ZWO6200MC              Exposure: 00:00:30.000 Gain: 0.00 (Camera: 100)</p>
<p><b>Iris Nebula (NGC 7023)</b>            Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cepheus</b>            Coordinates:  <b>21h 01' 36"</b>  <b>68° 10' 00"</b></p> <p>Close Star: <b>SAO-19302</b> (Alderamin)            Catalog Objects: <a href="#">NGC-7023</a>            Imaging Window: <b>08:42 – 03:11</b>            Transit: <b>11:49   55°</b></p>	<p style="text-align: center;"><b>C-11 HD: <b>Focal Reducer</b></b></p> 

# Prospective Imaging Objects – August 16 2023


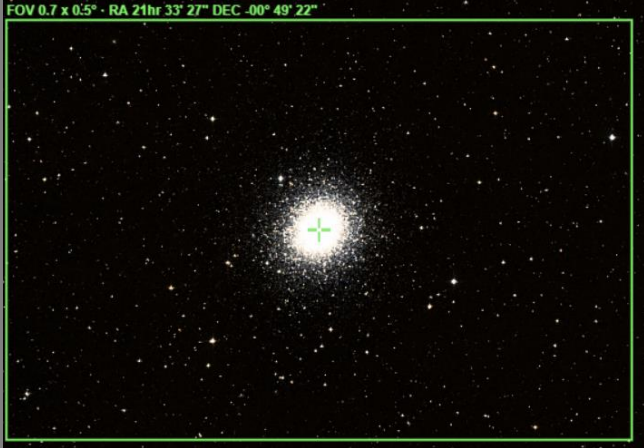

<p><b>Iris Nebula</b> (NGC 7023) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cepheus</b> Coordinates: <b>21h 01' 36"</b> <b>68° 10' 00"</b></p> <p>Close Star: <b>SAO-19302</b> (Alderamin) Catalog Objects: <a href="#">NGC-7023</a> Imaging Window: <b>08:42 – 03:11</b> Transit: <b>11:49   55°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Saturn Nebula</b> (NGC-7009) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Aquarius</b> Coordinates: <b>21h 04' 11"</b> <b>-11° 21' 47"</b></p> <p>Close Star: <b>SAO-191524</b> (Fomalhaut) Catalog Objects: <a href="#">NGC-7009</a> Imaging Window: <b>*10:11 – 01:25</b> Transit: <b>11:29   45°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>NGC-7026</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: <b>21h 06' 19"</b> <b>47° 51' 10"</b></p> <p>Close Star: <b>SAO-50456</b> Catalog Objects: <a href="#">NGC-7026</a> Imaging Window: <b>08:42 – 03:44</b> Transit: <b>11:54   45°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 



# Prospective Imaging Objects – August 16 2023

<p><b>NGC-7027</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: <b>21h 07' 02"</b> <b>42° 14' 12"</b></p> <p>Close Star: <b>SAO-50456</b> Catalog Objects: <a href="#">NGC-7027</a> Imaging Window: <b>08:42 – 03:41</b> Transit: <b>11:54   45°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>NGC-7048 (PK 88-1.1)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: <b>21h 14' 15"</b> <b>46° 17' 21"</b></p> <p>Close Star: <b>SAO-49941 (Deneb)</b> Catalog Objects: <a href="#">NGC-7048</a> Imaging Window: <b>08:12 – 03:51</b> Transit: <b>12:02   77°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Pegasus Cluster (M-15)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Globular Cluster</b></p> <p>Constellation: <b>Cepheus</b> Coordinates: <b>21h 29' 58"</b> <b>12° 10' 03"</b></p> <p>Close Star: <b>SAO-127029 (Enif)</b> Catalog Objects: <a href="#">M-15</a>/<a href="#">NGC-7078</a> Imaging Window: <b>09:23 – 03:11</b> Transit: <b>12:17   69°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 

# Prospective Imaging Objects – August 16 2023


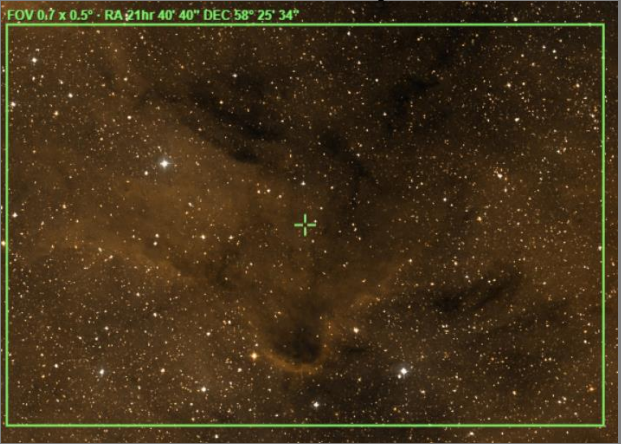

<p><b>M-39</b> (NGC-7092)            Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:  <b>21h 31' 56"</b>  <b>48° 26' 46"</b></p> <p>Close Star: <b>SAO-49941</b> (Deneb)            Catalog Objects: <a href="#">M-39/NGC-7092</a>            Imaging Window: <b>08:42 – 04:09</b>            Transit: <b>12:19   75°</b></p>	<p><b>C-11 HD: Focal Reducer</b></p> 
<p><b>M-2</b> (NGC-7089)            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Globular Cluster</b></p> <p>Constellation: <b>Aquarius</b>            Coordinates:  <b>21h 33' 27"</b>  <b>00° 49' 22"</b></p> <p>Close Star: <b>SAO-127029</b> (Enif)            Catalog Objects: <a href="#">M-2/NGC-7089</a>            Imaging Window: <b>09:23 – 03:11</b>            Transit: <b>12:17   56°</b></p>	<p><b>C-11 HD: Primary Focus</b></p> 
<p><b>Elephant Trunk</b> (IC-1396)            Config: <b>C11-HD   HS   ZWO6200MC</b></p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cepheus</b>            Coordinates:  <b>21h 39' 58"</b>  <b>57° 33' 34"</b></p> <p>Close Star: <b>SAO-19302</b> (Alderamin)            Catalog Objects: <a href="#">IC-1396/Sh2-131</a>            Imaging Window: <b>08:39 – 04:14</b>            Transit: <b>00:26   66°</b></p>	<p><b>C-11 HD: HyperStar v4</b></p>  <p><small>Elephant Trunk Nebula (IC-1396)            Constellation: Cepheus</small></p> <p><small>Image Title: 2023_09_12            Location: C-11 HD            Config: C11 HyperStar v4   ZWO6200MC              Exposure Info: 240sec   Gain: 1200   Offset: 100</small></p>



# Prospective Imaging Objects – August 16 2023


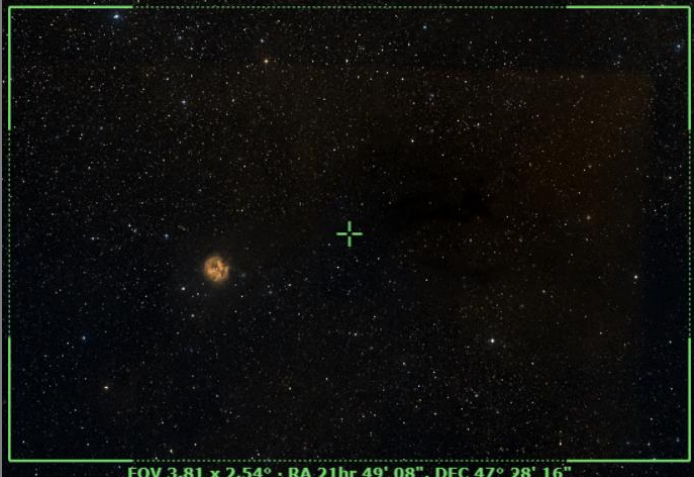

<p><b>Elephant Trunk (IC-1396)</b>            Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Bright &amp; Dark Nebula</b></p> <p>Constellation: <b>Cepheus</b>            Coordinates:  <b>21h 40' 00"</b>  <b>58° 03' 31"</b></p> <p>Close Star: <b>SAO-19302</b> (Alderamin)            Catalog Objects: <a href="#">IC-1396</a>/Sh2-131            Imaging Window: <b>08:39 – 04:14</b>            Transit: <b>00:26   66°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> 
<p><b>Elephant Trunk (IC-1396)</b>            Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cepheus</b>            Coordinates:  <b>21h 34' 39"</b>  <b>57° 29' 02"</b></p> <p>Close Star: <b>SAO-19302</b> (Alderamin)            Catalog Objects: <a href="#">IC-1396</a>/Sh2-131            Imaging Window: <b>08:39 – 04:14</b>            Transit: <b>00:26   66°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> 
<p><b>Elephant Trunk (IC-1396)</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Bright &amp; Dark Nebula</b></p> <p>Constellation: <b>Cepheus</b>            Coordinates:  <b>21h 41' 50"</b>  <b>56° 43' 48"</b></p> <p>Close Star: <b>SAO-19302</b> (Alderamin)            Catalog Objects: <a href="#">IC-1396</a>/Sh2-131            Imaging Window: <b>08:39 – 04:14</b>            Transit: <b>00:26   66°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 

# Prospective Imaging Objects – August 16 2023




<p><b>Elephant Trunk (IC-1396)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Bright &amp; Dark Nebula</b></p> <p>Constellation: <b>Cepheus</b> Coordinates: <b>21h 34' 44"</b> <b>57° 28' 44"</b></p> <p>Close Star: <b>SAO-19302</b> (Alderamin) Catalog Objects: <a href="#">IC-1396</a>/Sh2-131 Imaging Window: <b>08:39 – 04:14</b> Transit: <b>00:26   66°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Elephant Trunk (IC-1396)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Bright &amp; Dark Nebula</b></p> <p>Constellation: <b>Cepheus</b> Coordinates: <b>21h 40' 40"</b> <b>58° 25' 34"</b></p> <p>Close Star: <b>SAO-19302</b> (Alderamin) Catalog Objects: <a href="#">IC-1396</a>/Sh2-131 Imaging Window: <b>08:39 – 04:14</b> Transit: <b>00:26   66°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>M-30 (NGC-7099)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Globular Cluster</b></p> <p>Constellation: <b>Capricornus</b> Coordinates: <b>21h 40' 22"</b> <b>-23° 10' 43"</b></p> <p>Close Star: <b>SAO-164644</b> (Scheddi) Catalog Objects: <a href="#">M-30</a>/NGC-7099 Imaging Window: <b>*10:11 – 01:53</b> Transit: <b>12:28   34°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 



# Prospective Imaging Objects – August 16 2023


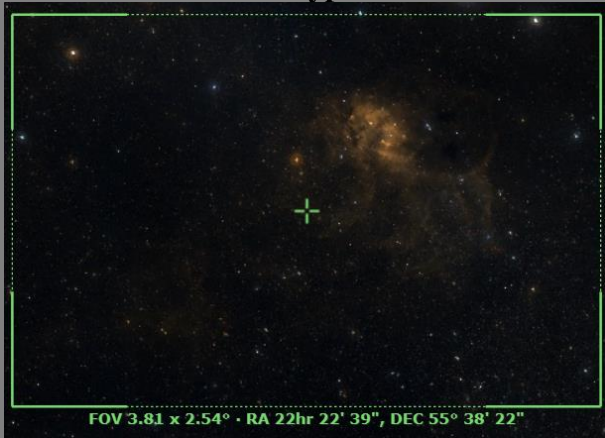
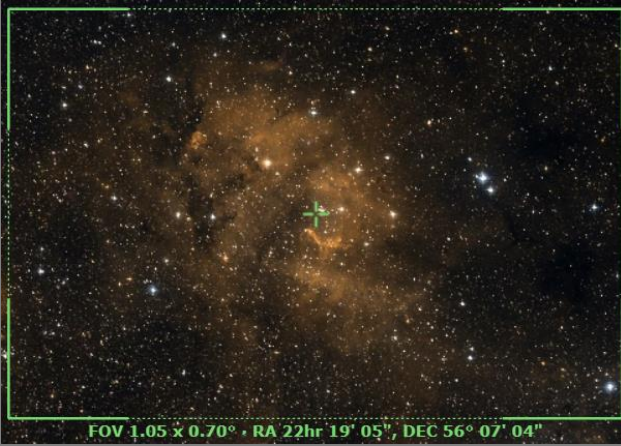
<p><b>NGC 7139</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Cepheus</b> Coordinates: <b>21h 46' 07"</b> <b>+63° 47' 54"</b></p> <p>Close Star: <b>SAO-019302</b> (Alderamin) Catalog Objects: <a href="#">NGC-7139</a> Imaging Window: <b>08:56 – 04:11</b> Transit: <b>12:33   60°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small; text-align: center;">NGC-7139 Constellation: Cepheus   RA = 21h 46m 07.2s, DEC = +63deg 47' 54.0"   Size = 18.5 x 13.9 arcmin   Orientation = 0.7deg E of N   Pixel scale = 0.277 arcsec/pixel   FL = 2000mm James Yoder   Date: 2022-12-19   Location: Chandler, AZ   Config:  C-11 HD ZWO6200MC  Exposure Info:   27 frames @ 2min   Gain: 100   Offset: 50  </p>
<p><b>Dark Cocoon (B-168, IC 5146)</b> Config: <b>C11-HD   HS   ZWO6200MC</b></p> <p>Type: <b>Bright &amp; Dark Nebula</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: <b>21h 49' 08"</b> <b>47° 28' 16"</b></p> <p>Close Star: <b>SAO-5105</b> (Rho Cygni) Catalog Objects: <a href="#">B-168</a>, IC-5146 Imaging Window: <b>08:51 – 04:20</b> Transit: <b>12:41   76°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>  <p style="text-align: center; font-size: small;">FOV 3.81 x 2.54° · RA 21hr 49' 08", DEC 47° 28' 16"</p>
<p><b>Cocoon Nebula (IC-5146)</b> Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: <b>21h 52' 00"</b> <b>47° 22' 37"</b></p> <p>Close Star: <b>SAO-5105</b> (Rho Cygni) Catalog Objects: <a href="#">IC-5146</a> Imaging Window: <b>08:51 – 04:20</b> Transit: <b>12:41   76°</b></p>	<p style="text-align: center;"><b>C-11 HD: <b>Focal Reducer</b></b></p>  <p style="text-align: center; font-size: small;">FOV 1.05 x 0.70° · RA 21hr 52' 00", DEC 47° 22' 37"</p>

# Prospective Imaging Objects – August 16 2023

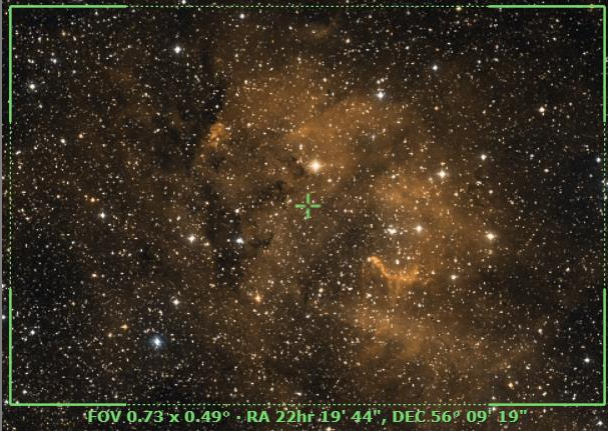


<p><b>Cocoon Nebula (IC-5146)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: <b>21h 53' 24"</b> <b>47° 16' 00"</b></p> <p>Close Star: <b>SAO-5105</b> (Rho Cygni) Catalog Objects: <a href="#">IC-5146</a> Imaging Window: <b>08:51 – 04:20</b> Transit: <b>12:41   76°</b></p>	<p><b>C-11 HD: Primary Focus</b></p>  <p><small>IC-5146, Cocoon Nebula James Under 2014, J.U.</small></p>
<p><b>Wolf's Cave (VdB-152)</b> Config: <b>C11-HD   HS   ZWO6200MC</b></p> <p>Type: <b>Bright &amp; Dark Nebula</b></p> <p>Constellation: <b>Cepheus</b> Coordinates: <b>22h 17' 03"</b> <b>70° 21' 54"</b></p> <p>Close Object: Cave Nebula (<a href="#">SH2-155</a>) Close Star: <b>SAO-20268</b> (Iota Cephei) Imaging Window: <b>10:04 – 04:20</b> Transit: <b>01:44   76°</b></p>	<p><b>C-11 HD: HyperStar v4</b></p>  <p><small>Wolf's Cave (VdB 152, LBN 531) Constellation: Cepheus RA = 22h 17m 03.59s, DEC = +70deg 21' 54.09" Size = 3.24 x 2.18 deg. Pixel scale = 2.27 arc/pixel James Under 2014, J.U. Location: Chatham, AZ Config:  C11 HyperStar Hawk MagPrime 780T 36C  Exposure Info: 1135mm f8.5sec Gain: 1200 Offset: 140</small></p>
<p><b>Wolf's Cave (VdB-152)</b> Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Constellation: <b>Cepheus</b> Coordinates: <b>22h 13' 42"</b> <b>70° 30' 32"</b> <b>90° Rotation</b></p> <p>Close Object: Cave Nebula (<a href="#">SH2-155</a>) -44min differential Close Star: <b>SAO-20268</b> (Iota Cephei) Catalog Objects: <a href="#">B-168</a>, IC-5146</p> <p>Imaging Window: <b>10:19 – 03:45</b> Transit: <b>01:02   76°</b></p>	<p><b>C-11 HD: <b>Focal Reducer</b></b></p>  <p><small>FOV: 1.05 x 0.70° - RA: 22h 13' 42" - DEC: 70° 30' 32"</small></p>



# Prospective Imaging Objects – August 16 2023

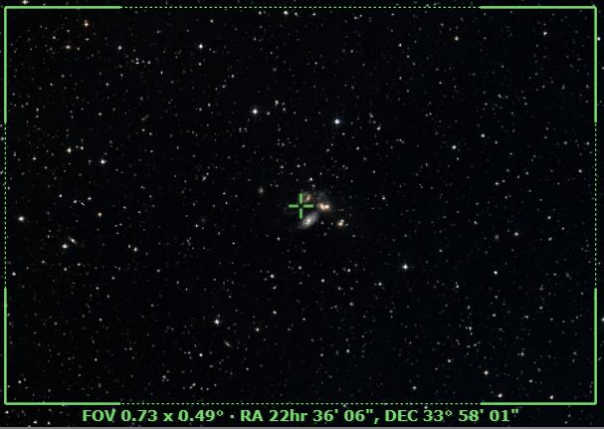


<p><b>Dark Shark</b> (LDN 1235) Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Bright &amp; Dark Nebula</b></p> <p>Constellation: <b>Cepheus</b> Coordinates: <b>22h 11' 49"</b> <b>73° 12' 16"</b></p> <p>Close Star: <b>SAO-20268</b> (Iota Cephei) Catalog Objects: <a href="#">LDN-1235</a> Imaging Window: <b>10:19 – 03:45</b> Transit: <b>01:02   50°</b></p>	<p>C-11 HD: <b>Focal Reducer</b></p>  <p>FOV 1.05 x 0.70° · RA 22hr 11' 49", DEC 73° 12' 16"</p>
<p><b>SH2-132</b> Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cepheus</b> Coordinates: <b>22h 22' 39"</b> <b>55° 38' 22"</b></p> <p>Close Star: <b>SAO-20268</b> (Iota Cephei) Catalog Objects: <a href="#">SH2-132</a> Imaging Window: <b>09:17 – 04:20</b> Transit: <b>01:06   67°</b></p>	<p>C-11 HD: <b>HyperStar v4</b></p>  <p>FOV 3.81 x 2.54° · RA 22hr 22' 39", DEC 55° 38' 22"</p>
<p><b>SH2-132</b> Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cepheus</b> Coordinates: <b>22h 19' 05"</b> <b>56° 07' 04"</b></p> <p>Close Star: <b>SAO-20268</b> (Iota Cephei) Catalog Objects: <a href="#">SH2-132</a> Imaging Window: <b>09:17 – 04:20</b> Transit: <b>01:06   67°</b></p>	<p>C-11 HD: <b>Focal Reducer</b></p>  <p>FOV 1.05 x 0.70° · RA 22hr 19' 05", DEC 56° 07' 04"</p>

# Prospective Imaging Objects – August 16 2023




<p><b>SH2-132</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cepheus</b> Coordinates: <b>22h 19' 44"</b> <b>56° 09' 19"</b></p> <p>Close Star: <b>SAO-20268</b> (Iota Cephei) Catalog Objects: <a href="#">SH2-132</a> Imaging Window: <b>09:17 – 04:20</b> Transit: <b>01:06   67°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Helix Nebula (NGC-7293)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary nebula</b></p> <p>Constellation: <b>Aquarius</b> Coordinates: <b>22h 29' 39"</b> <b>-20° 48' 36"</b></p> <p>Close Star: <b>SAO-164644</b> (Delta Cap) Catalog Objects: <a href="#">NGC-7293</a> Imaging Window: <b>*11:23 – 03:00</b> Transit: <b>01:17   36°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Stephan's Quintet &amp; NGC 7331 (NGC 7317, 7331)</b> Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Pegasus</b> Coordinates: <b>22h 36' 40"</b> <b>34° 13' 25"</b> <b>Camera Rotation = 115° East (-245)</b></p> <p>Close Star: <b>SAO-72191</b> (1 Lacertae) Catalog Objects: <a href="#">NGC7317</a>, NGC7331 Imaging Window: <b>09:45 – 04:20</b> Transit: <b>01:23   89°</b></p>	<p style="text-align: center;"><b>C-11 HD: <b>Focal Reducer</b></b></p> 



# Prospective Imaging Objects – August 16 2023

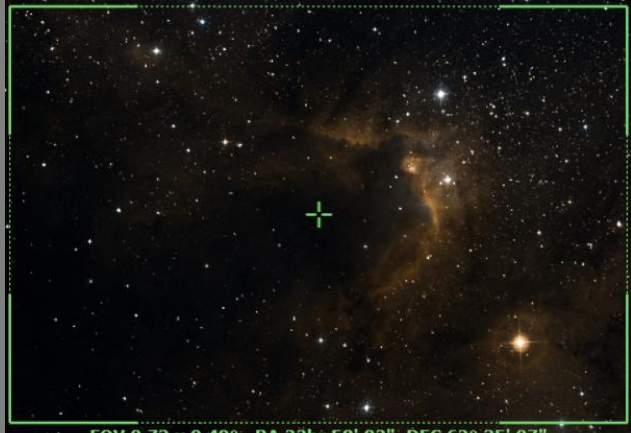


<p><b>Stephan's Quintet</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Pegasus</b> Coordinates: <b>22h 36' 06"</b> <b>33° 58' 01"</b></p> <p>Close Star: <b>SAO-72191</b> (1 Lacertae) Catalog Objects: <a href="#">NGC7317</a> Imaging Window: <b>09:45 – 04:20</b> Transit: <b>01:23   89°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: center;">FOV 0.73 x 0.49° · RA 22hr 36' 06", DEC 33° 58' 01"</p>
<p><b>NGC-7331 Group</b> (NGC-7331) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Galaxy Cluster</b></p> <p>Constellation: <b>Pegasus</b> Coordinates: <b>22h 37' 15"</b> <b>34° 24' 51"</b></p> <p>Close Star: <b>SAO-72191</b> (1 Lacertae) Catalog Objects: <a href="#">NGC-7331</a> Imaging Window: <b>09:45 – 04:20</b> Transit: <b>01:24   89°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: center;">NGC 7331, NGC 7335, NGC 7337 Galaxy Group</p> <p style="text-align: right;">James W. Smith 2015.09.11</p>
<p><b>Wizard Nebula</b> (SH 2-142) Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Cepheus</b> Coordinates: <b>22h 47' 26"</b> <b>58° 03' 03"</b></p> <p>Close Star: <b>SAO-20268</b> (Iota Cephei) Catalog Objects: <a href="#">SH2-142</a> Imaging Window: <b>09:45 – 04:20</b> Transit: <b>01:32   89°</b></p>	<p style="text-align: center;"><b>C-11 HD: <b>Focal Reducer</b></b></p>  <p style="text-align: center;">FOV 1.05 x 0.70° · RA 22hr 47' 26", DEC 58° 03' 03"</p>

# Prospective Imaging Objects – August 16 2023

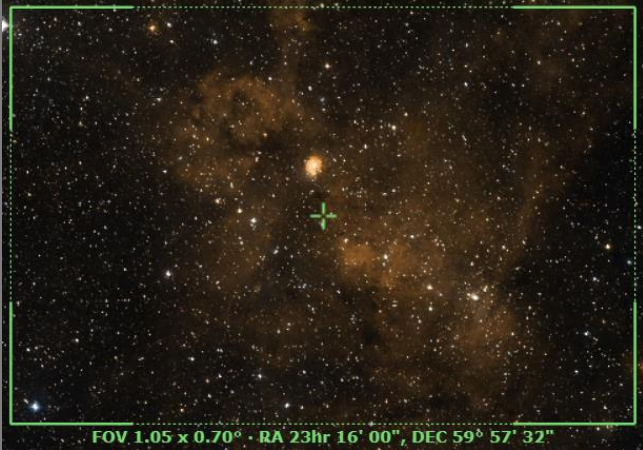


<p><b>Wizard Nebula (SH 2-142)</b></p> <p>Config:  C11HD ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Cepheus</b></p> <p>Coordinates:  <b>22h 47' 26"</b>  <b>58° 03' 03"</b></p> <p>Close Star: <b>SAO-20268</b> (Iota Cephei)</p> <p>Catalog Objects: <a href="#">SH2-142</a></p> <p>Imaging Window: <b>09:45 – 04:20</b></p> <p>Transit: <b>01:32   89°</b></p>	<p><b>C-11 HD: Primary Focus</b></p>  <p><small>Wizard Nebula (NGC-7380)  Constellation: Cepheus  RA: 22h 47m 26.00s, DEC: +58° 03' 03.00"   Size: 40.8 x 27.2 arcmin   Orientation: 9.2deg E of N   Pixel scale: 0.441 arcsec/pixel   F1.1-200frames  James Votaw (Sheddy) 2013-11-25, 2020-10-14   Location: Chandler, AZ  E-quip: C-11 HD, Astrocam 1.1, C-11, ZWO 6200MC  Exposure: 140 x 300sec/Frame   Gain: 3200   Offset: 100</small></p>
<p><b>Cave Nebula (SH2-155)</b></p> <p>Config: <b>C11-HD   HS   ZWO6200MC</b></p> <p>Type: <b>Bright &amp; Dark Nebula</b></p> <p>Constellation: <b>Cepheus</b></p> <p>Coordinates:  <b>23h 00' 57"</b>  <b>62° 04' 09"</b></p> <p>Close Star: <b>SAO-20268</b> (Iota Cephei)</p> <p>Catalog Objects: <a href="#">SH2-155</a></p> <p>Imaging Window: <b>10:04 – 04:20</b></p> <p>Transit: <b>01:44   61°</b></p>	<p><b>C-11 HD: HyperStar v4</b></p>  <p><small>SH2-155 (Cave Nebula)  Constellation: Cepheus  RA: 23h 00m 57.00s, DEC: +62° 04' 09.00"   Size: 15.0 x 10.0 arcmin   Orientation: 0.0deg E of N   Pixel scale: 0.441 arcsec/pixel   F1.1-200frames  James Votaw (Sheddy) 2013-11-25, 2020-10-14   Location: Chandler, AZ  E-quip: C-11 HD, HyperStar v4, Astrocam 1.1, C-11, ZWO 6200MC  Exposure: 140 x 300sec/Frame   Gain: 3200   Offset: 100</small></p>
<p><b>Cave Nebula (SH2-155)</b></p> <p>Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Bright &amp; Dark Nebula</b></p> <p>Constellation: <b>Cepheus</b></p> <p>Coordinates:  <b>22h 56' 57"</b>  <b>62° 31' 33"</b></p> <p>Close Star: <b>SAO-20268</b> (Iota Cephei)</p> <p>Catalog Objects: <a href="#">SH2-155</a></p> <p>Imaging Window: <b>10:04 – 04:20</b></p> <p>Transit: <b>01:44   61°</b></p>	<p><b>C-11 HD: <b>Focal Reducer</b></b></p>  <p><small>FOV 1.05 x 0.70° · RA 22hr 56' 57", DEC 62° 31' 33"</small></p>



# Prospective Imaging Objects – August 16 2023

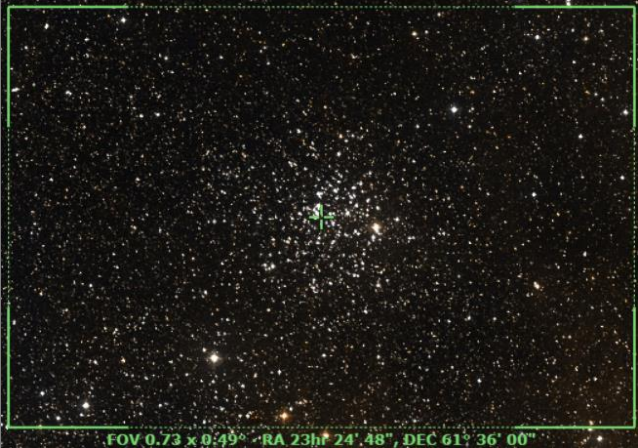


<p><b>Cave Nebula (SH2-155)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Bright &amp; Dark Nebula</b></p> <p>Constellation: <b>Cepheus</b> Coordinates: <b>22h 56' 57"</b> <b>62° 31' 33"</b></p> <p>Close Star: <b>SAO-20268</b> (Iota Cephei) Catalog Objects: <a href="#">SH2-155</a> Imaging Window: <b>10:04 – 04:20</b> Transit: <b>01:44   61°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: center; font-size: small;">FOV 0.73 x 0.49° • RA 22hr 58' 02", DEC 62° 35' 07"</p>
<p><b>NGC-7479 (PGC-70419)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Barred Spiral Galaxy</b></p> <p>Constellation: <b>Pegasus</b> Coordinates: <b>23h 04' 58"</b> <b>12° 18' 37"</b></p> <p>Close Star: <b>SAO-127340</b> (Baham) Catalog Objects: <a href="#">NGC-7479</a> Imaging Window: <b>10:57 – 04:20</b> Transit: <b>01:52   62°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: center; font-size: x-small;">NGC-7479 Constellation: Pegasus RA = 23h 04m 58.2s DEC = +12deg 18' 37.3" Size = 31.4 x 21.0 arcmin   Orientation: 0.0 deg E of N   Pixel scale = 0.446 arcsec/pixel   FL=2000mm James Yoder   Location: Maunakea Ground, (2020-10-16), Chandler, (2020-10-19), AZ   Config:  C-11 HD  Bunder Skyline   (OBY 126)   Exposure Info: 1600ms/5min   Gain: 3200   (OBSer: 180)</p>
<p><b>Lobster Claw and Bubble Nebula (SH2-157)</b> Config: <b>C11-HD   HS   ZWO6200MC</b></p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Cassiopeia</b> Coordinates: <b>23h 18' 25.8"</b> <b>60° 31' 17.8"</b></p> <p>Close Star: <b>SAO-21133</b> (Caph) Catalog Objects: <a href="#">SH2-157</a>, <a href="#">NGC-7635</a> Imaging Window: <b>10:18 – 04:20</b> Transit: <b>02:03   63°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>  <p style="text-align: center; font-size: x-small;">Lobster Claw and Bubble Nebula(NGC-7635) Constellation: Cassiopeia RA = 23h 18m 25.8s DEC = +60deg 31' 17.8" Size = 2.68 x 1.79 deg   Orientation: 0deg E. of N   Pixel scale = 2.28 arcsec/pixel   FL=540mm James Yoder   Date(s) 2020-10-21   Location: Chandler, AZ   Config:  C-11 HD  HyperStar V4   Astrocamerica C11-S4-CDD-QBY126   Exposure Info: 260ms/5min   Gain: 3200   (OBSer: 180)</p>

# Prospective Imaging Objects – August 16 2023

<p><b>Lobster Claw</b> (<a href="#">SH2-157</a>)            Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Cassiopeia</b>            Coordinates:  <b>23h 16' 00"</b>  <b>59° 57' 32"</b></p> <p>Close Star: <b>SAO-21133</b> (Caph)            Catalog Objects: <a href="#">SH2-157</a>            Imaging Window: <b>10:18 – 04:20</b>            Transit: <b>02:03   63°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p>  <p style="text-align: center;">FOV 1.05 x 0.70° • RA 23hr 16' 00\", DEC 59° 57' 32"</p>
<p><b>Bubble Nebula</b> (<a href="#">NGC-7635</a>)            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Bright &amp; Dark Nebula</b></p> <p>Constellation: <b>Cepheus</b>            Coordinates:  <b>23h 20' 12"</b>  <b>61° 11' 00"</b></p> <p>Close Star: <b>SAO-21133</b> (Caph)            Catalog Objects: <a href="#">NGC-7635</a>, SH2-162            Imaging Window: <b>10:24 – 04:20</b>            Transit: <b>02:07   62°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: center;">Bubble Nebula (NGC-7635)  <small>Constellation: Cassiopeia</small></p>
<p><b>Pegasus Cluster</b> (<a href="#">NGC-7619</a>)            Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Cluster of Galaxies</b></p> <p>Constellation: <b>Pegasus</b>            Coordinates:  <b>23h 20' 13"</b>  <b>08° 11' 08"</b></p> <p>Close Star: <b>SAO-128085</b> (g Piscium)            Catalog Objects: <a href="#">NGC-7619</a>            Imaging Window: <b>11:26 – 04:20</b>            Transit: <b>02:07   65°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p>  <p style="text-align: center;">FOV 1.05 x 0.70° • RA 23hr 20' 13\", DEC 08° 11' 08"</p>



# Prospective Imaging Objects – August 16 2023

<p><b>M-52 (NGC-7654)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Cassiopeia</b> Coordinates: <b>23h 24' 48"</b> <b>61° 36' 00"</b></p> <p>Close Star: <b>SAO-21133 (Caph)</b> Catalog Objects: <a href="#">M-52</a> Imaging Window: <b>10:29 – 04:20</b> Transit: <b>02:12   62°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Blue Match Nebula (SH2-155)</b> Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Reflection Nebula</b></p> <p>Constellation: <b>Andromeda</b> Coordinates: <b>23h 39' 24"</b> <b>48° 51' 37"</b> Nearby: <a href="#">NGC-7686</a> Close Star: <b>SAO-73765 (Alpheratz)</b> Catalog Objects: VdB 158/ LBN 534 Imaging Window: <b>10:27 – 04:20</b> Transit: <b>02:17   81°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 
<p><b>Caroline's Rose (NGC-7789)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Cassiopeia</b> Coordinates: <b>23h 57' 37"</b> <b>56° 42' 21"</b></p> <p>Close Star: <b>SAO-21607 (Shedar)</b> Catalog Objects: <a href="#">NGC-7789</a> Imaging Window: <b>10:56 – 04:20</b> Transit: <b>02:44   65°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 

# Prospective Imaging Objects – August 16 2023

**NGC-7822** (Ced-214)

Config: **C11-HD | HS | ZWO6200MC**

Type: **Emission Nebula**  
Constellation: **Cepheus**

Coordinates:

Frame 01

RA: **00hr 03' 42"** DEC: **67° 41' 45"**

Frame 02

RA: **00hr 03' 42"** DEC: **65° 35' 15"**

Close Star: **SAO-10818**

Catalog Objects: Ced 214, [NGC 7822](#), SH2-171

Imaging Window: **11:24 – 04:20**

Transit: **02:49 | 56°**

**C-11 HD: HyperStar v4**  
**Composite!**



NGC-7822 Region  
Constellation: Cepheus  
RA: 00h 03m 42s DEC: 67° 41' 45" (Frame 01)  
RA: 00h 03m 42s DEC: 65° 35' 15" (Frame 02)  
www.astro.com NGC-7822 (Ced-214) Composite HyperStar v4 ZWO6200MC  
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**NGC-7822** (CED-214)

Config: **C11-HD | HS | ZWO6200MC**

Type: **Diffuse Nebula**

Constellation: **Cepheus**

Coordinates:

**00h 01' 27"**

**67° 28' 37"**

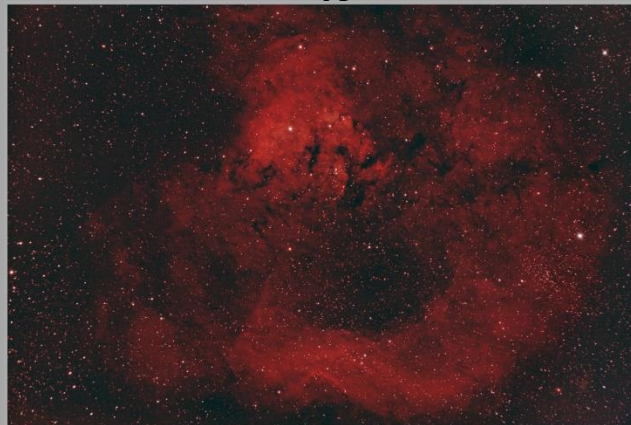
Close Star: **SAO-20268**

Catalog Objects: [NGC-7822](#)/CED-214

Imaging Window: **11:24 – 04:20**

Transit: **02:49 | 56°**

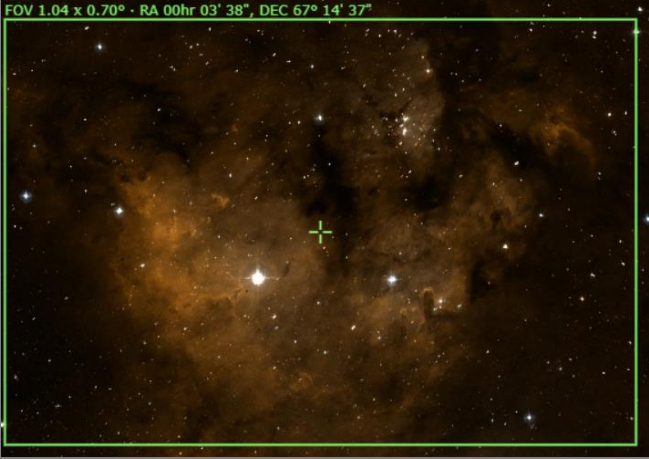


**C-11 HD: HyperStar v4**




NGC-7822  
Constellation: Cepheus  
RA: 00h 01m 27s DEC: 67° 28' 37"  
www.astro.com NGC-7822 (CED-214) HyperStar v4 ZWO6200MC  
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# Prospective Imaging Objects – August 16 2023




<p><b>NGC-7822</b> (CED-214)            Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Cepheus</b>            Coordinates:  <b>00h 03' 38"</b>  <b>67° 14' 37"</b></p> <p>Close Star: <b>SAO-20268</b>            Catalog Objects: <a href="#">NGC-7822</a>/CED-214            Imaging Window: <b>11:24 – 04:20</b>            Transit: <b>02:49   56°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> 
<p><b>NGC-7822</b> (CED-214)            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Emission Nebula</b>            Constellation: <b>Cepheus</b>            Coordinates:  <b>00h 01' 56"</b>  <b>67° 23' 05"</b></p> <p>Close Star: <b>SAO-10818</b>            Catalog Objects: Ced 214, <a href="#">NGC 7822</a>, SH2-171            Imaging Window: <b>11:24 – 04:20</b>            Transit: <b>02:49   56°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small;">Bright Nebula NGC-7822 (Ced 214)            Constellation: Cepheus            RA = 00h 03m 38.00s, DEC = +67° 14' 37.00\"</p>
<p><b>Bow-Tie Nebula</b> (NGC-40)            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Cepheus</b>            Coordinates:  <b>00h 13' 01"</b>  <b>72° 31' 21"</b></p> <p>Close Star: <b>SAO-20268</b>            Catalog Objects: <a href="#">NGC-40</a>            Imaging Window: <b>12:08 – 04:20</b>            Transit: <b>03:00   51°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 

# Prospective Imaging Objects – August 16 2023

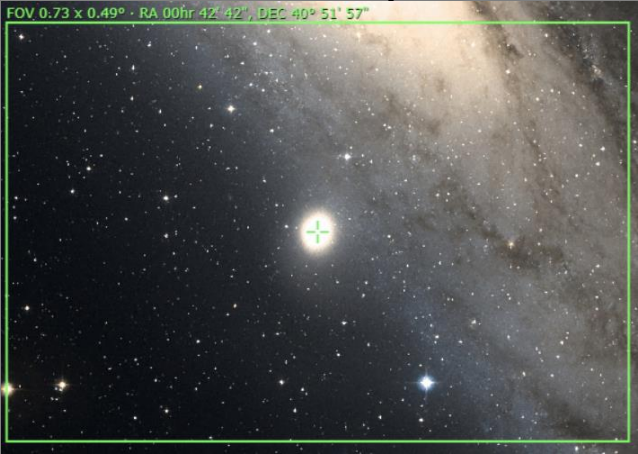
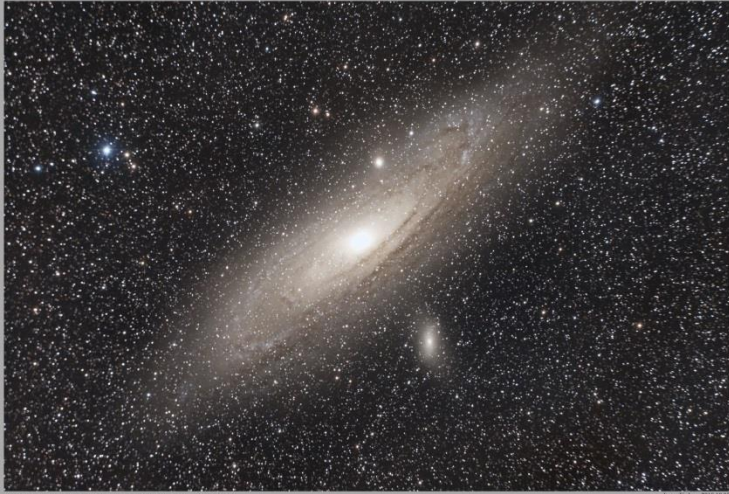
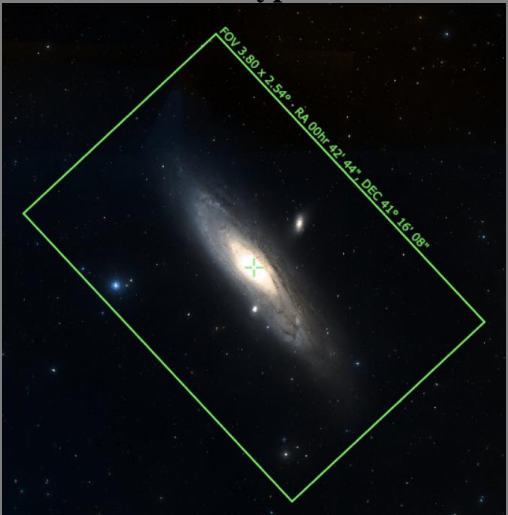
<p><b>Andromeda Galaxy Group</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Cluster of dim galaxies</b>            Peak:            Constellation: <b>Andromeda</b>            Coordinates:  <b>00h 17' 58"</b>  <b>30° 03' 03"</b></p> <p>Close Star: <b>SAO-73765</b> (Alpheratz)            Catalog Objects: <a href="#">NGC 67-72</a> et. El.</p> <p>Imaging Window: <b>11:32 – 04:20</b>            Transit: <b>03:05   87°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>NGC-147 &amp; NGC-185</b>            Config: <b>C11-HD   HS   ZWO6200MC</b></p> <p>Type: <b>Galaxy Pair</b></p> <p>Constellation: <b>Cassiopeia</b>            Coordinates:  <b>00h 36' 22"</b>  <b>48° 26' 42"</b></p> <p>Close Star: <b>SAO-21609</b> (Shedar)            Catalog Objects: <a href="#">NGC-147</a>, NGC-185            Imaging Window: <b>11:30 – 04:20</b>            Transit: <b>03:20   75°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> <p style="text-align: center; font-size: small;">FOV 3.80 x 2.54° - RA 00hr 36' 22", DEC 48° 26' 42"</p> 
<p><b>NGC-147 &amp; NGC-185</b>            Config: <b>C11-HD   FR   ZWO6200MC</b></p> <p>Type: <b>Galaxy Pair</b></p> <p>Constellation: <b>Cassiopeia</b>            Coordinates:            Frame 01            RA: <b>00hr 38' 33"</b> DEC: <b>48° 25' 44"</b>            Frame 02            RA: <b>00hr 33' 21"</b> DEC: <b>48° 25' 44"</b></p> <p>Close Star: <b>SAO-21609</b> (Shedar)            Catalog Objects: <a href="#">NGC-147</a>, NGC-185            Imaging Window: <b>11:30 – 04:20</b>            Transit: <b>03:20   75°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer Composite!</b></p>  <p style="font-size: x-small;">Dwarf Galaxies NGC-185, NGC-147  <small>Copyright © 2023, ZWO Optics Inc. All rights reserved. This image is for personal use only. No part of this image may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of ZWO Optics Inc.</small></p>



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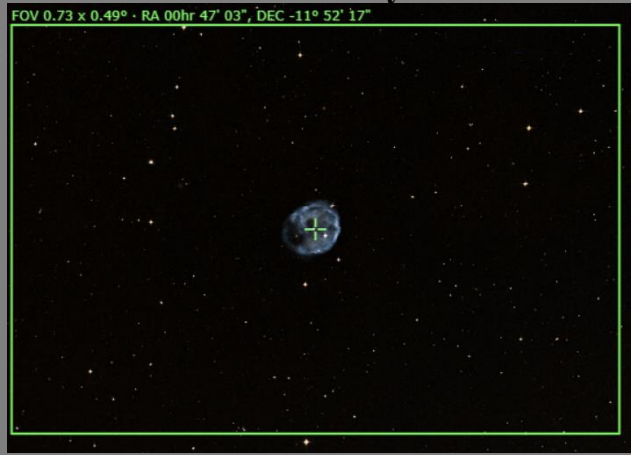

<p><b>NGC-147</b>            Config:  ZWO6200MC </p> <p>Type: <b>Galaxy</b>            Peak:            Constellation: <b>Cassiopeia</b>            Coordinates:  <b>00h 33' 07.245"</b>  <b>48° 30' 18.030"</b></p> <p>Close Star: <b>SAO-37375</b>            Catalog Objects: <a href="#">NGC-147</a></p> <p>Imaging Window: <b>11:30 – 04:20</b>            Transit: <b>03:20   75°</b></p>	<p style="text-align: center;"><b>Primary Focus</b></p>  <p style="font-size: small;">Dwarf Galaxy NGC-147            Constellation: Cassiopeia              RA = 00h 33m 07.245s, DEC = +48deg 30' 18.030"   Size = 49.7 x 33.5 arcmin   Pixel scale = 0.579 arcsec/pixel</p> <p style="font-size: x-small; text-align: right;">James VanDyke 2018-07-22            Location: Mesaiceras Grande, Flagstaff, AZ            Config: C11 HD Camera, ZWO6200MC, ZWO6200MC            Exposure Info: (348img) / Gain: 3200 / Offset: 100</p>
<p><b>NGC-185</b>            Config: C11-HD   ZWO6200MC</p> <p>Type: <b>Dwarf Spheroidal Galaxy</b></p> <p>Constellation: <b>Cassiopeia</b>            Coordinates:  <b>00h 38' 58"</b>  <b>48° 20' 14"</b></p> <p>Close Star: <b>SAO-21609 (Shedar)</b>            Catalog Objects: <a href="#">NGC-147</a>            Imaging Window: <b>11:30 – 04:20</b>            Transit: <b>03:20   75°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small;">FOV 0.73 x 0.49° · RA 00hr 38' 58", DEC 48° 20' 14"</p> <p style="font-size: x-small; text-align: right;">James VanDyke 2018-07-22            Location: Mesaiceras Grande, Flagstaff, AZ            Config: C11 HD Camera, ZWO6200MC, ZWO6200MC            Exposure Info: (348img) / Gain: 3200 / Offset: 100</p>
<p><b>M-110</b>            Config: C11-HD   ZWO6200MC</p> <p>Type: <b>Elliptical Galaxy</b></p> <p>Constellation: <b>Andromeda</b>            Coordinates:  <b>00h 40' 22"</b>  <b>41° 41' 07"</b></p> <p>Close Star: <b>SAO-73765 (Sirrah)</b>            Catalog Objects: <a href="#">M-110</a>            Imaging Window: <b>11:41 – 04:20</b>            Transit: <b>03:27   82°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small;">M-110 (NGC-205)            Constellation: Andromeda              RA = 00h 40m 21.6s, DEC = +41deg 41' 07"   Size = 41.2 x 27.3 arcmin   Orientation: 9.5deg E of N   Pixel scale = 0.446 arcsec/pixel   FOV: 1.762deg</p> <p style="font-size: x-small; text-align: right;">James VanDyke 2018-07-22            Location: Mesaiceras Grande, Flagstaff, AZ            Config: C11 HD Camera, ZWO6200MC, ZWO6200MC            Exposure Info: (348img) / Gain: 3200 / Offset: 100</p>

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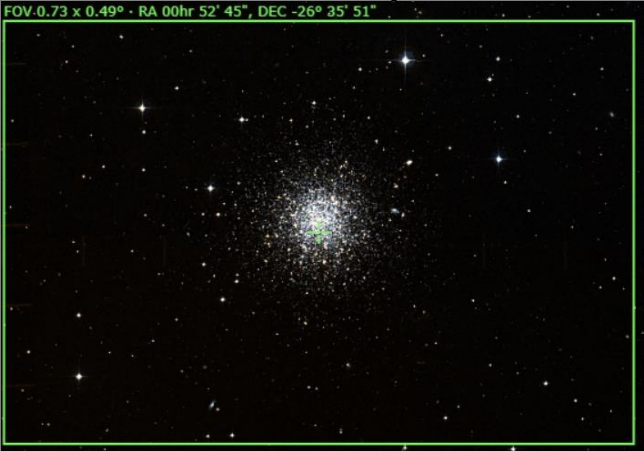
<p><b>M-32</b> Config: C11-HD   ZWO6200MC</p> <p>Type: <b>Elliptical Galaxy</b></p> <p>Constellation: <b>Andromeda</b> Coordinates: <b>00h 42' 42"</b> <b>40° 51' 57"</b></p> <p>Close Star: SAO-73765 (Sirrah) Catalog Objects: <a href="#">M-32</a> Imaging Window: <b>11:44 – 04:20</b> Transit: <b>03:29   83°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Andromeda Galaxy (M 31)</b> Config:  C11 HS ZWO6200MCc </p> <p>Type: <b>Galaxy</b> Peak: <b>Oct 1</b> Constellation: <b>Andromeda</b> Coordinates: <b>00h 43' 03.089"</b> <b>41° 18' 37.05"</b></p> <p>Close Star: SAO-54281 Catalog Objects: <a href="#">M-31</a>, M-32, M-110, NGC-224, NGC-206</p> <p>Imaging Window: <b>11:43 – 04:20</b> Transit: <b>03:29   82°</b></p>	<p style="text-align: center;"><b>Hyperstar</b></p> 
<p><b>M-31, M-32</b> Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Andromeda Galaxy</b></p> <p>Constellation: <b>Andromeda</b> Coordinates: <b>00h 42' 44"</b> <b>41° 16' 08"</b> Angle: <b>133° East</b></p> <p>Close Star: SAO-73765 (Sirrah) Catalog Objects: <a href="#">M-31</a>, M-32 Imaging Window: <b>11:43 – 04:20</b> Transit: <b>03:29   82°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 



# Prospective Imaging Objects – August 16 2023

<p><b>NGC246, NGC255, PGC 2689</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: Planetary Nebula, 2 Galaxies</p> <p>Constellation: Cetus            Coordinates:  <b>00h 47' 00"</b>  <b>-11° 40' 40"</b></p> <p>Close Star: SAO-147420 (Diphda)            Catalog Objects: <a href="#">NGC-246</a>            Imaging Window: *01:23 – 04:20            Transit: 03:34   45°</p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p>  <p style="font-size: small;">Skull Nebula (NGC-246) and Galaxy NGC-255            Constellation: Cetus the Whale            RA = 00h 47m 00s, DEC = -11deg 40' 51.1"   Size = 51.7 x 34.5 arcmin   Orientation: 190deg E of N   Pixel scale = 0.579 arcsec/pixel   F1-1960mm            James Volder   Date: 2023-08-26   Location: Chandler, AZ            Config: C-11 HD   0.9 Reducer   Filter: Doublet Skyglow   Camera: QHY128C            Exposure Info: 248frames/Frame   Gain: 2000   Offset: 100</p>
<p><b>Skull Nebula (NGC-246)</b>            Config: C11-HD   ZWO6200MC</p> <p>Type: Planetary Nebula</p> <p>Constellation: Cetus            Coordinates:  <b>00h 47' 03"</b>  <b>-11° 52' 17"</b></p> <p>Close Star: SAO-147420 (Diphda)            Catalog Objects: <a href="#">NGC-246</a>            Imaging Window: *01:23 – 04:20            Transit: 03:34   45°</p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small;">FOV 0.73 x 0.49° - RA 00hr 47' 03", DEC -11° 52' 17"            James Volder   Date: 2023-08-26   Location: Chandler, AZ            Config: C-11 HD   0.9 Reducer   Filter: Doublet Skyglow   Camera: QHY128C            Exposure Info: 248frames/Frame   Gain: 2000   Offset: 100</p>
<p><b>Needle's Eye Galaxy (NGC 247)</b>            Config:  C11HD ZWO6200MC </p> <p>Type: Galaxy            Peak:            Constellation: Cetus            Coordinates:  <b>00hr 47' 12"</b>  <b>-20° 44' 38"</b></p> <p>Close Star: SAO-147420            Catalog Objects: <a href="#">NGC 247</a></p> <p>Imaging Window: *01:39 – 04:20            Transit: 03:34   36°</p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small;">Needle's Eye Galaxy (NGC-247)            Constellation: Cetus            RA = 00h 47m 12s, DEC = -20deg 44' 38.1"   Size = 41.1 x 27.5 arcmin   Orientation: 63deg E of N   Pixel scale = 0.446 arcsec/pixel   F1-2000mm            James Volder   Date: 2023-08-21, 2023-08-22   Location: Chandler, AZ            Config: C-11 HD Doublet Skyglow   QHY128C            Exposure Info: 200frames/Frame   Gain: 2000   Offset: 100</p>

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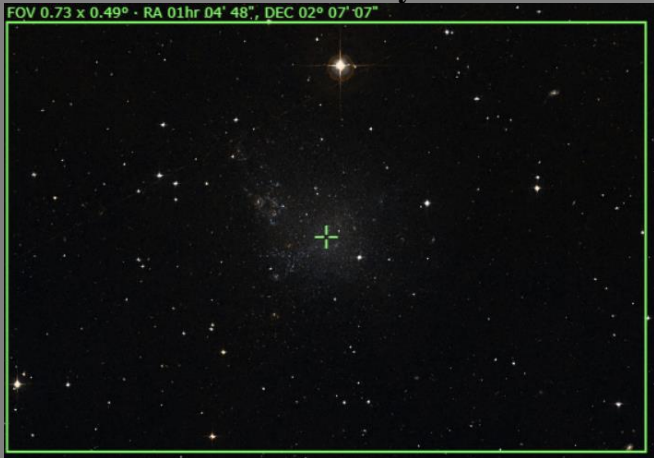

<p><b>NGC-288, NGC-253</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Globular and Galaxy</b></p> <p>Constellation: <b>Sculptor</b>            Coordinates:  <b>00h 50' 03"</b>  <b>-25° 54' 37"</b></p> <p>Close Star: SAO-147420 (Diphda)            Catalog Objects: <a href="#">NGC-288</a>, <a href="#">NGC-253</a>            Imaging Window: *01:50 – 04:20            Transit: 03:39   30°</p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>  <p style="font-size: small;">Sculptor galaxy (NGC-253) and Globular Cluster (NGC-288) <span style="float: right;">James Yoder (Duxco) 2023.02.14   Location: Massachusetts Toolband, AZ</span>            Constellation: Sculptor <span style="float: right;">Config: C-11HD   HyperStar V4   Baader Masker   QHY126c</span>  <small>RA = 00h 49m 57.1s DEC = -25deg 54' 45.87" Size = 1.14 x 2.09 deg Orientation: Mag 8.4 of N   Pixel scale = 2.28 arcsec/pixel   FL=540mm   Exposure Info: 2100ms/7min   Gain: 3200   Offset: 180</small></p>
<p><b>Sculptor Galaxy (NGC-253)</b>            Config: C11-HD   ZWO6200MC</p> <p>Type: <b>Spiral Galaxy</b></p> <p>Constellation: <b>Sculptor</b>            Coordinates:  <b>00h 47' 33"</b>  <b>-25° 17' 15"</b></p> <p>Close Star: SAO-147420 (Diphda)            Catalog Objects: <a href="#">NGC-253</a>            Imaging Window: *01:50 – 04:20            Transit: 03:39   30°</p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small;">Sculptor Galaxy (NGC 253) <span style="float: right;">James Yoder 2023.08.21</span>            Constellation: Sculptor <span style="float: right;">Location: Chandler, AZ</span>  <small>Config: C11   Starizona L.F. Corrector   Baader Moon Filter   QHY126c   Exposure Info: 1000ms/7min   Gain: 3200   Offset: 180</small></p>
<p><b>NGC-288</b>            Config: C11-HD   ZWO6200MC</p> <p>Type: <b>Globular Cluster</b></p> <p>Constellation: <b>Sculptor</b>            Coordinates:  <b>00h 52' 45"</b>  <b>-26° 35' 51"</b></p> <p>Close Star: SAO-147420 (Diphda)            Catalog Objects: <a href="#">NGC-288</a>            Imaging Window: *01:50 – 04:20            Transit: 03:39   31°</p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small;">FOV: 0.73 x 0.49° - RA 00hr 52' 45", DEC -26° 35' 51"</p>



# Prospective Imaging Objects – August 16 2023


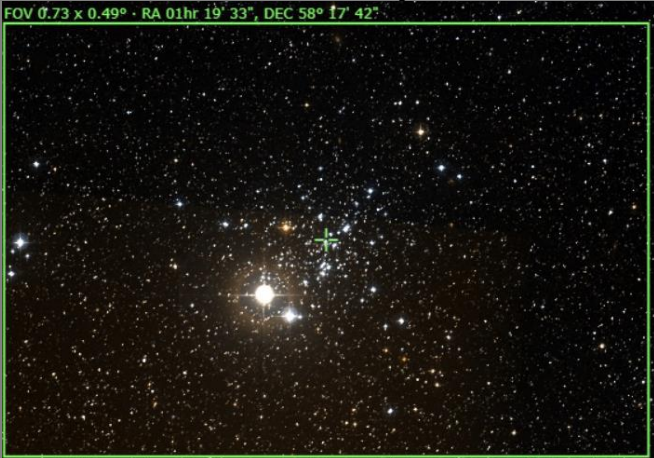

<p><b>NGC-188</b>            Config: C11-HD   FR   ZWO6200MC</p> <p>Type: Open Cluster</p> <p>Constellation: Cepheus            Coordinates:  <b>00h 47' 30"</b>  <b>85° 15' 30"</b></p> <p>Close Star: SAO-308 (Polaris)            Catalog Objects: <a href="#">NGC-188</a>            Imaging Window: *10:48 – 04:20            Transit: 03:34   38°</p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p>
<p><b>NGC-281</b>            Config: C11-HD   FR   ZWO6200MC</p> <p>Type: Diffuse Nebula</p> <p>Constellation: Cassiopeia            Coordinates:  <b>00h 53' 00"</b>  <b>56° 37' 00"</b></p> <p>Close Star: SAO-11482 (Navi)            Catalog Objects: <a href="#">NGC-281</a>            Imaging Window: 11:51 – 04:20            Transit: 03:40   67°</p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p>
<p><b>IC-59, IC-63</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: Bright Nebula</p> <p>Constellation: Cassiopeia            Coordinates:  <b>01h 03' 11"</b>  <b>60° 42' 24"</b></p> <p>Close Star: SAO-11482 (Navi)            Catalog Objects: <a href="#">IC-59</a>, <a href="#">IC-63</a>            Imaging Window: 12:01 – 04:20            Transit: 03:44   62°</p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>

# Prospective Imaging Objects – August 16 2023

<p><b>IC-59, IC-63</b> Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cassiopeia</b> Coordinates: <b>00h 58' 48"</b> <b>61° 04' 02"</b></p> <p>Close Star: SAO-11482 (Navi) Catalog Objects: <a href="#">IC-59</a>, <a href="#">IC-63</a> Imaging Window: <b>12:01 – 04:20</b> Transit: <b>03:44   62°</b></p>	<p><b>C-11 HD: Primary Focus</b> FOV 0.73 x 0.49° - RA 00hr 58' 48", DEC 61° 04' 02"</p> 
<p><b>IC-1613</b> Config: C11-HD   ZWO6200MC</p> <p>Type: <b>Irregular Dwarf Galaxy</b></p> <p>Constellation: <b>Cetus</b> Coordinates: <b>01h 04' 48"</b> <b>02° 07' 07"</b></p> <p>Close Star: SAO-75151 (Hamal) Catalog Objects: <a href="#">IC-1613</a> Imaging Window: <b>01:33 – 04:20</b> Transit: <b>03:51   59°</b></p>	<p><b>C-11 HD: Primary Focus</b> FOV 0.73 x 0.49° - RA 01hr 04' 48", DEC 02° 07' 07"</p> 
<p><b>Mirachs Ghost (NGC-404)</b> Config: C11-HD   ZWO6200MC</p> <p>Type: <b>Elliptical Galaxy</b></p> <p>Constellation: <b>Andromeda</b> Coordinates: <b>01h 09' 36"</b> <b>35° 40' 58"</b></p> <p>Close Star: SAO-544471 (Mirach) Catalog Objects: <a href="#">NGC-404</a> Imaging Window: <b>12:16 – 04:20</b> Transit: <b>03:56   88°</b></p>	<p><b>C-11 HD: Primary Focus</b> FOV 0.73 x 0.49° - RA 01hr 09' 36", DEC 35° 40' 58"</p> 



# Prospective Imaging Objects – August 16 2023



<p><b>NGC-457 &amp; Dolphin Nebula</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Open Cluster &amp; Nebula</b></p> <p>Constellation: <b>Cassiopeia</b>            Coordinates:  <b>01° 23' 38"</b>  <b>58° 12' 54"</b></p> <p>Close Star: SAO-22268 (Ruchbah)            Catalog Objects: <a href="#">NGC-457</a>            Imaging Window: <b>12:18 – 04:20</b>            Transit: <b>04:06   65°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>  <p style="font-size: small;">Firefox Nebula (SH-2-188), Owl Cluster(NGC-457), NGC-436  <small>James Webb: Dec 01 2020 12:01, 2020 12:04, 2020 12:07 Location: Canada AZ            Constellation: Cassiopeia            RA: 01h 23m 38.75s DEC: 58d 12m 54.00s Size: 1.3 x 2.5 deg Observation: Sky 6 of 20 (Post-Stack: 2.28 sec/frame) F1-59mm            Exposure: 3000000sec, 200000000, 1000000000 Total Exp: 3000000000sec Gain: 2000 Offset: 100</small></p>
<p><b>Owl Cluster (NGC-457)</b>            Config: C11-HD   ZWO6200MC</p> <p>Type: <b>Open Cluster &amp; Nebula</b></p> <p>Constellation: <b>Cassiopeia</b>            Coordinates:  <b>01h 23' 38"</b>  <b>58° 12' 54"</b></p> <p>Close Star: SAO-22268 (Ruchbah)            Catalog Objects: <a href="#">NGC-457</a>            Imaging Window: <b>12:19 – 04:20</b>            Transit: <b>04:06   65°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small;">FOV 0.73 x 0.49° - RA 01hr 19' 33", DEC 58° 17' 42"</p>
<p><b>Minkowski's Object (Arp-133)</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Galaxy Cluster</b>            Constellation: <b>Cetus</b>            Coordinates:  <b>01h 25' 27"</b>  <b>-01° 29' 03"</b></p> <p>Close Star: SAO-75151 (Hamal)            Catalog Objects: <a href="#">ARP-133</a>            Imaging Window: <b>02:11 – 04:20</b>            Transit: <b>04:12   55°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small;">FOV 0.73 x 0.49° - RA 01hr 25' 27", DEC -01° 29' -3"</p>

# Prospective Imaging Objects – August 16 2023

<p><b>Firefox Nebula</b> (<a href="#">Sh 2-188</a>)            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b>            Peak:            Constellation: <b>Cassiopeia</b>            Coordinates:  <b>01h 31' 37"</b>  <b>58° 21' 22"</b></p> <p>Close Star: <b>SAO-22268 (Ruchbah)</b>            Catalog Objects: <a href="#">Sh 2-188</a></p> <p>Imaging Window: <b>12:30 – 04:20</b>            Transit: <b>04:17   65°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>M-103</b> (<a href="#">NGC-581</a>)            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Open Cluster</b>            Constellation: <b>Cassiopeia</b>            Coordinates:  <b>01h 33' 31"</b>  <b>60° 39' 44"</b></p> <p>Close Star: <b>ISO-22268 (Ruchbah)</b>            Catalog Objects: <a href="#">M-103</a>/<a href="#">NGC-581</a></p> <p>Imaging Window: <b>12:36 – 04:20</b>            Transit: <b>04:20   63°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Triangulum Galaxy</b> (<a href="#">M-33</a>)            Config: <b>C11   HS   ZWO6200MC</b></p> <p>Type: <b>Galaxy</b>            Constellation: <b>Triangulum</b>            Coordinates:  <b>01h 33' 52"</b>  <b>30° 39' 29"</b></p> <p>Close Star: <b>SAO-74996</b>            Catalog Objects: <a href="#">M33</a>, <a href="#">NGC598</a></p> <p>Imaging Window: <b>12:47 – 04:20</b>            Transit: <b>04:20   87°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> <p style="font-size: small; text-align: center;">FOV 3.80 x 2.53° · RA 01hr 33' 52", DEC 30° 39' 29" · 1.43"/px</p> 



# Prospective Imaging Objects – August 16 2023

<p><b>Triangulum Galaxy (M-33)</b>          Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Galaxy</b>          Peak: <b>Oct 14</b>          Constellation: <b>Triangulum</b></p> <p><b>Camera Rotation - 90°</b>          Coordinates:  <b>01h 33' 52"</b>  <b>30° 39' 29"</b></p> <p>Close Star: <b>SAO-74996</b>          Catalog Objects: <a href="#">M33</a>, NGC598</p> <p>Imaging Window: <b>12:47 – 04:20</b>          Transit: <b>04:20   87°</b></p>	<p>CH11-HD <b>Focal Reducer</b> <b>90° Rotation</b></p> 
<p><b>Triangulum Galaxy (M-33)</b>          Config:  ZWO6200MC </p> <p>Type: <b>Galaxy</b>          Peak: <b>Oct 14</b>          Constellation: <b>Triangulum</b>          Coordinates:  <b>01° 34' 53.37"</b>  <b>30° 45' 11.2"</b></p> <p>Close Star: <b>SAO-74996</b>          Catalog Objects: <a href="#">M33</a>, NGC598</p> <p>Imaging Window: <b>12:47 – 04:20</b>          Transit: <b>04:20   87°</b></p>	<p>Primary Focus</p> 

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# Prospective Imaging Objects – August 16 2023

## Imaging Summary August 16, 2023

Astronomical Dusk = 08:42

Astronomical Dawn = 04:20

### HyperStar: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HyperStar	Nebula	Nebula	M-8	*08:42-10:56	08:52	03	Sagittarius: Lagoon & Trifid Nebulas
HyperStar	Nebula	Nebula	M-16	*08:42-11:40	09:07	07	Serpens: Eagle Nebula
HyperStar	Nebula	Nebula	M-17	*08:42-11:29	09:09	08	Sagittarius: Omega Nebula
HyperStar	Nebula	Nebula	NGC-6820	08:42 – 01:51	10:31	18	Vulpecula: LDN-772
HyperStar	Nebula	Nebula	B-144	08:42 – 02:26	10:46	20	Cygnus: Fish on the Platter
HyperStar	Nebula	Nebula	NGC-6914	08:42 – 02:59	11:12	24	Composite2! Cygnus: Bright Nebula
HyperStar	Nebula	Nebula	NGC-6914	08:42 – 02:59	11:12	25	Cygnus: Bright Nebula
HyperStar	Nebula	Nebula	IC-1318	08:42 – 02:58	11:13	26	Cygnus: Butterfly Nebula
HyperStar	Nebula	Nebula	IC-5070	08:42 – 03:27	11:38	27	Composite2! Cygnus: Pelican & N America Nebula
HyperStar	Nebula	Nebula	IC-5070	08:42 – 03:27	11:38	28	Cygnus: Pelican & N America Nebula
HyperStar	Nebula	Nebula	NGC-6960	08:42 – 03:15	11:40	28	Composite2! Cygnus: Veil Nebula
HyperStar	Nebula	Nebula	NGC-6960	08:42 – 03:15	11:40	29	Cygnus: Veil Nebula
HyperStar	Nebula	Nebula	IC-1396	08:39 – 04:14	12:26	34	Cepheus: Elephant Trunk
HyperStar	DN, Nebula	Nebula	B-168	08:51 – 04:20	12:41	37	Cygnus: Dark Cocoon
HyperStar	Nebula	Nebula	SH2-132	09:17 – 04:20	01:06	39	Cepheus: Bright Nebula
HyperStar	Nebula	Nebula	SH2-155	10:04 – 04:20	01:44	42	Cepheus: Cave Nebula
HyperStar	Nebula	Nebula	SH2-157	10:18 – 04:20	02:03	43	Cassiopeia: Lobster Claw and Bubble Nebula
HyperStar	Nebula	Nebula	NGC-7822	11:24 – 04:20	02:49	46	Composite2! Cepheus: Nebula
HyperStar	Nebula	Nebula	NGC-7822	11:24 – 04:20	02:49	46	Cepheus: Nebula
HyperStar	Nebula	Neb, OC	NGC-457	12:18 – 04:20	04:06	54	Cassiopeia: Open Cluster NGC-457 & Dolphin Neb
HyperStar	Nebula						
HyperStar	Nebula						

# Prospective Imaging Objects – August 16 2023

## Imaging Summary August 16, 2023

Astronomical Dusk = 08:42

Astronomical Dawn = 04:20

### HyperStar: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HyperStar	Broad Spectrum	Dark Neb	IC-1283	*08:42-11:01	09:05	06	<b>COMP2!</b> Sagittarius: IC-1283 Region
HyperStar	Broad Spectrum	Dark Neb	B-138	08:42 – 12:13	10:04	14	Aquila: Barnard's Black Lizard
HyperStar	Broad Spectrum	Dark Neb	LDN-673	08:42 – 01:00	10:08	16	Aquila: Dark Nebula
HyperStar	Broad Spectrum	Dark Neb	LDN-772	08:42 – 01:33	10:13	16	Vulpecula: Lot Ness Monster
HyperStar	Broad Spectrum	Dark Neb	LDN-904	08:42 – 03:25	11:40	28	Cygnus: Northern Coal Sack (LDN-904)
HyperStar	Broad Spectrum	Dark Neb	B-168	10:04 – 04:20	01:44	38	Cepheus: Wolf's Cave
HyperStar	Broad Spectrum	Ref Neb	NGC-7686	10:27 – 04:20	02:17	45	Andromeda: Blue Match Nebula
HyperStar	Broad Spectrum	Galaxies	NGC-147	11:30 – 04:20	03:20	48	Cassiopeia: Galaxy Pair NGC-147 & NGC-185
HyperStar	Broad Spectrum	Galaxy	M-31	11:43 – 04:20	03:29	50	Andromeda: The Great Andromeda Galaxy
HyperStar	Broad Spectrum	Galaxy	M-31	11:43 – 04:20	03:29	50	<b>Rotation!</b> Andromeda: The Great Andromeda Galaxy
HyperStar	Broad Spectrum	Gal & GC	NGC-288, 253	*01:50-04:20	03:39	51	Sculptor: Galaxy and Globular pair
HyperStar	Broad Spectrum	Ref Neb	IC-59	12:01 – 04:20	03:44	53	Cassiopeia: Bright Nebula
HyperStar	Broad Spectrum	Galaxy	M-33	12:47 – 04:20	04:20	56	Triangulum: Triangulum Galaxy
HyperStar	Broad Spectrum						



# Prospective Imaging Objects – August 16 2023

## Imaging Summary August 16, 2023

Astronomical Dusk = 08:42

Astronomical Dawn = 04:20

### Focal Reducer: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Focal Reducer	Nebula	Nebula	M-20	*08:42-11:07	08:51	03	Sagittarius: Trifid Nebula
Focal Reducer	Nebula	Nebula	M-8	*08:42-10:56	08:52	04	Sagittarius: Lagoon Nebula
Focal Reducer	Nebula	Nebula	IC-4685	*08:42-11:07	08:58	05	Rotation Sagittarius: Nebula, Dark Nebula Region
Focal Reducer	Nebula	Nebula	IC-1274	*08:42-11:07	08:58	05	Sagittarius: Nebula, Dark Nebula Region
Focal Reducer	Nebula	Nebula	M-24	*08:42-11:12	09:07	07	Sagittarius: Sagittarius Star Cloud
Focal Reducer	Nebula	Nebula	M-16	*08:42-11:40	09:07	07	Serpens: Eagle Nebula
Focal Reducer	Nebula	Nebula	M-17	*08:42-11:29	09:09	08	Sagittarius: Omega Nebula
Focal Reducer	Nebula	Nebula	NGC-6820	08:42 – 01:51	10:31	18	Vulpecula: LN-772
Focal Reducer	Nebula	Nebula	SH2-101	08:42 – 02:26	10:46	20	Cygnus: Tulip Nebula
Focal Reducer	Nebula	Nebula	NGC-6914 Reg	08:42 – 02:59	11:12	25	Cygnus: NGC-6914 Region
Focal Reducer	Nebula	Nebula	IC-1318	08:42 – 02:58	11:13	26	Cygnus: Butterfly Nebula
Focal Reducer	Nebula	Nebula	NGC-6960	08:42 – 03:15	11:40	29	Composite 2! Cygnus: Witch's Broom
Focal Reducer	Nebula	Nebula	NGC-6960	08:42 – 03:15	11:40	29	Cygnus: Pickering's Triangular Wisp
Focal Reducer	Nebula	Nebula	NGC-6992	08:42 – 03:19	11:44	30	Composite 2! Cygnus: Network Nebula
Focal Reducer	Nebula	Nebula	NGC-7023	08:42 – 03:11	11:49	31	Cepheus: Iris Nebula
Focal Reducer	Nebula	Nebula	IC-1396-1	08:42 – 04:14	12:26	35	Cepheus: Bright & Dark Nebula Region-1
Focal Reducer	Nebula	Nebula	IC-1396-2	08:42 – 04:14	12:26	35	Cepheus: Bright & Dark Nebula Region-2
Focal Reducer	Nebula	Nebula	IC-5146	08:51 – 04:20	12:41	37	Cygnus: Cocoon Nebula
Focal Reducer	Nebula	Nebula	SH2-132	09:17 – 04:20	01:06	39	Cepheus: Bright Nebula
Focal Reducer	Nebula	Nebula	SH2-142	09:45 – 04:20	01:32	41	Cepheus: Wizard Nebula
Focal Reducer	Nebula	Nebula	SH2-155	10:04 – 04:20	01:44	42	Cepheus: Cave Nebula
Focal Reducer	Nebula	Nebula	SH2-157	10:18 – 04:20	02:03	44	Cassiopeia: Lobster Claw
Focal Reducer	Nebula	Nebula	NGC-7822	11:34 – 04:20	02:49	47	Cepheus: Diffuse Nebula
Focal Reducer	Nebula	Nebula	NGC-246, 255	*01:23-04:20	03:34	51	Cetus: Planetary Nebula & 2 Galaxies

## Prospective Imaging Objects – August 16 2023

<b>Configuration</b>	<b>Class</b>	<b>Type</b>	<b>Object</b>	<b>Imaging Window</b>	<b>Transit</b>	<b>Page Ref</b>	<b>Comments</b>
Focal Reducer	Nebula	Nebula	NGC-281	11:51 – 04:20	03:40	53	Cassiopeia: Pack Man Nebula
Focal Reducer	Nebula	Nebula					



# Prospective Imaging Objects – August 16 2023

## Imaging Summary August 16, 2023

Astronomical Dusk = 08:42

Astronomical Dawn = 04:20

### Focal Reducer: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Focal Reducer	Broad Spectrum	Star Cloud	M-24	*08:42-11:12	09:07	07	Sagittarius: Sagittarius Star Cloud
Focal Reducer	Broad Spectrum	Dark Neb	B-143	08:42 – 01:20	10:29	17	Aquila: Barnard's E
Focal Reducer	Broad Spectrum	Open Cl	M-39	08:42 – 04:09	12:19	34	Cygnus: Open Cluster M-39
Focal Reducer	Broad Spectrum	Ref Neb	VdB-152	10:19 – 03:45	01:02	38	Rotation! Cepheus: Wolf's Cave
Focal Reducer	Broad Spectrum	Dark Neb	LDN-1235	10:19 – 03:45	01:02	39	Cepheus: Dark Shark
Focal Reducer	Broad Spectrum	Galaxies	NGC-7331 et. El.	09:45 – 04:20	01:23	40	Rotation! Pegasus: Stephan's Quintet & NGC 7331
Focal Reducer	Broad Spectrum	Galaxies	NGC-7619 et. El.	11:26 – 04:20	02:07	44	Pegasus: Pegasus Cluster of Galaxies
Focal Reducer	Broad Spectrum	Galaxies	NGC-147, 185	11:30 – 04:20	03:20	48	Composite 2! Cassiopeia: Galaxy Pair
Focal Reducer	Broad Spectrum	Open Cl	NGC-188	*10:48-04:20	03:34	53	Cepheus: Open Star Cluster NGC-188
Focal Reducer	Broad Spectrum	Galaxy	M-33	12:47 – 04:20	04:20	57	Rotation! Triangulum: Triangulum Galaxy
Focal Reducer	Broad Spectrum						

# Prospective Imaging Objects – August 16 2023

## Imaging Summary August 16, 2023

Astronomical Dusk = 08:42

Astronomical Dawn = 04:20

### Primary Focus: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Nebula	PN	NGC-6543	08:42 – 12:15	08:46	02	Draco: Cat's Eye Nebula
Primary Focus	Nebula	Diffused Neb	M-20	*08:42-11:07	08:51	03	Sagittarius: Trifid Nebula
Primary Focus	Nebula	Nebula	M-8	*08:42-10:56	08:52	04	Sagittarius: Lagoon Nebula Core
Primary Focus	Nebula	PN	NGC-6572	08:42 – 11:37	09:00	05	Ophiuchus: Emerald Nebula
Primary Focus	Nebula	Diffused Neb	IC-1283	*08:42-11:01	09:05	06	Sagittarius: NGC-6589
Primary Focus	Nebula	Diffused Neb	M-17	*08:42-11:29	09:09	09	Sagittarius: Omega Nebula
Primary Focus	Nebula	PN	NGC-6629	08:42 – 11:23	09:13	09	Sagittarius: Planetary Nebula NGC-6629
Primary Focus	Nebula	PN	IC-4776	*08:42-10:56	09:34	12	Sagittarius: Small Planetary Nebula
Primary Focus	Nebula	PN	M-57	08:42 – 01:18	09:41	13	Lyra: Ring Nebula
Primary Focus	Nebula	PN	NGC-6742	08:42 – 01:37	09:47	13	Draco: Ablell 50 Med PN
Primary Focus	Nebula	PN	NGC-6751	*08:42-12:02	09:54	14	Aquila: PK 29-5.1 Small PN
Primary Focus	Nebula	PN	NGC-6772	*08:42-12:30	10:02	14	Aquila: PK 33-6.1 Med PN
Primary Focus	Nebula	PN	NGC-6778	08:42 – 12:06	10:06	15	Aquila: PK 34-61 Small PN
Primary Focus	Nebula	PN	NGC-6781	08:42 – 12:42	10:06	15	Aquila: PK 41-2.1 Med PN
Primary Focus	Nebula	PN	NGC-6804	08:42 – 02:23	10:32	16	Aquila: Small PN
Primary Focus	Nebula	PN	NGC-6818	*08:42-12:31	10:31	17	Sagittarius: Little Gem Small PN
Primary Focus	Nebula	Nebula	NGC-6820	08:42 – 01:51	10:31	18	Vulpecula: Open Cluster and Nebula
Primary Focus	Nebula	PN	NGC-6826	08:42 – 02:23	10:32	19	Cygnus: Blinking Planetary Small PN
Primary Focus	Nebula	PN	NGC-6842	08:42 – 02:14	10:43	20	Vulpecula PK 65+0.1 Med PN
Primary Focus	Nebula	Nebula	SH2-101	08:42 – 02:26	10:46	21	Cygnus: Tulip Nebula
Primary Focus	Nebula	PN	M-27	08:42 – 02:07	10:47	21	Vulpecula: Dumbbell Nebula
Primary Focus	Nebula	PN	NGC-6852	08:42 – 01:05	10:48	21	Aquila: PK 42-14.1 Small PN
Primary Focus	Nebula	Nebula	NGC-6888	08:42 – 02:43	11:00	22	Cygnus: Crescent Nebula
Primary Focus	Nebula	Nebula	DWB-111	08:42 – 01:58	11:03	22	Cygnus: Propeller Nebula



## Prospective Imaging Objects – August 16 2023

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Nebula	PN	NGC-6891	08:42 – 01:58	11:03	23	Delphinus: PK 54-12.1 Small PN
Primary Focus	Nebula	PN	NGC-6894	08:42 – 02:37	11:04	23	Cygnus: PK 69-2.1 Small PN
Primary Focus	Nebula	PN	IC-4997	08:42 – 02:14	11:08	23	Saitta: PK 58-10.1 Small PN
Primary Focus	Nebula	PN	NGC-6905	08:42 – 02:24	11:10	24	Delphinus: Blue Flash Nebula Small PN
Primary Focus	Nebula	Nebula	NGC-6914 Reg	08:42 – 02:59	11:12	25	Cygnus: NGC-6914 Region
Primary Focus	Nebula	Nebula	IC-1318	08:42 – 02:58	11:13	26	Cygnus: Butterfly Nebula
Primary Focus	Nebula	PN	NGC-7008	08:42 – 03:38	11:48	31	Cygnus: Fetus Nebula Med PN
Primary Focus	Nebula	Nebula	NGC-7023	08:42 – 03:11	11:49	32	Cepheus: Iris Nebula
Primary Focus	Nebula	PN	NGC-7009	*10:11-01:25	11:29	32	Aquarius: Saturn Nebula
Primary Focus	Nebula	PN	NGC-7026	08:42 – 03:44	11:54	32	Cygnus: Small Planetary Nebula
Primary Focus	Nebula	PN	NGC-7027	08:42 – 03:41	11:54	33	Cygnus: Small Planetary Nebula
Primary Focus	Nebula	PN	NGC-7048	08:12 – 03:51	12:02	33	Cygnus: Small PN PK 88-1.1
Primary Focus	Nebula	DN & BN	IC-1396-1	08:39 – 04:14	12:26	35	Cepheus: Elephant Trunk Region of Interest
Primary Focus	Nebula	Nebula	IC-1396-2	08:39 – 04:14	12:26	36	Cepheus: Elephant Trunk Region of Interest
Primary Focus	Nebula	Nebula	IC-1396-3	08:39 – 04:14	12:26	36	Cepheus: Elephant Trunk Region of Interest
Primary Focus	Nebula	PN	NGC-7139	08:56 – 04:11	12:33	37	Cepheus: Med Planetary Nebula
Primary Focus	Nebula	Nebula	IC-5146	08:51-04:20	12:41	38	Cygnus: Cocoon Nebula (IC-5146)
Primary Focus	Nebula	Nebula	SH2-132	09:17 – 04:20	01:06	40	Cepheus: Bright Nebula
Primary Focus	Nebula	PN	NGC-7293	*11:23-03:00	01:17	40	Aquarius: Helix Nebula
Primary Focus	Nebula	Nebula	SH2-142	09:45 – 04:20	01:32	42	Cepheus: Wizard Nebula
Primary Focus	Nebula	Nebula	SH2-155	10:04 – 04:20	01:44	43	Cepheus: Cave Nebula
Primary Focus	Nebula	Nebula	NGC-7635	10:24 – 04:20	02:07	44	Cepheus: Bubble Nebula
Primary Focus	Nebula	Nebula	NGC-7822	11:24 – 04:20	02:49	47	Cepheus: Emission Nebula
Primary Focus	Nebula	PN	NGC-40	12:08 - 04:20	03:00	47	Cepheus: Bow-Tie Nebula
Primary Focus	Nebula	PN	NGC-246	*01:23-04:20	03:34	51	Cetus: Skull Nebula
Primary Focus	Nebula	Nebula	IC-59	12:01 – 04:20	03:44	54	Cassiopeia: Reflection Nebula
Primary Focus	Nebula	Nebula	SH2-188	12:30 – 04:20	04:17	56	Cassiopeia: Firefox Nebula
Primary Focus	Nebula						

# Prospective Imaging Objects – August 16 2023

## Imaging Summary August 16, 2023

Astronomical Dusk = 08:42

Astronomical Dawn = 04:20

### Primary Focus: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	OC	M-7	*08:42-09:49	08:42	02	Scorpius: Ptolemy Cluster
Primary Focus	Broad Spectrum	OC	M-23	*08:42-11:23	08:45	02	Sagittarius: Open Cluster M-23 (NGC-6494)
Primary Focus	Broad Spectrum	OC	M-21	*08:42-11:07	08:52	04	Sagittarius: Open Culster NGC-6531
Primary Focus	Broad Spectrum	Dark Neb	B-93	*08:42-11:12	09:05	06	Sagittarius: LDN-327
Primary Focus	Broad Spectrum	OC	M-18	*08:41-11:23	09:08	08	Sagittarius: Black Swan (NGC-6613)
Primary Focus	Broad Spectrum	GC	M-28	*08:42-11:12	09:12	09	Sagittarius: Globular Cluster NGC-6626
Primary Focus	Broad Spectrum	OC	NGC-6633	08:42 – 11:51	09:15	10	Ophiuchus: Open Cluster NGC-6633
Primary Focus	Broad Spectrum	GC	M-69	*08:42-11:01	09:19	10	Sagittarius: Med Globular Cluster
Primary Focus	Broad Spectrum	OC	M-25	*08:42-11:23	09:19	10	Sagittarius: Open Cluster
Primary Focus	Broad Spectrum	GC	M-22	*08:42-10:39	09:24	11	Sagittarius: Med Globular Cluster NGC-6656
Primary Focus	Broad Spectrum	GC	M-70	*08:42-11:07	09:31	11	Sagittarius: Small Globular Custer NGC-6681
Primary Focus	Broad Spectrum	OC	M-26	*08:42-11:57	09:33	11	Sagittarius: Open Cluster NGC-6694
Primary Focus	Broad Spectrum	Dark Neb	B-104	*08:42-11:51	09:35	12	Scutum: Check Mark D Nebula LDN-532
Primary Focus	Broad Spectrum	OC	M-11	*08:42-11:46	09:39	12	Scutum: Wild Duck Cluster
Primary Focus	Broad Spectrum	GC	M-54	*08:42-11:40	09:43	13	Sagittarius: Small Globular Cluster NGC-65715
Primary Focus	Broad Spectrum	GC	M-56	08:42 – 01:37	10:04	15	Lyra: Med Globular NGC-6779
Primary Focus	Broad Spectrum	GC	M-55	*09:38-11:18	10:28	17	Sagittarius: Large Globular
Primary Focus	Broad Spectrum	Galaxy	NGC-6822	*08:42-01:03	10:32	19	Sagittarius: Barnard's Galaxy
Primary Focus	Broad Spectrum	GC	M-71	08:42 – 01:52	10:41	19	Sagitta: Med Globular NGC-6838
Primary Focus	Broad Spectrum	GC	M-75	*09:16-12:30	10:54	22	Sagittarius: Small GC NGC-6864
Primary Focus	Broad Spectrum	OC	M-29	08:42 – 02:55	11:12	24	Cygnus: Cooling Tower, Open Cluster NGC-6913
Primary Focus	Broad Spectrum	Galaxy	NGC-6946	08:42 – 03:07	11:22	27	Cepheus: Fireworks Galaxy
Primary Focus	Broad Spectrum	GC	M-72	*09:00-02:21	11:41	30	Aquarius: NGC-6981 Small Globular



## Prospective Imaging Objects – August 16 2023

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	OC	M-73	*09:38-01:53	11:46	31	Aquarius: NGC-6994 Small Open Cluster
Primary Focus	Broad Spectrum	GC	M-15	09:23 – 03:11	12:17	33	Cepheus: Pegasus Cluster Small Globular Cluster
Primary Focus	Broad Spectrum	GC	M-2	09:23 – 03:11	12:17	34	Aquarius: Med-Large Globular NGC-7089
Primary Focus	Broad Spectrum	GC	M-30	*10:11-01:53	12:28	36	Capricornus: Small-Med Globular NGC-7099
Primary Focus	Broad Spectrum	Galaxies	NGC-7317	09:45 – 04:20	01:23	41	Pegasus: Stephan's Quintet
Primary Focus	Broad Spectrum	Galaxies	NGC-7331	09:45 – 04:20	01:24	41	Pegasus: Galaxy Group NGC-7331
Primary Focus	Broad Spectrum	Galaxy	NGC-7479	10:57 – 04:20	01:52	43	Pegasus: Galaxy PGC-70419
Primary Focus	Broad Spectrum	OC	M-52	10:29 – 04:20	02:12	45	Cassiopeia: Open Cluster NGC-7654
Primary Focus	Broad Spectrum	OC	NGC-7789	10:56 - 04:20	02:44	45	Cassiopeia: Caroline's Rose
Primary Focus	Broad Spectrum	Galaxies	NGC 67-72 et. El.	11:32 – 04:20	03:05	48	Andromeda: Andromeda Galaxy Group
Primary Focus	Broad Spectrum	Galaxy	NGC-147	11:30 – 04:20	03:20	49	Cassiopeia: Med Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-185	11:30 – 04:20	03:20	49	Cassiopeia: Sm Elipical Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-110	11:41 – 04:20	03:27	49	Andromeda: Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-32	11:44 – 04:20	03:29	50	Andromeda: Companion to M-31
Primary Focus	Broad Spectrum	Galaxy	NGC-247	*01:39-04:20	03:34	51	Cetus: Needle's Eye Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-253	*01:50-04:20	03:39	52	Sculptor: Sculptor Galaxy
Primary Focus	Broad Spectrum	Globular	NGC-288	*01:50-04:20	03:39	52	Sculptor: Med-Large Globular
Primary Focus	Broad Spectrum	Galaxy	IC-1613	01:33 – 04:20	03:51	54	Cetus: Irregular Dwarf Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-404	12:16-04:20	03:56	54	Andromeda: Mirachs Ghost
Primary Focus	Broad Spectrum	OC	NGC-457	12:19 – 04:20	04:06	55	Cassiopeia: Owl Cluster
Primary Focus	Broad Spectrum	Galaxies	Arp-133	02:11 – 04:20	04:12	55	Cetus: Minkowski's Object
Primary Focus	Broad Spectrum	OC	M-103	12:36 – 04:20	04:20	56	Cassiopeia: Open Cluster
Primary Focus	Broad Spectrum	Galaxy	M-33	12:47 – 04:20	04:20	57	Triangulum: Triangulum Galaxy
Primary Focus	Broad Spectrum						

# Prospective Imaging Objects – August 16 2023

## Imaging Summary August 16, 2023

Astronomical Dusk = 08:42

Astronomical Dawn = 04:20

### Primary Prospects

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
	HyperStar	Broad Spectrum	DN	IC-1283 Region	*08:42-11:01	09:05	06	Sagittarius: Dark Nebula
	HyperStar	Nebula	Nebula	B-144	08:42 – 02:26	10:46	20	Cygnus: Fish on the Platter
HS1a	HyperStar	Nebula	Nebula	NGC-6914 Region	08:42 – 02:59	11:12	24	Composite2 Cygnus: NGC-6914 Region
	HyperStar	Nebula	Nebula	NGC-6914 Region	08:42 – 02:59	11:12	25	Cygnus: NGC-6914 Region
	HyperStar	Nebula	Nebula	IC-1318	08:42 – 02:58	11:13	26	Cygnus: Butterfly Nebula
HS 2a	HyperStar	Nebula	Nebula	NGC-6960	08:42 – 03:15	11:40	28	Composite2 Cygnus: Veil Nebula
1,2 b	HyperStar	Nebula	Nebula, DN	B-168, IC-5146	08:51 – 04:20	12:41	37	Cygnus: Dark Cocoon
HS3	HyperStar	Nebula	Nebula	SH2-132	09:17 – 04:20	01:06	39	Cepheus: Bright Nebula
	HyperStar	Nebula	Nebula	IC-59,63	12:01 – 04:20	03:44	53	Cassiopeia: Bright Nebula
	HyperStar	Broad Spectrum	Galaxy	M-33	12:47 – 04:20	04:20	56	Triangulum: Triangulum Galaxy
	Focal Reducer	Nebula	Nebula	M-20	*08:42-11:07	08:51	03	Sagittarius: Trifid Nebula
	Focal Reducer	Nebula	Nebula	M-8	*08:42-10:56	08:52	04	Sagittarius: Lagoon Nebula
	Focal Reducer	Nebula	Nebula	IC-4685	*08:42-11:07	08:58	05	Rotation Sagittarius: IC-4685
	Focal Reducer	Nebula	Nebula	M-17	*08:42-11:29	09:09	08	Sagittarius: Omega Nebula
	Focal Reducer	Broad Spectrum	DN	B-143	08:42 – 01:20	10:29	17	Aquila: Barnard's E
FR3a	Focal Reducer	Nebula	Nebula	NGC-6820	08:42 – 01:51	10:31	18	Vulpecula: Open Cluster & Nebula
	Focal Reducer	Nebula	Nebula	SH2-101	08:42 – 02:26	10:46	20	Cygnus: Tulip Nebula
	Focal Reducer	Nebula	Nebula	NGC-6914 Region	08:42 – 02:59	11:12	25	Cygnus: NGC-6914 Region
	Focal Reducer	Nebula	Nebula	NGC-6992	08:42 – 03:19	11:44	30	Composite2 Cygnus: Network Nebula
FR1	Focal Reducer	Nebula	Nebula	IC-1396	08:39 – 04:14	12:26	35	Cepheus: Elephant Trunk ROI
	Focal Reducer	Nebula	Nebula, DN	IC-5146	08:51 – 04:20	12:41	37	Cygnus: Dark Cocoon



# Prospective Imaging Objects – August 16 2023

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
FR2	Focal Reducer	Nebula	Nebula	SH2-132	09:17 – 04:20	01:06	39	Cepheus: Bright Nebula
	Focal Reducer	Broad Spectrum	Galaxies	NGC-7331 et. El.	09:45 – 04:20	01:23	40	Pegasus: Stephan's Quintet & NGC-7331
	Focal Reducer	Nebula	Nebula	SH2-142	09:45 – 04:20	01:32	41	Cepheus: Wizard Nebula
FR3b	Focal Reducer	Nebula	Nebula	Sh2-155	10:04 – 04:20	01:44	42	Cepheus: Cave Nebula
	Focal Reducer	Broad Spectrum	Galaxies	NGC-7619	11:26 – 04:20	02:07	44	Pegasus: Pegasus Cluster of Galaxies
	Focal Reducer	Broad Spectrum	Galaxy	M-33	12:47 – 04:20	04:20	56	Rotation Triangulum: Triangulum Galaxy
	Primary Focus	Broad Spectrum	GC	M-28	*08:42-11:12	09:12	09	Sagittarius: Med Globular NGC-6626
	Primary Focus	Broad Spectrum	GC	M-69	*08:442-11:01	09:19	10	Sagittarius: Sm Globular Cluster NGC-6637
	Primary Focus	Broad Spectrum	GC	M-70	*08:42-11:07	09:31	11	Sagittarius: Sm Globular Cluster NGC-6681
	Primary Focus	Broad Spectrum	GC	M-56	08:42 – 01:37	10:04	15	Lyra: Sm/Med Globular NGC-6779
GC1a	Primary Focus	Broad Spectrum	GC	M-55	*09:38-11:18	10:28	17	Sagittarius: Large GC NGC-6809
	Primary Focus	Broad Spectrum	GC	M-71	08:42 – 01:52	10:41	19	Sagitta: Sm Globular NGC-6838
	Primary Focus	Broad Spectrum	GC	M-75	*09:16-12:30	10:54	22	Sagittarius: Sm Globular NGC-6864
	Primary Focus	Broad Spectrum	GC	M-72	*09:00-02:21	11:41	30	Aquarius: Sm Globular NGC-6981
GC1b	Primary Focus	Broad Spectrum	GC	M-2	09:23 – 03:11	12:17	34	Aquarius: Large Globular
	Primary Focus	Broad Spectrum	GC	M-30	*10:11-01:53	12:28	36	Capricornus: Med Globular
GC1c	Primary Focus	Broad Spectrum	GC	NGC-288	*01:50-04:20	03:39	52	Sculptor: Med/Large Globular
	Primary Focus	Nebula	PN	NGC-6629	08:42 – 11:23	09:13	09	Sagittarius: Small Planetary
	Primary Focus	Nebula	PN	IC-4776	*08:42-10:56	09:34	12	Sagittarius: Small Planetary
	Primary Focus	Nebula	PN	NGC-6742	08:42 – 01:37	09:47	13	Draco: Abell 50 Small Planetary
	Primary Focus	Nebula	PN	NGC-6751	*08:42-12:02	09:54	14	Aquila: Small Planetary
	Primary Focus	Nebula	PN	<b>NGC-6772</b>	*08:42-12:30	10:02	14	Aquila: Med Planetary Nebula
	Primary Focus	Nebula	PN	NGC-6778	08:42 – 12:06	10:06	15	Aquila: Small Planetary
	Primary Focus	Nebula	PN	<b>NCC-6781</b>	08:42 – 12:42	10:06	15	Aquila: Med Planetary
	Primary Focus	Nebula	PN	NGC-6826	08:42 – 02:23	10:32	16	Aquila: Small Planetary
	Primary Focus	Nebula	PN	NGC-6818	*08:42-12:31	10:31	17	Sagittarius: Small Planetary

# Prospective Imaging Objects – August 16 2023

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
	Primary Focus	Nebula	PN	NGC-6826	08:42 – 02:23	10:32	19	Cygnus: Small Planetary
PN1a	Primary Focus	Nebula	PN	<b>NGC-6842</b>	08:42 – 02:14	10:43	20	Vulpecula: Small PN
	Primary Focus	Nebula	PN	NGC-6852	08:42 – 01:05	10:48	21	Aquila: Small Planetary
PN2a	Primary Focus	Nebula	PN	<b>NGC-6994</b>	08:42 – 02:37	11:04	23	Cygnus: Small Planetary
	Primary Focus	Nebula	PN	NGC-6905	08:42 – 02:24	11:10	24	Delphinus: Blue Flash Nebula, Small PN
	Primary Focus	Nebula	PN	NGC-7009	*10:11-01:25	11:29	32	Aquarius: Saturn Nebula, Small PN
PN1b	Primary Focus	Nebula	PN	<b>NGC-7048</b>	08:12 – 03:51	12:02	33	Cygnus: Sm-med PN
	Primary Focus	Nebula	PN	NGC-40	12:08 – 04:20	03:00	47	Cepheus: Bow-Tie Nebula
PN2b	Primary Focus	Nebula	PN	<b>NGC-246</b>	*01:23 – 04:20	03:34	51	Cetus: Skull Nebula
	Primary Focus	Broad Spectrum	DN	LDN-327	*08:42-11:12	09:05	06	Sagittarius: Man and Jellyfish
	Primary Focus	Nebula	Nebula	IC-1283	*08:42-11:01	09:05	06	Sagittarius: Nebula NGC-6589
	Primary Focus	Broad Spectrum	DN	B-104	*08:42-11:51	09:35	12	Scutum: Check Mark Nebula
	Primary Focus	Nebula	Nebula	NGC-6820	08:42 – 01:51	10:31	18	Vulpecula: Nebula
	Primary Focus	Broad Spectrum	Galaxy	NGC-6822	*08:42-01:03	10:32	19	Sagittarius: Barnard's Galaxy
	Primary Focus	Nebula	Nebula	SH2-101	08:42 – 02:26	10:46	20	Cygnus: Tulip Nebula
PF1a	Primary Focus	Nebula	Nebula	NGC-6888	08:42 – 02:43	11:00	22	Cygnus: Crescent Nebula
	Primary Focus	Nebula	Nebula	NGC-6914	08:42 – 02:59	11:12	25	Cygnus: Nebula ROI
	Primary Focus	Broad Spectrum	Galaxy	NGC-6946	08:42 – 03:07	11:22	27	Cepheus: Fireworks Galaxy
	Primary Focus	Nebula	DN	IC-1396	08:39 – 04:14	12:26	35	Cepheus: Elephant Trunk ROI
	Primary Focus	Nebula	Nebula	SH2-132	09:17 – 04:20	01:06	40	Cepheus: Bright Nebula
	Primary Focus	Broad Spectrum	Galaxy	NGC 7331 Etl El.	09:45 – 04:20	01:23	41	Pegasus: Stephan's Quintet
	Primary Focus	Nebula	Nebula	SH2-155	10:04 – 04:20	01:44	43	Cepheus: Cave Nebula
	Primary Focus	Broad Spectrum	Galaxies	NGC 67-72	11:32 – 04:20	03:05	48	Andromeda: Andromeda Galaxy Group
PF1b	Primary Focus	Nebula	Nebula	IC-59, 63	12:01 – 04:20	03:44	54	Cassiopeia: Bright Nebula
	Primary Focus	Broad Spectrum	Galaxy	IC-1613	01:33 – 04:20	03:51	54	Cetus: Irregular Dwarf Galaxy
	Primary Focus	Broad Spectrum	Galaxies	Arp-133	02:11 – 04:20	04:12	55	Cetus: Minkowski's Object
	Primary Focus	Nebula	Nebula	SH2-188	12:30 – 04:20	04:17	56	Cassiopeia: Firefox Nebula



# Prospective Imaging Objects – August 16 2023

## Imaging Summary August 16, 2023

Astronomical Dusk = 08:42

Astronomical Dawn = 04:20

### Imaging Plans

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Imaging Schedule
HS1a	HyperStar	Nebula	Nebula	NGC-6914 Region	08:42 – 02:59	11:12	24	Composite2! 08:42 – 02:00
HS1b	HyperStar	Nebula	Nebula	B-168, IC-5146	08:51 – 04:20	12:41	37	02:00 – 04:20
HS2a	HyperStar	Nebula	Nebula	NGC-6960	08:42 – 03:15	11:40	28	Composite2! 08:42 – 02:00
HS2b	HyperStar	Nebula	Nebula	B-168, IC-5146	08:51 – 04:20	12:41	37	02:00 – 04:20
HS3	HyperStar	Nebula	Nebula	SH2-132	09:17 – 04:20	01:06	39	Cepheus: Bright Nebula
FR1	Focal Reducer	Nebula	Nebula	IC-1396	08:39 – 04:14	12:26	35	All Night
FR2	Focal Reducer	Nebula	Nebula	SH2-132	09:17 – 04:20	01:06	39	All Night
FR3a	Focal Reducer	Nebula	Nebula	NGC-6820	08:42 – 01:51	10:31	18	08:42 – 01:00
FR3b	Focal Reducer	Nebula	Nebula	SH2-155	10:04 – 04:20	01:44	42	01:00 – 04:20
GC1a	Primary Focus	Broad Spectrum	GC	M-55	*09:38-11:18	10:28	17	09:42 – 11:30
GC1b	Primary Focus	Broad Spectrum	GC	M-2	09:23 – 03:11	12:17	34	11:30 – 02:00
GC1c	Primary Focus	Broad Spectrum	GC	NGC-288	*01:50-04:20	03:39	52	02:00 – 04:20
PN1a	Primary Focus	Nebula	PN	NGC-6842	08:42 – 02:14	10:43	20	08:42 – 01:00
PN1b	Primary Focus	Nebula	PN	NGC-7048	08:12 – 03:51	12:02	33	01:00 – 04:20
PN2a	Primary Focus	Nebula	PN	NGC-6994	08:42 – 02:37	11:04	23	08:42 – 01:00
PN2b	Primary Focus	Nebula	PN	NGC-7048	08:12 – 03:51	12:02	33	01:00 – 04:20
	Primary Focus	Nebula	Nebula	NGC-6888	08:42 – 02:43	11:00	22	08:42 – 01:00
	Primary Focus	Nebula	Nebula	IC-59, 63	12:01 – 04:20	03:44	54	01:00 – 04:20

# Prospective Imaging Objects – August 16 2023