

Prospective Imaging Objects – January

Astronomical Data

Sunrise	Sunset	Astronomical Dusk	Astronomical Dawn	Imaging	Data Date
07:31 am	05:43 pm	07:10 pm	06:04 am	10:54	January 15

Hardware Info



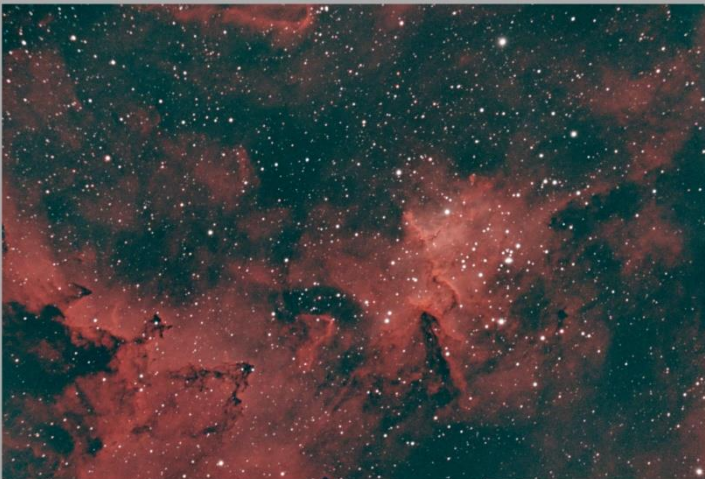
Configuration	FL	FOV	FOV°	FR	Image Scale (1 – 1.5) ideal
C11HD ZWO ASI-6200MC	2800 mm	45' x 30'	0.75° x 0.5°	10	0.280"/pix (Oversampled)
C11HD 0.7xReducer ASI-6200MC	1960 mm	60' x 45'	1.0° x 0.75°	7	0.393"/pix (Oversampled)
C11HD HS-v4 ZWO ASI-6200MC	540 mm	228' x 150'	3.8° x 2.5°	1.9	1.4"/pix (Undersampled)
C6 ZWO ASI-6200MC	1500 mm	83' x 55'	1.38° x 0.92°	10	0.52"/pix (Oversampled)
C6 0.63 Corrector ZWO ASI-6200MC	1220 mm	131' x 88'	2.18° x 1.46°	6.3	0.82"/pix (Oversampled)
C6 HS-v4 ZWO6200MC	300mm	412' x 275'	6.87° x 4.58°	2.0	2.59"/pix (Undersampled)

How to use this document




The diagram illustrates the layout of an object information entry. On the left, there is a text block with the following fields: Object Name and Catalog Number (02), Configuration (03), Type (04), Peak (05), Constellation (06), Coordinates (07), Close Star (08), Catalog Objects (09), Imaging Window (10), and Transit (11). On the right, there is a thumbnail image of the Sculptor Galaxy (NGC 253) labeled 'Primary Focus'. The thumbnail has a grey background and contains the text 'Sculptor Galaxy (NGC 253)' and 'Constellation: Sculptor'. The diagram shows how these numbered callouts correspond to the fields in the text block and the thumbnail image.

- 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.




Prospective Imaging Objects – January

<p>Heart Nebula (IC 1805) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula Peak: October 31 Constellation: Cassiopeia Coordinates: 02hr 31' 16" 61° 21' 36"</p> <p>Close Star: SAO-12031 Catalog Objects: IC 1805</p> <p>Imaging Window: 07:10 – 11:00 Transit: 07:15 62°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Heart Nebula (IC 1805) Constellation: Cassiopeia</p> <p style="font-size: x-small; text-align: right;">James Yoder 2019.09.20 Location: Chandler, AZ Config: C11 HyperStar Astronomik CLS-CXD (OHV 12k) Exposure Info: 250sec/Star (Gain: 3200, Offset: 180)</p>
<p>Heart Nebula (IC 1805) Config: C11- HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula Constellation: Cassiopeia Coordinates: 02hr 26' 36" 62° 06' 53"</p> <p>Close Star: SAO-12031 Catalog Objects: IC 1805</p> <p>Imaging Window: 07:10 – 11:00 Transit: 07:15 62°</p>	<p style="text-align: center;">CH11-HD Focal Reducer</p>  <p style="font-size: x-small;">Heart Nebula core (IC-1805) Constellation: Cassiopeia Size: 100.00x66.67x100.00 (0.0007) (Scale: 0.1 x 0.1 arcsec/pixel) (Field width: 1.637 arcmin)</p> <p style="font-size: x-small; text-align: right;">James Yoder 2019.11.01 Location: Chandler, AZ Config: C11-HD F7 Reducer Astronomik CLS-CXD (OHV 12k) Exposure Info: 200sec/Star (Gain: 3200, Offset: 180)</p>
<p>Heart Nebula (IC-1805) Config: C1 LF ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: October 31 Constellation: Cassiopeia Coordinates: 02hr 32' 42" 61° 27' 00"</p> <p>Close Star: SAO-12031 Catalog Objects: IC 1805</p> <p>Imaging Window: 07:10 – 11:00 Transit: 07:15 62°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: small;">Heart Nebula Core (IC-1805) Constellation: Cassiopeia</p> <p style="font-size: x-small; text-align: right;">James Yoder 2018.09.14 Location: Chandler, AZ Config: C11 Starizona LF Reducer SFP Triad Filter (OHV 12k) Exposure Info: 250sec/Star (Gain: 1100, Offset: 170)</p>

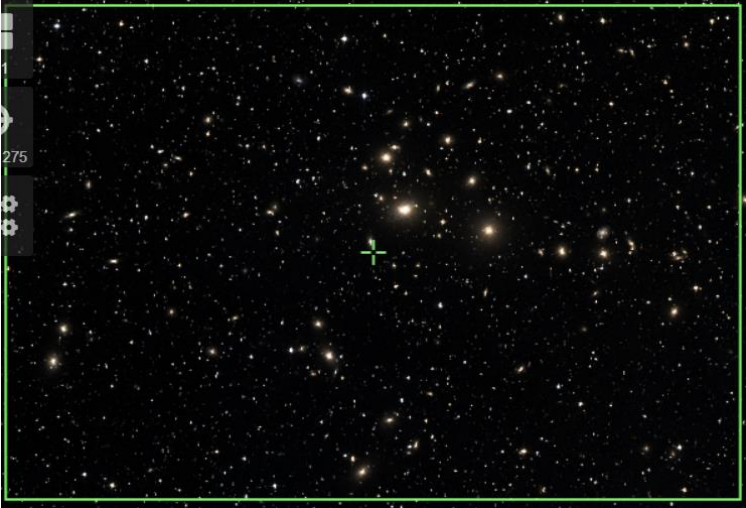

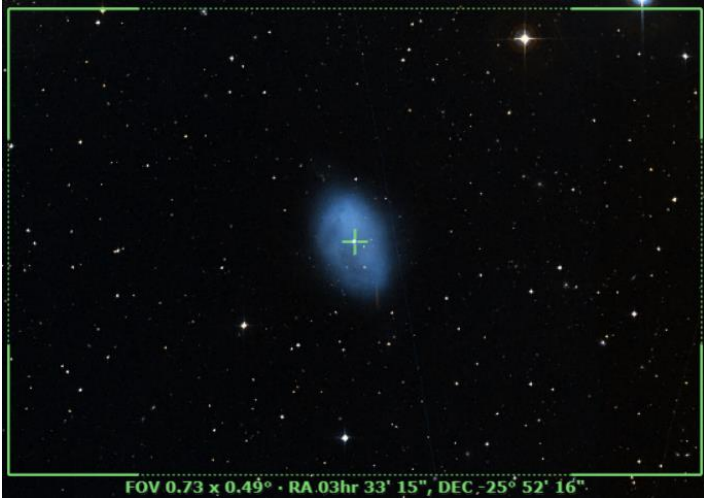
Prospective Imaging Objects – January

<p>M-77, NGC 1055 Config: C11- HD FR ZWO6200MC </p> <p>Type: Galaxy Peak: Constellation: Cetus Coordinates: 02hr 42' 14" 00° 14' 28" Angle: 90°</p> <p>Close Star: SAO-110665 Catalog Objects: M-77, NGC-1055, NGC-1068</p> <p>Imaging Window: 07:10 – 09:36 Transit: 07:25 57°</p>	<p>CH11-HD Focal Reducer</p>  <p>Galaxies NGC-1055, M-77, NGC-1072</p> <p><small>James Yoder Date(s) 2020-12-20, 21, 22 Location: Chandler, AZ Constellation: Cetus Filter(s) Baader Skyline, CLS-CCD, IDAS, LP-02 Camera: QHY130C Exposure Info: 41 frame(s) / Gain: 3200 Offset: 100</small></p>
<p>NGC-1055 Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Peak: Constellation: Cetus Coordinates: 02hr 41' 50" 00° 29' 48"</p> <p>Close Star: SAO-110665 Catalog Objects: NGC-1055</p> <p>Imaging Window: 07:10 – 09:37 Transit: 07:24 57°</p>	<p>C-11 HD: Primary Focus</p> 
<p>M-34 (NGC-1039) Config: C11-HD ZWO6200MC </p> <p>Type: Open Cluster Constellation: Perseus Coordinates: 02h 42' 05" 42° 45' 42"</p> <p>Close Star: SAO-38592 (Algol) Catalog Objects: M-34/NGC-1039</p> <p>Imaging Window: 07:10 – 11:14 Transit: 07:24 81°</p>	<p>Primary Focus</p> 




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<p>M 77 (NGC 1068) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Peak: Constellation: Cetus Coordinates: 02hr 42' 34" 00° 02' 07"</p> <p>Close Star: SAO-110665 Catalog Objects: M 77, NGC-1068</p> <p>Imaging Window: 07:10 – 09:36 Transit: 07:25 57°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Soul Nebula (IC-1848) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula Peak: Constellation: Cassiopeia Coordinates: 02hr 57' 16" 60° 37' 37"</p> <p>Close Star: SAO-38787 (Mirfak) Catalog Objects: IC 1848</p> <p>Imaging Window: 07:10 – 11:20 Transit: 07:34 63°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Soul Nebula (IC-1848) Constellation: Cassiopeia</p> <p style="font-size: x-small; text-align: right;"> Image Date: 2018 08 20 Location: Chandler, AZ Config: C11 HyperStar Astronomik 128C C11HY128C Exposure Info: 240min@5min Gain: 3200 Offset: 180 </p>
<p>Soul Nebula (IC-1848) Config: C1 LF ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Cassiopeia Coordinates: 02hr 57' 16" 60° 37' 37"</p> <p>Close Star: SAO-38787 (Mirfak) Catalog Objects: IC 1848</p> <p>Imaging Window: 07:10 – 11:20 Transit: 07:34 63°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: small;">Soul Nebula (IC-1848) Constellation: Cassiopeia</p> <p style="font-size: x-small; text-align: right;"> Image Date: 2018 11 09 Location: Chandler, AZ Config: C11 Seymour 12 Mirfak 181032 Line: 01V128C Exposure Info: 270min@5min Gain: 1200 Offset: 180 </p>



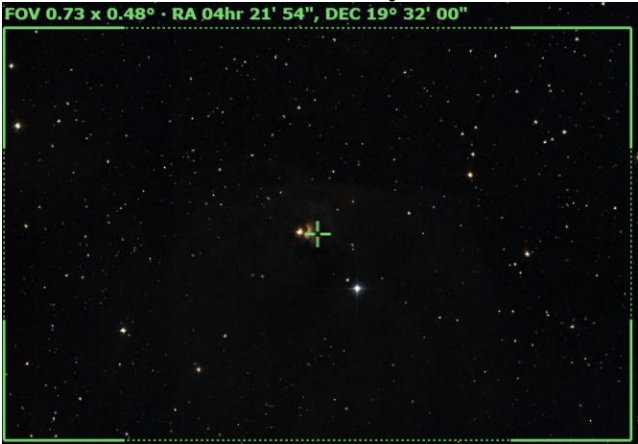
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<p>Perseus Galaxy Cluster Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Cluster Peak: Constellation: Perseus Coordinates: 03hr 19' 58" 41° 29' 13"</p> <p>Close Star: SAO-38592 (Algol) Catalog Objects: Abell-426, NGC1275, 1278, 1272, Et. El.</p> <p>Imaging Window: 07:10 – 11:51 Transit: 08:02 82°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-1333 Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: November 13 Constellation: Perseus Coordinates: 03hr 29' 15" 31° 20' 12"</p> <p>Close Star: SAO-56799 Catalog Objects: NGC 1333</p> <p>Imaging Window: 07:10 – 11:49 Transit: 08:11 88°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-1360 Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Peak: Constellation: Fornax Coordinates: 03hr 33' 15" -25° 52' 16"</p> <p>Close Star: SAO-168460 Catalog Objects: NGC-1360</p> <p>Imaging Window: *07:10 – 10:12 Transit: 08:15 31°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

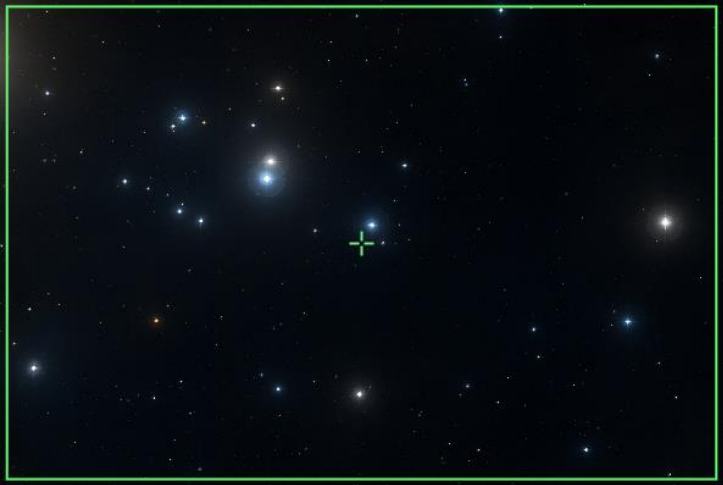


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<p>IC-348 Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Perseus Coordinates: 03hr 44' 26" 32° 10' 54"</p> <p>Close Star: SAO-147420 Catalog Objects: IC-348</p> <p>Imaging Window: 07:10 – 12:05 Transit: 08:27 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>IC-342 Config: C11HD ZWO6200MC </p> <p>Type: Barred Spiral Galaxy Peak: Constellation: Camelopardalis Coordinates: 03hr 46' 48" 68° 05' 44"</p> <p>Close Star: SAO-12031 (Segin) Catalog Objects: IC-342</p> <p>Imaging Window: 07:10 – 11:54 Transit: 08:29 55°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Pleiades (M 45) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula Peak: November 16 Constellation: Taurus Coordinates: 03hr 46' 07" 24° 11' 18"</p> <p>Close Star: SAO-56799 Catalog Objects: M45</p> <p>Imaging Window: 07:10 – 11:54 Transit: 08:29 81°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p><small>The Pleiades (M-45) Constellation: Taurus</small></p> <p><small>Image Acquired: 2024-10-06 Location: Mountain View, California, CA Config: C11 HyperStar (DSO) DSO Exposure Info: 30x300s/Frame Gain: 1188 (DSO) 1.7x</small></p>

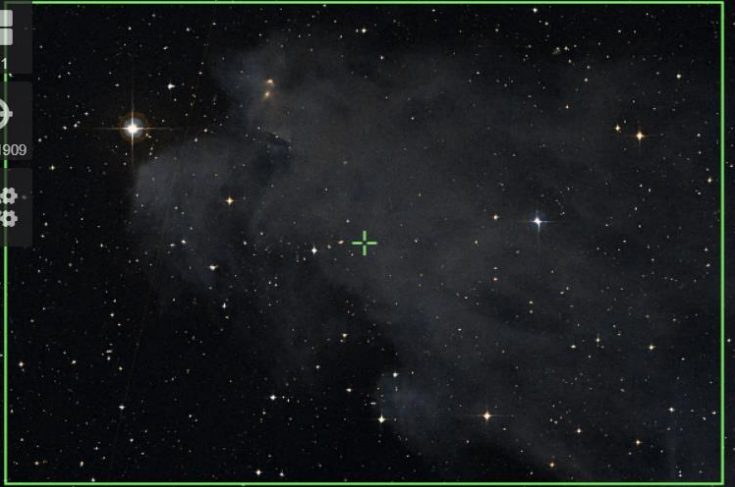


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<p>Crystal Ball Nebula (NGC 1514) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Constellation: Taurus Coordinates: 04hr 09' 17" 30° 46' 35"</p> <p>Close Star: SAO-56799 Catalog Objects: NGC-1514</p> <p>Imaging Window: 07:10 – 12:28 Transit: 08:51 87°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">NGC-1514 (Crystal Ball Nebula) Constellation: Taurus RA = 04h 09m 17.00s, DEC = +30deg 46' 35.00", Size = 18.5 x 11.8 arcmin, Orientation: 0.4deg E of N, Pixel scale = 0.278 arcseconds (FL = 2000mm)</p> <p style="font-size: x-small; text-align: right;">James Yoder Date(s) 2020.12.09 Location: Chandler, AZ Config: C-11 HD SFP Troll Star ZWO6200MC Exposure Info: 44 Bin 2min Gain: 100 Offset: 50</p>
<p>Cleopatra's Eye (NGC 1535) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Constellation: Eridanus Coordinates: 04hr 14' 16" -12° 44' 20"</p> <p>Close Star: SAO-131907 (Rigel) Catalog Objects: NGC-1535</p> <p>Imaging Window: *07:10 – 11:06 Transit: 08:56 44°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Planetary Nebula NGC-1535 (Cleopatra's Eye) Constellation: Eridanus RA = 04h 14m 16.00s, DEC = -12deg 44' 20.00", Size = 11.0 x 11.5", Orientation: 0.0deg E of N, Pixel scale = 0.278 arcseconds (FL = 2000mm)</p> <p style="font-size: x-small; text-align: right;">James Yoder Date(s) 2022.01.02 Location: Chandler, AZ Config: C-11 HD SFP Troll Star ZWO6200MC Exposure Information: 30min 2min Gain: 100 Offset: 50</p>
<p>Hind's Variable Nebula (NGC 1555) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Constellation: Taurus Coordinates: 04hr 21' 54" 19° 32' 00"</p> <p>Close Star: SAO-94027 (Aldebaran) Catalog Objects: NGC-1555</p> <p>Imaging Window: 07:10 – 12:20 Transit: 09:04 76°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> <p style="text-align: center; color: green; font-weight: bold;">FOV 0.73 x 0.48° · RA 04hr 21' 54", DEC 19° 32' 00"</p>  <p style="font-size: x-small; text-align: right;">James Yoder Date(s) 2022.01.02 Location: Chandler, AZ Config: C-11 HD SFP Troll Star ZWO6200MC Exposure Information: 30min 2min Gain: 100 Offset: 50</p>




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<p>Hyades (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: 07:10 – 12:21 Transit: 09:12 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: 07:10 – 12:55 Transit: 09:12 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: *07:12 – 12:19 Transit: 09:44 49°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;"> James Yoder 2019.09.25 Location: Chandler, AZ Config: C11 HyperStar Baader Skyliner QHY236 Exposure Info: 54fms@90s Gain: 3200 Offset: 180 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>


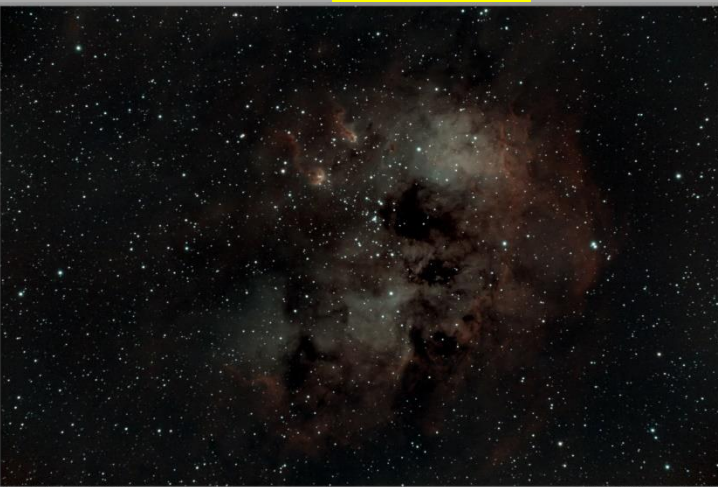

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<p>Witch Head Nebula (IC 2118) Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Eridanus Coordinates: 05hr 07' 07" -06° 20' 07"</p> <p>Close Star: SAO-131794 Catalog Objects: IC 2118</p> <p>Imaging Window: *07:12 – 12:19 Transit: 09:44 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: 08:01 – 11:42 Transit: 09:49</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: 08:01 – 11:42 Transit: 09:49</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 



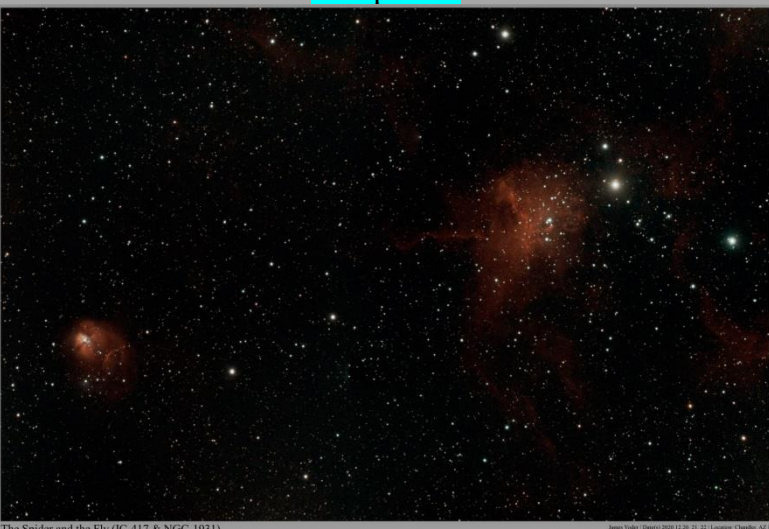
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<p>Foxface Nebula (NGC 1788) Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Orion Coordinates: 05hr 06' 26" -03° 20' 13"</p> <p>Close Star: SAO-131794 Catalog Objects: NGC 1788</p> <p>Imaging Window: 08:01 – 11:42 Transit: 09:49</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: 07:10 – 01:41 Transit: 09:59 89°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Flaming Star Nebula (IC-405, IC-410, IC-417) Constellation: Auriga</p> <p style="font-size: x-small;"> <small> James Webb 2024-01-01 Config: C-11HD HyperStar v4 AmScope C13-CED QHY170C (RA = 05h 19m 35.62s DEC = +33deg 49' 10.20" Star: 1.8x 2.28-Arg Pixel scale: 2.28 arcsec/pixel Exposure info: 47Through/Star Gain: 2000 08Sec 100 </small> </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: 07:10 – 01:41 Transit: 09:59 89°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: small;">Flaming Star Nebula (IC-405) Constellation: Auriga</p> <p style="font-size: x-small;"> <small> James Webb 2024-01-01 Location: Chandler, AZ Config: C11-405 Focal Reducer Filter: Optolong L-Extreme Camera: QHY170C Exposure info: 47Through/Star Gain: 2000 08Sec 100 </small> </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: 07:10 – 01:41 Transit: 09:59 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: 07:10 – 01:44 Transit: 10:04 90°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: small;">Tadpole Nebula (IC-410) <small>Constellation: Auriga RA = 09h 22m 55.355s, DEC = +33deg 23' 32.48", Size = 78.3 x 38.8 arcmin, Orientation: Ang 8. of N, Pixel scale = 0.61 arcsec/pix (F1-1000nm) Image Size: 2048x1536 Location: Channel 4/2 Config: C-11-HD (F7 Reducer) Filter: Optolong L-Extreme (Camera: ORV128C) Exposure Info: 210ms/Frame (Gain: 3200) Offset: 100</small></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: 07:10 – 01:44 Transit: 10:04 90°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Tadpole Nebula (IC-410) <small>Constellation: Auriga RA = 09h 22m 35.015s, DEC = +33deg 23' 03.03", Size = 42.4 x 28.8 arcmin, Pixel scale = 0.842 arcsec/pix Image Size: 2048x1536 Location: Channel 4/2 Config: C-11 HD (Astromaster) Filter: Optolong L-Extreme (Camera: ORV128C) Exposure Info: 210ms/Frame (Gain: 3200) Offset: 100</small></p>



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<p>M-79 (NGC-1904) Config: C11HD 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: *09:03 – 11:17 Transit: 10:06 32°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Spirograph Nebula (IC 418) Config: C11HD 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: *08:05 – 12:19 Transit: 10:09 44°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</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: 07:10 – 01:52 Transit: 10:10 89°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer Composite!</p>  <p><small>The Spider and the Fly (IC-417 & NGC-1931) Constellation: Auriga RA: 05h 29m 17.51s DEC: -15deg 31' 34.30" Ha: 68.0 x 45.3 pixels Observation: 6.5Mag E-CCD Pixel scale: 8.428 arcsecond FL: 1078mm Image Stack: (Stacks) 500 (1, 10, 21, 32) (Landscape Orientation, 4:1) Config: C11 HD F1 Filter Star Optimizing L-Extreme Camera: QHY 128M Equipment: Filter: ChromaStar, Focallor, MirrorLock, Guide: 2000, Offsets: 100</small></p>




Prospective Imaging Objects – January

<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: 07:10 – 01:52 Transit: 10:10 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: 07:10 – 01:54 Transit: 10:11 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: 07:10 – 01:55 Transit: 10:13 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

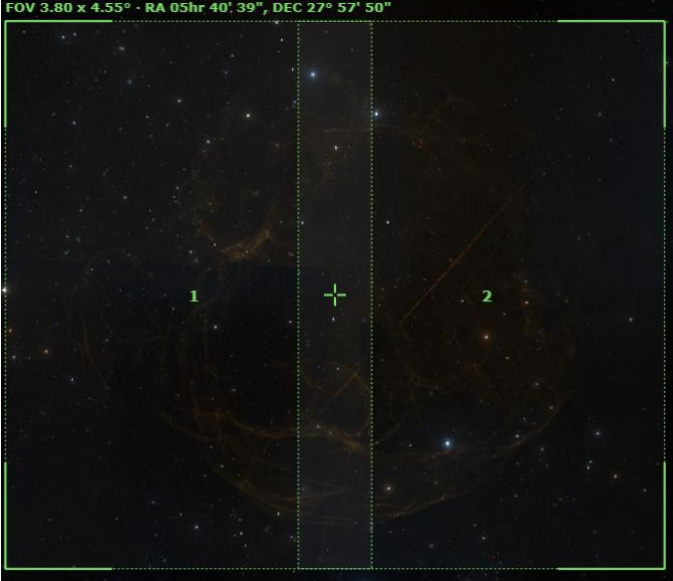
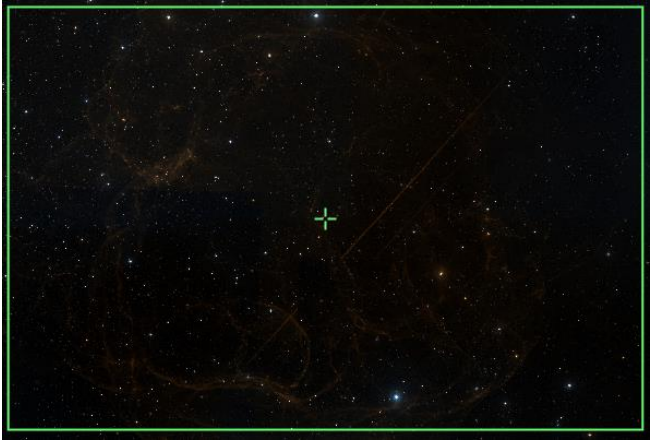
Prospective Imaging Objects – January

<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: 07:10 – 01:37 Transit: 10:16 79°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: small; text-align: center;">Crab Nebula (Messier-1) Constellation: Taurus RA = 05h 34m 31.9s DEC = +22deg 00' 34.4" Size = 31.5 x 21.0 arcmin Orientation: -0.34deg Pixel scale = 0.447 arcsec/pixel FL=2756mm James Yoder Dates: 2022-02-05, 07, 08, 09, 10 Location: Chandler, AZ Config: C-11 HD Filter: OFF Filter Ultra (Q91128) Exposure Info: 756ms(4min) Gain: 3200 OBSt: 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: 08:43 – 11:57 Transit: 10:17</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>




Prospective Imaging Objects – January

<p>Running Man Nebula (NGC 1977) Config: C6-HD FR ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Orion Coordinates: 05hr 35' 18.1" -04° 41' 25.9"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: NGC-1977</p> <p>Imaging Window: 08:39 – 12:01 Transit: 10:17 52°</p>	<p style="text-align: center;">C-6SE: Primary Focus</p>  <p style="font-size: small;">Running Man Nebula (NGC-1977) © Copyright © Orion the Hunter RA = 05h 35m 18.1s Dec = -04d 41m 25.9s Orientation: 0 deg 0 min 0 sec Pixel scale = 0.31 arcsecond (1.1x193mm) Image taken: 2024-11-01 Location: Chandler, AZ Config: C-6SE EPT Radius Truss 180x ZWO6200MC Exposure: 11 (29 9999/300) Gain: 100</p>
<p>Running Man Nebula (NGC 1977) Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Orion Coordinates: 05hr 35' 27" -04° 53' 09"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: NGC-1977</p> <p>Imaging Window: 08:39 – 12:01 Transit: 10:17 52°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M-36 (NGC-1960) 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: 07:10 – 02:00 Transit: 10:18 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Open Star Cluster (M-36, NGC-1960) Constellation: Auriga RA = 05h 36m 18.1s Dec = 34d 08m 27.0s Orientation: 0 deg 0 min 0 sec Pixel scale = 0.31 arcsecond (1.1x193mm) Image taken: 2024-11-01 Location: Chandler, AZ Config: C-11 HD EPT Radius Truss 180x ZWO6200MC Exposure: 11 (29 9999/300) Gain: 100</p>




Prospective Imaging Objects – January

<p>Simeis 147 (SH2-240) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula Constellation: Taurus</p> <p>Camera Rotation - 90° 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: 07:10 – 01:55 Transit: 10:23 85°</p>	<p>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: 07:10 – 01:55 Transit: 10:23 85°</p>	<p>C-11 HD: HyperStar v4</p> 

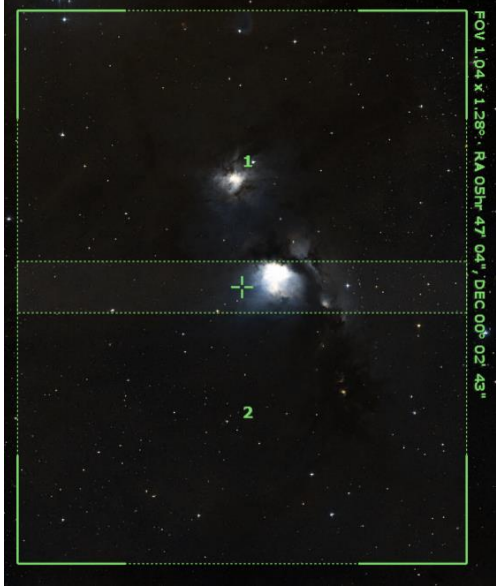

Prospective Imaging Objects – January

<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: 08:28 – 12:25 Transit: 10:24 55°</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>Flame Nebula (NGC 2024) Config: C11-HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 05hr 41' 30" -01° 45' 21"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: NGC-2024</p> <p>Imaging Window: 08:28 – 12:25 Transit: 10:24 55°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: small; text-align: center;">FOV 1.05 x 0.70° - RA 05hr 41' 30", DEC -01° 45' 21"</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: 08:28 – 12:25 Transit: 10:24 55°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Flame Nebula (NGC-2024) Constellation: Orion</p>



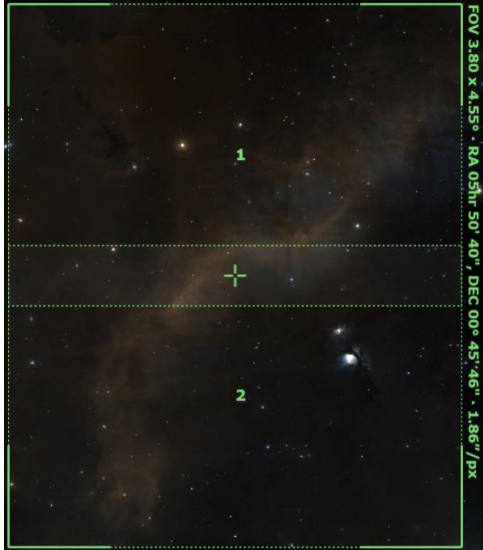
Prospective Imaging Objects – January

<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: 08:30 – 12:21 Transit: 10:23 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;">James Yoder - 2018-12-08 Location: Chandler, AZ Config: C1 Starizona L.F. Reducer + Filter Wheel + ZWO6200MC Exposure Info: 200x30sec/Frame Gain: 1500 (Offset: 100)</p>
<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: 07:42 – 01:11 Transit: 10:24 66°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">NGC-2022 Constellation: Orion</p> <p style="font-size: x-small; text-align: right;">James Yoder Direct 2020-12-09, 10 Location: Chandler, AZ Config: C-11 HD EXP1 Third Ultra ZWO6200MC Exposure Info: 5x 10sec/20min Gain: 100 (Offset: 50) [RA = 05h 42m 06.6s DEC = +09deg 04' 54.9"] Size = 18.5 x 13.9 arcmin Orientation: 0.4deg E of N Pixel scale = 0.277 arcsec/pixel FL = 2800mm </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: 07:11 – 01:42 Transit: 10:24 54°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Galaxy Cluster (NGC-1961 et al.) Constellation: Camelopardalis</p> <p style="font-size: x-small; text-align: right;">James Yoder - 2018-10-25 Location: Mountain View, Indiana, AZ Config: C-11 HD ZWO6200MC Exposure Info: 10x 30sec/30min Gain: 100 (Offset: 100)</p>


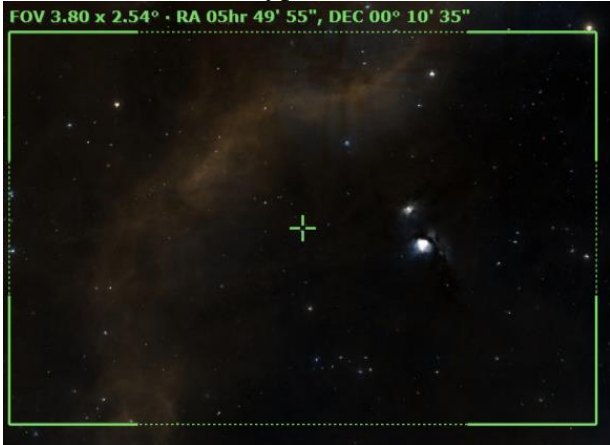

Prospective Imaging Objects – January

<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 (Annilam) Catalog Objects: M-78</p> <p>Imaging Window: 08:23 – 12:40 Transit: 10:29</p>	<p style="text-align: center;">C-11 HD: Focal Reducer Composite!</p> 
<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 (Annilam) Catalog Objects: M-78</p> <p>Imaging Window: 08:23 – 12:40 Transit: 10:29</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 


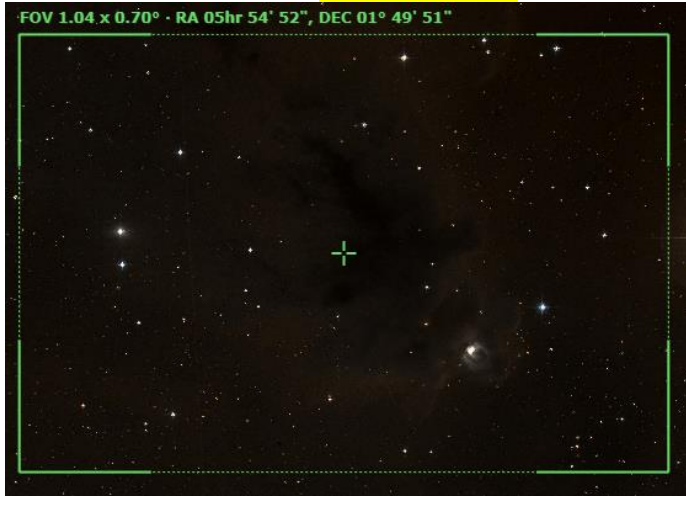

Prospective Imaging Objects – January

<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 (Anilam) Catalog Objects: M-78</p> <p>Imaging Window: 08:23 – 12:40 Transit: 10:29</p>	<p style="text-align: center;">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: 07:10 – 02:13 Transit: 10:34 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>LDN-1622 (Region 01) 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 (Anilam) Catalog Objects: LDN-1622</p> <p>Imaging Window: 08:22 – 12:56 Transit: 10:36 59°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4 Composite!</p> 



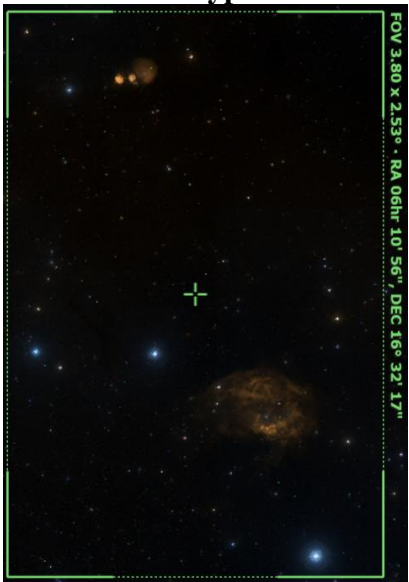
Prospective Imaging Objects – January

<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 (Annilam) Catalog Objects: LDN-1622 Imaging Window: 08:22 – 12:56 Transit: 10:36 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 (Annilam) Catalog Objects: LDN-1622 Imaging Window: 08:22 – 12:56 Transit: 10:36 59°</p>	<p style="text-align: center;">HyperStar</p> 
<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: 08:22 – 12:56 Transit: 10:36 59°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 

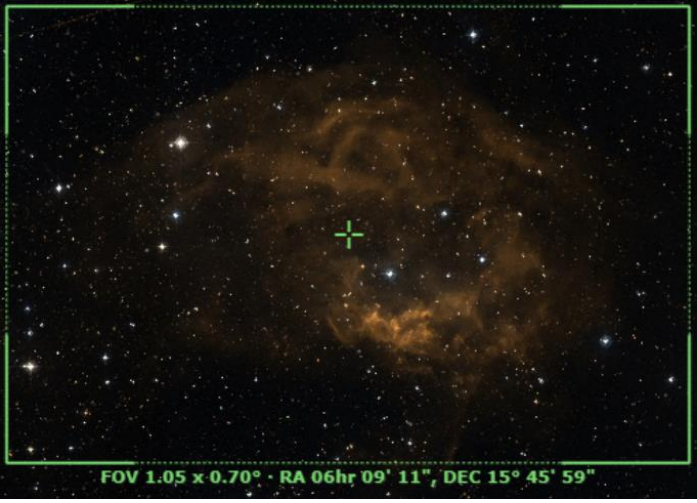


Prospective Imaging Objects – January

<p>LDN 1622 Config: C11HD ZWO6200MC </p> <p>Type: Dark Nebula Peak: Constellation: Orion</p> <p>Camera Rotation - 90° Frame 01 RA: 05hr 56' 28"DEC: 01° 58' 32" Frame 02 RA: 05hr 54' 08"DEC: 01° 58' 35"</p> <p>Close Star: SAO-132346 (Annilam) Catalog Objects: LDN-1622</p> <p>Imaging Window: 08:22 – 12:56 Transit: 10:36 59°</p>	<p>C-11 HD: Focal Reducer Composite!</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: 08:22 – 12:56 Transit: 10:36 59°</p>	<p>C-11 HD: Focal Reducer</p> 
<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 (Annilam) Catalog Objects: LDN-1622</p> <p>Imaging Window: 08:22 – 12:56 Transit: 10:36 59°</p>	<p>C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – January

<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: 09:24 – 12:22 Transit: 10:50</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Angel Nebula (NGC 2170) Config: C11-HD 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: 09:24 – 12:22 Transit: 10:50</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Angel Nebula (NGC-2170) <small>Constellation: Monoceros RA: 06h 08m 26s, DEC: -06° 25' 24" (Size: 4.1 x 2.7 x 3 arcmin) (Orientation: Right of N, Dist scale: 0.446 arcmin/pixel) (11-09-2006)</small></p>
<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: 07:50 – 01:57 Transit: 10:51 72°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 


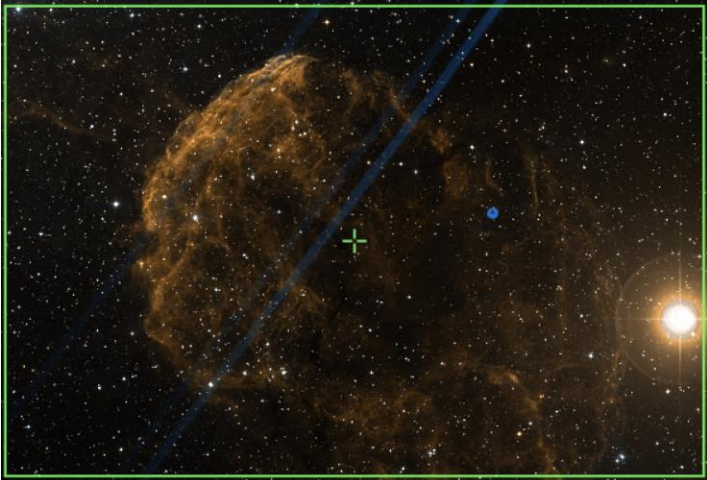

Prospective Imaging Objects – January

<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: 07:50 – 01:57 Transit: 10:51 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: 07:50 – 01:57 Transit: 10:51 72°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: 07:31 – 02:17 Transit: 10:51 81°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 




Prospective Imaging Objects – January

<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: 07:39 – 02:09 Transit: 10:51 77°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</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: 07:39 – 02:09 Transit: 10:51 77°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: 07:49 – 02:07 Transit: 10:55 75°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – January

<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: 07:43 – 02:21 Transit: 10:59 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 = 23h 19m 25.0s, DEC = +06deg 31' 18.6" Size = 3.14 x 2.89 deg Orientation: 0deg E of N Pixel scale = 2.28 arcsecond FL = 540mm James Yoder Date: 2020-10-21 Location: Chandler, AZ Config: C-11HD HyperStar V4 Avianomik CLS-CDD (QHY12K) Exposure info: 21frames@2min Gain: 3200 Offset: 100</p>
<p>Jellyfish Nebula (IC 443) Config: C11-HD FR ZWO6200MC </p> <p>Type: Supernova Remnant Peak: Constellation: Gemini Coordinates: 06hr 16' 59" 22° 37' 29"</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: IC-443</p> <p>Imaging Window: 07:43 – 02:21 Transit: 10:59 79°</p>	<p style="text-align: center;">C11-HD: Focal Reducer</p> 
<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: 07:43 – 02:21 Transit: 10:59 79°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: small;">Jellyfish nebula (IC 443) Constellation: Gemini James Yoder Location: Chandler, AZ Config: C-11 Starizona LF Corrector QHY12K Filter: QHY12K Exposure info: 100frames@2min Gain: 3200 Offset: 100</p>

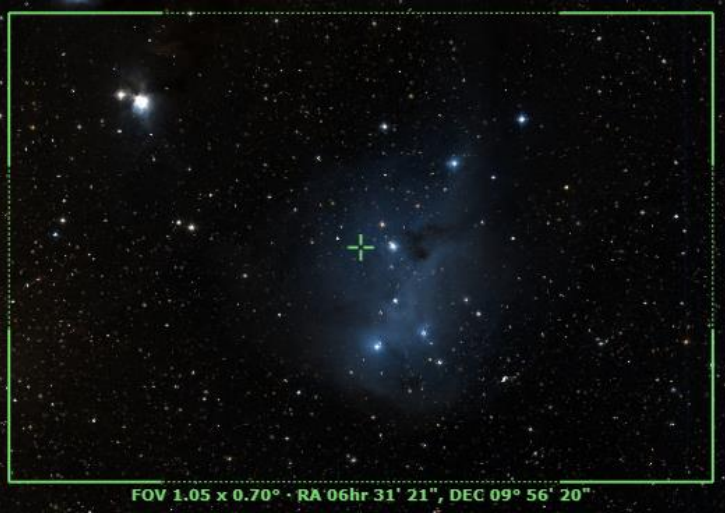


Prospective Imaging Objects – January

<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: *08:29 – 01:09 Transit: 11:03 44°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>SH 2-249 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: 07:47 – 02:27 Transit: 11:04 80°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: 08:45 – 01:45 Transit: 11:12 62°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 

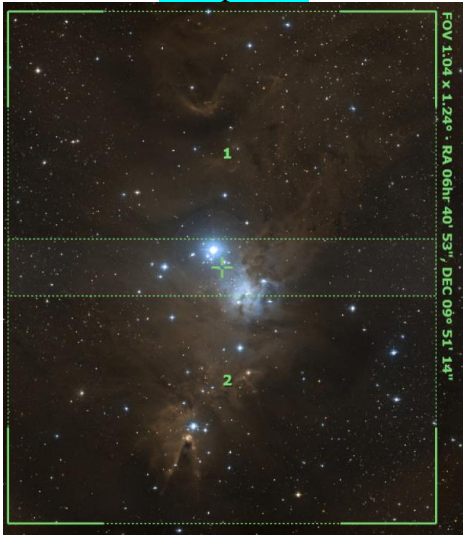
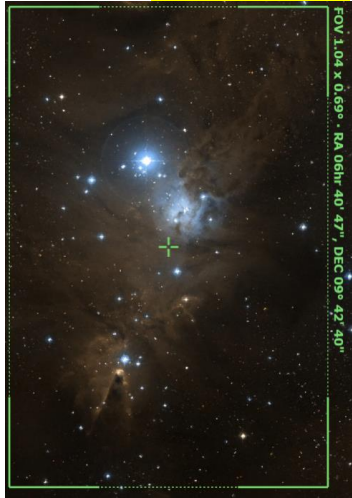

Prospective Imaging Objects – January

<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: 08:45 – 01:45 Transit: 11:12 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: 08:45 – 01:45 Transit: 11:12 62°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: 08:28 – 02:04 Transit: 11:13 80°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> <p style="font-size: small; color: green;">FOV 3.80 x 2.53° - RA 06hr 36' 00", DEC 10° 16' 17"</p> 



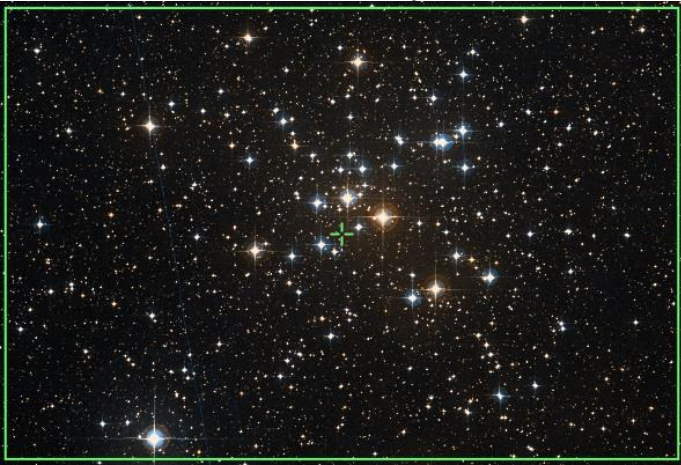
Prospective Imaging Objects – January

<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: 08:28 – 02:04 Transit: 11:13 80°</p>	<p style="text-align: center;">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: 08:28 – 02:04 Transit: 11:13 80°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: 08:41 – 02:07 Transit: 11:21 65°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – January

<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: 08:39 – 02:13 Transit: 11:23 67°</p>	<p>C-11 HD: Focal Reducer Composite!</p> 
<p>Christmas Tree & Cone Config: C11- HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula Peak:</p> <p>Constellation: Monoceros</p> <p>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: 08:39 – 02:13 Transit: 11:23 67°</p>	<p>C-11 HD: Focal Reducer</p> 
<p>Christmas Tree Cluster (NGC 2264) Config: C1 LF ZWO6200MC </p> <p>Type: Diffuse Nebula Peak:</p> <p>Constellation: Monoceros</p> <p>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: 08:39 – 02:13 Transit: 11:23 67°</p>	<p>Primary Focus</p> 




Prospective Imaging Objects – January

<p>Christmas Tree & Cone Config: C6FR ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Monoceros Coordinates: 06hr 40' 51.6" 09° 40' 25.2" Angle: 90° East</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC-2264/Sh 2-273</p> <p>Imaging Window: 08:39 – 02:13 Transit: 11:23 67°</p>	<p style="text-align: center;">C-6 HD: Focal Reducer</p>  <p style="font-size: small;">NGC-2264 (Cone & Christmas Tree Nebula) <small>Constellation: Monoceros [RA = 06h 40m 51.6s, DEC = +09deg 40' 25.2"] Size = 55.0 x 36.7 arcmin Orientation: 270deg E of N Pixel scale = 0.667 arcsec/pixel FL=1166mm</small></p> <p style="font-size: x-small; text-align: right;">John Vade (Date: 2024-01-26-27) Location: Chandler, AZ Config: C-6SE 0.63 Focal Reducer OPT Reducer Triad Ultra ZWO6200MC Exposure Info: 133.frm@2min Gain: 100 </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/Sh 2-273</p> <p>Imaging Window: 08:39 – 02:13 Transit: 11:23 67°</p>	<p style="text-align: center;">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: *09:38 – 01:20 Transit: 11:28 36°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – January

<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: *09:14 – 02:14 Transit: 11:44 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: *09:26 – 02:10 Transit: 11:46 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 17.4s DEC = -11deg 02' 27.2" Size = 710 x 140 pixels Orientation = 80deg E of N Pixel scale = 2.27x arcsecond (1.1x10um)</p> <p style="font-size: x-small;">James VanDerPlui (2021-01-06, 10, 11, 15, 17) Location: Chandler, AZ Config: C-11HD HyperStar V4 Optolong L-Extreme QHY128c Exposure: 6x6 = 3600sec/Frame Gain: 1200 (100Sec: 180)</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: *09:26 – 02:10 Transit: 11:46 46°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 


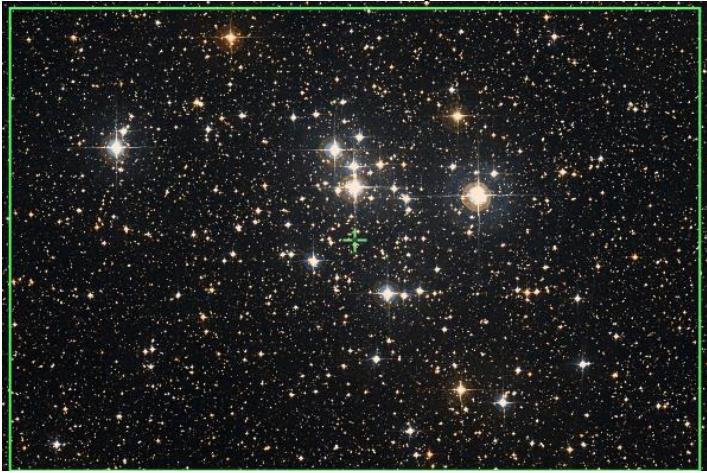

Prospective Imaging Objects – January

<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: *09:18 – 02:29 Transit: 11:51 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 <small>Constellation: Monoceros RA: 07h 09m 23s DEC: +00d 48' 22" Size: 21.7 x 17.1 pixels Observed: 2024-11-06 21:51:00 (UTC) Filter: 0.28 micron (H-alpha) 200nm</small></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: 08:58 – 02:54 Transit: 11:53 52°</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, UGC-3701</p> <p>Imaging Window: 08:58 – 02:54 Transit: 11:53 52°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 



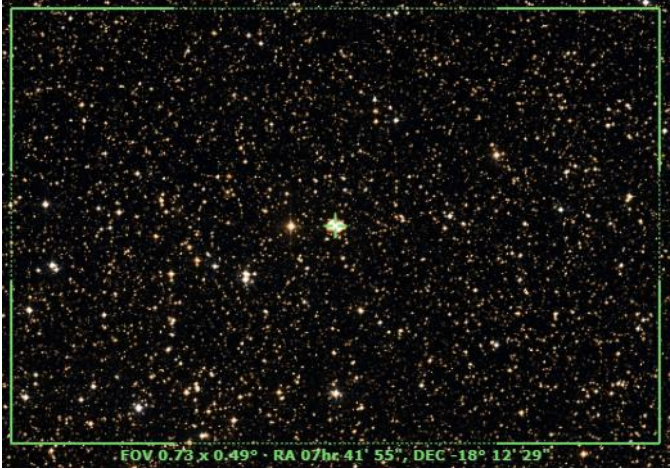
Prospective Imaging Objects – January

<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: *09:57 – 02:02 Transit: 12:00 43°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">Thor's Helmet (NGC 2359) Constellation: Canis Major</p> <p style="font-size: x-small; text-align: right;">James Yoder Direct 2023-01-11 Location: Chandler, AZ Config: C11 HD ZWO6200MC Exposure Info: (Filter)Gain Gain: 3200 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: 08:39 – 03:42 Transit: 12:07 86°</p>	<p style="text-align: center;">C-11 HD: Primary Focus x2</p>  <p style="font-size: x-small; text-align: center;">Candy Wrapper (NGC 2371) Constellation: Gemini</p> <p style="font-size: x-small; text-align: right;">James Yoder Direct 2023-01-11 Location: Chandler, AZ Config: C11 HD ZWO6200MC Exposure Info: (Filter)Gain Gain: 3200 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: 09:17 – 03:11 Transit: 12:11 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small; text-align: center;">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=3720mm</p> <p style="font-size: x-small; text-align: right;">James Yoder Direct 2023-01-25, 26, 27, 28, 2024-02-02, 03 Location: Chandler, AZ Config: C11 HD ZWO6200MC Exposure Info: (Filter)Gain Gain: 3200 Offset: 100</p>

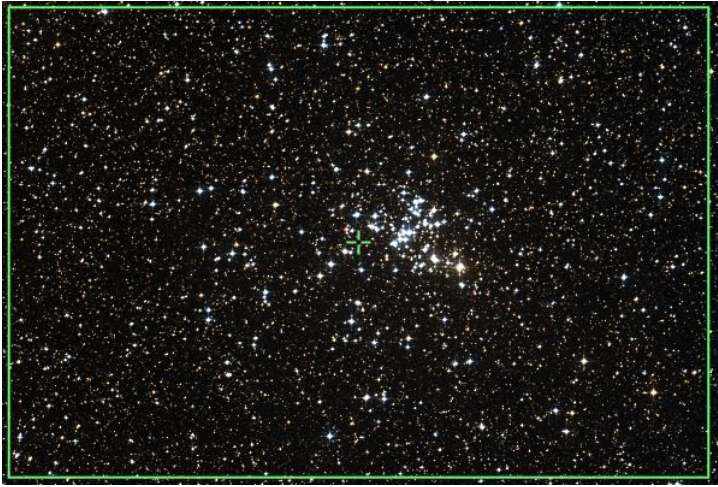


Prospective Imaging Objects – January

<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: 08:58 – 03:30 Transit: 12:11 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 OPT Tired Ultra ZWO6200MC Exposure Info: 144 frames/Stack Gain: 100 Offset: 50 RA = 07h 29m 11.5s DEC = +20deg 54' 33.6" Size = 18.5 x 13.9 arcmin Orientation: 0 Mag E of N Pixel scale = 0.278 arcsec/pixel F1=2000mm</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: *10:24 – 02:10 Transit: 12:18 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: 08:49 – 03:54 Transit: 12:18 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 OPT Tired Ultra ZWO6200MC Exposure Info: 144 frames/Stack Gain: 100 Offset: 50 RA = 07h 36m 51.5s DEC = +65deg 36' 06.0" Size = 18.5 x 13.9 arcmin Orientation: 0 Mag E of N Pixel scale = 0.278 arcsec/pixel F1=2000mm</p>




Prospective Imaging Objects – January

<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: 08:39 – 04:07 Transit: 12:20 84°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Intergalactic Wanderer (NGC-2419) <small>© 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: *10:35 – 02:18 Transit: 12:23 42°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">NGC-2437 <small>© 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: *10:20 – 02:33 Transit: 12:23 38°</p>	<p style="text-align: center;">C-11 HD: Primary Focus x2</p>  <p style="font-size: small;">FOV 0.73 x 0.49° • RA 07hr 41' 55", DEC -18° 12' 29"</p>




Prospective Imaging Objects – January

<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: *10:16 – 02:41 Transit: 12:26 33°</p>	<p style="text-align: center;">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: 11:24 – 02:33 Transit: 12:55 51°</p>	<p style="text-align: center;">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 Imaging Window: 11:36 – 03:00 Transit: 01:15 41°</p>	<p style="text-align: center;">C-11 HD: Primary Focus x2</p> 




Prospective Imaging Objects – January

<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: 10:12 – 04:38 Transit: 01:22 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: 10:43 – 04:29 Transit: 01:33 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: 09:54 – 05:27 Transit: 01:37 65°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 


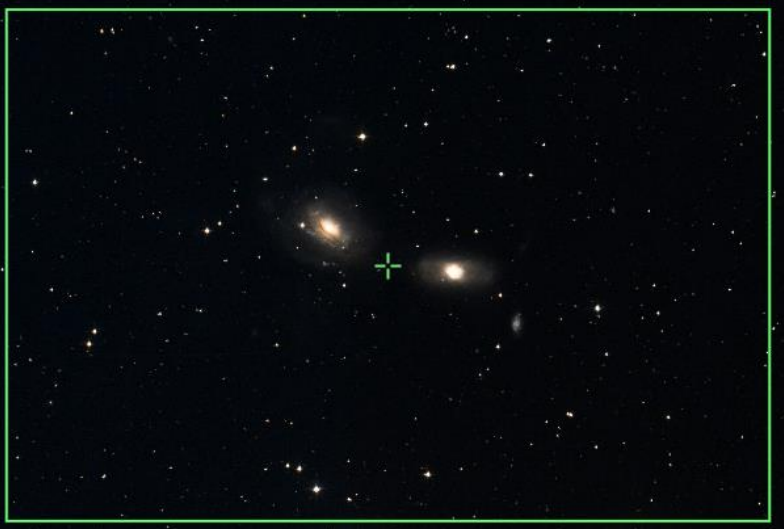

Prospective Imaging Objects – January

<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: 11:00 – 05:34 Transit: 02:13 78°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">NGC-2903 Barred Spiral Galaxy in Leo</p> <p style="text-align: right; font-size: small;">James Yoder 2017.02.24</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: 11:27 – 05:54 Transit: 02:37 54°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: x-small;">Cigar galaxy (M-82), Bode's galaxy (M-81), NGC-2976</p> <p style="font-size: x-small;">James Yoder Date(s) 2020.12.05, 2020.12.07 Location: Chandler, AZ Config: C-11HD HyperStar v4 1.2x ISO, C11-S&CD GH1 D6 Exposure Info: 9/50ms@f/8.0, 240ms@f/8.0 (Gain: 5200) OStar: 180</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: 11:27 – 05:54 Transit: 02:37 54°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: x-small; color: green;">FOV 1.04 x 0.69° · RA 09hr 55' 40", DEC 69° 18' 39" · 0.39"/px</p>




Prospective Imaging Objects – January

<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: 11:23 – 05:58 Transit: 02:37 54°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">M-081 Bode's Galaxy James Yoder 2015.11.14</p>
<p>Cigar Galaxy (M-82) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy 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: 11:27 – 05:54 Transit: 02:37 54°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">M-082 Cigar Galaxy James Yoder 2017.03.24</p>
<p>Spindel Galaxy (NGC-3115) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Constellation: Sextans Coordinates: 10h 05' 21" -07° 47' 09"</p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: NGC-3115</p> <p>Imaging Window: *12:15 – 05:22 Transit: 02:46 49°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small;">Spindle Galaxy (NGC-3115) James Yoder 2017.03.24</p>




Prospective Imaging Objects – January

<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: 11:59 – 05:48 Transit: 02:59 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">Powder Keg Galaxy (UGC-5470) Constellation: Leo (Leo) RA: 10h 08m 27.00s Dec: 12d 19m 49.00s Mag: 11.0 Size: 2.0" x 2.0" Filter: None Exposure: 15.00min</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: 12:35 – 05:22 Transit: 02:55 60°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">NGC-3166 & NGC-3169 Constellation: Sextans RA: 10h 14m 01.00s Dec: 03d 25m 51.00s Mag: 11.0 Size: 2.0" x 2.0" Filter: None Exposure: 15.00min</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: 11:45 – 06:04 Transit: 02:59 79°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">Hickson-44 Galaxy Cluster (Aip-316) Constellation: Leo RA: 10h 17m 57.00s Dec: 21d 49m 11.00s Mag: 11.0 Size: 2.0" x 2.0" Filter: None Exposure: 15.00min</p>




Prospective Imaging Objects – January

<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: 11:17 – 06:04 Transit: 02:59 82°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">Barred Spiral Galaxy NGC-3184 Copyright © 2024 James Foster</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: 11:55 – 03:05 Transit: 03:05 76°</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: *01:01 – 05:14 Transit: 03:06 38°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small; text-align: center;">NGC-3242 (Ghost of Jupiter) Constellation: Hydra RA = 10h 24m 44.7s, DEC = -18deg 38' 31.1" Size = 18.5 x 13.9 arcmin Orientation: -0.6deg E of N Pixel scale = 0.278 arcsec/pixel FL = 2000mm James Foster Dates: 2020 12 09 - 10 Location: Chandler, AZ Config: C-11 HD XPT Triad Ultra ZWO6200MC Exposure Info: 36 frames @ 2min Gain: 100 Offset: 50 </p>


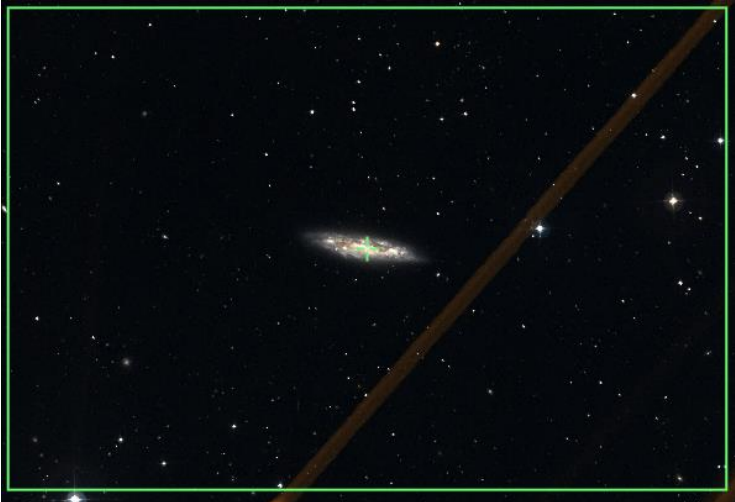

Prospective Imaging Objects – January

<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: 11:52 – 06:04 Transit: 03:09 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: 11:52 – 06:04 Transit: 03:09 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 Dinos 2022 04 01 - 2020 04 08 Location: Chandler, AZ Constellation: Ursa Major Config: C-11 HD Baader Skyglow QHY128c RA = 10h 28m 41.9s DEC = +68deg 26' 48.2\"</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: 12:39 – 06:04 Transit: 03:28 68°</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>

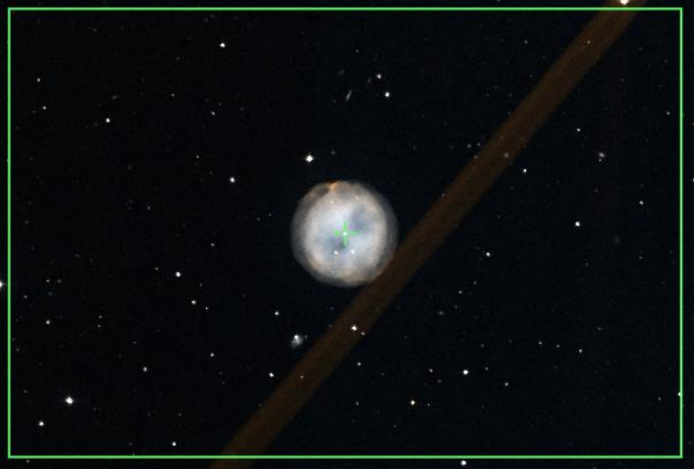


Prospective Imaging Objects – January

<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: 12:36 – 06:04 Transit: 03:25 68°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: small; text-align: center;">Galaxy pair M-95(NGC-3351) & M-96(NGC-3368) Constellation: Leo the Lion Photo: 10h 45m 19.9s, 11° 44' 27.7"; Size = 19.3 x 48 pixels; Pixel scale = 0.179 arcseconds James Yoder - 2024-03-22 - Location: Mountain View, CA Imaging: C-11 HD; Filter: None; Gain: 1200 Exposure: 300; Scale: 5.26; Offset: 180</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: 12:37 – 06:04 Transit: 03:29 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: left;">Trio of Galaxies NGC 3389 NGC 3384 NGC 3379 (M105) James Yoder 2015.03.22</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: 12:25 – 06:04 Transit: 03:52 85°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – January

<p>M-108 & M-97 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: 12:07 – 06:04 Transit: 03:52 68°</p>	<p>C-11 HD: HyperStar v4</p>  <p>M-108 (NGC-3556) and Owl Nebula (M-97, NGC-3587) Constellation: Ursa Major RA = 11h 12m 51.217s DEC = +55deg 21' 46.196" Size = 1.91 x 1.28 deg (Pixel scale = 2.28 arcsecond)</p> <p>James Yoder 2020 04 03 Config: C-11HD HyperStar V4 Astronomik CLS-CCD QHY129c- Exposure Info: 147frames 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: 12:07 – 06:04 Transit: 03:52 68°</p>	<p>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: 12:10 – 06:04 Transit: 03:56 68°</p>	<p>C-11 HD: Primary Focus</p>  <p>Owl Nebula (NGC-3587 / M-97) Constellation: Ursa Major RA = 11h 14m 48.22s DEC = +55deg 01' 10.11s (Pixel scale = 0.848 arcsecond)</p> <p>James Yoder 2020 04 03 Location: Chandler, AZ Config: C-11 HD Astronomik CLS-CCD QHY129c- Exposure Info: 20frames 1min Gain: 3000 Offset: 180 </p>




Prospective Imaging Objects – January

<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: 12:10 – 06:04 Transit: 03:56 68°</p>	<p>C-11 HD: Primary Focus *x2</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: 01:07 – 06:04 Transit: 04:01 70°</p>	<p>C-11 HD: Primary Focus Mosaic</p>  <p><small>Leo Trio of Galaxies (NGC-3628, NGC-3623, NGC-3627) James Webb Drexler 2020-05-14, 2020-05-15 License: Creative Commons BY-NC-SA Config: C11 HD F7 Reducer F600 Reducer F600 Reducer Canon 60D 200s RA = 11h 19m 45.3s, DEC = +13deg 16' 38.0" Size = 56.7 x 37.8 arcmin Orientation: 200deg E of N Pixel scale = 0.777 arcsec/pixel F1 = 1900mm</small></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: 01:07 – 06:04 Transit: 04:01 70°</p>	<p>C-11 HD: Focal Reducer Composite!</p>  <p><small>FOV 1.04 x 1.16° · RA 11hr 19' 57" / DEC 13° 18' 36"</small></p>


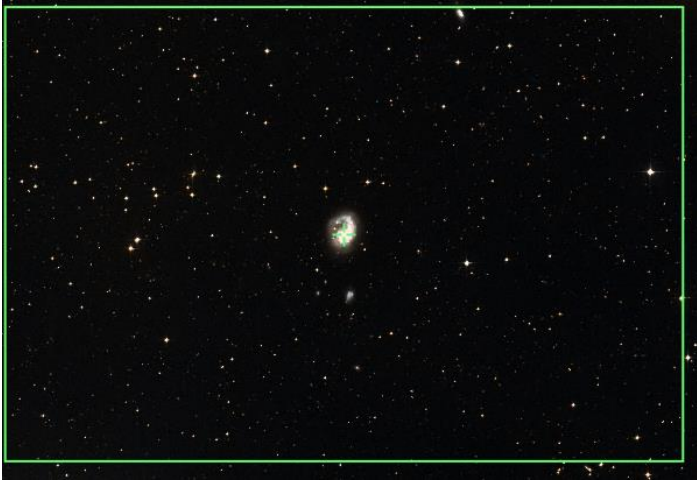

Prospective Imaging Objects – January

<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, Imaging Window: 01:07 – 06:04 Transit: 04:01 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: left; font-size: small;">NGC-3628 Edge-On Galaxy</p> <p style="text-align: right; font-size: 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: 11:54 – 06:04 Transit: 04:00 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: left; font-size: small;">M-065, M066 Spiral Galaxies</p> <p style="text-align: right; font-size: 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: 10:46 – 06:04 Transit: 04:14 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 = 183.28616113s, DEC = 53deg 05' 04.8000", Size = 45 x 30.4 arcmin Pixel scale = 0.446 arcsec/pixel FL-C2.720mm</p> <p style="font-size: x-small; text-align: right;">James Yoder - 2020-02-19 Location: Chandler, AZ Config: C-11 HD (Astronomik) CLS-CCD QHY 128K Exposure info: 1440img/50ms, Gain: 1200 (ISO=180)</p>




Prospective Imaging Objects – January

<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: 11:53 – 06:04 Transit: 04:19 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: 12:04 – 06:04 Transit: 04:26 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: 01:13 – 06:04 Transit: 04:28 53°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – January

<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: 11:10 – 06:04 Transit: 04:39 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: *02:45 – 06:04 Transit: 04:40 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: *02:39 – 06:04 Transit: 04:43 38°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

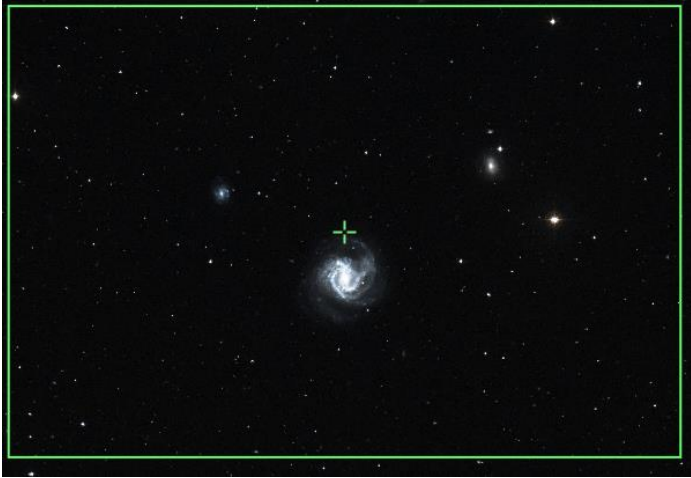


Prospective Imaging Objects – January

<p>M-98 (NGC-4192) Config: C11HD ZWO6200MC </p> <p>Type: Barred Spiral Galaxy</p> <p>Constellation: Coma 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: 01:57 – 06:04 Transit: 04:55 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: 01:46 – 06:04 Transit: 04:57 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: 01:19 – 06:04 Transit: 04:58 86°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 


Prospective Imaging Objects – January

<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: 02:03 – 06:04 Transit: 05:00 71°</p>	<p style="text-align: center;">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: 01:14 – 06:04 Transit: 05:00 76°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="text-align: center; color: green;">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: 01:14 – 06:04 Transit: 05:00 76°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: small;">M-106 galaxy group Constellation: Canes Venatici</p> <p style="font-size: x-small; text-align: right;">2024-11-06 Config: C11 Statens LF Connector Astromark 1.1C C11P1502 Exposure Info: 3 Frames/Star; Gain: 1200; Offset: 100</p>



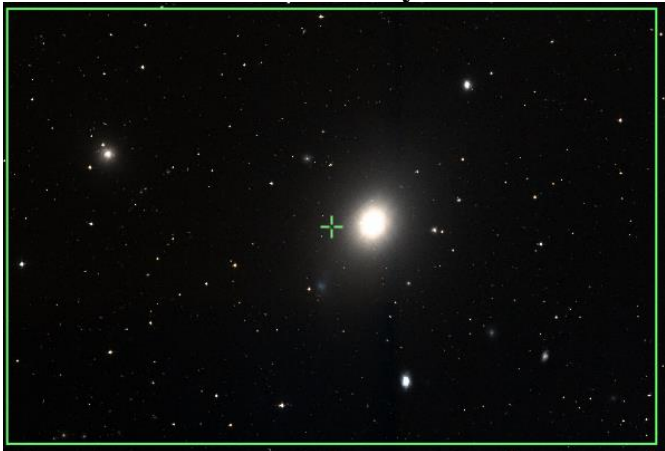
Prospective Imaging Objects – January

<p>M-61 (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: 02:39 – 06:04 Transit: 05:03 61°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Winnecke 4(M-40) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Cluster</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: 01:20 – 06:04 Transit: 05:03 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: 02:04 – 06:04 Transit: 05:04 72°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – January

<p>Lawn Sprinkler Nebula (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: *03:04 – 06:04 Transit: 05:05 38°</p>	<p>C-11 HD: Primary Focus</p>  <p>Planetary Nebula NGC-6572 Constellation: Corvus Coordinates: RA=15h 24m 31.3s DEC=-18d 47' 03.1" Star = 21st W. Access: Observation: Obj: E of N; Field: Scale = 0.27 arcsec/pixel; F1-200mm; Exposure: 160; Gain: 47; Filter: None; Date: 2018.05.15</p>
<p>Markarian Chain(M-84 Et. Et.) 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: 02:14 – 06:04 Transit: 05:06 69°</p>	<p>C-11 HD: HyperStar v4</p>  <p>Markarian's Chain (of galaxies) C-11 HyperStar, Bottom, 8mm James Yoder 2018.05.15</p>
<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 Imaging Window: 02:14 – 06:04 Transit: 05:06 69°</p>	<p>C-11 HD: HyperStar v4</p>  <p>Markarian's Chain Constellation: Virgo James Yoder 2018.05.03 Location: Paradise, AZ Config: C11 HyperStar AstroAstron CLS-CCD QHY128C Exposure: 160; Gain: 47; Filter: None; Date: 2018.05.15</p>




Prospective Imaging Objects – January

<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, and more Imaging Window: 02:14 – 06:04 Transit: 05:06 69°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Emission Line Galaxy (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 Imaging Window: 01:25 – 06:04 Transit: 05:09 79°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: 02:34 – 06:04 Transit: 05:11 65°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 



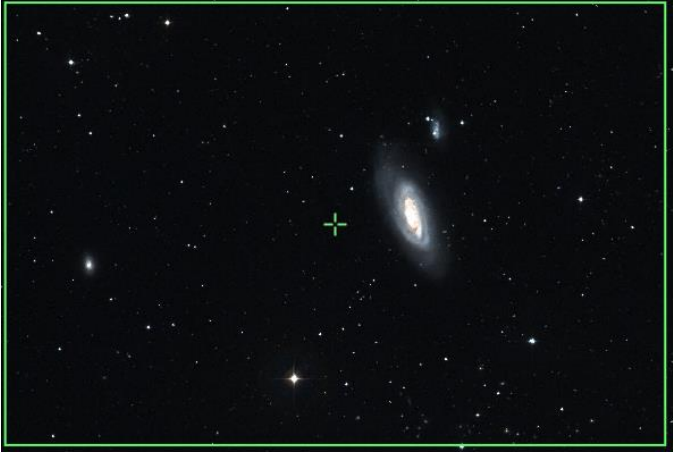
Prospective Imaging Objects – January

<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: 02:21 – 06:04 Transit: 05:12 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: 01:29 – 06:04 Transit: 05:11 82°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Cocoon Galaxy (NGC-4490 & NGC-4485) Constellation: Canes Venatici RA = 12h 30m 35.6s DEC = +41deg 38' 34.1" Size = 36.3 x 28.3 arcmin Orientation: -0.75deg E of N Pixel scale = 0.448 arcsec/pixel FOV=2750mm James Volder (Denton) 2020/02/02 - 2020/02/07 Location: Chandler, AZ Config: C-11 HD Starline SynScope (OPT128) Exposure Info: 75frames@30min Gain: 1200 Offset: 100</p>
<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: *12:12 – 06:04 Transit: 05:14 41°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Planetary Nebula IC-3568 Constellation: Camelopardalis RA = 12h 33m 14.0s DEC = 82deg 33' 22.1" Size = 27.1 x 24.8 arcmin Orientation: 0deg E of N Pixel scale = 0.2 arcsec/pixel FOV=3070mm James Volder (Denton) 2020/02/02 - 2020/02/07 Location: Chandler, AZ Config: C-11 HD Starline SynScope (OPT128) Exposure Info: 75 frames@30min Gain: 1200 Offset: 100</p>


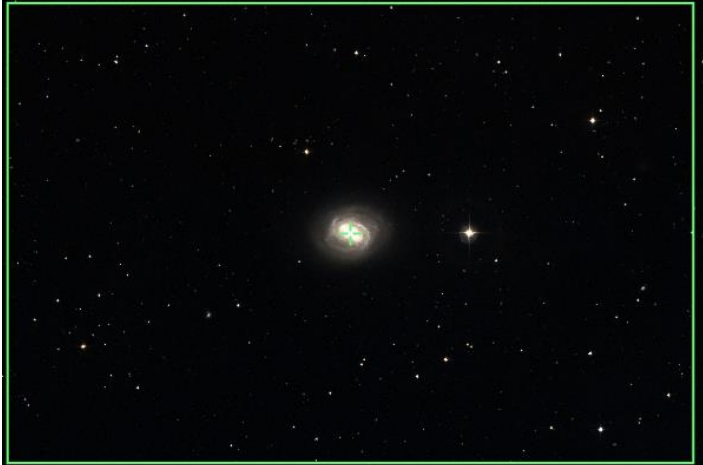

Prospective Imaging Objects – January

<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: 02:20 – 06:04 Transit: 05:16 71°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: 02:25 – 06:04 Transit: 05:16 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: 01:51 – 06:04 Transit: 05:17 85°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – January

<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: 02:30 – 06:04 Transit: 05:17 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: 01:55 – 06:04 Transit: 05:17 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: 02:25 – 06:04 Transit: 05:18 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – January

<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: 02:29 – 06:04 Transit: 05:18 68°</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 37' 35", DEC 12° 18' 56"</p>
<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: 02:29 – 06:04 Transit: 05:18 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;">FOV 0.73 x 0.49° · Rayleigh limit 0.49"</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: *03:36 – 06:04 Transit: 05:20 30°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;">FOV 0.73 x 0.49° · Rayleigh limit 0.49"</p>

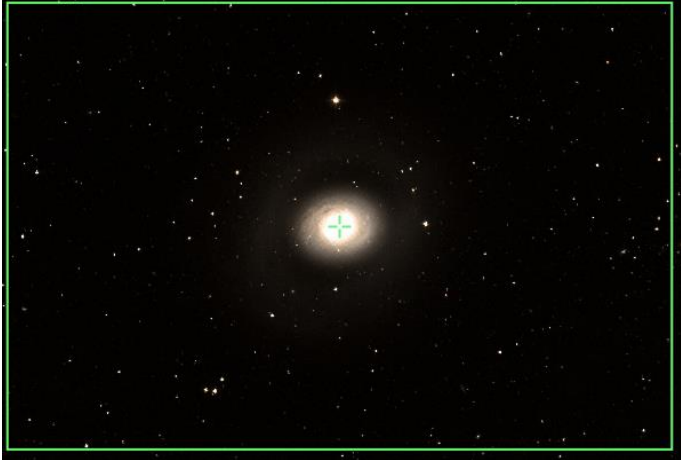

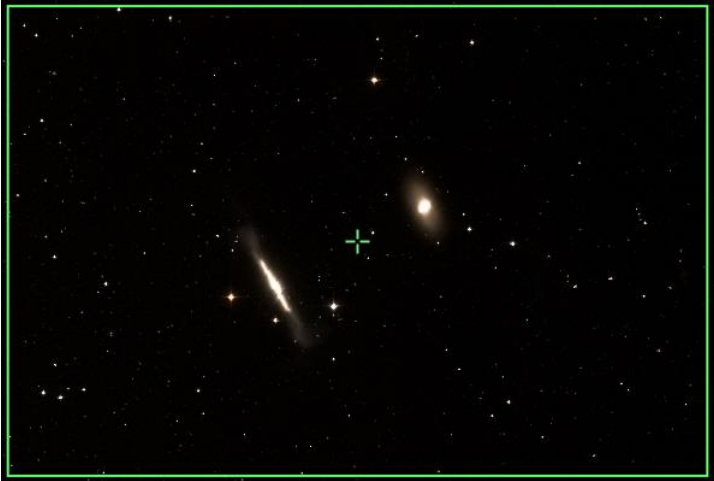
Prospective Imaging Objects – January

<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: *02:39 – 06:04 Transit: 05:34 45°</p>	<p>C-11 HD: Primary Focus</p>  <p>M104- Sombrero Galaxy James Yoder 2015.01.18</p>
<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: 01:51 – 06:04 Transit: 05:23 89°</p>	<p>C-11 HD: Focal Reducer</p>  <p>Whale and Hockey Stick Galaxies (NGC4631, NGC4656) Constellation: Canes Venatici James Yoder 2019.04.14 Location: Maricopa grounds, Tallahassee, AZ Config: C11 Starizona LF Corrector Boulder Skyglow Filter (OHV D16c) Exposure Info: 31.80sec/Frame Gain: 3200 Offset: 100</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: 02:34 – 06:04 Transit: 05:23 68°</p>	<p>C-11 HD: Focal Reducer</p>  <p>Virgo Cluster of Galaxies Constellation: Virgo the virgin James Yoder Dates: 2021.04.30 - 2020.05.16 Location: Chandler, AZ Config: C11-HD 0.7 Reducer Filter: Baader Skyglow, RGB Camera: ZWO ASI-4200 Exposure Info: [L=846ms/6min, G=115ms/6min, R=115ms/6min, B=160ms/6min] Total = 12hrs 18min 00sec 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>

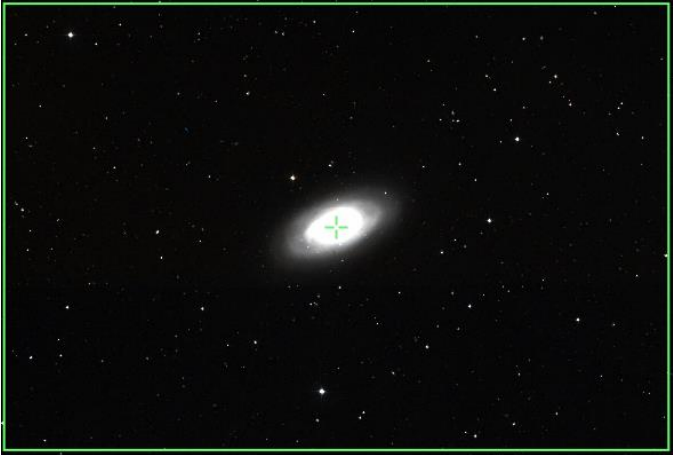
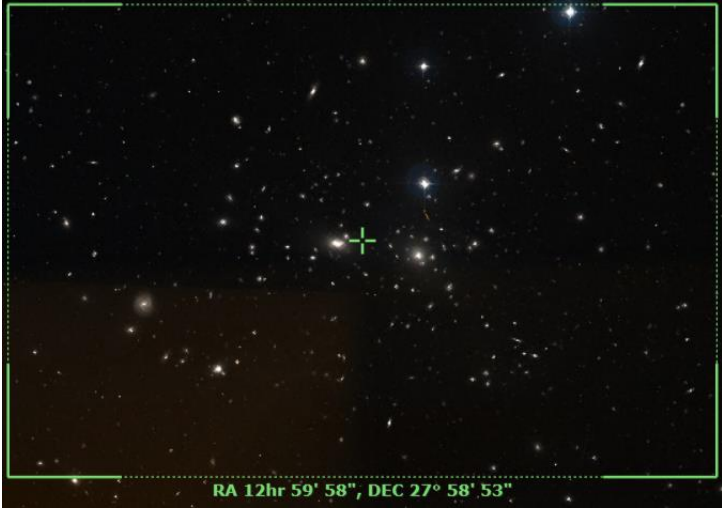

Prospective Imaging Objects – January

<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: 01:57 – 06:04 Transit: 05:27 87°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: 02:10 – 06:04 Transit: 05:31 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 Dated: 2021-01-02, 2021-01-03 Location: Chandler, AZ Config: C11-HD 0.7 Reducer Filter: Baader Skyglow Camera: QHY128C Constellation: Coma Berenices RA = 12h 50m 40.89s DEC = +25deg 36' 33.3" Size = 44.39 x 29.62 arcmin Orientation: (Mag E of N) Pixel scale = 0.630 arcsec/pixel FL=1953mm Exposure Info: [6frames/3sec] Gain: 7200 OffSec: 100</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: 02:10 – 06:04 Transit: 05:31 82°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – January

<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: 01:50 – 06:04 Transit: 05:32 82°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: *02:54 – 06:04 Transit: 05:32 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: 02:46 – 06:04 Transit: 05:34 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

Prospective Imaging Objects – January

<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: 02:24 – 06:04 Transit: 05:37 78°</p>	<p>C-11 HD: Primary Focus</p> 
<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: 02:15 – 06:04 Transit: 05:40 84°</p>	<p>C-11 HD: Focal Reducer</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: 02:15 – 06:04 Transit: 05:40 84°</p>	<p>C-11 HD: Primary Focus</p> 

Prospective Imaging Objects – January

<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: 02:48 – 06:04 Transit: 05:54 75°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;"> Globular Cluster Messier 53 Constellation: Coma Berenices <small>RA=13h 12m 52.9s, DEC=+18deg 10' 27.3", Size=27.7x27.8arcmin, Orientation=0.0deg E of N, Print scale=0.432 arc/px (FL=2720mm)</small> </p>
<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</p> <p>Imaging Window: 02:17 – 06:04 Transit: 05:54 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</p> <p>Imaging Window: 02:14 – 06:04 Transit: 05:56 81°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;"> M-63 Sunflower Galaxy James Yoder 2018.04.15 </p>

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Page

Prospective Imaging Objects – January

Imaging Summary January 15, 2025

Astronomical Dusk = 07:10

Astronomical Dawn = 06:04

HyperStar: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HyperStar	Nebula	Nebula	IC-1848	07:10 – 11:20	07:34	02	Comp4! Cassiopeia: Heart & Soul Nebula
HyperStar	Nebula	Nebula	IC-1805	07:10 – 11:00	07:15	03	Cassiopeia: Heart Nebula
HyperStar	Nebula	Nebula	IC-1848	07:10 – 11:20	07:34	05	Cassiopeia: Soul Nebula
HyperStar	Nebula	Nebula	NGC-1499	07:10 – 12:29	08:45	08	Perseus: California Nebula
HyperStar	Nebula	Nebula	IC-405	07:10 – 01:41	09:59	12	Auriga: Flaming Star Nebula
HyperStar	Nebula	Nebula	Orion Cmpx	08:43 – 11:57	10:17	16	Comp6! Orion: Orion Complex of objects
HyperStar	Nebula	Nebula	M-42	08:43 – 11:57	10:17	17	Orion: Orion and Running Man Nebula
HyperStar	Nebula	Nebula	M-42	08:43 – 11:57	10:17	17	Orion: Orion and Running Man Nebula
HyperStar	Nebula	Nebula	SH 2-240	07:10 – 01:55	10:23	19	Rot90°, Comp2! Taurus: Simeis 147
HyperStar	Nebula	Nebula	SH 2-240	07:10 – 01:55	10:23	19	Taurus: Simeis 147
HyperStar	Nebula	Nebula	NGC-2024, B-33	08:28 – 12:25	10:24	20	Orion: Horsehead and Flame Nebula
HyperStar	Nebula	Nebula	IC-2162, SH2-261	07:50 – 01:57	10:51	26	Rot90° Orion: Two Nebulas
HyperStar	Nebula	Nebula	IC-443	07:43 – 02:21	10:59	29	Gemini: Jellyfish Nebula
HyperStar	Nebula	Nebula	NGC-2237	08:45 – 01:45	11:12	30	Monoceros: Rosett Nebula
HyperStar	Nebula	Nebula	IC-2169	08:28 – 02:04	11:13	31	Monoceros: DN & Nebulas
HyperStar	Nebula	Nebula	IC-2177	*09:26-02:10	11:46	35	Rot90° Monoceros: Seagull Nebula

Prospective Imaging Objects – January

Imaging Summary January 15, 2025

Astronomical Dusk = 07:10

Astronomical Dawn = 06:04

HyperStar: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HyperStar	Broad Spectrum	OC, BN	M-45	07:10 – 11:54	08:29	07	Taurus: Pleiades
HyperStar	Broad Spectrum	OC	Mel-25	07:10 – 12:21	09:12	10	Taurus: Hyades
HyperStar	Broad Spectrum	DN	IC-2118	*07:10-12:19	09:44	10	Eridanus: Witch Head Nebula
HyperStar	Broad Spectrum	DN	NGC-1788	08:01 – 11:42	09:49	11	Orion: Foxface Nebula
HyperStar	Broad Spectrum	DN, N	LDN-1622 R1	08:22 – 12:56	10:36	23	Comp2! Orion: DN Band
HyperStar	Broad Spectrum	DN, N	LDN-1622 R2	08:22 – 12:56	10:36	24	Orion: DN Band
HyperStar	Broad Spectrum	DN, N	LDN-1622 R3	08:22 – 12:56	10:36	24	Orion: DN Band
HyperStar	Broad Spectrum	OC	NGC-2632	10:12 – 04:38	01:22	41	Cancer: Beehive Cluster
HyperStar	Broad Spectrum	Galaxies	M-81 & M-82	11:27 – 05:54	02:37	42	Ursa Major: Bode's Cigar
HyperStar	Broad Spectrum	Galaxies	2574 Group	11:52 – 06:04	03:09	46	Leo: Galaxy Group 2574
HyperStar	Broad Spectrum	Galaxies	Leo Group	12:39 – 06:04	03:28	46	Leo: Leo Galaxy Group
HyperStar	Broad Spectrum	G, PN	M-108 & M-97	12:07 – 06:04	03:52	48	Ursa Major: Galaxy & Planetary Nebula
HyperStar	Broad Spectrum	Galaxies	Group 106	01:14 – 06:04	05:00	54	Canes Venatici: Galaxy Group with M-106
HyperStar	Broad Spectrum	Galaxies	Group 84	02:14 – 06:04	05:06	56	Virgo: Markarian Chain
HyperStar	Broad Spectrum	Galaxies	Group 84-2	02:14 – 06:04	05:06	56	Virgo: Markarian Chain
HyperStar	Broad Spectrum	Galaxies	Group 58	02:29 – 06:04	05:18	61	Virgo: Galaxy Group associated with M-58

Prospective Imaging Objects – January

Imaging Summary January 15, 2025

Astronomical Dusk = 07:10

Astronomical Dawn = 06:04

Focal Reducer: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Focal Reducer	Nebula	Nebula	IC-1795	07:10 – 10:52	07:08	02	Cassiopeia: Fish Head Nebula
Focal Reducer	Nebula	Nebula	IC-1805	07:10 – 11:00	07:15	03	Cassiopeia: Heart Nebula
Focal Reducer	Nebula	Nebula	IC-405	07:10 – 01:41	09:59	12	Auriga: Flaming Star Nebula
Focal Reducer	Nebula	Nebula	IC-410	07:10 – 01:44	10:04	13	Auriga: Tadpoles
Focal Reducer	Nebula	Nebula	M-77, NGC1055	07:10 – 01:52	10:10	14	Comp2! Auriga: The Spider and the Fly
Focal Reducer	Nebula	Nebula	NGC-2024	08:28 – 12:25	10:24	20	Orion: Flame Nebula
Focal Reducer	Nebula	Nebula	NGC-2170	09:24 – 12:22	10:50	26	Monoceros: Angel Nebula
Focal Reducer	Nebula	Nebula	SH 2-261	07:50 – 01:57	10:51	27	Orion: Lower's Nebula
Focal Reducer	Nebula	Nebula	NGC-2174	07:39 – 02:09	10:51	28	Orion: Monkey Head Nebula
Focal Reducer	Nebula	Nebula	IC-443	07:43 – 02:21	10:59	29	Gemini: Jellyfish Nebula
Focal Reducer	Nebula	Nebula	NGC-2237	08:45 – 01:45	11:12	31	Monoceros: Rosett Nebula Core
Focal Reducer	Nebula	Nebula	NGC-2264	08:39 – 02:13	11:23	33	Comp2! Monoceros: Xmas Tree and Cone Nebula
Focal Reducer	Nebula	Nebula	NGC-2264	08:39 – 02:13	11:23	33	Rot! Monoceros: Xmas Tree and Cone Nebula
Focal Reducer	Nebula	Nebula	NGC-2264	08:39 – 02:13	11:23	34	Monoceros: Xmas Tree and Cone Nebula

Prospective Imaging Objects – January

Imaging Summary January 15, 2025

Astronomical Dusk = 07:10

Astronomical Dawn = 06:04

Focal Reducer: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Focal Reducer	Broad Spectrum	Galaxies	M-77	07:10 – 09:36	07:25	04	Cetus: Galaxies M-77 & NGC-1055
Focal Reducer	Broad Spectrum	DN, BN	NGC-1788	08:01 – 11:42	09:49	11	Orion: Foxface Nebula
Focal Reducer	Broad Spectrum	DN, BN	M-78	08:23 – 12:40	10:29	22	Comp2! Orion: Dark Nebula
Focal Reducer	Broad Spectrum	DN, BN	M-78	08:23 – 12:40	10:29	22	Orion: Dark Nebula
Focal Reducer	Broad Spectrum	DN	LDN-1622	08:22 – 12:56	10:36	25	Comp2! Rot90° Orion: Dark Nebula
Focal Reducer	Broad Spectrum	DN	LDN-1622	08:22 – 12:56	10:36	25	Orion: Dark Nebula
Focal Reducer	Broad Spectrum	OC	M-35, NGC-2158	07:31 – 02:17	10:51	27	Gemini: Open Cluster Pair
Focal Reducer	Broad Spectrum	BN	IC-2169	08:28 – 02:04	11:13	32	Monoceros: Reflection Nebula
Focal Reducer	Broad Spectrum	Galaxies	UGC-3697	08:58 – 02:54	11:53	36	Camelopardalis: Integral Sign Galaxy
Focal Reducer	Broad Spectrum	Galaxies	M-81 & M-82	11:27 – 05:54	02:37	42	Ursa Major: Bode's Cigar
Focal Reducer	Broad Spectrum	Galaxies	M-95 & M-96	12:36 – 06:04	03:25	47	Leo: Galaxy Pair M-95, M-96
Focal Reducer	Broad Spectrum	Galaxies	NGC-3628 et. El.	01:07 – 06:04	04:01	49	Comp2! Leo: Lio Trio of Galaxies
Focal Reducer	Broad Spectrum	Galaxies	M-106	01:14 – 06:04	05:00	54	Canes Venatici: Galaxy Pair
Focal Reducer	Broad Spectrum	Galaxies	M-84 et. El.	02:14 – 06:04	05:06	57	Virgo: Markarian's Chain
Focal Reducer	Broad Spectrum	Galaxies	M-104	*02:39-06:04	05:23	62	Canes Venatici: Whale and Hockey Stick
Focal Reducer	Broad Spectrum	Galaxies	M-59 Group	02:34 – 06:04	05:23	62	Virgo: Galaxy Group M-59 & M-60
Focal Reducer	Broad Spectrum	Galaxies	NGC-4725 et. El.	02:10 – 06:04	05:31	63	Coma Berenices: Galaxy Group NGC-4725
Focal Reducer	Broad Spectrum	Galaxies	Abell-1656	02:15 – 06:04	05:40	65	Coma Berenices: Coma Galaxy Cluster

Prospective Imaging Objects – January

Imaging Summary January 15, 2025

Astronomical Dusk = 07:10

Astronomical Dawn = 06:04

Primary Focus: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Nebula	Nebula	IC-1805	07:10 – 11:00	07:15	03	Cassiopeia: Heart Nebula Core
Primary Focus	Nebula	Nebula	IC-1848	07:10 – 11:20	07:34	05	Cassiopeia: Soul Nebula Core
Primary Focus	Nebula	Nebula	NGC-1333	07:10 – 11:49	08:11	06	Perseus: Bright Nebula
Primary Focus	Nebula	Nebula	NGC-1360	*07:10-10:12	08:15	06	Fornax: Egg shaped Nebula
Primary Focus	Nebula	Nebula	IC-348	07:10 – 12:05	08:27	07	Perseus: Bright Nebula
Primary Focus	Nebula	Nebula	M-45	07:10 – 11:54	08:29	08	Taurus: Pleiades
Primary Focus	Nebula	Nebula	NGC-1501	07:10 – 12:35	08:49	08	Camelopardalis: Oyster Nebula
Primary Focus	Nebula	Nebula	NGC-1514	07:10 – 12:28	08:51	09	Taurus: Crystal Ball Nebula
Primary Focus	Nebula	Nebula	NGC-1535	*07:10-11:06	08:56	09	Eridanus: Cleopatra's Eye
Primary Focus	Nebula	Nebula	NGC-1555	07:10 – 12:20	09:04	09	Taurus: Hind's Variable Nebula
Primary Focus	Nebula	Nebula	NGC-1579	07:10 – 12:55	09:12	10	Perseus: Trifid of the North
Primary Focus	Nebula	Nebula	IC-2118	*07:10-12:19	09:44	11	Eridanus: Witch Head Nebula
Primary Focus	Nebula	Nebula	NGC-1788	08:01 – 11:42	09:49	12	Orion: Foxface Nebula
Primary Focus	Nebula	Nebula	IC-405	07:10 – 01:41	09:59	13	Auriga: Flaming Star Nebula
Primary Focus	Nebula	Nebula	IC-410	07:10 – 01:44	10:04	13	Auriga: Tadpoles
Primary Focus	Nebula	Nebula	IC-418	*08:05-12:19	10:09	14	Lepus: Spirograph Nebula
Primary Focus	Nebula	Nebula	IC-417	07:10 – 01:52	10:10	15	Auriga: The Spider
Primary Focus	Nebula	Nebula	NGC-1931	07:10 – 01:55	10:13	15	Auriga: The Fly
Primary Focus	Nebula	Nebula	M-1	07:10 – 01:37	10:16	16	Taurus: Crab Nebula
Primary Focus	Nebula	Nebula	M-42	08:43 – 11:57	10:17	17	Orion: The Orion Nebula
Primary Focus	Nebula	Nebula	NGC-1977	08:39 – 12:01	10:17	18	Orion: Running Man Nebula (C-6)
Primary Focus	Nebula	Nebula	NGC-1977	08:39 – 12:01	10:17	18	Orion: Running Man Nebula
Primary Focus	Nebula	Nebula	NGC-2024	08:28 – 12:25	10:24	20	Orion: Flame Nebula
Primary Focus	Nebula	Nebula	B-33	08:30 – 12:21	10:23	21	Orion: Horsehead Nebula

Prospective Imaging Objects – January

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Nebula	Nebula	NGC-2022	07:42 – 01:11	10:24	21	Orion: Planetary Nebula
Primary Focus	Nebula	Nebula	NGC-2170	09:24 – 12:22	10:50	26	Monoceros: Angle Nebula
Primary Focus	Nebula	Nebula	SH 2-261	07:50 – 01:57	10:51	27	Orion: Lower's Nebula
Primary Focus	Nebula	Nebula	NGC-2174	07:39 – 02:09	10:51	28	Orion: Monkey Head Nebula
Primary Focus	Nebula	Nebula	IC-2162	07:49 – 02:07	10:55	28	Orion: Nebula
Primary Focus	Nebula	Nebula	IC-443	07:43 – 02:21	10:59	29	Gemini: Jellyfish Nebula
Primary Focus	Nebula	Nebula	IC-2165	*08:29-01:09	11:03	30	Canis Major: Small Planetary Nebula
Primary Focus	Nebula	Nebula	SH 2-249	07:47 – 02:27	11:04	30	Gemini: Nebula
Primary Focus	Nebula	Nebula	NGC-2237	08:45 – 01:45	11:12	31	Monoceros: Rosette Nebula Core
Primary Focus	Nebula	Nebula	NGC-2261	08:41 – 02:07	11:21	32	Monoceros: Hubble's Variable Nebula
Primary Focus	Nebula	Nebula	NGC-2264	08:39 – 02:13	11:23	33	Monoceros: Xmas Tree Cluster
Primary Focus	Nebula	Nebula	NGC-2264	08:39 – 02:13	11:23	34	Monoceros: Cone Nebula
Primary Focus	Nebula	Nebula	IC-2177	*09:26-02:10	11:46	35	Monoceros: Seagull Nebula head
Primary Focus	Nebula	Nebula	NGC-2346	*09:18-02:29	11:51	36	Monoceros: Hourglass Nebula
Primary Focus	Nebula	Nebula	NGC-2359	*09:57-02:02	12:00	37	Canis Major: Thor's Helmet
Primary Focus	Nebula	Nebula	NGC-2371	08:39 – 03:42	12:07	37	Gemini: Candy Wrapper Nebula
Primary Focus	Nebula	Nebula	Abell-21	09:17 – 03:11	12:11	37	Gemini: Medusa Nebula
Primary Focus	Nebula	Nebula	NGC-2392	08:58 – 03:30	12:11	38	Gemini: Eskimo Nebula
Primary Focus	Nebula	Nebula	M-46	*10:35-02:18	12:23	39	Puppis: Open Cluster and Planetary
Primary Focus	Nebula	Nebula	NGC-2440	*10:20-02:33	12:23	39	Puppis: Bow-Tie Nebula
Primary Focus	Nebula	PN	NGC-2610	11:36 – 03:00	01:15	40	Hydra: NGC-2610 Small PN
Primary Focus	Nebula	PN	NGC-3242	*01:01-05:14	03:06	45	Hydra: Ghost of Jupiter
Primary Focus	Nebula	PN	M-97	12:10 – 06:04	03:56	48	Ursa Major: Owl Nebula
Primary Focus	Nebula	PN	NGC-4361	*03:04-06:04	05:05	56	Corvus: Lawn Sprinkler Nebula
Primary Focus	Nebula	PN	IC-3568	*12:12-06:04	05:14	58	Camelopardalis: Lemon Slice Nebula

Imaging Summary January 15, 2025

Astronomical Dusk = 07:10

Astronomical Dawn = 06:04

Prospective Imaging Objects – January

Primary Focus: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	Galaxy	NGC-925	07:10 – 10:50	07:10	02	Triangulum: Face on Galaxy PGC-9332
Primary Focus	Broad Spectrum	Galaxy	NGC-1055	07:10 – 09:37	07:24	04	Cetus: Edge On galaxy
Primary Focus	Broad Spectrum	OC	M-34	07:10 – 11:14	07:24	04	Perseus: Open Cluster NGC-1039
Primary Focus	Broad Spectrum	Galaxy	M-77	07:10 – 09:36	07:25	05	Cetus: Galaxy NGC-1068
Primary Focus	Broad Spectrum	Galaxies	Abell-426	07:10 – 11:51	08:02	06	Perseus: Perseus Galaxy Cluster
Primary Focus	Broad Spectrum	Galaxy	IC-342	07:10 – 11:54	08:29	07	Camelopardalis: Large Face-On
Primary Focus	Broad Spectrum	Globular	M-79	*09:03-11:17	10:06	14	Lepus: Med Globular
Primary Focus	Broad Spectrum	OC	M-38	07:10 - 01:54	10:11	15	Auriga: Starfish Cluster
Primary Focus	Broad Spectrum	OC	M-36	07:10 – 02:00	10:18	18	Auriga: Open Star Cluster NGC-1960
Primary Focus	Broad Spectrum	Galaxy	NGC-1961	07:11 – 01:42	10:24	21	Camelopardalis: Galaxies
Primary Focus	Broad Spectrum	DN	M-78	08:23 – 12:40	10:29	23	Orion: Dark and Bright Nebula
Primary Focus	Broad Spectrum	OC	M-37	07:10 – 02:13	10:34	23	Auriga: Salt and Pepper Cluster
Primary Focus	Broad Spectrum	DN	LDN-1622	08:22 – 12:56	10:36	25	Orion: Dark Nebula
Primary Focus	Broad Spectrum	RN	IC-2169	08:28 – 02:04	11:13	32	Monoceros: Reflection Nebula
Primary Focus	Broad Spectrum	OC	M-41	*09:38-01:20	11:28	34	Canis Major: Open Star Cluster NGC-2287
Primary Focus	Broad Spectrum	OC	M-50	*09:14-02:14	11:44	35	Monoceros: Open Star Cluster NGC-2323
Primary Focus	Broad Spectrum	Galaxy	UGC-3697	08:58 – 02:54	11:53	36	Camelopardalis: Galaxy Cluster
Primary Focus	Broad Spectrum	OC	M-47	*10:24-02:10	12:18	38	Puppis: Open Cluster NGC-2422
Primary Focus	Broad Spectrum	Galaxy	NGC-2403	08:49 – 03:54	12:18	38	Camelopardalis: Med Barred Spiral Galaxy
Primary Focus	Broad Spectrum	GC	NGC-2419	08:39 – 04:07	12:20	39	Lynx: Intergalactic Wanderer
Primary Focus	Broad Spectrum	OC	M-93	*10:16-02:41	12:26	40	Puppis: Butterfly Cluster
Primary Focus	Broad Spectrum	OC	M-48	11:24 – 02:33	12:55	40	Hydra: M-48 (NGC-2548)
Primary Focus	Broad Spectrum	OC	M-67	10:43 – 04:29	01:33	41	Cancer: M-67 (NGC-2682)
Primary Focus	Broad Spectrum	Galaxy	NGC-2685	09:54 – 05:27	01:37	41	Ursa Major: Helix Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-2903	11:00 – 05:34	02:13	42	Leo: Med Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-81	11:23 – 05:58	02:37	43	Ursa Major: Bode's Nebula
Primary Focus	Broad Spectrum	Galaxy	M-82	11:27 – 05:54	02:37	43	Ursa Major: Cigar Galaxy

Prospective Imaging Objects – January

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	Galaxy	NGC-3115	*12:15-05:22	02:46	43	Sextans: Spindel Galaxy
Primary Focus	Broad Spectrum	Galaxy	UGC-5470	11:59 – 05:48	02:59	44	Leo: Powder Keg Galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC-3166, 3169	12:35 – 05:22	02:55	44	Sextans: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	Hickson 44	11:45 – 06:04	02:59	44	Leo: Galaxy Cluster
Primary Focus	Broad Spectrum	Galaxy	NGC-3184	11:17 – 06:04	02:59	45	Ursa Major: Face On galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC 3227, 3226	11:55 – 03:05	03:05	45	Leo: Interacting galaxy pair
Primary Focus	Broad Spectrum	Galaxy	IC-2574	11:52 – 06:04	03:09	46	Leo: Coddington’s Nebula
Primary Focus	Broad Spectrum	Galaxies	Leo Trio 2	12:37 – 06:04	03:29	47	Leo: NGC-3379, 3384, 3389
Primary Focus	Broad Spectrum	Galaxies	NGC-3561 et. El.	12:25 – 06:04	03:52	47	Ursa Major: Ambartsumian’s Knot
Primary Focus	Broad Spectrum	Galaxy	M-108	12:07 – 06:04	03:52	48	Ursa Major: Med Galaxy NGC-3556
Primary Focus	Broad Spectrum	Galaxies	M-65 et. El.	01:07 – 06:04	04:01	49	Comp2 Leo: Lio Trio of Galaxies
Primary Focus	Broad Spectrum	Galaxy	NGC-3628	01:07 – 06:04	04:01	50	Leo: Edge on galaxy
Primary Focus	Broad Spectrum	Galaxies	M-65, M-66	11:54 – 06:04	04:00	50	Leo: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	Arp-214	10:46 – 06:04	04:14	50	Ursa Major: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	NGC-3746 et. El.	11:53 – 06:04	04:19	51	Leo: Copeland’s Septet
Primary Focus	Broad Spectrum	Galaxies	Abell 1367	12:04 – 06:04	04:26	51	Leo: Galaxy Cluster
Primary Focus	Broad Spectrum	Galaxies	Arp-248	01:13 – 06:04	04:28	51	Ursa Major: Wild’s Triplet
Primary Focus	Broad Spectrum	Galaxy	M-109	11:10 – 06:04	04:39	52	Ursa Major: Face On Med Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-4027	*02:45-06:04	04:40	52	Corvus: Irregular small Galaxy
Primary Focus	Broad Spectrum	Galaxies	Arp-244	*02:39-06:04	04:43	52	Corvus: Antennae Galaxies
Primary Focus	Broad Spectrum	Galaxy	M-98	01:57 – 06:04	04:55	53	Coma Berenices: Barred Spiral Galaxy NGC-4192
Primary Focus	Broad Spectrum	Galaxy	NGC-4236	01:46 – 06:04	04:57	53	Draco: Galaxy NGC-4236
Primary Focus	Broad Spectrum	Galaxy	NGC-4244	01:19 – 06:04	04:58	53	Canes Venatici: Silver Needle Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-99	02:03 – 06:04	05:00	54	Coma Berenices: St. Katherines Wheel
Primary Focus	Broad Spectrum	Galaxy	M-61	02:39 – 06:04	05:03	55	Virgo: Sm/Med Face-on Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxies	Winnecke 4	01:20 – 06:04	05:03	55	Ursa Major: Galaxy Cluster
Primary Focus	Broad Spectrum	Galaxies	M-100	02:04 – 06:04	05:04	55	Coma Berenices: Face on Galaxy & other galaxies
Primary Focus	Broad Spectrum	Galaxy	NGC-4449	01:25 – 06:04	05:09	57	Candes Venatici: Irregular Galaxy

Prospective Imaging Objects – January

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	Galaxy	M-49	02:34 – 06:04	05:11	57	Virgo: Elliptical Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-87	02:21 – 06:04	05:12	58	Virgo: Elliptical Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-4490	01:29 – 06:04	05:11	58	Canes Venatici: Cocoon Galaxy
Primary Focus	Broad Spectrum	Galaxies	M-91	02:20 – 06:04	05:16	59	Coma Berenices: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	M-89	02:25 – 06:04	05:16	59	Virgo: Elliptical Galaxy & two others
Primary Focus	Broad Spectrum	Galaxy	NGC-4559	01:50 – 06:04	05:17	59	Coma Berenices: Barred Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC-4567 et. El.	02:30 – 06:04	05:17	60	Virgo: Galaxy Group
Primary Focus	Broad Spectrum	Galaxy	NGC-4565	01:55 – 06:04	05:17	60	Coma Berenices: Edge on Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-90	02:25 – 06:04	05:18	60	Virgo: Galaxy Group
Primary Focus	Broad Spectrum	Galaxy	M-58	02:29 – 06:04	05:18	61	Virgo: Barred Spiral Galaxy NGC-4579
Primary Focus	Broad Spectrum	Globular	M-68	*03:36-06:04	05:20	61	Hydra: Med Globular Cluster
Primary Focus	Broad Spectrum	Galaxy	M-104	*02:39-06:04	05:34	62	Virgo: Sombrero Galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC-4676 A&B	01:57 – 06:04	05:27	63	Coma Berenices: The Mice
Primary Focus	Broad Spectrum	Galaxies	NGC-4725	02:10 – 06:04	05:31	63	Coma Berenices: Galaxy Group
Primary Focus	Broad Spectrum	Galaxy	M-94	01:50 – 06:04	05:32	64	Canes Venatici: Bright Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-4731	*02:54-06:04	05:32	64	Virgo: Barred Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC-4762, 4754	02:46 – 06:04	05:34	64	Virgo: Edge on and Elliptical galaxies
Primary Focus	Broad Spectrum	Galaxy	M-64	02:24 – 06:04	05:37	65	Coma Berenices: Bright Galaxy
Primary Focus	Broad Spectrum	Galaxies	Abell-1656	02:15 – 06:04	05:40	65	Coma Berenices: Coma Galaxy Cluster
Primary Focus	Broad Spectrum	Globular	M-53	02:48 – 06:04	05:54	66	Coma Berenices: Med Globular
Primary Focus	Broad Spectrum	Galaxy	NGC-5033	02:17 – 06:04	05:54	66	Canes Venatici: Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-63	02:14 – 06:04	05:56	66	Canes Venatici: Sunflower Galaxy
Primary Focus	Broad Spectrum	Globular	NGC-5053	02:53 – 06:04	05:57	67	Coma Berenices: Loose Globular
Primary Focus	Broad Spectrum	Galaxy	M-51	02:25 – 06:04	06:10	67	Canes Venatici: Whirlpool Galaxy