

Prospective Imaging Objects – March

Astronomical Data

Sunrise	Sunset	Astronomical Dusk	Astronomical Dawn	Imaging	Data Date
06:37am	06:36 pm	07:58 pm	05:15 am	09:17	March 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 a data entry for the Sculptor Galaxy (NGC 253). It consists of a text block on the left and an image on the right. Eight numbered callouts (01-08) point to specific elements:

- 01:** Points to the background fill color of the text block.
- 02:** Points to the object name and catalog number: "Sculptor Galaxy (NGC 253)".
- 03:** Points to the configuration: "Config: C11 | LF Corr | 128c".
- 04:** Points to the object image thumbnail.
- 05:** Points to the close star: "Close Star: SAO-147420".
- 06:** Points to the catalog objects: "Catalog Objects: [NGC 253](#)".
- 07:** Points to the imaging window: "Imaging Window: *10:44 – 02:44".
- 08:** Points to the transit time: "Transit: 12:48".

The image on the right is titled "Primary Focus" and shows the Sculptor Galaxy. It includes a small caption at the bottom: "Sculptor Galaxy (NGC 253) Constellation: Sculptor".

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

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

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

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




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

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




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

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




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<p>Hourglass Nebula (NGC-2346) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Peak: Constellation: Monoceros Coordinates: 07hr 09' 23" 00° 48' 22"</p> <p>Close Star: SAO-115756 (Procyon) Catalog Objects: NGC-2346</p> <p>Imaging Window: *07:58 – 11:03 Transit: 07:59 56°</p>	<p style="text-align: center;">C-11 HD: Primary Focus x2</p>  <p style="font-size: small;">Planetary Nebula NGC-2346 Constellation: Monoceros RA: 07h 09m 23.5s DEC: +00d 48' 22" Size: 25.7 x 17.1 arcmin Observed: 2025-01-25 19:54:14 Filter: R278 (w/clip) FL: 2000mm Mount: SkySaver 2025-01-25 19:54:14 Location: Cheshire, CT Config: R278-R278 Primary Focus 2x Star 4977 Scale: 0.342 arcsec/pixel Camera: ASI 1600MM Pro Rev. 100000-00</p>
<p>Integral Sign Galaxy (UGC 3697) Config: C11HD FR ZWO6200MC </p> <p>Type: Galaxy Group Constellation: Camelopardalis Coordinates: 07hr 11' 40" 71° 56' 04"</p> <p>Close Star: SAO-40186 (Capella) Catalog Objects: UGC-3697, UGC-3714, UGC-3701</p> <p>Imaging Window: 07:58 – 11:02 Transit: 08:01 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: 07:58 – 11:02 Transit: 08:01 52°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 



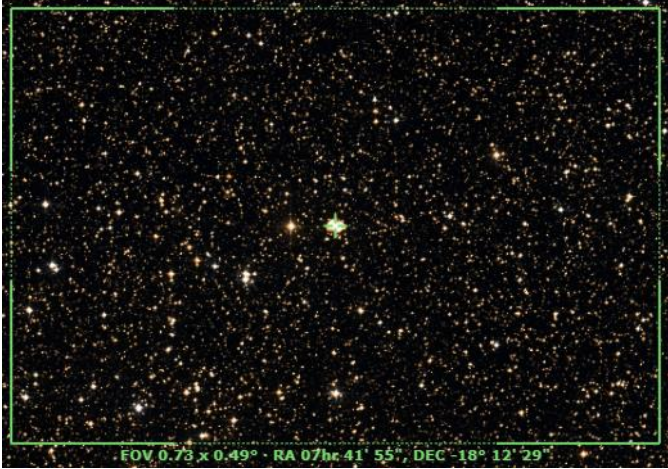
Prospective Imaging Objects – March

<p>Thor's Helmet (NGC-2359) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Constellation: Canis Major Coordinates: 07h 18' 26.223" -13° 15' 29.563"</p> <p>Close Star: SAO-151881 (Sirius) Catalog Objects: NGC-2359/ Sh2-298/ LBN1041</p> <p>Imaging Window: *07:58 – 10:14 Transit: 08:08 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 2023-01-17 Location: Chandler, AZ Config: C11 HD ZWO6200MC Filter: QHY135L Exposure Info: 100ms 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: 07:58 – 11:50 Transit: 08:15 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 2023-01-17 Location: Chandler, AZ Config: C11 HD ZWO6200MC Filter: QHY135L Exposure Info: 100ms 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: 07:58 – 11:18 Transit: 08:19 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</p> <p style="font-size: x-small; text-align: right;">James Yoder Direct 2023-01-25, 26, 27, 28, 2023-02-02, 03 Location: Chandler, AZ Config: C11 HD ZWO6200MC Filter: QHY135L Exposure Info: 240ms Gain: Gain: 3200 Offset: 100 </p>

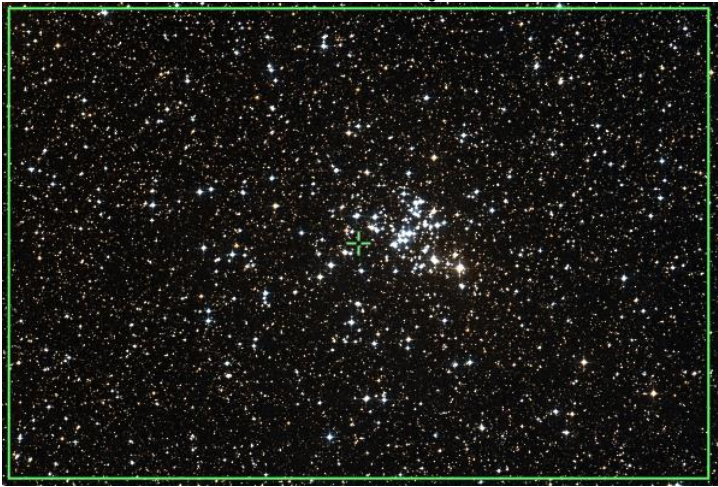


Prospective Imaging Objects – March

<p>Eskimo Nebula (NGC-2392) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Gemini Coordinates: 07h 29' 11" 20° 54' 45"</p> <p>Close Star: SAO-79666 (Pollux) Catalog Objects: NGC-2392</p> <p>Imaging Window: 07:58 – 11:37 Transit: 08:19 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 Triad 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: *07:58 – 10:59 Transit: 08:26 42°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-2403 Config: C11HD ZWO6200MC </p> <p>Type: Barred Spiral Galaxy</p> <p>Constellation: Camelopardalis Coordinates: 07h 36' 51" 65° 36' 06"</p> <p>Close Star: SAO-79666 (Pollux) Catalog Objects: NGC-2403</p> <p>Imaging Window: 07:58 – 12:01 Transit: 08:26 58°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Galaxy NGC-2403 (Calwell 7) James Yoder Date(s) 2020.12.09 Location: Chandler, AZ Constellation: Camelopardalis Config: C-11 HD OPT Triad 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>

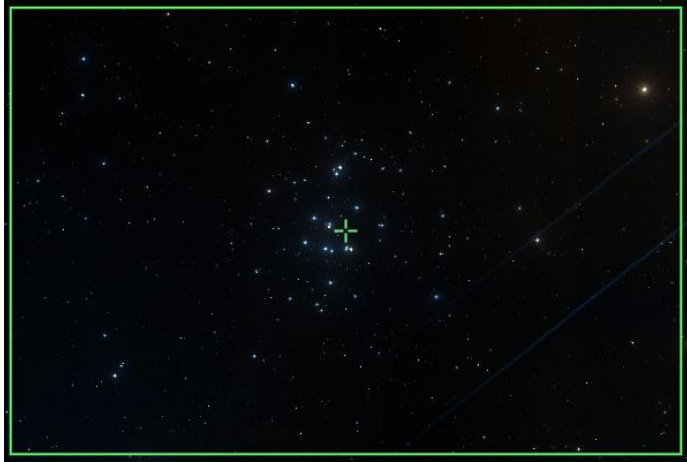
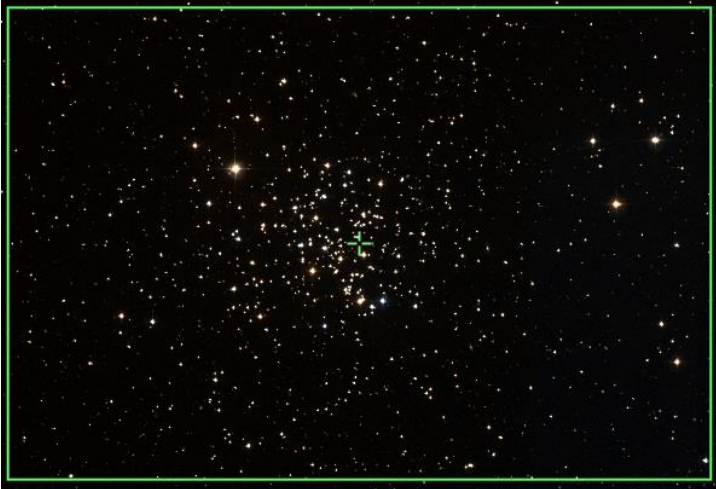

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<p>Intergalactic Wanderer (NGC-2419) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster</p> <p>Constellation: Lynx Coordinates: 07h 38' 09" 38° 52' 57"</p> <p>Close Star: SAO-79666 (Pollux) Catalog Objects: NGC-2419</p> <p>Imaging Window: 07:58 – 12:14 Transit: 08:28 84°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;"><small>Intergalactic Wanderer (NGC-2419)</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: *07:58 – 11:03 Transit: 08:31 42°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;"><small>NGC-2438</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: *07:58 – 10:38 Transit: 08:31 38°</p>	<p style="text-align: center;">C-11 HD: Primary Focus x2</p>  <p style="text-align: center;"><small>FOV 0.73 x 0.49° - RA 07hr 41' 55", DEC -18° 12' 29"</small></p>




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<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: *07:58 – 09:54 Transit: 08:34 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: 07:58 – 10:40 Transit: 09:03 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</p> <p>Imaging Window: *07:58 – 11:47 Transit: 09:23 41°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




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<p>Beehive Cluster (NGC-2632) Config: C11-HD HS ZWO6200MC</p> <p>Type: Open Cluster</p> <p>Constellation: Cancer Coordinates: 08h 39' 59" 19° 39' 01"</p> <p>Close Star: SAO-115756 (Procyon) Catalog Objects: M-44/NGC-2632</p> <p>Imaging Window: 07:58 – 12:45 Transit: 09:30 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: 07:58 – 12:37 Transit: 09:41 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: 07:58 – 01:34 Transit: 09:45 65°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




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<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: 07:58 – 01:41 Transit: 10:21 78°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>NGC-2903 Barred Spiral Galaxy in Leo</small></p> <p><small>James Yoder 2017.02.24</small></p>
<p>Bode's Cigar (M81 & M82) Config: C11-HD HS ZWO6200MC</p> <p>Type: Galaxy Pair Peak: 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: 07:58 – 02:02 Transit: 10:45 54°</p>	<p>C-11 HD: HyperStar v4</p>  <p><small>Cigar galaxy (M-82), Bode's galaxy (M-81), NGC-2976</small></p> <p><small>James Yoder Date(s) 2020.12.05, 2020.12.07 Location: Chandler, AZ Config: C-11HD HyperStar v4 1.2p-DS, C11-S-CCD GH1 D6 Exposure Info: 9/50ms@f8oc, 240ms@f80oc Gain: 5200 OIBit: 180</small></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: 07:58 – 02:02 Transit: 10:45 54°</p>	<p>C-11 HD: Focal Reducer</p>  <p><small>FOV 1.04 x 0.69° · RA 09hr 55' 40", DEC 69° 18' 39" · 0.39"/px</small></p>




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<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: 07:58 – 02:05 Transit: 10:45 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: 07:58 – 02:02 Transit: 10:45 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: *08:25 – 01:29 Transit: 10:54 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>




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<p>NGC-3184 Config: C11HD ZWO6200MC </p> <p>Type: Face-on Spiral Galaxy</p> <p>Constellation: Ursa Major Coordinates: 10h 18' 17" 41° 25' 24"</p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: NGC-3184</p> <p>Imaging Window: 07:58 – 02:57 Transit: 11:07 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 Constellation: Ursa Major RA=10h 18m 16.97s, DEC=+41d 25m 24.00s Orientation: -0.278 arc/px FL=200mm</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: 08:02 – 02:29 Transit: 11:13 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: *09:09 – 01:25 Transit: 11:14 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=-18d 38' 31.4" Size=18.5 x 13.9 arcmin Orientation: -0.6deg E of N Pixel scale=0.278 arc/px FL=200mm</p> <p style="font-size: x-small; text-align: right;">James Volder Dates: 2020-12-09 - 10 Location: Chandler, AZ Config: C-11 HD XOPT Triad Ultra ZWO6200MC Exposure Info: 36 frames @ 2min Gain: 100 Offset: 50 </p>


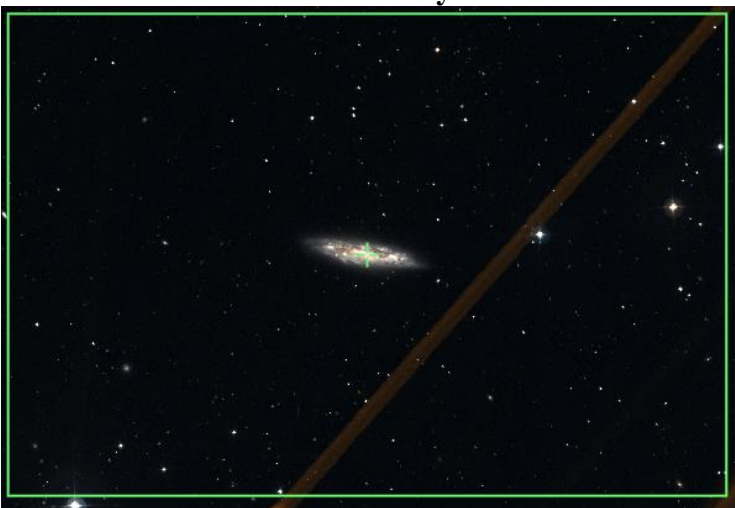

Prospective Imaging Objects – March

<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: 08:00 – 02:41 Transit: 11:17 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: 08:00 – 02:41 Transit: 11:17 55°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;">Coddington Nebula (IC-2574)</p>
<p>Leo Galaxy Group (M-96, M95 et al.) Config: C11-HD HS ZWO6200MC</p> <p>Type: Galaxy Grouping 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: 08:46 – 02:32 Transit: 11:36 68°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="text-align: center;">Galaxy Cluster in Leo</p>




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<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: 08:43 – 02:29 Transit: 11:33 68°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: small;">Galaxy pair M-95(NGC-3351) & M-96(NGC-3368) Constellation: Leo the Lion RA: 10h 45m 20.30s (RAJ2000 472177) Dec: 11° 44' 30.00" (DecJ2000 -6179 arcmin) James Van Der Meer 2024-03-27 Location: Mountain View, CA Imaging: C-11 HD/Star Tracker/FR/120s Exposure: 120s/Star (Gain: 520e) 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: 08:45 – 02:35 Transit: 11:37 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Trio of Galaxies NGC 3389 NGC 3384 NGC 3379 (M105) James Van Der Meer 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: 08:33 – 03:34 Transit: 12:00 85°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




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<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: 08:14 – 03:53 Transit: 12:01 68°</p>	<p>C-11 HD: HyperStar v4</p>  <p>M-108 (NGC-3556) and Owl Nebula (M-97, NGC-3587) <small>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)</small></p> <p>James Yoder 2020 04 03 <small>Config: C-11HD HyperStar V4 Astromonia CLS-CCD (QHY129c) Exposure Info: 147frames 1min Gain: 3200 OffSet: 180 Location: Chandler, AZ</small></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: 08:14 – 03:53 Transit: 12:01 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: 08:17 – 03:57 Transit: 12:04 68°</p>	<p>C-11 HD: Primary Focus</p>  <p>Owl Nebula (NGC-3597 / M-97) <small>Constellation: Ursa Major RA = 11h 14m 48.22s DEC = +55deg 01' 10.11s Size = 4.01 x 1.13 arcmin (Pixel scale = 0.840 arcsecond)</small></p> <p>James Yoder 2020 04 03 <small>Location: Chandler, AZ Config: C-11 HD Astromonia CLS-CCD (QHY129c) Exposure Info: 20frames 1min Gain: 1000 OffSet: 180 </small></p>

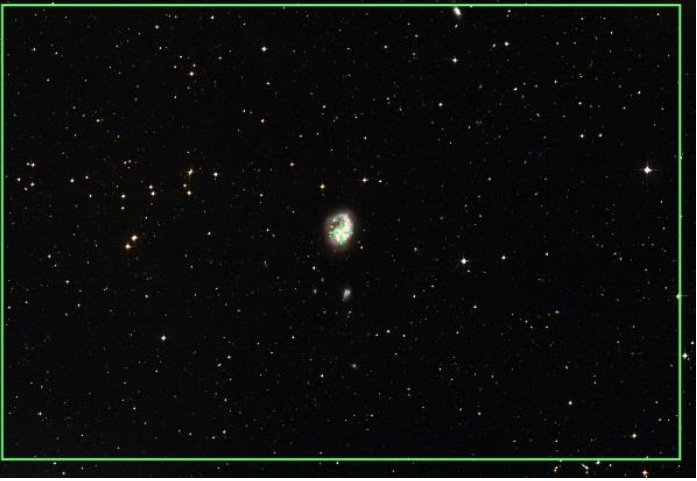


Prospective Imaging Objects – March

<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: 09:14 – 03:10 Transit: 12:09 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus Mosaic</p>  <p style="font-size: small;">Leo Trio of Galaxies (NGC-3628, NGC-3623, NGC-3627) <small>James Yoder / March 2025 04.14.2025 04:11 Location: Chandler, AZ Config: C11-HD 4.7 Reducer Filter: Baader Sg510a Camera: QHY128C Exposure Info: 10frames/5min Gain: 3200 Offset: 100 RA = 11h 19m 45.3s DEC = +13deg 16' 38.0" Size = 56.7x 27.8 arcmin Orientation: 200deg E of N Pixel scale = 0.577 arcsec/pixel F1.1-190kms</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: 09:14 – 03:10 Transit: 12:09 70°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer Composite!</p> 
<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: 09:14 – 03:10 Transit: 12:09 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">NGC-3628 Edge-On Galaxy <small>James Yoder 2015 04.19</small></p>




Prospective Imaging Objects – March

<p>M-65, M-66 Config: C11HD ZWO6200MC Type: Spiral Galaxy</p> <p>Constellation: Leo Coordinates: 11h 19' 44" 13° 04' 06" <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: 09:14 – 03:08 Transit: 12:08 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</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: 08:34 – 04:15 Transit: 12:22 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: 09:12 – 03:48 Transit: 12:27 79°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – March

<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: *10:47 – 02:50 Transit: 12:48 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: *10:51 – 02:58 Transit: 12:51 38°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: 10:04 – 04:08 Transit: 01:03 72°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

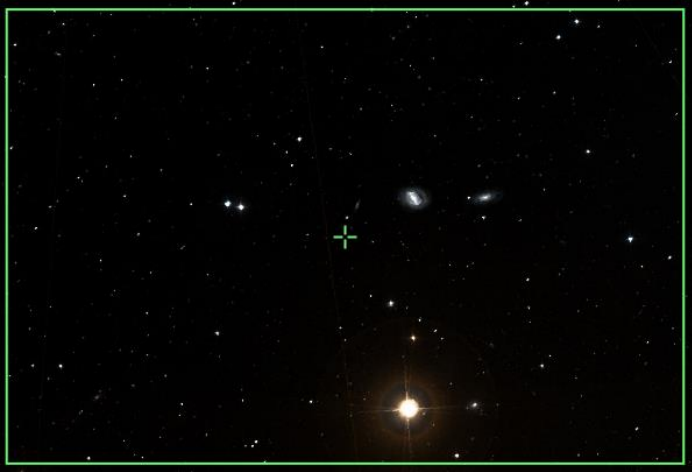


Prospective Imaging Objects – March

<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: 09:54 – 04:24 Transit: 01:05 54°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;"><small>NGC 4236 (UGC 7306) (Draco)</small></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: 09:27 – 04:53 Transit: 01:06 86°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: 10:11 – 04:11 Transit: 01:08 71°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 


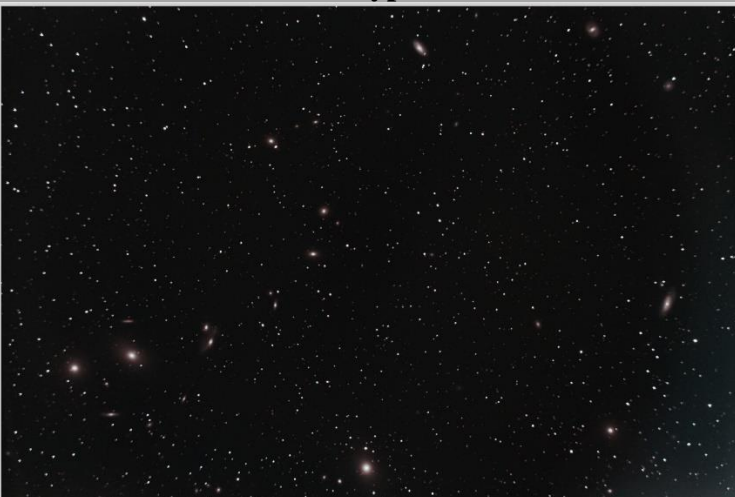
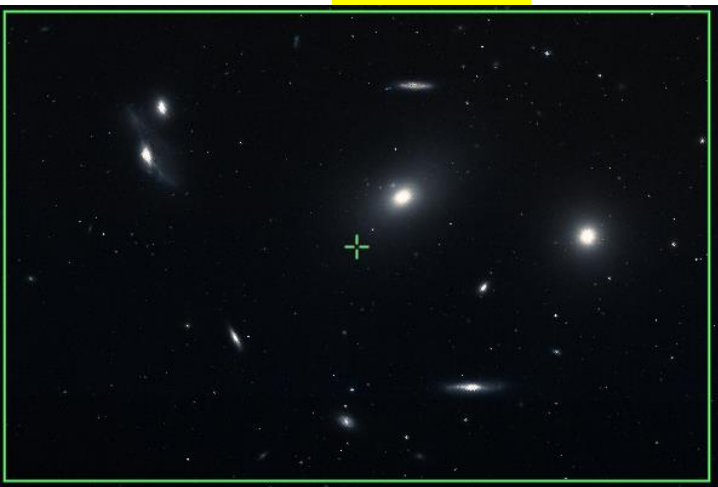
Prospective Imaging Objects – March

<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: 09:21 – 05:01 Transit: 01:08 76°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</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: 09:21 – 05:01 Transit: 01:08 76°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<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: 10:46 – 03:42 Transit: 01:11 61°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 


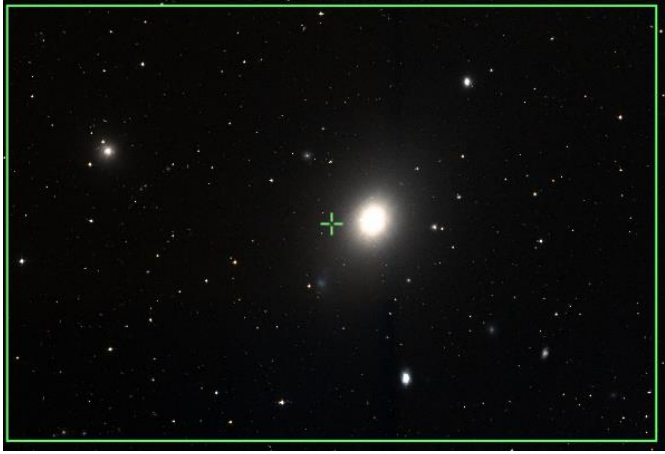
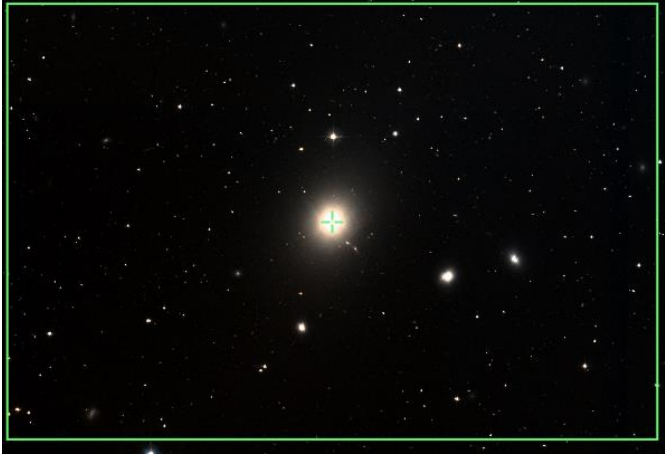
Prospective Imaging Objects – March

<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: 09:27 – 05:02 Transit: 01:11 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: 10:11 – 04:19 Transit: 01:12 72°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: *11:07 – 03:18 Transit: 01:13 38°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Planetary Nebula NGC-6572 Constellation: Ori/Inchen Coordinates: RA=08h 00m 31s, DEC=-06d 11' 12.21" (Dist=274.18 parsecs, Orientation: RA/Dec/Gal, Pixel Scale=0.27 arcsec/pixel, F1-SDR900)</p> <p style="font-size: x-small; text-align: right;">Astronomy Tools (Data) 2025-01-02 10:04 Location: Chualar, AZ © 1999-2025 1.00 Primary mirror diameter (mm) 11000000000 Support: 405 47 4000000000 100 1000000000</p>




Prospective Imaging Objects – March

<p>Markarian Chain (M-84 Et. Et.) Config: C11-HD HS ZWO6200MC 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: 10:21 – 04:13 Transit: 01:14 69°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Markarian's Chain (of galaxies) C-11 HyperStar, Pointing, 8min</p> <p style="font-size: small; text-align: right;">James Yoder 2018.05.15</p>
<p>Markarian Chain 2 Config: C11-HD HS ZWO6200MC 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: 10:21 – 04:13 Transit: 01:14 69°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Markarian's Chain Constellation: Virgo</p> <p style="font-size: small; text-align: right;">James Yoder 2018.05.03 Location: Flagstaff, AZ Config: C11 HyperStar, Atmosphere, CLS, CCD, QHY 128C Exposure Info: (Markarian's Chain) 1200 (00Min, 180s)</p>
<p>Markarian's Chain (M-84) Config: C11-HD FR ZWO6200MC 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: 10:21 – 04:13 Transit: 01:14 69°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 




Prospective Imaging Objects – March

<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: 09:32 – 05:09 Transit: 01:17 79°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">NGC-4449 (Caldwell 21) Constellation: Canes Venatici RA = 12h 28m 11.3s, DEC = 44deg 05' 42.7", Size = 21.6 x 17.3 arcmin, Orientation: Mag 1.075 Pixel scale = 0.777 arcsec/pixel (f1=200mm) Date/Time/Dir: 2025-01-28 00:00:00 Location: Canada, AZ Eq. C-11 HD Mod. Filter: ZWO6200MC Exposure Info: 15 Images/Frame, Gain: 800 Offset: 50</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: 10:41 – 04:03 Transit: 01:19 65°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Virgo A(M-87) Config: C11HD ZWO6200MC </p> <p>Type: Elliptical Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 30' 49" 12° 23' 26"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-87/NGC-4486 Imaging Window: 10:28 – 04:18 Transit: 01:20 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 


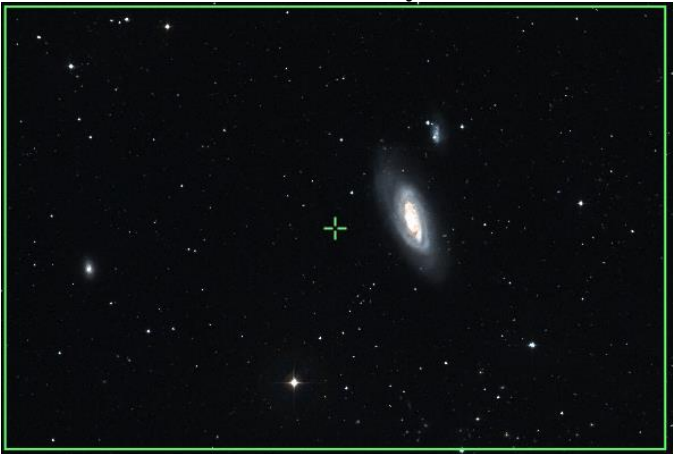

Prospective Imaging Objects – March

<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</p> <p>Imaging Window: 09:36 – 05:09 Transit: 01:19 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 36.00s DEC = +41deg 38' 34.00" Size = 36.1 x 24.3 arcmin Orientation: -0.33deg E of N Pixel scale = 0.448 arcsec/pix FL=2750mm James Voderl (Duxis) 2020-02-02 - 2020-02-07 Location: Chandler, AZ Config: C-11 HD (Rancher Synchro) QSI128K Exposure Info: 768000000 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: *07:58 – 05:15 Transit: 01:22 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 14.00s DEC = +82deg 33' 22.00" Size = 21.0 arcmin Orientation: 0.00deg E of N Pixel scale = 0.210 arcsec/pix FL=2070mm James Voderl (Duxis) 2020-02-02 - 2020-02-07 Location: Chandler, AZ Config: C-11 HD (Rancher Synchro) QSI128K Exposure Info: 768000000 Gain: 1200 (Offset: 100)</p>
<p>M-91(NGC-4548) Config: C11HD ZWO6200MC </p> <p>Type: Barred Spiral Galaxy</p> <p>Constellation: Coma Berenices Coordinates: 12h 36' 04" 14° 23' 37"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-91/NGC4548, NGC-4571</p> <p>Imaging Window: 10:27 – 04:28 Transit: 01:24 71°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">M-91 (NGC-4548) Constellation: Coma Berenices RA = 12h 36m 04.00s DEC = +14deg 23' 37.00" Size = 17.0 arcmin Orientation: 0.00deg E of N Pixel scale = 0.210 arcsec/pix FL=2070mm James Voderl (Duxis) 2020-02-02 - 2020-02-07 Location: Chandler, AZ Config: C-11 HD (Rancher Synchro) QSI128K Exposure Info: 768000000 Gain: 1200 (Offset: 100)</p>


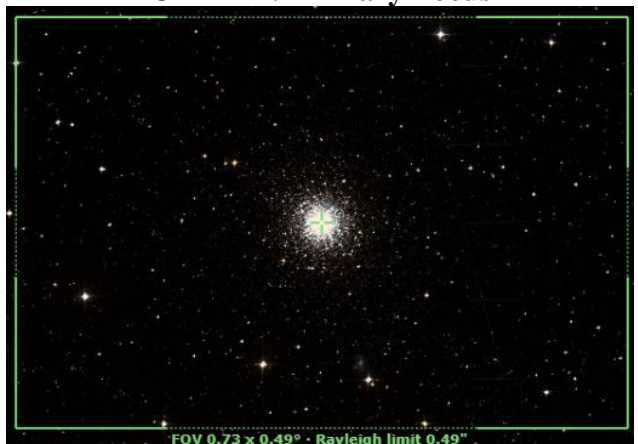

Prospective Imaging Objects – March

<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: 10:33 – 04:23 Transit: 01:24 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: 09:59 – 04:57 Transit: 01:25 85°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Siamese Twins(NGC-4567) Config: C11HD ZWO6200MC </p> <p>Type: Elliptical Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 36' 26" 11° 19' 59"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: NGC-4567, NGC-4568, NGC-4564 Imaging Window: 10:37 – 04:20 Transit: 01:25 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – March

<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: 10:03 – 04:54 Transit: 01:25 83°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">NGC4565 The Needle Galaxy</p> <p style="font-size: x-small; text-align: right;">James Yoder 2017.04.22</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: 10:32 – 04:26 Transit: 01:26 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Galaxy Group 58 Config: C-11HD HyperStar </p> <p>Type: Galaxy Group</p> <p>Constellation: Virgo Coordinates: 12h 37' 35" 12° 18' 56"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-58/NGC-4579 Imaging Window: 10:37 – 04:23 Transit: 01:26 68°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: x-small; text-align: center;">FOV 3.81 x 2.54° · RA 12hr 37' 35", DEC 12° 18' 56"</p>


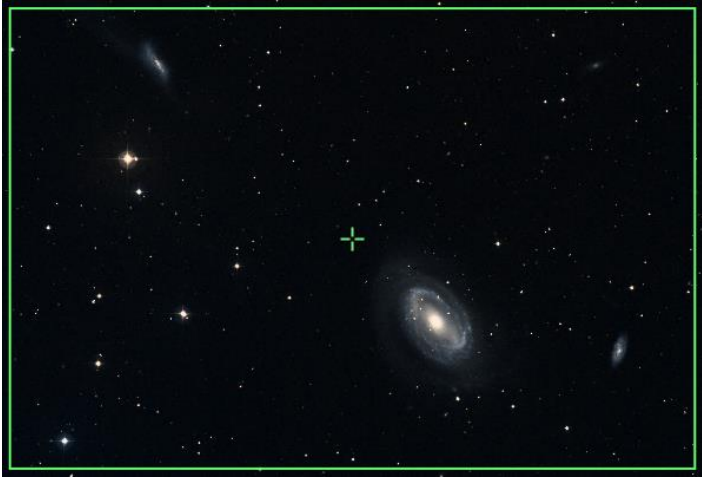
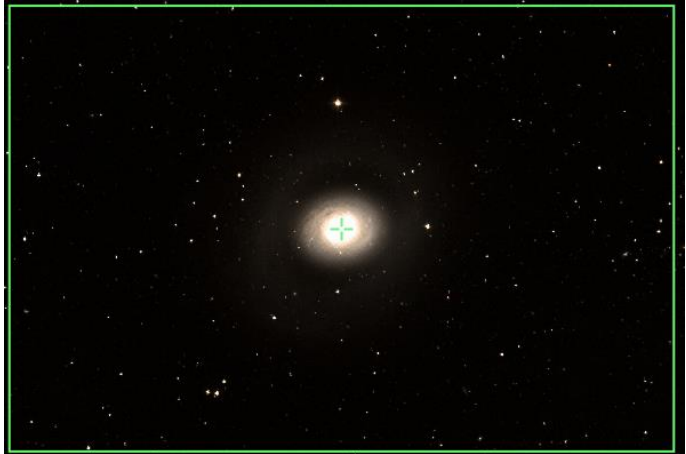
Prospective Imaging Objects – March

<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: 10:37 – 04:23 Transit: 01:26 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M-68 (NGC-4590) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster Constellation: Hydra Coordinates: 12h 39' 28" -26° 44' 32"</p> <p>Close Star: SAO-180915 (Kraz) Catalog Objects: M-68/NGC-4590</p> <p>Imaging Window: *11:43 – 03:18 Transit: 01:28 30°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center; font-size: small;">FOV 0.73 x 0.49° - Rayleigh limit 0.49"</p>
<p>Sombrero Galaxy (M-104) Config: C11HD ZWO6200MC </p> <p>Type: Edge-on Spiral Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 39' 44" -11° 37' 52"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-104/NGC-4594 Imaging Window: *10:47 – 04:19 Transit: 01:29 45°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small;">M104 Sombrero Galaxy James Yoder 2015.01.18</p>

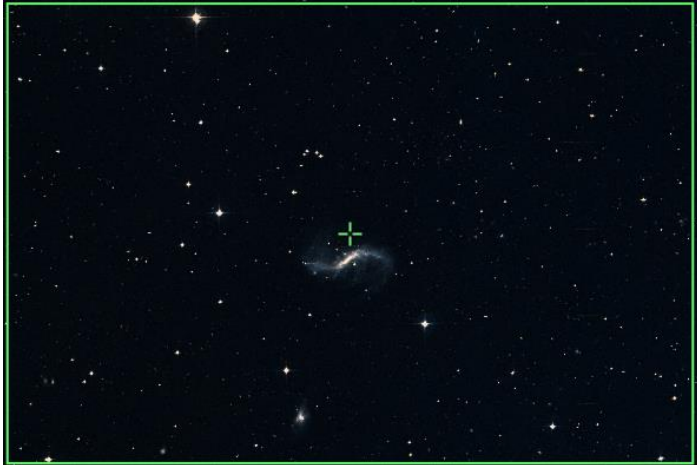
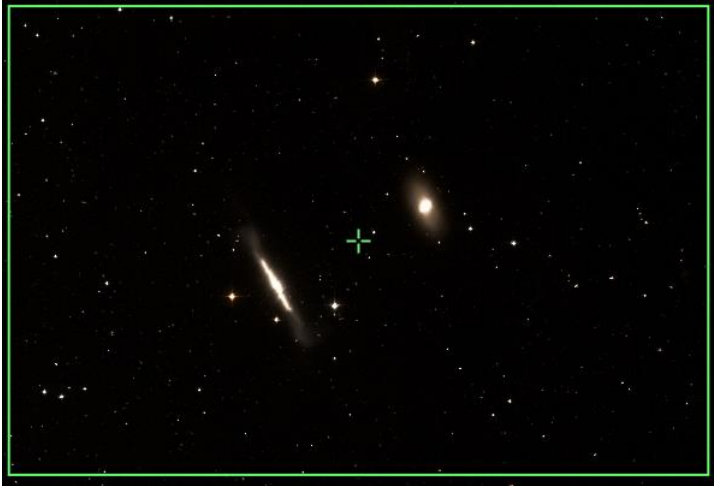
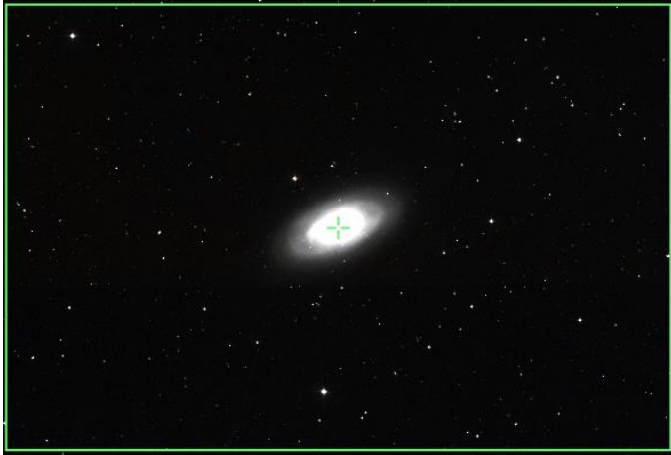
Prospective Imaging Objects – March

<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: 09:58– 05:11 Transit: 01:31 89°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: small;">Whale and Hockey Stick Galaxies (NGC4631, NGC4656) Constellation: Canes Venatici</p> <p style="font-size: x-small; text-align: right;">James Yoder - 2019.04.14 Location: Mountain View, Trabuco, AZ Config: C11 Starizona LP Corrector / Dualer Skyglow Filter (GRV 12c) Exposure Info: 11 frames @ 6min 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: 10:42 – 04:27 Transit: 01:31 68°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: small;">Virgo Cluster of Galaxies Constellation: Virgo the virgin</p> <p style="font-size: x-small; text-align: right;">James Yoder Date: 2021.04.30 - 2020.05.16 Location: Chandler, AZ Config: C11-HD 0.7 Reducer Filter: Dualer Skyglow, RGB Camera: ZWO ASI4200 Exposure Info: L=84frames@6min, G=11frames@6min, R=12frames@6min, B=14frames@6min Total = 12hrs 18min Gain: 100 Offset: 50 RA = 12h 42m 40.5s DEC = +11deg 40' 19.7" Size = 57.3 x 37.7 arcmin Orientation = -0.2deg E of N Pixel scale = 0.785 arcsec/pixel FL=1900mm </p>
<p>TheMice (NGC-4676 A & B) Config: C11HD ZWO6200MC </p> <p>Type: Interacting Galaxies</p> <p>Constellation: Coma Berenices Coordinates: 12h 46' 07" 30° 43' 43"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: NGC-4676A & B Imaging Window: 10:05 – 05:12 Transit: 01:35 87°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

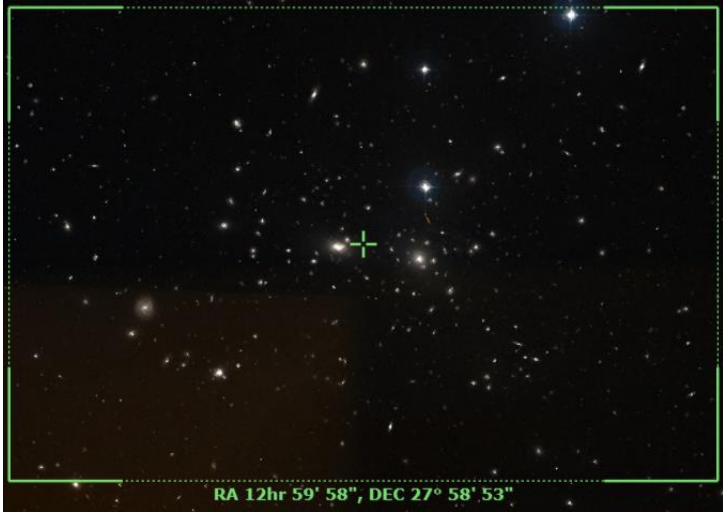


Prospective Imaging Objects – March

<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: 10:18 – 05:08 Transit: 01:39 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 <small>James Yoder Date(s) 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: 0deg E of N Pixel scale = 0.630 arcsec/pixel FL=1955mm Exposure Info: 96frames@15sec Gain: 3200 Offset: 100</small></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: 10:18 – 05:08 Transit: 01:39 82°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M-94 (NGC-4736) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Canes Venatici Coordinates: 12h 50' 53" 41° 07' 17"</p> <p>Close Star: SAO-28553 (Alioth) Catalog Objects: M-94/NGC-4736 Imaging Window: 09:57 – 05:15 Transit: 01:40 82°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – March

<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: *10:30 – 04:51 Transit: 01:40 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: 10:54 – 04:36 Transit: 01:42 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Black Eye Galaxy (M-64) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Coma Berenices Coordinates: 12h 56' 44" 21° 40' 59"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: M-64/NGC-4826 Imaging Window: 10:31 – 05:15 Transit: 01:45 78°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 



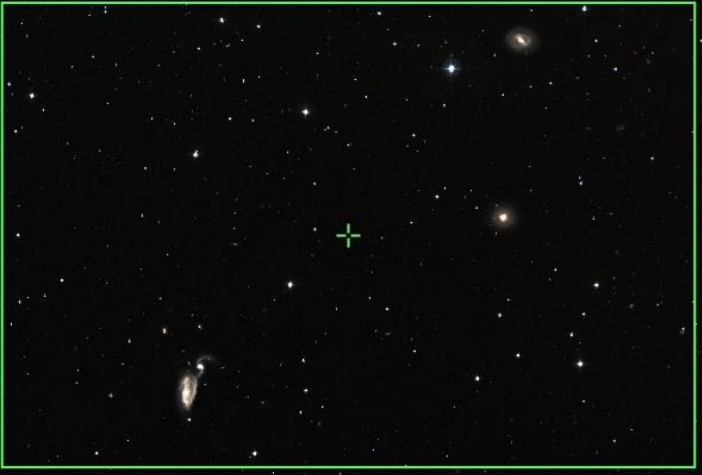
Prospective Imaging Objects – March

<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: 10:23 – 05:15 Transit: 01:48 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: 10:23 – 05:15 Transit: 01:48 84°</p>	<p>C-11 HD: Primary Focus</p> 
<p>M-53 (NGC-5024) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster Constellation: Coma Berenices Coordinates: 13h 12' 55" 18° 10' 11"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: M-53/NGC-5024</p> <p>Imaging Window: 10:55 – 05:15 Transit: 02:02 75°</p>	<p>C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – March

<p>NGC-5033 (PGC-45948) Config: C11HD ZWO6200MC </p> <p>Type: Spiral Galaxy</p> <p>Constellation: Canes Venatici Coordinates: 13h 13' 28" 36° 35' 36"</p> <p>Close Star: SAO-28553 (Alioth) Catalog Objects: NGC-5033/PGC-45948 Imaging Window: 10:24 – 05:15 Transit: 02:02 87°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Sunflower Galaxy (M-63) Config: C11HD ZWO6200MC </p> <p>Type: Spiral Galaxy</p> <p>Constellation: Canes Venatici Coordinates: 13h 15' 15" 42° 04' 41"</p> <p>Close Star: SAO-28553 (Alioth) Catalog Objects: M-63/NGC-5055, UGC-8313 Imaging Window: 10:21 – 05:15 Transit: 02:04 81°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>NGC-5053 Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster</p> <p>Constellation: Coma Berenices Coordinates: 13h 16' 27" 17° 41' 55"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: NGC-5053 Imaging Window: 10:32 – 05:15 Transit: 02:18 74°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – March

<p>Whirlpool Galaxy (M-51) Config: C11HD ZWO6200MC </p> <p>Type: Interacting Galaxies</p> <p>Constellation: Canes Venatici Coordinates: 13h 29' 53" 47° 11' 44"</p> <p>Close Star: SAO-28553 (Alioth) Catalog Objects: M-51/NGC-5194, NGC-5195 Imaging Window: 10:32 – 05:15 Transit: 02:18 76°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;"><small>Whirlpool Galaxy M51 (NGC 5194) Constellation: Canes Venatici Coordinates: 13h 29m 53.0s, 47° 11' 44.0"</small></p>
<p>M-3 (NGC-5272) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster Constellation: Canes Venatici Coordinates: 13h 42' 11" 28° 22' 34"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-3/NGC-5272 Imaging Window: 11:04 – 05:15 Transit: 02:31 85°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;"><small>Globular Cluster M-3 Constellation: Canes Venatici Coordinates: 13h 42m 11.0s, 28° 22' 34.0"</small></p>
<p>Heron Galaxy (NGC-5395) et el. Config: C11HD ZWO6200MC </p> <p>Type: Galaxies</p> <p>Constellation: Canes Venatici Coordinates: 13h 57' 46" 37° 35' 31"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: NGC-5395, NGC-5394, NGC-5380, NGC-5378 Imaging Window: 11:08 – 05:15 Transit: 02:47 86°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;"><small>Heron Galaxy NGC 5395 Constellation: Canes Venatici Coordinates: 13h 57m 46.0s, 37° 35' 31.0"</small></p>




Prospective Imaging Objects – March

<p>Pinwheel Galaxy (M-101) Config: C11HD ZWO6200MC </p> <p>Type: Face-on Spiral Galaxy</p> <p>Constellation: Ursa Major Coordinates: 14h 03' 54" 54° 22' 44"</p> <p>Close Star: SAO-28553 (Alioth) Catalog Objects: M-101/NGC-5457, NGC-5477 Imaging Window: 11:05 – 05:15 Transit: 02:52 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">M-101 (Pinwheel Galaxy) with Supernova Constellation: Ursa Major Coordinates: 14h 03m 54.00s, 54° 22' 44.00"</p>
<p>NGC-5466 Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster Constellation: Bootes Coordinates: 14h 05' 27" 28° 32' 06"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: NGC-5466</p> <p>Imaging Window: 11:27 – 05:15 Transit: 02:54 85°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Globular Cluster NGC-5466 Constellation: Bootes Coordinates: 14h 05m 27.00s, 28° 32' 06.00"</p>
<p>Spindle Galaxy (M-102) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Draco Coordinates: 15h 06' 29" 55° 45' 49"</p> <p>Close Star: SAO-28553 (Alioth) Catalog Objects: M-102 Imaging Window: 12:09 – 05:15 Transit: 03:55 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Spindle Galaxy (M-102/NGC-5866) Constellation: Spiral Galaxy in Draco Coordinates: 15h 06m 29.00s, 55° 45' 49.00s RA = 15h 06m 32.2s, DEC = +55deg 46' 21.3" Size = 36.8 x 24.8 pixels Orientation: 195deg E of N Pixel scale = 0.446 arcsecond FL=2000mm </p>




Prospective Imaging Objects – March

<p>NGC-5905, 5908 Config: C11HD ZWO6200MC </p> <p>Type: Galaxies</p> <p>Constellation: Drao Coordinates: 15h 16' 07" 55° 28' 10"</p> <p>Close Star: SAO-28737 (Mizar) Catalog Objects: NGC-5905, 5908 Imaging Window: 12:18 – 05:15 Transit: 04:04 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Galaxies NGC-5905, NGC-5908 Constellation: Drao the dragon RA = 15h 15m 35.6s DEC = +55deg 29' 00" Size = 29.75 x 19.8 arcmin Pixel scale = 0.446 arcsec/pixel James Yoder Location: Chandler, AZ 2020.01.01 Config: C-11 HD Blander Skyglow Filter QHY128c Exposure Info: 36frames 5min Gain: 3200 Offset: 180</p>
<p>Splinter Galaxy (NGC-5907) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Drao Coordinates: 15h 15' 54" 56° 19' 49"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: NGC-5907 Imaging Window: 12:19 – 05:15 Transit: 04:04 67°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Splinter Galaxy (NGC 5907) Constellation: Drao James Yoder Location: Chandler, AZ 2020.01.01 Config: C-11 HD Blander Skyglow Filter QHY128c Exposure Info: 36frames 5min Gain: 3200 Offset: 180</p>
<p>M-5 (NGC-5904) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster</p> <p>Constellation: Serpens Coordinates: 15h 18' 34" 02° 05' 00"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-5/NGC-5904 Imaging Window: 01:53 – 05:15 Transit: 04:07 59°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">M-005 Globular Cluster in Serpens James Yoder 2017.01.25</p>

Prospective Imaging Objects – March

<p>Draco Trio (NGC-5985,5982,5981) Config: C11HD ZWO6200MC </p> <p>Type: Galaxies</p> <p>Constellation: Drao Coordinates: 15h 38' 20" 59° 22' 56"</p> <p>Close Star: SAO-28737 (Mizar) Catalog Objects: NGC-5985, NGC-5982, NGC-5981 Imaging Window: 12:46 – 05:15 Transit: 04:28 64°</p>	<p>C-11 HD: Primary Focus</p> 
<p>Sharpless 2-1 (SH2-1) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula</p> <p>Constellation: Scorpius Coordinates: 15h 56' 09" -25° 40' 29"</p> <p>Close Star: SAO-208078 (Wei) Catalog Objects: SH2-1/LBN-1093</p> <p>Imaging Window: *03:00 – 05:15 Transit: 04:47 31°</p>	<p>C-11 HD: HyperStar v4</p> 
<p>Seyfert's Sextet (NGC-6027A-E) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Group & One</p> <p>Constellation: Serpens Coordinates: 15h 59' 46" 20° 47' 27"</p> <p>Close Star: SAO-83893 Catalog Objects: NGC-6027A-E, UGC-10127 Imaging Window: 01:36 – 05:15 Transit: 04:47 77°</p>	<p>C-11 HD: Primary Focus</p> 

Prospective Imaging Objects – March

<p>White Eyed Pea (IC-4593) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Hercules Coordinates: 15h 11' 45" 12° 03' 45"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: IC-4593 Imaging Window: 02:10 – 05:15 Transit: 05:00 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">White Eyed Pea Nebula (IC-4593) Constellation: Hercules RA: 15h 11m 45.00s DEC: 12d 03m 45.00s Orientation: 0.00deg E of N Pixel scale: 0.27 arcseconds FL: 2000mm Imaging: Javelin Vixen Filter(s): 02:10:00 - 05:15:00 Location: Chandler AZ Config: C-11 HD ZWO6200MC QHY128C Exposure Info: 20250128 Gain: 500 Offset: 100</p>
<p>Blue Horshead (IC-4592) Config: C11-HD HS ZWO6200MC</p> <p>Type: Bright Nebula</p> <p>Constellation: Scorpius Coordinates: 16h 14' 15" -19° 17' 16"</p> <p>Close Star: SAO-184415 (Antares) Catalog Objects: IC-4592</p> <p>Imaging Window: *03:00 – 05:15 Transit: 05:01 37°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small; text-align: center;">Blue Horse Nebula (IC-4592) Constellation: Scorpius RA: 16h 14m 15.00s DEC: -19d 17m 16.00s Orientation: 175deg E of N Pixel scale: 0.27 arcseconds FL: 2000mm Imaging: Javelin Vixen Filter(s): 03:00:00 - 05:15:00 Location: Chandler AZ Config: C-11 HD HyperStar V4 Baader Sigmaguide Filter (QHY128C) Exposure Info: 20250128 Gain: 500 Offset: 100</p>
<p>M-80 (NGC-6093) Config: C11HD ZWO6200MC </p> <p>Type: Globular Cluster</p> <p>Constellation: Scorpius Coordinates: 16h 17' 02" -22° 58' 28"</p> <p>Close Star: SAO-184415 (Antares) Catalog Objects: M-80/NGC-6093 Imaging Window: *02:52 – 05:15 Transit: 05:05 34°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">Globular Cluster M-80 Constellation: Scorpius RA: 16h 17m 02.00s DEC: -22d 58m 28.00s Orientation: 0.00deg E of N Pixel scale: 0.27 arcseconds FL: 2000mm Imaging: Javelin Vixen Filter(s): 02:52:00 - 05:15:00 Location: Chandler AZ Config: C-11 HD ZWO6200MC QHY128C Exposure Info: 20250128 Gain: 500 Offset: 100</p>

Prospective Imaging Objects – March

SH2-9

Config: |C11-
HD|FR|ZWO6200MC|

Type: **Diffuse Nebula**

Constellation: **Scorpius**

Coordinates:
16h 20' 16"
-25° 25' 53"

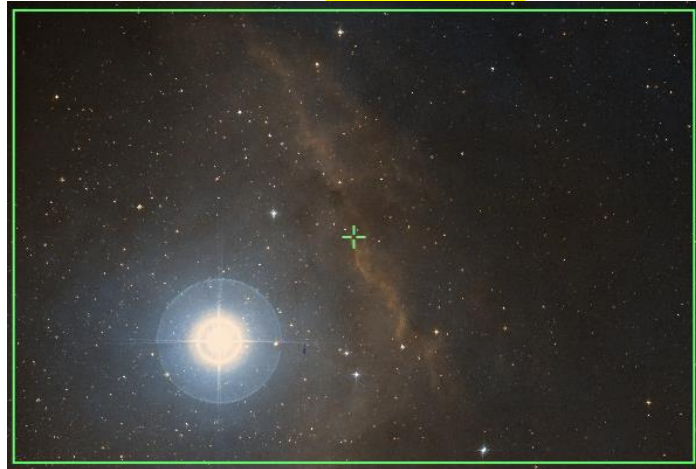
Close Star: **SAO-184415** (Antares)

Catalog Objects: [SH2-9](#)

Imaging Window: ***03:20 – 05:15**

Transit: **05:09 | 31°**

C-11 HD: **Focal Reducer**



M-4 (NGC-6121)

Config: |C11HD|ZWO6200MC|

Type: **Globular Cluster**

Constellation: **Scorpius**

Coordinates:
16h 23' 35"
-26° 31' 29"

Close Star: **SAO-184415** (Antares)

Catalog Objects: [M-4](#)/NGC-6121

Imaging Window: ***03:32 – 05:15**

Transit: **05:12 | 30°**

C-11 HD: **Primary Focus**



Globular Cluster Messier 4
Constellation: Scorpius
RA = 16h 23m 35.5s DEC = -26deg 31' 01.4" Size = 31.8 x 27.9 arcmin Orientation: 0 deg E of N (Polar scale = 0.492 arcsec/pixel) FC=372mm
James Webb | Droid 9 50234421 - 50234420 | Location: Chandler AZ
Config: |C-11 HD|Blander Skyglow Filter |SBV126|
Epson 640 |Droid/2000 |Canon 3000 |Office 180

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Page

Prospective Imaging Objects – March

Imaging Summary March 15, 2025

Astronomical Dusk = 19:58

Astronomical Dawn = 05:15

HyperStar: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HyperStar	Nebula	Nebula	SH 2-1	*03:00-05:15	04:47	36	Scorpius: Diffuse Nebula
HyperStar	Nebula	Nebula	IC-4592	*03:00-05:15	05:01	38	Scorpius: Blue Horsehead Nebula
HyperStar	Nebula	Nebula	IC-4604	*03:04-05:15	05:14	40	Comp2! Scorpius: Ophiuchus Complex

HyperStar: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HyperStar	Broad Spectrum	OC	NGC-2632	07:58 – 12:45	09:30	07	Cancer: Beehive Cluster
HyperStar	Broad Spectrum	Galaxies	M-81 & M-82	07:58 – 02:02	10:45	08	Ursa Major: Bode's Cigar
HyperStar	Broad Spectrum	Galaxies	2574 Group	08:00 – 02:41	11:17	12	Leo: Galaxy Group 2574
HyperStar	Broad Spectrum	Galaxies	Leo Group	08:46 – 02:32	11:36	12	Leo: Leo Galaxy Group
HyperStar	Broad Spectrum	G, PN	M-108 & M-97	08:14 – 03:53	12:01	14	Ursa Major: Galaxy & Planetary Nebula
HyperStar	Broad Spectrum	Galaxies	Group 106	09:21 – 05:01	01:08	20	Canes Venatici: Galaxy Group with M-106
HyperStar	Broad Spectrum	Galaxies	Group 84	10:21 – 04:13	01:14	22	Virgo: Markarian Chain
HyperStar	Broad Spectrum	Galaxies	Group 84-2	10:21 – 04:13	01:14	22	Virgo: Markarian Chain
HyperStar	Broad Spectrum	Galaxies	Group 58	10:37 – 04:23	01:26	26	Virgo: Galaxy Group associated with M-58

Prospective Imaging Objects – March

Imaging Summary March 15, 2025

Astronomical Dusk = 19:58

Astronomical Dawn = 05:15

Focal Reducer: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Focal Reducer	Nebula	Nebula	SH 2-9	*03:20-05:15	05:09	39	Scorpius: Diffuse Nebula and Star

Focal Reducer: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Focal Reducer	Broad Spectrum	Galaxies	UGC-3697	07:58 – 11:02	08:01	02	Camelopardalis: Integral Sign Galaxy
Focal Reducer	Broad Spectrum	Galaxies	M-81 & M-82	07:58 – 02:02	10:45	08	Ursa Major: Bode's Cigar
Focal Reducer	Broad Spectrum	Galaxies	M-95 & M-96	08:43 – 02:29	11:33	13	Leo: Galaxy Pair M-95, M-96
Focal Reducer	Broad Spectrum	Galaxies	NGC-3628 et. El.	09:14 – 03:10	12:09	15	Comp2 Leo: Lio Trio of Galaxies
Focal Reducer	Broad Spectrum	Galaxies	M-106	09:21 – 05:01	01:08	20	Canes Venatici: Galaxy Pair
Focal Reducer	Broad Spectrum	Galaxies	M-84 et. El.	10:21 – 04:13	01:14	22	Virgo: Markarian's Chain
Focal Reducer	Broad Spectrum	Galaxies	NGC4631, 4656	09:58 – 05:11	01:31	28	Canes Venatici: Whale and Hockey Stick
Focal Reducer	Broad Spectrum	Galaxies	M-59 Group	10:42 – 04:27	01:31	28	Virgo: Galaxy Group M-59 & M-60
Focal Reducer	Broad Spectrum	Galaxies	NGC-4725 et. El.	10:18 – 05:08	01:39	29	Coma Berenices: Galaxy Group NGC-4725
Focal Reducer	Broad Spectrum	Galaxies	Abell-1656	10:23 – 05:15	01:48	31	Coma Berenices: Coma Galaxy Cluster

Prospective Imaging Objects – March

Imaging Summary March 15, 2025

Astronomical Dusk = 19:58

Astronomical Dawn = 05:15

Primary Focus: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Nebula	Nebula	NGC-2346	*07:58-11:03	07:59	02	Monoceros: Hourglass Nebula
Primary Focus	Nebula	Nebula	NGC-2359	*07:58-10:14	08:08	03	Canis Major: Thor's Helmet
Primary Focus	Nebula	Nebula	NGC-2371	07:58 - 11:50	08:15	03	Gemini: Candy Wrapper Nebula
Primary Focus	Nebula	Nebula	Abell-21	07:58 – 11:18	08:19	03	Gemini: Medusa Nebula
Primary Focus	Nebula	Nebula	NGC-2392	07:58 – 11:37	08:19	04	Gemini: Eskimo Nebula
Primary Focus	Nebula	Nebula	M-46	*07:58-11:03	08:31	05	Puppis: Open Cluster and Planetary
Primary Focus	Nebula	Nebula	NGC-2440	*07:58-10:38	08:31	05	Puppis: Bow-Tie Nebula
Primary Focus	Nebula	PN	NGC-2610	*07:58-11:47	09:23	06	Hydra: NGC-2610 Small PN
Primary Focus	Nebula	PN	NGC-3242	*09:09-01:25	11:14	11	Hydra: Ghost of Jupiter
Primary Focus	Nebula	PN	M-97	08:17 – 03:57	12:04	14	Ursa Major: Owl Nebula
Primary Focus	Nebula	PN	NGC-4361	*11:07-03:18	01:13	21	Corvus: Lawn Sprinkler Nebula
Primary Focus	Nebula	PN	IC-3568	*07:58-05:15	01:22	24	Camelopardalis: Lemon Slice Nebula

Prospective Imaging Objects – March

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments

Imaging Summary March 15, 2025

Astronomical Dusk = 19:58

Astronomical Dawn = 05:15

Primary Focus: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	Galaxy	UGC-3697	07:58 – 11:02	08:01	02	Camelopardalis: Integral Sign Galaxy
Primary Focus	Broad Spectrum	OC	M-47	*07:58-10:59	08:26	04	Puppis: Open Cluster NGC-2422
Primary Focus	Broad Spectrum	Galaxy	NGC-2403	07:58 – 12:01	08:26	04	Camelopardalis: Med Barred Spiral Galaxy
Primary Focus	Broad Spectrum	GC	NGC-2419	07:58 – 12:14	08:28	05	Lynx: Intergalactic Wanderer
Primary Focus	Broad Spectrum	OC	M-93	*07:58-09:54	08:34	06	Puppis: Butterfly Cluster
Primary Focus	Broad Spectrum	OC	M-48	07:58 – 10:40	09:03	06	Hydra: M-48 (NGC-2548)
Primary Focus	Broad Spectrum	OC	M-67	07:58 – 12:37	09:41	07	Cancer: M-67 (NGC-2682)
Primary Focus	Broad Spectrum	Galaxy	NGC-2685	07:58 – 01:34	09:45	07	Ursa Major: Helix Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-2903	07:58 – 01:41	10:21	08	Leo: Med Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-81	07:58 – 02:05	10:45	09	Ursa Major: Bode's Nebula
Primary Focus	Broad Spectrum	Galaxy	M-82	07:58 – 02:02	10:45	09	Ursa Major: Cigar Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-3115	*08:25-01:29	10:54	09	Sextans: Spindel Galaxy
Primary Focus	Broad Spectrum	Galaxy	UGC-5470	08:06 – 01:55	10:58	10	Leo: Powder Keg Galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC-3166, 3169	08:42 – 01:30	11:03	10	Sextans: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	Hickson 44	07:58 – 02:28	11:07	10	Leo: Galaxy Cluster
Primary Focus	Broad Spectrum	Galaxy	NGC-3184	07:58 – 02:57	11:07	11	Ursa Major: Face On galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC 3227, 3226	08:02 – 02:29	11:13	11	Leo: Interacting galaxy pair
Primary Focus	Broad Spectrum	Galaxy	IC-2574	08:00 – 02:41	11:17	12	Leo: Coddington's Nebula

Prospective Imaging Objects – March

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	Galaxies	Leo Trio 2	08:43 – 02:29	11:333	13	Leo: NGC-3379, 3384, 3389
Primary Focus	Broad Spectrum	Galaxies	NGC-3561 et. El.	08:33 – 03:34	12:00	13	Ursa Major: Ambartsumian’s Knot
Primary Focus	Broad Spectrum	Galaxy	M-108	08:14 – 03:53	12:01	14	Ursa Major: Med Galaxy NGC-3556
Primary Focus	Broad Spectrum	Galaxies	M-65 et. El.	09:14 – 03:10	12:09	15	Comp2 Leo: Lio Trio of Galaxies
Primary Focus	Broad Spectrum	Galaxy	NGC-3628	09:14 – 03:10	12:09	15	Leo: Edge on galaxy
Primary Focus	Broad Spectrum	Galaxies	M-65, M-66	09:14 – 03: 08	12:08	16	Leo: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	Arp-214	08:34 - 04:15	12:22	16	Ursa Major: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	NGC-3746 et. El.	09:12 – 03:48	12:27	16	Leo: Copeland’s Septet
Primary Focus	Broad Spectrum	Galaxies	Abell 1367	09:23 – 03:51	12:34	17	Leo: Galaxy Cluster
Primary Focus	Broad Spectrum	Galaxies	Arp-248	*09:46-03:30	10:52	17	Ursa Major: Wild’s Triplet
Primary Focus	Broad Spectrum	Galaxy	M-109	09:00 – 04:40	12:46	17	Ursa Major: Face On Med Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-4027	*10:47-02:50	12:48	18	Corvus: Irregular small Galaxy
Primary Focus	Broad Spectrum	Galaxies	Arp-244	*10:51-02:58	12:51	18	Corvus: Antennae Galaxies
Primary Focus	Broad Spectrum	Galaxy	M-98	10:04 – 04:08	01:03	18	Coma Berenices: Barred Spiral Galaxy NGC-4192
Primary Focus	Broad Spectrum	Galaxy	NGC-4236	09:54 – 04:24	01:05	19	Draco: Galaxy NGC-4236
Primary Focus	Broad Spectrum	Galaxy	NGC-4244	09:27 – 04:53	01:06	19	Canes Venatici: Silver Needle Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-99	10:11 – 04:11	01:08	19	Coma Berenices: St. Katherines Wheel
Primary Focus	Broad Spectrum	Galaxy	M-61	10:46 – 03:42	01:11	20	Virgo: Sm/Med Face-on Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxies	Winnecke 4	09:27 – 05:02	01:11	21	Ursa Major: Galaxy Cluster
Primary Focus	Broad Spectrum	Galaxies	M-100	10:11 – 04:19	01:12	21	Coma Berenices: Face on Galaxy & other galaxies
Primary Focus	Broad Spectrum	Galaxy	NGC-4449	09:32 - 05:09	01:17	23	Candes Venatici: Irregular Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-49	10:41 – 04:03	01:19	23	Virgo: Elliptical Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-87	10:28 – 04:18	01:20	23	Virgo: Elliptical Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-4490	09:36 – 05:09	01:19	24	Canes Venatici: Cocoon Galaxy
Primary Focus	Broad Spectrum	Galaxies	M-91	10:27 – 04:28	01:24	24	Coma Berenices: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	M-89	10:33 – 04:23	01:24	25	Virgo: Elliptical Galaxy & two others
Primary Focus	Broad Spectrum	Galaxy	NGC-4559	09:59 – 04:57	01:25	25	Coma Berenices: Barred Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC-4567 et. El.	10:37 – 04:20	01:25	25	Virgo: Galaxy Group

Prospective Imaging Objects – March

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	Galaxy	NGC-4565	10:03 – 04:54	01:25	26	Coma Berenices: Edge on Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-90	10:32 – 04:26	01:26	26	Virgo: Galaxy Group
Primary Focus	Broad Spectrum	Galaxy	M-58	10:37 – 04:23	01:26	27	Virgo: Barred Spiral Galaxy NGC-4579
Primary Focus	Broad Spectrum	Globular	M-68	*11:43-03:18	01:28	27	Hydra: Med Globular Cluster
Primary Focus	Broad Spectrum	Galaxy	M-104	*10:47-04:19	01:29	27	Virgo: Sombrero Galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC-4676 A&B	10:05 – 05:12	01:35	28	Coma Berenices: The Mice
Primary Focus	Broad Spectrum	Galaxies	NGC-4725	10:18 – 05:08	01:39	29	Coma Berenices: Galaxy Group
Primary Focus	Broad Spectrum	Galaxy	M-94	09:57 – 05:15	01:40	29	Canes Venatici: Bright Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-4731	*10:30-04:51	01:40	30	Virgo: Barred Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC-4762, 4754	10:54 – 04:36	01:42	30	Virgo: Edge on and Elliptical galaxies
Primary Focus	Broad Spectrum	Galaxy	M-64	10:31 – 05:15	01:45	30	Coma Berenices: Bright Galaxy
Primary Focus	Broad Spectrum	Galaxies	Abell-1656	10:23 – 05:15	01:48	31	Coma Berenices: Coma Galaxy Cluster
Primary Focus	Broad Spectrum	Globular	M-53	10:55 – 05:15	02:02	31	Coma Berenices: Med Globular
Primary Focus	Broad Spectrum	Galaxy	NGC-5033	10:24 – 05:15	02:02	32	Canes Venatici: Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-63	10:21 – 05:15	02:04	32	Canes Venatici: Sunflower Galaxy
Primary Focus	Broad Spectrum	Globular	NGC-5053	10:32 – 05:15	02:18	32	Coma Berenices: Loose Globular
Primary Focus	Broad Spectrum	Galaxy	M-51	10:32 – 05:15	02:18	33	Canes Venatici: Whirlpool Galaxy
Primary Focus	Broad Spectrum	Globular	M-3	11:04 – 05:15	02:31	33	Canes Venatici: Med Globular NGC-5272
Primary Focus	Broad Spectrum	Galaxy	NGC-5395 et. El.	11:08 - 05:15	02:47	33	Canes Venatici: Heron Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-101	11:05 – 05:15	02:52	34	Ursa Major: Pinwheel Galaxy
Primary Focus	Broad Spectrum	Globular	NGC-5466	11:27 – 05:15	02:54	34	Bootes: Med Globular
Primary Focus	Broad Spectrum	Galaxy	M-102	12:09 – 05:15	03:55	34	Draco: Spindel Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-5905, 5908	12:18 – 05:15	04:04	35	Draco: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxy	NGC-5907	12:19 – 05:15	04:04	35	Draco: Splinter Galaxy
Primary Focus	Broad Spectrum	Globular	M-5	01:53 - 05:15	04:07	35	Serpens: Med Globular
Primary Focus	Broad Spectrum	Galaxy	NGC-5985 Et. El.	12:46 – 05:15	04:28	36	Draco: Draco Trio
Primary Focus	Broad Spectrum	Galaxy	NGC-6027 A-E	01:36 – 05:15	04:47	36	Serpens: Sefer't's Sextet
Primary Focus	Broad Spectrum	Galaxy	Abell 2151	01:49 – 05:15	04:53	37	Hercules: Hercules Galaxy Cluster

Prospective Imaging Objects – March

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	Galaxy	NGC-6058	01:11 – 05:15	04:53	37	Hercules: Small Planetary Nebula
Primary Focus	Broad Spectrum	Galaxy	Arp-188	01:09 – 05:15	04:54	37	Draco: Tadpole Galaxy
Primary Focus	Broad Spectrum	Galaxy	IC-4593	02:10 – 05:15	05:00	38	Hercules: White Eyed Pea
Primary Focus	Broad Spectrum	Galaxy	M-80	*02:52-05:15	05:05	38	Scorpius: Med Globular Cluster
Primary Focus	Broad Spectrum	Galaxy	M-4	*03:32-05:15	05:12	39	Scorpius: Large Globular Cluster
Primary Focus	Broad Spectrum	Galaxy	Abell-39	01:50 – 05:15	05:16	40	Hercules: Perfect Planetary Nebula