

# Prospective Imaging Objects – September 16 2023

## Astronomical Data

Sunrise	Sunset	Astronomical Dusk	Astronomical Dawn	Imaging	New Moon
06:11am	06:32 pm	07:55 pm	04:48 am	07:53	Sep 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.

# Prospective Imaging Objects – September 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>07:55 – 11:01</b> Transit: <b>07:56   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>07:55 – 11:23</b> Transit: <b>08:04   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>07:55 – 10:15</b> Transit: <b>08:06   57°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 



# Prospective Imaging Objects – September 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>07:55 – 11:39</b> Transit: <b>08:06   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>07:55 – 10:08</b> Transit: <b>08:08   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>07:55 – 10:44</b> Transit: <b>08:08   63°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 

# Prospective Imaging Objects – September 16 2023


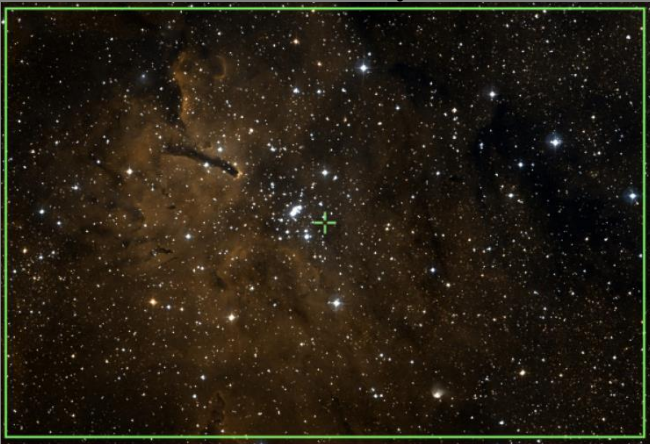

<p><b>LDN-673</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Dark Nebula</b></p> <p>Constellation: <b>Aquila</b>            Coordinates:  <b>19h 18' 14"</b>  <b>11° 15' 40"</b></p> <p>Close Star: SAO-125122 (Altair)            Catalog Objects: <a href="#">LDN-673</a>            Imaging Window: <b>07:55 – 11:02</b>            Transit: <b>08:11   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>07:55 – 11:35</b>            Transit: <b>08:15   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  <small>[RA = 19h 26m 46s, DEC = 23deg 08' 59"] Size = 3.92 x 2.14 deg (Observation: 300deg E of N, FWHM scale = 2.28 arcsecond, F1-H4000)</small></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>07:55 – 12:25</b>            Transit: <b>08:34   66°</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 31' 35", DEC 09° 13' 33" - 0.28"/px</p>



# Prospective Imaging Objects – September 16 2023

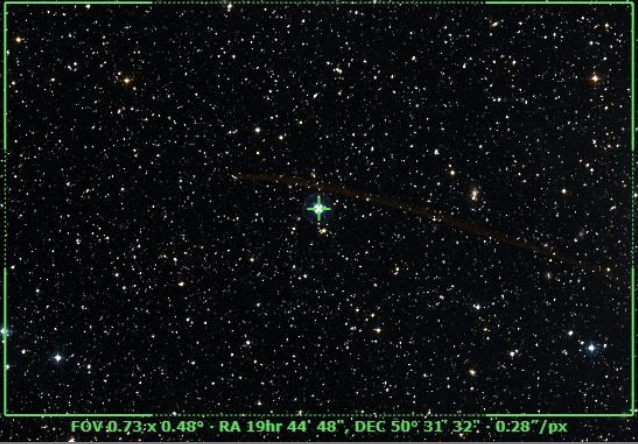


<p><b>M-55</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Globular Cluster</b></p> <p>Constellation: <b>Sagittarius</b> Coordinates: <b>19h 39' 59"</b> <b>-30° 57' 42"</b></p> <p>Close Star: <b>SAO-191524</b> (Formalhaut) Catalog Objects: <a href="#">M-55</a>/NGC-6809 Imaging Window: *<b>07:55 – 10:28</b> Transit: <b>08:30</b>   <b>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>07:55 – 11:22</b> Transit: <b>08:31</b>   <b>67°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> 
<p><b>NGC-6820 (LDN-772)</b> Config: <b>C11-HD</b>   <b>HS</b>   <b>ZWO6200MC</b></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: <b>SAO-125122</b> (Altair) Catalog Objects: <a href="#">NGC-6820</a> Imaging Window: <b>07:55 – 12:25</b> Transit: <b>08:34</b>   <b>80°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 

# Prospective Imaging Objects – September 16 2023

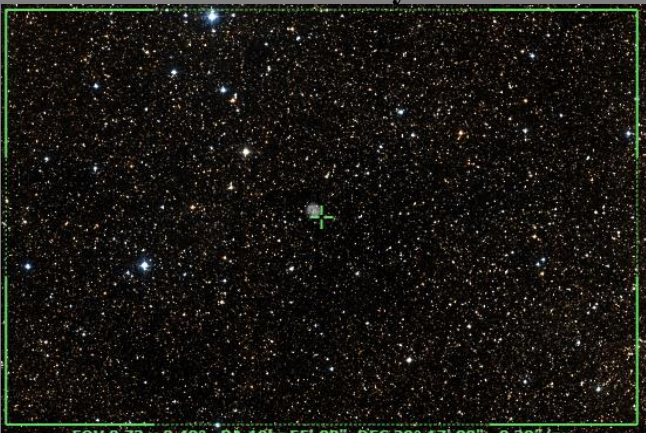
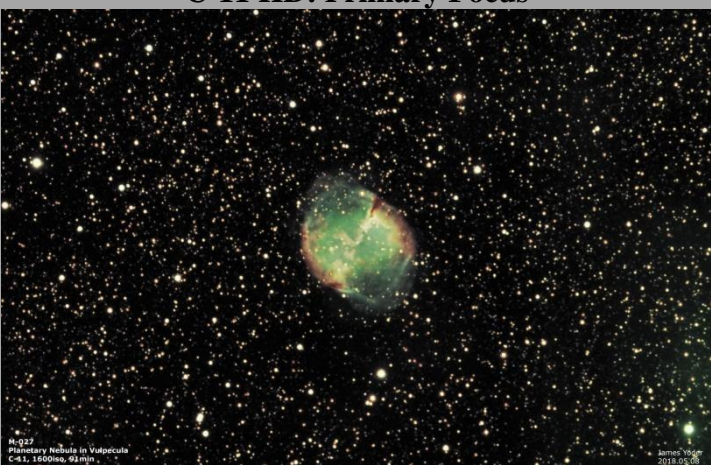
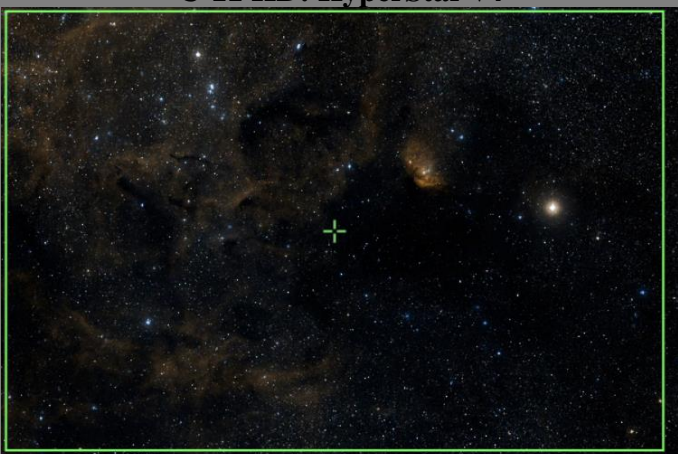
<p><b>NGC-6820</b> (LDN-772)            Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Open Cluster &amp; Nebula</b></p> <p>Constellation: <b>Vulpecula</b>            Coordinates:  <b>19h 42' 56"</b>  <b>23° 18' 43"</b></p> <p>Close Star: <b>SAO-125122</b> (Altair)            Catalog Objects: <a href="#">NGC-6820</a>            Imaging Window: <b>07:55 – 12:25</b>            Transit: <b>08:34   80°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> 
<p><b>NGC-6820</b> (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: <b>SAO-125122</b> (Altair)            Catalog Objects: <a href="#">NGC-6820</a>            Imaging Window: <b>07:55 – 12:25</b>            Transit: <b>08:34   80°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Little Gem</b> (NGC-6818)            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>/<sub>PK 25-17.1</sub>            Imaging Window: <b>*07:55 – 11:07</b>            Transit: <b>08:34   43°</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 43' 58", DEC -14° 09' 09" · 0.28"/px</p>



# Prospective Imaging Objects – September 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>07:55 – 12:25</b> Transit: <b>08:34   73°</b></p>	<p><b>C-11 HD: Primary Focus</b></p>  <p>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>*07:55 – 11:01</b> Transit: <b>08:35   42°</b></p>	<p><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>07:55 – 11:54</b> Transit: <b>08:43   75°</b></p>	<p><b>C-11 HD: Primary Focus</b></p> 

# Prospective Imaging Objects – September 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: <b>SAO-68637</b> (12 Cyg)            Catalog Objects: <a href="#">NGC-6842</a>/PK 65+0.1            Imaging Window: <b>07:55– 12:16</b>            Transit: <b>08:45   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>Dumbbell Nebula</b> (M-27, NGC-6853)            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</b> (Altair)            Catalog Objects: <a href="#">M-27</a>/NGC-6853            Imaging Window: <b>07:55 – 12:09</b>            Transit: <b>08:49   79°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: left; font-size: x-small;">M-27 Planetary Nebula in Vulpecula C-11 1600nm, 60min</p> <p style="text-align: right; font-size: x-small;">James Webb 2018 02 08</p>
<p><b>Fish on the Platter</b> (B-144)            Config: C11-HD   HS    <b>ZWO6200MC</b></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: <b>SAO-125122</b> (Altair)            Catalog Objects: <a href="#">B-144</a>, SH2-101            Imaging Window: <b>07:55 – 12:28</b>            Transit: <b>08:49   89°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 



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<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: <b>SAO-125122</b> (Altair)            Catalog Objects: <a href="#">SH2-101</a>            Imaging Window: <b>07:55 – 12:28</b>            Transit: <b>08:49   89°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> 
<p><b>Tulip Nebula</b> (SH2-101)            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</b> (Altair)            Catalog Objects: <a href="#">B-144</a>            Imaging Window: <b>07:55 – 12:28</b>            Transit: <b>08:49   89°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>NGC-6852</b> (PK 42-14.1)            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</b> (65 Aql)            Catalog Objects: <a href="#">NGC-6852</a>/PK 42-14.1            Imaging Window: <b>07:55 – 11:07</b>            Transit: <b>08:50   58°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 

# Prospective Imaging Objects – September 16 2023



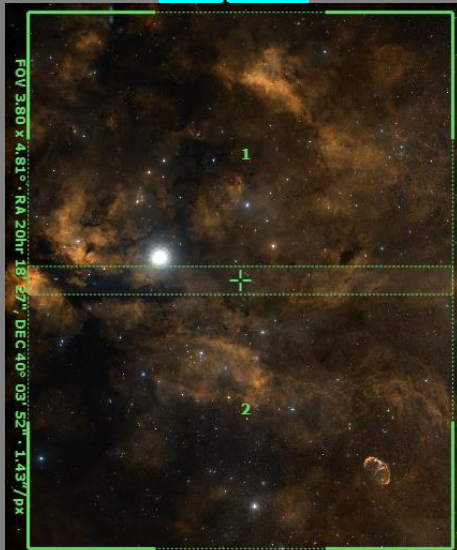
<p><b>M-75 (NGC-6864)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Globular Cluster</b></p> <p>Constellation: <b>Sagittarius</b> Coordinates: <b>20h 06' 05"</b> <b>-21° 55' 15"</b></p> <p>Close Star: <b>SAO-191524</b> (Formalhaut) Catalog Objects: <a href="#">M-75/NGC-6864</a> Imaging Window: *<b>07:55 – 10:34</b> Transit: <b>08:56   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>07:55 – 12:45</b> Transit: <b>09:02   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>07:55 – 12:50</b> Transit: <b>09:03   79°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small;">Propeller Nebula (DWB 111) Constellation: Cygnus the Swan</p> <p style="font-size: x-small; text-align: right;">Image Size: 2048x2112 Equipment: C11   Starizona LP Corrector   Astrocam 6.3x4.5   QHY170M Exposure Info: 230x10min   Gain: 3000   Offset: 100</p>



# Prospective Imaging Objects – September 16 2023

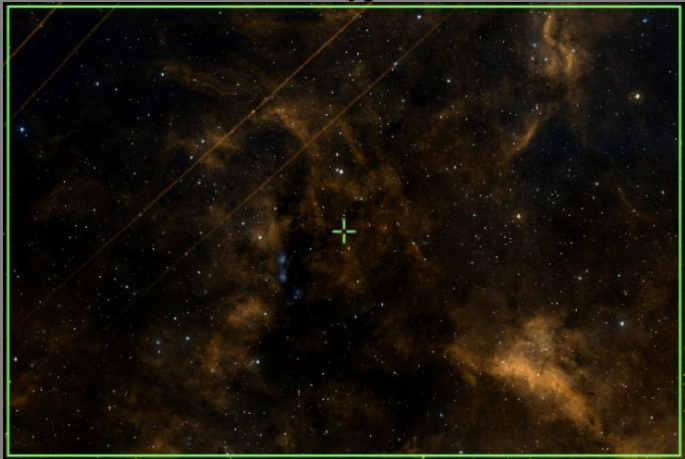


<p><b>NGC 6891</b> (PK 54-12.1) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Delphinus</b> Coordinates: <b>20h 15' 09"</b> <b>12° 42' 17"</b></p> <p>Close Star: <b>SAO-106230</b> (2 Del) Catalog Objects: <a href="#">NGC-6991</a> Imaging Window: <b>07:55 – 12:00</b> Transit: <b>09:05   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>07:55 – 12:39</b> Transit: <b>09:06   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>07:55 – 12:16</b> Transit: <b>09:10   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 – September 16 2023

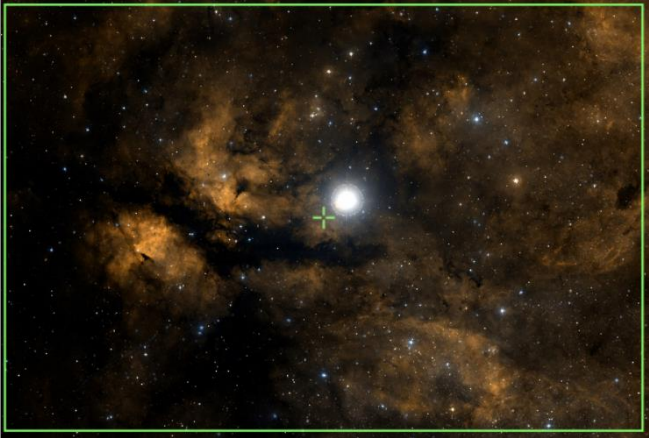
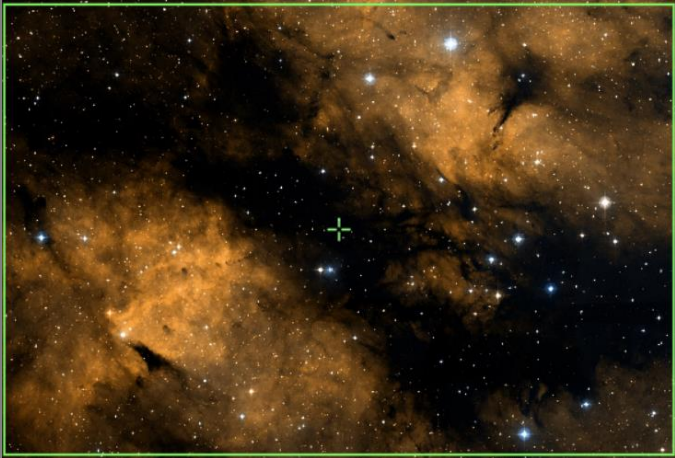

<p><b>Blue Flash Nebula</b> (NGC-6905) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Delphinus</b> Coordinates: <b>20h 22' 24"</b> <b>20° 06' 18"</b></p> <p>Close Star: <b>SAO-108378</b> (Markab) Catalog Objects: <a href="#">NGC-6905</a> Imaging Window: <b>07:55 – 12:26</b> Transit: <b>09:12   77°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small; text-align: center;">Blue Flash Nebula (NGC-6905) Constellation: Delphinus Coordinates: 20h 22m 24s RA, 20° 06' 18" DEC Imaging Window: 07:55 - 12:26 Transit: 09:12   77°</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>07:55 – 12:57</b> Transit: <b>09:14   85°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<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: 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>07:55 – 01:01</b> Transit: <b>09:14   81°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4 Composite!</b></p>  <p style="font-size: x-small; text-align: left; margin-left: 10px;">FOV 3.80 x 4.81° RA: 20h 18' 27" DEC: 41° 12' 10" RA: 20h 18' 38" DEC: 38° 55' 33" 1.43"/px</p>



# Prospective Imaging Objects – September 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>07:55 – 01:01</b> Transit: <b>09:14   81°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>  <p>This image shows the NGC-6914 region in Cygnus, captured with the HyperStar v4 filter. The nebula appears as a complex, multi-colored structure with prominent orange and red filaments and some blue-green patches. A green crosshair marks the central star, SAO-49941 (Deneb). The background is filled with numerous stars of various colors.</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>07:55 – 01:01</b> Transit: <b>09:14   81°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p>  <p>This image shows the NGC-6914 region in Cygnus, captured with the Focal Reducer. The field of view is significantly wider than the HyperStar v4 image, showing a much larger area of the nebula and surrounding stars. The colors are similar, but the overall appearance is more diffuse and less detailed due to the wider field of view. A green crosshair marks the central star.</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>07:55 – 01:01</b> Transit: <b>09:14   81°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p>This image shows the NGC-6914 region in Cygnus, captured with the Primary Focus. The field of view is the narrowest of the three, providing the most detailed view of the nebula's structure. The colors are very vibrant, with clear orange, red, and blue-green features. A green crosshair marks the central star.</p>

# Prospective Imaging Objects – September 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>07:55 – 01:01</b>            Transit: <b>09:15   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>07:55 – 01:01</b>            Transit: <b>09:15   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>07:55 – 01:01</b>            Transit: <b>09:15   80°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small;">       Butterfly Nebula (IC-1318)        Constellation: Cygnus (The Swan)        RA = 20h 25m 39.57s DEC = +40deg 17' 41.47" Size = 43.3 x 28.5 arcmin. Observation: 0.131kg f of 71" (Focal ratio = 1:441) area (pixel) 11 x 270mm        Date: 2023-07-15 20:28:00.000 Filter: L-Red Filter: 62.7        Config: C-11 HD-Intermediate-C11-E130-081126        Exposure: 60s 200000000 Gain: 1000 -0850a: 100     </p>



# Prospective Imaging Objects – September 16 2023

## Fireworks Galaxy (NGC-6946)

Config: |C11HD|ZWO6200MC|

Type: **Galaxy**

Constellation: **Cepheus**

Coordinates:

**20° 34' 54"**

**60° 08' 60"**

Close Star: **SAO-19302** (Alderamin)

Catalog Objects: [NGC-6946](#)

Imaging Window: **07:55 – 01:09**

Transit: **09:24 | 63°**

## C-11 HD: Primary Focus



## Pelican & N. America Nebula (IC-5070)

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

Type: **Bright Nebula**

Constellation: **Cygnus**

Coordinates:

Frame 1:

RA=20hr56'10" DEC=44°55'07"

Frame 2:

RA=20hr56'10" DEC=42°37'57"

Close Star: **SAO-50180** (57 Cygni)

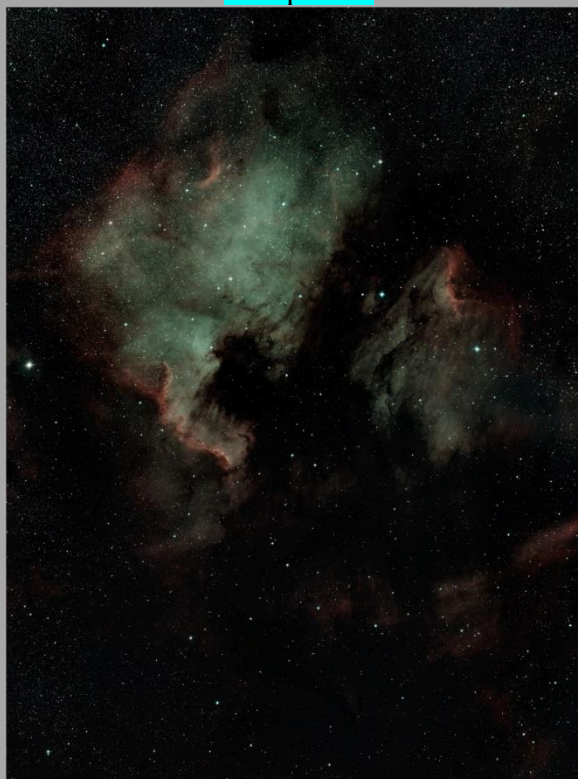
Catalog Objects: [IC5070](#)

Imaging Window: **07:55 – 01:29**

Transit: **09:40 | 79°**


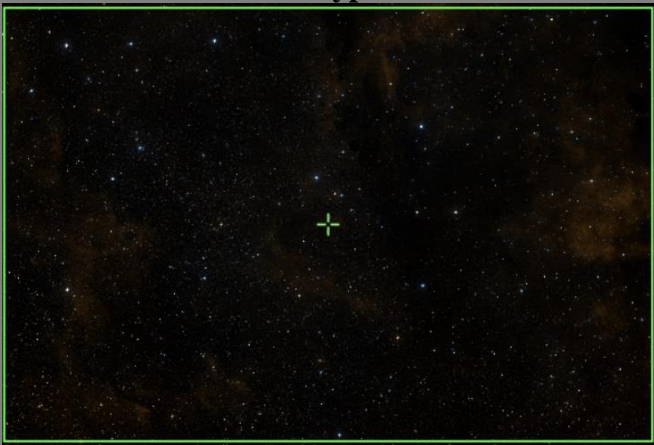
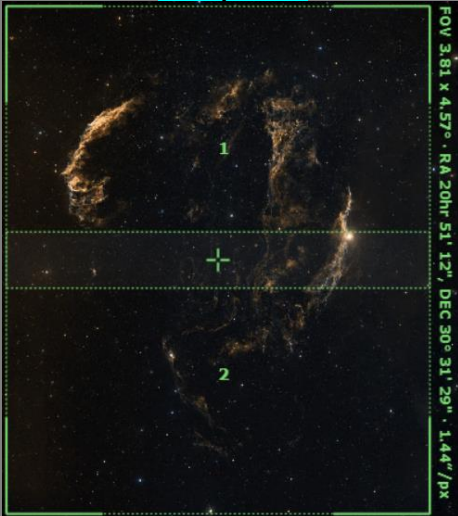
## C-11 HD: HyperStar v4

### Composite!



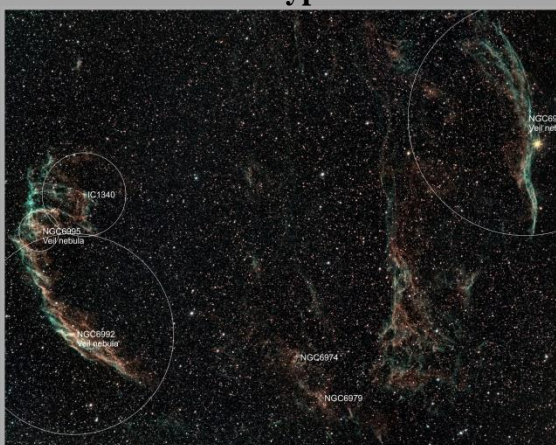
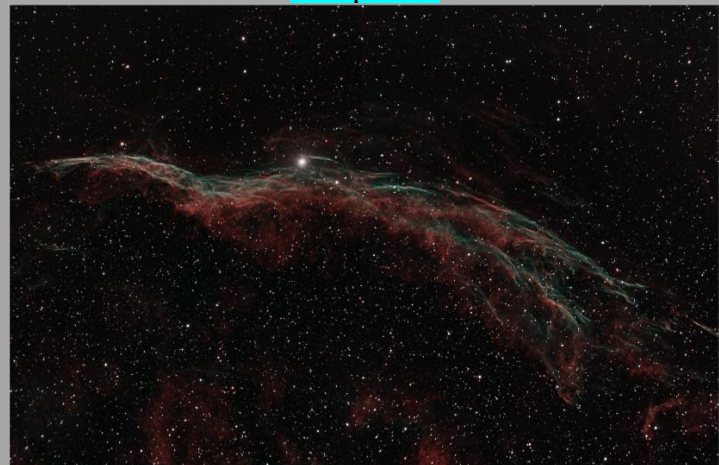
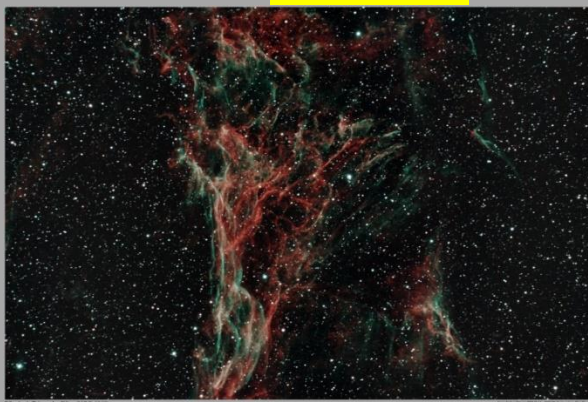
North America (NGC-7600) and Pelican (IC-5070) Nebula  
Constellation: Cygnus the Swan  
RA=20hr56'10" DEC=44°55'07" Size= 200 x 270 arcmin Orientation: 64deg E of N (Polar angle = 1.431 arcmin) (PA=150deg)  
Janus Yoder | Data 0 | 2023-08-28-2023-09-06 | Location: Chandler, AZ  
Config: |C-11HD|HyperStar V4|OPT Radian Triad Ultra|ZWO6200MC|  
Exposure Info: Mount: 001 # 121 Image/Session: Gain: 100 | Offset: 50

# Prospective Imaging Objects – September 16 2023


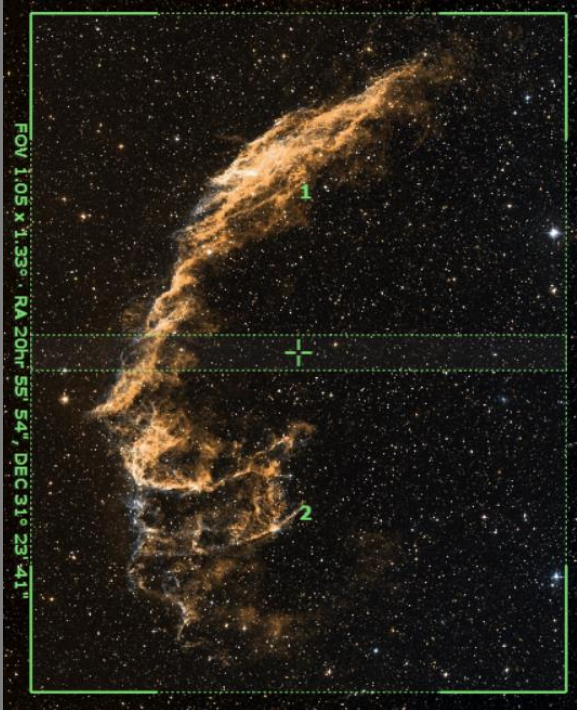
<p><b>Pelican &amp; N. America Nebula (IC-5070)</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:  <b>20h 57' 29"</b>  <b>44° 10' 10"</b></p> <p>Close Star: <b>SAO-50180</b> (57 Cygni)            Catalog Objects: <a href="#">IC5070</a>            Imaging Window: <b>07:55 – 01:29</b>            Transit: <b>09:40   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   QHY174C            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>07:55 – 01:27</b>            Transit: <b>09:42   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>07:55 – 01:17</b>            Transit: <b>09:42   80°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b>  <b>Composite!</b></p>  <p style="font-size: small; text-align: right;">FOV 3.81 x 4.57° RA 20h 51' 12" DEC 30° 31' 29" 1.44"/px</p>



# Prospective Imaging Objects – September 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>07:55 – 01:17</b>            Transit: <b>09:42   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: James Staudt            Copyright © Staudt, J.P. 2013-2020            Config: C11   HyperStar   Astrodon 1.1"   QHY 126C            Exposure: 100"   1100000000   Gain: 1200   Offset: 100</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>07:55 – 01:17</b>            Transit: <b>09:42   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: James Staudt            Copyright © Staudt, J.P. 2013-2020            Config: C11   HyperStar   Astrodon 1.1"   QHY 126C            Exposure: 100"   1100000000   Gain: 1200   Offset: 100</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>07:55 – 01:17</b>            Transit: <b>09:42   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: James Staudt            Copyright © Staudt, J.P. 2013-2020            Config: C11   HyperStar   Astrodon 1.1"   QHY 126C            Exposure: 100"   1100000000   Gain: 1200   Offset: 100</small> </p>

# Prospective Imaging Objects – September 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>*07:55 – 12:24</b>            Transit: <b>09:43   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>07:55 – 01:21</b>            Transit: <b>09:46   88°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer Composite!</b></p> 



# Prospective Imaging Objects – September 16 2023

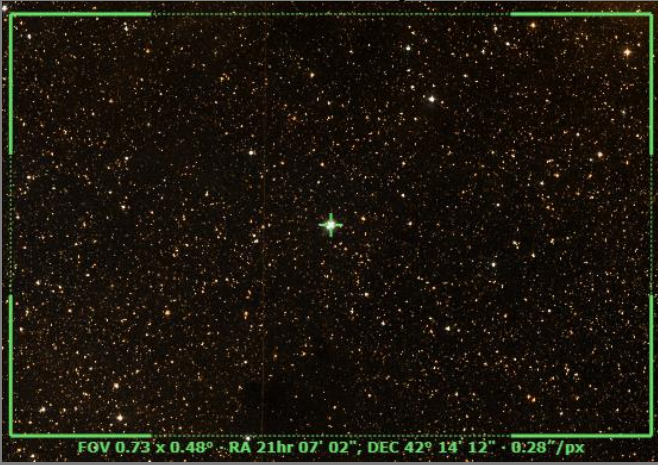


<p><b>M-73 (NGC-6994)</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Aquarius</b> Coordinates: <b>20h 59' 00"</b> <b>-12° 37' 60"</b></p> <p>Close Star: <b>SAO-108378</b> (Markab) Catalog Objects: <a href="#">M-73/NGC-6994</a> Imaging Window: <b>*07:55 – 12:30</b> Transit: <b>09:48   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>07:55 – 01:40</b> Transit: <b>09:50   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" (J2000.0) Observation: 3.3deg F. or 3x1 (Faint) (10/10/2023) Date/Time: Dec 02 2023 09:27:28 (UTC) - Chaska, MN Config:  C-11 HD: Kowa T-800  ZWO 6200MC   Exposure: 00:00:00 (00:00:00) (00:00:00)</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>07:55 – 01:13</b> Transit: <b>09:51   55°</b></p>	<p style="text-align: center;"><b>C-11 HD: <b>Focal Reducer</b></b></p> 

# Prospective Imaging Objects – September 16 2023


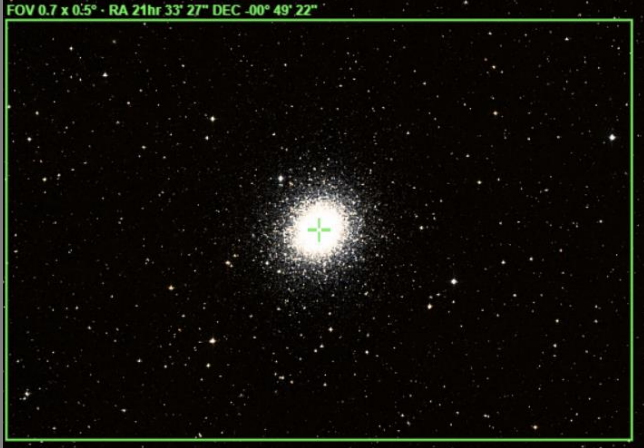

<p><b>Iris Nebula</b> (NGC 7023) Config:  C11HD ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cepheus</b> Coordinates: <b>21h 01' 36"</b> <b>68° 10' 00"</b></p> <p>Close Star: <b>SAO-19302</b> (Alderamin) Catalog Objects: <a href="#">NGC-7023</a> Imaging Window: <b>07:55 – 01:13</b> Transit: <b>09:51   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>*07:55 – 12:41</b> Transit: <b>09:54   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>07:55 – 01:46</b> Transit: <b>09:56   45°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 



# Prospective Imaging Objects – September 16 2023


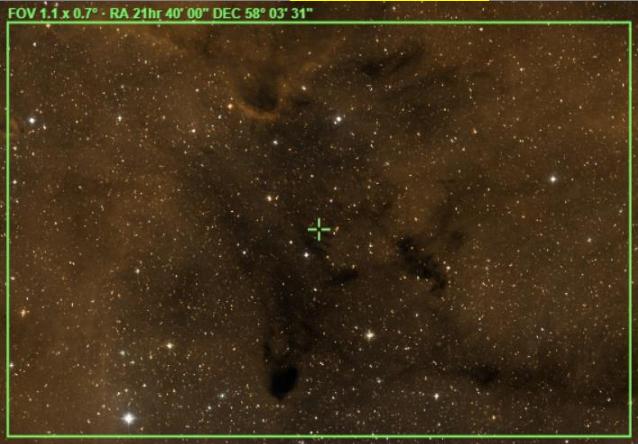

<p><b>NGC-7027</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Cygnus</b> Coordinates: <b>21h 07' 02"</b> <b>42° 14' 12"</b></p> <p>Close Star: <b>SAO-50456</b> Catalog Objects: <a href="#">NGC-7027</a> Imaging Window: <b>07:55 – 01:43</b> Transit: <b>09:56   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>07:55 – 01:53</b> Transit: <b>10:04   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>07:55 – 02:11</b> Transit: <b>10:21   69°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 

# Prospective Imaging Objects – September 16 2023

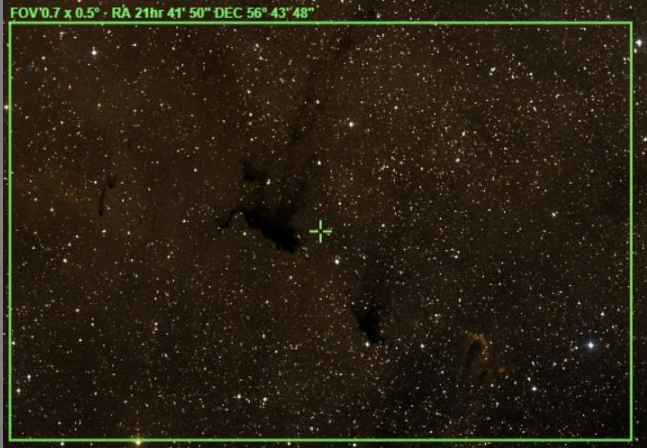


<p><b>M-39</b> (NGC-7092)            Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:  <b>21h 31' 56"</b>  <b>48° 26' 46"</b></p> <p>Close Star: <b>SAO-49941</b> (Deneb)            Catalog Objects: <a href="#">M-39/NGC-7092</a>            Imaging Window: <b>07:55 – 02:11</b>            Transit: <b>10:21   75°</b></p>	<p style="text-align: center;"><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>07:55 – 12:27</b>            Transit: <b>10:23   56°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>NGC-7094</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b></p> <p>Constellation: <b>Pegasus</b>            Coordinates:  <b>21h 36' 53"</b>  <b>12° 47' 22"</b></p> <p>Close Star: <b>SAO-127029</b> (Enif)            Catalog Objects: <a href="#">NGC-7094</a>            Imaging Window: <b>07:55 – 01:18</b>            Transit: <b>10:22   69°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 



# Prospective Imaging Objects – September 16 2023

<p><b>Elephant Trunk (IC-1396)</b>            Config: C11-HD   HS   ZWO6200MC</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</a>/Sh2-131            Imaging Window: <b>07:55 – 02:16</b>            Transit: <b>10:28   66°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>  <p style="font-size: small; text-align: center;">Elephant Trunk Nebula (IC-1396)            Constellation: Cepheus</p>
<p><b>Elephant Trunk (IC-1396)</b>            Config:  C11-HD  <b>FR</b>  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>07:55 – 02:16</b>            Transit: <b>10:28   66°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p>  <p style="font-size: small; text-align: center;">FOV 1.1 x 0.7" - RA 21hr 40' 00" DEC 58° 03' 31"</p>
<p><b>Elephant Trunk (IC-1396)</b>            Config:  C11-HD  <b>FR</b>  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>07:55 – 02:16</b>            Transit: <b>10:28   66°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p>  <p style="font-size: small; text-align: center;">FOV 1.1 x 0.7" - RA 21hr 34' 39" DEC 57° 29' 02"</p>

# Prospective Imaging Objects – September 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 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>07:55 – 02:16</b> Transit: <b>10:28   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 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>07:55 – 02:16</b> Transit: <b>10:28   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>07:55 – 02:16</b> Transit: <b>10:28   66°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 



# Prospective Imaging Objects – September 16 2023




<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/NGC-7099</a> Imaging Window: *<b>09:00 – 11:57</b> Transit: <b>10:30   34°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<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>07:55 – 02:13</b> Transit: <b>10:35   60°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small;">NGC-7139 Constellation: Cepheus Jamin Yoder   Date: 2022-12-10   Location: Chandler, AZ   Config:  C-11 HD-DPT-Trail Ultra   ZWO6200MC   Exposure: 10s   47 Bits@24bit   Gain: 100   Offset: 50   RA = 21h 49m 07.3s, DEC = +63deg 47' 54.0\"</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>07:55 – 02:33</b> Transit: <b>10:43   76°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 

# Prospective Imaging Objects – September 16 2023

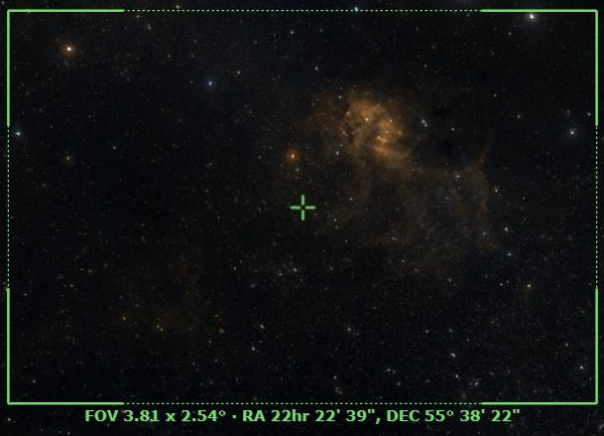
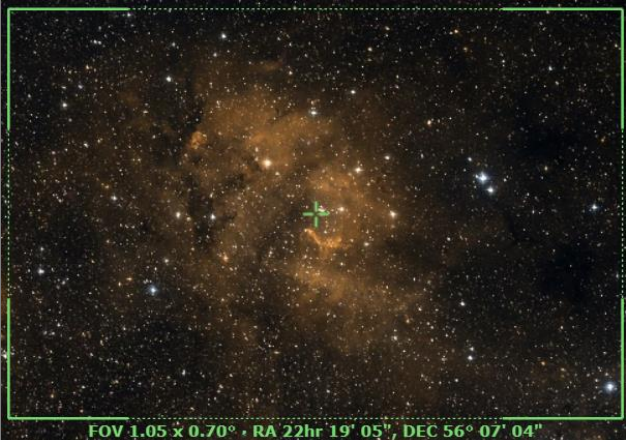
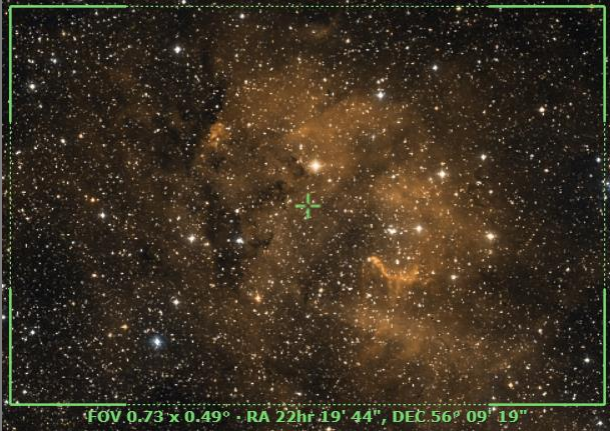
<p><b>Cocoon Nebula (IC-5146)</b>            Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Bright Nebula</b></p> <p>Constellation: <b>Cygnus</b>            Coordinates:  <b>21h 52' 00"</b>  <b>47° 22' 37"</b></p> <p>Close Star: <b>SAO-5105</b> (Rho Cygni)            Catalog Objects: <a href="#">IC-5146</a>            Imaging Window: <b>07:55 – 02:33</b>            Transit: <b>10:43   76°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> 
<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>07:55 – 02:33</b>            Transit: <b>10:43   76°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Dark Shark (LDN-1235)</b>            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>08:21 – 01:47</b>            Transit: <b>11:04   50°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> 



# Prospective Imaging Objects – September 16 2023




<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>*09:27 – 01:09</b> Transit: <b>11:19   36°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: small;">James Yoder 2019-09-21 Location: Chandler, AZ Config:  C11   LF Corrector   AstroMatic CLS-CCD (QHY128)   Exposure Info: 118fms/5min   Gain: 3200   Offset: 180  </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>08:06 – 03:26</b> Transit: <b>11:46   76°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>  <p style="font-size: small;">James Yoder 2019-09-21 Location: Chandler, AZ Config:  C11   HyperStar   AstroMatic CLS-CCD (QHY128)   Exposure Info: 118fms/5min   Gain: 3200   Offset: 180  </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>08:21 – 01:47</b> Transit: <b>11:04   50°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p>  <p style="font-size: small;">James Yoder 2019-09-21 Location: Chandler, AZ Config:  C11   HyperStar   AstroMatic CLS-CCD (QHY128)   Exposure Info: 118fms/5min   Gain: 3200   Offset: 180  </p>

# Prospective Imaging Objects – September 16 2023

<p><a href="#">SH2-132</a>            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: SAO-20268 (Iota Cephei)            Catalog Objects: <a href="#">SH2-132</a>            Imaging Window: <b>07:55 – 02:57</b>            Transit: <b>11:08   67°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>  <p style="text-align: center;">FOV 3.81 x 2.54° · RA 22hr 22' 39", DEC 55° 38' 22"</p>
<p><a href="#">SH2-132</a>            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: SAO-20268 (Iota Cephei)            Catalog Objects: <a href="#">SH2-132</a>            Imaging Window: <b>07:55 – 02:57</b>            Transit: <b>11:08   67°</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 22hr 19' 05", DEC 56° 07' 04"</p>
<p><a href="#">SH2-132</a>            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: SAO-20268 (Iota Cephei)            Catalog Objects: <a href="#">SH2-132</a>            Imaging Window: <b>07:55 – 02:57</b>            Transit: <b>11:08   67°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: center;">FOV 1.73 x 0.49° · RA 22hr 19' 44", DEC 56° 09' 19"</p>



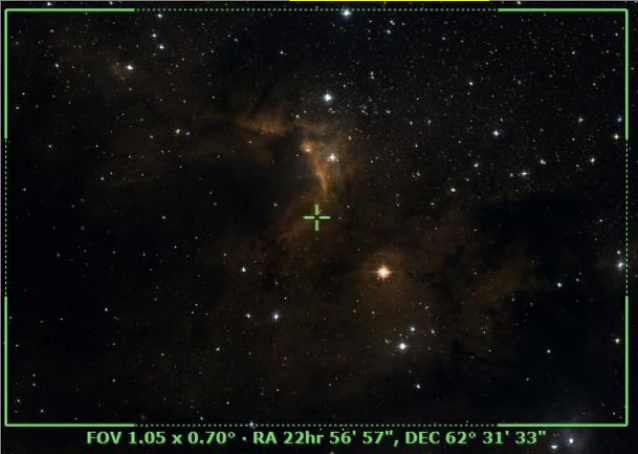
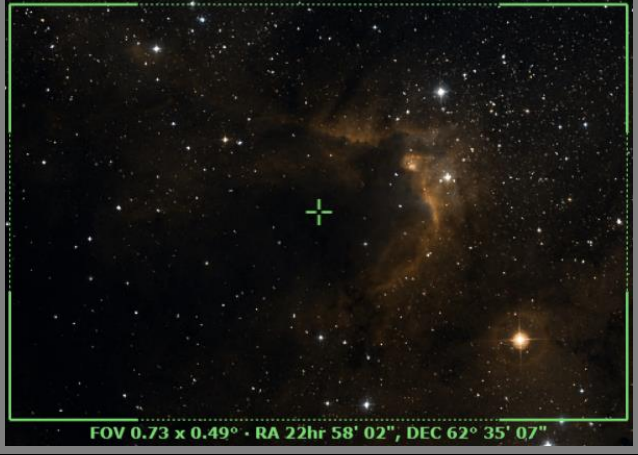

# Prospective Imaging Objects – September 16 2023

<p><b>Stephan's Quintet &amp; NGC 7331</b> (NGC 7317, 7331) Config:  C11-HD FR 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</p> <p>Imaging Window: <b>07:55 – 03:03</b> Transit: <b>11:25   89°</b></p>	<p><b>C-11 HD: Focal Reducer</b></p> 
<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></p> <p>Imaging Window: <b>07:55 – 03:03</b> Transit: <b>11:25   89°</b></p>	<p><b>C-11 HD: Primary Focus</b></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></p> <p>Imaging Window: <b>07:55 – 03:05</b> Transit: <b>11:26   89°</b></p>	<p><b>C-11 HD: Primary Focus</b></p> 


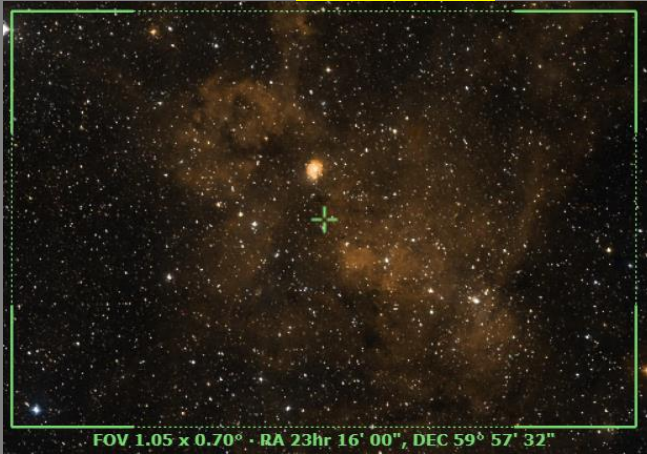





# Prospective Imaging Objects – September 16 2023




<p><b>Cave Nebula (SH2-155)</b>            Config:  C11-HD FR 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>08:06 – 03:26</b>            Transit: <b>11:46   61°</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 22hr 56' 57\", DEC 62° 31' 33"</p>
<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>08:06 – 03:26</b>            Transit: <b>11:46   61°</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 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>09:00 – 02:48</b>            Transit: <b>11:54   62°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="text-align: center;">NGC-7479            Constellation: Pegasus  <small>[RA = 23h 04m 58.2s, DEC = +12deg 18' 37.7\", Size = 31.4 x 21.0 arcmin   Orientation: 0.0 deg E of N   Pixel scale = 0.446 arcsec/pixel   FL = 2000mm]</small></p>

# Prospective Imaging Objects – September 16 2023



<p><b>Lobster Claw and Bubble Nebula</b> (SH2-157) Config: C11-HD   HS   ZWO6200MC</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: SAO-21133 (Caph) Catalog Objects: <a href="#">SH2-157</a>, NGC-7635 Imaging Window: <b>08:20 – 03:50</b> Transit: <b>12:05   63°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>  <p style="font-size: 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 arcsecond   FL=540mm</p> <p style="font-size: x-small; text-align: right;">James Yoder   Date(s) 2020-10-21   Location: Chandler, AZ   Config: C-11HD   HyperStar V4   Astromomk CLS-CCD   QHY128c   Exposure Info: 360ms@3min   Gain: 3200   OIBSet: 180</p>
<p><b>Lobster Claw</b> (SH2-157) Config:  C11-HD FR 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: SAO-21133 (Caph) Catalog Objects: <a href="#">SH2-157</a> Imaging Window: <b>08:20 – 03:50</b> Transit: <b>12:05   63°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p>  <p style="font-size: small; text-align: center;">FOV 1.05 x 0.70° - RA 23hr 16' 00", DEC 59° 57' 32"</p>
<p><b>Bubble Nebula</b> (NGC-7635) 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: SAO-21133 (Caph) Catalog Objects: <a href="#">NGC-7635</a>, SH2-162 Imaging Window: <b>08:26 – 03:52</b> Transit: <b>12:09   62°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p>  <p style="font-size: x-small;">Bubble Nebula (NGC-7635) Constellation: Cassiopeia</p> <p style="font-size: x-small; text-align: right;">James Yoder   2018-09-12 Location: Chandler, AZ Config: C-11   Hasekita L3 Reducer   Dual Filter   QHY128c Exposure Info: 300ms@3min   Gain: 1100   OIBSet: 170</p>



# Prospective Imaging Objects – September 16 2023

<p><b>Pegasus Cluster</b> (NGC-7619)            Config:  C11-HD FR 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>09:28 – 02:51</b>            Transit: <b>12:09   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>
<p><b>Pegasus Cluster</b> (NGC-7619)            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Cluster of Galaxies</b></p> <p>Constellation: <b>Pegasus</b>            Coordinates:  <b>23h 20' 13"</b>  <b>08° 10' 57"</b></p> <p>Close Star: <b>SAO-128085</b> (g Piscium)            Catalog Objects: <a href="#">NGC-7619</a>            Imaging Window: <b>12:39 – 04:03</b>            Transit: <b>03:21   65°</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 23hr 20' 13", DEC 08° 10' 57"</p>
<p><b>M-52</b> (NGC-7654)            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</b> (Caph)            Catalog Objects: <a href="#">M-52</a>            Imaging Window: <b>08:32 – 03:56</b>            Transit: <b>12:14   62°</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 23hr 24' 48", DEC 61° 36' 00"</p>

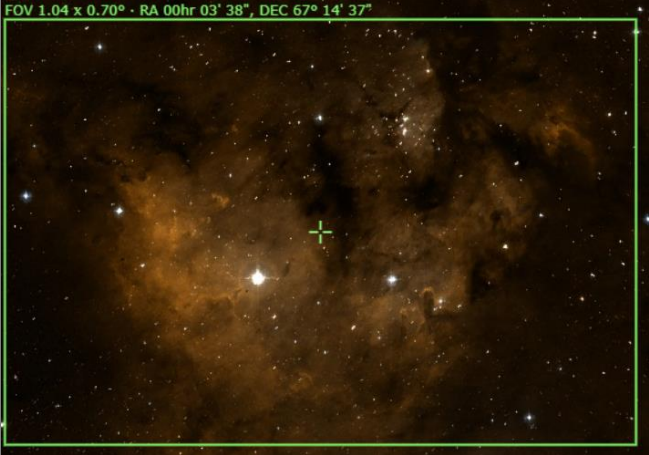


# Prospective Imaging Objects – September 16 2023

<p><b>Blue Match Nebula</b> (<a href="#">SH2-155</a>) 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</b> (Alpheratz) Catalog Objects: VdB 158/LBN 534 Imaging Window: <b>08:29 – 04:09</b> Transit: <b>12:19   81°</b></p>	<p><b>C-11 HD: HyperStar v4</b></p>  <p>FOV 3.81 x 2.54° · RA 23hr 39' 35\", DEC 48° 54' 43"</p>
<p><b>Caroline's Rose</b> (<a href="#">NGC-7789</a>) 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</b> (Shedar) Catalog Objects: <a href="#">NGC-7789</a> Imaging Window: <b>08:58 – 04:35</b> Transit: <b>12:46   65°</b></p>	<p><b>C-11 HD: Primary Focus</b></p>  <p>FOV 0.73 x 0.49° · RA 23hr 57' 37\", DEC 56° 42' 21"</p>






# Prospective Imaging Objects – September 16 2023




<p><b>NGC-7822 (CED-214)</b>            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>09:26 – 04:16</b>            Transit: <b>12:51   56°</b></p>	<p style="text-align: center;"><b>C-11 HD: Focal Reducer</b></p> 
<p><b>NGC-7822 (CED-214)</b>            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>09:26 – 04:16</b>            Transit: <b>12:51   56°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>Bow-Tie Nebula (NGC-40)</b>            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>10:10 – 03:54</b>            Transit: <b>01:02   51°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 



# Prospective Imaging Objects – September 16 2023

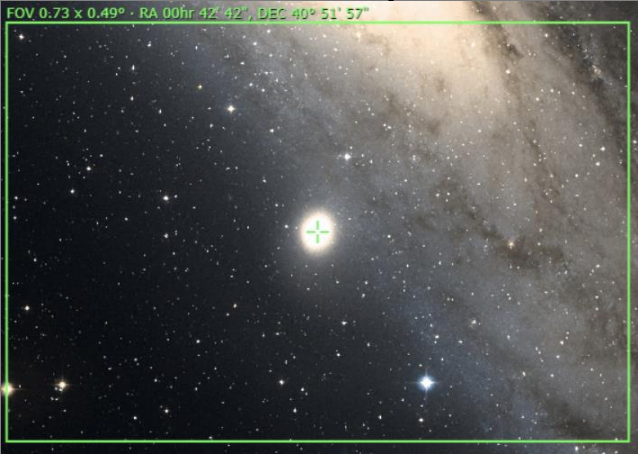
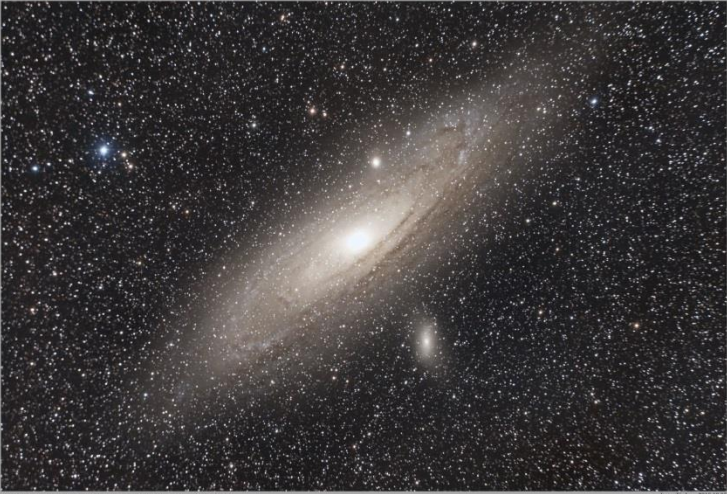
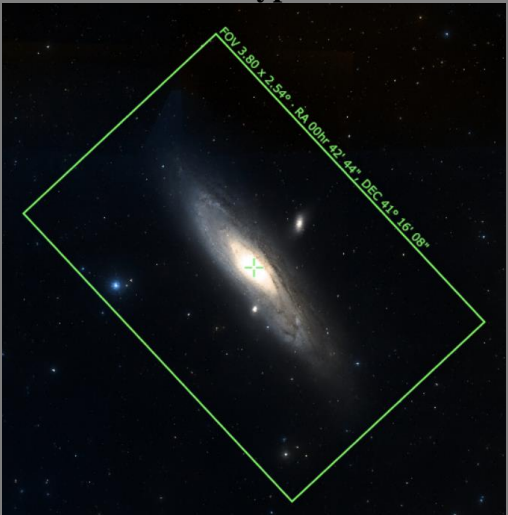
<p><b>Andromeda Galaxy Group</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Cluster of dim galaxies</b>            Peak:            Constellation: <b>Andromeda</b>            Coordinates:  <b>00h 17' 58"</b>  <b>30° 03' 03"</b></p> <p>Close Star: <b>SAO-73765</b> (Alpheratz)            Catalog Objects: <a href="#">NGC 67-72</a> et. El.</p> <p>Imaging Window: <b>09:34 – 04:40</b>            Transit: <b>01:07   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: C11-HD   HS    <b>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>09:32 – 04:48</b>            Transit: <b>01:22   75°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 
<p><b>NGC-147 &amp; NGC-185</b>            Config: C11-HD   FR    <b>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>09:32 – 04:48</b>            Transit: <b>01:22   75°</b></p>	<p style="text-align: center;"><b>C-11 HD: <span style="background-color: yellow;">Focal Reducer</span>  <span style="background-color: cyan;">Composite!</span></b></p> 

# Prospective Imaging Objects – September 16 2023


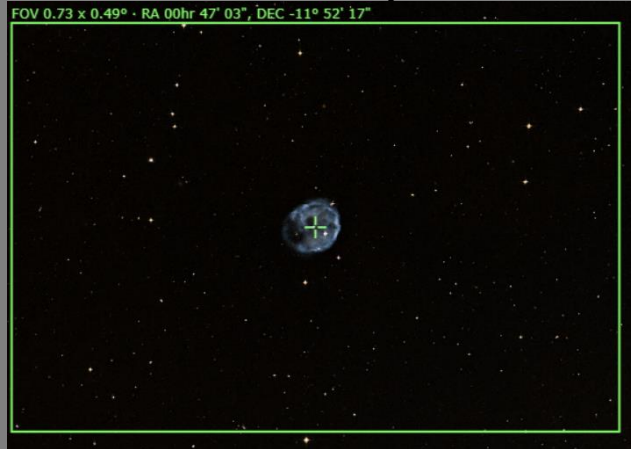

<p><b>NGC-147</b> Config:  ZWO6200MC </p> <p>Type: <b>Galaxy</b> Peak: Constellation: <b>Cassiopeia</b> Coordinates: <b>00h 33' 07.245"</b> <b>48° 30' 18.030"</b></p> <p>Close Star: <b>SAO-37375</b> Catalog Objects: <a href="#">NGC-147</a></p> <p>Imaging Window: <b>09:32 – 04:48</b> Transit: <b>01:22   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, Starline, Starline Filter, QHY128C Exposure Info: (348img) / Gain: 3200 / Offset: 100</p>
<p><b>NGC-185</b> Config: <b>C11-HD   ZWO6200MC</b></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>09:32 – 04:48</b> Transit: <b>01:22   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, Starline, Starline Filter, QHY128C Exposure Info: (348img) / Gain: 3200 / Offset: 100</p>
<p><b>M-110</b> Config: <b>C11-HD   ZWO6200MC</b></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>09:43 – 04:48</b> Transit: <b>01:29   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   F5-C11700nm</p> <p style="font-size: x-small; text-align: right;">James VanDyke 2018-07-22 Location: Mesaiceras Grande, Flagstaff, AZ Config: C11 HD Camera, Starline, Starline Filter, QHY128C Exposure Info: (348img) / Gain: 3200 / Offset: 100</p>



# Prospective Imaging Objects – September 16 2023



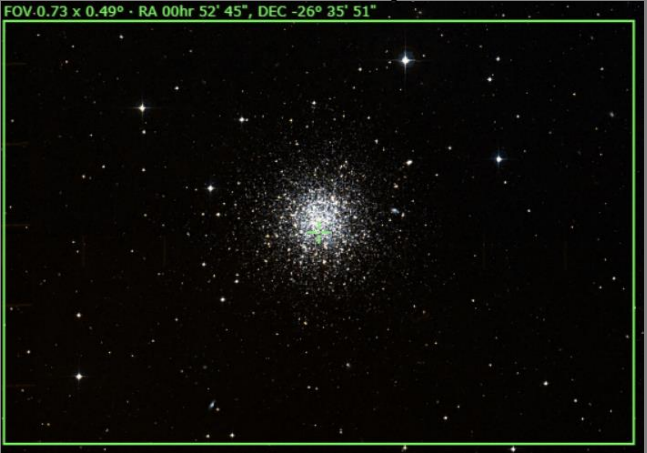
<p><b>M-32</b> Config: C11-HD   ZWO6200MC</p> <p>Type: <b>Elliptical Galaxy</b></p> <p>Constellation: <b>Andromeda</b> Coordinates: <b>00h 42' 42"</b> <b>40° 51' 57"</b></p> <p>Close Star: SAO-73765 (Sirrah) Catalog Objects: <a href="#">M-32</a> Imaging Window: <b>09:45 – 04:48</b> Transit: <b>01:31   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>09:45 – 04:48</b> Transit: <b>01:31   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>09:45 – 04:48</b> Transit: <b>01:31   82°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 

# Prospective Imaging Objects – September 16 2023

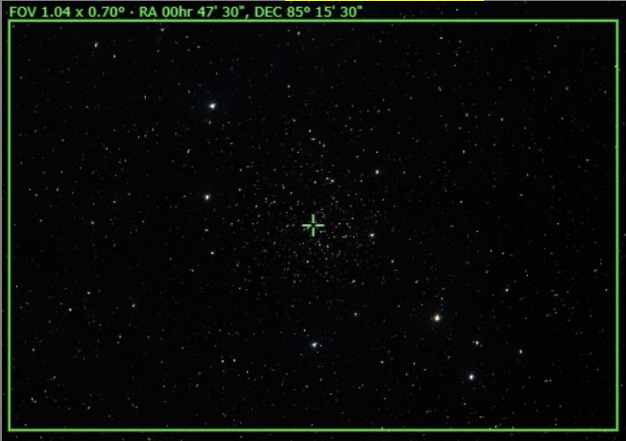


<p><b>NGC246, NGC255, PGC 2689</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: Planetary Nebula, 2 Galaxies</p> <p>Constellation: Cetus            Coordinates:  <b>00h 47' 00"</b>  <b>-11° 40' 40"</b></p> <p>Close Star: SAO-147420 (Diphda)            Catalog Objects: <a href="#">NGC-246</a>            Imaging Window: *11:23 – 04:17            Transit: 01:36   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' 40"   Size = 51.7 x 34.5 arcmin   Orientation: 10deg E of N   Pixel scale = 0.579 arcsec/pixel   F1-196nm            James Volder   Date: 2023-09-26   Location: Chandler, AZ            Config: C-11 HD   Focal Reducer   Filter: Doublet Skyglow   Camera: QHY128C            Exposure Info: 240frames/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: *11:23 – 04:17            Transit: 01:36   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"            Skull Nebula (NGC-246)            Constellation: Cetus the Whale            RA = 00h 47m 03s, DEC = -11deg 52' 17"   Size = 51.7 x 34.5 arcmin   Orientation: 10deg E of N   Pixel scale = 0.579 arcsec/pixel   F1-196nm            James Volder   Date: 2023-09-26   Location: Chandler, AZ            Config: C-11 HD   Primary Focus   Filter: Doublet Skyglow   Camera: QHY128C            Exposure Info: 240frames/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: *11:01 – 04:00            Transit: 01:36   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"   Size = 41.1 x 27.5 arcmin   Orientation: 63deg E of N   Pixel scale = 0.446 arcsec/pixel   F1-200nm            James Volder   Date: 2023-08-31, 2023-08-31   Location: Chandler, AZ            Config: C-11 HD Doublet Skyglow   QHY128C            Exposure Info: 240frames/Frame   Gain: 2000   Offset: 100</p>



# Prospective Imaging Objects – September 16 2023




<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: *11:51 – 03:22            Transit: 01:41   31°</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: Mountain Central Trailhead, AZ</span>            Constellation: Sculptor <span style="float: right;">Config: C-11HD   HyperStar V4   Baader Masking   QHY126c</span>  <small>RA = 00h 49m 57.7s DEC = -25deg 54' 45.87" Size = 1.14 x 2.09 deg Orientation: 5deg E of N   Pixel scale = 2.28 arcsec/pixel   FL=540mm   Exposure Info: 210mins/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: *11:35 – 02:27            Transit: 01:36   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 LF Corrector   Baader Moon Filter   QHY126c   Exposure Info: 160mins/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: *11:51 – 03:22            Transit: 01:41   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 – September 16 2023


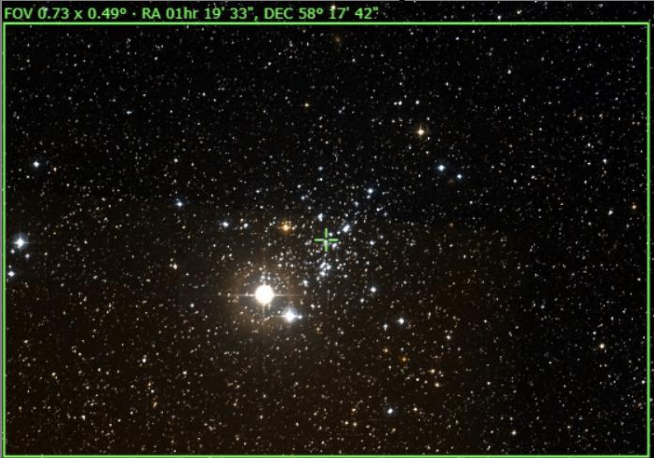

<p><b>NGC-188</b>            Config: C11-HD   FR   ZWO6200MC</p> <p>Type: <b>Open Cluster</b></p> <p>Constellation: <b>Cepheus</b>            Coordinates:  <b>00h 47' 30"</b>  <b>85° 15' 30"</b></p> <p>Close Star: SAO-308 (Polaris)            Catalog Objects: <a href="#">NGC-188</a>            Imaging Window: *07:55 – 04:48            Transit: 01:36   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: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Cassiopeia</b>            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: 09:53 – 04:48            Transit: 01:42   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: <b>Bright Nebula</b></p> <p>Constellation: <b>Cassiopeia</b>            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: 10:03 – 04:48            Transit: 01:46   62°</p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p> 



# Prospective Imaging Objects – September 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>10:03 – 04:48</b>            Transit: <b>01:46   62°</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 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>11:35 – 04:48</b>            Transit: <b>01:53   59°</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 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>10:18 – 04:48</b>            Transit: <b>01:58   88°</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 01hr 09' 36", DEC 35° 40' 58"</p> 

# Prospective Imaging Objects – September 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>10:21 – 04:48</b>            Transit: <b>02:08   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 62            Constellation: Cassiopeia            RA: 01h 23m 37.95s DEC: 58° 12' 54.10" Size: 1.3 x 2.5 deg Observation: Sky 6 of 20 (Post-Stack: 2.28 sec/frame) F1-59mm            Exposure: 3000000sec, 20000000, 10000000 Total Exp: 60000000sec 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>10:21 – 04:48</b>            Transit: <b>02:08   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>12:13 – 04:48</b>            Transit: <b>02:14   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 – September 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>10:32 – 04:48</b>            Transit: <b>02:19   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>10:38 – 04:48</b>            Transit: <b>02:22   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>10:49 – 04:48</b>            Transit: <b>02:22   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 – September 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>10:49 – 04:48</b>            Transit: <b>02:22   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>10:49 – 04:48</b>            Transit: <b>02:22   87°</b></p>	<p>Primary Focus</p> 
<p><b>M-74</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Spiral Galaxy</b>            Peak:            Constellation: <b>Pisces</b>            Coordinates:  <b>01h 36' 42"</b>  <b>15° 46' 60"</b></p> <p>Close Star: ISO-91781 (Algenib)            Catalog Objects: <a href="#">M-74</a></p> <p>Imaging Window: <b>11:18 – 04:48</b>            Transit: <b>02:21   72°</b></p>	<p>C-11 HD: Primary Focus</p> 



# Prospective Imaging Objects – September 16 2023

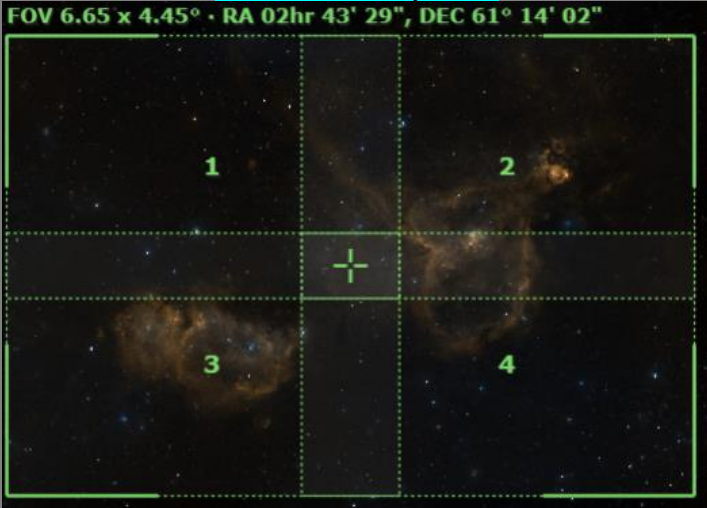


<p><b>Little Dumbbell Nebula (M-76)</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b>            Peak:            Constellation: <b>Perseus</b>            Coordinates:  <b>01h 42' 18"</b>  <b>51° 34' 17"</b></p> <p>Close Star: ISO-37375            Catalog Objects: <a href="#">M-76</a></p> <p>Imaging Window: <b>10:36 – 04:48</b>            Transit: <b>02:27   72°</b></p>	<p><b>C-11 HD: Primary Focus</b></p>  <p><small>Little Dumbbell Nebula (M-76, NGC-650)            Constellation: Perseus            RA = 01h 42m 17.9s (RA) = 13deg 37' 48.5" (Size = 36.8 x 24.5 arcmin) (Orientation: 0 deg E of N) (Pixel scale = 0.446 arcsec/pixel) (11-200mm)            James Yoder   Location(s): Massacre Grounds (2020.10.14), Chandler (2020.10.19), AZ            Config: C-11 HD (Shade) SkyStar (OFT) 20x            Exposure Info: 480ms@5um (Gain: 3200) (Offset: 180)</small></p>
<p><b>Nautilus Galaxy (NGC-772)</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Galaxy</b>            Peak:            Constellation: <b>Aries</b>            Coordinates:  <b>01h 59' 19"</b>  <b>19° 00' 27"</b></p> <p>Close Star: ISO-75012 (Sheratan)            Catalog Objects: <a href="#">NGC-772</a></p> <p>Imaging Window: <b>11:32 – 04:48</b>            Transit: <b>02:44   76°</b></p>	<p><b>C-11 HD: Primary Focus</b></p>  <p><small>772</small></p>
<p><b>Hand chi Persei (NGC 869, 884)</b>            Config: C11-HD   HS              ZWO6200MC</p> <p>Type: <b>Double Open Cluster</b>            Peak: <b>October 28</b>            Constellation: <b>Perseus</b>            Coordinates:  <b>02hr 20' 31"</b>  <b>56° 54' 05"</b></p> <p>Close Star: SAO-22258 (Ruchbah)            Catalog Objects: <a href="#">NGC 869, 884</a></p> <p>Imaging Window: <b>11:19 – 04:48</b>            Transit: <b>03:07   66°</b></p>	<p><b>C-11 HD: HyperStar v4</b></p>  <p><small>869</small></p>

# Prospective Imaging Objects – September 16 2023

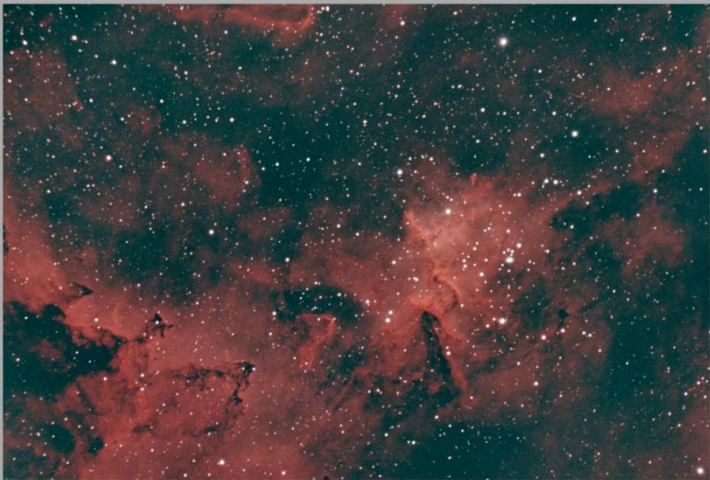

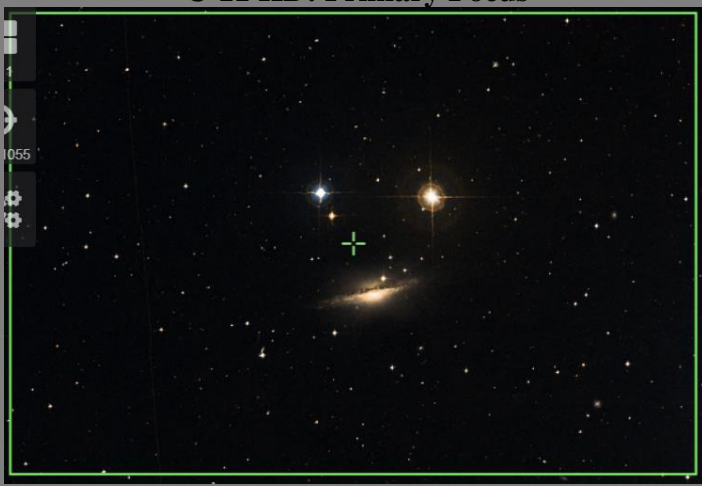
<p><b>Edge On Galaxy (NGC 891)</b>            Config:  C1 LF ZWO6200MC </p> <p>Type: <b>Galaxy</b>            Peak: <b>Oct 27</b>            Constellation: <b>Andromeda</b>            Coordinates:  <b>02h 23' 43.29"</b>  <b>42° 25' 46.4"</b></p> <p>Close Star: <b>SAO-37734</b>            Catalog Objects: <a href="#">NGC891</a></p> <p>Imaging Window: <b>11:20 – 04:48</b>            Transit: <b>03:07   81°</b></p>	<p>Primary Focus</p>  <p>Edge On Spiral Galaxy NGC 891</p> <p>James Yoder 2014.11.23</p>
<p><b>NGC-925 (PGC 9332)</b>            Config:  C11-HD ZWO6200MC </p> <p>Type: <b>Galaxy</b>            Constellation: <b>Triangulum</b>            Coordinates:  <b>02h 27' 17"</b>  <b>33° 34' 44"</b></p> <p>Close Star: <b>SAO-55306</b> (Beta Trianguli)            Catalog Objects: <a href="#">NGC925/PGC9332</a></p> <p>Imaging Window: <b>11:34 – 04:48</b>            Transit: <b>03:12   90°</b></p>	<p>Primary Focus</p>  <p>NGC-925</p>
<p><b>Fish Head Nebula (IC-1795)</b>            Config:  C11-HD <b>FR</b> ZWO6200MC </p> <p>Type: <b>Bright Nebula</b>            Constellation: <b>Cassiopeia</b></p> <p>Coordinates:  <b>02h 27' 03"</b>  <b>62° 02' 31"</b></p> <p>Close Star: <b>SAO-38787</b> (Mirfak)            Catalog Objects: <a href="#">IC-1795</a></p> <p>Imaging Window: <b>11:29 – 04:48</b>            Transit: <b>03:10   87°</b></p>	<p>CH11-HD <b>Focal Reducer</b></p>  <p>Fish Head Nebula (IC-1795)</p>



# Prospective Imaging Objects – September 16 2023




<p><b>Heart and Soul Nebulas</b>            Config: C11   HS   ZWO6200MC</p> <p>Type: <b>Diffuse Nebula</b></p> <p>Constellation: <b>Cassiopeia</b>            Coordinates (RA, DEC):            Pane 1: <b>02hr 55' 41"</b>, <b>62° 09' 11"</b>            Pane 2, <b>02hr 31' 16"</b>, <b>62° 09' 11"</b>            Pane 3, <b>02hr 54' 58"</b>, <b>60° 15' 00"</b>            Pane 4, <b>02hr 31' 59"</b>, <b>60° 15' 00"</b></p> <p>Close Star: <b>SAO-38787</b> (Mirfak)            Catalog Objects: <a href="#">IC-1848</a></p> <p>Imaging Window: <b>11:52 – 04:48</b>            Transit: <b>03:36   63°</b></p>	<p><b>C-11 HD: HyperStar v4</b>  <b>SUPER-4 Composite!</b></p> <p>FOV 6.65 x 4.45° · RA 02hr 43' 29", DEC 61° 14' 02"</p> 
<p><b>Heart Nebula (IC 1805)</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Diffuse Nebula</b>            Peak: <b>October 31</b>            Constellation: <b>Cassiopeia</b>            Coordinates:  <b>02hr 31' 16"</b>  <b>61° 21' 36"</b></p> <p>Close Star: SAO-12031            Catalog Objects: <a href="#">IC 1805</a></p> <p>Imaging Window: <b>11:52 – 04:48</b>            Transit: <b>03:36   63°</b></p>	<p><b>C-11 HD: HyperStar v4</b></p>  <p>Heart Nebula (IC 1805)            Constellation: Cassiopeia</p> <p><small>James Voth - 2019.09.20            Location: Chandler, AZ            Config: C11   HyperStar (Autosonik C13-CXD) QHY128L            Exposure Info: 2700sec/Frame   Gain: 3200   Offset: 1000</small></p>
<p><b>Heart Nebula (IC 1805)</b>            Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b>            Constellation: <b>Cassiopeia</b>            Coordinates:  <b>02hr 26' 36"</b>  <b>62° 06' 53"</b></p> <p>Close Star: SAO-12031            Catalog Objects: <a href="#">IC 1805</a></p> <p>Imaging Window: <b>11:52 – 04:48</b>            Transit: <b>03:36   63°</b></p>	<p><b>CH11-HD Focal Reducer</b></p>  <p>Heart Nebula core (IC-1805)            Constellation: Cassiopeia</p> <p><small>James Voth - 2019.11.10            Location: Chandler, AZ            Config: C-11HD   F-Reducer   Autosonik C13-CXD   QHY128L            Exposure Info: 2000sec/Frame   Gain: 1000   Offset: 1000</small></p>

# Prospective Imaging Objects – September 16 2023




<p><b>Heart Nebula (IC-1805)</b>            Config:  C1 LF ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b>            Peak: <b>October 31</b>            Constellation: <b>Cassiopeia</b>            Coordinates:  <b>02hr 32' 42"</b>  <b>61° 27' 00"</b></p> <p>Close Star: SAO-12031            Catalog Objects: <a href="#">IC 1805</a></p> <p>Imaging Window: <b>11:52 – 04:48</b>            Transit: <b>03:36   63°</b></p>	<p style="text-align: center;"><b>Primary Focus</b></p>  <p style="font-size: small;">Heart Nebula Core (IC-1805)            Constellation: Cassiopeia</p> <p style="font-size: x-small; text-align: right;">James Yoder   2018-09-14            Location: Chandler, AZ            Config:  C1 Shimizu LF Reducer   OPT Tilt Filter   00Y176;            Exposure Info: 20frames/Star   Gain: 150   Offset: 171</p>
<p><b>M-77, NGC 1055</b>            Config:  C11-HD FR ZWO6200MC </p> <p>Type: <b>Galaxy</b>            Peak:            Constellation: <b>Cetus</b>            Coordinates:  <b>02hr 42' 14"</b>  <b>00° 14' 28"</b>  <b>Angle: 90°</b></p> <p>Close Star: <b>SAO-110665</b>            Catalog Objects: <a href="#">M-77</a>, <a href="#">NGC-1055</a>,  <a href="#">NGC-1068</a></p> <p>Imaging Window: <b>01:16 – 04:48</b>            Transit: <b>03:26   57°</b></p>	<p style="text-align: center;"><b>CH11-HD Focal Reducer</b></p>  <p style="font-size: small;">Galaxies NGC-1055, M-77, NGC-1072            Constellation: Cetus            RA = 02h 42m 26.5s   DEC = +00deg 14' 13.8"   Size = 55.2 x 39.3 arcmin   Orientation: +90 Mag E of N   Pixel scale = 0.579 arcseconds   FL=195mm</p> <p style="font-size: x-small; text-align: right;">James Yoder   Dunes 2020-12-20, 21, 22   Location: Chandler, AZ              Reader: Skyglens, C5.5-CCD, DDA3.135-02   Camera: 00Y120C              Config:  C11-HD  0.7 Reducer   Filters: Reader-Skyglens, C5.5-CCD, DDA3.135-02   Camera: 00Y120C              Exposure Info: 411frames/Star   Gain: 3200   Offset: 181</p>
<p><b>NGC-1055</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Galaxy</b>            Peak:            Constellation: <b>Cetus</b>            Coordinates:  <b>02hr 41' 50"</b>  <b>00° 29' 48"</b></p> <p>Close Star: <b>SAO-110665</b>            Catalog Objects: <a href="#">NGC-1055</a></p> <p>Imaging Window: <b>01:16 – 04:48</b>            Transit: <b>03:26   57°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 



# Prospective Imaging Objects – September 16 2023

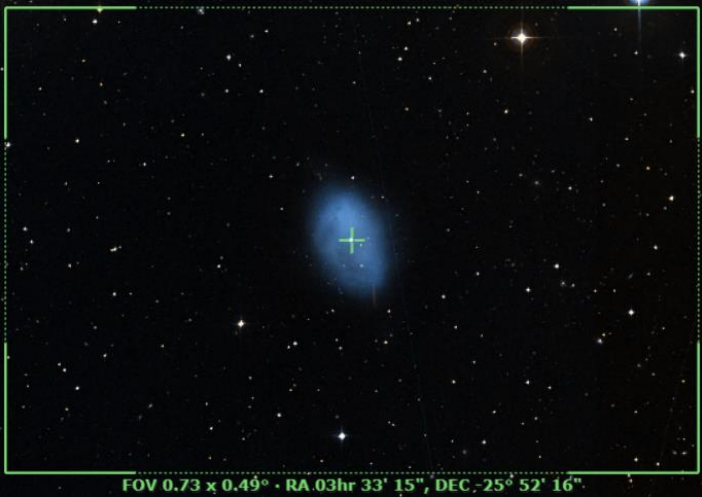

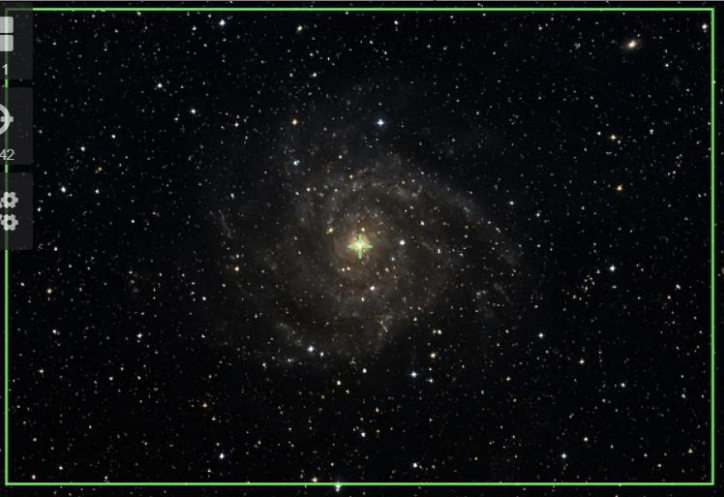
<p><b>M 77 (NGC 1068)</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Galaxy</b>            Peak:            Constellation: <b>Cetus</b>            Coordinates:  <b>02hr 42' 34"</b>  <b>00° 02' 07"</b></p> <p>Close Star: <b>SAO-110665</b>            Catalog Objects: M 77, <a href="#">NGC-1068</a></p> <p>Imaging Window: <b>01:19 – 04:48</b>            Transit: <b>03:27   57°</b></p>	<p style="text-align: center;"><b>C-11 HD: Primary Focus</b></p> 
<p><b>M-34 (NGC-1039)</b>            Config:  C11-HD ZWO6200MC </p> <p>Type: <b>Open Cluster</b>            Constellation: <b>Perseus</b>            Coordinates:  <b>02h 42' 05"</b>  <b>42° 45' 42"</b></p> <p>Close Star: <b>SAO-38592</b> (Algol)            Catalog Objects: <a href="#">M-34</a>/NGC-1039</p> <p>Imaging Window: <b>11:39 – 04:48</b>            Transit: <b>03:27   81°</b></p>	<p style="text-align: center;"><b>Primary Focus</b></p> 
<p><b>Soul Nebula (IC-1848)</b>            Config: <b>C11-HD   HS   ZWO6200MC</b></p> <p>Type: <b>Diffuse Nebula</b>            Peak:            Constellation: <b>Cassiopeia</b>            Coordinates:  <b>02hr 57' 16"</b>  <b>60° 37' 37"</b></p> <p>Close Star: <b>SAO-38787</b> (Mirfak)            Catalog Objects: <a href="#">IC 1848</a></p> <p>Imaging Window: <b>11:52 – 04:48</b>            Transit: <b>03:36   63°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>  <p style="font-size: small;">Soul Nebula (IC-1848)            Constellation: Cassiopeia</p> <p style="font-size: x-small; text-align: right;">James Yoder 2018.09.20            Location: Chandler, AZ            Config: C11   HyperStar   Antaresmk LHC   QHY128c            Exposure Info: 20frames/5min (Gain: 3200   Offset: 180)</p>

# Prospective Imaging Objects – September 16 2023




<p><b>Soul Nebula (IC-1848)</b> Config:  C1 LF ZWO6200MC </p> <p>Type: <b>Diffuse Nebula</b> Peak: Constellation: <b>Cassiopeia</b> Coordinates: <b>02hr 57' 16"</b> <b>60° 37' 37"</b></p> <p>Close Star: <b>SAO-38787 (Mirfak)</b> Catalog Objects: <a href="#">IC 1848</a></p> <p>Imaging Window: <b>11:52 – 04:48</b> Transit: <b>03:36   63°</b></p>	<p>Primary Focus</p>  <p><small>Soul Nebula (IC-1848) Constellation: Cassiopeia</small></p> <p><small>Image taken: 2023-07-13 Location: Caswell, AZ Config:  C11 Spectrom L.F. Reducer 130MM Star (Q15 12K)  Exposure Info: 238img/Train Gain: 3200 Offset: 100</small></p>
<p><b>Perseus Galaxy Cluster</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Galaxy Cluster</b> Peak: Constellation: <b>Perseus</b> Coordinates: <b>03hr 19' 58"</b> <b>41° 29' 13"</b></p> <p>Close Star: <b>SAO-38592 (Algol)</b> Catalog Objects: <a href="#">Abell-426</a>, NGC1275, 1278, 1272, Et. El.</p> <p>Imaging Window: <b>12:18 – 04:48</b> Transit: <b>04:04   82°</b></p>	<p>C-11 HD: Primary Focus</p>  <p><small>275</small></p>
<p><b>NGC-1333</b> Config:  C11HD ZWO6200MC </p> <p>Type: <b>Bright Nebula</b> Peak: <b>November 13</b> Constellation: <b>Perseus</b> Coordinates: <b>03hr 29' 15"</b> <b>31° 20' 12"</b></p> <p>Close Star: <b>SAO-56799</b> Catalog Objects: <a href="#">NGC 1333</a></p> <p>Imaging Window: <b>12:39 – 04:48</b> Transit: <b>04:14   88°</b></p>	<p>C-11 HD: Primary Focus</p>  <p><small>333</small></p>



# Prospective Imaging Objects – September 16 2023

<p><b>Robins Egg Nebula (NGC-1360)</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Planetary Nebula</b>            Peak:            Constellation: <b>Fornax</b>            Coordinates:  <b>03hr 33' 15"</b>  <b>-25° 52' 16"</b></p> <p>Close Star: <b>SAO-168460</b>            Catalog Objects: <a href="#">NCC-1360</a></p> <p>Imaging Window: *<b>02:21 – 04:48</b>            Transit: <b>04:18   31°</b></p>	<p><b>C-11 HD: Primary Focus</b></p>  <p>FOV 0.73 x 0.49° - RA 03hr 33' 15\", DEC -25° 52' 16"</p>
<p><b>IC-348</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Bright Nebula</b>            Peak:            Constellation: <b>Perseus</b>            Coordinates:  <b>03hr 44' 26"</b>  <b>32° 10' 54"</b></p> <p>Close Star: <b>SAO-147420</b>            Catalog Objects: <a href="#">IC-348</a></p> <p>Imaging Window: <b>12:53 – 04:48</b>            Transit: <b>04:29   89°</b></p>	<p><b>C-11 HD: Primary Focus</b></p> 
<p><b>IC-342</b>            Config:  C11HD ZWO6200MC </p> <p>Type: <b>Barred Spiral Galaxy</b>            Peak:            Constellation: <b>Camelopardalis</b>            Coordinates:  <b>03hr 46' 48"</b>  <b>68° 05' 44"</b></p> <p>Close Star: <b>SAO-12031 (Segin)</b>            Catalog Objects: <a href="#">IC-342</a></p> <p>Imaging Window: <b>01:09 – 04:48</b>            Transit: <b>04:31   55°</b></p>	<p><b>C-11 HD: Primary Focus</b></p> 

# Prospective Imaging Objects – September 16 2023

<p><b>Pleiades (M 45)</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Bright Nebula</b>            Peak: <b>November 16</b>            Constellation: <b>Taurus</b>            Coordinates:  <b>03hr 46' 07"</b>  <b>24° 11' 18"</b></p> <p>Close Star: <b>SAO-56799</b>            Catalog Objects: <a href="#">M45</a></p> <p>Imaging Window: <b>01:09 – 04:48</b>            Transit: <b>04:31   81°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>  <p style="font-size: small;">The Pleiades (M-45) Constellation: Taurus</p> <p style="font-size: x-small; text-align: right;">James Yoder 2019-09-27 Location: Maricopa County, Phoenix, AZ Config: C11 HyperStar (QHY126) Exposure Info: (20img/Star) (Gain: 3200) (Offset: 180)</p>
<p><b>Pleiades (M-45)</b>            Config:  C1 LF ZWO6200MC </p> <p>Type: <b>Bright Nebula</b>            Peak: <b>November 16</b>            Constellation: <b>Taurus</b>            Coordinates:  <b>03hr 46' 15.932"</b>  <b>24° 12' 07.154"</b></p> <p>Close Star: <b>SAO-56799</b>            Catalog Objects: <a href="#">M45</a></p> <p>Imaging Window: <b>01:09 – 04:48</b>            Transit: <b>04:31   81°</b></p>	<p style="text-align: center;"><b>Primary Focus</b></p>  <p style="font-size: small;">The Pleiades (M-45) Constellation: Taurus</p> <p style="font-size: x-small; text-align: right;">James Yoder 2019-09-27 Location: Maricopa County, Phoenix, AZ Config:  C1 LF ZWO6200MC  Exposure Info: (20img/Star) (Gain: 3200) (Offset: 180)</p>
<p><b>California Nebula (NGC 1499)</b>            Config: C11-HD   HS   ZWO6200MC</p> <p>Type: <b>Diffuse Nebula</b>            Peak: <b>November 22</b>            Constellation: <b>Perseus</b>            Coordinates:  <b>04hr 01' 22"</b>  <b>36° 21' 19"</b></p> <p>Close Star: SAO-56840            Catalog Objects: <a href="#">NGC 1499</a></p> <p>Imaging Window: <b>01:06 – 04:48</b>            Transit: <b>04:47   87°</b></p>	<p style="text-align: center;"><b>C-11 HD: HyperStar v4</b></p>  <p style="font-size: small;">California Nebula (NGC-1499) Constellation: Perseus</p> <p style="font-size: x-small; text-align: right;">James Yoder 2019-09-27 Location: Chandler, AZ Config: C11 HyperStar (Astromark C3.8-4.7) QHY126 Exposure Info: (22img/Star) (Gain: 3200) (Offset: 180)</p>



# Prospective Imaging Objects – September 16 2023

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# Prospective Imaging Objects – September 16 2023

## Imaging Summary September 16, 2023

Astronomical Dusk = 07:55

Astronomical Dawn = 04:48

### HyperStar: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HyperStar	Nebula	Nebula	NGC-6820	07:55 – 12:25	08:34	05	Vulpecula: LDN-772
HyperStar	Nebula	Nebula	B-144	07:55 – 12:28	08:49	08	Cygnus: Fish on the Platter
HyperStar	Nebula	Nebula	NGC-6914	07:55 – 01:01	09:14	12	<b>Composite2!</b> Cygnus: Bright Nebula
HyperStar	Nebula	Nebula	NGC-6914	07:55 – 01:01	09:14	13	Cygnus: Bright Nebula
HyperStar	Nebula	Nebula	IC-1318	07:55 – 01:01	09:15	14	Cygnus: Butterfly Nebula
HyperStar	Nebula	Nebula	IC-5070	07:55 – 01:29	09:40	15	<b>Composite2!</b> Cygnus: Pelican & N America Nebula
HyperStar	Nebula	Nebula	IC-5070	07:55 – 01:29	09:40	16	Cygnus: Pelican & N America Nebula
HyperStar	Nebula	Nebula	NGC-6960	07:55 – 01:17	09:42	16	<b>Composite2!</b> Cygnus: Veil Nebula
HyperStar	Nebula	Nebula	NGC-6960	07:55 – 01:17	09:42	17	Cygnus: Veil Nebula
HyperStar	Nebula	Nebula	IC-1396	07:55 – 02:16	10:28	23	Cepheus: Elephant Trunk
HyperStar	DN, Nebula	Nebula	B-168	07:55 – 02:33	10:43	25	Cygnus: Dark Cocoon
HyperStar	Nebula	Nebula	SH2-132	07:55 – 02:57	11:08	28	Cepheus: Bright Nebula
HyperStar	Nebula	Nebula	SH2-155	08:06 – 03:26	11:46	30	Cepheus: Cave Nebula
HyperStar	Nebula	Nebula	SH2-157	08:20 – 03:50	12:05	32	Cassiopeia: Lobster Claw and Bubble Nebula
HyperStar	Nebula	Nebula	NGC-7822	09:26 – 04:16	12:51	35	<b>Composite2!</b> Cepheus: Nebula
HyperStar	Nebula	Nebula	NGC-7822	09:26 – 04:16	12:51	35	Cepheus: Nebula
HyperStar	Nebula	Neb, OC	NGC-457	10:21 – 04:48	02:08	44	Cassiopeia: Open Cluster NGC-457 & Dolphin Neb
HyperStar	Nebula	Nebula	IC-1848, 1805	11:52 – 04:48	03:36	49	<b>Composite4!</b> Cassiopeia: Heart and Soul Nebulas
HyperStar	Nebula	Nebula	IC-1805	11:52 – 04:48	03:36	49	Cassiopeia: Heart Nebula
HyperStar	Nebula	Nebula	IC-1848	11:52 – 04:48	03:36	51	Cassiopeia: Soul Nebula
HyperStar	Nebula	Nebula	NGC-1499	01:06 – 04:48	04:47	54	Perseus: California Nebula

# Prospective Imaging Objects – September 16 2023

## Imaging Summary September 16, 2023

Astronomical Dusk = 07:55

Astronomical Dawn = 04:48

### HyperStar: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HyperStar	Broad Spectrum	Dark Neb	B-138	07:55 – 10:15	08:06	02	Aquila: Barnard's Black Lizard
HyperStar	Broad Spectrum	Dark Neb	LDN-673	07:55 – 11:02	08:11	04	Aquila: Dark Nebula
HyperStar	Broad Spectrum	Dark Neb	LDN-772	07:55 – 11:35	08:15	04	Vulpecula: Lot Ness Monster
HyperStar	Broad Spectrum	Dark Neb	LDN-904	07:55 – 01:27	09:42	16	Cygnus: Northern Coal Sack (LDN-904)
HyperStar	Broad Spectrum	Dark Neb	B-168	08:06 – 03:26	11:46	27	Cepheus: Wolf's Cave
HyperStar	Broad Spectrum	Ref Neb	NGC-7686	08:29 – 04:09	12:19	34	Andromeda: Blue Match Nebula
HyperStar	Broad Spectrum	Galaxies	NGC-147	09:32 – 04:48	01:22	37	Cassiopeia: Galaxy Pair NGC-147 & NGC-185
HyperStar	Broad Spectrum	Galaxy	M-31	09:45 – 04:48	01:31	39	Andromeda: The Great Andromeda Galaxy
HyperStar	Broad Spectrum	Galaxy	M-31	09:45 – 04:48	01:31	39	<b>Rotation!</b> Andromeda: The Great Andromeda Galaxy
HyperStar	Broad Spectrum	Gal & GC	NGC-288, 253	*11:51-03:22	01:41	41	Sculptor: Galaxy and Globular pair
HyperStar	Broad Spectrum	Ref Neb	IC-59	10:03 – 04:48	01:46	42	Cassiopeia: Bright Nebula
HyperStar	Broad Spectrum	Galaxy	M-33	10:49 – 04:48	02:22	45	Triangulum: Triangulum Galaxy
HyperStar	Broad Spectrum	OC	NGC-869, 884	11:19 – 04:48	03:07	47	Perseus: Hand chi Persei
HyperStar	Broad Spectrum	Refl Neb	M-45	01:09 – 04:48	04:31	54	Taurus: Pleiades Open Cluster



# Prospective Imaging Objects – September 16 2023

## Imaging Summary September 16, 2023

Astronomical Dusk = 07:55

Astronomical Dawn = 04:48

### Focal Reducer: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Focal Reducer	Nebula	Nebula	NGC-6820	07:55 – 12:25	08:34	06	Vulpecula: LN-772
Focal Reducer	Nebula	Nebula	SH2-101	07:55 – 12:28	08:49	09	Cygnus: Tulip Nebula
Focal Reducer	Nebula	Nebula	NGC-6914 Reg	07:55 – 01:01	09:14	13	Cygnus: NGC-6914 Region
Focal Reducer	Nebula	Nebula	IC-1318	07:55 – 01:01	09:15	14	Cygnus: Butterfly Nebula
Focal Reducer	Nebula	Nebula	NGC-6960	07:55 – 01:17	09:42	17	Composite 2! Cygnus: Witch's Broom
Focal Reducer	Nebula	Nebula	NGC-6960	07:55 – 01:17	09:42	17	Cygnus: Pickering's Triangular Wisp
Focal Reducer	Nebula	Nebula	NGC-6992	07:55 – 01:21	09:46	18	Composite 2! Cygnus: Network Nebula
Focal Reducer	Nebula	Nebula	NGC-7023	07:55 – 01:13	09:51	19	Cepheus: Iris Nebula
Focal Reducer	Nebula	Nebula	IC-1396-1	07:55 – 02:16	10:28	23	Cepheus: Bright & Dark Nebula Region-1
Focal Reducer	Nebula	Nebula	IC-1396-2	07:55 – 02:16	10:28	23	Cepheus: Bright & Dark Nebula Region-2
Focal Reducer	Nebula	Nebula	IC-5146	07:55 – 02:33	10:43	26	Cygnus: Cocoon Nebula
Focal Reducer	Nebula	Nebula	SH2-132	07:55 – 02:57	11:08	28	Cepheus: Bright Nebula
Focal Reducer	Nebula	Nebula	SH2-142	07:55 – 03:22	11:34	30	Cepheus: Wizard Nebula
Focal Reducer	Nebula	Nebula	SH2-155	08:06 – 03:26	11:46	31	Cepheus: Cave Nebula
Focal Reducer	Nebula	Nebula	SH2-157	08:20 – 03:50	12:05	32	Cassiopeia: Lobster Claw
Focal Reducer	Nebula	Nebula	NGC-7822	09:26 – 04:16	12:51	36	Cepheus: Diffuse Nebula
Focal Reducer	Nebula	Nebula	NGC-246, 255	*11:23-04:17	01:36	40	Cetus: Planetary Nebula & 2 Galaxies
Focal Reducer	Nebula	Nebula	NGC-281	09:52 – 04:48	01:42	42	Cassiopeia: Pack Man Nebula
Focal Reducer	Nebula	Nebula	IC-1795	11:29 – 04:48	03:10	48	Cassiopeia: Fish Head Nebula
Focal Reducer	Nebula	Nebula	IC-1805	11:52 – 04:48	03:36	40	Cassiopeia: Heart Nebula

# Prospective Imaging Objects – September 16 2023

## Imaging Summary September 16, 2023

Astronomical Dusk = 07:55

Astronomical Dawn = 04:48

### Focal Reducer: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Focal Reducer	Broad Spectrum	Dark Neb	B-143	07:55 – 11:22	08:31	05	Aquila: Barnard's E
Focal Reducer	Broad Spectrum	Open Cl	M-39	07:55 – 02:11	10:21	22	Cygnus: Open Cluster M-39
Focal Reducer	Broad Spectrum	Dark Neb	LDN-1235	08:21 – 01:47	11:04	26	Cepheus: Dark Shark
Focal Reducer	Broad Spectrum	Ref Neb	VdB-152	08:21 – 01:47	11:04	27	Rotation! Cepheus: Wolf's Cave
Focal Reducer	Broad Spectrum	Galaxies	NGC-7331 et. El.	07:55 – 03:03	11:25	29	Rotation! Pegasus: Stephan's Quintet & NGC 7331
Focal Reducer	Broad Spectrum	Galaxies	NGC-7619 et. El.	09:28 – 02:51	12:09	33	Pegasus: Pegasus Cluster of Galaxies
Focal Reducer	Broad Spectrum	Galaxies	NGC-147, 185	09:32 – 04:48	01:22	37	Composite 2! Cassiopeia: Galaxy Pair
Focal Reducer	Broad Spectrum	Open Cl	NGC-188	*07:55-04:48	01:36	42	Cepheus: Open Star Cluster NGC-188
Focal Reducer	Broad Spectrum	Galaxy	M-33	10:49 – 04:49	02:22	46	Rotation! Triangulum: Triangulum Galaxy
Focal Reducer	Broad Spectrum	Galaxies	M-77, NGC-1055	01:16 – 04:48	03:26	50	Cetus: Galaxy Pair



# Prospective Imaging Objects – September 16 2023

## Imaging Summary September 16, 2023

Astronomical Dusk = 07:55

Astronomical Dawn = 04:48

### Primary Focus: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Nebula	PN	NGC-6751	&07:55-11:01	07:56	02	Aquila: PK 29-5.1 Small PN
Primary Focus	Nebula	PN	NGC-6772	*07:55-11:23	08:04	02	Aquila: PK 33-6.1 Med PN
Primary Focus	Nebula	PN	NGC-6778	07:55 – 10:08	08:08	03	Aquila: PK 34-61 Small PN
Primary Focus	Nebula	PN	NGC-6781	07:55 – 10:44	08:08	03	Aquila: PK 41-2.1 Med PN
Primary Focus	Nebula	PN	NGC-6804	07:55 – 12:25	08:34	04	Aquila: Small PN
Primary Focus	Nebula	Nebula	NGC-6820	07:55 – 12:25	08:34	06	Vulpecula: Open Cluster and Nebula
Primary Focus	Nebula	PN	NGC-6818	*07:55-11:07	08:34	06	Sagittarius: Little Gem Small PN
Primary Focus	Nebula	PN	NGC-6826	07:55 – 12:25	08:34	07	Cygnus: Blinking Planetary Small PN
Primary Focus	Nebula	PN	NGC-6842	07:55 – 12:16	08:45	08	Vulpecula PK 65+0.1 Med PN
Primary Focus	Nebula	PN	M-27	07:55 – 12:09	08:49	08	Vulpecula: Dumbbell Nebula
Primary Focus	Nebula	Nebula	SH2-101	07:55 – 12:28	08:49	09	Cygnus: Tulip Nebula
Primary Focus	Nebula	PN	NGC-6852	07:55 – 11:07	08:50	09	Aquila: PK 42-14.1 Small PN
Primary Focus	Nebula	Nebula	NGC-6888	07:55 – 12:45	09:02	10	Cygnus: Crescent Nebula
Primary Focus	Nebula	Nebula	DWB-111	07:55 – 12:50	09:03	10	Cygnus: Propeller Nebula
Primary Focus	Nebula	PN	NGC-6891	07:55 – 12:00	09:05	11	Delphinus: PK 54-12.1 Small PN
Primary Focus	Nebula	PN	NGC-6894	07:55 – 12:39	09:06	11	Cygnus: PK 69-2.1 Small PN
Primary Focus	Nebula	PN	IC-4997	07:55 – 12:16	09:10	11	Saitta: PK 58-10.1 Small PN
Primary Focus	Nebula	PN	NGC-6905	07:55 – 12:26	09:12	12	Delphinus: Blue Flash Nebula Small PN
Primary Focus	Nebula	Nebula	NGC-6914 Reg	07:55 – 01:01	09:14	13	Cygnus: NGC-6914 Region
Primary Focus	Nebula	Nebula	IC-1318	07:55 – 01:01	09:15	14	Cygnus: Butterfly Nebula
Primary Focus	Nebula	PN	NGC-7008	07:55 – 01:40	09:50	19	Cygnus: Fetus Nebula Med PN
Primary Focus	Nebula	Nebula	NGC-7023	07:55 – 01:13	09:51	20	Cepheus: Iris Nebula
Primary Focus	Nebula	PN	NGC-7009	*07:55-12:41	09:54	20	Aquarius: Saturn Nebula
Primary Focus	Nebula	PN	NGC-7026	07:55 – 01:46	09:56	20	Cygnus: Small Planetary Nebula

# Prospective Imaging Objects – September 16 2023

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Nebula	PN	NGC-7027	07:55 – 01:43	09:56	21	Cygnus: Small Planetary Nebula
Primary Focus	Nebula	PN	NGC-7048	07:55 – 01:53	10:04	21	Cygnus: Small PN PK 88-1.1
Primary Focus	Nebula	PN	NGC-7094	07:55 – 01:18	10:22	22	Pegasus: Small/Med Planetary
Primary Focus	Nebula	DN & BN	IC-1396-1	07:55 – 02:16	10:28	24	Cepheus: Elephant Trunk Region of Interest
Primary Focus	Nebula	Nebula	IC-1396-2	07:55 – 02:16	10:28	24	Cepheus: Elephant Trunk Region of Interest
Primary Focus	Nebula	Nebula	IC-1396-3	07:55 – 02:16	10:28	24	Cepheus: Elephant Trunk Region of Interest
Primary Focus	Nebula	PN	NGC-7139	07:55 – 02:13	10:35	25	Cepheus: Med Planetary Nebula
Primary Focus	Nebula	Nebula	IC-5146	07:55 – 02:33	10:43	26	Cygnus: Cocoon Nebula (IC-5146)
Primary Focus	Nebula	PN	NGC-7293	*09:27-01:09	11:19	27	Aquarius: Helix Nebula
Primary Focus	Nebula	Nebula	SH2-132	07:55 – 02:57	11:08	28	Cepheus: Bright Nebula
Primary Focus	Nebula	Nebula	SH2-142	07:55 – 03:22	11:34	30	Cepheus: Wizard Nebula
Primary Focus	Nebula	Nebula	SH2-155	08:06 – 03:26	11:46	31	Cepheus: Cave Nebula
Primary Focus	Nebula	Nebula	NGC-7635	08:26 – 03:52	12:09	32	Cepheus: Bubble Nebula
Primary Focus	Nebula	Nebula	NGC-7822	09:26 -04:16	12:51	36	Cepheus: Emission Nebula
Primary Focus	Nebula	PN	NGC-40	10:10 – 03:54	01:02	36	Cepheus: Bow-Tie Nebula
Primary Focus	Nebula	PN	NGC-246	*11:23-04:17	01:36	40	Cetus: Skull Nebula
Primary Focus	Nebula	Nebula	IC-59	10:03 – 04:48	01:46	43	Cassiopeia: Reflection Nebula
Primary Focus	Nebula	Nebula	SH2-188	10:32 – 04:48	02:19	45	Cassiopeia: Firefox Nebula
Primary Focus	Nebula	PN	M-76	10:36 – 04:48	02:27	47	Perseus: Little Dumbbell Nebula
Primary Focus	Nebula	Nebula	IC-1805	11:52 – 04:48	03:36	50	Cassiopeia: Heart Nebula
Primary Focus	Nebula	Nebula	IC-1848	11:52 – 04:48	03:36	52	Cassiopeia: Soul Nebula
Primary Focus	Nebula	Nebula	NGC-1333	12:39 – 04:48	04:14	52	Perseus: Reflection Nebula
Primary Focus	Nebula	Nebula	NGC-1360	*02:21-04:48	04:18	53	Fornax: Robins Egg Nebula
Primary Focus	Nebula	Nebula	IC-348	12:53 - 04:48	04:29	53	Perseus: Reflection Nebula
Primary Focus	Nebula	Nebula					

# Prospective Imaging Objects – September 16 2023

## Imaging Summary September 16, 2023

Astronomical Dusk = 07:55

Astronomical Dawn = 04:48

### Primary Focus: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	GC	M-56	07:55 – 11:39	08:06	03	Lyra: Med Globular NGC-6779
Primary Focus	Broad Spectrum	GC	M-55	*07:55–10:28	08:30	05	Sagittarius: Large Globular
Primary Focus	Broad Spectrum	Galaxy	NGC-6822	*07:55-11:01	08:35	07	Sagittarius: Barnard’s Galaxy
Primary Focus	Broad Spectrum	GC	M-71	07:55 – 11:54	08:43	07	Sagitta: Med Globular NGC-6838
Primary Focus	Broad Spectrum	GC	M-75	*07:55-10:34	08:56	10	Sagittarius: Small GC NGC-6864
Primary Focus	Broad Spectrum	OC	M-29	07:55 – 12:57	09:14	12	Cygnus: Cooling Tower, Open Cluster NGC-6913
Primary Focus	Broad Spectrum	Galaxy	NGC-6946	07:55 – 01:09	09:24	15	Cepheus: Fireworks Galaxy
Primary Focus	Broad Spectrum	GC	M-72	*07:55-12:24	09:43	18	Aquarius: NGC-6981 Small Globular
Primary Focus	Broad Spectrum	OC	M-73	*07:55-12:30	09:48	19	Aquarius: NGC-6994 Small Open Cluster
Primary Focus	Broad Spectrum	GC	M-15	07:55 – 02:11	10:21	21	Cepheus: Pegasus Cluster Small Globular Cluster
Primary Focus	Broad Spectrum	GC	M-2	07:55 – 12:27	10:23	22	Aquarius: Med-Large Globular NGC-7089
Primary Focus	Broad Spectrum	GC	M-30	*09:00-11:57	10:30	25	Capricornus: Small-Med Globular NGC-7099
Primary Focus	Broad Spectrum	Galaxies	NGC-7317	07:55 – 03:03	11:25	29	Pegasus: Stephan’s Quintet
Primary Focus	Broad Spectrum	Galaxies	NGC-7331	07:55 – 03:05	11:26	29	Pegasus: Galaxy Group NGC-7331
Primary Focus	Broad Spectrum	Galaxy	NGC-7479	09:00 – 02:48	11:54	31	Pegasus: Galaxy PGC-70419
Primary Focus	Broad Spectrum	Galaxies	NGC-7619 Et. El.	12:39 – 04:03	03:21	33	Pegasus: Pegasus Cluster of galaxies
Primary Focus	Broad Spectrum	OC	M-52	08:32 – 03:56	12:14	33	Cassiopeia: Open Cluster NGC-7654
Primary Focus	Broad Spectrum	OC	NGC-7789	08:58 – 04:35	12:46	34	Cassiopeia: Caroline’s Rose
Primary Focus	Broad Spectrum	Galaxies	NGC 67-72 et. El.	09:34 – 04:40	01:07	37	Andromeda: Andromeda Galaxy Group
Primary Focus	Broad Spectrum	Galaxy	NGC-147	09:32 – 04:48	01:22	38	Cassiopeia: Med Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-185	09:32 – 04:48	01:22	38	Cassiopeia: Sm Elipical Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-110	09:43 – 04:48	01:29	38	Andromeda: Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-32	09:45 – 04:48	01:31	39	Andromeda: Companion to M-31
Primary Focus	Broad Spectrum	Galaxy	NGC-247	*11:01-04:00	01:36	40	Cetus: Needle’s Eye Galaxy



## Prospective Imaging Objects – September 16 2023

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	Galaxy	NGC-253	*11:35-02:27	01:36	41	Sculptor: Sculptor Galaxy
Primary Focus	Broad Spectrum	Globular	NGC-288	*11:51-03:22	01:41	41	Sculptor: Med-Large Globular
Primary Focus	Broad Spectrum	Galaxy	IC-1613	11:35 – 04:48	01:53	43	Cetus: Irregular Dwarf Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-404	10:18 – 04:48	01:58	43	Andromeda: Mirachs Ghost
Primary Focus	Broad Spectrum	OC	NGC-457	10:21 – 04:48	02:08	44	Cassiopeia: Owl Cluster
Primary Focus	Broad Spectrum	Galaxies	Arp-133	12:13 – 04:48	02:14	44	Cetus: Minkowski's Object
Primary Focus	Broad Spectrum	OC	M-103	10:38 – 04:48	02:22	45	Cassiopeia: Open Cluster
Primary Focus	Broad Spectrum	Galaxy	M-33	10:49 – 04:48	02:22	46	Triangulum: Triangulum Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-74	11:18 – 04:48	02:21	46	Pisces: Med Face on Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-772	11:32 – 04:48	02:44	47	Aries: Nautilus Galaxy
Primary Focus	Broad Spectrum	OC	NGC-869, 884	11:19 – 04:48	03:07	47	Perseus: Hand chi Peersei Open Cluster
Primary Focus	Broad Spectrum	Galaxy	NGC-891	11:20 – 04:48	03:07	48	Andromeda: Edge on Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-925	11:34 – 04:48	03:12	48	Triangulum: Small Galaxy PGC-9332
Primary Focus	Broad Spectrum	Galaxy	NGC-1055	01:16 – 04:48	03:25	50	Cetus: Edge on Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-77	01:19 – 04:48	03:27	51	Cetus: Galaxy NGC-1068
Primary Focus	Broad Spectrum	OC	M-34	11:39 – 04:48	03:27	51	Perseus: Open Cluster NGC-1039
Primary Focus	Broad Spectrum	Galaxies	Abell-426	12:18 – 04:48	04:04	52	Perseus: Perseus Galaxy Cluster
Primary Focus	Broad Spectrum	Galaxy	IC-342	01:09 – 04:48	04:32	53	Camelopardalis: Large Face-On Galaxy
Primary Focus	Broad Spectrum	OC	M-45	01:09 – 04:48	04:31	54	Taurus: Pleiades
Primary Focus	Broad Spectrum	Galaxy					

# Prospective Imaging Objects – September 16 2023

## Imaging Summary September 16, 2023

Astronomical Dusk = 07:55

Astronomical Dawn = 04:48

### Primary Prospects

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HS3a	HyperStar	Nebula	Nebula	NGC-6820	07:55 – 12:25	08:34	05	Vulpecula: Star cloud and nebula
HS1a	HyperStar	Nebula	Nebula	B-144	07:55 – 12:28	08:49	08	Cygnus: Fish on the Platter
HS2a	HyperStar	Nebula	Nebula	NGC-6914 Region	07:55 – 01:01	09:14	12	Composite2 Cygnus: NGC-6914 Region
	HyperStar	Nebula	Nebula	NGC-6914 Region	07:55 – 01:01	09:14	13	Cygnus: NGC-6914 Region
	HyperStar	Nebula	Nebula	IC-1318	07:55 – 01:01	09:15	14	Cygnus: Butterfly Nebula
	HyperStar	Nebula	Nebula	NGC-6960	07:55 – 01:17	09:42	16	Composite2 Cygnus: Veil Nebula
	HyperStar	Nebula	Nebula, DN	B-168, IC-5146	07:55 – 02:33	10:43	25	Cygnus: Dark Cocoon
	HyperStar	Nebula	Nebula	SH2-132	07:55 – 02:57	11:08	28	Cepheus: Bright Nebula
HS1b	HyperStar	Nebula	Nebula	IC-59,63	10:03 – 04:48	01:46	42	Cassiopeia: Bright Nebula
HA2a	HyperStar	Broad Spectrum	Galaxy	M-33	10:49 – 04:48	02:22	45	Triangulum: Triangulum Galaxy
HS3b	HyperStar	Nebula	Nebula	IC-1848	11:52 – 04:48	03:36	49	Composite4 Cassiopeia: Heart & Soul
	Focal Reducer	Broad Spectrum	DN	B-143	07:55 – 11:22	08:31	05	Aquila: Barnard's E
FR3a	Focal Reducer	Nebula	Nebula	NGC-6820	07:55 – 12:25	08:34	06	Vulpecula: Open Cluster & Nebula
	Focal Reducer	Nebula	Nebula	SH2-101	07:55 – 12:28	08:49	09	Cygnus: Tulip Nebula
	Focal Reducer	Nebula	Nebula	NGC-6914 Region	07:55 – 01:01	09:14	13	Cygnus: NGC-6914 Region
	Focal Reducer	Nebula	Nebula	IC-1318	07:55 – 01:01	09:15	14	Cygnus: Butterfly Nebula region
	Focal Reducer	Nebula	Nebula	NGC-6992	07:55 – 01:21	09:46	18	Composite2 Cygnus: Network Nebula
	Focal Reducer	Nebula	R Nebula	NGC-7023	07:55 – 01:13	09:51	19	Cepheus: Iris Nebula
	Focal Reducer	Nebula	Nebula	IC-1396	07:55 – 02:16	10:28	23	Cepheus: Elephant Trunk ROI (2)
	Focal Reducer	Nebula	Nebula, DN	IC-5146	07:55 – 02:33	10:43	26	Cygnus: Dark Cocoon
	Focal Reducer	Nebula	Nebula	SH2-132	07:55 – 02:57	11:08	28	Cepheus: Bright Nebula
	Focal Reducer	Broad Spectrum	Galaxies	NGC-7331 et. El.			29	Rotation Pegasus: Stephan's Quintet & NGC-7331

# Prospective Imaging Objects – September 16 2023

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
	Focal Reducer	Nebula	Nebula	SH2-142	07:55 – 03:22	11:34	30	Cepheus: Wizard Nebula
FR1	Focal Reducer	Nebula	Nebula	Sh2-155	08:06 – 03:26	11:46	31	Cepheus: Cave Nebula
	Focal Reducer	Broad Spectrum	Galaxies	NGC-7619	09:28 – 02:51	12:09	33	Pegasus: Pegasus Cluster of Galaxies
FR2	Focal Reducer	Nebula	Nebula	NGC-7822	09:26 – 04:16	12:51	36	Cepheus: Diffuse Nebula
FR3b	Focal Reducer	Broad Spectrum	Galaxy	M-33	10:49 – 04:48	02:22	46	Rotation Triangulum: Triangulum Galaxy
GC-1a	Primary Focus	Broad Spectrum	GC	M-56	07:55 – 11:39	08:06	03	Lyra: Sm/Med Globular NGC-6779
	Primary Focus	Broad Spectrum	GC	M-55	*07:55-10:28	08:30	05	Sagittarius: Large GC NGC-6809
M-1a	Primary Focus	Broad Spectrum	GC	M-71	07:55 – 11:54	08:43	07	Sagitta: Sm Globular NGC-6838
	Primary Focus	Broad Spectrum	GC	M-75	*07:55-10:34	08:56	10	Sagittarius: Sm Globular NGC-6864
	Primary Focus	Broad Spectrum	GC	M-72	*07:55-12:24	09:43	18	Aquarius: Sm Globular NGC-6981
M-2a	Primary Focus	Broad Spectrum	GC	M-2	07:55 – 12:27	10:23	22	Aquarius: Large Globular
	Primary Focus	Broad Spectrum	GC	M-30	*09:00-11:57	10:30	25	Capricornus: Med Globular
GC-1b	Primary Focus	Broad Spectrum	GC	NGC-288	*11:51-03:22	01:41	41	Sculptor: Med/Large Globular
	Primary Focus	Nebula	PN	NGC-6751	*07:55-11:23	07:56	02	Aquila: Small Planetary
PN-1a	Primary Focus	Nebula	PN	<b>NGC-6772</b>	*07:55 – 11:23	08:04	02	Aquila: Med Planetary Nebula
	Primary Focus	Nebula	PN	NGC-6778	07:55 – 10:08	08:08	03	Aquila: Small Planetary
	Primary Focus	Nebula	PN	<b>NCC-6781</b>	07:55 – 10:44	08:08	03	Aquila: Med Planetary
	Primary Focus	Nebula	PN	NGC-6804	07:55 – 12:25	08:34	04	Aquila: Small/Med Planetary
	Primary Focus	Nebula	PN	NGC-6818	*07:55-11:07	08:34	06	Sagittarius: Small Planetary
	Primary Focus	Nebula	PN	NGC-6826	07:55 – 12:25	08:34	07	Cygnus: Small Planetary
	Primary Focus	Nebula	PN	<b>NGC-6842</b>	07:55 – 12:16	08:45	08	Vulpecula: Small PN
	Primary Focus	Nebula	PN	NGC-6852	07:55 – 11:07	08:50	09	Aquila: Small Planetary
	Primary Focus	Nebula	PN	NGC-6894	07:55 – 12:39	09:06	11	Cygnus: Sm/Med Planetary
	Primary Focus	Nebula	PN	NGC-7009	*07:55-12:41	09:54	20	Aquarius: Saturn Nebula, Small PN
	Primary Focus	Nebula	PN	NGC-7026	07:55 – 01:46	09:56	20	Cygnus: Small Planetary
PN-2a	Primary Focus	Nebula	PN	<b>NGC-7048</b>	07:55 – 01:53	10:04	21	Cygnus: Sm-med PN



# Prospective Imaging Objects – September 16 2023

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
	Primary Focus	Nebula	PN	NGC-7094	07:55 – 01:18	10:22	22	Pegasus: Sm/Med Planetary
M-2b	Primary Focus	Nebula	PN	NGC-40	10:10 – 03:54	01:02	36	Cepheus: Bow-Tie Nebula
M-1b	Primary Focus	Nebula	PN	<b>NGC-246</b>	*11:23-04:17	01:36	40	Cetus: Skull Nebula
PN-1b								
PN-2b	Primary Focus	Nebula	PN	<b>NGC-1360</b>	*02:21-04:48	04:18	53	Fornax: Robins Egg Nebula
	Primary Focus	Nebula	Nebula	NGC-6820	07:55 – 12:25	08:34	06	Vulpecula: Nebula
	Primary Focus	Broad Spectrum	Galaxy	NGC-6822	*07:55-11:01	08:35	07	Sagittarius: Barnard's Galaxy
	Primary Focus	Nebula	Nebula	SH2-101	07:55 – 12:28	08:49	09	Cygnus: Tulip Nebula
PF3a	Primary Focus	Nebula	Nebula	<b>NGC-6888</b>	07:55 – 12:45	09:02	10	Cygnus: Crescent Nebula
	Primary Focus	Nebula	Nebula	NGC-6914	07:55 – 01:01	09:14	13	Cygnus: Nebula ROI
	Primary Focus	Broad Spectrum	Galaxy	NGC-6946	07:55 – 01:09	09:24	15	Cepheus: Fireworks Galaxy
	Primary Focus	Nebula	DN	IC-1396	07:55 – 02:16	10:28	24	Cepheus: Elephant Trunk ROI (3)
	Primary Focus	Nebula	Nebula	SH2-132	07:55 – 02:57	11:08	28	Cepheus: Bright Nebula
	Primary Focus	Broad Spectrum	Galaxy	NGC 7331 Etl El.	07:55 – 03:03	11:25	29	Pegasus: Stephan's Quintet
PF2	Primary Focus	Nebula	Nebula	SH2-155	08:06 – 03:26	11:46	31	Cepheus: Cave Nebula
	Primary Focus	Broad Spectrum	Galaxies	NGC-7619 Et. El.	12:39 – 04:03	03:21	33	Pegasus: Pegasus Cluster of Galaxies
PF1	Primary Focus	Broad Spectrum	Galaxies	NGC 67-72	09:34 – 04:40	01:07	37	Andromeda: Andromeda Galaxy Group
	Primary Focus	Nebula	Nebula	IC-59, 63	10:03 – 04:48	01:46	43	Cassiopeia: Bright Nebula
	Primary Focus	Broad Spectrum	Galaxy	IC-1613	11:35 – 04:48	01:53	43	Cetus: Irregular Dwarf Galaxy
	Primary Focus	Broad Spectrum	Galaxies	Arp-133	12:13 – 04:48	02:14	44	Cetus: Minkowski's Object
	Primary Focus	Nebula	Nebula	SH2-188	10:32 – 04:48	02:19	45	Cassiopeia: Firefox Nebula
	Primary Focus	Broad Spectrum	Galaxy	NGC-772	11:32 – 04:48	02:44	47	Aries: Nautilus Galaxy
	Primary Focus	Broad Spectrum	Galaxy	NGC-1055	01:16 – 04:48	03:26	60	Cetus: Edge on Galaxy
	Primary Focus	Broad Spectrum	Galaxy	M-77	01:19 – 04:48	03:27	51	Cetus: Galaxy
	Primary Focus	Broad Spectrum	Galaxies	Abell-426	12:18 – 04:48	04:04	52	Perseus: Perseus Galaxy Cluster
	Primary Focus	Nebula	Nebula	NGC-1333	12:39 – 04:48	04:15	52	Perseus: Bright Nebula
PF3b	Primary Focus	Nebula	Nebula	IC-348	12:53 – 04:48	04:29	53	Perseus: Bright Nebula

## Prospective Imaging Objects – September 16 2023

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
	Primary Focus	Broad Spectrum	Galaxy	IC-342	01:09 – 04:48	04:31	53	Camelopardalis: Face On Galaxy

# Prospective Imaging Objects – September 16 2023

## Imaging Summary September 16, 2023

Astronomical Dusk = 07:55

Astronomical Dawn = 04:48

### Imaging Plans

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Imaging Schedule
HS1a	HyperStar	Nebula	Nebula	B-144	07:55 – 12:28	08:49	08	07:55 – 12:00
HS1b	HyperStar	Nebula	Nebula	IC-59, 63	10:03 – 04:48	01:46	42	12:00 – 04:48
HS2a	HyperStar	Nebula	Nebula	NGC-6914 Region	07:55 – 01:01	09:14	12	07:55 – 12:00
HS2b	HyperStar	Broad Spectrum	Galaxy	M-33	10:49 – 04:48	02:22	45	12:00 – 04:48
HS3a	HyperStar	Nebula	Nebula	NGC-6820	07:55 – 12:25	08:34	05	07:55 – 12:00
HS3b	HyperStar	Nebula	Nebula	IC-1848	11:52 – 04:48	03:36	49	12:00 – 04:48
FR1	Focal Reducer	Nebula	Nebula	SH2-155	08:06 – 03:26	11:46	31	All Night
FR2	Focal Reducer	Nebula	Nebula	NGC-7822	09:26 – 04:16	12:51	36	All Night
FR3a	Focal Reducer	Nebula	Nebula	NGC-6820	07:55 – 12:25	08:34	06	07:55 – 12:00
FR3b	Focal Reducer	Nebula	Galaxy	M-33	10:49 – 04:48	02:22	46	12:00 – 04:48
GC1a	Primary Focus	Broad Spectrum	GC	M-36	07:55 – 11:39	08:06	03	07:55 – 11:30
GC-1b	Primary Focus	Broad Spectrum	GC	NGC-288	*11:51-03:22	01:41	41	11:50 – 03:22
M-1a	Primary Focus	Broad Spectrum	GC	M-71	07:55 – 11:54	08:43	07	07:55 – 12:00
M-1b	Primary Focus	Nebula	Nebula	NGC-246	*11:23-04:17	01:36	40	12:00 – 04:17
M-2a	Primary Focus	Broad Spectrum	GC	M-2	07:55 – 12:27	10:23	22	07:55 – 11:30
M-2b	Primary Focus	Nebula	PN	NGC-40	10:10 – 03:54	01:02	36	11:30 – 03:54
PN1a	Primary Focus	Nebula	PN	NGC-6772	*07:55-11:23	07:56	02	07:55 – 11:00
PN1b	Primary Focus	Nebula	PN	NGC-246	*11:23-04:17	01:36	40	11:00 – 04:17
PN2a	Primary Focus	Nebula	PN	NGC-7048	07:55 – 01:53	10:04	21	07:55 – 12:00
PN2b	Primary Focus	Nebula	PN	NGC-1360	*02:21-04:48	04:18	53	12:00 – 04:48



## Prospective Imaging Objects – September 16 2023

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Imaging Schedule
PF1	Primary Focus	Nebula	Galaxies	NGC 67-72	09:34 – 04:40	01:07	37	All Night
PF2	Primary Focus	Nebula	Nebula	SH2-155	08:06 – 03:26	11:46	31	All Night
PF3a	Primary Focus	Nebula	Nebula	NGC-6888	07:55 – 12:45	09:02	10	07:55 – 12:00
PF3b	Primary Focus	Nebula	Nebula	IC-348	12:53 – 04:48	04:29	53	12:00 – 04:29
	Primary Focus	Nebula	Nebula					