

Prospective Imaging Objects – August 16 2023

Astronomical Data

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

Hardware Info

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

How to use this document

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

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

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




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

Primary Focus




Sculptor Galaxy (NGC 253)
 Constellation: Sculptor

- 01: Background Fill Color** - Items that I have previously imaged will have a fill color of grey, Images not yet imaged will have a white background color.
- 02: Object Name and catalog number** – Common name long with one of the reference catalog numbers associated with this object.
- 03: Config** – The optimal configuration to image this object, and the configuration the provided image is based on based on what hardware I own. Configuration will either be the Celestron C-11 Primary focus (with focal reducer) or C-11 with HyperStar.
- 04: Object Image** – If this is an object I have already imaged, the thumbnail is my photo. It is hyperlinked to my website, so selecting the image should open a larger image in your browser. If the object has not yet been imaged by me the image displayed is for the identified configuration as obtained from <http://www.telescopious.com>.
- 05: Close Star** – A fairly bright star close to the target that can be used to check focus and sync the telescope before the imaging session begins.
- 06: Catalog Objects** – List of objects that should appear in the field of view. When possible they are hyperlinked to <http://www.telescopious.com> where more information can be obtained.
- 07: Imaging Window** – Ideally the time the object is 45° above the horizon. Southern objects with negative DEC that do not peak above 45° are indicated with a *. Imaging window for these objects may be based on 30° or even 25° above horizon for the imaging window.
- 08: Transit** – When the object is at the highest point in the sky for the night. For equatorial mounts this is when the meridian flip will occur.




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<p>Ptolemy Cluster^(M-7) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Scorpius Coordinates: 17h 53' 39" -34° 48' 53"</p> <p>Close Star: SAO-210091 (Kaus Aus.) Catalog Objects: M-7/NGC-6475 Imaging Window: *08:42 – 09:49 Transit: 08:42 22°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M-23^(NGC-6494) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Sagittarius Coordinates: 17h 56' 56" -19° 00' 42"</p> <p>Close Star: SAO-184415 (Antares) Catalog Objects: M-23/NGC-6494 Imaging Window: *08:42 – 11:23 Transit: 08:45 38°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Cat's Eye Nebula^(NGC-6543) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Draco Coordinates: 17h 59' 00" 66° 37' 39"</p> <p>Close Star: SAO-18222 (Altais) Catalog Objects: NGC-6543 Imaging Window: 08:42 – 12:15 Transit: 08:46 57°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;"> Cat's Eye Nebula (NGC-6543) Credit: Robert Dreyer RA: 17h 59m 00s DEC: +66deg 37' 39" Size: 48 x 27 arcmin Orientation: 0.11 deg @ 0° PA (Field width: 0.441 arcmin) TS: 20090601 </p> <p style="font-size: x-small; text-align: right;"> Astro-Photo (Date: 2023-08-11 Location: Canada, CA) Config: 1" C-11 HD Astrocam, ZWO6200MC Exposure: 60s f/5.6 ISO: 1600 Gain: 100 </p>

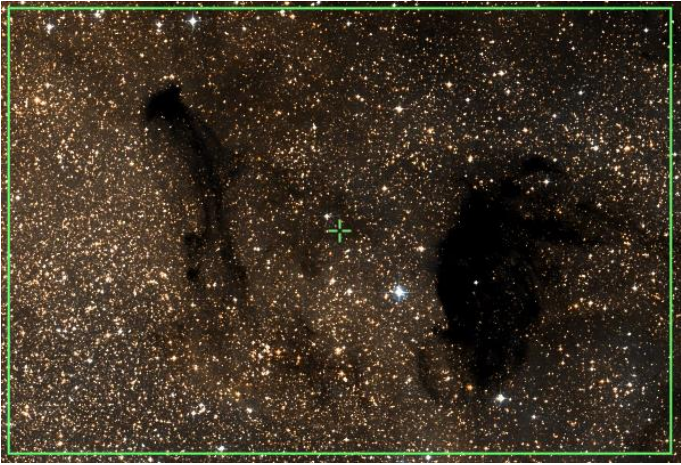
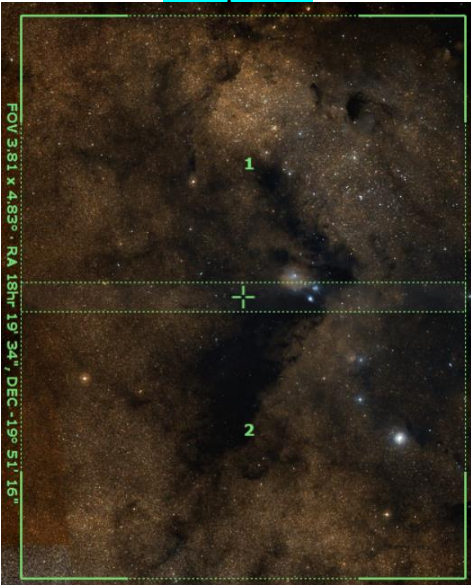

Prospective Imaging Objects – August 16 2023

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




Prospective Imaging Objects – August 16 2023

<p>IC-4685 (IC-4685) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Sagittarius Coordinates: 18h 09' 29" -23° 50' 25"</p> <p>Close Star: SAO-209696 (Alnasl) Rotation 90°</p> <p>Catalog Objects: IC-1274 Imaging Window: *08:42 – 11:07 Transit: 08:58 33°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>IC-1274 (IC-1275) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Sagittarius Coordinates: 18h 09' 41" -23° 52' 50"</p> <p>Close Star: SAO-184415 (Antares)</p> <p>Catalog Objects: IC-1274 Imaging Window: *08:42 – 11:07 Transit: 08:58 33°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p><small>Bright Nebula IC-1274, IC-1275, IC-4685, NGC-6559 Constellation: Sagittarius RA = 18h 09m 41s DEC = -23deg 52' 50" Image Size = 60.8 x 70.5 Arcmin Orientation: 90deg E of N (Pixel scale = 0.627 arcsec/pixel) FL=1900mm Date: 2023-08-11 Location: Mountain View, CA Config: C-11 HD + Focal Reducer + ZWO6200MC Exposure Info: 1000x30min (Gain: 3200) Offset: 100</small></p>
<p>Emerald Nebula (NGC-6572) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Ophiuchus Coordinates: 18h 12' 06" 06° 51' 15"</p> <p>Close Star: SAO-102932 (Rasalhague) Catalog Objects: NGC-6572 Imaging Window: 08:42 – 11:37 Transit: 09:00 64°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p><small>Planetary Nebula NGC-6572 Constellation: Ophiuchus RA = 18h 12m 06s DEC = 06deg 51' 15" Image Size = 27.1 x 33.8 Arcmin Orientation: 90deg E of N (Pixel scale = 0.27 arcsec/pixel) FL=2000mm Date: 2023-08-11 Location: Mountain View, CA Config: C-11 HD + ZWO6200MC Exposure Info: 1000x30min (Gain: 3200) Offset: 100</small></p>


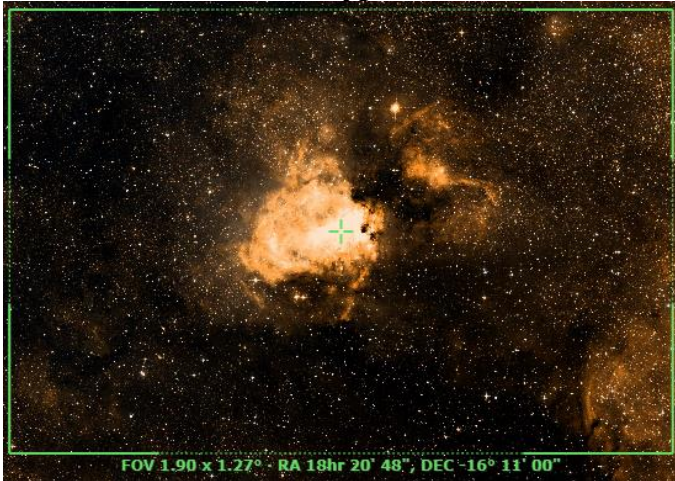

Prospective Imaging Objects – August 16 2023

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


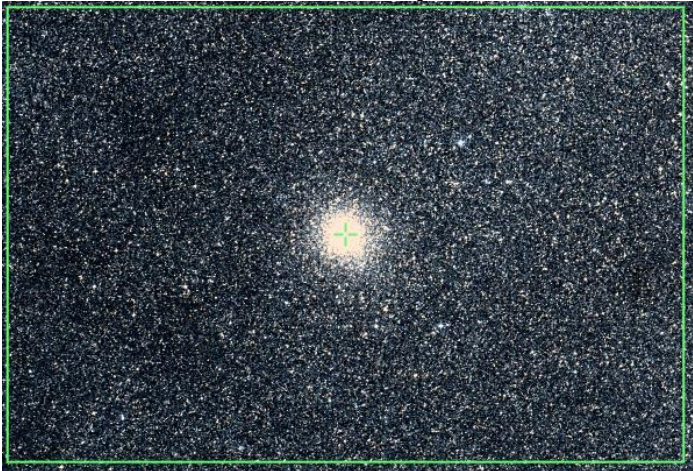
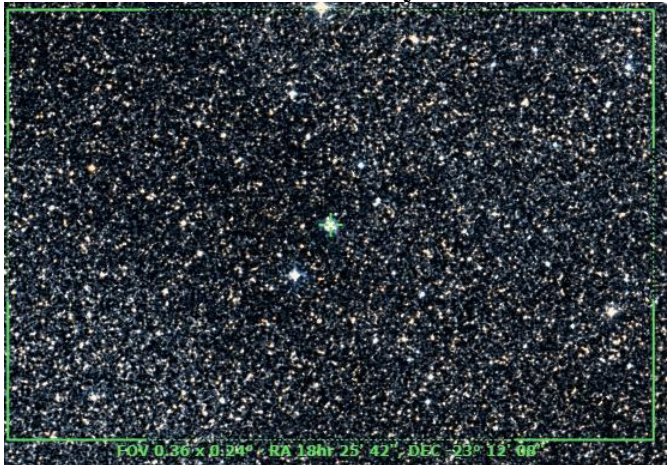
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<p>Sagittarius Star Cloud(M-24) Config: C11-HD FR ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Sagittarius Coordinates: 18h 18' 42" -18° 30' 43"</p> <p>Close Star: SAO-184415 (Antares)</p> <p>Catalog Objects: M-24/IC-4715, NGC-6603 Imaging Window: *08:42 – 11:12 Transit: 09:07 38°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Eagle Nebula(M-16) Config: C11-HD HS ZWO6200MC </p> <p>Type: Diffuse Nebula</p> <p>Constellation: Serpens Coordinates: 18h 18' 52" -13° 51' 27"</p> <p>Close Star: SAO-186841 (Kaus Borealis) Catalog Objects: M-16/NGC-6611 Imaging Window: *08:42 – 11:40 Transit: 09:07 43°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<p>Eagle Nebula(M-16) Config: C11-HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula</p> <p>Constellation: Serpens Coordinates: 18h 18' 52" -13° 51' 27"</p> <p>Close Star: SAO-186841 (Kaus Borealis) Catalog Objects: M-16/NGC-6611 Imaging Window: *08:42 – 11:40 Transit: 09:07 43°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 


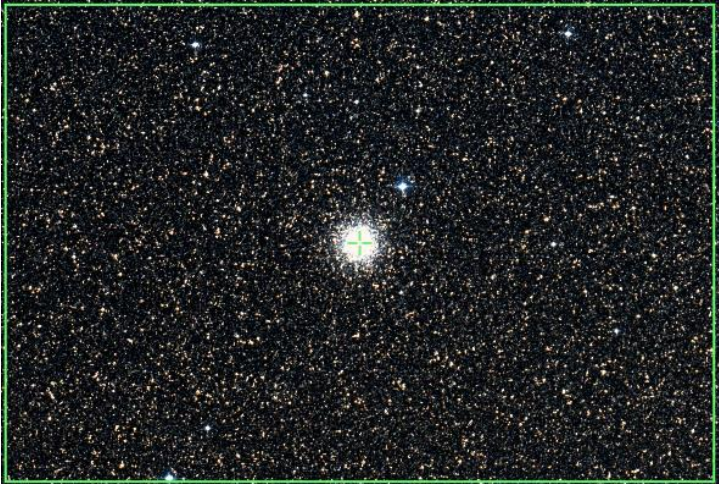
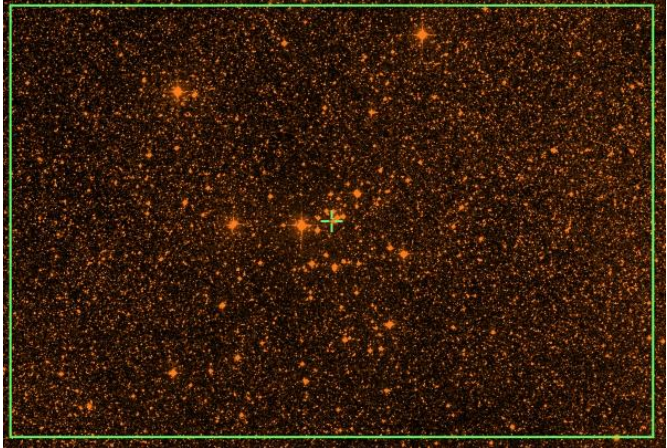
Prospective Imaging Objects – August 16 2023

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



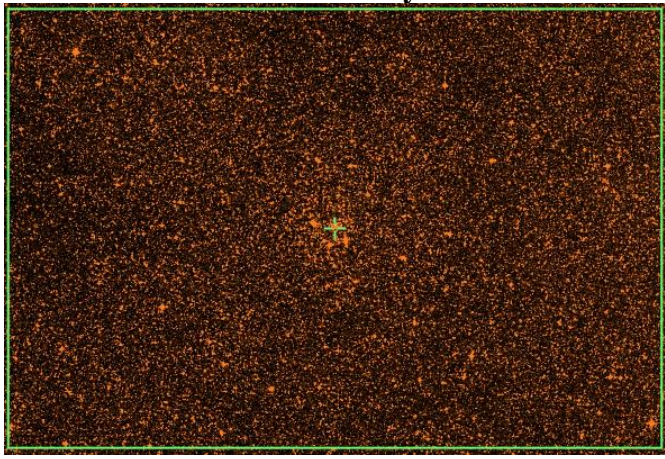
Prospective Imaging Objects – August 16 2023

<p>Omega Nebula(M-17) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula</p> <p>Constellation: Sagittarius Coordinates: 18h 20' 44" -16° 07' 04"</p> <p>Close Star: SAO-186841 (Kaus Borealis) Catalog Objects: M-17/NGC-6618, NGC-6618 Imaging Window: *08:42 – 11:29 Transit: 09:09 40°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Omega Nebula (M-17) Emission Nebula in Sagittarius</p> <p style="font-size: x-small; text-align: right;">James Yoder 2018.07.31 C11 HD 2000-485 (08128) 08:42:00</p>
<p>M-28(NGC-6626) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster</p> <p>Constellation: Sagittarius Coordinates: 18h 24' 33" -24° 52' 10"</p> <p>Close Star: SAO-186841 (Kaus Borealis) Catalog Objects: M-28/NGC-6626 Imaging Window: *08:42 – 11:12 Transit: 09:12 32°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-6629 Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Sagittarius Coordinates: 18h 25' 42" -23° 12' 08"</p> <p>Close Star: SAO-186841 (Kaus Borealis) Catalog Objects: NGC-6629 Imaging Window: 08:42 – 11:23 Transit: 09:13 33°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small; text-align: center; color: green;">FOV 0.36 x 0.24° RA 18h 25' 42" DEC -23° 12' 08"</p>

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<p>NGC-6633 Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Ophiuchus Coordinates: 18h 27' 15" 06° 30' 30"</p> <p>Close Star: SAO-125122 (Altair) Catalog Objects: NGC-6633 Imaging Window: 08:42 – 11:51 Transit: 09:15 63°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p>A wide-field astronomical image showing a dense field of stars. The stars are predominantly white and blue, with a few brighter stars. A small green crosshair is visible in the center of the image.</p>
<p>M-69(NGC-6637) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster</p> <p>Constellation: Sagittarius Coordinates: 18h 31' 23" -32° 20' 51"</p> <p>Close Star: SAO-186841 (Kaus Borealis) Catalog Objects: M-69/NGC-6637 Imaging Window: *08:42 – 11:01 Transit: 09:19 24°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p>A wide-field astronomical image showing a dense field of stars. The stars are predominantly white and blue, with a few brighter stars. A small green crosshair is visible in the center of the image.</p>
<p>M-25 (IC-4725) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Sagittarius Coordinates: 18h 31' 45" -19° 07' 12"</p> <p>Close Star: SAO-186841 (Kaus Borealis) Catalog Objects: M-25 Imaging Window: *08:42 – 11:23 Transit: 09:19 37°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p>A wide-field astronomical image showing a dense field of stars. The stars are predominantly orange and red, with a few brighter stars. A small green crosshair is visible in the center of the image.</p>



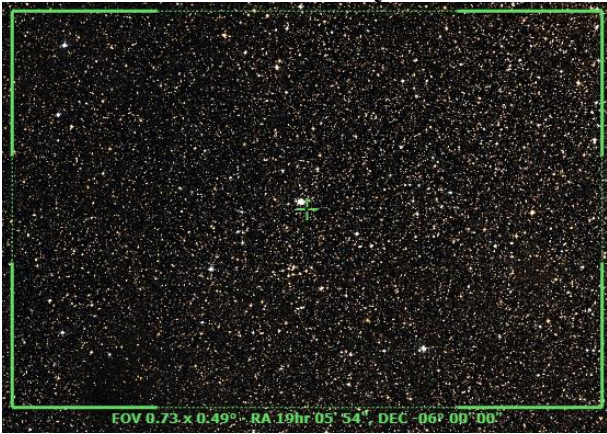
Prospective Imaging Objects – August 16 2023

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

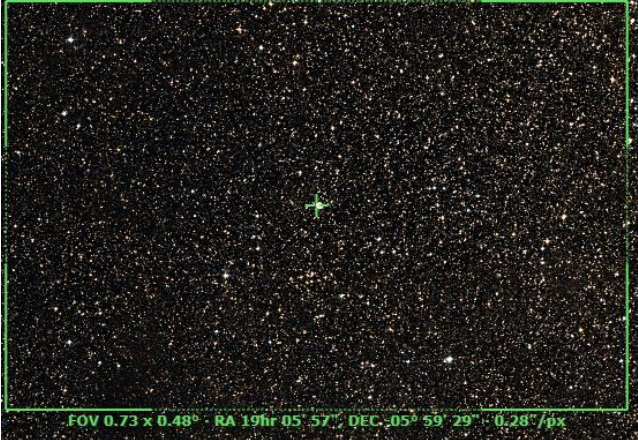
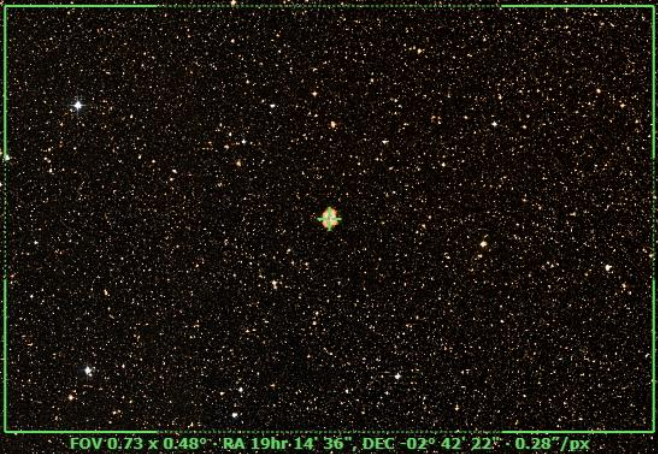

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<p>IC-4776 Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Sagittarius Coordinates: 18h 45' 51" -33° 20' 32"</p> <p>Close Star: SAO-186841 (Kaus Borealis) Catalog Objects: IC-4776 Imaging Window: *08:42 – 10:56 Transit: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


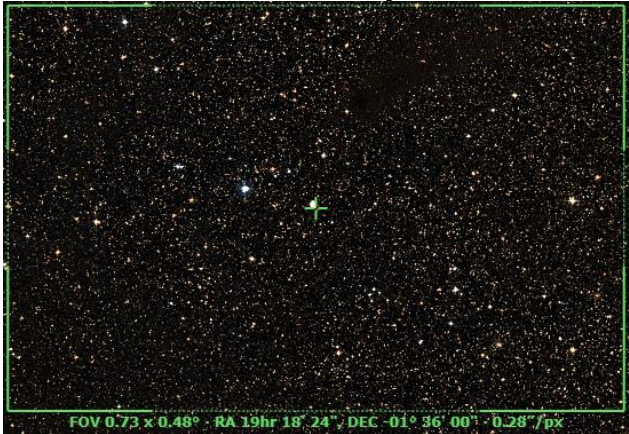
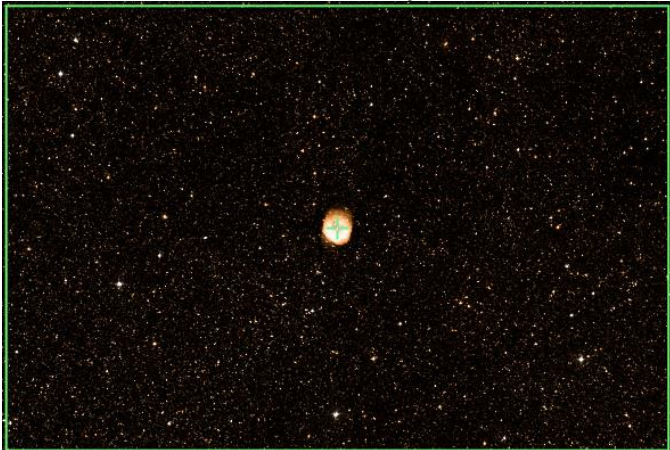
Prospective Imaging Objects – August 16 2023

<p>Ring Nebula (M-57/NGC-6720) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Lyra Coordinates: 18h 53' 35" 33° 01' 46"</p> <p>Close Star: SAO-67174 (Vega) Catalog Objects: M-57/NGC-6720 Imaging Window: 08:42 – 01:18 Transit: 09:41 90°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M-54 (NGC-6715) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster</p> <p>Constellation: Sagittarius Coordinates: 18h 55' 03" -30° 28' 39"</p> <p>Close Star: SAO-187448 (Nunki) Catalog Objects: M-54/NGC-6715 Imaging Window: *08:42 – 11:40 Transit: 09:43 26°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Abell 50 (NGC-6742) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Draco Coordinates: 18h 59' 20" 48° 27' 49"</p> <p>Close Star: SAO-046872 (Iota Her) Catalog Objects: NGC-6742 Imaging Window: 08:42 – 01:37 Transit: 09:47 87°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




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




Prospective Imaging Objects – August 16 2023

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



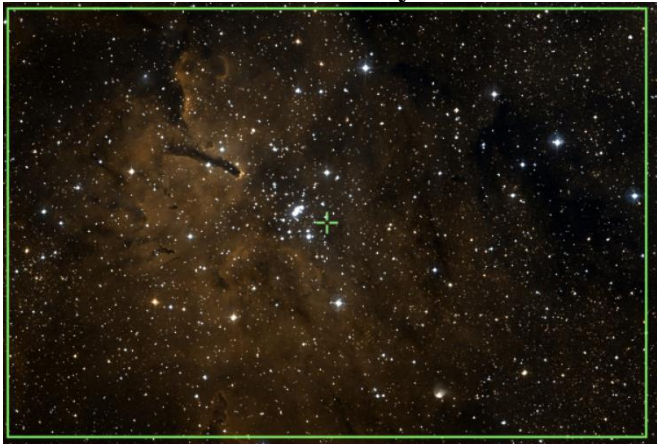
Prospective Imaging Objects – August 16 2023

<p>LDN-673 Config: C11-HD HS ZWO6200MC</p> <p>Type: Dark Nebula</p> <p>Constellation: Aquila Coordinates: 19h 18' 14" 11° 15' 40"</p> <p>Close Star: SAO-125122 (Altair) Catalog Objects: LDN-673 Imaging Window: 08:42 – 01:00 Transit: 10:08 68°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<p>Lot Ness Monster (LDN-772) Config: C11-HD HS ZWO6200MC</p> <p>Type: Dark Nebula</p> <p>Constellation: Vulpecula Coordinates: 19h 26' 46" 23° 08' 59"</p> <p>Close Star: SAO-125122 (Altair) Catalog Objects: LDN-772 Imaging Window: 08:42 – 01:33 Transit: 10:13 80°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small; text-align: center;"> <small>Lot Ness Monster (LDN-772) Constellation: Vulpecula RA = 19h 26m 46s DEC = 23deg 08' 59" Size = 1.72 x 2.14 deg (Observation: 300deg E of N, Pixel scale = 2.28 arcsec/pix, F1-60mm)</small> </p>
<p>NGC6804 Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Aquila Coordinates: 19h 31' 35" 09° 13' 33"</p> <p>Close Star: SAO-104728 (Omega Aq) Catalog Objects: NGC-6826 Imaging Window: 08:42 – 02:23 Transit: 10:32 66°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;"> <small>FOV 0.73 x 0.48° RA 19hr 31' 35", DEC 09° 13' 33" - 0.28"/pix</small> </p>

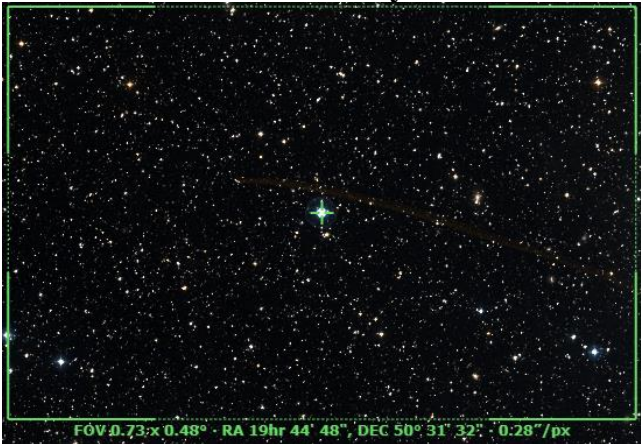


Prospective Imaging Objects – August 16 2023

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

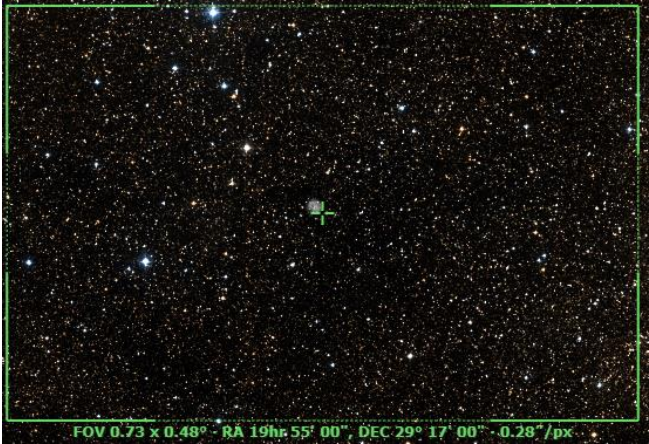
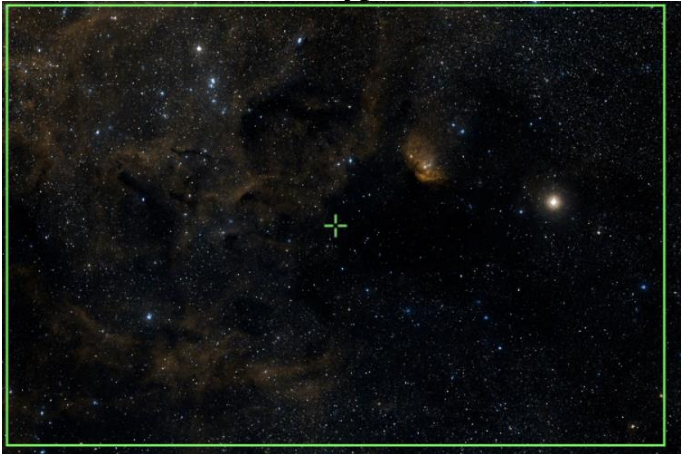

Prospective Imaging Objects – August 16 2023

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


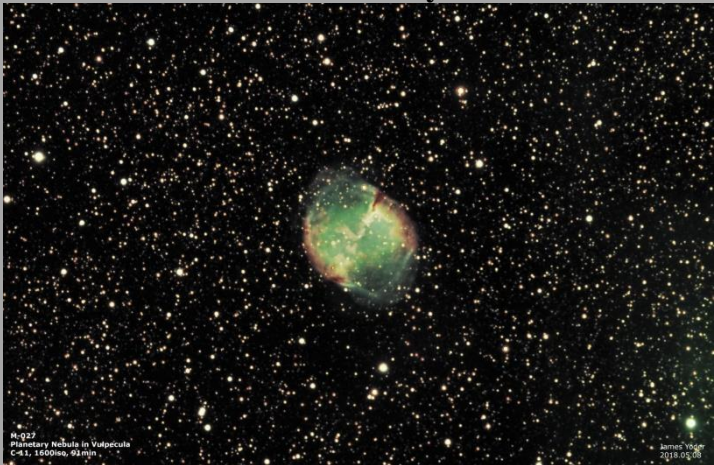

Prospective Imaging Objects – August 16 2023

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



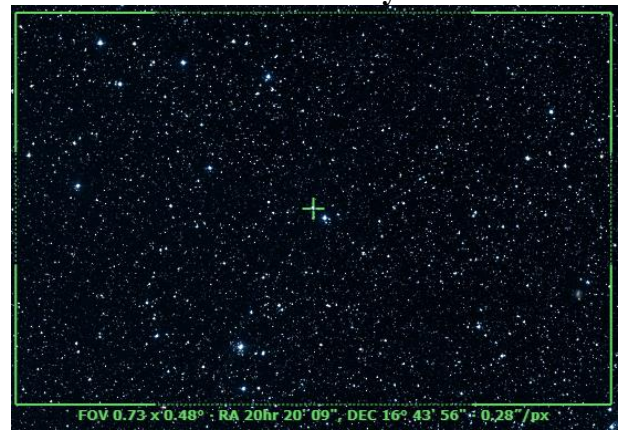
Prospective Imaging Objects – August 16 2023

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



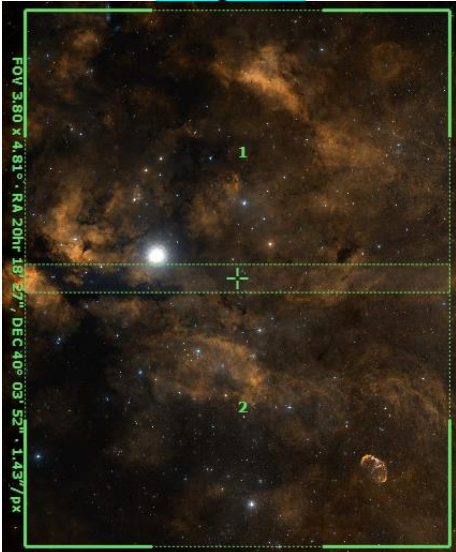
Prospective Imaging Objects – August 16 2023

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

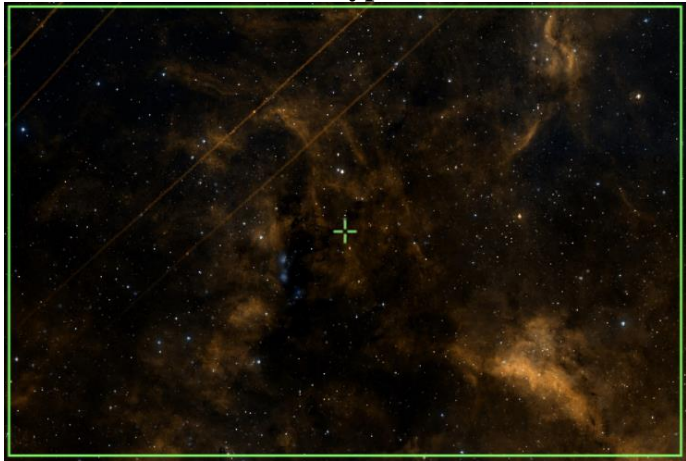

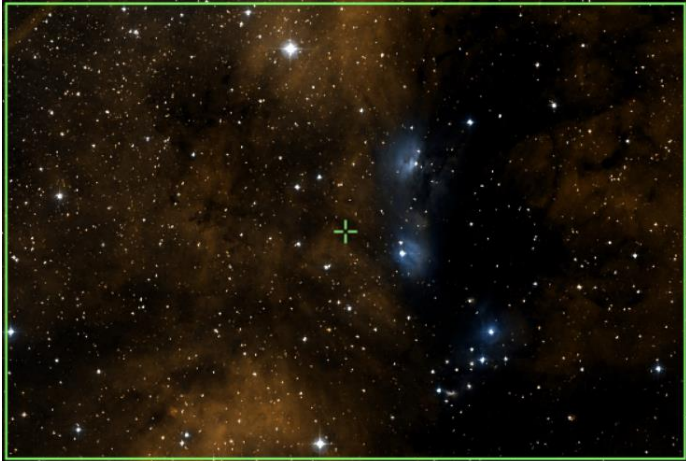
Prospective Imaging Objects – August 16 2023

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



Prospective Imaging Objects – August 16 2023

<p>Blue Flash Nebula (NGC-6905) Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Delphinus Coordinates: 20h 22' 24" 20° 06' 18"</p> <p>Close Star: SAO-108378 (Markab) Catalog Objects: NGC-6905 Imaging Window: 08:42 – 02:24 Transit: 11:10 77°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Cooling Tower (M-29 (NGC-6913) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Cygnus Coordinates: 20h 24' 06" 38° 29' 36"</p> <p>Close Star: SAO-90981 (Scheat) Catalog Objects: M-29/NGC-6913 Imaging Window: 08:42 – 02:55 Transit: 11:12 85°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-6914 Region Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus 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: SAO-49941 (Deneb) Catalog Objects: NGC-6914 Imaging Window: 08:42 – 02:59 Transit: 11:12 81°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4 Composite!</p> 


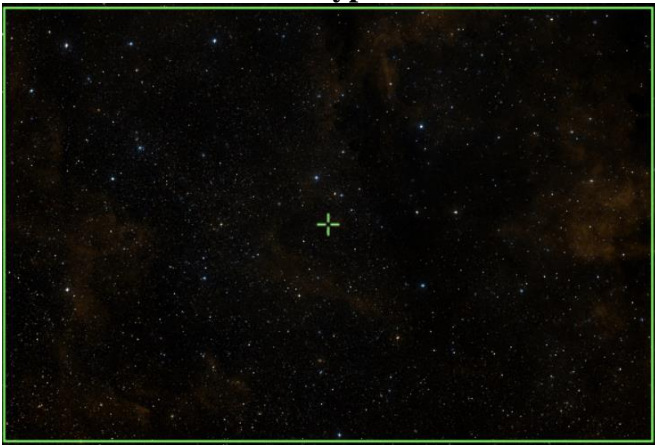
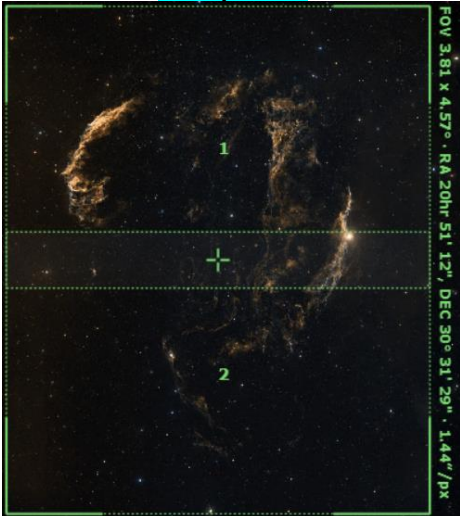
Prospective Imaging Objects – August 16 2023

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

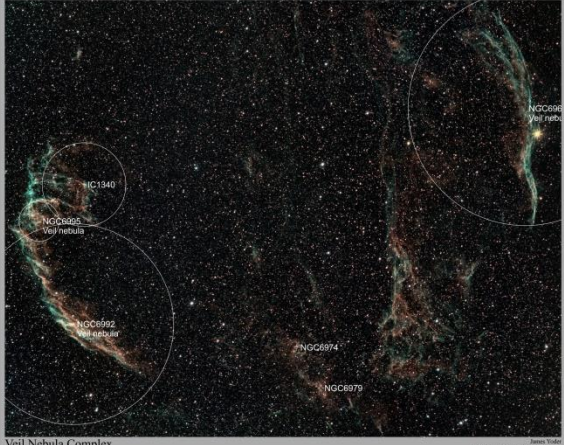

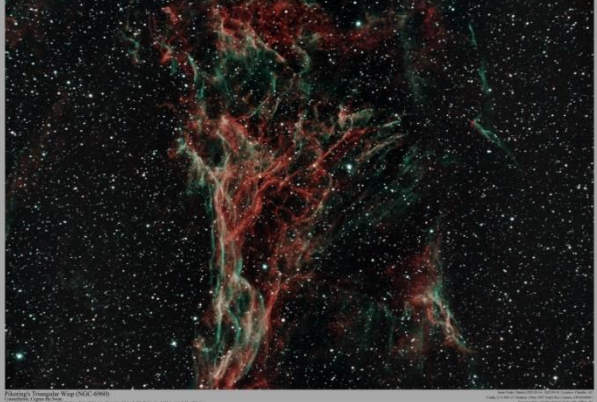
Prospective Imaging Objects – August 16 2023

<p>Fireworks Galaxy (NGC-6946) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Cepheus Coordinates: 20° 34' 54" 60° 08' 60"</p> <p>Close Star: SAO-19302 (Alderamin) Catalog Objects: NGC-6946 Imaging Window: 08:42 – 03:07 Transit: 11:22 63°</p>	<p>C-11 HD: Primary Focus</p> 
<p>Pelican & N. America Nebula (IC-5070) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: Frame 1: RA=20hr56'10" DEC=44°55'07" Frame 2: RA=20hr56'10" DEC=42°37'57"</p> <p>Close Star: SAO-50180 (57 Cygni) Catalog Objects: IC5070 Imaging Window: 08:42 – 03:27 Transit: 11:38 79°</p>	<p>C-11 HD: HyperStar v4 Composite!</p>  <p><small>North America (NGC-7600) and Pelican (IC-5070) Nebula Constellation: Cygnus the Swan RA = 20h 56m 12s DEC = 44° 55' 07" Size = 200 x 270 arcmin (Observation: 6/16/23 at 9:11 PM local time -11:41 UTC) (IC-5070)</small></p> <p><small>James Yeiler / Data: 2022-08-28-2022-09-06 Location: Chandler, AZ Config: C-11HD HyperStar V4 OPT Radian Triad Ultra 2780x4200MC Exposure Info: Mount: 101 R 121 Imaging: Swift Gains: 100 Offset: 50</small></p>


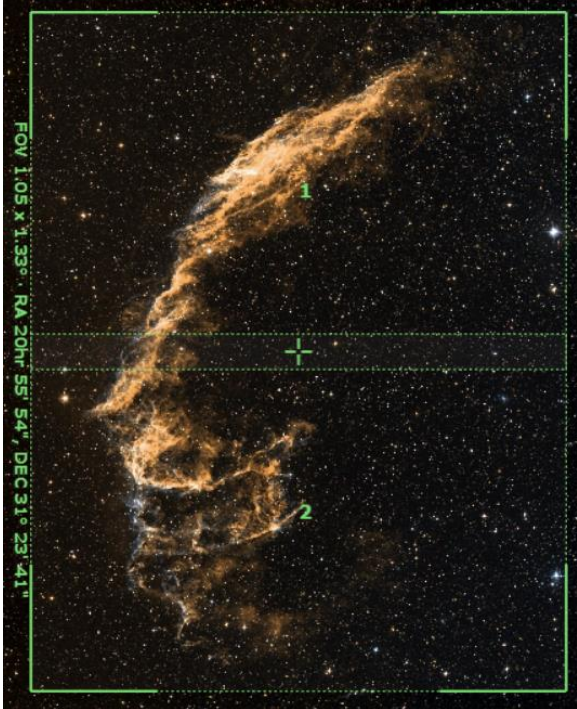
Prospective Imaging Objects – August 16 2023

<p>Pelican & N. America Nebula (IC-5070) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: 20h 57' 29" 44° 10' 10"</p> <p>Close Star: SAO-50180 (57 Cygni) Catalog Objects: IC5070 Imaging Window: 08:42 – 03:27 Transit: 11:38 79°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</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 Astronomical C.S.-CCD OIII+H-alpha Exposure Info: 35frames/sum Gain: 3200 Offset: 100</p>
<p>Northern Coal Sack (LDN-904) Config: C11-HD HS ZWO6200MC</p> <p>Type: Dark Nebula</p> <p>Constellation: Cygnus Coordinates: 20h 51' 52" 39° 13' 34"</p> <p>Close Star: SAO-49941 (Deneb) Catalog Objects: LDN-904 Imaging Window: 08:42 – 03:25 Transit: 11:40 84°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<p>Veil Nebula (NGC-6960) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: P1: RA: 20h51'12" DEC: 31°32'26" P2: RA: 20h51'12" DEC: 29°30'31"</p> <p>Close Star: SAO-70467 (52 Cygni) Catalog Objects: NGC-6960, 6992, 6995 Imaging Window: 08:42 – 03:15 Transit: 11:40 80°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4 Composite!</p>  <p style="font-size: x-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 – August 16 2023

<p>Veil Nebula (NGC-6960) Config: C11-HD HS ZWO6200MC</p> <p>Type: Supernova Remnant</p> <p>Constellation: Cygnus Coordinates: 20h 51' 15" 31° 03' 60"</p> <p>Close Star: SAO-70467 (52 Cygni) Catalog Objects: NGC-6960, 6992, 6995</p> <p>Imaging Window: 08:42 – 03:15 Transit: 11:40 80°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="text-align: center;">Veil Nebula Complex Constellation: Cygnus the Swan</p> <p style="text-align: right; font-size: small;"> <small>Image taken on August 16, 2023 at 20h Config: C11 HyperStar / Astrodon 1.1" / QHY 124C Exposure: 100s / 11 (1000000) / Gain: 1200 / Offset: 100</small> </p>
<p>Witch's Broom (NGC-6960) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: P1: RA=20hr 46' 20" DEC=30° 54' 54" P2: RA=20hr 46' 20" DEC=30° 17' 06"</p> <p>Close Star: SAO-70467 (52 Cygni) Catalog Objects: NGC-6960</p> <p>Imaging Window: 08:42 – 03:15 Transit: 11:40 80°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer Composite!</p>  <p style="text-align: center; font-size: small;"> <small>Witch's Broom Nebula (NGC-6960) Image taken on August 16, 2023 at 20h Config: C11 HyperStar / Astrodon 1.1" / QHY 124C Exposure: 100s / 11 (1000000) / Gain: 1200 / Offset: 100</small> </p>
<p>Pickering's Triangular Wisp (NGC-6960) Config: C11-HD FR ZWO6200MC </p> <p>Type: Supernova Remnant Constellation: Cygnus Coordinates: 20h 48' 16" 31° 37' 17"</p> <p>Close Star: SAO-70467 (52 Cygni) Catalog Objects: NGC-6960</p> <p>Imaging Window: 08:42 – 03:15 Transit: 11:40 80°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="text-align: center; font-size: small;"> <small>Pickering's Triangular Wisp (NGC-6960) Image taken on August 16, 2023 at 20h Config: C11 HyperStar / Astrodon 1.1" / QHY 124C Exposure: 100s / 11 (1000000) / Gain: 1200 / Offset: 100</small> </p>




Prospective Imaging Objects – August 16 2023

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

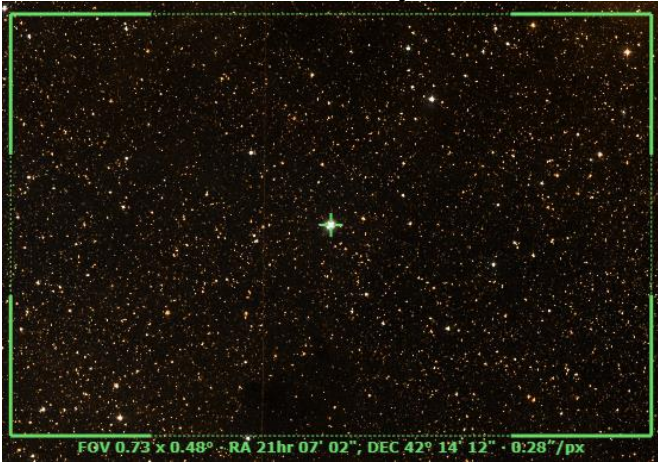


Prospective Imaging Objects – August 16 2023

<p>M-73 (NGC-6994) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Aquarius Coordinates: 20h 59' 00" -12° 37' 60"</p> <p>Close Star: SAO-108378 (Markab) Catalog Objects: M-73/NGC-6994 Imaging Window: *09:38 – 01:53 Transit: 11:46 44°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Fetus Nebula (NGC-7008) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Cygnus Coordinates: 21h 00' 33" 54° 32' 38"</p> <p>Close Star: SAO-49941 (Deneb) Catalog Objects: NGC-7008 Imaging Window: 08:42 – 03:38 Transit: 11:48 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Planetary Nebula NGC-7008 Constellation: Cygnus RA = 21h 00m 33.00s DEC = +54° 32' 38.00" Size = 75.0 x 17.0 pixels Orientation = 3.26deg (to N) Pixel size = 0.177 arcsec/pixel [0.177"/pixel]</p> <p style="font-size: x-small;">Axis: Y-axis: Dec(21:00:33.00) X-axis: RA(21:00:33.00) Config: C-11 HD: ZWO6200MC Exposure: 00:00:00 (00:00:00) Gain: 0 (0.00e+00)</p>
<p>Iris Nebula (NGC 7023) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Cepheus Coordinates: 21h 01' 36" 68° 10' 00"</p> <p>Close Star: SAO-19302 (Alderamin) Catalog Objects: NGC-7023 Imaging Window: 08:42 – 03:11 Transit: 11:49 55°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 


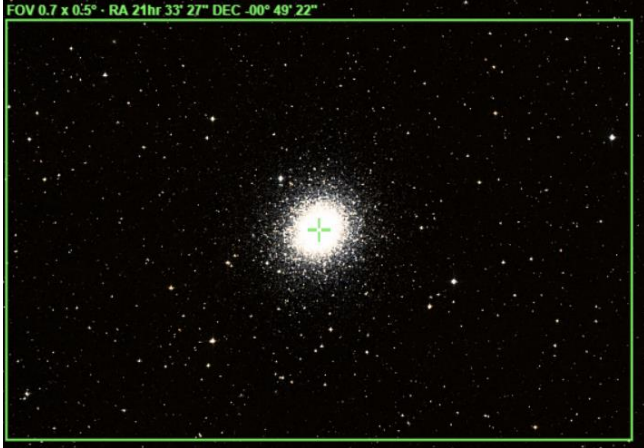

Prospective Imaging Objects – August 16 2023

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

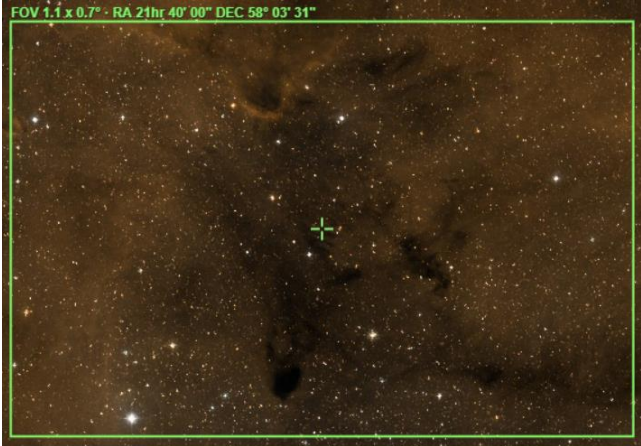


Prospective Imaging Objects – August 16 2023

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

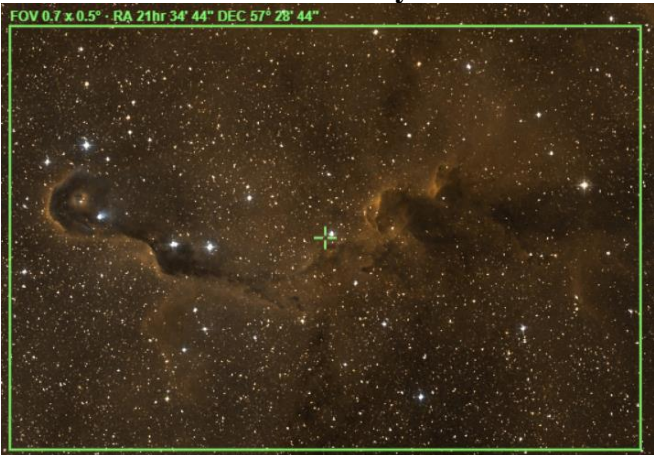
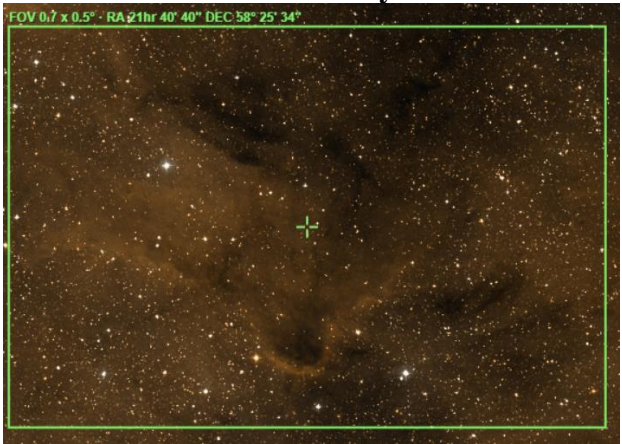

Prospective Imaging Objects – August 16 2023

<p>M-39 (NGC-7092) Config: C11-HD FR ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Cygnus Coordinates: 21h 31' 56" 48° 26' 46"</p> <p>Close Star: SAO-49941 (Deneb) Catalog Objects: M-39/NGC-7092 Imaging Window: 08:42 – 04:09 Transit: 12:19 75°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>M-2 (NGC-7089) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster</p> <p>Constellation: Aquarius Coordinates: 21h 33' 27" 00° 49' 22"</p> <p>Close Star: SAO-127029 (Enif) Catalog Objects: M-2/NGC-7089 Imaging Window: 09:23 – 03:11 Transit: 12:17 56°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Elephant Trunk (IC-1396) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula</p> <p>Constellation: Cepheus Coordinates: 21h 39' 58" 57° 33' 34"</p> <p>Close Star: SAO-19302 (Alderamin) Catalog Objects: IC-1396/Sh2-131 Imaging Window: 08:39 – 04:14 Transit: 00:26 66°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Elephant Trunk Nebula (IC-1396) Constellation: Cepheus</p> <p style="font-size: x-small; text-align: right;"> Filter: HyperStar v4 Exposure: 1200s Gain: 1000 Offset: 100 Date: 2023-07-12 Time: 10:00:00 RA: 21h 39m 58s DEC: 57° 33' 34" </p>


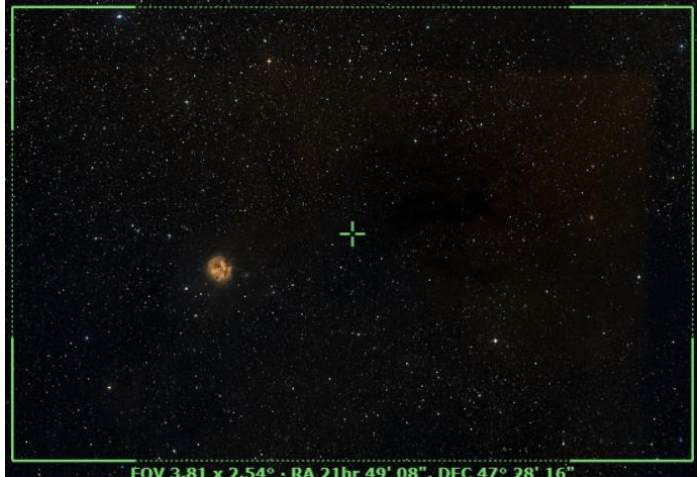

Prospective Imaging Objects – August 16 2023

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




Prospective Imaging Objects – August 16 2023

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


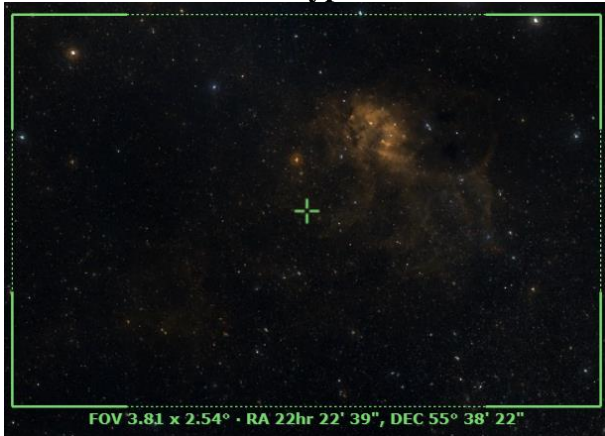
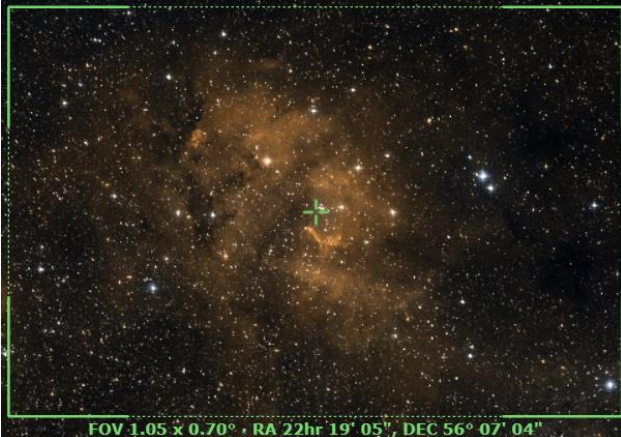
Prospective Imaging Objects – August 16 2023

<p>NGC 7139 Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Cepheus Coordinates: 21h 46' 07" +63° 47' 54"</p> <p>Close Star: SAO-019302 (Alderamin) Catalog Objects: NGC-7139 Imaging Window: 08:56 – 04:11 Transit: 12:33 60°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">NGC-7139 Constellation: Cepheus RA = 21h 46m 07.2s, DEC = +63deg 47' 54.0", Size = 18.5 x 13.9 arcmin, Orientation = -6.7deg E of N, Pixel scale = 0.277 arcsecond, FL = 2000mm James Yoder Date: 2022-12-19 Location: Chandler, AZ Config: C-11 HD-PRF Track Star ZWO6200MC Exposure Info: 27 Bins@2min Gain: 100 Offset: 50 </p>
<p>Dark Cocoon (B-168, IC 5146) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright & Dark Nebula</p> <p>Constellation: Cygnus Coordinates: 21h 49' 08" 47° 28' 16"</p> <p>Close Star: SAO-5105 (Rho Cygni) Catalog Objects: B-168, IC-5146 Imaging Window: 08:51 – 04:20 Transit: 12:41 76°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small; text-align: center;">FOV 3.81 x 2.54° - RA 21hr 49' 08", DEC 47° 28' 16"</p>
<p>Cocoon Nebula (IC-5146) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: 21h 52' 00" 47° 22' 37"</p> <p>Close Star: SAO-5105 (Rho Cygni) Catalog Objects: IC-5146 Imaging Window: 08:51 – 04:20 Transit: 12:41 76°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: small; text-align: center;">FOV 1.05 x 0.70° - RA 21hr 52' 00", DEC 47° 22' 37"</p>

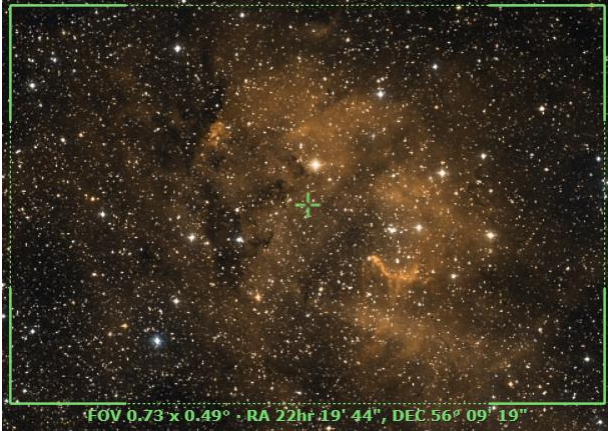

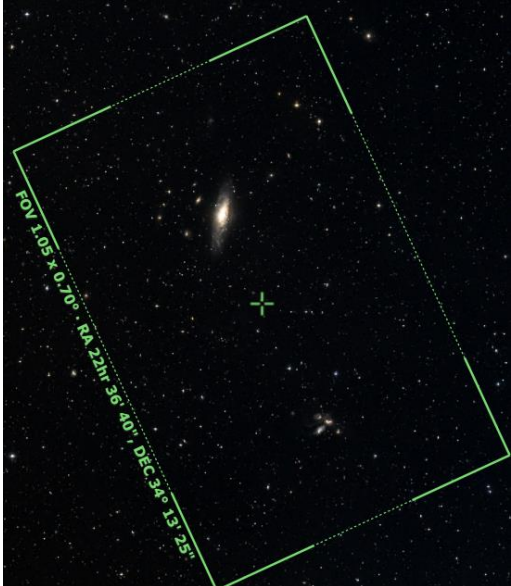
Prospective Imaging Objects – August 16 2023

<p>Cocoon Nebula (IC-5146) Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Cygnus Coordinates: 21h 53' 24" 47° 16' 00"</p> <p>Close Star: SAO-5105 (Rho Cygni) Catalog Objects: IC-5146 Imaging Window: 08:51 – 04:20 Transit: 12:41 76°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>IC-5146, Cocoon Nebula James Taylor 2021, J11</small></p>
<p>Wolf's Cave (VdB-152) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright & Dark Nebula</p> <p>Constellation: Cepheus Coordinates: 22h 17' 03" 70° 21' 54"</p> <p>Close Object: Cave Nebula (SH2-155) Close Star: SAO-20268 (Iota Cephei) Imaging Window: 10:04 – 04:20 Transit: 01:44 76°</p>	<p>C-11 HD: HyperStar v4</p>  <p><small>Wolf's Cave (VdB 152, LBN 531) James Taylor 2021, J11 Constellation: Cepheus RA = 22h 17m 03s, DEC = 70deg 21' 54" (Size = 3.24 x 2.18 deg) (Field scale = 2.27 arc/pixel) Config: C11 HyperStar v4 HS ZWO6200MC Exposure Info: 1 15min 0Sec Gain: 1500 Offset: 140</small></p>
<p>Wolf's Cave (VdB-152) Config: C11-HD FR ZWO6200MC </p> <p>Constellation: Cepheus Coordinates: 22h 13' 42" 70° 30' 32" 90° Rotation</p> <p>Close Object: Cave Nebula (SH2-155) -44min differential Close Star: SAO-20268 (Iota Cephei) Catalog Objects: B-168, IC-5146</p> <p>Imaging Window: 10:19 – 03:45 Transit: 01:02 76°</p>	<p>C-11 HD: Focal Reducer</p>  <p><small>FOV: 1.05 x 0.70° - RA 22h 13' 42" - DEC 70° 30' 32"</small></p>

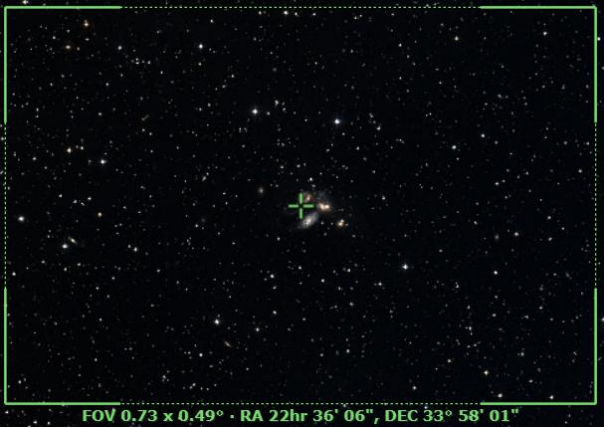


Prospective Imaging Objects – August 16 2023

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

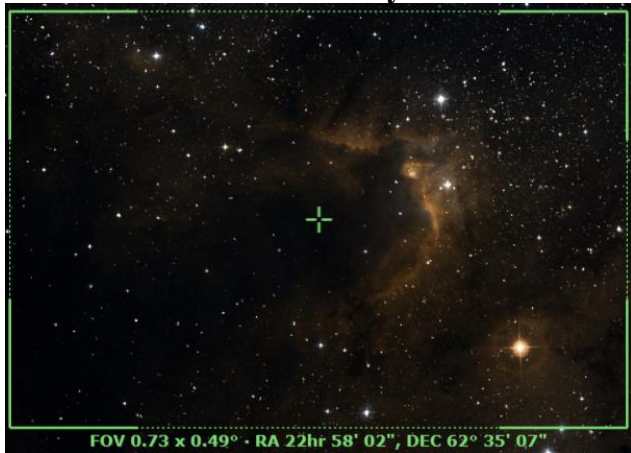


Prospective Imaging Objects – August 16 2023

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

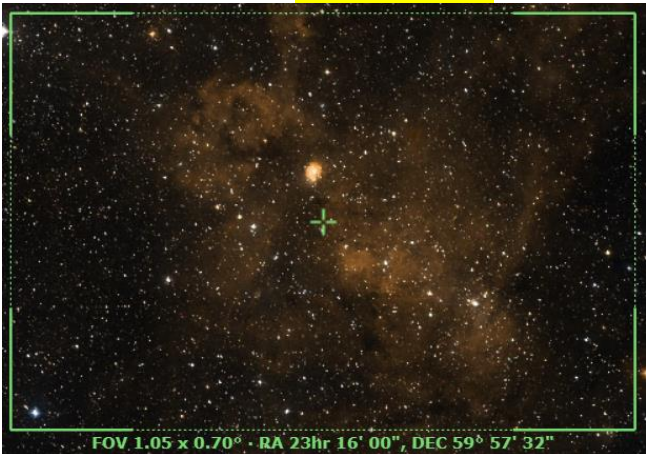


Prospective Imaging Objects – August 16 2023

<p>Stephan's Quintet Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula</p> <p>Constellation: Pegasus Coordinates: 22h 36' 06" 33° 58' 01"</p> <p>Close Star: SAO-72191 (1 Lacertae) Catalog Objects: NGC7317 Imaging Window: 09:45 – 04:20 Transit: 01:23 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-7331 Group (NGC-7331) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Cluster</p> <p>Constellation: Pegasus Coordinates: 22h 37' 15" 34° 24' 51"</p> <p>Close Star: SAO-72191 (1 Lacertae) Catalog Objects: NGC-7331 Imaging Window: 09:45 – 04:20 Transit: 01:24 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Wizard Nebula (SH 2-142)</p> <p>Config: C11-HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula</p> <p>Constellation: Cepheus Coordinates: 22h 47' 26" 58° 03' 03"</p> <p>Close Star: SAO-20268 (Iota Cephei) Catalog Objects: SH2-142 Imaging Window: 09:45 – 04:20 Transit: 01:32 89°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 

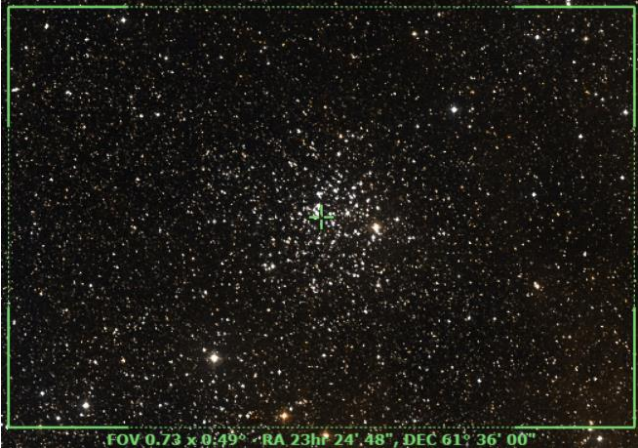

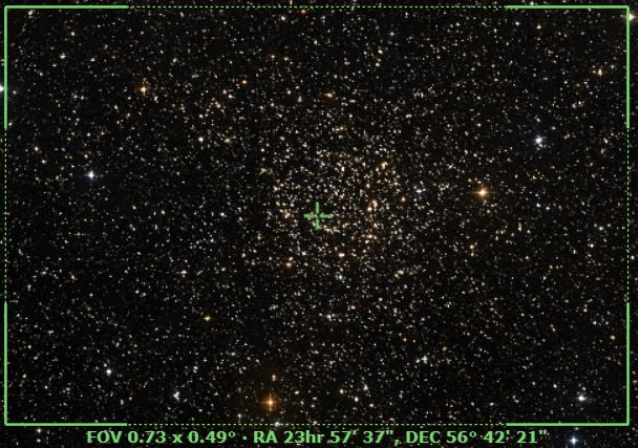
Prospective Imaging Objects – August 16 2023

<p>Cave Nebula (SH2-155) Config: C11HD ZWO6200MC </p> <p>Type: Bright & Dark Nebula</p> <p>Constellation: Cepheus Coordinates: 22h 56' 57" 62° 31' 33"</p> <p>Close Star: SAO-20268 (Iota Cephei) Catalog Objects: SH2-155 Imaging Window: 10:04 – 04:20 Transit: 01:44 61°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center; font-size: small;">FOV 0.73 x 0.49° • RA 22hr 58' 02", DEC 62° 35' 07"</p>
<p>NGC-7479 (PGC-70419) Config: C11HD ZWO6200MC </p> <p>Type: Barred Spiral Galaxy</p> <p>Constellation: Pegasus Coordinates: 23h 04' 58" 12° 18' 37"</p> <p>Close Star: SAO-127340 (Baham) Catalog Objects: NGC-7479 Imaging Window: 10:57 – 04:20 Transit: 01:52 62°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center; font-size: x-small;">NGC-7479 Constellation: Pegasus RA = 23h 04m 58.2s DEC = +12deg 18' 37.3" Size = 31.4 x 21.0 arcmin Orientation: 0.0 deg E of N Pixel scale = 0.446 arcsec/pixel FL=2000mm James Yoder Location: Maunakea Ground Station (2020-10-16), Chandler (2020-10-19), AZ Config: C-11 HD Barred Spiral (OBJ: 286) Exposure Info: 1600ms@5min Gain: 3200 OIBSet: 180</p>
<p>Lobster Claw and Bubble Nebula (SH2-157) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula</p> <p>Constellation: Cassiopeia Coordinates: 23h 18' 25.8" 60° 31' 17.8"</p> <p>Close Star: SAO-21133 (Caph) Catalog Objects: SH2-157, NGC-7635 Imaging Window: 10:18 – 04:20 Transit: 02:03 63°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="text-align: center; font-size: x-small;">Lobster Claw and Bubble Nebula(NGC-7635) Constellation: Cassiopeia RA = 23h 18m 25.8s DEC = +60deg 31' 17.8" Size = 2.68 x 1.79 deg Orientation: 0deg E of N Pixel scale = 2.28 arcsec/pixel FL=540mm James Yoder Date: (2020-10-21) Location: Chandler, AZ Config: C-11 HD HyperStar V4 Astrocam: C11-S-C-D (OBJ: 286) Exposure Info: 260ms@3min Gain: 3200 OIBSet: 180</p>



Prospective Imaging Objects – August 16 2023

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

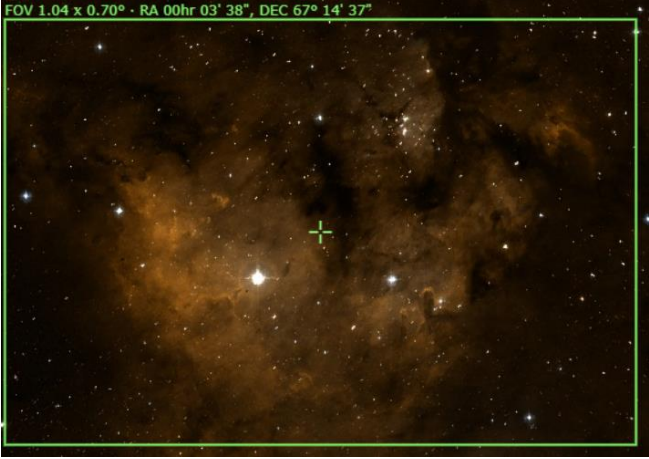


Prospective Imaging Objects – August 16 2023

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


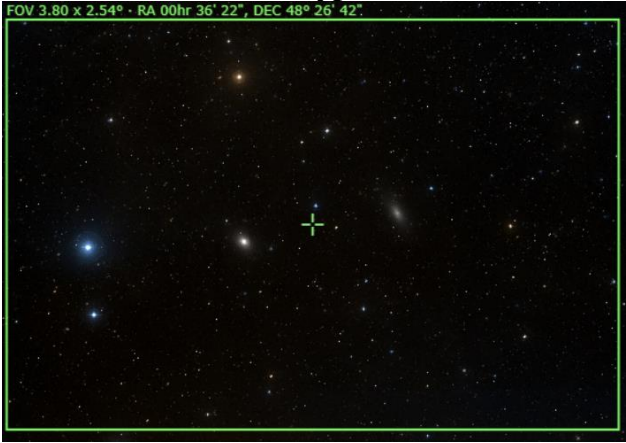

Prospective Imaging Objects – August 16 2023

<p>NGC-7822 (Ced-214) Config: C11-HD HS ZWO6200MC</p> <p>Type: Emission Nebula Constellation: Cepheus</p> <p>Coordinates: Frame 01 RA: 00hr 03' 42" DEC: 67° 41' 45" Frame 02 RA: 00hr 03' 42" DEC: 65° 35' 15"</p> <p>Close Star: SAO-10818 Catalog Objects: Ced 214, NGC 7822, SH2-171</p> <p>Imaging Window: 11:24 – 04:20 Transit: 02:49 56°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4 Composite!</p>  <p><small>NGC-7822 Region Constellation: Cepheus RA: 00h 03m 42s DEC: 67° 41' 45" Frame 01 RA: 00h 03m 42s DEC: 65° 35' 15" Frame 02 www.fishkill.com HyperStar v4 Composite Copyright © 2023 Fishkill.com Equipment: C11 HD HyperStar v4 ZWO6200MC</small></p>
<p>NGC-7822 (CED-214) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula</p> <p>Constellation: Cepheus Coordinates: 00h 01' 27" 67° 28' 37"</p> <p>Close Star: SAO-20268 Catalog Objects: NGC-7822/CED-214 Imaging Window: 11:24 – 04:20 Transit: 02:49 56°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p><small>NGC-7822 Constellation: Cepheus www.fishkill.com HyperStar v4 Copyright © 2023 Fishkill.com Equipment: C11 HD HyperStar v4 ZWO6200MC</small></p>


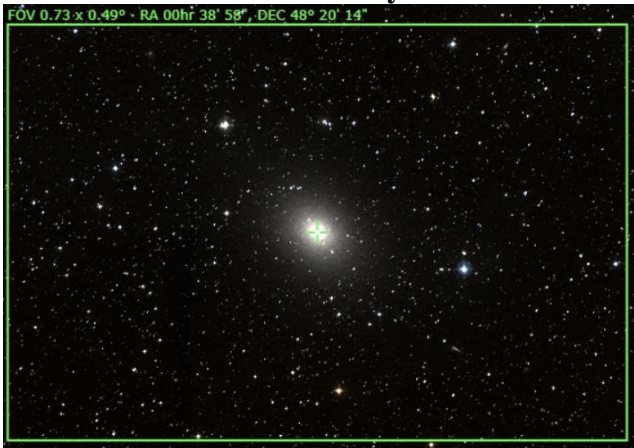

Prospective Imaging Objects – August 16 2023

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


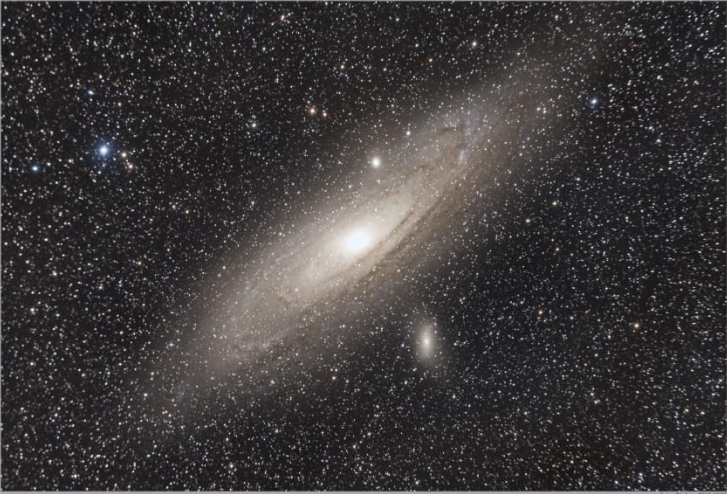
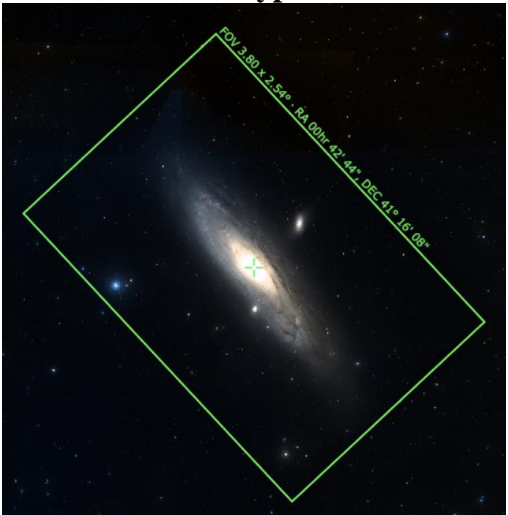
Prospective Imaging Objects – August 16 2023

<p>Andromeda Galaxy Group Config: C11HD ZWO6200MC </p> <p>Type: Cluster of dim galaxies Peak: Constellation: Andromeda Coordinates: 00h 17' 58" 30° 03' 03"</p> <p>Close Star: SAO-73765 (Alpheratz) Catalog Objects: NGC 67-72 et. El.</p> <p>Imaging Window: 11:32 – 04:20 Transit: 03:05 87°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-147 & NGC-185 Config: C11-HD HS ZWO6200MC</p> <p>Type: Galaxy Pair</p> <p>Constellation: Cassiopeia Coordinates: 00h 36' 22" 48° 26' 42"</p> <p>Close Star: SAO-21609 (Shedar) Catalog Objects: NGC-147, NGC-185 Imaging Window: 11:30 – 04:20 Transit: 03:20 75°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<p>NGC-147 & NGC-185 Config: C11-HD FR ZWO6200MC</p> <p>Type: Galaxy Pair</p> <p>Constellation: Cassiopeia Coordinates: Frame 01 RA: 00hr 38' 33" DEC: 48° 25' 44" Frame 02 RA: 00hr 33' 21" DEC: 48° 25' 44"</p> <p>Close Star: SAO-21609 (Shedar) Catalog Objects: NGC-147, NGC-185 Imaging Window: 11:30 – 04:20 Transit: 03:20 75°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer Composite!</p> 


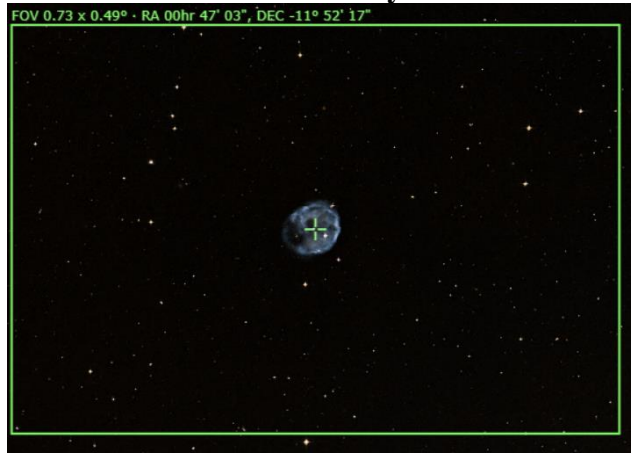

Prospective Imaging Objects – August 16 2023

<p>NGC-147 Config: ZWO6200MC </p> <p>Type: Galaxy Peak: Constellation: Cassiopeia Coordinates: 00h 33' 07.245" 48° 30' 18.030"</p> <p>Close Star: SAO-37375 Catalog Objects: NGC-147</p> <p>Imaging Window: 11:30 – 04:20 Transit: 03:20 75°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: small; text-align: center;">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 2023-07-22 Location: Maricopa Grande, Prescott, AZ Config: C11 L1 Cassiopeia Broad Single Filter QSI7125c Exposure Info: (348img) 1min Gain: 1200 Offset: 100</p>
<p>NGC-185 Config: C11-HD ZWO6200MC</p> <p>Type: Dwarf Spheroidal Galaxy</p> <p>Constellation: Cassiopeia Coordinates: 00h 38' 58" 48° 20' 14"</p> <p>Close Star: SAO-21609 (Shedar) Catalog Objects: NGC-147 Imaging Window: 11:30 – 04:20 Transit: 03:20 75°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">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 2023-07-22 Location: Maricopa Grande, Prescott, AZ Config: C11 L1 Cassiopeia Broad Single Filter QSI7125c Exposure Info: (348img) 1min Gain: 1200 Offset: 100</p>
<p>M-110 Config: C11-HD ZWO6200MC</p> <p>Type: Elliptical Galaxy</p> <p>Constellation: Andromeda Coordinates: 00h 40' 22" 41° 41' 07"</p> <p>Close Star: SAO-73765 (Sirrah) Catalog Objects: M-110 Imaging Window: 11:41 – 04:20 Transit: 03:27 82°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">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 = 0.448 arcsec/pixel F1-C17020aa</p> <p style="font-size: x-small; text-align: right;">James VanDyke 2023-07-22 Location: Maricopa Grande, Prescott, AZ Config: C11 L1 Andromeda Broad Single Filter QSI7125c Exposure Info: (348img) 1min Gain: 1200 Offset: 100</p>



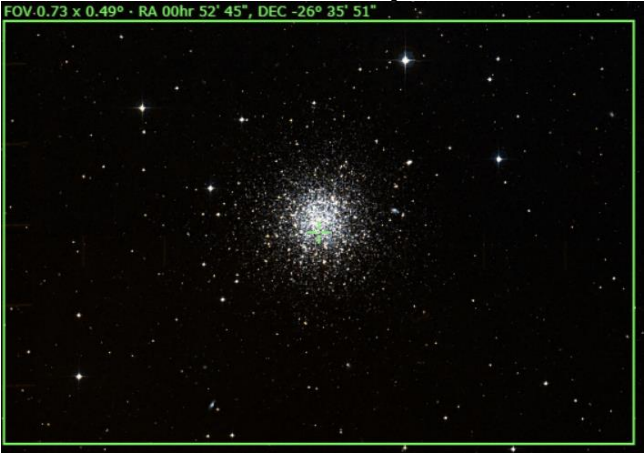
Prospective Imaging Objects – August 16 2023

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

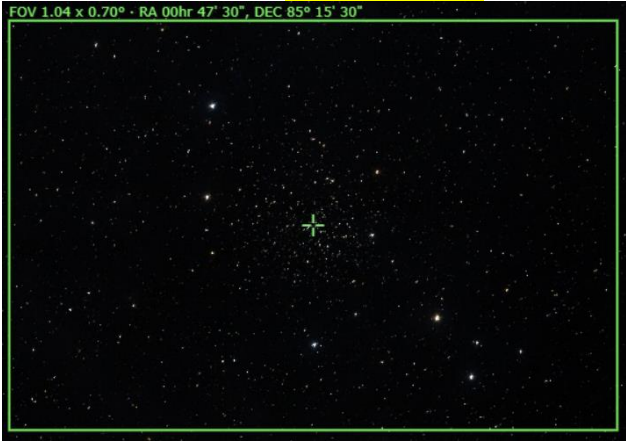


Prospective Imaging Objects – August 16 2023

<p>NGC246, NGC255, PGC 2689 Config: C11-HD HS ZWO6200MC</p> <p>Type: Planetary Nebula, 2 Galaxies</p> <p>Constellation: Cetus Coordinates: 00h 47' 00" -11° 40' 40"</p> <p>Close Star: SAO-147420 (Diphda) Catalog Objects: NGC-246 Imaging Window: *01:23 – 04:20 Transit: 03:34 45°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</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: 190deg E of N Pixel scale = 0.579 arcsec/pixel F1-1900nm James Volder Date: 2023-08-20 Location: Chandler, AZ Config: C-11 HD Focal Reducer Filter: Double-Stack Camera: QHY128C Exposure Info: 2100ms/Frame Gain: 2000 Offset: 100</p>
<p>Skull Nebula (NGC-246) Config: C11-HD ZWO6200MC</p> <p>Type: Planetary Nebula</p> <p>Constellation: Cetus Coordinates: 00h 47' 03" -11° 52' 17"</p> <p>Close Star: SAO-147420 (Diphda) Catalog Objects: NGC-246 Imaging Window: *01:23 – 04:20 Transit: 03:34 45°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">FOV 0.73 x 0.49° - RA 00hr 47' 03" , DEC -11° 52' 17" James Volder Date: 2023-08-21 Location: Chandler, AZ Config: C-11 HD Double-Stack Camera: QHY128C Exposure Info: 2000ms/Frame Gain: 2000 Offset: 100</p>
<p>Needle's Eye Galaxy (NGC 247) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Peak: Constellation: Cetus Coordinates: 00hr 47' 12" -20° 44' 38"</p> <p>Close Star: SAO-147420 Catalog Objects: NGC 247</p> <p>Imaging Window: *01:39 – 04:20 Transit: 03:34 36°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</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: 61deg E of N Pixel scale = 0.446 arcsec/pixel F1-2000nm James Volder Date: 2023-08-21 Location: Chandler, AZ Config: C-11 HD Double-Stack Camera: QHY128C Exposure Info: 2000ms/Frame Gain: 2000 Offset: 100</p>

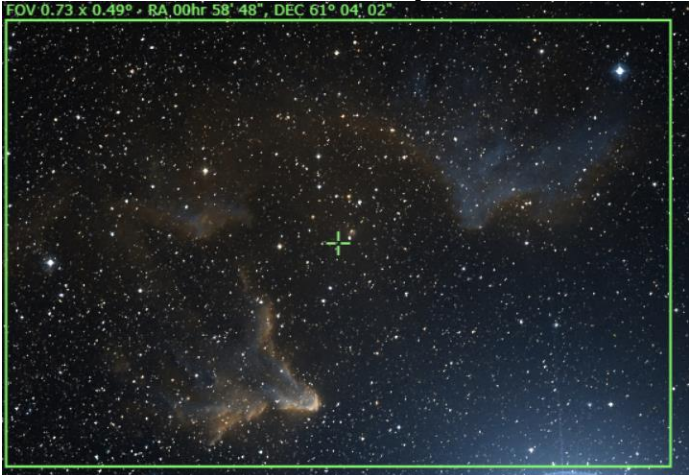

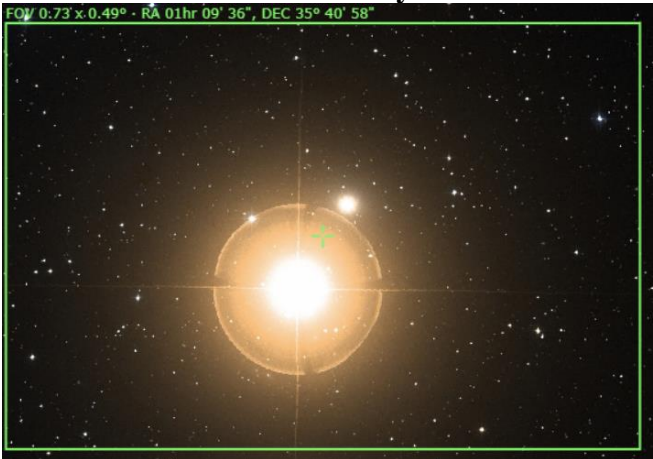
Prospective Imaging Objects – August 16 2023

<p>NGC-288, NGC-253 Config: C11-HD HS ZWO6200MC</p> <p>Type: Globular and Galaxy</p> <p>Constellation: Sculptor Coordinates: 00h 50' 03" -25° 54' 37"</p> <p>Close Star: SAO-147420 (Diphda) Catalog Objects: NGC-288, NGC-253 Imaging Window: *01:50 – 04:20 Transit: 03:39 30°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Sculptor galaxy (NGC-253) and Globular Cluster (NGC-288) James Yoder (Duxco) 2023.02.14 Location: Mountain Central Trailhead, AZ Constellation: Sculptor Config: C-11HD HyperStar V4 Baader Masker QHY126c <small>RA = 00h 49m 57.3s DEC = -25deg 54' 45.8" Size = 1.14 x 2.09 deg Orientation: Mag 8.4 of N Pixel scale = 2.28 arcsec/pixel FL=540mm Exposure Info: 210ms/5min Gain: 3200 Offset: 180</small></p>
<p>Sculptor Galaxy (NGC-253) Config: C11-HD ZWO6200MC</p> <p>Type: Spiral Galaxy</p> <p>Constellation: Sculptor Coordinates: 00h 47' 33" -25° 17' 15"</p> <p>Close Star: SAO-147420 (Diphda) Catalog Objects: NGC-253 Imaging Window: *01:50 – 04:20 Transit: 03:39 30°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Sculptor Galaxy (NGC 253) James Yoder 2023.08.21 Constellation: Sculptor Location: Chandler, AZ <small>Config: C11 Statrons LF Corrector Baader Moon Filter QHY126c Exposure Info: 100ms/5min Gain: 3200 Offset: 180</small></p>
<p>NGC-288 Config: C11-HD ZWO6200MC</p> <p>Type: Globular Cluster</p> <p>Constellation: Sculptor Coordinates: 00h 52' 45" -26° 35' 51"</p> <p>Close Star: SAO-147420 (Diphda) Catalog Objects: NGC-288 Imaging Window: *01:50 – 04:20 Transit: 03:39 31°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">FOV: 0.73 x 0.49° - RA 00hr 52' 45", DEC -26° 35' 51" James Yoder 2023.08.21 Constellation: Sculptor Location: Chandler, AZ <small>Config: C11 Statrons LF Corrector Baader Moon Filter QHY126c Exposure Info: 100ms/5min Gain: 3200 Offset: 180</small></p>



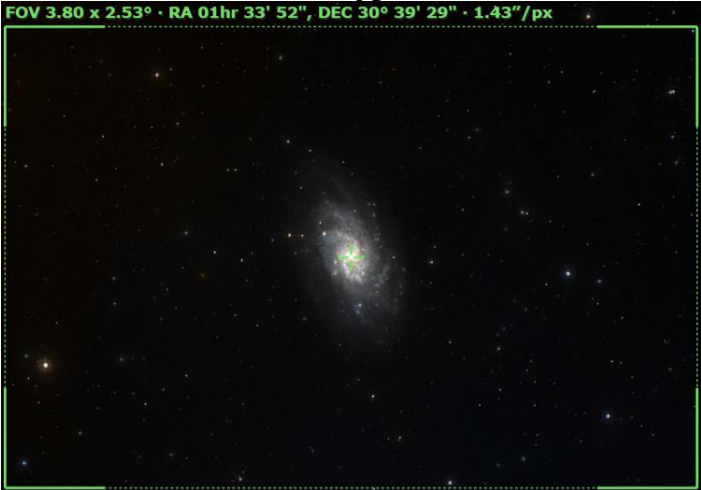
Prospective Imaging Objects – August 16 2023

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



Prospective Imaging Objects – August 16 2023

<p>IC-59, IC-63 Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula</p> <p>Constellation: Cassiopeia Coordinates: 00h 58' 48" 61° 04' 02"</p> <p>Close Star: SAO-11482 (Navi) Catalog Objects: IC-59, IC-63 Imaging Window: 12:01 – 04:20 Transit: 03:44 62°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</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>IC-1613 Config: C11-HD ZWO6200MC</p> <p>Type: Irregular Dwarf Galaxy</p> <p>Constellation: Cetus Coordinates: 01h 04' 48" 02° 07' 07"</p> <p>Close Star: SAO-75151 (Hamal) Catalog Objects: IC-1613 Imaging Window: 01:33 – 04:20 Transit: 03:51 59°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</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>Mirachs Ghost (NGC-404) Config: C11-HD ZWO6200MC</p> <p>Type: Elliptical Galaxy</p> <p>Constellation: Andromeda Coordinates: 01h 09' 36" 35° 40' 58"</p> <p>Close Star: SAO-544471 (Mirach) Catalog Objects: NGC-404 Imaging Window: 12:16 – 04:20 Transit: 03:56 88°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</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 – August 16 2023

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

Prospective Imaging Objects – August 16 2023

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

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Prospective Imaging Objects – August 16 2023

Imaging Summary August 16, 2023

Astronomical Dusk = 08:42

Astronomical Dawn = 04:20

HyperStar: Nebula

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

Prospective Imaging Objects – August 16 2023

Imaging Summary August 16, 2023

Astronomical Dusk = 08:42

Astronomical Dawn = 04:20

HyperStar: Broad Spectrum

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

Prospective Imaging Objects – August 16 2023

Imaging Summary August 16, 2023

Astronomical Dusk = 08:42

Astronomical Dawn = 04:20

Focal Reducer: Nebula

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

Prospective Imaging Objects – August 16 2023

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

Prospective Imaging Objects – August 16 2023

Imaging Summary August 16, 2023

Astronomical Dusk = 08:42

Astronomical Dawn = 04:20

Focal Reducer: Broad Spectrum

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

Prospective Imaging Objects – August 16 2023

Imaging Summary August 16, 2023

Astronomical Dusk = 08:42

Astronomical Dawn = 04:20

Primary Focus: Nebula

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

Prospective Imaging Objects – August 16 2023

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

Prospective Imaging Objects – August 16 2023

Imaging Summary August 16, 2023

Astronomical Dusk = 08:42

Astronomical Dawn = 04:20

Primary Focus: Broad Spectrum

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

Prospective Imaging Objects – August 16 2023

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

Prospective Imaging Objects – August 16 2023

Imaging Summary August 16, 2023

Astronomical Dusk = 08:42

Astronomical Dawn = 04:20

Primary Prospects

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

Prospective Imaging Objects – August 16 2023

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

Prospective Imaging Objects – August 16 2023

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

Prospective Imaging Objects – August 16 2023

Imaging Summary August 16, 2023

Astronomical Dusk = 08:42

Astronomical Dawn = 04:20

Imaging Plans

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

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