

Prospective Imaging Objects – February

Astronomical Data

Sunrise	Sunset	Astronomical Dusk	Astronomical Dawn	Imaging	Data Date
07:11 am	06:12 pm	07:36 pm	05:48 am	10:12	February 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


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

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

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

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

Primary Focus



Sculptor Galaxy (NGC 253)
Constellation: Sculptor

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

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

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

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


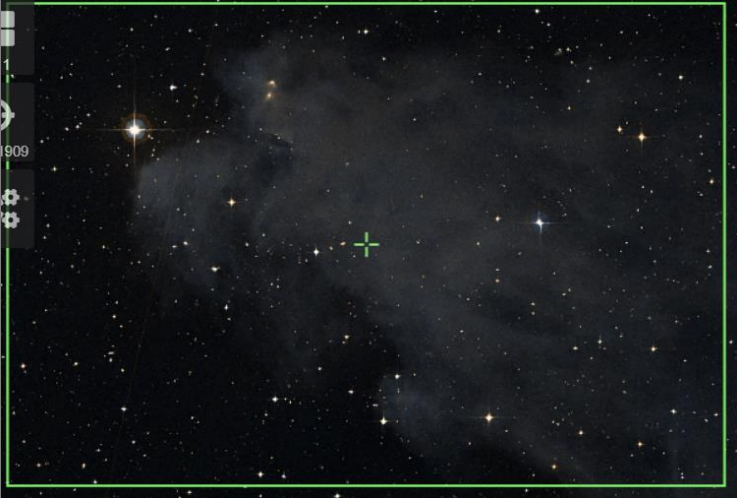

05: Close Star – A fairly bright star close to the target that can be used to check focus and sync the telescope before the imaging session begins.

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




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

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


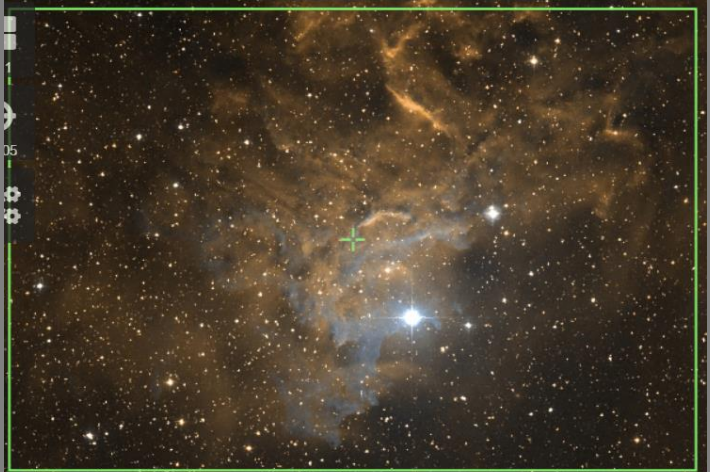

Prospective Imaging Objects – February

<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: *07:36 – 10:48 Transit: 07:42 49°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Witch Head Nebula (IC-2118) Constellation: Eridanus RA = 05h 05m 19.872s DEC = -06deg 56' 00.365" Size = 2.66 x 1.78 deg Pixel scale = 2.27 arc/pixel </p> <p style="font-size: x-small; text-align: right;">James Yoder 2019.09.28 Location: Chandler, AZ Config: C11 HyperStar Baader Skyliner QHY236 Exposure Info: 154fms@90% Gain: 3200 Offset: 180 </p>
<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: *07:36 – 10:48 Transit: 07:42 49°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Foxface Nebula (NGC 1788) Config: C11 HS ZWO6200MCc </p> <p>Type: Bright Nebula Peak: Constellation: Orion Coordinates: 05hr 06' 10" -04° 04' 26"</p> <p>Close Star: SAO-131794 Catalog Objects: NGC 1788</p> <p>Imaging Window: 07:36 – 09:40 Transit: 07:47</p>	<p style="text-align: center;">Hyperstar</p> <p style="font-size: small; text-align: center;">FOV 3.80 x 2.54° · RA 05hr 06' 10", DEC -04° 04' 26"</p> 




Prospective Imaging Objects – February

<p>Foxface Nebula (NGC 1788) Config: C11- HD FR ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Orion Coordinates: 05hr 05' 52" -03° 22' 22"</p> <p>Close Star: SAO-131794 Catalog Objects: NGC 1788</p> <p>Imaging Window: 07:36 – 09:40 Transit: 07:47</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Foxface Nebula (NGC 1788) Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Orion Coordinates: 05hr 06' 26" -03° 20' 13"</p> <p>Close Star: SAO-131794 Catalog Objects: NGC 1788</p> <p>Imaging Window: 07:36 – 09:40 Transit: 07:47</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: 07:36 – 11:39 Transit: 07:57 89°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;"> <small>Flaming Star Nebula (IC-405, IC-410, IC-417) Constellation: Auriga</small> </p>

Prospective Imaging Objects – February

<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: 07:36 – 11:39 Transit: 07:57 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 RA = 85.15e 53.7y DEC = -34deg 27' 32.1" Size = 58.8 x 41.7 arcmin Orientation: Mag E of N Pixel scale = 0.629 arcsec/pixel FL=1957mm James Webb Details 2023 01 02 Location: Chandler AZ Config: C11-HD 0.7 Reducer Filter: OpenStarg L-eStarline Camera: QHY128C Exposure Info: 200img/Star Gain: 3200 Offset: 100</p>
<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: 07:36 – 11:39 Transit: 07:57 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Flaming Star Nebula (IC-405) Constellation: Auriga RA = 85.15e 53.7y DEC = -34deg 27' 32.1" Size = 58.8 x 41.7 arcmin Orientation: Mag E of N Pixel scale = 0.629 arcsec/pixel FL=1957mm James Webb Details 2023 01 02 Location: Chandler AZ Config: C11-HD 0.7 Reducer Filter: OpenStarg L-eStarline Camera: QHY128C Exposure Info: 200img/Star Gain: 3200 Offset: 100</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: 07:36 – 11:42 Transit: 08:02 90°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: small;">Tadpole Nebula (IC-410) Constellation: Auriga RA = 85.22e 54.355y DEC = -33deg 23' 22.48" Size = 78.3 x 38.8 arcmin Orientation: Mag E of N Pixel scale = 0.63 arcsec/pixel FL=1957mm James Webb Details 2023 01 01 Location: Chandler AZ Config: C11-HD 0.7 Reducer Filter: OpenStarg L-eStarline Camera: QHY128C Exposure Info: 60img/Star Gain: 3200 Offset: 100</p>

Prospective Imaging Objects – February

<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: 07:36 – 11:42 Transit: 08:02 90°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">Tadpole Nebula (IC-410) Constellation: Auriga R.A. = 05h 22m 37.01s, DEC. = +33deg 23' 03.17" Size = 42.4 x 28.6 arcmin Pixel scale = 0.642 arcsec/pix </p>
<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: *07:36 – 09:08 Transit: 08:04 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: *07:36 – 10:52 Transit: 08:07 44°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

Prospective Imaging Objects – February

The Spider and the Fly

(M-77, NGC-1055, NGC-1931)

Config: |C11-
HD|FR|ZWO6200MC|

Type: **Diffuse Nebula**

Peak:

Constellation: **Auriga**

Camera Rotation - 90°

Frame 01

RA: 05hr 30' 44" DEC: 34° 20' 41"

Frame 02

RA: 05hr 27' 55" DEC: 34° 20' 41"

Close Star: SAO-77168 (Elnath)

Catalog Objects: [IC-417](#), [NGC-1931](#)

Imaging Window: **07:36 – 11:49**

Transit: **08:08 | 89°**

C-11 HD: Focal Reducer

Composite!



The Spider and the Fly (IC-417 & NGC-1931)
Constellation: Auriga
RA: 05hr 29m 17.5s DEC: 34° 20' 41.1" Size: 60.0 x 45.2 arcmin Orientation: 0.56deg E of N. Pixel scale: 6.628 arcsecond (FL=1075mm)
James Yoder (Dewar) M08-03-30, 31, 32 | Luntian Chen (Star) A2 | Config: C11HD | F1 Reducer | Blue Optolong L-eXtreme | Canon, OHY (20k) | Exposure: 1hr, 30min, 20min, 15min, 10min, 5min, 3min, 2min, 1min, 0.5min, 0.2min, 0.1min

The Spider (IC 417)

Config: |C11HD|ZWO6200MC|

Type: **Diffuse Nebula**

Peak:

Constellation: **Auriga**

Coordinates:

05hr 28' 03"

34° 22' 58"

Close Star: SAO-77168 (Elnath)

Catalog Objects: [IC 417](#)

Imaging Window: **07:36 – 11:49**

Transit: **08:08 | 89°**

C-11 HD: Primary Focus



Starfish Cluster (M-38)

Config: |C11HD|ZWO6200MC|

Type: **Open Cluster**

Constellation: **Auriga**

Coordinates:

05hr 28' 43"

35° 51' 18"

Close Star: **SAO-77168** (Elnath)

Catalog Objects: [M-38](#)

Imaging Window: **07:36 – 11:52**



Transit: **08:09 | 88°**

C-11 HD: Primary Focus



M-038 Starfish Cluster James Yoder 2019-09-30

Prospective Imaging Objects – February

<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: 07:36 – 11:53 Transit: 08:11 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: 07:36 – 11:35 Transit: 08:15 79°</p>	<p style="text-align: center;">Primary Focus</p>  <p><small>Crab Nebula (Messier-1) Constellation: Taurus JAMES YODER (Drew) 2022-02-05, 07:38:09.10 Location: Chandler, AZ Config: C-11 HD Fiber: OPY Radian Ultra QHY128c Exposure Info: 750msx40ms Gain: 3200 Offset: 180</small></p>

Prospective Imaging Objects – February

The Orion Complex

Config: C11 | HS | ZWO6200MC

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"

Close Star: SAO-132542 (Saiph)

Catalog Objects: [M-42](#)

Imaging Window: 07:36 – 09:54

Transit: 08:15

C-11 HD: HyperStar v4

SUPER-6 Composite!



The Orion Nebula (M 42)

Config: C11-HD | HS |

ZWO6200MC

Type: **Diffuse Nebula**

Peak:

Constellation: **Orion**

Coordinates:

05hr 35' 46"

-05° 15' 34"

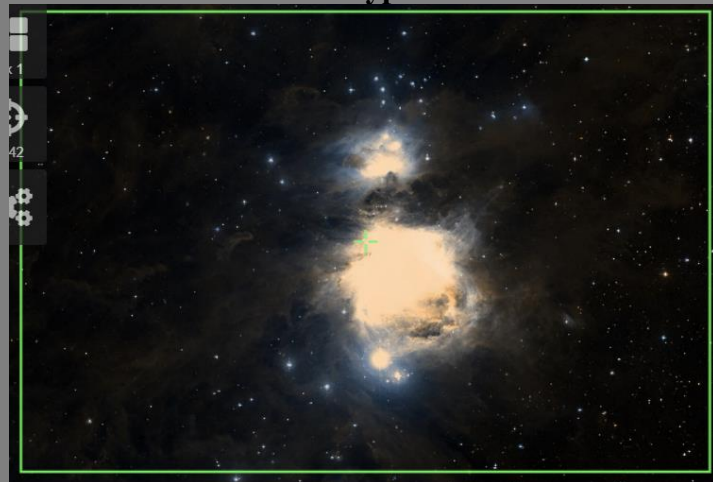
Close Star: SAO-132542 (Saiph)

Catalog Objects: [M-42](#)




Imaging Window: 07:36 – 09:54

Transit: 08:15



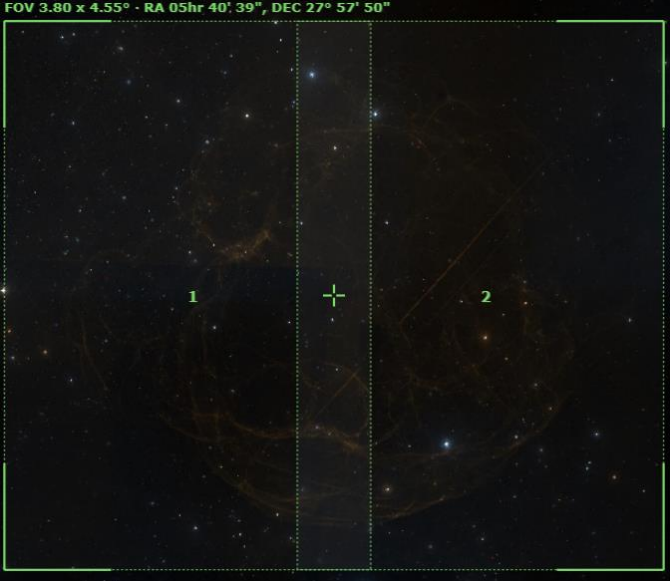
C-11 HD: HyperStar v4



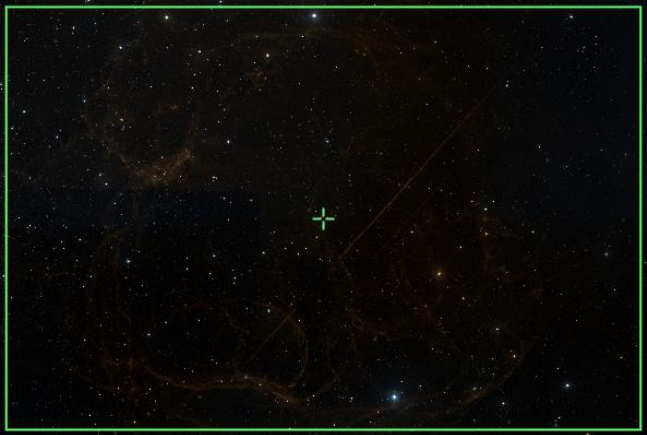


Prospective Imaging Objects – February

<p>The Orion Nebula (M 42) Config: C6-SE HS ZWO6200MC (Cropped)</p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 05hr 35' 18.4" -05° 23' 51.0"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: M-42</p> <p>Imaging Window: 07:36 – 09:54 Transit: 08:15</p>	<p style="text-align: center;">C6-SE: HyperStar v4</p>  <p style="font-size: small;">Orion Nebula (M-42) Constellation: Orion the Hunter RA = 05h 35m 18.4s DEC = -05deg 23' 51.0" Size = 4.45 x 3.97 deg Orientation: 170deg RA of N. Pixel scale = 1.31 arcsec/pixel [L=100um]</p> <p style="font-size: x-small; text-align: right;">James Webb Date: 2024-01-15 Location: Chandler, AZ Config: C-6SE HyperStar V4 OPT Filter: H-alpha, H-beta, H-gamma, H-delta, H-epsilon, H-zeta Exposure Info: 132 Images/Frame Gain: 100</p>
<p>The Orion Nebula (M 42) Config: C1 LF ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 05hr 35' 09" -05° 24' 32"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: M-42</p> <p>Imaging Window: 07:36 – 09:54 Transit: 08:15</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: small;">Orion Nebula (M-42) Constellation: Orion</p> <p style="font-size: x-small; text-align: right;">James Webb 2019-01-25 Location: Chandler, AZ Config: C11 Orion Nebula (M42) Filter: H-alpha, H-beta, H-gamma, H-delta, H-epsilon, H-zeta Exposure Info: 25 Images/Frame Gain: 200 Offset: 0</p>
<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: 07:36 – 09:58 Transit: 08:15 52°</p>	<p style="text-align: center;">C-6SE: Primary Focus</p>  <p style="font-size: small;">Running Man Nebula (NGC-1977) Constellation: Orion the Hunter RA = 05h 35m 18.1s DEC = -04deg 41' 25.9" Size = 5.5 x 3.4 arcmin Orientation: 0 deg E of N. Pixel scale = 0.51 arcsec/pixel [L=100um]</p> <p style="font-size: x-small; text-align: right;">James Webb Date: 2024-01-15 Location: Chandler, AZ Config: C-6SE OPT Filter: H-alpha, H-beta, H-gamma, H-delta, H-epsilon, H-zeta Exposure Info: 129 Images/Frame Gain: 100</p>




Prospective Imaging Objects – February

<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: 07:36 – 09:58 Transit: 08:15 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: 07:36 – 11:57 Transit: 08:16 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Simeis 147 (SH2-240) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula Constellation: Taurus</p> <p>Camera Rotation - 90°</p> <p>Coordinates: Frame 01 RA: 05hr 45' 38" DEC: 27° 56' 31" Frame 02 RA: 05hr 36' 28" DEC: 27° 56' 31"</p> <p>Close Star: SAO-77168 (Elnath) Catalog Objects: SH2-240</p> <p>Imaging Window: 07:36 – 11:53 Transit: 08:21 85°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4 Composite-2</p> <p style="text-align: center;">FOV 3.80 x 4.55° - RA 05hr 40' 39", DEC 27° 57' 50"</p> 



Prospective Imaging Objects – February

<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: 07:36 – 11:53 Transit: 08:21 85°</p>	<p align="center">C-11 HD: HyperStar v4</p> 
<p>Flame and Horsehead Nebula (NGC 2024, B 33) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse/Dark Nebula Peak: Constellation: Orion Coordinates: 05hr 40' 04" -02° 28' 13"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: NGC-2024, B-33</p> <p>Imaging Window: 07:36 – 10:23 Transit: 08:22 55°</p>	<p align="center">C-11 HD: HyperStar v4</p>  <p><small>Horsehead and Flame Nebula Constellation: Orion Date: 2024-10-02 Location: Mountain View, California, USA Config: C11 HyperStar v4 ZWO6200MC Exposure Info: 10x300s/Frame, Gain: 1400, Offset: 0.12</small></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: 07:36 – 10:23 Transit: 08:22 55°</p>	<p align="center">C-11 HD: Focal Reducer</p>  <p align="center"><small>FOV 1.05 x 0.70° · RA 05hr 41' 30", DEC -01° 45' 21"</small></p>

Prospective Imaging Objects – February

<p>Flame Nebula (NGC 2024) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 05hr 41' 45.843" -01° 49' 31.401"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: NGC-2024</p> <p>Imaging Window: 07:36 – 10:23 Transit: 08:22 55°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Flame Nebula (NGC-2024) Constellation: Orion RA = 05h 41m 45.843s DEC = -01deg 49' 31.401" Size = 42.7 x 28.8 arcmin Pixel scale = 0.445 arc/pixel James Yoder - 2018.12.02 Location: Chandler, AZ Config: C-11 HD (Hamonok) C15-C17 (OIII) 12h Exposure Info: 1700img/30min Gain: 200 Offset: 100</p>
<p>Horsehead Nebula (B 33) Config: C1 LF ZWO6200MC </p> <p>Type: Dark Nebula Peak: Constellation: Orion Coordinates: 05hr 40' 59" -02° 31' 47"</p> <p>Close Star: SAO-132542 (Saiph) Catalog Objects: B 33</p> <p>Imaging Window: 07:36 – 10:19 Transit: 08:21 54°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: small;">Horsehead Nebula (B-33) Constellation: Orion James Yoder - 2018.12.02 Location: Chandler, AZ Config: C-11 (Hamonok) LF Reducer Final Filter: OIII 12h Exposure Info: 2700img/30min Gain: 200 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: 07:36 – 11:09 Transit: 08:22 66°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">NGC-2022 Constellation: Orion RA = 05h 42m 06.91s DEC = +09deg 04' 54.9" Size = 18.5 x 13.9 arcmin Orientation: 0.3deg E of N Pixel scale = 0.277 arc/pixel F1 - 200mm James Yoder Dives 2020.12.29. 1h Location: Chandler, AZ Config: C-11 HD (OIII) Final Filter: FWHON200MC Exposure Info: 56 frames/2min Gain: 100 Offset: 50</p>

Prospective Imaging Objects – February

<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: 07:36 – 11:40 Transit: 08:22 54°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">Galaxy Cluster (NGC-1961 et al.) Constellation: Camelopardalis RA: 05h 43m 27.00s DEC: +69° 20' 48.00" Size: 42.1 x 28.1 arcmin (Pixel scale = 0.441 arcsec/pix) Date: 2024-12-25 Location: Mountain View, CA Exposure: 30.00s (Gain: 3200) (Offset: 181)</p>
<p>M-78 Config: C11- HD FR ZWO6200MC </p> <p>Type: Dark Nebula Peak: Constellation: Orion</p> <p>Frame 01 RA: 05hr 47' 05"DEC: 00° 20' 09"</p> <p>Frame 02 RA: 05hr 47' 05"DEC: -00° 14' 43"</p> <p>Close Star: SAO-132346 (Alnilam) Catalog Objects: M-78</p> <p>Imaging Window: 07:36 – 10:38 Transit: 08:27</p>	<p style="text-align: center;">C-11 HD: Focal Reducer Composite!</p>  <p style="font-size: small; text-align: right;">FOV 1.04 x 1.28". RA 05h 47' 04" DEC 00° 02' 43"</p>



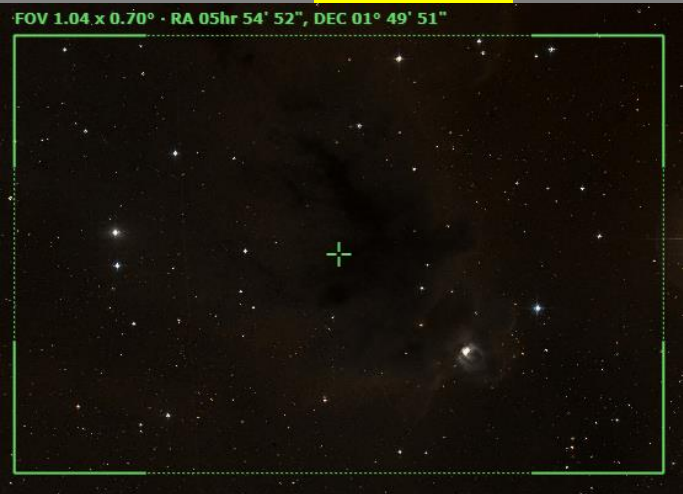
Prospective Imaging Objects – February

<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: 07:36 – 10:38 Transit: 08:27</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>M-78 Config: C11HD ZWO6200MC </p> <p>Type: Bright and Dark Nebula Peak: Constellation: Orion Coordinates: 05hr 47' 03" 00° 09' 46"</p> <p>Close Star: SAO-132346 (Annilam) Catalog Objects: M-78</p> <p>Imaging Window: 07:36 – 10:38 Transit: 08:27</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: 07:36 – 12:11 Transit: 08:32 89°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

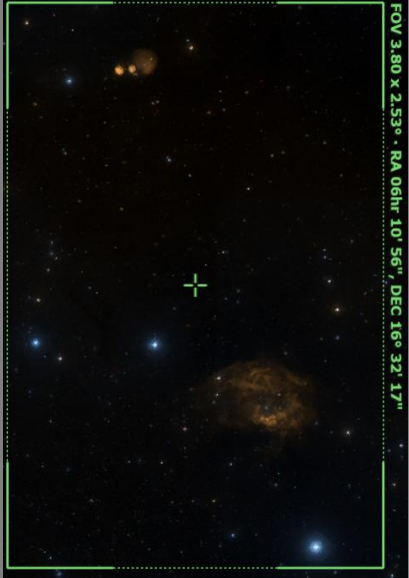


Prospective Imaging Objects – February

<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: 07:36 – 10:54 Transit: 08:34 59°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4 Composite!</p> 
<p>LDN-1622 (Region 01) Config: C11HD ZWO6200MC </p> <p>Type: Dark Nebula & Nebula Peak: Constellation: Orion</p> <p>Coordinates: 05hr 51' 00" 00° 59' 47"</p> <p>Close Star: SAO-132346 (Anilam) Catalog Objects: LDN-1622 Imaging Window: 07:36 – 10:54 Transit: 08:34 59°</p>	<p style="text-align: center;">HyperStar</p> <p style="text-align: center;">FOV 3.80 x 2.53° · RA 05hr 51' 00", DEC 00° 59' 47" · 1.86"/px</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 (Anilam) Catalog Objects: LDN-1622 Imaging Window: 07:36 – 10:54 Transit: 08:34 59°</p>	<p style="text-align: center;">HyperStar</p> <p style="text-align: center;">FOV 3.80 x 2.54° · RA 05hr 49' 55", DEC 00° 10' 35"</p> 


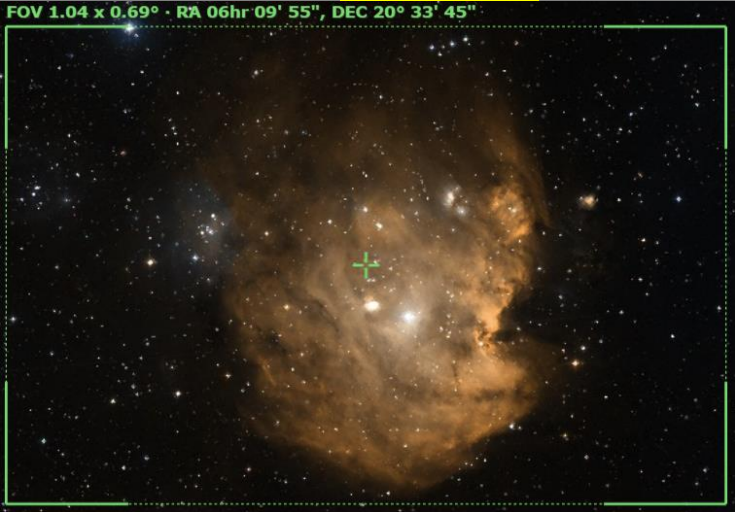

Prospective Imaging Objects – February

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



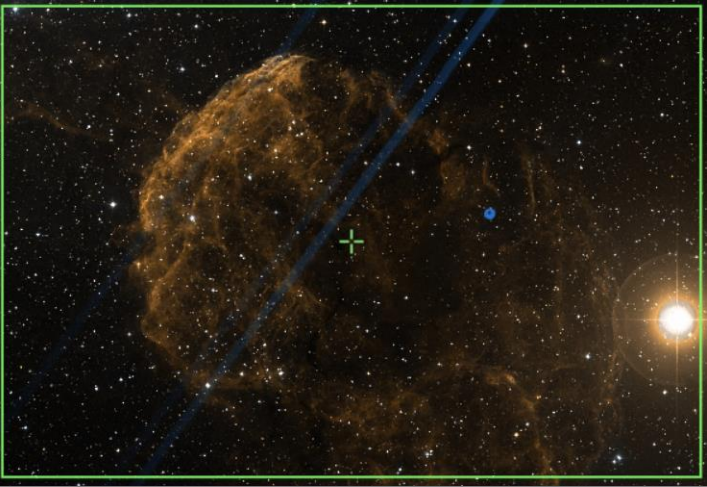
Prospective Imaging Objects – February

<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: 07:36 – 11:55 Transit: 08:49 72°</p>	<p>C-11 HD: HyperStar v4</p> 
<p>Lower's Nebula (Sh 2-261) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 06hr 09' 11" 15° 45' 59"</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: Sh 2-261</p> <p>Imaging Window: 07:36 – 11:55 Transit: 08:49 72°</p>	<p>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: 07:36 – 11:55 Transit: 08:49 72°</p>	<p>C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February

<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: 07:36 – 12:14 Transit: 08:49 81°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Monkey Head (NGC-2174) Config: C11- HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 06hr 09' 50" 20° 29' 50"</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: NGC-2174/Sh 2-252</p> <p>Imaging Window: 07:36 – 12:07 Transit: 08:50 77°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> <p style="text-align: center;">FOV 1.04 x 0.69° · RA 06hr 09' 55", DEC 20° 33' 45"</p> 
<p>Monkey Head (NGC 2174) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Orion Coordinates: 06hr 09' 50" 20° 29' 50"</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: NGC-2174/Sh 2-252</p> <p>Imaging Window: 07:36 – 12:07 Transit: 08:50 77°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;"> Monkey Head Nebula (NGC-2174) Constellation: Orion RA = 06h 09m 50.12s, DEC = +20deg 29' 52.18" Size = 32.1 x 26.6 arcmin Pixel scale = 0.446 arcsec/pixel F1 = 2.72mm James Webb 2023.02.18 Location: Chandler, AZ Config: C-11 HD Astroseek CLS-CCD (QB7126) Exposure: 100s 27"mag/Frame Gain: 1200 (Offset: 100) </p>




Prospective Imaging Objects – February

<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: 07:36 – 12:05 Transit: 08:53 75°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p><small>Bright Nebula IC-2162 Constellation: Orion RA = 06h 12m 25.00s, DEC = +17deg 59' 26.00" Size = 42.3 x 33.85 arcmin (Pixel scale = 0.841 arcsec/pixel)</small></p> <p style="text-align: right;"><small>James Voder 2025-01-21 Location: Chandler, AZ Config: C-11 HD Astronomy CLS-CDD (011126) Exposure Info: 250min/Star Gain: 3200 (Offset: 180)</small></p>
<p>Jellyfish Nebula (IC 443) Config: C11-HD HS ZWO6200MC</p> <p>Type: Supernova Remnant Peak: Constellation: Gemini Coordinates: 06hr 19' 56" 23° 06' 17"</p> <p>Close Star: SAO-78297 (Calix) Catalog Objects: IC-443</p> <p>Imaging Window: 07:36 – 12:19 Transit: 08:57 79°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p><small>Jellyfish Nebula (IC-443) Constellation: Gemini RA = 06h 19m 25.00s, DEC = +23deg 06' 17.00" Size = 3.14 x 2.89 deg (Orientation: 84p E of N) Pixel scale = 2.28 arcsec/pixel (FL = 540mm)</small></p> <p style="text-align: right;"><small>James Voder Date(s) 2025-10-21 Location: Chandler, AZ Config: C-11 HD HyperStar v4 Astronomy CLS-CDD (011126) Exposure Info: 210min/Star Gain: 3200 (Offset: 180)</small></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: 07:36 – 12:19 Transit: 08:57 79°</p>	<p style="text-align: center;">C11-HD: Focal Reducer</p> 


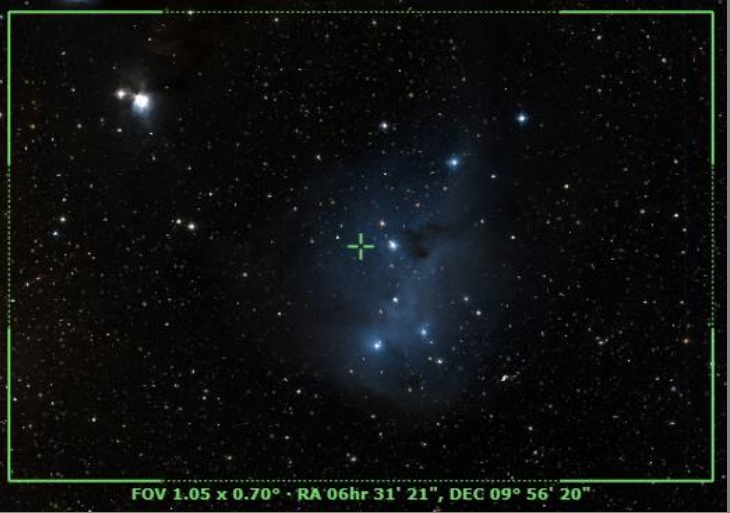

Prospective Imaging Objects – February

<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: 07:36 – 12:19 Transit: 08:57 79°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="font-size: small;">Jellyfish nebula (IC 443) Constellation: Gemini</p> <p style="font-size: x-small; text-align: right;">Location: Casiopeia, NJ Config: C11 Startrax L2 Corrector ZWO6200MC ZWO130L Exposure Info: 1000ms/5min Gain: 200 (ISO: 160)</p>
<p>IC-2165 Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula Peak: Constellation: Canis Major Coordinates: 06hr 21' 43" -12° 59' 12"</p> <p>Close Star: Catalog Objects: IC-2165</p> <p>Imaging Window: *07:36 – 11:44 Transit: 09:02 44°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small; text-align: center;">FOV 0.73 x 0.48° · RA 06hr 21' 43", DEC -12° 59' 12" · 0.28"/px</p>
<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: 07:36 – 12:25 Transit: 09:02 80°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

Prospective Imaging Objects – February

<p>Rosette Nebula (NGC 2237) Config: C11-HD HS ZWO6200MC</p> <p>Type: Diffuse Nebula Constellation: Monoceros Coordinates: 06hr 31' 53.37" 04° 50' 45.29"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC-2237 ,NGC-2244</p> <p>Imaging Window: 07:36 – 11:43 Transit: 09:10 62°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="font-size: small;">Rosette Nebula (NGC 2237, 2244, 2245, 2246) C-11 Hyperstar 1600iso 15min</p>
<p>Rosette Nebula (NGC 2237) Config: C11-HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Monoceros Coordinates: 06hr 32' 01" 04° 59' 28"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC-2237</p> <p>Imaging Window: 07:36 – 11:43 Transit: 09:10 62°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 
<p>Rosette Nebula (NGC 2237) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Monoceros Coordinates: 06hr 32' 02" 04° 58' 14"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC-2237</p> <p>Imaging Window: 07:36 – 11:43 Transit: 09:10 62°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February

<p>IC-2169 Config: C11 HS ZWO6200MC</p> <p>Type: Bright Nebula Peak: Constellation: Monoceros Coordinates: 06hr 36' 00" 10° 16' 17"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: IC-2169</p> <p>Imaging Window: 07:36 – 12:01 Transit: 09:11 80°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="text-align: center;">FOV 3.80 x 2.53° · RA 06hr 36' 00", DEC 10° 16' 17"</p>
<p>IC 2169 Config: C11- HD FR ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Monoceros Coordinates: 06hr 31' 21" 09° 56' 20"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: IC-2169</p> <p>Imaging Window: 07:36 – 12:01 Transit: 09:11 80°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="text-align: center;">FOV 1.05 x 0.70° · RA 06hr 31' 21", DEC 09° 56' 20"</p>
<p>IC 2169 Config: C11HD ZWO6200MC </p> <p>Type: Bright Nebula Peak: Constellation: Monoceros Coordinates: 06hr 31' 36" 09° 58' 16"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: IC-2169</p> <p>Imaging Window: 07:36 – 12:01 Transit: 09:11 80°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February

<p>Hubble's Variable Nebula (NGC 2261) Config: C11HD ZWO6200MC </p> <p>Type: Reflection Nebula Constellation: Monoceros Coordinates: 06hr 39' 12" 08° 45' 00"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC-2261</p> <p>Imaging Window: 07:36 – 12:05 Transit: 09:19 65°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Christmas Tree & Cone Config: C11- HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula</p> <p>Coordinates: Pane 1: 06hr 40' 53", 10° 07' 47" Pane 2, 06hr 40' 53", 09° 34' 40"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC-2264/Sh 2-273</p> <p>Imaging Window: 07:36 – 12:10 Transit: 09:21 67°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer Composite!</p> 
<p>Christmas Tree & Cone Config: C11- HD FR ZWO6200MC </p> <p>Type: Diffuse Nebula Peak:</p> <p>Constellation: Monoceros Coordinates: 06hr 40' 47" 09° 42' 40" Angle: 90° East Close Star: SAO-95912 (Alhena) Catalog Objects: NGC-2264/Sh 2-273</p> <p>Imaging Window: 07:36 – 12:10 Transit: 09:21 67°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 




Prospective Imaging Objects – February

<p>Christmas Tree Cluster (NGC 2264) Config: C1 LF ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Monoceros Coordinates: 06hr 40' 58.74" 09° 53' 32.69"</p> <p>Close Star: SAO-95912 (Alhena) Catalog Objects: NGC-2264/Sh 2-273</p> <p>Imaging Window: 07:36 – 12:10 Transit: 09:21 67°</p>	<p style="text-align: center;">Primary Focus</p>  <p style="text-align: left; font-size: small;">NGC 2264: Christmas Tree Cluster</p>
<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: 07:36 – 12:10 Transit: 09:21 67°</p>	<p style="text-align: center;">C-6 HD: Focal Reducer</p>  <p style="font-size: x-small;">NGC-2264 (Cone & Christmas Tree Nebula) 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 FE=1166mm] James Yoder Date(s) 2024.01.26-27 Location: Chandler, AZ Config: C-6SR 0.83 Focal Reducer OPF Radwin Triad Ultra ZWO6200MC Exposure Info: 143.6msec/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: 07:36 – 12:10 Transit: 09:21 67°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small;">NGC-2264 (Cone Nebula-1) Constellation: Monoceros [RA = 06h 41m 07.0s DEC = +09deg 27' 52.0" Size = 55.0 x 36.7 arcmin Orientation: 270deg E of N Pixel scale = 0.667 arcsec/pixel FE=1166mm] James Yoder Date(s) 2024.01.26-27 Location: Chandler, AZ Config: C-11HD Primary Focus OPF Radwin Triad Ultra ZWO6200MC Exposure Info: 143.6msec/2min Gain: 100</p>

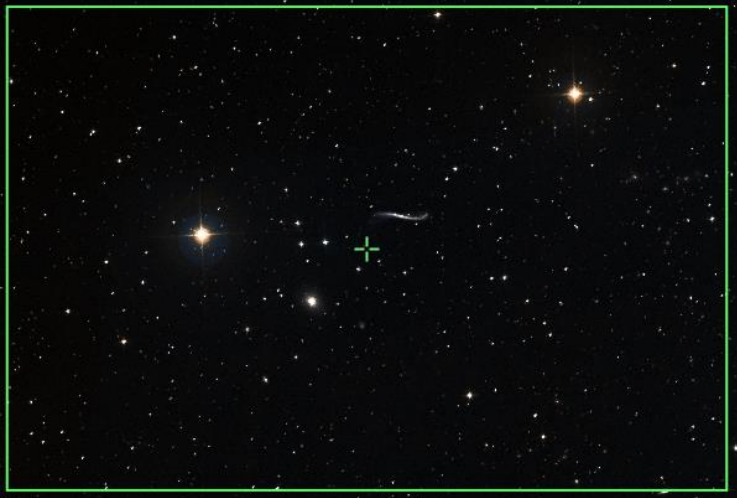


Prospective Imaging Objects – February

<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: *07:36 – 11:12 Transit: 09:26 36°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M-50 (NGC 2323) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster Constellation: Monoceros Coordinates: 07hr 02' 48" -08° 22' 33"</p> <p>Close Star: SAO-151881 (Sirius) Catalog Objects: M-50/NGC 2323</p> <p>Imaging Window: *07:36 – 12:45 Transit: 09:42 48°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Seagull Nebula (IC-2177) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Monoceros Coordinates: 07hr 06' 20" -11° 06' 56"</p> <p>Close Star: SAO-151881 (Sirius) Catalog Objects: IC-2177</p> <p>Imaging Window: *07:36 – 12:37 Transit: 09:44 46°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4 - 90° Rotation</p>  <p><small>Seagull Nebula (IC-2177, NGC-2327, NGC-2335, NGC-2343) Constellation: Monoceros RA = 07h 06m 17.0s, DEC = -11deg 07' 27.2" Star = 216 x 148 arcsec Orientation: -90deg E of N Pixel scale = 2.276 arcsec/pixel, F1-541nm James Yoder Photos 2023 01 09, 10, 11, 15, 17 Location: Chandler AZ Config: C-11HD HyperStar V4 Imaging Location: G011284 Exposure Info: 100Frames/Star Gain: 3200 ISO: 180</small></p>




Prospective Imaging Objects – February

<p>Seagull Nebula (IC 2177) Config: C11HD ZWO6200MC </p> <p>Type: Diffuse Nebula Peak: Constellation: Monoceros Coordinates: 07hr 04' 47" -10° 27' 49"</p> <p>Close Star: SAO-151881 (Sirius) Catalog Objects: IC-2177</p> <p>Imaging Window: *07:36 – 12:37 Transit: 09:44 46°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: *07:36 – 12:29 Transit: 09:49 56°</p>	<p style="text-align: center;">C-11 HD: Primary Focus x2</p>  <p style="font-size: small;">Planetary Nebula NGC-2346 <small>© Constellation: Monoceros RA: 07h 09m 22.5s DEC: -00d 48' 22.2" Size: 25.7x15.1 pixels (Shmidt-Kelley E 475) Pixel Size: 0.275 arcsec/pixel FIT: 2000px</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: 07:36 – 12:52 Transit: 09:51 52°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 




Prospective Imaging Objects – February

<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: 07:36 – 12:52 Transit: 09:51 52°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: *07:36 – 12:37 Transit: 09:58 43°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Thor's Helmet (NGC 2359) Constellation: Canis Major</p> <p style="font-size: x-small; text-align: right;">James Todd 2014.11.17 Location: University of North Carolina, NC Config: C11, Sattura LF Camera, QHY135L Exposure Info: 100x3000s, Gain: 3000, 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: 07:36 – 01:40 Transit: 10:05 86°</p>	<p style="text-align: center;">C-11 HD: Primary Focus x2</p>  <p style="font-size: x-small;">Candy Wrapper (NGC 2371) Constellation: Gemini</p> <p style="font-size: x-small; text-align: right;">James Todd 2014.11.17 Location: University of North Carolina, NC Config: C11, Sattura LF Camera, QHY135L Exposure Info: 100x3000s, Gain: 3000, Offset: 100</p>


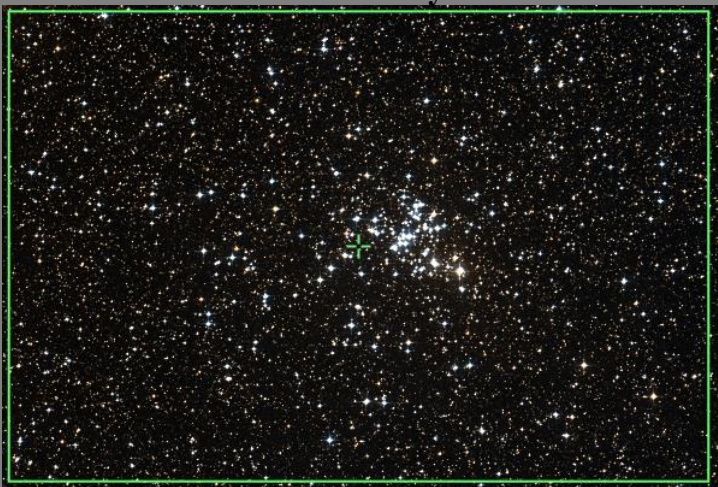

Prospective Imaging Objects – February

<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: 07:36 – 01:09 Transit: 10:09 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Abell-21 (Medusa Nebula) Constellation: Gemini RA = 7h 29m 54.9s, DEC = +13deg 15' 20.4" Size = 18.7 x 26.1 arcmin Orientation: 0.3deg E of N Pixel scale = 0.570 arcsec/pixel FL = 2720mm James Yoder Date(s) 2022-01-25,26,27,28,2023-02-02,03,04 Location: Chandler, AZ Config: C-11 HD EPT Radon Ultra Filter OVI1128 Exposure Info: 10x600s/Frame, Gain: 3200, Offset: 100</p>
<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: 07:36 – 01:28 Transit: 10:09 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">NGC-2392 (Eskimo Nebula) Constellation: Gemini RA = 07h 29m 11.56s, DEC = +20deg 54' 33.4" Size = 18.5 x 13.9 arcmin Orientation: 0.3deg E of N Pixel scale = 0.278 arcsec/pixel FL = 2800mm James Yoder Date(s) 2021-12-09 Location: Chandler, AZ Config: C-11 HD EPT Tand Ultra PRODS000MC Exposure Info: 1 x 4400s/Frame Gain: 100 Offset: 50</p>
<p>M-47 (NGC-2422) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Puppis Coordinates: 07h 36' 36" -14° 32' 19"</p> <p>Close Star: SAO-79666 (Pollux) Catalog Objects: M-47/NGC-2422</p> <p>Imaging Window: *07:36 – 12:53 Transit: 10:16 42°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 


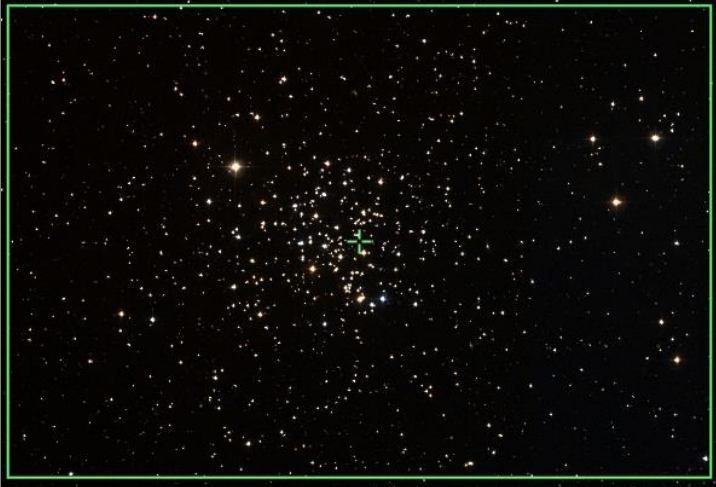
Prospective Imaging Objects – February

<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: 07:36 – 01:52 Transit: 10:17 58°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;"><small>Galaxy NGC-2403 (Caldwell 7) Constellation: Camelopardalis Size: 10.2x6.5 (200" x 120") 1.2 degree (Horizontal: 1.04 degree, 1.07" resolution) 10.000x</small></p>
<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: 07:36 – 02:05 Transit: 10:18 84°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;"><small>Intergalactic Wanderer (NGC-2419) Constellation: Lynx Size: 10.0x10.0 (200" x 200") 1.2 degree (Horizontal: 1.04 degree, 1.07" resolution) 10.000x</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: *07:51 – 12:53 Transit: 10:21 42°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;"><small>NGC-2438 Constellation: Puppis Size: 10.0x10.0 (200" x 200") 1.2 degree (Horizontal: 1.04 degree, 1.07" resolution) 10.000x</small></p>




Prospective Imaging Objects – February

<p>Bow-Tie Nebula (NGC-2440) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Puppis Coordinates: 07° 41' 55" -18° 12' 29"</p> <p>Close Star: SAO-151881 (Sirius) Catalog Objects: NGC-2440</p> <p>Imaging Window: *08:15 – 12:33 Transit: 10:22 38°</p>	<p>C-11 HD: Primary Focus x2</p>  <p>FOV 0.73 x 0.49° - RA 07hr 41' 55\", DEC -18° 12' 29"</p>
<p>Butterfly Cluster (M-93, NGC-2447) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Puppis Coordinates: 07h 44' 46" -23° 51' 52"</p> <p>Close Star: SAO-151881 (Sirius) Catalog Objects: M-93/NGC-2447</p> <p>Imaging Window: *09:04 – 11:48 Transit: 10:24 33°</p>	<p>C-11 HD: Primary Focus</p> 
<p>M-48 (NGC-2548) Config: C11HD ZWO6200MC </p> <p>Type: Open Cluster</p> <p>Constellation: Hydra Coordinates: 08h 13' 46" -05° 46' 05"</p> <p>Close Star: SAO-115756 (Procyon) Catalog Objects: M-48/NGC-2548</p> <p>Imaging Window: 09:22 – 12:30 Transit: 10:53 51°</p>	<p>C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February

<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: *08:52 – 01:37 Transit: 11:13 41°</p>	<p>C-11 HD: Primary Focus</p> 
<p>Beehive Cluster (NGC-2632) Config: C11-HD HS ZWO6200MC</p> <p>Type: Open Cluster</p> <p>Constellation: Cancer Coordinates: 08h 39' 59" 19° 39' 01"</p> <p>Close Star: SAO-115756 (Procyon) Catalog Objects: M-44/NGC-2632</p> <p>Imaging Window: 08:10 – 02:36 Transit: 11:20 76°</p>	<p>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: 08:41 – 02:27 Transit: 11:31 68°</p>	<p>C-11 HD: Primary Focus</p> 



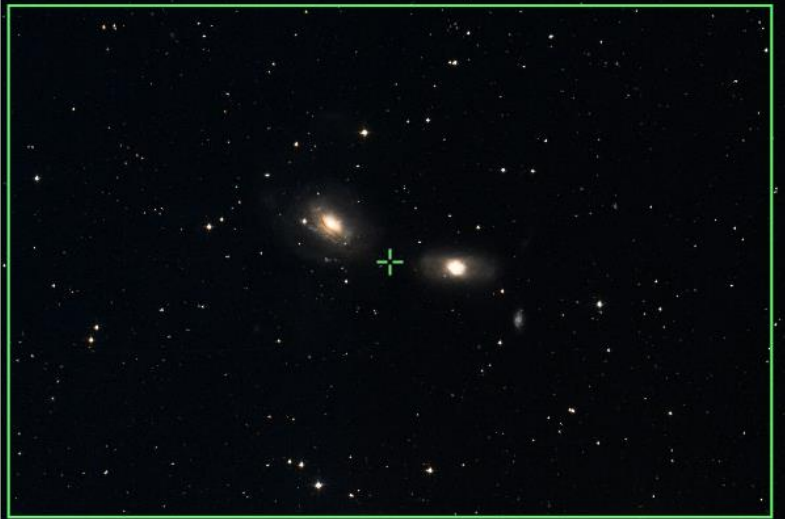
Prospective Imaging Objects – February

<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: 07:52 – 03:25 Transit: 11:35 65°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: 08:58 – 03:32 Transit: 12:12 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: 09:25 – 03:52 Transit: 12:35 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: 2020-12-05, 2020-12-09 Location: Chandler, AZ Config: C11HD HyperStar v4 LPS-SL C13&C10 QHY126 Exposure Info: 600ms/Frame, 240ms/Frame Gain: 3200 QHY: 181 RA = 09h 54m 01.89s DEC = +68deg 53' 43.77" Size = 3.14x 2.09 deg Orientation: 3.61deg E of N Pixel scale = 2.28 arcsec/pixel FL=540mm </p>




Prospective Imaging Objects – February

<p>Bode's Cigar (M81 & M82) Config: C11-HD HS ZWO6200MC</p> <p>Type: Galaxy Pair Constellation: Ursa Major Coordinates: RA: 09hr 55' 40" DEC: 69° 18' 39" 90° Rotation</p> <p>Close Star: SAO-15384 Catalog Objects: M-81 & M-82</p> <p>Imaging Window: 09:25 – 03:52 Transit: 12:35 54°</p>	<p>C-11 HD: Focal Reducer</p> 
<p>Bode's Nebula (M-81) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Constellation: Ursa Major Coordinates: 09h 55' 24.184" 69° 05' 18.969"</p> <p>Close Star: SAO-15384 Catalog Objects: M-81/NGC-3031</p> <p>Imaging Window: 09:21 – 03:55 Transit: 12:35 54°</p>	<p>C-11 HD: Primary Focus</p> 
<p>Cigar Galaxy (M-82) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Ursa Major Coordinates: 09h 55' 57.451" 69° 42' 37.646"</p> <p>Close Star: SAO-15384 Catalog Objects: M-82/NGC-3034</p> <p>Imaging Window: 09:25 – 03:52 Transit: 12:35 54°</p>	<p>C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February

<p>Spindel Galaxy (NGC-3115) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Sextans Coordinates: 10h 05' 21" -07° 47' 09"</p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: NGC-3115</p> <p>Imaging Window: *09:44 – 03:50 Transit: 12:44 49°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>Spindle Galaxy (NGC-3115) © 2024 Starizona, Inc. 10h 05m 21.000s -07d 47m 09.000s 10h 05m 21.000s -07d 47m 09.000s 10h 05m 21.000s -07d 47m 09.000s 10h 05m 21.000s -07d 47m 09.000s</small></p>
<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: 09:57 – 03:45 Transit: 12:48 69°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>Dwarf Galaxy Leo I (UGC-5470) © 2024 Starizona, Inc. 10h 08m 27.000s 12d 19m 49.000s 10h 08m 27.000s 12d 19m 49.000s 10h 08m 27.000s 12d 19m 49.000s 10h 08m 27.000s 12d 19m 49.000s</small></p>
<p>NGC-3166 & NGC-3169 Config: C11HD ZWO6200MC </p> <p>Type: Galaxy pair</p> <p>Constellation: Sextans Coordinates: 10h 14' 01" 03° 25' 51"</p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: NGC-3166, NGC-3169</p> <p>Imaging Window: 10:32 – 03:20 Transit: 12:53 60°</p>	<p>C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February

<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: 09:43 – 04:18 Transit: 12:57 79°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Hickson-44 Galaxy Cluster (Aip-316) Copyright © 2014 Astronomical Society of the Pacific All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of the publisher.</p>
<p>NGC-3184 Config: C11HD ZWO6200MC </p> <p>Type: Face-on Spiral Galaxy</p> <p>Constellation: Ursa Major Coordinates: 10h 18' 17" 41° 25' 24"</p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: NGC-3184</p> <p>Imaging Window: 09:14 – 04:47 Transit: 12:58 82°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Barred Spiral Galaxy NGC-3184 Copyright © 2014 Astronomical Society of the Pacific All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of the publisher.</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: 09:52 – 04:20 Transit: 01:03 76°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 



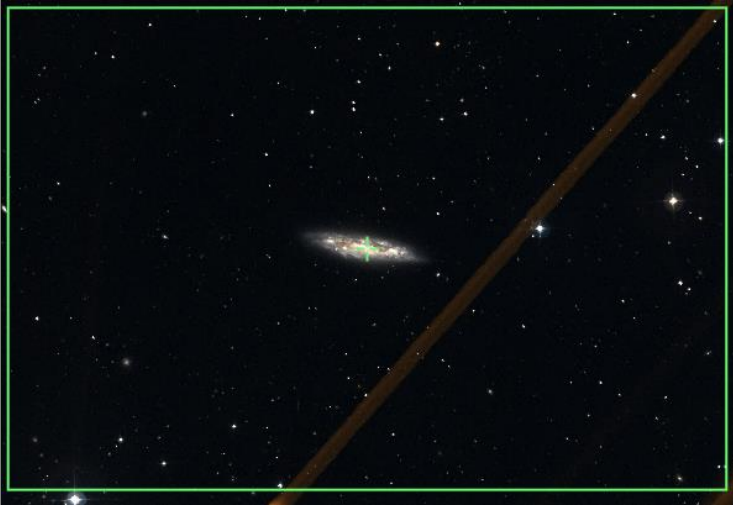
Prospective Imaging Objects – February

<p>Ghost of Jupiter (NGC-3242) Config: C11HD ZWO6200MC </p> <p>Type: Planetary Nebula</p> <p>Constellation: Hydra Coordinates: 10h 24' 46" -18° 38' 31"</p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: NGC-3242</p> <p>Imaging Window: *11:04 – 03:09 Transit: 01:04 38°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">NGC-3242 (Ghost of Jupiter) Constellation: Hydra RA = 10h 24m 44.7s, DEC = -18deg 38' 31.4" Size = 18.3 x 13.9 arcmin Orientation: -0.6deg E of N Pixel scale = 0.278 arcsec/pixel FL=2000mm</p> <p style="font-size: x-small; text-align: right;">James Voder Dates: 2020 12 09 - 10 Location: Chandler, AZ Config: C-11 HD XOPT Triad Ultra ZWO6200MC Exposure Info: 36 fms@2min Gain: 100 OffSet: 50 </p>
<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: 09:50 – 04:32 Transit: 01:08 55°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p>  <p style="text-align: center; font-size: small; color: green;">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: 09:50 – 04:32 Transit: 01:08 55°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: x-small;">Coddington Nebula (IC-2574) Constellation: Ursa Major RA = 10h 28m 41.9s, DEC = -68deg 26' 44.2" Size = 32.3 x 23.4 arcmin Orientation: 0.026deg E of N Pixel scale = 0.452 arcsec/pixel FL=2724mm</p> <p style="font-size: x-small; text-align: right;">James Voder Dates: 2022 04 01 - 2023 04 08 Location: Chandler, AZ Config: C-11 HD Baader Skyglow QHY128c Exposure Info: 2000fms@4min Gain: 3200 OffSet: 180 </p>


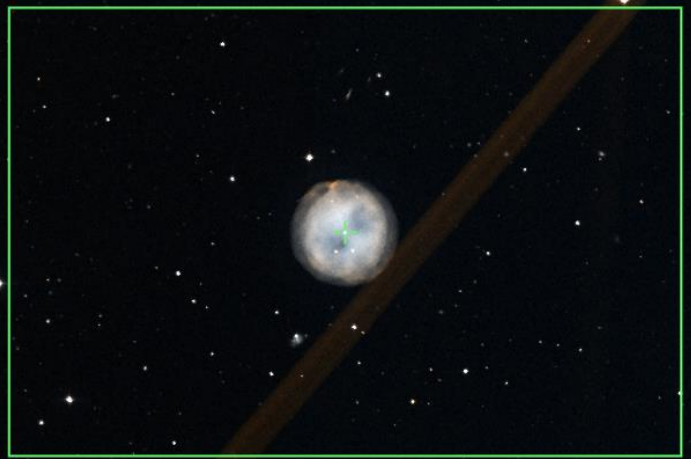

Prospective Imaging Objects – February

<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: 10:36 – 04:22 Transit: 01:26 68°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<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: 10:34 – 04:19 Transit: 01:23 68°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</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: 10:35 – 04:26 Transit: 01:27 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 



Prospective Imaging Objects – February

<p>Ambartsumian's Knot et al. (NGC-3561, 3558, 3553, 3550, etc.) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Cluster</p> <p>Constellation: Ursa Major Coordinates: 11h 10' 43" 28° 41' 41"</p> <p>Close Star: SAO-81727 (Zosma) Catalog Objects: NGC-3561</p> <p>Imaging Window: 10:23 – 05:24 Transit: 01:50 85°</p>	<p>C-11 HD: Primary Focus</p> 
<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: 10:05 – 05:43 Transit: 01:51 68°</p>	<p>C-11 HD: HyperStar v4</p>  <p><small>M-108 (NGC-3556) and Owl Nebula (M-97, NGC-3587) Constellation: Ursa Major [RA = 11h 12m 51.215s DEC = +55deg 21' 46.196"] Size = 1.91 x 1.28 deg Pixel scale = 2.28 arcsec/pixel</small></p> <p><small>James Yoder 2020.04.03 Config: C-11HD HyperStar V4 Astronomik CLS-CCD QHY128c Exposure Info: [147fms@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: 10:05 – 05:43 Transit: 01:51 68°</p>	<p>C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February

<p>Owl Nebula (NGC-3587) Config: C11HD ZWO6200MC Type: Planetary Nebula</p> <p>Constellation: Ursa Major Coordinates: 11h 14' 48" 55° 01' 10"</p> <p>Close Star: SAO-27876 Catalog Objects: M-97/NGC-3587</p> <p>Imaging Window: 10:08 – 05:47 Transit: 01:54 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Owl Nebula (NGC-3597 / M-97) Constellation: Ursa Major RA = 11h 14m 48.250s DEC = +55deg 01' 10.200" Size = 48.7x 33.1 arcmin. Pixel scale = 0.842 arcsec/pixel James Webb / (NIRSI) 2020-02-14, 2020-02-17 Location: Chandra, AZ Config: C-11 HD (Haworth) 13.5x13.0 OVI12K Exposure Info: 200sec/Frame Gain: 200 (Offset: 181)</p>
<p>Owl Nebula (NGC-3587) Config: C11HD Barlow x2 ZWO6200MC </p> <p>Type: Planetary Nebula Constellation: Ursa Major Coordinates: 11h 14' 48" 55° 01' 10"</p> <p>Close Star: SAO-27876 Catalog Objects: M-97/NGC-3587</p> <p>Imaging Window: 10:08 – 05:47 Transit: 01:54 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus *x2</p>  <p style="font-size: small;">Owl Nebula (NGC-3597 / M-97) Constellation: Ursa Major RA = 11h 14m 48.250s DEC = +55deg 01' 10.200" Size = 48.7x 33.1 arcmin. Pixel scale = 0.842 arcsec/pixel James Webb / (NIRSI) 2020-02-14, 2020-02-17 Location: Chandra, AZ Config: C-11 HD (Haworth) 13.5x13.0 OVI12K Exposure Info: 200sec/Frame Gain: 200 (Offset: 181)</p>
<p>Lio Trio of Galaxies Config: C11HD ZWO6200MC Type: Spiral Galaxy</p> <p>Constellation: Leo Coordinates: See Targets Below</p> <p><i>NOTE: M-65/M-66 & NGC-3628 combined to create mosaic</i></p> <p>Close Star: SAO-98967 (Regulus) Catalog Objects: NGC-3628, M-65</p> <p>Imaging Window: 11:05 – 05:01 Transit: 01:59 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) Constellation: Leo the Lion RA = 11h 45.3 DEC = +13deg 16' 38.0" Size = 56.7x 27.8 arcmin Orientation: 200deg E of N. Pixel scale = 0.579 arcsec/pixel (F1.0 190kpix) James Webb / (NIRSI) 2020-02-14, 2020-02-17 Location: Chandra, AZ Config: C11-HD (47 Bohair) Filter: Baader SRGBcam / Camera: QHY128K Exposure Info: 100sec/Frame Gain: 3200 (Offset: 180)</p>




Prospective Imaging Objects – February

<p>Lio Trio of Galaxies Config: C11-HD HS ZWO6200MC</p> <p>Type: Galaxies Constellation: Leo Coordinates: Frame 01 RA: 11hr 19' 57" DEC: 13° 32' 15" Frame 02 RA: 11hr 19' 57" DEC: 13° 04' 57"</p> <p>Close Star: SAO-15384 Catalog Objects: NGC-3628, 3623, M-65</p> <p>Imaging Window: 11:05 – 05:01 Transit: 01:59 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: 11:05 – 05:01 Transit: 01:59 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

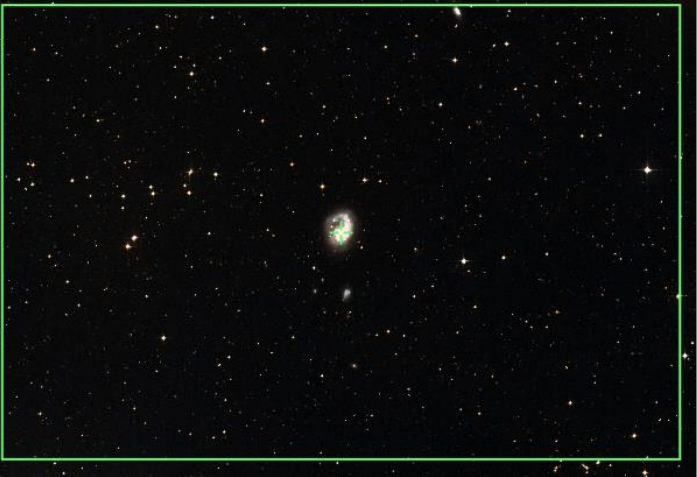


Prospective Imaging Objects – February

<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: 11:05 – 04:58 Transit: 01:58 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">M-65, M66 Spiral Galaxies</p> <p style="text-align: right; font-size: 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: 10:25 – 05:48 Transit: 02:12 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 = 10.35016103h DEC = 53.0844489° Size = 45 x 30.4 arcmin Pixel scale = 0.446 arcsec/pixel FL = 2.720mm</p> <p style="font-size: x-small; text-align: right;">James Yoder 2020-02-16 Location: Chandler, AZ Config: C-11 HD (Astronomik CLS-CCD) QHY128c Exposure Info: (34min@5min Gain: 3200) (Offset: 180)</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"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: NGC-3746, 3748, 3750, 3751, 3753, 3754/HCG-57</p> <p>Imaging Window: 11:02 – 05:38 Transit: 02:17 79°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February

<p>Abell 1367(NGC-3861, et al.) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy Cluster</p> <p>Constellation: Leo Coordinates: 11h 44' 40" 19° 56' 32"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: NGC-3861, 3842, dozens of others.</p> <p>Imaging Window: 11:14 – 05:41 Transit: 02:24 77°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;"><small>Galaxy Cluster Abell-1367 (ABCD-1367) Copyright © 2024 Sky & Telescope Magazine, Inc. All rights reserved. This image is for personal use only. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without permission in writing from Sky & Telescope Magazine, Inc.</small></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: *11:36 – 05:18 Transit: 02:26 53°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<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: 10:50 – 05:48 Transit: 02:37 70°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 



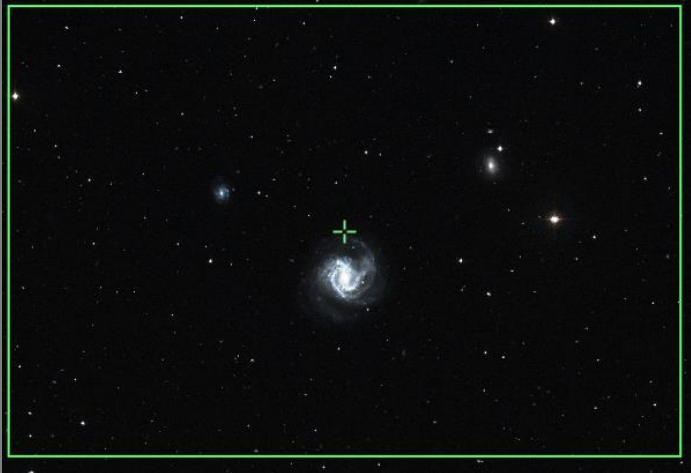
Prospective Imaging Objects – February

<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: *12:37 – 04:38 Transit: 02:38 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: *12:37 – 04:46 Transit: 02:41 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: 11:55 – 05:48 Transit: 02:53 72°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

Prospective Imaging Objects – February

<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: 11:44 – 05:48 Transit: 02:56 54°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Silver Needle (NGC-4244) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Canes Venatici Coordinates: 12h 17' 30" 37° 48' 28"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: NGC-4244/UGC-7322</p> <p>Imaging Window: 11:17 – 05:48 Transit: 02:56 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: 12:01 – 05:48 Transit: 02:58 71°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 


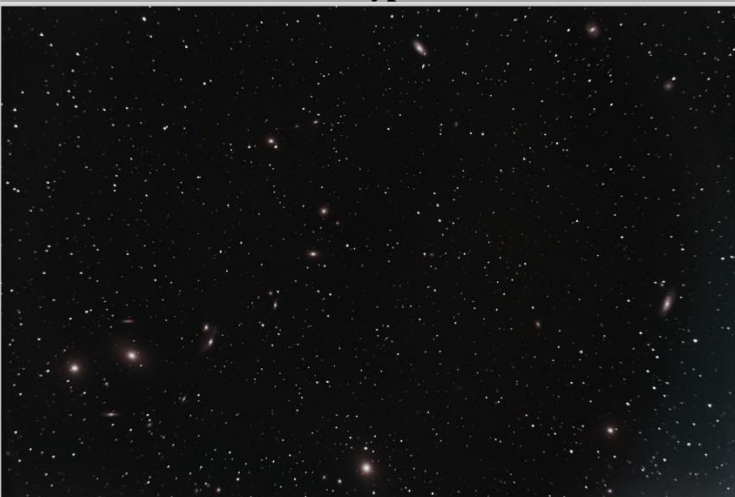
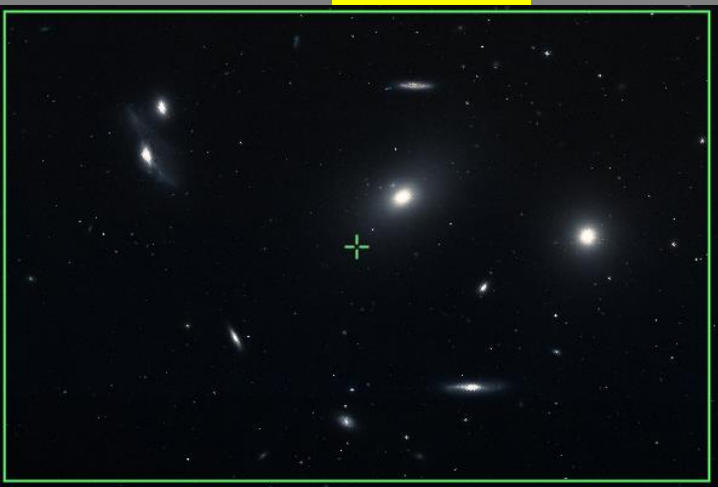
Prospective Imaging Objects – February

<p>Galaxy Group 106 Config: C11-HD HS ZWO6200MC</p> <p>Type: Galaxy Group</p> <p>Constellation: Canes Venatici Coordinates: 12h 17' 12" 47° 13' 33"</p> <p>Close Star: SAO-28179 (Phecda) Catalog Objects: M-106, NGC 4248, 4217, 4232, 4331 Imaging Window: 11:12 – 05:48 Transit: 02:58 76°</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 13' 18", DEC 46° 41' 37"</p>
<p>M-106(NGC-4258) Config: C11-HD FR ZWO6200MC </p> <p>Type: Galaxy Group</p> <p>Constellation: Canes Venatici Coordinates: 12h 17' 12" 47° 13' 33"</p> <p>Close Star: SAO-28179 (Phecda) Catalog Objects: M-106, NGC 4248, 4217, 4232, 4331 Imaging Window: 11:12 – 05:48 Transit: 02:58 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;">©2014-21 by James VanDyke, Llewellyn Quantum, LLC, Llewellyn Quantum, LLC, Llewellyn Quantum, LLC. Exposure Info: 3.75min/Frame, Gain: 2200, Offset: 100.</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: 12:36 – 05:33 Transit: 03:01 61°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 


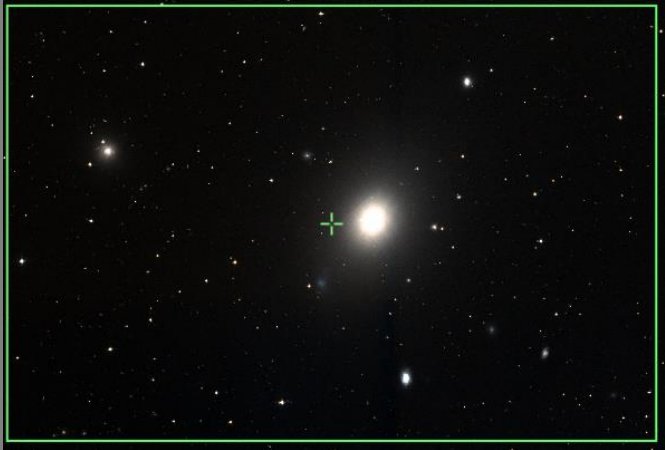

Prospective Imaging Objects – February

<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: 11:18 – 05:48 Transit: 03:01 65°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>M-100(NGC-4303) Config: C11HD ZWO6200MC </p> <p>Type: Face-On Spiral Galaxy</p> <p>Constellation: Coma Berenices Coordinates: 12h 22' 28" 15° 42' 40"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-100/NGC-4321, NGC-4312, 4328, 4322, UGC-7425, IC-783A, Imaging Window: 12:02 – 05:48 Transit: 03:02 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: *12:57 – 05:10 Transit: 03:03 38°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small;">Planetary Nebula NGC-6572 Constellation: Ophiuchus Coordinates: RA = 16h 27m 31.81s - 06d 11' 12.21" Size = 27 x 18 arcsec Orientation: 84deg E of N. Pixel Scale = 0.27 arcsec/pixel F1-500nm</p> <p style="font-size: x-small; text-align: right;">Astronomy Today (2016) 20(2) 46-52, 53-54 Location: Yuma, AZ © 2016 11" f/10 Primary mirror S&W Optics PHOTONICS Supported by: 4" Meade Canon 100 1000 50</p>




Prospective Imaging Objects – February

<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: 12:12 – 05:48 Transit: 03:04 69°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</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: 12:12 – 05:48 Transit: 03:04 69°</p>	<p style="text-align: center;">C-11 HD: HyperStar v4</p> 
<p>Markarian's Chain (M-84) Config: C11-HD FR ZWO6200MC </p> <p>Type: Galaxy cluster</p> <p>Constellation: Virgo Coordinates: 12h 26' 29" 12° 52' 22"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-84/NGC-4374, NGC-4388, 4425, 4402, M-86/NGC4406, 4438, 4435, and more Imaging Window: 12:12 – 05:48 Transit: 03:04 69°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p> 




Prospective Imaging Objects – February

<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: 11:22 – 05:48 Transit: 03:07 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' 42.2", Size = 21.6 x 17.1 arcmin, Orientation: Wep E, 0.75 Pixel scale = 0.777 arcsec/pixel (f1=2000mm) Date/Time: 2024/12/25 09:30:22 Location: Florida, US Cable: C-11 HD Mod Fluo ZWO6200MC Equipment: S5 Emag Gains: 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: 12:31 – 05:48 Transit: 03:09 65°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Virgo A(M-87) Config: C11HD ZWO6200MC </p> <p>Type: Elliptical Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 30' 49" 12° 23' 26"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-87/NGC-4486 Imaging Window: 12:19 – 05:48 Transit: 03:10 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February

<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: 11:27 – 05:48 Transit: 03:09 82°</p>	<p>C-11 HD: Primary Focus</p>  <p><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/pixel FL=2750mm James Voderl (Date) 2020.02.02 - 2020.02.07 Location: Chandler, AZ Config: C-11 HD, Starline Synthesizer (SPT128) Exposure Info: 7x600s@8mm Gain: 1200 Offset: 100</small></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: *10:16 – 05:48 Transit: 03:12 41°</p>	<p>C-11 HD: Primary Focus</p>  <p><small>Planetary Nebula IC-3568 Constellation: Camelopardalis RA = 12h 33m 14.00s DEC = +82deg 33' 22.00" Size = 21.0 x 21.0 arcmin Orientation: 0.00deg E of N Pixel scale = 0.22 arcsec/pixel FL=2070mm James Voderl (Date) 2020.02.02 - 2020.02.07 Location: Chandler, AZ Config: C-11 HD, Starline Synthesizer (SPT128) Exposure Info: 7x600s@8mm Gain: 1200 Offset: 100</small></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: 12:17 – 05:48 Transit: 03:14 71°</p>	<p>C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February

<p>M-89(NGC-4552) Config: C11HD ZWO6200MC </p> <p>Type: Elliptical Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 35' 43" 12° 24' 24"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-89/NGC4552, NGC-4551, NGC-4550, IC-3574, IC-3586 Imaging Window: 12:23 – 05:48 Transit: 03:15 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: 11:49 – 05:48 Transit: 03:15 85°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Siamese Twins(NGC-4567) Config: C11HD ZWO6200MC </p> <p>Type: Elliptical Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 36' 26" 11° 19' 59"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: NGC-4567, NGC-4568, NGC-4564 Imaging Window: 12:28 – 05:48 Transit: 03:15 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February

<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: 11:53 – 05:48 Transit: 03:15 83°</p>	<p>C-11 HD: Primary Focus</p> 
<p>M-90 (NGC-4569) Config: C11HD ZWO6200MC </p> <p>Type: Spiral Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 37' 11" 13° 09' 19"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-90/NGC-4569 IC-3583, NGC-4584 Imaging Window: 12:23 – 05:48 Transit: 03:16 70°</p>	<p>C-11 HD: Primary Focus</p> 
<p>Galaxy Group 58 Config: C-11HD HyperStar </p> <p>Type: Galaxy Group</p> <p>Constellation: Virgo Coordinates: 12h 37' 35" 12° 18' 56"</p> <p>Close Star: SAO-100944 (Arcturus) Catalog Objects: M-58/NGC-4579 Imaging Window: 12:27 – 05:48 Transit: 03:17 68°</p>	<p>C-11 HD: HyperStar v4</p> 


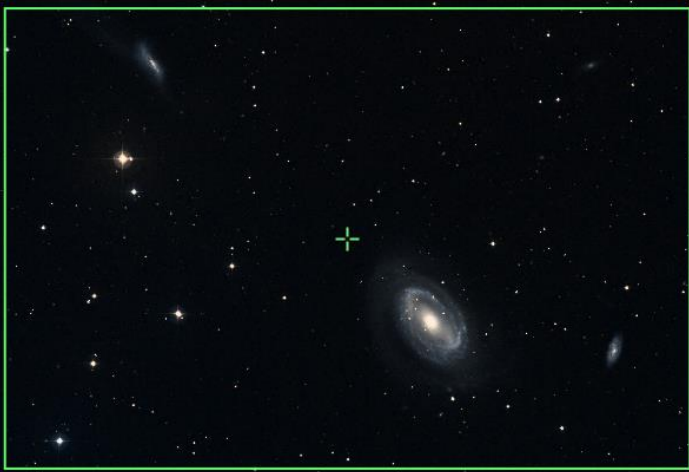
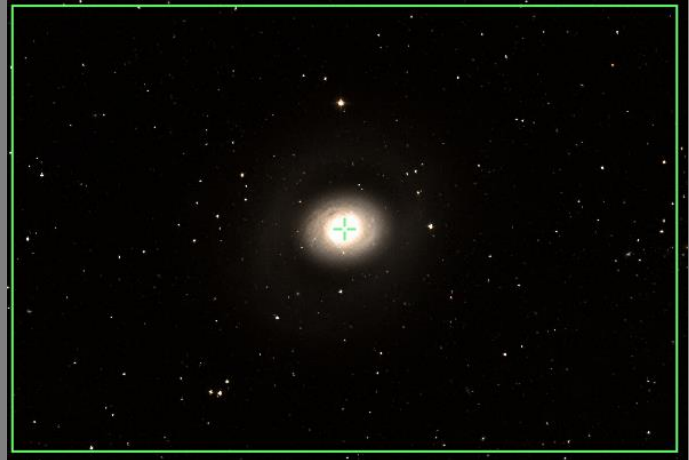
Prospective Imaging Objects – February

<p>M-58 (NGC-4579) Config: C11HD ZWO6200MC </p> <p>Type: Barred Spiral Galaxy</p> <p>Constellation: Virgo Coordinates: 12h 37' 44" 11° 49' 06"</p> <p>close Star: SAO-100944 (Arcturus) Catalog Objects: M-58/NGC-4579 Imaging Window: 12:27 – 05:48 Transit: 03:17 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: *01:37 – 05:10 Transit: 03:18 30°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</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: *12:37 – 05:48 Transit: 03:32 45°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 


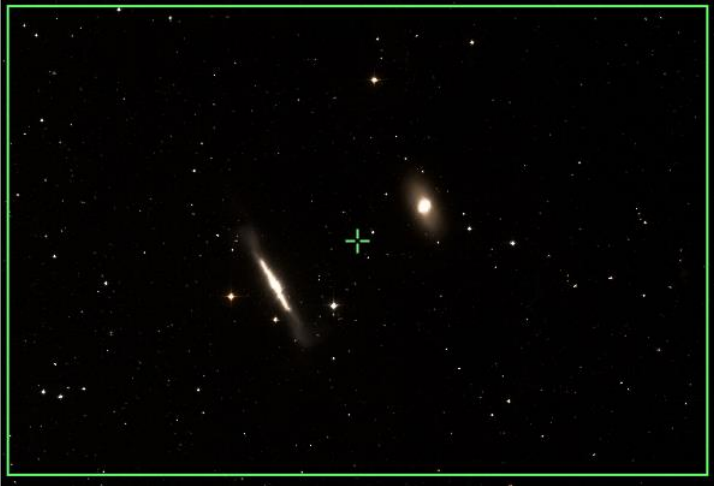
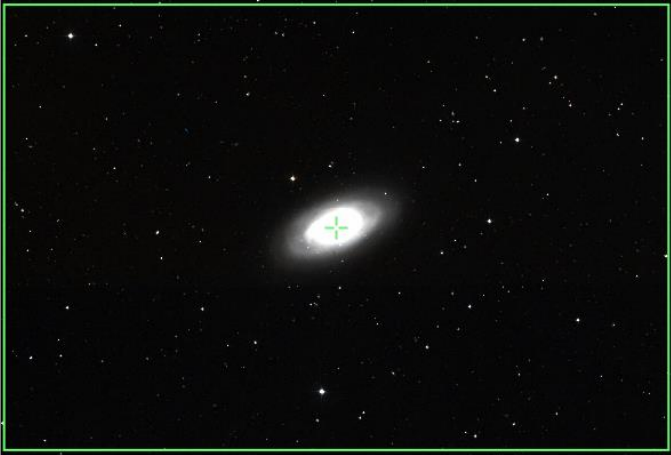
Prospective Imaging Objects – February

<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: 11:48– 05:48 Transit: 03:21 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 LF Corrector Dualer Skyglow Filter (QVY 12c) Exposure Info: 11.0min@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: 12:32 – 05:48 Transit: 03:21 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 ASI6200 Exposure Info: [L=84min@6min, G=13min@6min, R=12min@6min, B=14min@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: 11:55 – 05:48 Transit: 03:25 87°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

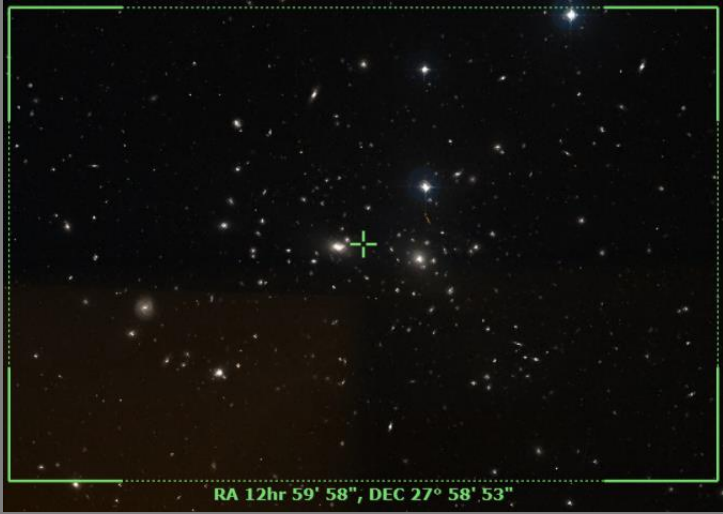


Prospective Imaging Objects – February

<p>NGC-4725 (PGC-43451) Config: C11- HD FR ZWO6200MC </p> <p>Type: Galaxy group</p> <p>Constellation: Coma Berenices Coordinates: 12h 50' 55" 25° 35' 59"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: NGC-4725, NGC-4712, NGC-4747 Imaging Window: 12:08 – 05:48 Transit: 03:29 82°</p>	<p style="text-align: center;">C-11 HD: Focal Reducer</p>  <p style="font-size: small;">Galaxy Cluster NGC-4747, NGC-4725, NGC-4712 <small>Junna Yoder Date(s) 2021.01.02, 2021.01.03 Location: Chandler, AZ Constellation: Coma Berenices Config: C11-HD 0.7 Reducer Filter: Baader Skyglow Camera: QHY128C Exposure Info: 96frames@1min Gain: 3200 Offset: 100 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=195mm </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: 12:08 – 05:48 Transit: 03:29 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: 11:47 – 05:48 Transit: 03:30 82°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 



Prospective Imaging Objects – February

<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: *12:49 – 05:48 Transit: 03:30 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: 12:44 – 05:48 Transit: 03:32 68°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Black Eye Galaxy (M-64) Config: C11HD ZWO6200MC </p> <p>Type: Galaxy</p> <p>Constellation: Coma Berenices Coordinates: 12h 56' 44" 21° 40' 59"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: M-64/NGC-4826 Imaging Window: 12:22 – 05:48 Transit: 03:36 78°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 



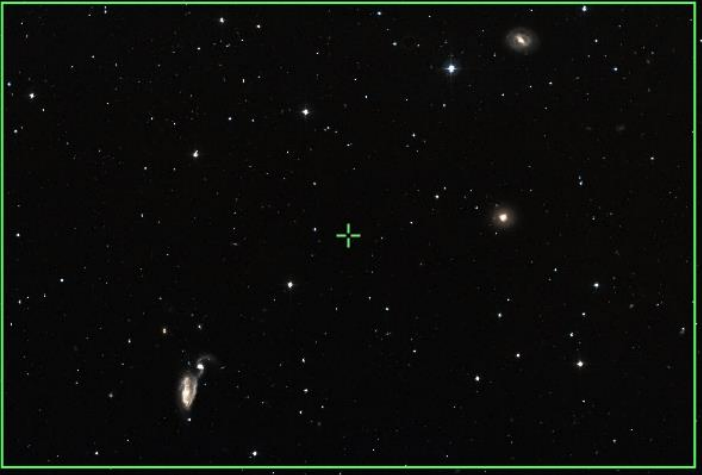
Prospective Imaging Objects – February

<p>Coma Galaxy Cluster (Abell-1656) Config: C11- HD FR ZWO6200MC </p> <p>Type: Galaxy Cluster</p> <p>Constellation: Coma Berenices Coordinates: 12h 59' 58" 27° 58' 53"</p> <p>Close Star: SAO-99809 (Denebola) Catalog Objects: Abell-1656 Imaging Window: 12:13 – 05:48 Transit: 03:39 84°</p>	<p style="text-align: center;">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: 12:13 – 05:48 Transit: 03:39 84°</p>	<p style="text-align: center;">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: 12:46 – 05:48 Transit: 03:52 75°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 




Prospective Imaging Objects – February

<p>NGC-5033 (PGC-45948) Config: C11HD ZWO6200MC </p> <p>Type: Spiral Galaxy</p> <p>Constellation: Canes Venatici Coordinates: 13h 13' 28" 36° 35' 36"</p> <p>Close Star: SAO-28553 (Alioth) Catalog Objects: NGC-5033/PGC-45948 Imaging Window: 12:14 – 05:48 Transit: 03:52 87°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 
<p>Sunflower Galaxy (M-63) Config: C11HD ZWO6200MC </p> <p>Type: Spiral Galaxy</p> <p>Constellation: Canes Venatici Coordinates: 13h 15' 15" 42° 04' 41"</p> <p>Close Star: SAO-28553 (Alioth) Catalog Objects: M-63/NGC-5055, UGC-8313 Imaging Window: 12:12 – 05:48 Transit: 03:55 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: 12:50 – 05:48 Transit: 03:55 74°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p> 

Prospective Imaging Objects – February

<p>Whirlpool Galaxy (M-51) Config: C11HD ZWO6200MC </p> <p>Type: Interacting Galaxies</p> <p>Constellation: Canes Venatici Coordinates: 13h 29' 53" 47° 11' 44"</p> <p>Close Star: SAO-28553 (Alioth) Catalog Objects: M-51/NGC-5194, NGC-5195 Imaging Window: 12:23 – 05:48 Transit: 04:09 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</p> <p>Imaging Window: 12:55 – 05:48 Transit: 04:21 85°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;"><small>Globular Cluster M3 Constellation: Canes Venatici Coordinates: 13h 42m 11.0s, 28° 22' 34.0"</small></p>
<p>Heron Galaxy (NGC-5395) et al. 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: 12:59 – 05:48 Transit: 04:37 86°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="text-align: center;"><small>Globular Cluster M3 Constellation: Canes Venatici Coordinates: 13h 42m 11.0s, 28° 22' 34.0"</small></p>

Prospective Imaging Objects – February

<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: 12:56 – 05:48 Transit: 04:42 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">M-101 (Pinwheel Galaxy) with Supernova <small>© 2017-2022 Astro-Physics. All rights reserved. Astro-Physics is a registered trademark of Astro-Physics, Inc.</small></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: 01:18 – 05:48 Transit: 04:44 85°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">Globular Cluster NGC-5466 <small>© 2017-2022 Astro-Physics. All rights reserved. Astro-Physics is a registered trademark of Astro-Physics, Inc.</small></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: 02:00 – 05:48 Transit: 05:45 69°</p>	<p style="text-align: center;">C-11 HD: Primary Focus</p>  <p style="font-size: small; text-align: center;">Spindle Galaxy (M-102/NGC-5866) <small>© 2017-2022 Astro-Physics. All rights reserved. Astro-Physics is a registered trademark of Astro-Physics, Inc.</small></p>

Prospective Imaging Objects – February

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Prospective Imaging Objects – February

Imaging Summary February 15, 2025

Astronomical Dusk = 07:36

Astronomical Dawn = 05:48

HyperStar: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HyperStar	Nebula	Nebula	IC-405	07:36 – 11:39	07:57	03	Auriga: Flaming Star Nebula
HyperStar	Nebula	Nebula	Orion Cmpx	07:36 – 09:54	08:15	08	Comp6! Orion: Orion Complex of objects
HyperStar	Nebula	Nebula	M-42	07:36 – 09:54	08:15	08	Orion: Orion and Running Man Nebula
HyperStar	Nebula	Nebula	M-42	07:36 – 09:54	08:15	09	Orion: Orion and Running Man Nebula
HyperStar	Nebula	Nebula	SH 2-240	07:36 – 11:53	08:21	10	Rot90°, Comp2! Taurus: Simeis 147
HyperStar	Nebula	Nebula	SH 2-240	07:36 – 11:53	08:21	11	Taurus: Simeis 147
HyperStar	Nebula	Nebula	NGC-2024, B-33	07:36 – 10:23	08:22	11	Orion: Horsehead and Flame Nebula
HyperStar	Nebula	Nebula	IC-2162, SH2-261	07:36 – 11:55	08:49	18	Rot90° Orion: Two Nebulas
HyperStar	Nebula	Nebula	IC-443	07:36 – 12:19	08:57	20	Gemini: Jellyfish Nebula
HyperStar	Nebula	Nebula	NGC-2237	07:36 – 11:43	09:10	22	Monoceros: Rosett Nebula
HyperStar	Nebula	Nebula	IC-2169	07:36 – 12:01	09:11	23	Monoceros: DN & Nebulas
HyperStar	Nebula	Nebula	IC-2177	*07:36-12:37	09:44	26	Rot90° Monoceros: Seagull Nebula

Prospective Imaging Objects – February

Imaging Summary February 15, 2025

Astronomical Dusk = 07:36

Astronomical Dawn = 05:48

HyperStar: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
HyperStar	Broad Spectrum	DN	IC-2118	*07:36-10:48	07:42	02	Eridanus: Witch Head Nebula
HyperStar	Broad Spectrum	DN	NGC-1788	07:36 – 09:40	07:47	02	Orion: Foxface Nebula
HyperStar	Broad Spectrum	DN, N	LDN-1622 R1	07:36 – 10:54	08:34	15	Comp2! Orion: DN Band
HyperStar	Broad Spectrum	DN, N	LDN-1622 R2	07:36 – 10:54	08:34	15	Orion: DN Band
HyperStar	Broad Spectrum	DN, N	LDN-1622 R3	07:36 – 10:54	08:34	15	Orion: DN Band
HyperStar	Broad Spectrum	OC	NGC-2632	08:10 – 02:36	11:20	31	Cancer: Beehive Cluster
HyperStar	Broad Spectrum	Galaxies	M-81 & M-82	09:25 – 03:52	12:35	33	Ursa Major: Bode's Cigar
HyperStar	Broad Spectrum	Galaxies	2574 Group	09:50 – 04:32	01:08	37	Leo: Galaxy Group 2574
HyperStar	Broad Spectrum	Galaxies	Leo Group	10:36 – 04:22	01:26	38	Leo: Leo Galaxy Group
HyperStar	Broad Spectrum	G, PN	M-108 & M-97	10:05 – 05:43	01:51	39	Ursa Major: Galaxy & Planetary Nebula
HyperStar	Broad Spectrum	Galaxies	Group 106	11:12 – 05:48	02:58	46	Canes Venatici: Galaxy Group with M-106
HyperStar	Broad Spectrum	Galaxies	Group 84	12:12 – 05:48	03:04	48	Virgo: Markarian Chain
HyperStar	Broad Spectrum	Galaxies	Group 84-2	12:12 – 05:48	03:04	48	Virgo: Markarian Chain
HyperStar	Broad Spectrum	Galaxies	Group 58	12:27 – 05:48	03:17	52	Virgo: Galaxy Group associated with M-58

Prospective Imaging Objects – February

Imaging Summary February 15, 2025

Astronomical Dusk = 07:36

Astronomical Dawn = 05:48

Focal Reducer: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Focal Reducer	Nebula	Nebula	IC-405	07:36 – 11:39	07:57	04	Auriga: Flaming Star Nebula
Focal Reducer	Nebula	Nebula	IC-410	07:36 – 11:42	08:02	04	Auriga: Tadpoles
Focal Reducer	Nebula	Nebula	M-77, NGC1055	07:36 – 11:49	08:08	06	Comp2! Auriga: The Spider and the Fly
Focal Reducer	Nebula	Nebula	NGC-2024	07:36 – 10:23	08:22	11	Orion: Flame Nebula
Focal Reducer	Nebula	Nebula	NGC-2170	07:36 – 10:19	08:48	17	Monoceros: Angel Nebula
Focal Reducer	Nebula	Nebula	SH 2-261	07:36 – 11:55	08:49	18	Orion: Lower's Nebula
Focal Reducer	Nebula	Nebula	NGC-2174	07:36 – 12:07	08:50	19	Orion: Monkey Head Nebula
Focal Reducer	Nebula	Nebula	IC-443	07:36 – 12:19	08:57	20	Gemini: Jellyfish Nebula
Focal Reducer	Nebula	Nebula	NGC-2237	07:36 – 11:43	09:10	22	Monoceros: Rosett Nebula Core
Focal Reducer	Nebula	Nebula	NGC-2264	07:36 – 12:10	09:21	24	Comp2! Monoceros: Xmas Tree and Cone Nebula
Focal Reducer	Nebula	Nebula	NGC-2264	07:36 – 12:10	09:21	24	Rot! Monoceros: Xmas Tree and Cone Nebula
Focal Reducer	Nebula	Nebula	NGC-2264	07:36 – 12:10	09:21	25	Monoceros: Xmas Tree and Cone Nebula

Prospective Imaging Objects – February

Imaging Summary February 15, 2025

Astronomical Dusk = 07:36

Astronomical Dawn = 05:48

Focal Reducer: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Focal Reducer	Broad Spectrum	DN, BN	NGC-1788	07:36 – 09:40	07:47	03	Orion: Foxface Nebula
Focal Reducer	Broad Spectrum	DN, BN	M-78	07:36 – 10:38	08:27	13	Comp2! Orion: Dark Nebula
Focal Reducer	Broad Spectrum	DN, BN	M-78	07:36 – 10:38	08:27	14	Orion: Dark Nebula
Focal Reducer	Broad Spectrum	DN	LDN-1622	07:36 – 10:54	08:34	16	Comp2! Rot90° Orion: Dark Nebula
Focal Reducer	Broad Spectrum	DN	LDN-1622	07:36 – 10:54	08:34	16	Orion: Dark Nebula
Focal Reducer	Broad Spectrum	OC	M-35, NGC-2158	07:36 – 12:14	08:49	19	Gemini: Open Cluster Pair
Focal Reducer	Broad Spectrum	BN	IC-2169	07:36 – 12:01	09:11	23	Monoceros: Reflection Nebula
Focal Reducer	Broad Spectrum	Galaxies	UGC-3697	07:36 – 12:52	09:51	27	Camelopardalis: Integral Sign Galaxy
Focal Reducer	Broad Spectrum	Galaxies	M-81 & M-82	09:25 – 03:52	12:35	34	Ursa Major: Bode's Cigar
Focal Reducer	Broad Spectrum	Galaxies	M-95 & M-96	10:34 – 04:19	01:23	38	Leo: Galaxy Pair M-95, M-96
Focal Reducer	Broad Spectrum	Galaxies	NGC-3628 et. El.	11:05 – 05:01	01:59	41	Comp2! Leo: Lio Trio of Galaxies
Focal Reducer	Broad Spectrum	Galaxies	M-106	11:21 – 05:48	02:58	46	Canes Venatici: Galaxy Pair
Focal Reducer	Broad Spectrum	Galaxies	M-84 et. El.	12:12 – 05:48	03:04	48	Virgo: Markarian's Chain
Focal Reducer	Broad Spectrum	Galaxies	NGC4631, 4656	11:48 – 05:48	03:21	54	Canes Venatici: Whale and Hockey Stick
Focal Reducer	Broad Spectrum	Galaxies	M-59 Group	12:32 – 05:48	03:21	54	Virgo: Galaxy Group M-59 & M-60
Focal Reducer	Broad Spectrum	Galaxies	NGC-4725 et. El.	12:08 – 05:48	03:29	55	Coma Berenices: Galaxy Group NGC-4725
Focal Reducer	Broad Spectrum	Galaxies	Abell-1656	12:13 – 05:48	03:39	57	Coma Berenices: Coma Galaxy Cluster

Prospective Imaging Objects – February

Imaging Summary February 15, 2025

Astronomical Dusk = 07:36

Astronomical Dawn = 05:48

Primary Focus: Nebula

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Nebula	Nebula	IC-405	07:36 – 11:39	07:57	04	Auriga: Flaming Star Nebula
Primary Focus	Nebula	Nebula	IC-410	07:36 – 11:42	08:02	05	Auriga: Tadpoles
Primary Focus	Nebula	Nebula	IC-418	*07:36-10:52	08:07	05	Lepus: Spirograph Nebula
Primary Focus	Nebula	Nebula	IC-417	07:36 – 11:49	08:08	06	Auriga: The Spider
Primary Focus	Nebula	Nebula	NGC-1931	07:36 – 11:52	08:11	07	Auriga: The Fly
Primary Focus	Nebula	Nebula	M-1	07:36 – 11:35	08:15	07	Taurus: Crab Nebula
Primary Focus	Nebula	Nebula	M-42	07:36 – 09:54	08:15	09	Orion: The Orion Nebula
Primary Focus	Nebula	Nebula	NGC-1977	07:36 – 09:58	08:15	09	Orion: Running Man Nebula (C-6)
Primary Focus	Nebula	Nebula	NGC-1977	07:36 – 09:58	08:15	10	Orion: Running Man Nebula
Primary Focus	Nebula	Nebula	NGC-2024	07:36 – 10:23	08:22	12	Orion: Flame Nebula
Primary Focus	Nebula	Nebula	B-33	07:36 – 10:19	08:21	12	Orion: Horsehead Nebula
Primary Focus	Nebula	Nebula	NGC-2022	07:36 – 11:09	908:22	12	Orion: Planetary Nebula
Primary Focus	Nebula	Nebula	NGC-2170	07:36 – 10:19	08:48	17	Monoceros: Angle Nebula
Primary Focus	Nebula	Nebula	SH 2-261	07:36 – 11:55	08:49	18	Orion: Lower's Nebula
Primary Focus	Nebula	Nebula	NGC-2174	07:36 – 12:07	08:50	19	Orion: Monkey Head Nebula
Primary Focus	Nebula	Nebula	IC-2162	07:36 – 12:05	08:53	20	Orion: Nebula
Primary Focus	Nebula	Nebula	IC-443	07:36 – 12:19	08:57	21	Gemini: Jellyfish Nebula
Primary Focus	Nebula	Nebula	IC-2165	*07:36-11:44	09:02	21	Canis Major: Small Planetary Nebula
Primary Focus	Nebula	Nebula	SH 2-249	07:36 – 12:25	09:02	21	Gemini: Nebula
Primary Focus	Nebula	Nebula	NGC-2237	07:36 – 11:43	09:10	22	Monoceros: Rosette Nebula Core
Primary Focus	Nebula	Nebula	NGC-2261	07:36 – 12:05	09:19	24	Monoceros: Hubble's Variable Nebula
Primary Focus	Nebula	Nebula	NGC-2264	07:36 – 12:10	09:21	25	Monoceros: Xmas Tree Cluster
Primary Focus	Nebula	Nebula	NGC-2264	07:36 – 12:10	09:21	25	Monoceros: Cone Nebula
Primary Focus	Nebula	Nebula	IC-2177	*07:36-12:37	09:44	27	Monoceros: Seagull Nebula head

Prospective Imaging Objects – February

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Nebula	Nebula	NGC-2346	*07:36-12:29	09:49	27	Monoceros: Hourglass Nebula
Primary Focus	Nebula	Nebula	NGC-2359	*07:36-12:37	09:58	28	Canis Major: Thor's Helmet
Primary Focus	Nebula	Nebula	NGC-2371	07:36 – 01:40	10:05	28	Gemini: Candy Wrapper Nebula
Primary Focus	Nebula	Nebula	Abell-21	07:36 – 01:09	10:09	29	Gemini: Medusa Nebula
Primary Focus	Nebula	Nebula	NGC-2392	07:36 – 01:28	10:09	29	Gemini: Eskimo Nebula
Primary Focus	Nebula	Nebula	M-46	*07:51-12:53	10:21	30	Puppis: Open Cluster and Planetary
Primary Focus	Nebula	Nebula	NGC-2440	*08:15-12:33	10:22	31	Puppis: Bow-Tie Nebula
Primary Focus	Nebula	PN	NGC-2610	*08:52-01:37	11:13	32	Hydra: NGC-2610 Small PN
Primary Focus	Nebula	PN	NGC-3242	*11:04-03:09	01:04	37	Hydra: Ghost of Jupiter
Primary Focus	Nebula	PN	M-97	10:08 – 05:47	01:54	40	Ursa Major: Owl Nebula
Primary Focus	Nebula	PN	NGC-4361	*12:57-05:10	03:03	47	Corvus: Lawn Sprinkler Nebula
Primary Focus	Nebula	PN	IC-3568	*10:16-05:48	03:12	50	Camelopardalis: Lemon Slice Nebula

Prospective Imaging Objects – February

Imaging Summary February 15, 2025

Astronomical Dusk = 07:36

Astronomical Dawn = 05:48

Primary Focus: Broad Spectrum

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	DN	IC-2118	*07:36-10:48	07:42	02	Eridanus: Witch Head Nebula
Primary Focus	Broad Spectrum	RN	NGC-1788	07:36 – 09:40	07:47	03	Orion: Foxface Nebula
Primary Focus	Broad Spectrum	Globular	M-79	*07:36-09:08	08:04	05	Lepus: Med Globular
Primary Focus	Broad Spectrum	OC	M-38	07:36 – 11:52	08:09	06	Auriga: Starfish Cluster
Primary Focus	Broad Spectrum	OC	M-36	07:36 – 11:57	08:16	10	Auriga: Open Star Cluster NGC-1960
Primary Focus	Broad Spectrum	Galaxy	NGC-1961	07:36 – 11:40	08:22	13	Camelopardalis: Galaxies
Primary Focus	Broad Spectrum	DN	M-78	07:36 – 10:38	08:27	14	Orion: Dark and Bright Nebula
Primary Focus	Broad Spectrum	OC	M-37	07:36 – 12:11	08:32	14	Auriga: Salt and Pepper Cluster
Primary Focus	Broad Spectrum	DN	LDN-1622	07:36 – 10:54	08:34	17	Orion: Dark Nebula
Primary Focus	Broad Spectrum	RN	IC-2169	07:36 – 12:01	09:11	23	Monoceros: Reflection Nebula
Primary Focus	Broad Spectrum	OC	M-41	*07:36-11:12	09:26	26	Canis Major: Open Star Cluster NGC-2287
Primary Focus	Broad Spectrum	OC	M-50	*07:36-12:45	09:42	26	Monoceros: Open Star Cluster NGC-2323
Primary Focus	Broad Spectrum	Galaxy	UGC-3697	07:36 – 12:52	09:51	28	Camelopardalis: Integral Sign Galaxy
Primary Focus	Broad Spectrum	OC	M-47	*07:36-12:53	10:16	29	Puppis: Open Cluster NGC-2422
Primary Focus	Broad Spectrum	Galaxy	NGC-2403	07:36 – 01:52	10:17	30	Camelopardalis: Med Barred Spiral Galaxy
Primary Focus	Broad Spectrum	GC	NGC-2419	07:36 – 02:05	10:18	30	Lynx: Intergalactic Wanderer
Primary Focus	Broad Spectrum	OC	M-93	*09:04-11:48	10:24	31	Puppis: Butterfly Cluster
Primary Focus	Broad Spectrum	OC	M-48	09:22 – 12:30	10:53	31	Hydra: M-48 (NGC-2548)
Primary Focus	Broad Spectrum	OC	M-67	08:41 – 02:27	11:31	32	Cancer: M-67 (NGC-2682)
Primary Focus	Broad Spectrum	Galaxy	NGC-2685	07:52 – 03:25	11:35	33	Ursa Major: Helix Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-2903	08:58 – 03:32	12:12	33	Leo: Med Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-81	09:21 – 03:55	12:35	34	Ursa Major: Bode's Nebula
Primary Focus	Broad Spectrum	Galaxy	M-82	09:25 – 03:52	12:35	34	Ursa Major: Cigar Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-3115	*09:44-03:50	12:44	35	Sextans: Spindel Galaxy

Prospective Imaging Objects – February

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	Galaxy	UGC-5470	09:57 – 03:45	12:48	35	Leo: Powder Keg Galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC-3166, 3169	10:32 – 03:20	12:53	35	Sextans: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	Hickson 44	09:43 – 04:18	12:57	36	Leo: Galaxy Cluster
Primary Focus	Broad Spectrum	Galaxy	NGC-3184	09:14 – 04:47	12:58	36	Ursa Major: Face On galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC 3227, 3226	09:52 – 04:20	01:03	36	Leo: Interacting galaxy pair
Primary Focus	Broad Spectrum	Galaxy	IC-2574	09:50 – 04:32	01:08	37	Leo: Coddington's Nebula
Primary Focus	Broad Spectrum	Galaxies	Leo Trio 2	10:35 – 04:26	01:27	38	Leo: NGC-3379, 3384, 3389
Primary Focus	Broad Spectrum	Galaxies	NGC-3561 et. El.	10:23 – 05:24	01:50	39	Ursa Major: Ambartsumian's Knot
Primary Focus	Broad Spectrum	Galaxy	M-108	10:05 – 05:43	01:51	39	Ursa Major: Med Galaxy NGC-3556
Primary Focus	Broad Spectrum	Galaxies	M-65 et. El.	11:05 – 05:01	01:59	40	Comp2 Leo: Lio Trio of Galaxies
Primary Focus	Broad Spectrum	Galaxy	NGC-3628	11:05 – 05:01	01:59	41	Leo: Edge on galaxy
Primary Focus	Broad Spectrum	Galaxies	M-65, M-66	11:05 – 04:58	01:58	42	Leo: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	Arp-214	10:25 – 05:48	02:12	42	Ursa Major: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	NGC-3746 et. El.	11:02 – 05:38	02:17	42	Leo: Copeland's Septet
Primary Focus	Broad Spectrum	Galaxies	Abell 1367	11:14 – 05:41	02:24	43	Leo: Galaxy Cluster
Primary Focus	Broad Spectrum	Galaxies	Arp-248	*11:36-05:18	02:26	43	Ursa Major: Wild's Triplet
Primary Focus	Broad Spectrum	Galaxy	M-109	10:50 – 05:48	02:37	43	Ursa Major: Face On Med Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-4027	*12:37-04:38	02:38	44	Corvus: Irregular small Galaxy
Primary Focus	Broad Spectrum	Galaxies	Arp-244	*12:37-04:46	02:41	44	Corvus: Antennae Galaxies
Primary Focus	Broad Spectrum	Galaxy	M-98	11:55 – 05:48	02:53	44	Coma Berenices: Barred Spiral Galaxy NGC-4192
Primary Focus	Broad Spectrum	Galaxy	NGC-4236	11:44 – 05:48	02:56	45	Draco: Galaxy NGC-4236
Primary Focus	Broad Spectrum	Galaxy	NGC-4244	11:17 – 05:48	02:56	45	Canes Venatici: Silver Needle Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-99	12:01 – 05:48	02:58	45	Coma Berenices: St. Katherines Wheel
Primary Focus	Broad Spectrum	Galaxy	M-61	12:36 – 05:33	03:01	46	Virgo: Sm/Med Face-on Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxies	Winnecke 4	11:18 – 05:48	03:01	47	Ursa Major: Galaxy Cluster
Primary Focus	Broad Spectrum	Galaxies	M-100	12:02 – 05:48	03:02	47	Coma Berenices: Face on Galaxy & other galaxies
Primary Focus	Broad Spectrum	Galaxy	NGC-4449	11:22 – 05:48	03:07	49	Candes Venatici: Irregular Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-49	12:31 – 05:48	03:09	49	Virgo: Elliptical Galaxy

Prospective Imaging Objects – February

Configuration	Class	Type	Object	Imaging Window	Transit	Page Ref	Comments
Primary Focus	Broad Spectrum	Galaxy	M-87	12:19 – 05:48	03:10	49	Virgo: Elliptical Galaxy
Primary Focus	Broad Spectrum	Galaxy	NGC-4490	11:27 – 05:48	03:09	50	Canes Venatici: Cocoon Galaxy
Primary Focus	Broad Spectrum	Galaxies	M-91	12:17 – 05:48	03:14	50	Coma Berenices: Galaxy Pair
Primary Focus	Broad Spectrum	Galaxies	M-89	12:23 – 05:48	03:15	51	Virgo: Elliptical Galaxy & two others
Primary Focus	Broad Spectrum	Galaxy	NGC-4559	11:49 – 05:48	03:15	35	Coma Berenices: Barred Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC-4567 et. El.	12:28 – 05:48	03:15	51	Virgo: Galaxy Group
Primary Focus	Broad Spectrum	Galaxy	NGC-4565	11:53 – 05:48	03:15	52	Coma Berenices: Edge on Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-90	12:23 – 05:48	03:16	52	Virgo: Galaxy Group
Primary Focus	Broad Spectrum	Galaxy	M-58	12:27 – 05:48	03:17	53	Virgo: Barred Spiral Galaxy NGC-4579
Primary Focus	Broad Spectrum	Globular	M-68	*01:37-05:10	03:18	53	Hydra: Med Globular Cluster
Primary Focus	Broad Spectrum	Galaxy	M-104	*12:37-05:48	03:32	53	Virgo: Sombrero Galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC-4676 A&B	11:55 – 05:48	03:25	54	Coma Berenices: The Mice
Primary Focus	Broad Spectrum	Galaxies	NGC-4725	12:08 – 05:48	03:29	55	Coma Berenices: Galaxy Group
Primary Focus	Broad Spectrum	Galaxy	M-94	11:47 – 05:48	03:30	55	Canes Venatici: Bright Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-4731	*12:49-05:48	03:30	56	Virgo: Barred Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxies	NGC-4762, 4754	12:44 – 05:48	03:32	56	Virgo: Edge on and Elliptical galaxies
Primary Focus	Broad Spectrum	Galaxy	M-64	12:22 – 05:48	03:36	56	Coma Berenices: Bright Galaxy
Primary Focus	Broad Spectrum	Galaxies	Abell-1656	12:13 – 05:48	03:39	57	Coma Berenices: Coma Galaxy Cluster
Primary Focus	Broad Spectrum	Globular	M-53	12:46 – 05:48	03:52	57	Coma Berenices: Med Globular
Primary Focus	Broad Spectrum	Galaxy	NGC-5033	12:14 – 05:48	03:52	58	Canes Venatici: Spiral Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-63	12:12 – 05:48	03:55	58	Canes Venatici: Sunflower Galaxy
Primary Focus	Broad Spectrum	Globular	NGC-5053	12:50 – 05:48	03:55	58	Coma Berenices: Loose Globular
Primary Focus	Broad Spectrum	Galaxy	M-51	12:23 – 05:48	04:09	59	Canes Venatici: Whirlpool Galaxy
Primary Focus	Broad Spectrum	Globular	M-3	12:55 – 05:48	04:21	59	Canes Venatici: Med Globular NGC-5272
Primary Focus	Broad Spectrum	Galaxy	NGC-5395 et. El.	12:59 - 05:48	04:37	59	Canes Venatici: Heron Galaxy
Primary Focus	Broad Spectrum	Galaxy	M-101	12:56 – 05:48	04:42	60	Ursa Major: Pinwheel Galaxy
Primary Focus	Broad Spectrum	Globular	NGC-5466	01:18 – 05:48	04:44	60	Bootes: Med Globular
Primary Focus	Broad Spectrum	Galaxy	M-102	02:00 – 05:48	05:45	60	Draco: Spindel Galaxy

Prospective Imaging Objects – February