

Prospective Imaging Objects – February 09 2024

Astronomical Data

Sunrise	Sunset	Astronomical Dusk	Astronomical Dawn	Imaging	New Moon
07:17am	06:06 pm	07:30 pm	05:53 am	09:23	February 09

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 images 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>.

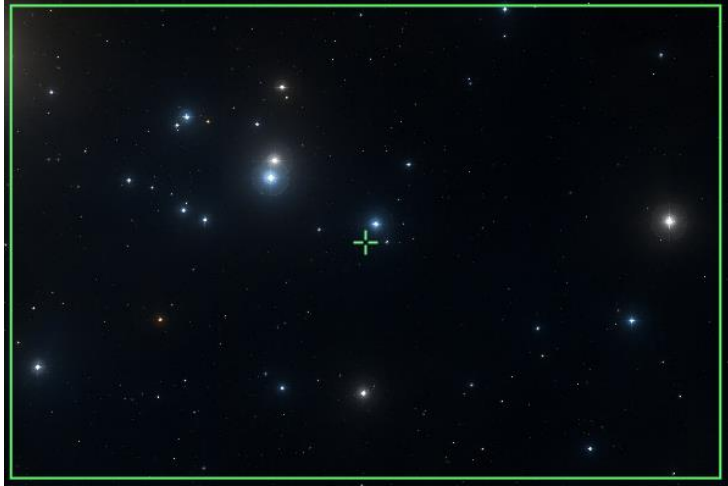

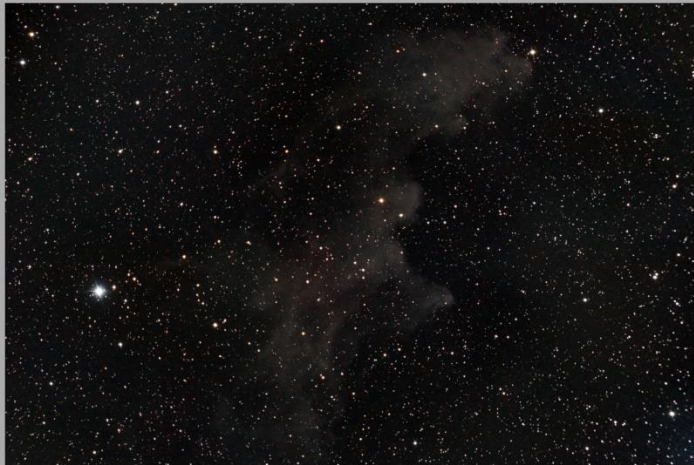
05: Close Star – A fairly bright star close to the target that can be used to check focus and sync the telescope before the imaging session begins.

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.

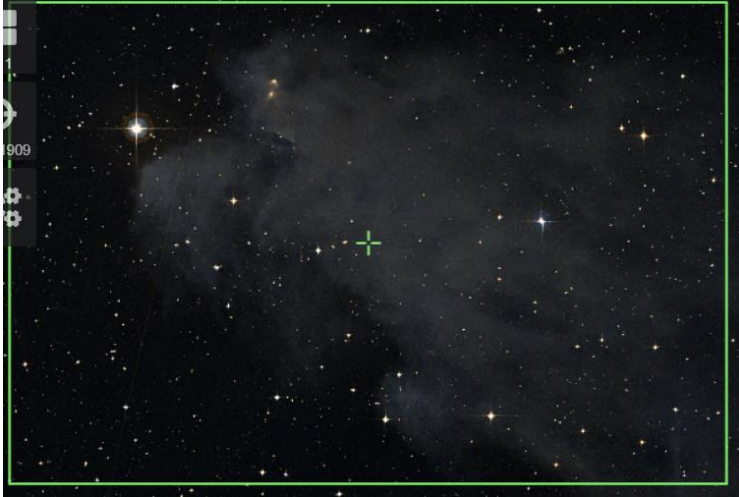


07: Imaging Window – Ideally the time the object is 45° above the horizon. Southern objects with negative DEC that do not peak above 45° are indicated with a *. Imaging window for these objects may be based on 30° or even 25° above horizon for the imaging window.

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>Hyades (C 41,Mel 25) Config: C11-HD HS ZWO6200MC</p> <p>Type: Open Cluster Constellation: Taurus Coordinates: 04hr 26' 34" 15° 31' 39"</p> <p>Close Star: SAO-56840 Catalog Objects: Mel 25</p> <p>Imaging Window: 07:30 – 10:45 Transit: 07:36 73°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<p>Trifid of the North (NGC 1579) Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Perseus Coordinates: 04hr 30' 12" 35° 16' 60"</p> <p>Close Star: SAO-56799 Catalog Objects: NGC-1579</p> <p>Imaging Window: 07:30 – 11:19 Transit: 07:36 88°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Witch Head Nebula (IC 2118) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula Peak: Constellation: Eridanus Coordinates: 05hr 05' 19.872" -06° 56' 00.365"</p> <p>Close Star: SAO-131794 Catalog Objects: IC 2118</p> <p>Imaging Window: *07:30 – 10:42 Transit: 08:08 49°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Witch Head Nebula (IC-2118) Constellation: Eridanus [RA = 05h 05m 19.872s DEC = -06deg 56' 00.365" Size = 2.66 x 1.78 deg Pixel scale = 2.27 arcsec/pixel]</p> <p style="font-size: x-small; text-align: right;">James Todd 2019.09.28 Location: Chandler, AZ Config: C11 HyperStar Blander Skyglow - (OV1126c) Exposure Info: [548ms/996 Gain: 3200 OSet: 180]</p>




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<p>Witch Head Nebula (IC 2118) Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Eridanus Coordinates: 05hr 07' 07" -06° 20' 07"</p> <p>Close Star: SAO-131794 Catalog Objects: IC 2118</p> <p>Imaging Window: *07:30 – 10:42 Transit: 08:08 49°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Foxface Nebula (NGC 1788) Config: C11 HS ZWO6200MCc </p> <p>Type: Bright Nebula Peak: Constellation: Orion Coordinates: 05hr 06' 10" -04° 04' 26"</p> <p>Close Star: SAO-131794 Catalog Objects: NGC 1788</p> <p>Imaging Window: 07:30 – 10:06 Transit: 08:13 53°</p>	<p style="text-align: center;">Hyperstar</p> <p style="text-align: center;">FOV 3.80 x 2.54° · RA 05hr 06' 10", DEC -04° 04' 26"</p> 
<p>Foxface Nebula (NGC 1788) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Orion Coordinates: 05hr 05' 52" -03° 22' 22"</p> <p>Close Star: SAO-131794 Catalog Objects: NGC 1788</p> <p>Imaging Window: 07:30 – 10:06 Transit: 08:13 53°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 




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<p>Foxface Nebula (NGC 1788) Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Orion Coordinates: 05hr 06' 26" -03° 20' 13"</p> <p>Close Star: SAO-131794 Catalog Objects: NGC 1788</p> <p>Imaging Window: 07:30 – 10:06 Transit: 08:13 53°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Flaming Star Nebula (IC-405) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula Peak: Constellation: Auriga Coordinates: 05hr 19' 38" 33° 49' 10"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: IC 405, IC 410</p> <p>Imaging Window: 07:30 – 12:05 Transit: 08:23 89°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<p>Flaming Star Nebula (IC 405) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Auriga Coordinates: 05hr 15' 55" 34° 29' 08"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: IC 405</p> <p>Imaging Window: 07:30 – 12:05 Transit: 08:23 89°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 




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<p>Flaming Star Nebula (IC 405) Config: C11-HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Auriga Coordinates: 05hr 16' 37" 34° 23' 47"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: IC 405</p> <p>Imaging Window: 07:30 – 12:05 Transit: 08:23 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Tadpoles (IC 410) Config: C11-HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Auriga Coordinates: 05hr 22' 54" 33° 23' 31"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: IC 410</p> <p>Imaging Window: 07:30 – 12:08 Transit: 08:28 90°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: small;">Tadpole Nebula (IC-410) Constellation: Auriga RA = 05h 22m 51.55s, DEC = +33deg 23' 31.80" Size = 18.3 x 18.8 arcmin - Orientation: Obj. E of N. (Pixel scale = 0.63 arcsec/pixel F11-195fwhm)</p> <p style="font-size: x-small; text-align: right;">Image Taken : 2024-01-01 Location: Chandler, AZ Config: C11-HD F8.7 Reducer Filter: Optolong L-EdHaze Camera: QHY128C Exposure: 300 200mag/Frame, Gain: 3000 Offset: 1000</p>
<p>Tadpoles (IC 410) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Auriga Coordinates: 05hr 22' 37" 33° 23' 03"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: IC 410</p> <p>Imaging Window: 07:30 – 12:08 Transit: 08:28 90°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Tadpole Nebula (IC-410) Constellation: Auriga RA = 05h 22m 37.01s, DEC = +33deg 23' 03.15" Size = 12.4 x 20.8 arcmin - Pixel scale = 0.842 arcsec/pixel</p> <p style="font-size: x-small; text-align: right;">Image Taken : 2024-01-01 Location: Chandler, AZ Config: C11-HD Starizona C11.5-CCD QHY128C Exposure: 300 200mag/Frame, Gain: 3000 Offset: 1000</p>



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<p>M-79 (NGC-1904) Config: C11HD Barlow x2 ZWO6200MC </p> <p>Type: Globular Cluster Peak: Constellation: Lepus Coordinates: 05hr 24' 11" -24° 31' 25"</p> <p>Close Star: SAO-170457 Catalog Objects: M 79</p> <p>Imaging Window: *07:30 – 09:47 Transit: 08:30 32°</p>	<p>C-11 HD: Primary Focus *x2</p> 
<p>Spirograph Nebula (IC 418) Config: C11HD Barlow x2 ZWO6200MC </p> <p>Type: Planetary Nebula Constellation: Lepus Coordinates: 05hr 27' 28" -12° 41' 48"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: IC 418</p> <p>Imaging Window: *07:30 – 11:15 Transit: 08:34 44°</p>	<p>C-11 HD: Primary Focus *x2</p> 
<p>The Spider and the Fly (M-77, NGC-1055, NGC-1931) Config: C11-HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Auriga</p> <p>Camera Rotation - 90° Frame 01 RA: 05hr 30' 44"DEC: 34° 20' 41" Frame 02 RA: 05hr 27' 55"DEC: 34° 20' 41"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: IC-417, NGC-1931</p> <p>Imaging Window: 07:30 – 12:19 Transit: 08:37 89°</p>	<p>C-11 HD: Focal Reducer Composite!</p>  <p><small>The Spider and the Fly (IC-417 & NGC-1931) Constellation: Auriga RA: 05h 27m 55.00s DEC: 34° 20' 41.00" Size: 100.0 x 83.3 arcmin Orientation: 0.0deg E-Offset: 0.625 arcmin (PT=1999min) Image: 1000x1000px 2024-01-04 21:33 Location: CHARLOTTE, AZ Config: C11HD Focal Reducer Filter: Clear Camera: ZWO6200MC Exposure: 5s Pixel: 2.95um Gain: 100 Offset: 1.00</small></p>

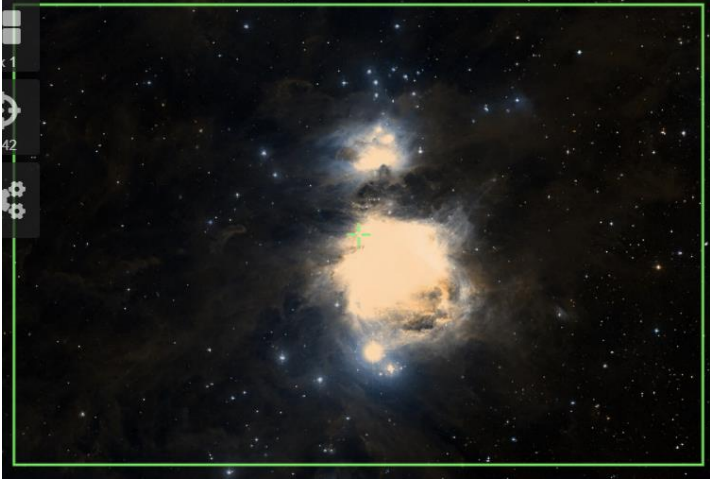


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<p>The Spider (IC 417) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Auriga Coordinates: 05hr 28' 03" 34° 22' 58"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: IC 417</p> <p>Imaging Window: 07:30 – 12:16 Transit: 08:34 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Starfish Cluster (M-38) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster Constellation: Auriga Coordinates: 05hr 28' 43" 35° 51' 18"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: M-38</p> <p>Imaging Window: 07:30 – 12:18 Transit: 08:35 88°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>The Fly (NGC 1931) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Auriga Coordinates: 05hr 31' 24" 34° 15' 00"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: NGC 1931</p> <p>Imaging Window: 07:30 – 12:19 Transit: 08:37 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 


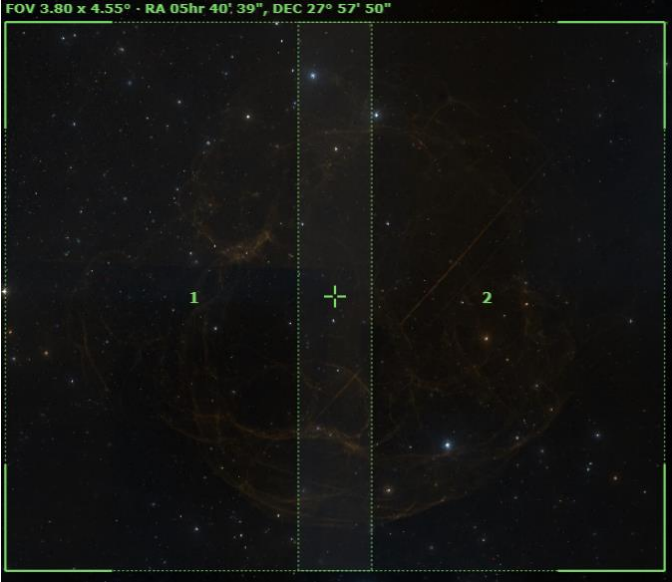
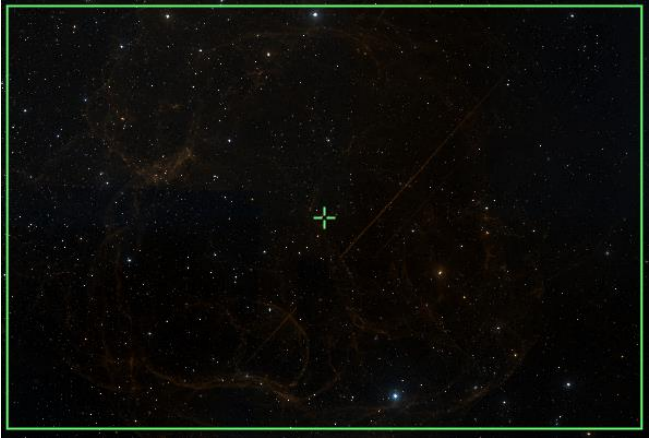
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<p>Crab Nebula (M 1) Config: C1 LF ZWO6200MC </p> <p>Type: Planetary Nebula Peak: Constellation: Taurus Coordinates: 05hr 34' 30" 22° 00' 59.9"</p> <p>Close Star: SAO-77336 Catalog Objects: M 1</p> <p>Imaging Window: 07:30 – 12:01 Transit: 08:41 79°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: small; text-align: center;">Crab Nebula (Messier-1) James Voder Date(s) 2022-02-05, 07, 08, 09, 10 Location: Chandler, AZ Constellation: Taurus RA = 05.569 31 hr, DEC = +22deg 00' 34.4" Size = 11.5 x 21.0 arcmin Orientation: -0.34deg Pixel scale = 0.447 arcsec/pixel FL = 2756mm Config: C-11 HD Filter: OIII Exposure Info: 756ms@4min Gain: 3200 OffSet: 180</p>
<p>The Orion Complex Config: C11 HS ZWO6200MC</p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: Frame 01 RA: 05hr 43' 42" DEC: -01° 01' 06" Frame 02 RA: 05hr 31' 05" DEC: -01° 01' 06" Frame 03 RA: 05hr 43' 42" DEC: -03° 07' 35" Frame 04 RA: 05hr 31' 04" DEC: -03° 07' 35" Frame 05 RA: 05hr 43' 43" DEC: -05° 14' 05" Frame 06 RA: 05hr 31' 04" DEC: -05° 14' 05"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: M-42</p> <p>Imaging Window: 07:30 – 10:21 Transit: 08:41 52°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4 SUPER-6 Composite!</p>  <p style="font-size: small; text-align: center;">FOV 6.95 x 6.76° · RA 05hr 37' 23", DEC -03° 07' 40"</p>




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<p>The Orion Nebula (M 42) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 05hr 35' 46" -05° 15' 34"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: M 42</p> <p>Imaging Window: 07:30 – 10:21 Transit: 08:41 52°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<p>The Orion Nebula (M 42) Config: C1 LF ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 05hr 35' 09" -05° 24' 32"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: M 42</p> <p>Imaging Window: 07:30 – 10:21 Transit: 08:41 52°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: small;">Orion Nebula (M-42) Constellation: Orion</p> <p style="font-size: x-small; text-align: right;">James VanDer... 2019-01-25 Location: ... Config: C11 Starizona LF Reducer SBIGAD Filter OVI1256 Exposure Info: 350x300/3000/1000/1000/1000/1000</p>
<p>Running Man Nebula (NGC 1977) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Orion Coordinates: 05hr 35' 16" -04° 41' 47"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: NGC 1977</p> <p>Imaging Window: 07:30 – 10:25 Transit: 08:41 52°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 



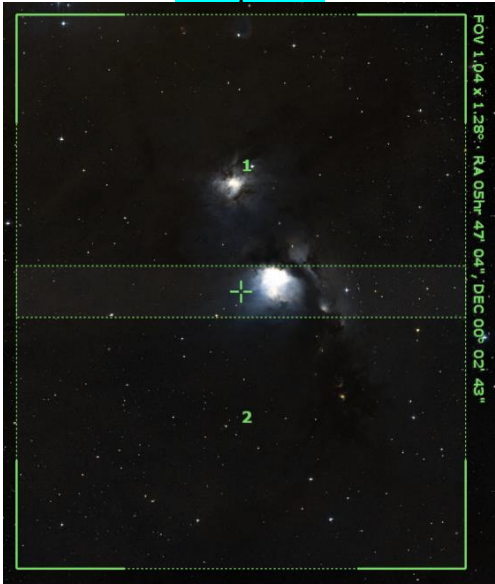
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<p>Pinwheel Cluster (M-36) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster Constellation: Auriga Coordinates: 05hr 36' 18" 34° 08' 27"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: M-36/NGC-1960</p> <p>Imaging Window: 07:30 – 12:24 Transit: 08:42 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Simeis 147 (SH2-240) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula Constellation: Taurus</p> <p>Camera Rotation - 90°</p> <p>Coordinates: Frame 01 RA: 05hr 45' 38" DEC: 27° 56' 31" Frame 02 RA: 05hr 36' 28" DEC: 27° 56' 31"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: SH2-240</p> <p>Imaging Window: 07:30 – 12:19 Transit: 08:47 85°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4 Composite-2</p> 
<p>Simeis 147 (SH2-240) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula Constellation: Taurus Coordinates: 05hr 39' 04" 28° 00' 00"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: SH2-240</p> <p>Imaging Window: 07:30 – 12:19 Transit: 08:47 85°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 




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<p>Flame and Horsehead Nebula (NGC 2024, B 33) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse/Dark Nebula Peak: Constellation: Orion Coordinates: 05hr 40' 04" -02° 28' 13"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: NGC 2024, B 33</p> <p>Imaging Window: 07:30 – 10:49 Transit: 08:48 54°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Horsehead and Flame Nebula Constellation: Orion</p> <p style="font-size: x-small; text-align: right;">Image Date: 2023-01-02 Location: Mountain View, TN Config: C11 HyperStar (C11-HD) Exposure Info: 148img/Star (Gain: 3100) (Offset: 170)</p>
<p>Flame Nebula (NGC 2024) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 05hr 41' 45.843" -01° 49' 31.401"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: NGC 2024</p> <p>Imaging Window: 07:30 – 10:49 Transit: 08:48 54°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Flame Nebula (NGC-2024) Constellation: Orion</p> <p style="font-size: x-small; text-align: right;">Image Date: 2023-01-04 Location: Chandler, AZ Config: C11 HyperStar (C11-HD) Exposure Info: 178img/Star (Gain: 3200) (Offset: 180)</p>
<p>Horsehead Nebula (B 33) Config: C1 LF ZWO6200MC </p> <p>Type: Dark Nebula Peak: Constellation: Orion Coordinates: 05hr 40' 59" -02° 31' 47"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: B 33</p> <p>Imaging Window: 07:30 – 10:45 Transit: 08:47 54°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: small;">Horsehead Nebula (IC-434) Constellation: Orion</p> <p style="font-size: x-small; text-align: right;">Image Date: 2023-01-04 Location: Chandler, AZ Config: C11 HyperStar (C11-HD) Exposure Info: 298img/Star (Gain: 3200) (Offset: 180)</p>

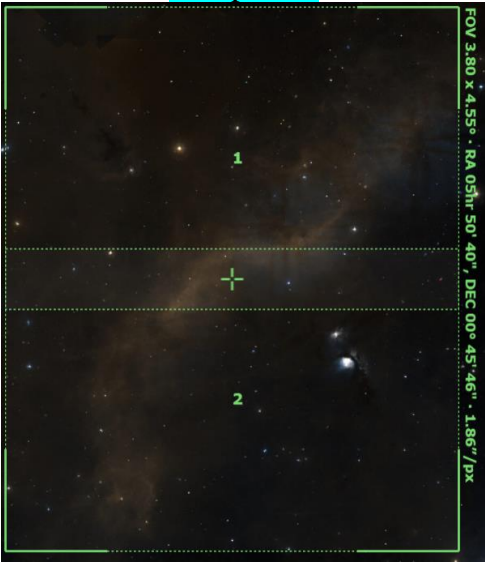
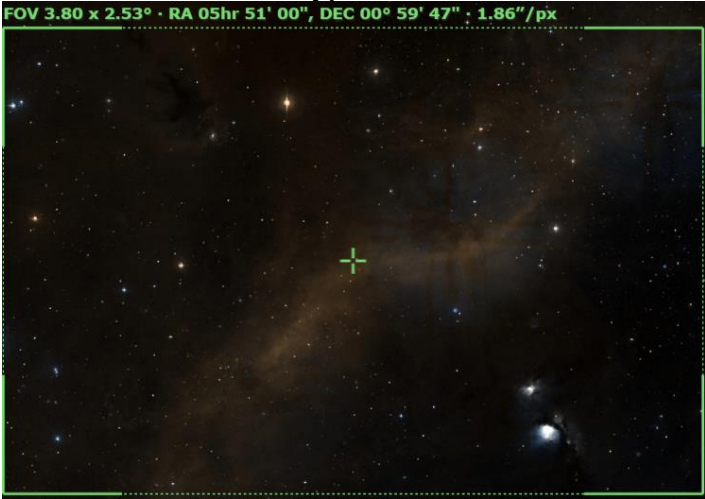
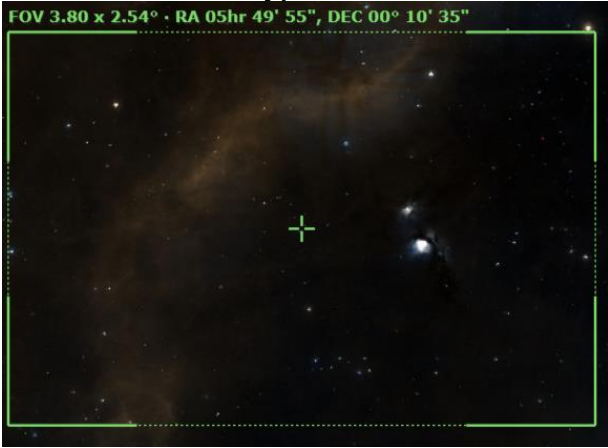
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<p>NGC 2022 Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Peak: Constellation: Orion Coordinates: 05hr 42' 07" 09° 04' 55"</p> <p>Close Star: SAO-112740 (Bellatrix) Catalog Objects: NGC 2022</p> <p>Imaging Window: 07:30 – 11:35 Transit: 08:48 66°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>NGC-2022 Constellation: Orion RA = 05h 42m 06.6s DEC = +09deg 04' 54.9" Size = 18.5 x 13.9 arcmin Orientation: 0.3deg E of N Pixel scale = 0.277 arcsec/pixel FL=2900mm James Yoder (Dane) 2020.12.09, 18" Location: Chandler, AZ Config: C-11 HD OPT Froid Ultra ZWO6200MC Exposure Info: 150 frames(2min) Gain: 100 Offset: 50 </small></p>
<p>NGC 1961 Config: C11HD ZWO6200MC </p> <p>Type: Spiral Galaxy Peak: Constellation: Camelopardalis Coordinates: 05hr 43' 27" 69° 20' 48"</p> <p>Close Star: SAO-40750 (Menkalinan) Catalog Objects: NGC 1961</p> <p>Imaging Window: 07:30 – 12:06 Transit: 08:48 54°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>Galaxy Cluster (NGC-1961 et al.) Constellation: Camelopardalis RA = 05h 43m 13.80s DEC = +69deg 21' 13.100" Size = 42.3 x 28.3 arcmin Pixel scale = 0.441 arcsec/pixel James Yoder 2019.01.22 Location: Mesa Verde (Dane), Tinseltown, NJ Config: C-11 HD QHY135C Exposure Info: 300 frames(2min) Gain: 1200 Offset: 100 </small></p>
<p>M-78 Config: C11-HD FR ZWO6200MC </p> <p>Type: Dark Nebula Peak: Constellation: Orion</p> <p>Frame 01 RA: 05hr 47' 05"DEC: 00° 20' 09"</p> <p>Frame 02 RA: 05hr 47' 05"DEC: -00° 14' 43"</p> <p>Close Star: SAO-132346 (Alnilam) Catalog Objects: M 78</p> <p>Imaging Window: 07:30 – 11:04 Transit: 08:53 57°</p>	<p>C-11 HD: Focal Reducer Composite!</p>  <p><small>FOV 1.04 x 1.28° RA 05hr 47' 04" DEC 00° 02' 43"</small></p>

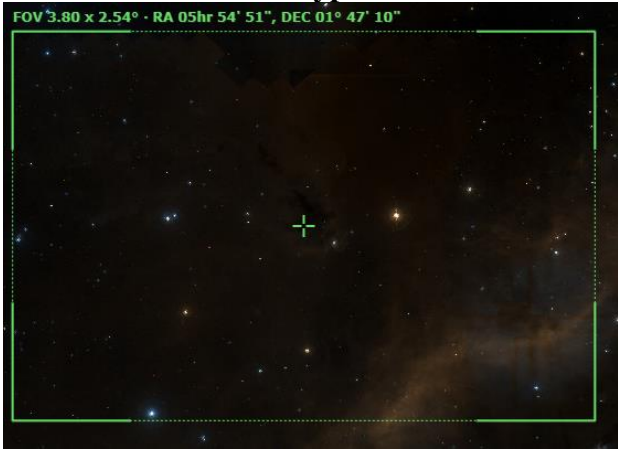

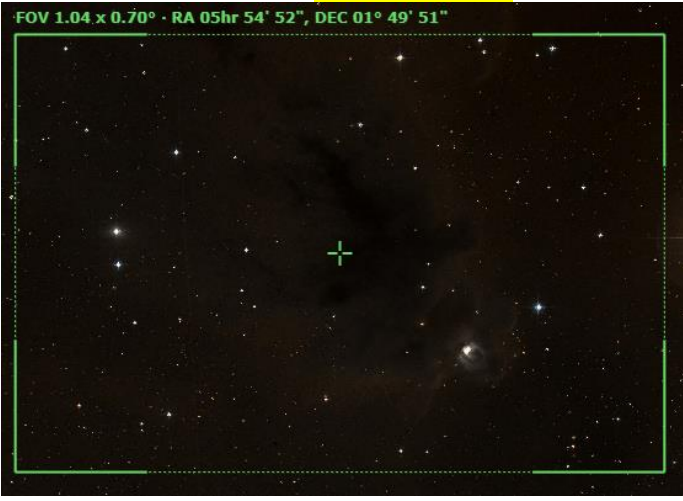
Prospective Imaging Objects – February 09 2024

<p>M-78 Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright and Dark Nebula Peak: Constellation: Orion Coordinates: 05hr 46' 59" 00° 08' 59"</p> <p>Close Star: SAO-132346 (Alnilam) Catalog Objects: M 78</p> <p>Imaging Window: 07:30 – 11:04 Transit: 08:53 57°</p>	<p>C-11 HD: Focal Reducer</p> 
<p>M-78 Config: C11HD ZWO6200MC </p> <p>Type: Bright and Dark Nebula Peak: Constellation: Orion Coordinates: 05hr 47' 03" 00° 09' 46"</p> <p>Close Star: SAO-132346 (Alnilam) Catalog Objects: M 78</p> <p>Imaging Window: 07:30 – 11:04 Transit: 08:53 57°</p>	<p>C-11 HD: Primary Focus</p> 
<p>Salt and Pepper Cluster(M-37) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster Constellation: Auriga Coordinates: 05hr 52' 18" 32° 33' 11"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: M-37/NGC-2099</p> <p>Imaging Window: 07:30 – 12:37 Transit: 08:58 89°</p>	<p>C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February 09 2024

<p>LDN-1622 Complex Config: C11HD ZWO6200MC </p> <p>Type: Dark Nebula & Nebula Peak: Constellation: Orion</p> <p>Coordinates: Pane 1: 05hr 50' 40", 01° 46' 30" Pane 2, 05hr 50' 40", 00° 14' 57"</p> <p>Close Star: SAO-132346 (Alnilam) Catalog Objects: LDN 1622 Imaging Window: 07:36 – 11:20 Transit: 09:04 59°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4 Composite!</p> 
<p>LDN-1622 (Region 01) Config: C11HD ZWO6200MC </p> <p>Type: Dark Nebula & Nebula Peak: Constellation: Orion</p> <p>Coordinates: 05hr 51' 00" 00° 59' 47"</p> <p>Close Star: SAO-132346 (Alnilam) Catalog Objects: LDN 1622 Imaging Window: 07:36 – 11:20 Transit: 09:04 59°</p>	<p style="text-align: center;">HyperStar</p> 
<p>LDN-1622 (Region 02) Config: C11HD ZWO6200MC </p> <p>Type: Dark Nebula & Nebula Peak: Constellation: Orion</p> <p>Coordinates: 05hr 49' 55" 00° 10' 35"</p> <p>Close Star: SAO-132346 (Alnilam) Catalog Objects: LDN 1622 Imaging Window: 07:36 – 11:20 Transit: 09:04 59°</p>	<p style="text-align: center;">HyperStar</p> 

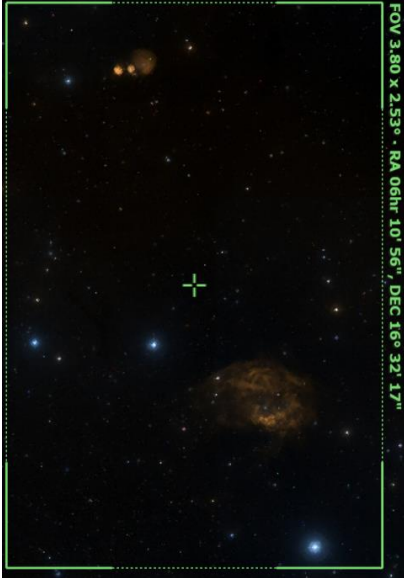
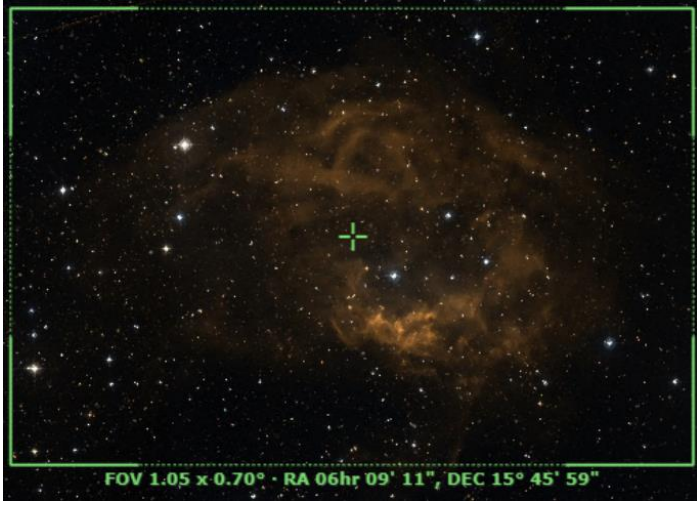

Prospective Imaging Objects – February 09 2024

<p>LDN-1622 (Region 03) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright and Dark Nebula Peak: Coordinates: 05hr 54' 51" 01° 47' 10"</p> <p>Close Star: SAO-112740(Bellatrix) Catalog Objects: LDN-1622</p> <p>Imaging Window: 07:36 – 11:20 Transit: 09:04 59°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="text-align: center;">FOV 3.80 x 2.54° · RA 05hr 54' 51", DEC 01° 47' 10"</p>
<p>LDN 1622 Config: C11HD ZWO6200MC </p> <p>Type: Dark Nebula Peak: Constellation: Orion Camera Rotation - 90° Frame 01 RA: 05hr 56' 28"DEC: 01° 58' 32" Frame 02 RA: 05hr 54' 08"DEC: 01° 58' 35" Close Star: SAO-132346 (Alnilam) Catalog Objects: LDN 1622</p> <p>Imaging Window: 07:36 – 11:20 Transit: 09:04 59°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer Composite!</p>  <p style="text-align: center;">FOV 1.04 x 1.28° · RA 05hr 55' 18", DEC 01° 58' 34"</p>
<p>LDN-1622 Config: C11HD FR ZWO6200MC </p> <p>Type: Bright and Dark Nebula Peak: Constellation: Orion Coordinates: 05hr 54' 52" 01° 49' 51"</p> <p>Close Star: SAO-112740(Bellatrix) Catalog Objects: LDN-1622</p> <p>Imaging Window: 07:36 – 11:20 Transit: 09:04 59°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="text-align: center;">FOV 1.04 x 0.70° · RA 05hr 54' 52", DEC 01° 49' 51"</p>


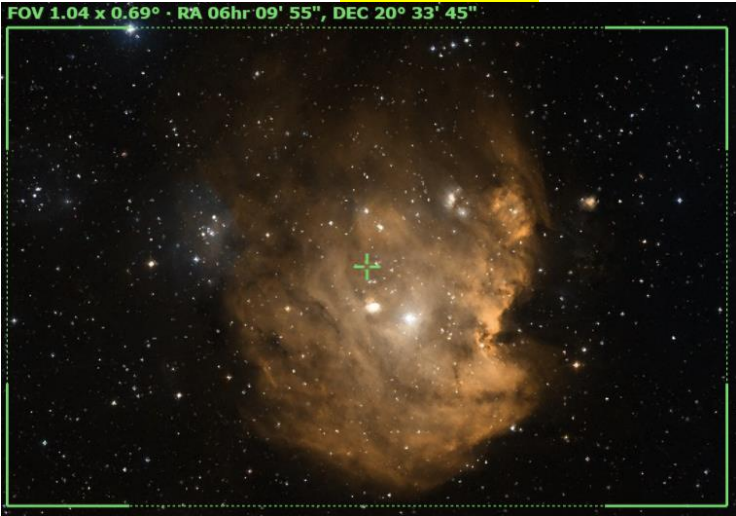

Prospective Imaging Objects – February 09 2024

<p>LDN 1622 Config: C11HD ZWO6200MC </p> <p>Type: Dark Nebula Peak: Constellation: Orion Coordinates: 05hr 54' 55" 01° 49' 49"</p> <p>Close Star: SAO-132346 (Anilam) Catalog Objects: LDN 1622</p> <p>Imaging Window: 07:36 – 11:20 Transit: 09:04 59°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Angel Nebula (NGC 2170) Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright and Dark Nebula Peak: Constellation: Monoceros Coordinates: 06hr 08' 26" -06° 25' 24"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: NGC 2170</p> <p>Imaging Window: 07:30 – 10:46 Transit: 09:14 50°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> <p style="text-align: center;">FOV 1.04 x 0.70° - RA 06hr 08' 26", DEC -06° 25' 24"</p> 
<p>Angel Nebula (NGC 2170) Config: C11HD ZWO6200MC </p> <p>Type: Bright and Dark Nebula Peak: Constellation: Monoceros Coordinates: 06hr 08' 23" -06° 19' 23"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: NGC 2170</p> <p>Imaging Window: 07:30 – 10:46 Transit: 09:14 50°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Angel Nebula (NGC-2170) Constellation: Monoceros R.A. = 06h 08m 23.0s, DEC = -06deg 19' 23.4" Size = 41.2 x 27.5 arcmin Orientation: 0 deg E of N Pixel scale = 0.446 arcsec/pixel F1-200frames</p> <p style="font-size: x-small; text-align: right;">James Yoder Location: Mansarovar Grounds (2020 R1 H1), Chandler/2020 R1 D2, AZ1 Config: C11 HD ZWO6200MC F1-200frames Exposure Info: 0.75sec/Frame Gain: 3200 Offset: 180</p>



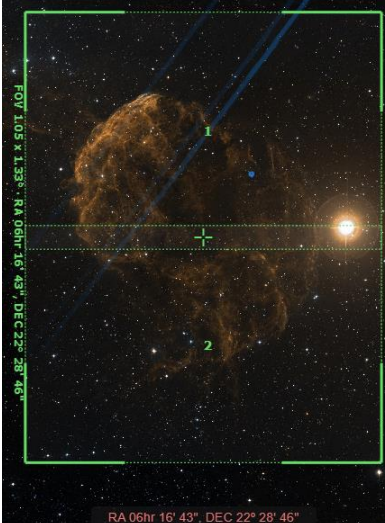
Prospective Imaging Objects – February 09 2024

<p>IC-2162 & SH 2-261 Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 06hr 10' 56" 16° 32' 17" Angle: 90° East</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: IC-2162 Sh 2-261</p> <p>Imaging Window: 07:30 – 12:21 Transit: 09:15 72°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<p>Lower's Nebula (Sh 2-261) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 06hr 09' 11" 15° 45' 59"</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: Sh 2-261</p> <p>Imaging Window: 07:30 – 12:21 Transit: 09:15 72°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Lower's Nebula (Sh 2-261) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 06hr 08' 59" 15° 46' 39"</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: Sh 2-261</p> <p>Imaging Window: 07:30 – 12:21 Transit: 09:15 72°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February 09 2024

<p>M-35, NGC-2158 Config: C11-HD FR ZWO6200MC </p> <p>Type: Open Cluster Pair Constellation: Gemini Coordinates: 06hr 08' 39" 24° 14' 48"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: M-35/NGC-2168, NGC-2158</p> <p>Imaging Window: 07:30 – 12:41 Transit: 09:15 81°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Monkey Head (NGC-2174) Config: C11-HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 06hr 09' 50" 20° 29' 50"</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: NGC 2174/Sh 2-252</p> <p>Imaging Window: 07:30 – 12:33 Transit: 09:16 77°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> <p style="text-align: center;">FOV 1.04 x 0.69° · RA 06hr 09' 55", DEC 20° 33' 45"</p> 
<p>Monkey Head (NGC 2174) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 06hr 09' 50" 20° 29' 50"</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: NGC 2174/Sh 2-252</p> <p>Imaging Window: 07:30 – 12:33 Transit: 09:16 77°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;"> Monkey Head Nebula (NGC-2174) Constellation: Orion RA = 06h 09m 49.11s, DEC = +20deg 29' 51.180" Size = 11.1 x 6.9 arcmin Peak gain = 6.44e photons/px F1-C-720mm Image Size: 2024 02 14 Location: Chandler, AZ Config: C-11 HD (Astromech) CLS-C-11-5000 (Sh) Exposure Info: 27 (Total/Star) Gain: 3200 (100Star/100) </p>




Prospective Imaging Objects – February 09 2024

<p>IC 2162 Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Orion Coordinates: 06hr 12' 25" 17° 59' 26"</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: IC 2162</p> <p>Imaging Window: 07:30 – 12:31 Transit: 09:19 75°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Bright Nebula IC-2162 Constellation: Orion RA=06h12m25.00s, DEC=+17deg59m26.00s Size=42.3 x 23.0 arcmin Peak scale=0.441 arcsec/pixel</p> <p style="font-size: x-small; text-align: right;">James Volder Date(s) 2020-10-21 Location: Chandler, AZ Config.: C-11 HD APM104 ASA535 1000 125x Exposure Info: 120000/3000/1000 Gain: 1200 Offset: 100</p>
<p>Jellyfish Nebula (IC 443) Config: C11-HD HS ZWO6200MC</p> <p>Type: Supernova Remnant Peak: Constellation: Gemini Coordinates: 06hr 19' 56" 23° 06' 17"</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: IC 443</p> <p>Imaging Window: 07:30 – 12:45 Transit: 09:23 79°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Jellyfish Nebula (IC-443) Constellation: Gemini RA=06h19m25.00s, DEC=+23deg06m17.00s Orientation: 16deg E of N Pixel scale=2.28 arcsec/pixel FL=540mm</p> <p style="font-size: x-small; text-align: right;">James Volder Date(s) 2020-10-21 Location: Chandler, AZ Config.: C-11 HD HyperStar v4 APM104 ASA535 1000 125x Exposure Info: 120000/3000/1000 Gain: 1200 Offset: 100</p>
<p>Jellyfish Nebula (IC 443) Config: C11-HD FR ZWO6200MC </p> <p>Type: Supernova Remnant Peak: Constellation: Gemini Coordinates: F1 RA=06:16:43 DEC=22:47:40 F2 RA=06:16:43 DEC=22:09:52</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: IC 443</p> <p>Imaging Window: 07:30 – 12:45 Transit: 09:23 79°</p>	<p style="text-align: center;">C11-HD: Focal Reducer Composite 2!</p>  <p style="font-size: small; text-align: center;">FOV: 1.05 x 1.53" RA: 06h 16m 43s DEC: 22° 28' 46"</p> <p style="font-size: x-small; text-align: center;">RA 06hr 16' 43" DEC 22° 28' 46"</p>




Prospective Imaging Objects – February 09 2024

<p>Jellyfish Nebula (IC 443) Config: C11 LF ZWO6200MC </p> <p>Type: Supernova Remnant Peak: Constellation: Gemini Coordinates: 06hr 16' 51" 22° 36' 34"</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: IC 443</p> <p>Imaging Window: 07:30 – 12:45 Transit: 09:23 79°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: small;">Jellyfish nebula (IC 443) Constellation: Gemini</p> <p style="font-size: x-small; text-align: right;">Location: Canada, AZ Config: C11 System L1 Corrector OPT 16000 Filter OPT 16 Exposure Info: 100ms/Frame, Gain: 3200 Offset: 100</p>
<p>Sh 2-249 (IC-444) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Gemini Coordinates: 06hr 19' 15" 23° 24' 58"</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: Sh 2-249</p> <p>Imaging Window: 07:30 – 12:48 Transit: 09:25 80°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>IC-2165 Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Peak: Constellation: Canis Major Coordinates: 06hr 21' 43" -12° 59' 12"</p> <p>Close Star: Catalog Objects: IC-2165</p> <p>Imaging Window: *07:30 – 11:37 Transit: 09:28 44°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small; text-align: center;">FOV 0.73 x 0.48° · RA 06hr 21' 43", DEC -12° 59' 12" · 0.28"/px</p>


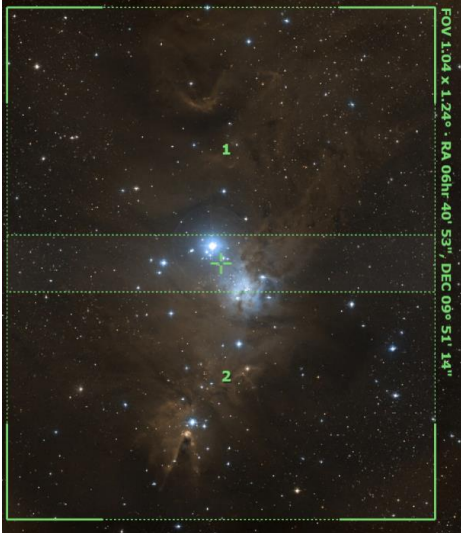
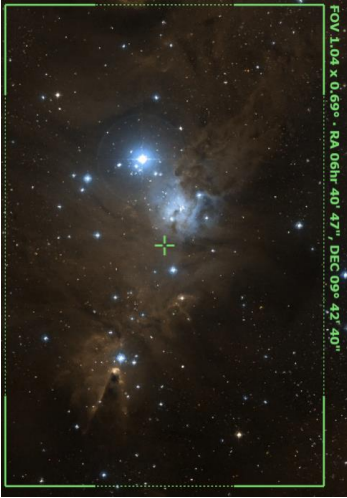
Prospective Imaging Objects – February 09 2024

<p>Rosette Nebula (NGC 2237) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula Constellation: Monoceros Coordinates: 06hr 31' 53.37" 04° 50' 45.29"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC 2237 ,NGC-2244</p> <p>Imaging Window: 07:30 – 12:09 Transit: 09:37 62°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Rosette Nebula (NGC 2237, 2240, 2241, 2239, 2246) C-11 Hyperstar 1600iso 15min James Taylor 2024-01-04</p>
<p>Rosette Nebula (NGC 2237) Config: C11-HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Monoceros Coordinates: 06hr 32' 01" 04° 59' 28"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC 2237</p> <p>Imaging Window: 07:30 – 12:09 Transit: 09:37 62°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Rosette Nebula (NGC 2237) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Monoceros Coordinates: 06hr 32' 02" 04° 58' 14"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC 2237</p> <p>Imaging Window: 07:30 – 12:09 Transit: 09:37 62°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 



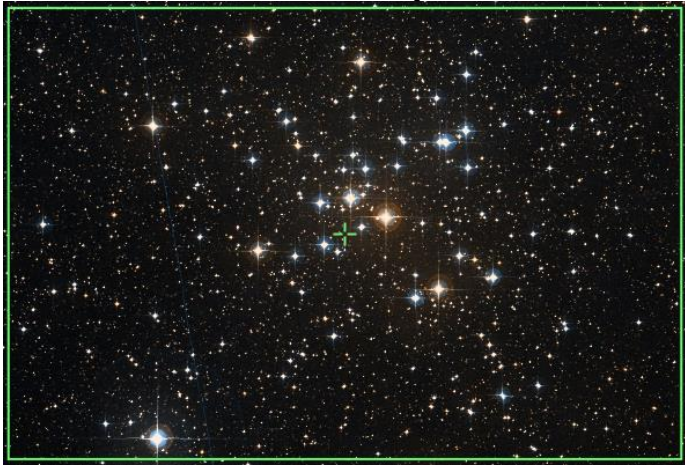
Prospective Imaging Objects – February 09 2024

<p>IC-2169 Config: C11 HS ZWO6200MC</p> <p>Type: Bright Nebula Peak: Constellation: Monoceros Coordinates: 06hr 36' 00" 10° 16' 17"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: IC 2169</p> <p>Imaging Window: 07:30 – 12:27 Transit: 09:37 67°</p>	<p>C-11 HD: HyperStar v4</p> 
<p>IC 2169 Config: C11-HD FR ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Monoceros Coordinates: 06hr 31' 21" 09° 56' 20"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: IC 2169</p> <p>Imaging Window: 07:30 – 12:27 Transit: 09:37 67°</p>	<p>C-11 HD: Focal Reducer</p> 
<p>IC 2169 Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Monoceros Coordinates: 06hr 31' 36" 09° 58' 16"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: IC 2169</p> <p>Imaging Window: 07:30 – 12:27 Transit: 09:37 67°</p>	<p>C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February 09 2024

<p>Hubble's Variable Nebula (NGC 2261) Config: C11HD ZWO6200MC </p> <p>Type: Reflection Nebula Constellation: Monoceros Coordinates: 06hr 39' 12" 08° 45' 00"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC 2261</p> <p>Imaging Window: 07:30 – 12:31 Transit: 09:45 65°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Christmas Tree & Cone Config: C11-HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula</p> <p>Coordinates: Pane 1: 06hr 40' 53", 10° 07' 47" Pane 2, 06hr 40' 53", 09° 34' 40"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC 2264/Sh 2-273</p> <p>Imaging Window: 07:30 – 12:37 Transit: 09:47 67°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer Composite!</p> 
<p>Christmas Tree & Cone Config: C11-HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Monoceros Coordinates: 06hr 40' 47" 09° 42' 40" Angle: 90° East</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC 2264/Sh 2-273</p> <p>Imaging Window: 07:30 – 12:37 Transit: 09:47 67°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 




Prospective Imaging Objects – February 09 2024

<p>Christmas Tree Cluster (NGC 2264) Config: C1 LF ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Monoceros Coordinates: 06hr 40' 58.74" 09° 53' 32.69"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC 2264/Sh 2-273</p> <p>Imaging Window: 07:30 – 12:37 Transit: 09:47 67°</p>	<p>Primary Focus</p>  <p>NGC 2264: Christmas Tree Cluster</p>
<p>Cone Nebula-1 (NGC 2264) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Monoceros Coordinates: 06hr 41' 07" 09° 27' 52"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC 2264</p> <p>Imaging Window: 07:30 – 12:37 Transit: 09:47 67°</p>	<p>C-11 HD: Primary Focus</p> 
<p>M-41 (NGC 2287) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster Constellation: Canis Major Coordinates: 06hr 46' 09" 20° 47' 35"</p> <p>Close Star: SAO-151881 (Sirius) Catalog Objects: M-41/NGC 2287</p> <p>Imaging Window: *08:07 – 11:48 Transit: 09:52 36°</p>	<p>C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February 09 2024

<p>M-50 (NGC 2323) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster Constellation: Monoceros Coordinates: 07hr 02' 48" -08° 22' 33"</p> <p>Close Star: SAO-151881 (Sirius) Catalog Objects: M-50/NGC 2323</p> <p>Imaging Window: *07:39 – 12:44 Transit: 10:09 48°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Seagull Nebula (IC-2177) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Monoceros Coordinates: 07hr 06' 20" -11° 06' 56"</p> <p>Close Star: SAO-151881 (Sirius) Catalog Objects: IC-2177</p> <p>Imaging Window: *07:30 – 01:06 Transit: 10:10 46°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4 - 90° Rotation</p>  <p style="font-size: small;">Seagull Nebula (IC-2177, NGC-2327, NGC-2335, NGC-2343) Constellation: Monoceros RA: 07h 06m 20s, DEC: -11deg 07' 56" Size: 20x14 arcmin Orientation: 90deg S of N Pixel scale: 1.27x arcsec/pixel FL: 563mm</p> <p style="font-size: x-small; text-align: right;">James Stolar (Danner) 2021.01.05, 16, 11, 15, 17 Location: Chandler, AZ Config: C-11HD HyperStar V4 Optolong L-Extreme 0801128x Exposure: 1x30 Filter: None Gain: 3200 Offset: 100</p>
<p>Seagull Nebula (IC 2177) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Monoceros Coordinates: 07hr 04' 47" -10° 27' 49"</p> <p>Close Star: SAO-151881 (Sirius) Catalog Objects: IC 2177</p> <p>Imaging Window: *07:30 – 01:06 Transit: 10:10 46°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February 09 2024

<p>Hourglass Nebula (NGC-2346) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Peak: Constellation: Monoceros Coordinates: 07hr 09' 23" 00° 48' 22"</p> <p>Close Star: SAO-115756 (Procyon) Catalog Objects: NGC-2346</p> <p>Imaging Window: *07:30 – 01:23 Transit: 10:15 56°</p>	<p style="text-align: center;">C-11 HD: Primary Focus x2</p>  <p style="font-size: small; text-align: center;">Planetary Nebula NGC-2346 Constellation: Monoceros RA: 07h 09m 23.00s Dec: 00d 48m 22.00s Date: 2024-01-04 20:00:00 Filter: H-alpha Exposure: 120s Gain: 0 Offset: 0</p>
<p>Integral Sign Galaxy (UGC 3697) Config: C11HD FR ZWO6200MC </p> <p>Type: Galaxy Group Constellation: Camelopardalis Coordinates: 07hr 11' 40" 71° 56' 04"</p> <p>Close Star: SAO-40186 (Capella) Catalog Objects: UGC-3697, UGC-3714, UGC-3701</p> <p>Imaging Window: 07:30 – 01:18 Transit: 10:17 51°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Integral Sign Galaxy (UGC 3697) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Constellation: Camelopardalis Coordinates: 07hr 11' 50" 71° 48' 14"</p> <p>Close Star: SAO-40186 (Capella) Catalog Objects: UGC-3697, UGC-3714</p> <p>Imaging Window: 07:30 – 01:18 Transit: 10:17 51°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February 09 2024

<p>Thor's Helmet (NGC-2359) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Constellation: Canis Major Coordinates: 07h 18' 26.223" -13° 15' 29.563"</p> <p>Close Star: SAO-151881 (Sirius) Catalog Objects: NGC-2359/ Sh2-298/ LBN1041</p> <p>Imaging Window: *07:50 – 01:06 Transit: 10:24 43°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Thor's Helmet (NGC 2359) Constellation: Canis Major</p> <p style="font-size: x-small; text-align: right;">James Yoder Date(s) 2023-01-25, 2024-01-09 Location: Chandler, AZ Config: C-11 HD ZWO6200MC Ultra Filter: (017) Blue Exposure Info: (0.400000) 600s Gain: 1200 Offset: 100</p>
<p>Candy Wrapper (NGC-2371) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Constellation: Gemini Coordinates: 07° 25' 34" 29° 29' 18"</p> <p>Close Star: SAO-151881 (Sirius) Catalog Objects: NGC-2371</p> <p>Imaging Window: 07:30 – 02:06 Transit: 10:31 86°</p>	<p style="text-align: center;">C-11 HD: Primary Focus x2</p>  <p style="font-size: x-small;">Candy Wrapper (NGC 2371) Constellation: Gemini</p> <p style="font-size: x-small; text-align: right;">James Yoder Date(s) 2023-01-25, 2024-01-09 Location: Chandler, AZ Config: C-11 HD ZWO6200MC Ultra Filter: (017) Blue Exposure Info: (0.400000) 600s Gain: 1200 Offset: 100</p>
<p>Medusa Nebula (Abell 21) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Gemini Coordinates: 07h 29' 00" 13° 15' 00"</p> <p>Close Star: SAO-115756 (Procyon) Catalog Objects: Abell 21</p> <p>Imaging Window: 07:30 – 01:35 Transit: 10:35 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small;">Abell-21 (Medusa Nebula) Constellation: Gemini RA=7h 29m 54.9s, DEC=13deg 15' 20.8" Size = 38.7 x 26.1 arcmin Orientation: 0.8deg E of N Pixel scale = 0.579 arcsec/pixel FL=2727mm</p> <p style="font-size: x-small; text-align: right;">James Yoder Date(s) 2023-01-25, 2024-01-09 Location: Chandler, AZ Config: C-11 HD ZWO6200MC Ultra Filter: (017) Blue Exposure Info: (0.400000) 600s Gain: 1200 Offset: 100</p>

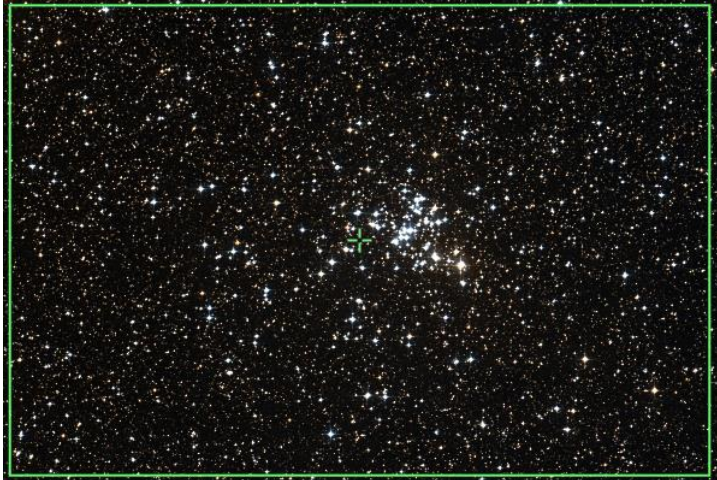


Prospective Imaging Objects – February 09 2024

<p>Eskimo Nebula (NGC-2392) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Gemini Coordinates: 07h 29' 11" 20° 54' 45"</p> <p>Close Star: SAO-79666 (Pollux) Catalog Objects: NGC-2392</p> <p>Imaging Window: 07:30 – 01:54 Transit: 10:35 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">NGC-2392 (Eskimo Nebula) James Yoder Date(s) 2020.12.09 Location: Chandler, AZ Constellation: Gemini Config: C-11 HD KPT Tread Ultra ZWO6200MC RA = 07h 29m 11.5s DEC = +20deg 54' 33.6" Size = 18.5 x 13.9 arcmin Orientation: 0.5deg E of N Pixel scale = 0.278 arcsec/pixel FL = 2800mm Exposure: 1s 14 Frames/2min Gain: 100 Offset: 50</p>
<p>M-47 (NGC-2422) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Puppis Coordinates: 07h 36' 36" -14° 32' 19"</p> <p>Close Star: SAO-79666 (Pollux) Catalog Objects: M-47/NGC-2422</p> <p>Imaging Window: *08:12 – 01:17 Transit: 10:42 42°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-2403 Config: C11HD ZWO6200MC </p> <p>Type: Barred Spiral Galaxy</p> <p>Constellation: Camelopardalis Coordinates: 07h 36' 51" 65° 36' 06"</p> <p>Close Star: SAO-79666 (Pollux) Catalog Objects: NGC-2403</p> <p>Imaging Window: 07:30 – 02:18 Transit: 10:43 58°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Galaxy NGC-2403 (Caldwell 7) James Yoder Date(s) 2020.12.09 Location: Chandler, AZ Constellation: Camelopardalis Config: C-11 HD KPT Tread Ultra ZWO6200MC RA = 07h 36m 51.1s DEC = +65deg 36' 06.1" Size = 18.5 x 13.9 arcmin Orientation: 0.5deg E of N Pixel scale = 0.278 arcsec/pixel FL = 2800mm Exposure: 1s 14 Frames/2min Gain: 100 Offset: 50</p>


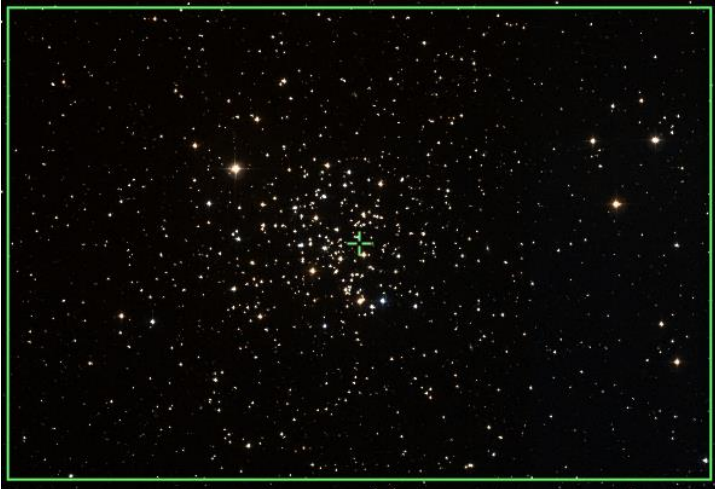

Prospective Imaging Objects – February 09 2024

<p>Intergalactic Wanderer (NGC-2419) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster</p> <p>Constellation: Lynx Coordinates: 07h 38' 09" 38° 52' 57"</p> <p>Close Star: SAO-79666 (Pollux) Catalog Objects: NGC-2419</p> <p>Imaging Window: 07:30 – 02:31 Transit: 10:44 84°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>Intergalactic Wanderer (NGC-2419) © 2024 Starizona LLC. All Rights Reserved. This image is for personal use only. No part of this image may be reproduced without the written permission of Starizona LLC.</small></p>
<p>M-46 (NGC-2437) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster with PN</p> <p>Constellation: Puppis Coordinates: 07h 41' 45" -14° 46' 43"</p> <p>Close Star: SAO-151881 (Sirius) Catalog Objects: M-46/NGC-2437, NGC-2438</p> <p>Imaging Window: *08:18 – 01:23 Transit: 10:48 42°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>NGC-2438 © 2024 Starizona LLC. All Rights Reserved. This image is for personal use only. No part of this image may be reproduced without the written permission of Starizona LLC.</small></p>
<p>Bow-Tie Nebula (NGC-2440) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Puppis Coordinates: 07° 41' 55" -18° 12' 29"</p> <p>Close Star: SAO-151881 (Sirius) Catalog Objects: NGC-2440</p> <p>Imaging Window: *08:40 – 01:00 Transit: 10:48 38°</p>	<p>C-11 HD: Primary Focus x2</p>  <p><small>FOV 0.73 x 0.49° • RA 07hr 41' 55", DEC -18° 12' 29"</small></p>




Prospective Imaging Objects – February 09 2024

<p>Butterfly Cluster (M-93, NGC-2447) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Puppis Coordinates: 07h 44' 46" -23° 51' 52"</p> <p>Close Star: SAO-151881 (Sirius) Catalog Objects: M-93/NGC-2447</p> <p>Imaging Window: *09:36 – 12:05 Transit: 10:50 33°</p>	<p>C-11 HD: Primary Focus</p> 
<p>M-48 (NGC-2548) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Hydra Coordinates: 08h 13' 46" -05° 46' 05"</p> <p>Close Star: SAO-115756 (Procyon) Catalog Objects: M-48/NGC-2548</p> <p>Imaging Window: *08:40 – 02:07 Transit: 11:19 51°</p>	<p>C-11 HD: Primary Focus</p> 
<p>NGC-2610 Config: C11-HD HS ZWO6200MC</p> <p>Type: Planetary Nebula</p> <p>Constellation: Hydra Coordinates: 08h 33' 23" -16° 08' 55"</p> <p>Close Star: SAO-151881 (Sirius) Catalog Objects: NGC-2610</p> <p>Imaging Window: *09:19 – 01:23 Transit: 11:39 41°</p>	<p>C-11 HD: Primary Focus x2</p> 




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<p>Beehive Cluster (NGC-2632) Config: C11-HD HS ZWO6200MC</p> <p>Type: Open Cluster</p> <p>Constellation: Cancer Coordinates: 08h 39' 59" 19° 39' 01"</p> <p>Close Star: SAO-115756 (Procyon) Catalog Objects: M-44/NGC-2632</p> <p>Imaging Window: 08:36 – 03:02 Transit: 11:46 76°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<p>M-67 (NGC-2682) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Cancer Coordinates: 08h 51' 18" 11° 48' 60"</p> <p>Close Star: SAO-115756 (Procyon) Catalog Objects: M-67/NGC-2682</p> <p>Imaging Window: 09:03 – 02:53 Transit: 11:57 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Helix Galaxy (NGC-2685) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Ursa Major Coordinates: 08h 55' 14" 58° 42' 24"</p> <p>Close Star: SAO-27876 (Merak) Catalog Objects: NGC-2685</p> <p>Imaging Window: 08:18 – 03:51 Transit: 12:01 65°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 


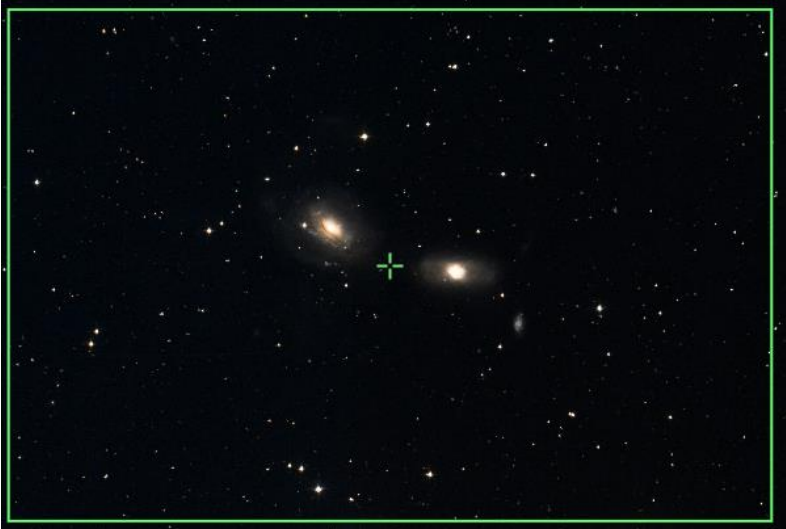

Prospective Imaging Objects – February 09 2024

<p>NGC-2903 Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Leo Coordinates: 09h 32' 08.949" 21° 30' 37.772"</p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: NGC-2903</p> <p>Imaging Window: 09:24 – 03:58 Transit: 12:38 78°</p>	<p>C-11 HD: Primary Focus</p> 
<p>Bode's Cigar (M81 & M82) Config: C11-HD HS ZWO6200MC</p> <p>Type: Galaxy Pair Peak:</p> <p>Constellation: Ursa Major Coordinates: 09hr 54' 02" 68° 53' 32"</p> <p>Close Star: SAO-15384 Catalog Objects: M-81 & M-82</p> <p>Imaging Window: 09:51 – 04:18 Transit: 01:01 54°</p>	<p>C-11 HD: HyperStar v4</p> 
<p>Bode's Cigar (M81 & M82) Config: C11-HD HS ZWO6200MC</p> <p>Type: Galaxy Pair Constellation: Ursa Major Coordinates: RA: 09hr 55' 40" DEC: 69° 18' 39" 90° Rotation</p> <p>Close Star: SAO-15384 Catalog Objects: M-81 & M-82</p> <p>Imaging Window: 09:51 – 04:18 Transit: 01:01 54°</p>	<p>C-11 HD: Focal Reducer</p> 



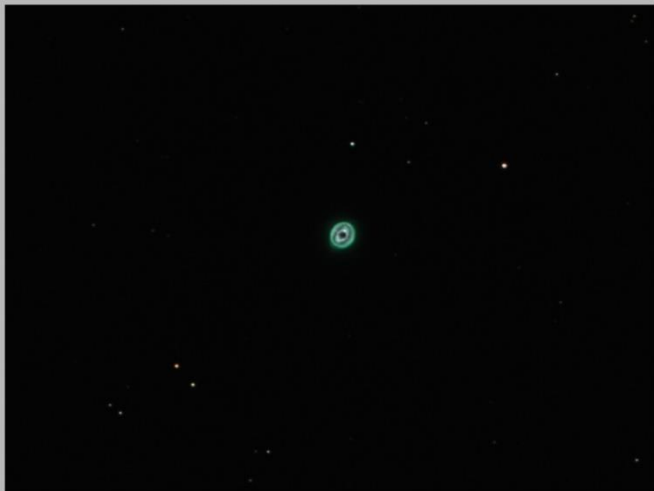
Prospective Imaging Objects – February 09 2024

<p>Bode's Nebula (M-81) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Constellation: Ursa Major Coordinates: 09h 55' 24.184" 69° 05' 18.969"</p> <p>Close Star: SAO-15384 Catalog Objects: M-81/NGC-3031</p> <p>Imaging Window: 09:47 – 04:22 Transit: 01:01 54°</p>	<p>C-11 HD: Primary Focus</p>  <p>M-081 Bode's Galaxy</p> <p>James Yoder 2015.11.14</p>
<p>Cigar Galaxy (M-82) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Ursa Major Coordinates: 09h 55' 57.451" 69° 42' 37.646"</p> <p>Close Star: SAO-15384 Catalog Objects: M-82/NGC-3034</p> <p>Imaging Window: 09:51 – 04:18 Transit: 01:01 54°</p>	<p>C-11 HD: Primary Focus</p>  <p>M-082 Cigar Galaxy</p> <p>James Yoder 2017.03.24</p>
<p>Spindle Galaxy (NGC-3115) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Sextans Coordinates: 10h 05' 21" -07° 47' 09"</p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: NGC-3115</p> <p>Imaging Window: *10:42 – 03:47 Transit: 01:11 49°</p>	<p>C-11 HD: Primary Focus</p>  <p>M-082 Cigar Galaxy</p> <p>James Yoder 2017.03.24</p>




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<p>Powder keg Galaxy (UGC-5470) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Leo Coordinates: 10h 08' 27" 12° 19' 49"</p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: UGC-5470</p> <p>Imaging Window: 10:23 – 04:12 Transit: 01:14 69°</p>	<p>C-11 HD: Primary Focus</p> 
<p>NGC-3166 & NGC-3169 Config: C11HD ZWO6200MC </p> <p>Type: Galaxy pair</p> <p>Constellation: Sextans Coordinates: 10h 14' 01" 03° 25' 51"</p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: NGC-3166, NGC-3169</p> <p>Imaging Window: 10:59 – 03:46 Transit: 01:19 60°</p>	<p>C-11 HD: Primary Focus</p> 
<p>Hickson 44 (NGC-3190, 3189.) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Group</p> <p>Constellation: Leo Coordinates: 10h 17' 57" 21° 49' 11"</p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: NGC-3189, 3190, 3185, 3193, 3187, PGC-2806871</p> <p>Imaging Window: 10:09 – 04:45 Transit: 01:23 79°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>Hickson-44 Galaxy Cluster (Amp-316) © 2024 Starizona, LLC Starizona Optics, Inc. 10000 N. Central Expressway, Suite 100, Scottsdale, AZ 85258 www.starizona.com</small></p> <p><small>Starizona Optics, Inc. 10000 N. Central Expressway, Suite 100, Scottsdale, AZ 85258 www.starizona.com</small></p>




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<p>NGC-3184 Config: C11HD ZWO6200MC </p> <p>Type: Face-on Spiral Galaxy</p> <p>Constellation: Ursa Major Coordinates: 10h 18' 17" 41° 25' 24"</p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: NGC-3184</p> <p>Imaging Window: 09:41 – 05:13 Transit: 01:24 82°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-3227 & NGC-3226 Config: C11HD ZWO6200MC </p> <p>Type: Interacting Galaxies</p> <p>Constellation: Leo Coordinates: 10h 23' 29" 19° 53' 07"</p> <p>Close Star: SAO-60178 (Castor) Catalog Objects: NGC-3227, NGC-3226</p> <p>Imaging Window: 10:19 – 04:46 Transit: 01:29 77°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Ghost of Jupiter (NGC-3242) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Hydra Coordinates: 10h 24' 46" -18° 38' 31"</p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: NGC-3242</p> <p>Imaging Window: *11:26 – 03:36 Transit: 01:30 38°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 


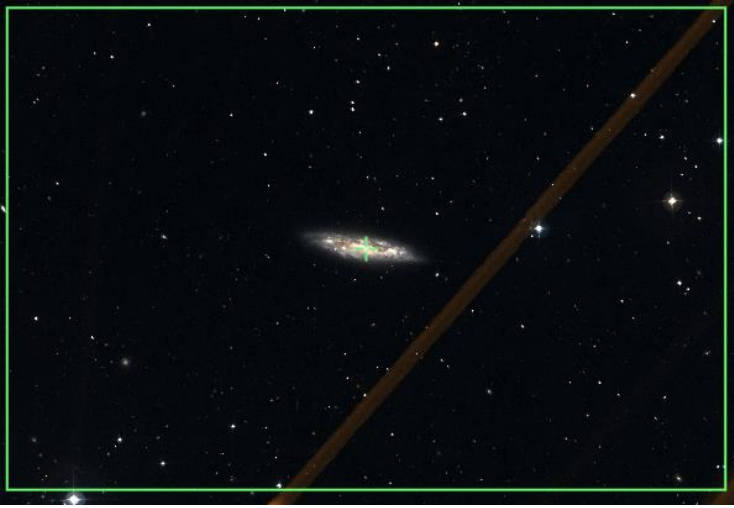

Prospective Imaging Objects – February 09 2024

<p>Galaxy Group 2574 Config: C11-HD HS ZWO6200MC</p> <p>Type: Galaxy Group</p> <p>Constellation: Leo Coordinates: 10h 28' 40" 68° 26' 14"</p> <p>Close Star: SAO-27876 (Merak) Catalog Objects: IC-2574</p> <p>Imaging Window: 10:16 – 04:58 Transit: 01:34 55°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="text-align: center;">FOV 3.81 x 2.54° · RA 10hr 12' 10", DEC 69° 02' 51"</p>
<p>Coddington's Nebula (IC-2574) Config: C11HD ZWO6200MC </p> <p>Type: Barred Spiral Galaxy</p> <p>Constellation: Leo Coordinates: 10h 28' 40" 68° 26' 14"</p> <p>Close Star: SAO-27876 (Merak) Catalog Objects: IC-2574</p> <p>Imaging Window: 10:16 – 04:58 Transit: 01:34 55°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;">Coddington Nebula (IC-2574) <small>James Yoder Dated: 2022-04-01 - 2020-04-08 Location: Chandler, AZ Constellation: Ursa Major Config: C-11 HD Bader Skyflow GHY128c RA=10h 28m 41.9s DEC=-68deg 24' 48.2" Size = 32.3 x 23.4 arcmin Orientation: 0.620deg E of N Pixel scale = 0.452 arcsec/pixel FL=2724mm Exposure Info: 200fms@4min Gain: 3200 Offset: 180"</small></p>
<p>Leo Galaxy Group (M-96, M95 et al.) Config: C11-HD HS ZWO6200MC</p> <p>Type: Galaxy Grouping</p> <p>Constellation: Leo Coordinates: 10h 47' 23" 12° 23' 59"</p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: M-96, M95, NGC3389, NGC3384, M105</p> <p>Imaging Window: 11:02 – 04:48 Transit: 01:52 69°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="text-align: center;">Galaxy Cluster in Leo <small>James Yoder. 2018.04.17</small></p>

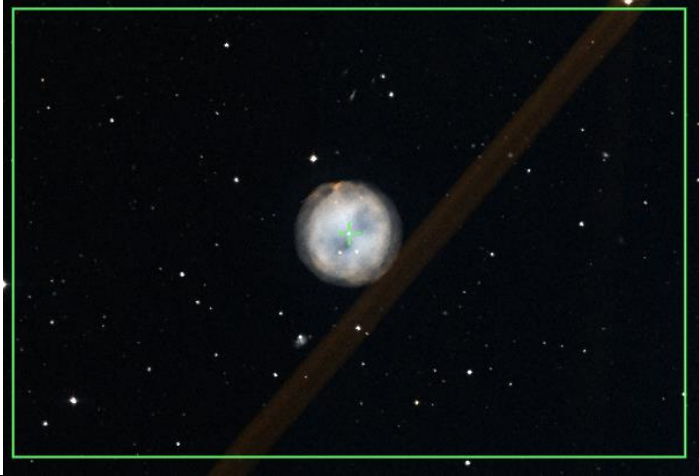


Prospective Imaging Objects – February 09 2024

<p>M-95, M-96 (NGC-3351, 3368) Config: C11-HD FR ZWO6200MC </p> <p>Type: Galaxy Pair</p> <p>Constellation: Leo Coordinates: 10h 45' 20" 11° 44' 30"</p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: M-95, M-96</p> <p>Imaging Window: 11:00 – 04:45 Transit: 01:49 68°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="text-align: center;"><small>Galaxy pair M-95(NGC-3351) & M-96(NGC-3368) Constellation: Leo (the Lion) (RA: 10h 45m 19.9s DEC: -11deg 44' 27.7") Size: 18.2 x 40 arcmin (Field width: 18.579 arcmin/deg) James Yoder 2020-04-27 Location: Whistler, British Columbia Canada Config: C-11 HD (Focal Reducer) ZWO6200MC Exposure Info: 2000iso/1min, Gain: 3200, Offset: 150</small></p>
<p>Leo Trio 2 (NGC-3379, 3384, 3389) Config: C11HD ZWO6200MC </p> <p>Type: Trio of Galaxies</p> <p>Constellation: Leo Coordinates: 10h 48' 07.227" 12° 33' 52.943"</p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: M-105/NGC3379, NGC-3384, NGC-3389</p> <p>Imaging Window: 11:01 – 04:52 Transit: 01:53 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;"><small>Trio of Galaxies NGC 3389 NGC 3384 NGC 3379 (M105) James Yoder 2015-03-22</small></p>
<p>Ambartsumian's Knot et al. (NGC-3561, 3558, 3553, 3550, etc.) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Cluster</p> <p>Constellation: Ursa Major Coordinates: 11h 10' 43" 28° 41' 41"</p> <p>Close Star: SAO-81727 (Zosma) Catalog Objects: NGC-3561</p> <p>Imaging Window: 10:49 – 05:50 Transit: 02:16 85°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




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<p>M-108 & NGC-3587 Config: C11HD ZWO6200MC </p> <p>Type: Irregular Galaxy & Planetary Nebula</p> <p>Constellation: Ursa Major Coordinates: 11h 12' 49" 55° 20' 57"</p> <p>Close Star: SAO-27876 (Merak) Catalog Objects: M-108/NGC-3555</p> <p>Imaging Window: 10:31 – 05:53 Transit: 02:17 68°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">M-108 (NGC-3556) and Owl Nebula (M-97, NGC-3587) Constellation: Ursa Major [RA = 11h 12m 51.217s, DEC = +55deg 21' 46.199"] Size = 1.91 x 1.28 deg Pixel scale = 2.28 arcsec/pixel</p> <p style="font-size: x-small; text-align: right;">James Yoder 2020.04.03 Config: C-11HD HyperStar V4 Astronomik CLS-CCD QHY126C Exposure Info: 1477ms@1min Gain: 3200 Offset: 180 Location: Chandler, AZ</p>
<p>M-108 (NGC-3556) Config: C11HD ZWO6200MC </p> <p>Type: Irregular Galaxy</p> <p>Constellation: Ursa Major Coordinates: 11h 11' 29" 55° 40' 22"</p> <p>Close Star: SAO-27876 (Merak) Catalog Objects: M-108/NGC-3555</p> <p>Imaging Window: 10:31 – 05:53 Transit: 02:17 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Owl Nebula (NGC-3587) Config: C11HD ZWO6200MC Type: Planetary Nebula</p> <p>Constellation: Ursa Major Coordinates: 11h 14' 48" 55° 01' 10"</p> <p>Close Star: SAO-27876 Catalog Objects: M-97/NGC-3587</p> <p>Imaging Window: 10:34 – 05:53 Transit: 02:20 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small;">Owl Nebula (NGC-3587 / M-97) Constellation: Ursa Major [RA = 11h 14m 48.224s, DEC = +55deg 01' 10.227"] Size = 48.7 x 43.3 arcmin Pixel scale = 0.482 arcsec/pixel</p> <p style="font-size: x-small; text-align: right;">James Yoder 2020.01.13 Config: C-11 HD Astronomik CLS-CCD QHY126C Exposure Info: 100ms@1min Gain: 3000 Offset: 180 Location: Chandler, AZ</p>

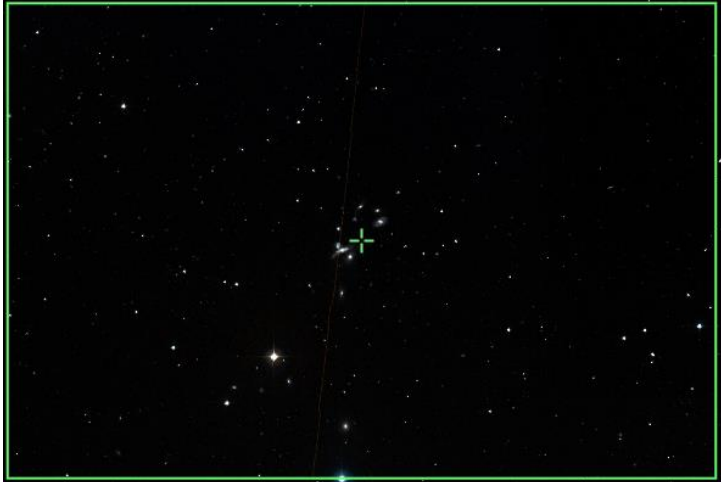


Prospective Imaging Objects – February 09 2024

<p>Owl Nebula (NGC-3587) Config: C11HD Barlow x2 ZWO6200MC </p> <p>Type: Planetary Nebula Constellation: Ursa Major Coordinates: 11h 14' 48" 55° 01' 10"</p> <p>Close Star: SAO-27876 Catalog Objects: M-97/NGC-3587</p> <p>Imaging Window: 10:34 – 05:53 Transit: 02:20 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus *x2</p> 
<p>Lio Trio of Galaxies Config: C11-HD HS ZWO6200MC</p> <p>Type: Galaxies Constellation: Leo Coordinates: Frame 01 RA: 11hr 19' 57"DEC: 13° 32' 15" Frame 02 RA: 11hr 19' 57"DEC: 13° 04' 57"</p> <p>Close Star: SAO-15384 Catalog Objects: NGC-3628, 3623, M-65</p> <p>Imaging Window: 11:33 – 05:25 Transit: 02:25 70°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer Composite!</p> 
<p>Lio Trio of Galaxies Config: C11HD ZWO6200MC Type: Spiral Galaxy</p> <p>Constellation: Leo Coordinates: See Targets Below</p> <p><i>NOTE: M-65/M-66 & NGC-3628 combined to create mosaic</i></p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: NGC-3628, M-65</p> <p>Imaging Window: 11:33 – 05:25 Transit: 02:25 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus Mosaic</p>  <p style="font-size: small;">Leo Trio of Galaxies (NGC-3628, NGC-3623, NGC-3627) <small>Constellation: Leo the Lion RA = 113.1164534 DEC = -13.0463817 Size = 16.7 x 17.8 arcmin (Observation: 2018y 8 of 11; Field scale = 0.177 arcsec/pixel; F1-1700nm) James Webb Telescope (2020 04 14, 2020 04 15) Location: Chesler, AZ Config: C11-HD F1-1700nm Filter: Blue/Red/Blue - Camera: ORYX20K Exposure Info: 3000ms/Frame (Gain: 1200 / Offset: 180)</small></p>


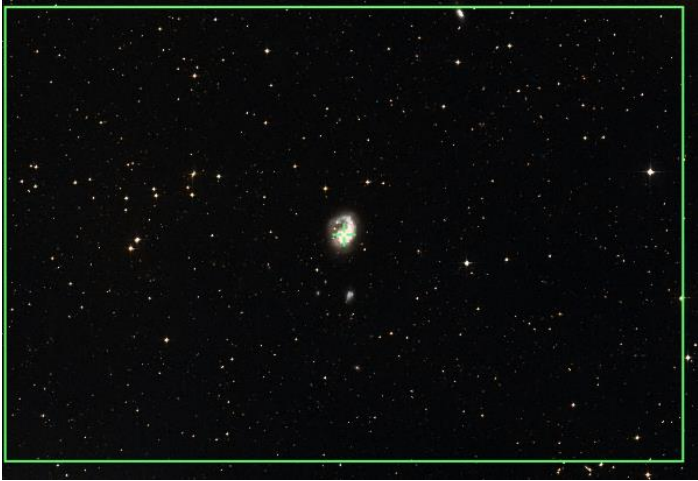

Prospective Imaging Objects – February 09 2024

<p>NGC-3628 Config: C11HD ZWO6200MC Type: Spiral Galaxy</p> <p>Constellation: Leo Coordinates: 11h 19' 44" 13° 28' 28"</p> <p><i>NOTE: M-65/M-66 & NGC-3628 can be combined to create mosaic</i></p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: NGC-3628,</p> <p>Imaging Window: 11:31 – 05:27 Transit: 02:5 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">NGC-3628 Edge-On Galaxy</p> <p style="text-align: right; font-size: x-small;">James Yoder 2015 04 19</p>
<p>M-65, M-66 Config: C11HD ZWO6200MC Type: Spiral Galaxy</p> <p>Constellation: Leo Coordinates: 11h 19' 44" 13° 04' 06"</p> <p><i>NOTE: M-65/M-66 & NGC-3628 can be combined to create mosaic</i></p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: M-65/NGC-3623, M-66/NGC-3627</p> <p>Imaging Window: 11:33 – 05:25 Transit: 02:25 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">M-65, M66 Spiral Galaxies</p> <p style="text-align: right; font-size: x-small;">James Yoder 2015 05 19</p>
<p>Arp-214 (NGC-3718, NGC-3729) Config: C11HD ZWO6200MC Type: Galaxy Pair</p> <p>Constellation: Ursa Major Coordinates: 11h 33' 09" 53° 05' 02"</p> <p>Close Star: SAO-28179 (Phecda) Catalog Objects: NGC-3718</p> <p>Imaging Window: 10:51 – 05:53 Transit: 02:38 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small;">NGC-3718, NGC-3729 Constellation: Ursa Major RA = 11h 33m 10.00s DEC = 53deg 05' 44.80" Size = 45 x 30.4 arcmin Pixel scale = 0.440 arcsec/pixel F1.1-2.720mm James Yoder 2020-02-26 Equipment: Celestron A6 Config: C-11 HD (Astroworld CLS-CCD) (OVI128x) Exposure Info: (340min/5min) (Gain: 3200) (Offset: 180)</p>




Prospective Imaging Objects – February 09 2024

<p>Copeland's Septet (NGC-3746, 3748, 3750, 3751, 3753, 3754) Config: C11HD ZWO6200MC Type: Galaxy Cluster</p> <p>Constellation: Leo Coordinates: 11h 33' 09" 53° 05' 02" Close Star: SAO-99809 (Denebola) Catalog Objects: NGC-3746, 3748, 3750, 3751, 3753, 3754/HCG-57</p> <p>Imaging Window: 11:28 – 05:53 Transit: 02:43 79°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Abell 1367 (NGC-3861, et al.) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Cluster</p> <p>Constellation: Leo Coordinates: 11h 44' 40" 19° 56' 32"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: NGC-3861, 3842, dozens of others.</p> <p>Imaging Window: 11:40 – 05:53 Transit: 02:50 77°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Wild's Triplet (Arp-248) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Ursa Major Coordinates: 11h 46' 41" -03° 51' 46"</p> <p>Close Star: SAO-28179 (Phecda) Catalog Objects: Arp-248, PGC-36742, 36733, 36723</p> <p>Imaging Window: *12:27 – 05:15 Transit: 02:52 53°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February 09 2024

<p>M-109(NGC-3992) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Ursa Major Coordinates: 11h 57' 34" 53° 20' 59"</p> <p>Close Star: SAO-28179 (Phecda) Catalog Objects: NGC-3992</p> <p>Imaging Window: 11:16 – 05:53 Transit: 03:03 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-4027(PGC-37773) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Corvus Coordinates: 11h 59' 31" -19° 15' 57"</p> <p>Close Star: SAO-157923 (Spica) Catalog Objects: NGC-4027</p> <p>Imaging Window: *01:11 – 05:04 Transit: 03:05 37°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Antennae Galaxies (Arp-244) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Pair</p> <p>Constellation: Corvus Coordinates: 12h 01' 54" -18° 53' 08"</p> <p>Close Star: SAO-157923 (Spica) Catalog Objects: Arp-244/ NGC-4038, NGC-4039</p> <p>Imaging Window: *01:11 – 05:15 Transit: 03:07 38°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

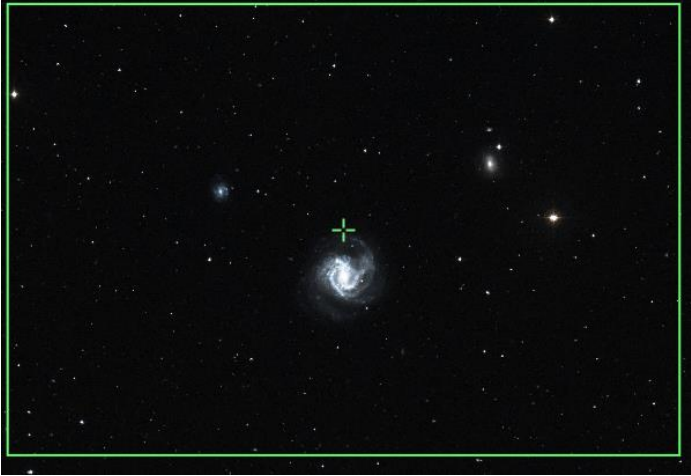

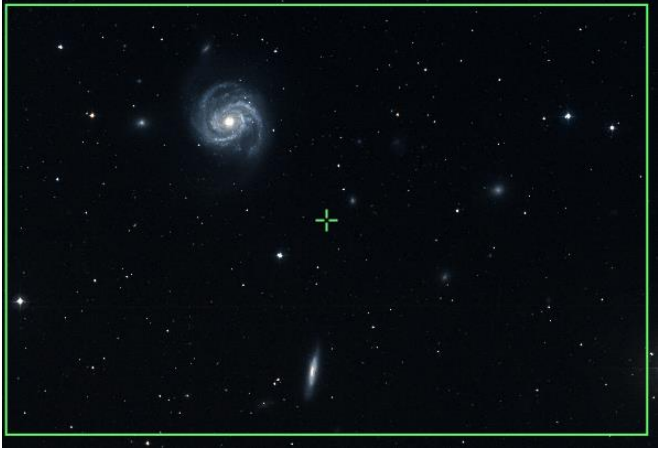
Prospective Imaging Objects – February 09 2024

<p>M-98 (NGC-4192) Config: C11HD ZWO6200MC </p> <p>Type: Barred Spiral Galaxy</p> <p>Constellation: Cooma Berenices Coordinates: 12h 13' 48" 14° 53' 58"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: M-98/NGC-4192</p> <p>Imaging Window: 12:21 – 05:53 Transit: 03:19 72°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-4236 (UGC 7306) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Draco Coordinates: 12h 16' 42" 69° 28' 00"</p> <p>Close Star: SAO-28553 (Alioth) Catalog Objects: NGC-4236/UGC-7306</p> <p>Imaging Window: 12:10 – 05:53 Transit: 03:22 54°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Silver Needle (NGC-4244) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Canes Venatici Coordinates: 12h 17' 30" 37° 48' 28"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: NGC-4244/UGC-7322</p> <p>Imaging Window: 11:43 – 05:53 Transit: 03:22 86°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 



Prospective Imaging Objects – February 09 2024

<p>St. Katherines Wheel (M99/NGC4254) Config: C11HD ZWO6200MC </p> <p>Type: Spiral Galaxy</p> <p>Constellation: Coma Berenices Coordinates: 12h 18' 49" 14° 25' 03"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: M-99/NGC-4254 Imaging Window: 12:27 – 05:53 Transit: 03:24 71°</p>	<p>C-11 HD: Primary Focus</p> 
<p>Galaxy Group 106 Config: C11-HD HS ZWO6200MC</p> <p>Type: Galaxy Group</p> <p>Constellation: Canes Venatici Coordinates: 12h 17' 12" 47° 13' 33"</p> <p>Close Star: SAO-28179 (Phecda) Catalog Objects: M-106, NGC 4248, 4217, 4232, 4331 Imaging Window: 11:38 – 05:53 Transit: 03:24 76°</p>	<p>C-11 HD: HyperStar v4</p>  <p>FOV 3.81 x 2.54° · RA 12hr 13' 18", DEC 46° 41' 37"</p>
<p>M-106(NGC-4258) Config: C11-HD FR ZWO6200MC </p> <p>Type: Galaxy Group</p> <p>Constellation: Canes Venatici Coordinates: 12h 17' 12" 47° 13' 33"</p> <p>Close Star: SAO-28179 (Phecda) Catalog Objects: M-106, NGC 4248, 4217, 4232, 4331 Imaging Window: 11:38 – 05:53 Transit: 03:24 76°</p>	<p>C-11 HD: Focal Reducer</p>  <p>M-106 galaxy group Constellation: Canes Venatici</p> <p>2024-01-04 James Webb Liquor, Chandler, AZ Config: C11 HyperStar v4 Cometcat Antares1100 ZWO6200MC Exposure Info: 3700000/1600/1600/1600/1600</p>

Prospective Imaging Objects – February 09 2024

<p>HII Galaxy (M61/NGC4303) Config: C11HD ZWO6200MC </p> <p>Type: Face-On Spiral Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 21' 55" 04° 31' 28"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-61/NGC-4303, NGC-4292, NGC-4301 Imaging Window: 01:03 – 05:53 Transit: 03:27 61°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Winnecke 4(M-40) Config: C11HD ZWO6200MC </p> <p>Type: Star Pair</p> <p>Constellation: Ursa Major Coordinates: 12h 21' 22" 58° 03' 05"</p> <p>Close Star: SAO-28179 (Phecda) Catalog Objects: M-40, NGC-4290, NGC-4284 Imaging Window: 11:44 – 05:53 Transit: 03:27 65°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M-100(NGC-4303) Config: C11HD ZWO6200MC </p> <p>Type: Face-On Spiral Galaxy</p> <p>Constellation: Coma Berenices Coordinates: 12h 22' 28" 15° 42' 40"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-100/NGC-4321, NGC-4312, 4328, 4322, UGC-7425, IC-783A, Imaging Window: 12:28 – 05:53 Transit: 03:28 73°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

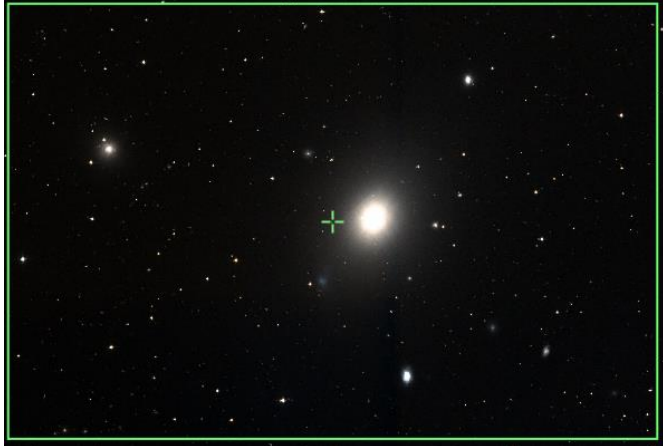
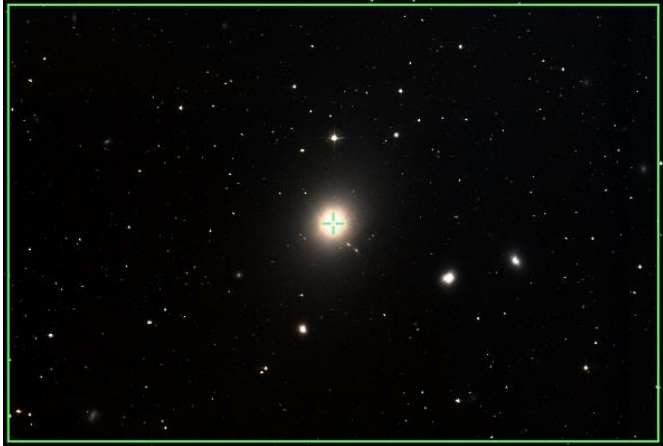

Prospective Imaging Objects – February 09 2024

<p>NGC-4361 Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Corvus Coordinates: 12h 24' 31" -18° 47' 03"</p> <p>Close Star: SAO-157176 (Gienah Corvi) Catalog Objects: NGC-4361 Imaging Window: 01:28 – 05:37 Transit: 03:29 38°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>Planetary Nebula NGC-6572 Constellation: Delphinus Coordinates: RA = 18h 24m 31.91s, DEC = -18d 47' 03.00" Star = 21 x 18 micron, Observation Alt 6.07h, Pixel Scale = 0.27 pix/arcsec, F1-1396nm</small></p> <p><small>James Yoder (Duxia) 2023-06-02, 03:01, Location: Clouds, AZ Filter: F1-1396, Primary focus, 4000nm, 100000000 Exposure: 180s, 150000000, Gain: 100, 100000000</small></p>
<p>Markarian Chain(M-84 Et. El.) Config: C11-HD HS ZWO6200MC</p> <p>Type: Galaxy cluster</p> <p>Constellation: Virgo Coordinates: 12h 26' 29" 12° 52' 22"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-84/NGC-4374, NGC-4388, 4425, 4402, M-86/NGC4406, 4438, 4435, and more Imaging Window: 12:38 – 05:53 Transit: 03:30 70°</p>	<p>C-11 HD: HyperStar v4</p>  <p><small>Markarian's Chain (of galaxies) C-11 Hyperstar, #1000iso, 56min</small></p> <p><small>James Yoder 2018.05.15</small></p>




Prospective Imaging Objects – February 09 2024

<p>Markarian Chain 2 Config: C11-HD HS ZWO6200MC</p> <p>Type: Galaxy cluster</p> <p>Constellation: Virgo Coordinates: 12h 35' 40" 12° 33' 22"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-84/NGC-4374, NGC-4388, 4425, 4402, M-86/NGC4406, 4438, 4435, and more</p> <p>Imaging Window: 12:38 – 05:53 Transit: 03:30 70°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> <p style="text-align: center;">FOV 3.81 x 2.54° · RA 12hr 31' 35\", DEC 13° 28' 16"</p>
<p>Markarian's Chain (M-84) Config: C11-HD FR ZWO6200MC </p> <p>Type: Galaxy cluster</p> <p>Constellation: Virgo Coordinates: 12h 26' 29" 12° 52' 22"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-84/NGC-4374, NGC-4388, 4425, 4402, M-86/NGC4406, 4438, 4435</p> <p>Imaging Window: 12:38 – 05:53 Transit: 03:30 70°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> <p style="text-align: center;">FOV 3.81 x 2.54° · RA 12hr 31' 35\", DEC 13° 28' 16"</p>
<p>NGC-4449 (UGC-7592) Config: C11HD ZWO6200MC </p> <p>Type: Irregular Galaxy</p> <p>Constellation: Canes Venatici Coordinates: 12h 28' 11" 44° 05' 42"</p> <p>Close Star: SAO-28553 (Alioth) Catalog Objects: NGC-4449/UGC-7592</p> <p>Imaging Window: 11:49 – 05:53 Transit: 03:33 79°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> <p style="text-align: center;">FOV 3.81 x 2.54° · RA 12hr 31' 35\", DEC 13° 28' 16"</p>




Prospective Imaging Objects – February 09 2024

<p>M-49(NGC-4472) Config: C11HD ZWO6200MC </p> <p>Type: Elliptical Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 29' 58" 07° 59' 51"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-49/NGC-4472 Imaging Window: 12:58 – 05:53 Transit: 03:35 65°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Virgo A(M-87) Config: C11HD ZWO6200MC </p> <p>Type: Elliptical Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 30' 49" 12° 23' 26"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-87/NGC-4486 Imaging Window: 12:45 – 05:53 Transit: 03:36 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Cocoon Galaxy(NGC-4490) Config: C11HD ZWO6200MC </p> <p>Type: Interacting Galaxy Pair</p> <p>Constellation: Canes Venatici Coordinates: 12h 30' 36" 41° 38' 34"</p> <p>Close Star: SAO-28179 (Phecda) Catalog Objects: NGC-4490, NGC-4485 Imaging Window: 11:53 – 05:53 Transit: 03:36 82°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Cocoon Galaxy (NGC-4490 & NGC-4485) James Webb Dec01 2020 02:05 - 2020 02:07 Location: Chandler, AZ Config: C-11 HD Blender Skyline (GHY12k) Constellation: Canes Venatici RA = 12h 30m 35.0s DEC = +41deg 38' 37.8" Size = 36.1 x 24.3 arcmin Orientation: -0.3Mag E of N Pixel scale = 0.446 arcsecond FL = 2778mm Exposure Info: 750x300px Gain: 3200 Offset: 100</p>


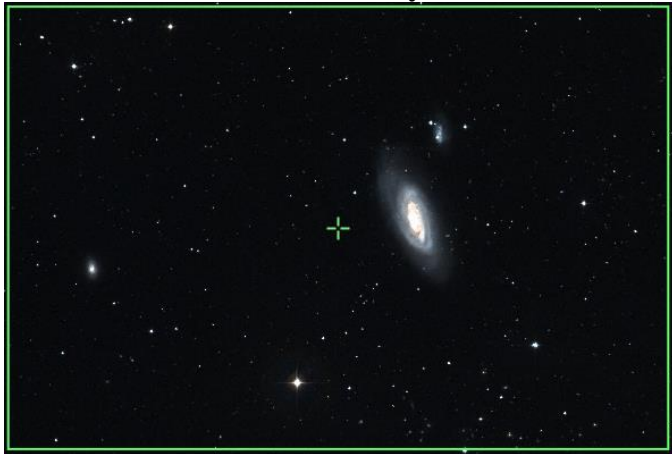

Prospective Imaging Objects – February 09 2024

<p>Lemon Slice Nebula (IC-3568) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Constellation: Camelopardalis Coordinates: 12h 33' 14" 82° 33' 22"</p> <p>Close Star: SAO-8102 (Kochab) Catalog Objects: IC-3568/UGC-7731</p> <p>Imaging Window: *10:53 – 05:53 Transit: 03:38 41°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">Planetary Nebula IC-3568 Constellation: Camelopardalis RA: 12h 33m 14.00s · DEC: 82° 33' 22.00" · Size: 1.2" x 1.2" · Filter: H-alpha · Date: 2024-01-04 11:20:00</p>
<p>M-91(NGC-4548) Config: C11-HD FR ZWO6200MC </p> <p>Type: Barred Spiral Galaxy</p> <p>Constellation: Coma Berenices Coordinates: 12h 36' 11" 14° 20' 51"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-91/NGC4548, NGC-4571 Imaging Window: 12:44 – 05:53 Transit: 03:40 71°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> <p style="text-align: center; color: green; font-size: small;">FOV 1.04 x 0.70° · RA 12hr 36' 11", DEC 14° 20' 51"</p> 
<p>M-91(NGC-4548) Config: C11HD ZWO6200MC </p> <p>Type: Barred Spiral Galaxy</p> <p>Constellation: Coma Berenices Coordinates: 12h 36' 04" 14° 23' 37"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-91/NGC4548, NGC-4571 Imaging Window: 12:44 – 05:53 Transit: 03:40 71°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February 09 2024

<p>M-89(NGC-4552) Config: C11HD ZWO6200MC </p> <p>Type: Elliptical Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 35' 43" 12° 24' 24"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-89/NGC4552, NGC-4551, NGC-4550, IC-3574, IC-3586 Imaging Window: 12:49 – 05:53 Transit: 03:41 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-4559 (UGC-7766) Config: C11HD ZWO6200MC </p> <p>Type: Barred Spiral Galaxy</p> <p>Constellation: Coma Berenices Coordinates: 12h 35' 58" 27° 57' 35"</p> <p>Close Star: SAO-44752 (Alkaid) Catalog Objects: NGC-4559/UGC-7766 Imaging Window: 12:15 – 05:53 Transit: 03:41 85°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Siamese Twins(NGC-4567) Config: C11HD ZWO6200MC </p> <p>Type: Elliptical Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 36' 26" 11° 19' 59"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: NGC-4567, NGC-4568, NGC-4564 Imaging Window: 12:54 – 05:53 Transit: 03:41 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February 09 2024

<p>Needle Galaxy (NGC-4565) Config: C11HD ZWO6200MC </p> <p>Type: Edge-on Galaxy</p> <p>Constellation: Coma Berenices Coordinates: 12h 36' 02" 25° 56' 51"</p> <p>Close Star: SAO-44752 (Alkaid) Catalog Objects: NGC-4565, NGC-4562 Imaging Window: 12:19 – 05:53 Transit: 03:41 83°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M-90 (NGC-4569) Config: C11HD ZWO6200MC </p> <p>Type: Spiral Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 37' 11" 13° 09' 19"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-90/NGC-4569 IC-3583, NGC-4584 Imaging Window: 12:49 – 05:53 Transit: 03:42 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Galaxy Group 58 Config: C-11HD HyperStar </p> <p>Type: Galaxy Group</p> <p>Constellation: Virgo Coordinates: 12h 37' 35" 12° 18' 56"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-58/NGC-4579 Imaging Window: 12:53 – 05:53 Transit: 03:43 69°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 


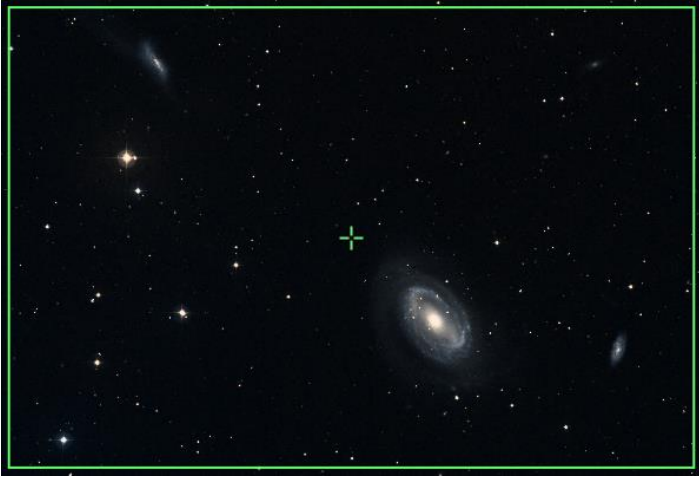
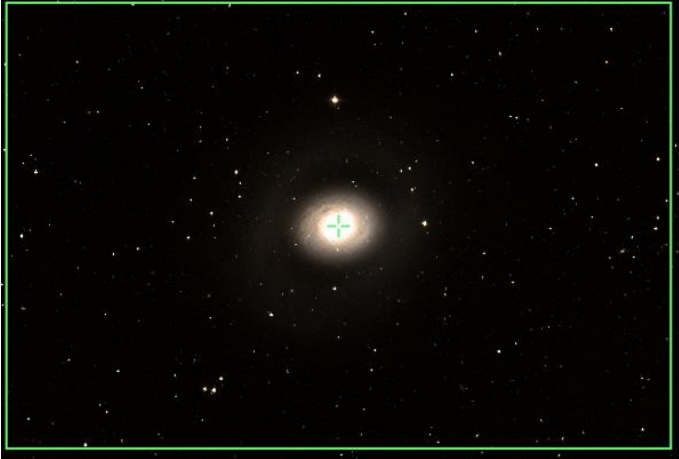
Prospective Imaging Objects – February 09 2024

<p>M-58 (NGC-4579) Config: C11HD ZWO6200MC </p> <p>Type: Barred Spiral Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 37' 44" 11° 49' 06"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-58/NGC-4579 Imaging Window: 12:53 – 05:53 Transit: 03:43 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M-68 (NGC-4590) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster Constellation: Hydra Coordinates: 12h 39' 28" -26° 44' 32"</p> <p>Close Star: SAO-180915 (Kraz) Catalog Objects: M-68/NGC-4590</p> <p>Imaging Window: *02:01 – 05:37 Transit: 03:44 30°</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° - Rayleigh limit 0.49"</p>
<p>Sombrero Galaxy (M-104) Config: C11HD ZWO6200MC </p> <p>Type: Edge-on Spiral Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 39' 44" -11° 37' 52"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-104/NGC-4594 Imaging Window: *01:34 – 05:53 Transit: 03:45 45°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small;">M104: Sombrero Galaxy James Yoder 2015.01.18</p>


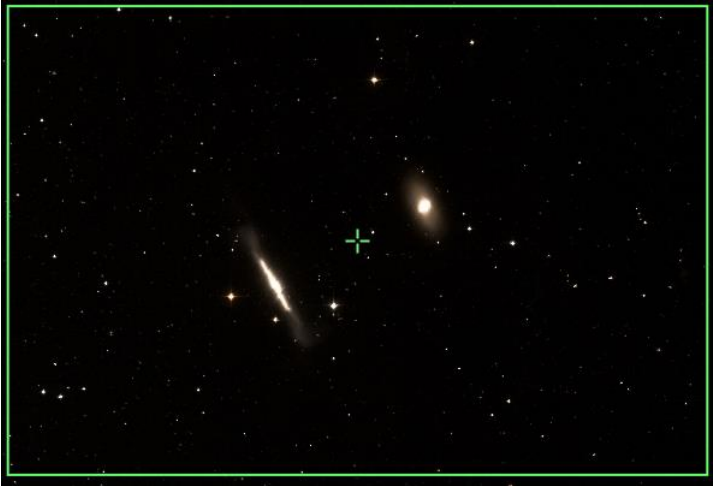
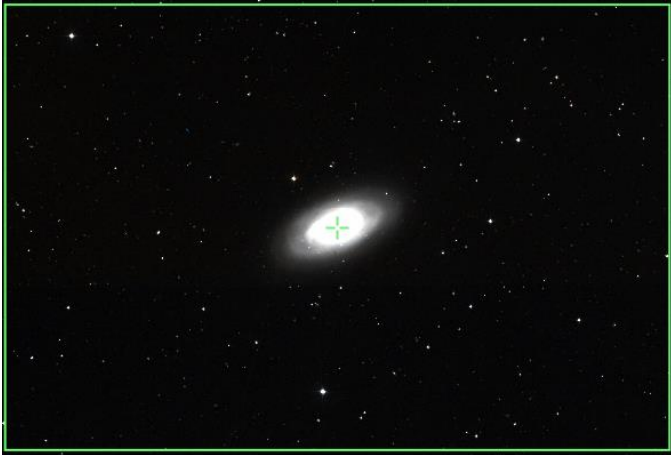
Prospective Imaging Objects – February 09 2024

<p>Whale and Hockey Stick (NGC-4631, NGC-4656) Config: C11-HD FR ZWO6200MC </p> <p>Type: Galaxies</p> <p>Constellation: Canes Venatici Coordinates: 12h 42' 50" 32° 20' 54"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: NGC-4631, NGC-4656 Imaging Window: 12:14 – 05:53 Transit: 03:47 89°</p>	<p style="text-align: right;">C-11 HD: Focal Reducer</p>  <p style="font-size: small;">Whale and Hockey Stick Galaxies (NGC4631, NGC4656) Constellation: Canes Venatici</p> <p style="font-size: x-small; text-align: right;">James Yoder 2019/04/04 Location: Mountain View, AZ Config: C11 Starizona L.F. Converter Bando Skyglow Filter (111) 1216 Exposure Info: 21 8min/Frame Gain: 3200 D854 101</p>
<p>M-59, M-60 group Config: C11-HD FR ZWO6200MC </p> <p>Type: Galaxy Group</p> <p>Constellation: Virgo Coordinates: 12h 42' 42" 11° 40' 33"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: M-59/NGC-4621, M-60/NGC-4649, NGC-4656, 4647, 4638, 4607, 4606 Imaging Window: 12:58 – 05:53 Transit: 03:47 68°</p>	<p style="text-align: right;">C-11 HD: Focal Reducer</p>  <p style="font-size: small;">Virgo Cluster of Galaxies Constellation: Virgo the virgin</p> <p style="font-size: x-small; text-align: right;">James Yoder Date(s) 2023 04 30 - 2020 05 16 Location: Chandler, AZ Config: C11-HD 0.7 Reducer Filter: Bando Skyglow, RGB Camera: ZWO ASI-6200 Exposure Info: L=84min/Frame, G=136min/Frame, R=128min/Frame, B=146min/Frame Total = 12hrs 18min Gain: 100 Offset: 50 RA = 12h 42m 40.5s DEC = +11deg 40' 19.7" Size = 57.3 x 37.7 arcmin Orientation = -0.2deg E of N Pixel scale = 0.785 arcsec/pixel F1 = 1900mm</p>
<p>TheMice (NGC-4676 A & B) Config: C11HD ZWO6200MC </p> <p>Type: Interacting Galaxies</p> <p>Constellation: Coma Berenices Coordinates: 12h 46' 07" 30° 43' 43"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: NGC-4676A & B Imaging Window: 12:21 – 05:53 Transit: 03:51 87°</p>	<p style="text-align: right;">C-11 HD: Primary Focus</p> 

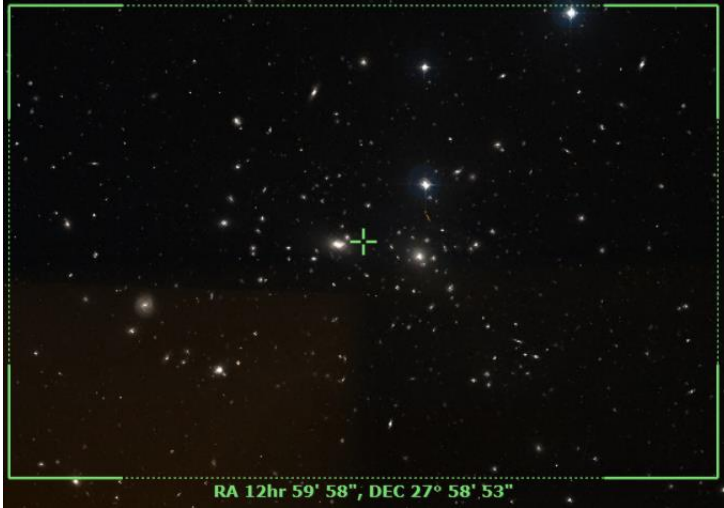


Prospective Imaging Objects – February 09 2024

<p>NGC-4725 (PGC-43451) Config: C11-HD FR ZWO6200MC </p> <p>Type: Galaxy group</p> <p>Constellation: Coma Berenices Coordinates: 12h 50' 55" 25° 35' 59"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: NGC-4725, NGC-4712, NGC-4747 Imaging Window: 12:34 – 05:53 Transit: 03:55 82°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: small;">Galaxy Cluster NGC-4747, NGC-4725, NGC4712 James Yoder Date(s) 2021.01.02, 2021.01.03 Location: Chandler, AZ Config: C11-HD 1.7" Reducer Filter: Baader Skyglow Camera: QHY120C RA = 128.8564089; DEC = -25.5963333° Size = 44.39 x 29.62 arcmin Orientation: Mag. E of N Pixel scale = 0.630 arcsec/pixel FL = 1953mm</p>
<p>NGC-4725 (PGC-43451) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy group</p> <p>Constellation: Coma Berenices Coordinates: 12h 50' 50" 25° 35' 23"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: NGC-4725, NGC-4712, NGC-4747 Imaging Window: 12:34 – 05:53 Transit: 03:55 82°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M-94 (NGC-4736) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Canes Venatici Coordinates: 12h 50' 53" 41° 07' 17"</p> <p>Close Star: SAO-28553 (Alioth) Catalog Objects: M-94/NGC-4736 Imaging Window: 12:13 – 05:53 Transit: 03:56 82°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February 09 2024

<p>NGC-4731 (PGC-43507) Config: C11HD ZWO6200MC </p> <p>Type: Barred Spiral Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 51' 01" -06° 21' 49"</p> <p>Close Star: SAO-157923 (Spica) Catalog Objects: NGC-4731 Imaging Window: *01:17 – 05:53 Transit: 05:50 50°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-4762. 4754 (PGC-43733) Config: C11HD ZWO6200MC </p> <p>Type: Edge on Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 52' 35" 11° 16' 42"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: NGC-4762, NGC-4754 Imaging Window: 01:10 – 05:53 Transit: 03:58 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Black Eye Galaxy (M-64) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Coma Berenices Coordinates: 12h 56' 44" 21° 40' 59"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: M-64/NGC-4826 Imaging Window: 12:48 – 05:53 Transit: 04:02 78°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February 09 2024

<p>Coma Galaxy Cluster (Abell-1656) Config: C11-HD FR ZWO6200MC </p> <p>Type: Galaxy Cluster</p> <p>Constellation: Coma Berenices Coordinates: 12h 59' 58" 27° 58' 53"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: Abell-1656 Imaging Window: 12:39 – 05:53 Transit: 04:05 85°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="text-align: center;">RA 12hr 59' 58\", DEC 27° 58' 53"</p>
<p>Coma Galaxy Cluster (Abell-1656) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Cluster</p> <p>Constellation: Coma Berenices Coordinates: 13h 00' 06" 28° 00' 31"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: Abell-1656 Imaging Window: 12:39 – 05:53 Transit: 04:05 85°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;">RA 13h 00' 06\", DEC 28° 00' 31"</p>
<p>M-53 (NGC-5024) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster Constellation: Coma Berenices Coordinates: 13h 12' 55" 18° 10' 11"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: M-53/NGC-5024</p> <p>Imaging Window: 01:12 – 05:53 Transit: 04:18 75°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;">RA 13h 12' 55\", DEC 18° 10' 11"</p>



Prospective Imaging Objects – February 09 2024

<p>NGC-5033 (PGC-45948) Config: C11HD ZWO6200MC </p> <p>Type: Spiral Galaxy</p> <p>Constellation: Canes Venatici Coordinates: 13h 13' 28" 36° 35' 36"</p> <p>Close Star: SAO-28553 (Alioth) Catalog Objects: NGC-5033/PGC-45948 Imaging Window: 12:41 – 05:53 Transit: 04:18 87°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Sunflower Galaxy (M-63) Config: C11HD ZWO6200MC </p> <p>Type: Spiral Galaxy</p> <p>Constellation: Canes Venatici Coordinates: 13h 15' 15" 42° 04' 41"</p> <p>Close Star: SAO-28553 (Alioth) Catalog Objects: M-63/NGC-5055, UGC-8313 Imaging Window: 12:38 – 05:53 Transit: 04:21 81°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-5053 Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster</p> <p>Constellation: Coma Berenices Coordinates: 13h 16' 27" 17° 41' 55"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: NGC-5053 Imaging Window: 01:17 – 05:53 Transit: 04:21 74°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

Prospective Imaging Objects – February 09 2024

<p>Whirlpool Galaxy (M-51) Config: C11HD ZWO6200MC </p> <p>Type: Interacting Galaxies</p> <p>Constellation: Canes Venatici Coordinates: 13h 29' 53" 47° 11' 44"</p> <p>Close Star: SAO-28553 (Alioth) Catalog Objects: M-51/NGC-5194, NGC-5195 Imaging Window: 12:49 – 05:53 Transit: 04:35 76°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">M-051 Whirlpool Galaxy James Yoder 2017.04.04</p>
<p>M-3 (NGC-5272) Config: C11HD Barlow x2 ZWO6200MC </p> <p>Type: Globular Cluster Constellation: Canes Venatici Coordinates: 13h 42' 11" 28° 22' 34"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-3/NGC-5272</p> <p>Imaging Window: 01:21 – 05:53 Transit: 04:47 85°</p>	<p style="text-align: center;">C-11 HD: Primary Focus *x2</p>  <p style="font-size: x-small;">Globular Cluster M-3 Copyright © 2017 James Yoder www.jamesyoder.com</p>
<p>Heron Galaxy (NGC-5395) et el. Config: C11HD ZWO6200MC </p> <p>Type: Galaxies</p> <p>Constellation: Canes Venatici Coordinates: 13h 57' 46" 37° 35' 31"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: NGC-5395, NGC-5394, NGC-5380, NGC-5378 Imaging Window: 01:25 – 05:53 Transit: 05:03 86°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

Prospective Imaging Objects – February 09 2024

<p>Pinwheel Galaxy (M-101) Config: C11HD ZWO6200MC </p> <p>Type: Face-on Spiral Galaxy</p> <p>Constellation: Ursa Major Coordinates: 14h 03' 54" 54° 22' 44"</p> <p>Close Star: SAO-28553 (Alioth) Catalog Objects: M-101/NGC-5457, NGC-5477 Imaging Window: 01:22 – 05:53 Transit: 05:08 69°</p>	<p>C-11 HD: Primary Focus</p>  <p>M-101 (Pinwheel Galaxy) with Saferona Constellation: Ursa Major Coordinates: RA: 14h 03m 54s, Dec: 54° 22' 44"</p>
<p>NGC-5466 Config: C11HD Barlow x2 ZWO6200MC </p> <p>Type: Globular Cluster Constellation: Bootes Coordinates: 14h 05' 27" 28° 32' 06"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: NGC-5466</p> <p>Imaging Window: 01:44 – 05:53 Transit: 05:10 85°</p>	<p>C-11 HD: Primary Focus</p>  <p>Globular Cluster NGC-5466 Constellation: Bootes Coordinates: RA: 14h 05m 27s, Dec: 28° 32' 06"</p>

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Page

Prospective Imaging Objects – February 09 2024

Imaging Summary February 09, 2024

Astronomical Dusk = 07:30

Astronomical Dawn = 05:53

HyperStar: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HyperStar	Nebula	Nebula	IC-405	07:30 – 12:05	08:23	04	Auriga: Flaming Star Nebula
HyperStar	Nebula	Nebula	M-42	07:30 – 10:21	08:41	08	Orion: Comp6! Orion Complex
HyperStar	Nebula	Nebula	M-42	07:30 – 10:21	08:41	09	Orion: Orion Nebula
HyperStar	Nebula	Nebula	SH2-240	07:30 – 12:19	08:47	10	Orion: Comp2! & Rotation90 Simeis-147
HyperStar	Nebula	Nebula	SH2-240	07:30 – 12:19	08:47	10	Orion: Simeis-147
HyperStar	Nebula	Nebula	NGC-2024, B33	07:30 – 10:49	08:48	11	Orion: Flame and Horsehead Nebula
HyperStar	Nebula	Nebula	LDN-1622	07:36 – 11:20	09:04	14	Orion: Comp2! LDN-1622 Complex
HyperStar	Nebula	Nebula	LDN-1622 R1	07:36 – 11:20	09:04	14	Orion: LDN-1622 Region 01
HyperStar	Nebula	Nebula	LDN-1622 R2	07:36 – 11:20	09:04	14	Orion: LDN-1622 Region 02
HyperStar	Nebula	Nebula	LDN-1622 R3	07:36 – 11:20	09:04	15	Orion: LDN-1622 Region 03
HyperStar	Nebula	Nebula	IC-2162, SH2-261	07:30 – 12:21	09:15	17	Orion: Rot90 Orion: Nebula
HyperStar	Nebula	Nebula	IC-443	07:30 – 12:45	09:23	19	Gemini: Jellyfish Nebula
HyperStar	Nebula	Nebula	NGC-2237	07:30 – 12:09	09:37	21	Monoceros: Rosette Nebula
HyperStar	Nebula	Nebula	IC-2169	07:30 – 12:27	09:37	22	Monoceros: Nebula Complex
HyperStar	Nebula	Nebula	IC-2177	*07:30-01:06	10:10	25	Rot90 Monoceros: Seagull Nebula

Prospective Imaging Objects – February 09 2024

Imaging Summary February 09, 2024

Astronomical Dusk = 07:30

Astronomical Dawn = 05:53

HyperStar: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HyperStar	Broad Spectrum	DN	IC-2118	*07:30-10:42	08:08	02	Eridanus: Witch Head Nebula
HyperStar	Broad Spectrum	BN	NGC-1788	07:30 – 10:06	08:13	03	Orion: Foxface Nebula
HyperStar	Broad Spectrum	OC	NGC-2632	08:36 – 03:02	11:46	31	Cancer: Beehive Cluster
HyperStar	Broad Spectrum	Galaxies	M-81 & M-82	09:51 – 04:18	01:01	32	Ursa Major: Galaxy Pair M-81 & M-82
HyperStar	Broad Spectrum	Galaxies	IC-2574	10:16 – 04:58	01:34	36	Leo: Galaxy Group 2574
HyperStar	Broad Spectrum	Galaxies	M-96, 95 Et EI	11:02 – 04:48	01:52	36	Leo: Leo Galaxy Group
HyperStar	Broad Spectrum	Gal, PN	M180 & NGC3587	10:31 – 05:53	02:17	38	Ursa Major: M104 and Owl Nebula
HyperStar	Broad Spectrum	Galaxies	Galaxy Group 106	11:38 – 05:53	03:24	44	Canes Venatici: Galaxy Group M-106
HyperStar	Broad Spectrum	Galaxies	Markarian Chain	12:38 – 05:53	03:30	46	Virgo: Galaxy Chain
HyperStar	Broad Spectrum	Galaxies	Markarian Chain2	12:38 – 05:53	03:30	47	Virgo: Galaxy Chain2
HyperStar	Broad Spectrum	Galaxies	Galaxy Group 58	12:53 – 05:53	03:43	51	Virgo Galaxy Group M-58

Prospective Imaging Objects – February 09 2024

Imaging Summary February 09, 2024

Astronomical Dusk = 07:30

Astronomical Dawn = 05:53

Focal Reducer: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Focal Reducer	Nebula	Nebula	IC-405	07:30 – 12:05	08:23	04	Auriga: Flaming Star Nebula
Focal Reducer	Nebula	Nebula	IC-410	07:30 – 12:08	08:28	05	Auriga: Tadpoles
Focal Reducer	Nebula	Nebula	NGC1055,1931	07:30 – 12:19	08:37	06	Comp2! Rot90° Auriga: The Spider and The Fly
Focal Reducer	Nebula	Nebula	NGC-1977	07:30 – 10:25	08:41	09	Orion: Running Man Nebula
Focal Reducer	Nebula	Nebula	NGC-2170	07:30 – 10:46	09:14	16	Monoceros: Angle Nebula
Focal Reducer	Nebula	Nebula	SH 2-261	07:30 – 12:21	09:15	17	Orion: Lower's Nebula
Focal Reducer	Nebula	Nebula	NGC-2174	07:30 – 12:33	09:16	18	Orion: Monkey Head Nebula
Focal Reducer	Nebula	Nebula	IC-443	07:30 – 12:45	09:23	19	Compsite2! Gemini: Jellyfish Nebula
Focal Reducer	Nebula	Nebula	NGC-2237	07:30 – 12:09	09:37	21	Monoceros: Rosette Nebula ROI
Focal Reducer	Nebula	Nebula	IC-2169	07:30 – 12:27	09:37	22	Monoceros: Blue Nebula IC-2169
Focal Reducer	Nebula	Nebula	NGC-2264	07:30 – 12:37	09:47	23	Composite2! Monoceros: Xmas tree & Cone Neb
Focal Reducer	Nebula	Nebula	NGC-2264	07:30 – 12:37	09:47	23	Rot90° Monoceros: Xmas tree & Cone Neb

Prospective Imaging Objects – February 09 2024

Imaging Summary February 09, 2024

Astronomical Dusk = 07:30

Astronomical Dawn = 05:53

Focal Reducer: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Focal Reducer	Broad Spectrum	DN/RN	NGC-1788	07:30 – 10:06	08:13	03	Orion: Foxface Nebula
Focal Reducer	Nebula	Nebula	M-78	07:30 – 11:04	08:53	12	Comp2! Orion: Dark Nebula Region
Focal Reducer	Nebula	Nebula	M-78	07:30 – 11:04	08:53	13	Orion: Dark Nebula Region
Focal Reducer	Broad Spectrum	DN	LDN-1622	07:36 – 11:20	09:04	15	Comp2! Rot90° Orion: Dark Nebula Region
Focal Reducer	Broad Spectrum	DN	LDN-1622	07:36 – 11:20	09:04	15	Orion: Dark Nebula Region
Focal Reducer	Broad Spectrum	OC	M-35, NGC-2158	07:30 – 12:41	09:15	18	Gemini: Open Cluster Pair
Focal Reducer	Broad Spectrum	Galaxies	UGC-3697	07:30 – 01:18	10:17	26	Camelopardalis: Integral Sign Galaxy
Focal Reducer	Broad Spectrum	Galaxies	M-81 & M-82	09:51 – 04:18	01:01	32	Rot90° Ursa Major: Galaxy Pair Bode's Cigar
Focal Reducer	Broad Spectrum	Galaxies	M-95 & M-96	11:00 – 04:45	01:49	37	Leo: Galaxy Pair
Focal Reducer	Broad Spectrum	Galaxies	M65, et. El.	11:33 – 05:25	02:25	39	Leo Trio of galaxies (M65, M66, NGC3628)
Focal Reducer	Broad Spectrum	Galaxies	M-106, NGC4248	11:38 – 05:53	03:24	44	Canes Venatici: Galaxies
Focal Reducer	Broad Spectrum	Galaxies	M-84 et. El.	12:38 – 05:53	03:30	47	Virgo: Markarians Chain
Focal Reducer	Broad Spectrum	Galaxies	M-91, NGC4548	12:44 – 05:53	03:40	49	Coma Berenices: Galaxy Pair
Focal Reducer	Broad Spectrum	Galaxies	NGC4631, 4656	12:14 – 05:53	03:47	53	Canes Venatici: Whale and Hockey Stick
Focal Reducer	Broad Spectrum	Galaxies	M-59, M-60	12:58 – 05:53	03:47	53	Virgo: Galaxy Group
Focal Reducer	Broad Spectrum	Galaxies	NGC-4725 et. El.	12:34 – 05:53	03:55	54	Coma Berenices Galaxy Group
Focal Reducer	Broad Spectrum	Galaxies	Abell-1656	12:39 – 05:53	04:05	56	Coma Berenices: Coma Galaxy Cluster

Prospective Imaging Objects – February 09 2024

Imaging Summary February 09, 2024

Astronomical Dusk = 07:30

Astronomical Dawn = 05:53

Primary Focus: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Nebula	Nebula	NGC-1579	07:30 – 11:19	07:36	02	Perseus: Trifid of the North
Primary Focus	Nebula	Nebula	IC-405	07:30 – 12:05	08:23	05	Auriga: Flaming Star Nebula Core
Primary Focus	Nebula	Nebula	IC-410	07:30 – 12:08	08:28	05	Auriga: Tadpoles
Primary Focus	Nebula	PN	IC-418	*07:30-11:15	08:34	06	Lepus: Spirograph Nebula
Primary Focus	Nebula	Nebula	IC-417	07:30 – 12:16	08:34	07	Auriga: The Spider
Primary Focus	Nebula	Nebula	NGC-1931	07:30 – 12:19	08:37	07	Auriga: The Fly
Primary Focus	Nebula	Nebula	M-1	07:30 – 12:01	08:41	08	Taurus: Crab Nebula
Primary Focus	Nebula	Nebula	M-42	07:30 – 10:21	08:41	09	Orion: The Orion Nebula
Primary Focus	Nebula	Nebula	NGC-2024	07:30 – 10:49	08:48	11	Orion: Flame Nebula
Primary Focus	Nebula	Nebula	B-33	07:30 – 10:45	08:47	11	Orion: Horsehead Nebula B-33
Primary Focus	Nebula	Nebula	NGC-2022	07:30 – 11:35	08:48	12	Orion: Small Planetary Nebula
Primary Focus	Nebula	Nebula	NGC-2170	07:30 – 10:46	09:14	16	Monoceros: Angle Nebula
Primary Focus	Nebula	Nebula	SH 2-261	07:30 – 12:21	09:15	17	Orion: Lower's Nebula Core
Primary Focus	Nebula	Nebula	NGC-2174	07:30 – 12:33	09:16	18	Orion: Monkey Head Nebula Core
Primary Focus	Nebula	Nebula	IC-2162	07:30 – 12:31	09:19	19	Orion: Bright Nebula blots
Primary Focus	Nebula	Nebula	IC-443	07:30 – 12:45	09:23	20	Gemini: Jellyfish Nebula Core
Primary Focus	Nebula	Nebula	SH 2-249	07:30 – 12:48	09:25	20	Gemini: Diffuse Nebula IC-444
Primary Focus	Nebula	PN	IC-2165	*07:30-11:37	09:28	20	Canis Major: Small Planetary
Primary Focus	Nebula	DN	NGC-2237	07:30 – 12:09	09:37	21	Monoceros: Rosette Nebula Core
Primary Focus	Nebula	BN	IC-2169	07:30 – 12:27	09:37	22	Monoceros: Blue Nebula IC-2169
Primary Focus	Nebula	RN	NGC-2261	07:30 – 12:31	09:45	23	Monoceros: Hubble's Variable Nebula
Primary Focus	Nebula	Nebula	NGC-2264	07:30 – 12:37	09:47	24	Monoceros: Christmas Tree Cluster
Primary Focus	Nebula	Nebula	NGC-2264 R1	07:30 - 12:37	09:47	24	Monoceros: Cone Nebula
Primary Focus	Nebula	Nebula	IC-2177	*07:30-01:06	10:10	25	Monoceros: Seagull Nebula Head

Prospective Imaging Objects – February 09 2024

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Nebula	Nebula	NGC-2346	*07:30-01:23	10:15	26	Monoceros: Hourglass Nebula
Primary Focus	Nebula	Nebula	NGC-2359	*07:50-01:06	10:24	27	Canis Major: Thor's Helmet
Primary Focus	Nebula	Nebula	NGC-2371	07:30 – 02:06	10:31	27	Gemini: Candy Wrapper Nebula
Primary Focus	Nebula	Nebula	Abell-21	07:30 – 01:35	10:35	27	Gemini: Medusa Nebula
Primary Focus	Nebula	Nebula	NGC-2392	07:30 – 01:54	10:35	28	Gemini: Eskimo Nebula
Primary Focus	Nebula	PN	M-46	*08:18-01:23	10:48	29	Puppis: Open Cluster with PN
Primary Focus	Nebula	Nebula	NGC-2440	*08:40-01:00	10:48	29	Puppis: Bow-Tie Nebula
Primary Focus	Nebula	PN	NGC-2610	*09:19-01:23	11:39	30	Hydra: Small PN
Primary Focus	Nebula	PN	NGC-3242	*11:26-03:36	01:30	35	Hydra: Ghost of Jupiter
Primary Focus	Nebula	PN	NGC-3587	10:34 – 05:53	02:20	38	Ursa Major: Owl Nebula
Primary Focus	Nebula	PN	NGC-4361	01:28 – 05:37	03:29	46	Corvus: Small Planetary Nebula
Primary Focus	Nebula	PN	IC-3568	*10:53-05:53	03:38	49	Camelopardalis: Lemon Slice Nebula

Prospective Imaging Objects – February 09 2024

Imaging Summary February 09, 2024

Astronomical Dusk = 07:30

Astronomical Dawn = 05:53

Primary Focus: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	DN	IC-2118	*07:30-10:42	08:08	03	Eridanus: Witch Head Nebula ROI
Primary Focus	Broad Spectrum	DN	NGC-1788	07:30 – 10:06	08:13	04	Orion: Foxface Nebula ROI
Primary Focus	Broad Spectrum	GC	M-79	*07:30-09:47	08:30	06	Lepus: Med Globular Cluster NGC-1904
Primary Focus	Broad Spectrum	OC	M-38	07:30 – 12:18	08:35	07	Auriga: starfish Cluster
Primary Focus	Broad Spectrum	OC	M-36	07:30 – 12:24	08:42	10	Auriga: Pinwheel Cluster NGC-1960
Primary Focus	Broad Spectrum	Galaxy	NGC-1961	07:30 – 12:06	08:48	12	Camelopardalis: Small Galaxy
Primary Focus	Broad Spectrum	DN, BN	M-78	07:30 – 11:04	08:53	13	Orion: Bright and Dark Nebula
Primary Focus	Broad Spectrum	OC	M-37	07:30 – 12:37	08:58	13	Auriga: Sale and Pepper Cluster
Primary Focus	Broad Spectrum	DN	LDN-1622	07:36 – 11:20	09:04	16	Orion: Dark Nebula & Bright Nebula
Primary Focus	Broad Spectrum	OC	M-41	*08:07-11:48	09:52	24	Canis Major: Open Cluster NGC-2287
Primary Focus	Broad Spectrum	OC	M-50	*07:39-12:44	10:09	25	Monoceros: Open Cluster NGC-2323
Primary Focus	Broad Spectrum	Galaxies	UGC-3697	07:30 – 01:18	10:17	26	Camelopardalis: Integral Sign Galaxy UGC-3697
Primary Focus	Broad Spectrum	OC	M-47	*08:12-01:17	10:42	28	Puppis: Open Cluster NGC-2422
Primary Focus	Broad Spectrum	Galaxy	NGC-2403	07:30 – 02:18	10:43	28	Camelopardalis: Barred Spiral Face on Galaxy
Primary Focus	Broad Spectrum	GC	NGC-2419	07:30 – 02:31	10:44	29	Lynx: Intergalactic Wanderer
Primary Focus	Broad Spectrum	OC	M-93	*09:36-12:05	10:50	30	Puppis: Butterfly Cluster NGC-2447
Primary Focus	Broad Spectrum	OC	M-48	*08:40-02:07	11:19	30	Hydra: Open Cluster NGC-2548
Primary Focus	Broad Spectrum	OC	M-67	09:03 – 02:53	11:57	31	Cancer: Open Cluster NGC-2682
Primary Focus	Broad Spectrum	Galaxy	NGC-2685	08:18 – 03:51	12:01	31	Ursa Major: Helix Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-2903	09:24 – 03:58	12:38	32	Leo: Med Face On Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-81	09:47 – 04:22	01:01	33	Ursa Major: Bode's Nebula
Primary Focus	Broad Spectrum	Galaxy	M-82	09:51 – 04:18	01:01	33	Ursa Major: Cigar Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-3115	*10:42-03:47	01:11	33	Sextans: Spindle Galaxy

Prospective Imaging Objects – February 09 2024

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	Galaxy	UGC-5470	10:23 – 04:12	01:14	34	Leo: Powder keg Galaxy UGC-5470
Primary Focus	Broad Spectrum	Galaxies	NGC-3166, 3169	10:59 – 03:46	01:19	34	Sextans: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	Hickson 44	10:09 – 04:45	01:23	34	Leo: Galsxy Group NGC-3190, 3189
Primary Focus	Broad Spectrum	Galaxy	NGC-3184	09:41 – 05:13	01:24	35	Ursa Major: Med Face On Galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC-3227, 3226	10:19 – 04:46	01:29	35	Leo: Interacting Galaxies
Primary Focus	Broad Spectrum	Galaxy	IC-2574	10:16 – 04:58	01:34	36	Leo: Coddington’s Nebula
Primary Focus	Broad Spectrum	Galxies	NGC-3379 et. El.	11:01 – 04:52	01:53	37	Leo: Leo Trio 2 of galaxies
Primary Focus	Broad Spectrum	Galaxies	NGC-3561 et. El	10:49 – 05:50	02:16	37	Ursa Major: Abartsumian’s Knote et. El.
Primary Focus	Broad Spectrum	Galaxy	M-108	10:31 – 05:53	02:17	38	Ursa Major: Irregular Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-3628 et. el	11:33 – 05:25	02:25	39	Composite2! Leo: Edge on Galalaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-3628	11:33 – 05:25	02:25	40	Leo: Edge on Galalaxy
Primary Focus	Broad Spectrum	Galaxies	M-65, M-66	11:33 – 05:25	02:25	40	Leo: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	Arp-214	10:51 – 05:53	02:38	40	Ursa Major: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	NGC-3745 et. El	11:28 – 05:53	02:43	41	Leo: Copeland’s Septet
Primary Focus	Broad Spectrum	Galaxies	Abell-1367	11:40 – 05:53	02:50	41	Leo: Galaxy Cluster
Primary Focus	Broad Spectrum	Galaxies	Arp-248	*12:27-05:15	02:52	41	Ursa Major: Wild’s Triplet
Primary Focus	Broad Spectrum	Galaxy	M-109	11:16 – 05:53	03:03	42	Ursa Major: Face on med spiral galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-4027	*01:11-05:04	03:05	42	Corvus: Irregular galaxy
Primary Focus	Broad Spectrum	Galaxies	Arp-244	*01:11-05:15	03:07	42	Corvus: Antennae Galaxies
Primary Focus	Broad Spectrum	Galaxy	M-98	12:21 – 05:53	03:19	43	Cooma Berenices: Barred Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-4236	12:10 – 05:53	03:22	43	Draco: Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-4244	11:43 – 05:53	03:22	43	Canes Venatici: Silver Needle
Primary Focus	Broad Spectrum	Galaxy	M-99	12:27 – 05:53	03:24	44	Coma Berenices: St. Katherines Wheel
Primary Focus	Broad Spectrum	Galaxy	M-61	01:03 – 05:53	03:27	45	Virgo: Face on Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxies	M-40	11:44 – 05:53	03:27	45	Ursa Major: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	M-100	12:28 – 05:53	03:28	45	Coma Berenices: Set of Galaxies
Primary Focus	Broad Spectrum	Galaxy	NGC-4449	11:49 – 05:53	03:33	47	Canes Venatici: Interesting Irregular Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-49	12:58 – 05:53	03:35	48	Virgo: Elliptical Galaxy

Prospective Imaging Objects – February 09 2024

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	Galaxy	M-87	12:45 – 05:53	03:36	48	Virgo: Virgo A Elliptical Galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC-4490	11:53 – 05:53	03:36	48	Canes Venatici: Interacting Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	M-91	12:44 – 05:53	03:40	49	Coma Berenices: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	M-89 et. El	12:49 -05:53	03:41	50	Virgo: Galaxy Group
Primary Focus	Broad Spectrum	Galaxy	NGC-4559	12:15 – 05:53	03:41	50	Coma Berenices: Barred Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC-4567	12:54 – 05:53	03:41	50	Virgo: Siamese Twins et. El.
Primary Focus	Broad Spectrum	Galaxy	NGC-4565	12:19 – 05:53	03:41	51	Coma Berenices: Needle Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-90	12:49 – 05:53	03:42	51	Virgo: Med Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-58	12:53 – 05:53	03:43	52	Virgo: Barred Spiral Galaxy
Primary Focus	Broad Spectrum	Globular	M-68	*02:01-05:37	03:44	52	Hydra: Med Globular
Primary Focus	Broad Spectrum	Galaxy	M-104	*01:34-05:53	03:45	52	Virgo: Sombrero Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-4676 A&B	12:21 – 05:53	03:51	53	Coma Berenices: The Mice
Primary Focus	Broad Spectrum	Galaxies	NGC-4725	2:34 – 05:53	03:55	54	Coma Berenices: Galaxy Group
Primary Focus	Broad Spectrum	Galaxy	M-94	12:13 – 05:53	03:56	54	Canes Venatici: Med Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-4731	*01:17-05:53	05:50	55	Virgo: Barred Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC-4762, 4754	01:10 – 05:53	03:58	55	Virgo: Edge on and other Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-64	12:48 – 05:53	04:02	55	Coma Berenices: Black Eye Galaxy
Primary Focus	Broad Spectrum	Galaxies	Abell-1656	12:39 – 05:53	04:05	56	Coma Berenices: Coma Galaxy Cluster
Primary Focus	Broad Spectrum	Globular	M-53	01:12 – 05:53	04:18	56	Coma Berenices: Med Globular
Primary Focus	Broad Spectrum	Galaxy	NGC-5033	12:41 – 05:53	04:18	57	Canes Venatici: Med Face on Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-63	12:38 – 05:53	04:21	57	Canes Venatici: Med Face on Galaxy
Primary Focus	Broad Spectrum	Globular	NGC-5053	01:17 – 05:53	04:21	57	Coma Berenices Large open Globular
Primary Focus	Broad Spectrum	Galaxy	M-51	12:49 – 05:53	04:35	58	Canes Venatici: Whirlpool Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-3	01:21 – 05:53	04:47	58	Canes Venatici: Large Globular
Primary Focus	Broad Spectrum	Galaxy	NGC-5395	01:25 – 05:53	05:03	58	Canes Venatici: Heron Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-101	01:22 – 05:53	05:08	59	Ursa Major: Pinwheel Galaxy
Primary Focus	Broad Spectrum	Globular	NGC-5466	01:44 – 05:53	05:10	59	Bootes: Large open globular

Prospective Imaging Objects – February 09 2024

Imaging Summary February 09, 2024

Astronomical Dusk = 07:30

Astronomical Dawn = 05:53

Primary Prospects

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
	HyperStar	Nebula	Nebula	M-42	07:30 – 10:21	08:41	09	Orion: The Orion Nebula
	HyperStar	Nebula	Nebula	SH2-240	07:30 – 12:19	08:47	10	Rot-Comp2 Taurus: Simeis 147
	HyperStar	Nebula	Nebula	LDN-1622	07:36 – 11:20	09:04	14	Comp2! LDN 1622 Complex
	HyperStar	Nebula	Nebula	IC-2162, SH2-261	07:30 – 12:21	09:15	17	Rotation Orion: Nebula Pair
	HyperStar	Nebula	Nebula	IC-2169	07:30 – 12:27	09:37	22	Monoceros: IC-2169 Nebula
	HyperStar	Broadband	Galaxies	M-106 et. El	11:38 – 05:53	03:24	44	Canes Venatici: Galaxy Group 106
	HyperStar	Broadband	Galaxies	M-84 Et. El	12:38 – 05:53	03:30	47	Virgo: Markarian Chain 2
	HyperStar	Broadband	Galaxies	M-58 Et. El	12:53 – 05:53	03:43	51	Virgo: Galaxy Group M-58
	Focal Reducer	Nebula	Nebula	NGC-1788	07:30 – 10:06	08:13	03	Orion: Foxface Nebula
	Focal Reducer	Nebula	Nebula	NGC-1977	07:30 – 10:25	08:41	09	Orion: Running Man Nebula
	Focal Reducer	Nebula	Nebula	M-78	07:30 – 11:04	08:53	12	Comp2! Orion: Dark & Bright Nebula
	Focal Reducer	Nebula	Nebula	LDN-1622	07:36 – 11:20	09:04	15	Rot-Comp2 Orion: Dark Nebula
	Focal Reducer	Nebula	Nebula	SH 2-261	07:30 – 12:21	09:15	17	Orion: Lower's Nebula
	Focal Reducer	Nebula	Nebula	NGC-2174	07:30 – 12:33	09:16	18	Orion: Monkey Head Nebula
	Focal Reducer	Nebula	Nebula	IC-443	07:30 – 12:45	09:23	19	Comp2! Gemini: Jellyfish Nebula
	Focal Reducer	Nebula	Nebula	NGC-2237	07:30 – 12:09	09:37	21	Monoceros: Rosette Nebula Core
	Focal Reducer	Nebula	Nebula	IC-2169	07:30 – 12:27	09:37	22	Monoceros: Blue Nebula
	Focal Reducer	Nebula	Nebula	NGC-2264	07:30 – 12:37	09:47	23	Rot Monoceros: Xmas Tree & Cone
	Focal Reducer	Broadband	Galaxies	M-81, M-82	09:51 – 04:18	01:01	32	Rot Ursa Major: Bode's Cigar
	Focal Reducer	Broadband	Galaxies	M-84 et. El.	12:38 – 05:53	03:30	47	Virgo: Markarian's Chain
	Focal Reducer	Broadband	Galaxies	Abell-1656	12:39 – 05:53	04:05	56	Coma Berenices: Coma Galaxy Cluster

Prospective Imaging Objects – February 09 2024

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
	Primary Focus	Nebula	Nebula	NGC-1579	07:30 – 11:19	07:36	02	Perseus: Trifid of the north
	Primary Focus	Nebula	Nebula	IC-405	07:30 – 12:05	08:23	05	Auriga: Flaming Star Nebula
	Primary Focus	Broadband	GC	M-79	*07:30 - 09:47	08:30	06	Lepus: Med Globular NGC-1904
	Primary Focus	Nebula	PN	IC-418	*07:30 – 11:15	08:34	06	Lepus: Spirograph Nebula (Sm)
	Primary Focus	Nebula	Nebula	IC-417	07:30 – 12:16	08:34	07	Auriga: The Spider
	Primary Focus	Nebula	Nebula	NGC-1931	07:30 – 12:19	08:37	07	Auriga: The Fly
	Primary Focus	Nebula	PN	NGC-2261	07:30 – 12:31	09:45	23	Monoceros: Hubble's Variable Nebula
	Primary Focus	Nebula	Nebula	NGC-2264	07:30 – 12:37	09:47	24	Monoceros: Cone Nebula-1
	Primary Focus	Nebula	Nebula	IC-2177	*07:30 – 01:06	10:10	25	Monoceros: Seagull Nebula head
	Primary Focus	Nebula	Nebula	NGC-2359	*07:50 – 01:06	10:24	27	Canis Major: Thor's Helmet
	Primary Focus	Nebula	PN	NGC-2440	*08:40-01:00	10:48	29	Puppis: Bow-tie Nebula
	Primary Focus	Nebula	PN	NGC-2610	*09:19 – 01:23	11:39	30	Hydra: Sm/Med Planetary
	Primary Focus	Broadband	Galaxy	UGC-5470	10:23 – 04:12	01:14	34	Leo: Powder Keg Galscy
	Primary Focus	Broadband	Galaxies	NGC-3166, 3169	10:59 – 03:46	01:19	34	Sextans: Galaxy Pair
	Primary Focus	Broadband	Galaxies	NGC-3227, 3226	10:19 – 04:46	01:29	35	Leo: Interacting Galaxy Pair
	Primary Focus	Broadband	Galaxies	Arp-248	*12:27 – 05:15	02:52	41	Ursa Major: Wild's Triplet
	Primary Focus	Broadband	Galaxy	M-109	11:16 – 05:53	03:03	42	Ursa Major: Face on Spiral
	Primary Focus	Broadband	Galaxies	Arp-244	*01:11 – 05:15	03:07	42	Corvus: Antennae Galaxies
	Primary Focus	Broadband	Galaxy	NGC-4244	11:43 – 05:53	03:22	42	Canes Venatici: Sliver Needle Galaxy
	Primary Focus	Broadband	Galaxy	M-99	12:27 – 05:53	03:24	44	Coma Berenices: St. Katherines Wheel
	Primary Focus	Broadband	Galaxies	M-100 et. El.	12:28 – 05:53	03:28	45	Coma Berenices: Galaxy Group 100
	Primary Focus	Broadband	Galaxy	NGC-4449	11:49 – 05:53	03:33	47	Canes Venatici: Irregular Galaxy
	Primary Focus	Broadband	Galaxies	NGC-4567 et. El.	12:54 – 05:53	03:41	50	Virgo: Siamese Twins
	Primary Focus	Broadband	Globular	M-68	*02:01 – 05:37	03:44	52	Hydra: Med Globular
	Primary Focus	Broadband	Galaxies	NGC-4731	*01:17 – 05:53	05:50	55	Virgo: Face on Barred Spiral

Prospective Imaging Objects – February 09 2024

Imaging Summary February 09, 2024

Astronomical Dusk = 07:30

Astronomical Dawn = 05:53

Imaging Plans

Plan	Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Imaging Schedule
	HyperStar	Nebula	Nebula	SH2-240				
	HyperStar	Nebula	Nebula	IC-2162				
	HyperStar	Nebula	Nebula	NGC-1499				
	HyperStar	Broadband	Galaxies	M-106 et. El.				
	Focal Reducer	Nebula	Nebula	IC-443				
	Focal Reducer	Broadband	Galaxies	M-84 et. El.				
	Focal Reducer	Nebula	Nebula	IC-1805				
	Focal Reducer	Nebula	Nebula	NGC-2174				
	Focal Reducer	Broadband	Galaxies					
	Primary Focus	Nebula	PN	NGC-1360				
	Primary Focus	Nebula	PN	NGC-2440				
	Primary Focus	Nebula	PN	NGC-2610				
	Primary Focus	Broad Spectrum	Globular	M-68				
	Primary Focus	Nebula	Nebula					
	Primary Focus	Nebula	Nebula					
	Primary Focus	Broad Spectrum	Galaxy					
	Primary Focus	Broad Spectrum	Galaxy					
	Primary Focus	Broad Spectrum	Galaxy					